



Trimble Unity Construct - Admin Guide

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Table of Contents

| | |
|--|--------------------|
| Administration Tools | 18 |
| About Trimble Unity Construct Administrative Roles | 18 |
| Add Additional Account Administrators | 21 |
| Add Project Administrators | 21 |
| Add Users to Roles | 22 |
| Add Roles to the Administrator Role | 22 |
| Automation | 23 |
| Event Handlers | 23 |
| Scheduled Tasks | 26 |
| Report Subscriptions | 26 |
| Bidding | 29 |
| Access Bidding Settings | 29 |
| Bidding Custom Fields | 29 |
| Color Codes | 31 |
| Bid Document Permissions | 31 |
| Add Bid Scope Templates | 33 |
| Add Items to Bid Scope Templates | 33 |
| Create Bid Scope Sections | 34 |
| Add Items to Bid Scope Templates | 34 |
| Add Additional Information Records to Templates | 35 |
| Bid Scope Templates Page | 36 |
| Bidding Options | 36 |
| Public Registration Setup | 38 |
| Units of Measure | 39 |
| Bluebeam Studio Prime Integration | 39 |
| Using Bluebeam | 39 |
| Bluebeam System Requirements | 41 |
| Bluebeam Permissions | 44 |

| | |
|---|--------------------|
| Access Bluebeam Studio from Trimble Unity Construct | 45 |
| Start a New Bluebeam Studio Session | 47 |
| Invite Users to a Bluebeam Session | 49 |
| Access an Existing Bluebeam Session | 51 |
| Add Files to an Existing Bluebeam Session | 51 |
| Finalize a Bluebeam Session | 52 |
| Calendar | 54 |
| Access Calendar Settings | 54 |
| Event Custom Fields | 54 |
| Event Location Setup | 54 |
| Work Week Setup | 55 |
| Meeting Minutes Setup | 55 |
| Enable Meeting Minutes | 55 |
| Set Form Type for Action Items | 56 |
| Add/Delete Meeting Types | 56 |
| Add/Delete Meeting Topics | 57 |
| Mail Merge Templates | 58 |
| Add New Calendar Templates | 58 |
| Download Default Calendar Template | 59 |
| Customize Template with Field Mappings | 59 |
| Construction Codes | 61 |
| Import Construction Codes | 61 |
| Manage Construction Divisions | 62 |
| Contacts | 64 |
| Company and Contact Custom Fields | 64 |
| Import Contacts or Companies | 64 |
| Cost - Admin tools | 66 |
| Managing Account Level Costs and Funding | 67 |
| Create / Assign Unique Project Custom Field | 68 |

| | |
|---|---------------------|
| Set Account Cost Settings | 69 |
| Enable Account Funding and Configure Settings | 70 |
| Manage Account Codes | 70 |
| Import Account Codes | 72 |
| Cost Settings Page | 73 |
| Reason Codes | 81 |
| Working with Change Reason Codes | 81 |
| Manage Change Reason Codes Page | 82 |
| Manage Master Commitment Change Reason Codes | 84 |
| Commitment Types | 86 |
| Manage Commitment Types Page | 87 |
| Working with Commitment Types | 88 |
| About the Payment Application | 89 |
| Cost Custom Fields | 90 |
| About Commitment Item Custom Fields | 90 |
| Define Commitment Item Custom Fields | 91 |
| Configure Display Options for Commitment Item Custom Fields | 92 |
| About Invoice Item Custom Fields | 93 |
| Define Invoice Item Custom Fields | 93 |
| Configure Invoice Item Custom Field Layouts | 94 |
| Cost Templates | 96 |
| Budget Templates | 96 |
| Access Budget Template Page | 96 |
| Add Budget Templates | 96 |
| Import Budget Template Line Items | 97 |
| Edit Budget Template Details | 98 |
| Copy Budget Templates | 99 |
| Add/ Edit Budget Template Line Item Formulas | 99 |
| Budget Template Page Overview | 101 |

| | |
|---|---------------------|
| Budget Template Details Page | 101 |
| Add Budget Template Page | 103 |
| Edit Budget Template Page | 104 |
| Import Line Items Field Mappings Page | 104 |
| Import Line Items Review Page | 105 |
| Cash Flow Templates | 106 |
| Access Cash Flow Templates Page | 106 |
| Working with Cash Flow Templates | 106 |
| Cash Flow Template Overview Pages | 108 |
| Cash Flow Template Page | 108 |
| Add Cash Flow Template Page | 109 |
| Funding Templates | 110 |
| Access the Funding Template Page | 110 |
| Working with Funding Templates | 110 |
| Funding Sources | 112 |
| Funding Settings | 112 |
| Access Funding Setup Options | 113 |
| Edit Funding Settings | 113 |
| Funding Settings Page | 114 |
| Funding Categories | 116 |
| Working with Funding Categories | 116 |
| Cost Summary Layouts | 118 |
| Access Manage Cost Summary Layouts Page | 118 |
| Add Cost Summary Layouts | 118 |
| Color Code Cost Summary Layouts | 120 |
| Set Cost Summary Threshold Values | 120 |
| Dynamic Cost Management | 121 |
| About Dynamic Cost Columns | 122 |
| About Dynamic Cost Processes | 123 |

| | |
|---|---------------------|
| Add Dynamic Cost Columns | 124 |
| Configuring Dynamic Cost Processes | 125 |
| Dynamic Cost Column Details Page | 126 |
| Invoice Monthly Daily Reports | 126 |
| Cost Mail Merge Templates | 127 |
| Customize Template with Field Mappings | 127 |
| Add/Edit Mail Merge Templates | 129 |
| Add/Edit Mail Merge Template Page | 131 |
| Forecasting | 131 |
| Forecasting Settings Page | 132 |
| Units of Measure | 133 |
| Scheduled Tasks | 133 |
| Project Details Page | 134 |
| Create a Budget | 137 |
| Apply Budget Template | 137 |
| Approve Budgets | 138 |
| Access Document Settings | 138 |
| Access Document Settings | 139 |
| Manage Document Types | 139 |
| Add Document Types | 139 |
| Enable/ Disable Document Types | 140 |
| Delete Document Types | 141 |
| About Document Custom Fields | 141 |
| Add Document Custom Fields | 141 |
| Import Document Custom Fields | 142 |
| Associate Custom Fields with Document Types | 143 |
| About Custom Field Dependencies | 143 |
| Add Document Custom Field Dependencies | 145 |
| Edit Custom Field Dependencies | 146 |

| | |
|---|---------------------|
| Delete Custom Field Dependencies | 146 |
| About Document Stamps | 147 |
| Upload Document Stamps | 147 |
| Edit Document Stamps | 148 |
| Delete Document Stamps | 148 |
| About Trimble Unity Construct Sync Options | 149 |
| Set up Trimble Unity Construct Sync Options | 149 |
| About Spam Filter | 149 |
| Enable/Disable Spam Filter | 150 |
| Document Types Page Overview | 150 |
| Add/ Edit Document Type Page | 151 |
| Document Custom Fields Page | 152 |
| Reorder Custom Fields Page | 152 |
| Document Custom Field Dependencies Page | 152 |
| Edit Custom Field Dependency Page | 153 |
| Trimble Unity Construct Sync Options Page | 153 |
| Manage Stamps Page | 154 |
| Add/Edit Stamp Page | 155 |
| Quarantine Page | 156 |
| About Equipment Management | 157 |
| About Equipment Management | 157 |
| Access Equipment Management Settings | 158 |
| Configure Project for External Equipment Management | 158 |
| About Equipment and Cost Integration Settings | 159 |
| Add Budget Line Item Custom Fields | 159 |
| Add Equipment Item Custom Fields for Cost Integration | 160 |
| Establish Equipment and Budget Item Association | 160 |
| Define Role-Based Permissions | 161 |
| Add Equipment Item Custom Fields | 161 |

| | |
|---|---------------------|
| Equipment Item Custom Fields Page | 162 |
| Equipment Item Mapping Page | 163 |
| Forms | 164 |
| Access Forms Settings | 165 |
| Access Manage Form Types Page | 165 |
| Create New Form Types | 166 |
| Manage Form Properties | 166 |
| Manage Form Sections | 167 |
| Manage Form Fields | 168 |
| Manage Form Permissions | 169 |
| Copy Form Types | 170 |
| Delete Form Types | 170 |
| Add Form Type Custom Fields | 171 |
| Manage Form Mail Merge Templates | 171 |
| Download Default Forms Mail Merge Template | 172 |
| Access e-Builder Field Mappings | 173 |
| Customize Form Template with Field Mappings | 173 |
| Add Form Mail Merge Templates to e-Builder | 174 |
| Edit Forms Mail Merge Templates | 175 |
| Manage Form Types Page Overview | 176 |
| Form Type Properties Page | 177 |
| Add/ Edit Form Sections Page | 180 |
| Add/ Edit Form Fields Page | 180 |
| Preview Form Type Page | 181 |
| Form Type Permissions Page | 182 |
| Copy Form Type Page | 183 |
| Form Type Custom Fields Page | 183 |
| About Global Custom Fields | 184 |
| Access Global Custom Fields Page | 184 |

| | |
|---|---------------------|
| Set Up Document Custom Field Import File | 184 |
| Add Global Custom Fields | 186 |
| About Custom Field Dependencies | 187 |
| Add Field Dependencies | 188 |
| Download Custom Field Dependency Template | 189 |
| Export Custom Field Dependencies | 190 |
| Import Custom Field Dependencies | 191 |
| Add/ Edit Custom Field Page | 192 |
| Add Custom Field Dependency Page | 194 |
| Add/ Edit Custom Field Dependency Page | 195 |
| Geographic Information System (GIS) | 196 |
| Configure GIS | 196 |
| GIS Map Tools | 200 |
| Mail Merge Templates | 201 |
| Customize Template with Field Mappings | 202 |
| About the Plan Room | 204 |
| Plan Room Benefits | 205 |
| When is the Plan Room a Fit? | 205 |
| Access Document Settings | 206 |
| Plan Room Setup | 206 |
| Define Document Custom Fields | 207 |
| About Document Types | 208 |
| Associate Custom Fields with Document Types | 208 |
| Customize Plan Room Settings | 209 |
| Plan Room Settings Page | 210 |
| Define Project Access | 211 |
| Project Document Controller | 212 |
| About Plan Room Enabling Documents | 213 |
| Plan Room Enable Documents | 213 |

| | |
|---|---------------------|
| About Defining Document Relationships | 213 |
| Define Document Relationships | 214 |
| About Validating Related Files | 215 |
| Validate Related Files | 215 |
| About Exceptions | 215 |
| Access Planning Settings | 216 |
| Capital Plans Settings | 216 |
| Escalations | 216 |
| How Escalations Work | 217 |
| Set Escalations | 217 |
| Scenario Templates | 217 |
| Create Project Views | 218 |
| Create Scenario Views | 218 |
| Units of Measure | 219 |
| Processes | 219 |
| Manage Processes | 219 |
| Access Process Settings | 220 |
| Project Columns | 220 |
| About Cost Processes | 221 |
| Make Processes Non-Cost Related | 222 |
| About Spawn Processes | 222 |
| Public Processes | 233 |
| Properties Tab | 238 |
| Properties Tab Overview | 238 |
| Create New Processes | 242 |
| Edit Existing Processes | 242 |
| Activate a Process | 242 |
| Delete Processes/ Instances | 243 |
| Data Tab | 244 |

| | |
|---|---------------------|
| Access Data Tab | 247 |
| About Module Integration | 247 |
| Set up Cost Processes | 248 |
| Add Process Data Fields | 248 |
| Add Process Data Field Dependencies | 250 |
| Reorder Data Fields | 251 |
| About Lookup Processes | 251 |
| Set up Lookup Processes | 251 |
| Page Layouts Tab | 253 |
| Access Page Layouts Tab | 253 |
| Layout Properties Page | 253 |
| Add Page Layouts | 255 |
| Create Sections | 257 |
| Workflow Tab | 258 |
| Access the Workflows Tab | 258 |
| Access Workflow Designer | 259 |
| Access Step Properties | 259 |
| About External Workflow Processes | 259 |
| Creating the Workflow | 260 |
| Add New Workflows | 261 |
| Add Read-Only Process Subjects | 261 |
| Design Workflows (Time Tracking) | 262 |
| Edit Steps | 263 |
| Add Actions | 263 |
| Add Data Field Assignments | 263 |
| Add Escalation Rules | 264 |
| Connect Steps in the Workflow | 265 |
| Complete Workflows | 266 |
| Workflow Overview Pages | 267 |

| | |
|---|---------------------|
| Workflow Properties Page | 267 |
| Add New/ Edit Workflow Page | 271 |
| Workflow Designer Icons | 272 |
| Edit Step Page | 275 |
| Add Action Page | 277 |
| Add Assignment Page | 280 |
| Add Escalation Rule Page | 284 |
| Edit Conditional Branch Page | 285 |
| Add/ Edit Connector Page | 288 |
| Edit Automation Step Page | 289 |
| Working with Dynamic Grids | 291 |
| About Dynamic Grids | 292 |
| Add Dynamic Grids | 293 |
| Design Dynamic Grids | 293 |
| Add Dynamic Grids to Processes | 295 |
| Report on Dynamic Grids | 296 |
| Configure Dynamic Grid Controls | 297 |
| Import and Export Dynamic Grid Data | 299 |
| Sort and Order Dynamic Grids | 300 |
| Process Custom Fields | 302 |
| Processes Mail Merge Templates | 302 |
| Add Process Status Options | 304 |
| Process Status Options Page | 305 |
| Process Project Columns | 305 |
| About Electronic Signatures | 305 |
| e-Signature Integration | 307 |
| Configure the eSignature Process | 311 |
| Create Envelopes in DocuSign | 321 |
| Create Agreements in Adobe Acrobat Sign | 324 |

| | |
|---|---------------------|
| Electronically Signing (e-Sign) Documents | 328 |
| About Project Settings | 332 |
| Access Project Settings | 333 |
| Access Project List Page | 333 |
| Setting Up New Projects | 333 |
| About Project Imports | 333 |
| Import Projects | 335 |
| Add New Projects | 335 |
| Apply Project Templates | 336 |
| Complete Project Settings | 337 |
| Create Project Number Custom Field | 338 |
| Add Project Custom Fields | 338 |
| Add Project Web Links | 339 |
| Edit Project Details | 340 |
| Delete Projects | 340 |
| About Project Statuses | 340 |
| Add New Project Statuses | 341 |
| Edit Existing Project Statuses | 341 |
| Delete Project Statuses | 342 |
| Project Visibility | 342 |
| Project List Page | 343 |
| Project List Page | 344 |
| Project Settings Page | 346 |
| Add/ Edit Projects Page | 347 |
| Manage Project Status Options Page | 349 |
| Apply Project Templates Page | 350 |
| Project Web Links Page | 352 |
| Add/ Edit Project Web Links Page | 352 |
| Import Projects Page | 353 |

| | |
|---|---------------------|
| Reports | 354 |
| Access Reports Settings | 355 |
| Custom Report Types | 355 |
| Report Web Links | 357 |
| Settings | 357 |
| Account Settings | 358 |
| Announcements | 359 |
| Color Scheme | 361 |
| Company Logo | 364 |
| Export Header and Footer | 365 |
| Fiscal Year | 366 |
| Login Agreements | 367 |
| Notification Settings | 368 |
| About Account Summary Notifications | 369 |
| Access Account Notification Settings page | 369 |
| Create Summary Notifications for Others | 369 |
| Edit Account Summary Notifications | 370 |
| Delete or Disable Summary Notifications | 370 |
| Create/ Edit Summary Notification Page | 371 |
| Security | 371 |
| Schedule | 375 |
| Access Schedule Settings | 376 |
| Master Processes and Master Tasks | 376 |
| Add Master Process | 377 |
| View Master Processes | 378 |
| Edit Master Processes | 378 |
| Delete Master Processes | 379 |
| Master Tasks | 379 |
| Manage Resources with Cost | 381 |

| | |
|---|---------------------|
| Configure Resource Management with Cost | 381 |
| Calendar Exceptions | 384 |
| Schedule Custom Fields | 385 |
| Add Schedule Custom Fields | 385 |
| Add Task Custom Fields | 386 |
| Schedule Options | 387 |
| Schedule Templates | 388 |
| Working with Schedule Templates | 390 |
| Submittals Setup | 394 |
| Access Submittal Setup | 395 |
| Submittal Permissions | 395 |
| Submittal Options | 396 |
| Submittal Settings - Admin | 397 |
| Submittal Package Options | 401 |
| Manage Required Submittal Fields | 403 |
| Allow Editing of System-Generated Dates | 404 |
| Submittal Register Options | 404 |
| Status Options | 406 |
| Category Options | 408 |
| Private Comments | 410 |
| Custom Fields for Submittals | 410 |
| Submittal Package Layouts | 411 |
| Add Submittal Package Layouts | 413 |
| Delete Submittal Package Layouts | 413 |
| Color Code Submittal Layout Columns | 414 |
| Set Threshold Values | 414 |
| Mail Merge Templates for Submittals | 415 |
| Access Time Tracking Settings | 417 |
| About Managing Time Tracking | 417 |

| | |
|--|---------------------|
| Manage Time Tracking Settings | 418 |
| Integrate Time Tracking with Cost | 418 |
| Add Time Tracking Activities | 419 |
| Manage Account Bill Rates | 419 |
| Manage Time Tracking Permissions | 420 |
| Time Tracking Settings Page Overview | 421 |
| Manage Activities Page | 421 |
| About Managing Users | 422 |
| Manage Users | 423 |
| User Details | 433 |
| (Add New / Edit) User Details | 434 |
| Manage Membership | 437 |
| Licensing | 439 |
| Manage Roles | 441 |
| View / Add Account Role | 443 |
| Project Level Roles | 446 |
| Project Role Templates | 448 |
| Manage Permissions | 452 |
| Permissions by User | 459 |
| User Custom Fields | 464 |
| Who's Online Page Overview | 466 |
| About Account Views | 466 |
| About Workflows | 470 |
| Access Manage Workflows Page (Time Tracking) | 470 |
| Access Workflow Designer (Time Tracking) | 470 |
| Create Workflows (Time Tracking) | 471 |
| Add Workflow Properties (Time Tracking) | 471 |
| Design Workflows (Time Tracking) | 471 |
| Edit Steps (Time Tracking) | 472 |

| | |
|---|---------------------|
| Add Actions (Time Tracking) | 472 |
| Add Automation Step (Time Tracking) | 473 |
| Connect Steps in Workflow (Time Tracking) | 473 |
| Publish Workflows (Time Tracking) | 474 |
| Manage Workflow Page Overview (Time Tracking) | 475 |
| Workflow Details Page (Time Tracking) | 476 |
| Add/ Edit Workflow Page (Time Tracking) | 477 |
| Workflow Designer (Time Tracking) | 478 |
| Edit Step Page (Time Tracking) | 480 |
| Edit Automation Step Page (Time Tracking) | 481 |
| Add Action Page (Time Tracking) | 482 |
| Add Edit Connector Page (Time Tracking) | 483 |

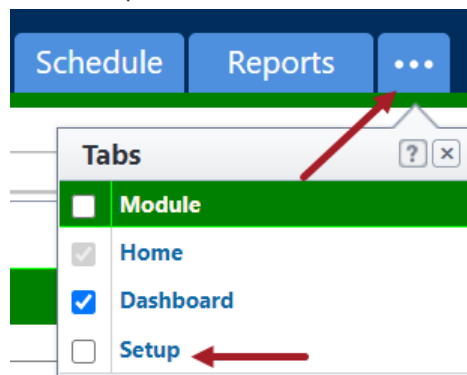
Administration Tools

Administration Tools comprise of configuration settings that allow account administrators to manage all areas of the product. By default, this section of Trimble Unity Construct is only accessible to administrators; however, additional permission can be granted to select users in order to delegate some of this responsibility. This section is divided into all of the available modules in the user interface. In addition to this, a User's section is available, which allows you to manage account users and their access to various features and functions.

To access the Admin Tools

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click **...**, and then select the **Setup** check box.



2. In the **Administration Tools** section, click the **Admin tool to view**.

About Trimble Unity Construct Administrative Roles

There are three kinds of administrative roles in Trimble Unity Construct: Account Administrator, Project Administrator, and the Administrator Role. Account and project administrators have fixed sets of rights. User roles that are flagged as an Administrator Role can be granted additional permissions. A description of each is provided below:

- Account Administrators
- Project Administrators
- Overview of Administrator Role Settings

Account Administrators

Typically, at least one account administrator is identified during the implementation process. The account administrator has full access to Administration Tools in the Setup, which allows them to complete configuration changes to the account and manage the permissions of other users. Account admins can add, act on, and modify items throughout the entire account whether they created it or not.

As an account administrator, you are responsible for all account activities from who has access to what project (s) and how the overall account settings are configured for each module. Any change to the account will be coordinated through this user role.

The following tasks are typically the responsibility of the Account Administrator.

- Create and manage users and their access
- Manage account level settings (e.g. Login agreements, password security, announcement)
- Create and manage all form types
- Create and manage account level reports and views
- Create and manage all schedule configuration (e.g. Templates, master processes, master tasks)
- Create and manage all cost configuration (e.g. Templates, account codes, change types)

Related Topics:

- Add Additional Account Administrators

Project Administrators

Project administrators can add existing users to the projects they administer, and manage these user's permissions. They also have the ability to add, act on, and modify items throughout their project(s) as if they were the creator and approver. These items include, but are not limited to the following:

- Forms and form instances
- Processes and process instances
- Documents
- Cost items
- Schedules
- Meeting items
- Bid packages
- Planning scenarios
- Submittals

Note: The project administrator's permissions can be extended if they are added to the Administrator Role; for more information, see Overview of Administrator Role Settings.

Related Topics:

- Add Project Administrators

Overview of Administrator Role Settings

The rights of users can be increased if you flag the role that they are a member of to be an Administrator Role. On the Manage Permissions page, the Administrator Roles appear in red. You can then grant these roles additional permissions. So essentially, the Administrator Role setting merely makes it possible to grant these roles additional permissions. This setting can be enabled/ disabled at any time.

If the Role is flagged as an Admin Role, then any permission given that has an asterisk next to it grants that permission at the account level not just the project level.

The additional permissions that you can give to the Administrator Role are as follows:

- **Manage Users:** Allow users to add/ edit users for the projects they are a member of. Users in the Trimble Unity Construct Admin role can add users, edit users, and remove users at the account level regardless of project membership if "Manage User" is selected in the role permissions. No ability to add users to a role.
- **Manage Memberships:** Allow users to add/ edit projects and users for the projects they are a member of. If the Add New Project permission is granted, this is at the account level.
- **Manage Processes:** Allow users to add/ edit processes and workflows of the projects they are a member of. Users in the Trimble Unity Construct Admin role can create new processes and edit existing processes at the account level regardless of project membership if "Manage Processes" is selected in the role permissions even if the process is isolated to a project the user isn't a member of.
- **Manage Workflows:** Allow users to modify process instances on the projects they are a member of, such as overriding a workflow and delegating process instances. Users in the Trimble Unity Construct Admin role can create new workflows and edit existing workflows at the account level regardless of project membership if "Manage Workflow" is selected in the role permissions even if the workflow is isolated to project that the user isn't a member of.
- **Manage Cost Templates:** Allow users to add/ edit the budget, cash flow, and forecast templates of the projects they are a member of. Users in the Trimble Unity Construct Admin role can manage forms at the account level regardless of project membership if "Manage Templates" is selected in the Cost module role permissions.
- **Manage Schedule Templates:** Allow users to add/ edit schedule templates of the projects they are a member of. Users in the Trimble Unity Construct Admin role can manage schedule templates at the account level regardless of project membership if "Manage Templates" is selected in the Schedule module role permissions.
- **Manage Forms:** Allow users to add/ edit forms for the projects they are a member of. Users in the Trimble Unity Construct Admin role can manage forms at the account level regardless of project membership if "Manage Form Types" is selected in the role permissions.
- **Manage Planning Templates:** Allow users to add/ edit planning templates of the projects they are a member of. Users in the Trimble Unity Construct Admin role can planning templates at the account level regardless of project membership if "Manage Templates" is selected in the Planning module role permissions.
- **Automation:**
 - **Scheduled Tasks** – if the Admin role is identified as a "Run Now" role, anyone in that role can view and choose to run the scheduled tasks now.
 - **Report Subscriptions** - A user in the Trimble Unity Construct Admin role can manage all subscriptions at the account level if Subscribe is selected in the Report module permissions. A user in the Trimble Unity Construct Admin role can copy user reports at the account level if "Copy" is selected in the Report module permissions.

Related Topics:

- Add Users to Roles
- Add Roles to the Administrator Role

Add Additional Account Administrators

Account Administrators have the ability to add additional account administrators. It is important to keep the Account Administrator role as limited as possible to ensure the security of your projects. While there is no limit to the number of account admins you can add, most organizations typically have only 2-3 account admin roles.

To add an account administrator

1. Go to the Account Admin [Your Organization's Name] project.

Note: An Account Admin project is created for each organization during implementation. It's strongly recommended that the name of this project is never changed.

2. In the Project Menu, click **Details**.

3. Click **Project Participants**.

The Project Participants page is displayed.

4. In the **Groups** section, click **Administrators**.

5. Click **Manage this Group**.

The Manage User dialog box displays.

6. To add an existing user, go to step 8.

—Or—

7. To add a new user

- a. Click **Add New User**.

The Add New User dialog box displays.

- b. Complete the required fields and click **Save**.

8. Filter for the user, and then add them to the **Administrators** column.

Related Topics:

- About Trimble Unity Construct Administrative Roles

Add Project Administrators

Only account administrators or users with add project permissions can add project administrators to an account. See About Trimble Unity Construct Administrative Roles for more information.

To add a project administrator

1. Select the project you want to add the project administrator to.

2. In the Project Menu, click **Details**.

3. Click **Project Participants**.

The Project Participants page is displayed.

4. In the **Groups** section, click **Administrators**.

5. Click **Manage this Group**.

The Manage User dialog box displays.

6. To add an existing user, go to step 7.

—Or—

To add a new user:

- a. Click **Add New User**.

The Add New User dialog box displays.

- b. Complete the required fields and click **Save**.

7. Filter for the user, and then add them to the **Administrators** column.

Add Users to Roles

Users that can perform this task:

- Account Administrators
- Administrator Role (Users with Manager User permissions)

To add a user to a role:

1. Click **Setup**.

2. Click **Users**.

3. Click **Manage Roles**.

The Manage Roles page is displayed.

4. Select the role name you want to add users to.

The View Role page is displayed.

5. Click **Add User to Role**.

6. Select the check box next to the user's name.

7. Click **Add User**.

Add Roles to the Administrator Role

Only account administrators can add roles to the Administrator Role. For more information, see Overview of Administrator Role Settings.

Important: Before you add a role to the Administrator Role, ensure members of the role are only those users that you want to have Administrator Role access.

To add a role to the Administrator Role

1. Click **Setup**.

2. Click **Users**.

3. Click **Manage Roles**.

The Manage Roles page is displayed.

4. Click the **Edit** link of the role you want to modify.

The Edit Role page is displayed.

5. In the Is Administrator Role field, select **Yes**.

6. Click **Save**.

Note: Individual users cannot be added to the Administrator Role; only an established account role can. Therefore, if you want to place specific users in the Administrator Role, ensure that they are first part of the account role. For instructions on adding users to a role, see [Add Users to Roles](#).

Automation

e-Builder offers automation on frequently performed actions like scheduled tasks and event handlers. This increases the efficiency of the actions, improves productivity and reduces errors.

Note: To access this feature, you must have permission to access the Administration Tools.

The following automation settings can be specified in e-Builder:

- **Event Handlers:** An event handler is a routine that deals with an event that may be triggered by a user or by the system. You can add, edit, disable or delete event handlers and view event handler history records in e-Builder.
- **Scheduled Tasks:** This feature displays a list of your scheduled task subscriptions, the frequency with which the tasks run, and the status (success/ fail) of the task the last time it was run. You can add, view or run scheduled tasks.
- **Report Subscriptions:** Subscriptions provide Administrators the capability to schedule the automatic distribution of a report to specific users. You can run, edit, disable or delete scheduled reports and view scheduled report history records in e-Builder.

Event Handlers

The Event Handlers page includes a list of event handlers and the type of event the event handler is configured to execute on.

Note: To access this feature, you must have permission to access the Administration Tools.

The key concepts of event handlers are:

- **Events:** An event is an action or occurrence that can be generated or triggered by the system, by the user or in other ways.
- **Event Handlers:** An event handler is a routine that deals with the event. This allows a programmer or user to write scripts that are automatically executed when the event occurs.

To access the Event Handlers page

1. On the top navigation tabs, click the Setup tab.
2. In the **Administration Tools** section, expand **Automation** and click **Event Handlers**.
The Event Handlers page is displayed.

Add Event Handlers

Event handlers can be added for the following types of events:

- Company
 - Company Create

- Cost
 - Budget Change Void
 - Commitment Approve
 - Commitment Change Void
 - Commitment Invoice Approve
 - Commitment Invoice Created
 - Commitment Invoice Void
 - Commitment Void
 - Funding Source Created
 - General Invoice Approve
 - General Invoice Created
 - General Invoice Void
- Document
 - Document Uploaded
- Project
 - Project Created
 - Project Updated
- Submittal
 - Submittal Item Closed
 - Submittal Package Closed

To add an event handler

1. Go to the **Event Handlers** page.
2. Click **Add Event Handler**.
3. On the Event Handler page, complete all necessary fields (marked with an *):
 - **Name***: Enter a name for the event handler.
 - **Run As User**: Click **Lookup** to search for and select a user's name to run the event handler as the selected user.
 - **Event Type***: Select the type of event from this drop-down list.
 - **Script***: Enter the script to be run when the event occurs.
4. Click **Save**.

Edit Event Handlers

Event handlers can be edited using the Edit Event Handlers page.

To edit an event handler

1. Go to the **Event Handlers** page.
2. Click **Edit** beside the event handler you wish to modify.

3. On the Edit Event Handlers page, modify the following fields as needed:
 - **Name***: Enter a name for the event handler.
 - **Event Type***: Select the type of event from this drop-down list.
 - **Script***: Enter the script to be run when the event occurs.
4. Click **Save**.

Enable/ Disable Event Handlers

You can disable an already existing event handler if you no longer wish to use it. The same event handler can be re-enabled later as well.

To enable/ disable an event handler

1. Go to the **Event Handlers** page.
2. Click the **Enable/ Disable** toggle beside the event handler you wish to enable or disable.

Delete Event Handlers

An existing event handler can be permanently deleted from e-Builder.

To delete an event handler

1. Go to the **Event Handlers** page.
2. Click **Delete** beside the event handler you wish to remove.
3. Click **Yes** to confirm the deletion.

View Event Handler History

Administrators can view the execution history of event handlers in e-Builder.

To view the history of an event handler

1. Go to the **Event Handlers** page.
2. Click **Show History** beside the event handler to view its history.
The Event Handler History window is displayed.
3. Use the following **Filter** section to sort the history records:
 - **Show Only Failed**: Select this check box to display only failed event handler results.
 - **Start Date**: Select a date range for the event handler history records in the **From** and **To** fields.
4. The following fields are displayed for the event handler:
 - **Name**: The name for the event handler.
 - **Event Type**: The type of event.
 - **Start Date**: The date and time when the system started executing the event handler script.
 - **Execution Time**: The time taken in minutes and seconds to execute the event handler script.
 - **Result**: The result of the execution. Click the result to view the specifics of the result details.

Scheduled Tasks

The Scheduled Tasks feature displays a list of scheduled task subscriptions, the frequency with which the tasks run, and the status (success/ fail) of the task the last time it was run.

Note: You must have permission to access the Administration Tools to use this feature. To delete or disable a scheduled task, you must contact Technical Support.

To access the Scheduled Task Subscriptions page

1. On the top navigation tabs, click the Setup tab.
2. In the **Administration Tools** section, expand **Automation** and click **Scheduled Tasks**.
The Scheduled Task Subscriptions page is displayed.

To view a scheduled task

1. Open the **Scheduled Task Subscriptions** page.
2. Click **View** next to the task you wish to view.

To run a scheduled task

1. Open the **Scheduled Task Subscriptions** page.
2. Click **Run Now** next to the task you wish to run.

Note: You must have the role that is authorized to run the task.

Report Subscriptions

Subscriptions provide the capability to schedule the automatic distribution on a report to specific user by email. Creating subscriptions is an ideal way to provide licensed users with reports on a scheduled and regular basis without them having to log into e-Builder to access the report.

Administrators can view and modify subscriptions to reports using the Subscriptions - Reports page in e-Builder.

Note: Dates and times shown in scheduled reports are converted to the time zone of the user who created the scheduled report. This can make dates look incorrect if the scheduled report's time zone is different from the receiving user's time zone.

Tip

- To setup a subscription is exactly the same process as setting a personal subscription in My Settings. The only difference as an e-Builder Administrator is that you can setup a report subscription for another user.
- It is recommended that you show the users how to create their own report subscriptions. This allows them to manage or remove it at any time in the future without having to come to the e-Builder Administrator to change.

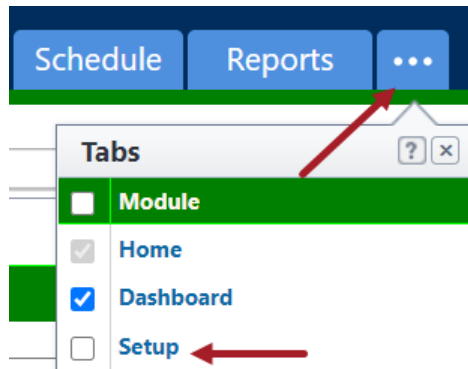
Access Report Subscriptions

Use the Subscriptions - Reports page to view all the scheduled reports.

[To access subscription reports](#)

1. From the top navigation tabs, click the **Setup** tab.

If the Setup tab is not visible, click , and then select the **Setup** check box.



The Administration Tools section is displayed on the left pane.

2. Click **Automation** to expand it and then expand **Subscriptions**.
3. Click **Reports**.

The Subscriptions - Reports page is displayed.

Edit Report Subscriptions

Report subscriptions can be edited using the Schedule Reports Wizard.

Note: You can come back and modify the view access criteria at any time. Once you make the update and click **Save**, the change will be reflected on all users views who have access or had access removed.

To edit a report subscription

1. Go to the **Subscriptions - Reports** page.
2. Click **Edit** beside the report subscription you wish to modify.
The Edit Schedule Report page (Step 1 of 4) is displayed.
3. This page allows you to change the report and output type. To change additional details, click **Next**. Step 2 of 4 is displayed.
4. This page allows you to change the standard name of the output file, the name of the schedule and the frequency at which to run the report. To change additional details, click **Next**. Step 3 of 4 is displayed.
5. This page allows you to change the days of the week, and time you'd like to receive this report. To change additional details, click **Next**. Step 4 of 4 is displayed.
6. This page allows you to change the delivery method and copied users that will receive this report.
7. Click **Save**.

Enable/ Disable Report Subscriptions

You can disable an already existing report subscription if you no longer wish to use it. The same report subscription can be re-enabled later as well.

To enable/ disable a report subscription

1. Go to the **Subscriptions - Reports** page.
2. Click the **Enable/ Disable** toggle beside the report subscription you wish to enable or disable.

Delete Report Subscriptions

An existing report subscription can be permanently deleted from e-Builder.

Note: If a scheduled report is deleted, it cannot be recovered.

To delete an report subscription

1. Go to the **Subscriptions - Reports** page.
2. Click **Delete** beside the report subscription you wish to remove.
3. Click **Yes** to confirm the deletion.

Run a Scheduled Report

An existing scheduled report can be run from the Subscriptions - Reports page e-Builder.

To run a scheduled report

1. Open the **Subscriptions - Reports** page.
2. Click **Run Now** next to the report you wish to run.

Note: You must have the role that is authorized to run the report.

View Scheduled Report History

You can view the execution history of scheduled reports using the Scheduled Report History feature in e-Builder.

Note: The Scheduled Report History page displays a log of every time a report succeed or failed when it was run. Only one year of history data for these two tables will be kept active for reporting purposes. Older data will be archived and can be made available by request, for audit support or investigations. Please contact e-Builder Support to request this information.

To view the history of a scheduled report

1. Go to the **Subscriptions - Reports** page.
2. Use the following fields to narrow down the history results:
 - **Show only reports for user:** The first drop-down selection is to select the role that the user is in. When a role is selected, the second drop-down will only display users within that role on the account.
3. Click the status in the **Last Result Status** column beside the report to view its history. The Scheduled Report History page is displayed.
4. Use the following **Filter** section to sort the history records:
 - **Show Only Failed:** Select this check box to display only failed results.
 - **Start Date:** Select a date range for the report history records in the **From** and **To** fields.
5. The following fields are displayed for the report history:
 - **Name:** The name of the report.
 - **Schedule:** The report schedule when it will be run.

- **Start Date:** The date and time when the system started executing the report.
- **Execution Time:** The time taken in minutes and seconds to execute the scheduled report.
- **Result:** The result of the execution. Click the result to view the specifics of the result details.

Related Topics

- Adding Report Subscriptions

Bidding

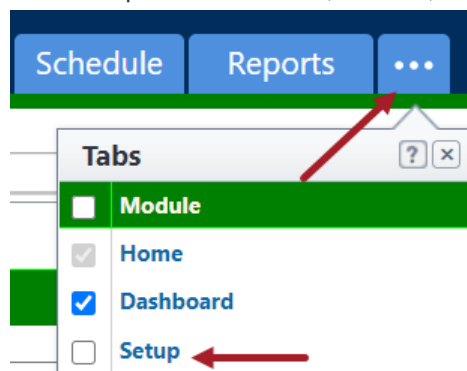
The e-Builder Bidding Module provides the ability to manage your project bids to non-licensed users. The bids are sent from e-Builder via email based upon the bidder information. Certain key elements of the bid process can be configured to assist in the notification and tracking of bids.

Access Bidding Settings

To access bidding setup options

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Bidding**.

Bidding Custom Fields

Bidding custom fields are definable fields that drive reporting for bids when bidding and sending invitations. Custom fields are created to contain additional event information that is not part of the standard bid information or used in reports to define or separate bids.

During the Bidding setup process, you can add the following custom fields:

Bid Package

The custom fields set up in this section will be displayed on the Custom Fields tab of the Bid Package Details page (Bid Package Details page > Bidding Details tab> Custom Fields tab).

Invitation

The custom fields set up in this section will be displayed on the Invite Bidders page in the Bidding module(This page can be accessed by clicking the Invite button on the Potential Bidders tab and Invited Bidders tab on the Bid Package Details page).

Bid Submission

All account level bid submission custom fields of the type "File" will be available for selection from the Custom File Fields list while editing the Bid Package Details page. These custom fields can be marked as required to ensure that the bidders submit the specific documents along with their response.

Upon bid submission, one folder will be created for each bid containing both bid submission custom field information and supporting documentation files. All uploaded files are stored in the Response Documents folder defined by the Bid Manager. When the bid is submitted, this folder will not be visible in the Documents module until the bid tab is opened.

Add Bidding Custom Fields

Custom fields are added to this section in the same way. You can add bid package, invitation and bid submission custom fields as follows.

To add bidding custom fields

1. Go to the Bidding settings.
2. Expand **Custom Fields**.
3. Click **Bid Package, Invitation** or **Bid Submission**.
4. Click **Add Field**.
The Add Custom Field page is displayed.
5. Select a data type, and then click **Next**.
6. On the **Custom Field Details** page, enter a name for the custom field in the **Field Label** field.
7. Enter or select the following field details:
 - **Description:** Add a description for the custom field. When added, this description is displayed as a tool tip beside the custom field name.
 - **Required:** Select this check box to make this field a required one.
 - **Permission:** Select the View and Edit permissions as needed for this field. The permission options are only available for Bid Package and Invitation custom fields and for Bid Submission Custom Fields of the type "File".
 - **Destination Folder Path:** Click **Select Folder** to specify a destination folder path for the file upload. This field is displayed only while creating a custom field of the "File" data type.
8. Click **Next**.
9. Review the details of the custom field.
10. If changes are required, click **Previous** to navigate to the appropriate page and make changes.

—Or—

If details are correct, click **Save**.

Color Codes

Color codes will only be applicable in the Bidding module if the manage codes feature is being utilized. Setting thresholds is another way to identify important sets of information, but thresholds differ from simple color coding because it allows you to assign minimum, mid range, and high range numerical values for each applicable area in the bidding module. Color codes are assigned to each threshold value to serve as a visual indicator when bid statuses have reached or surpassed certain thresholds. Thresholds have to be enabled in order to display throughout the Bidding module. Enable thresholds for each individual item by selecting the respective check boxes.

Note: You can come back and modify the thresholds at any time.

The color code thresholds are applicable in the Bidding module for the following areas:

- Invited Bidders
- Pending Bidders
- Accepted Bidders
- Declined Bidders
- Bid Totals
- Awarded Bids

For each of these areas, you can set a value and corresponding color to represent that threshold.

Tip

It is recommended when setting thresholds to set them based upon your average bid responses. For example, you might want to set it up such that it shows red when the number of invited bidders for a particular construction code is less than 3, yellow if greater than 3 and less than 5, and green if greater than 5.

To set bidding color coded threshold values

1. Go to the bidding settings.
For more information, see Access Bidding Settings.
2. Click **Color Codes**.
The Color Codes page is displayed.
3. Select the check box next to each item you want to enable thresholds for.
4. For each range, enter the threshold numerical values and select a color code for each value.
5. After all threshold values have been assigned, click **Save**.

Bid Document Permissions

As the administrator, you can assign a role to certain folders in the Documents module so that only those folders can be selected to map as an outgoing Bid Documents Folder for a bid package. This feature prevents users from accidentally revealing internal project documents to the bidders.

To manage bid document permissions

1. Create a role to represent external bidders (such as “Bidder – Doc Control” in the example below) and grant it View Bidding permissions using the Manage Permissions page. This role does not need to contain any users.

Projects Contacts Processes Cost Funding Calendar Bidding Schedule Reports Users Forms Submittals Planning Documents Time Tracking

Roles Save Changes

| Role | Add New Project* | Update Project Details | Manage Private Notes | Manage Project Level Field Options |
|----------------------|-------------------------------------|-------------------------------------|--------------------------|------------------------------------|
| Admin | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Bidder - Doc Control | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| GC | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Regular | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Submittal Coord | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Subs | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Time Sheets | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

* User must be in the role at the account level for this permission

2. Go to bidding settings. For more information, see Access Bidding Settings.
3. Click **Bid Document Permissions**. The Bid Documents Permission Setting page is displayed.
4. From the **Choose a role to be used for bid document checks for bidders** drop-down list, select the managing role that you created.

Bid Documents Permission Setting

Choose a role to be used for bid document checks for bidders:

Save Cancel

★ Please select: Bidder - Doc Control

5. Click **Save**. A confirmation message is displayed after the changes are successfully saved.
6. Go to the Documents module for the bidding project.
7. Select the folder that holds the outgoing bid documents.
8. Select **Properties** on the folder options, and grant View permissions to the managing role.

Folder Properties - Permissions

General History Permissions Subscribers Recycle Bin

Outgoing Bid Documents Also apply to files. Apply Add Remove Cancel

| Group, Role, or User | View | Download | Redline Markup | Modify | Version Control | Create | Create Folder | Delete | Change Perms | Public Access | No Access |
|----------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|
| Document Owner | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Administrators | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Members | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Bidder - Doc Control | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Apply Add Remove Cancel

9. In the bid package, the selected Bid Documents Folder needs to be the folder with the managing role permission.
If the bid manager selects an incorrect folder, the Bid Documents tab within the package will display an error. The bidders will not be able to see any documents on the bid portal.

Add Bid Scope Templates

Bid scope templates eliminate the need to manually create a bid scope. The template can be used for any bid package, and across all projects. Administrator and bid managers are able to set up similar bids using templates from various projects. Optionally, existing items can be appended to the template in order to update the details of the original line items in tandem.

To add bid scope templates

1. Go to Bidding settings.
For instructions, see Access Bidding Settings.
2. Click **Templates**.
3. Click **Add**.
4. Enter a name for the template in the **Name** field.
5. In the **Status** field, choose to make this template active or draft.
Note: Active templates will be automatically available to users.
6. *Optional:* Enter a description for this template to detail how and when it should be used, if applicable.
7. Click **Save**.

This is part 1 of 2 in creating the bid scope template. After a template has been added, you will need to add items to it.

Related Topics:

- Add Items to Bid Scope Templates
- Bid Scope Template Page Overview

Add Items to Bid Scope Templates

After a bid scope template has been created, bid scope items and additional information records need to be added to the template.

To add items to bid scope templates

1. Go to Bidding settings.
For instructions, see Access Bidding Settings.
2. Click **Templates**.
3. Click the title of the template you want to add items to. The Bid Scope Template page is displayed.
4. Optionally, create bid scope sections.

See Create Bid Scope Sections for instructions.

Note: From here you have the option to create sections, and then add items to those sections. Creating sections is not required, but doing so helps you further itemize the sections of the bid scope, clearly separating the different areas of scope; such as general conditions and other fees, base bid, and alternates. This makes it easier for bidders to submit their bids and having a standard format simplifies the process of reviewing bids as well.

5. Add Scope Items.
See Add Items to Bid Scope Templates
6. Add Additional Information records.
See Add Additional Information Records to Templates.

Related Topics:

- Add Bid Scope Templates
- Bid Scope Template Page Overview

Create Bid Scope Sections

Creating sections is not required, but doing so helps you further itemize the sections of the bid scope, clearly separating the different areas of scope; such as general conditions and other fees, base bid, and alternates. This makes it easier for bidders to submit their bids and having a standard format simplifies the process of reviewing bids as well.

Note: This procedure is a continuation of adding items to bid scope templates.

To create bid scope sections

1. From the **Scope** tab, click **Create Section** to add sections to the bid scope.
The Add Bid Section window appears.
2. Complete all necessary fields.
 - **Name:** Enter the name of the section
 - **Type:** The **Base Bid** is the main section to collect the bids and is required in all bid scope definitions. Choose **Alternate** for all other sections.
 - **Include Cost Per SqFt:** If square footage was entered in the bid details, selecting this check box will allow the system to calculate the square footage per bid scope item in the bid tabulation. If this check box is selected, you are also able to filter by square footage on the Bid Tabulation tab.
 - **Include Percent of Base Bid:** This option is directly related to bid tabulation. Select this check box to enable the display percent of base bid total option located on the Bid Tabulation tab.
 - **Include Percent of Section:** This option is directly related to bid tabulation. Select this check box to enable the display percent of section name option located on the Bid Tabulation tab.
3. Click **Save**.

Related Topics:

- Add Bid Scope Templates
- Add Additional Information Records to Templates
- Bid Scope Template Page Overview

Add Items to Bid Scope Templates

Note: This procedure is a continuation of adding items to bid scope templates.

To add items to the bid scope template

1. Click **Add Item** located in the respective section.
The Add Bid Item dialog displays.
2. Enter all required fields
3. Click **Save**.
The popup window remains open, allowing you to add additional line items.
4. When you are done adding items, click **Cancel**.

Related Topics:

- Add Bid Scope Templates
- Create Bid Scope Sections
- Add Additional Information Records to Templates
- Bid Scope Template Page Overview

Add Additional Information Records to Templates

The additional information feature allows bid managers to capture and track pertinent data about potential bidders to help you make the best and most informed decision. You can choose to add questions that you require potential bidders to answer, include relevant data that potential bidders cannot see, use the data for bid tabulation, or all of the above.

Note: This procedure is a continuation of adding items to bid scope templates.

Individual additional information records can be added one at a time or you can add records that have been used in different projects. Instructions for both methods are provided below:

- Add Additional Information Records from a Project
- Add New Additional Information Records

Add Additional Information Records from a Project

To add additional information records to the bid scope template

1. Click the **Additional Information** tab.
2. To include records used in a particular project, click **Add From Project**.
The Add Additional Information window appears.
3. Click the **Project** drop-down arrow to select the project from which to copy the additional information records.
4. Select a bid package from the list of results.
5. Select the check box next to the record(s) you want to add.
6. Click **Add**.
7. Click **Close**.

Add New Additional Information Records

1. Click the **Additional Information** tab.
2. In the **Prompt/Question** field, enter the prompt or question.
3. Select all check boxes that apply:
 - **Bidder Entry:** Select this check box to allow the prompt/question to be visible for bidders to fill out.
 - **Required:** Select this check box to make the prompt/question a required field for bidder to fill out.
 - **Include in Bid Tabulation:** Select this check box to include the prompt/question in the bid tabulation. This facilitates comparing bidders based on additional information.
4. Click **Save**.

Related Topics:

- [Add Bid Scope Templates](#)
- [Create Bid Scope Sections](#)
- [Bid Scope Template Page Overview](#)

Bid Scope Templates Page

The Bid Scope Templates page lists all the account templates, including filtering capabilities and some basic controls and information. You can filter by template name, status or custom field, if configured. Filtering helps you narrow down to the templates that display in the results table. Below is an overview of the fields and buttons located on this page.

Filter Templates Fields

- **Name:** Enter the name of the template(s) you want to filter for in this field.
- **Status:** Click this drop-down arrow to select a status to filter by.
- **Custom Fields:** Click this drop-down arrow to select a custom field to filter by. You can also type custom field keywords to filter by.
- **Filter:** Click this button to filter by entered criteria.

Bid Scope Templates Buttons

- **Add:** Click this button to add a budget template. For detailed steps, see [Add Bid Scope Templates](#).
- **Copy:** Click this button to copy a budget template.
- **Delete:** Click this button to delete the selected template.

Bidding Options

The Bidding Options settings allow you to alter delivery methods, determine how project contacts are added, and if the bid tabulation feature is turned on, you can also manage bid viewing settings.

[To modify bidding options](#)

1. Go to bidding settings.
For more information, see Access Bidding Settings.
2. Click **Options**. The following bidding options are displayed.

Bid Options

- **Enable Bid Tabulation:** Click this button to enable bid tabulation for the account. This is a one-time action and cannot be reversed.

Note: This button is displayed only if bid tabulation has not been enabled yet for the account. If bid tabulation has not been enabled, then the Bid Scope and Bid Tabulation tabs are not displayed inside any bid packages.
- **Project Contacts:** Select from the following options.
 - **Automatically add all invited bidder contacts and companies to project contacts:** Select this option to automatically add invited bidders and companies to project contacts. This is useful so that you will automatically see those contacts in your project contact directory.
 - **Automatically add only awarded bidder contacts and companies to project contacts:** Select this option if you only want to add awarded bidders and companies to the project's contact.
 - **Do not automatically add bidder companies and contacts to project contacts:** Select this option if you do not want any contacts to be automatically added to the project's contacts.
- **Require Password to Open Bid Tabulation:** This check box is displayed only if Bid Tabulation has been enabled. Select this option to specify that a password must be provided to open bid tabulation.
- **Required # of Users That Must Witness Sealed Bid Openings:** This field is displayed only if bid tabulation has been enabled. Click the drop-down arrow to select the number of witnesses required before a sealed bid can be opened. This feature is designed to enforce organizational policies and protect against collusion.
- **Allow Bid Tabulation To Be Opened Prior To Bid Due Date:** This check box is displayed only if bid tabulation has been enabled. Select this check box to enable the bid tabulation feature prior to the bid due date. This feature allows bid managers and contractors to get a head start on viewing the bids that have come in. This option would not be set if you have a strong policy in place and/ or you initiate public bidding.
- **Lock Bid Tabulation Excel Export File:** This check box is displayed only if bid tabulation has been enabled. Select this check box to prevent edits or unwanted changes to the excel worksheet.
- **Enable Electronic Bid Submission:** This setting is enabled by default and makes it possible for bidders to submit bids electronically. If necessary, this setting can be changed per bid package on the Bid Package Details page in the Bidding module. If this setting is enabled and a bidder enters response information through the Bidder's Portal and saves it (without necessarily submitting it), the Allow Electronic Bid Submission setting on the bid package is

disabled and cannot be turned off. For more information on the Bid Package Details page, see Bidding Details.

Clear this check box to restrict electronic submissions for the entire account. This might be necessary for public bid clients who require hard copy signatures. Typically, these clients bid on their projects through websites, newspapers, and other public means.

- **Suppress Qualifications text field:** Select this check box to prevent bidders from submitting unrequested qualification information.

Bid Award to Commitment

The settings in this section allow you to enable/ disable, and if applicable, customize the ability to automatically initiate a commitment process from an awarded bid package. Cost data is automatically populated into the cost fields from the awarded bid.

- **Bid Award to Commitment:** Click this drop-down arrow to select an option for initiating a commitment process after a bid has been awarded. Choose from the following options:
 - **No Commitment (None):** Select to disallow the initiation of a commitment process upon awarding a bid package. Commitment fields will auto-populate with data from the awarded bid package.
 - **Commitment (Non Process Commitment):** Select to enable the creation of a non-process commitment upon awarding a bid package.
 - **Process:** All commitment process display in this section for you to choose one that may be initiated and populated with contract data from an awarded bid package.
- **Include Bid Response Attachments:** Select to automatically attach to the commitment, the files that were included in bid responses.
- **Allow this setting to be changed on individual bid packages:** Select to allow this setting to be modified per bid package.

3. Click **Save**.

Public Registration Setup

The public bidding registration setup page allows you to include additional fields for bidders to enter when registering. You can make fields optional or required.

To add additional fields for bidder registration

1. Go to bidding settings.
For more information, see Access Bidding Settings.
2. Click **Public Registration Setup**.
3. Select your desired field(s) in the **All Fields** column.
4. Click the **Add** button located between the All Fields and Available Fields columns.
5. To make fields optional, leave them in the Available Fields column

—Or—

To make fields required, select the field, and then click the **Add** button located between the Available Fields and Required Fields column.

6. Click **Save**.

Units of Measure

When building out a project's bid scope, you may have to enter items by their units of measure. If these settings are not already defined or if you'd like to additional units of measure, follow the steps below.

1. Go to bidding settings.

For more information, see Access Bidding Settings.

2. Click **Units of Measure**.

If these settings are already defined, a list of available units of measure (UOM) displays. Otherwise, continue to step three to define UOM.

3. Click **Use Defaults** to use a default list.

—Or—

Enter each individual UOM abbreviation and description per line.

4. Click **Save**.

Bluebeam Studio Prime Integration

The e-Builder Bluebeam Studio Prime Integration provides the ability to combine the collaborative real-time document markup capabilities of Bluebeam Studio with e-Builder's centralized document management system.

You can launch Bluebeam Studio sessions directly from the Documents module or from documents that are attached to forms, processes, etc.

What is Bluebeam?

- Bluebeam Revu is a desktop application that enables PDF creation, editing, markup and collaboration technology designed for AEC workflows.
- Bluebeam Studio Prime is a collaboration service enabling multiple people to collaborate on design and markup sessions using Bluebeam Revu.
- Bluebeam Core or Complete are cloud subscription packages that include Bluebeam Revu. The Cloud packages do not necessarily include Bluebeam Studio Prime, which is required for integrations.

Note: If your organization has subscribed for a Studio Prime license but you are still unable to use integrations within your portal, please reach out to Bluebeam support directly.

Important: Note that changes made in Studio Prime or in Revu will not reflect in a Bluebeam cloud subscription (Core or Complete), because there is no link between them.

Using Bluebeam

Bluebeam is typically used for design reviews, drawing management, submittals reviews, RFI management, and more. Bluebeam is typically used as follows:

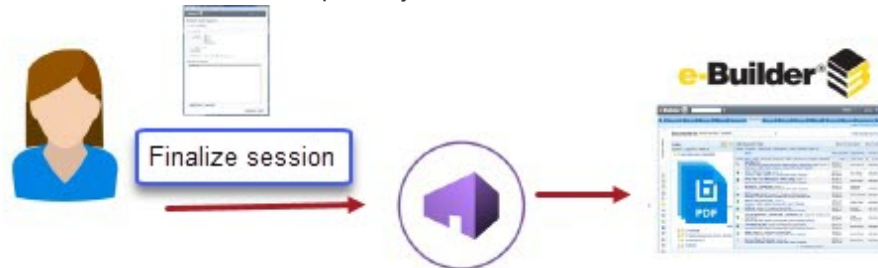
1. PDF files are selected from within e-Builder and sent to a new Bluebeam Studio session using the Bluebeam Studio API.



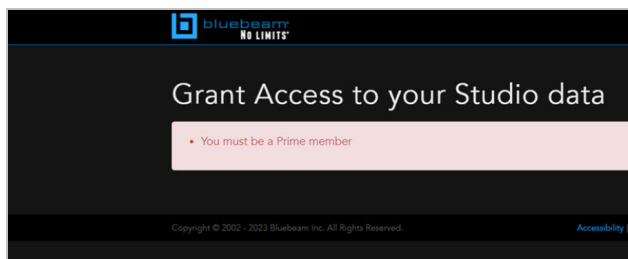
2. Users are invited to join the new Bluebeam Studio session to view or markup the PDFs using Bluebeam Revu.



3. The session is finalized using the integration in e-Builder and the new versions of the PDFs are saved back to the e-Builder document repository.



Contact Bluebeam Support if you encounter the following error:



Bluebeam System Requirements

The integration is built using the Bluebeam Studio API. Integrations using the Bluebeam Studio API are **only supported by Bluebeam Studio Prime**, not the basic Bluebeam Studio that is included free with Bluebeam Revu.

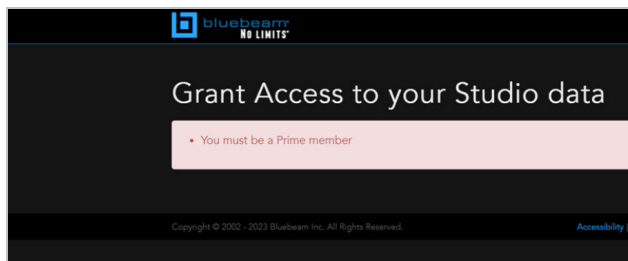
Bluebeam Studio Prime is a subscription-based cloud solution, offering all Bluebeam Studio features, plus administrative functions, and access to the Bluebeam Studio API for integrating external applications.

Important: Bluebeam requires Studio Prime for any integrations. You will need to purchase Studio Prime to unlock integrations.

Note: You must have an active Bluebeam Studio Prime subscription before you can start using an integration.

For more details on Bluebeam Studio Prime, please contact Bluebeam directly.

If you receive the following error, please contact Bluebeam Support directly.



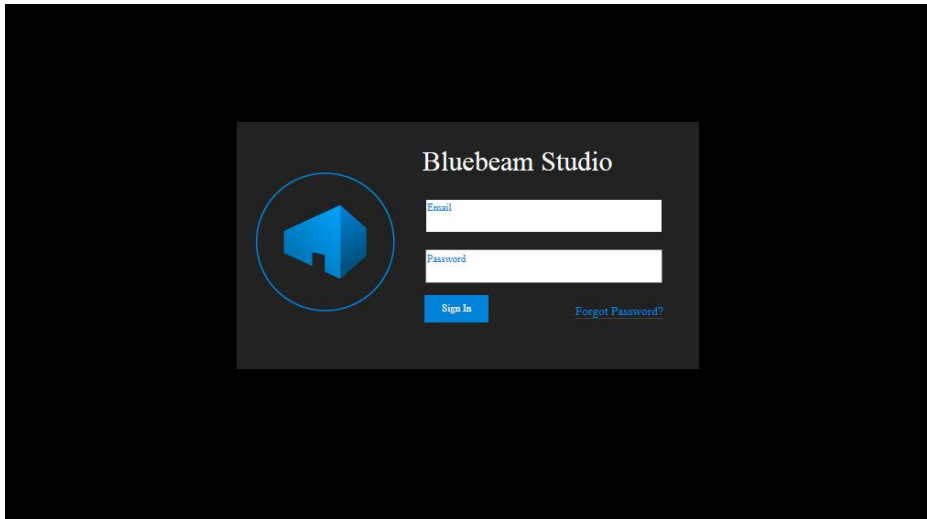
Trusted Sites and Security

- **Popup Blockers** - All the integration pages popup in new windows like many of the other pages in e-Builder. Please ensure that your popup blocker is set to allow popups from both e-Builder and Bluebeam domains.
- **Trusted Sites** - In IE's protected mode, Bluebeam must be added to the trusted sites list.

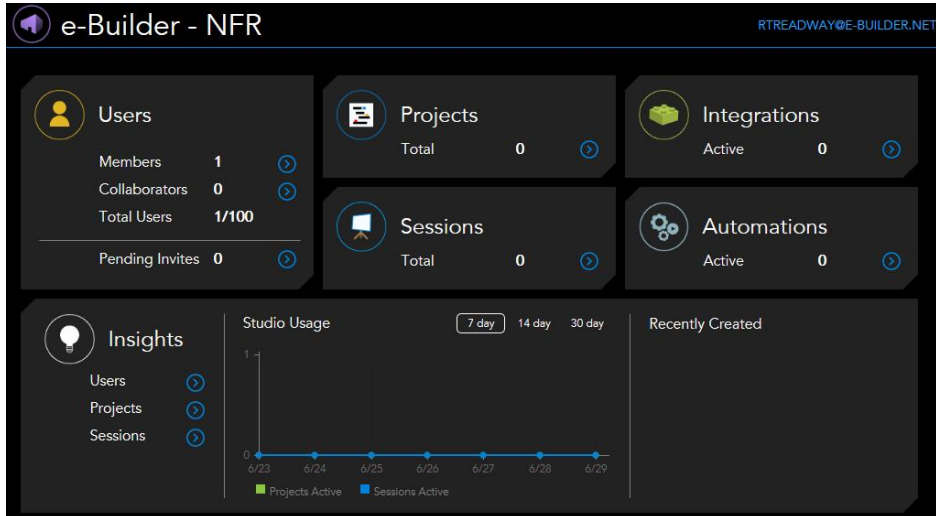
Bluebeam Studio Prime Setup

To enable the integration in Bluebeam Studio Prime

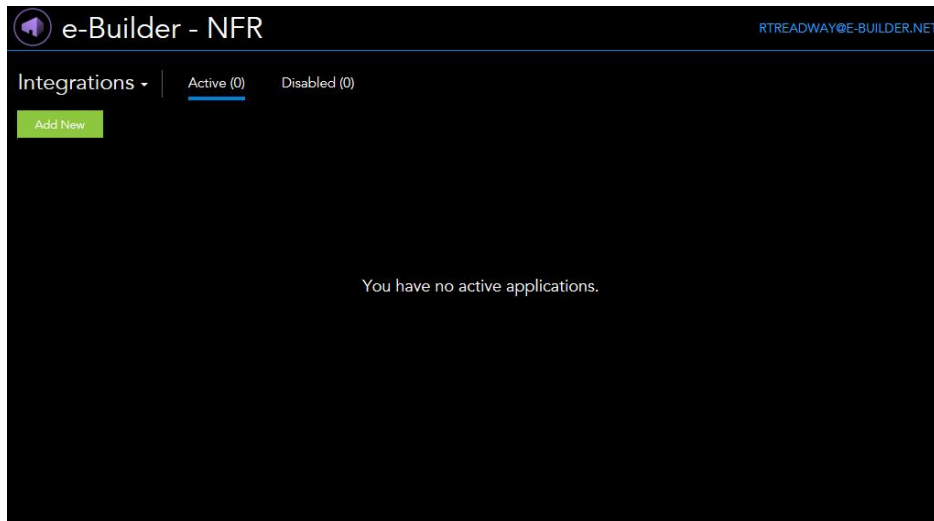
1. Log into the Studio Prime portal.



2. Click **Integrations**. The Integrations page is opened to **Active** by default.

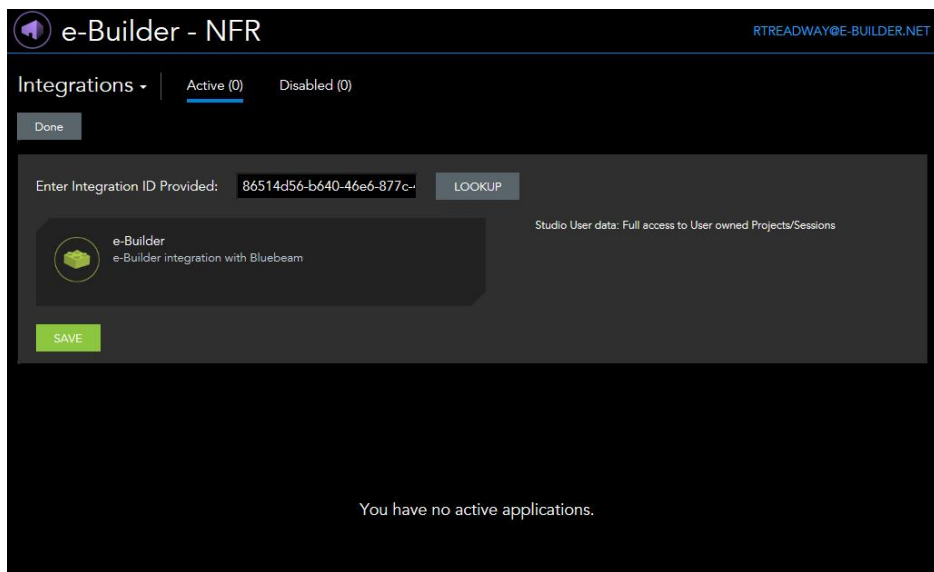


3. Click **Add New**.

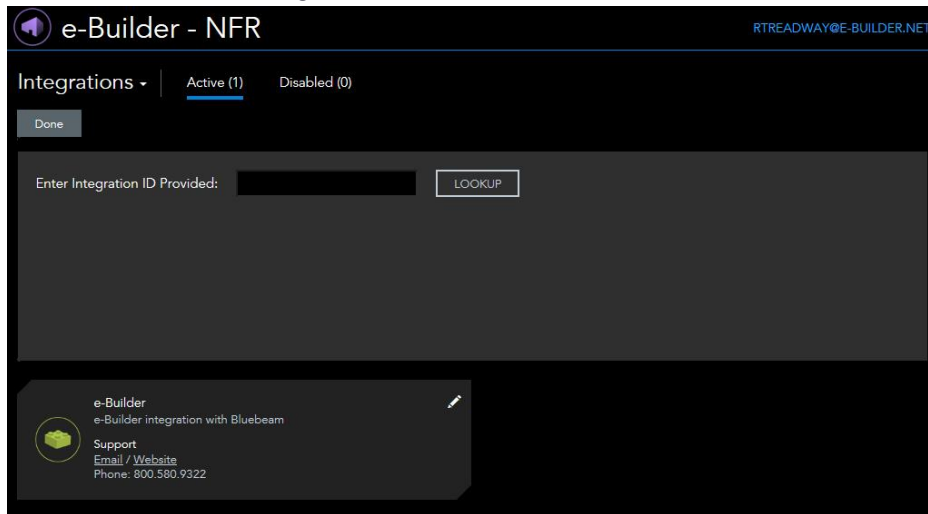


4. Enter the Integration ID provided below and click **Lookup**.

86514d56-b640-46e6-877c-4628cb58c50a



- Click **Save** to add the integration.



e-Builder Setup

To enable the Bluebeam Studio integration in e-Builder

Please contact our technical support team at Support@e-Builder.net or call 888-288-5717 and request to have the integration enabled for your account. There is no additional charge to have this integration enabled for your account.

Bluebeam Permissions

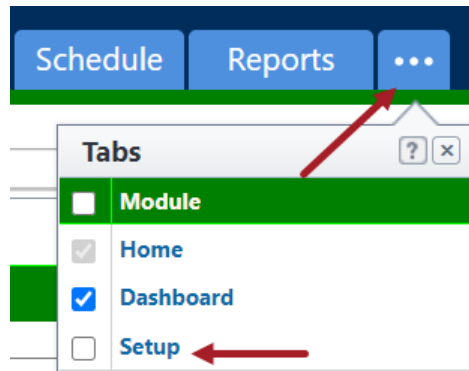
Users that will be using the integration need to have the Bluebeam document permissions assigned to them or to a role they belong to. Only users with the Bluebeam permission enabled can launch Bluebeam sessions.

Note: Bluebeam capability must be enabled on the account (by e-Builder Support) in order to see the Bluebeam permission option on the Manage Permissions page. The account must also have a license to Bluebeam Studio Prime.

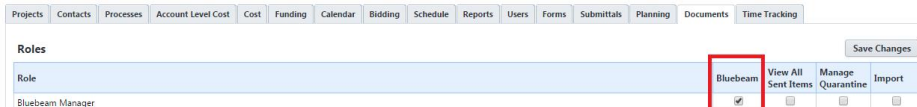
To set up and manage Bluebeam permissions in e-Builder

- From the top navigation tabs, click the **Setup** tab.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, expand **Users**. All user account related settings are displayed.
3. Click **Manage Permissions**. The Manage Permissions page is displayed.
4. Click the **Documents** tab.
5. Select the Bluebeam check box to add Bluebeam permissions for the appropriate roles or users.



6. Click **Save Changes** to retain the changes.

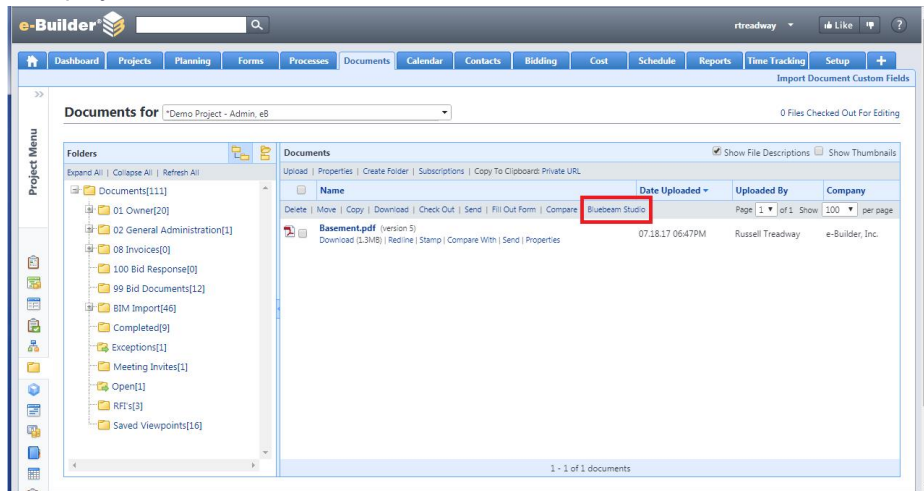
Access Bluebeam Studio from Trimble Unity Construct

The Bluebeam Studio integration can be launched in two primary ways, from the Documents module and from the Attached Documents tab on Forms, Processes, etc.

To access Bluebeam from the Documents module

1. Click the **Documents** tab located on the top navigation tabs.
2. On the Documents page, click the name of a project to view the project documents.
3. Select the documents to be added to the studio session.

- From the Documents pane action bar, click **Bluebeam Studio**. The Bluebeam Studio Integration page is displayed.



Tip: If one or more files are selected, they will automatically be added to the file list for the studio session. Additional files can also be added on the New Session page after clicking the **Bluebeam Studio** link.

To access Bluebeam from the Attached Documents tab

- From the Attached Documents tab of a form or process, select the attached documents to be added to the new session.

2. Click **Bluebeam Studio**. The Bluebeam Studio Integration page is displayed.

The screenshot shows the e-Builder interface for a document titled '*Design Review #17'. The top navigation bar includes 'Edit Form', 'History', 'Form Field History', and 'Permissions'. Below this, there are tabs for 'Form Details', 'Comments (1)', 'Attached Files (1)', 'Attached Forms (0)', 'Attached To', and 'Attached Viewpoints (0)'. The 'Form Details' tab is active, showing fields for Project (*Demo Project), Project Number (1223), Author (Treadway, Russell), Counter Prefix, Priority (Normal), Subject (Design Review Demo), Date Created (07.18.2017 08:33pm), Held By (Projectmanager, Peter), and Date Due (07.28.2017). Below the form details, the 'Attached Files (1)' tab is active, showing a table of attached files. The table has columns for File Name, Attached By, Date Attached, and Attached To. A file named 'Basement.pdf (version 5)' is listed, attached by 'Treadway, Russell (e-Builder, Inc.)' on '07.18.2017 08:33:09 PM'. The 'Attached To' column shows 'Fill Out Form'. A 'Bluebeam Studio' button is highlighted in the top right corner of the attached files section.

| File Name | Attached By | Date Attached | Attached To |
|--|--|---------------------------|---------------|
| Basement.pdf (version 5) Properties Download (1.3MB) Redline Stamp Remove | Treadway, Russell (e-Builder, Inc.) | 07.18.2017 08:33:09 PM | Fill Out Form |

Start a New Bluebeam Studio Session

You can start and configure a new Bluebeam Studio session from within e-Builder.

Upon clicking the Bluebeam Studio link from the Documents module or Attached Documents tab you will open the Bluebeam Studio Integration page. From this page, you can start a new session from the New Session tab or update an existing session on the My Sessions tab.

Note:

- For the Bluebeam integration to work successfully, the PDF files must first be added to the e-Builder documents module first and then added to the Studio session using the integration. Files added directly to the Studio session outside of the integration will not be versioned back into e-Builder.
- All PDFs must be added to e-Builder first – For the integration to work successfully, the file must first be added to the e-Builder Documents module and then added to the Studio session using the integration. Files added directly to the Studio session outside of the integration will not be versioned back into e-Builder.

Bluebeam Studio Integration - General - Google Chrome

Secure | <https://qa4.e-builder.net/da2/Documents/BluebeamSession.aspx?PortalID={7D5778E5-7B8D-4D2E-...}>

e-Builder®

Like ?

Bluebeam Studio Integration

New Session My Sessions

* Session Name:

Session Permissions:

- ☒ Save As
- ☒ Print
- ☒ Markup
- ☒ Markup Alert
- ☐ Add Documents

Restrict Attendees by E-mail Address: ☐

Session Expires: ☐ 06.02.2017 04:20pm

Add Files from e-Builder

Basement1.pdf

For more information on Studio Session options and permissions, please see the Bluebeam help topic - Defining Access and Permissions in Studio Sessions.

To start a new Bluebeam Studio session

1. Open the Bluebeam Studio Integration page. The New Session tab displays by default.
2. Complete the following fields (the required fields are marked with an *):
 - **Session Name***: Enter a name for this session. The name does not have to be unique.
 - **Session Permissions**: Select the check boxes to apply the desired permission to all attendees or uncheck them to remove those permissions from the attendees by default.
 - **Restrict Attendees by E-mail Address**: Select this check box to restrict access to the session by email address. You will have the opportunity to add allowed attendees on the next screen, or you can do it after the session has been created. To allow any user with the Session ID to join the session, uncheck this option.
 - **Session Expires**: Enter or select the desired expiration date and time for the session. Expiration dates must be in the future; Revu will not allow a back-dated expiration date.
3. In the **Add Files from e-Builder** section, click **Browse for Files** to browse for and select at least one PDF file to be added to the session.

Note: Files added to the session will be flagged as Checked Out by the user starting the session. The files selected must not be already checked out by another user. When the session is completed, the files will be checked in and versioned.

Tip: To add additional files to the session, click **Browse for Files**. To remove a file from the list, select the file and click **Remove Files**.

4. Click **Start Session**. The Bluebeam Studio Integration popup window displays with the session details.
5. Click the Session ID link to open the Bluebeam Revu session.

To update an existing Bluebeam session

1. Open the Bluebeam Studio Integration page. The New Session tab displays by default.
2. Click the **My Sessions** tab.
3. Use the following Filter Sessions fields to filter the sessions:
 - **Status**: Select a status to filter the sessions by from the drop-down list.
 - **Contains Text**: Enter text to filter the sessions by.
4. From the filter results, click the session ID link to view the session details.
5. Make the necessary changes and click **Save**.

Invite Users to a Bluebeam Session

After starting your new Bluebeam Studio session, you will be prompted to invite users on the Session Invitation page.

The invitation sent out to the invitees will include the name of the session, the session ID with a link to open the session in Bluebeam Revu, and the optional message provided. The invitation also includes links to download Bluebeam Revu software if the user doesn't have it installed already.

Tip: If at a later point you wish to invite additional users, you can add them from the My Sessions tab.

To invite users to a Bluebeam session

1. On the Session Invitation page, enter the email addresses for the users or contacts you would like to join your session in the **Invitees** section.

Tip: Use the **Lookup** button to locate the users or contacts you wish to invite.

2. To send an optional message to the invitees, enter the message content in the **Message** field.

Bluebeam Studio Integration - General - Google Chrome

Secure | <https://qa4.e-builder.net/da2/Documents/BluebeamSession.aspx?PortalID=%7b7D5778E5-7B8D-4C>

e-Builder

Like ?

Bluebeam Studio Integration

New Session My Sessions

Session Invitation

Session Name: DemoSession

Session ID: 923-246-663

Invitees: Enter Email Lookup

Message:

OK Cancel

3. Click **OK** to send the invitation(s). The email is sent to the invitee(s).

BLUEBEAM
A NEMETSCHEK COMPANY

Join Session to Start Collaborating

has invited you
() to collaborate on a Session in
Bluebeam Studio.

Invited Email:
Session Name: test
Session ID: [142-230-107](#)
Server: studio.bluebeam.com

You must have a Bluebeam Studio account to join this session

New to Bluebeam Studio?

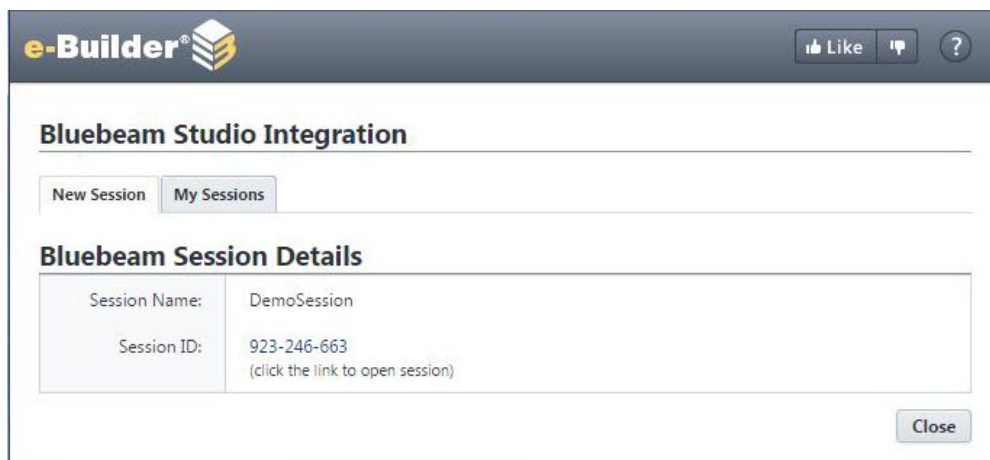
[Join Session](#) [Create Account](#)

Access an Existing Bluebeam Session

After the new Bluebeam Studio session is created, the session details will be provided including the Session ID. A hyperlink is available on the Session ID that will launch Bluebeam Revu to join the session. Existing sessions that are already in progress can be joined from the My Sessions tab of the Bluebeam Studio Integration page.

Note:

- Sessions can also be joined directly from within Bluebeam Revu from the Studio pane. To open the session, click **Join** and enter the Session ID and click **OK**.
- Existing Studio sessions can be updated from the My Sessions tab. From this page, you finalize sessions, add files, and invite users to existing sessions. Exiting active sessions can also be opened using the link provided by clicking on the Session ID.
- To Add Files or Invite Users to an existing session, click the check box beside the Session ID and then click the appropriate action button. Only one session may be updated at a time.



To access an existing Bluebeam Studio Session

1. Open the Bluebeam Studio Integration page. The New Session tab displays by default.
2. Click the **My Sessions** tab.
3. Use the following Filter Sessions fields to filter the sessions:
 - **Status:** Select a status to filter the sessions by from the drop-down list.
 - **Contains Text:** Enter text to filter the sessions by.
4. From the filter results, click the session ID view the session details.
5. Click the link to join the session.

Add Files to an Existing Bluebeam Session

Existing Studio sessions can be updated from the My Sessions tab. From this page, you can add files and invite users to existing sessions. Exiting active sessions can also be opened using the link provided by clicking on the Session ID.

Bluebeam Studio Integration

New Session My Sessions

Filter Sessions

Status: Active ▼

Contains Text:

Filter

My Sessions

Finalize Session Add Files Invite Users

| | Session ID | Name | Created | Status | Files |
|--------------------------|-------------|-------------|---------------------|--------|-----------------|
| <input type="checkbox"/> | 923-246-663 | DemoSession | 6/1/2017 4:25:22 PM | Active | 1 of 1 uploaded |
| <input type="checkbox"/> | 702-915-718 | qwerwqrerqw | 5/4/2017 8:57:15 AM | Active | 1 of 1 uploaded |
| <input type="checkbox"/> | 503-628-782 | test1 | 5/4/2017 8:48:21 AM | Active | 1 of 1 uploaded |
| <input type="checkbox"/> | 474-554-788 | qwerwqrerqw | 5/4/2017 8:39:52 AM | Active | 1 of 1 uploaded |

Finalize Session Add Files Invite Users


To add files to an existing session




1. Open the Bluebeam Studio Integration window.
2. On the My Sessions tab, click the check box beside the session ID of the session you wish to update.
3. Click **Add Files**.
4. Browse for and select the required file or files and click **Open** to add it to the session.

Finalize a Bluebeam Session

To send the PDFs updated during the Studio session back to e-Builder for versioning, the session **must** be finalized from e-Builder. Once the session is finalized, a new version of the file is created in e-Builder.

All sessions using the integration must be finalized using the integration from within e-Builder. When you have finished marking up the documents in Bluebeam Revu during your Studio session, you can click **Leave** or close the Bluebeam application. To check the file back into e-Builder and version it, return back to the My Sessions tab and finalize the session.



Bluebeam Studio Integration

New Session

My Sessions

Filter Sessions

Status:

Active ▼

Contains Text:

Filter

My Sessions

Finalize Session

Add Files

Invite Users

| | Session ID | Name | Created | Status | Files |
|--------------------------|-------------|-------------|---------------------|--------|-----------------|
| <input type="checkbox"/> | 923-246-663 | DemoSession | 6/1/2017 4:25:22 PM | Active | 1 of 1 uploaded |
| <input type="checkbox"/> | 702-915-718 | qwerwqrerqw | 5/4/2017 8:57:15 AM | Active | 1 of 1 uploaded |
| <input type="checkbox"/> | 503-628-782 | test1 | 5/4/2017 8:48:21 AM | Active | 1 of 1 uploaded |
| <input type="checkbox"/> | 474-554-788 | qwerwqrerqw | 5/4/2017 8:39:52 AM | Active | 1 of 1 uploaded |

Finalize Session

Add Files

Invite Users

Tip: All PDFs must be added to e-Builder first. For the integration to work successfully, the file must first be added to the e-Builder documents module and then added to the Studio session using the integration. Files added directly to the Studio session outside of the integration will not be versioned back into e-Builder.

Finalizing the session from Bluebeam Revu will not enable the integration to complete the whole process and send the new versions back to e-Builder.

Note: If the session is accidentally closed from within Bluebeam Revu rather than from e-Builder using the integration, please see the article from Bluebeam on [How to Reactivate a Finalized or Deleted Studio Session](#).

To finalize a Bluebeam Studio session

1. Open the Bluebeam Studio Integration window.
2. On the My Sessions tab, click the check box beside the session ID of the session you wish to finalize.
3. Click **Finalize Session**. The Finalize Bluebeam Studio Session window is displayed.
4. Click **Finalize Session** to confirm. The system uploads the reviewed documents from Bluebeam and creates a new version of the file in e-Builder.

Calendar

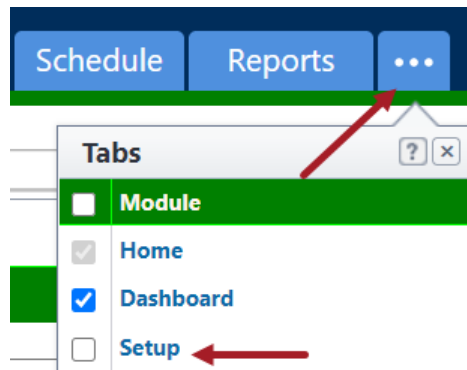
The e-Builder Calendar Module is a company-wide and project-specific calendar that brings all project participants, both internally and externally together for scheduling in one place. The e-Builder calendar integrates with Microsoft Outlook, and automatically syncs your e-Builder calendar events to your Outlook Calendar. If your project teams consist of multiple companies using multiple calendars, e-Builder manages events by allowing you to invite your e-Builder users and contacts as well as external users and then tracking attendance, meeting minutes, and progress on resulting action items.

Access Calendar Settings

To access calendar settings

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Calendar**.

Event Custom Fields

Event custom fields are definable fields that drive reporting for calendar events. Custom fields are created to contain additional event information that is not part of the standard event data or used in reports to define or separate events.

See Managing Custom Fields for information on creating event custom fields.

Event Location Setup

Event location setup allows you to create a list of meeting locations for the meeting organizer to optionally choose from. This is helpful if there are some common meeting locations for your teams. This option displays as a drop-down arrow in the Calendar module.

To create a list of event locations

1. Go to calendar settings.
For more information, see Access Calendar Settings.
2. Click **Event LocationSetup**.

The Manage Event Location Settings page is displayed.

3. Click the **Enable Location Drop Down** check box.
4. In the **Drop Down List Options** section, enter meeting locations, one per line.
5. Click **Save**.

Work Week Setup

The work week setup option allows you to set the start day for the 5-day work week. This option controls how the calendar is displayed to users when work week view is selected. Monday is selected by default.

To modify the work week settings

1. Go to calendar settings.
For more information, see Access Calendar Settings.
2. Click **Work Week Setup**.
The Work Week Setup page displays.
3. Click the **Start day for the 5-day work week calendar** drop-down arrow and select the day of the week that will begin the work week.
4. Click **Save**.

Meeting Minutes Setup

The Meeting Minutes component allows the minute taker to record discussion topics within e-Builder. The review and approval mechanism ensures that all participants agree with notes and action items before minutes are published. Optionally, you can assign action items using an assigned form type. Action items are updated in real time, so all participants are aware of item status before the next meeting. The Meeting Minutes component also gives you the ability to carry open items forward from previous meetings, allowing you to keep track of your progress.

Before the meeting minutes feature can be used in the Calendar module, it must first be configured in the setup area. Part of meeting minutes setup includes the following four procedures:

- Enable Meeting Minutes
- Set Form Type for Action Items
- Add/Delete Meeting Types
- Add/Delete Meeting Topics

Enable Meeting Minutes

The meeting minutes feature is not available by default; it must be enabled before it can be used.

To enable meeting minutes

1. Go to calendar settings.
For more information, see Access Calendar Settings.
2. Click **Meeting Minutes Setup**.
The Meeting Minutes page is displayed.

3. Select the **Meeting Minutes** check box to enable this feature.
4. Click **Save**.

Set Form Type for Action Items

Optionally, you can designate a form type to be used for action items. Once this form type is used in meeting minutes, it cannot be changed; otherwise there will be a void in previous instances that have already used the form type. Choosing a form type gives the minute taker access to a standard form for each meeting without having to attach a form each time. Additionally, it provides a consistent format that you choose to always record action items.

To set a form type for action items

1. Go to calendar settings.
For more information, see Access Calendar Settings.
2. Click **Meeting Minutes Setup**.
The Meeting Minutes page displays.
3. Select the **Form Type** drop-down arrow and select a form.
Note: Form types are configured in Setup Forms Manage Form Types.
4. Click the adjacent **Save** link.

Add/Delete Meeting Types

Although default meeting types exists you can create your own meeting types to better suit your business needs.

The following procedures are included below:

- View existing meeting types
- Add new meeting types
- Delete meeting types

To view existing meeting types

1. Go to calendar settings.
For more information, see Access Calendar Settings.
2. Click **Meeting Minutes Setup**.
The Meeting Minutes page is displayed with all existing meeting types in view.

To add new meeting types

1. Go to calendar settings.
For more information, see Access Calendar Settings.
2. Click **Meeting Minutes Setup**.
The Meeting Minutes page is displayed.

3. Enter the name of the meeting type in the **Meeting Type** field.
4. Click **Save**.

To delete meeting types

1. Go to calendar settings.
For more information, see Access Calendar Settings.
2. Click **Meeting Minutes Setup**.
The Meeting Minutes page is displayed.
3. Select the check box next to the meeting type(s) you want to delete.
4. Click **Delete**.

Add/Delete Meeting Topics

Although default meeting topics exists you can create topics to better suit your business needs.

The following procedures are included below:

- View existing meeting topics
- Add new meeting topics
- Delete meeting topics

To view existing meeting topics

1. Go to calendar settings.
For more information, see Access Calendar Settings.
2. Click **Meeting Minutes Setup**.
The Meeting Minutes page is displayed.
3. Click the **Meeting Topics** tab.
All existing meeting topics display.

To add new meeting topics

1. Go to calendar settings.
For more information, see Access Calendar Settings.
2. Click **Meeting Minutes Setup**.
The Meeting Minutes page is displayed.
3. Click the **Meeting Topics** tab.
4. Enter the name of the meeting topics in the **Topic** field.
5. Click **Save**.

To delete meeting topics

1. Go to calendar settings.
For more information, see Access Calendar Settings.
2. Click **Meeting Minutes Setup**.

The Meeting Minutes page is displayed.

3. Select the check box next to the meeting topic(s) you want to delete.
4. Click **Delete**.

Mail Merge Templates

Calendar mail merge templates can be imported for use throughout the Calendar module. A mail merge template will let your users print out meeting details and meeting minutes formatted just the way your organization prefers. A default template is also provided for your convenience, complete with field mappings that will automatically populate fields with data from e-Builder to save you time. Field mappings can be changed on any template, allowing you to pull the data you need.

The following tasks can be taken using Mail Merge Templates:

- Add New Calendar Templates
- Download Default Calendar Template
- Customize Calendar Template with Field Mappings

Add New Calendar Templates

The calendar template is a predefined form for tracking events and meeting minutes. Field mappings are included on the template which automatically populates system data such as attendee names, email, role and other information. These templates and field mappings save you time and ensure the accuracy of your data. While the template includes default field mappings, you can customize these field mappings in order to capture the information you want. See Customize Calendar Template with Field Mappings for instructions.

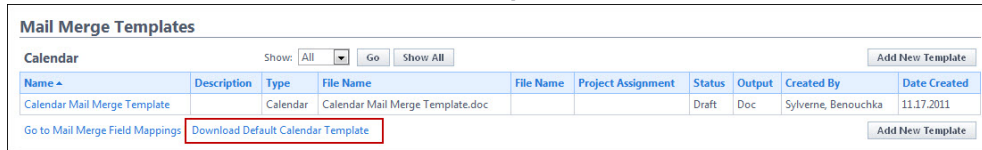
To add a new calendar template

1. Go to the calendar settings.
For more information, see Access Calendar Settings.
2. Click Mail Merge Templates.
The Mail Merge Templates page is displayed.
3. Click **Add New Template**.
The Mail Merge Template page is displayed.
4. Enter the name of template in the **Name** field.
5. In the **Status** field, select **Active** to make the template available for use. Select **Draft** to keep the template in draft mode.
6. In the **Output** field, select **Doc** for a Microsoft Word® or **PDF** for an Adobe PDF® file.
7. Click **Browse** to search for and select the document you'd like to use as your template.
8. In the **Project Assignments** section, select the project(s) that you want to assign this template to.
9. Click **Add**.
All selected projects display in the Assigned to these Projects box.
Note: If a project is not assigned, the template will be available in all projects.
10. Click **Save**.

Download Default Calendar Template

To download a default template

1. Go to the calendar settings.
For more information, see Access Calendar Settings.
2. Click **Mail Merge Templates**.
The Mail Merge Templates page is displayed.
3. Click the **Download Default Calendar Template** link.



Mail Merge Templates

Calendar Show: All Go Show All Add New Template

| Name ^ | Description | Type | File Name | File Name | Project Assignment | Status | Output | Created By | Date Created |
|------------------------------|-------------|----------|----------------------------------|-----------|--------------------|--------|--------|---------------------|--------------|
| Calendar Mail Merge Template | | Calendar | Calendar Mail Merge Template.doc | | | Draft | Doc | Sylverne, Benouchka | 11.17.2011 |

Go to Mail Merge Field Mappings **Download Default Calendar Template** Add New Template

After you have downloaded the template, save it to your local machine and then add it to e-Builder. For instruction, see Add New Calendar Templates.

Customize Template with Field Mappings

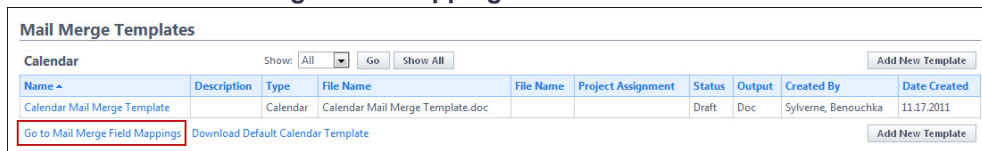
e-Builder field mappings are available to help you quickly capture data that is stored in the system into your template. Information such as project name, project contact, custom fields, various company information can all be automatically populated into your template. Using field mappings will help you save a lot of time when it is necessary to customize each various templates according to project specifications.

To customize your template using field mappings:

- Obtain Field Mappings
- Add Field Mappings to your Template

To obtain field mappings:

1. Click the Setup link.
2. In the Administration Tools section, click the module name you want to customize the template for.
3. Click **Mail Merge Templates** . The Mail Merge Templates page is displayed.
4. Click the **Go to Mail Merge Field Mappings** link.



Mail Merge Templates

Calendar Show: All Go Show All Add New Template

| Name ^ | Description | Type | File Name | File Name | Project Assignment | Status | Output | Created By | Date Created |
|------------------------------|-------------|----------|----------------------------------|-----------|--------------------|--------|--------|---------------------|--------------|
| Calendar Mail Merge Template | | Calendar | Calendar Mail Merge Template.doc | | | Draft | Doc | Sylverne, Benouchka | 11.17.2011 |

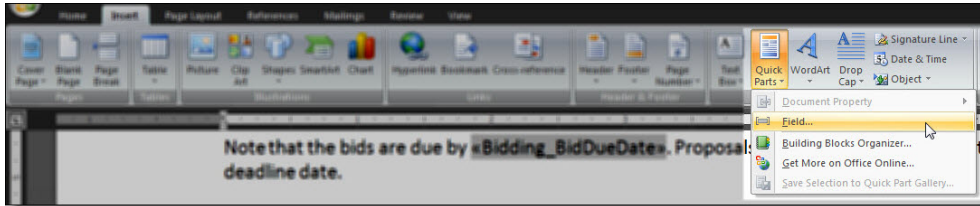
Go to Mail Merge Field Mappings Download Default Calendar Template Add New Template

Tip

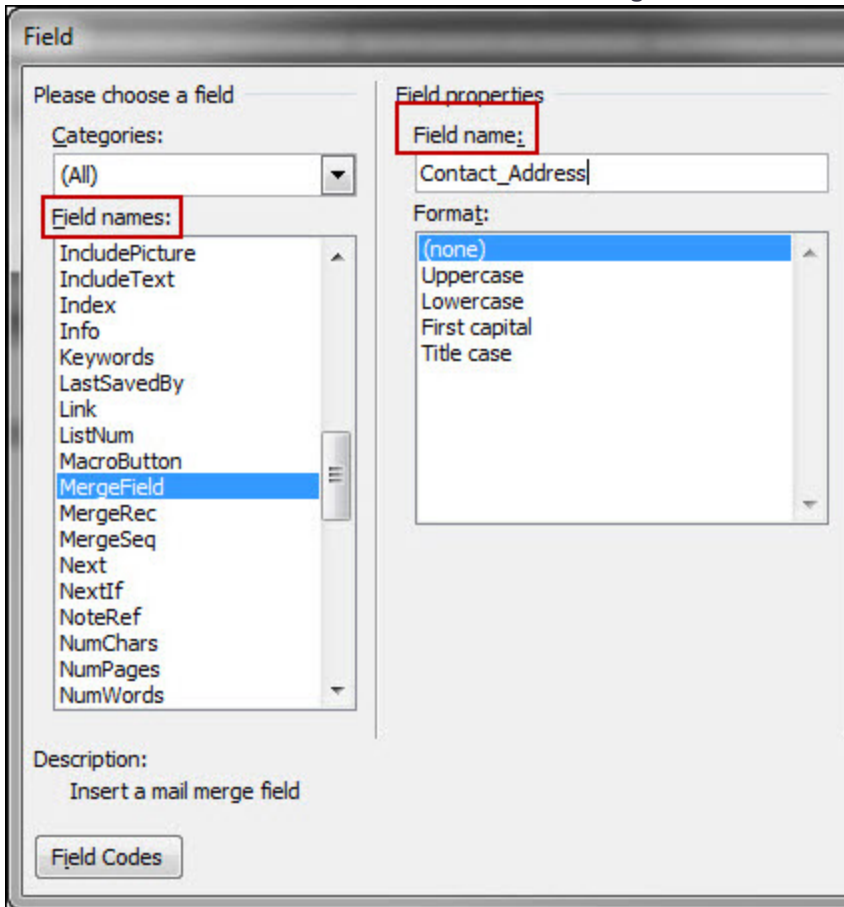
Keep this page open or print the merge codes for easy access when adding the field mappings to your template.

To add field mappings to your template (using Microsoft Word 2007 ®)

1. Open the template you want to add field mappings to.
2. Place your cursor in the position you want to add the merge code.
3. Click the **Insert** ribbon.
4. Click the **Quick Parts** drop-down arrow, and then select **Field**.



5. In the **Field names** section, scroll down and select **MergeField**.



6. Enter the e-Builder merge code in the **Field Name** field.
7. Click **OK**. The merge code is added to the word document.
8. Save the document to your local machine.
9. To store this document as a template in e-Builder, see the respective mail merge template module below:

- Calendar Mail Merge Templates
- Cost Mail Merge Templates
- Forms Mail Merge Templates
- Planning - Scenario Templates
- Processes Mail Merge Templates
- Schedule Mail Merge Templates
- Submittal Mail Merge Templates

Construction Codes

Construction codes are a structured hierarchy of divisions and classification codes within a division, used to standardize regulatory guidelines in the construction industry.

In e-Builder, construction codes can be associated with:

- Companies or contacts: Categorize and select contacts based on their specializations, such as electrical wiring.
- Bidding module: Invite potential bidders based on their classifications.
- Submittals: Associate submittal packages with CSI codes.
- Reporting: Report on companies/ contacts, bidders or submittal packages based on a particular CSI grouping. For example, you may pull data for all submittal packages associated with Carpentry in order to investigate the transactions that went into choosing a particular type of flooring.

Import Construction Codes

Construction codes can be imported from an MS Excel file, or from an e-Builder pre-set MasterFormat list.

Sample Excel templates are available for the following pre-set MasterFormat lists of divisions and classification codes:

- 1995 MasterFormat (16 Divisions)
- 2004 MasterFormat (50 Divisions)
- 2012 MasterFormat (50 Divisions)

Construction Divisions will be created automatically based on the first 2 digits of the imported construction codes.

Tip: See Manage Construction Divisions to update the description of automatically created division codes.

If the Construction Code list needs to be updated at a later point, any new imported files will append new records to the existing list.

Note: Codes that have been linked to any submittal package, bid package invitee or company cannot be deleted.

[To import construction codes](#)

1. Click **Setup**.
2. In the **Administration Tools** menu, click **Construction Codes**. The Manage Construction Divisions page is displayed.
3. Click **Import**. The Import Construction Codes page is displayed with a 3-step wizard.
4. To use the sample templates as the starting point for the Construction Codes list, click the appropriate link and download the Excel template. Make any updates to the file and save on your computer.
5. In the 3-step import wizard, perform the following mandatory actions:
 - i. Choose your import file: Click **Choose File** and select the modified template, or another Excel file to be imported. Click **Next**.
 - ii. Verify construction code field mappings: Check that the columns of your spreadsheet match the **Construction Code** and **Description** fields. Click **Next**.
 - iii. Review the import construction codes summary: The import summary confirms the import file name, the number of rows in the file, and the number of rows that are to be imported. Check the Exceptions tab to view any rows that could not be imported.
6. Click **Import** to complete the process. In the message popup, click **OK** to confirm.
7. The Import CSI Codes page is displayed upon successful completion. Click **Finish** to confirm the import.

Manage Construction Divisions

Construction divisions group together classification codes. Divisions are 2-digits long and match up with the first 2 digits of the classification code.

Use the Manage Construction Divisions page in the Setup module to perform the following actions:

Add Construction Divisions and Construction Codes

To add construction divisions

1. Click **Setup**. In the **Administration Tools** menu, click **Construction Codes**. The Manage Construction Divisions page displays.
2. Click **Add**. The Add Construction Codes page displays.
3. Enter a 2-digit division code and corresponding description in the rows under the Code and Description columns.

Tip: Up to 10 codes can be entered at the same time.

4. Click **Save** to add the codes.
—Or—
Click **Save and Add More** to add more than 10 codes.

To add classification codes

1. Click **Setup**. In the **Administration Tools** menu, click **Construction Codes**. The Manage Construction Divisions page displays.
2. Click **Add**. The Add Construction Codes page displays.

3. Enter a 2-digit division code and corresponding description in the rows under the Code and Description columns.

Note: Use the same grid that you used for adding division codes, but to enter a classification code, enter a code that is longer than 2 digits. The classification code will be organized under the division based on first 2 digits.

Example:

Enter the code "08 30 00" to create a classification code 08 30 00 that will be listed under Construction Division 08.

4. Click **Save** to add the codes.
—Or—
Click **Save and Add More** to add more than 10 codes.

Edit Construction Divisions and Construction Codes

To edit construction divisions

1. Click **Setup**. In the **Administration Tools** menu, click **Construction Codes**. The Manage Construction Divisions page displays.
2. Click **Edit** beside the construction division name. The Edit Construction Division page displays.
3. Change the values in the **Construction Code** or **Description** field, as needed.
4. In the **Renumber Classification Codes** field, select **Yes** to renumber the first 2-digits of all the classification codes within the selected division to match the new division code.
5. Click **Save**.

To view and edit classification codes within a division

1. Click **Setup**. In the **Administration Tools** menu, click **Construction Codes**. The Manage Construction Divisions page displays.
2. Click the division code or description in the Manage Construction Divisions grid. The Construction Division Details page is displayed with the division information and the classification codes in the division.

Tip: To edit the construction division itself, click **Edit Division**. To delete the division and all the classification codes in the division, click **Delete Division**.

3. Select the check box beside the classification code you want to modify, and click **Edit**. The Edit Construction Codes page displays.
4. Make the desired changes and click **Save**.

Note: You can select the check box beside a code and click **Delete** to remove it. If the classification code has been connected to a company, bid package or submittal, you will not be able to delete the code.

Contacts

The e-Builder Contacts Module provides the ability to store and manage contact information for companies with whom you do business. The company information is utilized for the Cost and Bidding modules to provide necessary notification capability, reporting and historical information required for these modules. If you are not using these modules, the Contacts module is also utilized as a central contact repository for all contacts.

To add contacts, if you have the assigned permissions you may add contacts one at a time from the Contacts module. If you are an administrator, you have the capability of importing contacts from a Microsoft Excel file. This file can be either manually created or created using the export tool from another contact database (e.g. Outlook, Lotus Notes, Salesforce).

From an administration perspective, Contacts can have custom fields assigned to Companies or Contacts and this is where you would import contacts. To access the Contacts in the Administration Tools area, click the Contacts link.

Company and Contact Custom Fields

Company custom fields are definable fields that drive reporting for calendar events. Custom fields are created to contain additional company information that is not part of the standard company information or used in reports to define or separate companies.

To manage company custom fields, go to the Manage Custom Fields section for Administration Tools.

Import Contacts or Companies

If you have been granted the permission, you can import contacts or companies directly into the Contacts module from a Microsoft Excel spreadsheet (.xls or .xlsx format).

Note: To see this import functionality on your Project Contacts screen, this feature must be enabled at your site. Consult your account administrator for details.

Import File Preparation

It is recommended you name each of the column headers in your import file to the same field name for the company or contact in e-Builder. By doing this, the fields will map automatically and save you time on Step 2 of the Import Wizard.

If you have contact information you wish to import that does not have a company or contact field you can create that field as a custom field. Custom field values can also be included on the import file.

Tip: For check box type fields, use the following values in the Import Excel file:

- Check box On = 1, Yes, or Y
- Check box Off = 0, No or N
- No change = blank

If your import file has both company and contact information, choose the radio button where each row is a contact. When the import occurs, if the company already exists it on the list it will only import it once. During the Import process, you will need to specify whether you wish to do a new import of contacts/ companies or an update import that updates any existing duplicate records.

Types of Import Processes

There are two types of import processes:

- **New Import:** To perform a new import of contacts/ companies, leave the Update Duplicates check box unchecked.
 - **Company:** The import process checks the company numbers from the import file against the existing records in e-Builder. If the number does not exist, then a new company record will be created. Otherwise it will be returned as a duplicate and fail to be included in the import.
 - **Contact:** The import process checks the company number, contact first and last name to determine whether the contact already exists.
- **Update Import:** To perform an update import, select the Update Duplicates check box.
 - **Company:** For records where the company number matches, the import process updates the existing record in e-Builder based on field differences, additions and/ or deletions in the import file. If the company number is not found, the process will also verify the company name for matches.

Warning: The company number cannot be updated through the import.
 - **Contact:** For records where the company number, first name and last name match the import process updates the existing record in e-Builder based on field differences, additions and/ or deletions in the import file. The contact's company number, first name and last name cannot be updated through the import.

Warning: The contact's company number, first name and last name cannot be updated through the import.

To import contacts or companies

1. Open Contacts.
2. Click **Import Contacts**. The Import Contacts - Select Import File page is displayed with a 3-step wizard.
3. Complete Step 1 of the Import Wizard - select an import file:
 - a. In the **How is your import file organized?** field, select the appropriate radio button to specify whether the import file is a Company or Contact import file.

Note: If you choose the **Contact** option, you will have to perform field mapping selections for both companies and contacts in the next step.
 - b. Select the **Update duplicates** check box to import and update any duplicate or existing records in e-Builder with company name matches.
 - c. In the **Choose Your Import File** section, click **Choose File** to locate your contact import file.

- d. Navigate to the folder where the file is located on your local computer or network. Select the file and click **Open**. The import file is now attached.
 - e. Click **Next**. The Import Contacts - Field Mappings page is displayed.
4. Complete Step 2 of the Import Wizard - specify the field mappings:
 - a. For each standard and custom field in e-Builder, click the drop-down arrow and select the column name from the import file to map them to the import file fields.
 - b. Once all fields are mapped correctly, click **Next**. The Import Contacts - Review page is displayed along with a preview of one of the imported records.
5. Complete Step 3 of the Import Wizard - review the import file:
 - a. Validate that the field mapping performed in Step 2 of the Import Wizard is correct.

Tip: If there are any problems with your import file that caused certain rows not to import, you will see a count of the rows with issues on the Exceptions tab. Click the **Exceptions** tab to see the issue and the reason why that row was not imported. It is recommended that you cancel the import if your import file has exceptions to correct the exceptions. Once you cancel the import, correct the rows on the import files that had the errors and re-import the file.
 - b. Click **Import**. The Import Contacts - Review page is displayed with a import confirmation message.
6. Click **Finish** to complete the import.

Cost - Admin tools

The e-Builder Cost module provides accounts the ability to monitor, control and analyze cost items per project or in some cases, throughout the entire account. The Cost Administration Tools provide a central location to manage all of your project cost information. From here you can easily manage and control your funding sources, budgets, commitments, and actual cost information so that you can better ensure the financial success of your projects.

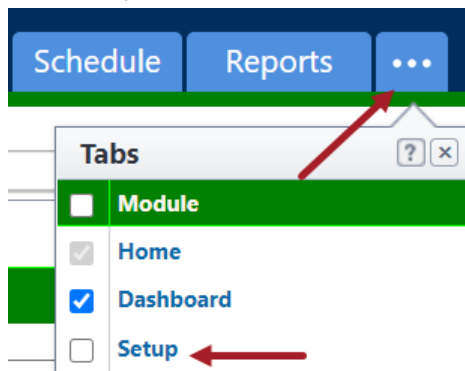
To reap optimum benefit from the Cost module, certain key items need to be configured. These range from the account codes to how the cost information will be viewed. Additionally, user permissions must also be set up front. In particular, the following settings need to be considered before the cost module can be operable.

- Manage Cost Codes
- Establish Budget Change and Commitment Change Reason Codes
- Establish Commitment Types
- Create Cost Related Custom Fields
- Create Cost Templates
- Establish Funding Settings and Funding Categories
- Create and Customize Cost Summary Layouts
- Create and Customize Cost Mail Merge Templates
- Optionally, Set Forecasting Settings
- Assign Units of Measure

[To access the Cost settings](#)

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Cost**.

Managing Account Level Costs and Funding

Note: Account Level Costs and Funding has to be enabled on your account in order to utilize this feature. For more information, please contact e-Builder Support.

Account-level cost and funding affords the ability to track and report on funding and cost activities across the entire account, which includes the versatility to also track at the project level. This feature may be necessary for Task Order Contracts (TOC) where design services have been contracted for one or many projects; Job Order Contracting (JOC) for multi-year contracts; or Indefinite Delivery Indefinite Quality Contracts (IDIQ) where a contract has been negotiated for base years and options years as well. Account level costs and funding also incorporates standard features that are available with standard Cost functionality such as import capabilities, mail merges and cost controls. When enabled, costs transactions are impacted with the tracking of master funding, master commitments, master commitment changes and master invoices.

Below are tasks that will assist you with configuring account costs and funding after the feature has been enabled on your account. Tasks for working with these features are also listed below.

Configuring Account Costs and Funding Settings:

- Create and Assign Unique Project Custom Field
- Set Account Cost Settings
- Enable account level funding via Funding Settings
- Create Master Commitment Types
- If applicable, define workflows. Via Account Cost Settings, you can optionally have commitments, changes and invoices added via a process.
 - Account Level Funding
 - Master Commitments
 - Master Commitment Changes
 - Master Invoices

Working with Account Costs and Account Funding:

- Add Account Funding Rules
- Add Account Funding Sources
- Add Master Commitments
- Add Master Commitment Changes
- Add Master Invoices

Create / Assign Unique Project Custom Field

A unique string-type project custom field is required in order to make an association between the project and Master Commitment Line Items and/or the Account Level Funding. This must be a unique custom field.

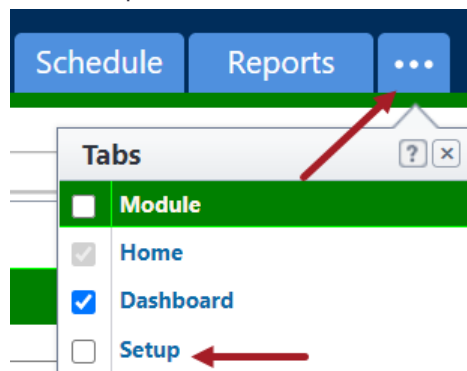
Instructions for creating and assigning this custom field are below.

- Create Unique String-Type Project Custom Field
- Assign Project Custom Field

To create a unique, string-type project custom field

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click **...**, and then select the **Setup** check box.

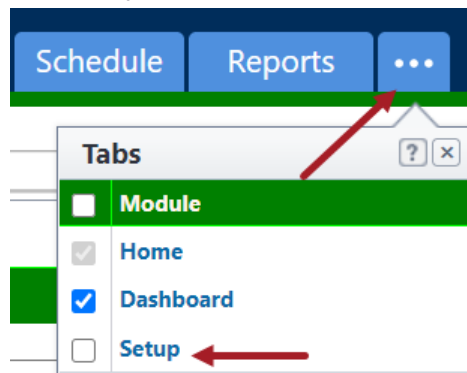


2. In the **Administration Tools** section, click **Global Custom Fields**.
3. Click **Add Field**.
4. Select **Project** then **Next**.
5. Select **String** then **Next**.
6. Complete all necessary fields including:
 - a. Enter a name for this custom field, such as Project ID
 - b. To make this field unique, select the **Do not allow duplicates** check box.
7. Click **Next**.
8. Click **Save**.

To assign the custom field to account cost settings

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Cost**.
3. Click **Cost Settings**.
4. Click the **Account Cost Settings** tab
5. In the **Miscellaneous Settings** section, click the **Account Level Cost Association To Projects** drop-down menu and select the unique project custom field.

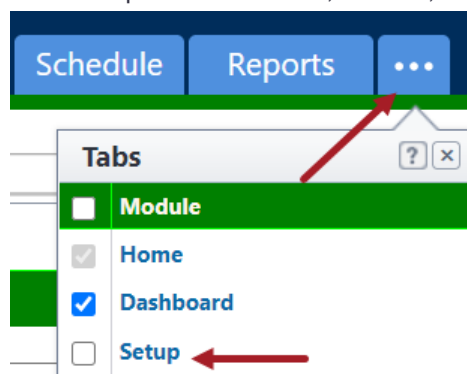
Set Account Cost Settings

Account Cost Settings help you define how you want to manage the budget. The Cost module has varying degrees of control over the budget and commitments. These controls are limits that can be placed on budgets and commitments to avoid exceeding approved amounts.

To configure the account cost settings

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Cost**.
3. Click **Cost Settings**.
4. Click the **Account Cost Settings** tab
5. In each of the available sections, define the appropriate settings.

For a description of the fields on this page, see [Cost Settings Page Overview - Account Cost Settings Tab](#).

6. Click **Save**.

Related Topics:

- [Managing Account Level Costs and Funding](#)

Enable Account Funding and Configure Settings

Note: Account level cost and account funding has to be enable on your account in order to utilize it. For more information, please contact Trimble Support.

Once this feature has been enabled on your account, it has to be activated within the system via Funding Settings.

To enable account level funding

1. Click **Setup** from the Top Navigation Menu.
2. From the Left Navigation menu, expand **Cost**, click **Funding**, and click **Settings**.
The Funding Settings page is displayed.
3. Click **Edit**.
4. In the **Account Funding Controls** section, select the **Enable Account Level Funding** check box.
Additional settings appear.
5. Complete the remaining settings to determine how you'd like to track funding for commitments and invoices.

For a description of these fields, see [Funding Settings Page Overview](#).


Manage Account Codes

Note: Once an account code is in use on a project, additional segments cannot be enabled or removed. For this reason, it is important to give a lot of thought and consideration to your account code structure before it is put to use.

Account codes are used to group the different categories in your budget across all projects. Each segment is the itemization of the segment that precedes it. For example, the activities that may occur during pre-construction, for which you will be billed might include the following: Site Preparation, legal fees and consulting services to name a few. In relation to the account code structure, Pre-construction, would be part of the first segment and all the events within this phase would comprise segment 2. Combined, the account codes make up the line items in your budget. Account codes can consist of 1 to 6 segments. The number of segments you choose to use will depend on the level of detail needed to track costs. Reports can be generated on all or some of your budget line items. The table below is a sample budget structure.

Note: The data in the tables below are only examples, you are free to choose the account codes and segment names that best suit the needs of your organization.

| 2-Segment Account Code Structure | | |
|----------------------------------|----------------------------------|-------------------|
| Account Codes | Segment 1/Segment 2 | Budget Line Item: |
| 1000 | Pre Construction | 1000.1000 |
| 1010 | Site Prep - Utilities and Fees | 1000.1010 |
| 1020 | Legal Fees | 1000.1020 |
| 1030 | Printing Costs | 1000.1030 |
| 1040 | Consulting/Professional Services | 1000.1040 |
| | | |
| 3-Segment Account Code Structure | | |
| Account Codes | Segment 1/Segment 2/Segment 3 | Budget Line Item: |
| 1000 | Pre Construction | 1000.1000.1000 |
| 1010 | Site Prep - Utilities and Fees | 1000.1010.1010 |
| 1100 | Demolition | 1000.1010.1100 |
| 1000 | Pre Construction | 1000.1000.1000 |
| 1020 | Legal Fees | 1000.1020.1020 |
| 1200 | Contract review | 1000.1020.1200 |
| 1000 | Pre Construction | 1000.1000.1000 |
| 1030 | Printing Costs | 1000.1030.1030 |
| 1040 | Sinage | 1000.1030.1040 |


Each segment itemizes the one that precedes it

Account codes and their descriptions can also be imported. For instructions, see Import Account Codes. Once code options have been entered, you cannot edit the field length until all the options in the drop down list have been deleted.

Fields

The fields located on the Manage Account Code page are:

- **Account Code Segment [number] Enabled:** Select this check box to enable the account code segment.
- **Segment Name:** The segment names are used to identify what each section in the account code represents. For example, the first segment could be the *Category*, such as *Pre-Construction*; the second segment might be the subcategory, which might include options such as Site-prep, Utilities and Fees, Legal Fees and other financial transactions that might occur during pre-construction. Each segment can be up to 20 alpha-numeric characters long. As an option, you can configure the segment to be a drop-down list by selecting the **Use Drop Down List** check box.
- **Length:** You can also assign the lengths of each segment. This refers to the maximum number of characters a particular segment can include.
- **Separator Character:** Enter a character to separate the data between two or more segments. For example, you could enter a hyphen (-) or a comma (,) to help you identify codes more quickly, such as separating segments two through four, for instance.
- **Display:** This check box controls whether or not a segment is displayed in the user interface. For example, you may have the following sequence:
CO-DO-E1, CO-DO-E2, CO-DO-E3, etc.

You can choose to not display the second segment, so that your display would only show:
CO-E1, CO-E2, CO-E3, etc.

This check box can be selected or cleared at any time, but at least one segment must be displayed. Also, the segment must not be unique across all projects. With this check box selected, you can see a preview of what the account code will look like in the **Sample Budget Line Item** field. The account codes can be saved when all the segments have been defined and they are displayed in the desired format.

Note: Once an account code is in use on a project, segments cannot be enabled or removed.

- **Use Drop Down List:** You can enable the drop down capability of a segment this will give users a defined group of categories to select from. Alternatively you can allow the segment information to be completed manually by leaving this check box clear.

Tip

If your implementation includes multiple project managers who manage a number of projects and they want to use their own codes, you can create a segment that is free entry by leaving this check box clear. This enables each project manager to create their own codes as their specific project needs dictate. However, please be aware that segment override is not available with Free-Entry segments.

If you select the **Use Drop Down List** check box, the **Drop Down List Options** field will become active, allowing you to enter the options to select for that segment. Clicking the **Edit Options** link opens the Account Code Segment Options window from which you are able to import account codes using a Microsoft Excel® spreadsheet. For more information, see, Import Account Codes. Enter the code with the character length designated for that segment and a description of the code.

- **Drop-Down List Options:** This field is enabled only when the **Use Drop Down List** check box is selected. Enter drop-down list options in this field.

Import Account Codes

To import account codes

1. Go to the Cost settings.
2. Click **Manage Account Codes**. The Manage Account Codes page is displayed.
3. Click the **Use Drop Down List** check box.
4. Click the **Edit Options** link. A warning message displays.
5. Click **OK**. The Cost Segment Options page is displayed.
6. Click **Import**.
7. Click **Browse**
8. Search for and select the Microsoft Excel®(.xls) file you'd like to import.
9. Click **Next**.
10. Click the **Option** drop-down arrow and make a selection.

11. Click **Next**.
12. Click **Import**.

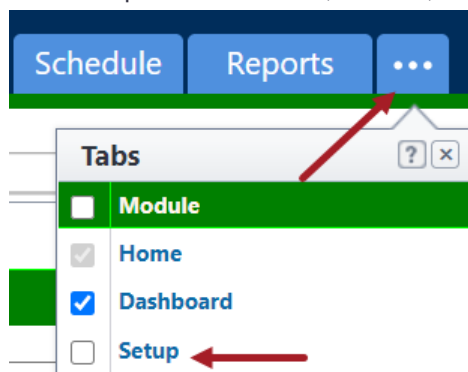
Cost Settings Page

Cost settings help you define how you want to manage the budget. The Cost module has varying degrees of control over the budget and commitments. These controls are limits that can be placed on budgets and commitments to avoid exceeding approved amounts.

To access the Cost Settings page

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Cost**.
3. Click **Cost Settings**.

A description of each setting on the Cost Settings page is located below:

Note: When commitments, invoices, and budgets are added or changed, e-Builder performs cost control validations. See Cost Control Validations for more information.

Controls Tab

Select Default Budget Control Setting

- **Uncontrolled:** Select this option to configure an uncontrolled budget. This will allow commitments and general invoices to exceed the approved budget amount. If selected, this will be the default setting when users create a *new* budget on a project. To grant users the ability to change this default option, select the **Allow this setting to be changed on individual budgets** check box.

These settings can be changed at any time to be less strict. Please be aware that once in use, you cannot go from an uncontrolled budget to controlled by total, for example, but you can go from controlled by total to uncontrolled.

- **Controlled Total:** Select this option to prohibit commitments, general invoices and budget changes from exceeding the total approved budget amount.

If selected, this will be the default setting when users create a new budget on a project. To grant users the ability to change this default option, select the **Allow this setting to be changed on individual budgets** check box.

- **Controlled By Line Item:** Select this option to prohibit commitments, general invoices and budget changes from exceeding approved budget line item amounts.

If selected, this will be the default setting when users create a *new* budget on a project. To grant users the ability to change this default option, select the **Allow this setting to be changed on individual budgets** check box.

- **Allow this setting to be changed on individual budgets:** Select this check box to add some flexibility to any of the previously listed default budget control settings. This will give all users with Add/Edit permissions the option to override cost control settings for an individual project budget, should the need arise.

- **Allow a tolerance percentage on budget cost control validations:** Select this check box to allow a certain percentage above the budget to be paid out before the cost control violation is triggered. When this option is enabled, users will not be able to approve commitments or invoices that exceed the budget tolerance. This feature may be necessary if it's an acceptable or common practice to pay on an invoice up to a certain percentage above the line item amount.

Enter a default percentage in the **Budget Cost Control Tolerance** field. This percentage will act as a suggestion, as the tolerance can be changed by users before the budget is approved.

Note: If this setting is disabled at any time, saved commitments and invoices will still honor the tolerance amount when approved.

Select Default Commitment Control Setting

- **Uncontrolled:** Select this option to allow commitment invoices and commitment changes to exceed commitment amounts.
- **Controlled Total:** Select this option to set restrictions based on total approved commitments. This will allow commitment invoices and commitment changes to exceed commitment line items, but not the total committed amount.
- **Controlled By Line Item:** Select this option to add restrictions based on commitment line items. Commitment invoices and commitment changes will not be able to exceed approved commitment line item amounts.
- **Allow this setting to be changed on individual commitments:** Select this check box to add some flexibility to any of the options selected above. This will give all users with Add/Edit permissions the option to override commitment control settings for an individual project budget, should the need arise.

- **Allow a tolerance percentage on commitment cost control validations:** Select this check box to allow a certain percentage above the commitment to be paid out before the cost control violation is triggered. This feature may be necessary if it's an acceptable or common practice to pay on an invoice up to a certain percentage above the line item amount.

Enter a default percentage in the **Commitment Cost Control Tolerance** field. This percentage will act as a suggestion, as the tolerance can be changed by users when adding or editing a commitment. However, users will not be able to approve commitments or invoices that exceed the budget tolerance.

Note: If this setting is disabled at any time, saved commitments will still honor the tolerance amount when the commitment is approved.

Settings Tab

Miscellaneous Settings

- **Allow users with add/edit budget permission to approve net \$0.00 budget changes:** This check box is selected by default. If selected, users with add/ edit budget permissions can approve zero-sum budget changes. If not selected, users need the approve budget changes permission to approve zero-sum changes.

See Manage Permissions for more information.

- **Allow users with add/edit commitment permission to approve net \$0.00 commitment changes:** This check box is selected by default. If selected, users with add/ edit commitment permissions can approve zero-sum commitment changes. If not selected, users need the approve commit changes permission to approve zero-sum changes.

See Manage Permissions for more information.

- **Auto-fill budget change numbers when adding budget changes:** This check box is selected by default. If selected, budget change numbers auto-fill chronologically when adding budget changes, but these numbers can also be edited. If not selected, the budget change number has to be entered manually.
- **Auto-fill commitment numbers when adding commitments:** This check box is selected by default. If selected, commitment numbers auto-filled chronologically when adding commitments, but these numbers can also be edited. If not selected, the commitment number has to be entered manually.
- **Auto-fill commitment change numbers when adding commitment changes:** This check box is selected by default. If selected, commitment change numbers auto-filled chronologically when adding commitment changes, but these numbers can also be edited. If not selected, the commitment change number has to be entered manually.
- **Auto-fill invoice numbers when adding general / commitment invoices:** This check box is selected by default. If selected, invoice numbers auto-filled chronologically when adding invoices, but these numbers can also be edited. If not checked, the invoice number has to be entered manually.

- **Notify users when approval requested:** Select this check box to send an email notification to all users with add/ edit permissions, every time an approval is requested for a budget or commitment change. Permissions are based on specific cost entities such as Add/ Edit Budget, Approve Final Budget etc. For more information, see Manage Permissions.
- **Allow users to create new company / contact when adding / editing invoices / commitments:** This check box is selected by default. If selected, users with add/ edit contact permission are able to create new company and contacts while adding or editing invoices or commitments. For more information on user permissions, see Manage Permissions.
- **Allow users to close a commitment with unapproved commitment change(s), unapproved commitment invoices, or a non-zero balance:** Select this check box to allow users with add/edit permission to close a commitment with unapproved commitment changes, unapproved commitment invoices, or a non-zero balance attached to the commitment.
- **Validate cost controls when requesting approval:** Select this check box to enforce cost control validations when budget, budget changes, commitment, commitment changes and actual cost approvals are requested. If this check box remains clear, cost controls will not be validated until the item is approved. The benefit of choosing this option is that potential cost control violations will be caught earlier on; when the approval is requested, as opposed to when the item is being approved.
- **Default Invoice Date Received:** Select this check box to default the invoice Date Received field to the present date (the date in which the invoice is being added to the system). You may or may not choose to default this date based on how invoices are processed in your organization. If this date is defaulted and invoices are typically processed at the end of each work week, for example, the invoice processor will have to be mindful of this and remember to change the default date. Conversely, if invoices are processed the same day they are received, having this date defaulted would be a convenience.

Select Project Contact Settings

- **Automatically add companies and contacts to project contacts when assigned to a commitment or invoice:** Select this radio button if you wish to have e-Builder automatically add companies/ contacts to the project when they are assigned to an invoice or a commitment.
- **Do not automatically add project contacts when committing or invoicing:** Select this radio button if you wish to not have the selected company/ contact on a commitment/ general invoice added to the project contacts list.

Restrict Additional Scope Account Codes to Commitment

Select roles/ users to enforce restriction on.

- **All Users:** Select this radio button to not allow users with commitment change permissions to add additional scope items to the commitment. Users can create a commitment change only for those items with the same account code.

- **Selected roles:** Select this radio button to display roles to choose from. If selected, the All Roles box displays for you to choose selected roles that are allowed to add additional scope items to the commitment. Users can create a commitment change only for those items with the same account code.
- **No Users:** Select this radio button to set no restrictions at all. If selected, anyone can add additional scope to the commitment.

Attached Documents Default Upload Folder Settings

This section gives you the ability to set a default upload folder for documents attached to any of the cost entities listed below.

- **Budget:** Set a default folder path for documents attached to the budget. This setting will apply to all projects. Select the **Allows users to place the file in a different folder** check box to allow team members to make a different folder selection at the time of upload.
- **Budget Change:** Set a default folder path for documents attached to the budget change. This setting will apply to all projects. Select the **Allows users to place the file in a different folder** check box to allow team members to make a different folder selection at the time of upload.
- **Commitment:** Set a default folder path for documents attached to the commitment. This setting will apply to all projects. Select the **Allows users to place the file in a different folder** check box to allow team members to make a different folder selection at the time of upload.
- **Commitment Change:** Set a default folder path for documents attached to the commitment change. This setting will apply to all projects. Select the **Allows users to place the file in a different folder** check box to allow team members to make a different folder selection at the time of upload.
- **Commitment Invoice:** Set a default folder path for documents attached to the commitment invoice. This setting will apply to all projects. Select the **Allows users to place the file in a different folder** check box to allow team members to make a different folder selection at the time of upload.
- **General Invoice:** Set a default folder path for documents attached to the general invoice. This setting will apply to all projects. Select the **Allows users to place the file in a different folder** check box to allow team members to make a different folder selection at the time of upload.
- **Cash Flow:** Set a default folder path for documents attached to the cash flow. This setting will apply to all projects. Select the **Allows users to place the file in a different folder** check box to allow team members to make a different folder selection at the time of upload.
- **Funding Source:** Set a default folder path for documents attached to the funding source. This setting will apply to all projects. Select the **Allows users to place the file in a different folder** check box to allow team members to make a different folder selection at the time of upload.

- **Forecasting:** Set a default folder path for documents attached to the forecast. This setting will apply to all projects. Select the **Allows users to place the file in a different folder** check box to allow team members to make a different folder selection at the time of upload.

Account Cost Settings

This tab is visible if Account-level cost is enabled on your account.

Select default master commitment control setting

The total of project commitment and project commitment changes cannot exceed the master commitment based on this setting.

- **Uncontrolled:** Select this option to allow project commitment line items or project commitment change line items to exceed master commitment amounts.
- **Controlled Total:** Select this option to set restrictions based on total approved master commitments. This will allow project commitment items and project commitment change items to exceed master commitment line items, but not the total master commitment amount.
- **Controlled By Line Item:** Select this option to add restrictions based on master commitment line items. Project commitment line items and project commitment change items will not be able to exceed approved master commitment line item amounts.
- **Allow this setting to be changed on individual commitments:** Select this check box to add some flexibility to any of the options selected above. This will give all users with Add/ Edit permissions the option to override master commitment control settings for an individual master commitment, should the need arise.
- **Allow a tolerance percentage on commitment cost control validations:** Select this check box to allow a certain percentage above the commitment to be approved before the cost control violation is triggered. Enter a default percentage in the **Master Commitment Cost Control Tolerance** field. This percentage will act as a suggestion, as the tolerance can be changed by users when adding a master commitment. However, users will not be able to approve project commitments or project commitment changes that exceed the master commitment tolerance.

Note: If this setting is disabled at any time, saved commitments will still honor the tolerance amount when the commitment is approved.

Select Default Master Invoice Control Setting :

The total of project commitment and project commitment invoices cannot exceed the master commitment based on this setting.

- **Uncontrolled:** Select this option to allow master commitment invoices and master commitment changes to exceed commitment amounts.
- **Controlled Total:** Select this option to set restrictions based on total approved master commitments. This will allow master commitment invoices and master commitment changes to exceed master commitment line items, but not the total committed amount.

- **Controlled By Line Item:** Select this option to add restrictions based on commitment line items. Commitment invoices and commitment changes will not be able to exceed approved commitment line item amounts.
- **Allow this setting to be changed on individual commitments:** Select this check box to add some flexibility to any of the options selected above. This will give all users with Add/ Edit permissions the option to override master commitment control settings for an individual project budget, should the need arise.
- **Allow a tolerance percentage on commitment cost control validations:** Select this check box to allow a certain percentage above the commitment to be paid out before the cost control violation is triggered. This feature may be necessary if it's an acceptable or common practice to pay on an invoice up to a certain percentage above the line item amount.

Enter a default percentage in the **Master Commitment Cost Control Tolerance** field. This percentage will act as a suggestion, as the tolerance can be changed by users when adding or editing a commitment. However, users will not be able to approve commitments or invoices that exceed the budget tolerance.

Note: If this setting is disabled at any time, saved commitments will still honor the tolerance amount when the commitment is approved.

Restrict Additional Scope Account Codes to Master Commitment

Select roles/users to enforce restriction on:

- **All Users:** Select this option to not allow users with commitment change permissions to add additional scope items to the commitment. Users can create a commitment change only for those items with the same account code.
- **Selected Roles:** Select this option to display roles to choose from. If selected, the All Roles box displays for you to choose selected roles that are allowed to add additional scope items to the commitment. Users can create a master commitment change only for those items with the same account code.
- **No Users:** Select this radio button to set no restrictions at all. If selected, anyone can add additional scope to the commitment.

Account Level Cost Creation Options

Select the method of initiating new funding, master commitments, changes and invoices. These can be created without a workflow (accessible through standard cost) or can be configured to use specific workflows or can be left to be a user choice at the time of creation.

Miscellaneous Settings

- **Allow users with add/edit master commitment permission to approve net \$0.00 commitment changes:** This check box is selected by default. If selected, users with add/edit master commitment permissions can approve zero-sum master commitment changes. If not selected, users need approve master commitment changes permissions to approve zero-sum changes.

- **Auto-fill master commitment numbers when adding master commitments:** This check box is selected by default. If selected, master commitment numbers auto-filled chronologically when adding master commitments, but these numbers can also be edited. If not selected, the master commitment number has to be entered manually.
- **Auto-fill master commitment change numbers when adding master commitment changes:** This check box is selected by default. If selected, master commitment change numbers auto-filled chronologically when adding master commitment changes, but these numbers can also be edited. If not selected, the master commitment change number has to be entered manually.
- **Auto-fill master invoice numbers when adding master invoices:** This check box is selected by default. If selected, master invoice numbers auto-filled chronologically when adding invoices, but these numbers can also be edited. If not checked, the invoice number has to be entered manually.
- **Notify users when approval is requested on account level cost entities:** Select this check box to send an email notification to all users with add/ edit permissions, every time an approval is requested for a master commitment, master commitment change or master invoice. Permissions are based on specific cost entities.
- **Allow users to create new company/contact when adding/editing master commitments:** This check box is selected by default. If selected, users with add/ edit contact permissions are able to create new company and contacts while adding or editing master commitments.
- **Allow users to close a master commitment with unapproved commitment change(s), unapproved commitment invoices, or a non-zero balance:** Select this check box to allow users with add /edit permissions to close a master commitment with unapproved commitment changes, unapproved commitment invoices, or a non-zero balance attached to the commitment.
- **Validate cost controls when requesting approval on account level cost:** Select this check box to enforce cost control validations when approvals on master commitments, master commitment changes and master invoice are requested. If this check box remains clear, cost controls will not be validated until the item is approved. The benefit of choosing this option is that potential cost control violations will be caught earlier on; when the approval is requested, as opposed to when the item is being approved.
- **Default Master Invoice Date Received:** Select this check box to default the master invoice Date Received field to the present date (the date in which the invoice is being added to the system). You may or may not choose to default this date based on how invoices are processed in your organization. If this date is defaulted and invoices are typically processed at the end of each work week, for example, the invoice processor will have to be mindful of this and remember to change the default date. Conversely, if invoices are processed the same day they are received, having this date defaulted would be a convenience.

- **Account Level Cost Association to Projects:** This field contains unique project number custom fields. Choose a field to help further identify which projects the project-level-costs are associated with when attached to master commitments. This will help you identify projects by a unique identifier instead of relying on transaction descriptions.

Reason Codes

Budget/Commitment change reason codes are used to classify reasons behind commitment and budget changes. By simply viewing the reason code, users are able to identify the purpose of a change at a glance. Reason codes are used to categorize changes made to the budget or commitment after it has been approved. When adding reason codes to e-Builder, you will decide whether to apply the change to the current budget/commitment (this amount includes all approved changes) or to the original budget/commitment. This decision will affect the figures represented in the corresponding Financial Summary columns, the Quick Cost Summary and in cost-related reports.

Default reasons are available to help you get started, but you can also create your own set of change codes with nomenclature typically used on your projects, or both. The default codes are as follows:

- Design Change
- Error/Omission
- Field Condition
- Owner Directive

For more information and procedures on reason codes, the following topics are included in this section:

- Manage Budget/Commitment Change Reason Codes
- Manage Change Reason Codes Page Overview
- Manage Master Commitment Change Reason Codes Page Overview

Working with Change Reason Codes

In managing reason codes, you are able to add, edit or delete new and existing reason codes. The Apply Approved Change To option allows you to choose whether the reason code will be applied to approved changes or to the original budget amount. For more information, see Reason Codes.

The procedures below apply to both budget and commitment change reason codes. The following sections are included in this topic:

- Use Default Budget/ Commitment Change Reason Codes
- Add Budget/Commitment Change Reason Codes
- Edit Budget/Commitment Change Reason Codes

To use default budget commitment change reason codes

1. Go to the Cost settings.
2. Expand **Reason Codes**.
3. Click **Budget Change** or **Commitment Change**. The Manage Budget/ Commitment Change Reason

Codes page displays.

4. Click **Use Defaults**.

To add new budget or commitment change reason codes

1. Go to the Cost settings.
2. Expand **Reason Codes**.
3. Click **Budget Change** or **Commitment Change**.

The Manage Budget/Commitment Change Reason Codes page displays.

4. In the **Reason Code** field, enter the name of the new reason code.
5. Click the **Apply Approved Change To** drop-down arrow and make a selection.
6. Enter a description in the **Description** field.
7. Click **Save**.

To edit budget or commitment change reason codes

You have the ability to modify reason code names, description or to which change the code will apply; whether approved budget changes or to the original budget.

1. Go to the Cost settings.
2. Click **Reason Codes**.
3. Click **Budget Change** or **Commitment Change**. The Manage Budget/Commitment Change Reason Codes page displays.
4. Click the **Edit** link located to the left of the item you want to modify.
The fields of the selected item become editable.
5. Make any of the following changes:
 - Change the name of the code in the Code field.
 - Change the description of the code in the Description field.
 - Click the drop-down arrow in the Applies To column and select either Approved Change or Original Amount.
6. Click **Save**.

Manage Change Reason Codes Page

Fields and Buttons

The fields and buttons on this page are:

Add New Reason Code

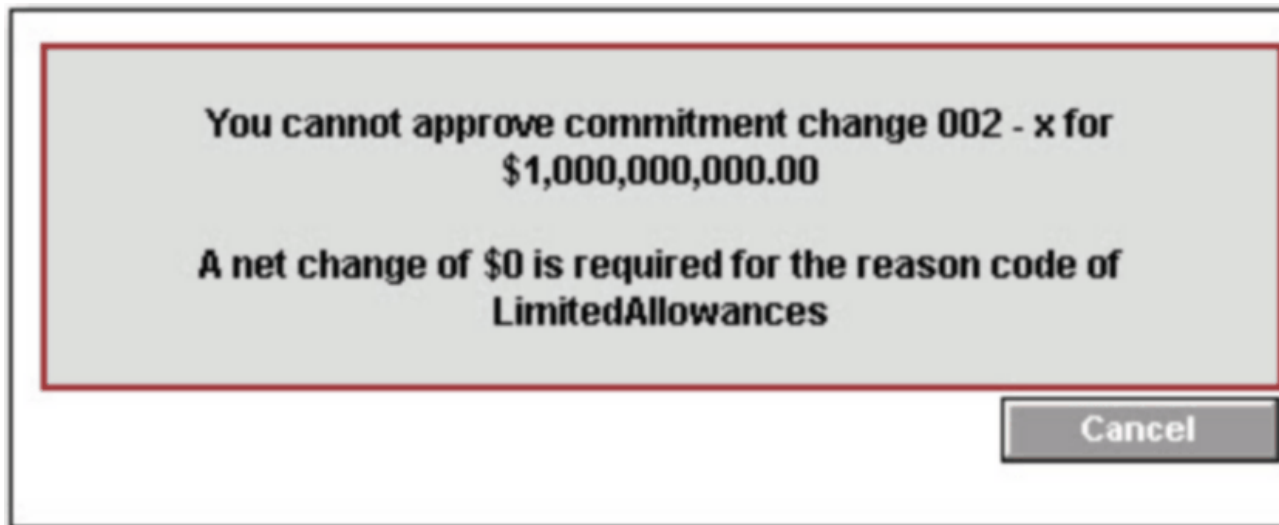
- **Save (Button):** Click this button to save added reason.
- **Cancel:** Click this button to disregard changes. Unsaved changes will be lost.
- **Reason Code:** Enter the name of the new reason code in this field.
- **Apply Approved Change To:** Click this drop-down arrow to select what the commitment reason code will be applied to; whether to the Original Amount or to Approved Changes.
- **Description:** Enter a description of the commitment change reason code in this field.

- **Allow only net \$0 changes:** This setting pertains to allowances. Select this check box if the reason for the commitment change may only result in a \$-0- dollar net change to the contract.

Example

If the allowance agreed to is \$100,000, but the contractor then indicates to the owner that he finds it will cost \$128,000 to do the work, e-Builder will display a validation when the commitment change is entered. Based on this example, if this check box is selected, the dollar amount of the commitment change may not exceed \$100,000.00; because the net total of the change must equal \$0 in order for the change to be approved. This rule applies for both changing and approving commitment items.

If this restriction is checked, the total shown when adding or editing a commitment will be shown in red if the net amount is not -0-. Below is a sample of the message that displays if, for example, an Administrator attempted to approve the disbursement of an amount that is more than the allowance item amount:



- **Allowance reason code:** Select this check box to indicate that the change to the commitment involves an allowance. An allowance is an estimated amount of funds set aside for a particular item allowances do not include a detailed cost breakdown, and most importantly, cannot be charged against.

Example

Charges might be set aside as an allowance item if for instance, a project is four years from completion and figures for FF&E (furniture, fixtures and equipment) could not be determined yet, because it's impossible to foresee what the latest furniture and equipment will be, or the cost of these items, so far in advance. This commitment could then be an allowance item in order to set money aside until the project nears completion.

Once this check box is selected, the Limit change items to same account code as allowance item check box displays.

- **Limit change items to same account code as allowance item:** This check box displays when the **Allowance reason code** check box is selected. Select this check box to indicate that the change to the commitment must be made to the same account code as the allowance item. For example, if the allowance item was flooring, and the account code for flooring was 01-3.0117, then selecting this option will require that the commitment change be made to that same account code.

Note: Allowances cannot be selected as a change item.

Reason Codes Section

- **Edit:** Click this link to enter edit mode and modify commitment change reason code details. All fields for the selected row become editable.
- **Delete (Link):** Click this link to delete the reason code located on the selected row.
- **Save (Link):** This link displays next to the Edit link when a reason code is in edit mode. Click this link to save changes for the selected reason code.
- **Code:** This field displays the name of the commitment change reason code. In edit mode the name can be changed from this field.
- **Description:** This field displays the description of the commitment change reason code. In edit mode the description can be changed from this field.
- **Applies To:** This field displays whether the commitment change reason code applies to approved changes or to the original amount. Click the Edit link to change this setting.
- **Net \$0:** A check mark in this field indicates that the commitment change reason code allows only net \$0 changes. Click the Edit link to change this setting. Select this check box if the reason for the commitment change may only result in a \$-0- dollar net change to the contract.
For example: If the allowance agreed to is \$100,000, but the contractor then indicates to the owner that he finds it will cost \$128,000 to do the work, e-Builder will display a validation when the commitment change is entered. Based on this example, if this check box is selected, the dollar amount of the commitment change may not exceed \$100,000.00; because the net total of the change must equal \$0 in order for the change to be approved. This rule applies for both changing and approving commitment items.
- **Allowance:** A check mark in this field indicates that the commitment change reason code applies to allowances. Click the Edit link to change this setting. An allowance is an estimated amount of funds set aside for a particular item allowances do not include a detailed cost breakdown.
- **Limit Items:** A check mark in this field indicates that the commitment change reason code applies to an allowance and has to use the same account code as the allowance item. This check box can only be selected if the Allowance check box is selected. Click the Edit link to change this setting.
- **Delete (Button):** Click this button to delete a reason code after respective check boxes have been selected.

Manage Master Commitment Change Reason Codes

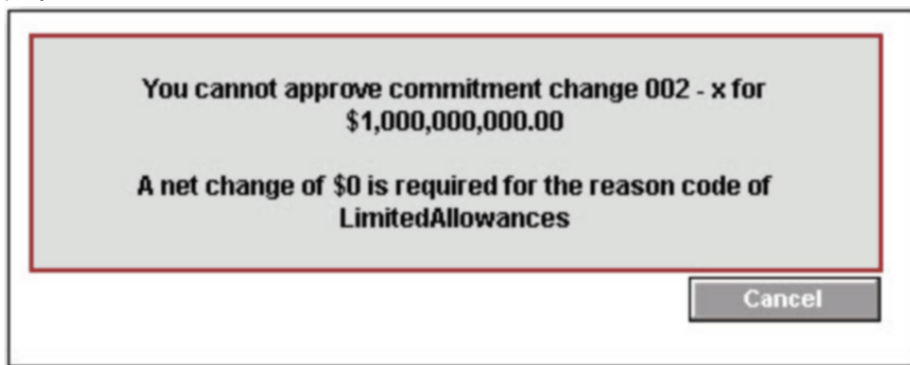
The fields and buttons located on this page are:

Add New Reason Code - Fields and Buttons

- **Save (Button):** Click this button to save added reason.
- **Cancel:** Click this button to disregard changes. Unsaved changes will be lost.
- **Reason Code:** Enter the name of the new reason code in this field.
- **Apply Approved Change To:** Click this drop-down arrow to select what the commitment reason code will be applied to; whether to the Original Amount or to Approved Changes.
- **Description:** Enter a description of the commitment change reason code in this field.
- **Allow only net \$0 changes:** This setting pertains to allowances. Select this check box if the reason for the commitment change may only result in a \$-0- dollar net change to the contract.

Example

If the allowance agreed to is \$100,000, but the contractor then indicates to the owner that he finds it will cost \$128,000 to do the work, e-Builder will display a validation when the commitment change is entered. Based on this example, if this check box is selected, the dollar amount of the commitment change may not exceed \$100,000.00; because the net total of the change must equal \$0 in order for the change to be approved. This rule applies for both changing and approving commitment items. If this restriction is checked, the total shown when adding or editing a commitment will be displayed in red if the net amount is not -0-. For example, if an Administrator attempted to approve the disbursement of an amount that is more than the allowance item amount, the following sample message may be displayed:



- **Allowance reason code:** Select this check box to indicate that the change to the commitment involves an allowance. An allowance is an estimated amount of funds set aside for a particular item allowances do not include a detailed cost breakdown, and most importantly, cannot be charged against. Once this check box is selected, the Limit change items to same account code as allowance item check box displays.

Example

Charges might be set aside as an allowance item if for instance, a project is four years from completion and figures for FF&E (furniture, fixtures and equipment) could not be determined yet, because it's impossible to foresee what the latest furniture and equipment will be, or the cost of these items, so far in advance. This commitment could then be an allowance item in order to set money aside until the project nears completion.

- **Limit change items to same account code as allowance item:** This check box displays when the Allowance reason code check box is selected. Select this check box to indicate that the change to the

commitment must be made to the same account code as the allowance item. For example, if the allowance item was flooring, and the account code for flooring was 01-3.0117, then selecting this option will require that the commitment change be made to that same account code.

Note: Allowances cannot be selected as a change item.

Reason Codes Section - Fields and Buttons

- **Edit:** Click this link to enter edit mode and modify commitment change reason code details. All fields for the selected row become editable.
- **Delete (Link):** Click this link to delete the reason code located on the selected row.
- **Save (Link):** This link displays next to the Edit link when a reason code is in edit mode. Click this link to save changes for the selected reason code.
- **Code:** This field displays the name of the commitment change reason code. In edit mode the name can be changed from this field.
- **Description:** This field displays the description of the commitment change reason code. In edit mode the description can be changed from this field.
- **Applies To:** This field displays whether the commitment change reason code applies to approved changes or to the original amount. Click the Edit link to change this setting.
- **Net \$0:** A check mark in this field indicates that the commitment change reason code allows only net \$0 changes. Click the Edit link to change this setting. Select this check box if the reason for the commitment change may only result in a \$-0- dollar net change to the contract.
- **Example**
For example: If the allowance agreed to is \$100,000, but the contractor then indicates to the owner that he finds it will cost \$128,000 to do the work, e-Builder will display a validation when the commitment change is entered. Based on this example, if this check box is selected, the dollar amount of the commitment change may not exceed \$100,000.00; because the net total of the change must equal \$0 in order for the change to be approved. This rule applies for both changing and approving commitment items.
- **Allowance:** A check mark in this field indicates that the commitment change reason code applies to allowances. Click the Edit link to change this setting. An allowance is an estimated amount of funds set aside for a particular item allowances do not include a detailed cost breakdown.
- **Limit Items:** A check mark in this field indicates that the commitment change reason code applies to an allowance and has to use the same account code as the allowance item. This check box can only be selected if the Allowance check box is selected. Click the Edit link to change this setting.
- **Delete (Button):** Click this button to delete a reason code after respective check boxes have been selected.

Commitment Types

Having commitment types is a way to group the different kinds of commitments used on your projects. They are also used for reporting purposes. The commitment type is assigned whenever a new commitment is entered into e-Builder. In working with commitment types, you can create new ones, edit or delete existing ones. The following topics are included in this section:

- [Manage Commitment Types Page Overview](#)
- [Working with Commitment Types](#)
- [About the Payment Application](#)

Manage Commitment Types Page

The following is an overview of the Manage Commitment Types page.

Add New Commitment Type

- **Save:** Click to save added commitment types.
- **Cancel:** Click to disregard changes. Unsaved changes will be lost.
- **Commitment Type:** Enter the name of the commitment type in this field.
- **Description:** Enter a description of the commitment type in this field.
- **Use for master commitments:** When Account Level Cost is enabled, at least one commitment type must be associated with this setting in order to create a new master commitment.
- **Use Pay Application:** Select this check box to enable the payment application feature.
- **Allow \$0 Commitment Change Line Items:** You can configure a commitment type so that associated commitments will allow the approval of \$0 commitment change line items. \$0 commitment change line items might be needed for occasions where \$0 changes must be submitted to reflect scheduled changes which do not involve changes to cost.
- **Use for Project Sight SOV import:** Select this check box if this commitment type is used for imported ProjectSight Schedule of Values. Note that the SOV import cannot be enabled if the commitment type is used for master commitments.

Commitment Types

- **Edit:** Click this link to enter edit mode and modify commitment type details. All fields for the selected row become editable.
- **Delete (Link):** Click this link to delete the commitment type located on the selected row.
- **Save (Link):** This link displays next to the Edit link when a commitment type is in edit mode. Click this link to save changes for the selected commitment type.
- **Code:** This field displays the name of the commitment type. In edit mode the name can be changed from this field.
- **Description:** This field displays the description of the commitment type. In edit mode the description can be changed from this field.
- **Use for Master Commitment:** A check mark in this field indicates that the commitment type will only be available for master commitments.
- **Use Pay Application:** A check mark in this field indicates that the commitment type is flagged as a payment application commitment. Click the Edit link to make changes. For more information about the payment application feature, see About the Payment Application.
- **Allow \$0 Change Line Items:** A check mark in this field indicates that the commitment type allows the approval of \$0 commitment change line items. \$0 commitment change line items might be needed for occasions where \$0 changes must be submitted to reflect scheduled changes which do not involve changes to cost.

- **Delete (Button):** Click this button to delete one or more commitment types at a time. Select the check mark next to the commitment type(s) that you want to delete, and then click this button.

Working with Commitment Types

In working with commitment types, you can create new ones, edit or delete existing ones. The following sections are included in this topic:

- Add Commitment Types
- Edit Commitment Types

Adding Commitment Types

To add commitment types

1. Go to the Cost settings.
2. Click **Commitment Types**. The Manage Commitment Types page displays.
3. In the **Commitment Type** field, enter the name of the new commitment type.
4. Enter a description in the **Description** field.
5. Indicate if this commitment type will be used for master commitments. For more information, see Managing Account Level Costs and Funding.
6. Indicate if this commitment type will use the pay application by selecting the **Use Pay Application** check box or leaving it blank. For more information on the Pay App, see About the Payment Application.
7. Click **Save**.

Editing Commitment Types

Editing a commitment type that is already in use will effectively update the commitment code on all commitments using the commitment type. Also, if a commitment type is already using the pay application and it is in use, you cannot clear the Use Pay Application check box.

To edit commitment Types

1. Go to the Cost settings.
2. Click **Commitment Types**. The Manage Commitment Types page displays.
3. Click the **Edit** link located to the left of the item you want to modify. The fields of the selected item become editable.
4. Make any of the following changes:
 - Change the name of the commitment type in the Code field.
 - Change the description of the commitment type in the Description field.
 - If applicable, select the Use Pay Application check box. For more information on the Pay Application, see About the Payment Application.
5. Click **Save**.

About the Payment Application


Trimble Unity Construct's application for payment feature supports widely used standards for processing invoices. By flagging commitment types to use the payment application functionality, pay app specific columns become available while processing an application for payment (commitment invoice) throughout the Cost and Processes modules. The Application for Payment feature is a fit for clients who already use or want to start using industry standard invoice processing. Additionally, clients may choose to enable the payment application to take advantage of the schedule of values download and import capabilities.

| Invoice Items | | | | Download Schedule of values worksheet.xls | | | | | | | | | | Import Invoice Items | | Manage Funding | |
|-------------------|---------------------|------------------------------|----------------------|---|--|-------------|----------------------------------|---------------------------------|--|-----------|---------------------------|--------------------------|----------------------|-----------------------|----------------------|----------------|--|
| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | | |
| Commitment Item # | Description of Work | Budget Code with Description | Funding Rule | Scheduled Value | Work In Place From Previous Application(s) | This Period | Total Materials Presently Stored | Current Payment Due This Period | Total Completed and Stored To Date (D + E + F) | % (G / C) | Balance to Finish (C - G) | Retainage Release Amount | Retained This Period | Amount Less Retainage | Cumulative Retainage | | |
| 001 | Legal / SEA Fees | 04 - Legal / SEA Fees | Atlanta Legis - Edit | 500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 500.00 | 0.00 | 0.00 | 0.00 | -550.00 | | |
| Total | | | | 500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 500.00 | 0.00 | 0.00 | 0.00 | -550.00 | | |

Payment Application - Columns

The columns on the payment application as they display for commitment invoices are described below:

- **A - Commitment Item #:** This column displays the commitment number.
- **B - Description of Work:** This column displays the description of work for the respective commitment line item.
- **Budget Code with Description:** This column displays the budget code and description of the budget line item that the commitment is associated with.
- **Funding Rule:** This column displays the funding rule used for the commitment invoice. Click the drop-down arrow to make a selection if an option is not populated. Action cannot be taken on a commitment invoice (Request Approval, Approve, Mark as Paid etc.) if a funding rule is not selected.
- **C - Scheduled Value:** This column displays the amount of the commitment item.
- **D - Work in Place from Previous Application(s):** This column displays the total approved invoice amount from previous payment applications for work in place excluding any previously stored material.
- **E - This Period:** This column displays the amount of work in place for this period.
- **F - Total Materials Presently Stored:** This column displays the net materials store, which is the materials stored from previous payment applications and newly delivered items awaiting payment for this period.
- **G - Total Completed and Stored to Date (D+E+F):** This column displays the amount of work completed and stored to date, which is the sum of work in place from previous payment applications, the amount of work in place for this period and the total amount of material stored to date, including newly delivered items awaiting payment.
- **H - % (G/C):** This column displays the total amount of materials completed and stored divided by the commitment amount.
- **I - Balance to Finish (C-G):** This column displays the remaining balance.
- **J - Retainage Release Amount:** This column displays the amount of remaining retainage.
- **Retained This Period:** This column displays the invoice amount retained for this period
- **Amount Less Retainage:** This column displays the net invoice amount due for payment for this period

- **K - Cumulative Retainage:** This column displays the cumulative retainage amount for all previous payment applications.
- **Edit Invoice Custom Fields Icon** (): Click this icon to add or modify invoice item custom fields.

Cost Custom Fields

Cost custom fields are definable fields that drive reporting for cost items. Custom fields are created to contain additional cost information that is not part of the standard cost data or used in reports to define or separate cost information.

Within the Cost module, custom fields exist for the following components, which are located throughout the module:

- Budget
- Budget Line Item
- Budget Change
- Commitment
- Commitment Change
- Invoice
- Funding Source
- Cash Flow

Custom fields for each of these items are added in the same way. Follow the steps below to add Cost-related custom fields.

1. Click the **Setup** link.
2. In the **Administration Tools** section, click **Cost**.
3. Click **Custom Fields**, and then select the respective cost area you'd like to add custom fields to.
4. Click **Add Field**.
The Add Custom Field page is displayed.
5. Select a data type radio button, and then click **Next**.
6. Enter all required fields, and then click **Next**.
7. Click **Save** to complete the process or **Save & Add** to add more fields.

About Commitment Item Custom Fields

Custom fields in Trimble Unity Construct are definable fields that drive the reporting needs of an organization. Custom fields allow administrators to group, filter, or categorize information according to specific business processes. Specifically, commitment line item custom fields (CLICF) allow you to define account-specific values at the individual line item level for commitments / commitment changes and commitment invoices. These custom fields are supported in mail merge, reporting, and imports.

End User Experience

In the user interface, commitment item custom fields can be completed when users are adding commitments, adding commitment line items, or editing commitment details. If you make these fields required for your users, they will not be able to save commitments until custom fields are entered.

Display Options

In order for users to see these custom fields on their respective tables in the user interface (Commitment Items, Commitment Changes, and Actual Costs), you must configure display options. If display options are not configured, users will still be able to complete these fields in add / edit mode, but the custom fields will not be viewable on their respective tables.

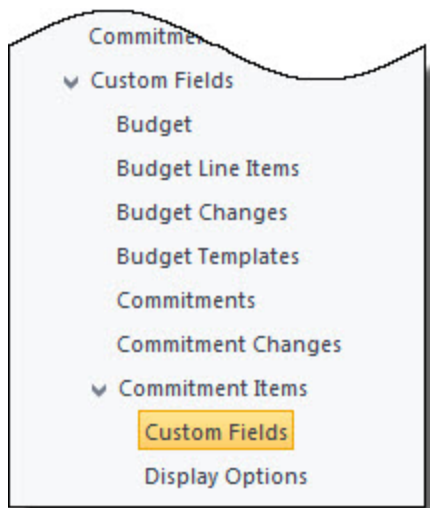
Related Topics:

- Define Commitment Item Custom Fields
- Configure Display Options for Commitment Item Custom Fields

Define Commitment Item Custom Fields

To define commitment item custom fields

1. Go to the Cost settings.
2. Click **Custom Fields**.
3. Click **Commitment Items**.



4. Click **Custom Fields**.
The Commitment Item Custom Fields page is displayed.
5. Click **Add Field**.
6. Select the data type and click **Next**.
7. Enter required fields then click **Next**.
8. Review the field summary for accuracy.

If you need to make corrections, click **Previous**. Otherwise, click **Save** or **Save & Add**.

Note: Custom fields will not display on the appropriate tables unless you configure the display options.

Related Topics:

- About Commitment Item Custom Fields
- Configure Display Options for Commitment Item Custom Fields

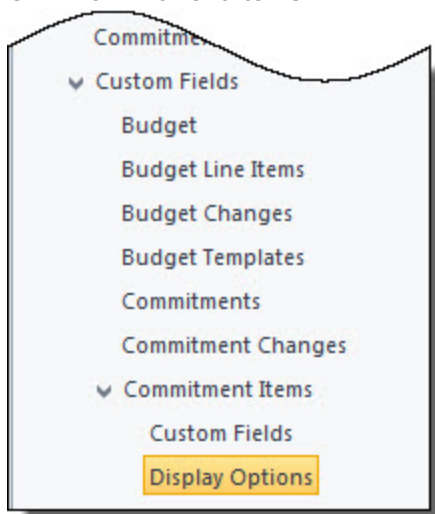
Configure Display Options for Commitment Item Custom Fields

Display Options allow administrators to specify how custom fields will display for commitments/commitment changes and commitment invoices. If display options are not configured for commitment custom fields, users will still be able to complete these fields in add/edit mode, but the custom fields will not display on their respective tables in the user interface (Commitment Items, Commitment Changes, and Actual Costs).

| Original Commitment Amount | Current Commitment | Projected Commitment | Current Retainage Held | Actuals Approved | Project Phase | Department | Custom Field(s) |
|----------------------------|--------------------|----------------------|------------------------|------------------|---------------|------------|-----------------|
| 50,000.00 | 50,000.00 | 50,000.00 | 0.00 | 0.00 | Design | Legal | |
| 50,000.00 | 50,000.00 | 50,000.00 | 0.00 | 0.00 | | | |

To configure display options

1. Go to the Cost settings.
2. Click **Custom Fields**.
3. Click **Commitment Items**.



4. Click **Display Options**.
The Commitment Item Custom Field Display Options page is displayed.
5. Select the **Display Field** check box in the Commitments/Commitment Changes section and the Commitment Invoices section for each custom field you want to display in the user interface.

Commitment Item Custom Field Display Options

Save


| Commitment Item Custom Field Name | Commitments/Commitment Changes | | Subtotal Field | Commitment Invoices | | Subtotal Field |
|-----------------------------------|-------------------------------------|---------------|----------------|-------------------------------------|---------------|----------------|
| | Display Field | Display Order | | Display Field | Display Order | |
| Department | <input checked="" type="checkbox"/> | 2 | | <input checked="" type="checkbox"/> | 1 | |
| Project Phase | <input checked="" type="checkbox"/> | 1 | | <input checked="" type="checkbox"/> | 2 | |

Save

6. In the Display Order column, determine the order in which custom fields will appear in a table using whole numbers, starting with 1.
7. Click **Save**.

About Invoice Item Custom Fields

Custom fields in Trimble Unity Construct are definable fields that drive the reporting needs of an organization. Custom fields allow users to group, filter, or categorize information according to specific business processes and custom fields are also be available for invoice line items. This feature allows you to define account-specific values at the individual line item level. These custom fields are supported in mail merge, reporting, and imports.

In the user interface, invoice item custom fields are added by clicking the add invoice custom field icon () , located on the far right of the invoice items table on the Add/Edit Commitment Invoice page and the Add/Edit General Invoice page. If you make these fields required for your users, they will not be able to save invoices until these fields are added.

Invoice item custom field layouts are available and allow you to display these custom fields on the Invoice Details page. For more information, see Configure Invoice Item Custom Field Layouts.

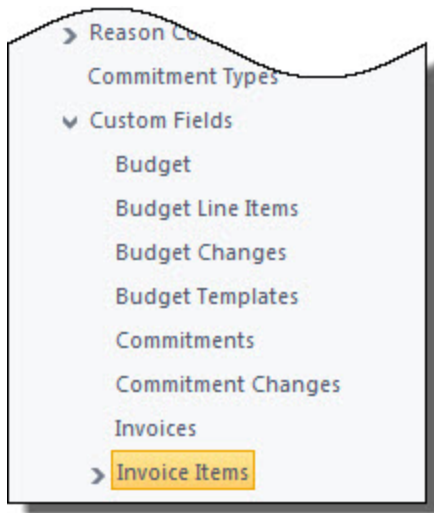
Related Topics:

- Define Invoice Item Custom Fields

Define Invoice Item Custom Fields

To define invoice item custom fields

1. Go to the Administration Tools.
2. Click **Cost**.
3. Click **Custom Fields**.



4. Click **Invoice Items**.

The Invoice Item Custom Fields page is displayed.


5. Click **Add Field**.
6. Select the data type and click **Next**.
7. At a minimum, enter all required fields then click **Next**.
8. Review the field summary for accuracy.

If you need to make corrections, click **Previous**. Otherwise, click **Save** or **Save & Add**.

Related Topics:

- About Invoice Item Custom Fields
- Manage Invoice Layouts

Configure Invoice Item Custom Field Layouts

The Manage Invoice Layouts options allow you to specify which custom fields, if any will display on the Invoice Items table located on the Invoice Details page. If an invoice item custom field is not on an invoice layout, it will not display on the Invoice Items table, but will still be accessible by clicking the view invoice custom field icon ().

The image below illustrates the view of the interface in the Cost module for both options:

Processes (0) | Daily Reports (0)

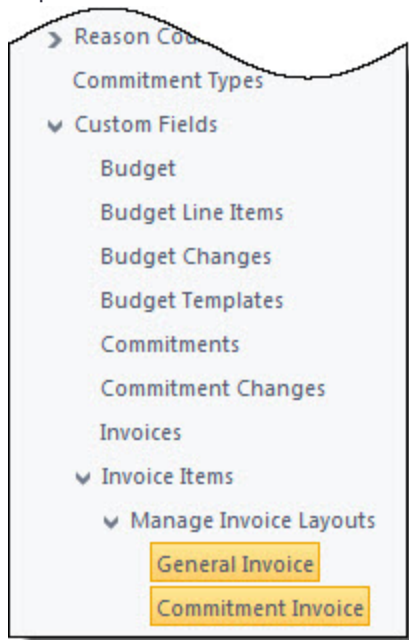
View Funding

| Invoice Date | Remaining To Be Invoiced | Amount This Invoice | Retained This Invoice | Department | Project Phase |
|--------------|--------------------------|---------------------|-----------------------|------------|---------------|
| 5,000.00 | 0.00 | 50,000.00 | 5,000.00 | Legal | Phase One |
| 5,000.00 | 0.00 | 50,000.00 | 5,000.00 | | |

Cost Summary | Commitment Details | Invoices For This Company

To manage invoice layouts

1. Go to the Administration Tools.
2. Click **Cost**.
3. Click **Custom Fields**.
4. Expand Invoice Items.



5. Click **General Invoice** to create a custom field layout for general invoices.
Or
Click **Commitment Invoice** to create a custom field layout for commitment invoices.
6. In the **All Fields** section, select the custom fields you want to add to the layout.
7. Click **Add**.

8. Click **Save**.

Cost Templates

Cost templates allow you to prepare various cost data for the finance department, project managers and other responsible parties to use in the interface. Templates are a great way to save time and ensure information integrity. The following topic headings are located in this section:

Budget Templates

Cash Flow Templates

Funding Templates

Budget Templates

Budget templates allow you to pre-load budget line items for project managers to use when creating their budgets. Creating budget templates has many benefits that include saving time, being able to reuse and modify budget line items when necessary, reducing the margin for error and speeding up the budget creation process for the project manager. Additionally, you can leverage the budget template to add cash flow templates. For more information on cash flow templates, see Cash Flow Templates.

The topics listed below will help guide you when working with budget templates:

- Access Budget Template Page
- Working with Budget Templates
- Import Budget Template Line Items
- Add/Edit Template Line Item Formulas

Related Topics:

- Customize Template with Field Mappings
- Mail Merge Templates

Access Budget Template Page

To access the Budget Template page

1. Go to the Cost settings.
2. Click **Templates**.
3. Click **Budget**.

The Budget Templates page is displayed.

Add Budget Templates

Budgets can be created and saved as templates. Variations of the budget can be created to correspond with the needs of specific projects. For example, a larger project may require a line item for Consulting Fees, while a smaller project does not. Creating these templates ahead of time will take the project manager or budget coordinator a lot of time.

Note: This is task 1 of 2 in creating a budget template. The procedure outlined below allows you to complete the details of the template and you must add or import the line items separately.

To add budget templates

1. Go to the **Budget Template** page.
For more information see Access Budget Template Page.
2. Click **Add**.
3. Enter the name of the template in the **Name** field.
4. In the **Status** field, choose either the Active or Draft radio button.
5. Optionally, take any of the following actions:
 - Enter a description in the **Description** field.
 - Click the **Segment To Override When Applied** drop-down arrow to select a segment to override, if any, when the template is applied. Doing so will allow the person applying the template to replace the segment that is being overridden with any of the different options of that segment, as defined in the options of the account code.

Note: The segment override option is not available for free-entry segments.

Manage Account Codes

Preview Account Code Save

Sample Budget Line Item: 1000 .1000 .000

Account Code Segment 1 ☒ **Enabled**

| | |
|--|--|
| <p>* Segment Name: <input type="text" value="Category"/></p> <p>* Length: <input type="text" value="4"/></p> <p>Separator Character: n/a</p> | <p>Display: <input checked="" type="checkbox"/></p> <p>Use Drop Down List: <input checked="" type="checkbox"/></p> <p>Drop Down List Options: <input type="text" value="1000"/> Edit Options</p> |
|--|--|

6. Click **Save**.
The Budget Template Details page displays.

Import Budget Template Line Items

Note: This is task 2 of 2 in adding a budget template. You must complete the procedure below after you've added the details of the budget template.

Budget templates allow account administrators to specify the line items to be used in the various projects types available throughout the program. For example, larger projects may require a line item for Consulting Fees and another, smaller project, may not. Establishing budget templates allow you to set up these templates ahead of time for use by the project or budget managers.

To import budget template line items

1. Go to the Budget Templates page.
For more instructions, see Access Budget Templates Page.
2. Click the name of the template you want to import line items for.
The Edit Budget Template page is displayed.
3. Click **Import**.

4. Click **Browse**. Search for and select the .xls file to attach.

Note: Only Microsoft Excel® 97-2003 (.xls) files are supported.

5. Click **Next**. The Import Line Items for [Template Name] Field Mappings page is displayed.

6. Enter all required fields.

For a detailed description of the fields located on this page, see Import Line Items - Field Mappings Page Overview.

7. Click **Next**. The Import Line Items Review page is displayed with a preview of the import file. All exceptions display on the Exceptions tab for you to see any errors that may have occurred during import.

8. If the import was successful, click **Save**.

—Or—

If there are exceptions that need to be addressed, make corrections on the import file and repeat this procedure.

Edit Budget Template Details

After a budget template has been created, you can edit just the details of the template, such as the name, status, description and formula. In addition, you can further modify the entire template by adding or importing line items. Below is a procedure that takes you through doing either, from the Budget Template Details Page. For a full description of all the fields located on this page, see Budget Template Details Page Overview.

To edit budget templates

1. Go to the Budget Template page.
For more information see Access Budget Template Page.
2. Click the name of the template you want to modify.
The Edit Budget Template page is displayed.
3. Click **Edit Details** to edit any of the following details:
 - Template Name
 - Status
 - Description
 - Budget Line Items Details

—Or—

Add template line items by doing the following:

4. Enter an account code in the **Account Code** field.
5. Enter a description for the budget template in the **Description** field.
6. Click **Add**.
7. *Optional:* You can also take any of the following actions from this page:
 - Add/Edit Template Line Item Formulas
 - Import Budget Template Line Items
 - Delete Budget line items

Copy Budget Templates

If you copy a template e-Builder gives you the ability to save it with a different name. This is a great method to employ if you have a similar template to create that may have slight differences. This saves time and keeps you from having to create a brand new template from scratch.

To copy budget templates

1. Go to the Budget Template page.
For more information see [Access Budget Templates Page](#).
2. Click the **Copy** link.
The Budget Template Details page is displayed.
3. Make any of the following changes:
 - Enter a new name in the **Name** field.
 - Change the status of the template.
 - Enter a new description in the **Description** field.
4. Click **Save**.

Related Topics:

- [Add Budget Templates](#)
- [Edit Budget Template Details](#)

Add/ Edit Budget Template Line Item Formulas

You are able to create and add formulas per budget line item into the details of your budget template. Formulas might include numbers from other line items or project custom fields into the equation. For example, if you wanted to calculate your construction cost to be the estimated square footage multiplied by the cost per square foot, you could add two project custom fields in the equation to automatically calculate that number for you. Or, you might want to calculate the design fees to be a percentage of the total construction cost; in this case you could build a formula in which you pull in the construction line item and multiply that by a percentage.

The following instructions are provided below:

- [Add Budget Template Line Item Formulas](#)
- [Edit Budget Template Line Item Formulas](#)

Add Budget Template Line Item Formulas

To add a formula for a budget line item in your budget template

1. Go to the Budget Templates page.
For more information see [Access Budget Templates Page](#).
2. Click the name of the template you want to add formulas to.
The Edit Budget Template page is displayed.
3. Click **New**.

The Template Line Item Formula dialog box displays.

4. Click the **Line Item** or **Custom Fields** drop-down arrow to make a selection, and then click **Insert** to add this item to the Line Item Formula box.
5. In the **Operators** section, select an applicable operator.
This selection displays in the Line Item Formula box.
6. Click the **Line Item** or **Custom Fields** drop-down arrow to make a selection, and then click **Insert** to add this item to the Line Item Formula box.
7. After all elements of the formula have been configured, click **Save**.

Edit Budget Template Line Item Formulas

To edit a formula for a budget line item in your budget template

1. Go to the Budget Templates page.
For more information see [Access Budget Templates Page](#).
2. Click the **Edit** link located left of the template name.
The Edit Budget Template page is displayed.
3. In the **Budget Template Line Items** section, click the **Edit** link in the Formula section.
The Template Line Item Formula dialog box displays for you to make changes to the formula.
4. Click **Save** after all modifications are made.

Note: If the budget template includes Budget Segment Overrides, the configurable field will be disabled. For more information on the budget segment override setting, see Add Budget Template Page Overview.

Budget Template Page Overview

The Budget Templates page lists all the account templates, including filtering capabilities and some basic controls and information. You can filter by template name, status or custom field, if configured. Filtering helps you narrow down to the templates that display in the results table.

Filter Templates - Fields and Button

The fields and buttons on this page are:

- **Name:** Enter the name of the template(s) you want to filter for in this field.
- **Status:** Click this drop-down arrow to select a status to filter by.
- **Custom Fields:** Click this drop-down arrow to select a custom field to filter by. You can also type custom field keywords to filter by.
- **Filter:** Click this button to filter by entered criteria.

Budget Templates - Buttons

The fields and buttons on this page are:

- **Add:** Click this button to add a budget template. For detailed steps, see Working with Budget Templates.
- **Copy:** Click this button to copy a budget template. For detailed steps, see Working with Budget Templates.
- **Delete:** Click this button to delete selected templates.

Budget Template Details Page

The Budget Template Details page appears after a new budget template has been created. In edit mode, this page is titled, the Edit Budget Template page. You can also access this page by clicking the name of the template. From this page you can edit budget template details, import or add line items, add formulas and do a general update of the template.

Fields and Buttons

The fields and buttons on this page are:

Budget Template Details

- **Edit Details:** Click this button to edit the details of the template, such as the name, status, description and any existing budget template line items.
- **Cancel:** Click this button to exit this page. All unsaved data will be lost.
- **Name:** This field lists the name of the budget template. Click Edit Details to make modifications.
- **Status:** This field lists the current status of the budget template. Click Edit Details to make modifications. Available statuses are Draft and Active. In active mode users who can create budgets have the ability to apply this template to a project. If the Status is Draft, the template will not be available to apply to a project.

- **Created:** This field displays the date and name of the user that created the template.
- **Last Modified:** This field displays the date and name of the user that last modified the template.
- **Description:** This field displays the description of the template. Click **Edit Details** to modify.

Add Template Line Item

- **Add:** Click this button to add a line item to the template after its details have been entered, at a minimum, in the Account Code and Description fields.
- **Clear:** Click this button to clear data fields in this section.
- **Account Code:** Enter the account code of the budget line item in this field. If account codes have already been configured on the account, a drop-down list of available account codes is displayed for you to choose from. For more information on creating account codes, see [Manage Account Codes](#).

Note: If your account codes are more than one level, you will have a selection for each level when you add a budget line item.

- **Cost Code:** Enter the cost code of the budget line item in this field. If cost codes have already been configured on the account, a drop-down list of available cost codes is displayed for you to choose from. For more information on creating cost codes, see [Manage Account Codes](#).
- **Description:** Enter a description for the budget line item in this field.
- **Formula:** Click **New** to open the Template Line Item Formula page and add a line item formula. Line item formulas is a great way to automatically populate cost data based on formulas added here.

For example, if you wanted to calculate your construction cost to be the estimated square footage multiplied by the cost per square foot, you could add two project custom fields in the equation to automatically calculate that number. Or, you might want to calculate the design fees to be a percentage of the total construction cost; in this case you could build a formula in which you pull in the construction line item and multiple that by a percentage.

For steps on creating a budget template line item formula, see [Add/Edit Template Line Item Formulas](#).

- **Allow Charges:** This check box is selected by default. When selected, users are able to add a dollar amount to commitment changes, commitments and general invoices. Otherwise, funds are not able to be applied.

Template Line Item Custom Fields

If custom fields exist on the account for budget line items, you would complete the field here. For more information on creating template line item custom fields, see [Cost Custom Fields](#).

Budget Template Line Items

This section lists all existing line items. Controls are available that allow you to add or import line items, sort and edit line items.

- **Group By:** Click this drop-down arrow to choose whether to group this list by line item, category or cost codes. These viewing options are most beneficial when there is a long list of line items available.

- **Delete:** Click this button to delete line items after corresponding check boxes have been selected. You can select multiple line items at a time.
- **Import:** Click this button to import an .xls file of budget line items.
- **Edit:** Click this link to edit the details of a selected line item.

Budget Template Custom Fields

If custom fields exist for the budget template, you would complete the fields here. For more information on creating budget template custom fields, see Managing Custom Fields.

Add Budget Template Page

This page is displayed when you click the Add button on the Budget Templates page and is used to add new budget templates to the account.

Fields and Buttons

The fields and buttons located on this page are:

- **Save:** Click this button to save the details of the new budget template.
- **Cancel:** Click this button to return to the Budget Templates page and cancel any changes you may have made. All unsaved changes will be lost.
- **Name:** Enter a name for the new budget template in this field.
- **Status:** Choose a status radio button. Active will make the template available for use. Draft will keep the template from displaying for users to utilize. You can also go back and make this template active once completed. See Edit Budget Templates for more information.
- **Description:** Enter a description for the new budget template.
- **Segment to Override When Applied:** The Segment Override option is not available for free-entry segments, also referred to as segments which are not using drop-down menu options.

Manage Account Codes

Preview Account Code Save

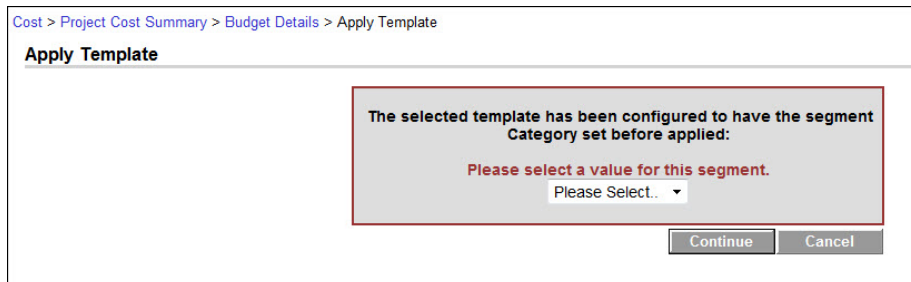
Sample Budget Line Item: 1000.1000.000

Account Code Segment 1 ☒ **Enabled**

| | |
|--|---|
| <p>* Segment Name: <input type="text" value="Category"/></p> <p>* Length: <input type="text" value="4"/></p> <p>Separator Character: n/a</p> | <p>Display: <input checked="" type="checkbox"/></p> <p>Use Drop Down List: <input checked="" type="checkbox"/></p> <p>Drop Down List Options: 1000 Edit Options</p> |
|--|---|

Click this drop-down arrow to make a specific account code segment user-entry at the time the budget template is being applied. This setting requires the user to select from available segments before applying the template. This setting is beneficial to have if a budget template is required where a particular segment(s) (e.g. category, cost code etc.) are not defined upfront, but can be determined at the time the template will be applied.

- **Apply Template:** When this setting is configured, users will see the following message when applying the template.



Account code segments are configured in the Manage Account Code section of the Cost Setup. These configurations are usually set at the start of setting up cost data because once an account code structure is in place and are being used, it cannot be changed. Cost code segments are defined by you, the account administrator, and available segments display in this drop-down arrow.

Edit Budget Template Page

From this page you are able make changes to the details of the budget template and also to any formulas and custom fields that might exist.

Fields and Buttons

The fields and buttons located on this page are:

- **Save:** Click this button to save your changes.
- **Cancel:** Click this button to return to previous page and cancel any changes you may have made. All unsaved changes will be lost.
- **Name:** Enter the name of the template in this field.
- **Status:** Set the status of the template by selecting either the Active or Draft radio buttons. Active templates are automatically available for use and draft templates are not available in the user interface.
- **Description:** Enter a description for the template in this field.
- **Segment To Override When Applied:** If there are cost code segments that are configured to be overridden in this template, then this field displays along with the name of the segment that is being overridden. For more information on this feature, see Add Budget Template Page Overview Segment to Override field description. You will notice that the overridden segment displays as xxx in the line item column located in the Budget Template Line Item section below this field.
- **Budget Template Line Items:** This section displays all available budget line items in this template. The Description and Allow Charges fields can be modified. To make changes to formulas, click the Edit link. For more information, see Add/Edit Line Item Formula.
- **Budget Template Custom Fields:** If available, budget template custom fields display in this section and can be modified.

Import Line Items Field Mappings Page

The Import Line Items Field Mappings page is displayed as part of the import wizard while importing budget template line items.

Fields and Buttons

The fields and buttons located on this page are:

- **Previous:** Click this button to return to the previous page and edit the budget template file.
- **Next:** Click this button after all desired fields have been entered and you are ready to progress to the next step in the import process.
- **Cancel:** Click this button to close this page and return to the Budget Template Details page. All unsaved data will be lost.
- **Cost:** Click this drop-down arrow to choose a cost entity to base this template on.
- **Description:** Click this drop-down arrow to map a description.
- **Allow Charges:** Click this drop-down arrow to map where charges should be allowed.

Import Line Items Review Page

The Import Line Items Review page is displayed as the last page of the import wizard while importing budget template line items.

Fields and Buttons

The fields and buttons located on this page are:

- **Previous:** This button displays if the import was not successful. Click this button to return to the previous page and edit field mappings.
- **Save:** This button only displays for successful imports. Click this button to save the file import.
- **Cancel:** Click this button to close this page and return to the Budget Template Details page. All unsaved data will be lost.

Import File Summary

- **File Name:** This field displays the name of the imported file.
- **Rows in File:** This field displays the amount of data rows in the imported file.
- **Rows To Be Imported:** This field displays the number of rows that remain to be imported.
- **Rows With Exceptions:** This field displays the number of rows in the spreadsheet that have exceptions. Exceptions are data rows that did not merge properly. Details of these errors are located on the Exceptions tab.

Preview Tab

- **Account Code:** This field displays the account code.
- **Description:** This field displays the description of the line items as entered in the previous step.
- **Allow Charges:** This field displays the cost entity chosen to allow charges for as entered in the previous step.

Exceptions Tab

The Exceptions tab displays any errors that occurred during the import. If there are any exceptions, you cannot continue with the import; the Import button will be grayed out. You must go back to the imported sheet and correct what is wrong.

- **Export Exceptions:** Click this button to export exceptions data to a Microsoft Excel ® spreadsheet.

Cash Flow Templates

Cash flows can be created and saved as templates. By creating a cash flow template, users are able to apply the template to a project budget using the apply template functionality and have a project's cash flow up and running quickly. The project manager will then update the necessary fields. Cash flow templates are based primarily on budget templates. For more information on adding budget templates, see [Working with Budget Templates](#). The cash flow templates feature also allows you to incorporate schedule templates, which gives you the ability to link budget line items to project schedules or master tasks.

The following topics are included in this section:

- [Access Cash Flow Templates Page](#)
- [Working with Cash Flow Templates](#)
- [Cash Flow Template Overview Pages](#)
- [Cash Flow Template Page Overview](#)
- [Add Cash Flow Template Page Overview](#)

Access Cash Flow Templates Page

To access the Cash Flow Templates page

1. Go to the Cost settings.
2. Click **Templates**.
3. Click **Cash Flow**.

The Cash Flow Templates page is displayed.

Working with Cash Flow Templates

The following tasks will help you work with cash flow templates:

- [Add Cash Flow Templates](#)
- [Edit Cash Flow Templates](#)
- [Copy Cash Flow Templates](#)

Add Cash Flow Templates

A template is a predefined pattern that you can use as the basis for setting up a project. Cash flow templates are based on selected budget template line items. You also have the option to link to schedule templates in order to link budget line items to a project schedule or to master tasks.

To add cash flow templates

1. Go to the Cash Flow Template page. For more information see [Access Cash Flow Templates Page](#).
2. Click **Add**.
3. In the **Name** field, enter a name for the template.
4. Select the **Active** check box to make the template available to users.
5. In the **Description** field, enter the description of the template.

6. Click the **Budget Template** drop-down arrow and select a budget template that has line items included to set up the cash flow for.
 7. Click the **Schedule Template** drop-down arrow to select a schedule template for the ability to link the cash flow line items to master tasks.
 8. In the **Setup Cash Flow** section, take the following actions:
 - Click the **Cash Flow Curve** drop-down arrow for each line item to set the cash flow.
 - Click the **Schedule Link Type** drop-down arrow for each line item to choose what to link the schedule to.
 - In the **Payment Lag** field, enter the payment lag in days.
- Note:** For a detailed description of the fields located on this page, see Add Cash Flow Template Page Overview.
9. Click **Save**.

Edit Cash Flow Templates

After a cash flow template has been created, you can edit just the details of the template, such as the name, active/ non-active status and description. In addition, you can also modify the entire template by changing the budget or schedule template that the cash flow template is based on. For a detailed description of the fields located on this page, see Add Cash Flow Template Page Overview. Below is a procedure for editing the cash flow template.

To edit cash flow templates

1. Go to the Cash Flow Template page. For more information see Access Cash Flow Template Page.
2. Click the name of the template you want to modify. The Edit Cash Flow Template page displays.
3. To modify the details of the cash flow template, make any of the following changes:
 - Modify the name of the template in the **Name** field.
 - Select or clear the **Active** check box. Active templates are available for use, inactive templates are not.
 - Edit the **description** of the template.
 - Click the **Budget Template** drop-down arrow and select a different budget template to base this cash flow template one. This will change the budget line items in the table below.
 - Click the **Schedule Template** drop-down arrow to select a different schedule template to base this cash flow template on. This will allow you to link budget line items to different master tasks.
4. Click the **Cash Flow Curve** drop-down arrow to change the cash flow curve.
5. Click the **Schedule Link Type** drop-down arrow to change what the cash flow curve is linked to.
6. If the cash flow curve is linked to a task, you can click the task drop-down arrow to modify the master task that the curve is linked to.
7. Enter a description for the budget template in the **Description** field.
8. Click **Save**.

Copy Cash Flow Templates

If you copy a template, Trimble Unity Construct gives you the ability to save it with a different name. This is great if you have another template you need to create that may be similar, with only slight differences. This saves time and keeps you from having to create a brand new template from scratch.

To copy cash flow templates

1. Go to Cash Flow Template page. For more information see [Access Cash Flow Template Page](#).
 2. Click the **Copy** link. The Add Cash Flow Template page displays.
 3. In the **Name** field, enter a name for the template.
 4. Select or clear the **Active** check box. Active templates are available for use, inactive templates are not.
 5. In the **Description** field, enter the description of the template.
 6. Click the **Budget Template** drop-down arrow and select a budget template that has line items included to set up the cash flow for.
 7. Click the **Schedule Template** drop-down arrow to select a schedule template for the ability to link the cash flow line items to master tasks.
 8. In the **Setup Cash Flow** section, take the following actions:
 - Click the **Cash Flow Curve** drop-down arrow for each line item to set the cash flow.
 - Click the **Schedule Link Type** drop-down arrow for each line item to choose what to link the schedule to.
 - In the **Payment Lag** field, enter the payment lag in days.
- Note:** For a detailed description of the fields located on this page, see [Add Cash Flow Template Page Overview](#).
9. Click **Save**.

Cash Flow Template Overview Pages

This section includes an overview of the pages encountered throughout the cash flow template section in the administration tools section of e-Builder. The following topics are included:

- [Cash Flow Template Page Overview](#)
- [Add Cash Flow Template Page Overview](#)

Cash Flow Template Page

The Cash Flow template page is the first to display when accessing cash flow templates. This page lists all existing templates on the account and controls for adding, modifying, copying and deleting templates are also available. A filter allows you to narrow your search for templates in case multiple templates exist for the account.

Fields and Buttons

The fields and buttons located on this page are:

- **Filter Templates**

- **Name:** Enter the name of the template(s) you want to filter for in this field.
- **Status:** Click this drop-down arrow to choose a status to filter templates by.
- **Filter:** Click this button to filter by the criteria you've entered.

- **Cash Flow Templates**

- **Add:** Click this button to add a cash flow template. For detailed steps, see Working with Cash Flow Templates.
- **Copy:** Select the check box next to the template you want to copy. Click this button to copy a cash flow template. For detailed steps, see Working with Cash Flow Templates.
- **Delete:** Select the check box next to the template you want to delete. Click this button to delete a cash flow template. For detailed steps, see Working with Cash Flow Templates.
- **Edit:** Click this link to modify the selected template. The edit functionality allows you to modify cash flow details as well as change the budget or schedule template the cash flow is based on. For detailed steps, see Working with Cash Flow Templates.

Add Cash Flow Template Page

The Add Cash Flow Template page is displayed when you click the Add button on the Cash Flow Template page. This page allows you to add additional cash flow templates to the account. For steps on adding cash flow templates, see Working with Cash Flow Templates.

Fields and Buttons

The fields and buttons located on this page are:

Cash Flow Template Details

- **Save:** Click this button to save changes to the cash flow template.
- **Cancel:** Click this button to exit this page and return to the Cash Flow Templates page. All unsaved changes will be lost.
- **Name:** Enter a name for the template in this field.
- **Is Active:** Select this check box to activate the template. This makes the template available for use in the Cost module. If the template is still a draft, it's best to leave this check box empty so that no one can use it. Once ready, you can always activate the template later; see Working with Cash Flow Templates for detailed steps.
- **Description:** Enter a description of the cash flow template in this field.
- **Budget Template:** Click this drop-down arrow to select a budget template to set cash flow curves for.
- **Schedule Template:** Click this drop-down arrow to select a schedule template. Doing so allows you to link budget line items to project schedules or master tasks.

Setup Cash Flow

- **Line Item:** This field displays the budget line item number as it displays on the budget template.
- **Description:** This field displays the description of the budget line item as it displays on the budget template.

- **Cash Flow Curve:** Click this drop-down arrow to select a cash flow curve for the budget line items. Choose from the following options:

- Manual
- Linear
- Bell Curve
- Inverse Bell Curve
- S Curve
- Inverse S Curve

For more information on cash flow curves, see [Cash Flow Curves](#).

- **Schedule Link Type:** Click this drop-down arrow to select a schedule link type to link the schedule to. Choose from the following options:
 - Link To Project
 - Link To Schedule (This option only displays if a schedule template is selected.)
 - Link To Task (This option only displays if a schedule template is selected.) An additional drop-down arrow displays (Task) allowing you to select master tasks to link the schedule to.
- **Payment Lag (In Days):** Enter the number of days that a payment should be delayed. This measure allows you to track when the check is written and has been submitted to the vendor.

Funding Templates

Funding templates help you associate funding sources and categories ahead of time for the finance team or project managers to use while adding funding sources in the user interface. These templates help save time and it eliminates the need for users to choose categories each time a funding source is added to the project. If sources and categories are known ahead of time and especially if you anticipate there will be a number of sources and categories, funding templates can be a great resource. Multiple templates can be created and tailored for specific uses.

The following topics are included in this section:

- [Access Funding Templates Page](#)
- [Working with Funding Templates](#)

Access the Funding Template Page

To access the Funding Templates page

1. Click **Setup**.
2. In the **Administration Tools** menu, expand **Cost**.
3. Expand **Templates**, and then click **Funding**.

The Funding Templates page is displayed.

Working with Funding Templates

The following tasks will help you work with funding templates:

- Add Funding Templates
- Add Funding Sources to Funding Templates
- Copy Funding Templates
- Edit Funding Templates
- Delete Funding Templates

Add Funding Templates

1. Go to the Funding Template Page.
For instructions, see Access the Funding Template Page.
2. Click **Add**.
3. Enter a name for the template in the **Name** field.
4. Select the **Is Active** check box to make this template available for use.

Add Funding Sources to a Funding Template

This is step 2 of 2 in creating a funding template. After the template has been added, you can then add funding sources to it. If funding is enabled on the account, you will be required to select a funding category when adding funding sources to the template.

1. Go to the Funding Template Page.
For instructions, see Access the Funding Template Page.
 2. Click the **Edit** link located left of the target template.
 3. In the **Setup Funding Sources** section, click **Add**.
 4. In the **Name** field, enter the name of the funding source.
 5. Click the **Funding Category** drop-down arrow and select a funding category.
 6. Click **Save**.
The Funding Template Details page is displayed.
- Note:** The newly added funding source is listed in the Setup Funding Sources section.
7. Click **Save**.

Copy Funding Templates

1. Go to the Funding Template Page.
For instructions, see Access the Funding Template Page.
2. Click the **Copy** link located left of the template you want to copy.
3. Modify the name of the template in the **Name** field.
4. Click **Save**.

Edit Funding Templates

1. Go to the Funding Template Page.
For instructions, see Access the Funding Template Page.
2. Click the **Edit** link located left of the template you want to edit.

3. Make any of the following modifications:
 - Change template name in the **Name** field.
 - Select the **Is Active** check box to make template Active/Inactive.
 - If applicable, change/add funding sources.
4. Click **Save**.

Delete Funding Templates

1. Go to the Funding Template Page.
For instructions, see [Access the Funding Template Page](#).
2. Click the check box next to the template(s) you want to delete.
3. Click **Delete**. You are prompted for confirmation.
4. Click **Continue**.

Funding Sources

Funding sources allow you to establish where funds are being endowed for budget line items, commitments and/or invoices. The funding section of the Cost module enables you to set up how the funding features will operate in the user interface. Funding settings let you determine the level of restrictions you wish to place on budget, commitment and actual cost funding. Once funding is enabled for a particular component, Trimble Unity Construct prompts users to make a selection before adding a budget line item, processing a commitment or invoice to ensure consistent usage throughout the life of the project. Enabling funding on a project offers visibility into total, used and remaining project funds per funding source. Used conjointly with funding cost controls, you can ensure that you do not budget, commit or spend more than is available in any given funding source. From this section you can also set up your funding categories, by which to group funding sources.

In Trimble Unity Construct, funding sources are added through the user interface in the Cost module. By default, a funding source is always required when processing invoices. If enabled for commitments and budget line items, users are required to make funding source selections before commitments can be processed and budget line items can be saved.

The following topics are located in this section:

- Funding Settings
 - Access Funding Setup Options
 - Funding Settings Overview
 - Edit Funding Settings
 - Funding Categories
 - Working with Funding Categories

Funding Settings

Funding settings can be configured to be as rigid or as flexible as necessary. Configure the account to include or exclude funding for budgets and/or commitments. Funding controls are part of these settings and help you ensure you do not over commit or spend your funding sources. These funding controls offer more security and supports agile funding practices.

The following topics are included in this section:

- Access Funding Setup Options
- Funding Settings Overview
- Edit Funding Settings

Related Topics:

- About Funding Sources

Access Funding Setup Options

To access funding setup options

1. Click **Setup**.
2. In the **Administration Tools** menu, expand **Cost**.
3. Click **Funding**.

All of the funding setting options display.

Edit Funding Settings

If funding is enabled on the account, funding settings should be configured to coincide with the goals of your cost management process. These settings allow you to determine the levels at which funding sources should be specified: budget level, commitment level, invoice level, or all. Furthermore, you can tighten or loosen restrictions by deciding whether or not commitments and actuals can exceed funding sources, how remaining funds should be allocated and whether or not settings can be overridden at the account level. Some settings can be edited at any time, but other are a one-time configuration that cannot be changed. For details on each option, see Funding Settings Page Overview.

To edit funding settings

1. Go to the Funding Setup Options.
For instructions, see Access Funding Setup Options.
2. Click the **Settings** link.
The Enable Advanced Funding page is displayed.
3. Click **Edit**.
4. Select the check box next to the funding options you want to enable/disable.

For a description of each funding setting, see Funding Settings.

- **Budgets:**
 - *Enable Funding on Budgets:* Select to enforce the selection of funding sources when budget line items are added.
- **Commitments:**
 - *Enable Funding on Commitments:* Select to enforce the selection of funding sources when commitments line items are added.

- *Do Not Allow Committed Amounts to Exceed Funding Source Amounts*: Select to trigger a violation message when a proposed commitment will exceed the funds available in the selected funding sources. This will prevent the commitment from being saved.
 - *Commitment Funding Restrictions can be overridden at the Project Level*: Select to allow users with Add/Edit Commit permission to override these restrictions at the project level.
- **Actual Costs**:
 - *Enable Funding on Actual Costs*: When funding is enabled, this setting is enabled by default and cannot be altered. A funding source must always be determined when entering actual costs into the system.
 - *Do Not Allow Actual Costs to Exceed Funding Source Amounts*: Select to trigger a violation message when a proposed invoice will exceed the funds available in the selected funding sources. This will prevent the invoice from being saved.
 - *Actuals Funding Restrictions can be overridden at the Project Level*: Select to allow users with Add/Edit Actuals permission to override these restrictions at the project level.
- 5. **Auto Allocate Funding Remainder**:
 - *Auto Allocate Remaining Funding: Distribute Remaining Funding to Last Funding Source*: When the funding distribution feature is used to distribute funds from funding sources, there may be an amount that remains due to rounding. When this check box is selected, the remaining funds will automatically be added to the last funding source listed. Otherwise, this amount will have to be distributed manually.
- 6. Click **Save**.

Funding Settings Page

Note: Once funding is enabled, it cannot be disabled.

If funding is enabled on the account, users will be required to select funding source(s) when entering budget line items, approving budget changes, adding commitments and/or invoices, depending on the settings that are configured on this page. There are also additional settings available that allow you to tighten or loosen these restrictions. For instructions, see Edit Funding Settings.

A description of each available funding option setting is below.

- Project Funding Controls
- Account Funding Controls

Project Funding Controls

- **Budgets**
 - **Enable Funding on Budgets**: Select this check box to require the selection of funding sources when a budget line item is added. For instructions, see Edit Funding Settings.

Note: Once enabled, this setting cannot be disabled.

- **Commitments**: For instructions, see Edit Funding Settings.

Note: Once enabled, this setting cannot be disabled.

- **Enable Funding on Commitments:** Select this check box to require the selection of funding sources when a commitment line item is selected. If this check box is selected, additional committed amount settings display.
- **Do Not Allow Committed Amounts to Exceed Funding Source Amounts:** This option displays when funding is enabled for commitments. Select this check box if you do not want commitments to exceed the amount available in funding sources. If users enter a commitment amount that exceed funding available in the funding source, a validation message displays and user will have to enter an amount less than or equal to available funds in the funding source.
- **Commitment funding restrictions can be overridden at the project level:** This option displays when funding is enabled for commitments. Select this check box to give users with Add/Edit Commitment permissions the ability to override commitment funding restrictions for individual projects.
- **Actual Costs:** For instructions, see Edit Funding Settings.
 - **Note:** Once enabled, this setting cannot be disabled.
 - **Enable Funding on Actual Costs:** When funding is enabled, this setting is enabled by default and cannot be altered. A funding source must always be determined when entering actual costs into the system.
 - **Do Not Allow Actual Costs to Exceed Funding Source Amounts:** Select this check box to restrict actual costs (invoiced items) from exceeding amounts that are available in the funding source associated to the actual cost.
 - **Actuals Funding restrictions can be overridden at the project level:** Select this check box to give users with Add/Edit permissions the ability to override actual cost funding restrictions for individual projects.
- **Auto Allocate Funding Remainder:** When the funding distribution feature is used to distribute funds from funding sources, there may be an amount that remains due to rounding. When this check box is selected, the remaining funds will automatically be added to the last funding source listed. Otherwise, this amount will have to be distributed manually.

Account Funding Controls

- **Enable Account Level Funding:** This setting enables account level funding.
 - **Note:** Account level funding cannot be disabled if at least one funding source exists.
- **Master Commitments: Enable Funding on Master Commitments:** Enable Funding on Master Commitments: Select to enforce the selection of account level funding sources when master commitments line items are added.
- **Master Commitments: Do Not Allow Master Commitment Amounts to Exceed Funding Source Amount:** This setting will be used as a default on new master commitments. Select to trigger a violation message when a proposed master commitment will exceed the account level funds available in the selected funding sources. This will prevent the master commitment or master commitment change from being saved.

- **Master Commitments: Master Commitment funding restrictions can be overridden at the funding source level:** Commitment Funding Restrictions can be overridden at the Project Level: Select to allow users with Add/Edit Master Commit permission to override these restrictions.
- **Master Invoices: Enable Funding on Master Invoices:** When account level funding is enabled, this setting is enabled by default and cannot be altered. An account level funding source must always be determined when entering master invoices into the system.
- **Master Invoices: Do Not Allow Master Invoice Amounts to Exceed Funding Source Amount:** Do Not Allow Master Invoices to Exceed Funding Source Amounts: Select to trigger a violation message when a proposed invoice will exceed the funds available in the selected funding sources. This will prevent the invoice from being saved.
- **Master Invoices: Master Invoice funding restrictions can be overridden at the funding source level:** Master Invoice Funding Restrictions can be overridden at the account level. Select to allow users with Add/Edit Actuals permission to override these restrictions at the project level.
- **Master Invoice Funding Source Control: Uncontrolled:** Select this option to allow master commitment invoice line items to exceed the funding sources associated with the line item.
- **Master Invoice Funding Source Control: Do not allow master invoice amounts to exceed funding source amount allocated in an individual master commitment:** Select this option to add restrictions based on master commitment invoice line items. Master commitment invoice line items will not be able to exceed available funds assigned to a master commitment.
- **Master Invoice Funding Source Control: Do not allow master invoice amounts to exceed funding source amount allocated in an individual master commitment line item:** Select this option to add restrictions based on master commitment invoice line items. Master commitment invoice line items will not be able to exceed available funds assigned to a master commitment line.

Funding Categories

Funding categories give context to funding sources and groups them based on similar attributes. Funding categories can be used in a number of ways to best suit the needs of your organization. If grouped by intent, your categories might mirror eventual contracts such as fees, design costs, contracts, etc. If used in this manner and project managers are not familiar with the different funding sources, simply knowing the intent of funds will allow them to choose the correct category. This method also reinforces consistent terminology throughout different areas of the project, including bid categories; mitigating confusion and establishing clarity early on in the project life cycle.

Related Topics:

- Working with Funding Categories
- Funding

Working with Funding Categories

Funding categories offer consistency across projects. Additionally, reports can be generated on rolled up categories across projects for increased visibility.

Funding categories can be modified the following ways:

- Add Funding Categories
- Edit Funding Categories
- Delete Funding Categories

Add Funding Categories

To add funding categories

1. Go to the Funding Setup Options.
For more information, see Access Funding Setup Options.
2. Click the **Categories** link.
The Funding Categories page displays.
3. In the **Category** field, enter the funding category name.
4. Click **Add**. The new category displays in the Categories table.

Edit Funding Categories

Editing funding categories allow you to modify category name and/or description.

To edit funding categories

1. Go to the Funding Setup Options.
For more information, see Access Funding Setup Options.
2. Click the **Categories** link.
The Funding Categories page displays.
3. Click the **Edit** link located next to the funding category you want to edit.
The page displays in edit mode.
4. Edit category name and/ or description.
5. Click the **Save** link located next to the category name.

Delete Funding Categories

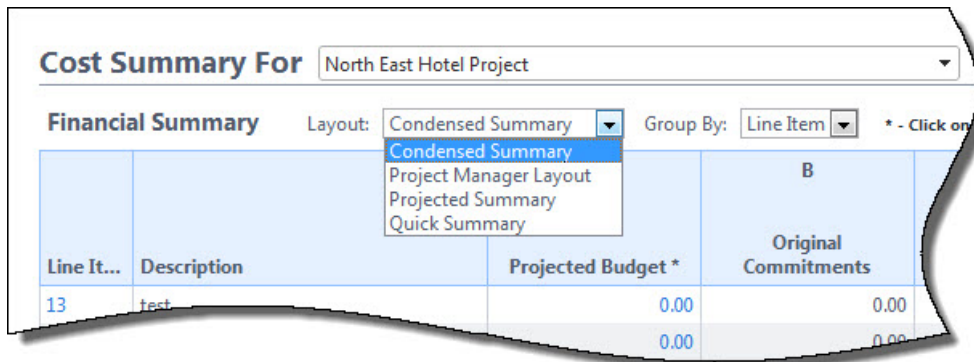
Funding categories that are being used in a funding template or in a project's cost funding source cannot be deleted. You will receive an error message if you attempt to delete categories that are currently being used.

To delete funding categories

1. Go to the Funding Setup Options.
For more information, see Access Funding Setup Options.
2. Click the **Categories** link.
The Funding Categories page displays.
3. Click the check box(es) located next to the funding category you want to delete.
4. Click **Delete**.
You are prompted for confirmation.
5. Click **OK**.

Cost Summary Layouts

Cost summary layouts help you determine the columns that display on the Project Cost Summary page in the user interface. By default, all available cost summary columns display. Custom layouts benefit users by allowing them to view only the information that is pertinent to them with the option of viewing additional information when necessary. Consolidating this information facilitates reporting, viewing, and tracking. Multiple layouts can be created to serve different purposes. Once a layout is created, it becomes the default display. If multiple layouts exist on the account, a Layout drop-down arrow appears in the user interface for users to choose from.



From this section of the setup you are able to manage cost summary layouts by creating new ones, editing existing ones or deleting unwanted layouts. Columns can be color coded with thresholds set to provide users with a visual indication of what the data columns represent. You can customize the layout to show only those columns that are most often used. For example, a cost summary layout can be created showing only the "Commitment" columns, in which "Budget" and "Actuals" columns are hidden.

The following topics are included in this section:

- Access Manage Cost Summary Layouts Page
- Add Cost Summary Layouts
- Color Code Cost Summary Layouts
- Set Cost Summary Threshold Values

Access Manage Cost Summary Layouts Page

To access the Manage Cost Summary Layouts Page

1. Click **Setup**.
2. In the **Administration Tools** menu, expand **Cost**.
3. Expand **Cost Summary**.
4. Click **Cost Summary Layouts**.

Add Cost Summary Layouts

If multiple layouts exist on the account, a Layout drop-down arrow displays in the user interface for users to choose from.

Tip

Give cost summary layouts descriptive names so it's easy for users to discern the best layouts for the information they want to view.

To add cost summary layouts

1. Go to the Manage Cost Summary Layouts page.

For more information, see [Access Manage Cost Summary Layouts Page](#).

2. Click **Add**.

The Manage Cost Summary Columns page is displayed.

Manage Cost Summary Columns

Save Cancel

* Layout Name:

All Columns

- Original Budget
- Approved Budget Changes
- Current Budget
- Current Commitments
- Current Retainage Held
- Pending Commitment Changes
- Projected Commitment Changes
- Pending Commitments
- Projected Commitments
- Forecasted Commitments
- Unallocated Reserve
- Estimate At Completion
- Actuals Received
- Actuals Approved
- Actuals Paid
- Net Actuals Paid
- Net Actuals Approved
- Amount Retained
- Retainage Released
- Actual Cost To Complete
- Percent Cost Complete
- Current Over/(Under)
- Projected Over/(Under)
- Forecasted Over/(Under)
- Purchase Orders
- Remaining Budget

Selected Columns

- Pending Budget Changes
- Projected Budget Changes
- Projected Budget
- Original Commitments
- Approved Commitment Changes
- Non Commitment Costs

Save Cancel

3. In the **Layout Name** field, enter a name for the layout.
4. Select the column you want in your layout in the **All Columns** section, and then click **Add**.
The selected column displays in the adjacent **Selected Columns** box.
5. Repeat step 4 for each column you want to add to the layout.
6. Use the controls located on the far right of the page (**Top, Up, Down, Bottom**) to order the columns how you want them to appear in the user interface.
7. Click **Save**.

Color Code Cost Summary Layouts

Color coding can help specific sets of information stand out at a glance. If there are information sets that are more important to a user than others, color coding those columns helps users quickly and easily identify this information.

Note: To set color codes only and not thresholds ensure that the Enable Threshold check box for each specific column is clear. For more information on setting thresholds, see Set Cost Summary Threshold Values.

To set color codes for cost summary layouts

1. Go to the Manage Cost Code Summary page.
For more information, see Access Manage Cost Code Summary Page.
2. Click the **Color Codes** link located left of the Layout name.
The **Color Codes** page is displayed.
3. Select the check box next to the column(s) you wish to color code.
Note: The row must be checked to enable color coding.
4. In the **Apply To** column, select **Text** or **Background**.
5. Click the **Low Range Color** drop-down list and choose a color for that column.
6. To continue coding for all columns - those that are not in the selected layout - click the **Show all columns** check box located toward the top of the page, and then repeat steps 3-5.
7. Click **Save**.
If you'd like to add threshold values, see Set Cost Summary Threshold Values.

Set Cost Summary Threshold Values

Setting thresholds is another way to identify important sets of information, but thresholds differ from simple color coding because it allows you to assign minimum, mid range, and high range numerical values for each budget line item. Color codes are assigned to each threshold value to serve as a visual indicator when budget line items have reached or exceeded certain thresholds. Thresholds have to be enabled in order to display on the Project Cost Summary page of the user interface. Enable the threshold feature by selecting the Enable Threshold check box located toward the top of the page. This feature can be disabled at any time.

Example

Threshold values might be set for the approved budget changes. The column may display in green if the value is zero and displays in red if the value is a number greater than zero. This way, the owner can see at a glance the number of budget changes that have been approved and how many have not.

Tip

So that you can easily monitor the over/under budget variance, it is recommended that you set it so that if you are over budget, the text or background is red. This way if you go over budget, you will know at a glance and can take corrective action.

Note:
The following rules apply to color code settings:

- If not enabled, the entire column will be the low range color.
- Negative and positive decimal numbers are acceptable values.
- The Show all columns check box (when checked) will show all columns available in the cost summary. Those columns not configured for the current layout will not be able to be configured.

To set cost summary threshold values

1. Go to the Manage Cost Code Summary page.

For more information, see Access Manage Cost Code Summary Page.

2. Click the **Color Codes** link located left of the Layout name.

The **Color Codes** page displays.

3. Select the **Enable Threshold** check box located in the header.

Threshold drop-down arrows display with empty fields into which you can enter numeric values.

| Column Name | Apply To | Enable Threshold | Low Range Color | Low-Mid Threshold | Mid Range Color | Mid-High Threshold | High Range Color |
|------------------------------|-----------------|-------------------------------------|-----------------|-------------------|-----------------|--------------------|------------------|
| Projected Budget | Text Background | <input type="checkbox"/> | Default | | | | |
| Original Commitments | Text Background | <input type="checkbox"/> | Default | | | | |
| Non Commitment Costs | Text Background | <input checked="" type="checkbox"/> | Green | 60,000.00 | Yellow | 180,000.00 | Red |
| Current Commitments | Text Background | <input checked="" type="checkbox"/> | Green | 50,000.00 | Yellow | 100,000.00 | Red |
| Projected Commitment Changes | Text Background | <input checked="" type="checkbox"/> | Green | 30,000.00 | Yellow | 100,000.00 | Red |
| Forecasted Commitments | Text Background | <input checked="" type="checkbox"/> | Green | 40,000.00 | Yellow | 100,000.00 | Red |

Note: 1. Color coding will be enabled only for checked rows.
2. For enabled rows, please enter at least one threshold value.
3. Low-mid threshold value must be less than or equal to the mid-high threshold value.

4. Enter the threshold numerical values and select a color code for each value.
5. To continue coding for all column (those that are not in the selected layout), click the **Show all columns** check box located toward the top of the page.

All cost summary columns display.

6. Click **Save**.

Dynamic Cost Management

Dynamic cost management refers to functionality in e-Builder that includes dynamic cost columns and dynamic cost processes. Both features can be used conjointly or independent of each other. They provide the ability to create, track, and maintain cost data that is not necessarily part of the budget, commitments or actuals.

Note: Dynamic cost management is an optional feature that must be enabled by e-Builder support at no additional charge. For further inquiries, please contact our support team.

Additional information and configuration steps for dynamic cost columns and dynamic cost processes are provided in this section:

- About Dynamic Cost Columns
- About Dynamic Cost Processes

- Add Dynamic Cost Columns
- Configuring Dynamic Cost Processes
- Invoice Monthly Daily Reports

About Dynamic Cost Columns

Dynamic cost columns are combinations of existing cost data formulated to provide specific cost information. This gives you the ability to track and store data outside of the standard Trimble Unity Construct cost process data, such as subcontractor expenditures, or capturing different iterations of the budget approval process, should your approval process occur in stages. Essentially, you can create your own cost information and rename the columns as you see fit. You can also pull these columns into different Trimble Unity Construct reports. These additional columns display in your cost sheet (project cost summary). To access them, click the **Other Cost Columns** link located in the Cost Menu of the user interface.



Suggested Use

Because dynamic cost columns are completely customizable, the ways in which you can use them are endless. Below are a couple of examples to help you get started:

- A formula can be created to provide the difference between the current budget and current commitment to obtain the remaining budget amount.
- Another, more sophisticated way you might choose to use dynamic cost columns is to create a set of three risk exposure columns. For instance, if you had a risk process with line items that represent the dollar amounts associated with those risks, and these risks had different statuses associated with them, you could pull cost data based on these statuses (i.e. pending) into a column in your cost summary; this would be the first column (potential risks). The second would be the default Estimate at Completion column. And the third could be a combination of the two (Estimate at Completion plus Potential Risks). Visibility into these potential risks will give you the opportunity to lessen the impact of, or circumvent liabilities all together.

Note:

- In order for dynamic cost columns to display in the Cost Summary, the column must be added to one or more of the layouts. For more information, see Add Cost Summary Layouts.
- Once added to the Cost Summary, dynamic cost columns are distinguished by the tooltip that displays when you hover over the column name; the tooltip displays the formula used to create the column.
- Renamed dynamic cost columns will only display as you've named them on the Cost Summary and in reports; these columns will not display in any other area of the product.

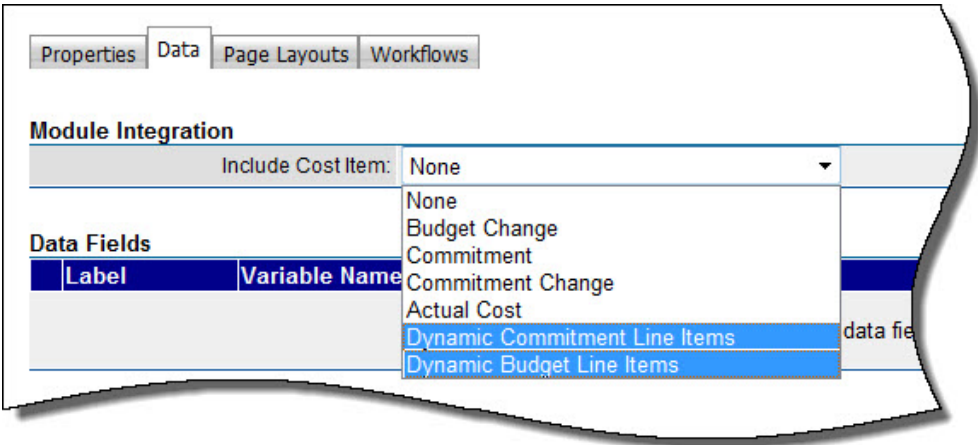
Related Topics:

- Add Dynamic Cost Columns

About Dynamic Cost Processes

A dynamic cost process is an independent cost process that is not incorporated in the built-in cost summary / cost sheet columns (budget, commitments, and actuals). These processes include a list of either budget or commitment line items and apply to the cost sheet in configured, additional columns that include the process these columns are known as dynamic cost columns.

These process types allow you to track and capture data outside of project-specific cost needs, such as tracking internal revenue, fees, or other expenses. Another reason for utilizing this feature might be to track and maintain multiple independent budgets, considering you are only allowed one budget per project in Trimble Unity Construct. Additionally, if your capital program has an iterative budget approval process and you want to capture and track data through each phase of this progression a dynamic budget process allows you to do so. Two dynamic processes become available for configuration once this feature is enabled on the account: Dynamic Cost Commitment Line Items and Dynamic Cost Budget Line Items.



Related information is provided below:

- Spawning Dynamic Cost Processes
- Dynamic Budget Line Item Processes
- Dynamic Commitment Line Item Processes

Spawning Dynamic Cost Processes

The capabilities of dynamic cost processes extend even further, as cost data carries over seamlessly when spawning between dynamic cost processes. This is an optional setting that must be configured on the Spawn Properties page. Considering this capability, you might choose to have an action in your dynamic process instance spawn another, related process. Using the iterative budget approval process example, a budget approval action in phase one of the budget approval process can spawn / start phase two of the process. The spawning feature is a great automation tool, but the added bonus when using with dynamic cost is that you do not have to manually pull in cost data if you don't choose to do so it is all done for you. For more information on spawn processes, see [About Spawned Processes](#).

Dynamic Budget Line Item Processes

Dynamic budget processes can be pulled into the formulas that create dynamic cost columns. Each feature has specialized use cases that may or may not be pertinent to your particular cost-related workflows.

Dynamic budget processes complement the dynamic cost column feature. A dynamic cost column is a custom cost column based on user-defined formulations of existing data, and dynamic budget processes can be used as a component in these equations; for detailed steps on this procedure, see [Add Dynamic Cost Columns](#).

Dynamic Commitment Line Item Processes

Specifically, the dynamic cost commitment process lends itself to common practices in horizontal construction where inspectors on the owner side perform daily or periodic inspections of contractor's work to compare against when it's time to provide monthly invoice amounts.

You can have a dynamic commitment item process set up to record periodic progress on the project. The daily report is typically used for unitized contracts where the inspector would indicate how many linear feet of road-way or curbs have been completed since the last report. By the end of the month there will be many of these progress reports. With a single click they can generate an invoice for all the work completed that is recorded in the daily reports since the previous invoice. The Daily Reports feature / tab becomes available on the commitment detail after this process is initiated.

Related Topics:

- [Configuring Dynamic Cost Processes](#)
- [Invoice Monthly Daily Reports](#)

Add Dynamic Cost Columns

To add dynamic cost columns:

1. Go to the Cost settings.
2. Expand **Cost Summary**, and then click **Dynamic Cost Columns**.
3. Click **Add**.
The Dynamic Cost Column Details page is displayed.
4. In the **Name** field, enter a name for the dynamic cost column.
5. Enter a description in the **Description** field.
6. Click the **Process/Column** drop-down arrow and select an existing process/column.

7. Choose an operation radio button.
8. If necessary for your equation, enter a multiplier in the **Multiplier** field.
9. Click **Save**.

Related Topics:

- Dynamic Cost Management
- Dynamic Cost Column Details Page Overview

Configuring Dynamic Cost Processes

Setting up a dynamic cost process is much like configuring any cost process in e-Builder; the only difference is that from the **Module Integration** drop-down arrow, you will select one of the dynamic cost processes instead of a different cost entity. Detailed steps follow.

To set up a dynamic cost process

1. Go to the process settings.
For more information, see Access Process Settings.
2. Click **Manage Processes**.
3. Click **Create New Process**.
The Create New Process Properties tab displays.
4. Enter all required fields.
Note: See Properties Tab Overview for a detailed description of each field.
5. Click **Save**.
6. Click the **Data** tab.
7. Click **Edit**.
8. Click the **Include Cost Item** drop-down arrow to select one of the dynamic cost processes.

The screenshot shows the 'Data' tab of a configuration window. At the top are tabs: Properties, Data (selected), Page Layouts, and Workflows. Below is the 'Module Integration' section with a dropdown menu for 'Include Cost Item'. The dropdown is open, showing a list of options: None, Budget Change, Commitment, Commitment Change, Actual Cost, Dynamic Commitment Line Items (highlighted in blue), and Dynamic Budget Line Items. Below this is the 'Data Fields' section, which contains a table with two columns: 'Label' and 'Variable Name'. The table is currently empty.

Dynamic Cost Column Details Page

The Dynamic Cost Column Details page allows you to add new dynamic cost columns and view the details of existing dynamic cost columns. For more information on dynamic cost columns, see Dynamic Cost Management.

The field and buttons located on this page are described below:

Properties - Fields and Buttons

- **Save:** Click this button to save your changes.
- **Cancel:** Click this button to return to the Manage Dynamic Cost Columns page. All unsaved changes will be lost.
- **Name:** Enter a name for the column in this field.
- **Description:** Enter a description for the column in this field.
- **Created By:** This field displays the name of the person that created the column.
- **Created Date:** This field displays the date that the column was created.
- **Last Modified By:** This field displays the name of the person who last made changes to the column.
- **Last Modified Date:** This field displays the date that changes were last made.

Formulas - Fields and Buttons

- **Process/ Column:** Click this drop-down arrow to select a cost column to add to your dynamic cost column formula.
- **Operation:** Choose an operation radio button that applies to the first part of your equation.
- **Multiplier:** Optionally, you can enter a number to multiply the first field by.

Related Topics:

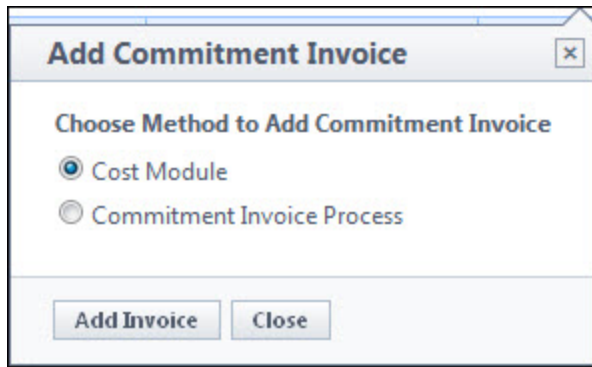
- Add Dynamic Cost Columns

Invoice Monthly Daily Reports

The Daily Reports tab allows you to add an invoice for the monthly total of inspector daily reports. After the dynamic commitment process has been initiated, this tab appears on the Commitment Details page.

To invoice monthly daily reports

1. Go to the Commitment Details page.
For more information, see Access the Commitment Details page.
2. Click the **Daily Reports** tab.
3. If necessary, filter for the appropriate daily report process.
4. Select the check box next to the processes you want to invoice against.
5. Click **Add Invoice**.
The **Choose Method to Add Commitment Invoice** dialog box displays.



6. To add the invoice via the Cost module, select the **Cost Module** radio button, and then click **Add Invoice**. The Add Invoice page is displayed for you to submit the commitment invoice.

—Or—

To add the invoice via a process, select the **Commitment Invoice Process** radio button. The Select Process drop-down arrow displays. Select a process from the list, and then click **Add Invoice**. The process instance page is displayed for you to submit the commitment invoice.

Cost Mail Merge Templates

Mail merge templates provide the capability to extract cost data from Trimble Unity Construct and plug them into a Microsoft Word® or Adobe PDF® document template. This eliminates the need to enter information into a Word document manually and reduces the margin for error. Having a system-generated document ensures the integrity of your data and it's a quick and easy way to consolidate information you've already entered once, in a ready-to-read format.

Mail merge templates can be updated with additional Trimble Unity Construct field mappings to auto-populate cost data that may not be available on the default cost mail merge templates. For more information, see [Customize Template with Field Mappings](#).

Below is a list of procedures for managing mail merge templates:

- [Customize Template with Field Mappings](#)
- [Add/Edit Mail Merge Templates](#)
- [Add/Edit Mail Merge Template Page Overview](#)

Customize Template with Field Mappings

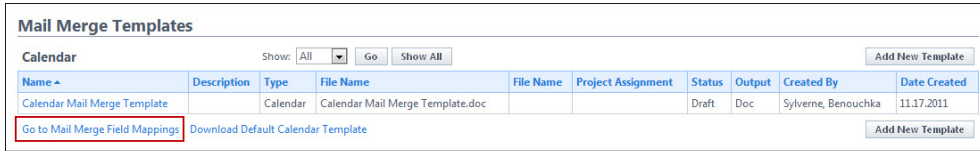
e-Builder field mappings are available to help you quickly capture data that is stored in the system into your template. Information such as project name, project contact, custom fields, various company information can all be automatically populated into your template. Using field mappings will help you save a lot of time when it is necessary to customize each various templates according to project specifications.

To customize your template using field mappings:

- [Obtain Field Mappings](#)
- [Add Field Mappings to your Template](#)

[To obtain field mappings:](#)

1. Click the Setup link.
2. In the Administration Tools section, click the module name you want to customize the template for.
3. Click **Mail Merge Templates** . The Mail Merge Templates page is displayed.
4. Click the **Go to Mail Merge Field Mappings** link.

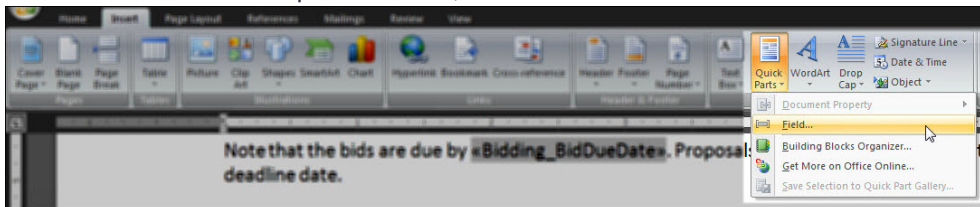


Tip

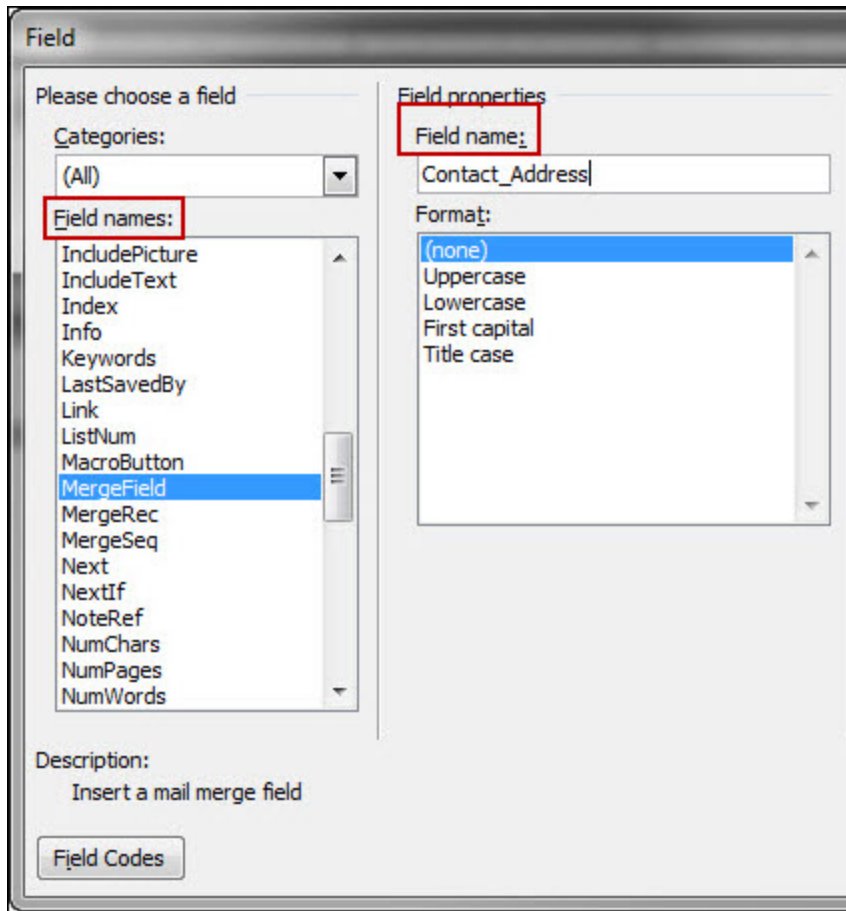
Keep this page open or print the merge codes for easy access when adding the field mappings to your template.

To add field mappings to your template (using Microsoft Word 2007 ®)

1. Open the template you want to add field mappings to.
2. Place your cursor in the position you want to add the merge code.
3. Click the **Insert** ribbon.
4. Click the **Quick Parts** drop-down arrow, and then select **Field**.



5. In the **Field names** section, scroll down and select **MergeField**.



6. Enter the e-Builder merge code in the **Field Name** field.
7. Click **OK**. The merge code is added to the word document.
8. Save the document to your local machine.
9. To store this document as a template in e-Builder, see the respective mail merge template module below:
 - Calendar Mail Merge Templates
 - Cost Mail Merge Templates
 - Forms Mail Merge Templates
 - Planning - Scenario Templates
 - Processes Mail Merge Templates
 - Schedule Mail Merge Templates
 - Submittal Mail Merge Templates

Add/Edit Mail Merge Templates

In working with mail merge templates, you are able to add templates to Trimble Unity Construct and edit the template.

The following sections are included in this topic:

- Add Mail Merge Templates
- Edit Mail Merge Templates

Add Mail Merge Templates

Having a template on file also gives you the ability to make necessary changes as they arise, without having to start over from scratch. If a custom mail merge template is not on file, users are able to use the default version.

Tip

It is recommended that you download the default Mail Merge Template to start with and save it locally for upload in step 4 below. Although this template can be modified, the default is complete with all necessary field mappings. You can also customize the template field mappings to include specific data stored in Trimble Unity Construct; for more information on how to customize the template, see [Customize Template with Field Mappings](#).

To add mail merge templates

1. Go to the Cost settings.
2. Click **Mail Merge Templates**.
3. Click **Add New Template**. The Add Mail Merge Template page displays.
4. Complete all required fields:
5. Template Name
 - a. Make template Active (available for use) or Draft.
 - b. Set output type (Word or PDF).
 - c. Click the **Type** drop-down arrow and select the type of Cost specific template you are creating.
6. Click **Browse** to search for and upload the default or custom template. See the Tip above for more information.
7. In the **Project Assignments** section, select the project(s) that you'd like to assign the template to.
8. Click **Add**. The selected project(s) is added to the box on the right.

Note: If you do not specify the project(s) that will use this template, the template will be available in all projects.
9. Click **Save**.

Edit Mail Merge Templates

1. Go to the Cost settings.
2. Click **Mail Merge Templates**.
3. Click the title of the template.
4. Click **Edit**. The Edit Mail Merge Template page is displayed.
5. Make any or all of the modifications listed below.
 - Change template name.
 - Add/ Remove/ Edit template description.

- Change status - Make template Active (available for use) or Draft.
- Change output type - Export documents to Word or PDF format.
- Change template file - Upload a new mail merge template.
- Assign template to projects.

6. Click **Save**.

Add/Edit Mail Merge Template Page

This page is displayed in the process of adding or editing a cost mail merge template.

Fields and Buttons

The fields and buttons located on this page are:

- **Save:** Click this button to save changes.
- **Cancel:** Click this button to return to the Mail Merge Templates page. All unsaved changes will be lost.
- **Name:** Enter the name of the template in this field.
- **Description:** Enter a description for the template in this field.
- **Status:** Set the status of the template by selecting either the Active or Draft radio buttons. Active templates are automatically available for use and draft templates are not available in the user interface.
- **Output:** Choose an output file type by selecting either the DOC or PDF radio buttons. This selection must match the file you will upload as the mail merge template.
- **Type:** Click this drop-down arrow to select the type of cost entity this mail merge template will be for.
- **File (*.doc):** Click **Browse** to search for and upload the template file.
- **Project Assignments:** Select the projects you want to make this template available for and the click **Add** to add selected projects in the adjacent Assigned to these Projects box. If a project is not selected, the mail merge template will be available to all projects.

Forecasting

Note: Forecasting is a feature that must be enabled by tech support in order to be utilized in the user interface; for assistance, please contact your e-Builder account manager.

Forecasting helps users plan for and anticipate possible conditions that may affect the project budget. Being able to plan for anticipated costs allows you to gage more accurate over/under budget projections for your projects. As time progresses on the project, you can use the forecast to take into consideration professional estimations by the project manager to reflect real life circumstances. The forecast can then be adjusted for each budget line item as appropriate, which will automatically affect the estimate at completion and forecasted over/under (variance) calculations.

Why Forecast?

Forecasting is really the core of any business plan because you must identify your destination before you can figure out the best path. A forecast is not 100% accurate, but accurate enough to identify possible risks. The earlier you know about a possible risk the better off you are in eliminating it.

In the world of construction, forecasting is a key ingredient to meeting or beating your budgets. By instituting a disciplined forecasting process you can communicate the anticipated cost of the project (and program) with much greater certainty. That process involves putting together carefully reasoned assumptions based on professional estimates, logs (like potential change order log, RFI log, issue log, etc.) and IT, furniture and equipment lists (to name a few) quantified in a systematic way to make your projections as accurate as humanly possible. Some of this information will be contained in various logs in your e-Builder reports, forms and documents.

Often people refer to forecasting as a mysterious process, as no one can predict the future. However, it is possible to make reasonable predictions or assumptions on how events will turn out based on the logical assessment of the facts presented to you and the e-Builder Forecast toolset allows you to do this. The more practice and experience gained from forecasts, the easier and more beneficial forecasting becomes.

More information about facilitating the forecasting process is available in the user assistance help guide; see Forecasting for more information.

The following topics are included in this section:

Forecasting Settings Page Overview

Forecasting Settings Page

The Forecasting Settings page displays after Forecasting has been enabled on the account by an e-Builder Support staff member. To request access to this feature, please contact e-Builder Support at support@e-builder.net or 1-888-288-5717.

Refer to Forecasting in cost to learn how to facilitate the forecasting process in e-Builder once it is enabled.

Fields and Buttons

The fields and buttons located on this page are:

- **Disable:** Click this button to disable the Forecasting toolset. Once forecasting data has been entered into the system, Forecasting cannot be disabled.
- **Save:** Click this button to save changes.
- **Forecasting:** This field displays the status of the forecasting feature, either enabled or disabled.
- **Calculate Forecasted Over/(Under) Using:** Click this drop-down arrow to make a choice on what the forecasted budget should be based on, either the current budget or projected budget. A description of each is provided below:
 - **Current Budget:** This is the approved original budget and all approved budget changes.
 - **Projected Budget:** This total includes the original budget amount plus all pending, projected, and approved budget changes.
- **Forecasting Method:** Click this drop-down arrow to make a choice on the method of forecasting. A description of each option is listed below:
 - **Detailed and Adjustments:** This is the default option. This method of forecasting allows you to switch back and forth between both modes while forecasting, giving you the option to view the

forecast differently at any given time.

- **Detailed Only:** For each budget line item, a list of forecasted commitments is recorded. Each item represents a future commitment that is not represented as a commitment or commitment change within the cost module. In addition to the description, assumption and forecast amounts there are check boxes for each forecast item that indicates whether or not the item is captured in the budget or in commitments.
- **Adjustment Only:** This option only allows users to work with forecasts in the adjustment mode. Each time the forecast is updated in adjustment mode, the cost manager is evaluating, on a budget line item basis, the unallocated against the amount of work left on the job and adjusting the reserve up or down as necessary.
- **Hide Current Commitments:** Select this check box to hide current commitments from the forecast. This feature allows you to customize the view and use of the forecast to better suit your needs.
- **Hide Actuals Approved:** Select this check box to hide approved invoices from the forecast. This feature allows you to customize the view and use of the forecast to better suit your needs.
- **Forecasting Instructions:** Enter instructional text for your users in this field. This is an opportunity to explain how to use forecasting. If this field is left blank it will not appear in the user interface.

Related Topics:

- Forecasting

Units of Measure

Commitments can be entered as lump sum quantities or as unit costs. In order to enter commitment items as unitized costs, the units of measure in the Cost module must first be defined.

These units of measure configurations affect the Planning module as well. When creating project scenarios, category assumptions can be entered using a number of metrics that include lump sum (LS), unitized cost (UC), square feet (SQ) and formula (F).

If these settings are not already defined, follow the steps below to define Cost Units of Measure.

1. Click **Setup**.
2. In the **Administration Tools** section, click **Cost**.
3. Click **Units of Measure**.

If these settings are already defined, a list of available units of measure (UOM) displays. Otherwise, continue to step four to define the UOM.

4. Click **Use Defaults** to use a default list.

—Or—

Enter each individual UOM abbreviation and description per line.

5. Click **Save**.

Scheduled Tasks

The Scheduled Tasks feature displays a list of scheduled task subscriptions, the frequency with which the tasks run, and the status (success/ fail) of the task the last time it was run.

Note: You must have permission to access the Administration Tools to use this feature. To delete or disable a scheduled task, you must contact Technical Support.

To access the Scheduled Task Subscriptions page

1. On the top navigation tabs, click the Setup tab.
2. In the **Administration Tools** section, expand **Automation** and click **Scheduled Tasks**.
The Scheduled Task Subscriptions page is displayed.

To view a scheduled task

1. Open the **Scheduled Task Subscriptions** page.
2. Click **View** next to the task you wish to view.

To run a scheduled task

1. Open the **Scheduled Task Subscriptions** page.
2. Click **Run Now** next to the task you wish to run.

Note: You must have the role that is authorized to run the task.

Project Details Page

The Project Details page may be the most frequently viewed page among project members, as it provides key information about the project, such as project name, the administrator, the status of the project and the start and target dates, for example. All project participants have access to this page, although certain data will be exclusive to administrators and users with certain project permissions.

The toolbar buttons and sections on the Project Details page are:

Toolbar Buttons

- **Export Address Book:** Click to export the project address book either as a VB Script, which can be used to import contacts into Outlook or an Excel spreadsheet.
- **Printable Participants Directory:** Click to generate a printable directory of project participants.
- **Edit:** This button is only available to administrators and users with Update Project Details permissions. Click to edit project details.
- **Cancel:** Click to discard changes.

Details Section

- **Project Name:** Displays the name of the project.
- **e-Builder Project Administrator:** Displays the name of the project administrator.
- **Description:** If available, displays a description of this project.
- **Project Status:** Displays the status of the project.
- **Address:** Displays the address of the project site..
- **Country:** Displays the country where the project is taking place.
- **Start Date:** Displays the date that the project will begin.
- **Target Date:** Displays the date that the project is scheduled to end.
- **Project Webcam:** If available, displays the URL of the webcam at the project site.

- **Web Links:** If available, displays the web address of a project-related website.

The tabs on the Project Details page are:

Custom Fields tab

If there are project custom fields available, they display on this tab. Custom fields allow you to group or filter information according to specific business processes in your reports. For more information, see About Global Custom Fields.

Project level options are available for projects that have a Drop Down, Multiple Pick, Radio Button or a Checkbox data type selected. This is available for custom fields and Process Data Fields only. When configuring a field of one of these types, you now have the ability to set the options at the:

- Account Level
- Project Level: Options can be different project by project

Notes tab

This tab displays all available notes and allows you to add new notes about the project. Once notes are added, they cannot be edited or deleted. Users with 'Manage Private Notes' permissions are able to add and view private project notes.

Documents tab

This tab displays all documents that have been attached to this project. From here you are also able to attach documents to the project. For instructions, see Attach Documents to Project Details.

Forms tab

This tab displays all forms that have been attached to this project. From here you are also able to attach forms to the project. For instructions, see Attach Forms to Project Details.

Processes tab

This tab displays all processes that have been attached to this project. From here you are also able to attach processes to the project. For instructions, see Attach Processes to Project Details.

Settings tab

Project Settings

- **Project Access:** This field is visible only to administrators and users with Update Project Details permissions. This setting indicates whether or not users are allowed to log in to the project. If a project is still being set up, administrators may choose to temporarily restrict access.
- **Deny Techsupport Access?:** Indicates whether or not e-Builder Technical Support is able to access this project. Tech Support access may be necessary for troubleshooting issues users might experience. However, projects that include confidential content may need to be restricted.
- **Enable Document Control:** This field is visible only to administrators and users with Update Project Details permissions. This setting indicates whether or not document control is enabled. Document control allows document custom fields to be completed on a project. Even if document custom fields are available, unless this setting is enabled, users will not be able to complete these fields on a project. For more information, see Add Document Custom Fields.

- **Plan Room Access:** Displays the level of access for the Plan Room. For more information on this feature, see About the Plan Room. Options include the following:
 - **None:** Access to the Plan Room is restricted.
 - **Internal:** Plan Room access is limited to licensed e-Builder users only. Users are only able to access the plan room through e-Builder; a URL is not generated with this access type.
 - **Public:** The Plan Room is publicly enabled and can be accessed via the URL that appears in the following **External Plan Room URL** field.
 - **Shared Password:** The Plan Room can only be accessed using a password, which can be obtained by an account or project administrator.
- **Equipment Management Tool Integration?:** Indicates whether or not the project is integrated with a third party equipment management tool. For more information, see About Equipment Items. The options are as follows:
 - **Yes:** This project is integrated with a third-party equipment management tool; therefore the use of this feature within e-Builder is limited. Updates to the equipment list can only be done outside of e-Builder. Within e-Builder, this feature can only be used for budgeting and viewing the equipment list and the status of equipment items.
 - **No:** This project is not integrated with a third-party tool and maintains full use of the Equipment Management feature.

Workflow Settings

- **Workflow Due Date Offset:** Enter the number of days that the workflow forms are due after it has been initiated. For example, if workflow forms should be submitted, within seven days of being received, enter 7 in this field.

Project Calendar

This section includes general information about the project's calendar, such as the start and end times of the work day and the days that make up the work week. These settings influence the project calendar and schedule modules only. They do not affect due dates and escalation calculations in areas such as processes, submittals and forms.

- **Work Day Start Time:** Displays the time that the work day begins.
- **Work Day End Time:** Displays the time that the work day ends.
- **Work Week:** Displays the days of the week that makes up the work week.

Calendar Exceptions

This section lists all the days that are treated as exceptions to the general rule, such as holidays that fall on typical working days. Knowing these days early on allows you to plan effectively. Calendar Exceptions can also be created at the account level by the administrator. These exception dates apply to every project in the account. When you edit the Settings tab, exceptions with a grayed out checkbox are account level and cannot be changed.

Note: If the Multiple Calendar or Resource Management features are activated, then Calendar Exceptions from Project Details are no longer connected to the schedule module. Non-working time is defined on each individual calendar from the Working Time button on the schedule toolbar.

Create a Budget

Only one budget is permitted per project. When a project does not have an approved budget yet, the following message is displayed: "Your budget is draft". This message will continue to appear until a budget has been approved, even if you've added budget details such as line items and other data. You are still able to make changes to budget data in draft mode without fear that your data will be lost.



Your budget is **draft**.

Note: Once a budget has been approved, the dollar amounts cannot be changed through the Edit Details page. To change budget amounts post approval, a budget change is required.

To create a budget

1. Go to the Cost module.
For more information, see [Access the Cost Module](#).
2. Click the **draft** link.
The Budget Details page is displayed.
3. From here you can take any of the following actions toward working with the budget:
 - Apply Budget Template
 - Add Budget Line Items
 - Edit Budget Details
 - Request Budget Approval
 - Approve Budget Approval Request
 - Add Notes to Budget/Line Items
 - Attach Documents to Budget/Line Items
 - Attach Forms to Budget/Line Items
 - Attach Processes to Budget/Line Items
 - Print a Budget Mail Merge Template

Apply Budget Template

Budget templates are created by your e-Builder Administrator and are used to quickly apply budget line items when creating your budget. Even if a budget template does not have all or may have more budget line items than you may need, they can save you a great deal of time. Line items from budget templates can always be edited after they have been applied. If you wish to create or modify a budget template, contact your e-Builder Administrator. For more information, see [Working with Budget Templates](#).

To apply a budget template

1. Go to the Budget Details page.
For more information, see [Access the Budget Details Page](#).
2. Click **Apply Template**.
The Apply Template page is displayed.
3. Click the name of the template you want to apply.
4. Click **Continue**.

Approve Budgets

Approve budget approval request

When a budget approval has been requested, the pending request appears in the Items Pending Approval list for all users with Approve Final Budget permissions. These requests are also displayed on the Home page in the Items Pending Approval section. Below are steps for responding to an approval request from the Cost "Quick Links" Menu.

To respond to a budget approval request

1. Go to the Cost Quick Links menu.
2. Click **Items Pending Approval**.
For a detailed description of this page, see [Items Pending Approval Page Overview](#).
3. Click the **Approve** or **Reject** link for each pending request.

Approve budget


If you have Approve Budget permission, you can approve a budget.

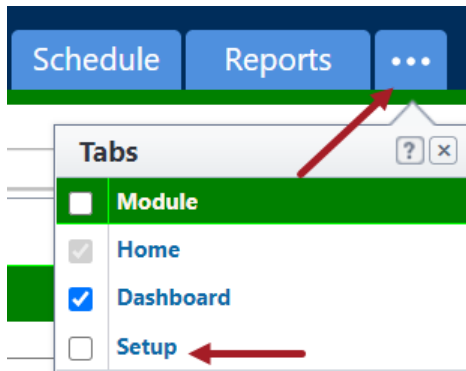
To approve a budget

1. Go to the Budget Details page.
2. Click **Approve**.
3. Enter the approval date.
4. Click **Approve Budget**.

Access Document Settings

To access Documents settings

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.
If the Setup tab is not visible, click , and then select the **Setup** check box.



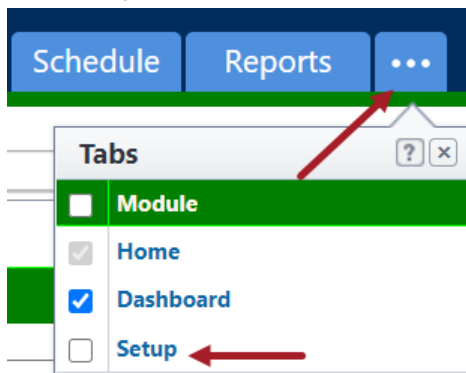
2. In the **Administration Tools** section, click **Documents**.

Access Document Settings

To access Documents settings

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click **...**, and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Documents**.

Manage Document Types

Having document types allow administrators to categorize the types of documents that are stored in the Documents module. This enhances document reporting and search capabilities. For each document type, you can set up one or more custom fields that can be used to capture additional information for each document type. This information can then be used in reports and in the plan room.

Related Topics:

- Add Document Types
- Enable Document Types
- About the Plan Room

Add Document Types

To define document types

1. Go to Documents Settings.

2. Click **Document Types**.

The Document Types page is displayed.

3. To use default document types, click **Use Defaults**.

The following defaults display:

- As Built
- Budget
- Change Order
- Contract
- Correspondence

—Or—

4. To add your own document types, click **Add Document Type**. The Add Document Type page is displayed.

5. Enter the required fields.

6. Click **Save**.

7. If you are ready to make these document types available to users, click **Enable**.

—Or—

Enable document types at another time.

Enable/ Disable Document Types

Account level document control must be enabled for individual projects to utilize document control to tag uploaded documents.

To enable document control

1. Open Documents Settings.
2. Click **Document Types**. The Document Types page is displayed.
3. Click **Enable**. The **Document Control** field displays "Enabled" and the button label changes to "Disable".

To disable document control

1. Open Documents Settings.
2. Click **Document Types**. The Document Types page is displayed.
3. Click **Disable**. The **Document Control** field displays "Disabled" and the button label changes to "Enable".

Tip: After account level document control is enabled, all new projects will have the project level document control also enabled by default ("Yes"). However, the setting must be enabled individually for previously created projects.

Related Topics:

- Add Document Types
- Enable Project Document Control

Delete Document Types

Note: You cannot delete document types that are already in use.

To delete document types

1. Go to Documents Settings.
For instructions, see Access Documents Settings.
2. Click **Document Types**.
The Document Types page is displayed.
3. Click the **Delete** link next to the document type.
A confirmation dialog box is displayed.
4. Click **Yes, delete the document type**.

About Document Custom Fields

Document custom fields are attributes of a document that help further describe it and its purpose. Examples of document custom fields might include trade, language, PO Type, etc. With these values defined for each file, it broadens the scope by which users can report on, categorize, and search for the documents they need.

Related Topics:

- Add Document Custom Fields

Add Document Custom Fields

Custom fields allow you to gather additional information that may not be covered in the Documents module. This data is used for reporting purposes.

Note: In addition to having document custom fields available on the account, the "Enable Document Control" setting must also be enabled at the project level to allow users to complete these custom fields. For instructions, see Enable Document Control.

Tip: You can add custom fields under the Documents Custom Field menu option. However, it is **strongly** recommended that you use the **Global Custom Fields** menu option instead and add the Object Type "Document" when creating custom fields. The Global Custom Fields have a wider range of formatting options and can be applied to multiple modules at once. For more information on custom fields, see About Global Custom Fields.

To add document custom fields

1. Go to Documents settings. For instructions, see Access Documents Settings.
2. Click the **Custom Fields** link. The Document Custom Fields page is displayed.
3. Click **Add Field**. The Select Data Type page is displayed.

4. Select the type of field you want to create, and then click **Next**. The Custom Field Details page is displayed.
5. Enter the custom field name in the space next to **Field Label**.
6. Complete all necessary fields.
7. Click **Next**. The Field Summary page is displayed.
8. Review the custom field details. If changes are not required, click **Save**.

Import Document Custom Fields

This task can be completed by:

- *Account Administrators*
- *Participants with 'Document Import' Permission*

Document custom fields can be imported for multiple projects at a time. When document control is enabled on a project, participants have the opportunity to complete document custom fields at the time of upload. However, non-required fields may not always be entered. Also, administrators may feel more comfortable completing these fields to ensure consistency. Importing document custom fields is a great time-saving tool that allows you to manage these fields more easily.

Prerequisites:

1. Enable document control for the account.
2. Add custom document types or use default document types using the Document Types page.
3. Add at least one global custom field of the Document type from the Global Custom Fields page.
4. Associate custom fields to Document Types using the Edit Document Type page.
5. Enable document control for the project on the Settings tab of the Project Details page.
6. Enable the import permissions for the user to import document custom fields on the Documents tab of the Manage Permissions page.

Note: When all the above prerequisites have been met, the Custom Fields menu option and the Import Document Custom Fields feature are displayed and available for use. The Custom Fields tab will also be visible on the File Properties window for each document. The file uploader will prompt the user to add details in the custom fields for newly uploaded files.

7. Prepare and set up the Document Custom Field Import File.

To import document custom fields

1. Click **Documents** from the Top Navigation tabs.
2. In the Quick Links menu located in the upper right corner of the page, click **Import Document Custom Fields**.
3. Click **Browse** to search for and select the import file.
4. Click **Next**.
5. If necessary, map the e-Builder built-in fields to the corresponding fields in the import file.

To learn more, see [Set Up Document Custom Field Import File](#).

6. Click **Next**.
7. Review the import summary. If there are exceptions, click **Previous** to make necessary changes.

—Or—

If there are not necessary changes, click **Import**.

Associate Custom Fields with Document Types

Adding custom field options to document types creates file associations and gives users additional options by which to find the documents they're looking for during searches and reporting. For example, if one of your document types is Drawings, then you can add custom fields of Trade, Zone, and Floor to the Drawings document type. By setting it up this way, users will only see those custom fields specific to this document type (i.e. architectural drawings, drawings for zone A, 2nd floor drawings, etc.), when accessing files for reporting purposes or using the plan room.

Before you can associate custom fields to document types, please ensure that document types exist and are enabled for your project. For instructions on enabling and adding document types, see:

- [Add Document Types](#)
- [Enable/Disable Document Types](#)

To associate custom fields with document types

1. Go to Documents Settings.
For instructions, see [Access Documents Settings](#).
2. Click the **Document Types** link.
The Document Types page is displayed.
3. Click the name of the document type you want to add custom fields to.
A list of all document custom fields display in the box on the left.
4. Select the custom field(s) you want to add to the document type, and then click **Add**.
5. Use the controls on the right side of the page (**Top, Up, Down, and Bottom**) to order the items will appear.
6. Click **Save**.

About Custom Field Dependencies

Note: Custom field dependencies can only be created with multi-pick lists and drop-down list custom fields because dependencies are created based on the values of these fields.

Custom field dependencies allow you to specify a controlling field, that when selected will display specific options for project participants to choose from. Narrowing down the options for users to choose from makes completing custom fields less daunting and more efficient. Making these associations further insures that proper data is being collected, which in turn strengthens report data. Field dependencies also speed up the manual effort required to complete custom fields as new projects are created.

Example

If your organization builds for a Healthcare System with various hospital projects going on, you might have a custom field for Medical Center and another for On-Site Lab. Custom field dependencies would allow you to display only the labs which are appropriate for a specific medical center. The custom fields and values for each might be as follows:

| Custom Fields (CF) | |
|--------------------|------------------|
| | Medical Centers: |
| CF Values | Emergency Room |
| | Urgent Care |
| | Genetics |
| | Toxicology |
| | On-Site Labs: |
| | Radiology |
| | Blood Tests |
| | DNA |

For an Emergency Room, it might make sense to have the Radiology and Blood Test labs available. However, for the Toxicology Center, the Blood Test lab might be the only one that applies. In addition to this, the Genetics Center might only need a DNA lab.

Medical Center

Emergency Room

On-Site Lab

Radiology ✓
Blood Tests ✓
DNA

Medical Center

Toxicology

On-Site Lab

Radiology
Blood Tests ✓
DNA

Medical Center

Genetics

On-Site Lab

Radiology
Blood Tests
DNA ✓

Terminology

Step 1: Choosing the Controlling and Dependent Fields

Add Custom Field Dependency

Select Fields



*

Select a Controlling field:

Medical Center

▼



*

Select a Dependent field:

On-Site Labs

▼

When setting up field dependencies you will have to choose the controlling and dependent field. The **controlling field** is the primary field of selection that will determine the available options of a subsequent field, which is referred to as the **dependent field**. From the examples above, the controlling field would be Medical Centers, and On-Site Labs would be the dependent field.

Assigning Field Dependencies

Step 2: Assigning field dependencies

When a controlling or dependent field is selected, its values populate the subsequent drop-down menu. Once a value is selected, such as Medical Center, values of the converse field populate for you to choose the dependent relationship. Selected field values save automatically. For instructions, see Add Field Dependencies.

Add Document Custom Field Dependencies

To add custom field dependencies

1. Go to Documents Settings.
For instructions, see Access Document Settings.
2. Click **Custom Fields**.
The Document Custom Fields page is displayed.
3. Click **Field Dependencies**.
The Document Custom Field Dependencies page is displayed.
4. Click **Add Dependency**.
The Add Custom Field Dependency page is displayed.
5. Click the **Select a Controlling field** drop-down arrow to select the controlling field.
6. Click the **Select a Dependent field** drop-down arrow to select the dependent field.
7. Click **Next**.
The Add Custom FieldDependency page is displayed.
8. Map the dependencies as appropriate to each controlling field.

For a description of the fields and buttons located on this page, see [Add Custom Field Dependency Page Overview](#).

9. Click **Save** or **Save & Add** (if adding another field dependency) when you are complete with the assignments.

Note: You do not have to select a dependency for each of the field values. For those that are left blank, Trimble Unity Construct will treat them as if there is no field dependency assigned and the user will have to select a value for each of the fields; hence, no link or dependency is in place.

Related Topics:

- [About Custom Field Dependencies](#)
- [Edit Custom Field Dependencies](#)

Edit Custom Field Dependencies

To edit custom field dependencies

1. Go to Documents Settings.
For instructions, see [Access Document Settings](#).
2. Click **Custom Fields**.
The Document Custom Fields page is displayed.
3. Click **Field Dependencies**.
The Document Custom Field Dependencies page is displayed.
4. Click the edit link next to the field dependency you want to modify.
The Edit Custom Field Dependency page is displayed.
5. Make the necessary changes.
For a description of the fields and buttons located on this page, see [Edit Custom Field Dependency Page Overview](#).
6. Click **Save**.

Related Topics:

- [Add Document Custom Field Dependencies](#)
- [About Custom Field Dependencies](#)

Delete Custom Field Dependencies

To delete custom field dependencies

1. Go to Documents Settings.
For instructions, see [Access Document Settings](#).
2. Click **Custom Fields**.
The Document Custom Fields page is displayed.
3. Click **Field Dependencies**.

The Document Custom Field Dependencies page is displayed.

4. Click the delete link next to the field dependency you want to remove.
A confirmation page is displayed.
5. Click **Yes, Delete the Custom Field Dependency**.

Related Topics:

- Add Document Custom Field Dependencies
- About Custom Field Dependencies

About Document Stamps

Physically stamping documents can be time-consuming and costly, but necessary none-the-less. Document stamps are often needed to physically mark permits, drawings, submittals and payment applications. Without an electronic source to complete these tasks, these documents have to be printed, routed by mail or faxed and sent back to the sender. Account administrators are able to upload image files to be used as a stamp on any PDF document. After stamps are loaded, permissions can be set for each one. A list of pre-loaded stamps will appear when a document is opened and users will have the ability to drag and drop stamps onto their files.

The following topics will help you manage document stamps:

- Upload Stamps
- Edit Stamps
- Delete Stamps

Upload Document Stamps

The Document Stamps feature allows you to upload and then customize your own stamps into Trimble Unity Construct for use on any document stored in the system, which includes files that are attached to all items in Trimble Unity Construct.

To add document stamps

1. Go to Document Settings.
For instructions, see Access Document Settings.
2. Click **Stamps**.
The Manage Stamps page displays.
3. Click **Add Stamps**.
The Add Stamp page displays.
4. In the **Stamp Details** section, complete all necessary fields.
For a description of all the fields located on this page, see Add/Edit Stamp Page Overview.
5. In the **Stamp Settings** section, complete all necessary fields.
6. In the **Permissions** section, complete all necessary fields.
7. Click **Save**.

Related Topics:

- Edit Stamps
- Delete Stamps

Edit Document Stamps

Document stamps can be modified by changing the stamp file itself or changing file name, size, transparency, name display, date display and level of access.

To edit stamps

1. Go to Document Settings.
For instructions, see Access Document Settings.
2. Click **Stamps**.
The Manage Stamps page is displayed.
3. Click the **Edit** link to the left of the image.
The Edit Stamp page is displayed.
4. Make all necessary changes to the details of the stamp in the **Stamp Details** section.
For a description of all the fields located on this page, see Add/Edit Stamps Page Overview.
5. Make all necessary changes to the details of the stamp in the **Stamp Settings** section.
6. Make all necessary changes to the details of the stamp in the **Permissions** section.
7. Click **Save**.

Related Topics:

- Upload Stamps
- Delete Stamps

Delete Document Stamps

Stamps that have already been used will not be affected if the stamp is later deleted. Deleted stamps will no longer be available for use.

To delete stamps

1. Go to Document Settings.
For instructions, see Access Document Settings.
2. Click **Stamps**.
The Manage Stamps page is displayed.
3. Click the **Delete** link to the left of the image.
The Delete Stamp confirmation page is displayed.
4. Click **Yes, Delete this Stamp**.

Related Topics:

- Upload Stamps
- Edit Stamps

About Trimble Unity Construct Sync Options

Trimble Unity Construct sync options is a feature that has to be enabled per account, by contacting the Trimble Support team.

This feature gives you the ability to synchronize your Trimble Unity Construct folders with a server so that you can transfer documents between the two. It's used to upload / download multiple files at once. It is also an alternative for using the Multi-File Upload feature that appears when uploading documents. A 3rd party FTP tool is required for using Trimble Unity Construct Sync.

Below is a list of tasks that will assist you in working with Trimble Unity Construct Sync:

- Set up Trimble Unity Construct Sync Options
- Download FTP Client
- Configure FTP Client

Set up Trimble Unity Construct Sync Options

To set up Trimble Unity Construct Sync Options

1. Go to Documents Settings.
For instructions, see Access Documents Settings.
2. Select the **Enable Trimble Unity Construct Sync** check box.
For a description of the fields and buttons located on this page, see Trimble Unity Construct Sync Options Page Overview.
3. Click **Save**.

About Spam Filter

The Spam Filter is used to detect spam that may have been emailed into document folders. Both Trimble Unity Construct licensed and non Trimble Unity Construct users are able to email content into Trimble Unity Construct Enterprise through the document library email-in capability, calendar responses, and via offline workflow. Especially in the context of emailing in to the document library, these document folders become vulnerable to spam. When the folder URLs are distributed to internal and external participants, these email addresses can find their way into the hands of spammers if, for example, a user adds the address to their outlook address book and their machine is compromised by malware that reads email addresses and sends to spam outlets. The result is that spam content is mailed into the Trimble Unity Construct document folders.

The anti-spam filter analyzes inbound messages to determine whether or not they are spam. Non-spam is processed normally. Potential spam is quarantined. Account administrators can manage the spam quarantine by going to the Quarantine page. Items can be confirmed as spam and deleted or flagged as valid so that they're delivered normally.

Related Topics:

- Enable/Disable Spam Filter
- Quarantine Page Overview

Enable/Disable Spam Filter

The anti-spam filter is used to detect spam that may have been emailed into document folders.

Note: This feature is enabled by default.

To enable or disable the anti-spam filter

1. Go to Document settings.
For instructions, see Access Document Settings.
2. Click **Spam Filter**.
The Spam Filter page is displayed.
3. To enable this feature, select the **Enable Spam Filter** check box.
—Or—

To disable this feature, clear the **Enable Spam Filter** check box.

Related Topics:

- About Spam Filter
- Quarantine Page Overview

Document Types Page Overview

This page allows you to add new document types and modify existing ones.

For more information, see About Document Types.

You can take the following actions on this page:

- Add Document Types
- Enable/Disable Document Types
- Delete Document Types

Fields and Buttons

The fields and buttons on this page are:

- **Enable:** Displays when document types are disabled. Click to enable all document types. Individual document types cannot be enabled at a time, they must all be enabled at the same time.
- **Disable:** Displays when document types are enabled. Click to disable all document types. Document types cannot be disabled individually; you can only disable all at the same time.
- **Document Control:** Displays whether or not document types are enabled or disabled.
- **Use Defaults:** Click to add default document types to the list of account document types. Default options are as follows:
 - As Built
 - Budget
 - Change Order
 - Contract

- Correspondence
 - Drawing
 - Invoice
 - Meeting Minute
 - Permit
 - Reports
 - RFI
 - Schedule
 - Submittal
 - Transmittal
- **Add Document Type:** Click to add a new document type. The Add Document Type page displays.
 - **Edit:** Click to make changes to document type details. The Edit Document Type page displays.
 - **Delete:** Click to delete the document type. If the document type is currently in use, you will not be able to delete it.
 - **Name:** Displays the document type name.
 - **Description:** Displays the description of the document type.
 - **Created By:** Displays the name of the person who created the document type.
 - **Date Created:** Displays the date that the document type was created.

Add/ Edit Document Type Page

This page allows you to add and modify existing document types.

Fields and Buttons

The fields and buttons located on this page are:

- **Save:** Click to save changes
- **Cancel:** Click to discard changes and return to the Document Types page. All unsaved changes will be lost.
- **Name:** Enter the name of the document type.
- **Description:** Enter a description of the document type.

Custom Fields

Use this section to associate custom fields to the document type. Document custom fields are attributes of a document that help further describe it and its purpose. Examples of document custom fields might include *trade, language, PO Type* etc. With these values defined for each file, it broadens the scope by which users can report on, categorize, and search for the documents they need.

- **All Custom Fields:** Select the custom fields you want to associate to the document type, and then click the right directional arrow to add them to the adjacent Selected Custom Fields box.
- **Selected Custom Fields:** Custom fields in this box are those associated with the document type. Use the up and down directional arrows to change the order in which these fields will display to end users.

Document Custom Fields Page

The Custom Fields page allows you to view all available custom fields. The following tasks can be taken from this page:

- Add Document Custom Fields
- Add Custom Field Dependencies

Fields and Buttons

The fields and buttons located on this page are:

- **Reorder:** Click to change the order that the custom fields display. The Reorder Custom Fields page is displayed.
- **Add Field:** Click to add new custom fields. The Add/Edit Custom Field page is displayed.
- **Field Dependencies:** Click to add field dependencies. The Custom Field Dependencies page is displayed.
- **Edit:** Click to make changes to custom field details. The Add/Edit Custom Fields page is displayed.
- **Delete:** Click to delete the custom field. You are prompted for confirmation.
- **Replace:** For drop-down and multiple pick fields only, click to replace an old value with the new value.
- **Label:** Displays the custom field name.
- **Data Type:** Displays the custom field data element.
- **Permission:** Displays the custom field permission settings.
- **Unique:** Displays whether or not the custom field is a unique. Unique custom fields are those that cannot be duplicated in other projects.
- **Last Modified By:** Displays the name of the user that last modified the custom field record.

Reorder Custom Fields Page

Custom fields display in the order they appear here. Use this page to reorder custom fields. Select a field, and then use the directional arrows to change the position of select fields.

Buttons

- **Save:** Click to save changes
- **Cancel:** Click to discard changes. All unsaved changes will be lost.

Document Custom Field Dependencies Page

This page allows you to manage field dependencies. Custom field dependencies help you establish a relationship between related custom fields so that when a controlling field is selected or completed, the dependent fields will be restricted to the values available; dependent fields are not auto populated. Using this feature ensures that all custom fields that are related are filled out completely. To learn more, see About Document Custom Field Dependencies.

The following actions can be taken from this page:

- Add Document Custom Field Dependencies
- Edit Document Custom Field Dependencies
- Delete Custom Field Dependencies

Fields and Buttons

The fields and buttons located on this page are:

- **Add Dependency:** Click to add document custom field dependencies.
- **Cancel:** Click to discard changes and return to the Document Custom Fields page.
- **Edit:** Click to make changes to the field dependency. The Edit Custom Field Dependency page is displayed.
- **Delete:** Click to delete the document custom field dependency. You are prompted for confirmation.
- **Controlling Field:** Displays the controlling field. For more information, see About Custom Field Dependencies.
- **Dependent Field:** Displays the dependent field. For more information, see About Custom Field Dependencies.

Edit Custom Field Dependency Page

This page allows you to map the values of the controlling field to the values of the dependent field. Controlling field values display in the table header. Dependent fields are listed on the left side of the table.

For more information on custom field dependencies, see About Custom Field Dependencies.

For instructions, see Add Document Custom Field Dependencies.

Fields and Buttons

The fields and buttons located on this page are:

- **Save:** Click to save changes.
- **Cancel:** Click to discard changes and return to the Document Custom Field Dependencies page.
- **Edit:** Click to edit the field dependency.
- **Delete:** Click to delete the field dependency.
- **Controlling Field:** This column lists the controlling fields, which is the field that will control the appearance of the dependency field when it is selected or completed.
- **Dependent Field:** This column lists the dependent fields, which is the field that will appear when the controlling field is selected.

Trimble Unity Construct Sync Options Page

Enabling the Trimble Unity Construct sync options allows you to utilize the Trimble Unity Construct WebDAV Service, which is an FTP tool used to upload and download files and folders between e-Builder and your computer. For information on obtaining this service, please contact Trimble Support.

Fields and Buttons

The fields and buttons located on this page are:

- **Save:** Click to save changes
- **Cancel:** Click to discard changes. All unsaved changes will be lost.
- **Enable Trimble Unity Construct Sync:** Select to enable Trimble Unity Construct sync options.
- **Define Account Short Name for Login:** Enter a short name for your account. This name is used to identify the account when using the Trimble Unity Construct WebDAV Service.

Manage Stamps Page

The Manage Stamps page allows you search for, view, edit and add new document stamps. From this page you can take any of the following actions:

- Upload Stamps
- Edit Stamps
- Delete Stamps

The fields and buttons on this page are:

Filter Stamps - Fields and Buttons

- **Name Contains Text:** Enter some or all of the text included in the name of the stamp you want to filter for.
- **Description Contains Text:** Enter some or all of the text included in the description of the stamp you want to filter for.
- **Assigned to Role:** Click the drop-down arrow to make a selection and filter for stamps assigned to a specific role.
- **Assign to User:** Enter a user's name to filter for stamps assigned to a specific user.
- **Show All:** Click to show all stamps.
- **Filter:** Click to filter for stamps based on filter criteria.

Stamps - Fields and Buttons

- **Add New Stamp:** Click to add a new stamp.
- **Edit:** Click to edit the details of the stamp.
- **Delete:** Click to delete the stamp.
- **Name:** Displays the name of the stamp. Click to open the Edit Stamp page and modify the stamp.
- **Description:** Displays the description of the stamp.
- **File Name:** Displays the name of the stamp file.
- **Height:** Displays the height of the stamp in pixels.
- **Width:** Displays the width of the stamp in pixels.
- **Transparency:** Displays the transparency percentage of the stamp.
- **Permission:** Displays the access permission of the stamp.
- **Last Modified By:** Displays the date and name of the person that last modified the stamp.

Add/Edit Stamp Page

The Add Stamp page allows you to upload stamps into e-Builder and also adjust stamp settings and access permissions. For step-by-step instructions, see Upload Stamps.

Fields and Buttons

The fields and buttons located on this page are:

- **Save:** Click to save changes.
- **Cancel:** Click to discard changes.
- **Stamp Details:**
 - **Name:** Enter a name for the stamp.
 - **Description:** Enter a description of the stamp.
 - **Source File:** Click **Browse** to search for and upload a stamp. Only .jpg and .png file types are accepted.
- **Preview:** After an image as has been uploaded, it appears in this section and updates dynamically, based on the settings you apply to it. The background text gives you a preview of how the stamp will look layered on top of written content.
- **Stamp Settings**
 - **Height:** After a file has been uploaded, this field automatically populates with the height of the picture in pixels. Enter a preferred height to make changes. Click away from this field to see the selected height in the Preview section.
 - **Width:** After a file has been uploaded, this field automatically populates with the width of the picture in pixels. Enter a preferred height to make changes. Click away from this field to see the selected width in the Preview section.
 - **Maintain Aspect Ratio:** This check box is selected by default. Select to keep the aspect ratio of the image as you make changes to the width and height.
 - **Transparency:** Modify the transparency of the image by sliding the node across the transparency bar. You can also use the up and down arrows in the percentage field. You are able to view the transparency setting in the preview section.
 - **Name Display**
 - **None:** This is the default setting. Select if you do not want to include a your name as part of the stamp.
 - **First Name Last Name:** Select to display your first and last name as part of the stamp.
 - **User Name:** Select to display your username as part of the stamp.
 - **Position:** This setting displays only if a display name setting is selected. Click the drop-down arrow to select a position for the display name. Take a look at the Preview section to see how the display name appears.
 - **Font:** This setting displays only if a display name setting is selected. Click the drop-down arrow to select a font for the display name. Take a look at the Preview section to see how the display name appears.

- **Formatting:** This setting displays only if a display name setting is selected. Select the **Bold** or **Italic** check box to modify the font style of the display name. Take a look at the Preview section to see how the display name appears.
- **Date Display**
 - **None:** This is the default setting. Select if you do not want to include a date as part of the stamp.
 - **Date:** Select to display the date as part of the stamp.
 - **Date and Time:** Select to display the date and time as part of the stamp.
- **Position:** This setting displays only if a date setting is selected. Click the drop-down arrow to select a position for the date. Take a look at the Preview section to see how the date appears.
- **Font:** This setting displays only if a date setting is selected. Click the drop-down arrow to select a font for the date. Take a look at the Preview section to see how the date appears.
- **Formatting:** This setting displays only if a date setting is selected. Select the **Bold** or **Italic** check box to modify the font style of the date. Take a look at the Preview section to see how the date appears.
- **Permissions**
 - **Access Permissions:**
 - **All Users** - This is the default selection. Level this check box selected to grant all users access to this stamp.
 - **Selected Roles** - Select to choose the roles you want to give permission to access this stamp.
 - **Selected Users** - Select to choose the users you want to give permission to access this stamp.

Quarantine Page

The Quarantine page allows you to manage items that have been detected as spam. From here you can delete items or validate non-spam email so they are no longer identified as such. A description of the fields and buttons located on this page is provided below.

Filter - Fields

- **Sent:** Enter the dates that the email was sent to filter by sent date.
- **Subject:** Enter the subject of the email in this field to filter by subject.
- **Email Address:** Enter the email address the message was sent from to filter by email address.
- **Folder:** Enter the folder name that the item was sent to in order to filter by filter.
- **Status:** Click the drop-down arrow to filter by read or unread email.
- **Clear:** Click to clear filter results.
- **Filter:** Click to filter by entered criteria.

Results Table - Fields

- **Mark as Read:** Click to mark selected items as read.
- **Mark as Unread:** Click to mark selected items unread.

- **Not Spam:** Click to remove selected items from the list of quarantine items.
- **Delete:** Click to delete selected items.
- **Sent:** Displays the date the item was emailed.
- **Subject:** Displays the subject of the email.
- **From:** Displays the name of the person the email was sent by.
- **Email Address:** Displays the email address of the person the item was sent by.
- **Folder:** Displays the name of the folder the email was sent to.
- **Project:** Displays the name of the project associated with the email.

About Equipment Management

Note: Equipment Manager is an account attribute that must be enabled by Trimble Technical Support. To request access, please contact Trimble Support.

With a large percentage of project costs allocated to furnishings and equipment - for example up to 40% in medical facilities - it is important to be able to manage these expenses in detail. Equipment Manager allows owners to keep track of the costs associated with items that have been purchased by the owner and installed by either the owner or a contracting company. In this way, owners are aware of exactly what has been purchased, installed and which items are still in inventory, so you know exactly how much money has actually been spent on the project.

Optionally, you can incorporate equipment costs into the overall budget and expense process by tying equipment purchases to your commitments. This will give you an accurate representation of project costs and make the purchasing process more cohesive and better organized.

The following task will assist you when managing the equipment management feature:

- Configure Project for External Equipment Management
- About Equipment and Cost Integration Settings
- Define Role-Based Permissions

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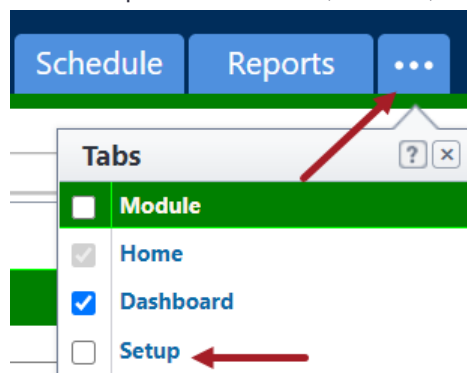
Access Equipment Management Settings

Note: Equipment Manager is an account attribute that must be enabled by Trimble Technical Support. To request access, please contact Trimble Support.

To access Equipment Management settings

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Equipment Management**.

Configure Project for External Equipment Management

This task can be completed by:

- *Account Administrators*
- *Participants with 'Update Project Details' Permission*

A project can be configured to use Equipment Manager strictly for budgeting and viewing the equipment list and the status of equipment items in e-Builder. When this setting is enabled, the equipment list cannot be compiled or managed in e-Builder, but items can still be tied to the budget. An account or project administrator is able to complete this task.

To configure a project for external equipment management

1. Go to the Project Details page.
For instructions, see Access Project Details page.
2. Click **Edit**.
3. Scroll down and click the **Settings** tab.

4. In the **Equipment Management Tools Integration** field, click **Yes**.
5. Click **Save**.

About Equipment and Cost Integration Settings

To integrate the Equipment Management feature with the Cost module, the following configuration settings need to be completed:

1. Create Budget Line Item Custom Fields
2. Create Equipment Item Custom Fields
3. Establish Equipment and Budget Item Association

Budget line item and equipment item custom fields are necessary if you plan to associate equipment items to your budget. Doing so allows you to incorporate equipment purchases into the overall project budget. Only a single budget line item custom field is required to establish this relationship. The custom field can only be of type drop-down or multi-pick list.

The values of the equipment item custom field used to establish this relationship should be identical to the values created for the budget line item custom field. In practice, the corresponding values of the budget line item and equipment item custom fields will associate these entities to another.

Example

An example budget line item custom field might be called Equipment, so that it's easily identifiable in the user interface and the values would be a list of equipment items such as:

- X-Ray Film Processor
- X-Ray Film Viewer
- X-Ray Unit
- X-Ray Mobile
- Ultrasound

Add Budget Line Item Custom Fields

This task can be completed by:

- *Account Administrators*

Budget line item and equipment item custom fields are necessary if you plan to associate equipment items to your budget. Doing so allows you to incorporate equipment purchases into the overall project budget. Only a single budget line item custom field is required to establish this relationship. The custom field can only be of type drop-down or multi-pick list. For more information, see About Cost Integration Settings.

To create budget line item custom fields

1. Go to the Setup.
2. In the **Administration Tools** section, click **Cost**.
3. Click **Custom Fields**, and then **Budget Line Items**.

4. Click **Add Field**.
5. Select the **Drop Down List** or **Multiple Pick List** radio button and click **Next**.
6. Enter a name for this custom field in the **Field Label** field.
7. Enter values for this custom field.
8. Complete all other necessary fields.
9. Click **Next** to preview the field.
10. Click **Save**.

Add Equipment Item Custom Fields for Cost Integration

This task can be completed by:

- *Account Administrators*

Equipment item custom fields allow you to capture additional information about equipment items, but at least one custom field of type drop-down or multi-pick list is required to establish the relationship between equipment and budget line items. For more information, see About Cost Integration Settings.

To create equipment item custom fields

1. Go to the **Setup**.
2. In the **Administration Tools** section, click **Equipment Management**.
3. Click **Custom Fields**.
The Equipment Item Custom Fields page is displayed.
4. Click **Add Field**.
5. Click the **Drop Down List** or **Multiple Pick List** radio button and click **Next**.
6. Enter values for this drop-down list custom field in the **Drop Down List** field.
7. Complete all other necessary fields.
8. Click **Next** to preview the field.
9. Click **Save**.

Establish Equipment and Budget Item Association

This task can be completed by:

- *Account Administrators*

To establish a relationship between equipment items and budget line items, you must select the appropriate equipment and budget custom fields; those created specifically for this association and have identical values. For more information, see About Cost Integration Settings.

To establish the association between equipment and budget items

1. Go to the Setup.
2. In the **Administration Tools** section, click **Equipment Management**, and then **Manage Mapping**.
3. Click the **Equipment Items** drop-down arrow to select an equipment item custom field to map to a budget line item custom field.
4. Click the **Budget Items** drop-down arrow to select a budget line item custom field.
5. Click **Save**.

Define Role-Based Permissions

This task can be completed by:

- *Account Administrators*

Setting role-based permissions for Equipment Management allows you to define the level of access that each role will have for working with the equipment list. You can define account level or project level access for viewing and editing equipment lists.

Note: If you will be applying permissions on the project level for a particular role, you should not include users in that role on the account level, because the account role will take precedence over the project role. For more information, see About Project Level Roles.

The procedures for defining role-based permissions assume that the account and project roles already exist. For instructions, see Add New Account Roles and Add Users to Account Roles.

The following procedures will assist you with defining account and project-level permissions:

- Manage Permissions
- Add User to Project Level Role

Add Equipment Item Custom Fields

This task can be completed by:

- *Account Administrators*

Equipment item custom fields allow you to capture additional information about equipment items, but at least one custom field of type drop-down or multi-pick list is required to establish the relationship between equipment and budget line items. For more information, see About Equipment and Cost Integration Settings.

To add equipment item custom fields

1. Go to Equipment Management settings.
For instructions, see Access Equipment Management Settings.
2. Click the **Custom Fields** link.
The Equipment Management Custom Fields page is displayed.

3. Click **Add Field**.

The Select Data Type page is displayed.

4. Select the type of field you want to create, and then click **Next**.

The Custom Field Details page is displayed.

5. Enter the custom field name in the space next to **Field Label**.

6. Complete all necessary fields.

7. Click **Next**.

The Field Summary page is displayed.

8. Review the custom field details.

If changes are not required, click **Save**.

Equipment Item Custom Fields Page

Use this page to add new or make changes to existing custom fields. Equipment item custom fields allow you to capture additional information about equipment items, but at least one custom field of type drop-down or multi-pick list is required to establish the relationship between equipment and budget line items. For more information, see About Cost Integration Settings. When adding custom fields, you are taken through a three step wizard. For instructions, see Add Equipment Item Custom Fields. A description of the fields and buttons located on each page is located below:

Step 1 of 3: Select Data Type

Select the type of data field you would like to add.

- **String:** Allow users to enter a single line of text.
- **Text Block:** Allow users to enter multiple lines of text.
- **Integer:** Allow users to enter only a numeric value.
- **Decimal:** Allow users to enter only decimal values.
- **Drop Down List:** Allow users to select one value from a list of values.
- **Multiple Pick List:** Allow users to select any number of values from a list of values.
- **Date:** Allow users to enter a date manually, or select from the calendar icon.
- **Account User:** Allow users to select a single user from a list of all users on the account.
- **User In Role:** Allow users to select a single user from a list of users in the selected role.
- **User In Role On Project:** Allow users to select a single user from a list of users in the selected role that are members of the current project.

Step 2 of 3: Add Custom Field

Use this page to add custom field details.

- **Previous:** Click to return to the previous page.
- **Next:** Click to go to the next step of the field creation process.
- **Cancel:** Click to cancel and return to the Custom Fields page. All data will be lost.
- **Field Label:** Enter a label for the custom field.

- **Description:** Enter a description of the custom field.
- **Required:** Select to make this a required field. Leave clear to make this an optional field.
- **Default Value:** Enter a default value for the field.
- **Permissions:**
 - **Admin Edit Only** - Select to make this field editable to Account Administrators only.
 - **All Users** - Select to make this field editable for all users on the account.
 - **Role Name** - For each role, select the view or edit permission, which will allow the selected role to either have only view permission or grant them edit permissions.
- **Maximum Length:** Displays for String fields only. Enter the maximum number of character that users can enter in this field. If left blank, a negative value is automatically entered, which is equal to an infinite number of characters.
- **Minimum Length:** Displays for String fields only. Enter a least amount of characters that users can enter in this field.
- **Visible Rows:** Displays for Text Block and Multiple Pick List fields only. Enter the number of visible rows you want to display in the scrollable window. Team members will have to scroll to see the additional options.
- **Length:** Displays for Text Block fields only. Enter the maximum number of character you'd like available for this field.
- **Decimal Places:** Displays for Decimal fields only. Enter the amount of decimal places to set this field to, for example, two (0.12) or four (0.1234) decimal places.
- **Drop Down List Options:** Displays for Drop-Down fields only. Enter the options that users should choose from. Enter one option per line.
- **Sort Values:** Displays for Drop-Down and Multiple Pick List fields only. Click to sort values in alphabetical order.
- **Multiple Pick List Options:** Displays for Multiple Pick List fields only. Enter the options that users will choose from. Enter one option per line.
- **Roles:** Displays for User in Role and User in Role on Projects fields only. Select a role to narrow the list down by the users in the role selected.

Step 3 of 3: Field Summary and Preview

This page displays the details of the custom field and allows you to see a preview of what the field will look like to end users.

Equipment Item Mapping Page

This page allows you to select the equipment item custom field and budget line item custom field that will be used to establish the association between the two. Completing this setting is essential for incorporating equipment items into the budget and cost process.

For more information, see [About Equipment and Cost Integration Settings](#).

Fields and Buttons

- **Equipment Items:** Click the drop-down arrow to select the custom field configured for cost integrations. See Create Equipment Item Custom Fields for more information.
- **Budget Items:** Click the drop-down arrow to select the custom field configured for equipment item integration. See Create Budget Line Item Custom Fields for more information.
- **Save:** Click to save the changes.

Forms

The e-Builder Forms module helps you manage business processes by streamlining the circulation of documents, drawings, and other required communications. An electronic log is captured of all actions taken on a form, once it has been initiated. Logs are recorded throughout the life of the form, which aids auditing, reporting, and retrieval. Account administrators can create an endless number of forms to mimic processes traditionally routed around the office in paper format. All of the appropriate users are notified instantly via email when a new issue requires their attention or when an item has arrived in their court. With instant notifications, e-Builder reports and increased visibility for the whole team, the entire process becomes more secure and efficient.

Forms are created according to your business processes, and can be manually routed to select users and copied to any of the roles on your projects. Such forms might include RFI's, Accident Reports, and Project Issues. Unlike paper forms, e-Builder's electronic forms allow you to check on the status of a particular issue by simply logging into e-Builder and going to the Project Forms page. Forms provide a complete audit trail/history and can be customized based organizational need.

Types of Forms

There are two form types available in Trimble Unity Construct:

- **Static Forms (Non-Routable):** Static forms are one-way communications to team members, often communicating the procedural information status of specific items. Static forms are mainly for informational purposes. Team members can be notified of static postings using the copy (CC) functionality, but static postings are not routed.

Examples of static forms include:

- Daily Log Reports
- Accident Reports
- Field Observations
- Warranty Trackers
- **Workflow Forms (Routable):** Workflow forms are routed communications to team members, used when a specific response is necessary from the recipient(s). For example, Workflow forms are used to send someone an item that requires approval or a written answer to a question. Workflow forms use the ball in court mechanism to indicate who is currently responsible for taking action on an item. When the form is in your court, you can edit the data fields in the form and then send the form on to the next person in the route. The form will then land in the next person's court. When a workflow is initiated, the recipient and all users cc'd receive e-mail notification of the posting and all subsequent activity on the workflow.

Examples of workflow forms include:

- Transmittals
- Field Reports
- Submittals
- Design Reviews
- Addenda
- Project Issues
- Requests For Information
- Change Orders
- Architectural Supplemental Instructions
- Punch Lists
- Daily Inspections
- Contract Approvals

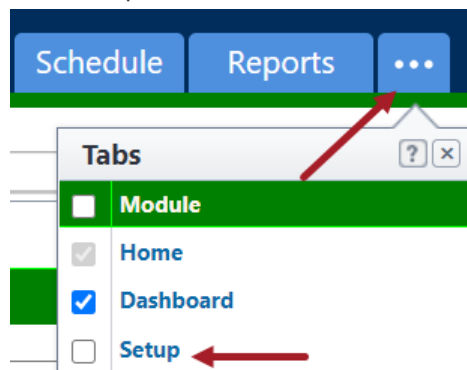
Access Forms Settings**To access Forms Settings**

1. Click **Setup** on the top navigation tabs.
The Setup page is displayed
2. In the **Administration Tools** section, click **Forms**. All Forms configuration options display.

Access Manage Form Types Page**To access the Manage Form Types page**

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click **...**, and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Forms**.
3. Click **Manage Form Types**.

Create New Form Types

Account administrators are able to create new form types. This is a preliminary step to using the Forms modules and is typically done during the initial account configuration. If your account is configured with import capabilities, then you can also import forms. If not, to make the process of creating forms a little easier, it's good to have the hard-copy or electronic form handy so that you have a visual of what the sections and fields of the forms will be. If you do not have an actual form to base this e-Builder form on, it is a good idea to sketch a draft of the form before actually creating it in the system, so that the process is much smoother. Ideally, the questions you should have answered before creating the form are:

- What kind of form are you creating?
- Is this a standard form or a project issue form?
- Should this form be accessible on e-Builder Mobile™?
- What questions make up this form?
- What form fields do you need?

To create a new form type

1. Go to the Manage Form Types Page.
For instructions, see Access Manage Form Types Page.
2. Click **Create New Form Type**.
The Create New Form Type page is displayed.
3. Complete the required fields.
4. Click **Create**.
The Sections tab displays.
5. Add the required number of sections.
For instructions, see Manage Form Sections.
6. Click **Next**.
The Edit Fields tab is selected.
7. Add Form Fields.
For instructions, see Manage Form Fields.
8. Click the Preview tab.
9. Review the form for accuracy.
10. Click the Permissions tab to update form permissions. For instructions, see Manage Form Permissions.

Related Topics:

- Copy Form Types

Manage Form Properties

To edit form properties

1. Go to the Manage Form Types Page.
For instructions, see Access Manage Form Types Page.
2. Click the title of the form you want to edit.
The Properties tab displays.
3. Make the necessary changes.
For a description of the fields and buttons on this page, see Add/Edit Form Type Page Overview.
4. Click **Save**.

Manage Form Sections

Changes to form types will be reflected in all existing and new form type instances on the account.

The following procedures are provided below:

- Add Form Sections
- Edit Form Sections
- Delete Form Sections

Add Form Sections

Form sections display as tabs in the form instance of the user interface.

Note: It is recommended that you create at least one section. If you do not create a section, all fields will be entered in the Default section which is labeled Custom Fields on the form when you fill it out.

To add sections to a form

1. Go to the Manage Form Types Page.
For instructions, see Access Manage Form Types Page.
2. Click the **Sections** link under the form you want to edit.
The Sections tab displays.
3. Click **Add New Section**.
The Edit Form Section(s) page is displayed.
4. Enter a name for the section in the **Section Name** field.
5. Click **Save**.

Edit Form Sections

Form sections can be edited by making changes to the name or description of the section.

To edit the sections of a form

1. Go to the Manage Form Types Page.
For instructions, see Access Manage Form Types Page.
2. Click the **Sections** link under the form you want to edit.
The Sections tab displays.

3. Modify the name or description of the desired section by typing directly into the field.
4. Click **Save**.

Delete Form Sections

To delete the sections of a form

1. Go to the Manage Form Types Page.
For instructions, see Access Manage Form Types Page.
2. Click the **Sections** link under the form you want to edit.
The Sections tab displays.
3. Click the **Delete** link of the section you want to remove.
You are prompted for confirmation.
4. Click **OK**.
5. Click **Save**.

Manage Form Fields

Changes to form types will be reflected in all existing and new form type instances on the account.

The following procedures are provided below:

- Add Form Fields
- Edit Form Fields
- Delete Form Fields

Add Form Fields

To add form fields

1. Go to the Manage Form Types Page.
For instructions, see Access Manage Form Types Page.
2. Click the **Edit Fields** link under the form you want to add fields to.
The **Edit Fields** tab displays.
3. Click **Add New Field**.
4. Enter the name of the field in the **Field Name** field.
5. Select the type of fields you are creating from the **Form Type** section.
6. Complete the options that displays for your selected field type.
7. Click **Save**.
8. To assign a section to the field, click the **Section** drop-down arrow and make a section.
For instructions on modifying sections, see Manage Form Sections.
9. Click **Save**.

Edit Form Fields

Note: Once a field is created you can edit all options except the field type.

Warning: When you change a field name you are changing it for all the prior form instances.

To edit the fields of a form

1. Go to the Manage Form Types Page.
For instructions, see Access Manage Form Types Page.
2. Click the **Edit Fields** link under the form you want to edit.
The **Edit Fields** tab displays.
3. Make the necessary changes.
For a description of the fields and buttons on this page, see Add/Edit Form Fields Page Overview.
4. Click **Save**.

Delete Form Fields

Warning: If you delete a field, you are deleting all the data that has been previously filled in for all form instances across all your projects. This information is non-recoverable.

To delete form fields

1. Go to the Manage Form Types Page.
For instructions, see Access Manage Form Types Page.
2. Click the **Edit Fields** link under the form you want to delete.
The **Edit Fields** tab displays.
3. Click the **Delete** link of the field you want to remove.
You are prompted for confirmation.
4. Click **Yes, Delete the Field**.

Manage Form Permissions

The permissions on a form type are important in determining who has what type of access to a form type. When a form type is initially created, there are no set permissions, although account administrators will be able to see the form. Changes to form types will be reflected in all existing and new form type instances on the account.

To edit the permissions of a form

1. Go to the Manage Form Types Page.
For instructions, see Access Manage Form Types Page.
2. Click the **Permissions** link under the form type.
The Permissions tab displays.
3. Make the necessary changes.
For a description of the fields and buttons on this page, see Form Type Permissions Page Overview.
4. Click **Save**.

Copy Form Types

Copying form types allows you to copy the form type and all of its properties, form fields and permission settings. This is a quick way to create additional form types with similar attributes, and reduce the amount of settings that need to be configured.

To copy form types

1. Go to the Manage Form Types Page.
For instructions, see [Access Manage Form Types Page](#).
2. Click the title of the form you want to copy.
The Properties tab displays.
3. Click **Copy**.
4. In the **Form Type Name** field, enter the name of the form type.
5. Click **Create**.
The Properties tab displays.
6. Make all necessary changes to the new form type.

Related Topics:

- [Manage Form Properties](#)
- [Manage Form Sections](#)
- [Manage Form Fields](#)
- [Manage Form Permissions](#)

Delete Form Types

Account administrators can delete a form type, and all of their associated instances from their account. Details of the deletion can be viewed by running an audit log report on the Forms module.

Warning: Once deleted, data cannot be recovered.

To delete a form type

1. Go to the Manage Form Types page.
For more information, see [Access Manage Form Types Page](#).
2. Click the title of the form type.
The Form Type Properties page is displayed.
3. Click **Delete**.
You are prompted for confirmation.
4. Enter your e-Builder password.
5. Click **Yes, Delete**.

Add Form Type Custom Fields

Custom fields are completely configurable and up to the account administrator to define. These fields display on the Add/Edit Form Type Page for administrators to complete. Form type custom fields are useful because they can contain additional information that is not part of the standard form type, which can be pulled into reports to define or separate form type information.

Note: Form type custom fields can also be added under Global Custom Fields.

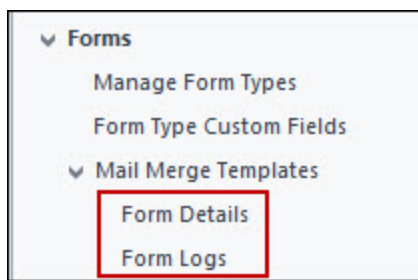
To add form type custom fields

1. Click the **Setup** link located in the username drop-down menu.
The Setup page is displayed.
2. In the Administration Tools, click **Forms**.
All Forms setting options display.
3. Click **Form Type Custom Fields**.
The Form Type Custom Fields page is displayed.
4. Click **Add Field**.
The Add Custom Field page is displayed.
5. Select a data type, and then click **Next**.
6. On the **Custom Field Details** page, enter a name for the custom field in the space provided after **Field Label**.
7. Click **Next**.
8. Review the details of the custom field.
9. If changes are required, click **Previous** to navigate to the appropriate page and make changes.
—Or—
If details are correct, click **Save**.

Manage Form Mail Merge Templates

Mail merge templates allow you to extract data from e-Builder and export it into a Microsoft Word® or Adobe PDF® document. This eliminates the need to enter information into a Word document manually and reduces the margin for error. Having a system-generated document ensures the integrity of your data and it's a quick and easy way to consolidate information you've already entered once, in a ready-to-read format.

In the Forms module, mail merge templates can be created for form details or form logs. The difference between the two are described below:



- **Form Details:** Is a template that includes all the details of the form instance, just as it appears in the interface.
- **Form Logs:** Is a template that includes only the following basic information: form type name, project name and address, counter number, subject, submitted user information, status, and comments.

The procedures for managing Forms Mail Merge Templates apply to both form details and form logs. Below is a list of procedure that can be taken to manage Forms mail merge templates.

- **Download Default Mail Merge Template:** Recommended; gives you a template to start with, complete with field mappings.
- **Access e-Builder Field Mappings:** Provides a list of fields codes that you can use to customize your template with specific form data stored in e-Builder.
- **Customize Form Template with Field Mappings:** Allows you to add field mappings so you're able to include specific information in each mail merge.
- **Add Form Mail Merge Templates to e-Builder:** Allows you to add the template to e-Builder and make available for use.
- **Edit Form Mail Merge Templates:** Allows you to make changes to Form mail merge templates.

Download Default Forms Mail Merge Template

Although this is not a required part of creating Forms mail merge templates, it is recommended that you download the default template as a starting point. This template can be modified in anyway you choose, but the default is complete with all necessary field mappings. Having a initial template on file also gives you the ability to make necessary changes as they arise, without having to start over from scratch.

To download the default Forms mail merge template

1. Go to Forms Settings.
For instructions, see Access Forms Settings.
2. Expand **Mail Merge Templates**.
3. To create form details merge templates, click **Forms Details**.

The Mail Merge Template page is displayed.

—Or—

To create form log merge templates, click **Forms Logs**. The Mail Merge Template page is displayed.

Note: To learn about the difference between Form Details and Form Logs, see Manage Form Mail Merge Templates.

4. Click the **Download Default Mail Merge Template** link.
5. Save this document locally.

*This is procedure 1 of 4 in creating Forms mail merge templates. The next procedure is Download e-Builder Field Mappings.

Access e-Builder Field Mappings

Downloading e-Builder field mappings gives you access to the e-Builder field codes used to customize your template, by specifying the e-Builder data you want to include in your mail merge template.

To download e-Builder Field Mappings

1. Go to Forms Settings.
For instructions, see Access Forms Settings.
2. Expand **Mail Merge Templates**.
3. To create form details templates, click **Forms Details**.

The Mail Merge Template page is displayed.

—Or—

To create form log templates, click **Forms Logs**. The Mail Merge Template page is displayed.

Note: To learn about the difference between Form Details and Form Logs, see Manage Form Mail Merge Templates.

4. Click the **Go to Mail Merge Field Mappings** link.
5. Click the **Mail Merge Field Mappings For** drop-down arrow to select a form type.

A list of field mappings display.

Tip

Keep this page open or print the merge codes for easy access when adding the field mappings to your template.

*This is procedure 2 of 4 in creating Forms mail merge templates. The next procedure is Customize Form Template with Field Mappings.

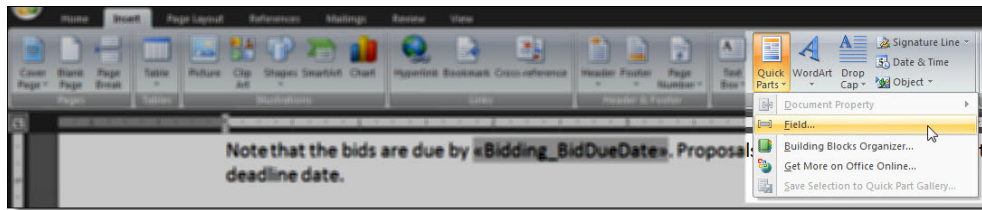
Customize Form Template with Field Mappings

e-Builder field mappings are available to help you quickly capture data that is stored in the system into your template. Information such as project name, project contact, custom fields, various company information can all be automatically populated into your template. Using field mappings will help you save a lot of time when it is necessary to customize each various templates according to project specifications.

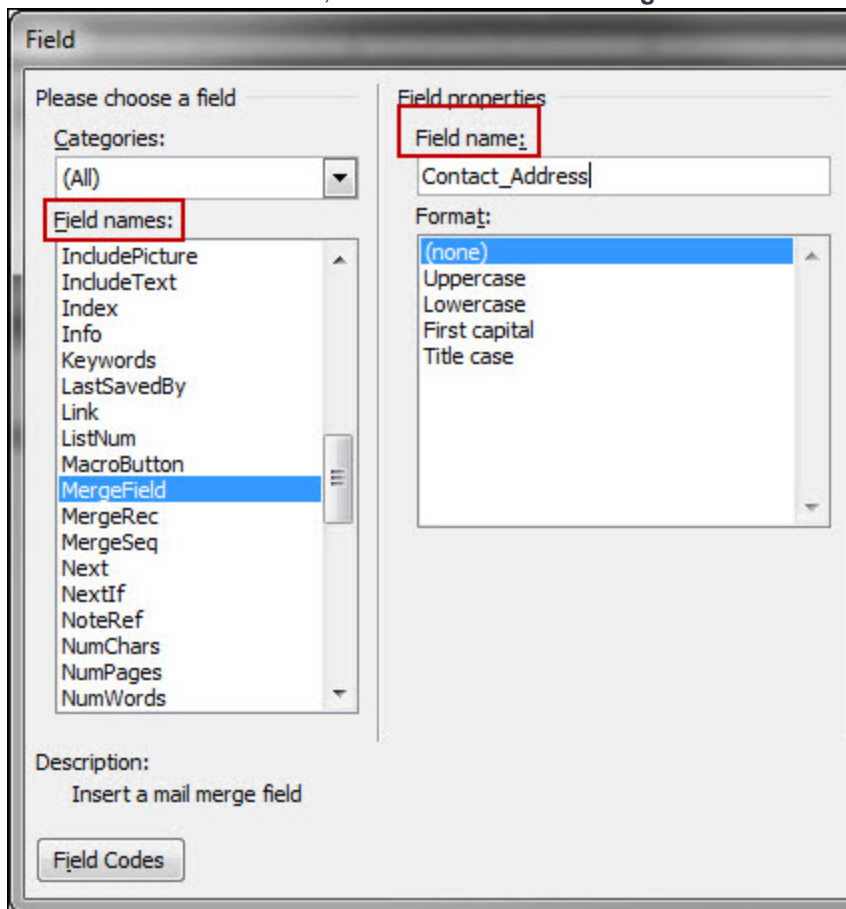
Note: In order to customize your template, you should have a list of e-Builder field mappings handy. For instructions see, Access e-Builder Field Mappings.

To add field mappings to your template (Using Microsoft Word 2007 ®)

1. Open the template you want to add field mappings to.
2. Place your cursor in the position you want to add the merge code.
3. Click the **Insert** ribbon.
4. Click the **Quick Parts** drop-down arrow, and then select **Field**.



5. In the **Field names:** section, scroll down and select **MergeField**.



6. Enter the e-Builder merge code in the **Field Name** field.
7. Click **OK**.
The merge code is added to the word document.
8. Save the document to your local machine.

*This is procedure 3 of 4 in creating Forms mail merge templates. The next procedure is Add Form Mail Merge Templates to e-Builder.

Add Form Mail Merge Templates to e-Builder

Note: Optional pre-requisites for this procedure include:

- Download Default Forms Mail Merge Template
- Access e-Builder Field Mappings
- Customize Form Template with Fields Mappings

To add form mail merge templates to e-Builder

1. Go to Forms Settings.
For instructions, see Access Forms Settings.
2. Expand **Mail Merge Templates**.
3. To add a form details template, click **Forms Details**. The Mail Merge Templates page is displayed.

—Or—

To add a form log template, click **Forms Logs**. The Mail Merge Templates page is displayed.

Note: To learn about the difference between Form Details and Form Logs, see Manage Form Mail Merge Templates.

4. Click **Add New Template**.
The Add Mail Merge Template page is displayed.
5. Complete the required fields.
6. Click **Browse** to search for and upload template.
7. In the **Project Assignments** section, select the project(s) to assign the template to.
8. Click the right directional arrow to add the project to the Assigned to these Projects box.

Note: If you do not specify the project(s) that will use this template, the template will be available in all projects.

9. Click **Save**.

Edit Forms Mail Merge Templates

To edit mail merge templates

1. Go to Forms Settings.
For instructions, see Access Forms Settings.
2. Expand **Mail Merge Templates**.
3. To edit a form details template, click **Forms Details**.

The Mail Merge Templates page is displayed.

—Or—

To edit a form log template, click **Forms Logs**. The Mail Merge Templates page is displayed.

Note: To learn about the difference between Form Details and Form Logs, see Manage Form Mail Merge Templates.

4. Click the title of the template.
5. Click **Edit**.
The Edit Mail Merge Template page is displayed.

6. Make the required changes.
7. Click **Save**.

Related Topics:

- Manage Forms Mail Merge Templates
- Download Default Forms Mail Merge Template
- Access Trimble Unity Construct Field Mappings
- Customize Form Template with Fields Mappings

Manage Form Types Page Overview

The Manage Form Types page displays all existing forms types. From here you can also create new form types and access particular sections of existing forms in order to view or modify.

Fields and Buttons

The fields and buttons on this page are:

Filter Form Types

- **Project Assignment:** Use these options to filter forms based on the projects that they are assigned to.
 - **All Projects:** Filters for forms that are included all projects.
 - **Selected Projects:** Filters for only forms that are included in selected projects.
 - **Some Blocked Projects:** Filters for only forms that are blocked from particular projects.
 - **Projects Filtered By One or More Custom Field(s):** Filters for forms that are included in projects that include one or more custom fields. Use the custom field drop-down menus and field boxes to specify the custom fields.
- **Custom Fields:** Select a custom field to include in filtered results or enter the custom field.
- **Filter:** Click to filter for select options.

Form Types

- **Create New Form Type:** Click to create a new form type.
- **Form Title:** Click to open the Form Type Properties page and view or modify form properties.
- **Preview:** Click to preview the form.
- **Sections:** Click to modify existing or add new sections to the form.
- **Edit Fields:** Click to open the Edit Form Field(s) page and modify existing or add new form fields.
- **Permissions:** Click to open the Form Type Permissions page to view or modify existing form permissions.
- **Merge: Details:** Click to open the Mail Merge Templates page and view, modify existing, or add new form templates.
- **Merge Logs:** Click to open the Mail Merge Templates page and view, modify existing, or add new form templates.
- **Description:** Displays the description of the form.

- **Project Assignments:** Displays the name of the project(s) the form is assigned to.
- **Type:** Displays whether the form is a static or workflow form. Static forms can not be routed, but workflow forms can. For more information on the difference between these form types, see Types of Forms.

Form Type Properties Page

The Create New Form Type page allows you to add new form types to the system.

Fields and Buttons

The fields and buttons on this page are:

- **Create** (Add Mode): Click to create the form after required fields have been completed.
- **Cancel:** Click to disregard changes and return to the Manage Form Types page.
- **Delete** (Edit Mode): This button is only visible to account administrators. Click to delete the form type and all of its associated instances from the account. Once deleted, data cannot be recovered, but details of the deletion can be viewed by running an audit log report on the Forms module. You will be required to enter your e-Builder password before the deletion can occur.
- **Copy** (Edit Mode): Click to copy the form type and all of its properties, form fields and permission settings. Copying form types is a quick way to create additional form types with similar attributes, and reduce the amount of settings that need to be configured.
- **Save** (Edit Mode): Click to save changes to form type properties.
- **Form Type Name:** Enter the name of the form type. For example, RFIs (Requests for Information), Accident Reports, and Lessons Learned.
- **Form Type Prefix:** Enter a prefix for the form type, usually the first few letters of each word the Form Type Name. For example RFI for Request for Information.
- **Description:** Enter a description of the form type that tells users how they might utilize the form.
- **Default To:** Click to select a person that the form should be sent to by default. Choose from the following options in the **Allow Change to "Default To"?** field:
 - **Yes** - Choose to allow users to change the default recipient. This is the default setting.
 - **No** - Choose to restrict users from changing the default recipient.
- **Default "CC":** Click to select a person that the form should CC (carbon copy) by default. In the **Allow Change to "Default CC"?** field, select from the following options:
 - **Yes** - Choose to allow users to change the name of the defaulted CC'd recipient. This is the default setting.
 - **No** - Choose to restrict users from changing the default recipient.
- **Interpret Form As:**
 - **Standard Form Type** - Select to make this form a standard form
 - **Project Issue** - Select to make this form a project issue form. See About Project Issues for more information.

- **Type of Form:** Click to make this form a workflow or static form.

Note: Once the form has been created this cannot be changed.

- **Workflow (Routable Form)** - Used when a specific response is necessary from the recipient (s). For example, Workflow forms are used to send someone an item that requires approval or a written answer to a question. Workflow forms use the 'ball in court' analogy to indicate who is currently responsible for taking action on an item. Examples include:
 - Requests For Information
 - Change Orders
 - Contract Approvals
- **Static (Not Routable)** - One-way communications to team members, often communicating the procedural information status of specific items. Static forms are mainly for informational purposes. Examples include:
 - Daily Log Reports
 - Accident Reports
 - Fields Observations
- **Link Closed Form To:** Select another form to link this to when it is in "close" status. When this form is closed the form selected in this option will automatically open to be completed.
- **Archive Closed Form?:**

Note: The selection of a project is as a template, all closed instances will not go into that project.

 - **No** - Select if you do not want to archive these forms when they are completed. This is the default setting.
 - **Yes** - Select to archive the form when closed. Archiving forms places them in a select folder in the Documents module. The form will be saved in the project that the instance is created in.
- **e-Builder mobile Enabled?:** Select this check box to make the form available in e-Builder Mobile applications.
- **Allow comments to be deleted:**
 - **No (Account Default)** - Select to keep comments from being deleted. This is the default setting. If you wish to change the default selection, go to Settings > Account Settings, and select the Forms check box.
 - **Yes** - Select to allow the deletion of comments by any user.
- **Allow Forwarding?:**
 - **Yes** - Select to allow the forwarding of these forms. This is the default setting.
 - **No** - Select to keep these forms from being forwarded.
- **Who Can Close Form?:** This field allows you to select who is able to close instances of this form type. As the initiator of a form, you have full access to that form and therefore you're able to close it at any time. In the event that the form initiator switches roles and no longer needs access to this form, this setting allows you to restrict access and grant it to the appropriate parties.

- **Initiator** - Select to give the form's initiator permission to close the form at any time. This is the default setting.
- **Recipient** - Select to give the recipient of the form permission to close the form at any time.
- **All Roles** - Select to give specific roles the ability to close instances of the form type at any time.
- **Allow Recipient to Close Form?:**
 - **Yes** - Select to allow recipients of the form to close it.
 - **No** - Select to keep recipients of the form from closing it. This is the default setting.
- **Show Due Time?:**
 - **Yes** - Select to show recipients the date and time that the form is due.
 - **No** - Select to not show recipients the time that the form is due. This is the default setting.
- **Select Project(s) that Form Type Should be Applied to:** Use these settings to specify which projects the form will be available in.
 - **All projects** - Select to make this form available in all projects.
 - **All projects except the following blocked projects** - Select to specify the projects that this form should NOT be available in.
 - **Only the following selected projects** - Select to specify specific projects that the form should be available in.
 - **Projects filtered by one or more custom fields** - Select to specify projects based on project custom fields.
- **Prompt User to Notify Participants Upon Editing?:**
 - **Yes** - Select to prompt users to notify participants when the form is edited. If selected, the following message displays whenever a user saves changes to a form instance:
 - **No** - Select to disable prompting users to notify participants when the form is edited. This is the default setting.
- **Allow External Comments to be Added After Respond By Date?:**
 - **Yes** - Select to allow external participants to respond to the form after the Respond By date.
 - **No** - Select to disable responses after the Respond By date has passed. This is the default setting.
- **Allow External Users to View Attached Forms when External Comment is Requested?:**
 - **Yes** - Select to allow external participants to view forms that have been attached to this form type when external comments are requested. This would only allow them to view attached forms up to one tier.
 - **No** - Select to prevent external participants from viewing forms attached to the forms they have been requested to comment on.
- **Allow Comments to be Added when Form is Closed?:**
 - **Yes** - Select to allow comments to be added after the form has been closed. This is the default setting.
 - **No** - Select to disallow comments to be added after the form has been closed.

- **Require Folder When Uploading Documents?:**

- **Yes** - Select to require that users specify a destination folder within e-Builder when they are attaching documents. This is the default setting. This setting is strongly recommended for content tracking and file organization. Click **Lookup** to select the destination folder. Unless the **Allow user to place the file in a different folder** check box is selected, this will be the only folder users can upload files to.
- **No** - Select to allow users to attach files without having to save them in the e-Builder Documents module.

Add/ Edit Form Sections Page

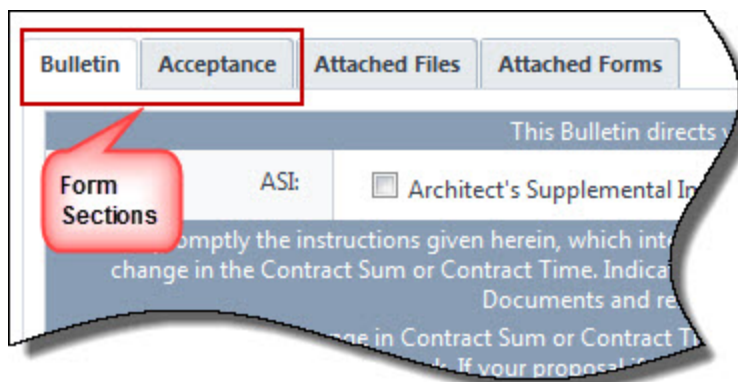
The Add Form Sections page gives you the ability to add sections to your forms. It is recommended that you create at least one section. If you do not create a section, all fields will be entered in the Default section which is labeled Custom Fields on the form when you fill it out. You are able to add and modify the sections of a form at any time. These forms will display as tabs in the actual form. Only account administrators and users with Manage Forms permissions are able to modify the sections of a form.

For instructions, see Manage Form Sections.

Fields and Buttons

The fields and buttons located on this page are:

- **Add New Section:** Click to add a new section to the form. Within form instances, the section display as tabs.



- **Save:** Click to save your changes.
- **Cancel:** Click to cancel and return to the Manage Form Types page. All unsaved changes will be lost.
- **Delete:** Click this link to delete the section.
- **Order:** Displays the order that sections display on the forms. These numbers are auto-populated in the order that the sections are entered. To modify, enter whole numbers starting with 1.
- **Section Name:** Displays the name of the section. Start typing within this field to modify.
- **Description:** Displays the description of the section. Start typing within this field to modify.

Add/ Edit Form Fields Page

The Edit Form Fields page allows you to edit the fields of a form.

For specific instructions on editing form fields, see Manage Form Fields.

Fields and Buttons

The fields and buttons on this page are:

- **Copy Field(s):** Click to copy the selected fields. Copied fields are added to the end of the respective section on the list. Use this feature to save time creating similar fields that share the same field type properties (string, text block, integer, radio buttons etc.) The section that the field belongs to and field name can be changed on this page, but the field type cannot.
- **Add New Field:** Click to add a new field.
- **Save:** Click to save changes.
- **Cancel:** Click to cancel and return to the Manage Form Types page. All unsaved changes will be lost.
- **Delete:** Click this link to delete the field. You will then be prompted for confirmation.
Note: Deleting the field will delete all data from existing instances.
- **Section:** Displays the name of the corresponding section. If multiple sections exist, click to change the section of a given field.
- **Order:** Displays the order of the fields for each section. To modify, enter whole numbers starting at 1. By default, the system orders the fields in increments of ten (i.e. 10, 20, 30 and so on). This should leave enough space should you need to go back and add an additional field later, without having to change the numbering of all fields.
- **Field Name:** Displays the name of the field. Type within this field to make changes.
- **Default Text & Options:** If default values were saved for this form field, they display here. Available options for drop down, radio, multipick and check box fields also appear, if available.
- **Type:** Displays the field type. Once configured, this cannot be modified.
- **Max Length:** Enabled for string fields only. Enter the maximum character length. By default, a negative value displays, which represents an infinite length.
- **Rows:** Enter the number of rows to display on the form.
- **Required:** Displays whether or not a field is required. Select the check box to make a field required. Clear the check box to make the field optional.
- **Editable:** Displays whether or not a field is editable. Select the check box to make a field editable. Clear the check box to make the field read-only.

Preview Form Type Page

This page allows you to preview the final version of the form. You can preview a tab at any time to see what it currently looks like. Click the appropriate tab to make changes to the sections or fields of the form. Form sections display as tabs toward the bottom of the page. If this is the first time the form is being created, you should review the form's permissions for accuracy.

For detailed instructions, see the following:

- Manage Form Sections
- Manage Form Fields
- Manage Form Permissions

Form Type Permissions Page

This page allows you to view and modify form type permission settings for different account roles. When a form type is initially created, there are no permissions set, so it is important to set these permissions soon after the form is created. Even with no permissions set, account administrators are still able to see the form.

Form permissions are role specific, and cannot be set for individual users. Add the roles you wish to specify permissions for, and then create your settings for each selection.

Fields and Buttons

A description of each field and button is provided below:

- **OK/ Apply:** Click to save changes.
- **Cancel:** Click to cancel and return to the Manage Form Types page. All unsaved changes will be lost.
- **All users may fill out [Form Type Name] even if they do not have Create permissions:** Select to give all users on the account ability to fill out this form type.
- **Add:** Click to open the Add Permissions dialog box and select the account roles you want to set access rights for. For your convenience, you have the choice of specifying permissions on the Add Permissions dialog box or on this page; the same permission check boxes are available on both.
- **Remove:** Click to remove the selected role from the list of roles below.
- **List Members:** Click to open the Members dialog box and view who the members of the selected role are.
- **View:** Select to allow users in the highlighted role permission to view all filled out forms of this type on their projects. (Any author or recipient of a form will be able to see the forms they created/received, regardless of this permission.)
- **Download:** Select to allow users in the highlighted role to download files attached directly to the form. (See also Redline Markup below.)
- **Comment:** Select to allow users in the highlighted role to comment on this form type.
- **Redline Markup:** Select to apply the permissions of the destination folder to the attached files uploaded directly from a user's computer and not from the e-Builder Documents module. If uploaded from the document folder structure it will assume the permissions of the destination folder.
- **Modify:** Select to allow users in the highlighted role to update dynamic fields of completed forms, even if the form is not in their court. Dynamic fields are those that are editable after the form has been posted.
- **Create:** Select to allow users in the highlighted role to fill out new form instances. If a user does not have this permission, the form type will not be listed when the Fill Out Form button is clicked in the Forms module. Those with this permission will automatically inherit View Draft privileges.

- **CC Users:** Select to allow users in the highlighted role to copy other users when replying, forwarding, or adding a comment to the form type.
- **View Drafts:** Draft forms may be created for many different reasons. For example, multiple RFI's may be created for the same item by different people and the draft form may never be deleted. This permission gives users in the highlighted role the ability to view and take action on draft forms. Everyone is able to see their own draft forms, but to see the drafts of others, this permission setting is required. Also, those with Create permissions automatically inherit View Draft permission. Draft forms are accessible from the Unfinished Drafts page and by filtering for drafts on the Project Forms page.
- **No Access:** This role has no access to this form. This permission overrides any other permissions the user may be granted. Once you have selected your permissions, click **Apply**.
- **Apply permissions to existing forms (will only apply changes to the permissions):** Select to apply the permissions you've set, for each user role, to all existing form instances of the selected form type. This setting will apply to all open form instances as well.
- **Overwrite Permissions (will update all role permissions to match the above):** Select to overwrite existing form type permissions to match the current settings. This setting allows you to reconcile permission inconsistencies and determine exactly which roles have access to different form types.

Copy Form Type Page

Copying form types allows you to copy the form type and all of its properties, form fields and permission settings. This is a quick way to create additional form types with similar attributes, and reduce the amount of settings that need to be configured. For instructions, see Copy Form Types.

Fields and Buttons

The fields and buttons on this page are:

- **Create:** Click to create the form after required fields have been completed.
- **Cancel:** Click to disregard changes and return to the Manage Form Types page.
- **Form Type Name:** Enter the name of the form type. Example form types include RFIs (Requests for Information), Accident Reports, and Lessons Learned.
- **Description:** Enter a description of the form type that tells users how they might utilize the form.

Form Type Custom Fields Page

Custom fields are definable fields that drive the reporting needs of your organization. They are available throughout different modules within e-Builder. Custom fields allow you to group, filter, or categorize information according to specific business processes in your reports.

Fields and Buttons

The fields and buttons located on this page are:

- **Reorder:** Click to open the Reorder Form Type Custom Field page and change the order that custom fields display.

- **Add Field:** Click to open the Add Custom Field page and add a form custom field.
- **Field Dependencies:** Click to add field dependencies. Field dependencies allow you to associate custom fields to one another. For more information, see Field Dependencies.
- **Edit:** Click to open the Edit Custom Fields page and modify the details of the custom field.
- **Delete:** Click to delete the custom field. You are prompted for confirmation.
- **Label:** Displays the title of the custom field name.
- **Data Type:** Displays the custom field type.
- **Permission:** Displays the custom field permissions.
- **Unique:** Displays whether or not the custom field is unique. Unique form type custom fields are those that cannot be duplicated in other projects.
- **Last Modified By:** Displays the name of the last user that made changes to the field.

About Global Custom Fields

Custom fields are definable fields that drive the reporting needs of your organization. They are available throughout different Trimble Unity Construct modules. Custom fields allow you to group or filter information according to specific business processes in your reports. In some cases, an organization may not require any custom fields at all. Although custom field settings are available in the Setup area for each respective module, the Global Custom Fields area offers the advantage of applying custom fields to multiple areas of Trimble Unity Construct at one time.

For instructions, see one of the following:

- Add Global Custom Fields
- Import Global Custom Fields

Access Global Custom Fields Page

To access the Global Custom Fields page

1. From the Top Navigation Tabs, click the **Setup** tab.
If the Setup tab is not visible, click the Plus tab to select the Setup Link or add it to the Top Navigation Tabs.
2. In the **Administration Tools** section, click **Global Custom Fields**.

Set Up Document Custom Field Import File

Document custom field imports are compatible with Microsoft Excel® .xls and .xlsx files. A single import file can include custom fields for multiple projects. The distinction will be made by the value of the project identifier being used in the import file.

The image below includes the name of all fields that can be added to the header row of the spreadsheet. This image is also of the mapping step that will be encountered during the import.

If the headers in your file match these fields exactly, they will auto-populate. If the header names are different, you must map the corresponding columns in your spreadsheet to the e-Builder built-in fields in step 2 of the import wizard. The Document Custom Fields section lists all available document custom fields on the account. These field labels should also be column headers in the file.

Import Document Custom Fields - Field Mappings Step 2 of 3

Document Built-In Fields Previous Next Cancel

| | | | |
|-----------------------|---|----------------|--|
| * Project Identifier: | <input type="text" value="Project Identifier"/> | * Folder Path: | <input type="text" value="Folder Path"/> |
| * File Name: | <input type="text" value="File Name"/> | File Version: | <input type="text" value=""/> |
| Description: | <input type="text" value=""/> | Document Type: | <input type="text" value="Document Type"/> |

Document Custom Fields

| | |
|-----------------|-------------------------------|
| Plan Room Menu: | <input type="text" value=""/> |
| Trade: | <input type="text" value=""/> |
| Zone: | <input type="text" value=""/> |
| Department: | <input type="text" value=""/> |
| Category: | <input type="text" value=""/> |
| Floor: | <input type="text" value=""/> |

Previous Next Cancel

Description of Required and Optional Fields for Import File

| e-Builder Field Name/ Import File Column Header | Description | Required/Optional |
|---|---|-------------------|
| Project Identifier | Select a Project Identifier. This is a unique ID that will identify which project the document custom field is associated with. Examples include project name and project number. To learn more about project numbers, see Create Project Number Custom Field. | Required |
| File Name | Include the name of the file exactly as it is saved in the Documents folder structure, including the file extension. | Required |
| Folder Path | Enter the folder path that the file the currently saved in, such as Documents/Construction/Specifications. | Required |
| Description | Enter a description for the custom field value. Blank values will not change existing entries, however, new values will overwrite existing ones. | Optional |
| File Version | Enter the file's version number | Optional |
| Document | Enter the document type in this field. Blank values will not | Optional |

| e-Builder Field Name/ Import File Column Header | Description | Required/Optional |
|---|--|-------------------|
| Type | change existing entries, however, new values will overwrite existing ones. | |
| Document Custom Fields | By default, all available document custom fields display on the Field Mappings page, as illustrated in the above image. Make the custom field labels, column headers and enter the desired value in the appropriate columns. | Optional |

Add Global Custom Fields

Custom fields are definable fields that drive the reporting needs of your organization. They are available throughout different Trimble Unity Construct modules. Custom fields allow you to group or filter information according to specific business processes in your reports. In some cases, an organization may not require any custom fields at all. Although custom field settings are available in the Setup area for each respective module, the Global Custom Fields area offers the advantage of applying custom fields to multiple areas of Trimble Unity Construct at one time.

To add global custom fields

1. Click the **Setup** link.
2. In the **Administration Tools** section, click **Global Custom Fields**.
3. Click **Add Field**.
The Add Custom Field page is displayed.
4. Select the check box(es) next to the Trimble Unity Construct object you want to add the custom field to.
5. Click **Next**.
6. Select a data type radio button, and then click **Next**.
7. Enter the required fields, and then click **Next**.
8. Click **Save** to complete the process or **Save & Add** to add more fields.

Tip

It is recommended that you go into the modules you've created custom fields for to ensure they display in the order you want them to be filled out.

For specific information on custom fields for a particular module, or for steps on adding custom fields from each respective area, see the following:

- Bidding Custom Fields
- Calendar Custom Fields
- Cost Custom Fields
- Document Custom Fields

- Form Type Custom Fields
- Process Custom Fields
- Submittal Custom Fields

Related Topics:

- Field Dependencies

About Custom Field Dependencies

Note: Custom field dependencies can only be created with multi-pick lists and drop-down list custom fields because dependencies are created based on the values of these fields.

Custom field dependencies allow you to specify a controlling field, that when selected will display specific options for project participants to choose from. Narrowing down the options for users to choose from makes completing custom fields less daunting and more efficient. Making these associations further insures that proper data is being collected, which in turn strengthens report data. Field dependencies also speed up the manual effort required to complete custom fields as new projects are created.

Example

If your organization builds for a Healthcare System with various hospital projects going on, you might have a custom field for Medical Center and another for On-Site Lab. Custom field dependencies would allow you to display only the labs which are appropriate for a specific medical center. The custom fields and values for each might be as follows:

| Custom Fields (CF) | |
|--------------------|---------------|
| Medical Centers: | On-Site Labs: |
| Emergency Room | Radiology |
| Urgent Care | Blood Tests |
| Genetics | DNA |
| Toxicology | |

For an Emergency Room, it might make sense to have the Radiology and Blood Test labs available. However, for the Toxicology Center, the Blood Test lab might be the only one that applies. In addition to this, the Genetics Center might only need a DNA lab.

| Medical Center | On-Site Lab | Medical Center | On-Site Lab |
|----------------|-------------------------------------|----------------|-----------------------------------|
| Emergency Room | Radiology ✓ Blood Tests ✓ DNA | Toxicology | Radiology Blood Tests ✓ DNA |
| Genetics | Radiology Blood Tests DNA ✓ | | |

Terminology

Step 1: Choosing the **Controlling** and **Dependent** Fields

When setting up field dependencies you will have to choose the controlling and dependent field. The **controlling field** is the primary field of selection that will determine the available options of a subsequent field, which is referred to as the **dependent field**. From the examples above, the controlling field would be Medical Centers, and On-Site Labs would be the **dependent field**.

Assigning Field Dependencies

Step 2: Assigning field dependencies

When a controlling or dependent field is selected, its values populate the subsequent drop-down menu. Once a value is selected, such as Medical Center, values of the converse field populate for you to choose the dependent relationship. Selected field values save automatically. For instructions, see Add Field Dependencies.

Add Field Dependencies

Note: Custom field dependencies can only be created with multi-pick lists and drop-down list custom fields because dependencies are created based on the values of these fields.

Custom field dependencies allow you to specify a controlling field, that when selected will display specific options for project participants to choose from. You do not have to select a dependency for each of the field values. Blank fields will be treated as if there is no field dependency assigned and users will be presented with all the values available for the custom field. To learn more, see [About Custom Field Dependencies](#).

To add custom field dependencies

1. Go to the Global Custom Fields page.
For instructions, see [Access Global Custom Fields Page](#).
2. Click **Field Dependencies**.
3. Click **Add Dependency** to set up the relationship.
4. Select the controlling and dependent fields.

Note: The controlling field is the primary field of selection that will determine the available options of a subsequent field, which is referred to as the dependent field. For examples or to learn more, see [About Custom Field Dependencies](#).

5. Click **Next**.
6. Map the dependencies as appropriate to each controlling field. Values of the controlling field display as the header of the table. Values of the dependent fields are listed vertically.
7. Click **Save** to complete this task.

—Or—

Click **Save & Add** to add another field dependency.

Download Custom Field Dependency Template

Before importing custom field dependencies you're able to download a template that includes the values of the controlling and dependent fields. This template will make it easier for you to make edits as the values (which can be many in some cases) will be available in the tabs of the spreadsheet.

Note: Custom field dependencies can also be exported in Excel format.

To download the custom field dependency template

1. Go to the Global Custom Fields page.
For instructions, see [Access Global Custom Fields Page](#).
2. Click **Field Dependencies**.
The Global Custom Field Dependencies page is displayed.
3. To download a template for an established custom field dependency, click the **Edit** link next to the custom field.
—Or—
4. To download a template for a new custom field dependency, click **Add Dependency**. The Add Custom Field Dependency page is displayed.
5. Select your controlling and dependent fields, and then click **Next**.

The Add Custom Field Dependency page is displayed.

- Click **Import**. The Import Data Field Dependencies submenu displays.

- Click the **Download Template** link.

Related Topics:

- Export Custom Field Dependencies
- Import Custom Field Dependencies
- Add/Edit Custom Field Dependency Page Overview

Export Custom Field Dependencies

Custom field dependencies can be exported in a print preview or an editable Excel spreadsheet. The export feature affords you the flexibility of modifying custom field dependencies offline for import back into e-Builder. This also enables you to share data with external users more easily.

To export custom field dependencies

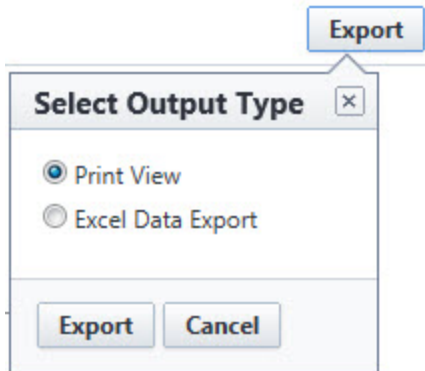
- Go to the Global Custom Fields page.
For instructions, see Access Global Custom Fields Page.

2. Click **Field Dependencies**.

The Global Custom Field Dependencies page is displayed.

3. Click the **Edit** link next to the custom field.
4. Click **Export**.

The Import Data Field Dependencies submenu displays.



5. To export a print view, select the **Print View** option.
This option does not allow you to edit data.

Tip

If you are waiting for a large list of field dependencies to be downloaded, use this option to see a full list more quickly.

6. Click **Export**.

Related Topics:

- Import Custom Field Dependencies
- Add/Edit Custom Field Dependency Page Overview

Import Custom Field Dependencies

Importing custom field dependencies makes them easier to manage, especially when you are working with a large list. To give you a starting point, a downloadable template is available that is pre-populated with the values of the controlling and dependent field values. This template can be downloaded or exported.

To import field dependencies

1. Go to the Global Custom Fields page.
For instructions, see [Access Global Custom Fields Page](#).
 2. Click **Field Dependencies**.
The Global Custom Field Dependencies page is displayed.
 3. To import dependencies of a saved custom field dependent relationship, click the **Edit** link next to the fields you want to import or export dependencies for.
- Or—

To import dependencies for a new field dependent relationship, click **Add Dependency**. The Add Custom Field Dependency page is displayed.

Select your controlling and dependent fields, and then click **Next**.

The Add Custom Field Dependency page is displayed.

4. Click **Import**.

The Import Data Field Dependencies submenu displays.

Note: To make updates using a template that is pre-populated with the values of the selected controlling and dependent fields, click the **Download Template** link. For instructions, see Download Custom Field Dependency Template.

5. Click **Browse** to import an Excel spreadsheet of the data field dependencies.
6. Click **Import**.

Add/ Edit Custom Field Page

Use this page to add new custom fields or make changes to existing ones. When adding custom fields, you are taken through a three step wizard. For instructions, see Add Document Custom Fields. A description of the fields and buttons located on each page is provided below:

Step 1

Select an object type.

Step 2

Select the type of data field you'd like to add.

- **String:** Allow users to enter a single line of text.
- **Text Block:** Allow users to enter multiple lines of text.
- **Integer:** Allow users to enter only a numeric value.
- **Decimal:** Allow users to enter only decimal values.
- **Drop Down List:** Allow users to select one value from a list of values
- **Multiple Pick List:** Allow users to select any number of values from a list of values
- **Date:** Allow users to enter a date manually, or select from the calendar icon.
- **Account User:** Allow users to select a single user from a list of all users on the account.
- **User In Role:** Allow users to select a single user from a list of users in the selected role.
- **User In Role On Project:** Allow users to select a single user from a list of users in the selected role that are members of the current project.

Step 3

Add custom field details.

- **Field Label:** Enter a label for the custom field. Ensure that the field label does not have any under-scores (_) in the name.
- **Description:** Enter a description of the custom field.
- **Inheritable:** This field displays when User and Project object types are selected. Select this check box to make the values of either the project or user custom field available when a user or project is copied. This will allow you to maintain consistency in the application of custom fields, which will provide additional data for your reporting needs.
- **Required:** Select the check box to make this a required field. Leave it unselected to make this an optional field.
- **Default Value:** Enter a default value for the field.
- **Permissions:** Select from the following options:
 - **Admin Edit Only** - Select to make this field editable by account administrators only.
 - **All Users** - Select **View** to make this custom field visible to all users. Select the **Edit** check box to allow all users to modify the custom field by entering and editing data.
 - **Role Name** - If the custom field can be edited by a role, the role will automatically inherit view permissions as well. You can allow all roles to view or edit the custom field by selecting either check box in the 'Role Name' header. However, to specify the roles that are able to view or edit, select the respective check boxes next to the role name.
- **Maximum Length:** Displays for String fields only. Enter the maximum number of character that users can enter in this field. If left blank, a negative value is automatically entered, which is equal to an infinite number of characters.

- **Minimum Length:** Displays for String fields only. Enter a least amount of characters that users can enter in this field.
- **Visible Rows:** Displays for Text Block and Multiple Pick List fields only. Enter the number of visible rows you want to display in the scrollable window. Team members will have to scroll to see the additional options.
- **Length:** Displays for Text Block fields only. Enter the maximum number of character you'd like available for this field.
- **Decimal Places:** Displays for Decimal fields only. Enter the amount of decimal places to set this field to, for example, two (0.12) or four (0.1234) decimal places.
- **Drop Down List Options:** Displays for Drop-Down fields only. Enter the options that users should choose from. Enter one option per line.
- **Sort Values:** Displays for Drop-Down and Multiple Pick List fields only. Click to sort values in alphabetical order.
- **Multiple Pick List Options:** Displays for Multiple Pick List fields only. Enter the options that users will choose from. Enter one option per line.
- **Roles:** Displays for 'User in Role' and 'User in Role on Projects' fields only. Select a role to narrow the list down by the users in the role selected.
- **Destination Folder Path:** Define the folder created when a bidder uploads a bid submission. Click **Change Folder** to browse and select the destination folder for the account.

Step 4

This page displays the details of the custom field and allows you to see a preview of what the field will look like to end users.

Add Custom Field Dependency Page

This page allows you to choose the controlling and dependent fields of the custom field dependency relationship. The controlling field is the primary field of selection that will determine the available options of a subsequent field, which is referred to as the dependent field. For examples and to learn more, see About Custom Field Dependencies.

For instructions, see Add Document Custom Field Dependencies.

Fields and Buttons

The fields and buttons located on this page are:

- **Next:** Click to move to the next step in the process.
- **Cancel:** Click to discard changes.
- **Select a Controlling field:** Click to select the controlling field. The controlling field is the primary field of selection that will determine the available options of a subsequent field, which is referred to as the dependent field. For more information, see About Custom Field Dependencies.

- **Select a Dependent field:** Click this drop-down arrow to select the dependent field. The dependent field is a subsequent field, whose values will display as a result of the selected controlling field. For more information, see About Custom Field Dependencies.

Add/ Edit Custom Field Dependency Page

This page allows administrators to establish field-dependent relationships based on the values of the controlling and dependent field selected on the Add Custom Field Dependency page. Multiple associations can be created from this page. An export option is available and it allows you to export field dependency data to an Excel spreadsheet. Additional associations can be added to the file and then imported back into e-Builder to simplify the process. The import/export options are ideal for working with a large number of custom field dependencies and will help you disseminate the information to other members of your organization more easily. To learn more about custom field dependencies, see About Custom Field Dependencies.

The following actions can be taken from this page:

- Add Document Custom Field Dependencies
- Import Field Dependencies
- Export Field Dependencies

Fields and Buttons

The fields and buttons located on this page are:

- **Export:** Click to export the list of field dependencies to an Excel spreadsheet or in Print.
- **Import:** Click to import an Excel spreadsheet of field dependencies.
- **Previous:** Click to return to the Add Custom Field Dependency page, where you are able to select the controlling and dependent fields. All unsaved changes will be lost.
- **Save:** Click to save changes.
- **Save & Add:** Click to save and add another field dependency.
- **Cancel:** Click to discard changes.
- **Select Field Type:** To learn more about controlling and dependent fields, see About Custom Field Dependencies.
 - **(Controlling Field):** The name of the custom field precedes this label. When this option is selected, the values of this field populate the drop-down menu; from which you are able to choose the value to add dependent fields to. A list of dependent field values display in the Unselected Field Values panel.
 - **(Dependent Field):** The name of the custom field precedes this label. When this option is selected, the values of this field populate the drop-down menu; from which you are able to choose the value to add controlling fields to. A list of controlling field values display in the Unselected Field Values panel.
- **Controlling Field/Dependent Field:** The label that appears next to the drop-down menu is contingent on the option that's selected in the Select Field field. The drop-down menu includes the values of the selected field (controlling or dependent). The Unselected Field Values panel lists the

values of the opposite field, from which you can choose which to associate with the value selected in this drop-down menu.

- **Show All Dependencies:** Select this check box to see all of the established dependencies in the Selected Field Values panel.
- **Unselected Field Values:** This panel lists all the values of the unselected field. Make a selection from this list to associate with the values of the selected field. Click the right-directional arrow to add your chosen values to the adjacent Selected Field Values panel.
- **Selected Field Values:** Lists all selected values. Select the Show All Dependencies check box to see a list of the all the established dependencies.

Geographic Information System (GIS)

A geographic information system (GIS) lets you to connect data to a map, integrating location data with descriptive information.

GIS for Trimble Unity Construct allows you to perform the following actions:

- Connect and display your ArcGIS web maps to projects and processes by role.
- Pinpoint project and process locations on the map so that office and mobile workers can identify the work locations easily.
- Use map tools like measure, editor, navigation, base map, layer list

Pre-requisites

Note:

- GIS is included in your current licenses at no added cost.
- Requires Esri only - Needs ArcGIS Online or ArcGIS Portal access
- Only Administrators can perform some tasks such as adding the web maps to an account.
- If your data is secure, users will be prompted for authentication on the GIS side as well.

Configure GIS

There are three parts to configuring GIS for use:

Add and Manage Web Maps

A web map is an interactive display of geographic information that contains a base map and a set of data layers or assets. Administrators can add, view, edit and delete one or more web maps for an account using the Map Location page (*Setup> Administration Tools> Map Location*).

Tip: Multiple web maps can be used based on roles. The default map will be available to all users.

Note: To remove the default map, you must remove all other maps first. If more than one map is added to the account, the **Delete** button will not be available on the default map.

To access the Map Location page

1. Click **Setup**.
2. In the **Administration Tools** section, click **Map location**.

The **Map Location** page is displayed.


To add the default map

1. On the **Map Location** page, click **Add default map**.
2. The **Add default map** popup is displayed.
3. Enter the following required fields:
 - **Name:** The name for the web map.
 - **Web share URL:** The web sharing URL in Esri which is already configured if you are using ArcGIS Online. To use your ArcGIS Portal instead, replace "www.arcgis.com" with your portal URL.
 - **Web Map ID:** The web map ID in Esri.
4. Click **Save**.
The map is added to the account and will be available to all users. The card for the default map will display the **Default Map** badge.


To add another map

1. On the **Map Location** page, click **Add map**.
2. The **Add map** popup is displayed.
3. Enter the following required fields:
 - **Name:** The name for the web map.
 - **Web share URL:** The web sharing URL in Esri which is already configured if you are using ArcGIS Online. To use your ArcGIS Portal instead, replace "www.arcgis.com" with your portal URL.
 - **Web Map ID:** The web map ID in Esri.
 - **Roles:** Select the check boxes beside the user roles that need to access this map.
4. Click **Save**.
The map is added to the account.


To preview a map

1. On the **Map Location** page, locate the card for the map you wish to preview.
2. Click the preview button . The selected map is displayed.

To edit a map

1. On the **Map Location** page, locate the card for the map you wish to edit.
2. Click the edit button . The **Edit map** page is displayed.
3. Make the changes, as needed.
4. Click **Save**.


To delete a map

1. On the **Map Location** page, locate the card for the map you wish to delete.
2. Click the delete button . The **Remove map** page is displayed.
3. Click **Remove map** to confirm the deletion.

To delete the Default map

1. On the **Map Location** page, locate the card for the Default map.

Note: To remove the default map, you must remove all other maps first. If more than one map is added to the account, the **Delete** button will not be available on the default map.


2. Click the delete button . The **Remove map** page is displayed.
3. Click **Remove map** to confirm the deletion.

Add Project Location

After web maps have been configured for the account, Project Administrators can add locations to projects. This project location can be viewed by users with access to the projects.

Note: The Map Location can be set to a different location than the project address.

To add a project location to a new project

1. On the **Projects** page, click **Add**. The **Add Project** page is displayed.
2. In the **Map location** field, click **Choose from map**. The map window is displayed.
3. In the **Add map location for project** window, navigate to an area on the map to use it as the project location. Click and move the map to move to a different location on it. For more information, see Map Tools.
4. Click  to draw a point on the map.
5. Click **Save Location**. The selected location will be added and displayed on the **Project Details** section.
6. Click **Save** to save and create the new project.

To add a project location to an existing project


1. On the **Projects** page, click **Edit** beside the project you wish to modify. The **Edit Project Details** page is displayed.
2. In the **Map location** field, click **Choose from map**. The map window is displayed.
3. In the **Add map location for project** window, navigate the area on the map you wish to use as the project location.
4. Click **Save Location**. The selected location will be displayed on the project details section.
5. Click **Save** to save and create the new project.

To view a project location

1. On the **Projects** page, click the name of project. The **Project Details** page is displayed.
2. In the **Map location** field, click **View map**. The map window is displayed.

3. Click **Close**.

To view XYZ coordinates for a project location

1. On the **Projects** page, click the name of project. The **Project Details** page is displayed.
2. In the **Map location** field, click **XYZ coordinates**. The coordinates are displayed.
3. Click  beside each coordinate to copy it.


Add Process Location

Administrators can geo-enable processes and then add locations to each process. You can set permissions to view or edit in the Page Layouts tab. When a geo-enabled process is started, you will be able to view the Map location on the Start Process page.

To geo-enable a process

1. Go to **Setup**.
2. In the **Administration Tools** section, click **Processes**.
3. Click **Manage Processes**.
4. Click the name of the process you want to modify.
5. Click the **Edit** button.
6. On the page, select the **Map Location Enabled** check box.
7. Click **Save**.

To add a process location to a process

1. Go to the **Project Processes** page.
2. Click the **Start process** button.
3. Search for a process and click **Start**. The **Start Process** page is displayed.
4. In the **Map location** field, click **Choose from map**. The map window is displayed.
5. Navigate to an area on the map to use it as the process location. Click and move the map to move to a different location on it. For more information, see Map Tools.
6. Click  to draw a point on the map.
7. Click **Save Location**. The selected location will be added to the process.
8. Click **Submit**.

Terminology

This section defines the GIS-related terminology used below:

ArcGIS

A comprehensive geospatial platform for professionals and organizations, and the leading geographic information system (GIS) technology.

ArcGIS Online

A web-based geographic information system (GIS) and mapping software from Esri that allows users to create, share, and collaborate on maps, apps, data, and more

ArcGIS Portal

A component of ArcGIS Enterprise that allows you to share maps, scenes, apps, and other geographic information with other people in your organization. This content is delivered through a website that can be customized to fit your organization's look and feel.

Base map

A reference layer that provides the overall visual context for a map or scene. It typically contains geographic features and labels for continents, lakes, administrative boundaries, streets, cities, and places.

Esri

Environmental Systems Research Institute or Esri is a company that specializes in geographic information system (GIS) software, mapping, and location intelligence.

Web Map








An interactive display of geographic information that contains a base map and a set of data layers or assets.






GIS Map Tools

Map tools include the measure tool, editor, base map gallery, and the layer list.

These tools can be used while adding the web maps, and while adding or updating the project and process locations.

To use the map tools

1. View the map.
2. The following tools and options are available:
 - **Zoom In:** Click  to zoom in on the current map view.
 - **Zoom Out:** Click  to zoom out on the current map view.
 - **Default map view:** Click  to navigate to the default map view.
 - **Find my location:** Click  to have the map view show your current location.
 - **Expand Legend:** Click  to expand and view the legend.
 - **Expand Layers List:** Click  to expand the list of map layers
 - **Expand Base Map Gallery:** Click  to open the gallery of available base maps. Click the desired map to view it.

- **Expand Editor:** Click  to open the feature editor for available GIS data. The following options are available:
 - **Enable tooltips:** Click this toggle to show or hide numerical information while drawing.
 - **Enable snapping:** Click this toggle to enable snapping and then select what you want to snap to. The **Geometry guides** option allows a feature to snap to geometry guidelines. The **Feature to feature** option allows a feature to snap to another feature.
 - **Snapping layers:** Click this drop-down to select a layer you want the snapping controls to be applied to.
 - **Create features:** Click to create editable GIS features.
- **Distance Measurement Tool:** Click  to measure the distance between points on the map.
- **Area Measurement Tool:** Click  to measure the area of a polygon on the map.
- **Clear Measurements:** Click  to clear the measurements from the map.
- **Collapse:** Click  to collapse the open menu.

Mail Merge Templates

Mail merge templates allow you to extract data from Trimble Unity Construct and export it into a Microsoft Word® or Adobe PDF® document. By mapping certain fields in the Word document to data fields in select e-Builder modules, you are able to export files with just the data you need, such as project names and other identifiers. The Word document template can be formatted in any way you desire to meet your requirements for reporting or printing. The account administrator is responsible for setting up and maintaining mail merge templates. The benefit of mail merge templates is that it eliminates the need for users to enter information into a Word document manually and reduces the margin for error. Having a system-generated document ensures the integrity of your data and it's a quick and easy way to consolidate information you've already entered once into a ready-to-read format.

Although default templates are available, you have the option of customizing templates with field mappings that will allow you to extract information stored in Trimble Unity Construct into your template such as company contact information, project name, user information etc. For steps on customizing your templates, see [Customize Template with Field Mappings](#).

Mail merge templates are available for most Trimble Unity Construct modules and generally serve the same purpose. However, for specifics on how and where in the user interface the template is used, and detailed steps for adding and editing each template, see details for each respective module by clicking the appropriate link below:

- [Budget Mail Merge Templates](#)
- [Calendar Mail Merge Templates](#)
- [Cost Mail Merge Templates](#)
- [Forms Mail Merge Templates](#)
- [Planning - Scenario Templates](#)

- Processes Mail Merge Templates
- Schedule Mail Merge Templates
- Submittal Mail Merge Templates

Related Topics:

- Customize Template with Field Mappings

Customize Template with Field Mappings

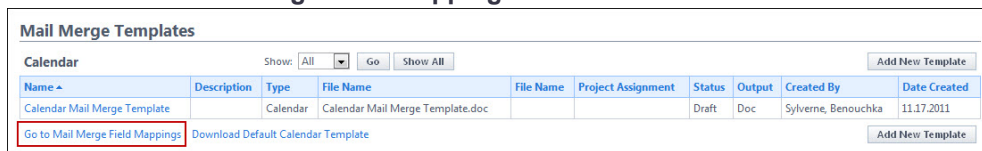
e-Builder field mappings are available to help you quickly capture data that is stored in the system into your template. Information such as project name, project contact, custom fields, various company information can all be automatically populated into your template. Using field mappings will help you save a lot of time when it is necessary to customize each various templates according to project specifications.

To customize your template using field mappings:

- Obtain Field Mappings
- Add Field Mappings to your Template

To obtain field mappings:

1. Click the Setup link.
2. In the Administration Tools section, click the module name you want to customize the template for.
3. Click **Mail Merge Templates** . The Mail Merge Templates page is displayed.
4. Click the **Go to Mail Merge Field Mappings** link.

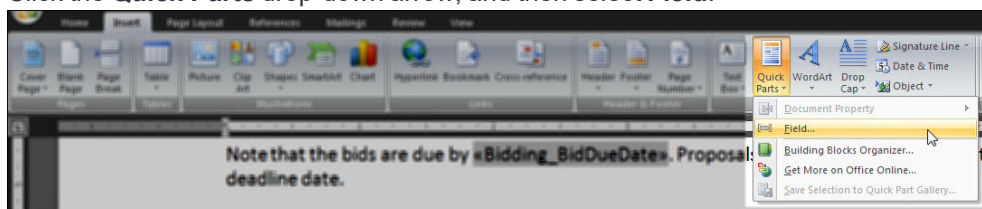


Tip

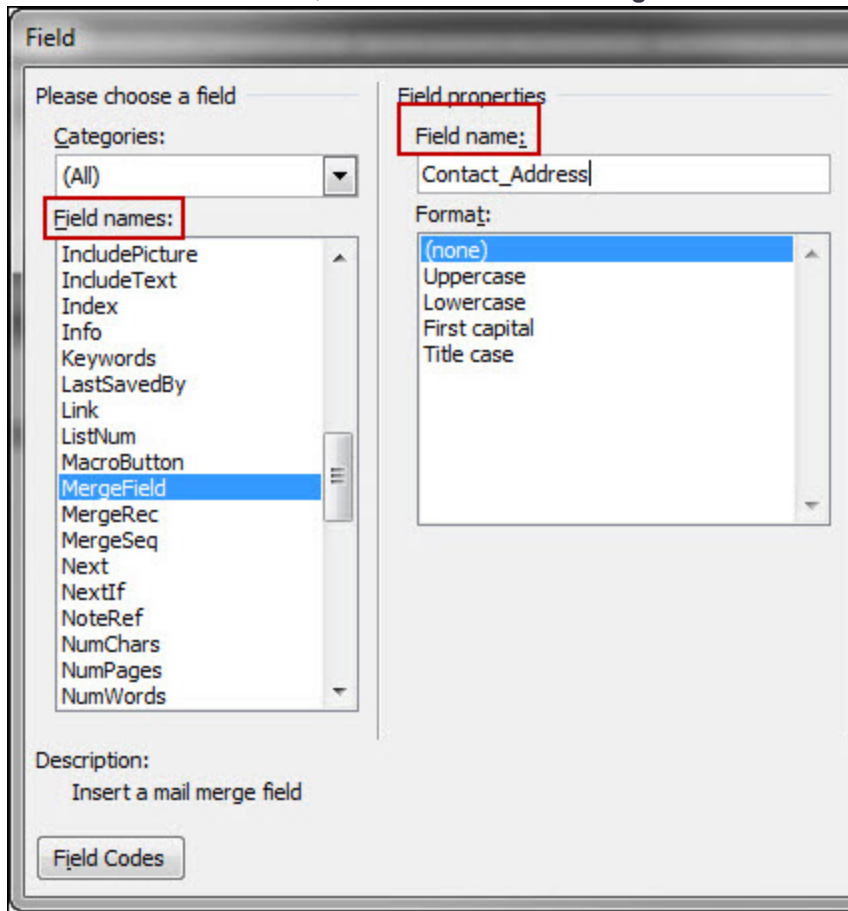
Keep this page open or print the merge codes for easy access when adding the field mappings to your template.

To add field mappings to your template (using Microsoft Word 2007 ®)

1. Open the template you want to add field mappings to.
2. Place your cursor in the position you want to add the merge code.
3. Click the **Insert** ribbon.
4. Click the **Quick Parts** drop-down arrow, and then select **Field**.



5. In the **Field names** section, scroll down and select **MergeField**.

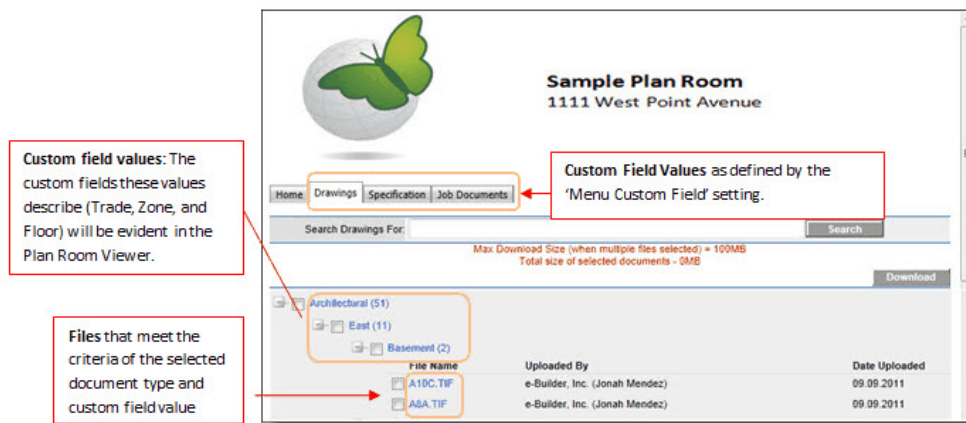


6. Enter the e-Builder merge code in the **Field Name** field.
7. Click **OK**. The merge code is added to the word document.
8. Save the document to your local machine.
9. To store this document as a template in e-Builder, see the respective mail merge template module below:
- Calendar Mail Merge Templates
 - Cost Mail Merge Templates
 - Forms Mail Merge Templates
 - Planning - Scenario Templates
 - Processes Mail Merge Templates
 - Schedule Mail Merge Templates
 - Submittal Mail Merge Templates

About the Plan Room

The Trimble Unity Construct Plan Room gives all project participants including architects, engineers, bidders and contractors access to files without having to know exactly where files are located. By simply knowing the document type they're looking for (e.g. drawings, specifications, job documents, ASIs etc.) users can easily access project files as well as related files specific to a trade, floor or zone, for example. These document specifications are referred to in Trimble Unity Construct as document custom fields, definable by you, the administrator. Trimble Unity Construct leverages document custom fields to control how the plan room organizes and relates files. Part of plan room setup includes defining document types, custom fields and custom field values to help users quickly and easily navigate to the files they need.

Below is an illustration that provides a high level view of the plan room. Each section is labeled by its Trimble Unity Construct setup definition to help you visualize and understand the use of the settings you will configure in order to make the plan room functional for users.



When a file is selected in the plan room, it opens in the Plan Room Viewer where users can easily jump to other files that share the same custom field values. The left navigation pane lists all related files grouped by document types.



Figure 2: Plan Room Viewer

The **Related Documents** pane is compiled by defining document relationships. See Define Relationships for instructions. Initially, the administrator may establish these relationships, but on an ongoing basis this may be the responsibility of the Project Document Controller.

Jump-To Menus and their values are defined during the process of configuring documents to use the plan room. See Plan Room Enable Documents for instructions. Before you can enable documents to use the plan room, document types and custom field values must first be defined.

Document Types are the first level of access users have to the plan room. Document types help you categorize your files. See Define Document Types for instructions.

Custom Fields and their values are attributes of a document that help further describe it and its purpose. Examples of document custom fields might include *trade*, *floor*, *zone* etc. as seen in Figure 1. Custom field values broaden the scope by which users can find the documents they need. These values display in the expanded menus in the plan room and in the Jump-To drop-down arrows (see Figure 2). For instructions on defining custom fields, see Define Document Custom Fields.

For instructions on setting up the plan room, see Plan Room Setup.

Plan Room Benefits

Secure Document Sharing Use Plan Room to share plans, drawings, specifications and other job-related documents, such as bid sets and ASIs. The Plan Room must be enabled on a project-by-project basis to be a public or password-protected site with its own web address that can be distributed to project participants. It can also be configured to be used in the bidder portal to distribute bid documents.

Organize Documents Specific to each Project Plan Room allows you to organize project documents with different attributes or tags. Tags might be building name, floor number, section, zone, or even trade. Once the document type is chosen (e.g. plans), the user will get a menu that lets him or her find plans by tag. The Plan Room viewer lets the user jump to other similar documents by varying one tag, speeding up the time it takes to find related files. For example, if you are looking at the first floor zone 1 architectural drawing, the user can easily look at the equivalent drawing for the second floor, or zone 2, or they can pull up the structural drawing for floor 1 zone 1. The Plan Room viewer is also used in the main e-Builder documents area when viewing files that are part of the Plan Room.

Create Meaningful Relationships Between Documents Plan Room gives the project document controller all the controls necessary to manage the relationships between files. Document types and attributes leverage the existing e-Builder document management capabilities (e.g. custom fields to set things like trade, floor, zone, etc). Plan Room even keeps the document history, but always shows users the most recent document first.

When is the Plan Room a Fit?

The plan room was designed to function on a project by project basis to ensure that you are getting the most out of the investment required to set up and maintain it. To help you make this decision, these are some questions you need to ask to determine if the plan room is a good fit for a particular project.

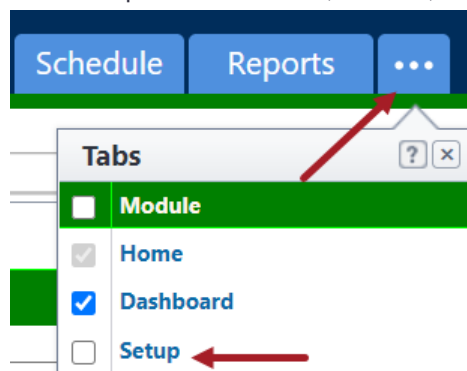
- **Number of Documents:** Does this project have a large number of project documents and relationships between the documents (i.e. trade, zone, floor, etc.)? The plan room is ideal for large document sets, facilitating an organized and easy-to-use document structure where users can easily locate the files they need. One client shared with us they had upwards of 500 documents which would have been otherwise unmanageable without the plan room. For small programs, the standard Trimble Unity Construct document management folder structures work well.
- **Project Size:** Is this a complex project that includes a large scope, multi-story structures, many different trades, specialized zones, floors, etc.? Such projects benefit from the plan room's ability to group and organize files related by these attributes.
- **Large Number of Casual Document Viewers:** Are there many different casual Trimble Unity Construct users that need to access the documents in this project? Plan room makes it easier and simpler for the casual Trimble Unity Construct user; someone who only uses Trimble Unity Construct every once in a while to find the documents they are looking for. Experienced Trimble Unity Construct users know how to get around and know where to look. The typical casual user is (1) a bidder; or (2) a facility end user, someone who works at the hospital, school etc. and just needs access to a drawing every once in a while. If there is a large casual user base, you'll be able to justify the administrative overhead that is necessary by way of a document controller, to get everything organized and set up.

Access Document Settings

To access Documents settings

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Documents**.

Plan Room Setup

Plan Room setup is a seven step process that includes the tasks listed below. Plan room setup is required in order to make the plan room operative.

1. Define Document Custom Fields
2. Associate Custom Fields with Document Types
3. Customize Plan Room Settings

4. Define Project Access
5. Define Document Relationships
6. Plan Room Enable Documents
7. Validate Related Files

Related Topics:

- About the Plan Room
- About Document Types

Define Document Custom Fields

The first step to setting up the plan room is defining the document custom fields for the account. Typically, this step is done by e-Builder Professional Services, but there may be instances where the Account Administrator defines custom fields.

Document custom fields are attributes of a document that help further describe it and its purpose. Examples of document custom fields might include *trade*, *floor*, *zone* etc. With these values defined for each file, it broadens the scope by which users can find the documents they need.

To define document custom fields

1. Go to Documents Settings.
For more information, see Access Documents Settings.
2. Click the **Custom Fields** link.
The Document Custom Fields page is displayed.
3. Click **Add Field**.
The Select Data Type page is displayed.
4. Select **Drop Down List**, and then click **Next**.
The Custom Field Details page is displayed.
5. Enter the custom field name in the space next to **Field Label**.

Note: The custom fields you define must be a drop down list (a finite list of predefined values) in order for it to function within the plan room.

6. In the **Drop Down List Options** field, enter the options for the custom field.

Tip

Custom field options are specific attributes of the custom field. For instance, for the custom field Trade, options may be: Architectural, Civil, Electrical, Plumbing, etc. If you are unsure of all the possible values you can always come back to this field later and add the additional values.

7. Click **Next**.
The Field Summary page is displayed.
8. Review the custom field details. If no changes are required, click **Save**.

*This is procedure 1 of 7 in setting up the plan room. The next procedure is Associate Custom Fields with Document Types.

Related Topics:

Plan Room Setup

About Document Types

As part of the plan room setup, you will establish the document types for the documents in your project. Document types are the first level of access to the plan room. All documents in the plan room are categorized by these document types. During the process of assigning document types, the custom fields created in the Define Document Custom Fields procedure display, allowing you to associate these values with different document types.

Associate Custom Fields with Document Types

In this step you will associate custom field options to each of the document types that will be used in the Plan Room. Document types are the different type of documents that exist throughout the account, such as drawings, specifications or job documents. Adding custom field options to document types assists with related file associations and gives users additional options by which to find the documents they're looking for. For example, if one of your document types is Drawings, then you can add custom fields of Trade, Zone, and Floor to the Drawings document type. By setting it up this way, users will only see those custom fields specific to this document type (i.e. architectural drawings, drawings for zone A, 2nd floor drawings, etc.). This makes it easier for the Project Document Controller to assign the right values to the right documents.

Before you can associate custom fields to document types, please ensure that document types exist and are enabled for your project. For steps on enabling and adding document types, see [Enable and Add Document Types](#).

1. Go to Documents Settings.

For more information, see [Access Documents Settings](#).

2. Click the **Document Types** link.

The Document Types page is displayed.

3. Click the name of the document type you want to add custom fields to.

A list of all document custom fields display in the box on the left.

4. Select the custom field(s) you want to add to the document type, and then click **Add**.

5. Use the controls on the right side of the page (**Top, Up, Down, and Bottom**) to order the items as they will display in the custom fields file properties dialog box.

Note: The custom fields file properties dialog box displays during the process of plan room enabling documents.

6. Click **Save**.

*This is procedure 2 of 7 in setting up the plan room. The next procedure is [Customize Plan Room Settings](#).

Related Topics:

- [Define Document Custom Fields](#)

Customize Plan Room Settings

Customizing plan room settings serves multiple purposes. In this procedure, the following tasks are being accomplished:

- Select the folder path where relationship documents will reside. Relationship documents are Microsoft Excel® spreadsheets that define document relationships.
- Define the Jump-To menus that will display in the plan room viewer, which allows users to jump between custom field values (i.e. Trade, Zone, Floor) within the selected document type.
- Define the groups of information and order by which users will navigate to the files they need.
- Enable relationships files so that the relationship document is active.

To customize plan room settings

1. Go to the documents settings.
For more information, see Access Documents Settings.
2. Click the **Plan Room Settings** link.
The Plan Room Settings page is displayed.
3. Click the **Menu Custom Field** drop-down arrow and select the field you want to configure.
4. Click **Lookup** to choose the folder where your relationship documents will reside.
5. Select the **Enabled** check box to make this menu custom field available in the plan room.

Tip

Update your document template to include the folder that will house the project relationship documents. This way you will not have to manually add these folders every time a project is created. Set the permissions of this folder to be accessible by the e-Builder Administrators and Document Controller role only.

6. Define the Jump To menus by selecting three document custom fields from the drop-down arrows.

| | | | | | |
|--|--------------|---|---|---------------|---|
| Select up to three custom fields that defines the Jump To: | | | Define up to three groupings (in order) when viewing the list of Bid: | | |
| Document Custom Field: | Meeting Type | ▼ | Document Custom Field: | Floor Name | ▼ |
| Document Custom Field: | Permit Type | ▼ | Document Custom Field: | Received From | ▼ |
| Document Custom Field: | Report Type | ▼ | Document Custom Field: | Drawing | ▼ |

Tip: These document custom fields will help users navigate to similar documents. For example, if there is a document custom field named Floor and it is selected as an option above, then the user can select floor 1 and navigate from mechanical plans, electrical plans, and structural plans all from floor 1.

7. Define groupings by selecting three document custom fields from the drop-down arrows.

Note: The order in which you select the groupings matter. The top grouping will be the first grouping that the users see to navigate further to find the files they are looking for.

| | | | | | |
|--|--------------|---|---|---------------|---|
| Select up to three custom fields that defines the Jump To: | | | Define up to three groupings (in order) when viewing the list of Bid: | | |
| Document Custom Field: | Meeting Type | ▼ | Document Custom Field: | Floor Name | ▼ |
| Document Custom Field: | Permit Type | ▼ | Document Custom Field: | Received From | ▼ |
| Document Custom Field: | Report Type | ▼ | Document Custom Field: | Drawing | ▼ |

Tip: These document custom fields will help users navigate to similar documents. For example, if there is a document custom field named Floor and it is selected as an option above, then the user can select floor 1 and navigate from mechanical plans, electrical plans, and structural plans all from floor 1.

8. In the **Defined Relationships** section, select the Enabled check box for each relationship file.

Note: For a detailed description of all the fields located on the Plan Room Setting Page, see Plan Room Settings Page Overview.

*This is procedure 3 of 7 in setting up the plan room. The next procedure is Define Project Access.

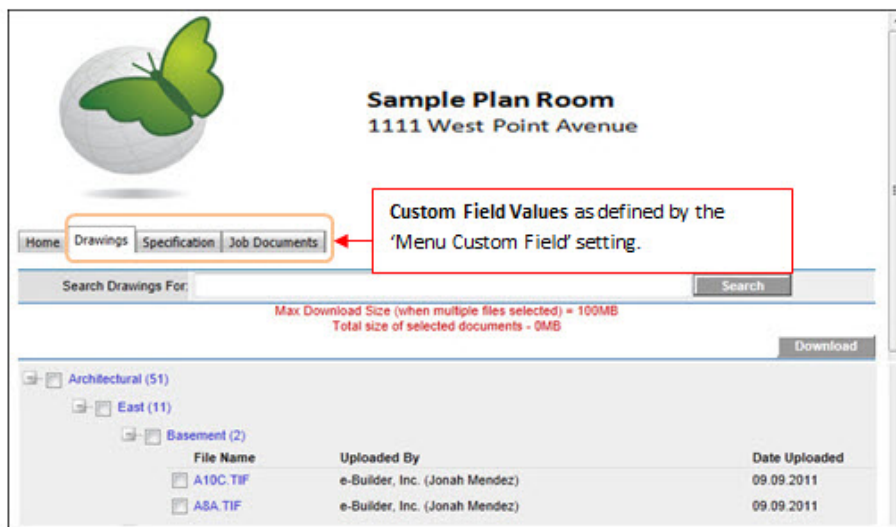
Plan Room Settings Page

Document custom fields and document types must be defined before the plan room settings can be configured. This phase of the setup involves defining relationships between documents, so that they display in the appropriate sections of the plan room and facilitate ease of access.

Fields and Buttons

The fields and buttons located on this page are:

- **Menu Custom Field:** Click this drop-down arrow to select a custom field to assign. Each custom field renders a different set of tabs, per options defined in the document custom fields. For more information, see Define Document Custom Fields.



- **Relationship Folder Path:** Click the **Lookup** button to select a folder path in the e-Builder Documents Library where relationship documents will be stored. Relationship documents provide the mappings that the system reads in order to make the proper file associations. When the plan room loads for a project it will look for the relationship documents in this folder path.
- **Download Relationship Template:** Click this link to download the relationship template. This Microsoft Excel® template is used to define relationships between documents. Save all relationship files in the designated relationship folder path.

Tip

File names have to match the file names in the File Name section of this page for the system to read the document and make file associations.

- **Plan Room Access Default:** This feature allows you to set a default level of access to the Plan Room for all new projects. If an option other than None is selected, the Plan Room will automatically be enabled on all new projects with the level of access you've selected here. If you choose not to default this setting, administrators will be able to define project access for individual projects at a time. For instructions, see Define Project Access. The following options are available:

- **None:** This option restricts user access to the Plan Room.
 - **Internal:** This option limits plan room access only to those users who can access e-Builder. If this option is selected, users will only be able to access the plan room through e-Builder; a URL will not be generated.
 - **Public:** This option automatically generates a URL from which users can access the plan room. After changes are saved, this URL displays in the External Plan Room URL field located on this page.
- **Tabs:** These tabs are document custom field options of the custom field selected in the Menu Custom Field drop-down located toward the top of this page. The values for these tabs are defined in the document custom field settings. For more information, see Define Document Custom Fields.
 - **Enabled:** Select this check box to enable the menu custom field in the plan room. If this check box is not selected, the menu custom field will not display in the plan room.
 - **(Jump To) Document Custom Field:** Jump to categories allow you to quickly and easily jump to documents of the same custom field options. Click each **Document Custom Field** drop-down list in this section to define the three jump to menus that will display in the plan room viewer. For more information, see About the Plan Room - Figure 2.
 - **(Groupings) Document Custom Field:** Groupings are the hierarchy in which files are sorted when users log in to the plan room. Groupings help users view the listing of files in a meaningful way that can help them get to the file they need to view faster. Click each **Document Custom Field** drop-down list in this section to define the document groupings.
 - **Define Relationships Section:** In this section you are able to define relationships between the document custom field options. These settings affect the Related [Document Type] section located in the left navigation pane of the plan room viewer. For more information, see About the Plan Room - Figure 2.
 - **Enabled:** Select these check boxes to make these options visible in the navigation pane of plan room viewer. For more information, see About the Plan Room - Figure 2.
 - **Linked To:** These fields auto-populate the custom field options (the tabs located across the middle of the page).
 - **Name in Plan Room:** This field auto-populates the word Related in front of each custom field option name. These fields pull the related files that display in the navigation pane of the plan room viewer. For more information, see About the Plan Room - Figure 2.
 - **File Name:** This field auto-populates the Microsoft Excel file name of the relationship document.

Tip

Your relationship documents should be saved as these file names. File names must match so the system is able to make the appropriate file associations.

Define Project Access

Note: There is an account setting that will automatically enable the Plan Room on all new projects, but if this setting is not configured, then administrators will have to enable the Plan Room for their individual projects. For more information on this setting, see Plan Room Settings Page Overview - Plan Room Access Default.

To define project access

1. Click **Setup**.
2. In the **Administration Tools**, expand the **Projects** link.
3. Click **Mange Projects**.
The Project List page is displayed with a list of all projects.
4. Click the name of the project you want to enable the plan room for.
5. Click **Edit** located in the upper-right side of the page.
6. Click the **Settings** tab.
7. In the **Enable Document Control** field, select the **Yes** radio button.
8. In the **Plan Room Access** field, select an access option from the following:
 - **None**: This option restricts user access to the Plan Room.
 - **Internal**: This option limits plan room access only to those users who can access e-Builder. If this option is selected, users will only to able to access the plan room through e-Builder; a URL will not be generated.
 - **Public**: This option automatically generates a URL from which users can access the plan room. After changes are saved, this URL displays in the External Plan Room URL field located on the Project Details page.
 - **Shared Password**: This option allows you to create a shared password for users to enter when accessing the plan room.
 - a. Enter a password in the **Shared Password** field.
 - b. Re-enter this password in the **Confirm Password** field.
9. Click **Save**.

*This is procedure 4 of 7 in setting up the plan room. The next procedure is Define Document Relationships.

Project Document Controller

The Project Document Controller (PDC) plays a significant role in maintaining the plan room. On an ongoing basis, this role is responsible for keeping documents updated and properly indexed so that plan room users can easily and accurately locate the files they need. The PDC also plays an important role in plan room setup by enabling the project documents to use this feature. Configuring and indexing the relationship between files, creating relationship documents, validating related files and addressing any errors that may occur are also part of the PDC's role.

The topics in this section directly relate to the job function of the Project Document Controller:

- About Plan Room Enabling Documents
- Plan Room Enable Documents
- About Defining Document Relationships
- Define Document Relationships
- About Validating Related Files
- Validate Related Files
- About Exceptions

About Plan Room Enabling Documents

To access documents in the plan room, they must first be customized in order to be used in the plan room. The Project Document Controller (PDC) performs this task for existing documents after the initial plan room setup. This task is periodically performed by the PDC as documents are added to the Document Library. By plan room enabling documents, you are assigning the document's file type as well as the plan room Jump-To values.

Related Topics:

- About the Plan Room

Plan Room Enable Documents

Best Practice:

You can plan room enable entire folders or individual files. If you cannot ensure that all files in a folder are of the same document type and have the same custom field options, it is recommended that you update files individually, otherwise files will not be properly indexed.

1. Go to the Documents module of the project you want to setup.
2. Select the folder/document you want to customize for viewing in the plan room.
3. Click the **Properties** link. The File Properties dialog box displays.
4. Click the **Custom Fields** tab.
5. Click the **Document Type** drop-down list to assign a document type to the file.
6. In the **Custom Fields** section, click the drop-down list for each custom field and make a selection.

Note: In this step you are defining the jump-to-values that display in the plan room viewer. For more information, see About the Plan Room.

7. Click **Save**.

*This is procedure 6 of 7 in setting up the plan room. The next procedure is Validate Related Files.

About Defining Document Relationships

Typically, the Project Document Controller (PDC) will maintain these relationship files and update them as required when new drawings or addenda are issued, for example. In this procedure, you will create a Microsoft Excel® spreadsheet that has two columns; Document and Related Document. For information on downloading a relationship template, see Plan Room Settings Page Overview.

Specifically, each cell in the spreadsheet is a file. In the example below, document A1-01-a.xls is repeated in the Document column to establish the relationship between this one file and all files that relate to it. If you want users to also see this file when searching for one of the related documents, the reverse relationship must also be established, as illustrated in the last row of the sample below.

Once the relationships have been mapped and the file is saved, you can start uploading the files into the appropriate folders. If there is more than one related file, then the PDC repeats this exercise by adding another row in the spreadsheet. Here's an example of what a relationship file might look like.

| Document | Related Document |
|-------------|------------------|
| A1-01-a.xls | A1-01-b.xls |
| A1-01-a.xls | A2-02.xls |
| A1-01-a.xls | A2-03.xls |
| A1-01-a.xls | A3-01.xls |
| A1-01-a.xls | A4-01.xls |

Note: Relationship files must be saved in the designated relationship folder path. For more information about defining the relationship folder path, see [Customize Plan Room Settings](#) or ask your Trimble Unity Construct Administrator.

Related Topics:

- [Define Document Relationships](#)

Define Document Relationships

Sample relationship document:

Primary Document:

Notice this file is repeated throughout the Document column of the entire relationship document; this is because there are multiple files that relate to this primary document. However, multiple primary documents of the same document type may be added to the same file.

| Document | Related Document |
|--------------|------------------|
| A1-01-a. xls | A1-01-b. xls |
| A1-01-a. xls | A2-02. xls |
| A1-01-a. xls | A2-03. xls |
| A1-01-a. xls | A3-01. xls |
| A1-01-a. xls | A4-01. xls |

To define document relationships

1. Go to the Documents settings.
For more information, see [Access Documents Settings](#).
2. Click the **Plan Room Settings** link.
3. Click the **Download Relationship Template** link.
4. In the **Document** column, enter the primary file name and extension.
5. In the **Related Document** column, enter the file name and extension of the related file.

6. Repeat steps 2-3 to define additional file relationships.
7. Once all relationships are defined, save the document in the designated relationship folder path you defined in Customizing Plan Room Settings. Name the files in the following name convention: document type_document type.

Note: Save files as .xls files or Excel 97-2003 Workbook, the Plan Room is not compatible with .xlsx files.

*This is procedure 5 of 7 in setting up the plan room. The next procedure is Plan Room Enable Documents.

About Validating Related Files

The Project Document Controller (PDC) can validate document relationships in the folder location that relationship files were uploaded to.

When the PDC clicks on the Plan Room Setup link a popup window displays showing all exceptions on the Exceptions tab. A Related Documents tab is also available, which displays all successful relationships in the file. This window help the PDC validate all of the relationships are defined correctly.

Related Topics:

- Validate Related Files
- About Exceptions

Validate Related Files

To validate related files

1. Click the **Documents** tab located on the Top Navigation Tabs.
2. Click the **Go to Project Documents for** drop-down arrow and select the project.
3. Click the relationship files destination folder.
4. Click the **Plan Room Setup** link located under the relationship file name you want to validate.

The Relationship Files Summary popup window appears.

Note: The Related Documents tab lists all successful relationships in the file. If there are any exceptions, the Exceptions tab is selected and list all exceptions.

*This is procedure 7 of 7 in setting up the plan room. For more information on setting up the plan room, see Plan Room Setup.

Related Topics:

- About Validating Related Files

About Exceptions

Exceptions allow you to see any errors that may have occurred while defining relationships between related files. There are two types of exceptions that can occur:

1. A file is missing
2. There is one or more files with the same name (duplicates)

Related Topics:

- Define Relationships

Access Planning Settings

Trimble Unity Construct Administrators can modify planning settings in the Administration Tools section located in the Setup.

To access the planning settings

1. Click **Setup**.
2. In the **Administration Tools** section, expand **Planning**.
All planning related settings display.

Capital Plans Settings

Capital plans settings provide optional custom field settings that support the need to sort projects by different criteria such as resource, campus, building, project number, or any data that is pertinent to make smart planning decisions. These custom field settings help planners prioritize and determine whether modifications are necessary by looking at a list of projects sorted by these custom fields. It also gives further visibility into the proposed plan and provides a framework for better decision making. Once set, these custom fields are available in capital plans by default. You can also set the default order in which the custom fields display.

To configure capital plan settings (custom fields)

1. Go to the planning settings.
For more information, see Access Planning Settings.
2. Click **Capital Plans Settings**.
3. In the **Configure Columns** section, click each of the drop-down lists and select the custom fields.
For information on adding custom fields to the list, see Managing Custom Fields.
4. Choose a sorting preference by selecting either of the Ascending or Descending radio buttons.
You can also choose the **Manual Sorting** option.
5. Click **Save**.

Escalations

Cost escalation settings allow you to account for the rate of inflation or deflation across all goods and services throughout the life of your project. Annual inflation rates are automatically calculated when costs are added in the planning module. This feature supports accurate calculations and eliminates the threat of human error. Setting escalation rates early on helps you avoid budget overruns, reduces manual efforts and saves time, giving you one less thing to worry about during the planning phase.

The following topics are included in this section:

- How Escalations Work
- Set Escalations

How Escalations Work

Escalations only apply to scenarios in a capital plan. They are based on the initial start year of the scenario and will not be applied unless the scenario is moved between different years, for instance from 2012 to 2013 (moving a scenario from Dec. 2012 to Jan. 2013 is a qualifying instance, but from Jan. to Feb of the same year is not). Escalation rates are never applied for the initial start year, but for all subsequent years. If scenarios are moved a year or more earlier, the escalation rate will be subtracted by the escalation rate of the year it is moved to, including all years in between. Likewise, if scenarios are moved a year or more in the future, the escalation rate will be incremented based on the escalation rate starting from the initial start year. Please refer to the diagram below for a visual reference.

Synopsis: This diagram illustrates a scenario that has been moved from an initial start year of 2012 to 2015. The escalation rate is set at 2%. The total initial cost of the project is \$1,000,000.00. With the 2% escalation rate, the resulting project cost is 1,061,208.00.

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|-----------------------------|--------------|------|------|--------------|------|------|------|
| Escalation Rate: | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Initial start year - 2012 | 1,000,000.00 | | | | | | |
| Resulting start year - 2015 | | | | 1,061,208.00 | | | |

Set Escalations

Note: If the planner chooses to add escalation rates to the capital plan, their settings will override what is set here.

To set escalations

1. Go to the planning settings.
For more information, see Access Planning Settings.
2. Click **Escalations**.
3. Enter the percent of inflation for each year of your project.
4. To add additional years to the list, click **Add**.
5. Click **Save**.

Scenario Templates

Scenario templates are best used if there are standard elements that apply to all or a majority of your planned/-potential projects such as design, construction, permit costs, and furniture, fixtures and equipment (FF&E). Using scenario templates is also a great way to establish a standard, initial budget for every project or certain types of projects i.e. vertical vs. horizontal construction or water/sewage vs. parks & recreation.

The procedure below describes creating the scenario template, adding categories, category assumptions as well as activating the template. Scenario templates can be activated at any time. Before activation, templates are in draft mode and not available for use or public viewing. Once activated, planners can see and use templates when creating scenarios.

To create scenario templates

1. Go to the planning settings.
For more information, see [Access Planning Settings](#).
2. Click **Scenario Templates**.
The Scenario Templates page displays.
3. Click **Add**.
The Add Scenario Template dialog displays.
4. Enter the name of the template in the **Name** field.
5. Click the **Category** icon to add categories to the template.
The category dialog displays.
6. Click **Save**.
7. Repeat steps 5-6 for all the categories you want to add.
8. Click the line beneath the category to add category assumptions.
9. Enter the estimated cost for the item in the **Estimate** column.
10. Click the **Activate** icon.
You are prompted for confirmation.
11. Click **OK**.

Create Project Views

At least one project view is required when adding capital plans. A view lets the planners pick active projects to add into a plan.

For information on creating project views, see [About Account Views](#) and [About Views](#).

Create Scenario Views

At least one scenario view is required for adding project scenarios. The best way to utilize views when adding scenarios to a plan is to build it such that it automatically prioritizes the scenarios for you. For example, you might want to set a view where the scenarios are listed in order of a ranking score or based on a priority of high, medium, or low.

Tip

- Make sure to set the sorting off of a priority or ranking type field so that the scenarios are listed in the right order of priority.
- In order to set scenarios to be listed in order of importance from high, medium, to low you need to set a project custom field called something like priority and create values like 1 - High, 2 - Med, and 3 - Low. Make sure to number them as such so they list correctly. Otherwise, they list in alphabetical order: High, Low, and Med.

To create scenario views

1. Click **Setup**.
2. Expand **Views**.
3. Click **Planning**.

4. Click **Add View**.

The Add View page is displayed.

5. Enter the name of the view in the **Name** field.
6. In the **Columns Displayed (numbered left to right)** section, enter the name of the columns that will display in the view.
7. Click **Save**.

Units of Measure

When creating project scenarios, category assumptions can be entered using a number of metrics that include lump sum (LS), unitized cost (UC), square feet (SQ) and formula (F). In order to enter items as unitized costs, the units of measure in the cost module must first be defined. This setting affects the Cost and Planning modules. If these settings are not already defined, follow the steps below to define Cost Units of Measure.

1. Click **Setup**.
2. In the **Administration Tools** section, click **Cost**.
3. Click **Units of Measure**.

If these settings are already defined, a list of available units of measure (UOM) displays. Otherwise, continue to step four to define the UOM.

4. Click **Use Defaults** to use a default list.

—Or—

Enter each individual UOM abbreviation and description per line.

5. Click **Save**.

Processes

The Processes module helps to automate business processes according to a set of business rules. A core capability of the e-Builder system is its ability to facilitate collaboration. Effective collaboration and communication amongst the project teams is an essential ingredient for success on each construction project. The e-Builder Processes module facilitates collaboration by providing a mechanism to route information based on defined business rules, track communications and ensure accountability for all parties along the process work path.

Processes will empower an organization to store, retrieve, change and use the business rules that affect its operations in a simulated and repeatable environment. Processes that are consistent and standardized within an organization that would normally require human knowledge to carry out can now be taken care of by the system. In other words, the system allows all project team members to access and update a process with little to no knowledge of the entire process because it is automated.

Manage Processes

The Manage Processes option allows you to manage existing processes and create new ones. There are four distinct tabs from which you can manage processes:

- **Properties Tab:** Configure process details.
- **Data Tab:** Integrate cost data for cost and non-cost processes, create data fields and data field dependencies to capture all necessary information from the user base.
- **Page Layout Tab:** Determine the look and feel of each layout per user group. Restrict or expose data based on user roles.
- **Workflow Tab:** Design the steps and actions of the process.

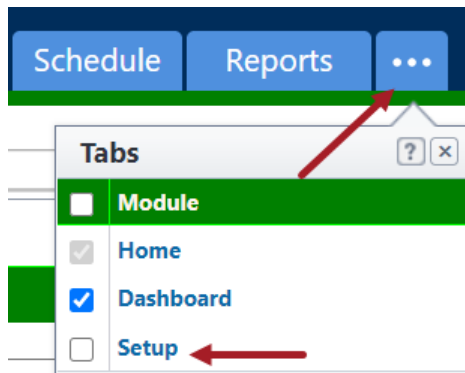
Collectively, working from each tab allows you to configure a process by defining the details, data, and the look and feel of the entire process from start to finish.

Access Process Settings

To access process settings:

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Processes**.

Project Columns

Administrators can configure the columns that are displayed on the Project Process page by selecting the columns on the Project Columns page under Processes settings. This configuration process provides more context to staff that are performing process tasks by providing information that is more meaningful to them. Once the e-Builder Admin selects the columns for a process, the columns will be visible to everyone viewing that process.

Tip: Administrators can change the project columns displayed at any time.

To configure project columns

1. Click **Setup**.
2. Under **Processes**, click **Project Columns**. The Process Project Columns page displays.
3. In the **Select Columns** area, click on one or more column names under the **Available Columns** section to select them. Use the arrow controls to move the column names to the **Selected Columns** section on the right side.

Note: Administrators must select a minimum of one selection with a maximum of all the column names. Only process information fields will be available for selection.

Tip: Use the up and down arrow keys to organize the selected column names into the order desired.

4. Click **Save**.

Note: The Save button will be disabled until at least one column name is moved to the Selected Columns section.

About Cost Processes

Cost-related processes are those related to the following:

- Budget Change
- Commitment Change
- Commitment
- Commitment Invoice
- General Invoice
- Retainage amounts
- Allowances

The biggest convenience of integrated cost process is that cost items automatically update in the appropriate area in the Cost Module, requiring no further data input within e-Builder. For instance, a potential change order (PCO) can include a link to the commitment change cost item in order to facilitate a change to a contract or purchase order (PO). When the PCO is approved, the commitment change is automatically approved in the Cost module as well. As the PCO is being routed for approval the commitment change has a status of pending. While this is occurring, the appropriate project cost summary columns are automatically updated and reflected in your key reports. As the initiator of a cost process, you must ensure that cost item data fields are completed before submitting the process step.

Allowances

Commitment items can be flagged as allowance items by selecting the Allowance check box at the item level. If there are contractual stipulations that no invoices are to be applied against these allowance amounts until approved, Trimble Unity Construct knows not to invoice directly against these amounts until there is an approval.

The behavior of entering or updating cost items in a process is the same as in the Cost module. For more information, refer to the following sections for details on Trimble Unity Construct's Cost-related functions:

- Budget Changes
- Commitments
- Commitment Changes
- Actual Cost
 - Commitment Invoice
 - General Invoice

- Allowances
- Retainage

Depending on your process settings, you may or may not be able to do the following:

- Update the reason code for commitment changes and budget changes
- Select whether the invoice is a commitment invoice or general invoice
- Change the commitment type
- Pick the type of unit costs that applies to the commitment

Related Topics:

- Set up Cost Processes
- Data Tab

Make Processes Non-Cost Related

If you've already configured a process to include cost migration, it can only be changed if the process has never been initiated in the user interface, otherwise, you will not be able to make a cost process non-cost.

To remove the cost component of a process

1. Go to **Process Settings**.
For instructions, see Access Process Settings.
2. Click **Manage Processes**. The Manage Processes page is displayed with a list of available processes.
3. Click the name of the process to view its details.
4. On the **Data** tab, click **Edit**.
5. From the **Include Cost Item** drop-down list, select **None**.
6. Click **Save** to retain the changes.

About Spawn Processes

Spawning a process is when a (parent) process instance is allowed to start or trigger another process instance (child).

A classic example of this would be a potential change order (PCO) that can spawn a change order request (COR) if approved by the appropriate parties. When the parent process spawns another process, the workflow stays in the spawn step until the child (or spawned) process completes the start step. Then the parent process will complete its spawn step and move along its path in the workflow. The child (or spawned) process will automatically attempt to complete the start step without requiring human intervention.

Note: The spawn process step has only one action called Spawn Complete and cannot be altered. This action completes automatically when the child process successfully leaves the start step (as mentioned above). If the child (or spawned) process cannot complete the start step, then a comment will be added to the parent process describing the error. Trimble Unity Construct Administrators and those actors in the spawn process step will be able to complete the start step of the child process.

To ensure that the child process automatically completes the start step, map the required fields from the parent process to the child process to allow the system to complete the start step for you.

Note: For a step to complete, all defined required fields must be filled out (in data entry steps). The start step is a data entry step.

For detailed instructions on spawning a process, see [Spawn Processes](#).

Tip: If your spawned step involves a process that includes a Lookup Process, when you select the lookup process from the Spawn Process drop-down arrow, additional options will be displayed on the Spawn Edit Step page. For additional information on Lookup Processes see [Setup Lookup Processes](#).

While creating a child (spawned) process, ensure the following:

- The child process to be spawned must be configured before enabling the parent process to spawn it.
- A spawned process can be restricted to be “Automatically initiated by another process”.

The following methods can be used for spawning another process instance:

Creating a Spawn Step in the Parent Workflow

When you spawn a process, a process is allowed to start another process when the workflow enters that step. When the parent process spawns another process, the parent workflow stays in the spawn step until the child (or spawned) process completes its start step.

Once the start step of the child process is complete, the parent process will advance to the remaining steps. The child (or spawned) process will automatically attempt to complete its own start step without an individual acting on it. However, if there are data fields that need manual input, the spawned process will remain in draft until the data is input by the child’s process initiation actor.

Note: The child process that will be spawned from this parent process must be created before configuring this step.

To spawn a process using a workflow step

1. Go to the Workflow Designer.
2. Click and drag the spawn shape into the workflow area.
The Edit Step dialog box for the spawn step is displayed.
3. On the Spawn Edit Step page, enter all required field information.
4. Click **Save**.

Tip: The Spawn Edit Step dialog box is displayed when you drag and drop a spawn shape onto the workflow designer or right-click the shape and click **Properties**. You can edit the properties of the spawn step on this page.

5. On the Spawn Edit Step page, enter all required field information.
6. Click **Save**.
7. Connect the Step and the Spawn process by clicking both shapes and then right-clicking on the spawn process and selecting **Connect**.
8. Follow the Connect Steps in the Workflow procedure to connect the Step and the Spawn process.

Tip: The next procedure in this process is [Completing the Workflows](#).

Child Process Configuration Using a Spawn Step

Processes field: Parent process is named here. The process can not be changed if it is being used in a custom report type or if the field is being used.

Spawn STEP - Purchase Order

Properties **Data** Page Layouts

Module Integration

Include Cost Item: None

Data Fields

| | Label |
|---------------|----------------|
| Edit Delete | Parent Process |

Spawn STEP - Purchase Order - Edit Data Field Step 2 of 3

Data Field Details

* Field Label: Parent Process

* Variable Name: Parent Process

Description:

Field Permissions:

☒ All
☐ Administrator Only
☐ Selected Roles

All Roles:

- 1 - Owner PM
- 2 - Design Professional
- 2 - Project Architect
- 3 - General Contractor
- 3 - Subcontractor
- Admin (liaht)

Selected Roles:

Do not allow duplicates: ☐

* Processes: Spawn STEP - Work Order (STPWO)

The required fields of the child start step must be mapped from the parent process to allow the system to automatically complete the start step of the child process instance. If it is not possible to map all the fields, the child process will remain in draft status until the designated actor intervenes.

Properties Data **Page Layouts** Workflows

Layout Properties Where Used

Layout Name: 01.Start/Init. Revise

Default Process Non-Actor Layout:

Default Process Actor Layout:

Page Layout

Data

Work Order #

Description of Work

* Justification for Purpose

Parent Process Configuration Using a Spawn Step

Processes field: Child process are named here. Processes can not be changed if it is being used in a custom report type or if the field is being used.

Spawn STEP - Work Order

Properties | **Data** | Page Layouts | Workflows

Module Integration

Include Cost Item: 11 None

Data Fields Reorder

| | Label | Variable Name | Data Type |
|---------------|---------------------------|---------------------------|-----------|
| Edit Delete | Work Order # | Work_Order_# | String |
| Edit Delete | Description of Work | Description_of_Work | String |
| Edit Delete | Justification for Purpose | Justification_for_Purpose | String |
| Edit Delete | Spawned Process | Spawned_Process_Name | String |

Process Lookup

Spawn STEP - Work Order - Edit Data Field Step 2 of 3

Data Field Details Next Cancel

* Field Label:

* Variable Name:

Description:

Field Permissions: ☒ All ☐ Administrator Only ☐ Selected Roles

All Roles:

- 1 - Owner PM
- 2 - Design Professional
- 2 - Project Architect
- 3 - General Contractor
- 3 - Subcontractor
- Admin (right)

Selected Roles:

Do not allow duplicates: ☐

* Processes:

Processes

Since the required fields of the child start step must be mapped from the parent process to allow the system to automatically complete the start step of the child process instance, it is recommended to use the same fields as required in the parent process.

View Layout

Properties | Data | **Page Layouts** | Workflows

Layout Properties

Layout Name: 01.Start/Init. Revise

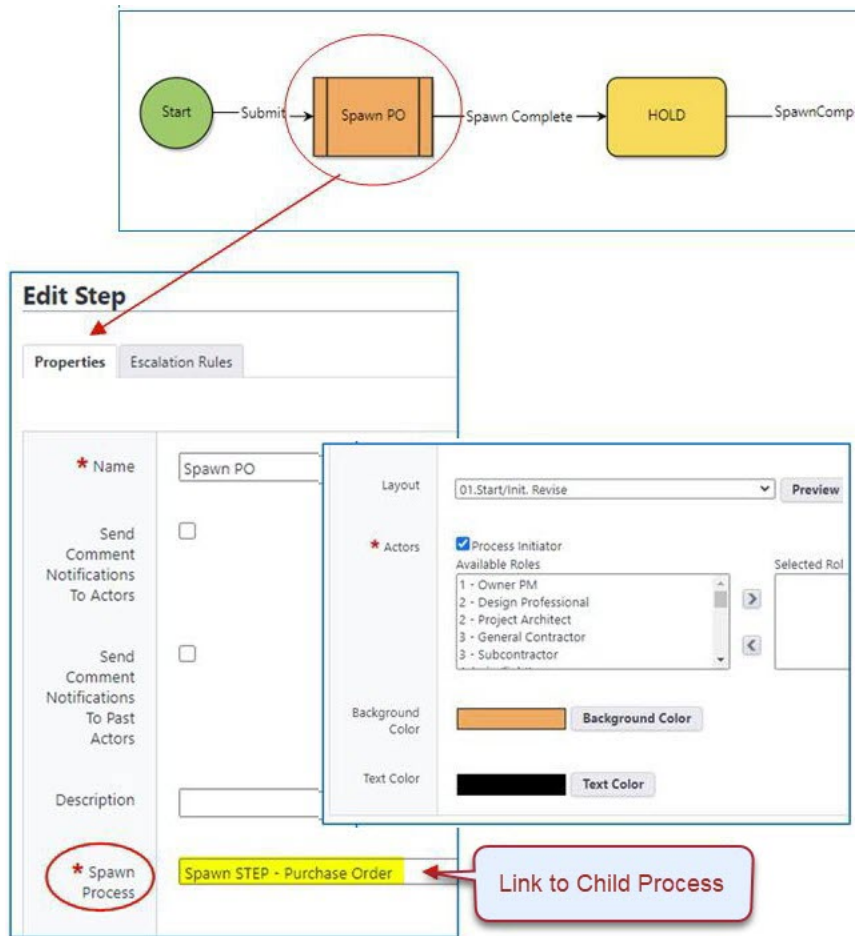
Default Process Non-Actor Layout:

Default Process Actor Layout:

Page Layout

Data

- * Work Order #
- * Description of Work
- * Justification for Purpose



Mapping Fields from the Parent Process to the Child Process:

Mapping is done from the parent process spawn step properties. The required fields shown are those fields required on the child process start layout.

Note: Required fields on the child start layout should also be required on the parent process to ensure they are populated when the process is spawned. Otherwise, the child process will remain in draft until an actor manually populates the field.

The diagram illustrates the mapping of data fields between a Parent Process (STPWO - 1) and a Child Process (STPPO - 1). The Parent Process has tabs for Required Fields (1), Optional Fields (2), Other Fields (1), and Lookup Fields (2). The Child Process has tabs for Required Fields (1), Optional Fields (2), Other Fields (1), and Lookup Fields (2). The mapping shows how fields from the Parent are mapped to the Child, including Required, Optional, and Lookup fields.

Required on Child Process

Additional fields to be data assigned

Remaining fields not assigned

Will link the "Process Lookup" data field(s) to respective processes

Based on the mapping examples provided, the successful results of the created spawn step are as follows:

Spawn STEP - Work Order (STPWO) - 1

Project: Training - LEARNING AND DEVELOPMENT | Project Number: 12.06.18

Process Document: STPWO - 1 | Overall Due Date:

Current Workflow Step: HOLD | Step Due Date:

Subject: 12.06.18 - North

Status: Submitted

Details | Comments (0) | Attached Documents (0) | Attached Processes (0) | Attached Forms (0) | Attached To (1) | Attached Viewpoints (0) | **PO Spawned (1)**

Spawned Process: STPPO - 1 | This is the Process Lookup type data field created on the Data tab of the linked process.

Work Order #: WO 02-11-21 Step

Description of Work: Testing Spawn Step

Justification for Purpose: Testing

STPPO's

| Process Prefix - Counter | PO Number From Finance | Description of Work |
|--------------------------|------------------------|---------------------|
| STPPO - 1 | | Testing Spawn Step |

Remove | Attach Existing | Add New

Here is where the Process Lookup tab and Lookup Fields appear if selected in the process properties when configuring the process type.

This is a screenshot of the Parent Process instance and shows the linked Child Process.

Spawn STEP - Purchase Order (STPPO) - 1 Delete Instance Workflow Override All Fields View

SpawnComplete Take Action Check Spelling Print Copy Delegate Save Cancel

| | | | |
|------------------------|--|-------------------|----------|
| Project: | Training - LEARNING AND DEVELOPMENT | Project Number: | 12.06.18 |
| Process Document: | STPPO - 1 <a>Show History <a>Current Actors | Overall Due Date: | |
| Current Workflow Step: | HOLD <a>Show Workflow Diagram | Step Due Date: | |
| Subject: | 12.06.18 - North | | |
| Status: | Submitted | | |

Details Comments (0) Attached Documents (0) Attached Processes (1) Attached Forms (0) Attached To (0) Attached Viewpoints (0) WO Parent (1)

Parent Process: STPWO - 1

This is the Process Lookup type data field created on the Data tab of the linked process.

STPWO's

| | Process Prefix - Counter | Work Order # | Description of Work |
|--------------------------|--------------------------|------------------|---------------------|
| <input type="checkbox"/> | STPWO - 1 | WO 02-11-21 Step | Testing Spawn Step |

Remove Attach Existing Add New

WO Parent (1)

Screenshot of the Child Process instance and shows the linked Parent Process

A successfully spawned step should have results similar to the following image:

| Process Type | Process | Subject ^ | Current Step |
|--|-----------|------------------|--------------|
| Spawn STEP - Purchase Order Child | STPPO - 1 | 12.06.18 - North | HOLD |
| Spawn STEP - Work Order Parent | STPWO - 1 | 12.06.18 - North | HOLD |

Creating a Spawn Button

This method enables the actor of a step in the parent process to create a new child process instance from within the current parent process. The spawn button can be included on any step of the parent process which enables the actor of a step to create a new process instance manually. The spawned process is not automatically triggered by the parent process.

Benefits of a spawn button

- Using a spawn button allows an actor to trigger an instance of a different process quickly and easily. After the child process is spawned, the actor maintains ownership of the parent process.
- Using the button method to spawn a process allows for data field assignments from the parent process to the child process; this reduces the amount of data the actor on the child process will need to provide. It also provides continuity among data fields reducing confusion.

Example

A spawn button can be used in the following cases:

- A project manager is working in a Work Order process (parent). When needed, the PM can use the button to spawn a related Purchase Order Request process (child). The parent Work Order process does not need to be closed for the related child purchase order request to be routed.
- An actor may want to automatically assign (or populate) the "Subject" data field of the existing process instance to the spawned process instance.
- A Commitment Change process may need to spawn a budget change prior to being approved.
- A Daily Inspection Process may need several instances for each different sub-consultant.
- A Work Order may stay in one step and spawn many Purchase Orders and Pay Requests until Work Order is completed.

Child Process Configuration Using the Spawn Button

In the child process, a "Process Lookup" data type field must be created to point to the parent process.

For a spawn button to be successful, there must be a "Process Lookup" type data field on the child process for the parent process to point to.

Processes field: Process cannot be changed if it is being used in a custom report type or if the field is being used.

The screenshot displays the configuration interface for a 'Spawn BUTTON - Purchase Order'. The top section shows tabs for 'Properties', 'Data' (selected), 'Page Layouts', and 'Workflows'. Below this is the 'Module Integration' section with 'Include Cost Item' set to 'None'. The 'Data Fields' section contains a table with the following data:

| | Label | Variable Name | Data Type |
|---------------|-----------------------------|---------------|----------------|
| Edit Delete | Work Order Process Instance | Work_Order_ | Process Lookup |

The 'Edit Data Field' dialog is open, showing the 'Data Field Details' for the 'Work Order Process Instance' field. The 'Field Label' is 'Work Order Process Instance', the 'Variable Name' is 'Work_Order_', and the 'Processes' dropdown is set to 'Spawn BUTTON - Work Order (BTNWO)'. The 'Do not allow duplicates' checkbox is checked.

Parent Process Configuration Using the Spawn Button

On the Data tab of the parent process, create process spawn buttons using a String Process Data Field.

- The “Field Label” will be displayed to the left of the spawn button
- The “Default Value” will be displayed below the spawn button
- Enter the code to create the spawn button in the “Text To Show Above Data Field” box.

Spawn BUTTON - Work Order - Edit Data Field

Data Field Details

* Field Label: Spawn Button Field Label

* Variable Name: *Spawn_Button_Field_Label*

Description: This will Spawn the Purchase Order process

Default Value: Click to create PO Process!

Field Permissions: ☒ All
☐ Administrator Only
☐ Selected Roles
 All Roles
 1 - Owner PM
 2 - Design Professional

Module Integration

Include Cost Item: ☐ None

Data Fields

| | Label | Variable Name | Data Type |
|---------------|--------------------------|--------------------------|-----------|
| Edit Delete | Spawn Button Field Label | Spawn_Button_Field_Label | String |
| Edit Delete | Work Order # | Work_Order_ | String |
| Edit Delete | Description of Work | Description_of_Work | String |

Preview

Spawn Button Field Label: Purchase Order
Click to create PO Process!

ebButton[{Text.Purchase Order}]Process.BTNPO[{DataField.Work Order Process Instance}]FieldsToCopy.Subject[Description of Work|Work Order #]

Details on how to configure this property field are outlined below.

The format for this code is as follows:

| Code Format | Description |
|--|---|
| ebButton[{Text.Purchase Order}] | The text which will appear on the button. |
| {Process.BTNPO} | The Process Prefix of the child process. |
| {DataField.Work Order Process Instance} | For a spawn button to be successful, there must be a “Process Lookup” data type field on the child process that points to the parent process. Enter the field label of that field here. |
| {FieldsToCopy.Subject Description of Work Work Order #}] | The Spawn Button allows data field assignments to flow from the parent process to the child process. To have that data pass from parent to child, the respective fields need to be present, in both parent and child in the exact same way. |

| Code Format | Description |
|-------------|---|
| | For example: "Work Order #" in the parent will not work if the field is called "Work Order Number" in the child process. This piece of code is where those fields need to be listed. If there is more than one field that will be passed, separate each field with a ' ' (a vertical line or "pipe"). This entire piece of code can be omitted if there are no fields to pass from parent to child. |

The expected results when using the Spawn button method are:

- **Purchase Order** button: Because this button is a "Data" field, it can be added to any layout in the process. Therefore, a new process can be spawned manually from one or more steps.
- **Submit** tab: This spawned instance is initiated and saved in "Draft" status. The appropriate actor for this process needs to access and proceed manually to "Submit".
- **Work Order Process Instance**: This is the "Process Lookup" data type field that was created on the Child Process data tab.

Spawn BUTTON - Work Order (BTNWO) - 1

Project: Training - LEARNING AND DEVELOPMENT
Project Number: 12.06.18
Process Document: BTNWO - 1
Overall Due Date:
Status: Submitted

Details | Comments (0) | Attached Documents (0) | Attached Processes (0) | Attached Forms (0) | Attached To (0) | Attached Viewpoints (0) | Spawn BUTTON - (0)

* Spawn Button Field Label: **Purchase Order**
Click to create PO Process Instance

Work Order #: WO 02/10/21
Description of Work: Testing PO Request Spawn Button

Results of Spawning using the "Button" Method

| Process | Subject |
|-----------|------------------------|
| BTNWO - 1 | parent |
| BTNPO | spawned (draft status) |

Spawn BUTTON - Purchase Order (BTNPO)

Start Process | Print | Copy | Check Spelling | Show Workflow | **Submit** | Save Draft | Delete

Project: Training - LEARNING AND DEVELOPMENT
Project Number: 12.06.18
Process: Spawn BUTTON - Purchase Order
Subject: WO 02/10/21

Details | Attached Documents (0) | Attached Processes (0) | Attached Forms (0) | Attached Viewpoints (0)

Work Order Process Instance: **BTNWO - 1**

WO 02/10/21
Testing PO Request Spawn Button

Fields on the Spawn Edit Step page

- **Name:** Enter the name of the spawn process step in this field. This text also displays in the designer.
 - **Send Comment Notifications To Actors:** Select this check box to have an email notification sent to the actors in this step every time a comment is made or an action is taken on this step.
- Note:** Process notification settings take precedence over this setting. For more information, see Project Process Notification Settings Page Overview.
- **Description:** Enter a description to be used to further describe the step. This description displays in the workflow designer when the mouse hovers over the shape.
 - **Spawn Process:** Click this drop-down arrow to select the spawned process. A list of active processes configured in the account populates in the drop-down arrow for you to choose from.
 - **Spawned Process Initiator:** Select the actor for this spawned process.
 - **Parent Process Initiator:** This is the default selection. Leave this option selected to have the parent process listed as the process initiator, which will not inherit any user information.
 - **Last Actor on Parent Process:** Select to make the previous step actor the process initiator on this spawned process. This allows you to hold someone accountable for the spawned process, as the spawned process will inherit information about the process initiator.

- **Automatically Spawned:** Select this option if you do not want to list a person as the process initiator. The initiator will be listed as Automatically Spawned.
- **Attach [Parent Process Name]:** When this check box is selected, the name of the parent process will appear in the Attached To tab of the spawn process and vice-versa. This allows project participants to quickly view the details of this association and link to the spawned/ parent process.
- **Copy Attached Files:** Select this check box to automatically copy the attached files from this process to the spawn process. By default this check box is not selected.
- **Copy Cost Data:** This check box displays only if both the parent and the spawned process are of the same cost type and all other cost settings for the process match exactly. This check box should be selected if the user wants the spawned process to receive all the cost data (including line items, amounts, funding and custom fields) from the parent cost process. The spawned process will also then be submitted. If the spawned process is set to check for cost controls on the start step, the cost data will be carried forward but the process will not be submitted.

Note: This feature applies to all cost types, with the exception of Actual Cost - User Choice cost processes. For more information, see About Cost Processes.

- **Layout:** Click this drop-down arrow to select a page layout for this spawn process step. Remember the spawn process step will remain the current active step until the child process start step completes. If the child process does not complete right away then the process will remain in this step.
- **Actors: Process Initiator:** Select this check box to make the process initiator an actor on this spawn step. Select roles in the Available Roles section and click Add to add members of these roles as actors for this step. If the child start step does not complete automatically then these actors (in addition to the Trimble Unity Construct administrators) can access the start step. The start step will remain in draft format until manually processed by one of these actors.
- **Background Color:** Click this button to select a background color for the conditional step which will display in the workflow designer. The default color is yellow.
- **Text Color:** Click this button to select a text color for the conditional step which will display in the workflow designer. The default color is black.
- **Required Fields:** If the spawn process selected has required data fields in the start step layout then this is where you map those fields. You have to map the required fields in order to save the spawn process step.
- **Optional Fields:** The optional fields can be mapped to data fields in the spawn start step layout. It is up to you whether you want to include mapping for these fields or not.
- **Other Fields:** The other fields can be mapped to data fields in the spawn start step layout. It is up to you whether you want to include mapping for these fields or not.

Public Processes

Public processes can be started from a public web page such as the customer's website by licensed Trimble Unity Construct or unlicensed users.

This feature allows non Trimble Unity Construct users to start a Trimble Unity Construct process which is usually a request for a project or a service that the client provides. The public Start Process URL link to the entry form can be embedded on the client's website. New project requests, maintenance requests, and public feedback processes can be set up this way.

Public processes cannot be used for processes that include:

- Cost process configuration
- 'Company' data field
- 'Company on Project' data field
- 'Process Lookup' data field
- 'Project' data field
- Any "User" data field (in role, in project, etc)

Note: Dynamic grids cannot be used in a public process.

Set up Public Processes

The public settings for a process are not enabled by default. The Public Settings section on the Add or Edit Process page will be displayed only when public processes are enabled in Trimble Unity Construct.

Note: The project that gathers all of the public process instances must have an approved budget. The approved budget does not have to contain any budget line items.

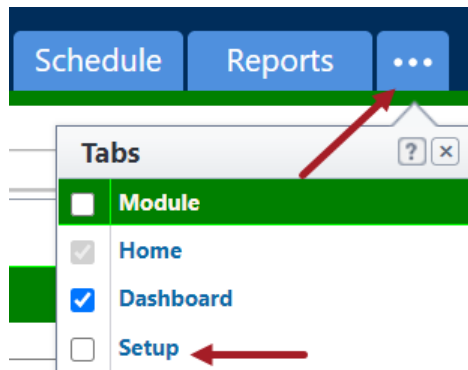
To enable and configure public processes

1. Contact e-Builder Support with a request to enable public processes for the account in Trimble Unity Construct.
2. Set up an Active project to be used only for collecting public process instances.
3. Ensure that you have an appropriate start layout and view layout set up with the necessary data fields which can be used for the public process.
4. Create the required workflow for the public process.
5. Create or edit a process and enable the public settings on the process while creating or editing it.
6. In the Documents module, create a public folder to collect any uploaded documentation from the public process. Be sure to map the data fields (File type) to this location.

To enable the public settings for a new process

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Processes**.
3. Click **Manage Processes**.
4. On the Manage Processes page, click **Create New Process**.
5. On the Public Settings section of the Properties tab, select the **Is Public** check box. Additional public settings fields are displayed.

Note: A process cannot be public when any cost integration other than dynamic budget line item is enabled.

6. Complete the following fields:
 - **Project Using this Process:** Select the project pre-configured for public access from this drop-down list. A public process is restricted to only one project.
 - **Run As User:** Use the search and lookup feature in this field to select a user to run the process as. It is recommended that the implementation user's email address is entered here so ensure that the implementation user is an Admin of the project.
 - **Start Layout:** Select a start layout for the process from this drop-down list. Layouts containing data fields with roles or account users cannot be used for a public start layout.
 - **View Layout:** Select a view layout for the process from this drop-down list. Layouts containing data fields with roles or account users cannot be used for a public view layout.
 - **Public list default columns:** Select the columns to display from the list of all the fields and use the arrow buttons to move them to the selected fields column on the right. The selected fields will be shown as columns on the public process list page.
 - **Additional fields to be copied:** Select the columns to display from the list of all the fields and use the arrow buttons to move them to the selected fields column on the right. These will be additional fields saved, other than those already in the view layout, when copying a process instance from the Public View page.
 - **Header HTML:** Add HTML markup for the header of all public process pages. Use HTML markup to add a logo to the header using a graphics file that is publicly available on the web.
 - **Header HTML for List Page:** Add an alternate header used only for the public list page. Use HTML tags to format it. If it is not set by the user, it will be set to the header that all other public process pages use by default.

- **Confirmation Message:** Add the message to be displayed after successfully submitting a public process instance. Use the available options to format the message.
- **Default sort on list page:** Select a default sort field from this drop-down list.
- **Public Page Filters:** Select up to 5 filters to determine what processes show on the public list page. Public page filters are used to narrow down the results available to the external users if they return to the List View to check the status of their submissions.
- **Public Start Process URL:** Once the process is created or updated, this link and the **Copy to clipboard** link will be generated and made available.
- **Public Process List URL:** Once the process is created or updated, this link and the **Copy to clipboard** link will be generated and made available. In order to return to the List View, submitters need to know this URL which is usually included in the Confirmation Message text box.

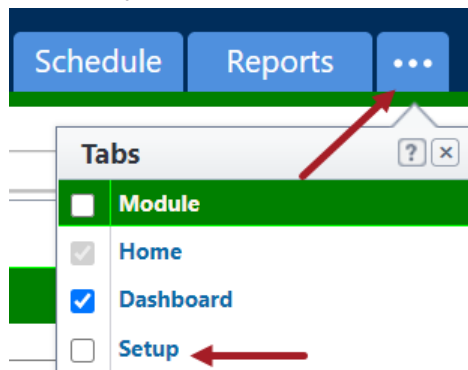
Note: Any user returning to the List View can see the submissions from anyone else since there is no validation of the submitter's identity. If you do not prefer to have this open list available to the public, ensure that you do not include the List View URL anywhere for users.

7. Click **Save** to retain your changes.
8. Return to the View Process page to copy the Public Start Process URL link to the entry form. This can be embedded on your website for public access.

To enable the public settings for an existing process

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Processes**.
3. Click **Manage Processes**.
4. On the Manage Processes page, click the name of the process you wish to edit.
5. On the View Process page, click **Edit**.
6. On the Public Settings section of the Properties tab, select the **Is Public** check box. Additional public settings fields are displayed.

Note: A process cannot be public when any cost integration other than dynamic budget line item is enabled.

7. Complete the following fields:

- **Project Using this Process:** Select the project pre-configured for public access from this drop-down list. A public process is restricted to only one project.
- **Run As User:** Use the search and lookup feature in this field to select a user to run the process as. This will be the Trimble Unity Construct Implementation email address so ensure that the implementation user is an Admin of the project.
- **Start Layout:** Select a start layout for the process from this drop-down list.
- **View Layout:** Select a view layout for the process from this drop-down list.
- **Public list default columns:** Select the columns to display from the list of all the fields and use the arrow buttons to move them to the selected fields column on the right. The selected fields will be shown as columns on the public process list page.
- **Additional fields to be copied:** Select the columns to display from the list of all the fields and use the arrow buttons to move them to the selected fields column on the right. These will be additional fields saved, other than those already in the view layout, when copying a process instance from the Public View page.
- **Header HTML:** Add HTML markup for the header of all public process pages. Add a logo to the Header using a graphics file that is publicly available on the web.
- **Header HTML for List Page:** Add an alternate header used only for the public list page. Use HTML tags to format it. If it is not set by the user, the header that all other public process pages use will be set here by default.
- **Confirmation Message:** Add the message to be displayed after successfully submitting a public process instance.
- **Default sort on list page:** Select a default sort field from this drop-down list.
- **Public Page Filters:** Select one or more filters to determine what processes show on the public page. Public page filters are used to narrow down the results available to the external users if they return to the List View to check the status of their submissions.
- **Public Start Process URL:** Once the process is created or updated, this link and the **Copy to clipboard** link will be generated and made available.
- **Public Process List URL:** Once the process is created or updated, this link and the **Copy to clipboard** link will be generated and made available. In order to return to the List View, submitters need to know this URL which is usually included in the Confirmation Message text box.

Note: Any user returning to the List View can see the submissions from anyone else since there is no validation of the submitter's identity. If you do not prefer this open list, ensure that you do not include the List View URL anywhere for users.

8. Click **Save** to retain your changes.

9. Return to the View Process page to copy the Public Start Process URL link to the entry form. This can be embedded on your website for public access.

Properties Tab

From the Properties tab you can enter all the details of the process including any custom fields if any exist for the project and overall instructions that apply to the entire process.

The following topics are included in this section:

- Properties Tab Overview
- Create New Processes
- Edit Existing Processes
- Activate a Process

Properties Tab Overview

The Properties tab is the first page displayed when adding a new process or viewing an existing process.

From the Properties tab, you can:

- Enter all the details of the process including any custom fields if any exist for the project and overall instructions that apply to the entire process.
- View process details or edit them by making changes to the fields on the Properties tab.
- Allow the process to be available on the e-Builder mobile application.
- Enable offline use of the process in the e-Builder mobile application. You will then be able to work with the processes, save them while offline and e-Builder will automatically sync the process updates when you go back online.

Fields

The following are detailed descriptions of the fields located on the Properties tab:

- **Process Name:** Enter the name of the process in this field.
 - **Process Prefix:** Enter a short or abbreviated name/ acronym of the process (e.g. PCO for Potential Change Order). The same prefix cannot be use more than once. The prefix shows in various areas of the product such as the Project Processes page. Once a process has been started by a user the prefix can no longer be edited.
 - **Description:** Enter notes or a description of the process. The description is shown on the Start Process page to give users direction on which process they need to start.
 - **Active:** When a process type is first created it is set to not active. When set to active all users that have permission are able to fill one out.
- Note:** Leave the process type inactive when configuring the process to prevent any users from accessing a process type that is not completely configured.
- **e-Builder Mobile Enabled:** Select this check box to make this process available in the e-Builder app on any mobile device.

Note: Cost processes are not currently available on mobile devices. If you intend to make this a cost process, do not select this check box, otherwise, the cost options will not display on the Data tab.

- **e-Builder Offline Mobile Enabled:** Select this check box to allow users to login to the e-Builder mobile app while offline. If the user is using SSO or MFA, then they will be able to login using a biometric profile that has been linked to their e-Builder user account.

Important: This check box will be displayed and available for selection only if the **e-Builder Mobile Enabled** check box has been selected first.

Note: When this option has been enabled, the **Attached Documents Default Folder Path** field becomes mandatory. You will need to specify a folder path for offline use in that field.

- **Map Location Enabled:** Select this check box to allow users to set the process location on a map. You can set permissions to view or edit on the Page Layouts tab.
- **Enable the Ability to Delegate Work:** Select this check box to allow the actor(s) in the step the ability to delegate work. This applies to all steps in the process.
- **Instructions:** Enter generic process instructions that apply to the entire process. Remember, you are also able to add step-specific instructions for each step in the process. You can type directly into this box or paste text from a word processing application. Pasting tables is also permitted. From the user's perspective, these instructions show up in the top right corner of the process as a help button in the form of a question mark. When selected, instructions display in a pop up window.
- **Allow comments to be deleted:** This setting determines whether or not comments are allowed to be deleted by either the commenter or an administrator (account admin, project admin, or users with Manage Workflow permissions). Users will be able to see that there had been a comment, but it was "Deleted." If necessary, deleted comments can be overridden by an administrator (account admin, project admin, or users with Manage Workflow permissions).
 - **No (Account Default):** By default this setting is disabled. Leave this radio button selected to keep this setting disabled.
 - **Yes:** Select this radio button to enable this setting.
- **Project(s) using this process:** Select from the following options:
 - **All projects:** Select this option to assign this process to all projects.
 - **All Projects except the following blocked projects:** Select this option to create a blocked list of projects to exclude this process from.
 - **Only the following selected projects:** Select this option to create a list of projects to assign this project to.
 - **Projects filtered by one or more custom fields:** Select this option to assign this process to projects filtered by one or more custom fields. For example, a project could have a custom field called region and a sample project could have a value east. A process can be configured so that it is only available in those projects where the region is equal to east.
- **Allow external uses to view attached forms and processes when external comment is requested:** Select from the following options:

- **Yes** - Select to allow external participants to view forms and processes that have been attached to this process when external comments are requested. This would only allow them to view attached forms and processes up to one tier.
- **No** - Select to prevent external participants from viewing forms and processes attached to this process when a comment is requested by them.

- **Who can start this process?:** Set permissions on who can start the process; possible values are all users, selected roles or no users.

Note: One use case for not allowing anyone to start this process is if it will be spawned from another process.

- **Who can view drafts of this process:** If this process spawns another, this setting will be set to No Users by default, as a draft can not be created of a spawned process. To learn more, see About Spawned Processes. Draft processes are created for many different reasons. At times, team members do not remember to use a draft process and create a new one or co-workers who are unable to see the draft processes of others do not know the draft exists and submits a new process for the same item. Draft process will be accessible from the Unfinished Drafts page.

Note: Any person or role given the ability view draft processes will automatically be given the ability to start the process, if they do not already have this permission.

Set permissions on who can view drafts of this process from the following options:

- **All users selected for start process:** Select to give view draft rights to all users that have the ability to start the process.
- **Selected roles:** Select to restrict the viewing of drafts to select roles.
- **No users:** Select to prevent everyone from viewing draft processes.
- **Who can view all process instances?:** Set permissions on who can view the instances of this process.
 - **All users** - This is the default option. Select to give all project participants the ability to view instances of this process.
 - **Selected roles** - Select to restrict viewing of process instances to select roles.
 - **No users** - Select to prevent anyone from viewing process instances.
- **Who can report on this process:** Set permissions on who can report on this process.
 - **All users:** This is the default option. Select to give all users the ability to report on this process.
 - **Selected roles:** Select to allow only certain roles to report on this process.
 - **No users:** Select to prevent any user from reporting on this process.
- **Who is notified as the process moves between steps?:** Make a choice to set automatic email notifications as the process moves between steps; possible values are all users, selected roles and no users. By default the value is set to no users.

Note: Be careful when setting this control to a set of users. The amount of emails received can be abundant.

- **Who can view/ add private comments for this process?:** These are controls that allow you to set who can see the comments. If the comments are marked private, only those users selected to be able to see the comments may see them. If the comments are marked public, all users may see them.
- **Set Comments to Private by default:** This check box becomes active when a role is selected in the previous field (Who can view/ add private comments for this process?). Select this check box to automatically set comments to private by default, giving users the choice to clear this check box and make comments public.
- **Lookup Fields:** Lookup fields are standard options that allow you to pull data from the Cost module. These fields show up on the dependent process tab after the dependent process has been linked to a primary process as an audit trail and for quick viewing access. For more information on lookup fields, see About Lookup Processes.
- **Process Lookup Tab Name:** Enter a name for the process lookup tab in this field. If this process has dependent processes linked to it, this name (the primary process name) will display when users hover over the dependent process tab on the process details page.
- **Default Sort:** Selections in this field are directly related to options that have been selected in the Lookup Fields section above it. Click this drop-down arrow to select a field that these options will be sorted by default.
- **Attached Documents Default Folder Path:** Click **Browse** to set a default folder path for documents attached to this process type. This feature will apply to all projects.
- **Allows users to place the file in a different folder:** Select this check box to allow team members to make a different folder selection at the time of upload.

Tip: Click **Remove Folder** to remove the folder path.

Buttons

The following are detailed descriptions of the buttons located on the Properties tab:

- **Delete Process:** Click to delete the process, including process instances; or to delete process instances only. For detailed steps on deleting a process, see Delete Processes/Instances.

Warning: Deleted processes cannot be recovered.

This button is displayed only for account administrators, project administrators and users with manage workflow permissions.

The following are dependencies that will prevent a process from being deleted:

- The process is used in a data field process lookup.
- The process is used in a custom report type
- The process is used in a dynamic cost column
- **Copy Process (View Mode):** Click this button to create a duplicate of the process. The copied process will include every object in the process such as layouts, data fields, and published workflows only; saved and auto saved workflows will not copy over. By default, the copied process will be inactive. You must edit project properties to make it active. For more information, see Activate a Process.
- **Edit (View Mode):** Click this button to modify process properties.

Create New Processes

Note: If you want to create a cost process, see Set up Cost Processes.

To create a new process

1. Go to the Process settings.
For more information, see Access Process Settings.

2. Click **Manage Processes**.
3. Click **Create New Process**.

The Create New Process Properties tab displays.

4. Enter all required fields.

Note: See Properties Tab Overview for a detailed description of each field.

5. Click **Save**.

To add additional information to your processes, follow the procedures below:

- Add Data Fields
- Add Page Layouts
- Create the Workflow

Edit Existing Processes

Note: If a process has been created and is not being used, you can delete the process or repurpose it by renaming and modifying it to suit your needs. To tell whether or not a process is being used, Go to the Workflow Properties page and click the Where Used button.

To edit an existing process

1. Go to the process settings.
For more information, see Access Process Settings.

2. Click **Manage Processes**.
3. Click the title of the process you to edit.
4. Click **Edit**.
5. Modify all desired fields.

Note: See Properties Tab Overview for a detailed description of each field.

6. Click **Save**.

Related Topics:

- Set up Cost Processes
- Delete Processes/Instances

Activate a Process

Process activation is not an available option while creating a new process. Processes should not be activated until they have been completely configured. When the process is complete active it to make it available to participants.

To activate a process

1. Go to the process settings.
For more information, see Access Process Settings.
2. Click **Manage Processes**.
3. Click the title of the process you to activate.
4. Click **Edit**.
5. Select the **Active** check box.

Setup > Manage Processes > Budget Change Process > Edit Process

Budget Change Process

Properties Data Page Layouts Workflows

Properties

| | |
|-----------------|---------------------------------------|
| Process Name: | Budget Change Process |
| Process Prefix: | BC |
| Description: | Propose a budget change for approval. |
| Active: | <input checked="" type="checkbox"/> |

6. Click **Save**.

Delete Processes/ Instances

Account administrators can delete a process, and all of their associated instances from their account. Details of the deletion can be recovered by running an audit log report on the Processes module.

Warning: Once deleted, processes cannot be recovered.

Note: Account administrators, project administrators and users with manage workflow permissions are able to delete process instances, without deleting the process by choosing the Allow comments to be deleted check box in the process properties. For more information, see Properties Tab Overview.

To delete a process

1. Go to Process settings.
For more information, see Access Process Settings.
2. Click **Manage Processes**.
3. Click the title of the process you to delete.
4. Click **Delete Process**.
You are prompted for confirmation.

Note: If there are dependencies that prevent you from deleting the process, a message that list all dependencies display and you will have to correct these issues before the process can be deleted.

5. Enter a note.
6. Enter your password to confirm deletion.
7. Click **Yes, Delete**.

Data Tab

After a process has been created, the Data tab is available, thus allowing you to add or edit data fields that are needed for a process.

From the Data tab, you can:

- Configure cost integration for cost processes. Cost integration will automatically update cost items as steps in the process are updated. If a layout was assigned to the start step, the layout must include module integration.
- Add data fields, which are used to capture all necessary information throughout the structured workflow.

Module Integration

If you selected a cost entity from the Include Cost Item drop-down list, this section will include settings for the respective cost item.

- **Include Cost Item:** This drop-down list is used to select a cost entity to integrate into a cost process. If you are not creating a cost process, select **None**. Otherwise choose from available cost entity options.
- **Settings Applicable to All Cost Items:** The following settings are applicable to all cost items:

Cost Item Settings

- **Cost Item Permissions:** Use this section to set permissions for users that are able to access and use this process.
 - **All:** Select this radio button to allow all users on the project to see cost data located in the process instances that they have access to.
 - **Administrator Only:** Select this radio button to allow only the project administrator see cost data located in process instances.
 - **Selected Roles:** Select this radio button to choose specific project users that can see cost data for the process instances that they have access to.
 - **Restrict External Commenters from viewing Cost Item:** If you request comments from an external user, a public page opens for these users that look exactly like the process instance; selecting this check box will restrict them from seeing any cost data.

Note: The content of email notifications is determined by the Cost Item Permissions. If the Cost Item Permission is set to All, email notifications to participants will contain cost data fields, regardless of the specific step layout. The best practice is to restrict to Selected Roles for team members expected to view cost information.

- **Numbering:** Use this section to set the numbering options.
 - **User entry based on cost auto-fill setting*:** Select this radio button to allow budget change numbers to be automatically populated by the system, yet editable by the user.
 - **Created based on Process Prefix and Counter (e.g. COR-0010):** If auto-filling is enabled in the Cost Control Settings, selecting this radio button will allow e-Builder to automatically populate commitment invoice numbers. This option will automatically start the number with the process prefix, followed by a number that will be incremented with each added budget change. Although auto-filled, this numbering field is still editable. If auto-fill is not enabled in Cost Control Settings, this field will be blank when a new process is started.
- **Budget Change:** You have the ability to set any of the following reason code settings:
 - Not let the user change it choose a reason code from the drop-down arrow and clear the check box.
 - Set the reason code and let the user change it choose a reason code and select the check box
 - Allow the user to make the selection: Leave default settings. (Choose **None** and select the check box.)

Related Topic: Working with Change Reason Codes.
- **Commitment:** Use this section to set any of the following commitment type settings:
 - Not let the user change it: Choose a commitment type from the drop-down arrow and clear the check box.
 - Set the commitment type and let the user change it: Choose a commitment type and select the check box
 - Allow the user to make the selection: Leave default settings. (Choose **None** and select the check box)

Related Topic: Working with Commitment Types.
- **Commitment Change:** Use this section to set any of the following commitment change settings:
 - **Restrict Commitments for Company/ Contacts:** Click this drop-down arrow to set a restriction so that only the company or contact associated with a commitment is able to view the commitment change.
 - **Do Not Restrict:** This is the default selection. Leave this setting if you do not want to specify a restriction, which will allow users to view the companies and contacts associated with the commitment change.

- **Restrict to Companies:** Select to allow users to view companies associated with the commitment change, which also includes all contacts within the company.
 - **Restrict to Contacts:** Select to allow users to view contacts associated with the commitment change.
- **Hide Current Budget when Adding New Items:** Select this check box to restrict the current budget from being shown when adding new scope line items. When filling out a commitment change process, when the user selects a budget line item for the new scope items, the current budget will not be shown.
- **Reason Code Settings:** You have the ability to set any of the following reason code settings:
 - **Not let the user change it:** Choose a reason code from the drop-down arrow and clear the check box.
 - **Set the reason code and let the user change it:** Choose a reason code and select the check box
 - **Allow the user to make the selection:** Leave default settings. (Choose **None** and select the check box)

Related Topic: Working with Change Reason Codes.
- **Actual Cost:** Use this section to set any of the following settings:
 - **Restrict Commitments for Contacts:** Select this check box to keep contacts from seeing commitments.
 - **Reason Code Settings:** Set the invoice type to any of the following:
 - User Choice (Let the user make the selection)
 - Commitment invoice
 - General invoice
- **Dynamic Commitment Line Items:** Select this option to create a dynamic commitment process. This option displays only if the Dynamic Cost Management functionality is enabled on your account.
- **Dynamic Budget Line Items:** Select this option to create a dynamic budget process. This option displays only if the Dynamic Cost Management functionality is enabled on your account.

Data Fields

Data fields comprise of information you want to supply to users as well as space holders for the information you want users to submit throughout the steps of the process. You will have the opportunity to add these data fields to the different page layouts of the process. Each page layout is customized for each specific user type. See Page Layouts Tab for more information.

- **Reorder:** Reorders data fields. You may choose to reorder data fields to determine how they will display to end users. Also, if a page layout was not configured on a step then by default all data fields are listed in the order set here. For details on the different attributes of a data field and how to add a data field, see Add Process Data Fields.

- **Add Field:** Adds data fields. Data fields are used for information gathering. For example, an RFI process could contain fields such as RFI Reason, Information Requested and Answer. For instructions, see Add Process Data Fields. Project level options are available for projects that have a Drop Down, Multiple Pick, Radio Button or a Checkbox data type selected. This is available for custom fields and Process Data Fields only. When configuring a field of one of these types, you will have the ability to set the options at the:
 - Account Level
 - Project Level: Options can be different project by project.
- **Field Dependencies:** Field dependencies allow you to link custom fields to each other. This helps prevent data entry errors, and speeds up the manual effort required to fill in your custom fields as you build out new projects.
- **Edit:** Opens the Edit Data Field wizard to allow you to edit the selected data field.
- **Delete:** Deletes the selected data field.

Toolbar Buttons

- **Save:** Click this button to save changes.

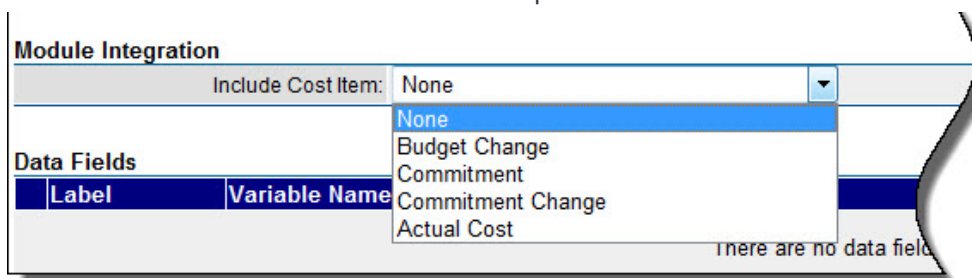
Access Data Tab

To access the Data Tab

1. Go to Process settings.
2. Click **Manage Processes**.
3. Click the title of the process you want to modify.
4. Click the **Data** tab.

About Module Integration

To create a cost process, which integrates cost items, such as budget changes, commitment changes, commitments, commitment invoices or general invoices, Trimble Unity Construct's module integration can establish that connection between a cost item and a process.



For example, a potential change order (PCO) can link a commitment change cost item to facilitate a change to a contract or purchase order (PO). The power of integrating a cost item to an appropriate process is that the cost item or object will automatically update the appropriate area in the Cost module requiring no further data input. When the PCO is approved, the commitment change is automatically approved in cost. As it is being routed for approval, the commitment change has a status of Pending. While this is occurring, the appropriate project cost summary columns are automatically updated and reflected in your key reports.

Note: If you choose to assign a layout for a cost process, then the Start step must be assigned a layout that has the module integration data field configured in it.

Stipulations regarding Cost Processes

A few important conditions that vary based on the type of Cost process you are configuring are listed below:

- **All cost processes:** Assigning a layout is optional. A default layout is available if one is not assigned. For cost integrated processes that have a layout assigned to the start step, the layout must include module integration.
- **Actual costs:** You have the ability to set the invoice type to any of the following:
 - Commitment invoice
 - General invoice
 - Let the user make the selection
- **Budget changes, Commitments:** You have the ability to set any of the following reason code settings:
 - Not let the user change it
 - Set the reason code and let the user change it
 - Leave it set to None to allow the user to make the selection
- **Commitment Type:** Applies to cost item commitment

Set up Cost Processes

To set up a cost process

1. Click the Data tab.
For more information, see Access Data Tab.
2. Click **Edit**.
3. Click the **Include Cost Item** drop-down arrow to select the appropriate cost item.
4. Enter all required and appropriate fields.
For a detailed description of the fields and buttons on this page, see Data Tab.
5. Click **Save**.

To add additional information to your cost process, follow the procedures below:

- Add Page Layouts
- Create the Workflow

Add Process Data Fields

Data fields are used for information gathering. For example, an RFI process could contain fields such as RFI Reason, Information Requested and Answer. You can also configure page layouts to determine which actors can see which data fields. If a page layout is not configured on a step, all data fields are listed by default in the order that you set them here. Different data field types behave differently. A three step wizard is provided to create your data field of choice.

Tip

If you just need cost data, you don't have to add any data fields as these items will automatically be pulled in from the Cost module when you set up the cost process.

To add data fields

1. Go to the Data tab.
For more information, see Access Data Tab.
2. Click **Add Field**.
3. Select the data type.

| Data Type | Description |
|-------------------------|---|
| String | Enter up to a maximum number of characters |
| Text Block | Enter up to a maximum number of characters on multiple line |
| Rich Text Block | Enter up to a maximum number of characters on multiple line with rich text |
| Integer | Enter a whole number |
| Decimal | Enter a number with a specified number of digits to the right of the decimal point |
| Drop-down List | Select one value from a list of values |
| Multi-pick List | Select any number of values from a list of values |
| Radio button List | Select one value from a list of values |
| Checkbox List | Select any number of values from a list of values |
| Date | Enter a date |
| Account User | Select one user from the list of all users on the account |
| User In Role | Select one user from the list of users in the selected Role |
| User In Role On Project | Select one user from the list of users in the selected Role that are members of the current project |
| User On Project | Select one user from the list of users that are members of the current project |
| Company | Select a company from a list of companies on the account |
| Company On Project | Select a company from the list of companies that are associated with the current project |
| File | Browse to and select file for attachment |
| Process Lookup | Lookup for a process on the account to make dependent on this process |
| Project | Select a project from the list of projects available to the logged in user |

4. Enter field attributes which include:
 - **Field Label:** Ensure that the field label does **not** have any underscores (_) in the name.
 - **Variable Name:** The name is populated based on the field name. Optionally, you can edit this value.
 - **Description:** Enter a description for this field, if needed.
 - **Default Value:** Enter the default value for this field, if any. If there is a default value entered, the field automatically populates with this data. You will be able to set a **Default Value** only if the **Do not allow duplicates** option is unchecked. If the **Do not allow duplicates** option is selected, the default value will be erased from the **Default Value** field and it will be removed from our data-base tables.
 - **Field Permissions:** This field limits the users that are able to enter data in this field. Use the options to specify whether all users, selected roles or administrators only can enter data in this field.
 - **Do not allow duplicates:** Select this check box to prevent duplicate values from being used in multiple process instances. If this option is selected, you will not be able to set a value in the **Default Value** field. If the **Do not allow duplicates** option is selected, the default value will be erased from the **Default Value** field and it will be removed from our database tables.
 - **Text To Show Above Data Field:** Enter the text which will display over the field name in the process.
 - **Field value options:** Specify field value options as available based on the type of data field.

Note:

Project level options are available for projects that have a Drop Down, Multiple Pick, Radio Button or a Checkbox data type selected. This is available for custom fields and Process Data Fields only.

When configuring a field of one of these types, you will now have the ability to set the options at the:

- Account Level
- Project Level: Options can be different project by project

5. Click **Next**.

The field summary page displays a preview of the field just created.

6. Click **Save** or **Save & Add** to create another data field.**Related Topics:**

- Add Process Data Field Dependencies
- Set up Lookup Processes

Add Process Data Field Dependencies

Process data field dependencies allow you to link custom fields to each other. This helps prevent data entry errors, and speeds up the manual effort required to fill in your custom fields as you build out new projects.

Note: Below is a list of data types that can be used as controlling and dependent fields in a process data field dependency. Data types that aren't listed here cannot be added to a process data field dependency:

Qualifying Controlling Fields:

- Radio Button Lists
- Drop-Down Lists

Qualifying Dependent Fields:

- Radio Button Lists
- Check Box Lists
- Drop-Down Lists
- Multi-Pick Lists

Project level options are available for projects that have a Drop Down, Multiple Pick, Radio Button or a Check-box data type selected. This is available for custom fields and Process Data Fields only. When configuring a field of one of these types, you will now have the ability to set the options at the:

- Account Level
- Project Level: Options can be different project by project

To add process data field dependencies

1. Go to the Data tab.

For more information, see Access Data Tab.

2. Click **Field Dependencies**.3. Click **Add Dependency**.

4. Click the **Select a Controlling field** drop-down arrow to select a controlling field.
5. Click the **Select a Dependent field** drop-down arrow to select a dependent field.
6. Click **Next**.
7. Select values for controlling and dependent fields.
8. Click **Save**.

Reorder Data Fields

You may choose to reorder data fields to determine how they will display to end users. Also, if a page layout was not configured on a step then by default all data fields are listed in the order set here. For details on the different attributes of a data field and how to add a data field, see [Add Data Fields](#).

As you build out your custom fields you may want to associate or link these data fields to each other to prevent data entry errors and speed up the effort in filling out the information. For more information, see [Add Data Field Dependencies](#).

Related Topics:

- [Add Page Layouts](#)

About Lookup Processes

In many cases Trimble Unity Construct workflow processes are connected and flow from one to another through the project life cycle. An example of this is a potential commitment item that becomes a request for information. Or perhaps a request for information later becomes a change order request, which is ultimately rolled into a change order along with other potential change orders. Creating lookup processes is very helpful, for instance to generate reports that show how workflow process instances are linked together. It may also be important for you to know if a change order is tied to a potential change order, and if that potential change order is linked to one or more RFIs, so that it is clear what led to the change order.

A third example of lookup processes in action would be if an RFI led to a potential change order, and if that potential change order was rolled into a change order, being able to see at a glance the big picture of the linkage among the processes, you can easily see the current disposition of the RFI within the big picture.

In Trimble Unity Construct, you link one process to another by using a data field of the type Lookup Process. The process will have been defined with a field titled Lookup Process. For such processes, a link will be displayed titled Lookup which allows you to select a non-draft instance of the linked process defined for the data field. This Lookup popup offers filters to facilitate searching on the instances.

For every primary process there is a list of all its dependent process data-field combinations, along with functionality so that you can directly add a new dependent process or attach an existing dependent process.

For detailed steps on setting up lookup processes, see [Set up Lookup Processes](#).

Set up Lookup Processes

When setting up a lookup process, the process that will be your dependent process must already be created so that you're able to choose this process from the Processes drop-down arrow. For information on creating a process, see [Create New Processes](#).

[To set up a lookup process](#)

1. Go to the Data tab for the process that will be your primary process.

For more information, see Access Data Tab.

2. Click **Add Field**.
3. Select **Process Lookup**.

| Data Type | Description |
|---|---|
| <input checked="" type="radio"/> String | Enter up to a maximum number of characters |
| <input type="radio"/> Text Block | Enter up to a maximum number of characters on multiple line |
| <input type="radio"/> Rich Text Block | Enter up to a maximum number of characters on multiple line with rich text |
| <input type="radio"/> Integer | Enter a whole number |
| <input type="radio"/> Decimal | Enter a number with a specified number of digits to the right of the decimal point |
| <input type="radio"/> Drop-down List | Select one value from a list of values |
| <input type="radio"/> Multi-pick List | Select any number of values from a list of values |
| <input type="radio"/> Radio button List | Select one value from a list of values |
| <input type="radio"/> Checkbox List | Select any number of values from a list of values |
| <input type="radio"/> Date | Enter a date |
| <input type="radio"/> Account User | Select one user from the list of all users on the account |
| <input type="radio"/> User In Role | Select one user from the list of users in the selected Role |
| <input type="radio"/> User In Role On Project | Select one user from the list of users in the selected Role that are members of the current project |
| <input type="radio"/> User On Project | Select one user from the list of users that are members of the current project |
| <input type="radio"/> Company | Select a company from a list of companies on the account |
| <input type="radio"/> Company On Project | Select a company from the list of companies that are associated with the current project |
| <input type="radio"/> File | Browse to and select file for attachment |
| <input checked="" type="radio"/> Process Lookup | Lookup for a process on the account to make dependent on this process |
| <input type="radio"/> Project | Select a project from the list of projects available to the logged in user |

4. Click **Next**.

5. Enter field attributes which include:
 - Field label: Ensure that the field label does **not** have any underscores (_) in the name.
 - A description if needed
 - Field permissions: Enter the users that are able to enter data in this field.
 - Do not allow duplicates: Select this check box to restrict duplicate custom field values for the same process within this project.
 - **Processes**: Click this drop-down arrow to select a dependent process.
 - Allow only unattached dependent processes to be attached: Select this check box if you wish to only allow dependent processes to be used for one Primary process; dependent processes will

not be shareable among Primary processes.

- Text to show above data field which will display over the field name in the process.

6. Click **Next**.

A field summary page displays a preview of the field just created.

7. Click **Save** or **Save & Add** if you would like to create another data field.

Related Topics:

- [About Lookup Processes](#)

Page Layouts Tab

Use the Page Layouts tab to organize data fields into custom displays. Page layouts let you create views for different user types. This helps you determine which users can see particular information. Each of these layouts can be assigned to the workflow as a whole or to a specific step. Why would you want to assign different layouts? For a step in a process there is typically a set of activities that need to occur for that step to complete, such as reviewing certain data fields that have already been filled out by another user and filling others out. To make it very clear, you should show only those fields that are needed to complete that step. There are two types of layouts:

- **Actor Layout:** This layout will display the fields that the person taking action on the step should see.
- **Non Actor Layout:** This layout displays what every user with the permission to be a part of the workflow can see. Censor proprietary data by excluding it from this layout.

The page layouts page lists all page layouts configured. From here you are also able to tell if they are in use (assigned to one or more steps), tell if the layout is an actor or non-actor layout, and determine when the layout was last modified.

The following topics are included in this section:

- [Access Page Layouts Tab](#)
- [Layout Properties Page Overview](#)
- [Add Page Layouts](#)
- [Create Sections](#)

Access Page Layouts Tab

To access the Page Layout Tab

1. Go to Process settings.
2. Click **Manage Processes**.
3. Click the title of the process you want to modify the page layout for.
4. Click the **Page Layouts** tab.

Layout Properties Page

The Layout Properties page is displayed after saving a new layout or opening an existing layout for editing. For instructions on accessing the Page Layouts tab, see [Access Page Layouts Tab](#). You may also be interested in instructions for [Adding Page Layouts](#). Below is an overview of the Layout Properties page.

Note: The order that data fields are in is how they will display in the workflow.

Setup > Manage Processes > Document Review and Approval > Page Layouts > View Layout > Edit Layout

Edit Layout

Properties | Data | Page Layouts | Workflows

Layout Properties Preview Save Save & Add Layout Cancel

Layout Name: Actor Layout

Default Process Non-Actor Layout: ☐

Default Process Actor Layout: ☒

Manage Sections Note: Fields will be dropped in the order in which they are selected Edit Field Properties Create Section

| Data | Edit | Delete |
|----------------------------|------|--------|
| Attach Insurance Details | | |
| Dependent Process | | |
| Document Phase | | |
| Estimated Duration in Days | | |
| Module | | |

Legend

| Used in Page Layout | Not in Page Layout |
|--|---|
| ■ Required Field | ■ Read Only Field |
| ■ Controlling Field | ■ Dependent Field |
| ■ Selected | |

Data Fields

| | |
|----------------------------|------------------------------|
| Attach Insurance Details | Contract Estimate in Dollars |
| Dependent Process | Detailed Scope of Estimate |
| Document Phase | Estimated Date of Completion |
| Estimated Duration in Days | Lookup Process Test |
| Module | Select AE |
| Trades in Scope | Version Number |

Preview Save Save & Add Layout Cancel

Note: The screen shot above shows the page layout tab in Edit mode.

Fields and Buttons

Different options display in View mode as described below:

- **Where Used:** This button displays when the page layout is in view mode. Click this button to view in which workflows this page layout is being used.
- **Preview:** Click this button to see an end user view of the page layout.
- **Edit:** This button displays when the page layout is in view mode. Click this button to modify the page layout.
- **Delete:** This button displays when the page layout is in view mode. Click this button to delete the page layout.
- **Save:** Click this button to save the layout.
- **Save & Add Layout:** Click this button to save the layout and add another page layout.
- **Copy:** This button displays when a page layout is in view mode.

Tip

Copying page layouts is a quick way to create new layouts with slight modifications as oppose to creating an entirely new layout from scratch.

- **Cancel:** Click this button to cancel any changes since last saved.
- **Layout Name:** Enter the name of Name of the page layout in this field.

- **Default Process Non-Actor Layout:** If checked, this check box will set this layout to be the default non-actor layout. If no non-actor layout is assigned to a workflow or step it will automatically inherit this layout.
- **Default Process Actor Layout:** Select this check box to make this layout the default actor layout. If no actor layout is assigned to a workflow or step it will automatically inherit this layout.
- **Map location permission:** This field will be available only for geo-enabled processes that have the map location field enabled. Use the option buttons to specify whether the map location will be **Editable** or **View only**. Note that non-actors can only view the process location.
- **Manage Sections:** This area is designed to manage sections and data fields. With drag and drop capabilities, data fields can be dropped in sections and sections can be moved up and down. You can also modify the data fields and section properties.
- **Edit Field Properties:** Click this button to display the properties of a selected data field.
- **Create Section:** Click this button to create a new section. A section must be created before data fields can be added.
- **Legend:** The Legend indicates the type of field each data field is.
- **Data (drop-down arrow):** This grid contains all the data fields available to drag and drop into a section. These are all the fields created in the process of adding data fields. The drop-down arrow allows you to select between Data Fields and Module Integration. If you are working on a cost process, it is listed as an option for you to add as a field in the layout. Click one or more of the data fields and drag them over to the Data area.

Note: The order in which you place data fields in this section is how they display in the workflow.

Once data fields are in the data section, right-click selected fields or click the **Edit Field Properties** button to make fields Read-Only or Required.

- **Section:** Each section created is visible in the Manage Sections grid. Click the edit or delete links to edit or delete the section. You can edit each data field listed in the section by right clicking the mouse; choices are edit field properties or remove field.

Add Page Layouts

Page layouts allow you to customize the data fields that display for each actor or non-actor in the process. For instance, you may want cost data field to visible to the management team, but not the architect. Page layouts let you decide which data fields are available for each actor in the process.

Note: Data fields will display in the order that they are saved.

To add page layouts

1. Go to the Page Layouts tab.
For more information, see Access Page Layouts Tab.
2. Click **Add Layout**.
The Layout Properties page is displayed.
3. Enter the name of the layout in the **Layout Name** field.

4. Select whether this is a default non-actor or default actor layout by clicking the **Default Process Non-Actor Layout** or **Default Process Actor Layout** check box.

Note: Page layouts can be assigned to steps and workflows and not just processes. If a layout is set to be the default for a process that means that every step will inherit that default layout if no layout is assigned to the workflow or step(s). This allows you to quickly set up a process without requiring you to save a layout to each step (or workflow). If there is no default layout assigned to a process the system checks the workflow layout default setting. If a default is set for the workflow layout, the step layout is used.

5. Click **Save**.

The Edit Layout page is displayed.

6. Select the data fields on the right side of the page and drag into the Data section.

7. You can perform one or more of the following actions on this page, depending upon the type of process:

To make a field required or read only

- a. Select the field and then right-click the field and select **Edit Field Properties**.
- b. In the Edit Section Fields dialog box that is displayed, select the required or read-only check box beside the field name, and then click **Save**. The Edit Layout page is displayed again.

To make retainage editable for Actual Cost processes or Commitment Invoice processes

Users with the Manage Processes permission can select the **Make retainage editable** check box when creating or editing the layout on an Actual Cost process. This will allow the Layout Actor to edit the item Retainage Amounts.

Note: Manual retainage entry can be enabled on actual cost processes with the Invoice Type as Commitment Invoice or User Choice.

The retainage fields that will be editable depend upon the selections made while editing the layout.

- The **Retainage this Invoice** (Non Pay App Commitment) or **Retainage this Period** (Pay App Commitment) fields will be editable when the **Read-only** column check box and the **Make retainage editable** column check box are both selected in the process layout. However, the actual cost fields will be read-only.
- When the **Read-only** column check box is not selected and only the **Make retainage editable** column check box is selected, the actual cost fields remain editable including the **Retainage this Invoice** (Non Pay App Commitment) or **Retainage this Period** (Pay App Commitment) fields.
- The **Retainage this Invoice** (Non Pay App Commitment) or **Retainage this Period** (Pay App Commitment) fields are read-only when the **Read-only** column check box and the **Make retainage editable** column check box are not selected in the process layout.
- When only the **Read-only** column check box is selected and the **Make retainage editable** column check box is not selected, all the actual cost fields remain read-only in the process.

To make the retainage editable for User Choice or Commitment Invoice Processes

- a. In the **Module Integration - Cost** section of the Edit Layout page, select the module integration data field you wish to enable editable retainage.
- b. Right-click the field and select **Edit Field Properties**.
- c. In the Edit Section Fields dialog box, select the **Make retainage editable** check box beside the field name, and then click **Save**. The Edit Layout page is displayed again.

8. Click **Save**.

Related Topics:

- Page Layout Tab
- Create Sections
- [Add Dynamic Grids to Processes](#)

Create Sections

Page Layout sections can be created while adding a page layout or you may add sections later on. The procedure below details the latter.

For more information on the fields and buttons located on this page, see Layout Properties Page Overview.

To create sections after the page layout has already been saved

1. Go to the Page Layout tab.
For more information, see Access the Page Layout Tab.
2. Click the title of the page layout you want to create sections for.
The Layout Properties page is displayed.
3. Click **Edit**.
4. Click **Create Sections**.

The Add Section dialog box displays.

5. Enter the name of the section in the **Name** field.
6. Click the **# of Columns** drop-down arrow to select the number of columns you'd like.
7. Click the **Tab Order** drop-down arrow to select the order of the tabs.
8. Click the **Show Header** check box to show the header, otherwise, leave this check box empty.
9. Click **Save**.

The Layout Properties page is displayed.

10. Select, drag and drop the desired data fields or module integration components to the section.
11. To make a field required or read only, select the field and then right-click the field and select **Edit Field Properties**. The Section Field Properties dialog box displays.
12. Select the required or read-only check box, and then click **Save**. You are returned to the Layout Properties page.
13. Click **Save**.

Workflow Tab

The Main Workflow page lists all the created workflows. Each workflow can be assigned to one or more projects. You can filter on project assignments and add a new workflow. When a workflow is published, Trimble Unity Construct automatically names the workflow the name of the process with a date and time stamp; however, you can assign it a different name, if you desire. A workflow can only be published when all business rules have been met, meaning if for example if all the routable steps are arranged so that all possible flows reach the finish step. If there are any errors during a publish attempt, Trimble Unity Construct will let you know by displaying warning messages.

From the Workflows tab you are able to design or edit your structured workflow process, and if you have a saved or auto-saved copy, you can open it from here and continue working on it. If your workflow is already published and in use, the Where Used button allows you to see every instance where this workflow is being used. From this tab you are also able to add escalation rules. Escalation rules are automated reminders for users to complete a past due task.

The following topics are included in this section:

- Access Workflows Tab
- Workflow Properties Page Overview
- Creating the Workflow (A Multiphase Process)
- Workflow Overview Pages

Access the Workflows Tab

To access the Workflows tab

1. Go to Process settings.
2. Click **Manage Processes**.
3. Click the title of the process you want to modify.

4. Click the **Workflows** tab.

All existing workflows, if any, display on this page.

Access Workflow Designer

From the workflow designer you are able to create the workflow process by adding and configuring the process steps.

To access the workflow designer

1. Go to the Workflows tab.
2. Click the title of the workflow you want to access.
3. Click **Design Workflow**. If multiple versions of the workflow exist, you are prompted to make a choice, and then click **Load**. The Workflow Designer displays.

Access Step Properties

The steps of a process are configured in the Workflow Designers. The properties of a step allow you to choose the actors, apply layouts, determine the behavior of the step and many other actions.

To access the properties of a steps

1. Go to the Workflows tab.
2. Click the title of the workflow you want to access.
3. Click **Design Workflow**.
The Choose Workflow Versions dialog box displays.
4. Click the workflow you want to modify then click **Load**.
The Workflow Designer displays.
5. Right-click the step you want to view properties for, and then click **Properties**.
The Edit Step Dialog Box displays.

Related Topics:

- Workflow Designer Icons Overview

About External Workflow Processes

Trimble Unity Construct's External Workflow Participation functionality may or may not be available on your account. If it is determined there is a need for this feature during the implementation, it will be enabled.

The external workflow participation allows external users to receive process steps in the form of documents and act upon those documents via email. Their information is sent and received via email and automatically routed into the system without their having to log into Trimble Unity Construct. This feature provides tremendous flexibility when working on large projects that include many participants and actors, all of whom may not be licensed Trimble Unity Construct users. It allows that information to be emailed and sent back automatically without human intervention. This supports collaborating with external participants, saves valuable time and allows you to better manage large projects.

External workflow processes cannot be created for processes that include the following:

- Cost process configuration
- Company data field
- Company on Project data field
- Process Lookup data field
- Project data field

Configuring External Workflow Processes

The external workflow feature is configured in the same way as any other workflow. When designing the workflow, within the step that will include external participants, click the External Participation check box and choose whether this person will be an actor or non-actor. Through external workflow participation, external users can optionally initiate a process if you so choose. To enable external process initiation, simply click the **Allow Workflow to be Started via Email** check box located on the Workflow Properties page in Edit mode. This is all it takes for the administrator to configure the workflow for external participation. For an understanding of the user's perspective, see Starting an External Workflow Process.

In short, to configure an external workflow process, ensure that the following minimum settings are configured, and then go on to creating the workflow as usual.

On the Workflow Properties page, select the **Allow Workflow to be Started via Email** check box

On the Edit Step Properties page, select one of the **External Participation** check boxes.

Creating the Workflow

A workflow illustrates each step of the process. The Workflow Designer helps you create the process and add details to each step such as the actions that will allow the process to move to each subsequent step, the actors in each step, notifying parties if any, and you are also able to assign layouts to each step during the process of creating the workflow.

Creating a workflow is a multiphase process. Each phase of the process can be saved and edited later on, or you may choose to add the workflow and perform all the workflow design steps all at once. For the purpose of this user assistance guide, the phases of this process are presented as separate tasks. Each procedure picks up where the previous one left off.

The following are the tasks included in creating a workflow:

1. Add New Workflows
2. Add Read-only Process Subjects
3. Design Workflows
4. Edit Steps
5. Add Actions
6. Add Data Field Assignments
7. Add Escalation Rules
8. Connect Steps in the Workflow

9. Spawn Processes
10. Complete Workflows

Add New Workflows

To add a new workflow

1. Go to the Workflow Tab. For more information, see Access Workflow Tab.
2. Click **Add Workflow**. The Workflow Properties page is displayed.
3. Complete all required fields. For detailed information on each field, see Add New/Edit Workflow Page Overview.
4. Click **Save**.

Tip: The next procedure in this process is Design Workflows.

Add Read-Only Process Subjects

Read-only process subjects allow you to preset the subject of the process with one or more data fields. This subject will not be available for editing. You may choose to do this in order to give team members one less field to complete when submitting a process, to standardize workflow names for record-keeping purposes or aid in reporting, as you're able to report on the subject of processes.

Example

In an Invoice Approval process, you may want to include a standard subject that comprises of the company name and invoice number.

To add a ready only process subject

1. Go to the Workflow tab of the desired process.
For instructions, see Access Workflows Tab.
2. Click the title of the workflow.
The Workflow Properties page is displayed.
3. Click **Edit**.
4. Select the **Subject Read Only** field.

The **Subject Set To** field appears.

| | |
|--------------------|---|
| Subject Read Only: | <input checked="" type="checkbox"/> |
| * Subject Set To: | <input type="text"/> <input type="button" value="Add"/> |

5. Click **Add**.
The Edit Expression secondary window displays.

e-Builder

Edit Expression

Select Field
Is Active Insert

Operators
+ - * / ^ () = < > <= >=

Functions
Now() Insert

Expression:
{CostCompany.CompanyName}&'- '&{DataField.Vendor Invoice Number}

Save Cancel

6. Choose a data field from the **Select Field** drop-down menu, such as Company Name, and then click **Insert**.

The field expression appears in the Expression box. To add another data field, enter an ampersand: **&**. You may choose to add a separator, such as a dash as in the screenshot above. Other separates may be a pipe (|) or a period, for example. To add a separator, enter double quotes, the separator, double quotes and another ampersand: **"-"&**.

7. To choose an additional data field, such as the invoice number, make a selection from the **Select Field** drop-down menu, and then click **Insert**.
8. Use the operators and available functions to create a formula.
For an explanation of the functions, see Add Assignment Page Overview.
9. Upon completion, click **Save**.

Tip: The procedure in this process is Design Workflows.

Design Workflows (Time Tracking)

To design time sheet workflows

1. Go to the Workflows Designer page.
For instructions, see Access Workflow Designer (Time Tracking).
2. Right-click the **Start** circle and select **Properties** from the menu. The Edit Step page is displayed.
3. Complete all required fields.
4. Drag and drop and data elements you wish you add and then right-click them to update their properties.
For instructions, see Edit Steps.
5. Click **Save**.

Tip: The next procedure in this process is Edit Steps.

Related Topics:

- About Workflows
- Create Time Sheet Workflows
- About Managing Time Tacking

Edit Steps

To edit steps in the workflow

1. Go to the step properties of the step you want to modify.
For more information, see Access Step Properties.
2. Complete all required fields.
Note: The step cannot be saved until an action is added. See Add Actions.
3. Click **Save**.

* The next procedure in this process is Add Actions.

Related Topics:

- Edit Step Page Overview
- About External Workflow Processes

Add Actions

To add actions to a step

1. Go to the step properties of the step you want to modify.
For more information, see Access Step Properties
2. Click **Add Action**.
The Add Action dialog box displays.
3. Complete all required fields.
For a detailed description on each field, see Add Action Page Overview.
Note: You can create as many actions as needed to complete the routing of the process.
4. Click **Save**.

Tip: The next procedure in this process is Add Data Field Assignments.

Add Data Field Assignments

Data field assignments are a mechanism for auto-populating Admin-defined data taken from project details and exposing them into the process. To learn more about data field assignments, see Add Assignment Page Overview.

To add a data field assignment

1. Go to the step properties of the step you want to add data fields to.
For more information, see Access Step Properties.
2. Click **Add Action**.

The Add Action dialog box displays.

3. At the bottom of the Add Action dialog box, click **Assignments**.

The Add Assignment dialog box displays.

4. Click the **Assign to Field** drop-down arrow and select the process data field to assign the expression to.
5. Click the **Select Field** drop-down arrow to select the project details data field, you want to pull data from.
6. Click **Insert** to add this relationship to the **Assignment Expression** box.
If this concludes your data field assignment, continue to step 7.
7. If you are creating a data field assignment that is part of a formula, click an operator, and then repeat steps 2 and 3.
8. *Optional:* You can also use a function as the entire assignment expression or part of the expression using any of the steps above.
9. Click **Save**.

Tip: The next procedure in this process is Add Escalation Rules.

Add Escalation Rules

Escalation rules can be set for specific steps in a process or for an entire process. This is an optional setting. If set for a specific step then the escalation will only occur if the step meets the defined escalation requirement. Adding escalation rules allow you to automate email reminders to users when a process step or an entire process has not been completed within a certain amount of time or based on conditions that you determine.

To add escalation rules

1. To add escalation rules to the entire workflow, go to the Workflows tab for the process.
For instructions, see Access Workflows Tab.
—Or—
To add escalation rules to a process step, go to the step properties and click the **Escalation Rules** tab.
For instructions, see Access Step Properties.
2. Click **Add Rule**.
The Add Escalation Rule dialog box displays.
3. Complete all necessary fields.
For a description of the fields on this page, see Add Escalation Rule Page Overview.
4. Click **Save**.

Tip: The next procedure in this process is Connect Steps in the Workflow.

Related Topics:

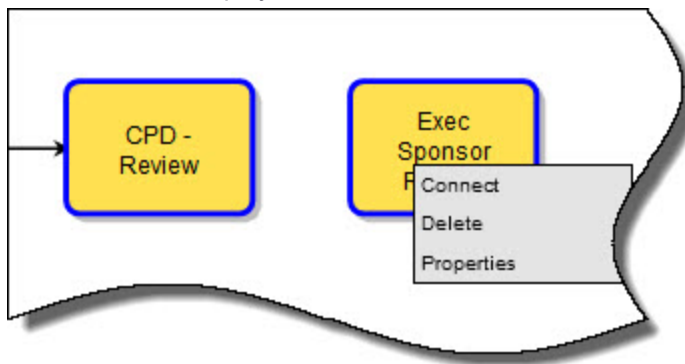
- Add Escalation Rule Page Overview
- Workflow Designer Icons Page Overview

- Edit Step Dialog Box

Connect Steps in the Workflow



To connect the steps in your workflow

1. Go to the Workflow Designer.
For more information, see Access Workflow Designer.
2. Click the originating step.
A blue outline appears around the step.
3. Click the subsequent step.
A blue outline appears around this step as well.
4. Right-click the subsequent step.
A context menu displays.



Note: Alternatively, you can drag a connector onto the workflow area, right-click it, and click Properties.

5. Click **Connect**.
The Add Connector dialog box displays. The **From Step** and **To Step** fields are filled in based on your selection of the steps. The first step selected, displays in the From Step field.

Give Us Your Feedback on this Page  

Add Connector

Connector Properties

| | |
|-----------------------------|--|
| From Step: | CPD - Review |
| Action: | Content Sent for Copy Editing |
| To Step: | Exec Sponsor Review |
| Connector Text: | Copy Editing |
| Type: | <input type="radio"/> Straight <input checked="" type="radio"/> Elbow |
| From Step Connection Point: | Auto |
| To Step Connection Point: | Auto |

Save **Cancel**

6. Choose the appropriate action from the **Action** menu.
7. Complete all other necessary fields.
For a detailed description of each field, see Add/Edit Connector Page Overview.
8. Click **Save**.

Tip: The next procedure in this process is Spawn Processes.

Complete Workflows

To complete the workflow

1. Go to the Workflow Designer.
For more information, see Access Workflow Designer.
2. Click **Error Check**.
If there are errors, e-Builder will list them on the upper left-hand side of the page. If not, the message Workflow is valid appears.
3. Click **Save**, and then click **Publish**.
4. Close the Workflow Designer.
The Workflow Properties page is displayed.
5. Click **Edit**.
6. Select the starting and finished process layout if none was selected in the workflow step.
7. Select a default actor and non actor layout.
8. If the process has a due date, select the check box and enter the number of days for completion.
9. Select the **Subject Read Only** check box if the subject should be defaulted to a specific string and enter in the default.
10. Select the has tracking prefix check box if you wish to have an additional field to track specific data in the numbering of the process.

11. If the workflow is for the entire account and not specific projects make sure the account default box is checked.
If this workflow is for a set of projects you can clear this check box and select the projects in the Project Assignments.
12. Click **Save**.
13. If applicable, create escalation rules. See Add Escalation Rules for more information.

Note: You can have multiple workflows defined for a process.

Tip: This is the last procedure in this process. For more information on creating a workflow, see Creating the Workflow.

Workflow Overview Pages

This section includes an overview of the dialog boxes and pages that display within the sections of the Workflow tab:

- Add New/Edit Workflow Page Overview
- Workflow Designer Icons Overview
- Edit Step Page Overview
- Add Action Page Overview
- Add Assignment Page Overview
- Add Escalation Rule Page Overview
- Edit Conditional Branch Page Overview
- Add/Edit Connector Page Overview
- Spawn Edit Step Page Overview
- Edit Automation Step Page Overview

Workflow Properties Page

The Workflow Properties page appears when you click the title of an existing workflow, located on the Workflow tab. For more information on accessing the Workflows tab, see Access Workflows Tab. The Workflow Properties page has a number of controls, allowing you to view and edit workflow details; view where the workflow is being used; design and copy the workflow; and add escalation rules.

A description of the fields and buttons located on this page is described below. Fields that are active in Edit mode are also described below.

View Mode

- **Where Used:** This button allows you to view where the workflow is being used in your site. The Workflow Instances page is displayed with a list of workflow instances that meet your filter criteria. You are also able to filter workflow instances by status, step name and containing text to find instances more easily.
- **Design Workflow:** Click this button to start designing the structured workflow, or continue working on a saved workflow. For instructions on designing a workflow, see Design Workflows. For an overview of the icons on this page, see Workflow Designer Icons Overview.

- **Copy Workflow:** Click this button to copy the workflow and use it as a starting point for creating another workflow. The Copy Workflow page appears, similar to the Add New Workflow page, allowing you to change workflow details if necessary.

Tip

Copying an existing workflow is a time-saving way to start a new workflow with similar properties.

- **Edit:** Click this button to edit the workflow details.
- **Cancel:** Click this button to return to the Workflows page.
- **Add Rule:** Click this button to open the Add Escalation Rule dialog box and add escalation rules to the workflow. Escalation rules are automated reminders for users to complete a past due task. When defined at the workflow level, the escalation rule will be automatically inherited by every step in the workflow. You can also set rules at the step level so that it only applies to the step. These rules allow you to set up automatic escalations based on certain conditions, such as a step ages after a certain amount of time past the process start date. When setting a step escalation rule at the workflow level, for every step that meets that condition, the escalation notification will fire off. The notification is emailed to the specified group of users. Additionally, you can add additional conditional statements to the rule. See Add Escalation Rules for detailed instructions.

Edit Mode

Click the **Edit** button to enter the edit mode.

- **Workflow Name:** Enter the name of the workflow.
- **Instructions:** Enter instructional text that applies to the entire workflow. When designing workflows you can add step-specific instructions if you choose. The instructions added here display as a help link in the upper-right corner of the process.
- **Starting Process Layout:** Click this drop-down arrow to select the starting process layout that will be used for the start or fill out step of the process. For information on creating page layouts, see Add Page Layouts.
- **Finish Process Layout:** Click this drop-down arrow to select the layout that will be used when the process has closed or finished. For information on creating page layouts, see Add Page Layouts.
- **Default Actor Layout:** This layout will automatically be used for every step in the workflow when no actor layout has been assigned in the step properties.
- **Default Non-Actor Layout:** This layout will automatically be used for every step in the workflow when no non-actor layout has been assigned in the step properties.
- **Has Due Date:** Select this check box to assign a due date to the entire workflow. Once selected, the **Days for Completion** field is displayed automatically. Enter the number days required to complete the entire workflow in this field.
- **Days for completion:** This field is displayed when the **Has Due Date** check box is selected. Enter the number days required to complete the entire workflow in this field.

- **Allow Due Date Modification:** Select this check box to grant end users the ability to modify the automatically calculated due date. This field is displayed when the **Has Due Date** check box is selected.
- **Process Subject Read Only:** Select this check box to set the subject to read-only. Note that if the subject is set to read-only it will be hidden.
 - This is helpful in standardizing workflow names for record-keeping purposes.
 - This setting also allows you to link field values listed in a drop-down window to control the subject description value.

Subject Value Settings

The **Process Subject Set To** field is displayed only when the **Process Subject Read Only** check box is selected.

| | |
|--------------------|---|
| Subject Read Only: | <input checked="" type="checkbox"/> |
| * Subject Set To: | <input type="text"/> <input type="button" value="Add"/> |

- Click **Add** to open the Edit Expression window and make selections as to what the subject value will be.
- Click **Select Field** and select values with operators. This dialog box functions in the same way as the Add Assignments page.
- Click **Save**.

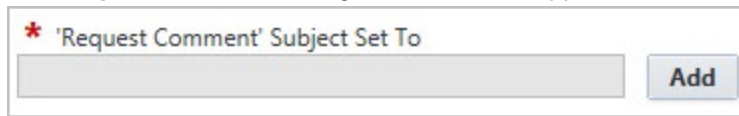
Note: When external workflows are designed, Trimble Unity Construct honors the subject read-only and tracking prefix settings when the document is generated. If the workflow is copied, the Subject field settings persist.

- **Subject Set To:** This field is displayed when the **Subject Read Only** check box is selected. Use this field to create a standard subject, giving users one less field to complete.
- **Has Tracking Prefix:** For tracking purposes, select this check box to indicate that an assigned code already exists. When this option is enabled, it allows the user to create an additional tracking reference on a process instance.
If this check box is not selected, the user will not have the capability to have this additional reference.
- **Set Request Comment Default Subject:** Select this option to set a default subject for requested comments. The process actor, when requesting a comment, can change the subject on the fly.

This setting also allows you to link field values listed in a drop-down window to control the subject description value.

Request Comment Subject Value Settings

The **Request Comment Subject Set To** field appears when this check box is selected.



- i. Click **Add** to open the Edit Expression window and make selections as to what the subject value will be.
 - ii. Click **Select Field** and select values with operators. This dialog box functions in the same way as the Add Assignments page.
 - iii. Click **Save**.
- **Account Default:** This field is displayed only in the edit mode. Select this check box to make this workflow the default option for all projects if a project isn't selected in the **Project Assignments** section or for just the assigned projects.

Note: A default account workflow is automatically created when a process is created. If you did not modify the workflow, the system-generated account default is used, which simply has a start and finish step.

- **Allow Workflow to be Started via Email:** This field may or may not be visible to you. The external workflow participation feature is turned on during implementation if it is determined that there is a need for this functionality. Enabling external workflow participation allows an external user to participate in the process, and/ or initiate the process via email.

If this option is available for your account, select this check box to allow the workflow to be started via email. You are prompted to select a destination folder where attached files will be placed. You also have the option to enter additional instructions for external users or include default instructions.

For more information on external workflow participation, see About External Workflow Processes.

- **Hide Take Action Button:** Select this check box to hide the "Take Action" button in the user interface. If this check box is selected, the action will be automatically submitted by just changing the selection in the action drop-down list.

Note: This button can be given any name you choose. For more information, see Add Action Page Overview.

- **After Finish Step:**
 - **Allow Comments and Attachments to be added:** Select this check box to allow users to continue to add comments and attachments to processes that have reached the finish step. If this check box is not selected, users cannot add comments or attachments after the process is complete.
 - **Disable the ability to remove attachments:** Select this check box to prevent removal of the attachment(s) from the process after the finish step. If this check box is selected, the remove link will be disabled for the attachment(s).

Note: This check box is enabled only when the **Allow Comments and Attachments to be added** check box is selected.

- **Project Assignments:** Select the projects that will use this workflow. If no projects are selected, the workflow will be available to all projects. Keep in mind that multiple workflows may exist, but only the account default workflow will be available to assigned projects. The account default settings can also be configured on this page.

Add New/ Edit Workflow Page

The Add New/ Edit Workflow page allows you to set up the preliminary details of the workflow or make changes to the details of an existing one. To access this page, go to the Workflows Tab, click the title of the workflow, and then click **Edit**.

Fields and Buttons

The fields and buttons located on the New/ Edit Workflow page are:

- **Workflow Name:** Enter the name of workflow.
- **Instructions:** Enter instructional text that applies to the entire workflow. When designing workflows you can add step-specific instructions if you choose. The instructions added here display as a help link in the upper-right corner of the process.
- **Starting Process Layout:** Click this drop-down arrow to select the starting process layout that will be used for the start or fill out step of the process. For information on creating page layouts, see Add Page Layouts.
- **Finish Process Layout:** Click this drop-down arrow to select the layout that will be used when the process has closed or finished. For information on creating page layouts, see Add Page Layouts.
- **Default Actor Layout:** This layout will automatically be used for every step in the workflow when no actor layout has been assigned in the step properties.
- **Default Non-Actor Layout:** This layout will automatically be used for every step in the workflow when no non-actor layout has been assigned in the step properties.
- **Has Due Date:** Select this check box to assign a due date to the entire workflow. Once selected, the **Days for Completion** field automatically displays. Enter the number days required to complete the entire workflow in this field.
- **Days for completion:** This field displays when the **Has Due Date** check box is selected. Enter the number days required to complete the entire workflow in this field.
- **Allow Due Date Modification:** Select this check box to grant end users the ability to modify the automatically calculated due date.
- **Subject Read Only:** Select this check box to preset the subject of the process with one or more data fields. This subject will not be available for editing.

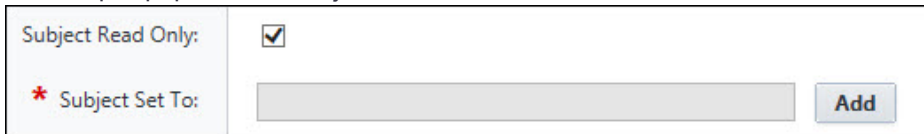
Example

In an Invoice Approval process, you may want to include a standard subject which includes the company name and invoice number.

You may choose to do so for a number of different reasons:

- Give team members one fewer field to complete when submitting process steps.
- Standardize workflow names for record-keeping purposes.
- Aid in reporting by reporting on the subject of processes.

The **Subject Set To** field displays when this check box is selected and allows you to choose the data fields to pre-populate the subject.



The screenshot shows a user interface with two rows. The first row is labeled 'Subject Read Only:' and has a checked checkbox. The second row is labeled '* Subject Set To:' and features a text input field followed by an 'Add' button.

- **Subject Set To:** This field displays when the Subject Read Only check box is selected. Use this field to create a standard, read-only subject using data field expressions. Click **Add** to open the Edit Expression window and choose the data fields to build the expression. For instructions, see Add Read-Only Process Subjects.
- **Has Tracking Prefix:** For tracking purposes, select this check box to indicate that an assigned code already exists.
- **Account Default:** This field only displays in edit mode. Select this check box to make this workflow the default option for all projects if a project isn't selected in the **Project Assignments** section or for just the assigned projects.

Note: A default account workflow is automatically created when a process is created. If you did not modify the workflow, the system-generated account default is used, which simply has a start and finish step.

Workflow Designer Icons

The Workflow Designer allows you to drag and drop different shapes onto the Workflow that perform different functions. Each can help build your workflow to facilitate an automated business process. The workflow includes steps, connectors, conditionals, and spawns all based on actions triggered in each workflow step.



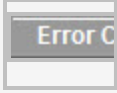

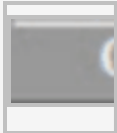

The process is automatically routed through the workflow. When the process reaches a data entry step it will display the associated actor layout to the end user and require that an action be taken, which determines which branch the workflow will follow. Each of these shapes can be dragged onto the Designer grid. Once the shape is dragged onto the screen, the properties window of that shape displays for your input.




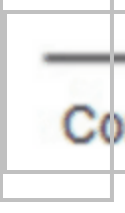
The Difference between Edit Mode and Copy Mode

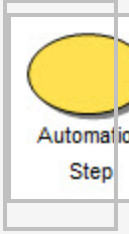

- When in Edit Mode you are not able to delete process steps, but this is possible in Copy Mode.
- Making changes and then publishing in Edit Mode will affect open instances of the process
- Making changes and then publishing in Copy Mode will not affect open instances of the process.

Fields and Buttons

A brief description of each shape, its function, and a description of the buttons located on the workflow designer page is below:

| Button/ Shape | Description |
|---|--|
|  | <p>Click Publish to make the process available to all assigned users. Incomplete workflows cannot be published. If process steps are incomplete or a connector is missing, an error message displays the details of the error. Publishing a workflow allows you to assign it to projects or make it available to projects if one is already assigned.</p> <p>When attempting to publish a workflow that has already been used by an end user, the system grays out certain elements of the process that cannot be changed, there are fields, however that can be changed. If you need to change fields that cannot be altered, then a new workflow has to be created with a different name. The newly created workflow will not be assigned to any projects; you must physically make it the account default if you so choose. For information on assigning projects to workflows, see the Account Default check box description on the Add New/Edit Workflow Page.</p> |
|  | <p>Click Save to save the workflow. You can close out of the workflow and return to it later on. Saved workflows are not visible to anyone else and are not available for use in any projects. The process will only use published workflows.</p> |
|  | <p>Click Error Check to validate that the workflow is correct. Any errors will produce a detailed error message.</p> |
|  | <p>Click Print to print the workflow as is.</p> |
|  | <p>Click Cancel to close the Workflow dialog box without saving changes.</p> |
|  | <p>The start icon displays by default. Every workflow process requires a start step. Right-click this icon and select Properties to edit step name, select a process layout, change icon color, or add a description.</p> |

| Button/ Shape | Description |
|---|--|
|  | <p>Data Entry is used to record process steps. Data Entry steps are to be completed by an actor of the step. Each time data is entered, an actor must take an action so that the workflow can move on its path toward completion. In addition, there may be required data fields. For example, a step could consist of a Director reviewing a set of data and selecting an Approve action.</p> <p>Drag this icon to the designer to open the Edit Step Dialog Box and customize step properties.</p> |
|  | <p>Conditional steps are defined statements that can take a path of true or false. It is configured to let the system determine the route in the workflow. For example, if a contract or PO has a commitment value greater than \$5,000 it may have to be routed to the Assistant Director. Otherwise the project manager can approve it without requiring executive management approval. Double-click or drag and drop this shape to the designer to open the Edit Conditional Branch dialog and configure the details of this condition.</p> <p>Drag this icon to the designer to open the Edit Conditional Branch Dialog Box and customize step properties.</p> |
|  | <p>The spawn process icon is used to kick off another process at the end of the process being created. Using this feature, you are able automate the start of another process that is dependent on the one you're creating. It is important to note that you drag and drop this icon in the graphical pane. The Edit Step dialog box displays for you to input all pertinent information.</p> <p>Drag this icon to the designer to open the Spawn Edit Step Dialog Box and customize step properties.</p> |
|  | <p>The connector is used to connect the steps in the workflow. Right-click the connector and click Properties to open the Connector Properties dialog box. From here you choose the start and end steps to connect. You must also choose an action. Only available actions that have not yet been used are available in the drop-down arrow. Optionally, you can rename the connector, choose the connector shape and design the workflow step by choosing where the points of the connector will be placed.</p> |

| Button/ Shape | Description |
|---|---|
|  | <p>The Automation step icon is used to automatically archive a mail merge template in the document library and/or send it in an email. This step can be added within any sequence of the workflow.</p> <p>Drag this icon to the designer to open the Edit Automation Step Dialog Box and customize step properties.</p> |
|  | <p>The finish icon displays by default. Every workflow process requires a finish step. Right-click this icon and select Properties to edit step name, select roles that should be notified when the step enters the finish step, select a process layout, change icon color, or add a description.</p> |

Edit Step Page

The Edit Step dialog box displays when you drag a Data Entry shape to the designer grid. This dialog box is able for you to customize the workflow step. In order for a step to run properly, there must be at least one action, and at least one role assigned.

See Workflow Designer Icons Overview for more information about Data Entry and other workflow shapes. A detailed description of each field is listed below to guide you through the process of customizing each workflow step.

Fields and Buttons

The fields and buttons located on this page are:

- **Name:** This is a required field. Enter the name of the step in this field.
- **Description:** Enter a description of the process step in this field. This description displays along with the name of the step when you hover over the step in the workflow designer.
- **Enable Flexible Routing:** Click this check box to allow the actors in this step to forward the step to another project participant, whom in return can forward to another participant or reply back to the actor. The actor is the only one that can take action to move it to the next step, and the actor can decide to take the action at anytime, whether it has been forwarded or not. If this check box is not selected, the Forward and Reply buttons will not display on the process step.
- **Send Comment Notifications To Actors:** Select this check box to have an email notification sent to the actors in this step every time a comment is made or an action is taken on this step.

Note: Process notification settings take precedence over the settings configured here. Project notification settings are located via Projects Project Administration section on the left side of the page
Process Notification Settings

- **Send Comment Notifications To Past Actors:** This check box is clear by default. Select if you wish to send an email notification to all of the past actors on the process, whenever this step is completed.

Note: These notifications can also be added to a daily summary notification in order to reduce the number of notification someone receives throughout the day. See About Summary Notifications for more information.

- **Disable mail merge for this step:** Select this check box to disable printing in this particular step of the process. You might choose to use this setting to avoid the printing of unapproved or incomplete data, which might be prematurely routed for approval. Disabling printing at certain process steps will also evade the distribution of multiple versions of information.
- **External Participation:** This field may or may not be visible to you. The external participation feature is typically turned on during implementation if it is determined that there is a need for this capability. Enabling external participation allows an external participant to initiate a process via email. Determine whether the external process initiator will be an actor or non-actor, and then select the appropriate check box. You are prompted to select a destination folder where attached files will be placed. For more information on external workflow participants, see About External Workflow Processes.
- **Actors**
 - **Process Initiator** - Select this check box to add the process initiator, or the user who filled out the start step, as an actor. Typically used in scenarios where you need to route back to the initiator of the process because of a rejection from an approver.
In the Available Role box, select the actors on this step and then click Add. Selected actors display in the adjacent Selected Roles box. The process step will display in these actor's courts for further action to move the process along. Actors are the only users that can take the action to move the process to the next logical step in the workflow.
- **Notify**
 - **Process Initiator** - Select this check box to send notifications to the process initiator when the process enters this step.
In the Available Role box, select users on the project to receive notification when the process enters this step. Click Add. Selected users display in the adjacent Selected Roles box.
- **Actor Layout:** Click the drop-down arrow to select from a list of layouts defined on the Layout Properties page for the process. The selected layout is what is shown for the actors when the workflow enters this step. Click the Preview button to see what the layout will look like for the end user. See Add Page Layouts for more information.
- **Non Actor Layout:** Click the drop-down arrow to select a non actor layout defined on the Page Layout Properties page for the process. The selected layout is what is shown for the non-actors when the workflow enters this step. Click the Preview button to see what the layout will look like for the end user. Defining a non actor layout here may not be necessary if you've already defined a default non actor layout in the layout properties. See Add Page Layouts for more information.

- **Custom View Link Name:** If you are using a custom link, enter the title of the link in this field. Custom views may be available per request.
- **Custom View Link:** If available on the account, enter the URL of the custom view in this field.
- **Due Date:** Click the Step specific due date check box to specify the amount of days required to complete the step. Once this check box is selected, the following fields display:
 - **Allowed days for completion:** Enter the number of days required to complete this step. The counter begins from the day the step enters the actor's court.
 - **Keep original due date when revisiting step:** Select this check box to standardize this completion date for all iterations of the process.
 - **Allow actor to update the step due date:** Select this check box to grant the actor permission to determine due date. Actor is prompted to set due date when step is first opened.
- **Background Color:** Click this button to change the background color of the step. Having different colors for specific steps or roles can help you identify the rate of involvement for different roles or people. This can also help you quickly identify how often certain process instances occur.
- **Text Color:** Click this button to change the text color of the step's title. For increased readability, certain text colors may stand out against different background colors more than others.
- **Add Action:** The action is what's required to get you out of a step. For example, Approve, Deny, Completed, Reject etc. Every step requires an action. You are prompted to specify the action when adding a connector between steps. Click Add Action to enter the details of the action. A step cannot be saved without an action. The maximum number of actions that can be configured per step is six. For a description of the fields located on the Add Action dialog box, see Add Action Page Overview.
- **Instructions Tab:** Click this tab to add step-specific instructions. These instructions display as a Help link in the step view for actors and non-actors.
- **Escalation Rules Tab:** Click this tab to define escalation rules for this data entry step. Escalation rules are automated reminders for users to complete a past due task. When defined at the step level the rule only applies to this step. Escalation rules created at the workflow level are listed here and automatically inherited. You can decide whether to enforce those rules or disable them all by selecting the Disable for this step check box. See Add Escalation Rules for more information.

Add Action Page

An Action allows the data entry step to be completed. It is the mechanism that moves the process between steps; therefore, at least one action must be defined for each data entry step. Connectors are used to attach actions from one step to another.

For instructions, see Add Actions.

Fields and Buttons

The fields and buttons on this page are:

- **Name:** Enter the name of the action as it will display in the workflow designer.
- **Display Name:** Enter the name of the action as it will display in the user interface; maximum 15 characters.

- **Set Status To:** Click this drop-down arrow to choose what the default status of the process will be when this action is taken. If the process does not have cost module integration then the standard choices are:

- Leave Status Unchanged
- Approved
- Paid
- Pending
- Projected
- Received
- Rejected
- Submitted
- Void

If the process is integrated with a cost item then the status choices reflect the statuses of that cost item. For example, if a commitment change item is associated with the process then the Set Status To options change to:

- Draft
- Approved
- Pending
- Projected

For cost items, the Approval Requested check box is displayed. If selected, an approval will be requested before the step can be completed. This setting is beneficial if there is a step or series of steps that is routed for approval.

- **Causes Field Validation?:** Select this check box to enforce required fields. This check box is selected by default and enables data field validation on any type of process. This setting only applies to data fields and objects custom fields.
- **Causes Cost Control Validation:** This check box is displayed only when a status other than Approved, Paid or Received is selected from the Set Status To drop-down menu. Select this check box to enforce cost control validation on draft, pending and projected status items. If multi-currency is enabled and the action is approving non-zero budget change line items, it will check whether exchange rates have been configured correctly.
- **Require Password?:** Select this check box to require users to enter their password when taking this action.
- **Require eSignature(s)?:** Select this check box to require users to sign a document when taking action.
- **Show Confirmation?:** Select this check box to display a confirmation message asking users if they are sure they want to proceed with the action. A text box displays for you to optionally add an additional message or instructions. Based on the process, critical actions or data fields may be entered and it can be beneficial for users to think twice before submitting data or proceeding with the action.

- **Add Comments?:** Select this check box to prompt the actor to enter a comment. A good scenario would be if the step requires an approval and if the action taken is "Revise" and you want to force the actor to enter a comment as to why he/ she rejected the item and is routing back to the initiator to revise it. If selected, a dialog box appears as the action is taken to prompt the actor to enter a comment. The **Require Comment** check box also displays when this check box is selected giving you the option to make the comment field required.
- **Notify: Process Initiator** - Select this check box to send notifications to the process initiator when this action is taken. In the Available Roles section, select the roles you want to receive an email notification as the action is taken. Click **Add**. The selected roles display in the adjacent Selected Roles box.
- **Add Actors To Next Step:**
 - **Allow user to add actors to the next step:** Click this check box to allow the actor to select additional actors for the next step. This setting allows a bit of flexibility in an otherwise structured flow. You may set this if you do not know if there are additional actors. Over time you can identify trends in routing and change it to be structured later. When this check box is selected, the following additional fields will be displayed:
 - **All Users:** Select this option to allow the user to add any user as an actor on the next step.
 - **Selected Roles:** Select this option to choose specific roles from which users can be added to the next step.

Note: When configured for eSignature workflows, project members from the Selected Roles list can be chosen to be the actor on the eSignature step. These project members are added to the DocuSign Recipients list. Document preparers will then be able to select the project members from the Recipient list and tag the document where they need to sign.
 - **Require that at least one actor must be selected:** Select this check box to ensure that at least one actor is selected for the next step.
 - **Include actors that took action from previous step on the next step:** Select this check box to include on the next step the actors who took action(s) prior to this step (they need not be immediately prior). If the last step had a majority for the action, the "last actor" would be all actors that contributed to the action. The "last actor" is defined as the last person to take a human action. Also, note that conditional branching and spawn steps will be ignored in regressing through the action. If a workflow is configured to go back to a step for which an actor took action, and that step had more than one potential actor, the system will only notify the actor who took action, not all of the actors. The feedback or clarification should only go to that one person.

Note: Even if a step does not have actors selected, a workflow can be valid with this setting alone. It suffices as a selection of actors.

- **Give Review and Comment Access:**
 - **Allow user to give other users access to review and comment on the process:** Select this check box to choose users to provide access for comment and review.
 - **Allow user to request external comment:** Select this check box to give users in the workflow the permission to solicit comments from external actors. Although external users cannot take action on a step, allowing them to add comments is great way to capture information. Note that external comments cannot be requested when using workflow offline.
- **# of Actors to Complete Action:** To set a standard for the number of actors that are required to complete an action, select one of the available options:
 - One Actor
 - Majority
 - All Actors
- **Add Assignment:** Click this button to add data field assignments to the action. The Add Assignment dialog box displays to help you create and save field assignments. The up and down arrows to the left of the Add Assignment button allow you to change the order the data assignments will be executed.

Add Assignment Page

Data field assignments are a mechanism for auto-populating Admin-defined data taken from project details and exposing them into the process. The ability to do so eliminates the need to locate information that already exists elsewhere within Trimble Unity Construct. Data assignments can be very simple, such as automatically inserting the current date and time into a process data field or the square footage for a budget approval process, to more complex information that may include formulas, such as the sum of the current contract value on a commitment and the change amount.

Setting up these data fields is optional, but they can reduce the time it takes users to fill-out data fields and provide necessary information they need without having to search through the system, such as the original commitment value in a change order process.

Fields and Buttons

The fields and buttons located on the Add Assignment page are:

- **Assign to Field:** Click this drop-down arrow to select the data field you want to assign expressions to. Note that the Assign to field can contain varying selections depending on fields configured. Typically, at a minimum it will contain three sections: Data Fields, Project Fields, Project Custom Fields and if configured, Process Custom Fields, Budget, Budget Change, Commitment, Commitment Change, and Actual Cost Custom Fields as well.
- **Select Field:** The selections in this drop-down arrow will also vary depending on the fields configured. Moreover, if the workflow is for a cost-related process, it will contain many more fields, specific to cost.
- **Insert:** There are two Insert buttons located on this page. The first, from left to right allows you to add the selections from the Assign to Field and Select Field into the Assignment Expression box.

- The second allows you to insert the selected function into the Assignment Expression box.
- **Operators:** Operators are used to build formulas between data fields.

Functions

Functions are predefined expressions that allow you to input data to complete assignment expressions. The options in this drop-down arrow appear by default. Below is an explanation of each:

- **Now()** - Returns the current date and time:
 1. Select this function.
 2. Click **Insert**.
 3. Select a field from the **Assign to Field** drop-down arrow.
 4. Click **Save**.
- **Today()** - Returns the current date:
 1. Select this function.
 2. Click **Insert**.
 3. Select a field from the **Assign to Field** drop-down arrow.
 4. Click **Save**.
- **MinDate (value1, value2)** Minimum date (applies to date fields only): Returns the smaller of two specified date values. *Value1* is the first of the two numeric values to compare. *Value2* is the second of the two numeric values to compare.
- **MaxDate (value1, value2)** Maximum date (applies to date fields only): Returns the larger of two specified numeric values. *Value1* is the first of the two numeric values to compare. *Value2* is the second of the two numeric values to compare.
- **IIF String (Condition, true string, false string):** If and only if (applies to text fields only):
Evaluates the given *condition* and returns the text for *true string* if the evaluation succeeds or the text for *false string* if the evaluation fails.
 - *Condition:* Boolean expression used to determine which text to return.
 - *True String:* If condition evaluates success then this text value is returned.
 - *False string:* If condition evaluates failure then this text value is returned.

Instructions:

1. Select this function.
2. Click **Insert**.
3. Place your cursor before the first comma, enter the condition by selecting a data field from the **Select Field** drop-down arrow, and then click **Insert**.
4. Place your cursor before the second comma, enter the "if true" value by selecting a data field from the **Select Field** drop-down arrow and clicking insert or manually type the text in quotes.
5. Place your cursor after the second comma, enter the "if false" value by selecting a data field from the **Select Field** drop-down arrow or manually typing the text with surrounding quotation marks.

6. Select a field to assign the formula to from the **Assign to Field** drop-down menu.
7. Click **Save**.

- **IIF Number (Condition, true string, false string):** If and only if (applies to number fields only):

Evaluates the given *condition* and returns the number in *true number* if the evaluation succeeds or the number in *false number* if the evaluation fails.

- *Condition:* Boolean expression used to determine which number to return.
- *True String:* If condition evaluates success then this number value is returned.
- *False string:* If condition evaluates failure then this number value is returned.

Instructions

1. Select this function.
2. Click **Insert**.
3. Place your cursor before the first comma, enter the condition by selecting a data field from the **Select Field** drop-down arrow, and then click **Insert**. (i.e. Contract Sum)
4. Place your cursor before the second comma, enter the "if true" number by selecting a data field from the **Select Field** drop-down arrow and clicking insert or manually type the text in quotes.
5. Place your cursor after the second comma, enter the "if false" number by selecting a data field from the **Select Field** drop-down arrow or manually typing the number with surrounding quotation marks.
6. Select a field to assign the formula to from the **Assign to Field** drop-down menu.
7. Click **Save**.

- **IIFDate(Condition, true string, false string):** If and only if (applies to date fields only):

Evaluates the given *condition* and returns the date in *true date* if the evaluation succeeds or the date in *false date* if the evaluation fails.

- *Condition:* Boolean expression used to determine which date to return.
- *True String:* If *condition* evaluates success then this date value is returned.
- *False string:* If *condition* evaluates failure then this date value is returned.

Instructions:

1. Select this function.
2. Click **Insert**.
3. Place your cursor before the first comma, enter the condition by selecting a data field from the **Select Field** drop-down arrow, and then click **Insert**. (i.e. Contract Sum)
4. Place your cursor before the second comma, enter the if true date by selecting a data field from the **Select Field** drop-down arrow and clicking insert or manually type the date in quotes.
5. Place your cursor after the second comma, enter the if false date by selecting a data field from the **Select Field** drop-down arrow or manually type the date in quotes.

6. Select a field to assign the formula to from the **Assign to Field** drop-down menu.
7. Click **Save**.

- **IsInList (list, value)** Mult-Pick List - This function allows you to include "and" and "or" for more complex conditions that include options from the multi-pick list.

Instructions:

1. Select this function.
 2. Click **Insert**.
 3. Place your cursor before the comma and select a multi-pick list from the **Select Field** drop-down arrow.
 4. Click **Insert**.
 5. Place your cursor after the comma and enter the value in quotes.
 6. Select a field from the **Assign to Field** drop-down arrow.
 7. Click **Save**.
- **IsNullDate(date)**- Allows you to determine whether or not a value exists for this date field. If it does, then it will be factored into the formula.
 - **IsNullString(value)** - Allows you to determine whether or not a value exists for this string field. If it does, then it will be factored into the formula.
 - **RemoveWhiteSpace(value)** - Returns the given value with extra spaces removed. This function removes both leading and trailing spaces from the text as well as converting blocks of multiple spaces within the text into a single space character. (e.g. the text becomes the text'). Value is the text to remove extra spaces from.
 - **Trim (value)** - Removes white space from text.
 - **Find (similar to VB Instr)** - Finds a string within a string & returns the character number where the search string is found.
 - **Left (source value, length number)**: Use to find a specified number of characters from the left (beginning) of a string.
 - **Mid (source value, start position number, length number)**: Returns the middle x characters of a string, starting at position y within the string
 - **Right (source value, length number)**: Returns a specified number of characters from the right (end) of a string.
 - **Substitute (source value, search value, substitution value, instance number)**: Changes characters within a String.
 - **Replace(source value, start position number, length)**: Used to replace characters within a text.
 - **Rev (source value)** - Returns a reversed string. For example, REV("Luke") returns "ekuL".
 - **Len (source value)** - Returns the length of the inputted variable.
 - **MinNumber(value1, value2)** Minimum number: Returns the smaller of two specified numeric values. *Value1* is the first of the two numeric values to compare. *Value2* is the second of the two numeric values to compare.

- **MaxNumber(value1, value2)** Maximum number: Returns the larger of two specified numeric values. *Value1* is the first of the two numeric values to compare. *Value2* is the second of the two numeric values to compare.
- **Assignment Expression:** This box contains the expressions of the data field assignment as they are selected and inserted by the user. This is where finalized expressions go before saving the data assignment. If there is an error with the expression, you will receive an error message and will not be able to save the expression until corrections are made.
- **Save:** Click this button to save the data assignment. If the expression is invalid, an error message displays for you to make necessary corrections.
- **Cancel:** Click this button to cancel the operation and close this dialog box.

Related Topics:

- Add Data Field Assignments

Add Escalation Rule Page

Escalation rules allow you to set up automatic escalations based on certain conditions. For instance, you may want to escalate to the director of construction if a potential change order has aged five days after the process due date and the commitment change value is greater than \$10,000. Escalation rules allow you to setup these conditions and initiate an escalation email to the director of construction.

Escalation rules can be set for an entire workflow or for just a step in the process. Workflow-level escalation rules will send an email notification for every step that meets the conditions set by the rule.

Note: Escalation rules can be set for specific steps in a process for an entire workflow. If set for a specific step then the escalation will only occur if the step meets the defined escalation requirement. Remember, if set at the workflow level and the escalation is defined by the step start or due date then for every step that meets that condition the notification will be sent.

Note: Once a rule is saved it shows up in the Escalation Rules grid with Edit and Delete links. The maximum amount of escalation rules that can be set for a workflow is five.

Fields and Buttons

The fields and buttons located on the Add Escalation Rule page are:

- **When:** Enter time-sensitive criteria that will determine when the escalation is sent.
- **Condition:** Optionally, you can include conditions in the escalation rule which are expression builders for field assignments.
- **Notify:** This section allows you to determine who will be notified. You can set the rule to notify the initiator of the process, the accepted actor of the current step, all actors, the Administrators or specific roles. Select the various groups of users and click the Add button to add them to the Selected grid.

When at least one role is selected, the Add Role(s) as field appears, giving you the option to select whether the roles are Non Actors or Actors. See the description of this field below for more information.

- **Add Role(s) as:** This field appears when at least one role is selected in the Notify field.
 - **Non Actors (Comments Only)** Select this option to assign notified parties as non actors, which will only enable them to add comments, and not the ability to take action on the escalation.
 - **Actor** Select this option to assign notified parties as actors, which will only enable them to take action on the escalation.
- **Re-notify Every:** Click the Day(s) drop-down arrow and select Day(s) or Hour(s). Enter the amount of days or hours you want users to be re-notified.
- **Override Process Notification Settings:** Select this check box to override the project notification settings, which will otherwise take precedence.

Related Topics:

- Add Escalation Rules

Edit Conditional Branch Page

Conditional steps are defined statements that can take a path of true or false. It is configured to let the system determine the route in the workflow. For example, if a contract or PO has a commitment value greater than \$5,000 it may have to be routed to the Assistant Director. Otherwise the project manager can approve it without requiring executive management approval. Double-clicking or dragging and dropping the Conditional shape to the designer opens the Edit Conditional Branch dialog box.

A description of all the fields located on this page is listed below.

| Field | Description |
|------------------|---|
| Name | Enter the name of the conditional step in this field. This name will also appear on the conditional shape in the designer. |
| Condition | This field displays the conditional statement. To add a data field, click the Select Field drop-down arrow to make a selection. If the data field is a drop-down or multi-select data field type then a Lookup button will show assisting you in selecting the available values. Click the Insert button to add the field to the condition field. Use the operators to add the second portion of the statement. Optionally, you can click the Functions drop-down arrow and then click Insert to enter the final portion of the statement. The entire statement or parts of the statement can be typed into this field. |
| Operators | If the conditional statement requires the use of an operator, click the appropriate operator button. For example, if you want the conditional statement to return True or False based on a commitment value then you can add the greater than (>) operator in the statement - {CostCommitmentChange.Amount} > 5000. |
| Functions | Functions are predefined expressions that allow you to input data to complete assignment expressions. The options in this drop-down arrow appear by default. Below is an explanation of each: |

| Field | Description | | | | | | | | | | | | |
|---|--|---------|---------------|--------------------|------------|--------------------|------------|--------------------|------------|---|------------|---|------------|
| | <p>Now(): Current date and time:</p> <ol style="list-style-type: none"> 1. Select this function. 2. Click Insert. 3. Select a field from the Assign to Field drop-down arrow. 4. Click Save. <p>Today(): Current date:</p> <ol style="list-style-type: none"> 1. Select this function. 2. Click Insert. 3. Select a field from the Assign to Field drop-down arrow. 4. Click Save. <p>Date (value) - Allows you to convert a date in string form to a date type. <i>Value</i> is the string value.</p> <p>Examples:</p> <table> <tr> <th>Formula</th><th>Sample Output</th></tr> <tr> <td>Date("12.10.2013")</td><td>12.10.2013</td></tr> <tr> <td>Date("12-10-2013")</td><td>12.10.2013</td></tr> <tr> <td>Date("12/10/2013")</td><td>12.10.2013</td></tr> <tr> <td>IIFDate(1 > 2, Date("12.10.2013"), Date("12.12.2013"))</td><td>12.10.2013</td></tr> <tr> <td>MaxDate(Date("12.10.2013"), Date("12.12.2013"))</td><td>12.10.2013</td></tr> </table> | Formula | Sample Output | Date("12.10.2013") | 12.10.2013 | Date("12-10-2013") | 12.10.2013 | Date("12/10/2013") | 12.10.2013 | IIFDate(1 > 2, Date("12.10.2013"), Date("12.12.2013")) | 12.10.2013 | MaxDate(Date("12.10.2013"), Date("12.12.2013")) | 12.10.2013 |
| Formula | Sample Output | | | | | | | | | | | | |
| Date("12.10.2013") | 12.10.2013 | | | | | | | | | | | | |
| Date("12-10-2013") | 12.10.2013 | | | | | | | | | | | | |
| Date("12/10/2013") | 12.10.2013 | | | | | | | | | | | | |
| IIFDate(1 > 2, Date("12.10.2013"), Date("12.12.2013")) | 12.10.2013 | | | | | | | | | | | | |
| MaxDate(Date("12.10.2013"), Date("12.12.2013")) | 12.10.2013 | | | | | | | | | | | | |
| Functions (Continued) | <p>IIF String (Condition, true string, false string): If and only if (applies to text fields only):</p> <ol style="list-style-type: none"> 1. Select this function. 2. Click Insert. 3. Place your cursor before the first comma, enter the condition by selecting a data field from the Select Field drop-down arrow, and then click Insert. 4. Place your cursor before the second comma, enter the "if true" value by selecting a data field from the Select Field drop-down arrow and clicking insert or manually type the text in quotes. 5. Place your cursor after the second comma, enter the "if false" value by selecting a data field from the Select Field drop-down arrow or manually typing the text with surrounding quotation marks. 6. Select a field from the Assign to Field drop-down arrow. | | | | | | | | | | | | |

| Field | Description |
|------------------------------|--|
| 7. Click Save . | |
| Functions (Continued) | <p>IIF Number (Condition, true string, false string): If and only if (applies to number fields only):</p> <ol style="list-style-type: none"> 1. Select this function. 2. Click Insert. 3. Place your cursor before the first comma, enter the condition by selecting a data field from the Select Field drop-down arrow, and then click Insert. (i.e. Contract Sum) 4. Place your cursor before the second comma, enter the if true number by selecting a data field from the Select Field drop-down arrow and clicking insert or manually type the text in quotes. 5. Place your cursor after the second comma, enter the if false number by selecting a data field from the Select Field drop-down arrow or manually typing the number with surrounding quotation marks. 6. Select a field from the Assign to Field drop-down arrow. 7. Click Save. |
| Functions (Continued) | <p>IsInList (list, value) Multit-Pick List (This function allows you to include "and" and "or" for more complex conditions that include options from the multi-pick list.</p> <ol style="list-style-type: none"> 1. Select this function. 2. Click Insert. 3. Place your cursor before the comma and select a multi-pick list from the Select Field drop-down arrow. 4. Click Insert. 5. Place your cursor after the comma and enter the value in quotes. 6. Select a field from the Assign to Field drop-down arrow. 7. Click Save. |
| Functions (Continued) | <p>Trim (value): Removes white space from text.</p> <p>Find (similar to VB Instr): Find a string within a string & return the character number where the search string is found</p> <p>Left (source value, length number): Use to find a specified number of characters from the left (beginning) of a string.</p> |
| Functions (Continued) | <p>Mid (source value, start position number, length number): Returns the middle x characters of a string, starting at position y within the string</p> <p>Replace(source value, start position number, length): Used to replace characters within a text.</p> |

| Field | Description |
|---------------------------|---|
| | <p>Right (source value, length number): Returns a specified number of characters from the right (end) of a string.</p> <p>Substitute (source value, search value, substitution value): Changes characters within a String.</p> <p>Rev (source value): Returns a reversed string. For example, REV(Luke returns ekuL)</p> <p>Len (source value): Returns the length of the inputted variable</p> <p>All(list item, operator, value): All of the values in the expression in " " have to be in the field.</p> <p>None(list item, operator, value): Any of the values in " " must not be in the field.</p> |
| Back-ground Color | Click this button to select a background color for the conditional step, which displays in the Designer. |
| Text Color | Click this button to select a background color text of the conditional step, which displays in the Designer. |
| True/False Actions | The True and False actions are automatically provided for conditional branch steps and cannot be changed. You can however edit these actions to add Data Field Assignments or Notify users when the action is taken. Remember, data field assignments allow you to configure it so when the action occurs an assigned value can be automatically set to a data field. |

Add/ Edit Connector Page

Connectors link two shapes together. The first time you add a connector, the Add Connector page is displayed. The Edit Connector page appears when editing existing or adding additional connectors. This dialog gives you all necessary options to connect steps in a workflow, select an action and design the connector.

Fields and Buttons

The fields and buttons located on this page are:

- **From Step:** Click this drop-down arrow and select the step the connector will connect from.
- **Action:** Click this drop-down arrow and select the action that will connect the two steps. Options in this drop-down arrow populate based on all available actions.
- **To Step:** Click this drop-down arrow and select the step the connector will connect to.

- **Connector Text:** Enter the text that will display on the connector within the workflow.



- **Type:** Select a type option to determine the way the connector links the two steps.
 - **Elbow** - (Default setting) the Designer will automatically create an elbow when one of the two steps deviates off of a straight line course.
 - **Straight** - The Connector will always display as a straight line.
- **From Step Connection Point:** Click the drop-down arrow to select a connection point from the From Step. The default is set to Auto. You can determine the connection point on the shape by selecting one of the options (Top, Bottom, Left, Right). If set to Auto, the system will determine the best connection point for you.

Tip

If you click two data entry steps in the Designer (will highlight a blue border when selected) and then drag and drop the connector to the Designer, the From Step and To Step fields will automatically be filled in. The first data entry step you select will be assigned to the From Step.

- **To Step Connection Point:** Click the drop-down arrow to select a connection point to the To Step. The default is set to Auto. You can determine the connection point on the shape by selecting one of the options (Top, Bottom, Left, Right). If set to Auto, the system will determine the best connection point for you.

Tip

If you click two data entry steps in the Designer (will highlight a blue border when selected) and then drag and drop the connector to the Designer, the From Step and To Step fields will automatically be filled in. The first data entry step you select will be assigned to the From Step.

- **Save:** Click this button to save changes and exit the Add/Edit Connector dialog box.
- **Cancel:** Click this button to cancel this action and exit the Add/Edit Connector dialog box. Note that changes will not be saved.

Edit Automation Step Page

The Automation step is used to automatically archive a mail merge template in the document library and/ or send it in an email. This step can be added within any sequence of the workflow.

Note: Ensure that you save the updates to the Code Step and publish the updated Workflow changes after editing the fields on the Automation Step Properties page.

Fields and Buttons

A description of the fields and buttons located on this page is provided below:

- **Save:** Click this button to save changes and exit the Edit Automation Step dialog box.
- **Cancel:** Click this button to cancel this action and exit the Edit Automation Step dialog box. Note that changes will not be saved.
- **Automation Step Name:** Enter the name of the automation step in this field.
- **Automation Step Type:**
 - **Mail Merge:** Select to display all related mail merge template options.
 - **e-Signature File Download:** Select if this automation step is being added an e-Signature process and this step is being used to collect and download all signed documents. For more information on e-Signatures, see About Electronic Signatures.
- **Mail Merge Template:**
 - **Default Template:** Click this drop-down arrow to select a template. If custom templates are not available, the default template will be used. For information on adding process templates, see Processes Mail Merge Templates.
 - **Include Attached Documents:** Select this check box to include documents that are attached to the process in the archived mail merge.
- **Archive Mail Merge:** Select this check box to archive the mail merge template when the process enters this step. Additional options display:
 - **Destination Folder Lookup:** Click the Lookup link to select a destination folder within the e-Builder Documents module to send the document.
 - **Store in file field:** Select this check box to also store the file in a *file type* data field. The mail merge template will then be available anywhere the data field displays within the process.
 - **Add as comment:** Select this check box to display a comment when this process step. Enter the comment in the box provided.
- **Send to Process Initiator:** Select this check box to send the mail merge template to the process initiator when the process has entered this automation step.
- **Send to Actors:** Select this check box to send the mail merge template to select users in the process. Additional option display:
 - **User who took action on the previous step:** Select this radio button to send the mail merge template to the user that took action on the step preceding this automation step.
 - **All actors from the previous step:** Select this radio button to send the mail merge template to all actors on the previous step.
- **Send to Roles:** Select this check box to send the mail merge template to select roles. Click the Add button to move them to the adjacent Selected Roles box.
- **Send to Users:** Select this check box to send the mail merge template to select users. Additional options display:
 - **Lookup Users:** Click this link to search for and select e-Builder users.
 - **Remove Selected Users:** Select users you want to remove from the list and then click this link to remove them.

- **Send to Contacts:** Select this check box to send process files to e-Builder contacts. Additional options display:
 - **Lookup Contacts:** Click this link to search for and select e-Builder contacts.
 - **Remove Selected Users:** Select contacts you want to remove from the list and then click this link to remove them.
- **Send to External Recipients:** Select this check box to send process files to external recipients. Enter recipient email addresses in the box. Enter only one email address per line.
- **Run as User:** Click the **Lookup** button to select a user whose data field permissions will determine the content for the output file. The specific user selected as a Run as User for the mail merge must be a project member on every project where the workflow is assigned.
- **Background Color:** Click this button to select a background color for the automation step, which displays in the Designer.
- **Text Color:** Click this button to select a background color text of the automation step, which displays in the Designer.

Related Topics:

- Processes Mail Merge Templates

Working with Dynamic Grids

Dynamic grids help you better organize the data input for processes. They are used to enable process actors to create new rows in a process instance on the fly. Once a grid is created it may be included in a process layout.

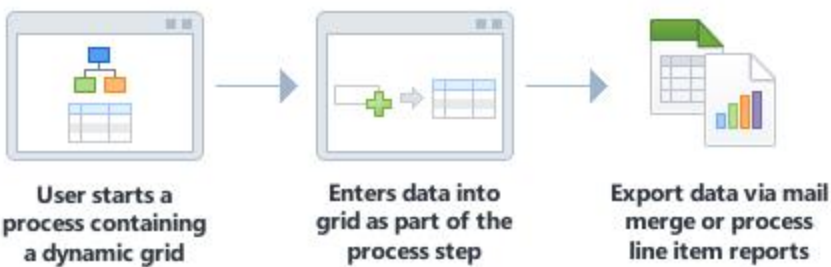
Example: You might create a daily report that contains some general condition information like weather, as well as documenting the trades on-site that day and number of resources. In this scenario, the number of trades and resources could not be anticipated ahead of time. To accomplish this, a process layout can be created that includes the general condition information and a dynamic grid can be added to document the trade information. Other potential uses include design review, project closeout and other checklist related processes.

Process Overview

Administrator



Process Actor



About Dynamic Grids

A Dynamic Grid is a block of information that can be added to a process layout to help streamline data entry. It enables the addition of new rows of information to the process instance on the fly, without requiring prior knowledge of the amount of rows needed. For example, if your organization utilizes a Daily Report that contains some general condition information like weather, as well as documenting the Trades on-site that day and number of resources, then the number of trades and resources could not be anticipated ahead of time. The system provides a method to support adding any number of Trades to the list on the fly.

Other potential uses include Design Review, Project Closeout and other checklist related processes.

This functionality can be applied to processes that would benefit from adding items on the fly, but please note that Dynamic Grids functionality is not yet enabled for mobile-enabled processes.

| | # | Field 1 | Field 2 | Field 3 | Field 4 | Field 5 | Field 6 |
|----------------------------------|---|------------|---------|-----------------|---------|-------------------|---------|
| Delete | 1 | HVAC | 1 | 12.06.2014 | a | Supervisor onsite | |
| Delete | 2 | Electrical | 2 | 12.06.2014 | c | Safety summit | 400 |
| Delete | 3 | Concrete | 3 | 12.06.2014 | d | Offsite meeting | 300 |
| Grand Totals (3 items) | | | | Max: 12.06.2014 | | | |

Add New Item for Dynamic Grid

Field 1

Field 2

Field 3

Field 4

Field 5

Field 6

Field 7

Amount

The following tasks relate to working with Dynamic Grids in Trimble Unity Construct:

- Add Dynamic Grids
- Add Dynamic Grids to Processes
- Report on Dynamic Grids
- Making Processes Non-Cost Related

Add Dynamic Grids

To add a dynamic grid

1. From the top navigation tabs, click the **Setup** tab.

Note: If the Setup tab is not visible, click the **Plus** tab, and then click the **Setup** link.
2. In the **Administration Tools** section, expand **Dynamic Grids** and then click **Grids**. The Dynamic Grids page is displayed.

Note: Dynamic Grids must be enabled for an account. If this option is not available in Setup, contact Trimble Support.
3. Click **Add Grid**.
The Add New Dynamic Grid page is displayed.
4. In the **Name** field, enter a name for the grid.

Note: The **Active** check box must be checked to enable the grid in a process.
5. In the **Design Grid** section, add new or existing fields.
6. Click **Save**. The new grid is saved and added to the Dynamic Grids page.

Design Dynamic Grids

Designing a grid is much like adding columns to a spreadsheet. It is a process of creating new fields or applying previously used fields that are presented to the user in a process instance.

Note: Once a dynamic grid is created it may be added to a process. For more information, see the Add Dynamic Grids to a Process.

Add Fields

Create new custom fields or choose from previously used fields to add to the dynamic grid.

To add a new field to the dynamic grid

1. Go to the dynamic grid you wish to add the fields to.
2. In the Design Grid section, click the **Add** button and select **New Field**. The Add Custom Field page is displayed with a 3-step wizard.

Tip: For instructions, see Add Document Custom Fields. You can also view a description of the fields and buttons located on each step of the Add Custom Field wizard on the Add/Edit Custom Field page.

3. Select the data type of the new field and click **Next**. The Custom Field Details step of the wizard is displayed.
4. In the **Field Label** field, enter the name of the custom field.
5. Enter or select additional custom field details as required and click **Next**. The Field Summary step of the wizard is displayed.
6. Preview the custom field and verify that the details are correct.
7. Click **Save** to add the field and exit the wizard.

—Or—

Click **Save & Add** to repeat the process and add more custom fields.

To add an existing field to the dynamic grid

1. Go to the dynamic grid you wish to add the fields to.
2. In the Design Grid section, click the **Add** button and select Existing Field. The Select Existing Field(s) window is displayed.
3. Select the check box beside one or more fields to add them to the grid.

Note: The list of existing fields display fields that were previously used in a grid. This is a time-saver if you are simply looking to re-use a previously created field.

4. Click **Save**. The selected field(s) are added to the design grid.
5. Click **Save** to save changes to the dynamic grid.

Edit the Dynamic Grid Layout

You can change the layout of the dynamic grid by reordering the columns or by resizing them.

Note: If the dynamic grid you are editing is currently used in any process layouts, any changes to it will be applied to all instances of the grid.

To edit the dynamic grid layout

1. Go to the dynamic grid you wish to add the fields to.
2. In the Design Grid section, click **Edit Layout**

The Edit Layout popup window is displayed.

3. To change the order of the columns, click on column headers and drag them to the desired location.
4. To resize a column, click on the right side of the column header and drag it to the desired width.
5. Click **Apply** to save changes to the layout.
6. Click **Save** to retain changes to the dynamic grid.

Apply Grouping and Aggregate Functions

While designing the dynamic grid, you can apply grouping and aggregate functions to the column names.

To apply grouping and aggregate functions

1. Go to the dynamic grid you wish to edit.
2. In the Design Grid section, select the **Allow Grouping** check box beside a dynamic grid column name to allow users to group by that column when viewing or adding items to the grid.
3. Choose an aggregate function from the drop-down list in the **Aggregate** column to apply it to the dynamic grid column's values.

Note: Use the **Percent Total** aggregate function in combination with grouping to reflect the total values accurately.

4. Click **Save** to retain changes to the dynamic grid.

Add Dynamic Grids to Processes

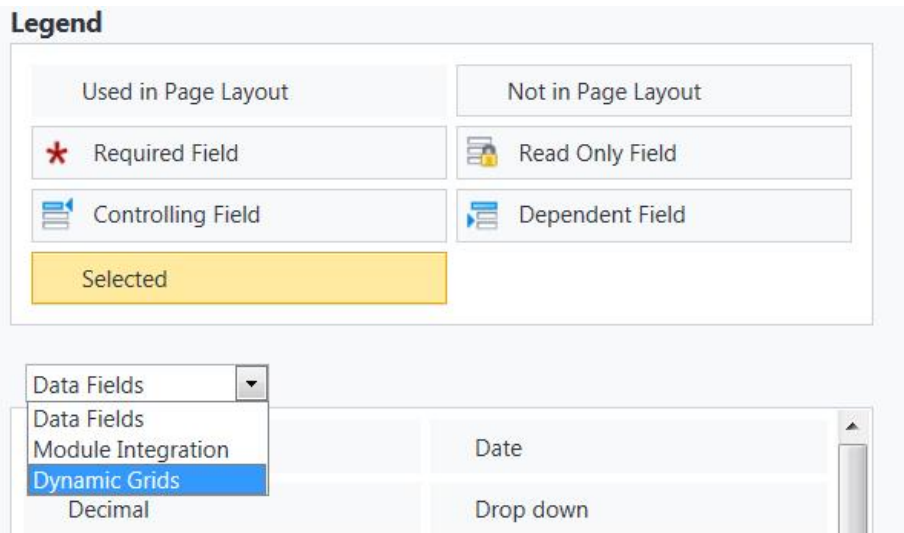
Once a dynamic grid is created it may be added to a process. For more information see Add Dynamic Grids. The Processes Page Layouts page enables this, allowing you to add one or more grids, customize the data fields that display for each actor or non-actor in the process and help you better organize the data input for processes.

Note: Dynamic Grids cannot be used for Cost Processes or Public Processes.

To add a dynamic grid to a process

1. Go to the Page Layouts tab for the desired process.
For more information, see Access Page Layouts Tab.
2. Click the **Layout Name** of the layout you wish to add the grid to.
3. Click **Edit Layout**. The Layout Properties page is displayed.
4. In the **Legend** section, select **Dynamic Grids** from the drop-down list. The available dynamic grids are displayed.

- To add a dynamic grid to the page layout, click and drag the grid to the desired section of the page layout.



- Click **Save** to retain changes to the page layout.

Related Topics:

- Making Processes Non-Cost Related

Report on Dynamic Grids

Data entered into Dynamic Grids for Processes may be reported on through an option in Process Reports. These Process Reports enable deeper analysis on process information in order to reach business decisions more quickly, and make more informed choices.

Note: For more information on how to customize and run a report in e-Builder, see the Reports overview.

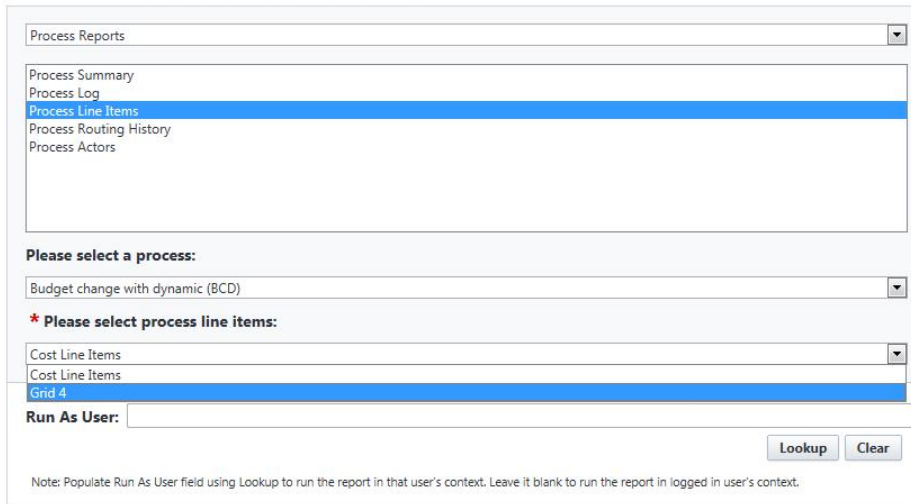
To access dynamic grid data in the e-Builder Reports module

- Open the Report Wizard.
- In Step 1 of the Report Wizard, select **Process Reports** from the type of report drop-down list.
- Select the **Process Line Items** report from the second drop-down list.
- In the **Please select a process** drop-down list, select the desired process.
- In the **Please select process line items** drop-down list, choose the dynamic grid you wish to report on.

Note: Only one dynamic grid may be selected per report.

Report Wizard

Step 1: Select type of data for report and run as user



Process Reports

- Process Summary
- Process Log
- Process Line Items
- Process Routing History
- Process Actors

Please select a process:

Budget change with dynamic (BCD)

* Please select process line items:

- Cost Line Items
- Cost Line Items
- Grid 4

Run As User:

Lookup Clear

Note: Populate Run As User field using Lookup to run the report in that user's context. Leave it blank to run the report in logged in user's context.

6. Click **Next** to move on to the remaining steps in the Report Wizard.
7. Click **Save As** or **Save** to retain the changes to the report.

Configure Dynamic Grid Controls

Several capabilities that can be used in dynamic grids are setup to be enabled and controlled by administrators using dynamic grid properties when configuring dynamic grids on process page layouts. This enables fine grain control over the availability of features like import/ export, sorting, inserting and re-ordering dynamic grid rows to specific page layouts allowing you to make features available or not in different stages of your process work flows.

You can access and configure the new dynamic grid enhancements through the Manage Processes page in the account setup section. Once on the process detail page, access the Page Layout tab and pick the specific Layout Name.

To configure the dynamic grid

1. Go to **Process Settings**.
2. Click **Manage Processes**. The Manage Processes page is displayed with a list of available processes.
3. Click the name of the process to view its details.
4. On the **Page Layouts** tab, click the layout name. The View Layout page is displayed.
5. Click **Edit**.
6. Select the dynamic grid and right-click to bring up the sub-menu.

Note: The sub-menu appears if the
7. Click **Edit Field Properties**. The Edit Dynamic Grid popup is displayed.
8. In the **Dynamic Grid Column Properties** section, specify the options for each column name by selecting the check boxes. You can specify whether the column is read-only, required or hidden on the

specific page layout that you are editing.

Edit Section Fields

Secure | <https://beta2-app.e-builder.net/da2/Setup/Admin/Processes/EditSectionFields.aspx?proce...>

e-Builder Like ?

Edit Dynamic Grid

Note

Changing the properties will override the existing custom field property for this Dynamic Grid column instance.

Dynamic Grid Column Properties

| Column Name | <input type="checkbox"/> Read-Only | <input type="checkbox"/> Required | <input type="checkbox"/> Hide |
|-----------------------------|------------------------------------|-----------------------------------|-------------------------------|
| String | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Drop Down | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Integer Dynamic Grid | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Text block dynamic Grid | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Decimal Dynamic Grid | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Drop Down Dynamic Grid | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Multi Pick Dynamic Grid | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Date - Dynamic Grid | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Acct. user - dynamic grid | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| User in Role - Dynamic Grid | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Company Dynamic Grid | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Dynamic Grid Properties

| | |
|------------------------------|-------------------------------------|
| Allow Rows to be Added | <input checked="" type="checkbox"/> |
| Allow Rows to be Deleted | <input checked="" type="checkbox"/> |
| Allow Data to be Exported | <input checked="" type="checkbox"/> |
| Allow Data to be Overwritten | <input checked="" type="checkbox"/> |
| Enable Column Sorting | <input checked="" type="checkbox"/> |
| Enable Row Insert At | <input checked="" type="checkbox"/> |
| Enable Row Drag & Drop | <input checked="" type="checkbox"/> |

Save Cancel

9. In the **Dynamic Grid Properties** section, select one or more of the following features to enable them:
- **Allow Rows to be Added:** This feature allows users to add new rows to the dynamic grid.
 - **Allow Rows to be Deleted:** This feature allows users to delete dynamic grid rows.
 - **Allow Data to be Exported:** This feature allows users to export and download the data that is currently viewable in a dynamic grid. Contact e-Builder Support if this check box is not visible.

- **Allow Data to be Overwritten:** This feature provides users with a flexible and easy way to update and edit data offline in Excel and then import the changes into the dynamic grid. Contact e-Builder Support if this check box is not visible.
- **Enable Column Sorting:** This feature allows users to sort the grid in either ascending or descending order based on the column value. Contact e-Builder Support if this check box is not visible.
- **Enable Row Insert At:** This feature allows users to insert new rows above or below any row in an existing grid. Contact e-Builder Support if this check box is not visible.
- **Enable Row Drag & Drop:** This feature allows users to change the display order of the rows in the dynamic grid using drag and drop. Contact e-Builder Support if this check box is not visible.

Note: Certain "enhanced" Dynamic Grid properties must be enabled for an account for them to be made available. Contact e-Builder Support if the last 5 check boxes are not visible on the Edit Dynamic Grid page.

10. Click **Save** to retain the dynamic grid changes and close the popup window.
11. Click **Save** to retain the changes to the page layout.

Import and Export Dynamic Grid Data

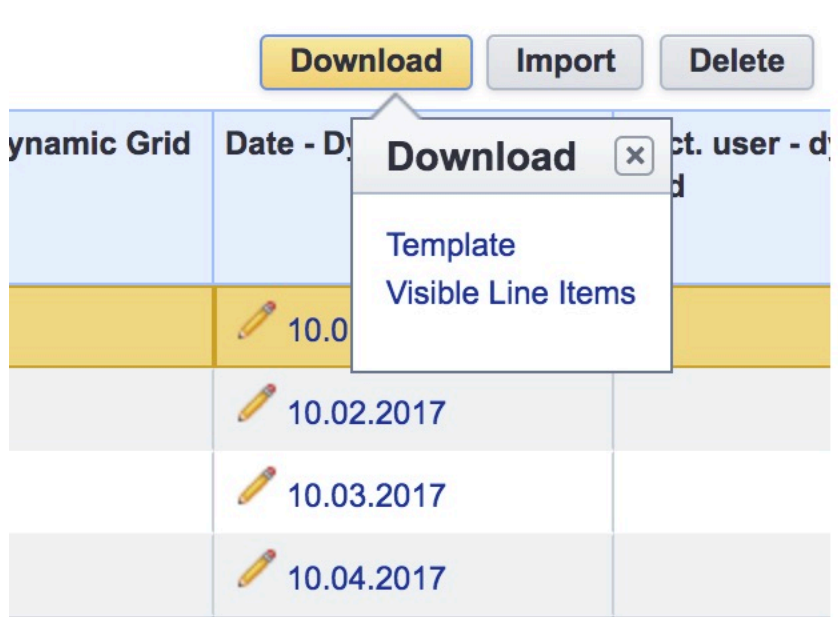
Dynamic Grid Data Export

You can allow users to download the data that is currently viewable in a dynamic grid. This provides additional flexibility for users to edit, update or add row data offline using spreadsheet tools like Microsoft Excel. You can then use this with the Import/ Update capability detailed below to update information in the grid from the spreadsheet.

You can enable this feature by selecting the **Allow Data to be Exported** check box on the Edit Dynamic Grid page. See Dynamic Grid Controls for more information.

The download visible line items capability is intelligent and works in conjunction with the filter capabilities in the dynamic grid. By default, if no filters are set, this will download all rows of data in the dynamic grid. If the user is currently using a filter on the dynamic grid, the download visible lines capability will only download the rows that are currently visible to the user. This provides flexibility to work with the specific data desired.

When this capability is enabled, users will see an option to download Visible Line Items when they click the **Download** button as show below:



Import Data and Updates to Dynamic Grid

Dynamic grids can now support importing updates and changes to existing rows of data in the grid. Along with the new export capability, this provides a flexible and easy way to update and edit data offline in Excel and then import the changes into the dynamic grid. If new rows of data are added in the spreadsheet, they will be added as new rows during the import process. Existing rows that are updated offline in the spreadsheet will be updated with the new values when imported.

To utilize this feature, you will need to select the **Allow Data to be Overwritten** check box in the dynamic grid properties on the page layout. See Dynamic Grid Controls for more information.

Sort and Order Dynamic Grids

Sorting Dynamic Grids by Column Values

Dynamic grids now support the ability to allow sorting based on a selected column value. Like other grids in e-Builder, if sorting is enabled on the grid in the page layout, users can click the column header to sort the grid based on the column value in either ascending or descending order. This capability needs to be enabled on the page layout by selecting the **Enable Column Sorting** check box on the dynamic grid properties. See Dynamic Grid Controls for more information.

Note: Columns that contain multiple data values do not support sorting.

Group By Show Filter | Select All

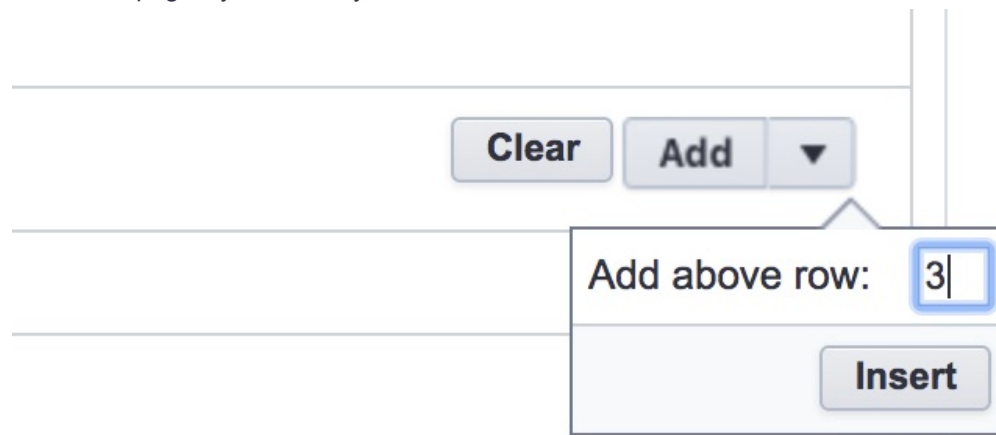
| | # | String | Drop Down | Integer |
|------------------------|---|-----------------|-------------|---------|
| Delete | 8 | Project 4 Notes | Drop Down 4 | |
| Delete | 7 | Project 3 Notes | Drop Down 3 | |
| Delete | 6 | Project 2 Notes | Drop Down 2 | |
| Delete | 5 | Project 1 Notes | Drop Down 1 | |
| Grand Totals (4 items) | | | | |

Add New Item for Dynamic Grid

Insert New Row in a Dynamic Grid

You now can insert a new row into an existing dynamic grid to control the order in which the item is displayed. Previously, the only option available was to add a new row, which was automatically added at the bottom of the grid. Users now can insert a new row above an existing row in the dynamic grid by clicking on the down arrow in the **Add** button. Clicking the down arrow will provide a pop up window allowing the user to enter a row number that the new row should be inserted above as shown below.

This capability can be enabled by selecting the **Enable Insert Row At** check box in the dynamic grid properties on a page layout. See Dynamic Grid Controls for more information.

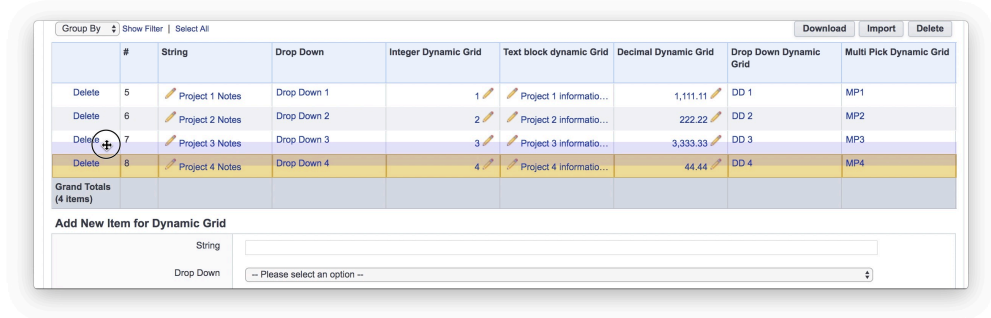


Re-order Rows with Drag and Drop

Dynamic grids can now support re-ordering of the display of rows using drag and drop. This provides a simple and intuitive way to change the display order of the rows in the dynamic grid. Users can click and drag the first column cell on a row and move it up or down in the grid. When the mouse button is release, the rows position will be changed in the grid display.

This capability can be enabled by checking the Enable Row Drag & Drop check box in the dynamic grid properties on the page layout. See Dynamic Grid Controls for more information.

Note: Changing the display order of rows will not change or updated the # column of the row. The row # value is preserved for tracking and history purposes. Only the display order of the rows is updated.



Process Custom Fields

Custom fields are completely configurable and up to the account administrator to define. These fields display on the Process Properties. Custom fields are useful because they can contain additional project process information that is not part of the standard process layout, or information that is used in reports to define or separate process information.

To add process custom fields

- 1. Go to Process Settings.
For more information, see Access Process Settings.
 - 2. Click **Custom Fields**.
 - 3. Click **Add Field**.
 - 4. Select a data type, and then click **Next**.
 - 5. On the **Custom Field Details** page, enter a name for the custom field in the space provided after **Field Label**.
 - 6. Click **Next**.
 - 7. Review the details of the custom field.
 - 8. If changes are required, click **Previous** to navigate to the appropriate page and make changes.
- Or—
- If details are correct, click **Save**.

Processes Mail Merge Templates

The information below and procedures apply to both process details and process logs mail merge template. The difference between the two is that process details include line items and process logs include only process level data.

Mail merge templates allow you to extract data from e-Builder and export it into a Microsoft Word® or Adobe PDF® document. This eliminates the need to enter information into a Word document manually and reduces the margin for error. In the Processes module, mail merge templates can be created for process details or process logs. Having a system-generated document ensures the integrity of your data and it's a quick and easy way to consolidate information you've already entered once, in a ready-to-read format.

Below is a list of procedures for working with process mail merge templates:

- Add Mail Merge Templates
- Edit Mail Merge Templates

Add Mail Merge Templates

Tip

It is recommended that you download the default Mail Merge Template to start with. Although this template can be modified, the default is complete with all necessary field mappings. Having a template on file also gives you the ability to make necessary changes as they arise, without having to start over from scratch.

To add a mail merge template

1. Go to process settings.
For more information, see Access Process Settings.
2. Expand **Mail Merge Templates**.
3. Click **Process Details** or **Process Logs**.
The Mail Merge Template page displays.
4. Click the **Download Default Mail Merge Template** link.
5. Save this document locally.
6. On the Mail Merge Templates page, click **Add New Template**.
7. Complete all required fields:
 - Template Name
 - Make template Active (available for use) or Draft
 - Set output type (Word or PDF)
 - Select the process to apply the template to
8. Click **Browse** to search for and upload the default template saved in step 5.
9. In the **Project Assignments** section, select the project(s) that you'd like to assign the template to.
10. Click **Add**.

The selected project(s) is added to the box on the right.

Note: If you do not specify the project(s) that will use this template, the template will be available in all projects.

11. Click **Save**.

Edit Mail Merge Templates

To edit mail merge templates

1. Go to Process Settings.
For more information, see Access Process Settings.
2. Expand **Mail Merge Templates**.
3. Click **Process Details** or **Process Logs**.
The Mail Merge Template page displays.
4. Click the title of the template.
5. Click **Edit**.
The Edit Mail Merge Template page displays.
6. Make any or all of the modifications listed below.
 - Change template name
 - Add/Remove/Edit template description
 - Change status - Make template Active (available for use) or Draft
 - Change output type - Export documents to Word or PDF format
 - Change template file - Upload a new mail merge template
 - Assign template to projects
7. Click **Save**.

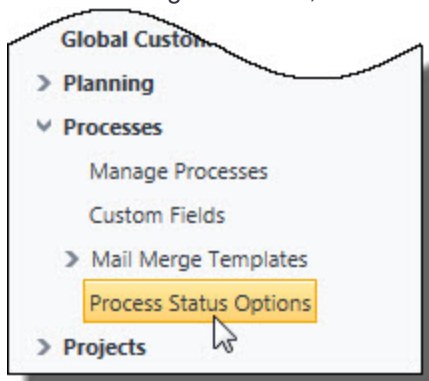
Add Process Status Options

Account administrators and those with Manage Workflow permissions are able to create custom process statuses for non-cost processes.

Note: Default processes cannot be removed.

To add process status options

1. Access Process Settings.
For instructions, see Access Process Settings.
2. From the Navigation menu, click **Process Status Options**.



The Process Status Options page is displayed.

3. Enter the status name in the **Status** field.

4. *Optional:* Enter a description for this status, such as when it should be used.
5. Click **Add**.

Related Topics:

- [Process Status Options Page Overview](#)

Process Status Options Page

This page allows account administrators and anyone with Manage Workflow permissions to add custom process status for **non-cost processes**. You cannot add custom status for cost processes and default options cannot be deleted. The instructions on adding status options, see [Add Process Status Options](#).

Fields and Buttons

- **Status:** Enter the new status you wish to add in this field.
- **Description:** Optionally, enter a description for the status, such as when it should be used.
- **Add:** After you've entered the name of the new status, click **Add** to save it to the account.
- **Clear:** Click to erase any of the field entries in the Status or Description fields.
- **Delete:** Click to delete the status.
- **Edit:** Click this link to make changes to the name or description of the status.

Process Project Columns

Administrators can configure the columns they desire to be displayed on the Processes Project View page. This configuration process provides more context to staff that are performing process tasks by providing information that is more meaningful to them.

To configure process project columns

1. Click **Setup**.
2. Under **Processes**, click **Project Columns**. The Process Project Columns page displays.
3. In the **Select Columns** area, click on one or more column names under the **Available Columns** section to select them. Use the arrow controls to move the column names to the **Selected Columns** section on the right side.

Note: Administrators must select a minimum of one selection with a maximum of all the column names. Only process information fields will be available for selection.

Tip: Use the up and down arrow keys to organize the selected column names into the order desired.

4. Click **Save**.

Note: The Save button will be disabled until at least one column name is moved to the Selected Columns section.

About Electronic Signatures

The ability to sign files electronically will reduce the time and cost associated with routing hard copy documents for wet signatures. Project participants are provided with instant access to signed documents and improved visibility of process statuses. The most common need for eSignatures are in contract approval

processes and the like.

Electronic signatures allow users to integrate DocuSign or Adobe Acrobat Sign Enterprise accounts with their Trimble Unity Construct account in order to prepare documents and have recipients electronically sign PDF files either in a Trimble Unity Construct workflow or via direct email from those providers. This feature is supported through the Processes module.

How Trimble Unity Construct uses e-Signature

- e-Signature sessions are embedded within our powerful Process/ Workflow module ensuring that users do not have to exit Trimble Unity Construct to prepare or sign documents.
- The Trimble Unity Construct Admin determines which workflow step makes the most sense to have staff prepare documents by tagging specific e-Signature locations on those documents.
- e-Signature recipients that are not Trimble Unity Construct users will receive a direct email requesting their signature, which is then uploaded to the Process/ Workflow.
- Trimble Unity Construct users on workflow steps requiring e-Signature, receive the documents in proper sequence and e-Sign each document exactly where required.

Note: A DocuSign license or an Adobe Acrobat Sign enterprise account is required in order to use the eSignature feature in Trimble Unity Construct.

Steps in the eSignature Process

1. **Authentication of the DocuSign or Adobe Acrobat Sign Enterprise account:** The DocuSign account or Adobe Acrobat Sign enterprise account must first be authenticated in Trimble Unity Construct before they can be used in eSignature process instances.
For DocuSign clients, following successful authentication, Trimble Unity Construct Admins must notify Trimble Support and Support will then activate OAuth 2.0 authentication on future DocuSign process instances. Adobe Acrobat Sign clients can begin using Acrobat Sign immediately after authentication.
2. **Configure the eSignature Workflow:** For each file data field that will contain a document to be signed, ensure that the Destination File Data Field settings are configured correctly on the Data Field eSignature Settings section of the Data tab. (*Setup> Administration Tools> Processes> Manage Processes> {Click on a process name to view it}> Data Tab*)

Adobe Acrobat Sign eSignature Process

Manage Processes

PropertiesDataPage LayoutsWorkflows

Module Integration

Include Cost Item:None

Data Fields

| | Label | Variable Name | Data Type | Permission | Unique | Last Modified By |
|-------------------------|-----------------------------|------------------------------|-------------------|------------|--------|--|
| Edit Delete | Document to be Signed | Document_to_be_Signed | File | All | | Newman, Roger - 03/12/2024 01:05:04 PM |
| Edit Delete | Document Fully Executed | Document_Fully_Executed | File | All | | Newman, Roger - 03/12/2024 01:05:20 PM |
| Edit Delete | 2nd Document to be Signed | _2nd_Document_to_be_Signed | File | All | | Newman, Roger - 03/12/2024 01:07:32 PM |
| Edit Delete | 2nd Document Fully Executed | _2nd_Document_Fully_Executed | File | All | | Newman, Roger - 03/12/2024 01:07:48 PM |
| Edit Delete Replace | 2nd Review Req'd? | _2nd_Review_Req'd? | Radio-Button List | All | | Newman, Roger - 03/12/2024 01:23:32 PM |

Data Field eSignature Settings

Save eSignature Settings

| Source File Data Field | Destination File Data Field | Naming Convention |
|-----------------------------|-----------------------------|-------------------|
| Document to be Signed | Document Fully Executed | signed |
| Document Fully Executed | | |
| 2nd Document to be Signed | 2nd Document Fully Executed | signed |
| 2nd Document Fully Executed | | |

Save eSignature Settings

Data Field eSignature Settings

Account administrators can include prepare document and e-Signing actions on Trimble Unity Construct workflow steps. These actions may be added to new or existing workflow steps. Admins can also create roles for signees. Any user that is an actor on the signing step can be a signatory.

3. **Document Preparation:** User(s) in document preparation roles can open Adobe Acrobat Sign or DocuSign, add form fields and tag documents for eSignature by internal and external recipients. Acrobat Sign does not allow removal of recipients once the agreement is no longer in Draft status, therefore it is imperative that any recipients who will not be necessary for a given process instance be removed initially.
4. **Completing the eSignature Process:** Recipients can electronically sign the document and then complete the eSignature step to send the process to the next workflow step.

Documents that are signed by Trimble Unity Construct step actors are saved in the Documents module as soon as the signing action is taken for quick and convenient retrieval. Documents that are signed by recipients who are not step actors as well as any step actors are automatically uploaded to Trimble Unity Construct's Documents module when the workflow completes the eSignature Download automation step. Each signed document is added as an electronic "envelope" in the client's DocuSign account, or as an electronic "agreement" in the client's Adobe Acrobat Sign account. Envelopes and agreements are encrypted with GUIDs, which certifies them as unique, electronically signed files.

e-Signature Integration

Adobe Acrobat Sign or DocuSign accounts must be authenticated in Trimble Unity Construct before they can be used in the e-Signature process.

Adobe Acrobat Sign Authentication

A "Group Administrator" on your organization's Adobe account must authorize and authenticate your Trimble Unity Construct account to your Adobe Acrobat Sign enterprise account at the group level.

Note: Your Adobe Account Admin must first set up a group that will be dedicated to storing Trimble Unity Construct generated agreements.

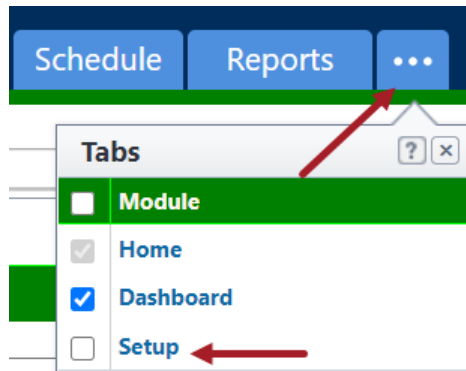
Group Administrators can make updates to the Group Setup, Group Settings, and Group Send Settings in their organization's Adobe account to maximize the user experience with Trimble Unity Construct e-Signatures. This eliminates the previous requirement for Adobe Account Admins to make changes to their Global Settings to maximize the integration.

Any agreements created through Trimble Unity Construct's e-Signature sessions will be stored within the group and can be managed at the group-level.

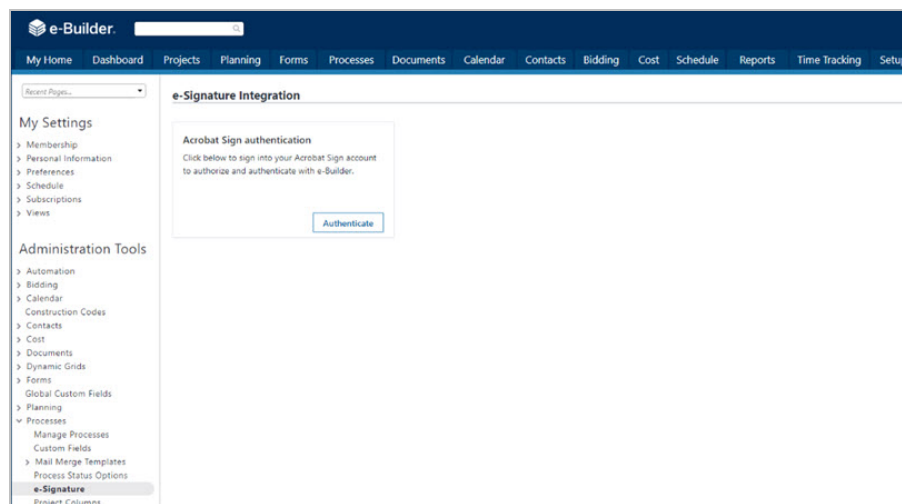
To authenticate the Adobe Acrobat Sign integration

1. Click **Setup**.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** menu, expand **Processes**.
3. Click **e-Signature**. The e-Signature Integration page will be displayed.



4. Click **Authenticate** to sign into your Acrobat Sign account. The Adobe Acrobat Sign Log In page will be displayed.
5. In the **Email** field, enter your email address.
6. In the **Password** field, enter your password and click **Sign In**.
7. You will be asked to confirm whether you wish to allow access to Adobe Acrobat Sign from Trimble Unity Construct.

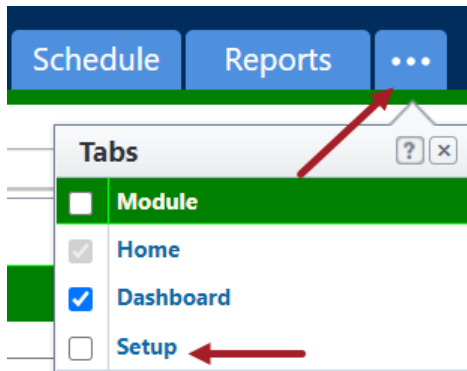
Tip: If you are not ready to authenticate, click **Cancel**. If you click **Cancel**, a warning message will be displayed mentioning that consent has not been granted.

8. Click **Allow Access** to confirm. An Authorization Successful message will be displayed.

To remove the Adobe Acrobat Sign integration authentication

1. Click **Setup**.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** menu, expand **Processes**.
3. Click **e-Signature**. The e-Signature Integration page will be displayed.
4. Click **Remove**. You will be asked to confirm whether you want to remove the integration with Adobe Acrobat Sign.
5. Click **Yes, Remove** to confirm. The integration will be removed.

DocuSign Authentication

DocuSign accounts must be authenticated in Trimble Unity Construct before they can be used in the e-Signature process.

Clients with Single Sign On (SSO) portals:

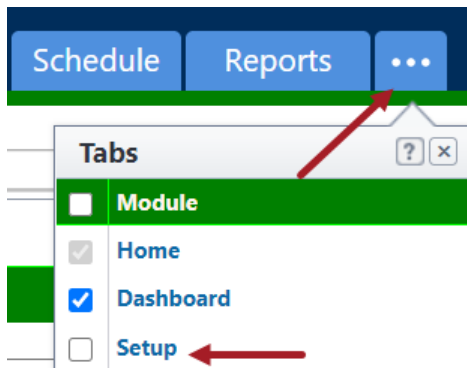
If access to DocuSign account requires login to your SSO portal, first have your DocuSign system user login to SSO, then DocuSign before authenticating.

Important: Following successful authorization, Trimble Unity Construct Admins must notify Trimble Support and Support will then activate OAuth 2.0 authentication on future DocuSign process instances.

To authenticate the DocuSign integration

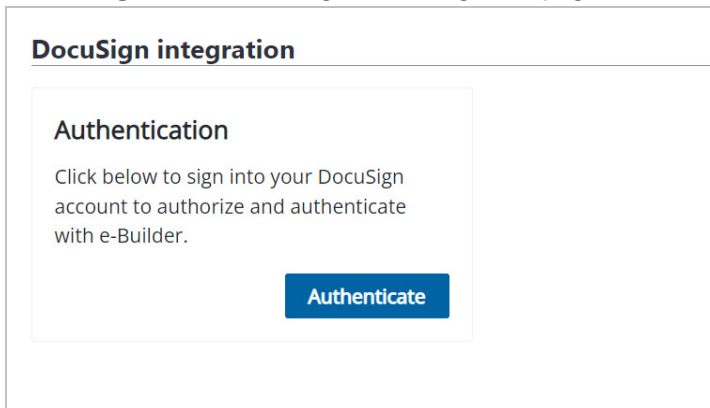
1. Click **Setup**.

If the Setup tab is not visible, click **...**, and then select the **Setup** check box.



2. In the **Administration Tools** menu, expand **Processes**.

3. Click **e-Signature**. The e-Signature Integration page will be displayed.



DocuSign integration

Authentication

Click below to sign into your DocuSign account to authorize and authenticate with e-Builder.

Authenticate

4. Click **Authenticate**. The DocuSign Log In page will be displayed.
5. In the Email field, enter your email address and click **Next**.
6. In the Password field, enter your password and click **Log In**.
7. You will be asked to confirm whether you wish to allow access to DocuSign from Trimble Unity Construct.

Tip: If you are not ready to authenticate, click **Cancel**. If you click **Cancel**, a warning message will be displayed mentioning that consent has not been granted.

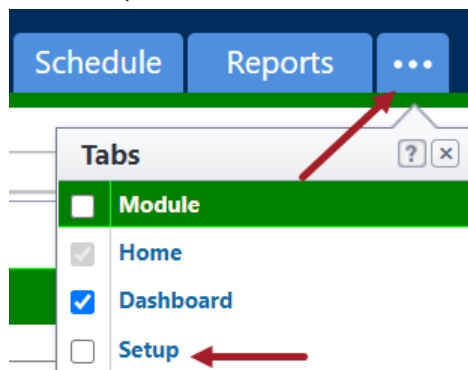
8. Click **Allow Access** to confirm. An Authorization Successful message will be displayed.

Note: While authenticating the DocuSign integration with Trimble Unity Construct, users with multiple DocuSign accounts will be asked to select the account that they would like to integrate with Trimble Unity Construct. After selecting the DocuSign account, click **Confirm** to save the changes.

To remove the DocuSign integration authentication

1. Click **Setup**.

If the Setup tab is not visible, click **...**, and then select the **Setup** check box.



2. In the **Administration Tools** menu, expand **Processes**.

3. Click **e-Signature**. The e-Signature Integration page will be displayed.
4. Click **Remove**. You will be asked to confirm whether you want to remove the integration with DocuSign.
5. Click **Yes, Remove** to confirm. The integration will be removed.

Configure the eSignature Process

The following additional process and system configurations may be required to support the electronic signature feature in Trimble Unity Construct.

Step 1: Create Roles for Signees

Since the actions that can be taken on each step are role based, a valid role must exist for the signee or potential signees of the eSignature step.

Creating a role with specific users is a two-step process. You must first create the role, and then add users to the role.

Note: As you select a role for the signing step, ensure that it includes only those persons that are allowed to sign the document. Otherwise, all actors in the selected role will have the ability to sign.

To create a role for each signee or sets of signees

1. Click **Setup** to access Administration Tools.
2. Click **Users > Manage Roles**.
The Manage Roles page is displayed.
3. Click **Add Role**.
4. Enter a name for this role in the Name field.
Example: A naming convention might be <Process Name>, <Step Name>.
5. *Optional:* Enter a description in the Description field.
6. Select **Yes** if this is an administration role.
7. Click **Save**.

To add users to the role

1. Click the name of the account role.
2. Click **Add User To Role**.
3. Filter for users and then select the check box next to the user's name.
4. Click **Add User**.

Step 2: Create File Data Fields for File Upload

File data fields make it possible for actors to upload documents. The same or different file data fields can be used to point to the destination folder of your choice.

Note: If you already have file data fields created that can be incorporated into your eSignature process, then this task is not required. Complete this task only if you do not already have the appropriate file data fields available.

Tip: Create a file data field for the upload of the final document as well. This way, you can store the final signed document in the appropriate location, perhaps in a limited-access folder.

To create a file data field

1. Go to the Data Tab for the process.
2. Click **Add Field**.
The Add Data Field page is displayed.
3. Select the **File** radio button, and then click **Next**.
4. Complete all necessary fields.
5. Select the destination folder of the file in the **Destination Folder Path** field. If you do not choose a folder, users will have to choose one at the time of upload.
6. Click **Next**.
A preview of the field just created is displayed on the field summary page.
7. Click **Save** or **Save & Add** to create another data field.

Step 3: Create String Data Field for Final Document

Create a string data field that will be used in the script added to the automation step of your eSignature process.

Note: It is recommended that you do not use an existing field or reuse it for other purposes within a single process.

To create a string data field

1. Go to the Data tab of the process.
2. Click **Add Field**.
3. Select the **String** radio button, and then click **Next**.
4. Complete all necessary fields.
Note: The field can be given any name, but “DownloadSuccess” is recommended so that our Support team can easily locate it when finalizing this process for you, or if troubleshooting becomes necessary.
5. Click **Next**. The field summary page displays a preview of the field just created.
6. Click **Save** or **Save & Add** to create another data field.

Step 4: Configure eSignature Data Field Settings

eSignature data field settings allow administrators to specify the destination file data field, and a naming convention for the final version of the signed document.

To configure eSignature data field settings

1. Go to the Data tab for the process.

The screenshot shows the 'Data' tab interface. At the top, there are tabs for 'Properties', 'Data', 'Page Layouts', and 'Workflows'. Below these is the 'Module Integration' section with a dropdown for 'Include Cost Item' set to 'None'. The 'Data Fields' section contains a table with columns: Label, Variable Name, Data Type, Permission, Unique, and Last Modified By. It lists three fields: 'DownloadSuccess' (String), 'Document to Sign' (File), and 'Final Signed Document' (File). Below the table are buttons for 'Reorder', 'Add Field', and 'Field Dependencies'. A red box highlights the 'Data Field eSignature Settings' section, which includes a 'Save eSignature Settings' button. This section contains a table with columns: Source File Data Field, Destination File Data Field, and Naming Convention. It shows mappings for 'Document to Sign' and 'Final Signed Document' to 'Final Signed Document' with a naming convention of '_Signed'.

| Label | Variable Name | Data Type | Permission | Unique | Last Modified By |
|-------------------------------------|-----------------------|-----------|------------|--------|---------------------------------------|
| Edit Delete DownloadSuccess | Download_Success | String | All | | Sutton, Andy - 06.07.2013 08:39:58 AM |
| Edit Delete Document to Sign | Document_to_Sign | File | All | | Sutton, Andy - 06.07.2013 08:17:31 AM |
| Edit Delete Final Signed Document | Final_Signed_Document | File | All | | Sutton, Andy - 06.07.2013 08:18:33 AM |

| Source File Data Field | Destination File Data Field | Naming Convention |
|------------------------|-----------------------------|-------------------|
| Document to Sign | Final Signed Document | _Signed |
| Final Signed Document | | |

2. For each file data field that will contain a document to be signed, click the adjacent **Destination File Data Field** drop-down menu to select the file data field that will be used as the destination folder for the signed document. When more than one Destination File Data field is mapped, only one of those files is required to prepare the document for eSignature. Users will no longer have to upload “placeholder” files in DocuSign process instances when more than one file field is mapped by Admin.

Note: This drop-down menu includes all existing file data fields. Files will go to the destination folder associated with the selected data field. To add or change the destination folder, edit the data field. If a folder is not specified, the user will be asked to make a selection when the file is uploaded.

3. In the **Naming Convention** field, enter a name to be appended to the end of the final document after all documents in the document set have been signed.

Example

If you use the suffix `_signed` and the name of the document is Trimble Unity Construct User Guide, the final version that includes all signatures will be called, Trimble Unity Construct User Guide_`_signed`.

4. Click **Save eSignature Settings**.

Step 5: Create a Read-Only Layout (Optional)

Create a read-only layout to prevent modification of the documents that need signatures.

As a business rule, you may not want to give signatories the ability to modify the files they need to sign; however, in a revision step, you might. Create the read-only layout based on the business rules that govern the process.

To create a read-only layout

1. Go to the Page Layouts tab of the process.
2. Click **Add Layout**.
3. Enter the name of the layout in the **Layout Name** field.

4. Click **Save**.
5. Select the data field on the right side of the page and drag into the Data section.
6. Select the field so that it is highlighted.
7. Right-click the highlighted field and select **Edit Field Properties**.
8. Select the **Read-Only** check box, and then click **Save**.

The dialog box closes and you are now on the Layout Properties page.

9. Click **Save**.

Step 6: Enable eSignatures

The eSignature feature is enabled on the action of a process step. There are two parts to this particular step of the configuration. You must create a signing action and a non-signing action in order to give the signee an alternate action in case they choose not to sign the document during a particular process instance.

Optionally, you can also allow user(s) in document preparation roles to open a Sending session to tag documents for eSignature by internal and external recipients. Document preparers can precisely tag locations on documents for eSignature by each recipient, eliminating any missed signatures or initials. Project stakeholders who only interact with the construction program on rare occasions can be tagged as external recipients so that no Trimble Unity Construct license or user training is necessary in order to perform eSignatures.

Tip: In some cases, the process initiator is the actor that uploads documents to the eSignature Source fields and then takes action to prepare documents for eSignature. To make the workflow more efficient, documents can be prepared for eSignature from the Submit action on the Start step of the workflow. This will eliminate the requirement for Administrators to configure a subsequent Data Entry step that supports the Prepare Document for eSignature option.

Note: On the Submit action for the Start step of the workflow, only the **Prepare Document(s) for eSignature** check box will be available for selection. The **Require eSignature(s)** check box option will not be available for the Submit action from the Start step.

Add a Signing Action

To add a signing action

1. Go to the Workflows tab of the process.
2. Click the title of the workflow you want to access.
3. Click **Design Workflow**.
4. Go to the Workflow Designer.
5. To create a new step, drag and drop the Data Entry step to the Workflow Designer.

The Edit Step page is displayed.

—Or—

To modify an existing step, right-click the step, and then click **Properties**. The Edit Step page is displayed.

6. Complete all necessary fields.
7. To make the file read-only, select a read-only layout from the **Actor Layout** drop-down menu.
8. Click **Add Action**.
The Add Action page is displayed.
9. Complete all necessary fields.
10. Select the **Require Signature(s)?** check box.

Note: Only one signature option, either the **Prepare Document(s) for eSignature** check box or the **Require eSignature(s)** check box can be enabled on a step action at a time. Once either check box has been selected, the other one will be greyed out and cannot be enabled.

11. Select the signee's user role(s).

Note: All users within the selected role will have the ability to sign the document. To limit these users to the required signatories only, create a user role that includes only the qualified signees.

12. Click **Save**.

Add an Alternate, Non-Signing Action

A non-signing action is required in order to give the actor an alternate action. A probable secondary action might be Decline or Revise and Resubmit, which could potentially kick start the process all over again.

Warning: If the same file or a new file is uploaded, the current envelope ID becomes void and a new envelope will have to be created. In this case, all previous signees will have to sign each file again. A single envelope can contain a number of documents.

To add a non-signing action

1. Go to the Workflows tab of the process.
2. Click the title of the workflow you want to access.
3. Go to the Workflow Designer.
4. To create a new step, drag and drop the Data Entry step to the Workflow Designer.
The Edit Step page is displayed.
—Or—
To modify an existing step right-click the step, and then click **Properties**. The Edit Step page is displayed.
5. Complete all necessary fields.
6. To make the file read-only, select a read-only layout from the Actor Layout drop-down menu.
7. Click **Add Action**.
The Add Action page is displayed.

8. Complete all necessary fields, EXCEPT the Require Signature(s)? check box. Leave this check box clear.
9. Select the signee's user role(s).

Note: All users within the selected role will have the ability to sign the document. To limit these users to the required signatories only, create a user role that includes qualified signees only.
10. Click **Save**.

Add a Document Preparation Action (This is required for Adobe Acrobat Sign to function)

To add a document preparation action

1. Go to the Workflows tab of the process.
2. Click the title of the workflow you want to access.
3. Click **Design Workflow**.
4. Go to the Workflow Designer.
5. To create a new step, drag and drop the Data Entry step to the Workflow Designer.
The Edit Step page is displayed.
—Or—
To modify an existing step, right-click the step, and then click **Properties**. The Edit Step page is displayed.
6. Complete all necessary fields.
7. To make the file read-only, select a read-only layout from the **Actor Layout** drop-down menu.
8. Click **Add Action**.
The Add Action page is displayed.
9. Complete all necessary fields.
10. Select the **Prepare document(s) for Signature(s)?** check box.

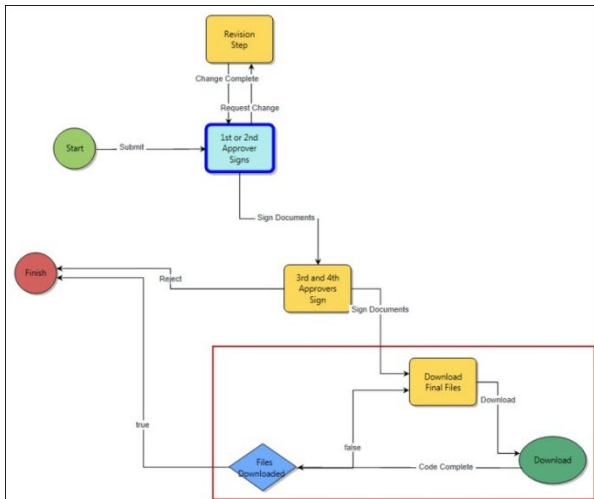
Note: Select this option to allow a document preparer to set up the document for eSignature before sending it to the recipients. The Require eSignature(s) check box will still be available on the Edit Action page. However, only the **Prepare Document(s) for eSignature** check box or the **Require eSignature(s)** check box can be enabled on a step action at a time. Once either check box has been selected, the other one will be greyed out and cannot be enabled.
11. Select the signee's user role(s).

Note: All users within the selected role will have the ability to sign the document. To limit these users to the required signatories only, create a user role that includes only the qualified signees.
12. Click **Save**.

Step 7: Add an Automation Step

An automation step must be placed at a point in the process after all documents have been signed. This step compiles the final document which includes all eSignatures and an encrypted certificate that solidifies it as a unique and final version of the document.

The end of your eSignature process should look similar to the highlighted portion of the diagram below:



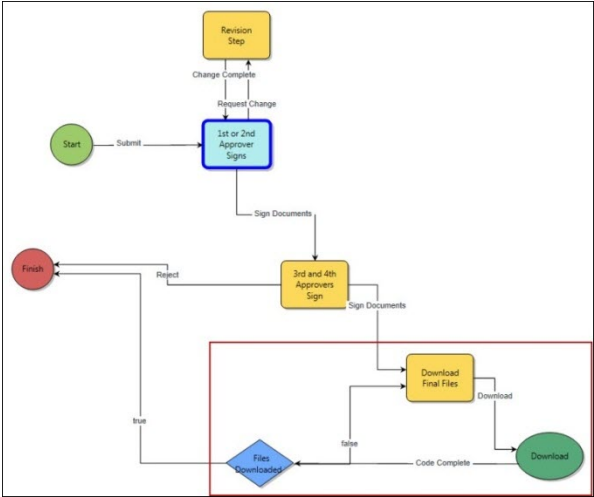
To add an automation step to an eSignature process

1. Go to the Workflow Designer.
2. Drag and drop the automation step to the Workflow Designer.
The Edit Automation Step page is displayed.
3. Complete all necessary fields and specifically:
 - Click the **e-Signature File Download** radio button.
4. Click **Save**.

Step 8: Add a Conditional Step (Optional)

Adding a conditional step that branches off of the automation step will help offset any unexpected errors. This optional step safeguards the process by ensuring that the final document is created by creating a loop that gives the process an alternate action if there are any unexpected errors.

The conditional step will be similar to the highlighted portion of the diagram below:



To add a conditional step

- 1. Go to the Workflow Designer.
- 2. Drag and drop the conditional step to the Workflow Designer.
- 3. Complete all necessary fields.
- 4. Click **Save**.

eSignature Workflow Troubleshooting Actions - for Adobe Acrobat Sign

While designing workflows with the eSignature process, it is important that you check that your workflow is valid and free from errors.

To validate your workflow

- 1. Go to the Workflow Designer.
- 2. Click the **Error Check** button.
Any validation errors found in your workflow will be displayed.
- 3. Perform the following steps to resolve validation errors in your workflow:

| Error Mes- sage | Troubleshooting Actions |
|--|--|
| {Step Name} can be reached without required actions: 'Pre- pare document | <ul style="list-style-type: none">◦ When using the Prepare document(s) for eSignature option, ensure that there is a workflow step configured for this. To do this, edit the workflow step action for the actor responsible for tagging documents to ensure that the Pre- pare document(s) for eSignature check box is selected (mandatory). |

| Error Mes- sage | Troubleshooting Actions |
|---|---|
| for eSignature (s)' or 'Require eSignature(s)' | |
| 'Prepare doc- ument for eSig- nature(s)' action on {step name} requires eSignature 'Destination file data field' configuration and Auto- mated File Download Step | <ul style="list-style-type: none"> ◦ If the Prepare document for eSignature(s) check box has been selected for the Submit action on the data entry step, an automated file download step must be added to the workflow. |
| eSignature 'Destination file data field' requires con- figuration | For each file data field that will contain a document to be signed, ensure that you configure the Destination File Data Field settings correctly on the Data Field eSignature Settings section of the Data tab (<i>Setup> Administration Tools> Processes> Manage Processes>Click on a process name to view it</i>). |

eSignature Workflow Troubleshooting Actions - for DocuSign

While designing workflows with the eSignature process, it is important that you check that your workflow is valid and free from errors.

To validate your workflow

1. Go to the Workflow Designer.
2. Click the **Error Check** button.
Any validation errors found in your workflow will be displayed.
3. Perform the following steps to resolve validation errors in your workflow:

| Error Message | Troubleshooting Actions |
|--|--|
| {Step Name} can be reached without required actions: 'Pre- | <ul style="list-style-type: none"> ◦ Ensure that all the users who need to sign and approve the document are required to perform eSignatures. To do this, edit the workflow step action for each signing user and ensure that the Require eSignature(s) check box is selected (mandatory). |

| Error Message | Troubleshooting Actions |
|---|--|
| prepare document for eSignature(s)' or 'Require eSignature(s)' | <p>AND</p> <p>If using the new Prepare document(s) for eSignature option, ensure that there is a workflow step configured for this. To do this, edit the workflow step action for the actor responsible for tagging documents to ensure that the Prepare document(s) for eSignature check box is selected (mandatory).</p> <ul style="list-style-type: none"> On any possible path leading up to the document download step, at least one step actor must be required to e-Sign for the workflow to be valid. |
| 'Prepare document for eSignature(s)' action on {step name} requires eSignature 'Destination file data field' configuration and Automated File Download Step | <ul style="list-style-type: none"> For each file data field that will contain a document to be signed, ensure that you configure the Destination File Data Field settings correctly on the Data Field eSignature Settings section of the Data tab (<i>Setup> Administration Tools> Processes> Manage Processes>Click on a process name to view it</i>). If the Prepare document for eSignature(s) check box has been selected for the Submit action on the data entry step, an automated file download step must be added to the workflow. A validation error will be displayed if either of the above requirements are not met. |
| eSignature 'Destination file data field' requires configuration | <p>For each file data field that will contain a document to be signed, ensure that you configure the Destination File Data Field settings correctly on the Data Field eSignature Settings section of the Data tab (<i>Setup> Administration Tools> Processes> Manage Processes>Click on a process name to view it</i>).</p> |
| 'Prepare document for eSignature(s)' or 'Require eSignature(s)' workflow requires these account preference to be defined: DocuSignBrandID, DocuSign TraceOn, DocuSignPassword, DocuSignUsername | <ul style="list-style-type: none"> An eSignature enabled workflow cannot be published without a DocuSign account. If the 'Prepare document for eSignature(s)' or the 'Require eSignature(s)' action has been added to the workflow, you need to setup your DocuSign credentials in Trimble Unity Construct as well. Contact Trimble Support to configure your DocuSign account settings to work with your account in Trimble Unity Construct. |

Create Envelopes in DocuSign

With the DocuSign eSignature feature, you can send documents for signing by putting them in an electronic container called an envelope.

Note: The actions that you may be able to perform in DocuSign are determined by the permissions profile set up for you in DocuSign. DS Sender or DS Admin profiles are required. Ensure that the eSignature workflow has been properly configured so that you can prepare electronic envelopes to and send documents for eSignatures.

Follow these steps to prepare and send a document for eSignature:

Step 1: Upload the file

Upload the document that requires electronic signature(s) to the process instance.

To upload and prepare a document for eSignature using DocuSign

1. Click the **Processes** tab located at the top of the page.
2. Choose a project from the **All Projects** menu.
The Project Processes page is displayed.
3. Filter for the process whose details you want to view.
4. Click the process number or subject of the process you want to access.
The Process instance page is displayed.
5. On the Details tab, click **Browse Computer** or **Browse e-Builder** to search for the document.
6. Click **Attach** to upload it.
7. Click **Take Action**.
8. On the Prepare document(s) for eSignature page, click the **Click here to prepare document(s) for eSignature** link.

The DocuSign window is displayed with the document that was just uploaded.

Note: This must be done before moving the process to the next step.

Step 2: Add standard fields

Add standard fields to the document such as signature, initials, date signed and name. You can add them for each user that must sign the document.

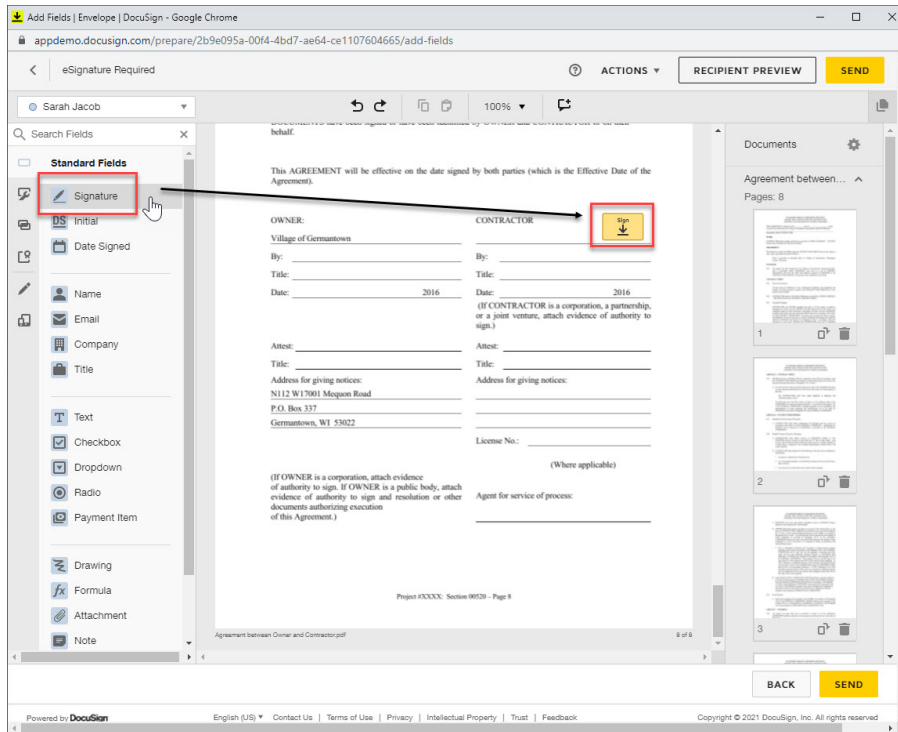
To add standard fields in DocuSign

1. Open the document in the DocuSign window.
2. From the recipients drop-down list, select the name of a user who needs to sign the document electronically.

Note: The recipients drop-down list will contain every user that can take action in the next step. This list will be defined based on the user role set for the user. When configured, eSignature work-

flows allow you to select a specific project member from the Selected Roles list to be the actor on the next step. These project members are added to the DocuSign Recipients list in eSignature steps.

3. To insert a signature field for the selected user, drag and drop the **Signature** control from the left pane onto the document at the appropriate place on the page.



4. Repeat this step by dragging and dropping other necessary standard field options like **Initials** or **Date Signed** onto the page.

Note: Some of the other document fields you can add to the file are listed on the left pane such as the Name, Email, Company and so on.

Tip: DocuSign will retain the formatting such as the font size once you have set it for a certain field. This is useful when you need to add many fields of the same type such as multiple signature fields.

5. To switch recipients, select a different user from the recipients drop-down list. Repeat the previous steps to add signature and other document fields for each user.

Tip: Click the **Recipient Preview** button to view a preview of the document as a particular recipient. In the DocuSign preview window that is displayed, you can select a user name from the **Viewing as** drop-down list to load their view of the document. Select the display format icons to see a desktop, tablet or phone preview of the document.

Step 3: Add external recipients (optional)

You can also add additional signees or document recipients who are external to e-Builder in this step.

Note: Depending upon your DocuSign permissions profile, you may or may not have access to this feature.

Using the Edit Recipients option from the recipients drop-down list, external recipients can be added by entering their names and email addresses. The document recipients from e-Builder are locked and the signing order is set to 1 by default. This is to prevent inadvertent changes to the signing order as per the workflow. Any external recipients added using the **Edit Recipients** window will be set to a default signing order of 2.

Note: It is important that you change the order to 1 for these recipients as well so that they receive the documents at the same time as the e-Builder users. If the order is unchanged and remains as 2, the document will be sent to these external recipients only after the document has been signed by the last e-Builder user in a given workflow instance.

To add external recipients


1. On the DocuSign window, click **Edit Recipients** from the recipients drop-down list.
2. On the Edit Recipients window, click **Add Recipient** to add a new row.
3. Enter the external user's details in the **Name** and **Email Address** fields.
4. Click **Done** to add the user to the recipient drop-down list.

Step 4 : Upload external files for eSignature (optional)

You can also add additional documents that are external to e-Builder in this step.

Note: Depending upon your DocuSign permissions profile, you may or may not have access to this feature. Contact your DocuSign Administrator for further details.

To upload external files

1. On the Documents pane of the DocuSign window, click the document settings icon  and select **Edit Documents**.

Tip: The Documents pane on the right displays the current document being prepared for eSignature. You can also upload external files here.

2. On the **Upload a Document** window that is displayed, browse for and select the required file from your computer and click **Done**.

Tip: You can also choose to use a template or get the file from the cloud depending on your DocuSign account.

Note: The uploaded file will be displayed in the Documents pane. You can add the signature and other document fields to it in the same way. This file will also be available on the **Attached Documents** tab of the process instance.

Step 5: Send the envelope

After you have finished preparing the document, you can send the envelope to the recipients.

To send the envelope

1. In the DocuSign window, click **Send** to send the envelope and move the process instance on to the next step.

Tip: If there are any missing fields for the recipients, you will be prompted to add them at this point. However, you are not required to add fields for every individual in situations where you have multiple recipients listed but only require specific individuals to apply their signature. You can also choose to skip this step and send the envelope without adding the missing fields. The users with missing fields will then be able to insert their signature anywhere in the document.

2. Once the envelope has been created and sent, click **Continue** to move the process on to the next step.

Tip: To save the envelope as a draft that you can revisit later, click the **Actions** drop-down list and then click the **Save and Close** button. After preparing the document completely, you can send it out. To discard the envelope that you have created, click the **Actions** drop-down list and then click the **Discard** button. You can then create a new envelope as required.

Create Agreements in Adobe Acrobat Sign

With the Adobe Acrobat Sign eSignature feature, you can send documents for signing by putting them in an electronic container called an agreement.

Follow these steps to prepare and send a document for eSignature:

Step 1: Upload the file

Upload the document that requires electronic signature(s) to the process instance.

To upload and prepare a document for eSignature

1. Click the **Processes** tab located at the top of the page.
2. Choose a project from the **All Projects** menu.
The Project Processes page is displayed.
3. Filter for the process whose details you want to view.
4. Click the process number or subject of the process you want to access.
The Process instance page is displayed.
5. On the Details tab, click **Browse Computer** or **Browse e-Builder** to search for the document.
6. Click **Attach** to upload it.
7. Click **Take Action**.
8. On the Prepare document(s) for eSignature page, click the **Click here to prepare document(s) for eSignature** link.

The Adobe Acrobat Sign window is displayed with the document that was just uploaded.

Note: This must be done before moving the process to the next step.

Step 2: Manage Recipients

Important: Acrobat Sign does not allow the removal of recipients once the agreement is no longer in Draft status, therefore it is imperative that any recipients who will not be necessary for a given process instance be removed initially. We also provide 1 placeholder recipient for each Require eSignature workflow step, for the possibility that the intended recipient is not a Current Actor when the workflow reaches their step. If keeping placeholders, a Name is required for each.

Remove Unnecessary Recipients or Add Names for Placeholder Recipients

- Click the delete button beside a recipient name to remove any unnecessary recipients.
- Enter a name in the **Name** field of each recipient row.

Guidelines to Tagging Documents with Placeholder Recipient fields

While preparing documents for eSignature using Adobe Acrobat Sign, you can now add placeholders recipients when the exact signer is unknown.

Adobe Acrobat Sign - Recipient placeholders

The guidelines to tagging Documents with Placeholder Recipient fields for eSignature are as follows:

- Review all "Recipient" names to determine which recipients are needed for the specific Process instance.
- The pre-loaded Recipients reflect every e-Builder user that is on a process step that requires e-Signature. Ensure that you do not edit or delete their "bounces" email addresses.
- If there's an eSignature step where the specific recipient is unknown, use the appropriate Placeholder email for their step: "bouncesPlaceholder1", "bouncesPlaceholder2", and so on.

- Consult with your Admin for guidance on exactly which placeholder number (1,2,3, etc.) correlates to a particular eSignature step.
- Locate the e-Builder users on that same step and delete them, leaving only the specific “bouncesPlaceholderN” emails for steps with unknown recipients.
- Do not edit the remaining “bouncesPlaceholder” emails.
- e-Builder highly recommends that you add a name for each of the remaining Placeholder recipients to make it easier when tagging their signature location on documents.
- Click **Preview & add fields** when done.

Step 3: Add external recipients (optional)

You can also add additional signees or document recipients who are external to e-Builder in this step.

The screenshot shows the 'Add recipients' section in the e-Builder interface. It features a table with columns for 'Email', 'Name', and 'Recipients'. The 'Recipients' column has a dropdown menu that is currently open, showing options: 'Individual', 'Group', and 'CC'. A red box highlights this dropdown menu. Below the table, there are buttons for 'Preview & add fields' and 'Send now'.

Add External Recipients

To add external recipients

1. At the bottom of the Add recipients section, click the Plus + symbol and select **Individual** from the **Recipients** drop-down list.
A new signer row is added.
2. Enter the external user's details in the required **Email** and **Name** fields.
3. Repeat the steps as needed for each additional external recipient.
4. Click **Preview & add fields** to add the user to the recipient drop-down list.

Step 4: Add Form fields

Add Form fields to the document such as signature, initials, date signed and name. You can add them for each user that must sign the document.

Add Form Fields

To add recipient Form fields to an agreement

1. Click **Preview & add fields**.
2. From the recipients drop-down list, select the name of a user who needs to sign the document electronically.

Note: The recipients drop-down list will contain every user that can take action in the next step. This list will be defined based on the user role set for the user. When configured, eSignature workflows allow you to select a specific project member from the Selected Roles list to be the actor on the next step. These project members are also added to the Recipients list. Additionally, there is one placeholder recipient for each step that has a **Require eSignature** action configured.

3. Add the **e-Signature** or **Initials** Form Fields to the required locations in the document. Additional options to change the field type and customize the field are available by right-clicking on the field.

Additional Options for Form Fields

Step 5: Send the agreement

After you have finished preparing the document, you can send the agreement to the recipients.

To send the agreement

1. In the Acrobat Sign window, click **Send** to send the agreement.

Tip: If there are any missing fields for the recipients, you will be prompted to go back and add them at this point. However, you are not required to add fields for every individual.

2. Once the agreement has been created and sent, click **End session** to return to the action.
3. Click **Continue** to move the process on to the next workflow step.

Electronically Signing (e-Sign) Documents

Once a process step is configured with a signing action, this action will be listed in the Action drop-down menu for you to select.

Note: Only PDF files can be electronically signed.

To electronically sign a document in Adobe Acrobat Sign

1. Open the Process Instance page.
2. Complete all necessary fields.
3. Click the Action drop-down arrow and select the signing action.

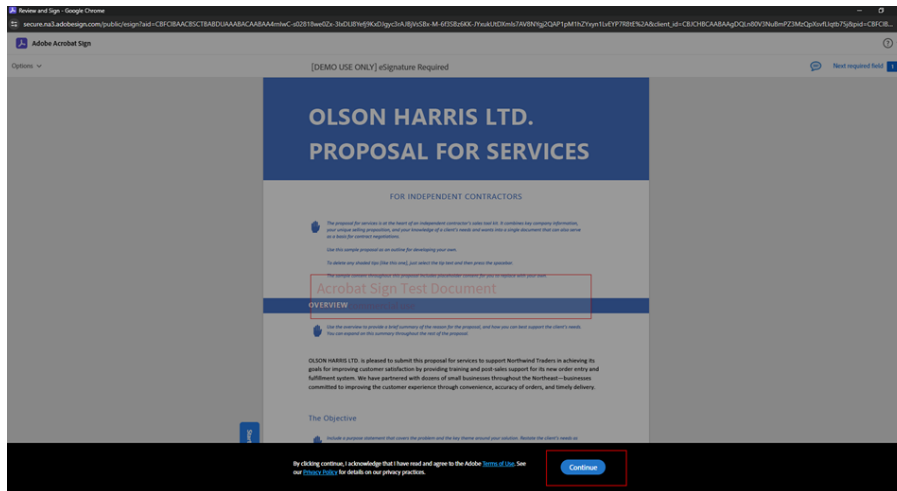
Note: Step names are configurable; therefore, the name of this step will be different for every user.

4. Click **Take Action**.

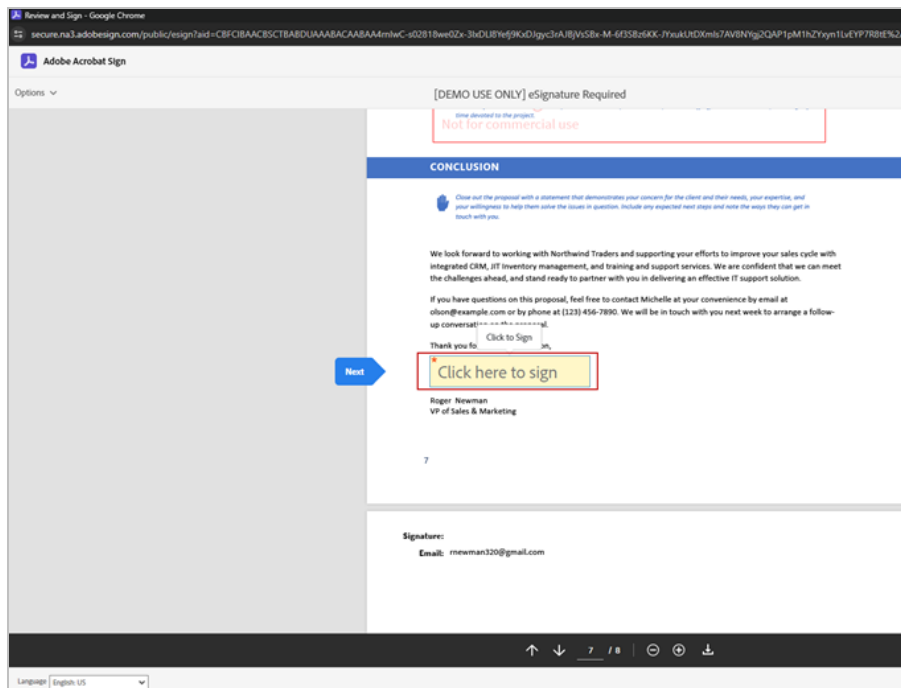
A message prompting you for an electronic signature is displayed.

Note: You are not required to click the **Take Action** button if the process has been configured to allow the action to take place by simply making a selection from this drop-down menu. For more information on this setting, see Workflow Properties Page Overview in the Online Help.

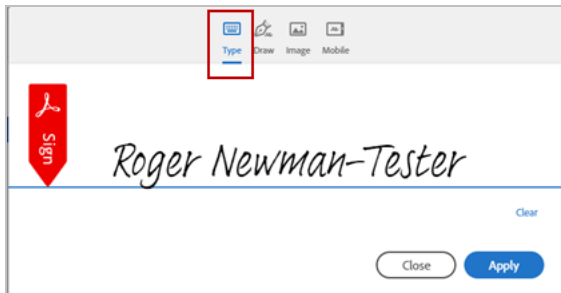
5. Click the link, **Click here to review and sign your document(s)**.
6. Click **Continue** to agree to Adobe's terms of use.
This opens an agreement signing session in Adobe Acrobat Sign.



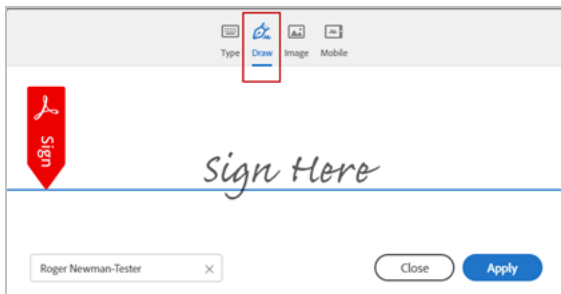
7. Click **Start** to navigate to the location where your signature is necessary.
8. Click to sign at each e-Signature location in the agreement.



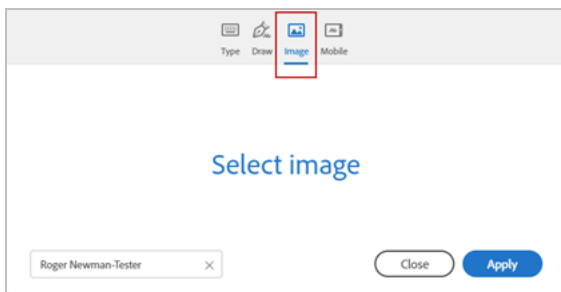
9. Select **Apply** once you determine your preferred method to e-Sign. You can type your name, draw your signature or select a signature image from your computer or use your mobile device to easily draw or capture your signature.



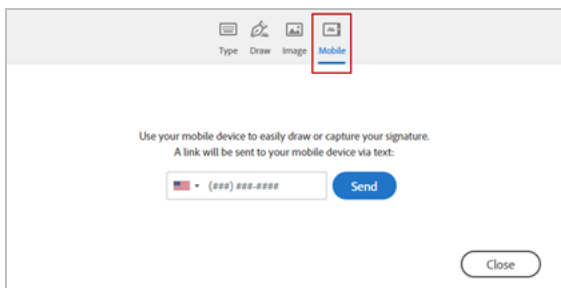
Type Name Option



Draw Signature Option

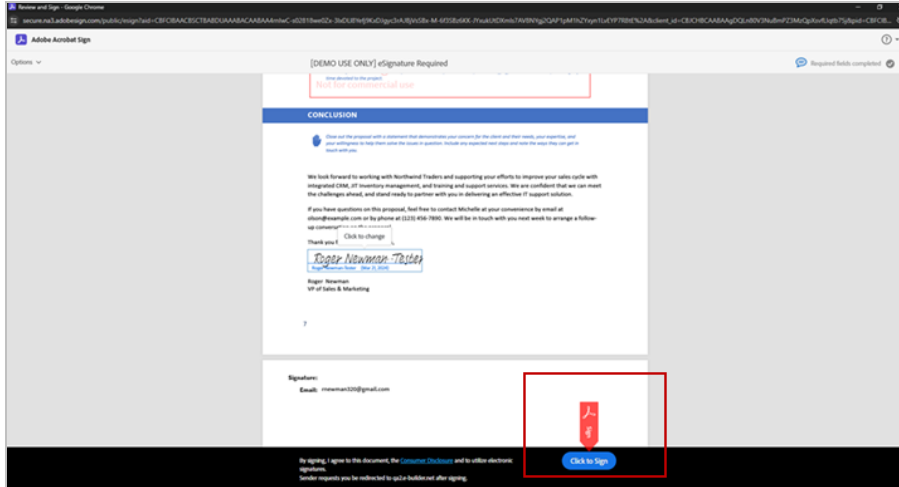


Select Signature Image Option



Use Mobile Device Option

10. Click the **Click to Sign** button to end the signing session.



Ending the Signing Session

A success message will be displayed on the e-Builder page.

11. Click **Continue** to complete this step and send the process to the next workflow step.

To electronically sign a document in DocuSign

1. Open the Process Instance page.
2. Complete all necessary fields.
3. Click the Action drop-down arrow and select the signing action.

Note: Step names are configurable; therefore, the name of this step will be different for every user.

4. Click **Take Action**.

A message prompting you for an electronic signature is displayed.

Note: You are not required to click the **Take Action** button if the process has been configured to allow the action to take place by simply making a selection from this drop-down menu. For more information on this setting, see Workflow Properties Page Overview in the Online Help.

5. Click the link, **Click here to review and sign your document(s)**.
6. Click **Review Document**.

The file opens in DocuSign.

7. Review and locate where your signature is necessary.
8. Drag and drop your signature from the **Signature Context** menu.

Note: This context menu displays by default, but should you need to reopen it, click the pencil icon



9. Click **Finish**.
You are prompted for confirmation.
10. Click **Yes**.

A success message displays on the e-Builder Process Instance page.

11. Click **Continue** to complete this step.

About Project Settings

Projects within Trimble Unity Construct Enterprise represent the actual projects of a program. Project settings allow you to create projects, complete the details of each one, and then configure some of the common attributes shared among your projects. Projects are typically set up by an account administrator as the need arise. But keep in mind account administrators are able to delegate this responsibility by giving select users the "Add New Project" permission.

Upon the conclusion of a project, it can be optionally deleted from the system. For some, removing all project data after it's been concluded is a requirement by certain vendors; but it is important to note that this is an irreversible action.

Below is an overview of each project setup option. Although there is no system-enforced order by which to configure these settings, the order displayed below is recommended.

1. **Create Project Custom Fields:** Project custom fields provide a means to capture data specified by account administrators. Custom field options vary greatly and are typically created based on your reporting needs.
2. **Configure Project Settings:** These settings allow you to set a default Project Administrator role. Setting this up restricts the options that display to just the users in the specified role. Additionally, you can select a project number custom field that will display on all pages where the project name appears. Lastly, from here you can define up to three options by which users can search for the project from the static Project drop-down menu that appears on every page within Trimble Unity Construct Enterprise.

Please select a project... ▼

Most common options include Project Name and Project Number. These options will be the values of select project custom fields.

3. **Verify Project Status Options:** By default, the project statuses listed below are available to you, however, you're able to add your own or delete any of these existing ones, if they are not already in use.
 - Active
 - Administrative
 - Complete
 - Inactive
4. (If applicable) **Add Project Web Links:** Web links are URLs to project-related websites that can be added to the project's details for users to access. Please note that this link will display in the details of all account projects. In some cases, these links are to an internal portal of some sort that has pertinent information to assist project participants.
5. **Create New Projects:** It is recommended that projects are created after setup options have been completed, as most of these settings will be applicable when creating new projects. New projects are created as the need arise. Multiple projects can be imported in bulk or added one at a time. In this step, you will complete project details and apply project templates.

Access Project Settings

To access project settings

1. Click the **Setup** link.
2. In the **Administration Tools** section, click **Projects**.

Access Project List Page

To access the Project List page

1. Go to Project Settings.
2. Click **Manage Projects**.

Setting Up New Projects

Creating a new project and completing the details of that project is just one aspect of setting up a new project. After the project is created, you should apply project templates in order to make the project more complete and useable. Project templates allow you to replicate the document structure data from existing projects and apply it to current projects. You can also apply the following templates in order to make the project as comprehensive as possible for project managers and users to start working more quickly:

- Project Template (Document folder structure)
- Role Templates
- Schedule Templates
- Budget Templates
- Cash flow Templates
- Funding Templates

Project Imports is another option for setting up your projects. Imports combine these two steps into one; completing project details and applying templates. Another advantage of projects imports is that multiple projects can be imported in a single import file at a time; saving you value time and effort. While neither imports nor templates are required to set up your projects they are valuable tools that will help you work more efficiently. The following topics will assist you with setting up new projects:

- About Project Imports
- Import Projects
- Add New Projects
- Apply Project Templates

About Project Imports

This task can be completed by:

- *Account Administrators*
- *Participants with 'Add New Project' Permission*

Multiple projects can be imported at a time. The import is an Excel spreadsheet of project details, which helps you set up projects more quickly. During the import you'll also be able to apply templates from other areas of Trimble Unity Construct if available:

- Project Template (Document folder structure)
- Role Templates
- Schedule Templates
- Budget Templates
- Cash flow Templates
- Funding Templates

Applying these additional templates adds value to project templates by reducing the time and effort for project administrators to set up various aspects of the project.

Setting up the Import File

If the headers in your import file match these fields exactly, these fields will auto-populate. If the header names are different, you will map the corresponding columns in your spreadsheet to the Trimble Unity Construct built-in fields in step 2 of the import process. The red asterisks indicate the fields are required: Project Name and Project Status. The more comprehensive the import file is the more complete project details will be.

Description of Built-in Fields and Acceptable Values

A description of the built-in fields / column headers of the import file are described below:

- **Project Name:** This is a required field. Enter the name of the projects in this column of the spreadsheet. Text and numerical characters are acceptable.
- **e-Builder Project Administrator:** Enter the name of the project's administrator in this column of the spreadsheet.

Note: If a default admin role is selected in the Project Settings, and a user's name that is not a member of this role is added to the import file as a project administrator, an exception will occur and this person will not be accepted as a project administrator. Therefore, if you receive an exception message due to this field, check the project settings to ensure you are including the name of users who are members of the selected default project administrator role.

- **Address/ City/ State/ Zip:** The address of the project site.
- **Project Webcam URL:** The URL of the webcam or project-related website
- **Allow User Logins?** Indicate whether or not users are allowed to access this project. This setting can later be changed by going to the Project List page and editing the Project Details.
- **Start Date:** The date that the project is scheduled to start.
- **Target Date:** The date that the project is slated to be complete.
- **Deny Tech Support Access?** Indicate whether tech support should not be able to access this project.
- **Workflow Due Date Offset:** Enter the number of days to default the date due on forms.

Import Projects

This task can be completed by:

- *Account Administrators*
- *Participants with 'Add New Project' Permission*

Multiple projects can be imported at a time. The import is an Excel spreadsheet of project details, which helps you set up projects more quickly. During the import you'll also be able to apply templates from other areas of the e-Builder if available:

- Project Template (Document folder structure)
- Role Templates
- Schedule Templates
- Budget Templates
- Cash flow Templates
- Funding Templates

Applying these additional templates adds value to project templates by reducing the time and effort for project administrators to set up various aspects of the project. For more about setting up your import file, see About Project Imports.

To import projects

1. Go to My Settings.
2. Click **Membership > Projects**.
The Membership page is displayed.
3. Click **Import**.
The Import Projects page is displayed.
4. Complete all necessary fields.
5. Click **Next**.
6. If necessary, map the e-Builder built-in fields to the corresponding fields in the import file.
7. Click **Next**.
8. Click **Save**.

Related Topics:

- About Project Imports
- Add/Edit Projects Page Overview

Add New Projects

This task can be completed by:

- *Account Administrators*
- *Participants with 'Add New Project' Permission*

Trimble Unity Construct Projects represent the actual projects of a program and can be added at any time via project import or individually, as outlined in the procedure below.

To add projects

1. Go to the My Settings section in the Setup module.
2. Click **Membership**, and then click **Projects**. The Membership page is displayed.
3. Click **Add Project**.
The Add Project page is displayed.
4. Complete all necessary fields.
5. Click **Save**.

Related Topics:

- Setting Up New Projects
- Apply Project Templates
- Add/Edit Projects Page Overview

Apply Project Templates

A project template is a compilation of templates from other areas of e-Builder as well as the documents folder structure. Applying project templates allows you to update these areas for one or more projects in a single instance. This is a great time-saving tool that helps you get new and existing projects underway quickly when there are changes to user roles or project memberships and templates from other areas of your program, specifically the following:

- Project Template (Document folder structure)
- Various Items:
 - Users (Project Participants & Project Level Roles)
 - Project Roles
 - Project Groups
 - Document Folders
 - Calendar Settings
 - Project Level Options for Custom Fields and Process Data Fields
- Role Template
- Schedule Template
- Budget Template

- Cash Flow Template
- Funding Template

To apply a project template

1. Go to the Project List page.
For instructions, see Access Project List Page.
2. Select the check box next to the project(s) you want to apply the template to.
3. Click **Apply Template**.
The Apply Templates to [Project Name] page is displayed.
4. Complete all necessary fields.
For a description of this page, see Apply Project Templates Page Overview.
5. Click **Apply Templates**.

Related Topics:

- Project List Page Overview
- Apply Project Templates Page Overview
- About Project Imports
- Add/Edit Projects Page Overview

Complete Project Settings

Project settings allow you to do three things in particular: assign a default project administrator role, choose a project number custom field and define project search options. A description of each setting is located below.

1. **Assign Default Project Administrator Role:** Setting a default role from which to choose a project administrator will automatically populate the users in the select role when assigning an administrator on a new project. If not configured, all account users will be available for selection.
2. **Choose Project Number Custom Field:** This allows you to take a project custom field to use as a project number to be displayed on all pages where the project name appears. For instructions, see Create Project Number Custom Fields.
3. **Define Project Search Options:** This setting allows you to choose up to three options by which users can search for the project from the static Project drop-down menu that appears on every page within e-Builder Enterprise. Most common options include Project Name and Project Number.



To complete project settings

1. Go to Project Settings.
For instructions, see Access Project Settings.
2. Click **Project Settings**.
The Project Settings page is displayed.

3. Complete all necessary fields.
4. Click **Save**.

Related Topics:

- Project Settings Page Overview
- Create Project Number Custom Field

Create Project Number Custom Field

Project numbers are unique project identifiers that will appear on all pages that the project name exists. Project numbers are simply Project custom fields. They are created in the same manner as any Project custom field, except they must meet the following two specifications:

- Must be a String field
- Must be a required field.

To add Project number custom fields

1. Go to Project settings.
For instructions, see Access Project Settings.
2. Click **Custom Fields**.
3. Click **Add Field**.
The Add Custom Field page is displayed.
4. Select the **String** radio button, and then click **Next**.
5. Complete all necessary fields; specifically, the following:
 - Enter a name for the custom field in the space provided after **Field Label**.
 - Select the **Required** check box.
 - *Optional:* Select the **Do not allow duplicates** check box to make the value of this field unique.
This will ensure that another Project custom field does not have the same value.
6. Click **Next**.
7. Review the details of the custom field.
8. If changes are required, click **Previous** to navigate to the appropriate page and make changes.
—Or—
If details are correct, click **Save**.

Add Project Custom Fields

Custom fields allow you to gather additional information that may not be covered in the project details, such as project numbers and project type. This data is used for reporting purposes. Although you can add project custom fields in Project Settings, it is recommended that custom fields are added through Global Custom Fields, which will allow you to add custom fields to any Trimble Unity Construct module or object. For more information on custom fields, see About Global Custom Fields.

To add Project custom fields

1. Go to Project settings.
For instructions, see Access Project Settings.
2. Click **Custom Fields**.
3. Click **Add Field**.
4. Select a data type, and then click **Next**.
The **Custom Field Details** page is displayed.
5. Complete all necessary fields.
6. Click **Next**.
7. Review the details of the custom field.
8. If changes are required, click **Previous** to navigate to the appropriate page and make changes.
—Or—
If the details are correct, click **Save**.

Related Topics:

- Add/Edit Custom Field Page Overview
- Create Project Number Custom Field

Add Project Web Links

Web links are created to give project participants access to websites pertinent to the project. As many URLs can be added as necessary and then permissions set appropriately for each one. Some websites may be necessary for all project participants to access and others might need to be restricted to certain roles or just the administrator. These links will be accessible from the Project Details page.

To add new project web links

1. Go to Project Settings.
For instructions, see Access Project Settings.
2. Click **Web Links**.
The Project Web Links page is displayed.
3. Click **Add Link**.
4. Complete all necessary fields.
5. To save this link and add another, click **Save & Add**.
—Or—
To complete this task, click **Save**.

Related Topics:

- Project Web Links Page Overview

Edit Project Details

This task can be completed by:

- *Account Administrators*
- *Participants with 'Update Project Details' Permission*

Project details can be modified throughout the life of the project and are necessary when key project information changes, such as project status, start and target dates, project administrators, custom fields and various other settings. For a list of all editable settings, see Add/Edit Project Page Overview.

To edit projects

1. Go to the Project List page.
For instructions, see Access Project List Page.
2. Click the **Edit** link next to the project you want to edit.
The Edit Project Details page is displayed.
3. Make all necessary changes.
4. Click **Save**.

Related Topics:

- Add/Edit Projects Page Overview

Delete Projects

Deleting projects permanently removes all project data. This may be necessary for projects that have expired and may even be required by certain vendors. Before a project is deleted, you will be required to enter your e-Builder password. A request is then submitted to e-Builder Support for execution. Once deleted, the project cannot be recovered. Details of the deletion can be viewed by running an Audit Log Report.

To delete a project

1. Go to the Project Settings.
For instructions, see Access Project Settings.
2. Click **Manage Projects**.
3. Click the **Delete** link next to the project name you want to delete.
A Confirm Deletion Message displays.
4. Enter a note for this deletion.
5. Enter your e-Builder password to confirm this deletion.
6. Click **Yes, Delete**.

About Project Statuses

Project statuses allow you to place your own labels on your projects in order to inform project participants of a project's standing. Statuses have no bearing on whether or not members can access the project; there are project settings and permissions that allow you to determine project access. Statuses simply inform users of the

current state of the project.

By default, the project statuses listed below are available on every account. However, this list can be customized to include only those that are applicable to your organization. You have the option to add, edit or remove project statuses if they are not in use. Default options are as follows:

- Active
- Administrative
- Complete
- Inactive
- The following will tasks will help you manage project statuses:
- Add New Project Statuses
- Edit Existing Project Statuses
- Delete Project Statuses

Add New Project Statuses

Project statuses allow you to place your own labels on your projects in order to inform project participants of a project's standing. Statuses have no bearing on whether or not members can access the project; there are project settings and permissions that allow you to determine project access. Statuses simply inform users of the current state of the project. There are default project statuses available, but you can add additional ones or remove any that may not be applicable.

To add new project statuses

1. Go to Project Settings.
For instructions, see Access Project Settings.
2. Click **Project Status Options**.
The Manage Project Status Options page is displayed.
3. Enter the new status in the **Status** field.
4. Enter a description of the status in the **Description** field.
5. Click **Save**.

Related Topics:

- About Project Statuses
- Edit Existing Project Statuses
- Delete Project Statuses

Edit Existing Project Statuses

Project statuses allow you to place your own labels on your projects in order to inform project participants of a project's standing. Statuses have no bearing on whether or not members can access the project; there are project settings and permissions that allow you to determine project access. Statuses simply inform users of the current state of the project. The name and description of project statuses can be changed at any time.

To edit project statuses

1. Go to Project Settings.
For instructions, see Access Project Settings.
2. Click **Project Status Options**.
The Manage Project Status Options page is displayed.
3. Enter the new status in the **Status** field.
4. Enter a description of the status in the **Description** field.
5. Click **Save**.

Related Topics:

- About Project Statuses
- Add New Project Statuses
- Delete Project Statuses

Delete Project Statuses

Project statuses allow you to place your own labels on your projects in order to inform project participants of a project's standing. Statuses have no bearing on whether or not members can access the project; there are project settings and permissions that allow you to determine project access. Statuses simply inform users of the current state of the project. There are default project statuses available, but you can add additional ones or remove any that may not be applicable, as long as they are not currently being used.

To delete project statuses

1. Go to Project Settings.
For instructions, see Access Project Settings.
2. Click **Project Status Options**.
The Manage Project Status Options page is displayed.
3. Click the **Delete** link next to the status you want to remove. You are prompted to confirm.
4. Click **Continue**.


Related Topics:

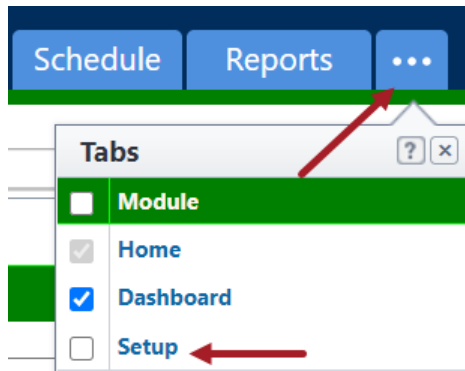
- About Project Statuses
- Add New Project Statuses
- Edit Existing Project Statuses

Project Visibility

This admin setting allows administrators to hide closed/inactive projects from the Project Menu dropdown.

To hide/show projects

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.
If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Projects**.
3. Click **Project Visibility**.
4. To hide a project, select the projects from the **Visible** column and click the right arrow.
5. To show a project, select the projects from the **Hidden** column and click the left arrow.
6. Click **Save**.

Project List Page

This page allows account administrators to view a list of available projects and take the following actions:

- Add Projects
- Apply Project Templates
- Import Projects

Below are descriptions of the fields and buttons located on this page.

Filter Submittal Items

The Project List filter allows you to narrow down the results list to just the projects you need to view. This filter can be collapsed to increase screen real estate, and then expanded if necessary, by clicking the expand/collapse button in the upper-left corner of the page.

- **Project Name:** Enter the name of the project to filter for a particular project.
- **City:** Enter the name of the city associated with the project(s) you want to filter by.
- **Custom Field 1:** If applicable, click this drop-down arrow or enter a project custom field to filter by projects that are associated with a particular custom field. For more information, see Add Project Custom Fields.
- **Only Show Projects Allowing User Logins:** Select this check box to include only those projects that allow users to log in.
- **Project Administrator:** Click this drop-down arrow to filter for projects that are managed by a specific project administrator.
- **State:** Enter the name of a state to filter for projects located in a particular state.
- **Custom Field 2:** If applicable, click this drop-down arrow or enter a project custom field to filter by projects that are associated with a particular custom field. For more information about project custom fields, see Add Project Custom Fields.

- **Filter:** Click to filter for entered criteria.
- **Clear Filter:** Click to clear the filter.

Project Results Table

- **Add Project:** Click to add a project.
- **Apply Template:** Click to apply a project template. Project templates are a great time-saving tool that helps you get new and existing projects underway quickly when there are changes to user roles or project memberships and templates from other areas of the product, namely the following:
 - Project Template (Document folder structure)
 - Role Template
 - Schedule Template
 - Budget Template
 - Cash Flow Template
 - Funding Template
- **Import:** Project imports allow you to complete project details through the import of an Excel spreadsheet, which will later be used by project administrators to get their projects set up more quickly. During the import you'll also be able to apply the templates listed below, if available. Applying these additional templates adds value to project templates by reducing the time and effort for project administrators to set up various modules within the project.
 - Project Template (Document folder structure)
 - Role Template
 - Schedule Template
 - Budget Template
 - Cash Flow Template
 - Funding Template
- **Edit:** Click to edit the details and/or settings of the corresponding project.
- **Delete:** Click to delete the project. Deleting projects permanently removes all project data. This may be necessary for projects that have expired and may even be required by certain vendors. Before a project is deleted, you will be required to enter your e-Builder password. A request is then submitted to e-Builder Support for execution. Once deleted, the project cannot be recovered. Details of the deletion can be viewed by running an Audit Log Report.
- **Name:** Displays the project name.
- **Project Administrator:** Displays the name of the administrator on the project.
- **User Logins Allowed:** A check mark in this column indicates that users are able to log in to this project.

Project List Page

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- **City:** Enter the name of the city associated with the project(s) you want to filter by.
- **Custom Field 1:** If applicable, click this drop-down arrow or enter a project custom field to filter by projects that are associated with a particular custom field. For more information, see Add Project Custom Fields.
- **Only Show Projects Allowing User Logins:** Select this check box to include only those projects that allow users to log in.
- **Project Administrator:** Click this drop-down arrow to filter for projects that are managed by a specific project administrator.
- **State:** Enter the name of a state to filter for projects located in a particular state.
- **Custom Field 2:** If applicable, click this drop-down arrow or enter a project custom field to filter by projects that are associated with a particular custom field. For more information about project custom fields, see Add Project Custom Fields.
- **Filter:** Click to filter for entered criteria.
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 - Project Template (Document folder structure)
 - Role Template
 - Schedule Template
 - Budget Template
 - Cash Flow Template
 - Funding Template
- **Import:** Project imports allow you to complete project details through the import of an Excel spreadsheet, which will later be used by project administrators to get their projects set up more quickly. During the import you'll also be able to apply the templates listed below, if available. Applying these additional templates adds value to project templates by reducing the time and effort for project administrators to set up various modules within the project.

- Project Template (Document folder structure)
- Role Template
- Schedule Template
- Budget Template
- Cash Flow Template
- Funding Template
- **Edit:** Click to edit the details and/or settings of the corresponding project.
- **Delete:** Click to delete the project. Deleting projects permanently removes all project data. This may be necessary for projects that have expired and may even be required by certain vendors. Before a project is deleted, you will be required to enter your e-Builder password. A request is then submitted to e-Builder Support for execution. Once deleted, the project cannot be recovered. Details of the deletion can be viewed by running an Audit Log Report.
- **Name:** Displays the project name.
- **Project Administrator:** Displays the name of the administrator on the project.
- **User Logins Allowed:** A check mark in this column indicates that users are able to log in to this project.

Project Settings Page

Project settings apply to three configurable areas of the project:

- The default project administrator role
- Project number custom fields
- Project search columns

Fields and Buttons

The fields and buttons located on this page are:

- **Default Project Admin Role:** Choosing a role from this drop down list helps you limit optional project administrators to a single role, as opposed to selecting from a list of all account users.
- For information on modifying user roles, see Account Role Management.
- **Project Number Custom Field:** Click this drop down menu to select a project number custom field. This custom field will display wherever the project name displays in the system. Project numbers offer an additional way for users to identify the project should your organization use other project classifications.

Note: Project number custom fields must be configured as string type fields in order to display in this drop-down arrow.

- For steps on creating project custom fields, see Manage Custom Fields.
- **Project Search Columns:** This setting allows you to define up to three options by which users can search for the project from the static Project drop-down menu that appears on every page within e-

Builder Enterprise. Most common options include Project Name and Project Number. Project Name appears by default and it is the only required column. Fields that display in the Available Fields box comprise of all global custom fields and project-specific custom fields.



- **Save:** Click to save changes.
- **Cancel:** Click to cancel any changes. Unsaved settings will be lost.

Add/ Edit Projects Page

This page allows administrators to add or make changes to the details of an existing project. Project settings can also be modified from this page.

Fields and Buttons

The fields and buttons located on this page are:

- **Check Spelling:** Click to check the spelling of form field entries.
- **Save:** Click to save changes.
- **Cancel:** Click to discard changes.
- **Project Name:** Enter the project name.
- **e-Builder Project Administrator:** If the project setting is configured to default to a specific project role, only users in that role display for you to choose from. Otherwise, select a person from the list of account users. See Complete Project Settings for more information.
- **Description:** Enter a description of this project. This can be used to give project administrators and members of the project additional information about the project.
- **Project Status:** Choose a project status from this drop-down menu. Default statuses are available, but the list of statuses may be customized by account administrators. For more on this setting, see Managing Project Statuses.
- **Project Photo:** Click **Browse** to select a picture of this project.
- **Address:** Enter the address of the project site. This information will be available from the Project Details page.
- **City:** Enter the city of the project site.
- **State / Province:** Enter the state of the project site.
- **Zip / Postal Code:** Enter the zip code of the project site.
- **Country:** Enter the country of the project site.
- **Start Date:** Enter the date that the project will begin.
- **Target Date:** Enter the date that the project is scheduled to end.
- **Project Webcam:** If available, enter the URL of the webcam at the project site.

Custom Fields Tab

If there are project custom fields available, they display on this tab. Custom fields allow you to group or filter information according to specific business processes in your reports. For more information, see About Global Custom Fields.

Settings Tab

Project Settings

- **Allow User Logins?:**
 - **Yes** - This is the default selection. Select this option to allow users to log in to this project.
 - **No** - Select this option to restrict users from logging into this project. If a project is still being set up, administrators may choose to temporarily restrict access.
- **Deny Techsupport Access?:**
 - **Yes** - Select this option to disallow e-Builder technical support from accessing this project. Tech Support access may be necessary for troubleshooting issues users might experience. However, projects that include confidential content may need to be restricted.
 - **No** - This is the default selection. Select this option to allow e-Builder technical support to access this project whenever necessary. Tech support might need access to assist users when troubleshooting issues that might arise.
- **Enable Document Control?:** Document control makes document custom fields available on a project. Even if document custom fields exist, unless this setting is enabled, users will not be able to complete these fields on a project.

Note: When the Plan Room is being used with at least one bid package, document control cannot be disabled because document custom fields are required when using the Plan Room.

 - **Yes** - Select enable document control. Users will be able to complete document custom fields.
 - **No** - Select to disable document control. Document custom fields will not be visible to users.
- **Equipment Management Tool Integration?**
 - **Yes** - Select to enable equipment management integration on this project. This setting will restrict the Equipment Manager feature so that all updates to the equipment list can only be done outside of e-Builder. This feature would be used strictly for budgeting and viewing the equipment list and the status of equipment items. When this setting is enabled, the equipment list cannot be compiled or managed in e-Builder, but items can still be tied to the budget.
 - **No** - This is the default selection. Select to maintain full use of the Equipment Management feature.
- **Plan Room Access:** This setting allows you to determine how the plan room will be accessed. For more information, see About the Plan Room.
 - **None** - This is the default selection. Select to restrict all access to the plan room.
 - **Internal Only** - Select to limit plan room access only to those users who can access e-Builder. If this option is selected, users will only be able to access the plan room through e-Builder; a URL will not be generated.

- **Public** - Select to automatically generate a URL from which users can access the plan room. After changes are saved, this URL displays in the External Plan Room URL field located on the Project Details page.
- **Shared Password** - Select to create a shared password for users to enter when accessing the plan room.
 1. Enter a password in the **Shared Password** field.
 2. Re-enter this password in the **Confirm Password** field.

Workflow Settings

- **Workflow Due Date Offset:** Enter the number of days that the workflow forms are due after it has been initiated. For example, if workflow forms should be submitted, within seven days of being received, enter 7 in this field.

Project Calendar

This setting allows you to configure calendar settings, which will influence the project calendar and schedule.

- **Work Day Start Time:** Enter the time that the work day will begin for this project.
- **Work Day End Time:** Enter the time that the work day will end for this project.
- **Work Week:** Choose the days of the week that will make up the work week for this project.

Calendar Exceptions

This section allows you to determine the days that will be treated as an exception to the general rule, such as holidays that fall on typical working days. From this page you can choose particular dates and mark them as working or non-working days. Identifying these days at the onset of a project helps managers plan more effectively.

- **Date:** Enter a date to add as an exception or click the calendar icon to choose one directly from the calendar. In the adjacent box, choose whether this is a working or non-working day.
- **Add:** Click to add the entered date exception to the list of calendar exceptions.
- **Delete:** Click to delete the selected calendar exception date.

Manage Project Status Options Page

Project statuses allow you to place your own labels on your projects in order to inform project participants of a project's standing. Statuses have no bearing on whether or not members can access the project; there are project settings and permissions that allow you to determine project access. Statuses simply inform users of the current state of the project. This page allows administrators to manage these statuses.

By default, the project statuses listed below are available on every account. However, this list can be customized to include only those that are applicable to your organization. You have the option to add, edit or remove project statuses. Default options are as follows:

- Active
- Administrative

- Complete
- Inactive

The following tasks can be completed from this page:

- Add New Project Statuses
- Edit Existing Project Statuses
- Delete Project Statuses

Fields and Buttons

The fields and buttons located on this page are:

- **Save:** Click to save changes.
- **Cancel:** Click to discard changes.
- **Status:** Enter the name of the new status in this field.
- **Description:** Enter a description for this status option.
- **Delete (Button):** Click to delete selected statuses.
- **Edit (Link):** Click to make in-line changes to the corresponding status.
- **Delete (Link):** Click to delete the corresponding status.
- **Status:** This column lists all available project statuses.
- **Description:** Displays a description of the project status.

Apply Project Templates Page

After a project is created, administrators can apply a project template to get the new project set up more quickly. Templates are a compilation of structures from other areas of e-Builder Enterprise that can be applied to your current project. Certain projects may share similar characteristics which makes a particular template appropriate for multiple projects. For example, public school projects might have the same project managers, administrators, facilities managers, and finance directors, which would allow you to reuse the same template (s) for all projects of this nature.

Available templates are as follows:

- Project Templates (Users - Project Level Roles, Groups, Folder structure, Calendar settings, Project Level Options...)
- Role Templates
- Schedule Templates
- Budget Templates
- Cash Flow Templates
- Funding Templates

For instructions, see Apply Project Templates.

Fields and Buttons

The fields and buttons located on this page are:

- **Apply Templates:** Click to apply selected templates.
- **Cancel:** Click to discard changes.
- **Select a project template:** Projects selected from this menu will be used as a template for your selected project. After choosing a project, the Select Items to Import field will appear and allow you to copy project document settings as well.
- **Select items to import:**
 - **Users:** Select to copy project participants from the template project. An option to **Include Project Level Roles** appear; make this selection to bring each user's project level role into the new project(s).
 - **Project Groups:** Select to copy project groups from the selected project.
 - **Document Folders:** Select to copy the Documents folder structure including documents, permission settings, folder subscriptions and custom fields. If you choose to copy folder permissions, you'll have the option to apply folder permissions to the files located in the folder.
 - **Calendar Setting Exceptions:** Select to copy calendar exceptions from the selected project.
- **Select a role template:** Click the drop-down arrow to select a role template. The content of each template may differ, but Role templates typically include a list of roles and users that belong to each role.
- **Select a schedule template:** Click the drop-down arrow to select a schedule template. The content of each template may differ, but schedule templates can include the following:
 - List of tasks
 - Duration of each task
 - Task predecessors
 - Task resource role
 - Manager role
 - Whether or not approval is required for changes to task dates
 - Whether or not approval is required before a task can be marked complete
 - List of master tasks and master processes
- **Select a budget template:** Click the drop-down arrow to select a budget template. For more information, see Working with Budget Templates. The content of each template may differ, but budget templates can include the following:
 - Budget line items
 - Account codes
 - Formulas
 - Whether or not charges are allowed
 - Whether or not approval is required for budget changes
- **Select a cash flow template:** Click the drop-down arrow to select a cash flow template. The content of each template may differ, but cash flow templates are based on selected budget template line items, they may also be linked to schedule templates. For more information, see Working with Cash Flow Templates.

- **Select a funding template:** This option will only be available if advanced funding is enabled on the account. Click the drop-down arrow to select a funding template. These templates include a list of funding sources. For more information, see [Working with Funding Templates](#).

Project Web Links Page

This page lists all available project web links. Web links are created to give project participants access to websites pertinent to the project. As many URL's can be added as necessary and then permissions set appropriately for each one. Some websites may be necessary for all project participants to access and others might need to be restricted to certain roles or just the administrator. These links will be accessible from the Project Details page. From this page, administrators are able to add project web links.

Fields and Buttons

The fields and buttons located on this page are:

- **Add Link:** Click to add a new web link.
- **Edit:** Click to make changes to the details of the project URL.
- **Delete:** Click to delete the corresponding URL.
- **Name of Link:** Displays the name of the web link.
- **URL:** Displays the web address.
- **Link Permissions:** Displays the permission level of this URL. Options include the following:
 - **All:** This is the default selection. Select to allow everyone with project access to access this URL.
 - **Administrator Only:** Select to limit access to this web cam to the project administrator only. The project admin can be specified from the Add/Edit Project page.
 - **Selected Roles:** Select to choose specific role that are able to access this URL
- **Last Modified By:** Displays the name of the user who last modified the web link or its details.

Add/ Edit Project Web Links Page

This page allows you to add project web links or make changes to the details of an existing web link. Web links are created to give project participants access to websites pertinent to the project. These links will be accessible from the Project Details page. As many URLs can be added as necessary and then permissions set appropriately for each one. Some websites may be necessary for all project participants to access and others might need to be restricted to certain roles or just the administrator.

Fields and Buttons

The fields and buttons located on this page are:

- **Save:** Click to save changes.
- **Save & Add:** Click to save changes and add an additional web link.
- **Cancel:** Click to discard changes.
- **Name of Link:** Enter the name of the web link.
- **URL (Link):** Enter the web address.

- **Pop-up Window Height:** By default, the height of the window that displays the contents of the website is 640 pixels, but you can change it to meet your preference.
- **Pop-up Window Width:** By default, the width of the window that displays the contents of the web cam is 740 pixels, but you can change it to meet your preference.
- **Link Permissions:** Determine the permission level for accessing this website from the following options:
 - **All** - This is the default selection. Select to allow everyone with project access to access this URL.
 - **Administrator Only** - Select to limit access to this web cam to the project administrator only. The project admin can be specified from the Add/Edit Project page.
 - **Selected Roles** - Select to choose specific role that are able to access this URL

Import Projects Page

The Import Projects page allows administrators to import multiple projects into e-Builder through a single import. During the import, you also have the option to apply any of the available templates listed below:

- Project Templates (Document folder structure)
- Role Templates
- Schedule Templates
- Budget Templates
- Cash Flow Templates
- Funding Templates

Applying these templates help you and project administrators to set up projects more quickly. Certain projects may share similar characteristics which makes a particular template appropriate for multiple projects. For example, public school projects might have the same project managers, administrators, facilities managers, and finance directors, which would allow you to reuse the same template(s) for all projects of this nature.

Tip

If you wish to apply different templates to the projects in the export, then only include like projects that you want to apply the same templates to in each file. For a list of fields that can be added to the import file, see About Project Imports. For instructions on completing the import, see Import Projects.

Below are descriptions of the fields and buttons located on this page.

Fields and Buttons

- **Next:** Click to move to the next step of the import wizard after all necessary fields have been completed.
- **Cancel:** Click to discard changes.
- **Select a project template:** Projects selected from this menu will be used as a template for your selected project. After choosing a project, you'll have the option to copy all or some of the following sets of information:
 - List of users
 - Project groups

- The Documents folder structure including documents, permission settings, folder subscriptions and custom fields
- Calendar setting exceptions
- **Select a role template:** Click the drop-down arrow to select a role template. The content of each template may differ, but Role templates typically include a list of roles and users that belong to each role.
- **Select a schedule template:** Click the drop-down arrow to select a schedule template. The content of each template may differ, but schedule templates can include the following:
 - List of tasks
 - Duration of each task
 - Task predecessors
 - Task resource role
 - Manager role
 - Whether or not approval is required for changes to task dates
 - Whether or not approval is required before a task can be marked complete
 - List of master tasks and master processes
- **Select a budget template:** Click the drop-down arrow to select a budget template. The content of each template may differ, but budget templates can include the following:
 - Budget line items
 - Account codes
 - Formulas
 - Whether or not charges are allowed
 - Whether or not approval is required for budget changes
 - For more information, see Working with Budget Templates.
- **Select a cash flow template:** Click the drop-down arrow to select a cash flow template. The content of each template may differ, but cash flow templates are based on selected budget template line items, they may also be linked to schedule templates. For more information, see Working with Cash Flow Templates.
- **Select a funding template:** This option will only be available if advanced funding is enabled on the account. Click the drop-down arrow to select a funding template. These templates include a list of funding sources. For more information, see Working with Funding Templates.
- **Import File:** Click **Browse** to search for and select the project import file.

Reports

Reports are lists, summaries, and analysis of your data, which you can display, print, export or save. It enables any e-Builder user to easily report on real time up-to-date information recorded in any of the e-Builder modules that they have access to.

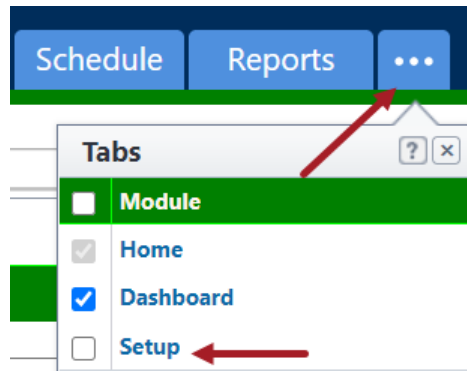
The e-Builder Reports module streamlines reporting for all users while reducing the effort, time and cost associated with the typical manual process of compiling reports.

Access Reports Settings

To access Reports settings

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Reports**.
All report related setting options are displayed.

Custom Report Types

Custom report types allow you to establish a relationship between related processes, such as Project Issues and Action Items. Common data elements between the two processes become an active report type in both standard and Business Intelligence reports. This page allows you to add, modify, and view the details of custom report types.

From this page you can perform the following tasks:

Add Custom Report Types

The Custom Report Types page allows you to add the details of custom report types.

To add a custom report type

1. From Report Settings, click **Custom Report Types**.
2. Click **Add Custom Report Type**.
3. Complete the following required fields (marked with an *):
 - **Name***: Enter the name of the custom report type.
 - **Description**: Enter the description of the custom report type.
 - **Active**: Select this check box to mark the custom report type as active and available for use in the user interface.
4. In the **Relationships** section, select a process from the **Primary Process** drop-down list. This will be the primary process.

5. Select a related process from the drop-down list.

Note: You can associate up to only one level when an account level process is selected. For other cases, you can associate up to 4 processes.

6. Click **Save**. The custom report type is added to the Custom Report Types page.

Note: After defining custom report types, they must be enabled in order to be accessible for users. You can enable these report types at any time.

Enable Custom Report Types

Custom report types must be enabled or activated to make them accessible to users. You can enable these report types at any time.

Note: Disabling a report type makes it inaccessible in the user interface.

To enable a custom report type

1. From Report Settings, click **Custom Report Types**.
2. Click the **Enable** link beside the custom report type(s) you want to enable. You are prompted for confirmation.
3. Click **Yes, Continue** to make the selected report type active.

To disable a custom report type

1. From Report Settings, click **Custom Report Types**.
2. Click the **Disable** link beside the custom report type(s) you want to enable. You are prompted for confirmation.
3. Click **Yes, Continue** to make the selected report type inactive.

Edit Custom Report Types

To edit a custom report type

1. From Report Settings, click **Custom Report Types**.
2. Click the **Edit** link beside the report type you want to modify. The Edit Custom Report Type page is displayed.
3. Make all necessary changes.
For more information on the fields and buttons located on this page, see Add Custom Report Types.
4. Click **Save** to retain changes.

Delete Custom Report Types

To delete a custom report type

1. From Report Settings, click **Custom Report Types**.
2. Click the **Delete** link beside the report type you want to delete. You are prompted for confirmation.

3. Click **Yes, delete the report type** to delete it.

Report Web Links

The Report Web Links page allows you to add, modify, and view the details of a report web link.

From this page, you can perform the following tasks:

To add a report web link

1. From Report Settings, click **Web Links**. The Report Web Links page is displayed.
2. Click **Add Link**. The Report Web Links - Add Web Link page is displayed.
3. Complete the following required fields (marked with an *):
 - **Name of Link***: Enter the name of the report's web link.
 - **URL (Link)***: Enter the web address (URL) of the report's web link. The URL must include 'http://' to be valid.
 - **Pop-up Window Height***: This field is auto populated with the height of the pop-up window.
 - **Pop-up Window Width***: This field is auto populated with the width of the pop-up window.
 - **Report Column***: Select the report name from the drop-down menu. An additional drop-down list of columns is displayed. Select a column name from the list.
4. Click **Save** to add the link.
—Or—
Click **Save and Add** to add additional links.

To edit a report web link

1. From Report Settings, click **Web Links**.
2. Click the **Edit** link beside the web link you want to modify. The Report Web Links - Edit Web Link page is displayed.
3. Make the necessary changes.
4. Click **Save** to retain the changes.
—Or—
Click **Save and Add** to add additional links.

To delete a report web link

1. From Report Settings, click **Web Links**.
2. Click the **Delete** link beside the web link you want to delete. The Report Web Links delete confirmation page is displayed.
3. Click **Yes, Delete the Web Link** to confirm the deletion.

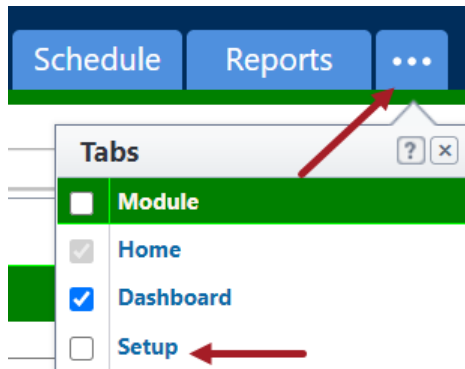
Settings

There are general account settings that are maintained by the Trimble Unity Construct Administrator. These settings can be modified at any time to reflect a change in process, security, or company logo.

[To access the account settings](#)

1. Click **Setup**.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** menu, expand **Settings**. The following account settings options are displayed:

- **Account Settings:** Use this feature to define settings for various areas of the product such as the comment settings, access delegation and performance indicators.
- **Announcements:** Use this feature to create announcements and communicate important information to your team members.
- **Color Scheme:** Use this feature to define the account-level color scheme and the style for the user interface.
- **Company Logos:** Use this feature to add an account view logo and other logos for your company.
- **Export Header and Footer:** Use this feature to set the header and footer for all exported reports generated in your account.
- **Fiscal Year:** Use this feature to specify a fiscal year for your projects.
- **Login Agreements:** Use this feature to setup login agreements for users to read and accept the terms of use before they can access any project information.
- **Notification Settings:** Use this feature to customize the notifications settings and manage summary notifications for the account.
- **Password Policies:** Use this feature to setup password policies that comply to your company's standards.
- **SFTP Public Key Authentication:** Use this feature to setup an alternative method for client authentication.

Account Settings

The Account Settings page includes the following settings for various areas of the product:

- Comments Settings
- Access Delegation
- Performance Indicator

[To manage the account settings](#)

1. Click **Setup**.
2. In the **Administration Tools** menu, expand **Settings** and click **Account Settings**.
The Account Settings page is displayed.
3. In the Comment Settings section, you can define the following settings:
 - **Allow comments to be deleted in:** The account default for whether users can delete comments in the selected modules. This setting can be overridden on the Properties tab of each Form or Process type.
 - **Forms:** Select this check box to allow comments to be deleted from form instances.
 - **Processes:** Select this check box to allow comments to be deleted from process instances.
4. In the Access Delegation section, you can define the following settings:
 - **Allow access delegation:** This setting indicates whether the Access Delegation feature is enabled on the account. This check box is selected by default and allows users to delegate access to other users. Clear this check box to disable this feature. For more information, see About Access Delegation.
5. In the Performance Indicator section, you can define the following settings:
 - **Performance Indicator Visibility:** When enabled, this setting displays the current system performance indicator on the top- right corner of the screen for the selected users:
 - **Disabled:** This option disables the display of the current system performance indicator for all users.
 - **Account admins only:** This option enables the display of the current system performance indicator for Account Administrators only.
 - **All users:** This option enables the display of the current system performance indicator for all users.
6. Click **Save Changes** to retain your changes.

Announcements

Announcements allow you to communicate important information and messages to your team by displaying them on the home page.

To add an announcement for your account

1. Click **Setup**. In the **Administration Tools** menu, expand **Settings** and click **Announcements**. The Account Announcements page is displayed.

2. To create an announcement, click **Create Announcement**. The Announcement Details page is displayed.

3. Enter or select the following required details (marked with an *):
- **Subject***: The subject of the announcement.
 - **Body***: The body content of the announcement message. The following formatting options are available:
 - Numbered List
 - Bullet List
 - **Insert Link** - Select the link text in the announcement body and then click this option to add a hyperlink. After adding the link details such as the URL and link text, click **OK** to save the hyperlink.
- For more details on the fields in the Insert Link dialog box, see the **Insert Link Dialog Box - Fields** section below.

Tip: To include a link to an email address in the announcement, select the link text, click the Insert Link button and then enter "mailto:" followed by the email address in the URL field.

- **Remove Link** - This option will be enabled only when the link text has been selected in the announcement body.
- **Expiration Date and Time:** The date and time at which the announcement will be removed from the homepage.

4. Click **Save**.

To delete an announcement

1. Click **Setup**. In the **Administration Tools** menu, expand **Settings** and click **Announcements**. The Account Announcements page is displayed.
2. Click the subject of the announcement you wish to delete. The Announcement Details page is displayed.
3. Click **Delete Announcement**.

Insert Link Dialog Box - Fields

The following fields are available in the Insert Link dialog box:

- **URL:** Enter the target address of the hyperlink.
- **Link Text:** The visible, clickable text that you select to add the hyperlink to.
- **Target:** Select a preset target for the hyperlink or select a custom target.
 - Preset Targets
 - Same Window: When this option is selected, the linked page will be opened in the same browser tab.
 - New Window: When this option is selected, the linked page will be opened in a new browser tab.
 - None: When no preset target is selected, the linked page will be opened in the same browser tab.
 - Parent Window: When this option is selected, the linked page will be opened in the same browser tab.
 - Browser Window: When this option is selected, the linked page will be opened in the same browser tab
 - Search Pane: When this option is selected, the linked page will be opened in a new browser tab.
 - Media Pane: When this option is selected, the linked page will be opened in a new browser tab.

Color Scheme

Important: The Color Scheme setting that allows accounts to customize colors for the top Global Navigation Tabs and grid headers has been retired and removed from availability from 15 December 2023. For more details, see the lifecycle announcement that was published in August 2022.

On the Manage Color Scheme page, you can select the style of user interface as well as change the colors of your e-Builder account to match your company colors.

The following user interface styles are available in e-Builder:

- **Classic style:** The classic interface style currently displayed in Trimble Unity Construct.
- **Compass style:** A new and updated interface with streamlined navigation. This changes only the visual interface and does not include functional changes.

Note: The user interface style and color scheme is an account-level setting and will be displayed for all projects. If you change the user interface style or colors, the changes will be updated for all users from your company.

To manage the style settings for your account

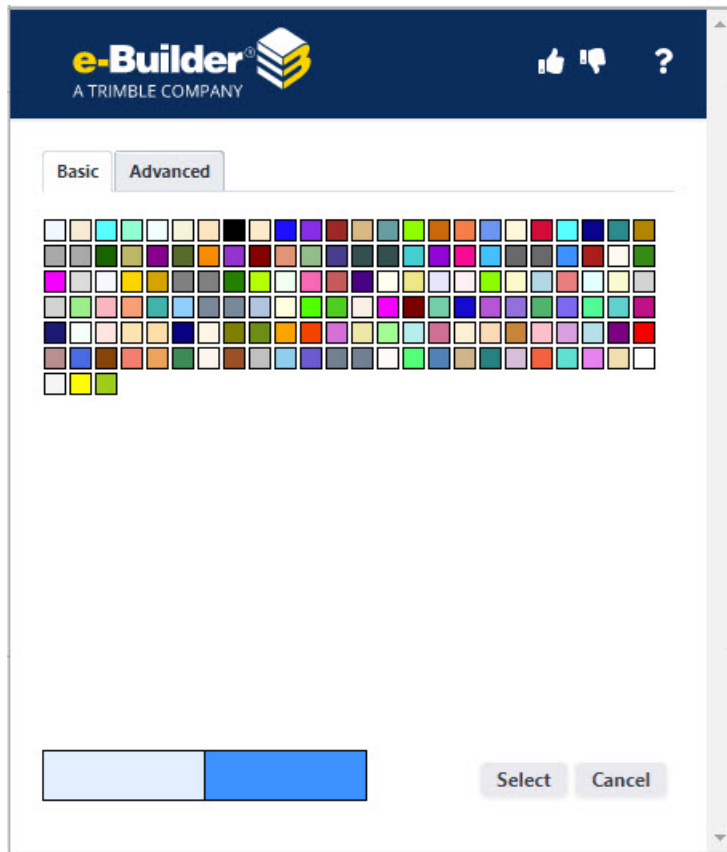
1. Click the **Setup** tab.
2. In the **Administration Tools** menu, expand **Settings** and click **Color Scheme**. The Manage Color Scheme page is displayed.
3. In the **Select Visibility** field, choose one of the following options:

Note: The **Switch to Compass style** button toggle will be displayed for all users only when the Compass style has been enabled for the account. After trying out the Compass style, users can click **Switch to Classic style** to return to the classic user interface.

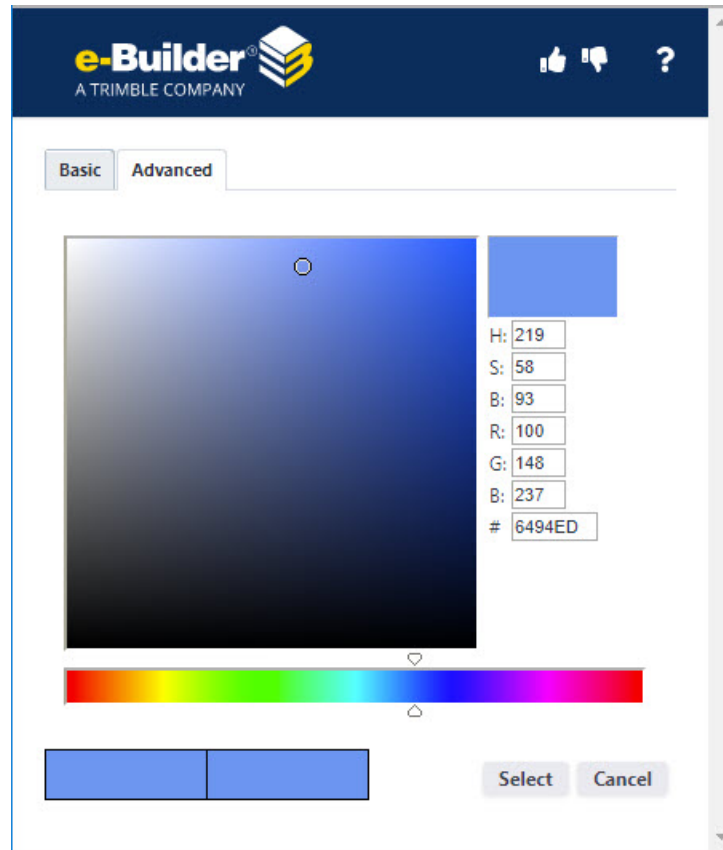
- **Allow users to try the Compass style:** Select this option to allow users to turn on the Compass style interface.
 - **Switch to the Compass style now:** Select this option to turn on the Compass style interface for all users.
 - **Prevent users from trying the Compass style:** Select this option to prevent users from trying the Compass style interface.
4. Click **Save**.

To manage the color scheme settings for your account

1. Click the **Setup** tab.
2. In the **Administration Tools** menu, expand **Settings** and click **Color Scheme**. The Manage Color Scheme page is displayed.
3. In the Color Scheme Settings section, you can change the color scheme (the background color and text color) for any of the following settings:
 - **Active Tab:** The currently selected tab onscreen.
 - **Inactive Tabs:** The inactive tabs onscreen.
 - **Grid Headers:** The header section of the grid.
 - **Background and Footer Links:** The background and footer link section.
4. To change the background color or text color for any of the above areas:
 - a. Click **Background Color** or click **Text Color** next to the area. The Color Picker popup window is displayed.
 - b. On the Basic tab, click a color to select it. Click **Select** to choose the color and close the popup window.



- c. If you want more advanced colors, click the Advanced tab. This will allow you to move the color picker circle over the color palette area and select the proper shade to use. If you have the exact color scheme from your marketing group, you can enter the appropriate color numbers on the palette. Click **Select** to choose the color and close the popup window.



Tip: If you do not like the color scheme or want to revert to the default color scheme, click **Return to Defaults** on the Manage Color Scheme page.

5. Click **Save** to retain the changes.

Company Logo

Your company logo can be branded onto your e-Builder account. If your company logo changes at any time, it is simple to update the logo on your e-Builder account using the Manage Company Logos page.

Note: The company logo is an account level setting. The company logo image that is uploaded in the Settings will appear for all projects in your account.

To manage the company logos for your account

1. Click **Setup**. In the **Administration Tools** menu, expand **Settings** and click **Company Logo**. The Manage Company Logos page is displayed.
2. In the Account View Logo section, you can perform the following actions:

To upload a new logo

- i. Click **Choose File** in the **New Logo** field. A file browser window is displayed.
- ii. Select the logo file you want to use and then click **Open**.

Tip: Standard logo files (e.g..jpg, .bmp) of your company logo can be uploaded.

- iii. Click **Save New Logo**. The new logo file is saved as the current logo.

Note: When changing a logo, the change will not go into effect until the browser cache expires (2 minutes). To view the logo change immediately, clear your browser cache.

To delete an existing logo file

- i. Click **Delete Existing Logo**. The Confirm Deletion page is displayed.
- ii. Click **Delete**. The logo file is deleted.

3. In the Add Other Logos section, you can perform the following actions:

To add and save an other logo file

- i. Click **Choose File** in the **Add Other Logo** field. A file browser window is displayed.
- ii. Select the logo file you want to use and then click **Open**.

Tip: Standard logo files (e.g..jpg, .bmp) can be uploaded.

- iii. Click **Save Other Logo**. The new logo file is displayed in the Other Logos section.

To delete an existing other logo file

- i. In the Other Logos section, click **Delete** beside the logo file you wish to delete. The Confirm Deletion page is displayed.
- ii. Click **Delete**. The other logo file is deleted.

Export Header and Footer

Export header and footer setting allows you to set the header and footer for all exported reports generated in your account. As an administrator you can standardize the header and footer to be in line with corporate policy.

To manage the export header and footer for your account

1. Click **Setup**. In the **Administration Tools** menu, expand **Settings** and click **Export Header and Footer**. The Export Header and Footer page is displayed.
2. Enter text and click the appropriate icon contained in each grid to insert additional tags.

Export Header and Footer

Header

Left Section

B ***I*** **U** [Icons]

ACME INDUSTRIES

Center Section

B ***I*** **U** [Icons]

{Title}

Right Section

B ***I*** **U** [Icons]

Footer

Left Section

B ***I*** **U** [Icons]

Report run by {User} on {Time}

Center Section

B ***I*** **U** [Icons]

Page {Page} of {Pages}

Right Section

B ***I*** **U** [Icons]










{Date}

Preview

Save

Cancel

Each icon is described below:

- : Bold the text.
 - : Italicize the text.
 - : Underline the text.
 - : Insert page title / report name (e.g. Anticipated Cost Report)
 - : Insert page number.
 - : Insert number of pages.
 - : Insert today's date.
 - : Insert time report is exported.
 - : Insert logged in user.
3. Click **Preview** to download and save a blank MS Excel file (Preview.xls) with the header and footer settings configured.
 4. Open the MS Excel file. The following explanation will be displayed in the file as shown below.
To preview the defined header and footer:
Open Print Preview. (File > Print > Print Preview)
If the defined header or footer does not appear in Excel, reduce the header or footer text length. Long report names or page titles could result in the header or footer being blank after export if the combined length exceeds Excel's limit.
- | |
|--|
| <p style="text-align: center;">To preview the defined header and footer:</p> <p style="text-align: center;">Open Print Preview via File > Print > Print Preview</p> <p>Note: If defined header or footer does not appear in excel, reduce the header or footer text length. Long report names or page titles could result in the header or footer being blank after export if the combined length exceeds Excel's limit.</p> |
|--|
5. Click **Save** to save the current settings.

Fiscal Year

The Fiscal Year setting is applied to your projects. You can set the year to begin on any month of the year. You can also indicate if the year is based on the first or last month of the year.

Example: Choosing any day during June 2020 would be included in Fiscal Year 2020 if Ending Month of June was selected. Alternatively, any day during July 201 would fall in Fiscal Year 2021 if Starting Month of July was selected.

[illegible]

Note: When you complete your transactions and controls in the Cost module, they will be based on the fiscal year set up in this module.

To setup the fiscal year

1. Click **Setup**.
2. In the **Administration Tools** menu, expand **Settings** and click **Fiscal Year**. The Setup Fiscal Year page is displayed.
3. In the **Fiscal Year Start Month** field, select the starting month of your fiscal year.

Note: If your fiscal year is based on the ending month of the year, click the **The ending month** radio button. If your fiscal year is based on the starting month of the year, click that radio button.

4. Click **Save**. The fiscal year is now set up.

Login Agreements

Login agreements are used to protect your company by requiring all users to accept your terms of use for access and use of the project information. A login agreement requires a user to read and accept your terms of use prior to accessing any project information.

Note:

- Multiple login agreements can be set. When the user(s) log onto your account they will be prompted from one agreement to the next until all of them are accepted or declined.
- If a user declines a login agreement, they will not be allowed access to your account. They must login again and accept the agreement before they will be granted access to your project(s).

Tip

It is recommended that you have the proper person create or review the login agreement verbiage to ensure it meets your company's document security requirements.

To add a login agreement

1. Click **Setup**. In the **Administration Tools** menu, expand **Settings** and click **Login Agreements**. The Account Login Agreements page is displayed.
2. To create an agreement, click **Create Agreement**. The Agreement Details section is displayed.
3. Enter or select the following required details (marked with an *):
 - **Name***: The name of the agreement.
 - **Text***: The content of the agreement message.
4. Click **Save**. The login agreement will now show in your agreement list.

Tip: To view the agreement and any users who have accepted the login agreement terms, click the login agreement name. In the Acceptance List at the bottom of the page you will see the name, username and agreement date of each user who has accepted the login agreement.

To delete a login agreement

1. Click **Setup**. In the **Administration Tools** menu, expand **Settings** and click **Login Agreements**. The Account Login Agreements page is displayed.
2. Click the name of the agreement you wish to delete. The Agreement Details page is displayed.
3. Click **Delete Agreement**. The Confirm Deletion page is displayed.
4. Click **Yes** to confirm the deletion.

Note: By deleting an agreement, you also delete the acceptance list history of that agreement. A system agreement cannot be deleted. System agreements are configured per the account setup by the Trimble Unity Construct team and cannot be modified by an administrator.

Notification Settings

This page allows you to customize the notifications so that all system notices will be sent from a specific person's name or specific user name.

To manage account-level notification settings

1. Click **Setup**. In the **Administration Tools** menu, expand **Settings** and click **Notification Settings**. The Notification Settings page is displayed.
2. In the From section, you can specify the following setting:
 - **From Name:** Enter the name of the person or user name to be placed in the "From" field for all system messages. Click **Edit** to modify the user name specified here.
3. In the Summary Notifications section, you can specify the following setting:
 - **Daily Summary Notifications:** Enable the option to combine all system notifications and receive only one daily summary. For more information, see About Account Summary Notifications.

About Account Summary Notifications

Depending on your role and involvement in a project, you can potentially receive a large quantity of system generated notifications from Trimble Unity Construct throughout the day. The summary notifications feature gives you the option to combine all of your system notifications and receive one daily summary, thus reducing the volume of emails you receive.

These notifications can be set up at the account level and managed for any number of users or roles. Likewise, individuals can set up notifications for themselves. You are able to choose which modules to include in each notification summary as well as the specific components of the module, such as cost approvals and opened or closed forms, for example.

You can perform the following tasks when working with summary notifications:

- Create Summary Notifications for Others
- Edit Account Summary Notifications
- Delete or Disable Summary Notifications
- Create Personal Summary Notifications

Access Account Notification Settings page

Note: There are two Notification Settings pages; one located in My Settings, which is available to everyone. The other, which these instructions refer to, is located in the Administration Tools section of the Setup. This page is only accessible by e-Builder administrators.

To access the Account Notification Settings page

1. Click **Setup**.
2. In the **Administration Tools** section, click **Settings**, and then **Notification Settings**.

Create Summary Notifications for Others

Account administrators are able to set up summary notifications at the account level and manage them for any number of users or roles. Likewise, individuals can set up notifications for themselves. You are able to choose which modules to include in each notification summary as well as the specific components of the module, such as cost approvals and opened or closed forms, for example.

To create summary notifications for others

1. Go to the account Notification Settings page.
For instructions, see Access Account Notification Settings Page.
2. In the **Daily Summary Notifications** field, click **On** to enable this feature if it isn't already active.
3. Click **Create** or **Create Template**.
Note: Templates are available for everyone to use when creating their own summary notifications.
4. Enter all necessary fields.
For information on specific fields, see Create/Edit Summary Notification Page Overview.
5. Click **Save**.

Edit Account Summary Notifications

Account administrators can update summary notifications for others at anytime from the Administration Tools section.

To modify summary notifications for others

1. Go to the Account Notification Settings page.
2. To enable/disable all daily notifications, click **On** or **Off**.

Note: When this feature is disabled, instant notifications will be received as if the summary notification was never created.

3. Click the **Edit** link.

The Edit Summary Notification page is displayed.

4. Update the details of the notification:

- Modify the subject
- Add or remove modules

Note: When modules are removed, instant notifications will be received as if the summary notification was never created.

- Update the delivery time
- Update the recipients
- Update the template status - templates will be available for everyone to use when creating their own summary notifications.
- Update the items included in the notification by selecting the appropriate check boxes.

5. Click **Save**.

Related Topics:

- About Summary Notifications
- Create Personal Summary Notifications

Delete or Disable Summary Notifications

Account administrators are able to delete or disable summary notifications at any time.

To modify, delete or disable summary notifications for others

1. Go to the Account Notification Settings page.
2. To enable/disable all daily notifications, click **On** or **Off**.
3. Take any of the following actions:
 - **Edit:** Modify details such as the name, module, delivery time and recipients.
 - **Copy:** This is a great way to create notifications that share similar characteristics.
 - **Delete:** After notifications are deleted, they cannot be recovered.
 - **Disable:** This will immediately disable notifications from being sent.

Create/ Edit Summary Notification Page

The Summary Notification page is used to create and modify summary notification settings.

For step-by-step instructions, see one of the following:

- Edit Account Summary Notifications (Account Administrators)
- Edit Personal Summary Notifications

Fields and Buttons

The fields and buttons on this page are:

- **Subject:** Enter a subject for the notification in this field.
- **Module(s):** Click into this field to display all available options. If templates were made available for general use, they will also be optional selections in this field.
- **Send Daily Summary at:** Select a time of day for the summary to be delivered.
- **Send Daily Summary to:** This field is applicable to templates only, which can only be created by account administrators. Select the users to send notifications to:
 - **None:** Select to create the notification with no user assignments. You may choose this option to save the notification as a draft until the users or roles are known. For instructions on adding summary notifications for yourself, see Create Personal Summary Notification.
 - **All Users:** Select to create this summary notification for everyone on the account. This will effectively suspend instant notifications.
 - **Selected Roles:** Choose to select roles to assign the summary notification to.
- **Prevent Users from Disabling Summary Notification:** This field is only available to account administrators and restricts anyone from disabling a summary notification template.
- **Save as Template:** Select to save this summary notification as a template
- **Select notifications to include in daily Summary Notification:** This section will display the components of the selected module(s) for you to choose from.

Security

On the security page, you can set a password policy, grant/ deny Tech Support access and specify public access permissions at the account-level.

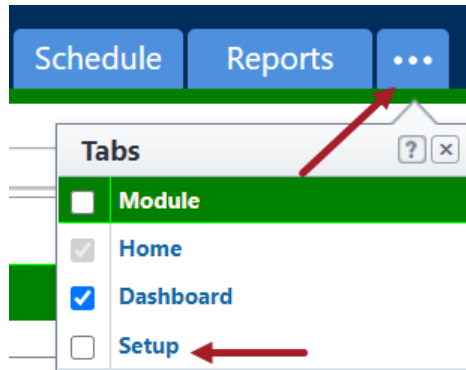
Set a Password Policy

On the Security page, you can set up a password policy that complies to your company standards. This password policy section is editable only by e-Builder administrators.

To manage password policies for your company

1. From the top navigation tabs, click the **Setup** tab.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, expand **Settings** and click **Security**.
3. Complete the following required fields:

| Field | Description | Default Value |
|---|---|-------------------------------|
| Minimum Password Length | Minimum length of the password required. | 8 characters |
| Password Complexity Requirements | Character requirements in setting the user's password. | 1 letter, 1 number, 1 special |
| User Passwords Expire Every | Duration for auto-expiration of the password after which the user must change their password. | 90 days |
| Password History | Number of past passwords to remember and prevent from being reused. | 5 passwords |
| Maximum Failed Login Attempts | Number of incorrect passwords that can be entered before the user is locked out. | 5 attempts |
| Maximum Failed Logins Exceeded Lockout Period | Duration for which the user is locked out from e-Builder access before they can try to log in again. Note: If the Maximum Failed Logins Exceeded Locked Period field is set to Forever , only the e-Builder Administrator can reset the | 30 minutes |

| | | |
|-------------------------|--|------------|
| | user's password. This can be reset from the Manage Users page (Administrative Tools > Users > Manage Users). | |
| User Inactivity Timeout | Duration for auto-logout of the user from e-Builder when the browser window has not been actively utilizing e-Builder. | 60 minutes |

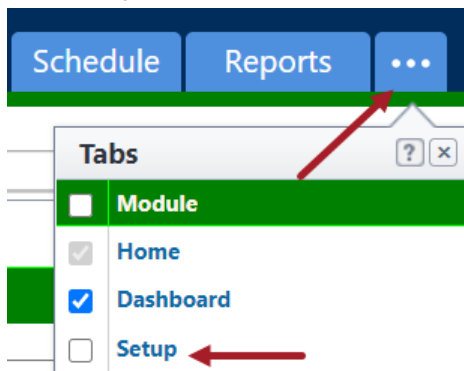
- Click **Save**.

Modify Tech Support Project Access

On this page, you can also prevent e-Builder Tech Support from accessing specific projects and all related data. Giving them access may be necessary for troubleshooting issues users might experience. However, projects that include confidential content may need to be restricted.

To grant / deny e-Builder Tech Support project access

- From the top navigation tabs, click the **Setup** tab.
If the Setup tab is not visible, click **...**, and then select the **Setup** check box.



- In the **Administration Tools** section, expand **Settings** and click **Security**.
- In the **Technical Support Access** section, use the arrow keys between the two columns to move the projects that you wish to allow or deny access.
- Click **Save**.

Set up Public Folder Access

On the Security page, administrators can now disable public folders and files at the account level.

Note: The **Allow Public Access Permissions in document folders** check box will be enabled by default. When this check box is enabled, the public access settings options and public URL will be visible in the document folder properties or file properties section.

When the **Allow Public Access Permissions in document folders** setting is unchecked, files and folders across the projects in the account will no longer be made publicly available. The public folder URL will be removed from the Folder Properties page and the public file URL will be removed from the File Properties page.

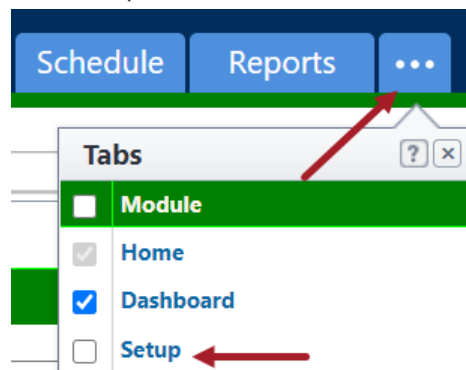
Note: If an Administrator turns off public access, previously public users will need a licensed e-Builder user account and appropriate roles and permissions to the document folders.

Tip: When pre-existing public folder access is disabled, the previously public links will work but they will display a warning message that the access has changed and that the file or folder has become private. Users will be redirected to log into the main application page.

To grant / deny public folder and file access

1. From the top navigation tabs, click the **Setup** tab.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, expand **Settings** and click **Security**.
3. In the **Public Access** section, select the **Allow Public Access Permissions in document folders** check box to allow public access to folders and files.
4. Click **Save**.

Allow Users to Request External Comments for Forms

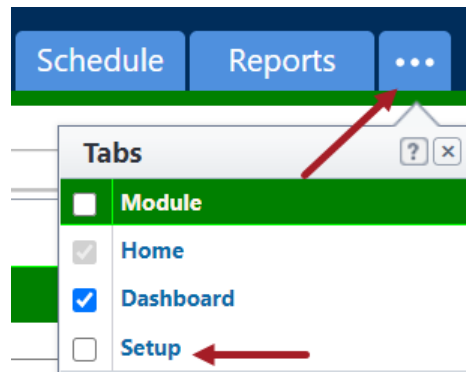
On the Security page, administrators can now disable the ability of users to request external comments on forms at the account level.

Note: The **Forms - Allow users to request external comments** check box will be enabled by default. When this check box is enabled, users may request external comments on Forms from anyone without an e-Builder license.

To allow the ability to request external comments on forms

1. From the top navigation tabs, click the **Setup** tab.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, expand **Settings** and click **Security**.
3. In the **Public Access** section, select the **Forms - Allow users to request external comments** check box to allow users to request external comments on forms.
4. Click **Save**.

Schedule

Have you ever worked on a project where 100% of the time the projects had schedules that were kept updated; where at any time on any given day you could know the exact status on any project you choose, or of all the projects? No? That's the way it is for most people, but that's where Trimble Unity Construct can help.

A Programmatic Perspective

Trimble Unity Construct supports the different team members that are involved in the project. Using the Schedule module helps ease the hectic nature associated with managing large scale schedules across multiple projects. Trimble Unity Construct scheduling gives schedule managers and account administrators a single system that helps them coordinate various activities and people in order to actualize specific goals. Scheduling allows you to view the project at a high level and organize the details that need to be completed to ensure project success. Trimble Unity Construct's Schedule is ideal for owners, as well as developers, program managers, and construction managers managing multiple projects in various stages of development, from planning, through design, procurement and construction.

Schedule Management

The system allows team members to access and update the schedule in real time. This keeps all project participants and stakeholders up-to-date on all changes as they happen. And, as each individual team member marks their tasks complete on a project, the schedule is automatically updated and maintained, minimizing administrative work for the project manager. With up-to-date and accurate information at your fingertips, you will be able to make informed, faster decisions thereby improving the scheduling process and mitigating risk.

Identifying Critical Paths

As team members update their tasks, the system will calculate the durations of each of the paths through a project, identify the critical paths, and give the project duration. Trimble Unity Construct will help to ensure that the shortest path to complete the project is taken. This gives the project manager the ability to specify what must be done, and by when to ensure a successful project outcome.

About Schedule Settings

Configuring Schedule settings allow account administrators to set the framework for this module. Schedule settings consist of the following main tasks:

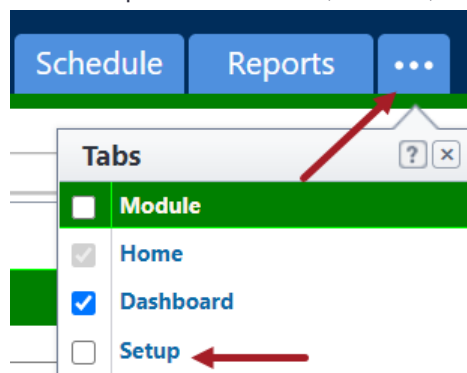
- Creating master tasks and master processes
- Setting up the schedule calendar
- Adding schedule custom fields
- Determine whether or not the baseline can be re-saved
- Determine whether or not the schedule will be linked to the project's start and end dates
- Create schedule templates

Access Schedule Settings

To access the Schedule settings

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Schedule**.

All Schedule related settings are displayed.

Master Processes and Master Tasks

Master Processes

Master Processes are created to categorize and report on Master Tasks. Having master processes allows you to standardize the different types of tasks that might exist across all of your projects for reporting purposes. In some cases, only a single master process might be necessary. Project schedules use these processes to filter and view activities in the schedule that are linked to certain master tasks.

The Master Processes page allows you to add new master processes and make changes to existing ones. Master Processes are created to categorize and report on Master Tasks. Having master processes allow you to standardize the different types of tasks that might exist across all of your projects for reporting purposes.

After creating a master process, you'll have to associate master tasks to it so that when schedule managers identify their summary tasks as one of these master tasks that you've created, the association would have already been established, which will strengthen the value of your reports.

The following topics will help you manage master processes:

- Add Master Processes
- Edit Master Processes
- Delete Master Processes

Master Tasks

Note: The terms master tasks and master activity are used synonymously in the user interface.

Master tasks are created by the account administrator and used to identify similar project phases that may be referred to by different names across multiple projects.

For example, one project might use the term, "closeout" and others may use "final completion", "project close out" or "closeout/ occupancy". The master task is a unique identifier that unifies all of these project phases so that account administrators and executives can report on the status of these phases across all projects. All master tasks have a numerical prefix that allows you to link similar project phases to one another.

From the View Master Process page you will be able to link master processes to master tasks so that when schedule managers identify their summary tasks as one of these master tasks, the association would have already been established, which will strengthen the value of your reports.

Add Master Process

Master processes are used to categorize and report on master tasks. This gives administrators the ability to report across projects by phases or tasks. Having master processes allows you to standardize the different types of tasks that might exist across all of your projects. In most cases, only a single master process is created. Project schedules use these processes to filter and view activities in the schedule that are linked to certain master tasks. After creating the master process, you will have to add master tasks to it.

To add master processes

1. Open Schedule settings.
2. Click **Master Processes/ Tasks**. The Master Processes page is displayed.
3. Click **Add**. The Add Master Process page is displayed.
4. Complete all necessary fields (marked with an *):
 - **Process Name***: Enter a name for the master process.
 - **Process Number***: Enter the process number. Master process numbers cannot be duplicated.
 - **Status***: Select a status for the master task. By default, the Active radio button is selected, which will make the task available to users. Select disabled keep this task as a draft version that can be made active later on.
 - **Description**: Enter a description for the master task.

- Click **Save** to save the master process.

—Or—

Click **Cancel** to disregard changes. Unsaved changes will be lost.

View Master Processes

This page allows you to view the details of a master process including its associated master tasks.

You can also add master tasks to master processes from here. For more information, see [About Master Processes and Master Tasks](#).

To view a master process

- Open Schedule settings.
- Click **Master Processes/ Tasks**. The Master Processes page displays.
- Click the name of the process you want to view. The View Master Process page displays.
- You can perform any of the following actions from this page:
 - Update**: Click this button to make changes to the details of the master process or to the details of any of the associated master tasks.
 - Cancel**: Click to disregard changes and navigate away from this page.
 - Add**: Click to add new master tasks.

Edit Master Processes

Master processes can be modified by changing the process name, number, status or description.

Note: You cannot delete any of the already defined master processes or master tasks that are in use. A process or task is in use if it is assigned to one or more schedule(s) in e-Builder. However, you do have the option of disabling the master process so as to prevent any new master tasks from being assigned to it.

To edit master processes

- Open Schedule settings.
 - Click **Master Processes/ Tasks**. The Master Processes page is displayed.
 - Click the **Edit** link next to the process you want to modify. The Edit Master Process page is displayed.
 - Edit the fields as needed. Ensure that the required fields (marked with an *) are completed.
 - Process Name***: Enter a name for the master process.
 - Process Number***: Enter the process number. Master process numbers cannot be duplicated.
 - Status***: Select a status for the master task. By default, the **Active** radio button is selected, which will make the task available to users. Select the **Disabled** radio button to keep this task as a draft version that can be made active later on.
 - Description**: Enter a description for the master task.
 - Click **Save** to save the changes to the master process.
- Or—
- Click **Cancel** to disregard changes. Any unsaved changes will be lost.

Related Topics:

- About Master Processes and Master Tasks

Delete Master Processes

Note: Master processes that have already been associated with tasks in the user interface cannot be deleted unless the associated master process and tasks are also deleted.

To delete master processes

1. Open Schedule settings.
2. Click **Master Processes/ Tasks**. The Master Processes page is displayed.
3. Click the **Delete** link next to the process you want to remove. The Delete Master Process page is displayed.
4. Click **Yes, Delete**. A confirmation page is displayed

Related Topics:

- About Master Processes and Master Tasks

Master Tasks

Master tasks are a subset of master processes. They are used to identify similar project phases that may be referred to by different names across multiple projects. For example, one project might use the term, "closeout" and others may use "final completion", "project close out" or "closeout/ occupancy". The master task is a unique identifier that unifies all of these project phases so that account administrators and executives can report on the status of these phases across all projects.

For more information, see About Master Processes and Master Tasks.

Add Master Tasks to Master Processes

Linking master processes to master tasks supports the reporting needs of the program. When schedule managers associate summary tasks to one of the established master tasks, you'll be able to report on all of the master tasks and summary tasks linked to the master process.

Note: Master tasks are a subset of master processes. You can link one or more of these tasks to a master process. They can only be added after you've saved the associated master process.

To add master tasks to master processes

1. Open Schedule settings.
2. Click **Master Processes/ Tasks**.
3. Click the title of the master process you want to add master tasks to. The View Master Process page is displayed.
4. Click **Add**. The Master Task page is displayed.
5. In the **Task Name** field, enter a name for the task.

Tip

Remember, master tasks are used to identify similar project phases across multiple projects, so it is advisable to use a generic, but descriptive name that will be easily understood by schedule managers across the program, such as Planning, Bidding or Closeout.

6. Click the **Process Number** drop-down arrow to select a process to link this task to.
7. The **Task Number** field automatically populates with a unique identifier, but you can change this number if you wish.

Note: Task numbers cannot be duplicated.

8. Click the **Task Type** drop-down arrow to specify whether this is a task or an event.

Note: Although an event is still treated as a task in regards to duration, start and finish time, an event is classified as a meeting or an approval of item(s). Specifying events gives the Schedule Manager the ability to better manage the schedule by identifying when work is actually being done versus a decision making or approval process that may or may not impact the schedule.

9. In the **Milestone** field, specify whether the task is a milestone or not.

Note: A task that is considered critically important or is in the critical path of the project's success can be considered a milestone.

10. Enter a description in the **Description** field to provide clarity for schedule managers.
11. Click **Save** to save the master task.

—Or—

Click **Cancel** to disregard changes. Unsaved changes will be lost.

Edit Master Tasks

To edit master tasks

1. Open Schedule settings.
2. Click **Master Processes/ Tasks**.
3. Click the master process the task is associated to. The View Master Process page is displayed and a list of available master tasks display half way down the page.
4. Click the **Edit** link of the task you want to modify.
5. Make all changes to the task details as needed. Ensure that the required fields (marked with an *) are completed. The following fields are editable:
 - **Task Name***: The name of the master task.
 - **Process Number***: The master process that the task is associated with.
 - **Task Number***: Unique number for the master task that cannot be duplicated.
 - **Task Type***: Type of master task - either task or event.
 - **Milestone***: Designates the master task as a milestone or not.
 - **Description**: The description for the master task.
6. Click **Save**.

Delete Master Tasks

Note: Master tasks that have already been associated with tasks in the user interface cannot be deleted unless the associated tasks are also deleted.

To delete master tasks

1. Open Schedule settings.
2. Click **Master Processes/ Tasks**.
3. Click the master process the task is associated to.
The View Master Process page is displayed and a list of available master tasks display half way down the page.
4. Click the **Delete** link of the task you want to remove. The Delete Master Task page is displayed.
A confirmation page is displayed.
5. Click **Yes, Delete**.

Manage Resources with Cost

Resource Management

The Resource Management with Cost module provides you with the ability to:

- **Capture accurate resource costs** – Easily and consistently capture accurate resource rates for staff, apply the labor burden, and then load resources onto tasks. Project Managers will not have to use “ball-park estimates” or “rule of thumb percentages” to assess self-performance costs any more.
- **Link resources or schedule tasks to budget line items** – At the project level, select whether to link schedule tasks or link resources to budget line items, and view real-time resource costs in the project Cost Summary.
- **Eliminate hidden soft costs** – With visibility of resource costs in the project Cost Summary, managers can evaluate their true available Budget for external contracts.
- **Track remaining resource costs as payroll costs are entered** – As actual payroll costs are entered from the ERP system, remaining resource costs adjust accordingly, providing highly accurate total project cost at completion.

Note: This new module is available at an additional Cost. Please contact your Account Manager for pricing.

Configuring Resource Management with Cost

Using the Manage Resources page, Trimble Unity Construct Administrators can configure resource management.

Configure Resource Management with Cost

As the Account Administrator, you can manage your resources. These resources are created at the account level and are available for assignment to project tasks.

To open the Manage Resources page

1. Open Schedule settings.
2. In the Administration Tools section, expand **Schedule**.

3. Click **Manage Resources**. The Manage Resources page is displayed.

Add and Manage Resources

Resources consist of non-employees, such as contractors. On the Resources tab, you can either add existing users or create new resources.

To add a resource

1. Open the **Manage Resources** page.
2. On the **Resources** tab, click **Add**.
3. From the **Type** list, select the type of resource.
4. To add an existing resource:
 - a. From the **Name** list, select **Add from User**.
 - b. Type the first few letters of the resource's name in the search field.
The resources that match the search criteria are displayed.
 - c. Click on the resource to add.

5. To add a new resource:
 - a. From the **Name** list, select **Add New Resource**.
 - b. Type the name of the new resource and press **Enter**.

- c. Enter the new resource's title, email and phone number.
6. In the **Rates** section, enter the resource's rates:
 - a. Enter the resource's default rate in the first row under the Pay Rates column. This is the initial rate when first hired.
 - b. Select **Apply Burden** to add a burden rate to the total resource rate.
 - c. To enter a pay raise, enter or select the effective date and then enter the new pay rate.

7. In the **Availability** section, enter the resource's monthly capacity:
 - a. Enter the number of work days
 - b. Enter the number of hours worked per day. The Total Monthly Hours will be calculated automatically.
8. In the **Custom Fields** section, assign the resource to each category.
9. Click **Add**.

To delete a resource

1. Open the **Manage Resources** page.
2. On the **Resources** tab, click **Delete** next to the resource you wish to delete.
3. When prompted, click **Confirm**.

To deactivate a resource

Resources that are not active cannot be assigned to a project.

1. Open the **Manage Resources** page.
2. On the **Resources** tab, clear the **Active** check box next to the resource you wish to deactivate.
3. Click **Save**.

Set the Labor Burden Rate

Use the Default Burden table to set each year's labor burden rate.

To add a burden rate

1. Open the **Manage Resources** page.
2. On the **Burden** tab, click **Add**.
3. Enter the burden rate as a factor inclusive of Pay Rate or as a percentage added to the Pay Rate.
4. Toggle to show the burden rate as either a factor or as a percentage.
5. Select the date when the burden rate is effective.
6. Click **Add**.

To edit a burden rate

1. Open the **Manage Resources** page.
2. On the **Burden** tab, click on the labor burden rate you wish to edit.
3. On the **Edit Labor Burden** dialog box, edit the rate details.
4. Click **Save**.

To delete a burden rate

1. Open the **Manage Resources** page.
2. On the **Burden** tab, click on the labor burden rate you wish to delete.
3. On the **Edit Labor Burden** dialog box, click **Delete**.

Specify Resource Roles

Specify the roles that can be assigned to a resource for a project. Only active roles can be assigned.

Note: The resource role field is unrelated to an e-Builder user's role. This resource role is intended to support organizations that have been tracking resource roles in another platform and want to have those same roles available in e-Builder.

To add a role

1. Open the **Manage Resources** page.
2. On the **Roles** tab, click **Add**.
3. Enter the name of the role.
4. Click **Add**. Click **Close** to exit the **Add Role** dialog box.

To delete a role

1. Open the **Manage Resources** page.
2. On the **Roles** tab, click **Delete** next to the role you wish to delete.
3. When prompted, click **Confirm**.

Calendar Exceptions

Calendar exceptions are days that will be treated as an exception to the general rule, such as holidays that fall on typical working days. From the Calendar Exceptions page, you can choose particular dates and mark them as working or non-working days. Identifying these days at the onset of a project helps the schedule manager plan more effectively.

Calendar exceptions at the account level will affect every project in the account. The dates are visible on the Project Details Settings tab and cannot be removed from the project level. For accounts using Resource Management or with Multiple Calendars feature activated, the account level Calendar Exceptions roll to the Project Details page, but do not affect the Schedule module. Accounts using these features must set calendar exceptions independently within each individual calendar.

Tip: To update calendar exceptions in bulk without account level exceptions, create a special Schedule template without any tasks. Set up calendars within Manage Calendars including calendar exceptions.

Whenever new holidays are added as exceptions, the project teams can re-apply the template. Calendars with the same names as those in the template will be updated with new exception.

Note: Only a user with update project details permissions has the ability to modify the calendar exceptions.

In the Schedule module, the schedule manager has the opportunity to specify the days of the week that will be included in a typical work week.

To add calendar exceptions

1. Open Schedule settings.
2. Click **Calendar Exceptions**. The Calendar Exceptions page is displayed.
3. In the **Date** field, enter or select the date that will be saved as a working or non-working day in the list of calendar exceptions.

4. Click the adjacent drop-down arrow and select **Non-working** or **Working** to make the selected date a working or non-working day.
5. Click **Add**.

To delete calendar exceptions

1. Open Schedule settings.
2. Click **Calendar Exceptions**. The Calendar Exceptions page is displayed.
3. Select the check box next to the date(s) you want to remove.
4. Click **Delete**.

Schedule Custom Fields

Custom fields are fields that you define for users of the Schedule module to complete. They are used mainly for reporting on project schedules. They help you gather additional information that may not be covered in the schedule or schedule details.

Although you can add schedule custom fields in the Schedule Settings, it is recommended that custom fields are added through Global Custom Fields, which will allow you to add custom fields to any Trimble Unity Construct module or object.

For more information on custom fields, see [About Global Custom Fields](#).

The following actions can be taken from the custom fields pages in the Setup module:

- Add Schedule Custom Fields
- Add Task Custom Fields
- Add Custom Field Dependencies

Add Schedule Custom Fields

Custom fields allow you to gather additional information that may not be covered in the schedule or schedule details for reporting purposes. Although you can add schedule custom fields in the Schedule Settings, it is recommended that custom fields are added through Global Custom Fields, which will allow you to add custom fields to any Trimble Unity Construct module or object.

For more information on custom fields, see [About Global Custom Fields](#) and [Add/ Edit Custom Fields](#).

To add schedule custom fields

1. Open Schedule settings.
2. Expand **Custom Fields** and click **Schedule**. The Schedule Custom Fields page is displayed.

Tip: To add schedule custom field dependencies, click **Field Dependencies** on the Schedule Custom Fields page.
3. Click **Add Field**. The Add Custom Field page is displayed.
4. In the **Select Data Type** section, select the radio button beside the data type, and then click **Next**.
5. On the **Custom Field Details** section, enter a name for the custom field in the **Field Label** field.

6. Add any of the following optional details:

- **Description:** Enter a description of the custom field.
- **Required:** Select this check box to make this a required field. Leave clear to make this an optional field.
- **Default Value:** Enter a default value for the field.
- **Permission:**
 - **Admin Edit Only:** Select to make this field editable by account administrators only.
 - **All Users:** Select View to make this custom field visible to all users. Select the Edit check box to allow all users to modify the custom field by entering and editing data.
 - **Role Name:** If the custom field can be edited by a role, the role will automatically inherit view permissions as well. You can allow all roles to view or edit the custom field by selecting either check box in the 'Role Name' header. However, to specify the roles that are able to view or edit, select the respective check boxes next to the role name.

7. Click **Next**.

8. Review the details of the custom field under the **Field Summary** and **Preview** areas.

9. If changes are required, click **Previous** to navigate to the appropriate page and make changes.

—Or—

If details are correct, click **Save**. The new custom field is added to the Schedule Custom fields page.

Tip: Click **Reorder** to change the order that the custom fields display. The Reorder Custom Fields page is displayed. Use the directional arrow buttons to reorder the saved custom fields.

Add Task Custom Fields

To add task custom fields

1. Open Schedule settings.
2. Expand **Custom Fields** and click **Task**. The Task Custom Fields page is displayed.
3. Click **Add Field**. The Add Custom Field page is displayed.

Tip: To add schedule custom field dependencies, click **Field Dependencies** on the Schedule Template Custom Fields page.
4. In the **Select Data Type** section, select the radio button beside the data type, and then click **Next**.
5. On the **Custom Field Details** section, enter a name for the custom field in the **Field Label** field.
6. Add any of the following optional details:
 - **Description:** Enter a description of the custom field.
 - **Required:** Select this check box to make this a required field. Leave clear to make this an optional field.
 - **Default Value:** Enter a default value for the field.

- **Permission:**

- **Admin Edit Only:** Select to make this field editable by account administrators only.
- **All Users:** Select View to make this custom field visible to all users. Select the Edit check box to allow all users to modify the custom field by entering and editing data.
- **Role Name:** If the custom field can be edited by a role, the role will automatically inherit view permissions as well. You can allow all roles to view or edit the custom field by selecting either check box in the 'Role Name' header. However, to specify the roles that are able to view or edit, select the respective check boxes next to the role name.

7. Click **Next**.

8. Review the details of the custom field under the **Field Summary** and **Preview** areas.

9. If changes are required, click **Previous** to navigate to the appropriate page and make changes.

—Or—

If details are correct, click **Save**.

Tip: Click **Reorder** to change the order that the custom fields display. The Reorder Schedule Template Custom Fields page is displayed. Use the directional arrow buttons to reorder the saved custom fields.

Schedule Options

The Schedule Options allow you to do two things: determine whether or not a schedule manager is able to re-save the baseline after it has been set; and decide whether or not to link the project start and target date with the schedule. However, in the Project Details, if a start and target date are entered, these dates will be used as the schedule's start and target dates. If this is the case, users will not be able to modify these dates in the schedule.

To edit the schedule options

1. Open Schedule settings.
 2. Click **Options**. The Schedule Options page is displayed with the following options:
 - a. **Restrict Schedule Manager from Re-saving Baseline:** Select this check box to restrict the schedule manager from re-saving the baseline once the initial baseline has been set.
 - b. **Link Project Start and Target Date with Schedule:** Select this check box to link the project start date and the target date with the schedule. Doing so will ensure that the project's life cycle coincides with the project schedule. But please keep in mind that if the project and schedule are linked, then changing dates in the schedule will affect project dates. This is a good option only if you want the project details date to be consistent with the schedule dates.
 - c. **Automatically calculate the % complete by default:** Select this check box to automatically calculate the percentage complete by default. This feature can also be managed per schedule through the schedule details page.
 3. Click **Save**.
- Or—
- Click **Cancel** to discard changes. Unsaved changes will be lost.

Schedule Templates

Schedule templates are a great time-saving tool. They provide a prototype for project schedules. If you have projects that are similar in nature such as elementary schools, high schools, and parking garages, each of these project types can have a template that will ensure, at the minimum, the core tasks are addressed. Templates also give the schedule manager a framework for building and completing the project schedule. With very little verbal communication, you and the schedule managers can be in sync with task schedule management.

Note: Only users with Manage Templates permissions are able to save the template as an account setting.

Account templates are available in all projects, whether or not the schedule manager has access to those projects.

Personal templates can be created by you, or for you by an administrator or user with Manage Template permissions. These templates can be created from My Settings or directly from the Project Schedule. A schedule that includes the fundamental milestones and master tasks might be saved as an account template. Personal templates are tied to your username and will be available in any project that you have access to.

Constraints are not saved to templates. Non-managers may choose to add templates to track only the tasks that pertain to them. For example, someone in the Finance department might only be concerned with master tasks and would therefore make the duration of all subtasks "0" and apply this template to all of their new projects.

To access the Admin Schedule Template page

1. Click **Setup**.
2. From the Administration Tools menu, expand **Schedule**.
3. Click **Schedule Templates**.

The Schedule Templates page is displayed.

To access My Schedule Templates page

1. Click **Setup**.
2. From the My Settings menu, expand **Schedule**.
3. Click **My Schedule Templates**.

The My Schedule Templates page is displayed.

Add a schedule template

Administrators or users with manage schedule permission can add schedule templates

Tip: Ensure that you complete the required fields that are marked with an *.

To add a new schedule template

1. On the tasks toolbar, click **Add**.
2. Enter schedule template details:
 - **Name***: Enter a name for the schedule template. This field is required.
 - **Description**: Enter a brief description of the schedule template.
 - **Status**: To make this template available for use, select the **Active** option (this is the default selection). To leave it as a draft template, select the **Draft** option.
 - **Link Resource Cost to the Budget**: This option is only available if you have the Resource Management with Cost module enabled.
 - **None**: Default setting - This setting is disabled.
 - **Tasks to Budget Line Item**: Allows Schedule Manager to select a single Budget Line Item for Resource Costs on a Task. Choose this option for projects where all the resources who are assigned to a single task charge their time to the same budget line item or account code.
 - **Resources to Budget Line Item**: Allows the schedule manager to select a single budget line item per resource assigned to any task. Can result in multiple budget line items for resource costs on a task if resources are linked to different budget line items. Choose this option for projects where different resources working on the same task can charge time to different budget line items or account codes.
 - **Duration**: The duration of the schedule. This field is not editable.
 - **Created By**: The name of the user who created the schedule template. This field is not editable.
 - **Date Created**: The date when the schedule template was created. This field is not editable.
3. Click **Save**.

Delete a schedule template

Warning: Once a schedule template is deleted, it cannot be recovered. Deleted templates are immediately removed from the account and will no longer be available for use.

Tip

If you do not want this template to be available for use, but you also don't want to remove it from the account, change its status to "draft."

To delete a schedule

1. On the Schedule Templates page, click the **Delete** link located to the left of the template you want to delete. A confirm deletion message is displayed.
2. Click **Yes, Delete the Schedule Template** to delete the template.

- [Related topics](#)

Working with Schedule Templates

Tasks can be added to schedule templates through an import of a Microsoft Project .mpp file or manually, by adding one task at a time. In most cases, an import will be used, but manual entry might be necessary for adding additional tasks after the initial schedule has been uploaded. You can work on your personal schedule templates or on an account schedule template (Admin) that will be available to all projects.

To access the Admin Schedule Template page

1. Click **Setup**.
2. From the Administration Tools menu, expand **Schedule**.
3. Click **Schedule Templates**.

The Schedule Templates page is displayed.

To access My Schedule Templates page

1. Click **Setup**.
2. From the My Settings menu, expand **Schedule**.
3. Click **My Schedule Templates**.

The My Schedule Templates page is displayed.

To access the Schedule Template Details page

- On the Schedule Templates page, click **Edit** to the left of the template you wish to work with.
- The **Schedule Template Details** is displayed.

Tasks toolbar

On the Schedule Template Details page, the following operations can be performed using the Tasks toolbar:

- **Add Task:** This button is not visible to Task Resources. Only Schedule Managers and Task Managers are able to see this button. Click to add a single task.
- **Outdent:** Decreases the indentation level of the selected task in the tree. This button is only available to Schedule Managers or users with Manage Templates permission. For instructions, see Move Tasks within the Schedule.
- **Indent:** Increases the indentation level of the selected task in the tree. This button is only available to Schedule Managers or users with Manage Templates permission.
- **Undo:** Click to undo the last action. This button is only available to Schedule Managers or users with Manage Templates permission.
- **Redo:** Click to redo the last action. This button is only available to Schedule Managers or users with Manage Templates permission.
- **Import:** Click to import tasks using an .MPP file (Microsoft Project 2003, 2007, 2010, 2013). This button is only available to Schedule Managers or users with Manage Templates permission. For details or instructions, see Working with Schedule Imports.

- **Expand:** Shows all the tasks and subtasks.
- **Collapse:** Collapses the subtasks under their tasks.
- **Previous / Next:** Moves the time axis backward / forward in time in units specified by the current view.
- **Zoom In/Out/Fit:** Click to zoom in or out the timeline. Click Fit to change the timeframe of the scheduling chart to fit all the events in it.
- **Working Time:** Click to open the Manage Calendars dialog box. If your account has the Resource Management (RM) or Resource Management with Costs (RMC) option enabled, you have the ability to manage calendars.

Edit the details of a schedule template

1. On the Schedule Templates page, click the **Edit** link located to the left of the template you want to edit.
2. In the Schedule Template Details area, edit the following details as required:
 - **Name:** The name for the schedule template.
 - **Description:** The description of the schedule template.
 - **Status:** The status of the schedule template.
 - **Link Resource Cost to the Budget:**
 - **None:** Default setting - This setting is disabled.
 - **Tasks to Budget Line Item:** Allows Schedule Manager to select a single Budget Line Item for Resource Costs on a Task. Choose this option for projects where all the resources who are assigned to a single task charge their time to the same budget line item or account code.
 - **Resources to Budget Line Item:** Allows the schedule manager to select a single budget line item per resource assigned to any task. Can result in multiple budget line items for resource costs on a task if resources are linked to different budget line items. Choose this option for projects where different resources working on the same task can charge time to different budget line items or account codes.
 - **Duration:** The duration of the schedule. This field is not editable.
 - **Created By:** The name of the user who created the schedule template. This field is not editable.
 - **Date Created:** The date when the schedule template was created. This field is not editable.
3. Click **Save**.

Add tasks manually to a schedule template

You can add tasks to the template one task at a time.

[To add tasks manually](#)

1. On the tasks toolbar, click **Add Task**.

A new row is added to the bottom of the schedule template.

2. Add the task's details inline and complete all required fields from the following:

- **Task Name:** Enter the name of the task in this field.
- **Choose where to add the task:** Choose the order in which you want this task to occur:
 - Add as a last task in the schedule.
 - Add as a subtask of [choose predecessor task].
 - Insert above [choose task that will follow this one].
 - Insert below [choose task that will precede this one].
- **Task Type:** Select whether this is a task or event.
- **Duration:** Enter the amount of days, weeks, or months this task will take to complete.
- **Master Task:** Select the Master Task.
- **Description:** Enter a description to give the Schedule Manager more information about the task.
- **Predecessors:** Enter the task number of the predecessor task. The predecessor task is a task that must be completed before another task can begin. For information, see About Predecessor Tasks. The proper syntax for this field is the task number + start/ finish abbreviation.
- **Resource Role:** Select the name of the person that will be responsible for overseeing this task.
- **Manager Role:** Select the name of the schedule manager.
- **Approval Required for Date Changes:** Select this check box to require approval on changes made to the dates associated with this task.
- **Approval Required for Work Complete Changes:** Select this check box to require approval on changes made to work that has already been marked completed. The options that you can include and a description of each are listed below:
 - **No:** A manager's approval is not required when changes are made to the completion status of this task.
 - **All Changes:** A manager's approval is required when any change is made to the task's completion status.
 - **100% Only:** A manager's approval is only required when the task is set to 100% complete.
- **Set Task as a Milestone?:** Select this check box to set this task as a milestone in your schedule. Identifying milestones increase the value of Schedule reports.

3. Click **Save**.

Add tasks using an import file

The standard schedule template import files are .mpp files, which can be exported from Microsoft Project. Typically, import files will include the task name, duration, predecessors, and the start and finish dates; but for your convenience, e-Builder specific fields, can also be included. If the import file includes any of these

columns by different names, you'll be able to map those columns to the corresponding e-Builder fields during the import process.

Note: Adding tasks to the schedule template is the second and final step to create schedule templates. If you have not already done so, please add a schedule template before attempting to complete this process.

To import tasks

1. On the tasks toolbar, click **Import**. The Import Schedule page is displayed with a 3-step import wizard.
2. In the Import File field, click **Choose File** to browse for and select the import file.
3. Click **Next**. The Field Mapping page is displayed showing the mapping between the columns in the import file and the e-Builder fields.
4. If necessary, map the columns in the import file to the corresponding built-in e-Builder fields.
5. Click **Next**. The Review page is displayed showing a preview of the import and any exceptions determined.



Tip: A count of the rows that imported successfully display on the **Preview** tab. The **Exceptions** tab lists the rows that failed to import and the reasons why. Click this tab to view failed items. To go back and make corrections to the import file, click **Previous** and on the Mappings page, click **Previous** again, and then repeat the steps.

6. Click **Import** to complete the import.
7. Click **Save**.

Move tasks within the schedule template

Once the tasks have been created, you can move them within the schedule template to rearrange them or create sub-tasks.

To move tasks within the schedule template

1. Select the task you wish to move.
2. Do any of the following actions:
 - Drag it up or down within the schedule to reposition it.
 - To make it a subtask, move it directly below the parent task, and then click the  **Indent** in the **Tasks** section of the toolbar.
 - To move a subtask out of a parent task or to make it a summary task, click the  **Outdent** in the **Tasks** section of the toolbar.

Manage Calendars

Use the Manage Calendars dialog box to edit or create a new calendar. You can also set the working days and hours, as well as set the exceptions (e.g., holidays).

To add new calendars

1. On the tasks toolbar, click **Working Time**. The Manage Calendars popup window displays with the standard calendar.
2. Click **Add**. The Add New Calendar popup is displayed.
3. In the **Name*** field, enter a name for the new calendar.
4. Choose one of the following options:
 - **Make a copy of the (calendar)**: Select this option and select a calendar from the drop-down list to make a copy of an existing calendar.
 - **Add a new calendar**: Select this option to add a new calendar.
5. Click **Add**. The new calendar is added.

Note: To make it the default calendar, select the **Default Calendar** check box.

To edit the working time

- a. Select the calendar to edit it. Click **Edit Working Time**. The Edit Working Time popup window displays.
- b. From the **Working Week** field, select the working days for the calendar.
- c. In the **Working Hours** field, click on the working hours to edit them or click **Add** to add new hours.
- d. Click **OK**.
- e. Click **Apply** to save your changes.

To add exceptions to your calendar, such as working or non-working days

- a. Select the calendar to edit it. In the **Exceptions** section, click **Add**. A new row is added.
- b. In the **Name** column, enter a descriptive name for the exception.

Note: Two exceptions cannot be added for the same day.

- c. In the **Type** column, select whether it is a working or non-working type of exception.
- d. In the **Start Date** field, enter or select the start date of the exception.
- e. In the **Finish Date** field, enter or select the finish date of the exception.
- f. Click **Apply** to save your changes.

Copy schedule templates

1. Apply the template to a blank project.
2. Go to the blank project and create a new template based on the existing project.
3. Edit the newly created template.

Submittals Setup

The Trimble Unity Construct Submittals module helps the project team actively manage the full submittal process, confirming that the contractor's planned work on the job site will meet the designer's intentions as detailed in the project specifications. This module has streamlined the process to make it easy for subcontractors, general contractors (GC), submittal coordinators and design reviewers to collaborate within a single system.

Certain key items need to be configured before you can use the Submittals module efficiently. Submittal permission settings should be applied before the start of the submittal process to ensure all users are able to perform their expected duties.

In the Submittals setup process, you can manage:

- Submittal settings
- Custom fields
- Submittal package layouts
- Mail merge templates

Access Submittal Setup

Trimble Unity Construct Administrators can modify submittal settings in the Administration Tools section located in the Setup module.

To access the submittal setup

1. Click **Setup**.
2. In the **Administration Tools** menu, expand **Submittals**. The following submittal setup options are displayed:
 - **Submittal Options:** Use the options in this feature to specify settings for submittal items, submittal packages, the submittal register and manage private comments.
 - **Custom Fields:** Use this feature to add custom fields for submittal items or submittal packages.
 - **Submittal Package Layouts:** Use this feature to define the columns displayed on the Submittal Package page.
 - **Mail Merge Templates:** Use this feature to add mail merge templates to be used while extracting data from Trimble Unity Construct and exporting it into a Microsoft Word® or Adobe PDF® document.

Submittal Permissions

Submittal permissions affect how users interact with the system. These settings should be applied before the start of the submittal process to ensure all users are able to perform their expected duties.

Permission Levels

The Submittal module has four permission levels:

View Submittals

Users in this role can view submittal items and packages. This permission is typically given to design reviewers and to subcontractors who need to reference the submittal documentation, but are not directly participating in the review process.

Warning: A user with this permission is NOT blocked from viewing comments and attachments while a submittal is in the review process.

Add/Edit Submittals

Users in this role can add and edit submittal items and packages, import a submittal register, create a submittal package, and attach documents to submittals. This permission blocks the user from viewing comments and attachments while the submittal is in design review, and until the submittal coordinator releases the final package to the contractor. This permission level is typically intended for the general contractor who is serving as the “air traffic controller” for the submittal review documentation. Sometimes the owner’s project manager handles this function.

Warning: This permission also gives access to the project-level Submittal Settings, and therefore should be carefully controlled.

Create Submittals

Users in this role can create new submittal items and packages, import submittal registers and submit the documentation to the general contractor. This permission level is intended for subcontractors who are kicking off the design review of some or all of the submittal items in order to relieve some of the documentation burden from the General Contractor. This permission blocks the user from viewing comments and attachments while the submittal is in design review, and until the submittal coordinator releases the final package to the contractor.

The Create permission allows team members to create revisions and close their own submittal items. Own items are defined as submittal items where the team member was the original author or is the current "Held By" person.

Note: Once at least one role has been granted the Create Submittals permission, then the Subcontractor Options section is visible in the project-level Submittal Settings page.

Manage Submittals

Users in this role can edit the settings on the project-level Submittal Settings page.

To manage submittal permissions

1. Click **Setup**.
2. In the Administration Tools section on the left pane, expand **Users**.
3. Click **Permissions By User**. Individual users are listed in the tabs on the Permissions By User page.
4. Click the name of the user whose permissions you'd like to change. The permissions settings are now editable.
5. Click the **Submittals** tab.
From this page, choose to assign submittal permissions by role or by user.
6. In either the **Roles** section or the **Users** section, select the check box(es) for the permission settings you'd like to assign.
7. Click **Save Changes**.

Submittal Options

Trimble Unity Construct Administrators can modify submittal settings in the Administration Tools section located in the Setup module.

To access the submittal settings options

1. Click **Setup**.
2. In the **Administration Tools** menu, expand **Submittals**. The submittal settings are displayed.
3. Expand **Submittal Options**. The following submittal options are displayed:
 - **Settings**: Allows you to enable or disable the ability for users to modify system-generated dates, manage required fields for submittal items and allow comments and attachments to be hidden from review.
 - **Submittal Package**: Allows to you specify how submittal packages are created, ordered, and configured in Trimble Unity Construct.
 - **Submittal Register**: Allows you to configure the status options that will be used by the submittal coordinator during the review process. See Manage Submittal Register Options for more details.
 - **Private Comments**: Allows you to select the roles that are able to view and add private comments. See Manage Private Comments for more details.

Submittal Settings - Admin

The Submittal Settings page allows you to specify the following submittal settings for the module.

Allow Editing of System-Generated Dates

Trimble Unity Construct automatically tracks and keeps a log of all user interactions within the system. A record of every transaction is captured and ultimately, reports can be generated based on this data. By default, the **Allow System Generated Submittal Dates to be Modified** option is not selected.

Enabling this feature allow users with Add/Edit Submittal permissions to modify the following system-generated submittal dates:

- Date Submitted for Review
- Date Review Completed
- Consultant Review Complete Date.

Although this setting allows date changes, a history of these changes are also tracked in Trimble Unity Construct. The date changes were made and by whom can still be obtained through history logs and reporting. You may want to allow the modification of system generated dates if the submittal approvals and updates occur outside of Trimble Unity Construct. In such a case, updates are manually entered by a Trimble Unity Construct user.

To allow users to modify system generated submittal dates

1. Open Submittal Settings.
2. Expand **Submittal Options** and click **Settings**.
The Submittal Settings page is displayed.
3. In the **System Generated Dates** field, select the **Allow System Generated Submittal Dated to be Modified** check box.
4. Click **Save**.

Enable Visibility of Draft Submittals

When this setting is turned on, all team members who have the View Submittals permission will be able to see Submittal Register Items and Packages that are in Draft status. When this account setting has been enabled, draft items and packages will also be included in Standard and BI reports for this module.

To enable visibility of draft submittals

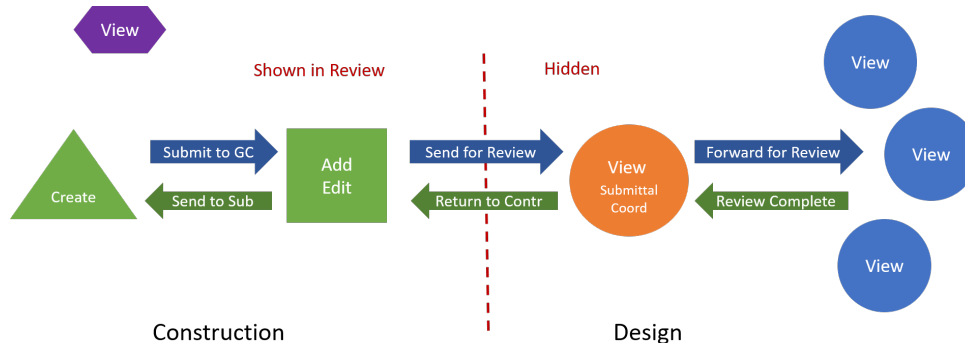
1. Open Submittal Settings.
2. Expand **Submittal Options** and click **Settings**.
The Submittal Settings page is displayed.
3. In the **View draft submittals** field, select the **Allow all users to view draft items and packages** check box.
4. Click **Save**.

Allow Comments and Attachments to be Hidden from Review

When the 'Allow comments and attachments to be hidden' setting is enabled, only the design review team can view attachments and comments during the review period, and this information is "hidden" from blocked team members. The submittal coordinator decides which attachments and comments are "shown" as part of the final review package visible to construction.

Team members who are blocked from hidden information are those with:

- Add/ Edit Submittal permission (typically general contractors)
- Create Submittal permission (typically subcontractors)
- View permission who have not been included in the review process by a submittal coordinator (purple symbol – typically field staff)



Hide Comments and Attachments from Review

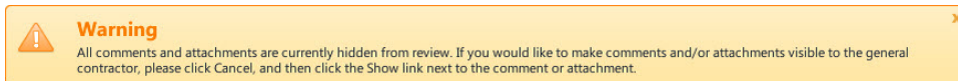
Benefits

The benefit of using the 'Allow comments and attachments to be hidden' setting is to prevent the construction team from acting on early, incomplete design reviews. The submittal coordinator transmits a single clear direction to the contractor and avoids the confusion of conflicting comments and markups provided by various discipline reviewers.

When enabled, submittal coordinators have an option to "Show" comments and attachments next to each available item. Before returning items back to the contractor, submittal coordinators need to review each reviewer's comment and attachment. The coordinator determines whether to show each comment / attachment in the final response to construction. Alternatively, the coordinator may keep all reviewer responses hidden and add a new summary comment to send as the final response

| File Name | Attached By | Date Attached |
|--|-------------|---------------|
| Franklin Charter School - First Floor Specifications.pdf (1) Properties Download Redline Stamp Attach Revision Remove Hidden from Review [Show] | Cody, Zakai | 01.08.2014 |

If the submittal coordinator forgets this step and ALL comments/ attachments for a submittal item are hidden when the Return to Contractor action is taken, a warning message will prompt the submittal coordinator to review the item again.



Note: Before changing the Hide Comments and Attachments feature, be sure to effectively communicate the implications to pertinent members of your organization so they understand how it will affect their submittal review process. This is critical to review with submittal coordinators because they will have a new step in their response to submittal items.

In summary, here are some of the main things to keep in mind:

- This is an account-wide setting. Once activated, every project will follow the Hidden Attachments/ Comments process.
- Comments and attachments will be hidden from the GC and subcontractors by default until they are made visible by the submittal coordinator.
- Submittal coordinators must review each comment/ attachment and decide which to make visible to the construction team (GC and subcontractors).

Using the 'Restrict view of Hidden comments to only submittal coordinators and reviewers of submittal items' setting

Team members with the View Submittal settings are able to view hidden comments and attachments, which are intended for coordination within the design review team only. The main purpose of these team members are to download final submittals or monitor progress (i.e., field staff, executives). However, they may also unintentionally have visibility into unofficial review comments. Enabling this setting will ensure that hidden comments and attachments are only visible to the Design Review team - which is defined as all project submittal coordinators and team members who have received a Forward for Review action.

Note: Any team member with View Submittals permission including external team members can potentially be a recipient of Forward for Review, and therefore be pulled into the Design Review team.

Using the 'Changes Private comments to Public When Shown in Review' setting

This submittal setting only applies to accounts that have enabled the “Allow comments and attachments to be hidden” setting.

When this setting is enabled, any Private comment that is selected by the submittal coordinator to be Shown in Review will automatically be switched to Public status so that it is visible to the entire project team.

This is the recommended configuration so that the construction team can view all information that the submittal coordinator intends for them to receive.

In order for a construction team member to view a final comment/ attachment, the item must be both “Public” and “Shown In Review.”

Using the Show/ Hide Comments and Attachments setting with Private Comments

Private Comments keep certain discussions restricted to a specific list of roles. In submittals, the selected roles are typically the design team, which may be redundant with the Hidden Comments feature.

Private Comments can be utilized to expand the “circle of trust” to roles who are not typically included in the submittal review process. An example may be internal executives who want to view all discipline review comments, not just the final response sent to the construction team. This role would need View submittal permissions, and inclusion in the submittal Private Comments list.

Some accounts may choose to use Private Comments only and disable the Show/Hide Comments feature. In this scenario, the submittal reviewer roles are added to the Submittal Private Comments setting list, and the “Private by Default” option is selected. Prior to returning the submittal to the construction team, the submittal coordinator adds the final summary Public comment/ attachments. All of the Private comments remain visible only within the review team.

To allow comments and attachments to be hidden from review

1. Open Submittal Settings.
2. Expand **Submittal Options** and click **Settings**. The Submittal Settings page displays.
3. Select the **Allow comments and attachments to be hidden** check box.
4. Click **Save**.

Allow Submittal Item Fields to be Edited While in Review

Mistakes that may be made by the construction team on submittal packages or items can sometimes lead to inaccurate and unclear reports, missing notifications and poor accountability to the project team members.

In such cases, submittal coordinators and project administrators may need to edit details on submittal items and packages while they are in review.

To allow editing while in review

1. Open Submittal Settings.
2. Expand **Submittal Options** and click **Settings**. The Submittal Settings page displays.
3. Under the In Review field, select the **Allow Submittal Coordinator and Administrators to edit submittal item fields while in review** check box.
4. Click **Save**.

Manage Required Fields for Submittal Items

Administrators have the ability to designate submittal fields as required. Some fields are required by default and cannot be changed, but additional fields can be enforced to ensure data needed for operations and reporting is always captured.

In some cases, submittal coordinators and project administrators may need to edit fields on submittal items and packages while they are in review. Administrators can enable the 'Edit in Review' setting for each field that they want to mark as editable in review.

Note: The 'Edit in Review' column is disabled if the 'Allow Submittal Coordinator and Administrators to edit submittal item fields while in review' setting is not enabled in the In Review section.

To manage required fields

1. Open Submittal Settings.
2. Expand **Submittal Options** and click **Settings**. The Submittal Settings page displays.
3. A list of submittal fields display in the **Manage Fields for Submittal Items** section. In the **Required** column, select the check box for the fields that you want to make required.

Tip: Select the check box in the header of the **Required** column to select and mark all the fields as required fields.

4. In the **Edit in Review** column, select the check box beside the fields that you want to make editable while the submittal is in review.

Tip: Select the check box in the header of the **Edit in Review** column to select and mark all the fields as required fields.

5. Click **Save**.

Submittal Package Options

Submittal package settings impact the way packages are ordered, configured and searched for in Trimble Unity Construct. These settings directly influence the task of Creating a Submittal Package.

There are three submittal package settings. An overview of each setting is described below.

To access submittal package options

1. Open Submittal Settings.
2. Expand **Submittals Options**. The submittal options are displayed.

3. Click **Submittal Package**. The Submittal Package Options page is displayed.
4. Select the required options from the page.

Submittal Package Options

An overview of each submittal package setting on this page is described below:

- **Use CSI List:** Click the drop-down arrow to select whether a CSI List should be used to classify the submittal packages for this project. Whether this feature is set to yes or no, users can still enter free-form text into this field.
This is an account level setting that applies to all projects in the account, but it can be overridden at the project level by the administrator or users with add/ create permissions.
Yes is the default value. When CSI codes are used, they represent the second set of numbers in the submittal package number.

No will effectively remove the second Submittal Package setting option below: **CSI List to Use**. While creating a submittal package, the CSI Codes drop-down list will not display on the Submittal Package page if this feature is set to No. However, a space will be provided for users to enter a second set of numbers in the Submittal Package # field. Free-form text entry is allowed, or the field may be left blank for a two-digit set submittal package number.
- **CSI List to Use:** This option only displays if **Yes** is selected in the **Use CSI List** field. Click the drop-down arrow to select a CSI format. Available options include:
 - CSI MasterFormat 1995
 - CSI MasterFormat 2004
 - CSI MasterFormat 2012
 - User Defined List
- **Best Practice**
If "User Defined List" is selected, the package numbering will use the construction codes from the Account Setup module, which can be loaded with an imported custom list of CSI codes.
- **Submittal Item Spec Section Populated by CSI Code:** This option is displayed only if **Yes** is selected in the **Use CSI List** field.
- If selected, the **Spec Section** field on the Add/ Edit Submittal Item page will be a drop-down menu of CSI options as opposed to a free-form entry field. This setting would help reduce errors that could be introduced with free-text entry.
- **Tip**
If you track items by spec section, make this a required field to ensure this information is always captured. For instructions, see Manage Required Submittal Fields.
- **Auto Numbering Packages:**
Per Code: Choose this option to automatically number submittal package records in sequential order (1, 2, 3, etc.), by division.

Example

All submittal packages in division one are numbered in sequential order. All submittal packages in division two are numbered in sequential order, and so forth.

Per Project: Choose this option to automatically number submittal package records in sequential order (1, 2, 3, etc.), regardless of division.

Example

Submittal packages are numbered sequentially in the order in which they are created, regardless of division.

- **Allow Items to be Added After Review Starts:** Selecting this box enables the **Add Items** button on the Submittal Packages Item tab to allow selection from the Draft Submittal Items list. This applies to open packages after being sent for review to the submittal coordinator. When this is turned on, team members with the following permissions can add items:
 - Create permission for the packages they authored
 - Add/ Edit permission
 - Administrators
- **Allow Revision Items to be Added to Existing Packages:** Selecting this box adds a drop-down list for Submittal Package when creating a submittal revision. From the drop-down, you can either create a new package in the same series (same package number and incremented revision), OR you can select an existing open package in the series to attach the revised item to. The revised submittal item cannot be added back into the same package that it currently exists in. For projects with large numbers of resubmittals, this helps consolidate the number of packages in review.

This setting is independent from the "Allow Items to be Added After Review Starts" setting above. Revisions can be added to any open package within the package number series, even if it has been forwarded for review. For projects with large numbers of resubmittals, this helps consolidate the number of packages in review.

5. Click **Save**.

Manage Required Submittal Fields

Administrators have the ability to make submittal fields required in order to ensure data needed for operations and reporting is always captured.

To manage required fields

1. Go to Submittal Settings.
For instructions, see Access Submittal Settings.
2. Expand **Submittal Options** and click **Settings**.
The Submittal Settings page is displayed.
3. A list of submittal fields display in the **Manage Required Fields for Submittal Items** section. Select the check box next to the fields that you want to make required.
4. Click **Save**.

Allow Editing of System-Generated Dates

Trimble Unity Construct automatically tracks and keeps a log of all user interactions within the system. A record of every transaction is captured and ultimately, reports can be generated based on this data. By default, the **Allow System Generated Submittal Dates to be Modified** option is not selected. Enabling this feature allow users with Add/Edit Submittal permissions to modify the dates items were submitted for review, as well as review completion dates. Although this setting allows date changes, a history of these changes are also tracked in Trimble Unity Construct. The date changes were made and by whom can still be obtained through history logs and reporting. You may want to allow the modification of system generated dates if the submittal approvals and updates occur outside of Trimble Unity Construct. In such a case, updates are manually entered by a Trimble Unity Construct user.

To allow system generated submittal dates to be modified

1. Open Submittal Settings.
2. Expand **Submittal Options**.
3. Click **Settings**.
4. In the **System Generated Dates** field, select the **Allow System Generated Submittal Dates to be Modified** check box.
5. Click **Save**.

Submittal Register Options

On the Submittal Register Options page, you can configure the following:

- Status options - The status options that will be used by the submittal coordinator during the review process. Default options are available, but you can also enter custom statuses.
- Category options - The category options that will be used to classify each submittal item. Each submittal item must be classified by a category, which you will define here. Default options are available, but you can also enter custom categories that the construction team will use when they create register items either via import or individually.

To manage submittal register options

1. Open Submittal Settings.
2. Expand **Submittal Options**.
3. Click **Submittal Register**. The Submittal Register Options page displays with the following tabs:

Status Options Tab

A description of the fields and buttons located on this tab is provided below.

- **Add**: Click to add new status options.
- **Cancel**: Click to discard changes.
- **Status**: Enter the name of the new status.
- **Prefix**: Enter an abbreviation for the status.
- **Description**: Enter a description for the status.

- **Requires Revision:** Select this check box if revisions will be required when this status is selected by the submittal coordinator. The item cannot be closed until a revision is created.
- **For Record Only:** Select this check box if this status should be used only for items that you simply need to have a record for, but do not need approved. An example might be for an item that was installed, but should not have been. The owner and the GC may have come to an agreement on the item and settled any issues, but to have a record of this case, the item's status may be set to 'Rec Only'.
- **Auto-Close Status:** Select this check box if the item will automatically be closed when this status is assigned by the submittal coordinator. This account setting can be overridden at the project level by users with Add/Edit permission or an administrator. For more information, see Submittal Settings Page Overview.
- **Manage Package Status:** Default package statuses are Draft, Open and Closed. Use this option to base the package status on the items contained in the package instead.
- **Use Defaults:** Click to use the following list of default statuses:
 - App - Approved
 - AAN - Approved as Noted
 - FRO - For Record Only
 - ONH - On Hold
 - REJ - Rejected
 - REV - Revise
 - RAR - Revise & Resubmit
- **Delete:** Click to delete selected statuses.
- **Edit:** Click this link to make changes to the status.
- **Delete:** Click this link to delete the status.

Category Options Tab

A description of the fields and buttons located on this tab is provided below.

- **Add:** Click to add a new status options.
- **Cancel:** Click to discard changes.
- **Category:** Enter the name of the new category.
- **Description:** Enter a description for the category.
- **Use Defaults:** Click to use the following list of default categories:
 - As- Builts
 - Bid Submittals
 - Certifications
 - Mock Up
 - Operation/ Maintenance
 - Product Data

- Sample
- Shop Drawing
- **Delete:** Click to delete selected categories.
- **Edit:** Click this link to make changes to the category.
- **Delete:** Click this link to delete the category.

Status Options

Statuses are configured to give the submittal coordinator the ability to set the status of each submittal item in the register. As submittal packages are routed to the design submittal coordinator they in turn can set the status of each item associated to the package and add notes/ markups as needed.

To add a new submittal status

1. Open Submittal Settings.
2. Expand **Submittal Options**.
3. Click **Submittal Register**. The Submittal Register Options page is displayed.
4. Enter the name of the new status in the **Status** field on the Status Options tab.
5. Enter a status prefix or abbreviation in the **Prefix** field.
6. Enter the following optional details, if needed:
 - **Description:** Enter a description for the status.
 - **Requires Revision:** Select this check box if revisions will be required when this status is selected by the submittal coordinator. The item cannot be closed until a revision is created.
 - **For Record Only:** Select this check box if this status should be used only for items that you simply need to have a record for, but do not need approved. An example might be for an item that was installed, but should not have been. The owner and the GC may have come to an agreement on the item and settled any issues, but to have a record of this case, the item's status may be set to 'Rec Only'.
 - **Auto-Close Status:** Select this check box if the item will automatically be closed when this status is assigned by the submittal coordinator. This account setting can be overridden at the project level by users with Add/Edit permission or an administrator. For more information, see Submittal Settings Page Overview.
7. Click **Add**. The new status appears in the **Status** table.

To edit an existing submittal status

1. Open Submittal Settings.
2. Expand **Submittal Options**.
3. Click **Submittal Register**. The Submittal Register Options page is displayed.
4. In the Statuses section of the Status Options tab, click the **Edit** link located left of the item you wish to modify.
5. The **Status Name**, **Description**, and **Prefix** fields are now editable. Make your revisions, and then click **Save**

Note: In the edit mode, the **Save** link replaces the **Edit** link.

To delete an existing submittal status

To delete an existing submittal status

1. Open Submittal Settings.
2. Expand **Submittal Options**.
3. Click **Submittal Register**. The Submittal Register Options page is displayed.
4. In the Statuses section of the Status Options tab, select the check box next to the status(es) you wish to delete.
5. Click **Delete**. An edit confirmation popup is displayed. Click **OK** to confirm and proceed with deleting the status(es).

To use default submittal statuses

The default submittal statuses are as follows:

- Approved
- Approved As Noted
- For Record Only
- On Hold
- Rejected
- Revise
- Revise & Resubmit
- *New

Note: *New is the only status that cannot be deleted or modified. All submittal items when added to a submittal package start with a status of NEW until updated by a user with approve submittal permission.

1. Open Submittal Settings.
2. Expand **Submittal Options**.
3. Click **Submittal Register**. The Submittal Register Options page is displayed.
4. In the Statuses section of the Status Options tab, click **Use Defaults**.

To manage submittal package statuses

By default, submittal packages are tracked with the status of Draft, Open or Closed.

Alternatively, you can track the status of a package based on the statuses of the items contained within the package. The Package Status will follow the order of the Status Precedence list.

Example

For example, if the precedence is set as:

1. Revise & Resubmit
2. Approved as Noted
3. Approved

Then a package with one 'Revise & Resubmit'(R&R) item will have a matching 'Revise & Resubmit' Package Status. If there are zero 'R&R' items and one 'Approved as Noted' item, then the package will be in the 'Approved as Noted' status.

Packages where the submittal coordinator has not determined any of the Item statuses (i.e. all items are 'New') will show a status of 'Open'. When a package is closed by the GC, the package status reverts to 'Closed'.

Note: Caution should be used with package statuses if the submittal coordinator does not assign all of the item statuses at once, or adds new items to a package already in review. As soon as one item is assigned a status, the package will also display a package status based on that one item. The Package Status is visible to the construction team even if the package has not been returned to the GC yet, and may give an incorrect impression of the mixed contents.

There are two ways to manage the submittal package statuses; by enabling the track package status feature and by setting a precedence for each status.

1. Open Submittal Settings.
2. Expand **Submittal Options**.
3. Click **Submittal Register**. The Submittal Register Options page is displayed.
4. On the Status Options tab, click **Manage Package Status**.
5. On the Manage Package Status page, select the **Track Package Status** check box to enable this feature.
6. In the **Status Precedence** section, select the status whose precedence you wish you change.
7. Use the controls beside this box (Top, Up, Down, Bottom) to change the position of each status.
8. Repeat steps 6 and 7 for each status whose precedence you wish to change.
9. Click **Save**.
10. A confirmation message displays, warning that all open submittal packages will be updated based on the new precedence order. Click **Continue** to confirm the change.

Category Options

Submittal categories are mainly used for reporting purposes. For example, you might want to run a report that shows all the outstanding shop drawing submittals in the last month. If the shop drawings category is created, the report will only show those results.

The following tasks will help you manage submittal categories:

Add New Submittal Categories

To add a new submittal category

1. Open Submittal Settings.
2. Expand **Submittal Options**.
3. Click **Submittal Register**. The Submittal Register Options page is displayed.
4. Click the **Category Options** tab.

5. In the Add New Category section, enter the name of the new category in the **Category** field.
6. Click **Add**. The new category appears in the **Categories** table.

Edit Existing Submittal Categories

To edit existing submittal categories

1. Open Submittal Settings.
2. Expand **Submittal Options**.
3. Click **Submittal Register**. The Submittal Register Options page is displayed.
4. Click the **Category Options** tab.
5. Click the **Edit** link located left of the item you wish to modify.
6. The **Category Name** and **Description** fields are now editable. Make your revisions, and then click **Save** (In edit mode, the Save link replaces the Edit link).

Delete Existing Submittal Categories

To delete a submittal category

1. Open Submittal Settings.
2. Expand **Submittal Options**.
3. Click **Submittal Register**. The Submittal Register Options page is displayed.
4. Click the **Category Options** tab.
5. Select the check box next to the status(es) you wish to delete.
6. Click **Delete**.

Use Default Submittal Categories

The default submittal categories are as:

- As-Builts
- Bid Submittals
- Certification
- Mock Up
- Operation/ Maintenance Manual
- Product Data
- Sample
- Shop Drawing

To use default submittal categories

1. Open Submittal Settings.
2. Expand **Submittal Options**.
3. Click **Submittal Register**. The Submittal Register Options page is displayed.
4. Click the **Category Options** tab.
5. Click the **Use Defaults** button.

Private Comments

The Manage Private Comments - Submittals page allows you to select the roles that are able to view and add private comments. When private comments are enabled, only the roles in the defined list will be able to view and make comments private.

In order to disable Private comments for the Submittals module, you must remove any roles from the Selected Roles section on the Manage Private Comments - Submittals page.

Note: If the **Changes Private comments to Public (visible) when shown in review** setting is enabled on the Submittal Settings page, 'Private' comments are automatically changed to 'Public' when they are shown in review.

To enable private commenting

1. Open Submittal Settings.
2. Expand **Submittal Options**.
3. Click **Private Comments**. The Manage Private Comments - Submittals window displays.
4. In the Manage Private Comments area, from the **All Roles** section, select the role(s) that can view/ add private comments. Click the right directional arrow to add the role(s) to the Selected Roles section.
5. Select the **Set comments to 'Private' by default** check box to automatically make comments entered by the selected roles private. Only users in the selected roles will be able to see these comments.

—Or—

Clear this check box to allow their comments to be public by default and give them the opportunity to make the comments private on a case-by-case basis.

6. Click **Save**.

—Or—

Click **Cancel** to discard changes and return to the main Setup page.

Custom Fields for Submittals

To add custom fields for a submittal item or a submittal package

1. Open Submittal Settings.
2. Expand **Custom Fields**.
3. Click **Submittal Item** or **Submittal Package**.
4. Click **Add Field**.
5. Select a data type, and then click **Next**.
6. On the **Custom Field Details** page, enter a name for the custom field in the space provided after **Field Label**.
7. Click **Next**.
8. Review the details of the custom field.
9. If changes are required, click **Previous** to navigate to the appropriate page and make changes.

—Or—

If details are correct, click **Save**.

Submittal Package Layouts

Submittal Package Layout options allow you to define the columns on the Submittal Package page. Custom layouts benefit users by allowing them to view only the information that is pertinent to them with the option of viewing additional information when necessary. Consolidating this information facilitates reporting, viewing, and tracking. Multiple layouts can be created to serve different purposes.

On the Manage Submittal Package Layouts page, you can perform the following actions:

Add Submittal Package Layouts

To add submittal package layouts

1. Open Submittal Settings.
2. Click **Submittal Package Layouts**. The Manage Submittal Package Layouts page displays.
3. Click **Add**. The **Manage Submittal Package Columns** page displays.
4. In the **Layout Name** field, enter a name for the layout.
A list of all the columns located on the Submittal Package page displays in the box on the left.
5. In the **Columns** area, select the columns you wish to add to the layout from the list on the left. Use the right arrow controls to move the selected columns from the All Columns section on the left to the Selected Columns section on the right.
6. Use the controls on the right side of the page (**Top, Up, Down, and Bottom**) to order the columns as they will display in the layout.
7. Repeat the steps for all the desired columns.
8. Click **Save**.

Delete Submittal Package Layouts

Warning: Deleted submittal package layouts cannot be recovered.

To delete submittal package layouts

1. Open Submittal Settings.
2. Click **Submittal Package Layouts**. The Manage Submittal Package Layouts page displays.
3. Click the check box next to the layout(s) you wish to delete to select them.
4. Click **Delete**. A confirmation deletion message is displayed.
5. Click **Continue**.

Color Code Submittal Layout Columns

Color coding can help specific sets of information stand out at a glance. If there are information sets that are more important to a user than others, color coding those columns helps you quickly and easily identify this information.

To color code submittal layout columns

1. Open Submittal Settings.
2. Click **Submittal Package Layouts**. The Manage Submittal Package Layouts page displays.

3. Click the **Color Codes** link located left of the layout name. The **Color Codes** page displays.
4. Select the check box next to the column(s) you wish to color code.
Note: The row must be checked to enable color coding.
5. In the **Apply To** column, select either **Text** or **Background**.
6. Click the **Low Range Color** drop-down list and choose a color for that column.
7. To continue coding for all columns, even those that are not in the selected layout, select the **Show all columns** check box located at the top of the screen.
8. Click **Save**.

Set Threshold Values

In the Submittal module, thresholds can only be applied to submittal statuses. Setting thresholds is another way to identify important sets of information, but thresholds differ from simple color coding because it allows you to assign minimum, mid range, and high range numerical values for each submittal status. Color codes are assigned to each threshold value to serve as a visual indicator when submittal statuses have reached or surpassed certain thresholds.

Thresholds have to be enabled in order to display on the Submittal Package page. Enable the threshold feature by selecting the Enable Threshold check box located toward the top of the page. This feature can be disabled at any time.

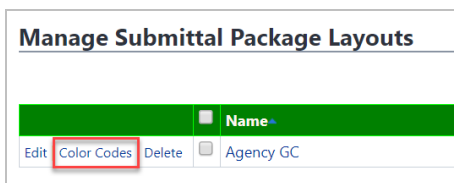
Example

Threshold values might be set for the Approved submittal status. The column may display in red if the value is zero and displays in green if the value is a number greater than zero. This way, the contractor or owner can see at a glance the number of submittal packages that have been approved and how many have not.

Note: In the Submittal module, thresholds can only be applied to submittal statuses. To see additional columns, click the Show all Columns check box located toward the top of the page. Also, the row must be checked to enable the color code and threshold features.

To set threshold values

1. Open Submittal Settings.
2. Click **Submittal Package Layouts**. The Manage Submittal Package Layouts page displays.
3. Click the **Color Codes** link located on the left side of the layout name.



The Color Codes page displays.

4. Select the **Enable Threshold** check box located in the table header.
 Threshold drop-down arrows display with empty fields into which you can enter numeric values.

Color Codes

☐ Show all columns

| <input type="checkbox"/> Column Name | Apply To | <input checked="" type="checkbox"/> Enable Threshold | Low Range Color | Low-Mid Threshold | Mid Range Color | Mid-High Threshold | High Range Color |
|--|--|--|-----------------|-------------------|-----------------|--------------------|------------------|
| <input type="checkbox"/> Title | <input checked="" type="radio"/> Text <input type="radio"/> Background | <input type="checkbox"/> | <div></div> | | | | |
| <input type="checkbox"/> Revision Number | <input checked="" type="radio"/> Text <input type="radio"/> Background | <input type="checkbox"/> | <div></div> | | | | |
| <input type="checkbox"/> Status | <input checked="" type="radio"/> Text <input type="radio"/> Background | <input type="checkbox"/> | <div></div> | | | | |
| <input type="checkbox"/> Held By | <input checked="" type="radio"/> Text <input type="radio"/> Background | <input type="checkbox"/> | <div></div> | | | | |
| <input type="checkbox"/> Approved | <input type="radio"/> Text <input checked="" type="radio"/> Background | <input checked="" type="checkbox"/> | <div></div> | 0.00 | <div></div> | 15.00 | <div></div> |
| <input type="checkbox"/> Rejected | <input checked="" type="radio"/> Text <input type="radio"/> Background | <input checked="" type="checkbox"/> | <div></div> | | <div></div> | | <div></div> |
| <input type="checkbox"/> Approved As Noted | <input checked="" type="radio"/> Text <input type="radio"/> Background | <input checked="" type="checkbox"/> | <div></div> | | <div></div> | | <div></div> |
| <input type="checkbox"/> Revise | <input checked="" type="radio"/> Text <input type="radio"/> Background | <input checked="" type="checkbox"/> | <div></div> | | <div></div> | | <div></div> |
| <input type="checkbox"/> Revise & Resubmit | <input checked="" type="radio"/> Text <input type="radio"/> Background | <input checked="" type="checkbox"/> | <div></div> | | <div></div> | | <div></div> |

Note:

1. Color coding will be enabled only for checked rows.
2. For enabled rows, please enter at least one threshold value.
3. Low-mid threshold value must be less than or equal to the mid-high threshold value.

☐ Show all columns

5. Select the **Enable Threshold** check box of the individual column name that you want to enable color codes for.
6. Enter the threshold numerical values and select a color code for each value.
7. After all threshold values have been assigned, click **Save**.

Add Submittal Package Layouts

To add submittal package layouts

1. Go to Submittal Settings. For more information, see Access Submittal Settings.
2. Click **Submittal Package Layouts**. The Manage Submittal Package Layouts page is displayed.
3. Click **Add**. The **Manage Submittal Package Columns** page is displayed.
4. In the **Layout Name** field, enter a name for the layout.
A list of all the columns located on the Submittal Package page is displayed in the box on the left.
5. In the **Columns** area, select the columns you wish to add to the layout from the list on the left. Use the right arrow controls to move the selected columns from the All Columns section on the left to the Selected Columns section on the right.
6. Use the controls on the right side of the page (**Top, Up, Down, and Bottom**) to order the columns as they will display in the layout.
7. Repeat the steps for all the desired columns.
8. Click **Save**.

Delete Submittal Package Layouts

Warning: Deleted submittal package layouts cannot be recovered.

To delete submittal package layouts

1. Go to Submittal Settings. For instructions, see Access Submittal Settings.
2. Click **Submittal Package Layouts**. The Manage Submittal Package Layouts page displays.
3. Click the check box next to the layout(s) you wish to delete to select them.
4. Click **Delete**. A confirmation deletion message is displayed.
5. Click **Continue**.

Color Code Submittal Layout Columns

Color coding can help specific sets of information stand out at a glance. If there are information sets that are more important to a user than others, color coding those columns helps you quickly and easily identify this information.

To color code submittal layout columns

1. Go to Submittal Settings. For instructions, see Access Submittal Settings.
2. Click **Submittal Package Layouts**. The Manage Submittal Package Layouts page is displayed.
3. Click the **Color Codes** link located left of the layout name. The **Color Codes** page is displayed.
4. Select the check box next to the column(s) you wish to color code.
Note: The row must be checked to enable color coding.
5. In the **Apply To** column, select either **Text** or **Background**.
6. Click the **Low Range Color** drop-down list and choose a color for that column.
7. To continue coding for all columns, even those that are not in the selected layout, select the **Show all columns** check box located at the top of the screen.
8. Click **Save**.

Related Topics:

- Set Threshold Values

Set Threshold Values

In the Submittal module, thresholds can only be applied to submittal statuses. Setting thresholds is another way to identify important sets of information, but thresholds differ from simple color coding because it allows you to assign minimum, mid range, and high range numerical values for each submittal status. Color codes are assigned to each threshold value to serve as a visual indicator when submittal statuses have reached or surpassed certain thresholds.

Thresholds have to be enabled in order to display on the Submittal Package page. Enable the threshold feature by selecting the Enable Threshold check box located toward the top of the page. This feature can be disabled at any time.

Example

Threshold values might be set for the Approved submittal status. The column may display in red if the value is zero and displays in green if the value is a number greater than zero. This way, the contractor or owner can see at a glance the number of submittal packages that have been approved and how many have not.

Note: In the Submittal module, thresholds can only be applied to submittal statuses. To see additional columns, click the Show all Columns check box located toward the top of the page. Also, the row must be checked to enable the color code and threshold features.

To set threshold values

1. Go to Submittal Settings. For instructions, see Access Submittal Settings.
2. Click **Submittal Package Layouts**. The Manage Submittal Package Layouts page displays.

- Click the **Color Codes** link located on the left side of the layout name.

The Color Codes page displays.

- Select the **Enable Threshold** check box located in the table header.

Threshold drop-down arrows display with empty fields into which you can enter numeric values.

| Column Name | Apply To | Enable Threshold | Low Range Color | Low-Mid Threshold | Mid Range Color | Mid-High Threshold | High Range Color |
|-------------------|-----------------|-------------------------------------|-----------------|-------------------|-----------------|--------------------|------------------|
| Title | Text Background | <input type="checkbox"/> | Red | | | | |
| Revision Number | Text Background | <input type="checkbox"/> | Red | | | | |
| Status | Text Background | <input type="checkbox"/> | Red | | | | |
| Held By | Text Background | <input type="checkbox"/> | Red | | | | |
| Approved | Text Background | <input checked="" type="checkbox"/> | Red | 0.00 | Yellow | 15.00 | Green |
| Rejected | Text Background | <input checked="" type="checkbox"/> | Red | | Yellow | | Green |
| Approved As Noted | Text Background | <input checked="" type="checkbox"/> | Red | | Yellow | | Green |
| Revise | Text Background | <input checked="" type="checkbox"/> | Red | | Yellow | | Green |
| Revise & Resubmit | Text Background | <input checked="" type="checkbox"/> | Red | | Yellow | | Green |

Note: 1. Color coding will be enabled only for checked rows.
 2. For enabled rows, please enter at least one threshold value.
 3. Low-mid threshold value must be less than or equal to the mid-high threshold value.

- Select the **Enable Threshold** check box of the individual column name that you want to enable color codes for.
- Enter the threshold numerical values and select a color code for each value.
- After all threshold values have been assigned, click **Save**.

Mail Merge Templates for Submittals

Mail merge templates allow you to extract data from Trimble Unity Construct and export it into a Microsoft Word® or Adobe PDF® document. This eliminates the need to enter information into a Word document manually and reduces the margin for error.

In the Submittal module, mail merge templates can be created for submittal items or submittal packages. These templates are used in a number of ways. When generating a transmittal, you can do so based on any of the mail merge templates you've created. Having a system-generated document ensures the integrity of your data and it's a quick and easy way to consolidate information you've already entered once, in a ready-to-read format.

The procedures for working with submittal mail merge templates are:

Add Submittal Mail Merge Templates

It is recommended that you download the default Submittal template to start with. Although this template can be modified, the default one is complete with all necessary field mappings. Having a template on file also gives you the ability to make necessary changes as they arise, without having to start over from scratch.

To add a mail merge template

1. Open Submittal Settings.
2. Click **Mail Merge Templates**. The Mail Merge Template page is displayed.
3. To make changes to the default template, click the **Download Default Submittal Template** link.
4. Save this document locally and make any necessary changes to it.
5. On the Mail Merge Templates page, click **Add New Template**.
The **Add Mail Merge Template** page is displayed.
6. Enter the following details in the required fields:
 - **Name**: Enter a name for the template.
 - **Status**: Select either option to mark the template's status as Active (available for use) or Draft.
 - **Output**: Set either option to specify the output type (Word or PDF).
 - **File**: Click **Choose File** to search for and upload the default submittal template saved in step 4.
7. In the **Project Assignments** section, select the project(s) that you'd like to assign the template to. Click the right arrow to move the project(s) to the Assigned to these Projects area on the right.

Note: If you do not specify the project(s) that will use this template, the template will be available in all projects.
8. Click **Save**. The template is added to the list on the Mail Merge Templates page.

Edit Submittal Mail Merge Templates

To edit submittal mail merge templates

1. Open Submittal Settings.
2. Click **Mail Merge Templates**. The Mail Merge Templates page is displayed.
3. Click the name of the template you wish to edit. The Mail Merge Template Details page is displayed.
4. Click **Edit**. The Edit Mail Merge Template page is displayed.
5. Make any or all of the modifications listed below:
 - **Name***: Edit the name specified for the template.
 - **Description**: Add, edit or remove the description of the template.
 - **Status***: Select either option to mark the template's status as Active (available for use) or Draft.
 - **Output***: Set either option to specify the output type (Word or PDF).
 - **File***: Click **Choose File** to search for and upload a new or edited submittal template.

Note: Ensure that you do not leave any of the required fields blank (marked with an *).
6. In the **Project Assignments** section, select the project(s) that you'd like to assign the template to. Click the right arrow to move the project(s) to the Assigned to these Projects area on the right. Click the left arrow to move the project(s) back to the Projects area on the left.

Note: If you do not specify the project(s) that will use this template, the template will be available in all projects.

7. Click **Save**.

Access Time Tracking Settings

To access the Time Tracking settings

1. Click **Setup**.
2. In the **Administration Tools** menu, expand **Time Tracking**.
All the Time Tracking setting options display.

Related Topics:

- [About Managing Time Tracking](#)

About Managing Time Tracking

Time Tracking facilitates resource management by allowing team members to submit time sheets for billable and non-billable activities. Time sheets are then routed to the correct approver(s) based on the configured workflow for the role submitting the time sheet. Account administrators can optionally enable Cost Integration, which will give you the ability to tie labor costs to different project commitments in order to better manage total project costs. Labor costs are factored into the equation using bill rates. Cost integration allows you to take resource management one step further by creating invoices against commitments associated with billable activities. Account configuration steps, user and administrative tasks can be referenced below. Use these links to help you understand and work with time tracking.

Account Configuration Tasks

1. Manage Time Tracking Settings (Optionally enable cost integration)
2. Add Time Tracking Activities
3. Add Time Tracking Workflow(s)
4. Manage Account Bill Rates (Cost Integration)
5. Manage Time Tracking Permissions

User Tasks

- Submit Time Sheets
- View Active Workflows

Administrative Tasks

- Review / Approve Time Sheets
- Approve Time Sheet Invoices (Cost Int.)
- Run Time Tracking Reports

Manage Time Tracking Settings

These settings allow you to configure the preliminary settings necessary to use Time Tracking. Optionally, you may choose to integrate this feature with the Cost module, which will allow you to tie labor costs to commitments and invoice against them according to a resource's bill rate. Additionally, you can set the start day for the work week to determine how it displays on the time sheet for user input.

To set time tracking settings

1. Go to Time Tracking Settings.
For instructions, see Access Time Tracking Settings.
2. Click Time Tracking Settings.
The Time Tracking page is displayed.
3. To integrate with Cost, select the **Integrate Time Tracking with Cost** check box and then choose an integration option:
 - Warning:** Once Cost integration is saved, it cannot be disabled.
 - **Do Not Restrict Commitments** - Select to allow the person submitting the time sheet to see the companies and contacts associated to the commitment they are tacking their time to.
 - **Restrict Commitments to Companies** - Select to allow the person submitting the time sheet to see only those commitments associated with the company the user is associated with.
 - **Restrict Commitments to Contacts** - Select to allow the person submitting the time sheet to see only those commitments associated with the contacts the user is associated with
4. Click the **Start day of the work week** drop-down menu to choose day.
5. Click **Save**.

Related Topics:

- Time Sheet Settings Page Overview
- About Managing Time Tracking

Integrate Time Tracking with Cost

Warning: Once cost integration is saved on the account it cannot be disabled.

By integrating time tracking with cost, the activities that your employees or consultants perform on the job may be set as billable and associated with budget line items through account codes so that they may be invoiced per your business rules. For instance, if you have activities that you want to count in project costs such as the cost of reviewing design drawings you can make this a billable task and associate it with the appropriate budget line item and then generate an invoice against this commitment, providing the workflow includes the necessary automation step to do so.

To integrate Time Tracking with Cost

1. Go to Time Tracking settings.
For instructions, see Access Time Tracking Settings.
2. Click Time Tracking Settings.

The Time Tracking Settings page is displayed.

3. Select the **Integrate Time Tracking with Cost** check box.

Warning: Once Cost integration is saved, it cannot be disabled.

The following options appear:

- **Do Not Restrict Commitments** - Select to allow the person submitting the time sheet to see the companies and contacts associated to the commitment they are tacking their time to.
- **Restrict Commitments to Companies** - Select to allow the person submitting the time sheet to see only those commitments associated with the company the user is associated with.
- **Restrict Commitments to Contacts** - Select to allow the person submitting the time sheet to see only those commitments associated with the contacts the user is associated with.

4. Click **Save**.

Related Topics:

- About Managing Time Tracking
- Time Tracking Settings Page Overview
- About Workflows

Add Time Tracking Activities

If you are effectively managing resource time, it is important to include all possible activities for resources to utilized while submitting their time sheets. If cost integration is enabled, you're able to assign billable tasks by tying the activity to an account code/budget line item.

To add time tracking activities

1. Go to Time Tracking settings.
For instructions, see Access Time Tracking Settings.
2. Click **Manage Activities**.
The Manage Activities page is displayed.
3. Enter all necessary fields.
For field descriptions see Manage Activities Page Overview.
4. Click **Add**.

Related Topics:

- About Managing Time Tracking
- Manage Account Bill Rates

Manage Account Bill Rates

Bill rates are required for billable Time Tracking activities. They allow you to set hourly rates for project participants in order to more accurately track project costs. You're able to set default rates for your participants which can be applied to all projects they are a part of or you can set different rates for different projects. When a time sheet is entered and a commitment is selected, the pay out calculations will be determined based on the established bill rate for that user. Bill rates can be set at the account level as well as the project level.

To manage account bill rates

1. Go to the Manage Users page.
2. Click the name of the user you wish to manage bill rates for.
The User Details page is displayed.
3. Click **Manage Membership**.
The Manage Membership for (User) page is displayed.
4. Click the **Manage Bill Rates** tab.
5. To set a default hourly rate, click the **Edit** link next to the **Hourly Default Bill Rate**.
6. Choose the projects for which to make the user billable by choosing the Billable check box(es).
7. To edit the rate per project, enter the amount in the **Bill Rate Per Hour** column.
8. Click **Save**.

Related Topics:

- Manage Membership Page Overview
- Manage Project Bill Rates

Manage Time Tracking Permissions

Different permissions are required to perform various tasks related to time tracking. Below are instructions for setting time tracking permissions. For more information on each permission, see Manage Permissions Page Overview.

To set time tracking permissions

1. Go to User Settings.
2. Click **Manage Permissions**.
The Manage Permissions page is displayed.
3. Click the **Time Tracking** tab and adjust user permissions as necessary.
 - **Create Time Sheets:** Select to give users the ability to submit time sheets.
 - **Manage Workflow:** Select to give users the ability to create time sheet workflows.
 - **Manage Account Bill Rates:** Select to give users the ability to manage account level bill rates.
 - **Manage Project Bill Rates:** Select to give users the ability to manage project level bill rates.
 - **View Payout:** Select to give users the ability to view payout amounts on their time sheets.
4. Click **Save**.

Related Topics:

- About Managing Time Tracking
- Manage Permissions Page Overview

Time Tracking Settings Page Overview

This page allows you to configure preliminary settings necessary to use Time Tracking. Optionally, you may choose to integrate this feature with the Cost module, which will allow you to tie labor costs to commitments and invoice against them according to a resource's bill rate. Additionally, you can set the start day for your work week on this page.

Fields and Buttons

The fields and buttons located on this page are:

- **Integrate Time Tracking with Cost** : Select to integrate Time Tracking with Cost, which will allow you to tie labor costs to commitments and invoice against them according to a resource's bill rate.

Note: Once this setting is saved it cannot be disabled.

When selected the following options appear and allow you to set restrictions on the companies that various users or contracts are able to see.

- **Do Not Restrict Commitments**: Select to allow the person submitting the time sheet to see the commitments associated with companies and contacts they are associated with.
- **Restrict Commitments to Companies**: Select to allow the person submitting the time sheet to see only those commitments associated with the company they are associated with.
- **Restrict Commitments to Contacts**: Select to allow the person submitting the time sheet to see only those commitments associated with the contacts they are associated with.

Example

If your organization has consulting resources from multiple companies working on projects and submitting time sheets you may prefer that people from one company are not able to see the commitments associated with other companies when they are entering time. Select the Restrict Commitments to Companies option and people entering time sheets will only see commitments associated with the company they represent.

- **Start day for the work week**: Select the start day of the work week for the format of the time sheets.

Note: Once this setting is saved and a time sheet has been submitted, the start day cannot be changed.

Manage Activities Page

Use this page to manage the activities your project participants will submit time sheets for. From here you can make changes, remove existing and add new activities. If you have Cost Integration enabled, you can also modify the account codes that billable activities will be tracked against.

If you are effectively managing resource time, it is important to include all possible activities for resources to utilized while submitting their time sheets. For example, if your organization has activities you want to count in project costs and other that you do not (e.g., reviewing design drawings and holidays), set the Holiday as Non Billable and Review Design Drawings as Billable and associate it with an account code that maps to the appropriate budget line item for that task.

The following tasks will assist you with managing activities:

- Add Time Tracking Activities
- Integrate Time Tracking with Cost

Fields and Buttons

The fields and buttons located on this page are:

- **Name:** Enter the name of the new activity you wish to add.
- **Non-billable Activity:** Select to make this a non-billable activity. These activities are not integrated with cost and cannot be invoiced. Rather, non-billable activities allow you to track resource hours and report on them.
- **Account Code:** This field will only appear if time tracking is integrated with cost. This setting allows you to choose the account code/budget line item that is invoiced when the activity is selected and time is entered. The Commitments and Commitment Line Items associated with this account code are displayed on the Time Sheet for selection by the person submitting the time sheet. Payout calculations are based on the resource's bill rate.
- **Description:** Optionally enter the description of the new activity you are adding.
- **Add:** After you've entered the name and description for the activity, click **Add** to save it to the account.
- **Clear:** Click to erase any of the field entries in the Name or Description fields.
- **Delete:** Click to delete any activities that have their check boxes selected.

About Managing Users

User settings allow account administrators to manage all aspects of a user's account. From here you will be able to add users, create roles, manage project access and permission levels. All account participants that will be contributing to your projects should be added as account users, which can be completed by account administrators and those with Manage User permission.

A person's ability to perform tasks is based on their permissions. Although you can technically grant permissions to individual users, as a best practice, permissions should be managed by account or project role roles; i.e. Project Managers, Accountants, General Contractors, Consultants,.. Roles are defined by account administrators, and should represent the actual roles that exist throughout your organization. As people join, leave and change positions throughout your organization, maintaining their level of access is easiest if managed by account or project roles. Managing permissions in this manner streamlines auditing and permission management.

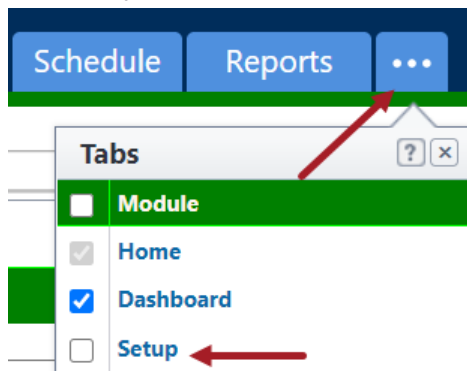
The following concepts are used within Trimble Unity Construct:

- **Account roles:** Highest level at which permissions are granted. They should be created for every role that will be used throughout all of your projects. Members of an account role will have the permissions of that role on every account that they have access to.
- **Project-level roles:** Allow you to diversify the permissions of a role from project to project. To learn more, see Account Role Management.

[To access the Users Settings](#)

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Users**.

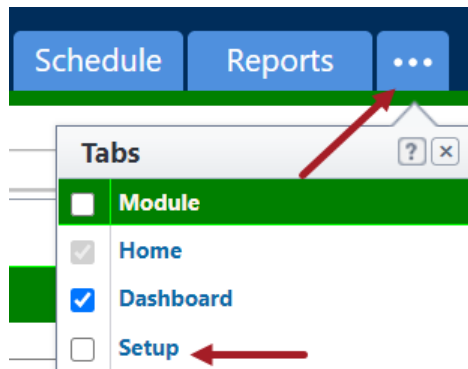
Manage Users

The Manage Users page allows e-Builder account administrators to add, remove and make modifications to users on the account.

To access the Manage Users page

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Users**.
3. Click **Manage Users**.

Add New Users to Account

This task can be completed by:

- Account Administrators
- Participants with 'Manage User' permission

To add new users to the account

1. Go to the **Manage Users** page.
2. Click **Add**.
3. On the Add New User page, complete all necessary fields.

Note: Optionally pre-populate any known information for your users in the Business Information section to make this process easier for them when they purchase their license and log in to e-Builder for the first time. Users can overwrite this information if they choose.
4. Select the **Notify user that he/she has been added** check box to send a notification email to the user that includes their username and password. You can also send the notification at a later time.
5. *Optional:* On the **Access Expires** field, set the date that the user's access to e-Builder will expire. Access expire dates apply to contract users, which are users that have access to e-Builder using on your organization's purchased licenses. Account administrators have the ability to modify the access expiration date.
6. Click **Save**.

Tip

After completing this task, manage the user's project membership so they have the appropriate access to system features.

Add Existing Users

Adding existing users refers to adding an already licensed e-Builder user who has access to another account. Doing so will help you avoid having to create a new user profile. After users have been copied over, you must place them in the appropriate roles and give them project access before they are able to begin working in their projects.

Warning: If the user is configured to be hidden in the global directory, they are restricted from being added to multiple accounts. These participants will not show up in the list of available users. This setting is can be managed from the User Details page.

This task can be completed by:

- Account Administrators
- Participants with 'Manage User' permission

To add existing users

1. Open the **Manage Users** page.
2. Click **Add Existing**.
The Add Existing User page is displayed.
3. Enter the person's name and/or username and company affiliation to find them in the directory, and then click **Filter**
4. Select the check box next to the user's name and click **Add User(s)**.

You are redirected to the Manage Users page and the new user appears in the Users table below.

Tip

After completing this task, manage the user's project membership so they have the appropriate access to system features.

Add user that changed companies: Best Practices for Implementation

The purpose of this section is to communicate the Best Practice for adding existing users to e-Builder when they have moved from one client to another.

Use case: an individual that worked for an e-Builder client and established a username associated with that client's company changes jobs and lands at different client. The new client would like to add the employee as a user in e-Builder and associate them to their new employer's company name.

Consideration: e-Builder associates users with one company at a time. We have a global directory that contains users from across client accounts. While clients can't view users in other client accounts, it is possible to add an existing username rather than choosing a unique username. In this scenario, if the new employer changes the company name associated with the user in the new account, it is also changed in the previous account. Therefore the previous company will see the new company's name in their e-Builder account on historical actions taken by the employee.

Suggested approach:

Should this scenario arise in an implementation, the following two steps can be taken to avoid cross-populating company names.

1. Create a unique username for the employee that is changing jobs on the Add New User page. At the new employer, do not repurpose the former username but instead create a new unique username. By doing so, there are no negative repercussions to associating the user to their new employer's company.
2. To protect the former employer in this scenario, the user that is changing jobs can be hidden in the Global Directory. On the Add Users page, select the Hide in Global Directory check box to hide this user in the global directory, which will prevent them from being added to multiple accounts. When adding existing users from another account, this person will not be included in the list of available users.

Edit User Details

This task can be completed by:

- Account Administrators
- Participants with 'Manage User' permission

A user's record includes their profile data, such as their name, email address and username as well as business information. In addition to this, there are a few access settings that are subject to modification, such as a user's license type, the ability to restrict their access to documents only, and whether or not the person can be added to multiple accounts. For a description of each setting, see Add/Edit User Page Overview.

To edit the details of a user's records

1. Go to the **Manage Users** page.
2. Click the user's name.
The User Details page is displayed.
3. Click **Edit**.
4. Make all necessary changes.
5. Click **Save**.

Copy Users

On occasion you will have a new user start that will have the exact project and role permissions as another user. Instead of having to create the new user and assign the associated projects and role, you can copy another user's project and role membership.

This task can be completed by:

- Account Administrators
- Participants with 'Manage User' permission

To copy users

1. Go to the **Manage Users** page.
2. Select the check box next to the user you want to copy, and then click **Copy**.
The Add New User page is displayed.
3. Enter the new user's profile information.

Tip

When selecting a username, it is recommended to use the initial of the name followed by the last name or the user's email address. All usernames must be unique; otherwise you'll be prompted to enter another username.

4. Select the **Notify user that he/she has been added** check box to send a welcome email that includes their login information and instructions.
5. Click **Save**.

Email Users

Use the email function to send generic emails to account users, to inform them that they've been added to the account, or to send them their username and password.

This task can be completed by:

- Account Administrators

To email users

1. Go to the **Manage Users** page.
2. Select the check box next to the users you want to email, and then click **Email**.
The Email Users page is displayed.
3. Complete all necessary fields.

Tip

CC yourself if you'd like to have a copy of the email for your personal records.

4. To inform users that they've been added to the account, select the **Notify user that he/she has been added** check box.
5. To include a password reset link, select the **Include login info** check box.
6. Click **Send**.

Remove Users from Account

Users may have to be removed from the account if they are no longer with the organization or their membership is no longer required on a particular account.

Note: If you remove a user from an account while they are logged in, they will be logged out as soon as they attempt to take an action.

This task can be completed by:

- Account Administrators
- Participants with 'Manage User' permission

To remove users from the account

1. Go to the **Manage Users** page.
2. Select the check box next to the users you want to remove from the account.
3. Click **Remove**.
A confirmation page displays.
4. If the user has work assigned to them, click the **This user still has work assigned** link to reassign their work to another resource.
5. Click **Remove User(s) from Account**.

Reassign Work - Users

Account administrators have the ability to reassign work from one team member to another. There are several reasons why this may be necessary, such as if the user's roles have changed, workload needs to be reallocated, the resource is on vacation, or they are out sick or no longer available. Anything that is assigned to a resource can be reassigned, such as tasks, workflow forms and processes. Work reassignment can also be completed by project administrators from the Projects module. See Reassign Work - Projects for more information.

This task can be completed by:

- Account Administrators

To reassign work from the Users section

1. Go to the **Manage Users** page.
2. Select the check box next to the user you want to reassign work for, and then click **Reassign Work**.
3. Select the project from which you'd like to reassign work.

All open work items display on the next page.

4. Select the check boxes next to the items you want to reassign.
5. Click the **Select a user to reassign work to** drop-down arrow to make a selection.

Note: By default, the **Notify User** check box is selected and an email will be sent to the new task owner informing them of this change.

6. Click **Reassign**.

Multi-Factor Authentication

Multi-Factor Authentication (MFA) is a more secure login process that combines validating two or more independent credentials before allowing the user to access e-Builder. Two-factor authentication provides an extra layer of security to e-Builder user accounts, minimizing the potential for unauthorized access.

Important: Once a user has been configured for MFA they will be required to complete an additional security check before they are allowed to access e-Builder. This added check is known as a Time-Based One Time Password (TOTP). This code will be generated using an Authenticator app on their smart phone or browser authenticator. Due to this, the user will need to have access to their smart phone or browser authenticator each time they wish to log in.

Using a separate mobile device with an authenticator app is the preferred method for MFA validation. If you do not have a mobile device available, you can set up a browser authenticator on your computer.

Note: Contact Support with a request to enable Multi-Factor Authentication (MFA) for your account. Once MFA has been toggled on, you can enable it per user or for all users for additional authentication when they log in. The additional security check will only be required once a user is toggled on for the feature.

Tip: If you are using an older version of the e-Builder mobile app and if you are not sure if Multi-Factor Authentication (MFA) is supported, please contact e-Builder Support.

Enable Multi-Factor Authentication

To start the multi-factor authentication set up process - please contact our support team so that they can enable MFA for your account. Following this you can begin the user configuration.

Note: Until MFA is enabled for your account you will not see the MFA toggle.

To enable Multi-Factor Authentication (MFA) for all users in your account

1. Go to the **Manage Users** page.
2. From the toolbar, click **MFA** and then select the **Enable all users** option. A message is displayed asking you to confirm whether you want to enable the two-step authentication for all accounts.
3. Click **Enable all users** to confirm.

Tip: MFA can also be configured on the Add/Edit User page.

To enable Multi-Factor Authentication (MFA) for one or more users

1. Go to the **Manage Users** page.
2. Use the search filters to narrow down and select the particular users for whom you want to enable MFA.
3. From the toolbar, click **MFA** and then select the **Enable** option. A message is displayed asking you to confirm whether you want to enable the two-step authentication for the selected users.
4. Click **Enable** to confirm.

Register MFA User Profile

Once a user has been enabled for MFA (see Login Using Multi-Factor Authentication) the user needs to then register their user profile for MFA.

To register the user's profile:

- Once the user has been enabled they will get an email sent to them with the registration instructions.
- If they do not receive an email please validate that the email on file in the User Details page for them is correct. Only the account admin can change a user email.
- Once the user receives the email they will need to log on to e-Builder and follow the registration instructions. This will include downloading the third party authenticator app to your mobile device. We recommend Google Authenticator for this.
 - Browser alternative: Install an authenticator on your browser such as the Google Authenticator Chrome extension.

Disable Multi-Factor Authentication

To disable Multi-Factor Authentication (MFA) for all users

1. Go to the **Manage Users** page.
2. From the toolbar, click **MFA** and then select the **Disable all users** option. A message is displayed asking you to confirm whether you want to disable the two-step authentication for all users.
3. Click **Disable all users** to confirm.

To disable Multi-Factor Authentication (MFA) for one or more users

1. Go to the **Manage Users** page.
2. Use the search filters to narrow down and select the particular users for whom you want to disable MFA.
3. From the toolbar, click **MFA** and then select the **Disable** option. A message is displayed asking you to confirm whether you want to disable the two-step authentication for the selected users.
4. Click **Disable** to confirm.

Reset Multi-Factor Authentication

Note: If a user has lost access to the device needed to complete 2-step verification, resetting the multi-factor authentication will delete their active enrollment. The user will need to re-register.

To reset Multi-Factor Authentication (MFA) for one or more users

1. Go to the **Manage Users** page.
2. Use the search filters to narrow down and select the particular users for whom you want to reset the MFA configuration.
3. From the toolbar, click **MFA** and then select the **Reset** option. A message is displayed asking you to confirm whether you want to reset the two-step authentication for the selected users.
4. Click **Reset** to confirm.

Note: When a new user is added to your e-Builder account and your account is enabled for MFA the user will automatically be enabled for MFA. If you want to disable the user for MFA see the Disable Multi-Factor Authentication section above.

Import Users

If you have a large number of users to add to e-Builder, you can import the list using an Excel spreadsheet.

Note: The Import Users process is an import that only creates brand new records. It does not update existing records.

For more details on importing bill rates for the users, see Import Bill Rates.

This task can be completed by:

- Account Administrators
- Participants with 'Manage Membership' permission

To import a file

The following are the required fields and should be the column headers in your import file. Additional fields can also be added, as seen in the screenshot below.

- First Name
- Last Name
- Username

- Company
- Email
- License Type

If the column names in your import file are different from those in e-Builder, you must map the e-Builder columns to the corresponding columns in your file. However, if the column names are identical to the e-Builder field names, they will be automatically recognized and you will avoid having to map these fields. The image below is of the Field Mappings page that will appear after the file is uploaded. The left column lists the built-in e-Builder fields. The right column (with the drop-down menus) is the column names of the import file.

Note: Custom field values can also be included in the import file.

Import Users - Field Mappings Step 2 of 3

Previous Next Cancel

User Built-In Fields (Member Profile)

| | | | |
|------------------|------------|---------------------------|-----------|
| * First Name: | First Name | * Last Name: | Last Name |
| * User Name: | Username | * Email: | |
| * Company: | Company | * License Type: | |
| Expiration Date: | | Hide in Global Directory: | |

User Built-In Fields (Business Information)

| | | | |
|---------------------|--|----------------------|--|
| * Type of Business: | | Title: | |
| Department: | | * Business Address: | |
| P.O. Box/Suite: | | * City: | |
| * State/Province: | | Country: | |
| * Postal/Zip Code: | | * Office Phone: | |
| Office Fax: | | Business Cell Phone: | |
| Business Pager: | | | |

* Users will be required to complete these fields when logging in.

User Built-In Fields (Personal Information)

| | | | |
|------------------|--|----------------------|--|
| Home Address: | | City: | |
| State/Province: | | Country: | |
| Postal/Zip Code: | | Home Phone: | |
| Home Fax: | | Personal Cell Phone: | |
| Personal Pager: | | | |

To import users

1. Go to the **Manage Users** page.
2. Click **Import** and select **Import Users**. The Import Users page is displayed.
3. Click **Choose File** to search for the file to import.
4. Click **Next**.
5. If necessary, map the e-Builder built-in fields to the corresponding fields in the import file.
6. Click **Next**.
7. Click **Save**.

Import Bill Rates

Bill rates are required for billable Time Tracking activities. They allow you to set hourly rates for project participants in order to more accurately track project costs. You can set default rates for participants which can be applied to all projects they are a part of or you can set different rates for different projects. When a time sheet is entered and a commitment is selected, the pay out calculations will be determined based on the established bill rate for that user.

Note: The Import Bill Rates option is available only if time tracking has been enabled on the account.

To import bill rates

1. Go to the **Manage Users** page.
2. Click **Import** and select **Import Bill Rates**. The Import User Bill Rates wizard page is displayed and guides you through the following sequence of steps:

- a. Step 1 of 3: Select the Import File

Click **Choose File** to search for and choose the file to import and click **Next**.

Tip: It is recommended that you download the import template (.xlsx) and use it during the import process. For faster updates, it is recommended that you use the data filter in MS Excel to select the desired username(s) to be updated.

- b. Step 2 of 3: Complete Field Mappings

- Map the e-Builder built-in fields to the corresponding fields in the import file, if needed.
- Ensure that the required fields (marked with an *) are mapped correctly and then click **Next**

Note: If the template is used for the import, all fields will be automatically mapped.

- c. Step 3 of 3: Review the import details

Note: If there are exceptions, click on the **Exceptions** tab to review all rows with the exceptions. After resolving the exceptions, save the .xlsx file with the corrections and return to Step 1 to upload the corrected file.

If there are no exceptions, click **Import** to complete importing the updated file. The Import User Bill Rates - Results page is displayed.

3. Review the confirmation message and click **Finish** to exit the wizard.

To check an updated user's bill rates after successful import

1. Go to the **Manage Users** page.
2. Open the User Details page for the updated user.
3. Click **Manage Membership**.
4. On the Manage Membership page, click the **Manage Bill Rates** tab.
5. Observe that the bill rates match the rates that were updated in the Import Template.

Run User Adoption Report

User adoption reports can be run at any time. They allow you to view stats on how frequent users are logging into e-Builder.

This task can be completed by:

- Account Administrators

To run a user adoption report

1. Go to the **Manage Users** page.
2. Click **Adoption Report**.

The User Adoption Report page lists all account users, their company affiliation, number of logins and the last time they accessed the system.

3. *Optional:* Adjust the date fields accordingly and click **Run Report** to update the results in the table.

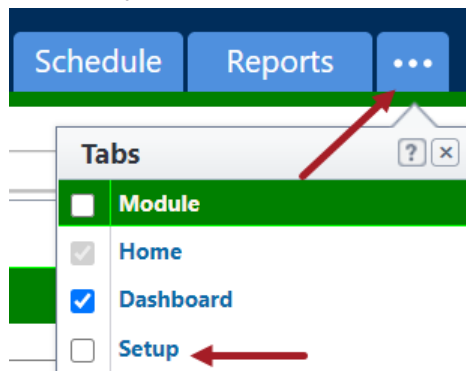
User Details

On the User Details page, you can manage the user's membership, reset their passwords, edit their details or add them as a contact.

To access the User Details page

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Users**.
3. Click **Manage Users**.
4. *Optional:* User the filter to search for the user.
5. Click the name of the user.

Add As Contact

This button appears only if the user is not yet an Trimble Unity Construct contact. Click to add the user as a contact. If the company name is not recognized you will be prompted to save it.

Manage Membership

Opens the Manage Membership page where you will be able to set the user's project membership, validate their account and project roles, and determine the project level template to add them to.

Reset Password

Resets the user's password and sends the user an email with their new password. This is necessary if the user has exceeded the maximum number of failed password attempts and has been locked out of Trimble Unity Construct.

Edit

Edits the details of the user's account record.

(Add New / Edit) User Details

The User Details, Add New User and Edit User pages are used to view, add and edit user details (respectively). Information on these pages are listed below:

To access the Add New User page

1. Open the User settings
2. Click **Manage Users**.
3. Click **Add** to add a new user.

To access the User Details page

1. Open the User settings
2. Click **Manage Users**.
3. Click on the name of the user.

To access the Edit User page

1. Open the User settings
2. Click **Manage Users**.
3. Click on the name of the user.
4. Click **Edit**.

Member Profile

Enter the user's details in the following fields:

- **First Name:** Enter the user's first name.
- **Last Name:** Enter the user's last name.
- **User Name:** Enter a login name for this user. All user names are unique. If the name is being used by another person, you will be prompted to change it.
- **License Type:** Click this drop-down arrow to select a license type. The options are as follows:
 - **Contracted License:** Contracted licenses are the licenses included in your e-Builder subscription. If your subscription includes 50 user licenses, you have 50 contracted licenses that may be assigned to users to give access to your account.

- **Individual License:** An individual license is assigned to a user that is required to purchase their license prior to gaining access to your e-Builder account. They will be taken through a purchase process the first time they log in during which they will be able to purchase their license using a credit card. For more information, see Individual License Manager.
- **Require Single Sign On:** Select this check box to allow the user to enter their SSO credentials to log in to Trimble Unity Construct. This option will be displayed only if the Single Sign On feature has been enabled by Technical Support.
- **Access to Documents only:** Select this check box to give this user access to the Documents module only.
- **Company:** Enter the company that the user represents in this field.
- **Email Address:** Enter the user's email address in this field.
- **Account Expires:** Enter the date you want the user's access to end. Access expiration dates do not remove users from the account. Clear this field to grant them access again.

Note: If a user is logged in and you enter an expiration date in the past for that user, they will be automatically logged out when attempting to take another action.

- **Hide in Global Directory:** Select this check box to hide this user in the global directory, which will prevent them from being added to multiple accounts. When adding existing users from another account, this person will not be listed in the list of available users.
- **Multi-factor authentication:** Select the **Require 2-step verification when the users logs in** check box to enable multi-factor authentication for the user.

Note: Until MFA is enabled for your account you will not see this MFA toggle field.

- **Add New User as Contact:** Select to add the new user as a new contact or to an existing contact record.

Business Information

You can pre-populate the business information for a user when you are adding them. Doing so makes the registration process easier for users as they will be required to complete this information.

Note: Users will be required to complete the fields marked with * when logging in.

- **Type of Business*:** Click this drop-down arrow to select the type of business the user represents. This is a list of default options that cannot be altered.
- **Department:** Enter the name of the department the user belongs to in this field.
- **P.O. Box/Suite:** Enter the user's P.O. Box or Suite address in this field.
- **State/Province*:** Click this drop-down arrow to select the user's state or province.
- **Postal/ Zip Code*:** Enter the user's zip code in this field.
- **Office Fax:** Enter the user's office fax number in this field.
- **Business Pager:** Enter the user's business pager in this field.
- **Title:** Enter the user's job title in this field.
- **Business Address*:** Enter the user's business address in this field.

- **City***: Enter the city of the user's business address in this field.
- **Country**: Click the drop-down arrow to select a country from the list.
- **Office Phone***: Enter the user's office phone number in this field.
- **Business Cell Phone**: Enter the user's business cell phone number in this field.

Custom Fields

The Custom Fields tab lists all user type global custom fields created for the account. Complete all pertinent fields for users that you are adding to the account. These same custom fields can be used as criteria for filtering.

For more information on adding user custom fields, see [Manage Custom Fields](#). Ensure that you select the *User* object type in step 4.

Available only on the User Details page

Toolbar Buttons

- **Add As Contact**: This button appears only if the user is not yet an e-Builder contact. Click to add the user as a contact. If the company name is not recognized you will be prompted to save it.
- **Manage Membership**: Opens the Manage Membership page where you will be able to set the user's project membership; validate their account and project roles; and determine the project level template to add them to.
- **Reset Password**: Resets the user's password and sends the user an email with their new password. This is necessary if the user has exceeded the maximum number of failed password attempts and has been locked out of e-Builder.
- **Edit**: Edits the details of the user's account record.
- **Cancel**: Click to return to the Manage Users page.

Project Membership

Lists the projects that the user is a member of. Click the project title to be redirected to the Project Details page.

Role Membership

List the roles that this user is a member of at the account and project level.

Contacts

Lists the contact records for this person.

Available only on the Add User page

New User Notification

- **Notify user that he/ she has been added**: Select this check box to send an email notification to the user when they have been added. The email will be sent to the new user along with a link where they can enter their password and set answers to security questions. When setting or updating the password as a new user, the username of the account will be included on the Set Password or

Change Password page.

Available on the Add/ Edit User pages

Toolbar buttons

- **Save:** Click this button to enter the user's details and add the user or save changes to the user details.
- **Cancel:** Click this button to discard any changes made to the user details.

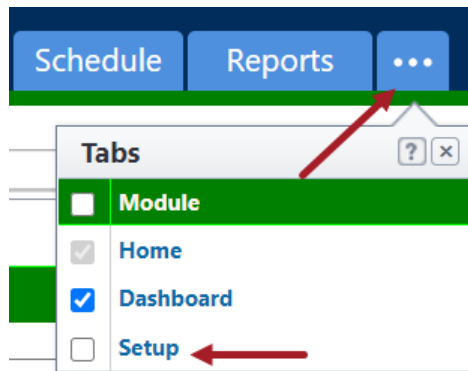
Manage Membership

Account administrators and users with Manage Membership permission can view and update a user's project membership, account and project role membership, as well as the role template to which the user belongs. While some of these actions available on this page can be completed elsewhere in the product, this page allows you to manage all areas of the user's membership from a single location.

To access the Manage Membership page

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Users**.
3. Click **Manage Users**.
4. *Optional:* User the filter to search for the user.
5. Click the name of the user.
6. Click **Manage Membership**.

Projects Tab

The 'All Projects' column contains a list of projects that are available to the user.

To grant a user project access

1. Go to the **Manage Membership** page.

2. On the **Projects** tab, from the **All Projects** box, select the projects you want to grant the user access to and click the right-directional arrow to add the project to the **Projects That User Is A Member Of** column.
3. Select the **Notify user added/removed to/from project(s)** check box.
4. Select the **Include login info** check box.
5. Click **Save**.

To assign a user as a project administrator

1. Go to the **Manage Membership** page.
2. On the **Projects** tab, from the **All Projects** box, select the projects to which you want to assign the user as an administrator and click the right arrow to add the project to the **Projects That User Is A Member Of** column.
3. Ensure that project is still selected and click the right arrow to add the project to the **Projects that the User is An Admin Of** column.
4. Select the **Notify user added/removed to/from project(s)** check box.
5. Select the **Include login info** check box.
6. Click **Save**.

To remove a user from a project role

1. Go to the **Manage Membership** page.
2. From the **Projects That User Is a Member Of** column, select the project that you want to remove the user from.
3. Click the left arrow to add the role to the **All Projects** column.

Account Roles Tab

This tab allows you to manage the user's account role membership.

To assign a user an account role

1. Go to the **Manage Membership** page.
2. Click on the **Account Roles** tab.
3. From the **All Roles** column, select the role to which you wish to assign the user.
4. Click the right arrow to add the role to the **Roles That User Is a Member Of** column.

Note: If a user is in an account role, they will not be able to have exclusive project level permissions. To maintain project level role permissions, the user must be removed from the account role. To learn more, see About Project Level Roles.

To remove a user from an account role

1. Go to the **Manage Membership** page.
2. From the **Roles That User Is a Member Of** column, select the role that you want to remove from the user.
3. Click the left arrow to add the role to the **All Roles** column.

Project Roles Tab

The Project Roles tab allows you to select a project role and project to make this user a member of. Project level permissions allows you to diversify the permission of a role from project to project. To learn more, see [About Project Level Roles](#).

Role Templates Tab

The Role Templates tab allows you to add the user to a role template and choose a particular project to apply the role template to.

Manage Bill Rates Tab

This tab appears only if you have Time Tracking enabled with Cost Integration. Bill rates are required to calculate billable activities. If not established, users will not be able to submit time sheets for billable tasks. Bill rates can also be managed at the project level by users with Manage Project Bill Rates permissions. To learn more, see [About Managing Time Tracking](#) and [Manage Account Bill Rates](#).

The following fields are available on this tab:

Hourly Default Bill Rate: You can set a default hourly rate that will be applied as the user's bill rate for all projects they're associated with. However, you can still specify rates for various projects in the Bill Rates table below. In addition, users with Manage Project Bill Rates permissions can modify bill rates at the project level. Changes made on either page (account or project) will synchronize.

Project: Lists all the projects that the user has access to.

Billable: Select the check box next to the project for which the user is billable. If the check box is not selected the user will not be able to choose billable activities for that particular project when completing their time sheets - only non-billable tasks will be viewable to them in this case.

Default Bill Rate: Select the check box next to the project for which the default bill rate should be used.

Bill Rate Per Hour: This column displays the hourly bill rate. The default rate appears, if this check box was selected. If the default check box was left empty, this is an editable field for you to enter a specific amount.

Licensing

Account managers can assign the following licenses to a user:

- Contracted license: Paid by your organization
- Individual license: Allocated to your vendors. Vendors will be required to pay for their own licenses.
- No Charge license: For special users such as the ones that run imports and scheduled tasks.

Individually Licensed User Registration Guide

You have been added as an individually licensed user in Trimble Unity Construct, our capital program management software. To access this tool and begin working, please complete the account registration and purchase your license by following the steps below.

Complete e-Builder Account Registration

You will receive an email regarding your new Trimble Unity Construct membership. Enclosed will be your username and temporary password. Follow the steps below to complete your account registration.

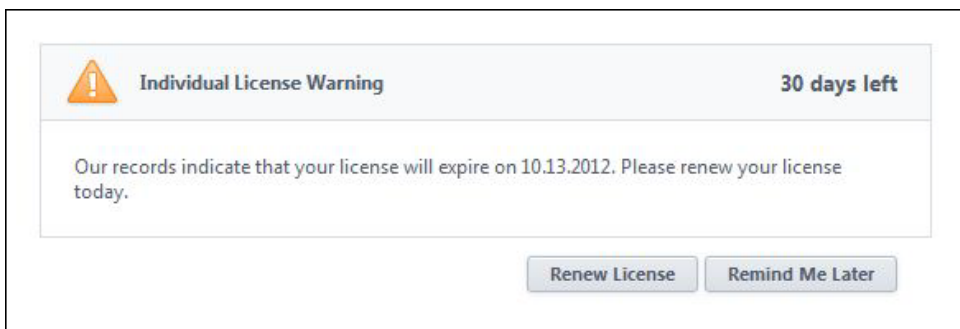
1. Open the new account notification email from Trimble Unity Construct.
2. Click the enclosed link. The Trimble Unity Construct Members Login page displays.
3. Enter your username and temporary password.
4. Click **Login**. The License Information page displays.
5. Review license information.

Note: License duration is set to 1 Year by default. Click the drop-down arrow to choose a longer duration.

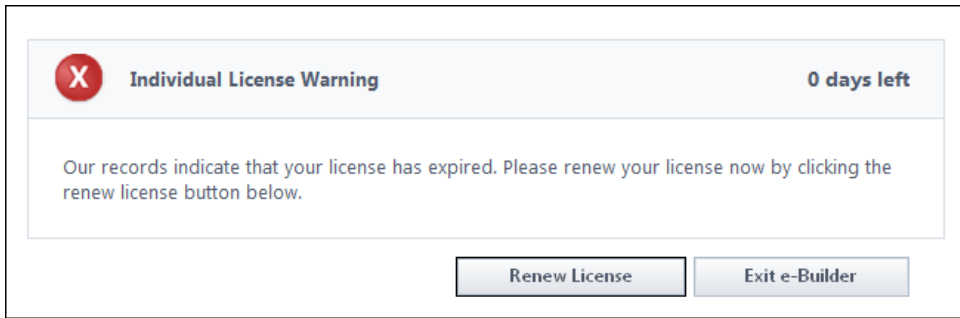
6. Click the Terms and Policy link to review the terms and policy.
7. Select the Terms and Policy check box.
8. Click **Proceed to Checkout**. The Payment Method page displays.
9. Enter credit card information.
10. Click **Purchase**.
11. Review purchase summary, then click **Continue**.
12. Read the terms of use, and then click **I Agree**. The Update User Profile page displays.
13. At a minimum, complete all required fields, and then click **Save**. The Change Password/ Security Questions page displays.
14. Complete all required fields, and then click **Save Changes**.

Renew Trimble Unity Construct License

Individual license subscriptions are valid on an annual basis and licenses can be purchased for multiple years. 30 days prior to the license expiration date you will receive an expired license warning message when you attempt to log in to Trimble Unity Construct. A counter will alert you of the number days left in your subscription.



For 30 days, this message will display every time you log in to Trimble Unity Construct until your subscription expires; at which point you will have the option to renew or exit the system.



Manage Roles

In Trimble Unity Construct, users are able to perform certain tasks based on the permissions that have been given to them. While you are able to give individual permissions in some modules, as a best practice, we recommended setting permissions per role instead. This will maximize the efficiency of your audits and help you better manage user permissions across the account.

Account Roles vs. Project Roles

Roles come in two tiers: account roles and project level roles. All the roles that need to be available in your projects must exist at the account level, such as Accounting, Administrative Assistants, Project Managers, and General Contractors. However, to customize the permissions of a role from project to project, you must add users to those roles at the project level, but they must not be in that role at the account level. For more information, see About Project Level Roles.

In short, create all of the roles that you will need at the account level. Whether or not you add users to those roles will be based on whether or not you want the users in that role to have account level permissions, or project-level permissions.

Account roles are one of the first things to be completed when an account becomes active; however, as your organization changes, the need for new account roles may arise. On the Manage Roles page you can add, remove and modify account roles. Account roles are necessary in order to grant permissions in a unified manner.

Note: Account roles must exist, even if you are enacting project level roles.

What is the Admin Role?

A check mark in the Admin Role column indicates that this is an Administrator Role; a distinction that allows administrators to give the members of this role additional permission typically reserved for the account administrator. Below is a list of the permissions that can be given to the Administrator Role:

- **Manage Users:** Allow users to add/edit users for the projects they are a member of.
- **Manage Memberships:** Allow users to add/edit projects and users for the projects they are a member of.
- **Manage Processes:** Allow users to add/edit processes and workflows of the projects they are a member of.

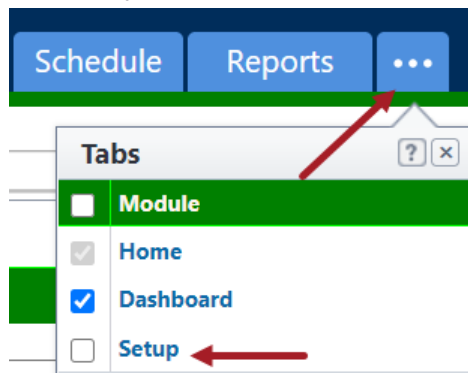
- **Manage Workflows:** Allow users to modify process instances on the projects they are a member of, such as overriding a workflow and delegating process instances.
- **Manage Cost Templates:** Allow users to add/edit the budget, cash flow, and forecast templates of the projects they are a member of.
- **Manage Schedule Templates:** Allow users to add/edit schedule templates of the projects they are a member of.
- **Manage Forms:** Allow users to add/edit forms for the projects they are a member of.
- **Manage Planning Templates:** Allow users to add/edit planning templates of the projects they are a member of.

See About e-Builder Administrative Roles for more information.

To access the Manage Roles page

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Users**.
3. Click **Manage Roles**.

Add New Account Roles

This task can be completed by:

- Account Administrators
- Participants with 'Manage Membership' permission

To add new account roles

1. Go to the **Manage Roles** page.
2. Click **Add Role**.
3. In the **Name** field, enter a name for this account role.
 - The **Is Administration Role?** setting is set to **No** by default. Making this an Admin Role will enable you to give this role permissions that are typically reserved for account

administrators. To learn more, see [About Trimble Unity Construct Administrative Roles](#).

- Only custom fields which are editable by specific roles appear in the **Custom Field Permissions** section. If applicable, choose whether this new role will be able to view or edit the custom fields listed. If a selection is not made, this role will not be able to view the listed custom fields.

- Click **Save**.

Tip

From here you can Add Users to Account Roles.

Remove Account Roles

This task can be completed by:

- Account Administrators
- Participants with 'Manage Membership' permission

To remove account roles

- Go to the **Manage Roles**.
- Select the check box next to the role you wish to remove.
- Click **Remove Role(s)**.

View / Add Account Role

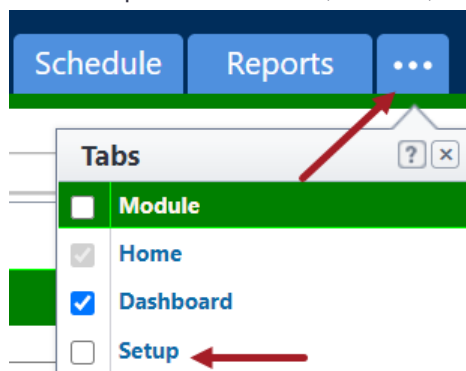
The View / Edit Account Role pages allow account administrators and those with Manage User permission to perform various functions, such as add users to a role, and create new roles. Access to various functions in Trimble Unity Construct is permission based. While permissions can be given to individual users, as a best practice, they should be managed by roles.

Note: To maintain project-level permissions, do not add users to the role at the account level. For more information, see [Account Role Management](#).

To access the View Account Role page

- From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.

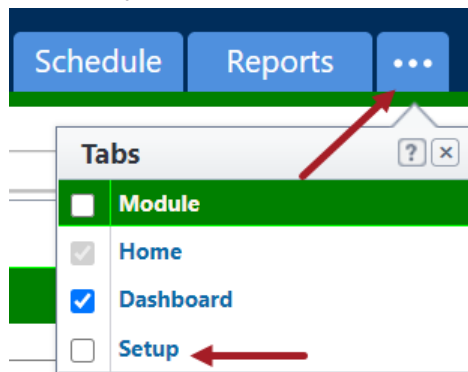


2. In the **Administration Tools** section, click **Users**.
3. Click **Manage Roles**.
4. Select the account role you wish to view.

To access the Add Account Role page

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Users**.
3. Click **Manage Roles**.
4. Click **Add Role**.

View Account Role

Apply to Project Role

To diversify someone's permissions from project to project, you can apply the permissions of their role to the project level. This will allow you to give their role one set of permissions in Project A and another set of permissions in Project B. For example, Jane Doe may be the lead on all Campus projects, and John Doe the lead on all Medical Center projects. Project level permissions allow you to modify their permissions accordingly between projects A and B.

This task can be completed by:

- Account Administrators
- Participants with 'Manage Membership' permission

To add users to project level roles

1. Go to **View Account Role** page.
All users currently in the account role are listed on the Users table.
2. Select the check box next to the users you want to add to the role.
3. Click **Apply to Project Level**.

Tip

See Edit Project Role Associations for instructions on placing users in different project roles across different projects.

4. Click **OK**.

Tip

Click the number in the Project Level column to view the projects that the user is a member of.

Add User to Roles

Users can be added to account roles at any time. As a best practice, role membership should be updated just as soon as a new person joins the organization/ project or when user roles change.

This task can be completed by:

- Account Administrators
- Participants with 'Manage Membership' permission

To add users to account roles

1. Go to **View Account Role** page.
2. Click **Add User to Role**.
3. Select the check box next to the users you want to add to this role.
4. Click **Add User**.

Remove from Role

This task can be completed by:

- Account Administrators
- Participants with 'Manage User' permission

Users might have to be removed from account roles if they are no longer part of the organization or if they are being added to a project level role. When applying project level roles, it is necessary to remove these users from the account role because the account level permissions will take precedence. Once this occurs, project level roles will take effect.

To remove users from account roles

1. Go to **View Account Role** page.
2. Click the title of the role
3. Select the check box next to the user(s) you want to remove from the account role.
4. Click **Remove From Role**.

If this role has a project level assignment, this action will only remove them from the role at the account level. This is necessary to ensure the user only has access at the project level. See About Project Level Roles for more information.

5. Click **OK**.

Add Account Role

Add new account roles

This task can be completed by:

- Account Administrators
- Participants with 'Manage Membership' permission

To add new account roles

1. Go to the **Manage Roles** page.
2. Click **Add Role**.
3. In the **Name** field, enter a name for this account role.
 - The **Is Administration Role?** setting is set to **No** by default. Making this an Admin Role will enable you to give this role permissions that are typically reserved for account administrators. To learn more, see About Trimble Unity Construct Administrative Roles.
 - Only custom fields which are editable by specific roles appear in the **Custom Field Permissions** section. If applicable, choose whether this new role will be able to view or edit the custom fields listed. If a selection is not made, this role will not be able to view the listed custom fields.
4. Click **Save**.

Tip

From here you can Add Users to Account Roles.

Project Level Roles

The Project Level Roles feature gives Trimble Unity Construct account administrators the ability to place users in project-specific roles. This makes it possible for a user to be in a role on Project A while being in a different role on Project B. Project roles are dependent on the existence of an account role. Therefore, account roles must exist for every single role used on the account. However, to apply roles to the project level simply do not add users to these roles at the account level, because permissions of the account role will always take precedence.

If users are placed in an account role, they will have the permissions associated with that role across all projects. If they are placed in a project role, they will have permissions for that project only.

Add User to Project Level Role

Note: Remember, when adding users to a project level role ensure that no users are added to the account level role, because if they are, they will have the role's permissions across all projects.

To add users to project level roles

1. Go to the Users settings.
2. Click **Manage Roles**.
3. Click the title of the role.

All users currently in the account role are listed on the Users table.

4. Select the check box next to the user(s) you want to add to the role.
5. Click **Apply to Project Level**.

A message displays informing you that the selected users will be placed in the project level role on all projects that they are a member of. See Edit Project Role Associations for instructions on placing users in different project roles.

6. Click **OK**.

Tip

Click the number in the Project Level column to view the projects that the user is a member of.

Transition Existing Users from Account to Project Roles

Note: If you have never used project level roles before, but already have account roles set up, it is important to note that your account will function in the same way as it always has. After transitioning account roles to project roles, the permissions and notifications that are set up for Documents, Forms, Process, Schedule, Submittals and all related areas will automatically apply to the project role after it is created. No additional action is required from you to sustain your current configurations.

Transitioning a user from the account level to the project level is a three-step process:

1. Ensure that the user is a member of the projects you want to add project level roles for. If they are not, grant them project access.
2. Add the user to the project role.
3. Remove the user from the account role.

All of these tasks can be completed from the Manage Membership page.

View User and Role Associations Grouped by Role

Viewing role association grouped by role will allow you to see all members within a role and whether or not they are members on the account or project level. This is beneficial to ensure that user roles associations are configured as expected.

Note: It's possible for a user to be within a role on both the account and project levels, but if this is the case, the account role will take precedence, which means that the user will be in this role on all projects that they are a member of. For instructions on removing users from an account role, see Remove Users from Account Role.

To view user role associations by Role

1. From the Top Navigation Tabs, click the **Projects** tab.
2. Choose the project from the **Projects** drop-down menu.
3. From the Projects Menu, click **Project Participants**.

4. In the Roles section, click the role you want to view associations for.

Groups

Create | Rename | Delete

☐

Administrators

☐

Members

Roles

☐

Activity Manager

☐

Admin

☐

Architect/Engineer

☐

Copy Editor

☐

Cost/Budgeting

☐

Equipment Managers

☐

General Contractor


A list of members in this role display with a check mark that indicates whether or not they are members of this role on the account or project level.

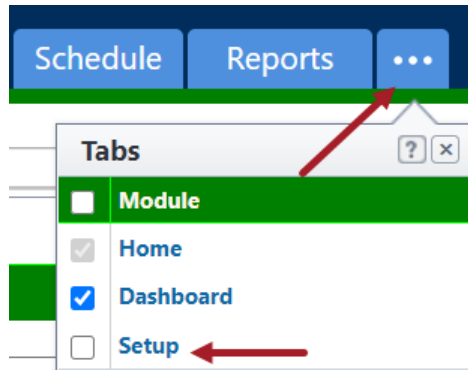
| <input type="checkbox"/> | Name▲ | User Name | Company Name | Account Role | Project Role |
|--------------------------|-----------------|------------|--------------------|--------------|--------------|
| <input type="checkbox"/> | Bruzenskey Bois | BBois | Construction Depot | | ✓ |
| <input type="checkbox"/> | Zakai Cody | Zakai Cody | Construction Depot | ✓ | |

Project Role Templates

Project Role Templates give account administrators a way to predefine the roles that will be applied to specific project types. For example, Jane Doe may be the lead on all Campus projects, but John Doe is the lead on all Medical Center projects. Using project level role templates is a quick and easy way to apply project roles across your different project types.

To access Project Role Templates page

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.
- If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Users**.
3. Click **Project Role Templates**.

Add Project Role Templates within e-Builder

Note: The recommended way to create project role templates is to first create the template using an Excel® spreadsheet (a template is available, see Download Project Role Template for instructions.) and then import it into e-Builder Enterprise. However, a template can also be created within e-Builder Enterprise.

To add a project role templates within the system

1. Go to the **Project Role Templates** page.
2. Click **Add**.
3. Complete all required fields.
4. In the **Setup** section, click the **Role** drop-down menu and select a role.
Members of this role are displayed in the **Unselected Users** section.
5. Select the user to add to this role template and click the right arrow.
The selected user is added to the **Selected Users** box.
6. Click **Save**.

Copy Project Role Templates

To copy a project role template

1. Go to the **Project Role Templates** page.
2. Click **Copy** next to the project role template you wish to duplicate.
3. Complete all necessary fields.
4. Click **Save**.

Edit Project Role Templates

The recommended way to edit project role templates is to modify the Excel® template and import it into e-Builder Enterprise™. This makes saved templates easily accessible from your local machine. For instructions, see [Download Project Role Templates and Import Project Role Templates](#).

However, you can also edit a template within e-Builder Enterprise™:

[To edit project templates within e-Builder Enterprise™](#)

1. Go to the **Project Role Templates** page.
2. Click the **Edit** link next to the template you want to edit.
3. To remove users from the template, in the **Setup** section, select the users from the **Selected Users** box and click the left directional to add them to the **Unselected Users** box.
4. To add users to the template, in the **Setup** section, click the **Role** drop-down menu and select a role. Members of this role display in the **Unselected Users** section.
5. Select the user(s) to add to this role template and click the right directional arrow. Selected users are added to the **Selected Users** box.
6. To continue adding users from different roles, repeat steps 5 and 6 for all of the roles you want to add to the template.
7. Click **Save**.

Delete Project Role Templates

[To delete a project template](#)

1. Go to the **Project Role Templates** page.
 2. Click the **Delete** link next to the template you want to delete.
 3. When prompted to confirm, click **Continue**.
-

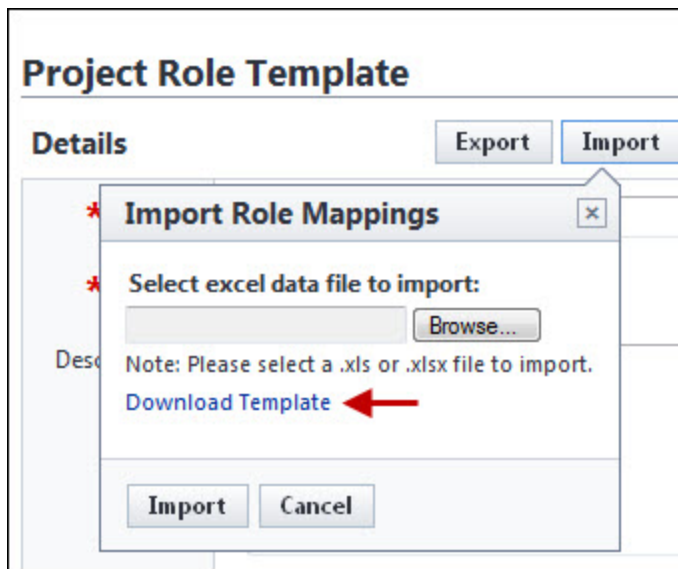
Download Project Role Templates

This is a preliminary step for importing project role templates. The template is an Excel® spreadsheet with two columns: Role Name and User Name. Fill in the columns for each respective project, save the file and then import it for use on the project.

[To download project role templates](#)

1. Go to the **Project Role Templates** page.
2. Click **Add**.
3. Click **Import**.

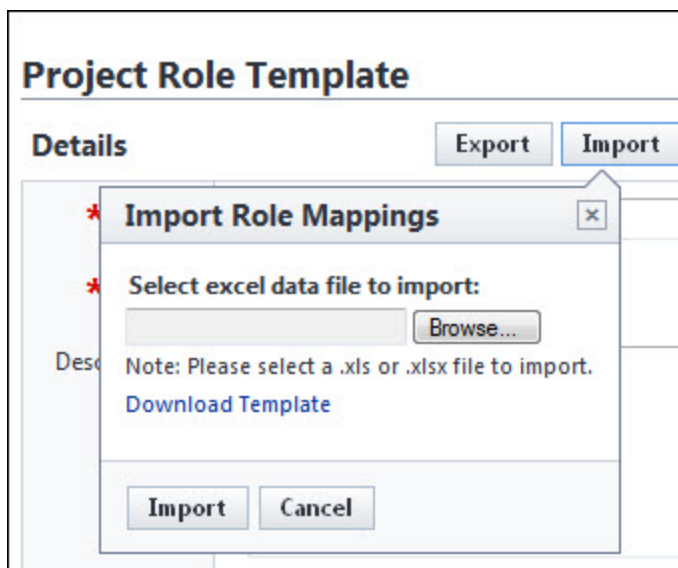
4. On the **Import Role Mappings** dialog box, click the **Download Template** link.



Import Project Role Templates

To import project role templates

1. Go to the **Project Role Templates** page.
2. Click **Add**.
3. Complete all necessary fields.
4. Click **Import**.
5. On the **Import Role Mappings** dialog box, click the **Browse** button.



6. Navigate to and select the project role template.

7. Click **Import**.

A success message displays, confirming the import and informing you to go back and save the record.

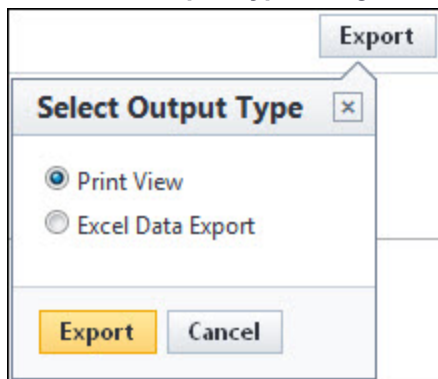
Export/Print Project Role Template

The printing option has two views; the print view and data export view. The print view is used for reporting and general knowledge. It cannot be used to reimport the template. The data export view, however can be imported into the system.

To export a project role template

1. Go to the **Project Role Templates** page.
2. Click the title of the template you want to export.
3. Click **Export**.

The **Select Output Type** dialog box is displayed.



4. To print the template, select the **Print View** radio button.
—Or—
To export the file, click the **Excel Data Export** radio button.
5. Click **Export**.

Manage Permissions

The Manage Permissions page gives account administrators the ability to modify the level of access that each role has. Although this page allows you to manage permissions by role, you can also modify permissions for individual users by going to the Permissions By User page.

When managing user roles, it is important to ensure that each role is well defined and only includes those members that should have the access granted by that role's permissions. For instructions on adding account roles, see Add New Account Roles.

Note:

- Administrator Roles appear in red. These roles are eligible to receive additional permissions typically reserved for the account administrator. For more information or for the list of additional permissions that can be granted, see About e-Builder Administrative Roles.

- Check boxes that are grayed out can only be selected for administrator roles. Asterisks indicate that users are required to be in the role at the account level in order to inherit the permission.

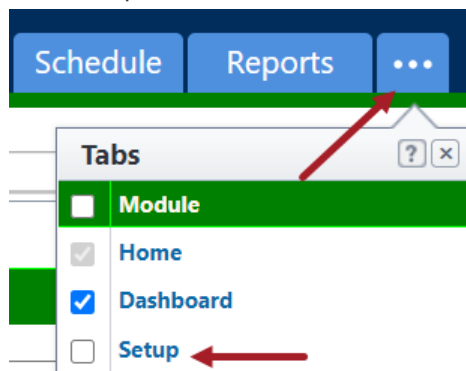
To filter by roles and/ or users

1. In the Filter Roles and Users section, you can specify the following filter criteria:
 - **Roles:** Select this check box to filter for all roles. The All Roles box lists all the user roles available on the account. You can add or remove roles from the filter to the Selected Roles box using the directional arrows. For instructions on adding account roles, see Add New Account Roles.
 - **Admin Roles Only:** Select this check box to filter by Admin roles.
 - **Users:** Select this check box to filter by criteria such as the user name, first name, last name.
2. Click **Filter**. The filter results are displayed.

To access the Manage Permissions page

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Users**.
3. Click **Manage Permissions**.

Permission Settings

To grant permission to a role, select the check box for each permission. A description of the permission settings available on each tab of this page is provided below.

Note: The asterisk indicates that users have to be in this role at the account level in order to inherit this permission. In other words, this permission cannot be applied to a project level role. For more information, see About Project Level Roles.

Account Level Cost tab

- **View Account Cost***: Gives users in this role the ability to view account level cost summary pages and the individual account level cost entities.

- **Add/Edit Master Commitment***: Gives users in this role the ability to add and edit master commitment changes.
- **Approve Final Master Commit***: Gives users in this role the ability to approve master commitments.
- **Approve Master Commitment Changes***: Gives users in this role the ability to approve master commitment changes and change commitment line items.
- **Change Approved Commit Line Item***: Gives users in this role the ability to approve changes made to approve master commitment line items.

Example

If a commitment was accidentally saved against the Contingency budget line item, when it should have been saved toward General Costs, persons with this permission setting will have the ability to approve this change or make such changes themselves.

- **Add/Edit Master Invoice***: Gives users in this role the ability to add and edit master invoices.
- **Approve Final Master Invoice***: Gives users in this role the ability to approve master invoices.
- **Import***: Gives users in this role the ability to import account level cost data.

Account Level Funding

- **View Account Funding**: Gives users in this role the ability to view account funding.
- **Add / Edit Account Funding**: Gives users in this role the ability to add and edit account funding.

BI Reports

- **View Report**: Gives users in this role the ability to view a BI report.
- **Add / Edit Report**: Gives users in this role the ability to add and edit a report.

Bidding tab

- **View Bidding**: Gives users in this role the ability to view an entire bid package.
- **Create Bid Package**: Gives users in this role the ability to create bid packages.
- **Modify Bidding**: Gives users in this role the ability to modify bid package details and respond to bidder questions. However, only the Bid Contact gets the Q&A notifications.
- **View/ Open Bid Tabulation**: Gives users in this role the ability to view and open the bid tabulation.
- **Manage Template***: Gives users in this role the ability to manage bidding templates.

Calendar tab

- **Create Public Project Event**: Gives users in this role the ability to create public events. Everyone on a project is able to view public events, even if they are not an attendee of the event.
- **Create Public General Event***: Gives users in this role the ability to create public general events. Events are private by default.

Contacts tab

- **View Contacts***: Gives users in this role the ability to view all contacts and contact details stored globally, even if the contact is not associated with a project.
- **Add/Edit Contacts***: Gives users in this role the ability to add contacts, modify contact details and import contacts.

- **View Project Contacts:** Gives users in this role the ability to view contact details for the projects they have access to. This gives people on the project ability to see project specific contacts while concealing the entire global contact list.

Example

If there are 50 people in your company, but only five are working on a particular project, you may not want contractors to know every other contractor or A/E that you're working with.

Cost tab

Note: Cost processes do not abide by these settings. Permissions for cost processes are set on the process properties page. For more information, see Properties Tab Overview.

- **View Cost:** Gives users in this role the ability to view the overall cost summary and all cost related information on the projects they have access to.
- **Add/Edit Budget:** Gives users in this role the ability to add and edit approved budgets and cash flow.
- **Add Budget Item:** Gives users in this role the ability to add budget line items to approved budgets and budget changes.
- **Approve Final Budget:** Gives users in this role the ability to approve the final budget.

Note: Users will not receive an email notification on approval requests unless the Notify user when approval requested setting is enabled in Cost Settings.

- **Approve Budget Changes:** Gives users in this role the ability to approve budget changes.
- **Add/Edit Commit:** Gives users in this role the ability to add and edit commitment changes.
- **Approve Final Commit:** Gives users in this role the ability to approve commitments.
- **Approve Commit Changes:** Gives users in this role the ability to approve commitment changes and change commitment line items.
- **Change Approved Commit Line Item:** Gives users in this role the ability to approve changes made to approved commitment line items.

Example

If a commitment was accidentally saved against the Contingency budget line item, when it should have been saved toward General Costs, persons with this permission setting will have the ability to approve this change or make such changes themselves.

- **Add/Edit Actual:** Gives users in this role the ability to add and edit invoices.
- **Edit Retainage of Actual:** Gives users in this role the ability to manually edit item retainage amounts on commitment items in the 'Draft' or 'Received' status. If you select the Edit Retainage permission for a role or user, the check boxes for Add/Edit Actual and View Cost permissions will also be selected automatically for the role or user.
- **Approve Final Actual:** Gives users in this role the ability to approve invoices.
- **Change Approved Gen. Invoice Line Item:** Gives users in this role the ability to approve changes made to approved general invoice line items.

Example

If an invoice was accidentally added toward Contingency, when it should have been added to General Costs, persons with this permission setting will have the ability to approve this change or make such changes themselves.

- **Import:** Gives users in this role the ability to import cost data.
- **Manage Templates*:** Gives users in this role the ability to manage cost templates. This setting might be useful if the workload needs to be shared among various people or departments.
- **Modify Forecast:** Gives users in this role the ability to make changes to the forecast. This permission setting will likely be restricted to project managers.

Documents tab

- **Bluebeam:** Gives users in this role the ability to launch a Bluebeam session. The Bluebeam capability must be enabled on the account by Support in order to see this permission. See Bluebeam Permissions for more information on this feature.
- **View All Sent Items:** Gives users in this role the ability to see all of their sent items as well as the items sent by everyone else.
- **Manage Quarantine:** Gives users in this role the ability to manage the spam quarantine. See About Spam Filter for more information on this feature.
- **Import:** Gives users in this role the ability to import document custom fields into one or more documents already within e-Builder. This can be used to provide a large amount of meta data to multiple documents using a single transaction.

Equipment Items Tab

- **View Equipment Items:** Gives users the ability to view the list of equipment items.
- **Add/Edit Equipment Items:** Gives users the ability to add and edit equipment items.
- **Update Date Required on Job:** Gives users the ability to update the date that items are required to be installed.

Forms tab

- **Manage Form Instances*:** Gives users in this role the ability to close form instances or change the permissions on the instance.
- **Manage Form Types*:** Gives users in this role the ability to add, remove or modify fields on form types.
- **Import*:** Gives users in this role the ability to import form instance details.

Funding tab

- **View Funding:** Ability to see funding sources under the Project Cost.
- **Add / Edit Funding:** Ability to Add a new funding source and complete deposits against the source.

Planning tab

- **View Capital Plan*:** Gives users in this role the ability to view capital plans. In some cases, there may be someone responsible for managing capital plan and another responsible for scenarios.
- **Modify Capital Plan*:** Gives users in this role the ability to add/ edit capital plans.

- **View Planning Scenarios:** Gives users in this role the ability to view planning scenarios. In some cases, there may be someone responsible for managing capital plan and another responsible for scenarios.
- **Modify Planning Scenarios:** Gives users in this role the ability to add/edit planning scenarios.
- **Manage Templates*:** Gives users in this role the ability to manage planning templates.

Processes tab

- **Manage Processes*:** Gives users in this role the ability to update process types without being an account administrator.
- **Manage Workflow:** Gives users in this role the ability to manage process instances, which includes the right to override steps, update and take action on steps of the processes they have access to.
- **Import:** Gives users in this role the ability to import process instance details.

Projects tab

- **Manage Private Notes:** Gives users the ability to view and add private project notes via the Project Details page - Notes tab.
- **Add New Project*:** Gives users in this role the ability to add new projects and apply project templates. Account administrators might choose this as an alternative to giving certain roles/ users full administrative rights.
- **Update Project Details:** Gives users in this role the ability to update project details, such as project name, the project administrator, address, project start and end dates, and project custom fields.

Reports tab

- **Subscribe*:** Gives users in this role the ability to subscribe other users to a report.
- **Copy*:** Gives users in this role the ability to copy a report. If you create a personal report, someone with this permission can copy this report for themselves or others. However Account Administrator's reports cannot be copied because they have the ability to make it available to others if they choose.

Schedule tab

- **View Schedule:** Gives users the read-only ability to view the schedule from the Project menu.
- **Note:** This permission is available only for accounts with the current schedule enabled.
- **Manage Templates*:** Gives users in this role the ability to create schedule templates from a project and apply templates to a project.

Tip: Instead of adding project managers to an e-Builder Admin role (that may be able to approve budget changes) just for the purpose of creating schedules, you can assign them to a schedule only type role. Your Administrator can create a Schedule Manager role with permissions to initiate and manage schedule templates on new projects. Though this type of role is an administrative one, users belonging to this role will have permission only to create schedules and manage schedule templates. This role can only view Cost information and will not have any other Cost permissions.

- **Manage Baselines:** Gives users in this role the ability to create and delete baselines.

Note: Users with this permission can overwrite the baseline after it has been created and saved.

Submittals tab

- **Manage Project Level Settings:** Gives users or roles the ability to manage project-level submittal settings. This permission is only applicable to account level administrative roles.

Note: When this permission is selected, the View Submittals permission is also automatically selected by default. All users with View permissions to the Submittals module will be able to view the project-level submittal settings. However, only the users with Manage Project Settings permissions will be able to edit and save project-level submittal settings.

- **View Submittals:** Gives users in this role the ability to view submittal items, submittal packages, and project-level submittal settings. When the **View draft submittals** setting is turned on, all team members who have the View Submittals permission will be able to see Submittal Register Items and Packages that are in Draft status.
- **Add/Edit Submittals:** Gives users in this role the ability to add and edit submittal items. This permission is typically intended for general contractors or the primary role who is directing the flow of submittals between construction and design teams.
- **Create Submittals:** Gives users in this role the ability to create new submittal register items and packages, and to submit to the general contractor. The users cannot edit or view draft items that are not their own creations. This permission is typically intended for subcontractors to manage their own subset of the submittal register.

Time Tracking tab

- **Create Time Sheets*:** Gives users the ability to create and submit time sheets. Please be aware that if users are submitting time for billable activities, bill rates must also be set for these particular activities to be enabled on the time sheet. For instructions, see Manage Account Bill Rates.
- **Manage Workflow*:** Gives users in this role the ability to create, edit and delete workflows. The role must be an account admin role in order to receive this permission. Workflows are required to route submitted time sheets to the appropriate parties. For more information, see About Workflows.
- **Manage Account Bill Rates*:** Gives users in this role the ability to manage account bill rates. Bill rates are required for billable activities. Users with this permission are able to set hourly rates per user. You can set a default rate at the account level and also specify rates for particular projects in the event they differ from project to project. Rates must be set in order for users to view billable activities on their time sheets. For more information, see Manage Account Bill Rates.
- **Manage Project Bill Rates:** Gives users in this role the ability to manage project bill rates. Although rates can be set at the account level, they can also be modified at the project level. Changes made on either page are reconciled and updated simultaneously. For instructions, see Manage Project Bill Rates.
- **View Payout*:** Gives users in this role the ability to view the payout amount on their time sheet, which includes their bill rate. Without this permission, users will only see the total amount of time entered per project and activity. For more information, see Your Time Sheet Page Overview.

Users tab

- **Manage User***: Gives users in this role the ability to add and remove other users from the account.

Note:

- Please be aware that adding additional users does add licenses to your account, so it is advisable to keep this permission to a minimum.
- **Manage Membership**: Gives users in this role the ability to manage the projects that users are on and user roles.
- **Manage Templates***: Gives users in this role the ability to create user templates, such as project level role templates.

Permissions by User

The Permissions by User page gives shows account administrators an overview of each individual user's level of access to different portions of e-Builder.

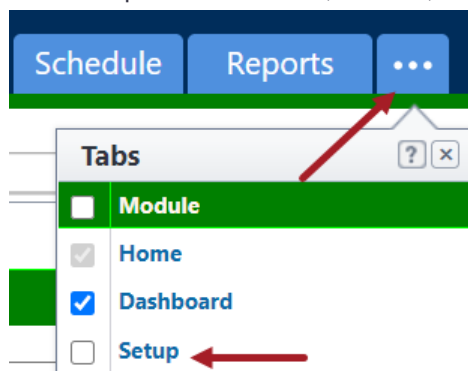
To filter by users

1. In the Filter Users section, you can specify the following filter criteria:
 - **User Name**: Enter the username of the user to filter by.
 - **First Name**: Enter a name in this field to filter by a user's first name.
 - **Last Name**: Enter a name in this field to filter by a user's last name.
2. Click **Filter**. The filter results are displayed.

To access the Permissions by User page

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Users**.
3. Click **Permissions By User**.

Permission Settings

A description of the permission settings available on each tab of this page is provided below:

Note: The asterisk indicates that users have to be in this role at the account level in order to inherit this permission. In other words, this permission cannot be applied to a project level role. For more information, see About Project Level Roles.

Account Level Cost

- **View Account Cost***: Gives users in this role the ability to view account level cost summary pages and the individual account level cost entities.
- **Add/Edit Master Commitment***: Gives users in this role the ability to add and edit master commitment changes.
- **Approve Final Master Commit***: Gives users in this role the ability to approve master commitments.
- **Approve Master Commitment Changes***: Gives users in this role the ability to approve master commitment changes and change commitment line items.
- **Change Approved Commit Line Item***: Gives users in this role the ability to approve changes made to approve master commitment line items.

Example

If a commitment was accidentally saved against the Contingency budget line item, when it should have been saved toward General Costs, persons with this permission setting will have the ability to approve this change or make such changes themselves.

- **Add/Edit Master Invoice***: Gives users in this role the ability to add and edit master invoices.
- **Approve Final Master Invoice***: Gives users in this role the ability to approve master invoices.
- **Import***: Gives users in this role the ability to import account level cost data.

Account Level Funding

- **View Account Funding***: Gives users in this role the ability to view account level funding summary pages.
- **Add/Edit Account Funding***: Gives users in this role the ability to add and edit account funding roles and sources.
- **Import***: Gives users in this role the ability to import account level funding data.

BI Reports

- **View Report**: Gives users the ability to view BI reports.
- **Add / Edit Report**: Gives users the ability create and edit reports and dashboards.

Calendar

- **Create Public Project Event**: Gives users the ability to create public events. Everyone on a project is able to view public events, even if they are not an attendee of the event.
- **Create Public General Event**: Gives users the ability to create public general events. Events are private by default.

Contacts

- **View Contacts**: Gives users in this role the ability to view all contacts and contact details stored globally, even if the contact is not associated with a project.

- **View Project Contacts:** Gives users the ability to view contact details for the projects they have access to. Project participants are able to view project-specific contacts without having access to the entire global contact list.

Example

If there are 50 people in company, but only five are working on a particular project, you may not want contractors to know every other contractor or A/E that you're working with.

- **Add/Edit Contacts:** Gives users in this role the ability to add contacts, modify contact details and import contacts.

Cost

Note: Cost integrated processes do not abide by these settings. Permissions for cost processes are set on the process properties page. For more information, see Properties Tab Overview.

- **View Cost:** Gives users the ability to view the overall cost summary and all cost related information on the projects they have access to.
- **Add/Edit Budget:** Gives users the ability to add and edit approved budgets, funding and cash flow.
- **Add Budget Item:** Gives users the ability to add budget line items to approved budgets and budget changes.
- **Approve Final Budget:** Gives users the ability to approve the final budget.

Note: Users will not receive an email notification on approval requests unless the Notify user when approval requested setting is enabled in Cost Settings.

- **Approve Budget Changes:** Gives users the ability to approve budget changes.
- **Add/Edit Commit:** Gives users the ability to add and edit commitment changes.
- **Approve Final Commit:** Gives users the ability to approve commitments.
- **Approve Commit Changes:** Gives users the ability to approve commitment changes and change commitment line items.
- **Change Approved Commit Line Item:** Gives users the ability to approve changes made to approved commitment line items.

Example

If a commitment was accidentally saved against the Contingency budget line item, when it should have been saved toward General Costs, persons with this permission setting will have the ability to approve this change or make such changes themselves.

- **Add/Edit Actual:** Gives users the ability to add and edit invoices.
- **Edit Retainage on Actual:** Gives users the ability to manually edit item retainage amounts on commitment items in the Draft or Received status.
- **Approve Final Actual:** Gives users the ability to approve invoices.
- **Change Approved Gen. Invoice Line Item:** Gives users the ability to approve changes made to approved general invoice line items.

Example

If an invoice was accidentally added toward Contingency, when it should have been added to General Costs, persons with this permission setting will have the ability to approve this change or make such changes themselves.

- **Manage Templates:** Gives users the ability to manage cost templates. This setting might be useful if the workload needs to be shared among various people or departments.
- **Modify Forecast:** Gives users the ability to make changes to the forecast. This permission setting will likely be restricted to project managers.
- **Import:** Gives users the ability to import cost data.

Documents

- **View All Sent Items:** Gives users in this role the ability to see all of their sent items as well as the items sent by everyone else.
- **Manage Quarantine:** Gives users in this role the ability to manage the spam quarantine. See About Spam Filter for more information on this feature.
- **Import:** Gives users in this role the ability to import document custom fields into one or more documents already within e-Builder. This can be used to provide a large amount of meta data to multiple documents using a single transaction.

Equipment Items

- **View Equipment Items:** Gives users the ability to view the list of equipment items.
- **Add/Edit Equipment Items:** Gives users the ability to add and edit equipment items.
- **Update Date Required on Job:** Gives users the ability to update the date that items are required to be installed.

Forms tab

- **Manage Form Instances:** Gives users in this role the ability to close form instances or change the permissions on the instance.
- **Manage Form Types:** Gives users in this role the ability to add, remove or modify fields on form types.
- **Import:** Gives users in this role the ability to import form instance details.

Funding

- **View Funding:** Gives users the ability to see funding sources under the Project Cost.
- **Add/ Edit Funding:** Gives users the ability to add a new funding source and complete deposits against the source.

Planning

- **View Capital Plan:** Gives users in this role the ability to view capital plans. In some cases, there may be someone responsible for managing capital plan and another responsible for scenarios.
- **Modify Capital Plan:** Gives users in this role the ability to add/ edit capital plans.
- **View Planning Scenarios:** Gives users the ability to view planning scenarios. In some cases, there may be someone responsible for managing capital plan and another responsible for scenarios.
- **Modify Planning Scenarios:** Gives users in this role the ability to add/edit planning scenarios.

- **Manage Templates:** Gives users in this role the ability to manage planning templates.

Processes

- **Manage Processes:** Gives users in this role the ability to update process types without being an account administrator.
- **Manage Workflow:** Gives users the ability to manage process instances, which includes the right to override steps, update and take action on steps of the projects they have access to.
- **Import:** Gives users in this role the ability to import process instance details.

Projects

- **Manage Private Notes:** Gives users the ability to view and add private project notes via the Project Details page - Notes tab.
- **Add New Project:** Gives users in this role the ability to add new projects and apply project templates. Account administrators might choose this as an alternative to giving certain roles/ users full administrative rights.
- **Update Project Details:** Gives users the ability to update project details, such as project name, the project administrator, address, project start and end dates, and project custom fields.
- **Manage Project Level Field Options:** Gives users the ability to manage project-level field options.

Reports

- **Subscribe:** Gives users in this role the ability to subscribe other users to a report.
- **Copy:** Gives users in this role the ability to copy a report. If you create a personal report, someone with this permission can copy this report for themselves or others. However Account Administrator's reports cannot be copied because they have the ability to make it available to others if they choose.

Schedule

- **View Schedule:** Gives users or roles the ability to view the Schedule module from the Project Menu, and to run reports on schedule information. Note that this permission will be available only for accounts with the Current schedule enabled. Accounts that still utilize the Classic Schedule interface will not have this permission in the Setup module.
- **Manage Templates:** Gives users in this role the ability to create and store schedule templates on the account.
- **Manage Baselines:** Gives users in this role the ability to overwrite the baseline after it has been created and saved. This permission will most likely be restricted so that Project Managers are not re-saving the baseline.

Submittals

- **View Submittals:** Gives users the ability to view submittal items.
- **Add/Edit Submittals:** Gives users the ability to add and edit submittal items. This permission should be given to contractors, as they will need to add, edit and send submittal items for review.
- **Create Submittals:** Gives users the ability to create submittal items but not send them for review. This is intended for subcontractors who submit items to a general contractor.

- **Manage Project Level Settings:** Gives users the ability to manage submittal settings at the project-level.

Time Tracking

- **Create Time Sheets:** Gives users the ability to create and submit time sheets. Please be aware that if users are submitting time for billable activities, bill rates must also be set for these particular activities to be enabled on the time sheet. For instructions, see [Manage Account Bill Rates](#).
- **Manage Workflow:** Gives users in this role the ability to create, edit and delete workflows. The role must be an account admin role in order to receive this permission. Workflows are required to route submitted time sheets to the appropriate parties. For more information, see [About Workflows](#).
- **Manage Account Bill Rates:** Gives users in this role the ability to manage account bill rates. Bill rates are required for billable activities. Users with this permission are able to set hourly rates per user. You can set a default rate at the account level and also specify rates for particular projects in the event they differ from project to project. Rates must be set in order for users to view billable activities on their time sheets. For more information, see [Manage Account Bill Rates](#).
- **Manage Project Bill Rates:** Gives users in this role the ability to manage project bill rates. Although rates can be set at the account level, they can also be modified at the project level. Changes made on either page are reconciled and updated simultaneously. For instructions, see [Manage Project Bill Rates](#).
- **View Payout:** Gives users in this role the ability to view the payout amount on their time sheet, which includes their bill rate. Without this permission, users will only see the total amount of time entered per project and activity. For more information, see [Your Time Sheet Page Overview](#).

Users

- **Manage User:** Gives users in this role the ability to add and remove other users from the account.
- **Manage Membership:** Gives users in this role the ability to manage the projects that users are on and user roles.
- **Manage Templates:** Gives users in this role the ability to create user templates, such as project level role templates.

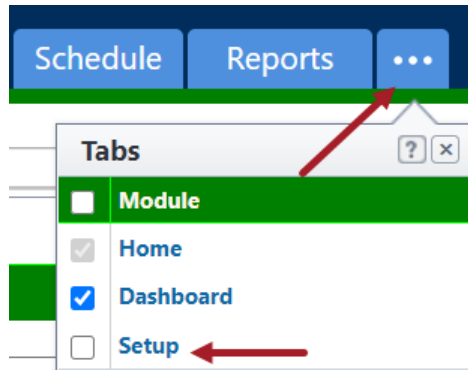
User Custom Fields

User custom fields are fields that can be defined by account administrators and they allow you to gather additional information that is not inherent in Trimble Unity Construct. This data is then used to generate reports. Custom fields are prevalent in all modules. To learn more, see [About Global Custom Fields](#).

To access the Custom Fields page

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Users**.
3. Click **User Custom Fields**.

Add Field

This task can be completed by:

- Account Administrators

To add user custom fields

1. Open the **User Custom Fields** page.
2. Click **Add Field**.
3. Select a data type, and then click **Next**. The **Custom Field Details** page is displayed.
4. Complete all necessary fields.
5. Click **Next**.
6. Review the details of the custom field.
7. If changes are required, click **Previous** to navigate to the appropriate page and make changes.

—Or—

If details are correct, click **Save**.

Reorder

Custom fields are displayed in the order in which they appear.

To reorder a custom field

1. Open the **User Custom Fields** page.
2. Click **Reorder**.
3. Select a field and then use the directional arrows to change the position of the selected field.
4. Click **Save**.

Field Dependencies

Custom field dependencies allow you to specify a controlling field, that when selected will display specific options for project participants to choose from. For more information, see [About Custom Field Dependencies](#).

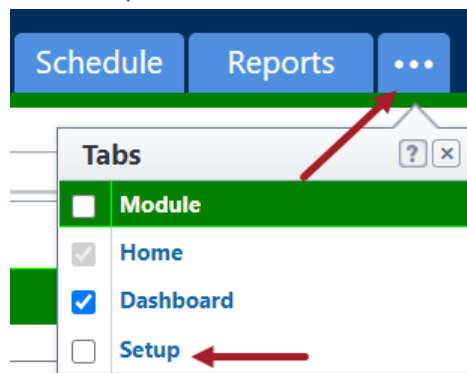
Who's Online Page Overview

This page lists all account users who have been active in the last 20 minutes. Every minute, the system checks to see if any actions have been taken for a logged in user and after 20 minutes of inactivity, they are removed from this page. This is a great tool for account administrators to monitor and verify account activity.

To access the Who's Online page

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Users**.
3. Click **Who's Online**.
4. Click the user's name to open the User Details to view member profile and business information, and manage membership details.

About Account Views

As an Administrator, you can create views to filter the information displayed onscreen when a module is selected from any of the top navigation tabs. Custom views are beneficial because they allow you to see only the information you deem pertinent. Views also help team mates focus only on the items that require their attention when a module is first accessed.

You can create views for all members on the account or for specific roles. As many views as necessary can be created. The views that you create for your team members will be available from the views drop-down menu on the main page of each module that they have access to.

Example

You might create a view for project managers that are responsible for approving design documents for a set of construction projects located in the west region of your company's territory. You could create a view in the Documents module that shows all necessary data for all projects located in the west region. This would ensure that when project managers access the Documents module they would see the necessary data for all applicable projects.

Access Account Views

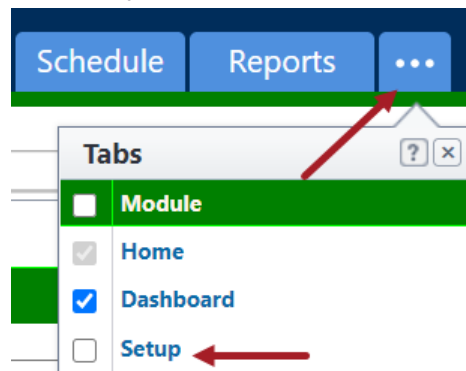
You can access and create account views from the Manage Views page under Setup.

Note: An account view that was created by an Administrator cannot be edited by non-admin users. Account views cannot be deleted by non-admin users since they are created by an administrator and made available to all account users.

To access the Manage Views page

1. From the top navigation tabs, click the **Setup** tab.

If the Setup tab is not visible, click , and then select the **Setup** check box.



The Administration Tools section is displayed on the left pane.

2. Click **Views** to expand it.
3. Click the module name. The Manage Views page is displayed listing all the views available for the selected module.

Available on the Manage Views page

Buttons and Fields

- **Add View:** Click to create a new account view.
- **Edit:** Click to modify the details of the view (for personal views). Account level views cannot be edited by non-admin users.
- **Copy:** Click to copy the view. Creating a new view from a previous one is a quick and easy way to save a new view without having to start from scratch.
- **Delete:** Click to delete the view. You will be asked to confirm whether you wish to delete the view. Once a view is deleted, it cannot be recovered.
- **View Name:** Displays the name of the view.
- **Permissions:** Displays the access permissions of users for the view. You can choose to make a view available to all users or only users belonging to selected user roles.

Create an Account View

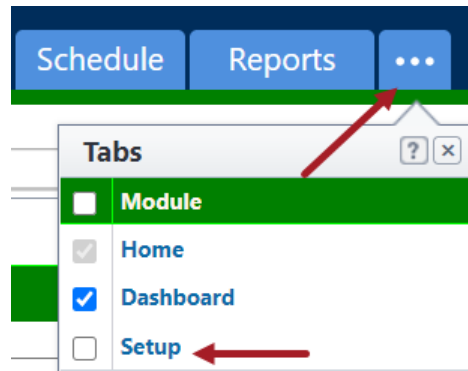
In Trimble Unity Construct, administrators can create custom views for all users or only users belonging to selected user roles.

Note: The Access Criteria section will be displayed only for Administrators while they create account level views.

To create an account view for a module

1. From the top navigation tabs, click the **Setup** tab.

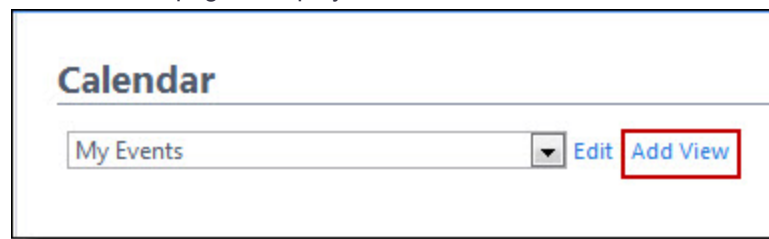
If the Setup tab is not visible, click , and then select the **Setup** check box.



The Administration Tools section is displayed on the left pane.

2. Click **Views** to expand it.
3. Click the module name. The Manage Views page is displayed listing all the views available for the selected module.
4. Click **Add View**.

The Add View page is displayed.



5. Enter the name of the view in the **Name** field.
6. Use the **Search Criteria** section, to specify the criteria for this view.

Note: Options in the Search Criteria section will differ for each module.
7. Click the **Search Rule #1** drop-down arrow and select an event or project detail by which to choose the first criteria of this custom view.
8. Click the second column drop-down arrow to select a qualifier.

Add View

View Name Save Cancel

Name: Active Events in Miami

Search Criteria

Search in: ☐ All Events ☒ My Events

Search Rule #1: City equals Miami and

Search Rule #2: Project Status equals Lookup and

Search Rule #3: equals and

Search Rule #4: contains and

Search Rule #5: has a value and

Note: In column 3, you can enter multiple items separated by commas (e.g. FL, GA searches for FL or GA) and you can place quotes around data that includes commas (e.g. "10,000" searches for 10,000). For yes/no or on/off fields, "1" equals yes or on, and "0" equals no or off.

Save Cancel

9. In the third column, enter the qualifying value. If available, you can also click the **Lookup** button to select from a list of options.

Tip: For search criteria that include duration, enter any integer immediately followed by a lower-case "d" (no space). After saving, the system will covert:

- Days "d" to weeks "w" when the number of days equals or exceeds 21d and is less than 181d.
 - Days "d" to months "mo" if the number of days exceeds 182d and is less than 361d.
 - Weeks "w" to months "mo" if the number of weeks exceeds 26w.
 - Days "d" to years "y" if the number of days exceeds 360d
 - Weeks "w" to years "y" if the number of weeks exceeds 51w
 - Months "mo" to years "y" if the number of months exceeds 12mo
10. (Not available for the Calendar views) On the **Columns Displayed (numbered left to right)** section, select the columns from the drop-down list. These will be grouped from left to right.
 11. (Not available for the Calendar views) On the **Sort View** section, choose to either sort the selected column in an **Ascending** or **Descending** order.
 12. In the **Access Criteria** section, select either of the following options:

Note: The Access Criteria section will be displayed only for Administrators while they create account level views.

- **All Users:** Select this option to make the view available to all users.
 - **Selected Roles:** Select this option to make the view available only to users in the selected roles. Specify the roles that have access by selecting them from the **All Roles** list box and using the right arrow button to move them to the **Roles With Access** list box.
13. Click **Save**.

Related Topics:

- About Individual User Views

About Workflows

Note: Workflows are used in the Processes module and also as an independent entity required for Time Tracking. Please be aware the both workflows are accessed in two different areas of the product. This topic is about workflows as related to Time Tracking. To learn more about Process workflows, see Workflow Tab.

Workflows can be created by users with Manage Workflow (Time Tracking) permission. They are required to use the Time Tracking module as they determine the route that time sheets will take for review and approval. Workflows should be created for specific roles or users, but you can also have an account default that will route all workflows in the same manner regardless of who is submitting the time sheet. The roles assigned to a particular workflow determine who can start it. For example, workflows assigned to project managers will be active when project managers submit their time sheets.

To learn more about time tracking and how workflows are used in this module, see About Managing Time Tracking

The following tasks will assist you when working with Workflows:

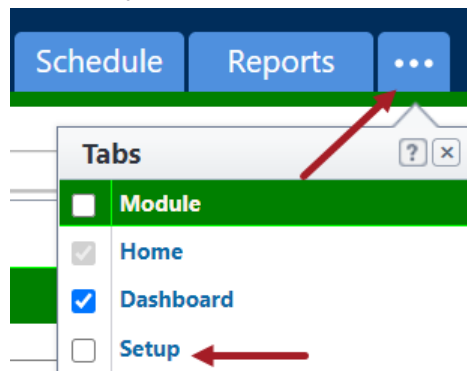
- Create Workflows (A Multi-Step Process)

Access Manage Workflows Page (Time Tracking)

To access workflows for time tracking

1. From the top navigation tabs, click the **Setup** tab or from the Utility menu by clicking the drop-down arrow next to your user name.

If the Setup tab is not visible, click , and then select the **Setup** check box.



2. In the **Administration Tools** section, click **Workflow**.

Access Workflow Designer (Time Tracking)

To access the workflow designer

1. Go to the Manage Workflows page.
2. Click the name of the workflow you want to design.
3. Click **Design**. The Workflow Designer page opens in a second window.

Create Workflows (Time Tracking)

Note: Workflows are used in the Processes module and also as an independent entity required for Time Tracking. This topic is about creating workflows for Time Tracking. To learn more about Process workflows, see Workflow Tab.

Workflows can be created by users with Manage Workflow (Time Tracking) permission. They are required to use the Time Tracking module as they determine the route that time sheets will take for review and approval. Workflows should be created for specific roles or users, but you can also have an account default that will route all workflows in the same manner regardless of who is submitting the time sheet. Creating a workflow is a multi-step process. If you are familiar with process workflows, you will be able to create a time sheet workflow as they are configured and operate the same way. Below are the different steps for creating a time sheet workflow. Each step must be completed in the order presented:

1. Add Workflow Properties
2. Design Workflows
3. Edit Steps
4. Add Automation Step (Required to generate invoices in Cost-integrated processes)
5. Add Actions
6. Connect Steps in the Workflow
7. Publish Workflows

Add Workflow Properties (Time Tracking)

To add or make changes to the properties of a time tracking workflow

1. Go to the Manage Workflows page (Time Tracking).
For instructions, see Access Manage Workflows Page (Time Tracking).
2. Click **Add Workflow**. The Add Workflow page is displayed.
3. Complete all necessary fields. For a description of each field, see Add/Edit Workflow Page.
4. Click **Save**.

Tip: The next procedure in this process is Design Workflows.

Related Topics:

- About Workflows
- Create Time Sheet Workflows
- About Managing Time Tracking

Design Workflows (Time Tracking)

To design time sheet workflows

1. Go to the Workflows Designer page.
For instructions, see Access Workflow Designer (Time Tracking).
2. Right-click the **Start** circle and select **Properties** from the menu. The Edit Step page is displayed.

3. Complete all required fields.
4. Drag and drop data elements you wish you add and then right-click them to update their properties.
For instructions, see Edit Steps.
5. Click **Save**.

Tip: The next procedure in this process is Edit Steps.

Related Topics:

- About Workflows
- Create Time Sheet Workflows
- About Managing Time Tacking

Edit Steps (Time Tracking)

To edit time tracking workflow steps

1. Go to the Workflows Designer page.
For instructions, see Access Workflow Designer (Time Tracking).
2. Right-click the step. The Step Properties window displays.
Note: The step cannot be saved until an action is added. See Add Actions.
3. Complete all necessary fields.
For field descriptions, see Edit Step Page Overview (Time Tracking).
4. Click **Save**.

Tip: The next procedure in this process is Add Actions.

Related Topics:

- About Workflows
- Create Time Sheet Workflows
- About Managing Time Tacking

Add Actions (Time Tracking)

To add actions to a time tracking workflow

1. Go to the Workflows Designer page.
For instructions, see Access Workflow Designer (Time Tracking).
2. Click **Add Action**. The Add Action dialog box displays.
3. Complete all necessary fields.
For a detailed description on each field, see Add Action Page Overview (Time Tracking).
Note: You can create as many actions as needed to complete time sheet routing.
4. Click **Save**.

Tip: The next procedure in this process is Add Automation Step (applicable to Cost integrated time tracking only).

Related Topics:

- About Workflows
- Create Time Sheet Workflows
- About Managing Time Tacking

Add Automation Step (Time Tracking)

An automation step is required to generate invoices for time tracking workflows that are integrated with Cost. Once configured, a draft invoice will automatically be created when a time sheet with billable tasks is approved. Activities that include commitment items produce a draft commitment invoice and those that do not have commitments produce a general invoice in draft status. These draft invoices can be found in the Cost module in Unfinished Drafts or by filtering for them on the Actual Costs page.

To add an automation step to a time tracking workflow

1. Go to the Workflows Designer page.
For instructions, see [Access Workflow Designer \(Time Tracking\)](#).
2. Drag and drop the automation step to the Workflow Designer.
The Edit Automation Step page is displayed.
3. Complete all necessary fields.
For detailed field descriptions, see [Edit Automation Step Page Overview \(Time Tracking\)](#).

Warning: The status of the action that leads to this Automation step must be set to **Approve** in order for the automation step to be successful and not fail.

4. Click **Save**.

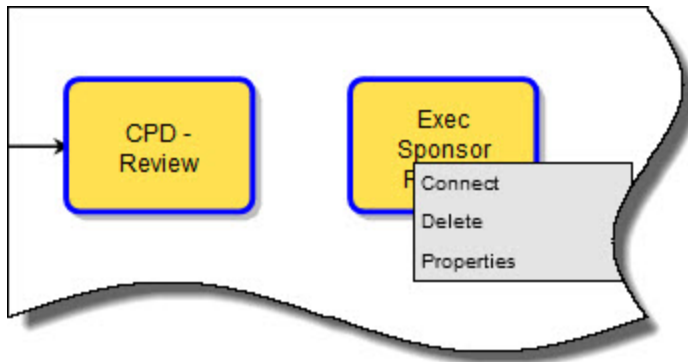
Tip: The next procedure in this process is [Connect Steps in the Workflow](#).

Related Topics:

- About Workflows
- Create Time Sheet Workflows
- About Managing Time Tacking

Connect Steps in Workflow (Time Tracking)**To connect steps within a time tracking workflow**

1. Go to the Workflows Designer page.
For instructions, see [Access Workflow Designer \(Time Tracking\)](#).
2. Click the originating step. A blue outline appears around the step.
3. Click the subsequent step. A blue outline appears around this step as well.
4. Right-click the subsequent step. A context menu displays.



Note: Alternatively, you can drag a connector onto the workflow area, right-click it, and click **Properties**.

- Click **Connect**. The Add Connector dialog box displays. The **From Step** and **To Step** fields are filled in based on your selection of the steps. The first step selected, displays in the From Step field.

Give Us Your Feedback on this Page Like Dislike

Add Connector

Connector Properties

| | |
|-----------------------------|--|
| From Step: | CPD - Review |
| Action: | Content Sent for Copy Editing |
| To Step: | Exec Sponsor Review |
| Connector Text: | Copy Editing |
| Type: | <input type="radio"/> Straight <input checked="" type="radio"/> Elbow |
| From Step Connection Point: | Auto |
| To Step Connection Point: | Auto |

Save Cancel

- Choose the appropriate action from the **Action** menu.
- Complete all other necessary fields. For a detailed description of each field, see Add/Edit Connector Page Overview (Time Tracking).
- Click **Save**.

Tip: The next procedure in this process is Publish Workflows.

Related Topics:

- About Workflows
- Create Time Sheet Workflows
- About Managing Time Tacking

Publish Workflows (Time Tracking)

[To publish time tracking workflows](#)

1. Go to the Workflows Designer page.
For instructions, see Access Workflow Designer (Time Tracking).
2. Click **Error Check**. If there are errors, e-Builder will list them on the upper left-hand side of the page. If not, the message "Workflow is valid" appears.
3. Click **Save**, and then click **Publish**.

Tip: To learn more about the entire process of creating a workflow, see Create Workflows (Time Tracking).

Related Topics:

- About Workflows
- Create Time Sheet Workflows
- About Managing Time Tacking

Manage Workflow Page Overview (Time Tracking)

A Workflow is necessary for users to submit time sheets. Without it, data will not appear on the Time Tracking page. The workflow is used to route time sheets to the appropriate parties based on the User or Role that is submitting the time sheet. Use this page to view, add or modify existing workflows. For more information, see About Workflows.

Fields and Buttons

The fields and buttons located on this page are:

- **Add Workflow:** Click to add a new workflow.
- **Edit:** Click to modify the details of the workflow in context.
- **Copy:** Click to create a new workflow with the details of the workflow in context copied over.
- **Delete:** Click to delete an existing workflow.

Note: Every account must always have an Account Default Workflow for each type of workflow that exists. Therefore the delete option for the Account Default workflow will be disabled and not available. The first workflow created for each type (i.e. Time Tracking) will be marked as the Account Default. In order to change the Account Default you must create a new workflow and select the Account Default check box, which will then have the original Account Default unselected.

- **Workflow Name:** Displays the name of the workflow. Click to open the Workflow Detailspage to view workflow settings and design the workflow.

Note: Every account must have an Account Default. Therefore the delete option for the Account Default workflow will be disabled and not available. The first workflow created for each type (i.e. Time Tracking) will be marked as the Account Default. In order to change the Account Default you must create a new workflow and select the Account Default check box, which will then uncheck the Account Default field in the original workflow.

- **Type:** Displays the type of workflow (i.e. Time Tracking) assigned to that particular workflow.
- **Assigned To:** Displays the number of roles and/ or users that are assigned to that particular workflow.

- **Last Modified By:** Displays the user who last modified that particular workflow.
- **Last Modified Date:** Displays the date that particular workflow was last modified.
- **Account Default:** Displays whether that particular workflow is the account default or not.

Workflow Details Page (Time Tracking)

This page provides details of the selected workflow and allows you to make changes if necessary. Workflows are used to route time sheets to the appropriate parties based on the User or Role that is submitting the time sheet. From this page you can also design the workflow.

Fields and Buttons

The fields and buttons located on this page are:

Action Buttons

- **Design:** Click to start designing the workflow or continue working on a saved workflow.
- **Copy:** Copy the workflow and use it as a starting point for creating another workflow.

Tip

Copying an existing workflow is a time-saving way to start a new workflow with similar properties.

- **Edit:** Click to enter Edit mode and make changes to the details of the workflow.
- **Delete:** Click to delete an existing workflow.

Note: Every account must always have an Account Default Workflow for each type of workflow that exists. Therefore the delete option for the Account Default workflow will be disabled and not available. The first workflow created for each type (i.e. Time Tracking) will be marked as the Account Default. In order to change the Account Default you must create a new workflow and select the Account Default check box, which will then have the original Account Default unselected and cause the Delete option to show up.

- **Cancel:** This will exit the Workflow Details window and put you back on the main Manage Workflows window.

Fields

- **Workflow Name:** Displays the name of the workflow.
- **Hide Action Button:** Indicates whether or not the Action button is visible to the actor. If hidden, selecting an action will initiate the next step in the process.
- **Allow Comments/Attachments After Finish Step:** Indicates whether or not actors are able to comment on the process or attach documents after the process has been completed.
- **Account Default:** Indicates whether or not the workflow is the account default, in which case all submitted time sheets will automatically follow this workflow.

Note: Assigned role/user is what determines the route of submitted time sheets. For more information, see Manage Workflow Page Overview.

If set as the account default a specific role/user cannot be assigned; instead, the process can be initiated by any role or user. You may choose to default a workflow that is generic to the entire organization, such as non-billable time sheets that must all be routed to the same parties, e.g. The

Accounting Team.

Note: There can only be one default per account. You'll notice the Delete option is disabled for the default workflow, to change this you must choose a different workflow to set as the default.

- **Role/User Assignment:** Displays the Roles/Users that can submit the workflow. If the workflow is an account default, this field defaults to all roles and users, allowing anyone to initiate it.

Add/ Edit Workflow Page (Time Tracking)

This page allows you to make changes to the workflow. A Workflow is necessary to determine the route of a time sheet and who can submit it.

Fields and Buttons

The fields and buttons located on this page are:

- **Workflow Name:** Displays the name of the workflow.
- **Hide Action Button:** If selected, the Action button will not be visible to actors and simply choosing an action will move the process to the next step.
- **Allow Comments/Attachments After Finish Step:** If selected, actors are able to comment on the process or attach documents after the process has been completed.
- **Account Default:** Select to make the workflow the account default, in which case all submitted time sheets will automatically follow this workflow. By default, the first workflow created will be the account default.

Note: Assigned role/user is what determines the route of submitted time sheets. For more information, see Manage Workflow Page Overview.

If set as the account default a specific role/user cannot be assigned; instead, the process can be initiated by any role or user. You may choose to default a workflow that is generic to the entire organization, such as non-billable time sheets that must all be routed to the same parties, e.g. The Accounting Team.

Note: Once saved, this setting cannot be changed unless a different workflow is selected as the account default.

- **Role/User Assignment:** If workflow assigned as account default, this field defaults to all roles and users, allowing anyone to initiate it.

If available, choose the Roles/Users that can start this workflow (submit the a Time Sheet that will follow this workflow). If the initiator is in multiple roles, they will be prompted to choose the role for which they are submitting the time sheet and the associated workflow and the time sheet will route accordingly.

Note: Roles can only be assigned to one workflow at a time, with the exception of the Account Default.

Workflow Designer (Time Tracking)

The Workflow Designer allows you to drag and drop different shapes onto the Workflow that perform different functions. Each can help build your workflow to facilitate an automated business process. The workflow includes steps, connectors, conditionals, and spawns all based on actions triggered in each workflow step.



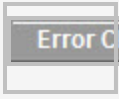

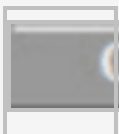
The process is automatically routed through the workflow. When the process reaches a data entry step it will display the associated actor layout to the end user and require that an action be taken, which determines which branch the workflow will follow. Each of these shapes can be dragged onto the Designer grid. Once the shape is dragged onto the page, the properties window of that shape displays for your input.




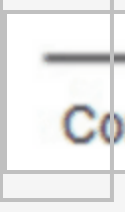
The Difference between Edit Mode and Copy Mode

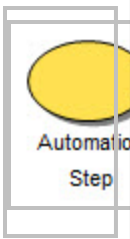

- When in Edit Mode you are not able to delete process steps, but this is possible in Copy Mode.
- Making changes and then publishing in Edit Mode will affect open instances of the process
- Making changes and then publishing in Copy Mode will not affect open instances of the process.

Fields and Buttons

A brief description of each shape, its function, and a description of the buttons located on the workflow designer page is below:

| Button/ Shape | Description |
|---|--|
|  | Click to publish the workflow and make it available for the assigned roles/users to submit time sheets. Incomplete workflows cannot be published. If process steps are incomplete or a connector is missing, an error message displays the details of the error. |
|  | Click to save the workflow. You can close out of the workflow and return to it later on. Saved workflows are not visible to anyone else and are not available for use by any user or project. |
|  | Click to validate that the workflow is correct. Any errors will produce a detailed error message. |
|  | Click to print the workflow as is. |
|  | Click to close the Workflow dialog box without saving changes. |

| Button/ Shape | Description |
|---|--|
|  | <p>The start icon displays by default. Every workflow requires a start step. Right-click this icon and select Properties to edit step name, select a process layout, change icon color, or add a description.</p> |
|  | <p>Data Entry steps allows users to input data. For each data entry step, an action must be taken which moves the workflow to the next step in the process.</p> <p>Drag this icon to the designer to open the Edit Step Window and customize step properties.</p> |
|  | <p>Conditional steps are defined statements that can take a path of true or false. It is configured to let the system determine the route in the workflow. For example, if a contract or PO has a commitment value greater than \$5,000 it may have to be routed to the Assistant Director. Otherwise the project manager can approve it without requiring executive management approval. Double-click or drag and drop this shape to the designer to open the Edit Conditional Branch dialog and configure the details of this condition.</p> <p>Drag this icon to the designer to open the Edit Conditional Branch Dialog Box and customize step properties.</p> |
|  | <p>The connector is used to connect the steps in the workflow. Right-click the connector and click Properties to open the Connector Properties dialog box. From here you choose the start and end steps to connect. You must also choose an action. Only available actions that have not yet been used are available in the drop-down arrow. Optionally, you can rename the connector, choose the connector shape and design the workflow step by choosing where the points of the connector will be placed.</p> |
| | <p>For time tracking workflows an Automation step is required to generate invoices.</p> <p>Drag this icon to the designer to open the Edit Automation Step Page (Time Tracking) and cus-</p> |

| Button/ Shape | Description |
|---|--|
|  | customize step properties. |
|  | The finish icon displays by default. Every workflow requires a finish step. Right-click this icon and select Properties to change icon color and/or add a description. |

Edit Step Page (Time Tracking)

The Edit Step dialog box displays when you drag a Data Entry shape to the designer grid. This dialog box is able for you to customize the workflow step. In order for a step to run properly, there must be at least one action, and at least one role assigned.

See Workflow Designer Overview (Time Tracking) for more information about Data Entry and other workflow shapes. A detailed description of each field is listed below to guide you through the process of customizing each workflow step.

Fields and Buttons

The fields and buttons located on this page are:

- **Name:** This is a required field. Enter the name of the step in this field.
- **Description:** Enter a description of the process step in this field. This description displays along with the name of the step when you hover over the step in the workflow designer.
- **Send Comment Notifications To Actors:** Select this check box to have an email notification sent to the actors in this step every time a comment is made or an action is taken on this step.
- **Send Comment Notifications To Past Actors:** This check box is clear by default. Select if you wish to send an email notification to all of the past actors on the process, whenever this step is completed.

Note: These notifications can also be added to a daily summary notification in order to reduce the number of notification someone receives throughout the day. See About Summary Notifications for more information.

- **Actors:**
 - **Initiator** - Select this check box to add the process initiator, or the user who filled out the start step, as an actor. Typically used in scenarios where you need to route back to the initiator of the process because of a rejection from an approver.
 - In the Available Role box, select the actors on this step and then click Add. Selected actors display in the adjacent Selected Roles box. The process step will display in these actor's courts for further action to move the process along. Actors are the only users that can take the action to move the process to the next logical step in the workflow.
- **Actor Layout:** Click the drop-down arrow to select from a list of layouts defined on the Layout Properties page for the process. The selected layout is what is shown for the actors when the workflow enters this step. Click the Preview button to see what the layout will look like for the end user. See Add Page Layouts for more information.
- **Background Color:** Click this button to change the background color of the step. Having different colors for specific steps or roles can help you identify the rate of involvement for different roles or people. This can also help you quickly identify how often certain process instances occur.
- **Text Color:** Click this button to change the text color of the step's title. For increased readability, certain text colors may stand out against different background colors more than others.
- **Add Action:** The action is what's required to get you out of a step. For example, Approve, Deny, Completed, Reject etc. Every step requires an action. You are prompted to specify the action when adding a connector between steps. Click Add Action to enter the details of the action. A step cannot be saved without an action. The maximum number of actions that can be configured per step is six. For a description of the fields located on the Add Action dialog box, see Add Action Page Overview (Time Tracking).

Edit Automation Step Page (Time Tracking)

An automation step is required to generate invoices for time tracking workflows that are integrated with Cost. Once configured, a draft invoice will automatically be created when a time sheet with billable tasks is approved. Activities that include commitment items produce a draft commitment invoice and those that do not have commitments produce a general invoice in draft status. These draft invoices can be found in the Cost module in Unfinished Drafts or by filtering for them on the Actual Costs page. For instructions, see Add Automation Step (Time Tracking).

Fields and Buttons

The fields and buttons located on this page are:

- **Save:** Click this button to save changes and exit the Edit Automation Step dialog box.
- **Cancel:** Click this button to cancel this action and exit the Edit Automation Step dialog box. Note that changes will not be saved.
- **Automation Step Name:** Enter the name of the automation step in this field.
- **Commitment Invoice Creation:**
 - **Creation Type**
 - **Create Draft Invoices:** This is the default option. Leave selected to create draft invoices for an approved time sheet that has a commitment associated to it.

- **Spawn a Cost Process:** Select to spawn an invoice cost process for an approved time sheet. When selected you are prompted to select a qualifying cost process.
 - **General Invoice Creation:**
 - **Creation Type**
 - **Create Draft Invoices:** This is the default option. Leave selected to create draft invoices for an approved time sheet that is not associated to a commitment.
 - **Spawn a Cost Process:** Select to spawn an invoice cost process for an approved time sheet. When selected you are prompted to select a qualifying cost process.
 - **Send Failure Comment Notifications:** Select an actor if you want someone to be notified in the even the automation step fails.
- Warning:** The status of the action that leads to this Automation step must be set to **Approve** in order for the automation step to be successful and not fail.
- **Run As User:** This is a required field in order to run the automation step. The user selected should be an account administrator with access to all projects to ensure that all invoices are properly processed.
 - **Background Color:** Click this button to select a background color for the automation step, which displays in the Designer.
 - **Text Color:** Click this button to select a background color text of the automation step, which displays in the Designer.

Add Action Page (Time Tracking)

An Action allows the data entry step to be completed. It is the mechanism that moves the process between steps; therefore, at least one action must be defined for each data entry step. Connectors are used to attach actions from one step to another.

For instructions, see Add Actions (Time Tracking).

Fields and Buttons

The fields and buttons on this page are:

- **Name:** Enter the name of the action as it will display in the workflow designer.
- **Name Display:** Enter the name of the action as it will display in the user interface; maximum 15 characters.
- **Set Status To:** Click this drop-down arrow to choose what the default status of the process will be when this action is taken. Standard options include:
 - Leave Status Unchanged
 - Approved
 - Paid
 - Rejected
 - Submitted
 - Void

- **Add Comments?:** Select this check box to prompt the actor to enter a comment. A good scenario would be if the step requires an approval and if the action taken is "Revise" and you want to force the actor to enter a comment as to why he/ she rejected the item and is routing back to the initiator to revise it. If selected, a dialog box appears as the action is taken to prompt the actor to enter a comment. The **Require Comment** check box is also displayed when this check box is selected giving you the option to make the comment field required.
- **Notify: Process Initiator** - Select this check box to send notifications to the process initiator when this action is taken. In the Available Roles section, select the roles you want to receive an email notification as the action is taken. Click **Add**. The selected roles display in the adjacent Selected Roles box.
- **Add Actors To Next Step:**
 - **Allow user to add actors to the next step:** Click this check box to allow the actor to select additional actors for the next step. This setting allows a bit of flexibility in an otherwise structured flow. You may set this if you do not know if there are additional actors. Over time you can identify trends in routing and change it to be structured later.
 - **Include actors that took action from previous step on the next step:** Select this check box to include on the next step the actors who took action(s) prior to this step (they need not be immediately prior). If the last step had a majority for the action, the "last actor" would be all actors that contributed to the action. The "last actor" is defined as the last person to take a human action. Also, note that conditional branching and spawn steps will be ignored in regressing through the action. If a workflow is configured to go back to a step for which an actor took action, and that step had more than one potential actor, the system will only notify the actor who took action, not all of the actors. The feedback or clarification should only go to that one person.

Note: Even if a step does not have actors selected, a workflow can be valid with this setting alone. It suffices as a selection of actors.
- **# of Actors to Complete Action:** To set a standard for the number of actors that are required to complete an action, select one of the available options:
 - One Actor
 - Majority
 - All Actors

Add Edit Connector Page (Time Tracking)

Connectors link two shapes together. The first time you add a connector, the Add Connector page is displayed. The Edit Connector page appears when editing existing or adding additional connectors. This dialog gives you all necessary options to connect steps in a workflow.

Fields and Buttons

The fields and buttons located on this page are:

- **From Step:** Click this drop-down arrow and select the step the connector will connect from.
- **Action:** Click this drop-down arrow and select the action that will connect the two steps. Options in this drop-down arrow populate based on all available actions.
- **To Step:** Click this drop-down arrow and select the step the connector will connect to.
- **Connector Text:** Enter the text that will display on the connector within the workflow.



- **Type:** Select a type option to determine the way the connector links the two steps.
 - **Elbow** (Default setting) the Designer will automatically create an elbow when one of the two steps deviates off of a straight line course.
 - **Straight** The Connector will always display as a straight line.
- **From Step Connection Point:** Click the drop-down arrow to select a connection point from the From Step. The default is set to Auto. You can determine the connection point on the shape by selecting one of the options (Top, Bottom, Left, Right). If set to Auto, the system will determine the best connection point for you.

Tip

If you click two data entry steps in the Designer (will highlight a blue border when selected) and then drag and drop the connector to the Designer, the From Step and To Step fields will automatically be filled in. The first data entry step you select will be assigned to the From Step.

- **To Step Connection Point:** Click the drop-down arrow to select a connection point to the To Step. The default is set to Auto. You can determine the connection point on the shape by selecting one of the options (Top, Bottom, Left, Right). If set to Auto, the system will determine the best connection point for you.

Tip

If you click two data entry steps in the Designer (will highlight a blue border when selected) and then drag and drop the connector to the Designer, the From Step and To Step fields will automatically be filled in. The first data entry step you select will be assigned to the From Step.

- **Save:** Click this button to save changes and exit the Add/Edit Connector dialog box.
- **Cancel:** Click this button to cancel this action and exit the Add/Edit Connector dialog box. Note that changes will not be saved.