Tekla EPM 2019

Production Control

April 2019

Contents

1 Set up the Production Control module

Before you start to manage the fabrication process in the **Production Control** module, we recommend that you take the time to customize the properties and items according to your needs. Once you have created and modified all necessary items and settings, working in the **Production Control** module is easier and more efficient.

When setting up the **Production Control** module, you can:

- Define the company standard settings used in the **Production Control** module.
- Modify the available display and input fields in the **Production Control** dialog box.
- Modify the menu setup of the **Production Control** menu and create shortcuts for menu items.
- Set up stations and routes for piece tracking.
- Enter information for piece tracking and loading trucks.
- View production status reports for either a single job or a group of jobs.
- View and print cut lists.
- View and print station summary reports and shipping lists.
- View and print different kinds of production control and purchasing reports for either a single job or a group of jobs.

For more information, see the following links:

Define company standard settings for Production Control (page 8)

Define critical length and width differences (page 24)

Create, modify, and delete stations (page 25)

Create, modify, and delete routes (page 28)

Create, modify, and delete approval statuses (page 30)

1.1 Define company standard settings for Production Control

In the **Company Standards** dialog box, you can create default settings that become the user standard that is used in each production control job. You can define settings regarding data input, material import settings, and reports. If necessary, you can also change the settings on a job by job basis.

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Production Control** --> **Company Standards** .

   The **Company Standards** dialog box opens on the **General** tab.
3. Modify the company standard settings on the **General**, **Input Settings**, **Import Settings**, and **Report Settings** tabs according to your needs.
4. Click the buttons at the bottom of the **Company Standards** dialog box to further modify company standard settings.

   For more information, see the following links:

   - Define input and display units for Production Control (page 16)
   - Define combining optimizations for Production Control (page 17)
   - Define suppliers for Production Control (page 18)
   - Define categories and sub-categories for Production Control (page 19)
   - Define pay categories for Production Control (page 21)
   - Define load tracking settings (page 22)

NOTE Do not click **Save** until you have modified all necessary settings. Saving the settings closes the **Company Standards** dialog box.

Define general settings

- On the **General** tab, modify the following properties according to your needs:

Option	Description
Job # Increment	Allows you to select the default option for automatic job numbering. The options are: • **Increment from Last Job #**: When you create a new job, Tekla EPM uses the next available job number after the latest job number created. • **Increment from Largest Job #**: Tekla EPM uses the next available job number after the largest job number created. • **Don't Increment**: Automatic job numbering is not used. You can modify the job number when you create a new job.
Keep Job Selection Screen Open	When selected, the **Select Production Control Job** dialog box remains open after you have selected a production control job.
Job # Regular Expression	Allows the use of regular expressions to enforce a desired format for the job numbers.
When changes to PDC break links to combined INV material	Allows you to select how Tekla EPM handles situations where a material link is broken between **Production Control** and **Inventory** while importing a revised or modified bill of materials. Tekla EPM automatically unlinks all changed material. This prevents cutting materials to incorrect lengths. The options are: • **Prompt to Uncombine the Unlinked INV Material**: Tekla EPM asks the user if the materials should be immediately uncombined or not, which is the first step of automatically correcting cut lists. This is the default option. • **Always Uncombine the Unlinked INV Material**: Tekla EPM automatically uncombines the unlinked materials. • **Never Uncombine the Unlinked INV Material**: Tekla EPM does not uncombine the

Option	Description
	unlinked material, but leaves the combining result as is. Instead, the user should perform the necessary corrections manually. Click the arrow on the right side of **When changes to PDC break links to combined INV material** field, and click a suitable option in the list to select it.
TFS - Drop Job Reserve	Allows you to select how Tekla EPM handles drop material when a take from stock operation has been performed. Note that you can select a different option for an individual job, if necessary. The options are: • **Keep reserved for the TFS job**: Tekla EPM keeps all drop material saved for the job until you unreserve it manually. This is the default option. • **Prompt for the new job reserve**: in the in the **Cut Lists** dialog box, Tekla EPM asks you whether you want to reserve the drop material for a job. • **Prompt to unreserve**: Tekla EPM asks you whether you want to unreserve the drop material or not. • **Always unreserve**: Tekla EPM automatically unreserves all drop material and moves it to open inventory, immediately available for use. Scrap length materials go to inventory history.
Allow Cut List Grade Substitution	When selected, Tekla EPM can use inventory stock materials with another material grade in cut lists. Note that Tekla EPM only allows grade substitutions that have previously been set up in the **Shape / Grade / Size Maintenance** dialog box. For more information, see .
Warn when creating a cut list if parts are missing CNC files	When selected, Tekla EPM alerts you when saving a cut list that contains parts without CNC files.
Cut List Screens - Show Date/Time Changed	When selected, the **Cut Lists** dialog box shows the date and time when the cut lists were last changed.

Define input settings

On the **Input Settings** tab, select how Tekla EPM interprets and displays the information in the **Production Control** module, whether the information is from an imported bill of materials, or directly entered in the **Production Control** dialog box.

1. Click the **Input Settings** tab to open it.
2. Modify the following settings according to your needs:

Option	Description
Main Mark Input Type	Allows you to select the input format for main marks. Click the arrow on the right side of **Main Mark Input Type** field, and click a suitable option in the list to select it.
Piece Mark Input Type	Allows you to select the input format for piece marks. Click the arrow on the right side of **Piece Mark Input Type** field, and click a suitable option in the list to select it.
Drawing Number Input Type	Allows you to select the input format for drawing numbers. Note that the input format of drawing numbers in a production control job needs to match the input format set in the linked project management job. Otherwise, the drawings will not be available in the **Production Control** module or in Tekla EPM Go. Click the arrow on the right side of **Drawing Number Input Type** field, and click a suitable option in the list to select it. We recommend selecting the **Any Input - Logical Sort** option.
Sequence Input Type	Allows you to select the input format for sequences. Click the arrow on the right side of **Sequence Input Type** field, and click a suitable option in the list to select it.
Use Lot Numbers	When selected, you can divide a sequence or phase into subcategories within a production job by using lot numbers. It is highly recommended to select the **Use Lot Numbers** option. Note that selecting or clearing the **Use Lot Numbers** check box only applies to new production control jobs automatically. If necessary,

Option	Description
	the **Use Lot Numbers** check box can be manually selected or cleared for existing jobs as well.
Main Piece Case	Allows you to select if you want to use uppercase or lowercase letters, or both, for main mark numbers. This makes recognizing the main pieces easier. Click the arrow on the right side of **Main Piece Case** field, and click a suitable option in the list to select it.
Accessory Piece Case	Allows you to select if you want to use uppercase or lowercase letters, or both, for piece mark numbers. This makes recognizing the piece marks easier. Click the arrow on the right side of **Accessory Piece Case** field, and click a suitable option in the list to select it.
Main Member Instance Tracking	When selected, the history of each individual instance, or piece, within an item can be identified and tracked through all production steps. If you select the **Main Member Instance Tracking** check box, instance tracking will be activated for all new production control jobs. However, existing jobs will not be affected. You can still activate or deactivate the instance tracking of main piece marks for each production job individually.
Accessory Part Instance Tracking	When selected, the history of each individual instance, or piece, within an item can be identified and tracked through all production steps. If you select the **Accessory Part Instance Tracking** check box, instance tracking will be activated for all new production control jobs. However, existing jobs will not be affected. You can still activate or deactivate the instance tracking of piece mark items for each production job individually.
Piece Mark Force Same Info	When selected, the same information is forced to accessories with the same piece marks. Selecting the **Piece Mark Force Same Info** check box prevents adding or importing items with the same piece mark but different material information to the production control job. Note that the **Piece Mark Force Same Info** option is connected to the **Edit Line Item - Update accessories with the same piece mark** list. You

Option	Description
	cannot select an option in the **Edit Line Item - Update accessories with the same piece mark** unless the **Piece Mark Force Same Info** check box is selected.
Edit Line Item - Update accessories with the same piece mark	Allows you to select how Tekla EPM accessories with the same piece mark are updated when you make changes to a line item. The options are: • **Prompt to update the other line items**: Tekla EPM alerts the user that there are other accessories in the job that may need to be updated, and allows you to update the other accessories. This is the default option. • **Always update the other line items**: Tekla EPM automatically updates the other accessories to match the changes you made. • **Never update the other line items**: Tekla EPM never updates the other accessories to match the changes you made.
AutoCalc Drawing Number	When selected, Tekla EPM enters a drawing number into the drawing number field based on the main mark. This option works correctly if the first number of each shop detail drawing main piece is the drawing number. If the marking system that you use does not have the drawing number as the first number of the main mark, do not select the **AutoCalc Drawing Number** check box.
Default Finish	The default finish for items in production control jobs. The available finish options are set in the **Finish Maintenance** dialog box. For more information, see Create, modify, and delete material finish options (page 34). You can change the finish for each main mark item in a production control job. The finish of the main mark item is also applied to all of the included accessories. Click the arrow on the right side of **Default Finish** field, and click a suitable default option in the list to select it.

Option	Description
Trailer Capacity	The trailer capacity weight used by default when shipping of fabricated material to the jobsite. The trailer capacity can be changed for individual loads, if needed. You can also modify the capacities of specific trailers in the **Load Tracking Settings** dialog box. For more information on the load tracking settings, see Define load tracking settings (page 22). Type the weight in pounds in the **Trailer Capacity** field.
Piece Tracking by Time	When selected, allows you to make piece tracking entries in that include the completion time, so that you can tell in which shift an item was completed. The completion time is also visible in piece tracking reports.

Define import settings

On the **Import Settings** tab, set the default settings used when importing a bill of materials into **Production Control**.

1. Click the **Import Settings** tab to open it.
2. Modify the following settings according to your needs:

Option	Description
When assembly has no part with a piece mark matching the main mark	Allows you to select how Tekla EPM applies comment lines in rare cases where a bill of materials is imported to **Production Control** and Tekla EPM cannot identify a main mark. The options are: • **Don't add a comment line as the main piece**: Tekla EPM never adds the comment line as the main piece. This is the default option because most often, the main mark item in the bill of materials is the largest single piece, whereas the piece marks are the items that attach to the main piece. • **Prompt to add a comment line as the main piece**: Tekla EPM asks you if you want to add a comment line as the main piece. This allows you to use the name of the item for main marks instead of the material size.

Option	Description
	• **Always add a comment line as the main piece**: Tekla EPM always adds a comment line as the main piece. This allows you to use the name of the item for main marks instead of the material size.
When there are validation errors	Allows you to select how Tekla EPM handles validation errors regarding shop detail drawings when a bill of materials is imported to **Production Control**. The options are: • **Continue the import without prompting the user**: Tekla EPM continues the import process without notifying you about the validation errors. However, you can view the validation errors in the import log. This is the default option, and it is useful when the user performing the import process does not need to know or make decisions on validation errors. • **Prompt the user to continue the import**: Tekla EPM asks you how the validation errors should be handled while continuing the import. • **Don't continue the import**: Tekla EPM stops the import immediately when a validation error is found. The user can then review the drawings for issues by themselves.
Use as Production Code	Allows you to select if you want to use piece marks, drawing descriptions, or assembly descriptions, or none of the above as product codes. Click the arrow on the right side of the **Use as Production Code** field, and select a suitable option in the list.
Use Piece Mark as Production Code	When selected, Tekla EPM automatically assigns piece marks as production codes. Note that if you select the **Use Piece Mark as Production Code** check box for a production control job, you also need to use piece marks as production codes in the estimating job that is linked to the production control job.
Prompt to confirm import fields	When selected, Tekla EPM asks you to confirm the import fields while importing a bill of material into **Production Control**. By selecting the **Prompt to confirm import fields** check box, you can exclude any fields whose values you do not want to import.

Option	Description
Show supplemental import file selection (KISS, CIS/2, BIF)	When selected, Tekla EPM allows you to import multiple supplementary files, such as bolt lists, from a detailing software.

Define report settings

1. Click the **Report Settings** tab to open it.
2. If you want to select whether to use net or gross weight of materials for each report, select the **Prompt for weight type (net/gross)** check box.

   The gross weight is the system weight as dimensioned in Tekla EPM, whereas the net weight is loaded from the CNC files added for items. If CNC files have not been added for the items included in the report, the net weight cannot be used in the report. Instead, the gross weight is used.
3. If you want to create cut list reports that show each quantity of inventory listed separately, select the **Cut List - Prompt to split cutting details to a quantity of one** check box.

   If the **Cut List - Prompt to split cutting details to a quantity of one** check box is cleared, multiple inventory pieces with the same exact cutting details are shown as a single inventory item in reports.
4. If you want to split cutting details to the quantity of one by default, select the **Default** check box.

Define input and display units for Production Control

You can use either metric or imperial units for displaying and entering sizes, lengths, weights, and price. In addition, you can select how you want to enter the information for the length of the piece.

1. In the **Company Standards** dialog box, click the **Input/Display Units** button.
2. In the **Input/Display Units** dialog box, click the arrows on the right side of the fields to select the units and the length input type.

   Note that there are multiple options depending on the required precision and the desired input method.
3. Click **Save**.
4. Remember to click **Save** in the **Company Standards** dialog box to update the input and display units.

The **Company Standards** dialog box closes. The input and display units are saved for the **Production Control** module.

See also

Define company standard settings for Production Control (page 8)

Define combining optimizations for Production Control

You can define company-level settings for multing and plate nesting in the **Production Control** module. If necessary, you can also change the settings job by job.

1. In the **Company Standards** dialog box, click the **Combining Optimizations** button.
2. To use material grade substitutions with the optimization settings when performing a combining run, on the **General Settings** tab of the **Combining Setup** dialog box, select the **Use Grade Substitutions** check box.

   Grade substitutions must be set in the **Shape / Grade / Size Maintenance** dialog box. If the grade substitutions are not set, the material grades in the combining run and in the supplier pricing data set or the inventory need to match each other exactly.
3. If you want to only mult and nest material items that are in the same sequence onto a given stock item, select the **Combine Only Within Sequence** check box.

   Selecting the **Combine Only Within Sequence** check box might be useful in medium or big jobs. However, selecting the **Combine Only Within Sequence** check box is not recommended for small jobs.
4. Click the arrow buttons to move the optimization options that you want to use to the **Optimizations Included** list.

   The options are:

   - **Inventory Exact-Match (In Stock)**: Use this option for inventory items in stock that are an exact match without the use of kerf or clamp allowance.
   - **Inventory Exact-Match (On Order)**: Use this option for inventory items that are on purchase orders and have not yet been received and that are an exact match without the use of kerf or clamp allowance.
   - **Inventory Least-Scrap (On Order)**: Use this option for inventory items that are on purchase orders and have not yet been received and that will provide the least amount of scrap.
   - **Inventory Least-Scrap (In Stock)**: Use this option for inventory items in stock that will provide the least amount of scrap.
   - **Warehouse Least-Scrap**: Use this option to give preference to warehouse items that will provide the least amount of scrap. Warehouse items will only be used when they provide less scrap than the available inventory items.

- **Warehouse Force Inventory**: Use this option to force the use of inventory regardless of the amount of scrap, no matter where it is located in the **Optimizations Included** list. This option is the opposite of **Warehouse Least-Scrap**.

  Note that you can only include **Warehouse Least-Scrap** or **Warehouse Force Inventory**, not both.

5. Use the **Move Up** and **Move Down** buttons to modify the order of the optimizations.

   The order is important while performing a combining run.

6. Click the **Mult Settings - Linear Material** tab to open it.
7. In **Multing Software**, select the multing software that you are using.
8. If you want to apply the material kerf settings defined in **Shape / Grade / Size Maintenance** to the combining as part of the cutting pattern, select the **Apply Kerf** check box.
9. Open the **Plate Nesting Settings** tab.
10. In the **Plate Nesting Software** list, click the plate nesting software that you are using to select it.
11. In the **Shear Cut Optimization** list, click a suitable shear cut option to select it.

    The selected option determines the plate allowance to be used with the combining:

    - Use **None** when cutting plate on a burn table.
    - Use **Shear Cut - First Cut Along Length** or **Shear Cut - First Cut Along Width** to alert Tekla EPM that the nesting needs to allow for that type of cut first. Then, the nesting will allow for all subsequent cuts to be made with that condition.

12. If necessary, select the **Apply Kerf** check box.

    For more details, see step 8.

13. If the material grain direction is unimportant and you want Tekla EPM to create the best possible optimization of a plate, select the **Rotate Plates for Best Fit** check box.
14. Click **Save**.
15. Remember to click **Save** in the **Company Standards** dialog box to update the combining optimizations.

Define suppliers for Production Control

You can define the desired suppliers, or pricing data sets, for angles, beams, plates, rods, tubes, and other material. This way, you can use material pricing from the selected supplier pricing data sets for each material group.

1. In the **Company Standards** dialog box, click the **Suppliers** button.
2. In the **Suppliers** dialog box, click the arrows on the right side of the material group lists, and select the suppliers.
3. Click **OK**.
4. Remember to click **Save** in the **Company Standards** dialog box to update the supplier settings.

The **Company Standards** dialog box closes. The supplier settings are saved as company standards for the **Production Control** module.

See also

Define company standard settings for Production Control (page 8)

Define categories and sub-categories for Production Control

Categories are user-defined keywords that you can use for sorting, tracking, and reporting. Creating categories also helps you to quickly identify the items in your production control jobs. For example, you can categorize jobs by fabrication type. In addition to manually creating categories, you can choose to use existing categories used in Steel Erection Bid Wizard. To further filter items, you can also add sub-categories.

Add categories

Note that in addition to creating pre-defined categories in the **Company Categories** dialog box, you can also add categories to Tekla EPM by typing a new category name in the **Category** field when adding or modifying an item in a production control job.

Categories are considered a main breakdown item for project summaries and project schedules.

1. In the **Company Standards** dialog box, click the **Categories** button..
2. In the **Company Categories** dialog box, click **New**.
3. In the **Category** field, type a name for the category.
4. Click **Add**.

The new category is added to the **Category** list.

NOTE If you need to modify or delete a category, click a category to select it in the **Category** list and either:

- Click **Edit**, change the category name, and click **Edit** again.
- Click **Delete** and then, click **Yes** to confirm deleting the category.

5. In the **Company Standards** dialog box, click **Save** to update the sub-categories.

The **Company Standards** dialog box closes. The categories are saved for the **Production Control** module.

Add sub-categories

Note that in addition to creating pre-defined sub-categories in the **Company Categories** dialog box, you can also add sub-categories to Tekla EPM by typing a new sub-category name in the **Sub-Category** field when adding or modifying an item in a production control job.

Sub-categories are considered a main breakdown item for project summaries and project schedules.

1. In the **Company Standards** dialog box, click the **Sub-Categories** button.
2. In the **Company Sub-Categories** dialog box, click **New**.
3. In the **Sub-Category** field, type a name for the sub-category.
4. Click **Add**.

   The new sub-category is added to the **Sub-Category** list.

   Repeat steps 1 to 4 for all new sub-categories.

NOTE If you need to modify or delete a sub-category, click a sub-category to select it in the **Sub-Category** list and either:

- Click **Edit**, change the sub-category name, and click **Edit** again.
- Click **Delete** and click **Yes** to confirm deleting the sub-category.

  You can also add multipliers for sub-categories in the **Estimating** module.

5. In the **Company Standards** dialog box, click **Save** to update the sub-categories.

The **Company Standards** dialog box closes. The sub-categories are saved for the **Production Control** module.

Define pay categories for Production Control

Create pay categories to assign unit costs to fabricated items per pound. You can use pay categories as report filters, so they can help you to sort information in reports. Tekla EPM also contains specific shipping reports that are designed to be used with pay categories.

Pay categories are considered a main breakdown item for project summaries and project schedules.

1. In the **Company Standards** dialog box, click the **Pay Categories** button.
2. In the **Pay Categories** dialog box, do any of the following according to your needs:

To	Do this
Create a new pay category	a. Click **New**. b. In the **Pay Category** field, type the pay category name. For example, `Beams`, `Columns`, or `Bracing`. c. Type a description for the pay category. For example, `Light`, `Medium`, or `Heavy`. d. In the **Lower Bound Unit Weight** field, type the lowest weight that is applicable to the pay category. e. In the **Unit Price** field, type a pricing per hundredweight that is applicable for the material type. f. Click **Add**.
Modify an existing pay category	a. In the list, click the pay category that you want to modify. b. Modify the pay category type, description, unit weight, and unit price according to your needs. c. Click **Edit** to save the changes.
Delete a pay category	Note that deleting a pay category is permanent and cannot be undone. a. In the list, click the pay category that you want to delete.

To	Do this
	b. Click **Delete**. c. In the confirmation dialog box, click **Yes** to permanently delete the pay category.

3. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.
4. In the **Company Standards** dialog box, click **Save** to update the pay categories.

The **Company Standards** dialog box closes. The pay categories are available in the **Production Control** module.

See also

Define company standard settings for Production Control (page 8)

Define load tracking settings

In the **Load Tracking Settings** dialog box, you can manage which fields and options are available when adding loads in the **Load Tracking** dialog box.

Note that any changes made in the **Load Tracking Settings** dialog box are applied to both new and existing production control jobs.

To access the **Load Tracking Settings** dialog box, do the following:

- At the bottom of the **Company Standards** dialog box, click the **Load Tracking Settings** button.

The **Load Tracking Settings** dialog box opens. Click the tabs at the top of the dialog box to modify the visibility of different items in the **Load Tracking** dialog box.

Adjust trailer number settings

1. Click the **Trailer #** tab to open it.
2. If you want to allow adding a trailer number in the **Trailer #** field, select the **Show Field** check box.

   The **Trailer #** field will be available in the **Load Tracking** dialog box.
3. In the **Title** field, type the name that you want to use for the **Trailer #** field.
4. If you want the trailer number to be mandatory information, select the **Value Required** check box.

   The user cannot add a load without entering a trailer number.
5. To add trailer numbers that can be selected, do the following:

a. If necessary, select the **Restrict to Preset List** check box.

   Selecting the **Restrict to Preset List** prevents the users from typing new values, and forces them to select a value in the list.

   Leaving the **Restrict to Preset List** check box unselected allows the users to type a new value or select a value in the list.

b. To create a new value, click **New**.

c. Type the value in the **Trailer #** field.

d. Type the trailer capacity weight in the **Capacity** field.

e. Click **Add**.

   Repeat steps b to e for all values that you want to add.

   You can also select an existing value in the list and use the **Edit** and **Delete** buttons to modify or delete the value.

Adjust the load tracking fields

On the **Carrier**, **Load Category 1**, **Load Category 2**, **Load Category 3**, and **Shipped From** tabs, you can add fields to the **Load Tracking** dialog box according to your needs. The fields can be re-named according to your needs.

1. Click one of the previously mentioned tabs to open it.
2. If you want to allow adding information in a field, select the **Show Field** check box.
3. In the **Title** field, type the name that you want to use for the field.
4. If you want the field to be mandatory, select the **Value Required** check box.

   When the **Value Required** check box is selected, the user cannot add a load without entering information in the field.
5. To add options that can be selected for the field, do the following:

   a. If necessary, select the **Restrict to Preset List** check box.

      Selecting the **Restrict to Preset List** prevents the users from typing new values, and forces them to select an existing value.

      Leaving the **Restrict to Preset List** check box unselected allows the users to type a new value or select an existing value.

   b. To create a new value, click **New**.

   c. Type the desired value in the related field.

   d. Click **Add**.

      Repeat steps b to d for all values that you want to add.

      You can also select an existing value in the list and use the **Edit** and **Delete** buttons to modify or delete the value.

Adjust receiving date settings

1. Click the **Date Received** tab to open it.
2. If you want to allow selecting a receiving date in the **Date Received** list, select the **Show Field** check box.

   The **Date Received** list will be available in the **Load Tracking** dialog box.
3. In the **Title** field, type the name that you want to use for the **Date Received** field.

1.2 Define critical length and width differences

If any change to a production control item is greater than the inventory record linked to the production control item, the change is automatically considered critical and will break the link to the inventory item. If the change is less than the linked inventory record, you can allow the link to the inventory item to remain up to the critical length and width differences that you set in the **Purchasing Standards** dialog box.

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Production Control** --> **Purchasing Standards** .
3. In the **Purchasing Standards** dialog box, enter the maximum acceptable width and length differences.
4. Click **Save**.

The maximum acceptable width and length differences are saved. These values are used in two types of situations:

Example 1: Comparing two bills of materials

At the beginning of a project, the steel detailer may send an advanced bill of materials to be imported to the **Combining** module. The materials in the bill of materials are then combined and purchased.

Later in the project, when the bill of materials is imported from the shop detail drawings to **Production Control**, you can compare the two lists for material differences. Tekla EPM will use the maximum values defined in the **Purchasing Standards** dialog box to recognize critical differences, and highlight them in red.

Example 2: Automatic linking of materials

When importing a revised bill of materials into an existing **Production Control** job, Tekla EPM uses the maximum values defined in the **Purchasing Standards** dialog box to determine which materials can be linked

automatically. Tekla EPM stops the automatic process of linking materials if the differences exceed the maximum values.

Tekla EPM then alerts you that there are changes that have switched off the automatic linking of materials, so that the you can manually review the affected purchased items and make adjustments accordingly.

1.3 Manage stations and routes

Stations and routes define the steps that items in production go through in the fabrication process. You can create new routes and stations, or modify and delete the existing ones.

See also

Create, modify, and delete routes (page 28)

Create, modify, and delete stations (page 25)

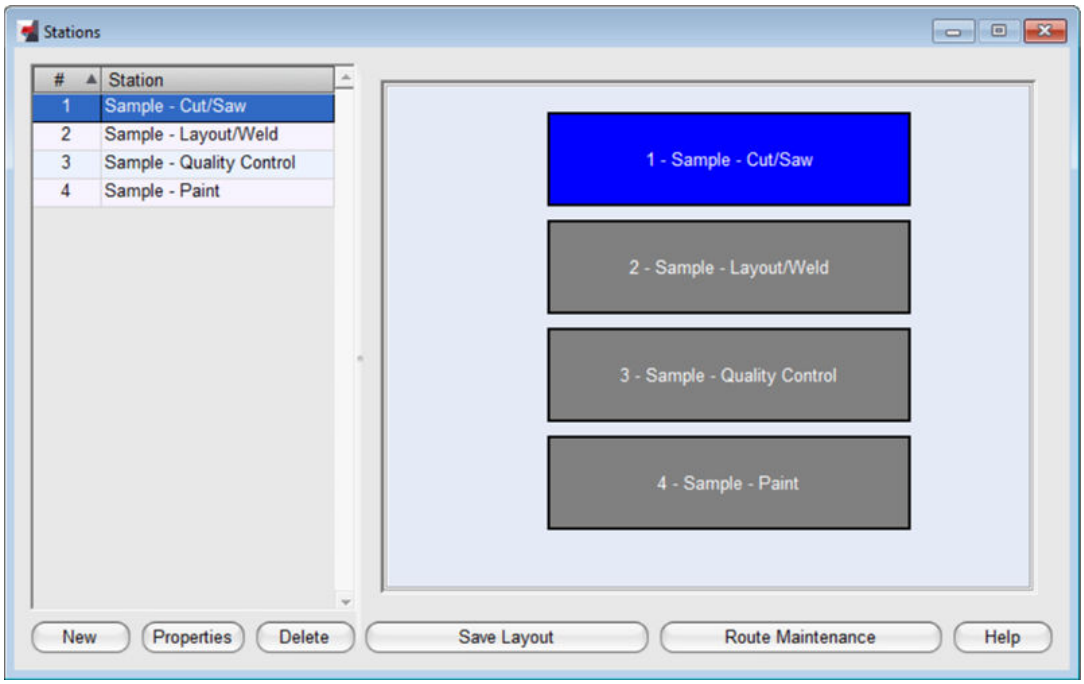
Create, modify, and delete stations

Stations and routes define the steps that an item in production goes through in the fabrication process. Stations and routes are also used for tracking labor time, the date a station is completed, and the batch ID for parts to be fabricated in the job. In the **Stations** dialog box, you can create new stations, or modify or delete the existing ones. You can also change how the stations are displayed when creating routes.

To access the **Stations** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Production Control** --> **Station and Route Setup** .

The **Stations** dialog box opens.



On the left-hand pane, you can view the existing stations.

On the right side of the dialog box, you can drag and drop the stations to change the layout that is used in the **Routes** dialog box.

Create a station

1. Click **New**.
2. In the **Station Details** dialog box, modify the automatically generated station number according to your needs.
3. Type a description for the new station.

   For example, `Iron worker`.
4. To assign labor groups to the new station, do the following:
   a. Click the **Labor Group** tab to open it.
   b. Click the **Select Labor Groups** button.
   c. In the **Select labor groups to associate with this station** dialog box, click the arrow buttons to move the desired labor groups to the **Included** list.
   d. Click **OK**.

   Assigning labor groups to a station can help you apply your own specific determinations for labor applications. When you assign labor groups to a

station, Tekla EPM assigns all labor time from the assigned labor groups in the linked estimating job to the station.

For example, if the labor time for cutting includes bringing the material into the shop, labor groups **GetPc** (get piece) and **Move** can be assigned to the **Cut/Saw** station. In this case, Tekla EPM would gather the labor time for all these labor groups from the linked estimating job and use the labor time in the project schedule.

5. Click **Save**.

The **Station Details** dialog box closes. The new station is added to the list on the left-hand pane.

Note that the station has not yet been added to any routes. To do so, see Create, modify, and delete routes (page 28).

Modify the size and position of stations

1. On the right side of the dialog box, do any of the following:

To	Do this
Move a station to a new location	a. Click the station and hold down the left mouse button. b. Drag the mouse pointer to the location where you want to move the station. c. Release the left mouse button.
Resize a station	a. Hover the edge of a station. b. When a double-header arrow appears, hold down the left mouse button. c. Drag the mouse pointer to expand or reduce the station according to your needs. d. Release the left mouse button.

Repeat until the layout meets your needs.

2. Click **Save Layout**.

Modify a station

1. In the left-hand pane, click the station that you want to modify.
2. Click **Properties**.
3. Modify the station number and description according to your needs.

4. On the **Routes** tab, view the routes that contain the selected station.

   To modify the routes, double-click the desired route. For detailed instructions on modifying routes, see Create, modify, and delete routes (page 28).

5. To modify the labor groups assigned to the station, do the following:
   a. Click the **Labor Group** tab to open it.
   b. Click the **Select Labor Groups** button.
   c. In the **Select labor groups to associate with this station** dialog box, click the arrow buttons to move the desired labor groups to the **Included** list.
   d. Click **OK**.
6. Click **Save** to update the station properties.

Delete a station

Note that deleting a station is permanent and cannot be undone. If a station is used in a production control job or a route, it cannot be deleted.

1. In the left-hand pane, click the station that you want to delete.
2. Click **Delete**.
3. In the confirmation dialog box, click **Yes** to permanently delete the station.

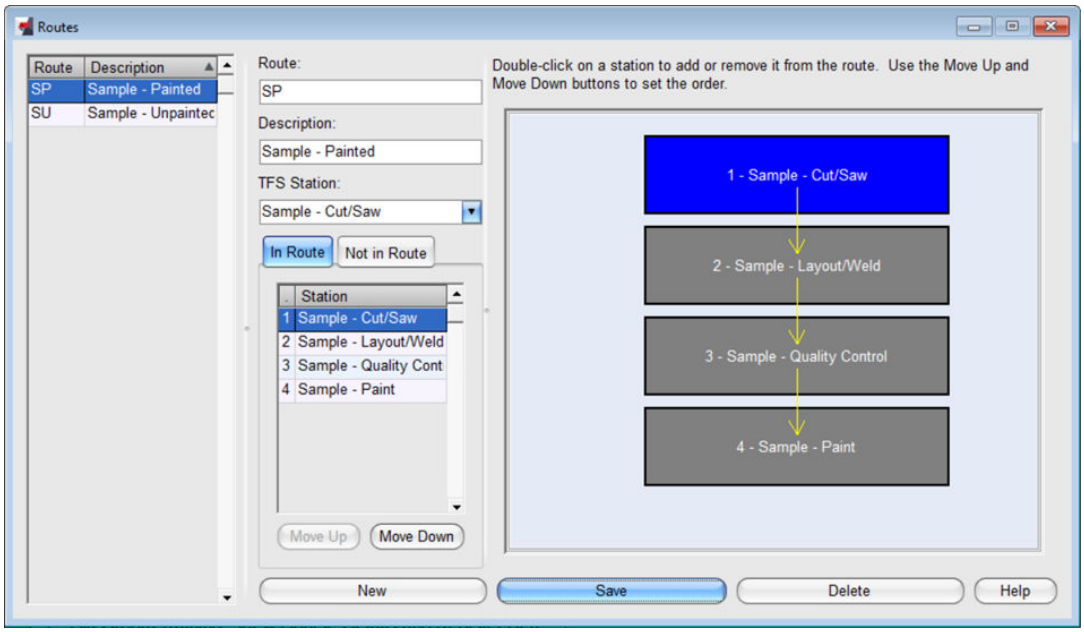
Create, modify, and delete routes

Stations and routes define the steps that an item goes through in the fabrication process. Often, items with different finishes have different routes. In the **Routes** dialog box, you can create new routes, and modify or delete existing ones according to your needs.

Note that you need to create all necessary stations before you can add them to routes.

To access the **Routes** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Production Control** --> **Station and Route Setup** .
3. In the **Stations** dialog box, click **Route Maintenance**.



You can see the existing routes on the left-hand pane of the **Routes** dialog box.

On the right side of the dialog box, you can see all available stations. Yellow arrows show the order of the stations on the route.

Create a new route

1. Click **New**.
2. In the **Route** field, type an abbreviation for the route.
3. Type a description for the route.
4. To modify included stations and their order, do the following:
    a. Click the **Not in Route** tab to see the stations that are not included in the route.
    b. Double-click all stations that you want to include in the order that they should appear in the route.
    c. Open the **In Route** tab to see the stations that are included in the route.
    d. If necessary, click a station that you want to move to an earlier or later position on the route.
    e. Click the **Move Up** and **Move Down**buttons according to your needs.

    Repeat steps d to e for all stations that you want to move.
5. Click the arrow on the right side of **TFS Station** list, and select the station that is used for cutting and charging materials to the production control job. In reports, this station is where the material cutting is completed and

the drops are sent to their assigned location. This station will be marked as completed when you take the item from stock.

6. Click **Add**.

The new route is now available for all production control jobs.

Modify a route

1. In the left-hand pane, click the route that you want to modify.
2. Modify the route abbreviation, description, and TFS station according to your needs.
3. To modify included stations and their order, do the following:
    a. Click the **Not in Route** tab to see the stations that are not included in the route.
    b. Double-click all stations that you want to include in the route.
    c. Click the **In Route** tab to see the stations that are included in the route.
    d. Click a station that you want to move to an earlier or later position in the route.
    e. Click the **Move Up** and **Move Down** buttons according to your needs.

    Repeat steps d to e for all stations that you want to move.
4. Click **Save** to update the route.

Delete a route

Note that deleting a route is permanent and cannot be undone.

1. In the left-hand pane, select the route that you want to delete.
2. Click **Delete**.
3. In the confirmation dialog box, click **Yes** to permanently delete the selected route.

1.4 Create, modify, and delete approval statuses

In the **Approval Status** dialog box, you can create, modify, or delete approval statuses for drawings. The **Approval Status** dialog box is available through both the **Production Control** module and the **Project Management** module.

To access the **Approval Status** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.

2. In the menu, select **Production Control** --> **Approval Status Maintenance** or **Project Management** --> **Approval Status Maintenance** .

The **Approval Status** dialog box opens. You can view all existing approval statuses.

Create an approval status option

1. Click **New**.
2. In the **Approval Status** field, type an abbreviation for the new approval status.
3. In the **Description** field, type a description for the new approval status.
4. If you wish, in the **Purpose** list, select if items with the status option are approved or on hold.

   No matter how many approval statuses you create, the only available purpose options are **Approved** and **Hold**.

   Approved means that drawings are ready for fabrication. The **Approved** purpose is used as the status link in the project schedule.

   whereas **Hold** means that the drawings are not ready for fabrication. Items with the **Hold** option can move through fabrication processes, but they will be highlighted in red, and warning pop ups will appear during processing updates. Any loads that contain items with the **Hold** purpose option cannot be shipped.
5. Click **Add**.

Modify an existing approval status

1. In the list, click the approval status that you want to modify.
2. Modify the approval status abbreviation, description, and purpose according to your needs.
3. Click **Edit** to save the changes.

Delete an approval status

Note that deleting an approval status is permanent and cannot be undone.

1. In the list, click the approval status that you want to delete.
2. Click **Delete**.

3. In the confirmation dialog box, click **Yes** to permanently delete the approval status.

1.5 Manage production control jobs

In **Job Maintenance**, you can manage existing production control jobs in different ways. You can copy, export, and delete combining jobs, and set up job groups.

To access the **Job Maintenance** dialog box, do the following.

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Production Control** --> **Job Maintenance** .
3. Select one of the available options:
   - **Delete Jobs**
   - **Copy Job**
   - **Export Jobs**
   - **Set Job Groups**

For more information, see the following links:

Delete production control jobs (page 32)

Copy a production control job (page 33)

Export production control jobs (page 33)

Set job groups for production control jobs (page 33)

Delete production control jobs

You can create any unnecessary production control jobs. Export jobs before deleting them to make the jobs available for future reference.

1. In the **Job Maintenance** dialog box, select the **Delete Jobs** option.
2. In the list, select the job that you want to delete.
3. Click **Delete**.
4. In the confirmation dialog box, click **Yes** to permanently delete the production job.

See also

Export production control jobs (page 33)

Manage production control jobs (page 32)

Copy a production control job

You can copy an existing job to use it as the base of a new similar job. Copying an existing job makes creating the new job quicker, as you do not have to set all properties manually or create items one by one.

1. In the **Job Maintenance** dialog box, select the **Copy Job** option.
2. In the list, select the job that you want to copy.
3. In the **New Job Number** field, type the desired first item number.
4. Click **Copy**.

Export production control jobs

Export jobs before deleting them to make the jobs available for future reference.

It is recommended to create backup files to recover deleted jobs if necessary. Users with administrator rights can recover deleted production control jobs. For more information, see .

1. In the **Job Maintenance** dialog box, select the **Export Jobs** option.
2. In the list, select the jobs that you want to export.
3. Click **Export**.
4. In the **Save As** dialog box, browse to the folder where you want to save the file.
5. Use the automatically generated name or type a new one.
6. Click **Save**.

The selected production control job is saved as a Tekla EPM-specific type of KISS file. The exported KISS files contain load and piece tracking information that KISS files do not normally contain.

See also

Manage production control jobs (page 32)

Set job groups for production control jobs

Job groups allow you to identify and sort projects that are similar. For example, you can create job groups for commercial or industrial work, or by year. Assigning job groups to jobs makes it easier to sort a long list of jobs.

1. In the **Job Maintenance** dialog box, select the **Set Job Groups** option.
2. In the list, select the jobs for which you want to create a job group.

To select multiple items, hold down **Ctrl**.

To select a range of subsequent items, hold down **Shift**.

3. In the first empty field after **New Group**, type a name for the new group.
4. Click **Set Group**.

   The group name appears in the **Group** column for the selected job.
5. If necessary, add a secondary job group by typing a secondary group name in the second empty field after **New Group**.
6. Click **Set Secondary Group**.

   The secondary group name appears after the primary group name in the **Group** column. The two groups are separated with a hyphen.

See also

Manage production control jobs (page 32)

1.6 Create, modify, and delete material finish options

In the **Finish Maintenance** dialog box, you can create, modify, or delete material finish options. You can also select the shipping routes used for each finish option.

To access the **Finish Maintenance** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Production Control** --> **Finish Maintenance** .

Create a new finish option

1. Click **New**.
2. Type an abbreviation and a description for the new finish option.
3. If necessary, click the arrow on the right side of the **Shipping Route** list and select the shipping route that you want to use for production control items with the new finish option.

   Setting a shipping route for the finish is optional.

   For more information on shipping routes, see Create, modify, and delete global shipping routes (page 37).
4. Click **Add**.

Modify an existing finish option

1. Click the finish option that you want to modify to select it.
2. Modify the abbreviation, description, and shipping route according to your needs.
3. Click **Save**.

The properties of the finish option are updated.

Delete a finish option

Note that deleting a finish option is permanent and cannot be undone.

1. Click the finish option that you want to delete.
2. Click **Delete**.
3. In the confirmation dialog box, click **Yes** to permanently delete the finish option.

1.7 Create, modify, and delete global production codes

In the **Global Production Code Maintenance** dialog box, you can create, modify, and delete production codes that are available in all production control and estimating jobs. Production codes group similar items in estimating or production control jobs, so that Tekla EPM calculates the labor times based on the production code. This means that using production codes allows you to plan production more accurately.

Note that you can only adjust production codes in the **Global Production Code Maintenance** dialog box, not labor times. Tekla EPM automatically calculates the labor times for the items that have been assigned a production code.

We recommend that you assign matching production codes to parts in both **Estimating** and **Production Control**. This way, you can view the planned and executed labor times in the project schedule.

To access the **Global Production Code Maintenance** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Production Control** --> **Global Production Code Maintenance** .

The **Global Production Code Maintenance** dialo box opens.

Create a production code

Note that you can only create production codes for the current estimating job in the **Production Codes** dialog box. Globally available production codes are created in **Global Production Code Maintenance**.

1. At the bottom of the dialog box, click **New**.
2. Name the production code and type a description.
3. Do any of the following:

To	Do this
Use the estimated labor times of items within the production code in **Production Control**	The man hours associated with the production codes are only used in **Production Control**. Production codes do not affect or apply labor to estimating items. The purpose of the man hours is to pull labor information from the estimate in the form of man hours per ton and labor percentages by labor group. • In the **Aggregate Units** list, select a calculation option.
Override the estimated labor time of items within the production code in **Production Control**	**NOTE** Manually overriding man hours applies an aggregate unit, man hours per ton, that can be applied to production control items. However, if the manual override is used, the labor information does not include labor group percentages. Therefore, the labor group percentages cannot be applied to any production control stations. Further, the information cannot be applied to tasks in the project schedule and to resources that feed information to the production schedule. Manually overriding man hours can also prevent you from comparing the linked production control job with the estimating job. a. Select the **Override Man Hours** check box. b. Type the labor time in the field on the right side of the check box. **TIP** To change the units, right-click in the field and select a suitable option in the context menu.

4. Click **Add**.

Modify a production code

1. Select the production code that you want to modify.
2. Modify the production code properties according to your needs.
3. Click **Save** to update the production code properties.

Delete a production code

1. Select the production code that you want to delete.
2. Click **Delete**.
3. In the confirmation dialog box, click **Yes** to permanently delete the production code.

1.8 Create, modify, and delete global shipping routes

In the **Shipping Route Maintenance** dialog box, you can create, modify, and delete shipping routes that are available for all production control jobs. Shipping routes can be used to send items within a job to multiple shipping destinations, including intermediate destinations, such as sending material to an external galvanizer. Items can only be shipped from their current location to the next assigned destination, not to the final destination. The initial location of all items is the shop location. If no shipping route is assigned for items, the items will be shipped from the shop to the jobsite. Items can either be returned to the shop and be added to another load with other material items, or shipped from the intermediate destination directly to the jobsite or next destination.

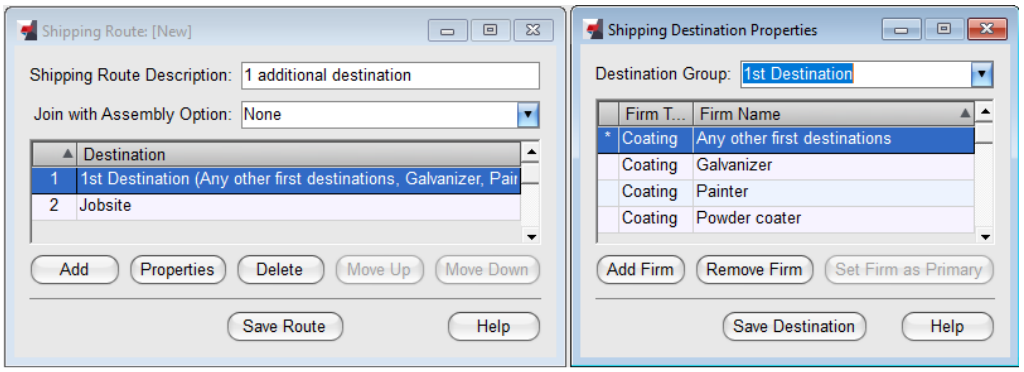
To access the **Shipping Route Maintenance** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Production Control** --> **Global Shipping Route Maintenance** .

The **Shipping Route Maintenance** dialog box opens, displaying all existing shipping routes that can be used in production control jobs.

Create a shipping route

1. Click **New**.
2. In the **Shipping Route** dialog box, type a description for the new shipping route.



3. In the **Join with Assembly Option** list, select if and when the weight of an accessory part is included in the shipping weight of the assembly.

   The options are:

   - **None**: The weight of the accessory is not included in the shipping weight of the assembly. If the **Jobsite** destination is in the shipping route, select the **None** option.
   - **Join with assembly for first destination**: The weight of the accessory is joined to the shipping weight of the assembly for all of its destinations except for the first one.
   - **Join with assembly for...**: The weight of the accessory is included in the shipping weight of the assembly for the destination that you select in the **Join with Assembly For** list and any other destinations after that one.
   - **Join with assembly after...**: The weight of the accessory is included in the shipping weight of the assembly for all destinations after the destination you select in the **Join With Assembly After** list.

4. To adjust the destinations in the shipping route, do any of the following:

To	Do this
Add a new destination	a. Click **Add**. b. In the **Destination Group** field, do one of the following: • To create a new destination group, type a description for it in the **Destination Group** field. • To modify an existing destination group, click the arrow on the right side of the **Destination Group** and select a destination group. Destination groups provide a list of available destinations and are often best used by containing all the similar destinations in a single group. If shipping tickets are required

To	Do this
	from a destination back to the shop, it is recommended not to use the shop as an additional group because that location is already assigned a function, and using the shop as a group may cause confusion. Note that you cannot modify the firms in the **Jobsite** destination group. c. Modify the firms in the destination group according to your needs: • To add a firm, click **Add Firm**, select the firm type and firm name, and click **OK**. You can only select firms that are already saved in the **Address Book**. • To remove a firm from the destination, click the firm, click **Remove Firm**, and click **Yes** to confirm deleting the firm. • To set a firm as the primary firm, click the firm, and click **Set Firm as Primary**. The primary firm will have the remaining totals reported against it in production statuses, production control reports, and project summary reports. However, parts assigned to the shipping route can be shipped for any of the firms that you have added. d. Click **Save Destination**.
Modify a destination	a. In the **Destination** list, click the destination that you want to modify. b. Click **Properties**. c. Modify the firms of the destination according to your needs. d. Click **Save Destination** to update the destination.
Remove a destination from the shipping route	a. In the **Destination** list, click the destination that you want to remove from the shipping route. b. Click **Delete**.

To	Do this
	c. In the confirmation dialog box, click **Yes** to remove the destination from the shipping route.

Note that the shipping route can have any number of destinations, or no destinations at all. If the **Jobsite** destination is present, it is always the last destination on the shipping route. The **Jobsite** destination is the **Ship To** address defined for each production control job in the **Production Control Job Edit** dialog box.

5. To change the order of destinations in the shipping route, do the following:
   a. Click the destination that you want to move to an earlier or later position on the shipping route.
   b. Click the **Move Up** and **Move Down** buttons according to your needs.

   Repeat steps a to b for all destinations that you want to move.
6. Click **Save Route**.

The new shipping route is now available in all production control jobs.

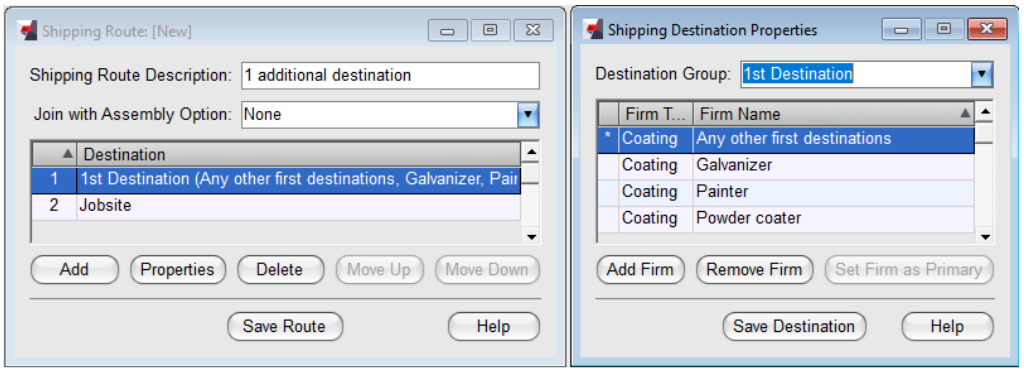
Copy a shipping route

Use the **Copy** command to create a new shipping route based on an existing one.

1. In the list, select the shipping route that you want to use as the basis of a new shipping route.
2. Click **Copy**.
3. In the **Shipping Route** dialog box, type a description for the new shipping route.
4. Modify the shipping route properties according to your needs.
5. Click **Save Route** to create the new shipping route.

Modify a shipping route

1. In the list, select the shipping route whose properties you want to modify.
2. Click **Properties**.



3. In the **Shipping Route** dialog box, modify the shipping route properties according to your needs.
4. Click **Save Route** to save the changes.

Delete a shipping route

Note that deleting a shipping route is permanent and cannot be undone.

1. In the list, select the shipping route that you want to delete.
2. Click **Delete**.
3. In the confirmation dialog box, click **Yes** to permanently delete the shipping route.

1.9 Add, modify, and delete top text items for shipping tickets

In the **Shipping Top Text Maintenance** dialog box, you can create standard memos or other text items that you can add at the top of shipping tickets.

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Production Control** --> **Shipping Top Text Maintenance** .

Create a top text item

1. At the bottom of the **Shipping Top Text Maintenance** dialog box, click **New**.
2. In the **Description** field, type a name for the top text item.
3. In the **Top Text** field, type the information to be added at the top of the shipping tickets.

4. Click **Add**.

Modify a top text item

1. In the **Shipping Top Text Maintenance** dialog box, select the top text item that you want to modify.
2. In the **Description** field, modify the item name according to your needs.
3. In the **Top Text** field, modify the top text according to your needs.
4. Click **Edit** to save the changes.

Delete a top text item

1. In the **Shipping Top Text Maintenance** dialog box, select the top text item that you want to delete.
2. Click **Delete**.
3. To permanently delete the top text item, click **Yes** in the confirmation dialog box.

1.10 Create, modify, and delete cut lists

Use the **Cut Lists** dialog box to create, modify, and delete cut lists for all existing production control jobs. You can also lock cut lists and create cut list reports in the **Cut Lists** dialog box.

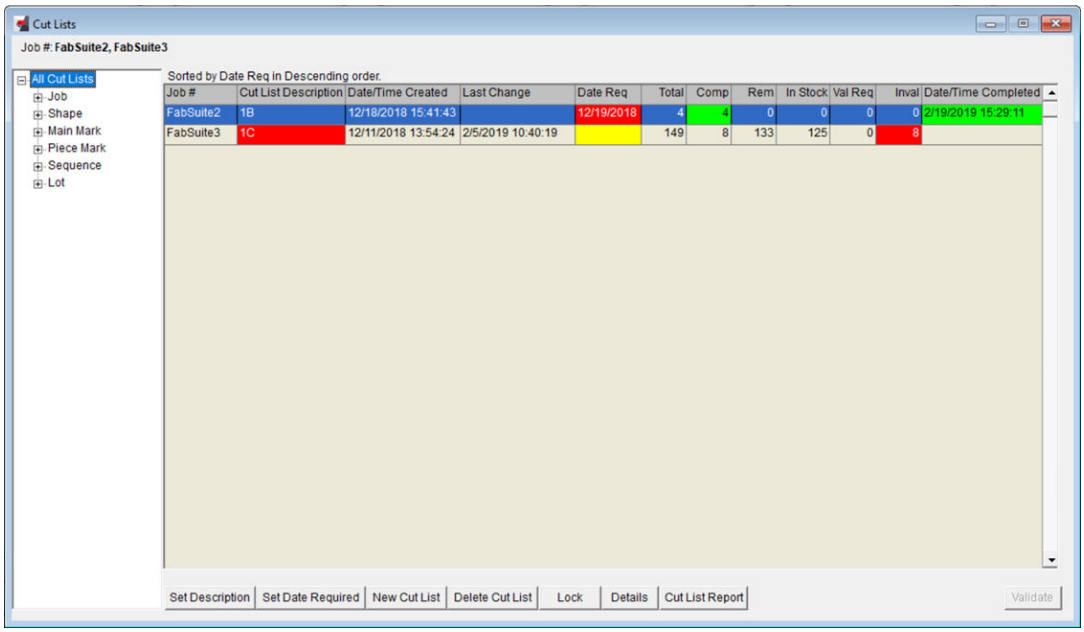
To access the **Cut Lists** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Production Control** --> **Cut Lists** .
3. In the **Select Production Control Jobs** dialog box, do either of the following:
   - Click the arrows on the right side of the **Job Group** lists and select the job groups whose cut lists you want to adjust.
   - Click the arrow buttons to move the jobs whose cut lists you want to adjust to the **Included** list.

     To select multiple items, hold down **Ctrl**.

     To select a range of subsequent items, hold down **Shift**.
4. Click **OK**.

The **Cut Lists** dialog box opens, displaying the cut lists related to the jobs that you selected.



The columns in cut lists can be highlighted with either green, yellow, or red:

- Status items highlighted in green are completed.
- Items highlighted with red or yellow need attention. For example, items highlighted in red can be past the assigned due date, whereas items highlighted with yellow may be missing information or need validation.

You can limit the visible cut lists by selecting a job, shape, main mark, piece mark, sequence, or lot by clicking options in the navigation tree on the left.

The combining result for which items have been purchased needs to be reviewed to verify that the saved cutting patterns are still valid. Items may need to be recombined. After recombining, the changes need to be saved to the current cut list.

Create a cut list

1. Click **New Cut List**.
2. In the **Enter Value** dialog box, click the arrow on the right side of the field, and select the production control job for which you want to create the cut list.

   The **Production Control Purchasing Report Filters** dialog box opens.

   When you are creating a new cut list, Tekla EPM by default filters the items in the new cut list so that only items that are not yet assigned to a cut list are included.
3. In the **Production Control Purchasing Report Filters** dialog box, click **Reset** to reset the default filter.

4. To limit the items included in the cut list, select a filter type in the **Type** list, and click **Select**.
5. In the **Filter** dialog box, click the arrow buttons to move the items that you want to include to the **Included** list.
6. Click **OK**.

   To further limit the items in the cut list, repeat steps 3 to 5 for all necessary filter types.
7. Click **Make Report**.
8. In the **Report Progress** dialog box, click **Save To Cut List**.

   The new cut list is saved.
9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

View the details of a cut list

1. Select the cut list whose details you want to view.
2. Click **Details**.

   The cut list details open in a new dialog box.
3. According to your needs, do any of the following:

To	Do this
View the details of a cut list item	a. Click the cut list item whose details you want to view. b. Click **Details**. c. When you have viewed the item details, click the **Close** button (**X**) to close the item details.
Cut a cut list item	a. Click the cut list item that you want to cut. b. Click **Cut**. c. Define properties for the used material. d. Define the drop properties. e. Click **TFS**. The item is taken from stock and cut according to the properties that you defined. The production control job is updated with the date/time stamp of the cut, and the **Status** column is highlighted with green.

To	Do this
Delete a cut list item	Note that deleting a cut list item is permanent and cannot be undone. a. Click the cut list item that you want to delete. b. Click **Delete**. c. In the confirmation dialog box, click **Yes** to permanently delete the cut list item.

Change the name or required date of a cut list

1. Select the cut list whose name or date you want to modify.
2. According to your needs, do any of the following:

To	Do this
Change the name of the cut list	a. Click **Set Description**. b. In the **Enter Value** dialog box, type a new name for the cut list. c. Click **OK**. The cut list name is updated to the **Cut List Description** column.
Change the required date of the cut list	a. Click **Set Date Required**. b. In the **Enter Value** dialog box, click the arrow on the right side of the field. c. Click a date in the calendar to use it as the new required date. d. Click **OK**. The required date is updated to the **Date Req** column.

Validate cut list items

When material changes occur, items in the **Val Req** column may be highlighted with yellow. This means that you need to verify that the items still work with the cutting details, or validate the cut list.

1. Double-click the cut list that contains items that need to be validated.
2. Select the items that you want to validate.
3. At the bottom of the dialog box, click **Validate**.

Tekla EPM validates the cut list.

If stock lengths no longer work with the combined parts, the items in the **Val Req** column are highlighted with red.

Re-validate cut list items

If the **Inval** column is highlighted with red, you need to re-validate cut list items.

Re-validating parts consists of uncombining the purchased materials and recombining them to correct the cutting details. Depending on the changes that have occurred, you may need to combine the items to a different or additional stock length of materials.

1. Double-click the cut list that contains items that need to be re-validated.
2. Select the items that you want to re-validate.
3. At the bottom of the dialog box, click **Re-Validate**.

Lock or unlock a cut list

- According to your needs, do one of the following:
  - To lock a cut list, click **Lock**.

    When a cut list is locked, its name in the **Cut List Description** column is highlighted with red.
  - To unlock a locked cut list, click **UnLock**.

Share a cut list

If you have enabled the steel project integration in the **Integration Settings** dialog box, you can share cut lists to the integrated software in a steel project.

1. Select the cut list that you want to share.
2. Click **Share**.

The cut list is shared to the integrated software.

If you want to stop sharing the cut list to the integrated software, click **UnShare**.

View, print, or export cut list reports

it would be good to note that if the user wants the prompt to be able to split the inventory items to quantity one they will need to select the change filters button.

1. Select the cut lists for which you want to create reports.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. Click **Cut List Report**.
3. In the **Report Progress** dialog box, click the report that you want to view or print.
4. If you wish to show instance numbers in the report, select the **Show Instance Numbers** check box.
5. According to your needs, do any of the following:

To	Do this
View the cut list report	• Click **View**. The selected reports opens in **Tekla EPM Report Viewer**.
Print the cut list report	a. Change the number of the printed copies by clicking the **+** and **-** buttons. b. Click **Print**. c. In the **Select Printer** dialog box, click a printer to select it. d. Click **OK**.

Delete a cut list

Deleting a cut list is permanent and cannot be undone.

1. In the list, click the cut list that you want to delete.
2. Click **Delete Cut List**.
3. In the confirmation dialog box, click **Yes** to permanently delete the cut list.

1.11 Add piece tracking and load tracking information and loads to production control jobs

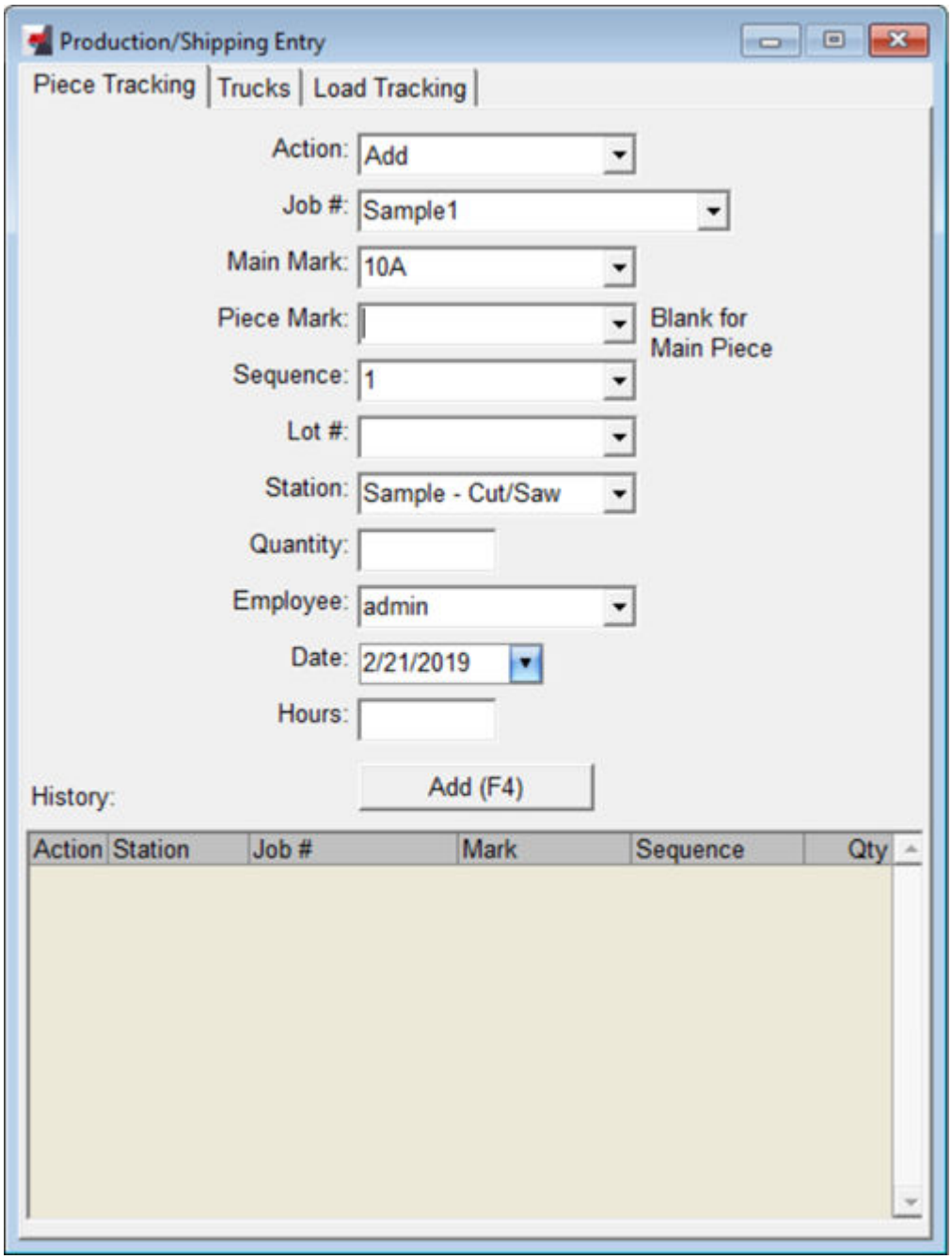
Use the **Production/Shipping Entry** dialog box to add information to any product control job in Tekla EPM. You can add piece tracking information and loads, ship and unship loads, and add piece marks to trucks.

Note that the **Production/Shipping Entry** dialog box only allows you to add one item at a time.

To open the **Production/Shipping Entry** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Production Control** --> **Production/Shipping Entry** .

   The **Production/Shipping Entry** dialog box opens on the **Piece Tracking** tab.



Add piece tracking information

1. In the **Action** list, click the action that you want to perform. You can add or delete items.
2. In the **Job #** list, click the production job for which you want to perform the action.

3. In the appropriate lists, select the main mark, piece mark, sequence, lot number, station, employee who is adding the information, and date.

   Note that the employee must be a Tekla EPM user.

4. In the **Quantity** field, enter the number of pieces being worked on.
5. In the **Hours** field, enter the man hours used for working on the item.
6. To perform the action, click **Add** or **Delete**.

The action is updated to the selected job. The action also appears in the **History** list at the bottom of the **Production/Shipping Entry** dialog box.

Add loads, ship loads, and unship loads

1. Click the **Trucks** tab to open it.
2. In the **Action** list, click the action that you want to perform.

   You can add or validate, ship, or unship trucks.

3. In the **Job #** list, click the production job for which you want to perform the action.
4. Select the load number, shipping date, and destination in the appropriate lists.
5. If necessary, click **View** to view the items assigned to the selected load.
6. If the load needs to be returned, select the **To Be Returned** check box.

   The load must be returned even if the materials will not be physically returned. Returning the loaded items allows the piece marks to be loaded onto a new shipping ticket that contains items delivered to the job site. This way, Tekla EPM can keep accurate records of when parts were received and shipped.

7. To perform the action, click **Add/Validate**, **Ship**, or **Un-Ship**.

   The action is updated to the selected production control job. The action also appears in the **History** list at the bottom of the **Production/Shipping Entry** dialog box.

8. If necessary, view the shipping ticket:
   a. Click **Shipping Ticket**.
   b. In the **Report Selection** dialog box, select the report that you want to view, print, or export.
   c. Do any of the following:

To	Do this
View the shipping ticket	• Click **View**.

To	Do this
Print the shipping ticket	1. Change the number of the printed copies by clicking the **+** and **-** buttons. 2. Click **Print**. 3. In the **Select Printer** dialog box, click a printer to select it. 4. Click **OK**.
Export the shipping ticket	1. Click **Export**. 2. In the **Export Format** list, select an export format. 3. Click **Browse**. 4. Browse to the location where you want to save the exported file, and click **Save**. 5. Modify the file name according to your needs. 6. If you want to attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** check box. 7. If you want to open the file after exporting it, select the **Open Exported Document** check box. 8. Click **Export**.

Add piece marks to trucks

1. Click the **Load Tracking** tab to open it.
2. In the **Action** list, click the action that you want to perform.

   You can add, delete, return, or unreturn items.
3. In the appropriate lists, select the main mark, piece mark, sequence, lot number, load number, and date.
4. If necessary, click **View** to view the items assigned to the selected load.
5. In the **Quantity** field, enter the number of pieces that are worked on.
6. Click **Add**, **Delete**, **Return**, or **Un-Return**.

   The action is updated to the selected production control job. The action also appears in the **History** list at the bottom of the **Production/Shipping Entry** dialog box.
7. If necessary, view the shipping ticket:
   a. Click **Shipping Ticket**.

b. In the **Report Selection** dialog box, select the report that you want to view, print, or export.

c. Do any of the following:

To	Do this
View the shipping ticket	• Click **View**.
Print the shipping ticket	1. Change the number of the printed copies by clicking the **+** and **-** buttons. 2. Click **Print**. 3. In the **Select Printer** dialog box, click a printer to select it. 4. Click **OK**.
Export the shipping ticket	1. Click **Export**. 2. In the **Export Format** list, select an export format. 3. Click **Browse**. 4. Browse to the location where you want to save the exported file, and click **Save**. 5. Modify the file name according to your needs. 6. If you want to attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** check box. 7. If you want to open the file after exporting it, select the **Open Exported Document** check box. 8. Click **Export**.

1.12 Review production statuses of jobs

Use the **Production Status** command to view the current production station of items in a single production control job or a group of jobs.

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Production Control** --> **Production Status** .
3. In the left-hand pane of the **Production Status Filters** dialog box, select check boxes next the summary fields to include the related properties as columns in the summary of the production statuses.

   Selecting summary field check boxes can make it easier to view the overall production progress of multiple jobs.

4. To only view the status of specific types of items, select a filter type in the **Type** list, and click **Select**.

   For example, to only view particular jobs, select **Job #** and click **Select**.

5. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the items that you want to view to the **Included** list.
   - Type the maximum and minimum values for the items that you want to view.

6. Click **OK**.

   To further limit the visible items, repeat steps 3 to 5 for all necessary filter types.

7. At the bottom of the **Production Status Filters** dialog box, select check boxes next to the information that you want to show in the production status summary.

   You can select to show the TFS status, weight, gross weight, assembly weight, or gross assembly weight.

8. Click **OK** to view the production statuses of selected items.

The **Production Status** dialog box opens, displaying a summary of the production statuses of items in the selected production control jobs.

If necessary, you can export the production status summary to Microsoft Excel to save the production status information. Right-click in the display are of the **Production Status** dialog box, and in the context menu, select **Export to Excel**.

1.13 Create global production control reports

Global production control reports contain information from multiple production control jobs. You can create either purchasing reports or production reports.

See also

View or print purchasing reports (page 53)

View, print, or export production reports (page 55)

View or print purchasing reports

Use the **Purchasing Reports** dialog box to create purchasing reports involving all production control jobs.

Create a purchasing report

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Production Control** --> **Purchasing Reports** .
3. In the **Select Production Control Jobs** dialog box, click the arrow buttons to move the production control jobs that you want to include in the reports to the **Included** list.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
4. Click **OK**.
5. To limit the items that are included in the reports, in the **Production Control Purchasing Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
6. In the **Filter** dialog box, do one of the following depending on the filter type:
   a. Click the arrow buttons to move the items whose heat documents you want to view to the **Included** list.
   b. Type the maximum and minimum values for the items whose heat documents you want to view.
7. Click **OK**.

   To further limit the items in the reports, repeat steps 5 to 7 for all necessary filter types.
8. Click the arrow on the right side of **Weight Type** field, and select the weight type that you want to use in the report.

   Note that the **Weight Type** list is only visible if you have selected it on the **Report Settings** tab of the **Company Standards** dialog box.

   The net weight option is only available if CNC files have been loaded for the items included in the report.
9. Click **Make Report**.
10. In the **Report Progress** dialog box, click the report that you want to view or print.

    To modify the visible reports, click the **Edit Report Types** button.

View the report

- Click **View**.

The report opens in **Tekla EPM Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla EPM Report Viewer** window to email the report via Microsoft Outlook.

Print the report

1. Change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. In the **Select Printer** dialog box, click a printer to select it.
4. Click **OK**.
5. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Save a cut list

1. Click **Save Cut List**.
2. In the **Job #** list, select the job.
3. In the **Cut List Description** field, either enter a description directly in the field, or click the arrow on the right side of the field to select an option in the list.
4. Click the arrow on the right side of the **Date Required** field, and click a date in the calendar to select it.
5. If you do not want anyone to make changes to the cut list, select the **Lock Cut List** check box.
6. Click **Save To Cut List**.

   Tekla EPM saves the cut list. You can view and modify the cut list in the selected production control job and in the Tekla EPM Go web application.
7. Click **OK** to close the **Message** dialog box.
8. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

View, print, or export production reports

Use the **Reports** command under **Maintenance** --> **Production Control** to create reports that include information from all or several production control jobs. The available reports include master shipping lists and station summaries.

To create production control reports, do the following:

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Production Control** --> **Reports** .
3. In the **Select Production Control Jobs** dialog box, click the arrow buttons to move the jobs that you want to include in the reports to the **Included** list..

4. Click **OK**.
5. To only include specific types of items in the reports, in the **Production Control Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
6. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the items that you want to include in the reports to the **Included** list.
   - Type the maximum and minimum values for the items that you want to include in the reports.
7. Click **OK**.
8. Click **Make Report**.
9. In the **Report Selection** dialog box, select the report that you want to view, print, or export.

You can modify the visible report types by clicking **Edit Report Types**.

View a report

- Click **View**.

The selected report opens in **Tekla EPM Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla EPM Report Viewer** window to email the report via Microsoft Outlook.

Print a production report

1. Change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. In the **Select Printer** dialog box, click a printer to select it.
4. Click **OK**.
5. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Export a production report

1. Click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.
4. Browse to the location where you want to save the exported file, and click **Save**.

5. Modify the file name according to your needs.
6. If you want to attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** check box.
7. If you want to open the file after exporting it, select the **Open Exported Document** check box.
8. Click **Export**.

2 Manage the fabrication process

The **Production Control** module handles the entire fabrication process: pulling the material from **Purchasing** and inventory cut lists, tracking the production in the shop, filing quality control reports, and shipping materials.

For more information, see the following links:

Use Trimble Connect with a production control job (page 197)
View, print, and export job-specific production control reports (page 195)
Send production control items to purchasing (page 100)
Export production control information (page 201)
Finalize the production control job (page 204)

2.1 Open the Production Control module

To open **Production Control**, do the following:

- At the top of the Tekla EPM window, click the **Production Control** button.

The **Select Production Control Job** dialog box opens. Next, you can create a new production control job, open or modify an existing job, or view and modify the documents attached to a job.

See also

Find a production control job (page 59)
Create a production control job (page 62)
Open and view a production control job (page 60)

Find a production control job

Use the **Find Job** command to find the desired production control job among various other jobs in the **Select Production Control Job** dialog box.

1. In the **Select Production Control Job** dialog box, click the **Production Control** ribbon tab.
2. In the **File** menu, select **Find Job**.
3. In the **Enter Value** dialog box, either click the arrow on the right side of the field to select a job in the list, or type the job number directly in the field.
4. Click **OK**.

Tekla EPM selects the job in the **Select Production Control Job** dialog box. You can now modify or open it.

See also

Open and view a production control job (page 60)

Modify a production control job (page 74)

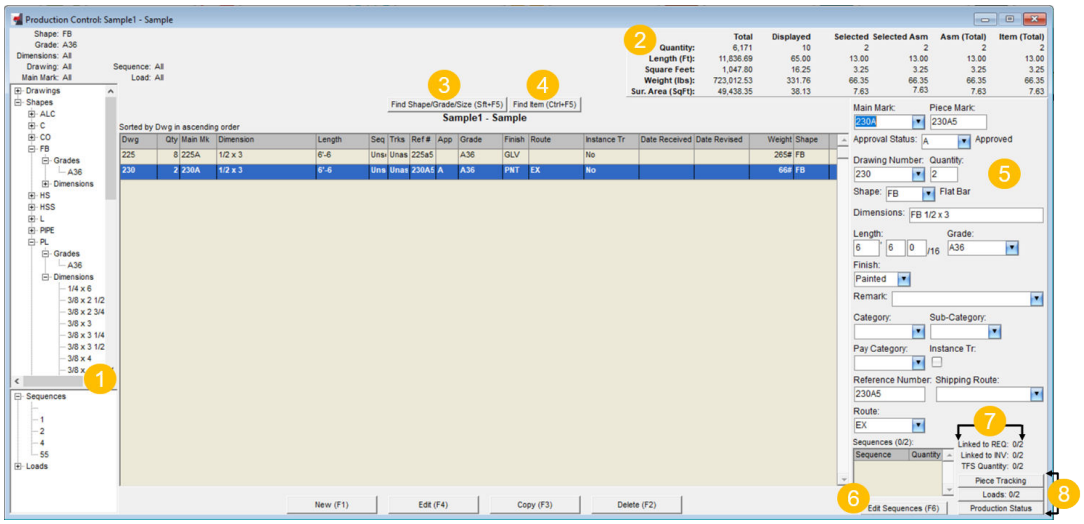
2.2 Open and view a production control job

To view or modify the items in an existing production control job, you need to open the job. Do the following:

1. In the **Select Production Control Job** dialog box, click the job that you want to open.
2. Double-click the job, or click **Open** at the bottom of the dialog box.

The **Production Control** dialog box opens.

View the components of the dialog box in the following image:



1. The navigation trees: allow you to view items by drawing number, shape, sequence, or load.

   Click a **+** to expand a category, and click a category to only display items of that category.

2. The summary grid: shows the quantity, length, area, and weight of the selected items, all items visible in the display area, and the entire job.

   The information in the summary grid changes according to the sequences, lots, and loads that are selected in the lower navigation tree.

3. The **Find Shape/Grade/Size** button: click the **Find Shape/Grade/Size** button to find items of a specific shape, material grade, or material dimension.
4. The **Find Item** button: click the **Find Item** button to find an item by main mark or piece mark.

5. The input section: allows you to modify the information of new or selected material items.
6. The **Edit Sequences** button: allows you to modify the sequences of the selected item.

   For more information, see Modify the sequences of an item (page 87).
7. Information grid: allows you to view the overall situation of the material item:
   - **Linked to REQ**: The number of pieces that are on a requisition and have not yet been combined or purchased.
   - **Linked to INV**: The number of pieces that have been combined in the production control job and are currently listed in a purchase order.
   - **TFS Quantity**: The number of pieces that have been taken from stock and are being worked in the shop.
8. **Piece Tracking**, **Loads**, and **Production Status** buttons: allow you to view and modify the station summary and the loading situation, and view the production status of the selected item.

   If multiple items are selected, only the information of the last selected item is shown.

   For more information, see Add piece tracking information (page 119), Create, modify, and delete loads (page 114), and Review the production statuses of items (page 130).

See also

Filter information in the Production Control dialog box (page 61)

Filter information in the Production Control dialog box

Use the **Filter** command to create filter settings that are commonly used in the **Production Control** dialog box. You can also save the filter settings for later use.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Filter**.
3. To filter the displayed items according to selected criteria, in the **Production Control Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, click the arrow buttons to move the items that you want to display to the **Included** list.
5. Click **OK**.

If you want to further filter the information displayed in the **Estimating** dialog box, repeat steps 3 to 5 for different items. Note that only items that match the items in the **Included** list will be available when setting more filters.

If you want to clear all filter settings, click **Reset**.

6. To save commonly used filters, do the following:
   a. Click **Filter Types** in the lower-left corner.
   b. Click **New**.
   c. Type a description for the filter type.
   d. Create the filter settings.

      For more information, see steps 3 to 5.
   e. Click **Add**.
   f. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

      The newly created filter type is selected in the **Filter Types** list.
   g. To apply the filter type, click **Set**.
7. According to your needs, do one of the following:
   - To use the filter, click **Apply Filter**.
   - To use the filter in the job and save it until a new filter is set or the filter is cleared, click **Apply Filter & Save**.

     Note that the filter will remain in use even if you close and re-open the job. After you clear the filters, the filter settings cannot be used again.

The **Filters** dialog box closes, and the **Production Control** dialog box is filtered according to the settings you made.

To display all information in the **Production Control** dialog box again, click **Clear Filters** at the upper-left corner.

2.3 Create a production control job

To create a new production control job, do the following:

1. At the bottom of the **Select Production Control Job** dialog box, click **Add**.
2. On the **General** tab of the **Production Control Job Edit** dialog box, type the job number.

   Note that the job number cannot be changed later. All other production job information can be modified later, if necessary.

3. On the **General** tab, adjust the following properties according to your needs:

Option	Description
Job Date	The date your company received the job. Tekla EPM automatically uses the current date. If necessary, change the date by clicking the arrow on the right side of the **Job Date** field and selecting a date in the calendar.
Shipping Date	The estimated shipping date of the job. Click the arrow on the right side of the **Shipping Date** field, and select a date in the calendar.
Job Description	The description of the job. Type a description in the **Job Description** field.
Job Location	The city or town of the production control job. Type the appropriate location in the **Job Location** field.
Job Group	The first and second job groups that the current production control job belongs to. Click the arrow on the right side of **Job Group** fields and select existing job groups in the list, or type new job groups directly in the blank fields.
Comment	Comments on the job. The comments will be visible in production control reports. Type comments in the **Comment** field.
Shipping Comment	Comments on the shipping of the job. For example, you can add information on shipping restrictions.
Project Management Job	The project management job that is linked to the production control job. Selecting an project management job allows you to import useful information from the selected project management job. The related project management job needs to be linked to the production control job in order to access the drawings in the **Production Control** module. You can also load general information from the project management job to the production control job. Tekla EPM will fill the related fields on the **General** tab with information from the selected project management job, and load the addresses

Option	Description
	from the first company tab in the project management job on the **Sold To/Ship To** tab. To load information from a project management job, do the following: a. Click the arrow on the right side of **Project Management Job** field, and select the project management job in the list. b. Click **Load Info** on the right side of the **Project Management Job** field. c. At the bottom of the dialog box, click **Save**. d. To further modify the properties of the production control job, click the production control job to select it, and click **Edit**.
Estimate	The estimating job that is linked to the production control job. Selecting an estimating job allows you to apply the labor from the estimating job to the production control job. Click the arrow on the right side of **Estimate** field, and select the estimating job in the list. You can also load general information from the estimating job the production control job. Tekla EPM will fill the related fields on the **General** tab with information from the selected estimating job. To load information from an estimating job, do the following: a. Click **Load Info** on the right side of the **Estimate** field. b. At the bottom of the dialog box, click **Save**. c. To further modify the properties of the production control job, click the production control job to select it, and click **Edit**.

4. On the **Sold To/Ship To** tab, modify the client details:

   Note that only companies and contacts that have already been saved in the **Address Book** as **Client** can be selected.

   a. Click the arrow on the right side of **Sold To** field, and select the buyer in the list.

   b. Click the arrow on the right side of **Ship To** field, and select the receiver in the list.

   The contact information is automatically added to the blank fields, but you can still modify the details according to your needs.

5. On the **Input Settings** tab, adjust the input settings used in the job.

   For more information on the available input settings, see Define company standard settings for Production Control (page 8).

6. Click the buttons at the bottom of the **Production Control Job Edit** dialog box to adjust the combining optimizations, suppliers, input and display units, pay categories, and shipping routes used for the current job.

   For more information on the available settings, see the following links:

   -
   - Define suppliers for Production Control (page 18)
   - Define input and display units for Production Control (page 16)
   - Define pay categories for Production Control (page 21)
   - Create, modify, and delete global shipping routes (page 37)

7. Click **Save** to create the job.

The **Production Control Job Edit** dialog box closes. The production control job is added to the list in the **Select Production Control Job** dialog box.

Link a production control job to an estimating job and a project management job

By linking a production control job to an estimating job and a project management job, you can compare the estimated and actual working hours and material information.

1. At the top of the Tekla EPM window, click the **Production Control** button.
2. In the **Select Production Control Job** dialog box, select the production control job that you want to link to a project management job.
3. Click **Edit**.
4. In the **Production Control Job Edit** dialog box, click the arrow on the right side of the **Project Management Job** list and select the desired project management job.

   The project name and job number do not need to match.

5. Click **Save**.
6. Re-open the **Production Control Job Edit** dialog box.
7. Click the arrow on the right side of the **Estimate** list and select the desired estimating job in the list.

   The job numbers do not need to match.

8. Click **Save**.

See also

Link a production control job to an estimating job and a project management job (page 65)

2.4 Store document references for a production control job

Document Index is where you can store documents for reference. When you store documents in **Document Index**, each user who has access to the production control job can view them, so it is easy to keep up-to-date on the production control job. You can save heat documents, mill certifications, and pricing quotes, as well as Microsoft Outlook emails, in **Document Index**.

To access **Document Index**, do the following:

1. In the **Select Production Control Job** dialog box, click to select the job whose document references you want to view or modify.
2. Click **Document Index**, or press **F8**.

The **Document Index** dialog box opens. Next, you can either modify the available folders for document references, or add, modify, delete, open, and email document reference files.

For more information, see the following links:

Manage document reference categories (page 66)

Add document references for estimating jobs (page 68)

Open a document reference (page 72)

Modify a document reference (page 72)

Attach a document reference to an email (page 73)

Delete a document reference (page 73)

Manage document reference categories

Use the **Edit Categories** command in **Document Index** to manage the categories that you can use to organize document references. You can add new categories, rename categories, and delete unnecessary categories. You can also change the default folder where document references are saved.

1. At the bottom of the **Document Index - By Category** dialog box, click **Edit Categories**.
2. In the **Document Index - Edit Categories** dialog box, do any of the following:

To	Do this
Add a new category	a. In the navigation tree at the top of the dialog box, select the parent category for the new category. b. Click **Add**. c. Type a name for the new category. For example, `Miscellaneous documents`. d. Click **OK**. The new category is added to the list.
Rename a category	a. In the navigation tree at the top of the dialog box, select the category that you want to rename. b. Type a new name for the category. c. Click **OK**. The category name is updated.
Delete a category	a. In the navigation tree at the top of the dialog box, select the category that you want to delete. b. Click **Delete**. Note that you cannot delete a category that has sub-categories. c. To permanently delete the category, click **Yes** in the confirmation dialog box.
Change the default folder where documents are saved	When documents are added in **Document Index**, the selected document can be either moved or copied to the selected folder. This way, Tekla EPM retains all documents that have been saved to **Document Index**, even if the original documents are moved or deleted. The default folder for saving documents needs to be in the Tekla EPM default folders, so that all users can view the attached documents. Files saved elsewhere than the default location cannot be viewed by other Tekla EPM users. a. Click **Default Dir**. b. Do one of the following: • Select the folder that you want to use as the default folder.

To	Do this
	• Click **Make New Folder** to add a new folder under the currently selected one, and click it to use it as the default folder. c. Click **OK**.

3. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Add document references for estimating jobs

You can either upload completely new document references, such as documents, Microsoft Outlook emails, and Microsoft Outlook email attachments to **Document Index**, or add documents already loaded to **Document Index** for the current job.

Add new documents

1. In the navigation tree of the **Document Index - By Category** dialog box, select the category where you want to save the document.
2. Click **Add Document Reference**.

   If you are viewing the document references of multiple modules and have not selected a module-specific category in the navigation tree, Tekla EPM asks you for which module you want to save the file.
3. Select the desired module.
4. In the **Document Index - Add Document Reference** dialog box, click **Add File**.

   You can also drag and drop files to the **Document Index - Add Document Reference** dialog box. If you do so, skip steps 5 and 6.
5. In the **Open** dialog box, browse to find the document that you want to add, and select the document.
6. Click **Open**.

   If you want to add more documents with the same settings, click **Add Additional File** and repeat steps 4 to 6 for each document.
7. In the **Add File** dialog box, select the company and contact that provided you with the document in the **File Source** lists.

   You can also drag and drop files to the **Add File** dialog box.
8. According to your needs, do one of the following:
   - To compress multiple documents into one archive, select the **Compress Files into a Single Archive** option.

- To leave the documents that you added uncompressed, select the **Leave Files Uncompressed** option.

9. If you want to change the folder where the document is saved, click **Browse** and select a new folder.
10. According to your needs, do one of the following:
    - To move the original document to the selected folder, select the **Move File** option.
    - To copy the document to the selected folder but leave the original untouched, select the **Copy File (Leave Original)** option.
11. Type a description for the attached document.
12. Click **Add File**.
13. Type a description for the entire document reference.

    This description applies to all documents, emails, and email attachments that you add.
14. When you have added all necessary documents, emails and email attachments, click **Add Document Reference**.

The **Document Index - Add Document Reference** closes, and the documents are added to **Document Index**. You can see all added documents in the list in the **Document Index - By Category** dialog box.

Add a Microsoft Outlook email

1. In Microsoft Outlook, select the email that you want to add.
2. In the navigation tree of the **Document Index - By Category** dialog box, select the category where you want to save the email.
3. Click **Add Document Reference**.
4. In the **Document Index - Add Document Reference** dialog box, click **Add Outlook Email**.

   A copy of the email is added to **Document Index**.

   The text of the email is added to the **Description** field.
5. Click **Add File**.
6. Type a description for the entire document reference.

   This description applies to all documents, emails, and email attachments that you add.

7. When you have added all necessary documents, emails and email attachments, click **Add Document Reference**.

The **Document Index - Add Document Reference** closes, and the emails are added to **Document Index**.

Add an attachment from a Microsoft Outlook email

1. In Microsoft Outlook, select the email with the attachment that you want to add.
2. In the navigation tree of the **Document Index - By Category** dialog box, select the category where you want to save the attachment.
3. Click **Add Document Reference**.
4. In the **Document Index - Add Document Reference** dialog box, click **Add Outlook Attachments**.
5. Browse to the folder where you want to save the email attachment, and click the folder to select it.
6. Click **Open**.
7. In the **Add File** dialog box, select the company and contact that provided you with the email attachment in the **File Source** lists.
8. According to your needs, do one of the following:
   - To compress multiple email attachments into one archive, select the **Compress Files into a Single Archive** option.
   - To leave the email attachments you added uncompressed, select the **Leave Files Uncompressed** option.
9. Type a description for the email attachment.
10. Click **Add File**.
11. Type a description for the entire document reference.

    This description applies to all documents, emails, and email attachments that you add.
12. When you have added all necessary documents, emails and email attachments, click **Add Document Reference**.

The **Document Index - Add Document Reference** closes, and the email attachments are added to **Document Index**.

Search for and add a document already in Document Index

To find and add documents for the current job that are already saved in **Document Index**, use the **Search** command.

1. In the navigation tree of the **Document Index - By Category** dialog box, select the category where you want to save the document.

2. Click **Add Document Reference**.
3. In the **Document Index - Add Document Reference** dialog box, click **Search**.
4. In the **Search** dialog box, click **Browse** and select the folder where you want to look for documents.

   TIP To also search from the sub-folders of the selected folder, select the **Sub-Directories** check box.

5. To narrow the search, do one or more of the following:
   - Type the document name, document size, and file name extension.
   - In **File Date**, select the dates between which the document has been created or downloaded onto your computer.
   - In **Date Loaded**, select the dates between which the document has been added to **Document Index**.
   - In the **Source** lists, select the contact and company that have provided the document.
6. To include archived documents in the search, select the **Include All Archive Files** check box.
7. Click **Search**.

   The search results appear at the top of the **Search** dialog box.
8. In the search results, double-click the document that you want to add.

The document is added to **Document Index** for the current job.

Browse for and add a document already in Document Index

To browse to and add documents to the current job that are already saved in **Document Index**, use the **Find By Directory** command. You can also add new documents, delete existing documents, rename documents and categories, move documents to other folders, and open documents.

1. In the navigation tree of the **Document Index - By Category** dialog box, select the category where you want to save the document.
2. Click **Add Document Reference**.
3. In the **Document Index - Add Document Reference** dialog box, click **Find By Directory**.

4. In the navigation tree on the left of the **Document Index - By Directory** dialog box, select a category.

   If you want to rename the selected category, you can click **Rename Directory**, type a new name, and click **OK**.

   The documents within the category are listed in the display area of the dialog box.

5. Select a document.
6. In the lower-right corner, click **Select**.

   Note that besides adding an existing document to the current job, you can also use the buttons at the bottom of the dialog box to:

   - Add new documents (**Add File**).
   - Delete a document (**Delete File**).
   - Move a document to another folder within the document index folder (**Move File**).
   - Rename a document (**Rename File**).
   - Open a document (**Open File**).

The document is added to **Document Index** for the current job.

Open a document reference

Use the **Open File** command to open and view a document reference.

1. In the **Document Index - By Category**, select the document that you want to open.
2. Click **Open File**.

The selected document opens.

See also

Add document references for estimating jobs (page 68)

Modify a document reference (page 72)

Attach a document reference to an email (page 73)

Delete a document reference (page 73)

Modify a document reference

Use the **Edit Document Reference** command to modify the source and description of a document in **Document Index**.

1. In the **Document Index - By Category** dialog box, select the document that you want to modify.

2. Click **Edit Document Reference**.
3. In the **Document Reference Details** dialog box, click **Filename**.
4. In the **File Details** dialog box, modify the file source and description according to your needs.
5. Click **Save**.
6. To close the **File Details** dialog box, click the **Close** button (**X**) in the upper-right corner.
7. Modify the description according to your needs.

   Entering a description in the **Document Reference Details** dialog box will override the description that you entered in the **File Details** dialog box. This description will then appear in the **Description** column in the **Document Index - By Category** dialog box.
8. Click **Save**.
9. To close the **Document Reference Details** dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Add document references for estimating jobs (page 68)

Open a document reference (page 72)

Delete a document reference (page 73)

Attach a document reference to an email

Use the **Email File** command to create a new Microsoft Outlook email and send a document to the desired recipients via email.

1. In the **Document Index - By Category** dialog box, select the document that you want to send via email.
2. Click **Email File**.

   Microsoft Outlook opens. A new email with the selected document is created, with the selected document attached to it.
3. Add recipients and modify the text of the email.
4. Send the email.

See also

Add document references for estimating jobs (page 68)

Open a document reference (page 72)

Delete a document reference

Deleting a document reference from **Document Index** is permanent and cannot be undone. If you delete a document reference, you or any other Tekla EPM users will not be able to access the document reference or any documents, emails, or attachments that it contains, from **Document Index**.

1. In the **Document Index - By Category** dialog box, select the document reference that you want to delete.
2. Click **Delete Document Reference**.
3. To permanently delete the document reference, click **Yes** in the confirmation dialog box.

See also

Add document references for estimating jobs (page 68)

Modify a document reference (page 72)

Open a document reference (page 72)

2.5 Modify a production control job

Use the **Edit** command in the **Select Production Control Job** dialog box to modify the properties of a production control job. You can also adjust the combining optimizations, suppliers, input and display units, pay categories, and shipping routes that are used for the job.

1. In the **Select Production Control Job** dialog box, click the job that you want to modify.
2. At the bottom of the dialog box, click **Edit**.
3. In the **Production Control Job Edit** dialog box, modify the production control job settings according to your needs.

   The available properties are:

Option	Description
Job Date	The date your company received the job. Tekla EPM automatically uses the current date. If necessary, change the date by clicking the arrow on the right side of the **Job Date** field and selecting a date in the calendar.
Shipping Date	The estimated shipping date of the job. Click the arrow on the right side of the **Shipping Date** field, and select a date in the calendar.

Option	Description
Job Description	The description of the job. Type a description in the **Job Description** field.
Job Location	The city or town of the production control job. Type the appropriate location in the **Job Location** field.
Job Group	The first and second job groups that the current production control job belongs to. Click the arrow on the right side of **Job Group** fields and select existing job groups in the list, or type new job groups directly in the blank fields.
Comment	Comments on the job. The comments will be visible in production control reports. Type comments in the **Comment** field.
Shipping Comment	Comments on the shipping of the job. For example, you can add information on shipping restrictions.
Project Management Job	The project management job that is linked to the production control job. Selecting an project management job allows you to import useful information from the selected project management job. The related project management job needs to be linked to the production control job in order to access the drawings in the **Production Control** module. You can also load general information from the project management job to the production control job. Tekla EPM will fill the related fields on the **General** tab with information from the selected project management job, and load the addresses from the first company tab in the project management job on the **Sold To/Ship To** tab. To load information from a project management job, do the following: a. Click the arrow on the right side of **Project Management Job** field, and select the project management job in the list. b. Click **Load Info** on the right side of the **Project Management Job** field. c. At the bottom of the dialog box, click **Save**.

Option	Description
	d. To further modify the properties of the production control job, click the production control job to select it, and click **Edit**.
Estimate	The estimating job that is linked to the production control job. Selecting an estimating job allows you to apply the labor from the estimating job to the production control job. Click the arrow on the right side of **Estimate** field, and select the estimating job in the list. You can also load general information from the estimating job the production control job. Tekla EPM will fill the related fields on the **General** tab with information from the selected estimating job. To load information from an estimating job, do the following: a. Click **Load Info** on the right side of the **Estimate** field. b. At the bottom of the dialog box, click **Save**. c. To further modify the properties of the production control job, click the production control job to select it, and click **Edit**.

4. On the **Sold To/Ship To** tab, modify the client details:

   Note that only companies and contacts that have already been saved in the **Address Book** as **Client** can be selected.

   a. Click the arrow on the right side of **Sold To** field, and select the buyer in the list.

   b. Click the arrow on the right side of **Ship To** field, and select the receiver in the list.

   The contact information is automatically added to the fields, but you can still modify the details according to your needs.

5. On the **Input Settings** tab, adjust the input settings used in the job.

   For more information on the available input settings, see Define company standard settings for Production Control (page 8).

6. Click the buttons at the bottom of the **Production Control Job Edit** dialog box to adjust the combining optimizations, suppliers, input and display units, pay categories, and shipping routes used for the current job.

   For more information on the available settings, see the following links:

   - Define combining optimizations for Production Control (page 17)
   - Define suppliers for Production Control (page 18)

- Define input and display units for Production Control (page 16)
- Define pay categories for Production Control (page 21)
- Create, modify, and delete global shipping routes (page 37)

7. Click **Save** to update the job properties.

2.6 Manage production control items

You can manage production control items in many ways. add new production control items, modify existing production control items, copy material items from one drawing to another, take production control items from stock, combine items, or send items to a purchase order or a requisition.

For more information, see the following links:

Add a production control item (page 77)

Modify production control items (page 82)

Copy materials from one drawing to another (page 89)

Take production control items from stock (page 106)

Combine material items in the Production Control module (page 90)

Send production control items to purchasing (page 100)

Add a production control item

To add an item to a production control job, do the following:

1. At the bottom of the **Production Control** dialog box, click **New**.
2. Define the item properties.

   NOTE The input fields and their order depend on the settings that you have made in **Production Control Maintenance**.

   The properties marked with an asterisk (*) in the following table are mandatory information.

Option	Description
Main Mark *	The main mark of the item. The main mark is the number of the main member to which accessory items can be attached.

Option	Description
	If an item has an identical main mark and piece marks, Tekla EPM considers the item a main member. Either click the arrow on the right side of the **Main Mark** field and select an existing main mark in the list, or type the name of the new main mark in the field.
Piece Mark *	The piece mark of the item. Piece marks are used for the accessory items that are attached to a main member. Type the name of the piece mark in the **Piece Mark** field.
Approval Status	The approval status of the item. The available approval statuses are set in the **Approval Status** dialog box that you can access via **Maintenance** --> **Production Control** --> **Approval Status Maintenance** - Click the arrow on the right side of the **Approval Status** field, and select an approval status in the list.
Drawing Number	A property that is used as the drawing number and the drawing name. You can use the main mark as the drawing number. Either click the arrow on the right side of the **Drawing Number** field and select an existing drawing number in the list, or type a new drawing number in the field.
Quantity *	The number of pieces to be added. Type the number of pieces in the **Quantity** field.
Shape *	The material shape of each piece.
Dimensions *	The material dimension, or material size, of each piece. Click the **Dimensions** field to select an available material dimension, and double-click the desired dimension in the list.

Option	Description
	TIP You can also use a custom material dimension. Note that the dimension is not automatically added to the material database. To use a custom dimension, do the following: a. Click in the **Dimensions** field. b. Click **Add Size**. c. Define the dimension properties. d. Click **Save**. You can now select the dimension and use it.
Grade *	The material grade of each piece. The default grade of the selected shape is set in the **Shape / Grade / Size Maintenance** dialog box. Click the arrow on the right side of the **Grade** field and select a material grade in the list.
Length	The length of each piece. Type the length in the **Length** fields.
Finish	The finish type of the item. The default options are **Painted**, **Unpainted**, and **Galvanized**. Click the arrow on the right side of the **Finish** field and select a material finish in the list.
Route	The item route defines the stations that the item goes through in the fabrication process. The available route options are set in the **Routes** dialog box. Click the arrow on the right side of the **Route** field and select a route in the list.

Option	Description
Remark	Any comments that you want to add about the item. Type any comments in the **Remark** field.
Category, **Sub-Category**	A class used for sorting items in a production control job. You can filter the information in the **Production Control** dialog box by category or sub-category. For example, you can create categories based on the shop where the item is created. The available categories and sub-categories are set in the **Company Categories** and **Company Sub-Categories** dialog boxes. For more information, see Define categories and sub-categories for Production Control (page 19). Click the arrow on the right side of the **Category** or **Sub-Category** field and select an existing category, or type a new category in the field.
Pay Category	The pay category assigned to the item. Pay categories can be used to assign unit costs to fabricated items per pound. The available pay categories are set in the **Pay Categories** dialog box that you can access via the **Company Standards** dialog box.
Piece Tracking	When selected, an accessory piece within an item can be tracked by piece mark. Main marks, or assemblies, are tracked by default. For more information on piece tracking, see Add piece tracking information (page 119).
Shipping Route	The shipping route assigned to the item. Shipping routes can be used to send items within a job to multiple shipping destinations, including intermediate destinations, such as

Option	Description
	sending material to an external galvanizer. The available shipping routes are set in **Shipping Route Maintenance**. For more information, see Create, modify, and delete global shipping routes (page 37). Click the arrow on the right side of the **Shipping Route** field and select a shipping route in the list.
Load Tracking	When selected, an accessory item can be tracked by load and are viewed in shipping reports. Main marks, or assemblies, are tracked by default. For more information on load tracking, see Create, modify, and delete loads (page 114).
Prod. Code	The production code applied to the item. Production codes group items so that you can apply man hour per ton and per labor group percentages to items in the linked production control job. The production code can be used to color-code or filter items in Trimble Connect. For more information, see . Production codes group similar items together within jobs. Click the arrow on the right side of the **Prod. Code** field and select a production code in the list.
Instance Tr	When selected, instance tracking can be used for the item. This allows you to see more details about the item. Selecting the **Instance Tr** check box may be useful in, for example, nuclear jobs.
Reference Number	A reference number that links items in inventory or purchasing to the production control job. The reference number can be different depending on the case:

Option	Description
	• If an item is sent from **Production Control** to **Purchasing** or **Inventory**, Tekla EPM creates a copy of the record, and the item is linked to include the reference number. • If an item is sent to purchasing from an advanced bill of material, the system mark number or a combination of the page number and the item number in the combining job (for example, 1-30) becomes the reference number. • If the item is sent to purchasing later in the process, the reference number is the mark or piece mark number. However, if the reference number has been assigned in the production control job, that reference number is maintained in the inventory as well. Type the reference number in the **Reference Number** field.

3. Click **Add**.

The new item is added to the list in the **Production Control** dialog box.

See also

Modify production control items (page 82)

Modify production control items

You can modify the properties of production control items either one by one or as a group.

For more information, see the following links:

Modify a single production control item (page 83)

Modify multiple production control items (page 83)

Modify the shape, grade, dimension, or length of production control items (page 84)

Modify selected production control items (page 85)

Modify the shape, grade, dimension, or length of the selected production control items (page 85)

Adjust sequences (page 86)

Modify a single production control item

You can modify a single production control item directly in the **Production Control** dialog box.

1. In the **Production Control** dialog box, select the item that you want to modify.
2. On the right side of the dialog box, modify the item properties.

   For example, change the quantity, enable load tracking, or select a new shipping route. For more information on the available properties, see Add a production control item (page 77).
3. Click **Edit** to save the changes.

See also

Modify multiple production control items (page 83)

Modify the shape, grade, dimension, or length of production control items (page 84)

Modify selected production control items (page 85)

Modify the shape, grade, dimension, or length of the selected production control items (page 85)

Adjust sequences (page 86)

Modify multiple production control items

Use the **Global Edit** command to modify the properties of multiple production control items at one go.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Modify Data** --> **Global Edit** .
3. To only modify specific types of items, in the **Production Control Global Edit Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the items that you want to modify to the **Included** list.
   - Type the maximum and minimum values for the items that you want to modify.
5. Click **OK**.

6. In the **Global Edit** dialog box, select check boxes next to the properties that you want to update.

   You can also use the **Un-check All** and **Check Changed Fields** buttons to quickly clear or select check boxes.

7. Modify any properties in the **Global Edit** dialog box according to your needs.

   For example, you can change the category of the items by selecting an option in the **Category** list, or type a comment for the items.

8. Click **OK** to update the properties of the selected production control items.

See also

Modify the shape, grade, dimension, or length of production control items (page 84)

Modify selected production control items (page 85)

Modify the shape, grade, dimension, or length of production control items

Use the **Global Edit By Shape** command to modify the shape, grade, dimension, or length of the displayed or filtered items in the **Production Control** dialog box.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Modify Data** --> **Global Edit By Shape** .
3. In the **Shape** list at the top of the **Production Control Global Edit Filters** dialog box, select the shape to be modified.
4. If you only want to modify specific types of items within the shape, select a filter type in the **Type** list, and click **Select**.
5. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the values of items that you want to modify to the **Included** list.
   - Type the maximum and minimum values for the items that you want to modify.
6. Click **OK**.
7. In the **Global Edit** dialog box, select check boxes next to the properties that you want to update.

   You can also use the **Un-check All** and **Check Changed Fields** buttons to quickly clear or select check boxes.

8. Modify any properties in the **Global Edit** dialog box according to your needs.

   For example, you can change the category of the items by selecting an option in the **Category** list, or type a comment for the items.

9. Click **OK**.

See also

Modify the shape, grade, dimension, or length of the selected production control items (page 85)

Modify selected production control items

Use the **Global Edit Selected** command to modify the properties of the selected production control items.

1. In the **Production Control** dialog box, click the items that you want to modify to select them.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. Click the **Production Control** ribbon tab.
3. In the menu, select **Modify Data** --> **Global Edit Selected** .
4. In the **Global Edit** dialog box, select check boxes next to the properties that you want to update.

   You can also use the **Un-check All** and **Check Changed Fields** buttons to quickly clear or select check boxes.

5. Modify any properties in the **Global Edit** dialog box according to your needs.

   For example, you can change the category of the items by selecting an option in the **Category** list, or type a comment for the items.

6. Click **OK** to update the properties of the selected production control items.

See also

Modify multiple production control items (page 83)

Modify the shape, grade, dimension, or length of the selected production control items (page 85)

Modify the shape, grade, dimension, or length of the selected production control items

Use the **Global Edit Selected By Shape** command to modify the material shape, grade, dimensions, or length of the items selected in the **Production Control** dialog box.

1. In the **Production Control** dialog box, use the upper navigation tree to only display items of a specific shape.
2. Click the items that you want to modify to select them.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
3. Click the **Production Control** ribbon tab.
4. In the menu, select **Modify Data** --> **Global Edit Selected By Shape** .
5. In the **Global Edit** dialog box, select check boxes next to the properties that you want to update.

   You can also use the **Un-check All** and **Check Changed Fields** buttons to quickly clear or select check boxes.
6. Modify any properties in the **Global Edit** dialog box according to your needs.

   For example, you can change the category of the items by selecting an option in the **Category** list, or type a comment for the items.
7. Click **OK** to update the properties of the selected items of the specific shape.

See also

Modify multiple production control items (page 83)

Modify the shape, grade, dimension, or length of production control items (page 84)

Modify selected production control items (page 85)

Adjust sequences

Using sequences and lots is a useful way to group, control, filter, and report on items. Sequences and lots are also the most commonly used breakdown items in project schedules. In **Production Control**, you can add items to different sequences, and modify or update the sequences of items. You can also filter the information in the **Production Control** dialog box by sequence.

For more information, see the following links:

Set and update sequences (page 87)

Modify the sequences of an item (page 87)

Remove all items from a sequence (page 88)

Add multiple items to a sequence (page 88)

Remove multiple items from sequences (page 89)

Set and update sequences

Use the **Set Sequences** command to set and update the sequences of main mark items in a production control job. Note that you should set sequences before combining materials for purchase.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Modify Data** --> **Set Sequences** .
3. In the **Set Sequences** dialog box, click the arrow buttons to move the items that you want to add to the same sequence to the right side of the dialog box.
4. If you only want to add a specific number of pieces to the sequence, select the item on the right side of the dialog box and type a new value in the **Quantity to Update** field.
5. Select the **Update Sequence** check box and type the new sequence number in the **New Sequence** field.
6. If you want to update the lot number as well, select the **Update Lot #** check box and type the new lot number in the **New Lot #** field.
7. Click **Update Sequences**.
8. In the confirmation dialog box, click **Yes** to confirm setting the sequences.

   The sequences are set.

   Repeat steps 3 to 8 for all items whose sequences you want to set.
9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Modify the sequences of an item

Use the **Edit Sequences** command to add individual material items to a sequence or remove some or all pieces of a material from a sequence.

1. In the **Production Control** dialog box, select the main member item whose sequences you want to modify.
2. In the lower-right corner of the dialog box, click **Edit Sequences**.
3. In the **Sequences** dialog box, do one of the following according to your needs:

To	Do this
Add the item to a sequence	a. In the **Sequence Items** section of the dialog box, do one of the following:

To	Do this
	• To add the item to an existing sequence, click the arrow on the right side of the **Sequence** field and select a sequence in the list. • To add the item to a new sequence, type the number of the new sequence in **Sequence** field. b. In the **Quantity** field, type the number of pieces that you want to add to the sequence. c. Click **Sequence**.
Remove the item from a sequence	a. In the **Unsequence Items** section of the dialog box, type the number of pieces to remove from the sequence in the **Quantity** field. b. Click **Unsequence**. c. In the confirmation dialog box, click **Yes** to remove the pieces from the sequence.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Remove all items from a sequence

Use the **Unsequence All** command to remove all pieces of a material item from a sequence.

1. In the **Production Control** dialog box, select an item that has been assigned to the sequence.
2. At the lower-right corner of the dialog box, click **Edit Sequences**.
3. In the **Sequences** dialog box, click **Unsequence All**.
4. In the confirmation dialog box, click **Yes** to remove all the sequenced items from the sequence.

See also

Remove multiple items from sequences (page 89)

Add multiple items to a sequence

Use the **Sequence All Selected** to add mulitple selected production control items to a sequence. Note that you can only use the **Sequence All Selected** command if the items have not yet been added to another sequence.

1. In the **Production Control** dialog box, select the items that you want to add to a sequence.
2. Click the **Production Control** ribbon tab.
3. In the **File** menu, select **Modify Data** --> **Sequence All Selected** .
4. In the **Sequence All** dialog box, do one of the following:
   - To add the items to an existing sequence, click the arrow on the right side of the **Sequence** field, and select a sequence in the list.
   - To add the items to a new sequence, type a new sequence number in the **Sequence** field.
5. Click **Sequence All**.

The items are added to the selected sequence.

See also

Remove all items from a sequence (page 88)

Remove multiple items from sequences (page 89)

Remove multiple items from sequences

Use the **Unsequence All Selected** command to quickly remove the selected production control items from sequences. Once the items have been removed from the original sequences, you can add them to new sequences according to your needs.

1. In the **Production Control** dialog box, select the items that you want to remove from sequences.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Production Control** ribbon tab.
3. In the menu, select **Modify Data** --> **Unsequence All Selected** .
4. In the confirmation dialog box, click **Yes** to unsequence the selected items.

See also

Set and update sequences (page 87)

Remove all items from a sequence (page 88)

Copy materials from one drawing to another

Use the **Copy Drawing** command to copy materials from one drawing into a new drawing.

1. In the **Production Control** dialog box, click the item whose drawing you want to copy.
2. Click the **Production Control** ribbon tab.
3. In the menu, select **Modify Data** --> **Copy Drawing** .
4. In the **Copy Drawing** dialog box, type a number for the new drawing.
5. Click **OK**.
6. Review the new mark numbers and modify them according to your needs:
   a. In the list, click a mark that you want to correct.
   b. Modify the new mark number according to your needs.

   Repeat steps a to b for all mark numbers that you want to adjust.
7. Click **Copy**.

The **Copy Drawing** dialog box closes. The items in the original drawing are copied to the new drawing.

Combine material items in the Production Control module

Use the **Combine** command to mult and nest materials in the **Production Control** dialog box. You can then save and review the combining results.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Combine**.

   The **Select Combining Run** dialog box opens. When you are performing the first combining run for a combining job, the list in the dialog box is empty.
3. Click a desired combining option to select it.

   The options are:

   - **Mult**: combines linear items, like beams and angles.
   - **Nest**: combines items that have area, like plates or gratings.
   - **Mult & Nest**: combines all items.

   The **Combining Run Filters** dialog box opens.

NOTE Filtering items is optional, so you can skip steps 4 to 7 if you do not want to filter out items from the combining run.

---

4. To only combine specific types of items, select a filter type in the **Type** list, and click **Select**.
5. In the **Filter** dialog box, do one of the following depending on the filter type:
   a. Click the arrow buttons to move the items that you want to combine to the **Included** list.
   b. Type the maximum and minimum values for the items that you want to combine.
6. Click **OK**.

   Repeat steps 4 to 5 for each filter type that you want to set.
7. To ensure that you are using the correct settings, click the **Optimizations**, **INV Filter**, and **Suppliers** buttons.

   If necessary, you can modify the settings.
8. To be able to save the results of the combining run, ensure that the **Use PDC/PO Links** check box is selected.
9. To combine the materials, click the button at the bottom of the **Combining Run Filters** dialog box, or press **F4**.

- Piece mark items included with the selected stock lengths are displayed at the lower-left section of the dialog box.
- Combining results are shown in both the display area and in the summary grid at the lower-right section of the dialog box.
- The material cost represents the pricing of the materials in the pricing database that was used in the combining run.

TIP You can save the combining run results in multiple ways:

- To save the entire combining run for comparing it with another one, click **Save Combining Run** at the bottom of the **Combining Run Results** dialog box.
- To save particular results, use the navigation tree on the left to only view necessary results,and click **Save Displayed Results & Close** at the bottom of the **Combining Run Results** dialog box.
- To save selected results, click the results that you want to save and click the **Combining Run** ribbon tab. Then, select **Save Selected Results**,

---

See also

Rename a combining run (page 92)

Compare combining runs (page 99)

View combining run filter settings (page 92)

Modify run-specific pricing information (page 92)
Recombine all items (page 96)
Recombine items of a shape (page 97)
Recombine items of a material grade (page 98)
Recombine a material dimension (page 98)
Update combining information and recombine all items (page 99)

Rename a combining run

When you save a combining run, Tekla EPM automatically uses the date/time stamp as the combining run name. You can also rename the combining run. Renaming the combining run makes it easier to identify a specific combining run when you want to compare combining runs.

1. In the **Combining Run Results** dialog box, click the **Run Description** button.
2. In the **Enter Value** dialog box, type a new name for the combining run.
3. Click **OK**.

The name is updated. You can see the combining run name in the **Run Description** button at the bottom of the **Combining Run Results** dialog box.

View combining run filter settings

You can view which filter settings are used in the current combining run. Note that you cannot modify the filter settings of the combining run.

1. In the **Combining Run Results** dialog box, click the **Combining Run** ribbon tab.
2. In the menu, select **View Filters**.
3. In the **Combining Run Filters** dialog box, do one or more of the following:
   - To view the optimization settings used for the combining run, click **Optimizations**.
   - To view the combining run inventory filter setting used for the combining run, click **INV Filter**.
   - To view the supplier settings used for the combining run, click **Suppliers**.
4. When you have viewed the settings, click the **Close** button (**X**) in the upper-right corner of the dialog box.

   The **Combining Run Filters** dialog box closes.

Modify run-specific pricing information

After performing the first combining run, you can modify length options that are only used in that specific combining job. For example, L 3 x 3 x ¼ materials have 40'0 and 20'0 lengths. If you only want to combine the 20'0 lengths, you need to delete the 40'0 lengths from **Run-Specific Pricing Maintenance**. Any changes that you make will override the values in the global pricing database, but only for the current combining run.

You can also modify a group of items in the combining run at one go. For more information, see Modify a group of items in run-specific pricing maintenance (page 95).

1. In the **Combining Run Results** dialog box, click the **Combining Run** ribbon tab.
2. In the menu, select **Run-Specific Pricing Maintenance**.
3. In the **Pricing Maintenance** dialog box, do any of the following according to your needs:

To	Do this
Add material shapes, grades and dimensions	a. At the bottom of the dialog box, click **Add**. b. In the **Shape** list, select the shape. c. Click the **Dimensions** field and select the dimensions that you want to add. d. In the **Grade** list, select the grades that you want to add. e. Click **Save**. The shape, its dimensions, and grades are added to the navigation tree.
Modify existing material shapes, grades, and dimensions	a. In the navigation tree, click the material dimension that you want to modify. b. At the lower-left corner of the dialog box, click **Edit**. c. In the **Shape** list, select the shape. d. Click the **Dimensions** field, and select the new dimensions in the dialog box that appears. e. In the **Grade** list, select the new grades. f. Click **Save**. The shape, its dimensions, and grades are updated to the navigation tree.
Add lengths or sizes	a. In the navigation tree, click the material dimension for which you want to add lengths. b. Click **New** under the **Normal Price** field.

To	Do this
	c. Type the length and price. d. Click **Add**. The length is added to the list of lengths.
Modify or delete lengths	a. In the navigation tree, click the material dimension that you want to modify or delete. b. In the list of lengths, select a length. c. Do one of the following: • To modify the length, type a new length and price, and click **Edit**. • To permanently delete the length, click **Delete**, and in the confirmation dialog box, click **Yes**.
Change the pricing of a length	a. In the navigation tree, select the material dimension whose pricing you want too change. b. In the list on the right side of the dialog box, select a length. c. Do any of the following: • To modify the special price, type a new value in the **Special Price** field, and click **Save**. • To modify the normal price, type a new value in the **Normal Price** field, and click **Edit**. You can also adjust the quantity and lengths of the material. To change the quantity to unlimited, type an asterisk (*) in the **Quantity** field. Click **Edit** to save the changes. The pricing of the length is updated.
Delete unnecessary material dimensions	a. In the navigation tree, select the material dimension that you want to delete. b. At the bottom of the dialog box, click **Delete**. c. In the confirmation dialog box, click **Yes** to confirm deleting the dimension.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

The changes are saved for the current combining run. Now, you need to recombine the materials to update the combining results.

See also

Recombine all items (page 96)

Recombine items of a shape (page 97)

Recombine items of a material grade (page 98)

Recombine a material dimension (page 98)

Update combining information and recombine all items (page 99)

Modify a group of items in run-specific pricing maintenance

You can modify the properties of a group of items while you are in the **Pricing Maintenance** dialog box. For example, you can only make certain lengths available for combining by using the **Set Lengths** option. Any changes that you make will override the values in the global pricing database, but only for the current combining run.

For information on how to access the **Pricing Maintenance** dialog box, see Modify run-specific pricing information (page 92).

1. In the **Pricing Maintenance** dialog box, click the **Pricing** ribbon tab.
2. In the menu, select **Global Edit**.
3. In the **Shape** list at the top of the **Pricing Global Edit** dialog box, select the shape whose grades and dimensions you want to modify.

   The grades and dimensions of the shape appear in the dialog box.
4. In the **Grades** section, click the arrow buttons to move the grades that you want to modify to the **Included** list.
5. In the **Dimensions** section, click the arrow buttons to move the dimensions that you want to modify to the **Included** list.
6. In the lower-right corner, select an option.

   The options are:

   - **Increase By Percentage**: Increases the prices of the selected items by a specific percentage.
   - **Decrease By Percentage**: Decreases the prices of the selected items by a specific percentage.
   - **Increase By Amount**: Increases the prices of the selected items by a certain sum.
   - **Decrease By Amount**: Decreases the prices of the selected items by a certain sum.
   - **Set Amount**: Sets the prices of the selected items to a specific sum.
   - **Set Quantity**: Allows Tekla EPM to only use a specific number of the selected lengths.

- **Set Lengths**: Allows you to add lengths for the selected items either one by one or as a range.
- **Set Lengths (No Price)**: Allows you to add lengths for the selected items either one by one or as a range. No pricing information is added.

New fields appear at the bottom of the dialog box.

7. Modify the values in the fields according to your needs.
8. Click **Save**.
9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

The changes are saved for all selected material grades and dimensions. Now, you need to recombine the materials

Example: Change combining lengths of angles

In this example, we will modify all angles so that the only available length for combining is 20 inches.

1. In the **Shape** list at the top of the **Pricing Global Edit** dialog box, select **L**.
2. Click the double arrow buttons to move all grades and dimensions to the **Included** list.
3. Select the **Set Lengths** option button.
4. Click **New**.
5. Leave the **Quantity** field blank to allow Tekla EPM to use an unlimited quantity of the length.
6. **Length** field, enter `20'0"`.
7. In the **Normal Price** field, enter a price.

   For example, set the price to `$25,50/CWT`.
8. Click **Add**.
9. Click **Save**

Now, the only angle length available in recombining is 20'0".

See also

Recombine all items (page 96)

Recombine items of a shape (page 97)

Recombine items of a material grade (page 98)

Recombine a material dimension (page 98)

Update combining information and recombine all items (page 99)

Recombine all items

If the combining results need to be changed to fit specific material applications, such as different material lengths or plate sizes, you need to recombine items. The **Recombine All** command recombines all items in the previous combining run.

1. In the **Combining Run Results** dialog box, click the **Combining Run** ribbon tab.
2. In the menu, select **Recombine All**.
3. In the first confirmation dialog box, click **Yes** to recombine all items.
4. In the second confirmation dialog box, click **Yes** to save the previous combining run or **No** to recombine materials without saving the combining run.

   By saving the previous combining run, you can compare the differences between the previous combining run and the new one.

Tekla EPM performs the combining run and reloads the information that you selected. The materials recombine to the lengths changed in **Run-Specific Pricing Maintenance**.

Recombine items of a shape

To recombine materials after adding new items, use the **Recombine Shape** command in the **Combining Run Results** dialog box.

1. In the **Combined** navigation tree, click the **+** sign to show available material shapes.
2. Click the material shape to which you have added items.

   Only the items of the selected shape are shown.
3. Click the items that you want to recombine to select them.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
4. Click the **Combining Run** ribbon tab.
5. In the menu, select **Recombine Shape**.
6. In the first confirmation dialog box, click **Yes** to recombine the selected shape.
7. In the second confirmation dialog box, click **Yes** to save the previous combining run or **No** to recombine materials without saving the combining run.

   By saving the previous combining run, you can compare the differences between the previous combining run and the new one.

Tekla EPM recombines the selected items.

Recombine items of a material grade

To recombine materials after changes have been made to material grades, use the **Recombine Grade** command in the **Combining Run Results** dialog box.

1. In the **Combined** navigation tree, click the **+** sign under a material shape to show available material grades.
2. Click a material grade to select it.

   Only the selected material grade is shown.
3. Click the items that you want to recombine to select them.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
4. Click the **Combining Run** ribbon tab.
5. In the menu, select **Recombine Grade**.
6. In the first confirmation dialog box, click **Yes** to recombine the selected grade.
7. In the second confirmation dialog box, click **Yes** to save the previous combining run or **No** to recombine materials without saving the combining run.

   By saving the previous combining run, you can compare the differences between the previous combining run and the new one.

Tekla EPM recombines the selected items.

Recombine a material dimension

When changes have been made to a material dimension in the combining material list, use the **Recombine Size** command to recombine the dimension. Note that you need to have the **Combining Run Results** dialog box open.

1. In the **Combined** navigation tree, click the **+** sign, and select a material dimension.

   Only the selected material dimension is shown.
2. Click the **Combining Run** ribbon tab.
3. In the menu, select **Recombine Size**.

   A confirmation dialog box appears, asking if you want to recombine the selected dimension.
4. In the first confirmation dialog box, click **Yes** to recombine the selected dimension.

5. In the second confirmation dialog box, click **Yes** to save the previous combining run or **No** to recombine materials without saving the combining run.

   By saving the previous combining run, you can compare the differences between the previous combining run and the new one.

Tekla EPM recombines the selected material dimension.

Update combining information and recombine all items

When new materials have been added, or material pricing has changed, use the **Reload Information & Recombine All** command. Tekla EPM will then update the material and pricing information and perform a new combining run.

Note that all run-specific information will be lost if you use the **Reload Information & Recombine All** command.

1. In the **Combining Run Results** dialog box, click the **Combining Run** ribbon tab.
2. In the menu, select **Reload Information & Recombine All**.

   A confirmation dialog box appears, asking if you want to recombine all items.
3. In the first confirmation dialog box, click **Yes** to confirm recombining all items.
4. In the second confirmation dialog box, click **Yes** to save the previous combining run or **No** to recombine materials without saving the combining run.

   By saving the previous combining run, you can compare the differences between the previous combining run and the new one.
5. In the third confirmation dialog box, click **Yes** to reload and update the items to be recombined, or **No** to not reload and update the items.
6. In the fourth confirmation dialog box, click **Yes** to reload and update the pricing information, or **No** to keep the current pricing information.

Tekla EPM performs the combining run and reloads the information that you selected.

Compare combining runs

You can view and compare the changes that were made from one combining run to another. This is useful for comparing drops for the use of different stock lengths or pricing differences between two vendors.

Note that you must have saved a previous combining run to compare it with the current combining run.

1. In the **Combining Run Results** dialog box, click the **Combining Run** ribbon tab.
2. In the menu, select **Compare With a Previously Saved Run**.
3. In the **Select Combining Run** dialog box, click a previously saved combining run in the list to select it.
4. Click **Compare**.

   The **Combining Run Compare** dialog box opens, displaying the information of both combining runs. Any differences are marked with an asterisk (*).
5. In the navigation tree in the left-hand pane, click a material size to select it.
6. View the differences for the size in the different combining runs.
7. To close the comparison view, click the **Close** button (**X**) in the upper-right corner of the **Combining Run Compare** dialog box.

Send production control items to purchasing

Use the **Purchasing** commands to send production control items to the **Purchasing** module. You can send material items into requisitions or purchase orders, link materials to requisitions or purchase orders, take materials from stock in order to charge them to a job, create reports, and finalize the production control job.

For more information, see the following links:

Load all production control items into a requisition (page 101)

Load all production control items into a purchase order (page 101)

Load the selected production control items into a requisition (page 103)

Load the selected production control items into a purchase order (page 102)

Link materials in Production Control to Purchasing (page 103)

Unlink materials between Production Control and Purchasing (page 104)

Verify material links between Production Control and Purchasing (page 105)

Check purchase orders for received materials (page 105)

Take production control items from stock (page 106)

Finalize the production control job (page 204)

Load all production control items into a purchase order

Use the **Load Material Into Purchase Order** command to load all materials in a production control job into a purchase order.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Purchasing** --> **Load Material Into Purchase Order** .
3. In the **Select Purchase Order** dialog box, select a purchase order and click **OK**.

   If necessary, you can also create a new purchase order and load the items into it.
4. In the **Purchasing Import Filters**, do one of the following:

To	Do this
Load all items	• Click **Import**.
Filter out items that you do not want to load	a. On the left side of the dialog box, select a filter type in the **Type** list, and click **Select**. b. Click **Select**. c. Click the arrow buttons to move the items that you want to load to the requisition to the **Included** list. The items on the **Not Included** side will not be sent to purchasing. d. Repeat the process for different filter types until you have filtered out all unnecessary items. e. Click **Import**.

5. Click **OK** to close the **Import Items** dialog box. the **Production Control** dialog box.

Materials are loaded into the selected purchase order. To view and use the purchase order, go to the **Purchasing** module and open the **Purchase Orders** tab.

See also

Load the selected production control items into a purchase order (page 102)

Load all production control items into a requisition

Use the **Load Material Into Requisition** command to load all material items in a production control job into a requisition.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Purchasing** --> **Load Material Into Requisition** .
3. In the **Select Requisition** dialog box, select a requisition and click **OK**.

   If necessary, you can also create a new requisition and load the items into it.
4. In the **Purchasing Import Filters**, do one of the following:

To	Do this
Load all items	• Click **Import**.
Filter out items that you do not want to load	a. On the left side of the dialog box, select a filter type in the **Type** list, and click **Select**. b. Click **Select**. c. Click the arrow buttons to move the items that you want to load to the requisition to the **Included** list. The items on the **Not Included** side will not be sent to purchasing. d. Repeat the process for different filter types until you have filtered out all unnecessary items. e. Click **Import**.

5. Click **OK** to close the **Import Items** dialog box. the **Production Control** dialog box.

Materials are sent to the selected requisition. To view and use the requisition, open the **Purchasing** module and go to the **Requisitions** tab.

See also

Load the selected production control items into a requisition (page 103)

Load the selected production control items into a purchase order

Use the **Load Selected Material Into Purchase Order** command to select the material items in a production control job that you want to load into a purchase order.

1. In the **Production Control** dialog box, select the items that you want to load.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. In the menu, select **Purchasing** --> **Load Selected Material Into Purchase Order** .

3. In the **Select Purchase Order** dialog box, select a purchase order and click **OK**.

   If necessary, you can also create a new purchase order and load the items into it.

4. Click **OK** to close the **Import Items** dialog box. the **Production Control** dialog box.

Materials are loaded into the selected purchase order. To view and use the purchase order, go to the **Purchasing** module and open the **Purchase Orders** tab.

Load the selected production control items into a requisition

Use the **Load Selected Material Into Requisition** command to select the materials in a production control job that you want to load into a requisition.

1. In the **Production Control** dialog box, select the items that you want to load.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. Click the **Production Control** ribbon tab.
3. In the menu, select **Purchasing** --> **Load Selected Material Into Requisition** .
4. In the **Select Requisition** dialog box, select a requisition and click **OK**.

   If necessary, you can also create a new requisition and load the items into it.

5. If you only want to send the items in specific sequences or lots into the requisition, in the **Purchasing Import Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
6. In the **Filter** dialog box, click the arrow buttons to move the sequences and lots whose items you want to load into the requisition to the **Included** list.
7. Click **OK** to close the **Import Items** dialog box. the **Production Control** dialog box.

Materials are sent to the selected requisition. To view and use the requisition, open the **Purchasing** module and go to the **Requisitions** tab.

See also

Load all production control items into a requisition (page 101)

Link materials in Production Control to Purchasing

Use the **Link Job** command to link materials in **Production Control** to pre-purchased advanced bill materials. Tekla EPM uses reference numbers to match the materials across modules. Any unlinked materials, such as loose pieces, will be loaded into a requisition or a purchase order to be purchased.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Purchasing** --> **Link Job** .
3. To limit which materials are linked, in the **Link Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   a. Click the arrow buttons to move the items whose heat documents you want to view to the **Included** list.
   b. Type the maximum and minimum values for the items whose heat documents you want to view.
5. Click **OK**.
6. If necessary, select the **If updating a cut list item, exclude from being cut** check box.

   By selecting the check box, you can ensure that Tekla EPM does not invalidate the entire cut list when an item in the cut list is updated. Updated items will be saved in the inventory to be processed later.
7. Click **Link**.
8. In the **Link Items** dialog box, click if you want to load material information to a requisition or a purchase order.
9. Click the desired requisition or purchase order.
10. Click **OK** to load the materials.
11. Click **OK** to close the **Link Items** dialog box.

See also

Unlink materials between Production Control and Purchasing (page 104)

Verify material links between Production Control and Purchasing (page 105)

Unlink materials between Production Control and Purchasing

Use the **Un-Link Job** command to unlink materials between **Production Control** and **Purchasing** when you need to manually manage the materials.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Purchasing** --> **Un-Link Job** .

3. To only unlink specific types of materials, in the **Un-Link Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
    a. Click the arrow buttons to move the items whose heat documents you want to view to the **Included** list.
    b. Type the maximum and minimum values for the items whose heat documents you want to view.
5. Click **OK**.
6. Click **Un-Link**.
7. In the **Un-Link Items** dialog box, review the un-linking results.
8. Click **OK** to close the dialog box.

See also

Link materials in Production Control to Purchasing (page 103)

Verify material links between Production Control and Purchasing

Use the **Verify Links** command to verify that all material in **Production Control** is currently linked to purchasing. Using the **Verify Links** command is a quick way to verify that the material links between **Production Control**, **Requisitions**, and **Inventory** are maintained. For example, using this command can be useful when importing revised drawings.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Purchasing** --> **Verify Links** .
3. In the **Verify Links** dialog box, verify that all material is linked.
4. Click **OK** to close the dialog box.

See also

Link materials in Production Control to Purchasing (page 103)

Unlink materials between Production Control and Purchasing (page 104)

Check purchase orders for received materials

Use the **Check Material For TFS** and **Check Selected Material For TFS** commands to check purchase orders for received materials that will be used for production control items.

Check purchase orders for all materials

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Purchasing** --> **TFS** --> **Check Material For TFS** .
3. To only take specific materials from stock, in the **TFS Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the values that you want to take from stock to the **Included** list.
   - Type the maximum and minimum values for the items that you want to take from stock.
5. Click **OK**.
6. Click **TFS**.
7. In the **TFS** dialog box, review the information and do any of the following:
   - Click **Close** to close the dialog box.
   - Click **Reports** and view or print TFS reports according to your needs.

     For more information on viewing and printing reports, see View, print, and export job-specific production control reports (page 195).

Check purchase orders for selected materials

1. In the **Production Control** dialog box, click the items whose availability you want to check.
2. Click the **Production Control** ribbon tab.
3. In the menu, select **Purchasing** --> **TFS** --> **Check Selected Material For TFS** .
4. In the **TFS Filters** dialog box, click **TFS**.
5. In the **TFS** dialog box, review the information and do one of the following:
   - Click **Close** to close the dialog box.
   - Click **Reports** and view or print TFS reports according to your needs.

     For more information on viewing and printing reports, see View, print, and export job-specific production control reports (page 195).

Take production control items from stock

Use the **TFS** and **TFS - Selected** commands to take purchased material items from the inventory and charge the purchased items to the current production control job.

If you only want to take one item from stock, see Take a single cut list item from stock (page 108).

Take all items from stock

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Purchasing** --> **TFS** --> **TFS** .
3. To only take specific types of items from stock, in the **TFS Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the values that you want to take from stock to the **Included** list.
   - Type the maximum and minimum values for the items that you want to take from stock.
5. Click **OK**.
6. Click **TFS**.
7. In the **Enter Value** dialog box, click the arrow on the right side of the field, and select a date in the calendar.
8. Click **OK** to check which items are linked and which items are actually available to be taken from stock.
9. To confirm taking all of the remaining items from stock, click **Yes** in the confirmation dialog box.
10. In the **TFS** dialog box, review the information and do one of the following:
    a. To close the dialog box, click **Close**.
    b. To view or print TFS reports, click **Reports**. For more information on viewing and printing reports, see View, print, and export job-specific production control reports (page 195).

Take the selected items from stock

Use the **TFS - Selected** command to only take selected items from stock in a production control job. The purchased items will be taken from the inventory, and the cost of the selected items will be charged to the current production control job.

1. In the **Production Control** dialog box, click the items that you want to take from stock to select them.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Production Control** ribbon tab.

3. In the menu, select **Purchasing** --> **TFS** --> **TFS - Selected** .
4. To select the sequence and lot of the items that you want to take from stock, in the **TFS Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
5. In the **Filter** dialog box, click the arrow buttons to move the sequences or lots whose items you want to take from stock to the **Included** list.
6. Click **OK**.
7. In the **TFS Filters** dialog box, click **TFS**.
8. In the **Enter Value** dialog box, click the arrow on the right side of the field, and select a date in the calendar.
9. Click **OK** to take the material from stock.
10. If you have selected multiple items, click **Yes** in the confirmation dialog box to take the items from stock.
11. In the **TFS** dialog box, review the information and do one of the following:
    a. To close the dialog box, click **Close**.
    b. To view or print TFS reports, click **Reports**. For more information on viewing and printing reports, see View, print, and export job-specific production control reports (page 195).

Take a single cut list item from stock

Use the **TFS Entry** command to take a single cut list item from stock. Tekla EPM will then process the cut list item and charge the purchased materials to the job. Note that the necessary materials need to be received in the purchase order before you can take them from stock.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **TFS Entry**.
3. To select the items that you want to view in the **Production Control TFS** dialog box, click the arrows on the right side of the available fields, and select the desired options in the lists.

   If necessary, you can view and select all serial numbers of cut lists by selecting the **Include Filtered Cut Lists** check box.
4. Click the arrow on the right side of the **Cut List Serial #** list, and select the desired cut list.

   If any changes are made to the cut list, its serial number will no longer be valid.
5. To view the materials that match your criteria, click **Get Details**.

   All items in the cut list are processed.
6. Click the item that you want to take from stock.

7. Click **TFS**.
8. In the **Cut Lists** dialog box, define the cut list properties and add drop lengths according to your needs.
9. Click **TFS** to take the selected item from stock.

The item is removed from the inventory and charged to the current production control job.

See also

Take production control items from stock (page 106)

View or print job-specific purchasing reports

You can create purchasing reports for a particular production control job.

Create job-specific purchasing report

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Purchasing** --> **Reports** .
3. To limit the items that are included in the reports, in the **Production Control Purchasing Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the values that you want to include in the reports to the **Included** list.
   - Enter the maximum and minimum values for items that you want to include in the reports.
5. Click **OK**.

   To further limit the items in the reports, repeat steps 5 to 7 for all necessary filter types.
6. Click **Make Report**.
7. In the **Report Progress** dialog box, click the report that you want to view or print.

View the purchasing report

- Click **View**.

The report opens in **Tekla EPM Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla EPM Report Viewer** window to email the report via Microsoft Outlook.

Print the purchasing report

1. Change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. In the **Select Printer** dialog box, click a printer to select it.
4. Click **OK**.
5. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Save a cut list

1. Click **Save Cut List**.
2. In the **Job #** list, select the job.
3. In the **Cut List Description** field, either enter a description directly in the field, or click the arrow on the right side of the field to select an option in the list.
4. Click the arrow on the right side of the **Date Required** field, and click a date in the calendar to select it.
5. If you do not want anyone to make changes to the cut list, click the **Lock Cut List** check box to select it.
6. Click **Save To Cut List**.

   Tekla EPM saves the cut list. You can use it in the selected production control job and with Remote Link.
7. Click **OK** to close the **Message** dialog box.
8. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

2.7 Add piece tracking and load tracking information and loads to the current production control job

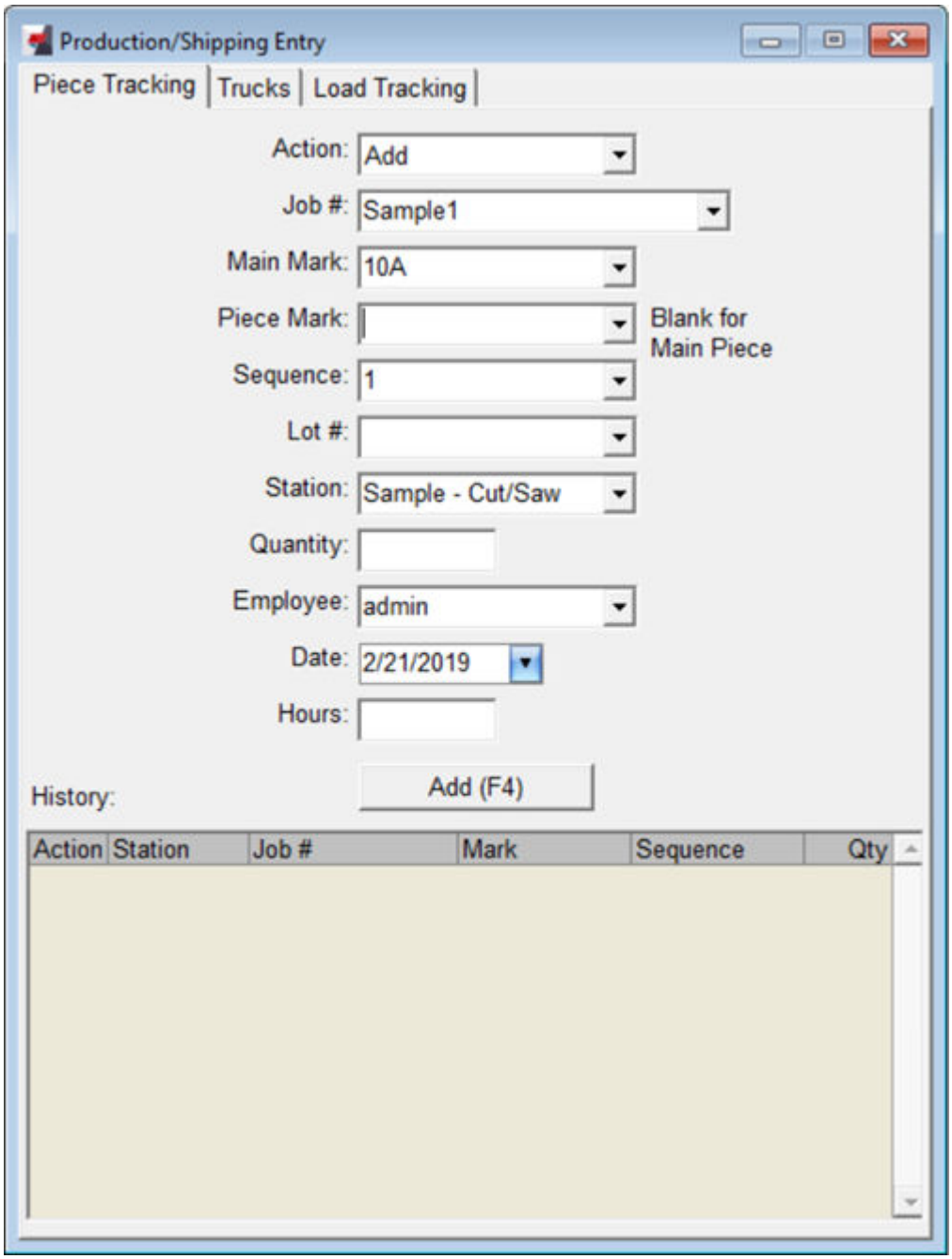
Use the **Production/Shipping Entry** dialog box to add information to the current product control job. You can add piece tracking information and loads, ship and unship loads, and add piece marks to trucks.

Note that the **Production/Shipping Entry** dialog box only allows you to add one item at a time.

To open the **Production/Shipping Entry** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Production Control** --> **Production/Shipping Entry** .

   The **Production/Shipping Entry** dialog box opens on the **Piece Tracking** tab.



Add piece tracking information

1. In the **Action** list, click the action that you want to perform. You can add or delete items.
2. In the **Job #** list, click the production job for which you want to perform the action.

3. In the appropriate lists, select the main mark, piece mark, sequence, lot number, station, employee who is adding the information, and date.

   Note that the employee must be a Tekla EPM user.
4. In the **Quantity** field, enter the number of pieces being worked on.
5. In the **Hours** field, enter the man hours used for working on the item.
6. To perform the action, click **Add** or **Delete**.

The action is updated to the selected job. The action also appears in the **History** list at the bottom of the **Production/Shipping Entry** dialog box.

Add loads, ship loads, and unship loads

1. Click the **Trucks** tab to open it.
2. In the **Action** list, click the action that you want to perform.

   You can add or validate, ship, or unship trucks.
3. In the **Job #** list, click the production job for which you want to perform the action.
4. Select the load number, shipping date, and destination in the appropriate lists.
5. If necessary, click **View** to view the items assigned to the selected load.
6. If the load needs to be returned, select the **To Be Returned** check box.

   The load must be returned even if the materials will not be physically returned. Returning the loaded items allows the piece marks to be loaded onto a new shipping ticket that contains items delivered to the job site. This way, Tekla EPM can keep accurate records of when parts were received and shipped.
7. To perform the action, click **Add/Validate**, **Ship**, or **Un-Ship**.

   The action is updated to the selected production control job. The action also appears in the **History** list at the bottom of the **Production/Shipping Entry** dialog box.
8. If necessary, view the shipping ticket:
   a. Click **Shipping Ticket**.
   b. In the **Report Selection** dialog box, select the report that you want to view, print, or export.
   c. Do any of the following:

To	Do this
View the shipping ticket	• Click **View**.

To	Do this
Print the shipping ticket	1. Change the number of the printed copies by clicking the **+** and **-** buttons. 2. Click **Print**. 3. In the **Select Printer** dialog box, click a printer to select it. 4. Click **OK**.
Export the shipping ticket	1. Click **Export**. 2. In the **Export Format** list, select an export format. 3. Click **Browse**. 4. Browse to the location where you want to save the exported file, and click **Save**. 5. Modify the file name according to your needs. 6. If you want to attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** check box. 7. If you want to open the file after exporting it, select the **Open Exported Document** check box. 8. Click **Export**.

Add piece marks to trucks

1. Click the **Load Tracking** tab to open it.
2. In the **Action** list, click the action that you want to perform.

   You can add, delete, return, or unreturn items.
3. In the appropriate lists, select the main mark, piece mark, sequence, lot number, load number, and date.
4. If necessary, click **View** to view the items assigned to the selected load.
5. In the **Quantity** field, enter the number of pieces that are worked on.
6. Click **Add**, **Delete**, **Return**, or **Un-Return**.

   The action is updated to the selected production control job. The action also appears in the **History** list at the bottom of the **Production/Shipping Entry** dialog box.
7. If necessary, view the shipping ticket:
   a. Click **Shipping Ticket**.

b. In the **Report Selection** dialog box, select the report that you want to view, print, or export.

c. Do any of the following:

To	Do this
View the shipping ticket	• Click **View**.
Print the shipping ticket	1. Change the number of the printed copies by clicking the **+** and **-** buttons. 2. Click **Print**. 3. In the **Select Printer** dialog box, click a printer to select it. 4. Click **OK**.
Export the shipping ticket	1. Click **Export**. 2. In the **Export Format** list, select an export format. 3. Click **Browse**. 4. Browse to the location where you want to save the exported file, and click **Save**. 5. Modify the file name according to your needs. 6. If you want to attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** check box. 7. If you want to open the file after exporting it, select the **Open Exported Document** check box. 8. Click **Export**.

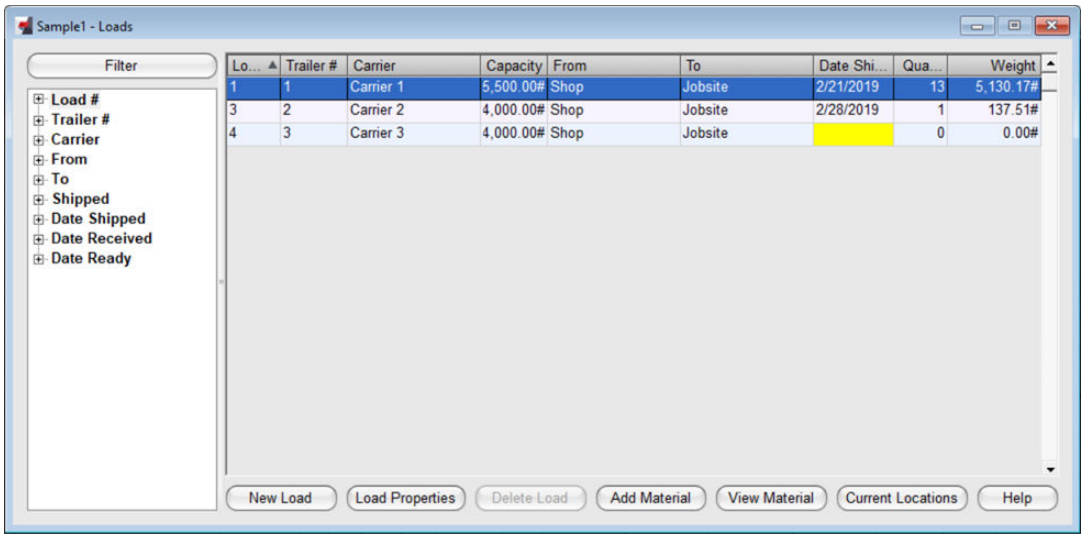
2.8 Create, modify, and delete loads

In the **Loads** dialog box, you can create new truck loads for the current production control job, assign materials to loads, and select shipping routes. You can also modify and delete existing loads according to your needs.

Note that items and main marks can be shipped to multiple destinations.

To access the **Loads** dialog box, do the following:

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Load Tracking**.



Add a new load

1. Click **New Load**.
2. On the **Details** tab of the **Load Properties** dialog box, modify the load properties.

NOTE The available field are set in the **Load Tracking Settings** dialog box. There may be additional fields that are not listed in the following table. For more information, see Define load tracking settings (page 22).

Option	Description
From	The initial location of the load. The available locations are set in **Shipping Route Maintenance**. Click the arrow on the right side of **From** field and select an option in the list.
Destination Group	The available destinations for the load. The available destinations are set in **Shipping Route Maintenance**. Click the arrow on the right side of **Destination Group** field and select a destination in the list.
Load #	The number of the load. If necessary, type a new number in the **Load #** field.

Option	Description
Trailer #	The trailer number. The available trailers are set in the **Load Tracking Settings** dialog box. Click the arrow on the right side of **Destination Group** field and select an option in the list, or type the trailer number directly in the **Trailer #** field.
Carrier	The carrier of the load. The available carriers are set in the **Load Tracking Settings** dialog box. Click the arrow on the right side of **Carrier** field and select an option in the **Carrier** list, or type a carrier name directly in the field.
Capacity	The weight capacity. Tekla EPM automatically adds the information according to your other selections on the **Details** tab.

3. On the **Top Text** tab, add top text to shipping tickets.
4. Click **Save**.

The load is added to the list in the **Loads** dialog box. Next, you need to add materials to the load.

Pre-assign or add materials to a load

Note that only material that is available in the **From** location of the load and is assigned to the next destination group can be added to a load.

Material items can also be pre-assigned to loads without actually loading the items.

1. In the list, click the load to which you want to add material.
2. Click **Add Material**.
3. In the **Loads - Add Material** dialog box, click the arrow buttons to move the materials that you want to load to the **Included** list.
4. To only add some pieces of the item to the load, select a material in the **Included** list and type the number of pieces to be loaded in the **Qty** field.
5. If necessary, modify the load number and loading date.
6. If you only want to pre-assign material items to the selected load and not actually load the items, clear the **Load on Assign** check box in the lower-left corner.
7. Click **Add Material**.

Ship a load

The loads that do not have a shipping date are highlighted in yellow in the **Loads** dialog box. To ship a load, do the following:

1. In the list, click the load that you want to ship.
2. Click **Load Properties**.
3. Click **Ship**.

   If you accidentally ship a load, you can cancel the shipping by clicking **Un-Ship**.
4. In the **Enter Value** dialog box, click the arrow on the right side of the blank field, and select the shipping date in the calendar.
5. Click **OK**.
6. If necessary, add the receiving date by clicking the arrow on the right side of the **Date Received** field, and select the receiving date in the calendar.
7. If you want to create a shipping ticket, do the following:
   a. Click the **Shipping Ticket** button.
   b. In the **Report Selection** dialog box, click a shipping ticket report to select it.
   c. View, print, or export the report according to your needs.

      For detailed instructions, see View, print, and export job-specific production control reports (page 195).
8. Click **Save**.
9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Modify a load

1. In the list, click the load that you want to modify.
2. Click **Load Properties**.
3. On the **Details** tab of the **Load Properties** dialog box, modify the load properties according to your needs.
4. On the **Top Text** tab, modify the top text of shipping tickets according to your needs.
5. On the **Material** tab, modify the materials in the load.
   - To add new material to the load, click **Add**.

     For more information, see Add materials to a load.
   - To remove a material item from the load, click the material item, click **Remove**, and click **Yes** to confirm.

- To load a material item, click **Load**.

6. On the **Loaded** tab, unload any material items fr by clicking **Unload**, and then, clicking **Yes** to confirm.
7. If necessary, on the **Additional** tab, add additional items to the load:

   For example, a box of bolts can be added as an additional item.

   a. Click **Additional on Load**.

   b. Click **New**.

   c. Type the description, quantity, weight per item, and the total weight.

   d. Add any additional notes.

   e. Click **Add**.

      Repeat steps a to e for all additional items that you need to add.
8. To change the shipping status of the load, click **Ship** or **Un-Ship** at the bottom of the dialog box.

   When shipping a load, select the shipping date and click **OK**.
9. Click **Save** to update the load properties.

View the materials on a load

1. In the list, click the load whose assigned materials you want to view.
2. Click **View Material**.
3. In the **Loads - Material** dialog box, review the assigned materials and their shipping date.
4. Click the **Close** button (**X**) to close the **Loads - Material** dialog box.

View current load locations

1. At the bottom of the dialog box, click **Current Locations**.
2. In the **Loads - Material Location** dialog box, view the current location of each material item in existing loads.
3. Click the **Close** button (**X**) to close the **Loads - Material Location** dialog box.

Delete a load

Note that deleting a load is permanent and cannot be undone.

1. In the list, click the load that you want to delete.

2. Click **Delete Load**.
3. In the confirmation dialog box, click **Yes** to permanently delete the load.

Add production control items to loads

Use the **Load All Selected** command to add the selected production control materials to a truck load.

1. In the **Production Control** dialog box, click the items that you want to load to select them.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Production Control** ribbon tab.
3. In the menu, select **Modify Data** --> **Load All Selected** .
4. In the **Loads - Add Material** dialog box, click the arrow buttons to move the items that you want to load to the **Included** list.
5. If you only want to load a particular number of pieces, select the item in the **Included** list and type the number of pieces to be loaded in the **Qty** field.
6. Click the arrow on the right side of **Load #** field and click the load to which you want to add the items.

   Note that you can only select loads that have already been added in the **Loads** dialog box. For more information on adding loads, see Create, modify, and delete loads (page 114).

   The total capacity and weight of the load is displayed at the bottom of the **Loads - Add Material** dialog box.
7. If necessary, click the arrow on the right side of the **Date Loaded** field, and select another loading date in the calendar.
8. Click **Add Material**.

The items are added to the selected load. The items will be marked as loaded in the **Loads** dialog box.

2.9 Add piece tracking information

In the **Piece Tracking** dialog box, you can add tracking information by piece mark. You can record the stations that the piece mark has completed, the date, and the man hours used. Piece tracking records can also be added if the station is set as the TFS station in a route or assigned to an inspection.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.

2. In the menu, select **Piece Tracking**.
3. To record information for completed items, in the **Station Summary** dialog box, click **Add Completed**.
4. In the **Station - Add Completed** dialog box, click the arrow on the right side of the **Station** list, and select a station in the list.
5. Click the arrow buttons to move the items that have completed the selected station to the **Included** list.
6. Click the arrow on the right side of the **Completed By** list and select the user that is adding the piece tracking information.
7. Click the arrow on the right side of the **Date** field and select the completion date in the calendar.
8. Type the number of working hours used, and select if the working hours are calculated by piece or as a total.
9. If necessary, type the batch ID of the selected items in the **Batch ID** field. For example, you can type the name of the employee who is adding the piece tracking information.
10. To review the inspection test records of the items before completing stations, click the **Inspection** button. For more informatio, see Add, modify, and review inspection test records (page 131).
11. Click **Add Material** to save the piece tracking information.
12. To close the **Station Summary** dialog box, click the **Close** button (**X**) in the upper-right corner.

You can view the piece tracking information by creating a **Production Status** dialog box. For more information, see Review the production statuses of items (page 130).

You can also view piece tracking information by viewing any report with the word **Station** or **Stations** in the title. For more information, see View, print, and export job-specific production control reports (page 195).

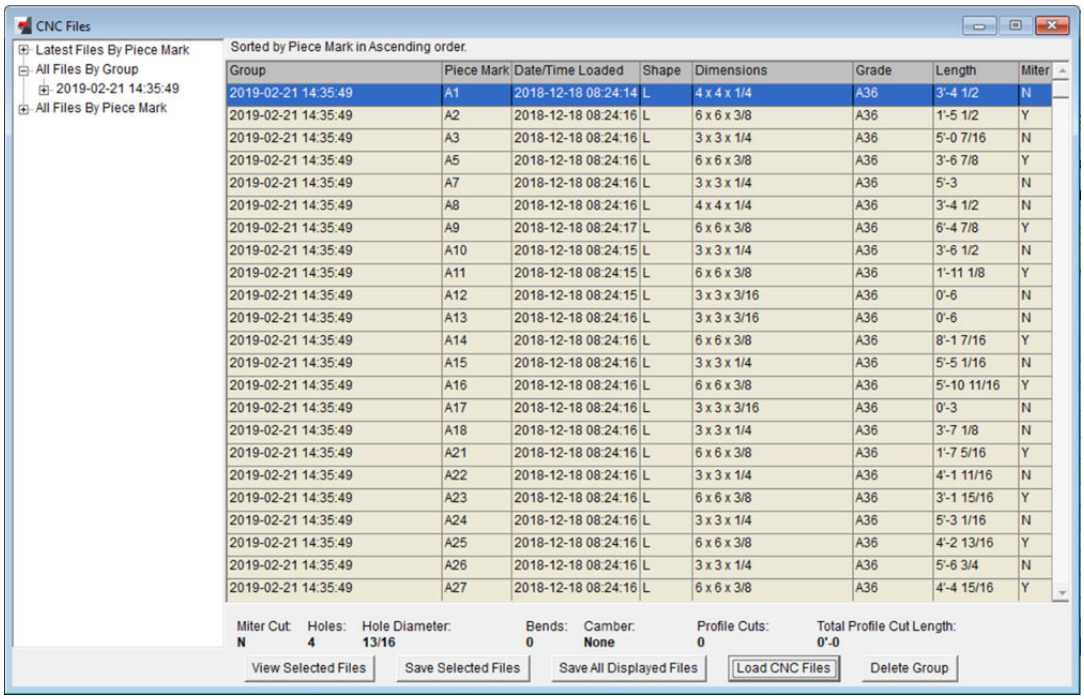
2.10 Import, view, or delete CNC files

In the **CNC Files** dialog box, you can import CNC files to Tekla EPM, and view or delete the previously loaded CNC files that are associated with the current production control job.

To access the **CNC Files** dialog box, do the following:

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **CNC Files**.

The **CNC Files** dialog box opens.



Import CNC files

1. At the bottom of the dialog box, click **Load CNC Files**.
2. In the **Import** dialog box, click **Browse**.
3. Browse to the folder where the CNC files are saved.
4. Click **OK**.
5. Type the file extension used for CNC files in the selected folder.
6. Click **OK** to import the CNC files.

   Tekla EPM imports all CNC files from the folder that you selected.
7. Review the import results and click **Close**.

View a CNC file

1. Select the CNC files that you want to view in the list.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. At the bottom of the dialog box, click **View Selected Files**.

Delete a group of CNC files

Deleting a group of CNC files is permanent and cannot be undone. Note that all files imported from the same folder are deleted at once.

1. Select any CNC file that belongs to the group that you want to delete.
2. At the bottom of the dialog box, click **Delete Group**.
3. In the confirmation dialog box, click **Yes** to permanently delete the selected CNC files.

2.11 View production control job details

You can view multiple details regarding production control jobs, such as the changes made to the jobs, and the production statuses and inspection statuses of items. You can also view and adjust the project schedule and the production schedule, or create production reports.

See also

View all changes in a production control job (page 122)

Review and adjust production control job information (page 124)

View and adjust the project schedule (page 148)

View the production schedule (page 191)

View, print, and export job-specific production control reports (page 195)

View all changes in a production control job

Tekla EPM records every change made in the system. This is useful because you can view all changes made in the current production control job at once. You can then filter the information to see changes made by a particular user or on a particular date. If necessary, you can also print the list of changes.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **History of Changes** --> **List Of Changes** .
3. In the **Report Filter** dialog box, do any of the following according to your needs:

To	Do this
Filter changes by user	a. Click **Edit** on the right side of the **User** section. b. Click the arrow buttons to move the users whose changes you want to include in the list of changes to the **Included** list.

To	Do this
	c. Click **OK**.
Filter changes by date	a. Click **Edit** on the right side of the **Date** section. b. Enter the start (**Min**) and end (**Max**) dates. c. Click **OK**.

4. Click **Make Report**.
5. In the **Report Progress** dialog box, do one of the following according to your needs:

To	Do this
View the list of changes	• Click **View**. The report opens in **Tekla EPM Report Viewer**. You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla EPM Report Viewer** window to email the report via Microsoft Outlook.
Print the list of changes	a. Change the number of the printed copies by clicking the **+** and **-** buttons. b. Click **Print**. c. In the **Select Printer** dialog box, click a printer to select it. d. Click **OK**.

6. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

View all changes since importing the bill of materials (page 123)

View, print, and export job-specific production control reports (page 195)

View all changes since importing the bill of materials

Use the **History of Changes** command to view and review all changes that have been made in a production control job since a bill of materials has been imported.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **History of Changes** --> **History of Changes** .
3. In the **History of Changes** dialog box, click the arrow on the right side of the available lists to select the items whose changes you want to view.

   To view all items, leave the fields blank.

4. Click **OK**.
5. To only include changes of specific properties, click the arrow buttons to move the properties that you want to include to the **Included** list.
6. If necessary, do any of the following:

To	Do this
Filter changes by user	a. Click **Edit** on the right side of the **User** section. b. Click the arrow buttons to move the users whose changes you want to include in the list of changes to the **Included** list. c. Click **OK**.
Filter changes by date	a. Click **Edit** on the right side of the **Date** section. b. Enter the start (**Min**) and end (**Max**) dates. c. Click **OK**.

7. At the lower-left corner of the dialog box, select check boxes to indicate which report changes you want to include.
8. Click **View History of Changes**.

   The history of changes appears. The items in the dialog box are color-coded to show any changes that have been made:

   - Items highlighted with green have not been changed since they were imported.
   - Items highlighted with yellow have been changed since they were imported.
9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

View all changes in a production control job (page 122)

View, print, and export job-specific production control reports (page 195)

Review and adjust production control job information

Use the **Review** commands to view and adjust information regarding the current production control job.

For more information, see the following links:

Create, modify, and delete job-specific cut lists (page 125)

Create, modify, and delete production codes used in a production control job (page 129)

Review the production statuses of items (page 130)

Add, modify, and review inspection test records (page 131)

Review the inspection statuses of items (page 140)

Create, modify, and delete job-specific shipping routes (page 141)

View and adjust TFS details (page 144)

Compare the materials in a production control job and a combining job (page 147)

Compare the labor hours in a production control job and an estimating job (page 148)

Create, modify, and delete job-specific cut lists

Use the **Cut Lists** dialog box to create, modify, and delete cut lists for the current production control job. You can also lock cut lists, and create cut list reports in the **Cut Lists** dialog box.

To access the **Cut Lists** dialog box, do the following:

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Production Control** --> **Cut Lists** .

The **Cut Lists** dialog box opens, displaying all cut lists saved for the current job.

Items in cut lists can be highlighted with either green, yellow, or red:

- Status items highlighted in green are completed.
- Items highlighted with red or yellow need attention. For example, items highlighted in red can be past the assigned due date, whereas items highlighted with yellow may be missing information or need validation.

You can limit the visible cut lists by selecting a shape, main mark, piece mark, sequence, or lot by clicking options in the navigation tree on the left.

The combining result for which items have been purchased needs to be reviewed to verify that the saved cutting patterns are still valid. Items may need to be recombined. After recombining, the changes need to be saved to the current cut list.

Create a cut list

1. Click **New Cut List**.
2. In the **Enter Value** dialog box, click the arrow on the right side of the field, and select the production control job for which you want to create the cut list.

The **Production Control Purchasing Report Filters** dialog box opens.

When you are creating a new cut list, Tekla EPM by default filters the items in the new cut list so that only items that are not yet assigned to a cut list are included.

3. In the **Production Control Purchasing Report Filters** dialog box, click **Reset** to reset the default filter.
4. To limit the items included in the cut list, select a filter type in the **Type** list, and click **Select**.
5. In the **Filter** dialog box, click the arrow buttons to move the items that you want to include to the **Included** list.
6. Click **OK**.

   To further limit the items in the cut list, repeat steps 3 to 5 for all necessary filter types.
7. Click **Make Report**.
8. In the **Report Progress** dialog box, click **Save To Cut List**.

   The new cut list is saved.
9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

View the details of a cut list

1. Select the cut list whose details you want to view.
2. Click **Details**.

   The cut list details open in a new dialog box.
3. According to your needs, do any of the following:

To	Do this
View the details of a cut list item	a. Click the cut list item whose details you want to view. b. Click **Details**. c. When you have viewed the item details, click the **Close** button (**X**) to close the item details.
Cut a cut list item	a. Click the cut list item that you want to cut. b. Click **Cut**. c. Define properties for the used material. d. Define the drop properties. e. Click **TFS**. The item is taken from stock and cut according to the properties that you defined. The production

To	Do this
	control job is updated with the date/time stamp of the cut, and the **Status** column is highlighted with green.
Delete a cut list item	Note that deleting a cut list item is permanent and cannot be undone. a. Click the cut list item that you want to delete. b. Click **Delete**. c. In the confirmation dialog box, click **Yes** to permanently delete the cut list item.

Change the name or required date of a cut list

1. Select the cut list whose name or date you want to modify.
2. According to your needs, do any of the following:

To	Do this
Change the name of the cut list	a. Click **Set Description**. b. In the **Enter Value** dialog box, type a new name for the cut list. c. Click **OK**. The cut list name is updated to the **Cut List Description** column.
Change the required date of the cut list	a. Click **Set Date Required**. b. In the **Enter Value** dialog box, click the arrow on the right side of the field. c. Click a date in the calendar to use it as the new required date. d. Click **OK**. The required date is updated to the **Date Req** column.

Validate cut list items

When material changes occur, items in the **Val Req** column may be highlighted with yellow. This means that you need to verify that the items still work with the cutting details, or validate the cut list.

1. Double-click the cut list that contains items that need to be validated.
2. Select the items that you want to validate.
3. At the bottom of the dialog box, click **Validate**.

Tekla EPM validates the cut list.

If stock lengths no longer work with the combined parts, the items in the **Val Req** column are highlighted with red.

Re-validate cut list items

If the **Inval** column is highlighted with red, you need to re-validate cut list items.

Re-validating parts consists of uncombining the purchased materials and recombining them to correct the cutting details. Depending on the changes that have occurred, you may need to combine the items to a different or additional stock length of materials.

1. Double-click the cut list that contains items that need to be re-validated.
2. Select the items that you want to re-validate.
3. At the bottom of the dialog box, click **Re-Validate**.

Lock or unlock a cut list

- According to your needs, do one of the following:
  - To lock a cut list, click **Lock**.

    When a cut list is locked, its name in the **Cut List Description** column is highlighted with red.
  - To unlock a locked cut list, click **UnLock**.

View, print, or export cut list reports

it would be good to note that if the user wants the prompt to be able to split the inventory items to quantity one they will need to select the change filters button.

1. Select the cut lists for which you want to create reports.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click **Cut List Report**.
3. In the **Report Progress** dialog box, click the report that you want to view or print.
4. If you wish to show instance numbers in the report, select the **Show Instance Numbers** check box.

5. According to your needs, do any of the following:

To	Do this
View the cut list report	• Click **View**. The selected reports opens in **Tekla EPM Report Viewer**.
Print the cut list report	a. Change the number of the printed copies by clicking the **+** and **-** buttons. b. Click **Print**. c. In the **Select Printer** dialog box, click a printer to select it. d. Click **OK**.

Delete a cut list

Deleting a cut list is permanent and cannot be undone.

1. In the list, click the cut list that you want to delete.
2. Click **Delete Cut List**.
3. In the confirmation dialog box, click **Yes** to permanently delete the cut list.

Create, modify, and delete production codes used in a production control job

In the **PDC Production Codes** dialog box, you can create new production codes for the production control job, or modify and delete existing production codes. You can override the estimated man hours and use aggregate units to calculate the planned labor time on a job. This labor time can then be used in production schedules and project schedules.

To assign production codes to material items, use the **Global Edit** command. For more information, see Modify multiple production control items (page 83).

Open the PDC Production Codes dialog box

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Review** --> **Production Codes** .

The **PDC Production Codes** dialog box opens.

Create a production code

1. Click **New**.

2. In the **Production Code** field, type an abbreviation for the production code.

   For example, you can use `B1` for beams or `C1` for columns.

3. Type a description for the production code.
4. If you want to use aggregate units for the planned hours instead of the original estimated hours, do the following:

   a. Select the **Override Man Hours** check box.

   b. Type the man hours in the field.

   c. To change the aggregate units used, right-click the field and select the suitable units in the context menu.

   The estimated hours are always created in the estimate. They are not overwritten by the production code properties.

   The planned hours that you define here are automatically used in the project schedule. However, if you link the production control to a matching estimate, the estimated hours are automatically used in the project schedule.

5. Click **Add**.

The new production code is added.

Modify a production code

1. Select the production code that you want to modify.
2. Modify the production code name, description, man hours, and aggregate units according to your needs.
3. Click **Save** to update the properties.

Delete a production code

Note that deleting a production code is permanent and cannot be undone.

1. Select the production code that you want to delete.
2. Click **Delete**.
3. In the confirmation dialog box, click **Yes** to permanently delete the production code.

Review the production statuses of items

In the **Production Status** dialog box, you can review the production statuses of main mark items in the current production control job.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Review** --> **Production Status** .

3. To only review the production statuses of particular items, in the **Production Status Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the values that you want to review to the **Included** list.
   - Type the maximum and minimum values for the items that you want to review.
5. Click **OK**.

   To further limit the items that you want to review, repeat steps 3 to 5 for all necessary filter types.
6. Click check boxes next to the item properties that you want to view in the left-hand pane and at the bottom of the dialog box.
7. If you do not want to view the production status of items without piece tracking or load tracking, select the **Exclude Accessories without Piece/ Load Tracking** check box.
8. Click **OK** to view the production statuses of the selected items.

The **Production Status** dialog box opens, displaying the production stations and shipping conditions of items in the current production control job.

The information is color-coded:

- Completed stations and operations are highlighted with green. The completion date is also displayed.
- All work that is in progress is highlighted with yellow.
- If no progress has been made regarding the station or operation, items are highlighted with red.

Note that you can export the production status information as a Microsoft Excel worksheet. Right-click anywhere in the display area of the **Production Status** dialog box, and in the context menu, select **Export to Excel**.

Add, modify, and review inspection test records

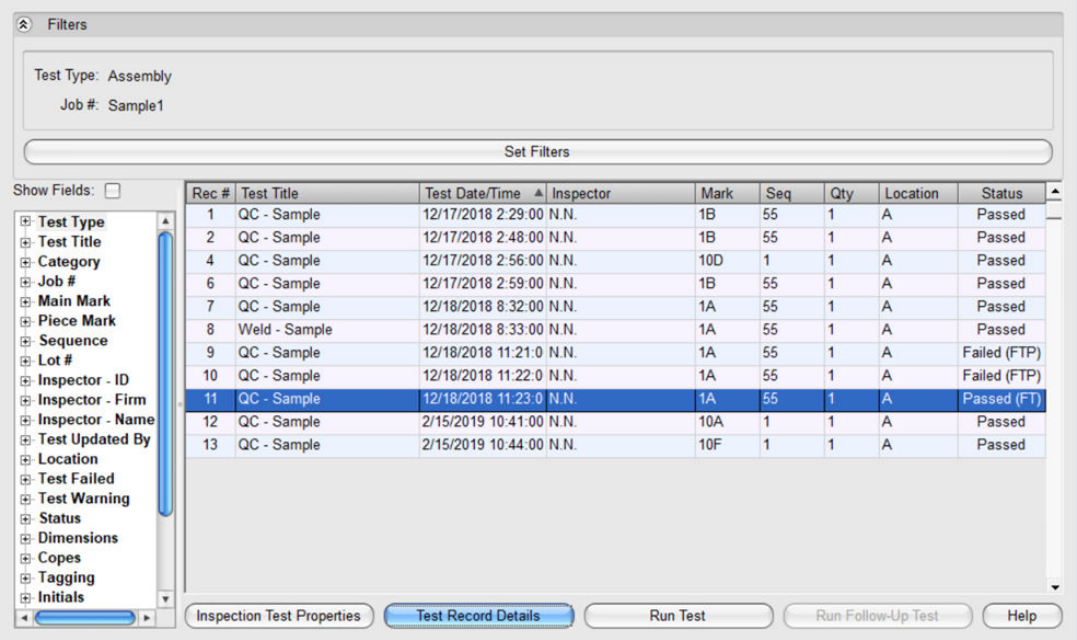
In the **Test Records** dialog box, you can run inspection tests and follow-up tests, or modify and view the existing inspection test records. You can also create reports that allow you to review if the inspection tests have been successful or not.

To access the **Test Records** dialog box, do the following:

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.

2. In the menu, select **Review** --> **Inspection Test Records** .

The **Test Records** dialog box opens, displaying all existing inspection test records.



If you need to modify the setups of inspection tests, see Modify the setup of an inspection test (page 135).

Add a new inspection test record

1. At the bottom of the dialog box, click **Run Test**.
2. Click the arrow on the right side of the **Test Type**, **Category**, and **Test Title** fields, and select suitable options in the lists.

   The preloaded test types are:

   - **Assembly**: the test subject is an assembly or a part flagged for piece tracking in a production control job.
   - **Employee**: the test subject is a Tekla EPM user.
   - **Environmental**: a general test without a subject.
   - **Equipment**: a general test without a subject.
   - **Fitting**: a general test without a subject.
   - **General**: a general test without a subject.
   - **Load**: the test subject is a shipping load in a production control job.
   - **Part**: the test subject is a part in a production control job.
   - **Training**: a general test without a subject.
3. Click **OK**.

4. To determine the test subject, in the **Test Subject** section of the **New Inspection Test Record**, do the following:
   a. Click the arrows on the right side of the available fields and select suitable options in the lists.
   b. Type values in the fields.
5. Define the test information by using the available lists and fields.

   The mandatory fields and lists depend on the test type that you selected.
6. Click **Save**.

The new inspection test record is added to the **Test Records** dialog box.

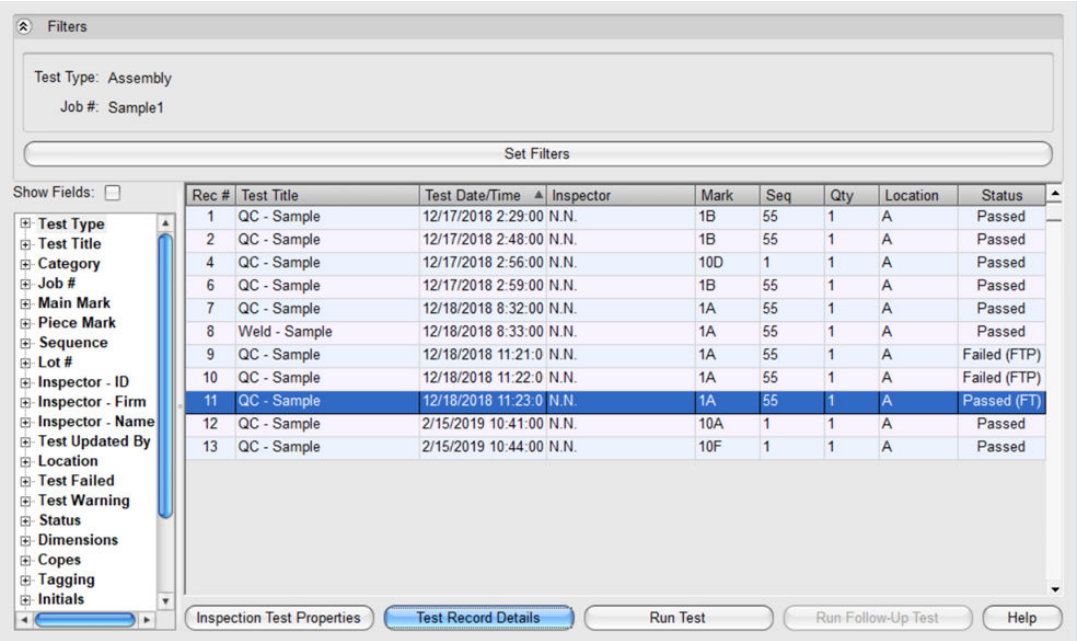
Add, modify, and review inspection test records

In the **Test Records** dialog box, you can run inspection tests and follow-up tests, or modify and view the existing inspection test records. You can also create reports that allow you to review if the inspection tests have been successful or not.

To access the **Test Records** dialog box, do the following:

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Review** --> **Inspection Test Records** .

The **Test Records** dialog box opens, displaying all existing inspection test records.



If you need to modify the setups of inspection tests, see Modify the setup of an inspection test (page 135).

Filter inspection test records

1. At the top of the dialog box, click **Set Filters**.
2. In the **Test Record Filters** dialog box, do any of the following:
   - On the **Test Record** and **Test Subject** tabs, click the available filter buttons, and click the arrow buttons to move the values that you want to display to the **Included** list.
   - Click the **Test Date** button, click the arrows on the right side of the minimum and maximum date lists, and select dates in the calendars.

     If necessary, you can also create an expression for the date.
   - On the **Field Filters** tab, click **Add Field Filter**, and click the arrow buttons to move the fields that you want to display at the top of the **Test Records** dialog box to the **Included** list.
3. Click **OK**
4. Click **Apply Filter**.

The **Test Records** dialog box now only displays the information that you selected.

Run a follow-up test

To record a follow-up test for a failed test record, do the following:

1. Click the inspection test record for which you want to add a follow-up test.
2. Click **Run Follow-Up Test**.
3. In the **New Inspection Test Record** dialog box, modify the test properties.
4. Click **Save**.

The follow-up test is added to the list in the **Test Records** dialog box.

Modify an inspection test record

1. Click the inspection test record that you want to modify in the list.
2. At the bottom of the dialog box, click **Inspection Test Properties**.
3. Modify the inspection test properties according to your needs.
4. Click **Save** to update the properties.

View, print, and export inspection test reports

You can create various reports based on inspection tests. You can check if the inspection tests have been successful and find the problems by creating reports by worker, parts, assemblies, sequence, location, test, categories and sub-categories.

1. In the **Test Records** dialog box, click the **Test Records** ribbon tab.

2. In the menu, select **Reports**, or press **Ctrl+R** on the keyboard.
3. In the **Report Selection** dialog box, click the report that you want to create.
4. According to your needs, do any of the following:

Option	Description
View the report	• Click **View**. The report opens in **Tekla EPM Report Viewer**. You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla EPM Report Viewer** window to email the report via Microsoft Outlook.
Print the report	a. Change the number of the printed copies by clicking the **+** and **-** buttons. b. Click **Print**. c. In the confirmation dialog box, click **Yes** to print the selected report. d. In the **Select Printer** dialog box, click a printer to select it. e. Click **OK**.
Export the report	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name according to your needs. f. If you want to attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** check box. g. If you want to open the file after exporting it, select the **Open Exported Document** check box. h. Click **Export**.

5. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Modify the setup of an inspection test

In the **Inspection Test Setup** dialog box, you can modify the testing requirements that the inspector will use for each test.

To access the **Inspection Test Setup** dialog box, do the following:

- At the bottom of the **Test Records** dialog box dialog box, click **Inspection Test Properties**.

To modify the testing requirements, do all of the following:

1. Modify the test properties

1. At the top of the **Inspection Test Setup** dialog box, modify the test properties according to your needs.
2. Click the arrow on the right side of **Test Type** field, and select the test type in the list. The preloaded test types are:
   - **Assembly**: the test subject is an assembly or a part flagged for piece tracking in a production control job.
   - **Employee**: the test subject is a Tekla EPM user.
   - **Environmental**: a general test without a subject.
   - **Equipment**: a general test without a subject.
   - **Fitting**: a general test without a subject.
   - **General**: a general test without a subject.
   - **Load**: the test subject is a shipping load in a production control job.
   - **Part**: the test subject is a part in a production control job.
   - **Training**: a general test without a subject.
3. Type a unique title for the test.

   The title is automatically copied to the **Category** field.
4. In the **Category** field, do one of the following:
   a. To create a new category, type the category name in the **Category** field.
   b. To use an existing category, click the arrow on the right side of the **Category** field, and select an existing category in the list.

   Categories are used to group similar tests together. For example, if you have several weld tests, you can set the category to **Weld** for all of the tests to make it easier to filter that group of tests.
5. Click the arrow on the right side of **Production Station** field, and select the production station that will be marked as completed when a successful or passed test record is added.

   Note that the **Production Station** option is only available if the test type is set to **Assembly**.

6. If you only want main members to be used as test subjects, select the **Main Members Only** check box.

   Note that the **Main Members Only** check box is only available if the test type is set to **Assembly**.

7. In the **Notes** field, type any instructions for performing the test, or other applicable notes.

   The text in the **Notes** field will be displayed when you add a new test record.

8. Click **Save Inspection Test** to save the test setup.

2. Add new fields

1. In the **Test Fields** section of the **Inspection Test Setup** dialog box, click **New Field**.
2. In the **Field Name** field of the **Inspection Test Field Setup** dialog box, type the field name used in the test definition.
3. In the **Title** field, type the title of the field used in the **New Inspection Test Record** dialog box.
4. In the **Abbreviation** field, type the text used in the column header of the **Test Records** dialog box.
5. In the **Notes** field, add any additional text or instructions regarding the field.
6. Click the arrow on the right side of **Field Type** field and select a suitable option:
   - **Boolean** and **Numeric** are test types that require you to set pass and fail criteria settings.
   - **Date**, **Text**, **Memo**, and **Drop-Down** are test information options that you can apply to the test types.
7. In the **Number of Instances** field, type the number of times the field will be presented to the user when running the test.
8. In the **Maximum Number of Instances** field, type the maximum number of times the field can be entered when running a test.

   If the value in **Maximum Number of Instances** is greater than the value in **Number of Instances**, the user will have the option of adding additional instances up to the maximum value.

9. If you only want the field to be used in follow-up test records, select the **Only for Follow-Up Test** check box.

   For example, you can add a field whose type is **Memo** with the **Only for Follow-Up Test** check box selected. This way, the inspector could type the corrective action that was required to fix the problem in the field.

10. Click the different field type tabs in the middle of the dialog box to modify their settings:
    a. On the **Boolean** tab, select if entering information in the field will indicate a failure or create a warning.
    b. On the **Numeric** tab, select the minimum and maximum values that may indicate a failure or create a warning, define the minimum and maximum number of decimal places, define a prefix or a suffix for the units of measure, and select if entering information in the field is mandatory.
    c. On the **Date** tab, select if entering information in the date field is mandatory.
    d. On the **Text** tab, select if entering information in the text field is mandatory.
    e. On the **Memo** tab, select if entering information in the memo field is mandatory.
    f. On the **Drop-Down** tab, select if the information is restricted to a list of pre-defined options, if you want to use an existing data set as available options, if the available options depend on another list, or if entering information in the field is mandatory.

       You can also add new options for the list, or modify or delete the available options.
11. Click **Save Field**.

The field is added to the inspection test.

Repeat the process to create all necessary fields.

3. Modify, move, or delete fields

- In the **Test Fields** section of the **Inspection Test Setup** dialog box, do any of the following according to your needs:

To	Do this
Modify an existing field	1. In the list, click the field that you want to modify. 2. Click **Properties**. 3. In the **Inspection Test Field Setup** dialog box, modify the field properties: a. In the **Field Name** field, modify the field name used in the test definition. b. In the **Title** field, modify the title of the field used in the **New Inspection Test Record** dialog box.

To	Do this
	c. In the field, type the text used in the column header of the **Test Records** dialog box. d. In the **Notes** field, modify any additional text or instructions regarding the field. 4. Click the arrow on the right side of **Field Type** field and select a suitable option: • **Boolean** and **Numeric** are test types that require you to set pass and fail criteria settings. • **Date**, **Text**, **Memo**, and **Drop-Down** are test information options that you can apply to the test types. 5. Click the different tabs in the middle of the dialog box, and adjust the settings according to your needs. 6. Click **Save Field**.
Move a field up or down	1. In the list, click the field whose position you want to change. 2. Click the **Move Up** and **Move Down** buttons to change the location of the field.
Delete a field from the test setup	Note that deleting a field from the test setup is permanent and cannot be undone. 1. In the list, click the field that you want to delete. 2. Click **Delete**. 3. In the confirmation dialog box, click **Yes** to permanently delete the field from the test setup.

4. Save the test and run a sample inspection test

When you have modified all necessary settings of the inspection test, save the test and run a sample test by adding a test record. You can later delete the sample test record.

1. Click **Save Inspection Test**.
2. In the **Test Records** dialog box, add a new test record by clicking **Run Test**.

   For more information on adding a test record, see Add, modify, and review inspection test records (page 131).

3. Ensure that the test works as intended.

   If the test does not work as intended, you can correct the errors by further modifying the setup.

4. Click **Save**.
5. To delete the sample test, do the following:
   a. Select the sample test in the list.
   b. Click **Test Record Details**.
   c. Click **Delete**.
   d. In the confirmation dialog box, click **Yes**.

Review the inspection statuses of items

In the **Inspection Status** dialog box, you can view inspection records. If necessary, you can also run inspection tests.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Review** --> **Inspection Status** .

   The **Inspection Status** dialog box opens, displaying a list of all main members or accessories that have piece tracking enabled in the current production control job. For main members, the **Weight Each** column includes the weight of accessories that do not have piece tracking enabled.

   If an item belongs to multiple sequences or lots, it will appear in the list once for each sequence/lot combination.

   On the right side of the **Weight Each** column, there are columns for each category of inspection tests that have been run in the current job. The numbers in the cells of these columns indicate the number of tests that have been run. Follow-up tests count as one regardless of how many times they have been run.

   Items highlighted with red have critical failures for which no follow-up tests have been run.

3. View the statuses of production control items.

   To find particular items, expand and click items in the navigation tree on the left-hand pane. You will only see items that match your selections.

4. If necessary, do one of the following:
   - To view all inspection test records, click the **Inspection Test Records** button at the bottom of the dialog box.
   - To add a new inspection test record, click **Run Test**.

   For more information on inspection test records, see Add, modify, and review inspection test records (page 131).

Create, modify, and delete job-specific shipping routes

Use the **Shipping Route Maintenance** dialog box to view and modify the shipping routes used for load tracking in the current production control job. You can also create new job-specific shipping routes or delete existing ones. Shipping routes can be used to send items within a job to multiple shipping destinations, including intermediate destinations, such as sending material to an external galvanizer. Items that are returned from one destination can then be shipped to another destination, if necessary.

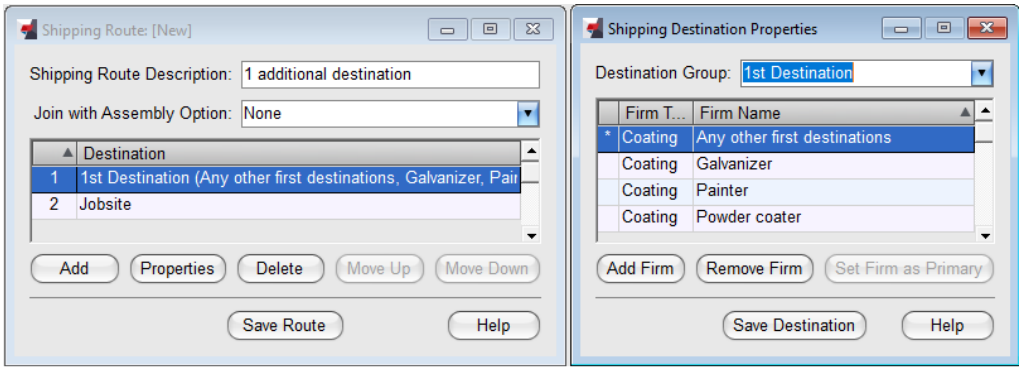
Open the Shipping routes dialog box

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Review** --> **Shipping Routes** .

The **Shipping Route Maintenance** dialog box opens, displaying all shipping routes created for the current production control job.

Create a shipping route

1. Click **New**.
2. In the **Shipping Route** dialog box, type a description for the new shipping route.



3. In the **Join with Assembly Option** list, select if and when the weight of an accessory part is included in the shipping weight of the assembly.

   The options are:

   - **None**: The weight of the accessory is not included in the shipping weight of the assembly. If the **Jobsite** destination is in the shipping route, select the **None** option.
   - **Join with assembly for first destination**: The weight of the accessory is joined to the shipping weight of the assembly for all of its destinations except for the first one.
   - **Join with assembly for...**: The weight of the accessory is included in the shipping weight of the assembly for the destination that you select

in the **Join with Assembly For** list and any other destinations after that one.

- **Join with assembly after...**: The weight of the accessory is included in the shipping weight of the assembly for all destinations after the destination you select in the **Join With Assembly After** list.

4. To adjust the destinations in the shipping route, do any of the following:

To	Do this
Add a new destination	a. Click **Add**. b. In the **Destination Group** field, do one of the following: • To create a new destination group, type a description for it in the **Destination Group** field. • To modify an existing destination group, click the arrow on the right side of the **Destination Group** and select a destination group. Destination groups provide a list of available destinations and are often best used by containing all the similar destinations in a single group. If shipping tickets are required from a destination back to the shop, it is recommended not to use the shop as an additional group because that location is already assigned a function, and using the shop as a group may cause confusion. Note that you cannot modify the firms in the **Jobsite** destination group. c. Modify the firms in the destination group according to your needs: • To add a firm, click **Add Firm**, select the firm type and firm name, and click **OK**. You can only select firms that are already saved in the **Address Book**. • To remove a firm from the destination, click the firm, click **Remove Firm**, and click **Yes** to confirm deleting the firm. • To set a firm as the primary firm, click the firm, and click **Set Firm as Primary**. The primary firm will have the remaining totals reported against it in production statuses, production control reports, and

To	Do this
	project summary reports. However, parts assigned to the shipping route can be shipped for any of the firms that you have added. d. Click **Save Destination**.
Modify a destination	a. In the **Destination** list, click the destination that you want to modify. b. Click **Properties**. c. Modify the firms of the destination according to your needs. d. Click **Save Destination** to update the destination.
Remove a destination from the shipping route	a. In the **Destination** list, click the destination that you want to remove from the shipping route. b. Click **Delete**. c. In the confirmation dialog box, click **Yes** to remove the destination from the shipping route.

Note that the shipping route can have any number of destinations, or no destinations at all. If the **Jobsite** destination is present, it is always the last destination on the shipping route. The **Jobsite** destination is the **Ship To** address defined for each production control job in the **Production Control Job Edit** dialog box.

5. To change the order of destinations in the shipping route, do the following:
   a. Click the destination that you want to move to an earlier or later position on the shipping route.
   b. Click the **Move Up** and **Move Down** buttons according to your needs.

   Repeat steps a to b for all destinations that you want to move.
6. Click **Save Route**.

The shipping route is now available in the current production control job.

Copy a shipping route

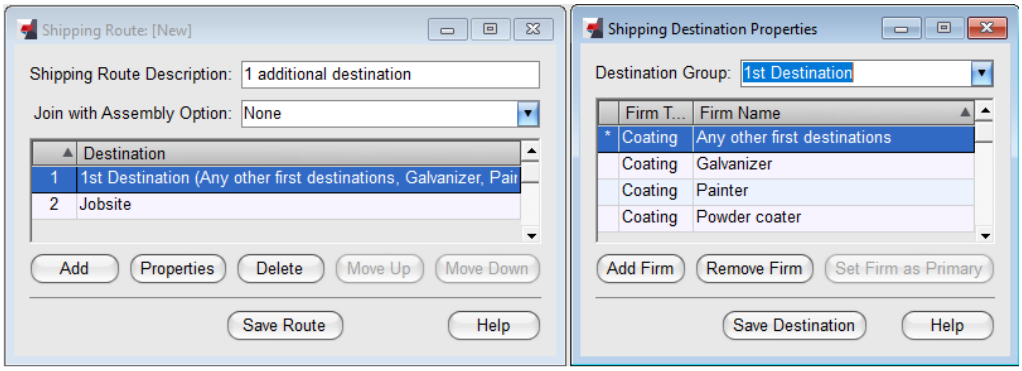
Use the **Copy** command to create a new shipping route based on an existing one.

1. In the list, select the shipping route that you want to use as the basis of a new shipping route.

2. Click **Copy**.
3. In the **Shipping Route** dialog box, type a description for the new shipping route.
4. Modify the shipping route properties according to your needs.
5. Click **Save Route** to create the new shipping route.

Modify a shipping route

1. In the list, select the shipping route whose properties you want to modify.
2. Click **Properties**.



3. In the **Shipping Route** dialog box, modify the shipping route properties according to your needs.
4. Click **Save Route** to save the changes.

Delete a shipping route

Note that deleting a shipping route is permanent and cannot be undone.

Job-specific shipping routes cannot be deleted if any parts are assigned to them.

1. In the list, select the shipping route that you want to delete.
2. Click **Delete**.
3. In the confirmation dialog box, click **Yes** to permanently delete the shipping route.

View and adjust TFS details

Performing the TFS (take from stock) process tells Tekla EPM that materials have been cut. Use the **TFS Details** dialog box to view TFS reports, save heat documents attached to items, and reverse the TFS status of an item or a group of items.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.

2. In the menu, select **Review** --> **TFS Details** .
3. To only view the TFS details of particular items, the **TFS Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   a. Click the arrow buttons to move the values that you want to view to the **Included** list.
   b. Enter the maximum and minimum values for items whose TFS details you want to view.
5. Click **OK**.
6. Click **Details**.

   The **TFS Details** dialog box opens, displaying all heat documents attached to the current job.

   When heat documents are attached, the number of the documents is displayed in the **Docs** column.

   The items in the **Docs** column that are highlighted with red have no heat documents attached.
7. In the **TFS Details** dialog box, do any of the following:

To	Do this
Update the information in the **TFS Details** dialog box	• Click **Refresh**.
View and attach documents to items	• Click **Open Document Index**. For more information on working in **Document Index**, see Store document references for a production control job (page 66).
Save attached documents into a folder	a. Do one of the following: • To save all documents attached to items in the **TFS Details** dialog box, click **Save Documents** --> **Save Documents - All** . • To save the documents attached to particular items, click the items for which you want to create reports, and click **Save Documents** --> **Save Documents - Selected** . b. Browse to and select the folder where you want to save the documents, or click **Make New Folder** to create a new one.

To	Do this
	c. Click **OK**. The attached documents are saved into the selected folder.
Print attached documents	a. Do one of the following: • To print all documents attached to items in the **TFS Details** details dialog box, click **Print Documents** --> **Print Documents - All** . • To print documents attached to particular items, click the items whose attached documents you want to print, and click **Print Documents** --> **Print Documents - Selected** . • In the **Select Printer** dialog box, click a printer to select it. • Click **OK**.
Create TFS reports	a. Do one of the following: • To create reports for all items in the **TFS Details** dialog box, click **Reports** --> **Reports - All** . • To create a report for particular items, click the items for which you want to create reports, and click **Reports** --> **Reports - Selected** . b. In the **Report Selection** dialog box, click the report that you want to view, print, or export. c. Do one of the following: • To view the report, click **View**. You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla EPM Report Viewer** window to email the report via Microsoft Outlook. • To print the report, click **Print**, click a printer to select it, and click **OK**. • To export the report, click **Export**, modify the export properties, and click **Export**.
Reverse the TFS process	Reversing the TFS process returns the selected materials from inventory history to inventory. Note

To	Do this
	that the materials will be returned as cut lengths, not the original stock lengths. a. Click the materials whose TFS process you want to reverse. To select multiple items, hold down **Ctrl**. To select a range of subsequent items, hold down **Shift**. b. In the first confirmation dialog box, click **Yes** to remove any record of the TFS process from the selected materials. c. In the second confirmation dialog box, click **Yes** to return the selected materials in inventory history as cut lengths. d. Type the number of materials to be returned to inventory. e. Click **Reverse**. The materials are returned to inventory and removed from the **TFS Details** dialog box.

8. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Compare the materials in a production control job and a combining job

Use the **Compare to Combining Job** command to view if there are differences between the production control job materials and a pre-purchased material list in the **Combining** module.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Review** --> **Compare to Combining Job** .
3. In the **Select Combining Job** dialog box, double-click the combining job that you want to use in the comparison.

   The **Compare to Combining Job** opens, displaying the similarities and differences between the production control job and the combining job.

   Matching items in the production control job and the combining job are highlighted with green.

   Items that do not match in the combining job and the production control job are highlighted with red.

4. Review the comparison results.

   To only view particular items, modify the values at the top of the dialog box and click **Process** to update the displayed items.

5. To view the comparison results as a report, click **View Report**.

   The comparison report opens in **Tekla EPM Report Viewer**.

   You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla EPM Report Viewer** window to email the report via Microsoft Outlook.

See also

Compare the labor hours in a production control job and an estimating job (page 148)

Compare the labor hours in a production control job and an estimating job

Use the **Compare to Estimating Job** command to view if there are differences in the labor hours recorded in the current production control job and the labor hours listed in an estimating job.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Review** --> **Compare to Estimating Job** .
3. In the **Select Estimating Job** dialog box, double-click the estimating job that you want to use in the comparison.

   The **Compare to Estimate** dialog box opens, displaying the labor hours.

   The labor hours of the estimate are displayed on the left sorted by labor group.

   The labor hours of the production control job are displayed on the right sorted by production control station.

   The totals appear at the bottom of the dialog box.

4. Review the comparison results.
5. To view the comparison results as a report, click **View Report**.

   The comparison report opens in **Tekla EPM Report Viewer**.

   You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla EPM Report Viewer** window to email the report via Microsoft Outlook.

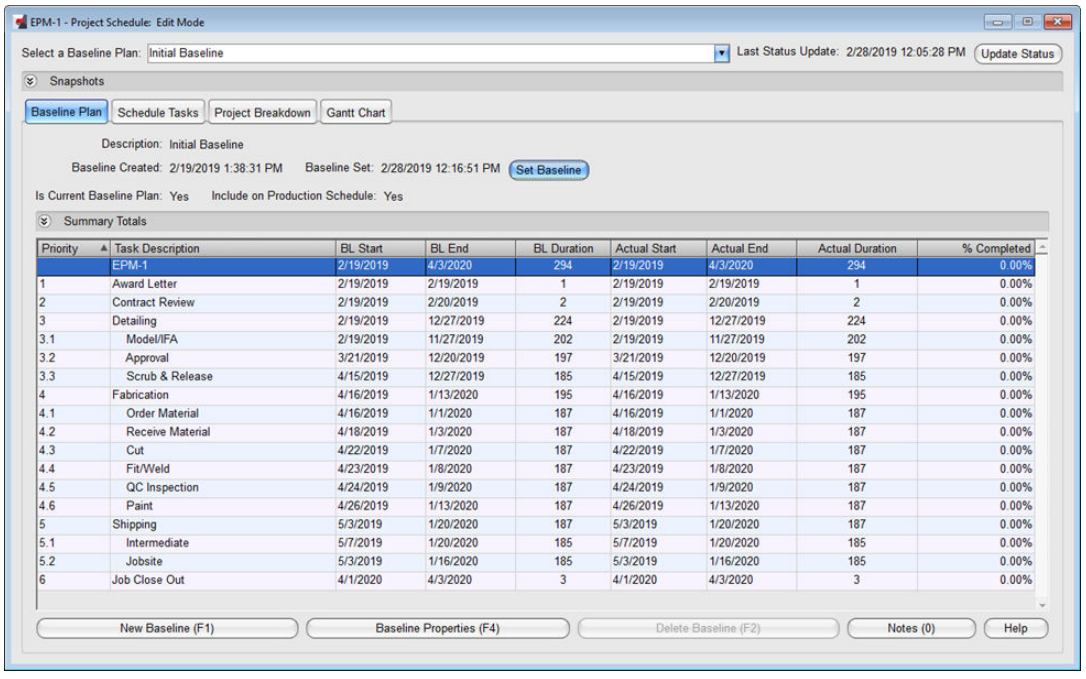
View and adjust the project schedule

In the **Project Schedule** dialog box, you can create, view, and modify the project schedule of the current project. Note that you can only access the **Project Schedule** dialog box from a production control job if you have linked the production control job to a project management job.

To access the **Project Schedule** dialog box, do one the following:

To	Do this
Access the project schedule from the **Project Management** module	• At the bottom of the **Project Management** dialog box, click **Project Schedule**.
Access the project schedule from the **Production Control** module	1. In the **Production Control** dialog box, click the **Production Control** ribbon tab. 2. In the menu, select **Project Schedule**.

The **Project Schedule** dialog box opens. The same dialog box is available in the **Project Management** module. Note that the **Schedule Tasks** dialog box opens at the same time as well.



Priority	Task Description	BL Start	BL End	BL Duration	Actual Start	Actual End	Actual Duration	% Completed
	EPM-1	2/19/2019	4/3/2020	294	2/19/2019	4/3/2020	294	0.00%
1	Award Letter	2/19/2019	2/19/2019	1	2/19/2019	2/19/2019	1	0.00%
2	Contract Review	2/19/2019	2/20/2019	2	2/19/2019	2/20/2019	2	0.00%
3	Detailing	2/19/2019	12/27/2019	224	2/19/2019	12/27/2019	224	0.00%
3.1	Model/IFA	2/19/2019	11/27/2019	202	2/19/2019	11/27/2019	202	0.00%
3.2	Approval	3/21/2019	12/20/2019	197	3/21/2019	12/20/2019	197	0.00%
3.3	Scrub & Release	4/15/2019	12/27/2019	185	4/15/2019	12/27/2019	185	0.00%
4	Fabrication	4/16/2019	1/13/2020	195	4/16/2019	1/13/2020	195	0.00%
4.1	Order Material	4/16/2019	1/1/2020	187	4/16/2019	1/1/2020	187	0.00%
4.2	Receive Material	4/18/2019	1/3/2020	187	4/18/2019	1/3/2020	187	0.00%
4.3	Cut	4/22/2019	1/7/2020	187	4/22/2019	1/7/2020	187	0.00%
4.4	Fit/Weld	4/23/2019	1/8/2020	187	4/23/2019	1/8/2020	187	0.00%
4.5	QC Inspection	4/24/2019	1/9/2020	187	4/24/2019	1/9/2020	187	0.00%
4.6	Paint	4/26/2019	1/13/2020	187	4/26/2019	1/13/2020	187	0.00%
5	Shipping	5/3/2019	1/20/2020	187	5/3/2019	1/20/2020	187	0.00%
5.1	Intermediate	5/7/2019	1/20/2020	185	5/7/2019	1/20/2020	185	0.00%
5.2	Jobsite	5/3/2019	1/16/2020	185	5/3/2019	1/16/2020	185	0.00%
6	Job Close Out	4/1/2020	4/3/2020	3	4/1/2020	4/3/2020	3	0.00%

The **Project Schedule** dialog box contains multiple tabs:

- On the **Baseline Plan** tab, you can set and modify the current project baseline.
- On the **Schedule Tasks** tab, you can add, modify, move, and delete tasks that are on the project schedule.

- On the **Project Breakdown** tab, you can divide a project into sub-tasks. Usually, this is done by sequence or lot number, but it can also be done by category, sub-category, or pay category.
- On the **Gantt Chart** tab, you can view and modify the dates and completion percentages of different tasks.

For more information, see the following links:

Switch edit mode on and off (page 150)

Create, modify, and delete baseline plans (page 150)

Add, modify, and delete schedule tasks (page 157)

Add, modify, and delete breakdown items (page 164)

Apply a schedule template (page 178)

View changes in the project schedule and add savepoints (page 155)

Update the project schedule (page 179)

Add, modify, and view time tracking information (page 180)

Export the project schedule to XML format (page 185)

Modify the Gantt chart (page 169)

Create a project schedule report (page 185)

Example: Create a project schedule (page 187)

Switch edit mode on and off

When working in the **Project Schedule** dialog box, you can only make changes when you have the edit mode on. The edit mode ensures that Tekla EPM users do not make conflicting changes if they work on the project schedule simultaneously. While one has the edit mode on, no other user can make changes to the project schedule of the same project. Other users can still view the schedule.

Any time that you try to make changes to a project schedule after the timeout time has been reached, a confirmation dialog box will open, asking if you want to enter edit mode.

You can also switch the edit mode on or off by using a keyboard shortcut. Do the following:

- To switch the edit mode on, press **Ctrl+E** on the keyboard.

The edit mode will stay on until you press **Ctrl+E** again or the timeout time is reached. The timeout ensures that a user does not lock out others from making changes to the project schedule for a long period of time.

To adjust the timeout time, see .

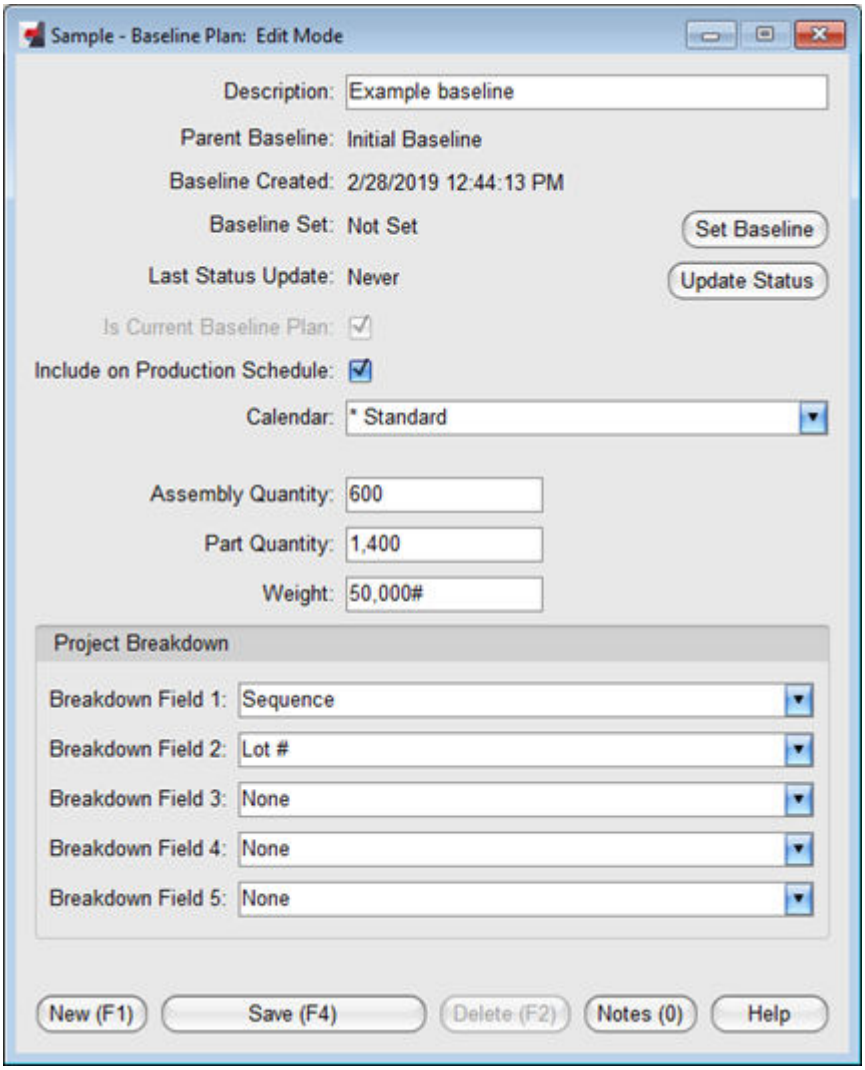
Create, modify, and delete baseline plans

A baseline plan is a listing of schedule tasks, dependencies, and estimated dates, that demonstrates the intent of a project. The actual progress is compared against the baseline plan. A project can have multiple baseline plans, so that you can explore different scenarios that show the effect that a change would have on the schedule. You can set any baseline plan as the current plan of the project at any time.

You cannot create, modify, or delete baselines if you are viewing a snapshot. For more information about snapshots, see View changes in the project schedule and add savepoints (page 155).

Create a baseline plan

1. In the **Project Schedule** dialog box, go to the **Baseline Plan** tab.
2. Click **New Baseline**.



3. In the **Description** field, type a description for the baseline plan.

   The first baseline plan will automatically be named as `Initial Baseline`, but you can modify the name according to your needs.

4. If you want to use the baseline plan as the current baseline plan, select the **Is Current Baseline Plan** check box.

5. If you want to assign resources to the baseline plan and include the baseline plan in the production schedule, select the **Include on Production Schedule** check box.

   If you do not want the baseline plan to be shown in the production schedule and resource capacity, clear the **Include on Production Schedule** check box. For example, this might be the case if the production schedule is created only for quoting.

6. Click **Add**.

   The baseline is created. You can now further modify its properties.

7. To select the calendar that determines the working days and non-working days in the project, click the arrow on the right side of the **Calendar** field and select a calendar in the list.

   To modify the available calendars, go to **Maintenance** --> **Project Management** --> **Schedule Calendars** .

8. Modify the remaining baseline properties according to your needs.

Option	Description
Assembly Quantity	The total number of assemblies in the project. This value is automatically updated when you update the status of the project schedule. Type the total number of assemblies in the **Assembly Quantity** field.
Part Quantity	The total number of parts in the project. This value is automatically updated when you update the status of the project schedule. Type the total number of parts in the **Part Quantity** field.
Weight	The total weight of the materials in the project. This value is automatically updated when you update the status of the project schedule. Type the total weight in the **Weight** field.

9. To define the available breakdown levels, click the arrows next to the breakdown fields in the **Project Breakdown** section of the dialog box.

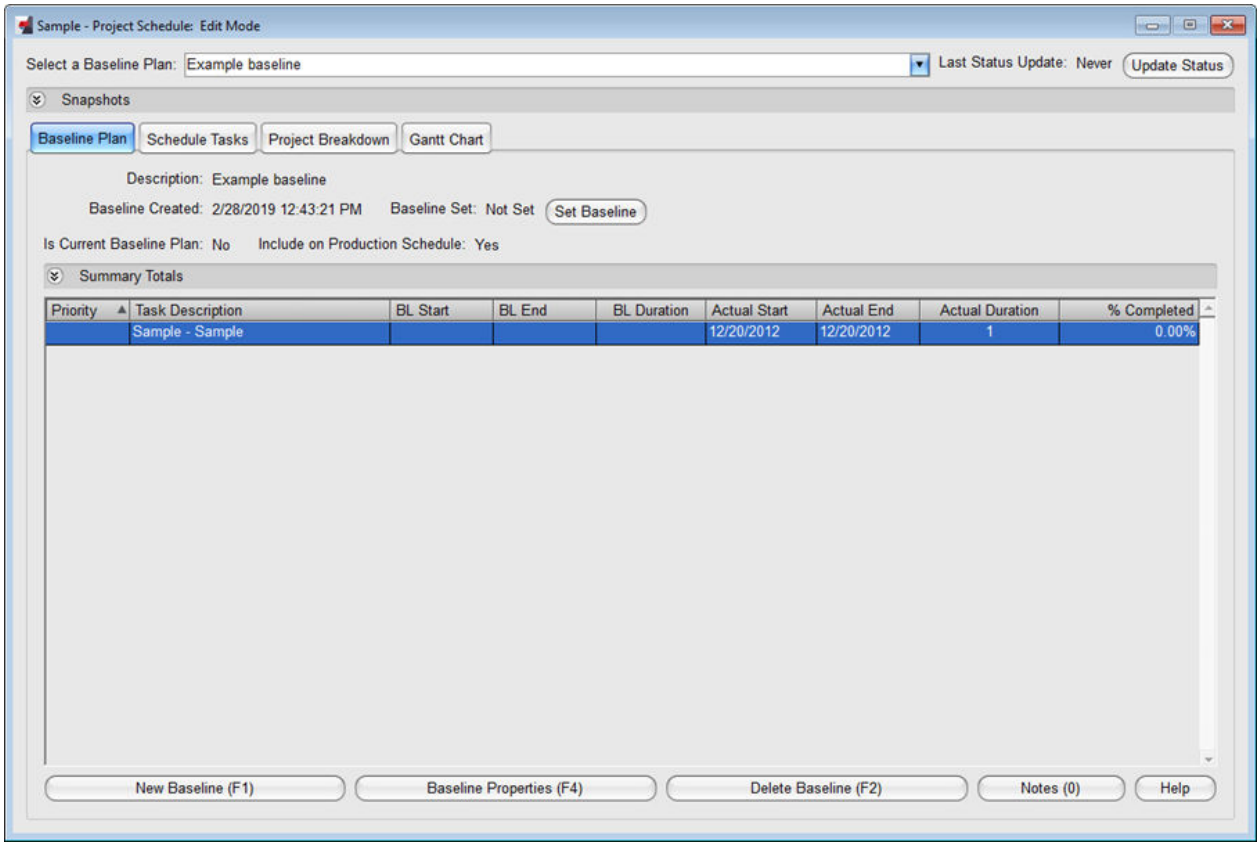
   By default, two levels of breakdown items (sequences and lot numbers) are available. To make more levels available, select options in the

Breakdown Field 3, **Breakdown Field 4**, and **Breakdown Field 5** lists. If you do not want a breakdown level to be available, select **None**.

For example, to enable categories as the breakdown level below lots, select **Category** in the **Breakdown Field 3** list.

10. Click **Save**.

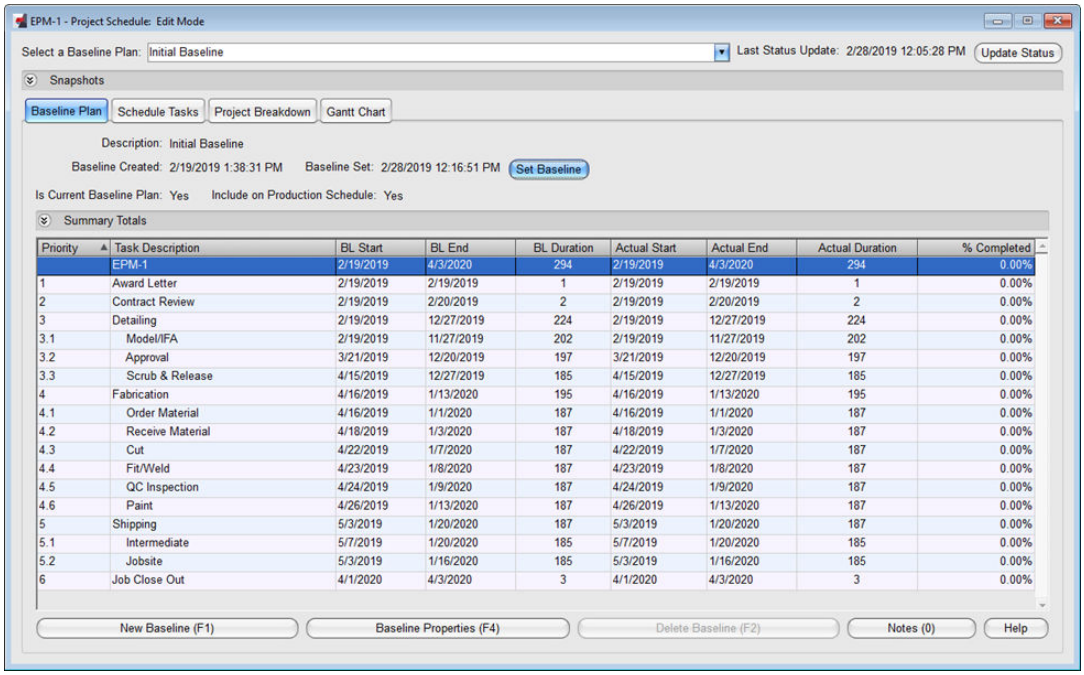
Copy the current schedule status to baseline columns



1. On the **Baseline Plan** tab, click **Set Baseline**.
2. In the confirmation dialog box, click **Yes** to set the baseline values.

The baseline is saved, and the baseline dates update in the blank columns.

Change the current baseline plan



- On the **Baseline Plan** tab, click the arrow on the right side of the **Select a Baseline Plan** field, and select the desired baseline in the list.

The new baseline plan is displayed in the **Project Schedule** dialog box.

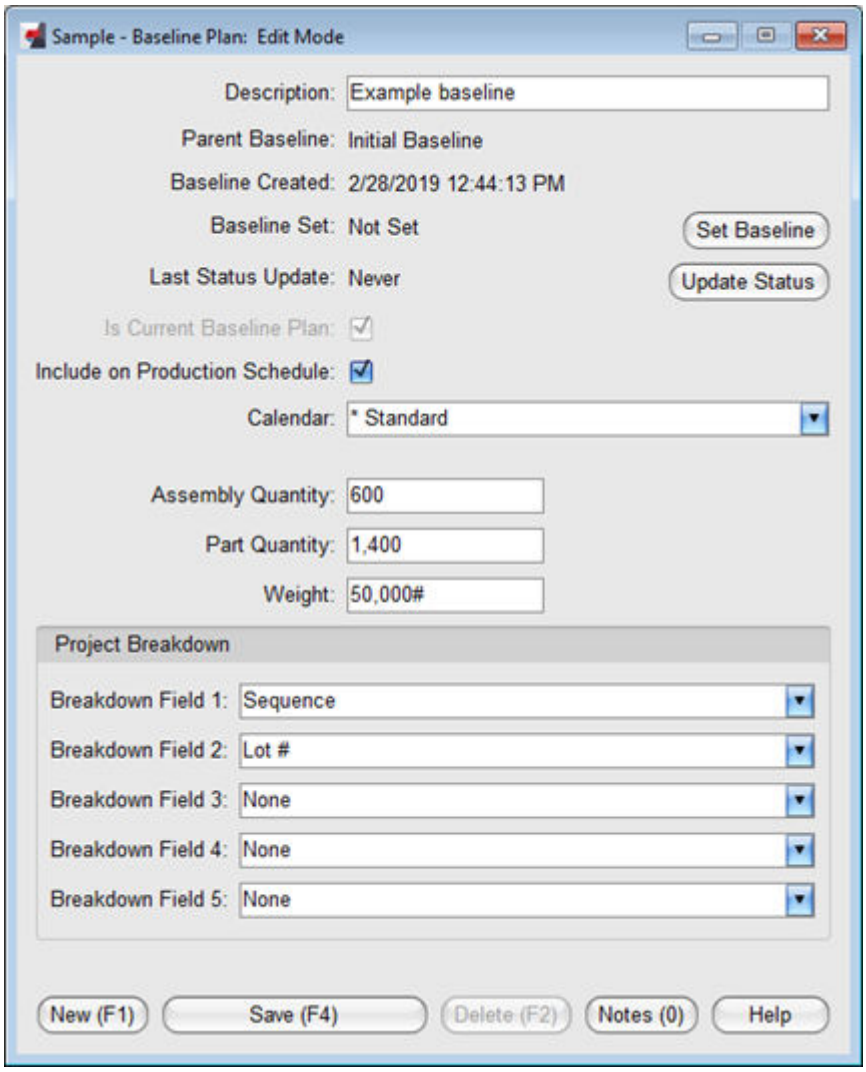
View the total values and breakdown information of the project

- To display the total values of the project, on the **Baseline Plan** tab, click the arrow on the left side of **Summary Totals**.
- To display the breakdown information of a task, select a task on **Baseline Plan** tab, and the click the arrow on the left side of **Breakdown Summary**.

  The number of breakdown items and the average assembly quantity, part quantity, and weight are displayed for the selected task.
- To select if actual total values, baseline total values, or both are displayed for the totals and the breakdown summary, click the arrow on the right side of the **Show Totals** list, and select an option in the list.

Modify a baseline plan

1. On the **Baseline Plan** tab, click **Baseline Properties**.
2. In the **Baseline Plan** dialog box, modify the baseline plan properties according to your needs.



For more information on the properties, see Create a baseline plan.

3. Click **Save** to save the changes.

Delete a baseline plan

Deleting a baseline plan is permanent and cannot be undone.

1. On the **Baseline Plan** tab, click the baseline plan that you want to delete.
2. Click **Delete Baseline**.
3. In the confirmation dialog box, click **Yes** to permanently delete the baseline.

View changes in the project schedule and add savepoints

Snapshots represent the baseline plan at previous points in time. Each time you make a change to the project schedule, Tekla EPM automatically takes a snapshot. You can then use the snapshots to compare the project schedule at two different points in time and view the impacts of changing the schedule.

You can also load existing snapshots to view the project schedule at a particular point in time. If you want to mark the snapshot as a particularly important point in time, you can record it as a savepoint.

1. Click the arrow on the left side of **Snapshots** to expand the **Snapshots** section.

   You can see the currently displayed snapshot after **Currently Viewing Snapshot**. If you are viewing the current project schedule, the value will be **[Current]**.

2. Do any of the following:

To	Do this
Load a snapshot	a. Click the arrow on the right side of the **Schedule Snapshot** field, and select a snapshot in the list. If you only want the list to display the savepoints that have been recorded, select the **Only Show Savepoints** check box. b. Click **Load Snapshot**. The **Project Schedule** dialog box displays the project schedule at the selected point in time. To view the current project schedule again, in the **Schedule Snapshot** list, select **[Current]**.
Record a savepoint	a. In the **Project Schedule** dialog box, make any changes. b. Click **Record Savepoint**. c. In the first confirmation dialog box, click **Yes** to save the changes you made. d. In the second confirmation dialog box, click **Yes** to confirm entering edit mode. When you are in the edit mode, other users cannot make conflicting changes to the project schedule. e. In the **Snapshot: Edit Mode** dialog box, type a description for the savepoint. f. Ensure that the **Is Savepoint** check box is selected. g. Click **Save**.

To	Do this
	h. In the third confirmation dialog box, click **Yes** to confirm entering edit mode. This way, no other user can make conflicting changes to the project schedule at the same time.

Add, modify, and delete schedule tasks

Schedule tasks are events that occur or actions that are taken during a project. In the **Schedule Tasks** dialog box, you can add, modify, and delete schedule tasks. Tasks can be organized into a hierarchy that contains main tasks and sub-tasks. In this case, the statuses of the main tasks are aggregated from the sub-tasks.

Add a task to the project schedule

1. In the **Project Schedule** dialog box, open the **Schedule Tasks** tab.
2. Click **New**.

   The **Schedule Tasks** dialog box opens. The tasks already in the schedule are displayed in the navigation tree on the left-hand pane.
3. Type a description for the new task.
4. Modify the task properties according to your needs:

   The available properties are:

Option	Description
Parent Task	If the task you are creating is a sub-task, for an existing task, you need to select the main task. Click the arrow on the right side of **Parent Task** field, and select a task in the list. If you are creating a top-level task, select **None**. Note that you cannot modify the task type, duration, or original estimate time of a main task if you add a sub-task.
Task Type	Specifies the behavior of the task on the **Gantt Chart** tab. The available task types are: • **Start/End**: an action to be performed over a period of time. Properties include the start date, end date, and duration. Start/end tasks can be directly re-sized an moved on the **Gantt Chart** tab. • **Summary**: takes the aggregate values from its sub-tasks. The start date of a summary task is

Option	Description
	automatically set to the earliest date of the sub-tasks. The end date is set to the latest sub-task end date, and the percent completed is aggregated based on the status summary method. Summary tasks cannot be re-sized on the **Gantt Chart** tab directly. However, the sub-tasks can be re-sized and moved, and the summary main task will re-sized and moved accordingly. • **Milestone**: an event in the schedule. For example, a project kickoff meeting can be a milestone task. The end date and the start date are always the same, and the duration is set to one day.
Sequence, **Lot #**, and other breakdown category check boxes	When selected, the task is divided into sub-tasks by the breakdown category. This means that you have to add the breakdown category for all items when adding them. Note that the project breakdown check boxes cannot be selected or cleared when the task has been added.
Apply Breakdown Links	When selected, the links set in the project schedule are added between sub-tasks. For example, any links set between sequences 1, 2, and 3 would be added. When cleared, the links set between sub-tasks are not added, even if they have been set in the project schedule.
Duration	The expected number of working days to complete a task. The duration can only be adjusted if the task type is set to **Start/End**. Type the number of days in the **Duration** field.
Original Estimate	The time originally estimated for the entire main task or a sub-task. The hours will automatically be distributed among the sub-tasks on the Gantt chart. Type the time in man hours in the **Original Estimate** field.
Status Link	The information that affects the status of the task when the project schedule is updated. The available options are:

Option	Description
	• **Drawings Approved**: the number of drawings with the **Approved** status. • **Material Purchased**: the production material that is linked to material that is either in stock or on order. • **Material Received**: the production material that is linked to material that is in stock. • **TFS**: the production material that has been cut. • **Production Completed**: the production material that has been assigned a route and has completed all stations in that route. • **Production Progress**: the production material that has been assigned a route and has completed some stations in that route. • **Station Progress**: the production material that has been assigned a route that includes the selected station and has completed that station. • **Shipping Destination Progress**: the production material that has been assigned a shipping route that includes the selected destination and has completed that destination. • **Shipping Completed**: the production material that has completed all assigned shipping destinations. Click the arrow on the right side of **Status Link** field, and select an option in the list.
Status Summary Method	The method that determines how the percentage completed of a main task will be calculated from the sub-tasks. Each option specifies the weight that is given to each sub-task in the calculation. The available options are: • **No Factor**: no weight is given to the individual sub-tasks. The percentage completed of the main task is an average of the sub-tasks. • **By Quantity**: the percentage completed is weighed by the quantity of each sub-task. • **By Weight**: the percentage completed is weighed by the weight of each sub-task.

Option	Description
	• **By Duration**: the percentage completed is weighed by the duration of each sub-task. Click the arrow on the right side of **Status Summary Method** field, and select a calculation method in the list.
Resource	An object with a time-based capacity to be added on a production schedule, and the resource by which station work will be executed. Linking a task from the project schedule to a resource connects the project and production schedules. Click the arrow on the right side of **Resource** list, and select a resource in the list.
Assigned To	The Tekla EPM user that who task is assigned to.

5. Click **Add**.
6. Select the new task in the navigation tree.
7. In the **Link Tasks** section of the dialog box, define dependencies between two tasks.

   By creating links, you can make the schedule cascade from one task to another.

   Note that:

   - A task cannot link to itself.
   - A link cannot be created between a task and one of its sub-tasks.
   - Duplicate links are not allowed. There can be only one link between a pair of tasks.
   - Link cycles are not allowed. For example, if a link is created from task 1 to task 2, a link cannot be created from task 2 to task 1.
   - When you use links, and the duration of an item changes, the positions of all linked items also changes. Do not link items that need to remain static, or are independent from other items in the schedule.

   Do any of the following:

To	Do this
Add a link that ends with the current given task	Note that if a previous snapshot is displayed instead of the current project schedule information, you cannot add a predecessor link. a. Click **New Predecessor Link**.

To	Do this
	b. Click the arrow on the right side of **Link From** list, and in the list, select the starting task of the link. c. Click the arrow on the right side of upper **Position** field, and in the list, select if the link originates from the start or end of the starting task. d. Click the arrow on the right side of lower **Position** field, and in the list, select if the link ends at the start or finish of the second task. e. In the **Minimum Interval** field, type the minimum number of working days between the two tasks. The minimum interval is enforced in the Gantt chart. The later task cannot be moved earlier in the Gantt chart than the value in the **Minimum Interval** field determines. f. Click **Add**. g. In the confirmation dialog box, click **Yes**. For example, to set that shipping must start when the fabrication is finished, select **Shipping** and set the link a follows: • **Link From**: **Fabrication** • Upper **Position**: **Finish** • Lower **Position**: **Start** • **Minimum Interval**: `0 days`
Add a link that begins with the current task	Note that if a previous snapshot is displayed instead of the current project schedule information, you cannot add a successor link. a. Click **New Successor Link**. b. Click the arrow on the right side of upper **Position** field, and in the list, select if the link originates from the start or end of the starting task. c. Click the arrow on the right side of **Link To** field, and in the list, select the task that is the ending point of the link. d. Click the arrow on the right side of lower **Position** field, and in the list, select if the link ends at the start or finish of the second task.

To	Do this
	e. In the **Minimum Interval** field, type the minimum number of working days between the two tasks. The minimum interval is enforced in the Gantt chart. The later task cannot be moved earlier in the Gantt chart than the value in the **Minimum Interval** field determines. f. Click **Add**. g. In the confirmation dialog box, click **Yes**. For example, to set that shipping must start when the fabrication is finished, select **Fabrication** and set the link a follows: • Upper **Position**: **Finish** • **Link To**: **Shipping** • Lower **Position**: **Start** • **Minimum Interval**: `0 days`
View and modify link properties	a. Click **Link Properties**. b. Modify the starting task, ending task, the task positions, and interval according to your needs. c. Click **Save** to update the link properties.
Delete a link	a. Click a link in the list to select it. b. Click **Delete Link**. c. In the confirmation dialog box, click **Yes** to permanently delete the links.

8. To save the links, click **Save**.
9. If necessary, add notes about the task:
    a. In the navigation tree on the left-hand pane, click the task to which you want to add notes.
    b. At the bottom of the dialog box, click **Notes**.
    c. In the **Notes** dialog box, click **New**.
    d. Type any notes about the task.
    e. Click **Add**.
    f. In the confirmation dialog box, click **Yes**.

g. Click the **Close** button (**X**) to close **Notes** dialog box.

Repeat the process for each task that you want to add.

Move a task earlier or later in the schedule

1. Select the task that you want to move.
2. Click the **Move Up** and **Move Down** buttons to move the task earlier or later.

Modify a task

1. In the navigation tree on the left-hand pane, click the task that you want to modify.
2. Modify the task properties and links according to your needs.

   For more information on the properties and links, see Add a link to the project schedule.
3. Click **Save** to save the changes.

Delete a task

1. In the navigation tree on the left-hand pane, click the task that you want to delete from the schedule.
2. Click **Delete Task**.
3. In the confirmation dialog box, click **Yes** to permanently delete the task.

Save schedule tasks as a schedule template

Schedule templates can contain all of the schedule items and attributes required for a typical setup. By saving a set of schedule tasks as a schedule template, you can apply the same schedule tasks in multiple jobs. The times and other details can be modified for each project, but the tasks, child tasks, and links remain the same.

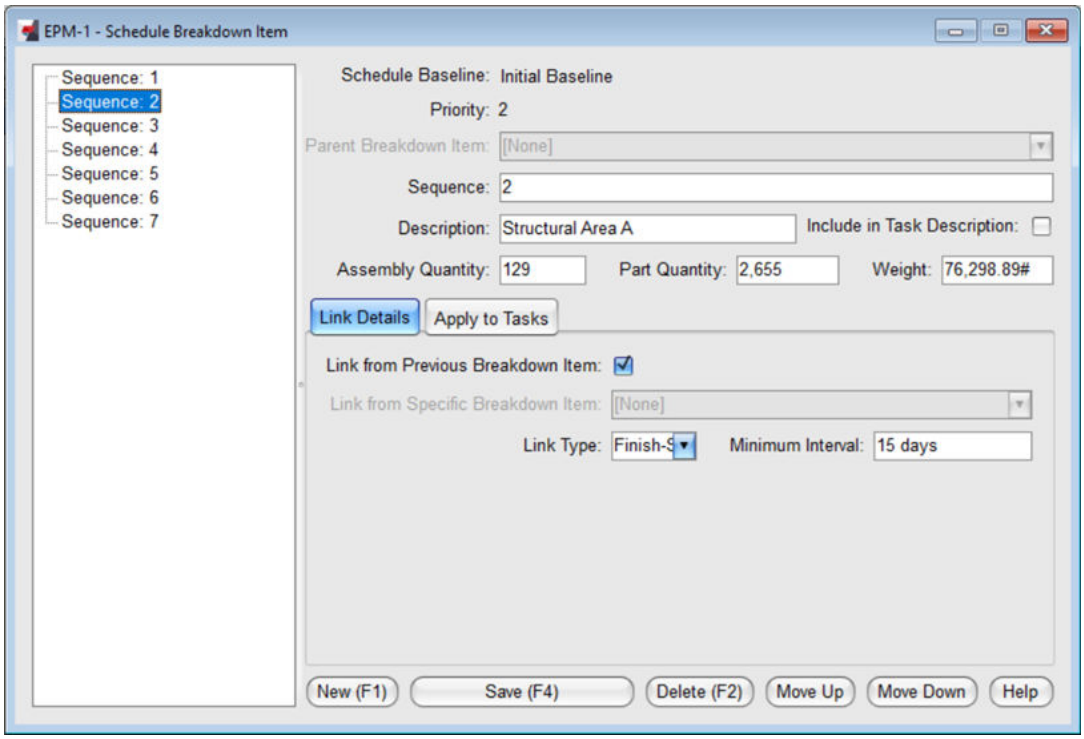
1. In the **Schedule Tasks** dialog box, modify the schedule tasks to meet your needs.

   For more information, see Add, modify, and delete schedule tasks (page 157).
2. Click the **Schedule Tasks** ribbon tab.
3. In the menu, select **Save As Template**.
4. Type a description for the template.
5. Click **OK** to save the template.

   A message opens, telling you that the template is saved.
6. Click **OK** to close the message.

Add, modify, and delete breakdown items

Schedule breakdown items allow you to divide a project into sub-tasks to schedule and track the completion of tasks. Sequences and lots are often used as breakdown items, so that tasks can be performed for each sequence and lot separately. You can add new breakdown items, modify existing ones, change the priorities of breakdown items, and delete any unnecessary breakdown items.



Add a new breakdown item

Note that if you cannot add new breakdown items if you are currently viewing a snapshot. For more information, see View changes in the project schedule and add savepoints (page 155)

1. On the **Project Breakdown** tab of the **Project Schedule** dialog box, click **New**.
2. In the **Schedule Breakdown Item** dialog box, define properties for the new breakdown item.

Option	Description
Parent Breakdown Item	If the breakdown item you are creating is a sub-item for another existing breakdown item, you need to select the main breakdown item. Click the arrow on the right side of **Parent Breakdown Item** field, and select a breakdown

Option	Description
	item in the list. If you are creating a top-level breakdown item, select **None**. Note that the main breakdown item cannot be changed after the breakdown item is added.
Sequence, **Lot #**, **Category**, **Sub-Category**, **Pay Category**	The breakdown value that associates the breakdown item with the relevant project data. Note that the breakdown value must match the project data exactly. For example, in the **Sequence** field, the sequence must be exactly the same as in the production control job. Otherwise, the project data cannot be updated properly. Type the breakdown value in the field.
Description	The description of the breakdown item. For example, `First floor beams and columns`. Type a description in the **Description** field.
Include in Task Description	When selected, the breakdown item description will be included in the task description in addition to the breakdown value. For example, if the description of sequence 6 is `Third Floor Beams`, and the **Include in Task Description** check box is selected, the description of the resulting task in the Gantt chart will be `Sequence: 6 - Third Floor Beams`. Instead, if the **Include in Task Description** check box is cleared, then the description of the task in the Gantt chart will be `Sequence: 6`.
Assembly Quantity	The total number of assemblies associated with the breakdown item. This value is automatically updated when you update the project schedule status. Type the total number of assemblies in the **Assembly Quantity** field.
Part Quantity	The total number of parts associated with the breakdown item. This value is automatically updated when you update the project schedule status. Type the total number of parts in the **Part Quantity** field.
Weight	The total material weight associated with the breakdown item. This value is automatically

Option	Description
	updated when you update the project schedule status. Type the total weight in the **Weight** field.

3. Click the **Apply to Tasks** tab to open it.
4. To select the schedule tasks to which the breakdown item is applied, do one of the following:
   - To apply the breakdown item to all schedule tasks, select the **All** check box.
   - To only apply the breakdown item to specific schedule task, click **Select**, use the arrow buttons to move the desired tasks to the **Included** list, and click **OK**.

   When you apply the breakdown item to a task, the task becomes a summary task with sub-tasks automatically created under it for each sub-item.
5. Do the following to determine which links will be applied between the sub-tasks:
   a. Do one of the following:
      - To create a link from the previous breakdown item to the current one, select the **Link from Previous Breakdown Item** check box.

        The **Link from Previous Breakdown Item** cannot be selected if the current breakdown item is the first breakdown item or the first sub-item under a main breakdown item.
      - To create a link from any previous breakdown item with the same main breakdown item to the current one, click the arrow on the right side of the **Link from Specific Breakdown Item** field, and select a breakdown item in the list.

        Links will be created from the sub-task associated with that breakdown item.

   b. Click the arrow on the right side of the **Link Type** field and select a link type in the list.

      The options are:
      - **Start-Start**
      - **Finish-Start**
      - **Start-Finish**
      - **Finish-Finish**

   c. In the **Minimum Interval** field, type the minimum number of working days between the two sub-tasks.

For example, to create a link from the start of a sequence to the start of a second sequence, the second sequence starting 5 working days after the previous one, you should set the link details as follows:

- **Link Type**: **Start-Start**
- **Minimum Interval**: `5 days`

6. Click **Add**.

The breakdown item and its link details are added to the project schedule. You can see the breakdown item in the navigation tree on the left side of the dialog box.

Modify a breakdown item

You cannot modify breakdown items if you are currently viewing a snapshot. For more information, see View changes in the project schedule and add savepoints (page 155).

1. On the **Project Breakdown** tab of the **Project Schedule** dialog box, click the breakdown item that you want to modify.
2. Click **Properties**.
3. Modify the properties of the breakdown item according to your needs:

Option	Description
Sequence, **Lot #**, **Category**, **Sub-Category**, **Pay Category**	The breakdown value that associates the breakdown item with the relevant project data. Note that the breakdown value must match the project data exactly. For example, in the **Sequence** field, the sequence must be exactly the same as in the production control job. Otherwise, the project data cannot be updated properly. Type the breakdown value in the field.
Description	The description of the breakdown item. For example, `First floor beams and columns`. Type a description in the **Description** field.
Include in Task Description	When selected, the breakdown item description will be included in the task description in addition to the breakdown value. For example, if the description of sequence 6 is `Third Floor Beams`, and the **Include in Task Description** check box is selected, the description of the resulting task in the Gantt chart will be `Sequence: 6 - Third Floor Beams`. Instead, if the **Include in Task Description** check box is cleared, then the description of the task in the Gantt chart will be `Sequence: 6`.

Option	Description
Assembly Quantity	The total number of assemblies associated with the breakdown item. This value is automatically updated when you update the project schedule status. Type the total number of assemblies in the **Assembly Quantity** field.
Part Quantity	The total number of parts associated with the breakdown item. This value is automatically updated when you update the project schedule status. Type the total number of parts in the **Part Quantity** field.
Weight	The total material weight associated with the breakdown item. This value is automatically updated when you update the project schedule status. Type the total weight in the **Weight** field.

4. Click the **Apply to Tasks** tab to open it.
5. To modify the schedule tasks to which the breakdown item is applied, do one of the following:
   - To apply the breakdown item to all schedule tasks, select the **All** check box.
   - To only apply the breakdown item to specific schedule task, click **Select**, use the arrow buttons to move the desired tasks to the **Included** list, and click **OK**.
6. Do the following to modify which links will be applied between the sub-tasks:
   a. Do one of the following:
      - To create a link from the previous breakdown item to the current one, select the **Link from Previous Breakdown Item** check box.

        The **Link from Previous Breakdown Item** cannot be selected if the current breakdown item is the first breakdown item or the first sub-item under a main breakdown item.
      - To create a link from any previous breakdown item with the same main breakdown item to the current one, click the arrow on the right side of the **Link from Specific Breakdown Item** field, and select a breakdown item in the list.

        Links will be created from the sub-task associated with that breakdown item.

b. Click the arrow on the right side of the **Link Type** field and select a link type in the list.

   The options are:

   - **Start-Start**
   - **Finish-Start**
   - **Start-Finish**
   - **Finish-Finish**

c. In the **Minimum Interval** field, type the minimum number of working days between the two sub-tasks.

7. Click **Save** to update the breakdown item properties.

Change the priority of a breakdown item

Moving breakdown items up or down in the list changes their priority. If you move a breakdown item up, its priority is swapped with the previous breakdown item, whereas if you move a breakdown item down, its priority is swapped with the following breakdown item. For example, moving an item with the priority 1.3 up would change its priority to 1.2.

You cannot move breakdown items up or down if you are currently viewing a snapshot. For more information, see View changes in the project schedule and add savepoints (page 155).

1. On the **Project Breakdown** tab of the **Project Schedule** dialog box, click the breakdown item that you want to move.
2. Click the **Move Up** and **Move Down** buttons.
3. In the confirmation dialog box, click **Yes** to confirm moving the breakdown item.

Delete a breakdown item

Note that deleting a breakdown item is permanent and cannot be undone. All sub-items of the selected breakdown item are deleted as well.

You cannot delete a breakdown item if you are currently viewing a snapshot. For more information, see View changes in the project schedule and add savepoints (page 155).

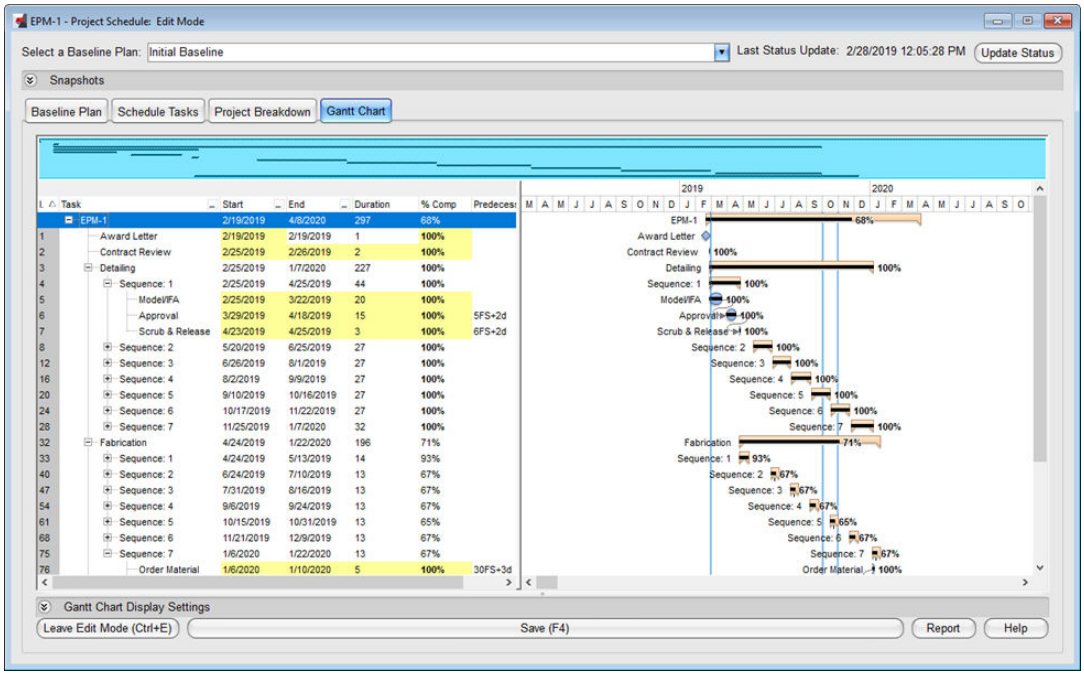
1. On the **Project Breakdown** tab of the **Project Schedule** dialog box, click the breakdown item that you want to delete.
2. Click **Delete**.
3. In the confirmation dialog box, click **Yes** to permanently delete the breakdown item.

Modify the Gantt chart

The chart on the **Gantt Chart** tab of the **Project Schedule** dialog box gives you a visual representation of the schedule. You can modify the view of the Gantt chart according to your needs by including and excluding items, and scaling the chart. You can also move the tasks in the Gantt chart to move them earlier or later in the project schedule.

To modify the Gantt chart, do the following:

1. In the **Project Schedule** dialog box, click the **Gantt Chart** tab to open it.
2. To enable modifying the information, click **Enter Edit Mode** at the lower-left corner, or press **Ctrl+E** on the keyboard.



In the Gantt chart, you can see the following information:

- The left side of the tab shows the properties of schedule tasks.
- The right side of the tab shows the schedule tasks visually as bars on the time line.

  The tasks look different and behave differently depending on their task type:

  - **Summary** tasks (or main tasks) are displayed as orange bars. A summary task cannot be re-sized directly. Instead, you can re-size and move the sub-tasks to change the duration or dates of the summary task. When a summary task is moved earlier or later, the sub-tasks are moved by the same number of days.
  - **Start/End** tasks are displayed as blue bars. **Start/End** tasks can be re-sized and moved in the Gantt chart.

    - **Milestone** tasks are displayed as blue diamonds. Milestones can be moved in the Gantt chart, but they cannot be re-sized.
- Links between tasks are represented by arrows from the predecessor tasks to the successor tasks.
- Any cells that are highlighted with yellow can be modified.

Right-click anywhere in the Gantt chart to find shortcuts to more commands:

- **Goto Task**: Zooms to the beginning of the bar of the selected task.
- **Time Tracking Summary**: Opens the **Time Tracking Summary** dialog box. For more information, see Add, modify, and view time tracking information (page 180).
- **Time Tracking Detail**: Opens the **Time Tracking Detail** dialog box. For more information, see Add, modify, and view time tracking information (page 180).
- **Time Tracking Input**: Opens the **New Time Tracking Record** dialog box. For more information, see Add, modify, and view time tracking information (page 180).
- **Production Schedule**: Allows you to view the production schedule. For more information, see View the production schedule (page 191).
- **Date Filter**: Allows you to select a date range that you want to see in the Gantt chart. When you apply the filter, tasks that are at least partially within the entered date range will be visible.
- **Scale chart to** options: Scale the Gantt chart to day, week, or month, according to your needs.
- **Show Links**/**Hide Links**: Shows or hides the links between tasks.
- **Show Overview**/**Hide Overview**: Shows or hides the overview section above the Gantt chart.
- **Expand All**: Expands all summary tasks so that all sub-tasks are visible.
- **Expand Summary**: Expands the task hierarchy so that all summary tasks are visible. sub-tasks are not displayed.
- **Expand Level**: Expands the selected task and other tasks with the same main task.
- **Collapse All**: Collapses all summary tasks.
- **Save Image**: Allows you to save the Gantt chart as a single image file.

Modify the dates of tasks

1. Do one of the following:
    - Click the **Start** or **End** cell of the task, and select a date in the calendar.
    - Click the task bar, hold down the left mouse button, drag the task earlier or later in the schedule, and release the left mouse. button

Note that:

- If the task has one or more predecessor links, the bar cannot be moved earlier than the predecessor tasks and link intervals determine.
- If the task has one or more successor links, when the task is moved later, the successor tasks will also be moved later, if that is necessary to maintain the link interval.

Repeat this process for all tasks to move them in the correct locations.

2. Click **Save**.

Modify the duration of tasks

1. Do one of the following:
   - Click the **Duration** cell of the task and type a new value in the cell.
   - Hover the mouse pointer over the beginning or the end of the task bar until a two-headed arrow appears, drag the start or end position of the bar earlier or later, and release the mouse button.

   Note that:
   - If the task has one or predecessor links, the bar cannot be changed to start earlier than the predecessor tasks and link intervals determine.
   - If the task has one or more successor links, when the task is changed to end earlier, any successor tasks will be moved earlier by the same number of days in order to keep their relative position the same.
   - If the task has one or more successor links, when the task is changed to end later, the successor tasks will be moved later, if that is necessary to maintain the link interval.
2. Click **Save**.

Modify task properties

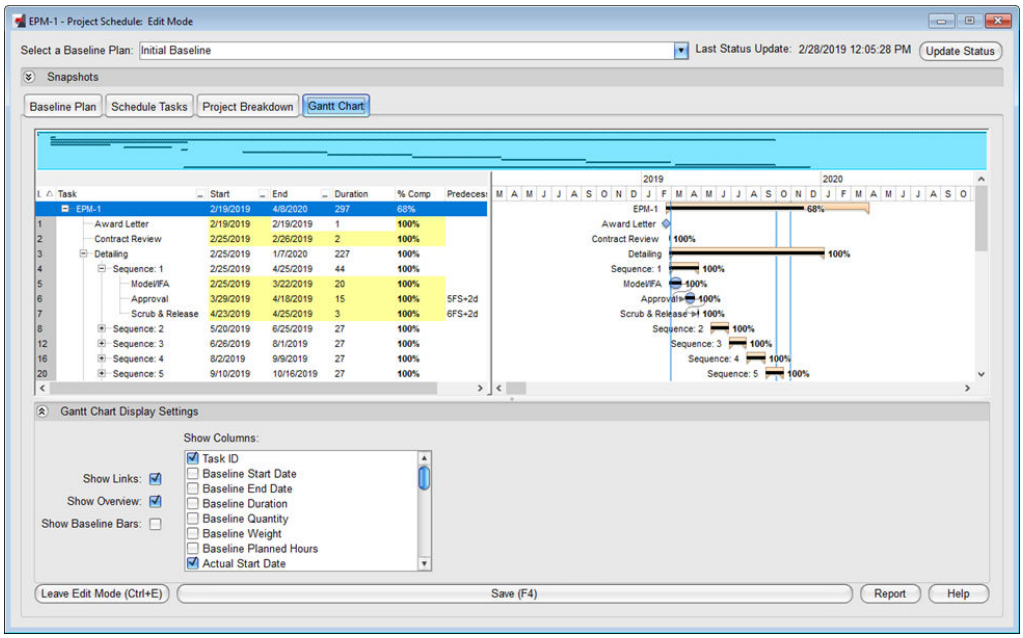
On the left side of the Gantt chart, you can modify the task properties, such as the duration, completion percentage, or used resource.

Note that only cells that are highlighted with yellow can be modified.

1. On the left side of the dialog box, click a cell of the task.
2. Modify the value in the cell according to your needs.
3. Click **Save** to update the project schedule.

Modify display settings

1. Click the arrow on the right side of **Gantt Chart Display Settings** to expand the display settings.



2. Modify the following options according to your needs:

Option	Description
Task ID	The unique identifier of the task in the project schedule.
Baseline Start Date, **Baseline End Date**	The start and end dates of the task when the baseline was set. If the baseline has not been set, the **BL Start** and **BL End** cells are blank.
Baseline Duration	The duration of the task when the baseline was set. If the baseline has not been set, the **BL Duration** cells are blank.
Baseline Quantity	The quantity of the task when the baseline was set. If the baseline has not been set, the **BL Quantity** cells are blank.
Baseline Weight	The weight of the task when the baseline was set. If the baseline has not been set, the **BL Weight** cells are blank.
Baseline Planned Hours	The total planned hours of the task when the baseline was set. If the baseline has not been set, the **BL Hours** cells are blank.

Option	Description
Actual Start Date	The actual start date of the task in the project schedule. To change the start date, click the arrow on the right side of the **Start** cell, and select a date in the calendar. When you change the start date, the task will move to the selected date in the Gantt chart. The duration of the task will remain the same, so the task will not be resized.
Actual End Date	The actual end date of the task in the project schedule. To change the end date, click the arrow on the right side of the **End** cell, and select a date in the calendar. When you change the end date, the duration of the task will change accordingly in the Gantt chart, and the task will be re-sized.
Actual Duration	The actual duration of the task in the project schedule. To change the duration, type a new value in the **Duration** cell. When you change the duration, the end task of the task will change accordingly in the Gantt chart, and the task will be re-sized.
Actual Quantity	The quantity related to the task in the bill of materials. This value is set when you update the project schedule (page 179).
Actual Weight	The weight related to the task in the bill of materials. This value is set when you update the project schedule (page 179).
Percent Completed	The percentage of the task that is completed. To change the percentage, click the **% Comp** cell and type a percentage in the cell. When you change the percentage, the percentage completed of the main tasks will automatically be updated based on the summary status method task setting. For more information, see Add, modify, and delete schedule tasks (page 157).

Option	Description
Original Estimate	The number of original estimate hours applied to the task. If the task is divided by sequences, lots, or other breakdown fields, the hours will be distributed to the resulting tasks on the Gantt Chart, weighed by duration. To adjust the original estimate hours, click the **Orig. EST** cell and type the number of hours in the field. When you adjust the original estimate hours, the adjusted number of hours will appear in italics in the Gantt Chart. The remaining hours will be redistributed among the tasks that have not been manually adjusted. You can return to the automatic distribution of hours by clearing the value in the **Orig. EST** cell.
Unreleased Hours	The number of original estimate hours that have not yet been released, calculated by the **Percent Released** value. For example, if the original estimate is 500 hours and the task is 20% released, the number of unreleased hours will be 400.
Planned Hours (**Base Hours**)	The planned hours that have been released. Tasks that have the **Status Link** option selected will have this field updated automatically when the project schedule status is updated (page 179). For more information, see Add, modify, and delete schedule tasks (page 157).
Adjustment Hours	Allows you to manually adjust the planned hours. To adjust the number of planned hours, click the **Adjustment** cell, and type a value.
Percent Released	The percentage of the original estimate hours that have been released and that appear in the **Base Hours** field. This field will update automatically when the planned hours are updated. For example, if the original estimate is 500 hours and the planned hours is updated to 100 hours, the percentage released is 20%. This will in turn update the unreleased hours to 400. Once all material associated with a task has been released, the percent released may need to be manually adjusted, so that no further unreleased hours are included in the total planned hours. Let's

Option	Description
	say that a task is broken out into 4 sequences and the original estimate is 2,000 hours. If all 4 sequence tasks have the same duration, each one will receive 500 of the original estimate hours. The drawings are submitted for sequence 1, and after the next status update, the planned hours are set to 100 hours, which will update the percent released to 20%. Since Tekla EPM does not know if we have received all of sequence 1, the remaining unreleased hours will still be included in the total planned hours calculation. If everything has in fact been received for sequence 1, you can manually set the percent to 100%, so that no further unreleased hours will be included in the total planned hours. To adjust the percentage, click in the **% Released** cell, and type a percentage in the cell. When you manually adjust the released hours, the number will appear in italics. When you have manually adjusted the percentage released, the value will not be automatically adjusted according to any changes made to the planned hours. To return to the automatic calculated value, clear the value in the cell.
Total Planned Hours (**Plan Hours**)	The total number of the unreleased hours, planned hours, and adjustment hours for the task.
Linked Hours	The number of hours updated according to the **Status Link** option. For example, the **Production Progress**, **Production Completed**, and **Station Progress** options will update the linked **Linked Hours** with the hours entered in **Piece Tracking**. For more information, see Add, modify, and delete schedule tasks (page 157). To adjust the number of linked hours, click the **Linked Hours** cell, and type the number of hours.
Regular Hours	The regular hours associated with the task, entered in time tracking. For more information, see Add, modify, and view time tracking information (page 180).
Overtime Hours	The overtime and double overtime hours associated with the task, entered in time tracking. For more information, see Add, modify, and view time tracking information (page 180).

Option	Description
Total Hours	The total hours worked on the task, coming from either the linked hours or the regular and overtime hours from time tracking. To ensure that the time is not duplicated, the time tracking hours override the linked hours. If the number of either regular or overtime hours is greater than zero, the total hours will be set to the regular hours plus the overtime hours. If the number of both regular and overtime hours is zero, the total hours will be set to the linked hours.
Utilization Percent	The utilization percentage is calculated as the percentage of the total hours compared to the total planned hours. For example, if the number of total planned hours is 500 and the number of total hours is 200, the utilization percentage will be 40%. If the utilization percentage is over 5% greater than the percentage of the task completed, the utilization percentage will be highlighted in red. In this example, if the percent completed is 35% or less, the utilization percentage of 40% will be highlighted in red.
Assigned to User	The user who is responsible for the task. For more information, see Add, modify, and delete schedule tasks (page 157). To change the assigned user, click the arrow on the right side of the **Assigned To** cell and select a user in the list.
Resource	The resource that the task has been assigned to for production scheduling purposes. For more information, see Add, modify, and delete schedule tasks (page 157) andView the production schedule (page 191). To change the resource, click the arrow on the right side of the **Resource** cell and select a resource in the list.
Predecessors	The linked tasks that are immediate predecessors of the task.
Successors	The linked tasks that are immediate successors of the task.
Show Links	When selected, Tekla EPM shows task links as arrows in the Gantt chart.

Option	Description
Show Overview	When selected, Tekla EPM shows the overview section above the Gantt chart.
Show Baseline Bars	When selected, Tekla EPM shows the baseline dates as a yellow bar on the Gantt chart as set when the baseline was set. The baseline overlay bars will not be shown if: • The baseline has not been set. • The task has the same start and end dates as the baseline dates. • The task has been added after the baseline was set.

3. Click **Save** to update the Gantt chart.

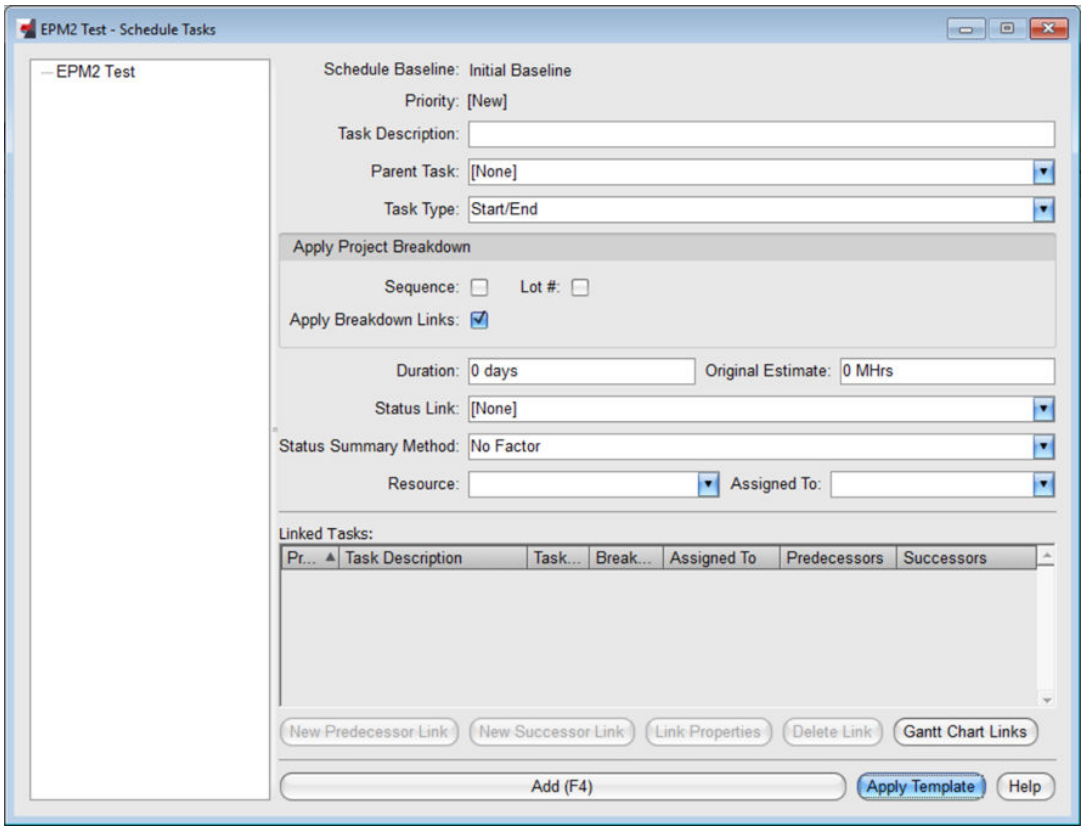
Print a Gantt chart report

You can create and print a report that is an exact copy of the Gantt chart. Note that all content that you have selected in the **Gantt Chart Display Settings** section will be visible in the report as well.

1. At the lower-right corner of the **Gantt Chart** tab, click **Report**.
2. In the **Print Review** dialog box, click **Setup...** and adjust the paper size, orientation, margins, and printer properties according to your needs.
3. Click **Print**.
4. When the report has been printed, click **Close** to close the **Print Review** dialog box.

Apply a schedule template

Schedule templates can contain all of the schedule items and attributes required for a typical setup. Existing schedules can be saved as templates, and then applied to a new job using the **Apply Template** button. The schedule can always be modified to fit the project requirements.



To create a schedule template, see .

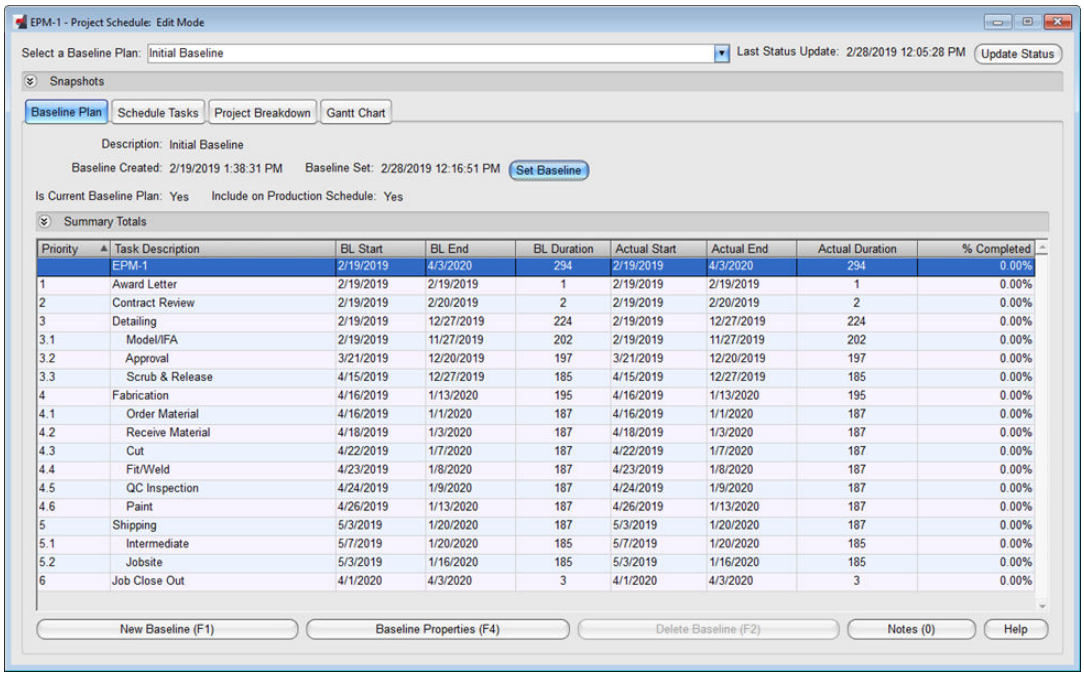
1. Open the **Schedule Tasks** dialog box.
2. In the lower-right corner, click **Apply Template**.
3. In the **Enter Value** dialog box, click the arrow on the right side of the field, and select the schedule template that you want to use.
4. Click **OK**.

   The schedule template is now applied to the project schedule.
5. Click the **Close** button (**X**) to close the **Schedule Tasks** dialog box.

Update the project schedule

When you update a project schedule, Tekla EPM collects all time and progress status information on the current project in **Production Control**, **Project Management**, and **Purchasing**. Once the update process is ready, all activity is updated to the chart on the **Gantt Chart** tab. For example, if drawings have been submitted and approved, the percentage completed for drawing submittal will update.

You can see the last time the project schedule was updated in the upper-right corner of the **Project Schedule** dialog box, after **Last Status Update**.



Priority	Task Description	BL Start	BL End	BL Duration	Actual Start	Actual End	Actual Duration	% Completed
	EPM-1	2/19/2019	4/3/2020	294	2/19/2019	4/3/2020	294	0.00%
1	Award Letter	2/19/2019	2/19/2019	1	2/19/2019	2/19/2019	1	0.00%
2	Contract Review	2/19/2019	2/20/2019	2	2/19/2019	2/20/2019	2	0.00%
3	Detailing	2/19/2019	12/27/2019	224	2/19/2019	12/27/2019	224	0.00%
3.1	Model/IFA	2/19/2019	11/27/2019	202	2/19/2019	11/27/2019	202	0.00%
3.2	Approval	3/21/2019	12/20/2019	197	3/21/2019	12/20/2019	197	0.00%
3.3	Scrub & Release	4/15/2019	12/27/2019	185	4/15/2019	12/27/2019	185	0.00%
4	Fabrication	4/16/2019	1/13/2020	195	4/16/2019	1/13/2020	195	0.00%
4.1	Order Material	4/16/2019	1/1/2020	187	4/16/2019	1/1/2020	187	0.00%
4.2	Receive Material	4/18/2019	1/3/2020	187	4/18/2019	1/3/2020	187	0.00%
4.3	Cut	4/22/2019	1/7/2020	187	4/22/2019	1/7/2020	187	0.00%
4.4	Fit/Weld	4/23/2019	1/8/2020	187	4/23/2019	1/8/2020	187	0.00%
4.5	QC Inspection	4/24/2019	1/9/2020	187	4/24/2019	1/9/2020	187	0.00%
4.6	Paint	4/26/2019	1/13/2020	187	4/26/2019	1/13/2020	187	0.00%
5	Shipping	5/3/2019	1/20/2020	187	5/3/2019	1/20/2020	187	0.00%
5.1	Intermediate	5/7/2019	1/20/2020	185	5/7/2019	1/20/2020	185	0.00%
5.2	Jobsite	5/3/2019	1/16/2020	185	5/3/2019	1/16/2020	185	0.00%
6	Job Close Out	4/1/2020	4/3/2020	3	4/1/2020	4/3/2020	3	0.00%

1. In the upper-right corner of the **Project Schedule** dialog box, click **Update Status**.

   The **Status Update** dialog box opens, displaying the progress of the update process.

2. Once the update is completed, click the **Close** button (**X**) to close the **Status Update** dialog box.

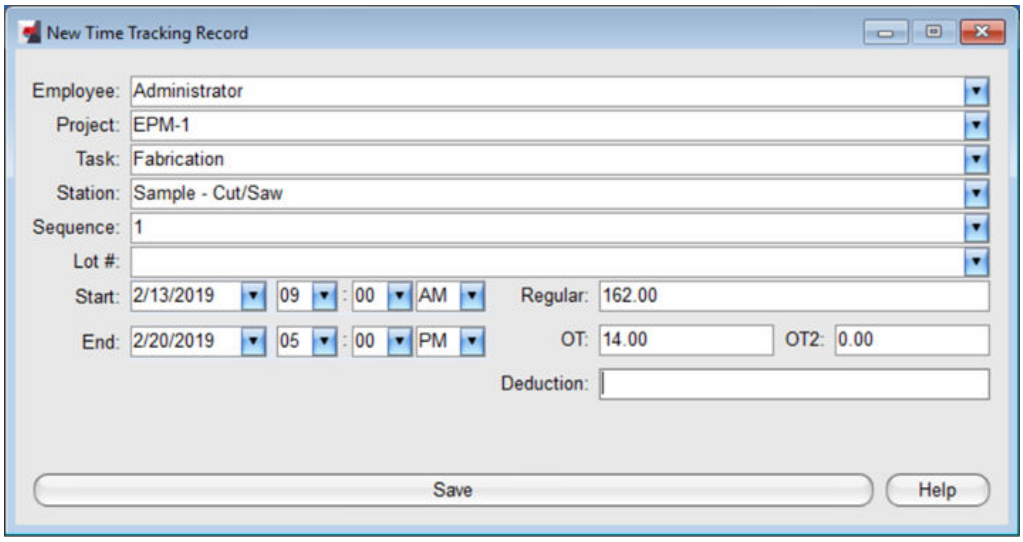
Add, modify, and view time tracking information

Use the time tracking commands to add time tracking records to a project schedule, and to view and modify the existing time tracking records.

To adjust the time tracking settings, see .

Add a time tracking record

1. In the **Project Schedule** dialog box, click the **Project Schedule** ribbon tab.
2. In the menu, select **Time Tracking Input**.



3. In the **New Time Tracking Record** dialog box, define the following properties:

Option	Description
Employee	The Tekla EPM user who is adding the record. Tekla EPM automatically uses the user that is logged in, but you can select another user as well. Note that the **Employee** field is optional. If you do not want the hours entered to be applied to a specific employee, you can leave the field blank. Click the arrow on the right side of **Employee** field, and select a user in the list.
Project	The project management job for which you are adding the time record. Click the arrow on the right side of **Project** field, and select a project management job in the list.
Task	The schedule task for which you are adding the time record. The **Task** field is optional. If you leave the field blank, the time record will be applied to the project as a whole. Click the arrow on the right side of **Task** field, and select a schedule task in the list.

Option	Description
Station	The station for which you are adding the time record. The **Station** field is optional. If you leave the field blank, the time record will be applied to the project as a whole. Click the arrow on the right side of **Station** field, and select a station in the list.
Sequence	The sequence for which you are adding the time record. The **Sequence** field is optional. If you leave the field blank, the time record will be applied to the project as a whole. Click the arrow on the right side of **Sequence** field, and select a sequence in the list.
Lot #	The lot for which you are adding the time record. The **Lot #** field is optional. If you leave the field blank, the time record will be applied to the project as a whole. Click the arrow on the right side of **Lot #** field, and select a lot number in the list.

4. Click the arrows on the right side of the **Start** and **End** fields, and select the start and end dates and times in the calendar.

   Tekla EPM automatically calculates the number of working hours. The calculation method that is used can be set in **Time Tracking Settings**.

5. If necessary, modify the working hours according to your needs:

   a. In the **Regular** field, type the time that will be logged as regular hours for the project, or task, station, sequence, or lot.

   b. In the **OT** and **OT2** fields, type the time that will be logged as overtime and double overtime hours for the project, or task, station, sequence, or lot.

   c. In the **Deduction** field, type the time used for unpaid activities, such as lunch. This time will not be logged against the project, ask, station, sequence, or lot.

   If the start and end times and the hours that you added do not match, you can adjust the difference by double-clicking the field where you added hours. For example, if the difference between the start and end time is 2 hours and you enter 1.50 for regular hours, double-clicking on the **OT** field will set its value to 0.50.

   If the total hours are less than the difference between the start and end time, the difference will automatically be added as deduction hours.

6. Click **Save**.

The record is added.

Note that Tekla EPM does not save the record if:

- Two time tracking records marked to the same Tekla EPM user overlap.
- A Tekla EPM user is selected and the total sum of regular, overtime, and double overtime hours is greater than the difference in the start and end time.

Modify, delete, or import time tracking records

1. In the **Project Schedule** dialog box, click the **Project Schedule** ribbon tab.
2. In the menu, select **Time Tracking Detail**.
3. In the **Time Tracking Filters** dialog box, click the arrows on the right side of fields in the **Start Date** and **End Date** sections, and select the minimum and maximum start and end dates in the calendars.
4. To only view and modify specific time tracking records, click the available filtering buttons.
5. In the filter dialog box, click the arrow buttons to move the values that you want to include to the **Included** list.
6. Click **OK**.
7. Click **Apply Filter**.

   The **Time Tracking Detail** dialog box opens, displaying all previously created time tracking records.

   To only view records that match particular criteria, you can select items in the navigation tree on the left.
8. Do any of the following:

To	Do this
Modify a time tracking record	a. Click **Properties**. b. Modify the properties of the time tracking record. For more information, see Add a time tracking record. c. Click **Save** to update the time tracking record.
Import time tracking records	a. Click the **Time Tracking Detail** ribbon tab. b. In the menu, select **Import Time Tracking Records - Excel**. c. In the **Open** dialog box, browse to find the file that you want to import.

To	Do this
	d. Double-click the file. e. In the **Verify Excel Import Data** dialog box, verify the time tracking information. f. If you want to exclude a row in Microsoft Excel, hold down **Alt** and double-click a row. g. Click **OK**. h. In the **Import Field Map** dialog box, click an import field in the list. i. Select the corresponding field in the **Tekla EPM Field** list and click **Set Field Mapping**. j. Click **OK**. The import starts. k. When the import is completed, click **Open Import Log** and view the import details. l. Click the **Close** button (**X**) to close the import log and the **Import** dialog box.
Delete time tracking records	Note that deleting time tracking records is permanent and cannot be undone. a. In the **Time Tracking Detail** dialog box, click the time tracking records that you want to delete. To select multiple items, hold down **Ctrl**. To select a range of subsequent items, hold down **Shift**. b. Click the **Time Tracking Detail** ribbon tab. c. In the menu, select **Delete Selected Records**. d. In the first confirmation dialog box, click **Yes**. e. In the second confirmation dialog box, click **Yes** to permanently delete the tracking records.

View a time tracking summary

1. In the **Project Schedule** dialog box, click the **Project Schedule** ribbon tab.
2. In the menu, select **Time Tracking Summary**.
3. In the upper-left corner of the **Time Tracking Filters** dialog box, select the fields that you want to view in the time tracking summary.

   The selected fields will be columns in the summary.

4. Click the arrows on the right side of fields in the **Start Date** and **End Date** sections, and select the minimum and maximum start and end dates in the calendars.
5. To only view and modify specific time tracking records, click the available filtering buttons.
6. In the filter dialog box, click the arrow buttons to move the values that you want to include to the **Included** list.
7. Click **OK**.
8. Click **Apply Filter**.

   The dialog box opens, displaying a summary of the time tracking records created.
9. View the time tracking information.
10. Do any of the following:
    - To create a new time tracking record, click **New**.

      For more information, see Add a time tracking record.
    - To access the **Time Tracking Detail** dialog box, click **Time Tracking Detail**.

      For more information, see Modify, delete, or import time tracking records.
    - To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Export the project schedule to XML format

You can export the project schedule and save it in the desired folder as an XML file. You can select from two XML options: either the option used in Primavera, or the option used in Microsoft Projects.

1. In the **Project Schedule** dialog box, click the **Project Schedule** ribbon tab.
2. In the menu, select **Export**, and then, select the preferred XML option.
3. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla EPM saves the file to the **Export** folder.
4. If necessary, modify the file name.
5. Click **Save**.

The project schedule is saved in the selected location as an XML file.

Create a project schedule report

You can create different project schedule reports according to your needs. You can either view the completion percentage and duration of the schedule tasks, or compare the changes made to schedule tasks from one baseline plan to another.

1. In the **Project Schedule** dialog box, click the **Project Schedule** ribbon tab.
2. In the menu, select **Reports**, or press **Ctrl+R** on the keyboard.
3. Click the arrow on the right side of **Baseline Plan** field of the **Schedule Report** dialog box, and select the baseline plan that you want to use in the report.
4. If you wish, add a snapshot of the selected baseline plan to the report to the by clicking the arrow on the right side of the **Snapshot** field, and selecting a snapshot in the list.

   If you only want to select from snapshots marked as savepoints, select the **Only Show Savepoints** check box.
5. If you want to compare two different versions of the project schedule, do the following:
   a. Select the **Run Comparison Report** check box.
   b. Click the arrow on the right side of lower **Baseline Plan** field, and select a baseline plan in the list.
   c. Click the arrow on the right side of lower **Snapshot** list, and select a snapshot in the list.

      To be able to compare two versions of a project schedule, ensure that you select a different baseline plan and snapshot than in the lists above.
6. Click **Make Report**.
7. In the **Report Selection** dialog box, click the report that you want to view, print, or export.

   For comparison, click the **Comparison Report** to view the tasks that have changed between the two baseline plans.
8. According to your needs, do any of the following:

To	Do this
View the report	• Click **View**. The report opens in **Tekla EPM Report Viewer**. You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla EPM Report Viewer** window to email the report via Microsoft Outlook.
Print the report	a. Change the number of the printed copies by clicking the **+** and **-** buttons.

To	Do this
	b. Click **Print**. c. In the confirmation dialog box, click **Yes** to confirm printing the report. d. In the **Select Printer** dialog box, click a printer to select it. e. Click **OK**.
Export the report	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name according to your needs. f. Click **Save**. g. If you want to attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** check box. h. If you want to open the file after exporting it, select the **Open Exported Document** check box. i. Click **Export**.

9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

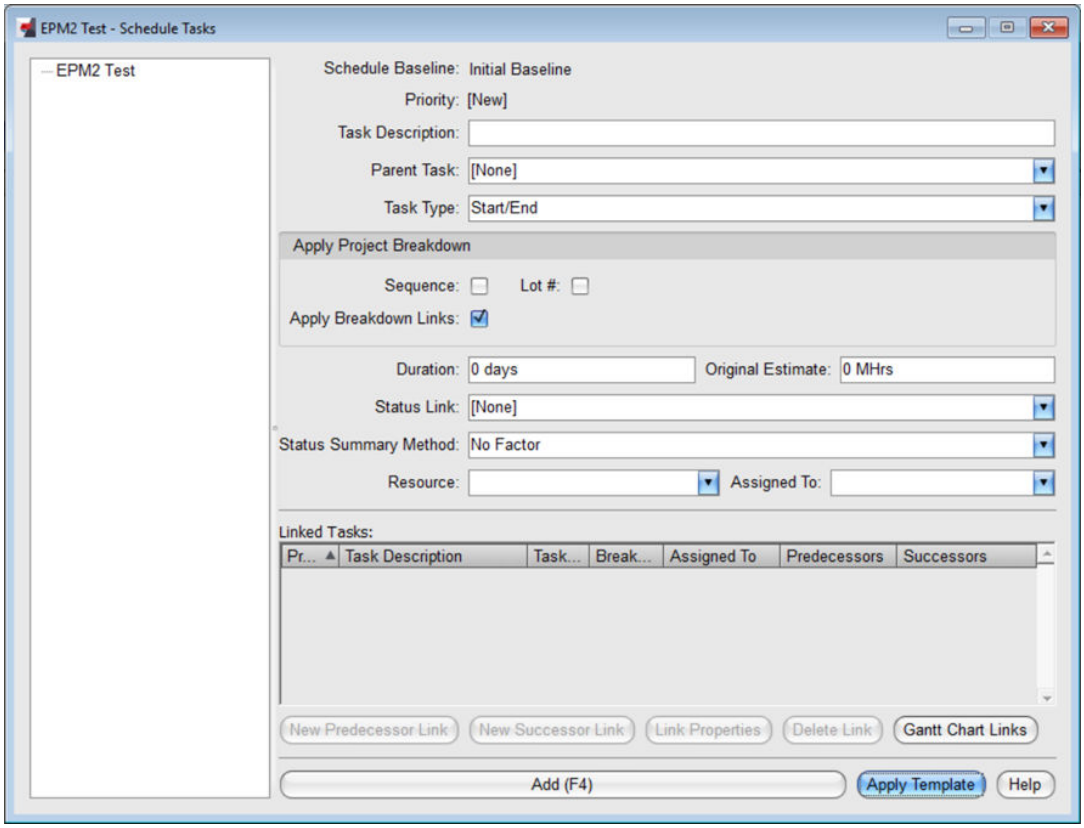
Example: Create a project schedule

The following steps provide an example workflow for creating a project schedule in the **Project Schedule** dialog box.

1. Apply a schedule template

Schedule templates can contain all of the schedule items and attributes required for a typical setup. Existing schedules can be saved as templates, and then applied to a new job using the **Apply Template** button. The schedule can always be modified to fit the project requirements.

To create a schedule template, see .

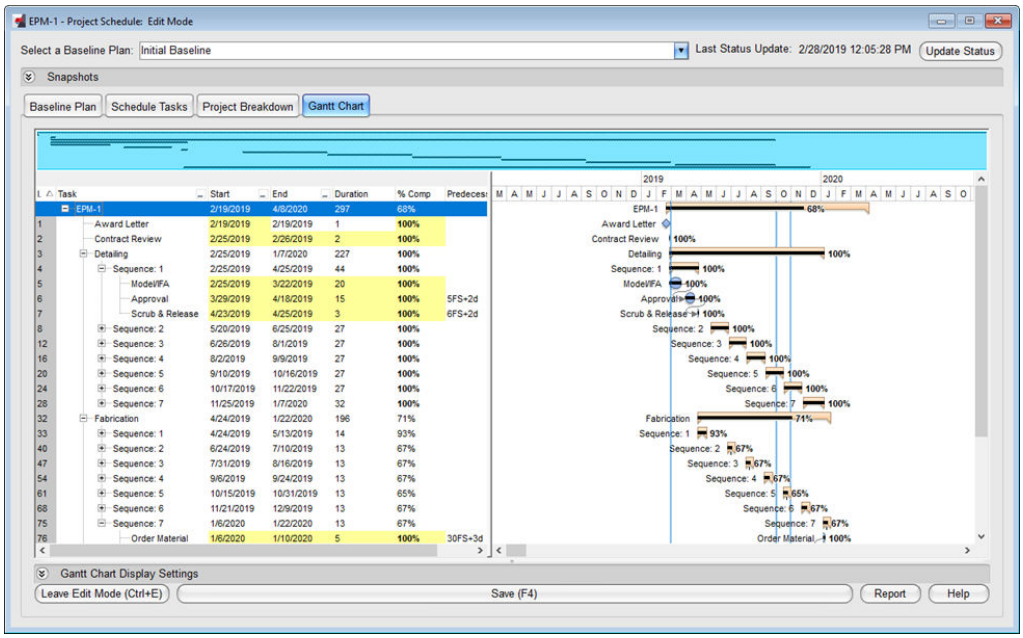


1. Open the **Schedule Tasks** dialog box.
2. In the lower-right corner, click **Apply Template**.
3. In the **Enter Value** dialog box, click the arrow on the right side of the field, and select the schedule template that you want to use.
4. Click **OK**.

   The schedule template is now applied to the project schedule.
5. Click the **Close** button (**X**) to close the **Schedule Tasks** dialog box.

2. Modify the schedule dates

1. Open the **Gantt Chart** tab.



2. Click **Enter Edit Mode**.

   Any information that is highlighted with yellow can be modified.

3. To modify what is shown in the chart, click the arrows on the left side of **Gantt Chart Display Settings** and select the check boxes for items that you want to show.

   For more information on the display settings, see Modify the Gantt chart (page 169).

4. Click **Save** to update the view.

   You can also modify if the chart displays time as days, weeks, or months. To do so, right-click anywhere in the chart, and select the suitable **Scale chart to** option.

5. To modify the dates of tasks in the chart, do one of the following:

   - Click the **Start** or **End** cell of the task, and select a date in the calendar.
   - Click a task, hold down the left mouse button, drag the task to the right location, and release the left mouse button.

   Repeat this process for all tasks to move them in the correct locations.

6. Click **Save**.

3. Set the baseline

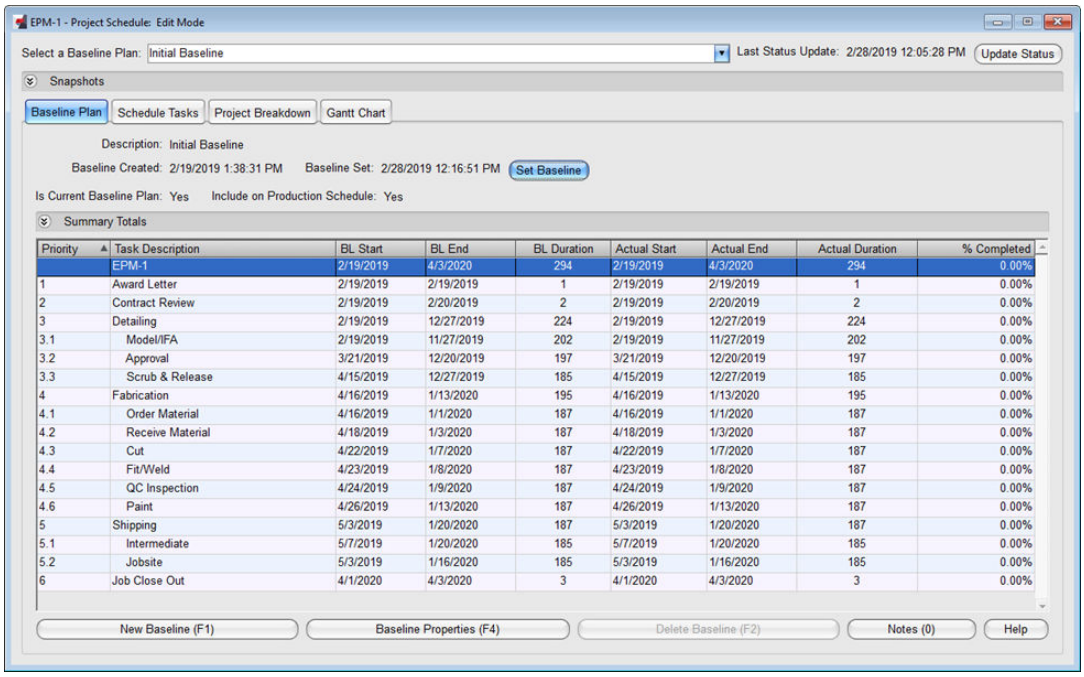
When tasks have been moved to the desired dates, you need to set the project baseline. You can later compare the baseline duration to the actual duration

during the project. The baseline also sends information to the production schedule.

If you have modified the dates on the **Gantt Chart** tab, you can set the baseline easily. Do the following:

1. Click the **Baseline Plan** tab to open it.
2. Click **Set Baseline**.
3. In the confirmation dialog box, click **Yes** to set the baseline values.

The baseline is saved, and the baseline dates update in the blank columns.



Priority	Task Description	BL Start	BL End	BL Duration	Actual Start	Actual End	Actual Duration	% Completed
	EPM-1	2/19/2019	4/3/2020	294	2/19/2019	4/3/2020	294	0.00%
1	Award Letter	2/19/2019	2/19/2019	1	2/19/2019	2/19/2019	1	0.00%
2	Contract Review	2/19/2019	2/20/2019	2	2/19/2019	2/20/2019	2	0.00%
3	Detailing	2/19/2019	12/27/2019	224	2/19/2019	12/27/2019	224	0.00%
3.1	Model/IFA	2/19/2019	11/27/2019	202	2/19/2019	11/27/2019	202	0.00%
3.2	Approval	3/21/2019	12/20/2019	197	3/21/2019	12/20/2019	197	0.00%
3.3	Scrub & Release	4/15/2019	12/27/2019	185	4/15/2019	12/27/2019	185	0.00%
4	Fabrication	4/16/2019	1/13/2020	195	4/16/2019	1/13/2020	195	0.00%
4.1	Order Material	4/16/2019	1/1/2020	187	4/16/2019	1/1/2020	187	0.00%
4.2	Receive Material	4/18/2019	1/3/2020	187	4/18/2019	1/3/2020	187	0.00%
4.3	Cut	4/22/2019	1/7/2020	187	4/22/2019	1/7/2020	187	0.00%
4.4	Fit/Weld	4/23/2019	1/8/2020	187	4/23/2019	1/8/2020	187	0.00%
4.5	QC Inspection	4/24/2019	1/9/2020	187	4/24/2019	1/9/2020	187	0.00%
4.6	Paint	4/26/2019	1/13/2020	187	4/26/2019	1/13/2020	187	0.00%
5	Shipping	5/3/2019	1/20/2020	187	5/3/2019	1/20/2020	187	0.00%
5.1	Intermediate	5/7/2019	1/20/2020	185	5/7/2019	1/20/2020	185	0.00%
5.2	Jobsite	5/3/2019	1/16/2020	185	5/3/2019	1/16/2020	185	0.00%
6	Job Close Out	4/1/2020	4/3/2020	3	4/1/2020	4/3/2020	3	0.00%

4. Add project breakdown information

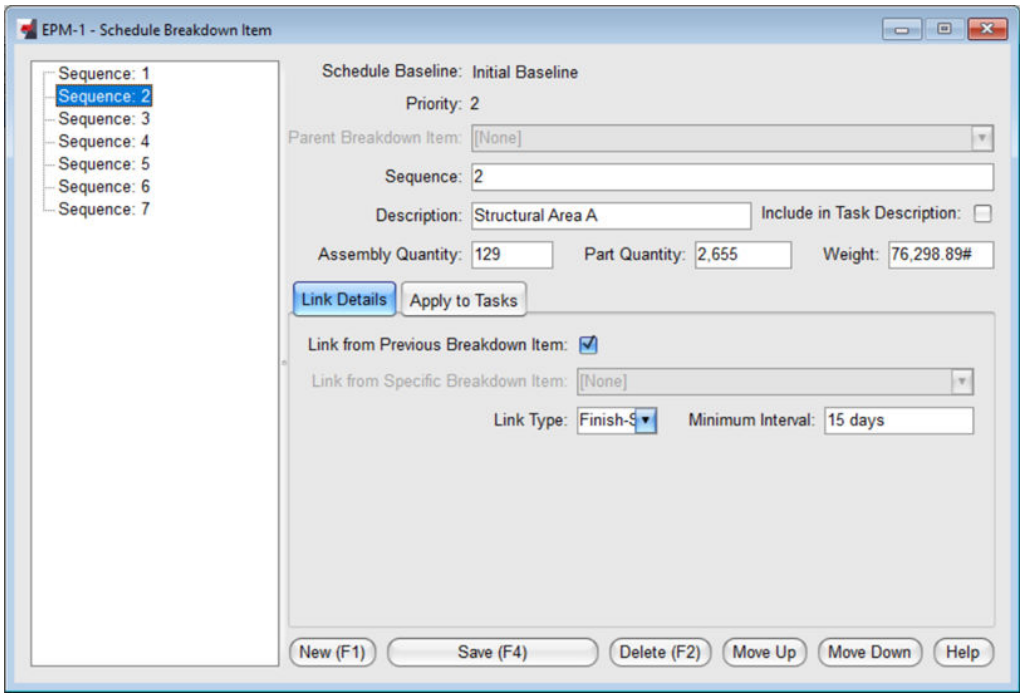
Use the **Project Breakdown** to divide a project into sub-tasks in order to schedule and track the completion of the task. For example, if your project has sequences and lot numbers, they should be added as breakdown items. You can also apply the breakdown items to the desired schedule tasks and link the breakdown items to each other.

For more information, see Add, modify, and delete breakdown items (page 164).

1. Open the **Project Breakdown** tab.
2. Click **New**.
3. In the **Schedule Breakdown Item** dialog box, enter the exact sequence number in the **Sequence** field.
4. If necessary, add a description or other information about the breakdown item.

5. Click **Add**.

   Repeat steps 2 to 5 for all sequences.



6. To add a lot, do the following:
   a. Click **New**.
   b. Click the arrow on the right side of the **Parent Breakdown Item** field, and select a sequence in the list.
   c. In the the **Lot #** field, type the exact lot number.
   d. Add a description or other information about the lot.
   e. Click **Add**.

   Repeat steps a to e for all necessary lots.

View the production schedule

Use the **Production Schedule** dialog box to view the projected hours for jobs by week. The hours are loaded from the project schedule.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Production Schedule**.
3. In the **Production Schedule Filters** dialog box, filter the production schedule information according to your needs:

a. Click the arrows on the right side of the **Start** and **End** fields, and select suitable start and end dates in the calendars.

   The default time between the start and end dates is three months.

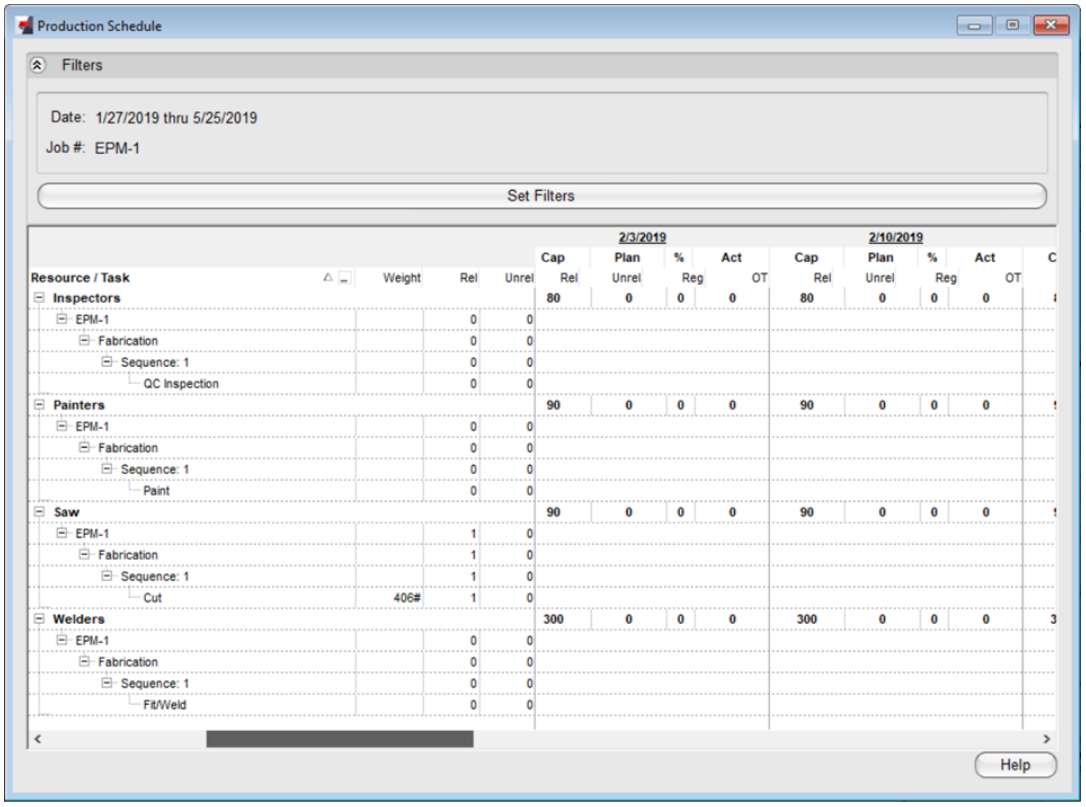
b. Click the arrow on the right side of the **Scale** field, and in the list, select if you want to view the information by day, week, or month.

c. To only include particular resources in the production schedule, click **Resource**, and click the arrow buttons to move the resources that you want to include to the **Included** list.

d. To only include particular jobs in the production schedule, click **Job #**, click the arrow buttons to move the jobs that you want to include to the **Included** list.

4. Click **Apply Filter**.

The **Production Schedule** dialog box opens.



- The **Set Filters** button allows you to change the filters that you set in step 3.
- The resources and any tasks assigned to them are displayed on the left.

  When you expand the tasks by clicking **+**, you can see the details by the set project breakdown categories.

  You can modify tasks by double-clicking a task at the lowest level of the hierarchy. You can set new start and end dates in the production schedule,

or modify the originally equally divided working hours by adding manually scheduled hours.

- In the middle section, you can view the default capacities of the resources and the time for those resources by tasks.

  The default capacity for each resource is displayed on the top in bold.

  For each task assigned to that resource, regular and overtime hours are displayed, with the percentage completed and start and end dates.

  This information consists of the schedule task in the project schedule and production status information. To update the information, click **Update Status** in the **Project Schedule** dialog box.

- The sections on the right represent a block of time by the scale you selected.

  The columns on the top display the capacity, the hours planned against the resource, the percentage of the capacity that is planned, and the actual hours used.

  Any hours highlighted with red indicate that the station is over capacity. If necessary, you can modify the resource capacity in the **Resource Maintenance** dialog box.

  Below the resource, you can see the released and unreleased hours of each task, and the regular and overtime hours. This information reflects the information in the **Resource Maintenance** dialog box.

  To update the information, click **Update Status** in the **Project Schedule** dialog box.

See also

Modify resource capacity (page 193)

Modify resource capacity

In the **Resource Maintenance** dialog box, you create, modify, and delete resources used in the production schedule and the project schedule. You can view and modify the applicable working hours per day, week, or month.

Open the Resource Maintenance dialog box

1. In the **Production Schedule** dialog box, click the **Production Schedule** ribbon tab.
2. In the menu, select **Resource Maintenance**.

Add a resource

You can add resources in a variety of ways. It may be useful to have one resource for the shop, or one for each of the several bays or shop sites. Another task, like detailing, can have its own resource as well.

The capacity for each resource is entered by day and summarized by week or by month.

When a task in the project schedule is assigned to a resource, the resource is added to the production schedule with the same start and end dates. Planned hours for the task are then distributed equally among the days in that duration. You can change the distribution and allocation of the planned hours manually.

1. Click **New**.
2. Type a description for the resource.
3. Click the arrow on the right side of **Calendar** field and select a suitable schedule calendar in the list.
4. In the **Default Capacity** field, type the number of hours available to this resource during a standard working day.
5. Click the arrow on the right side of **Fixed Date** field and select the date after which adjustments to the schedule no longer affect the new resource.

   For example, if the fixed date is set to Friday, any adjustments to the schedule on the next Thursday will not affect it.
6. Click **Add**.

Modify a resource

1. In the list, select the resource that you want to modify.
2. Modify the description, calendar, default capacity, and fixed date according to your needs.
3. In the **Resource Utilization** section, filter which capacity and utilization information is displayed:
   a. To modify the time range, click the arrows on the right side of the start and end dates and select suitable dates.
   b. Click the arrow on the right side of **Scale** field, an select if you want to view the capacity and utilization information by day, week, or month. When the scale is set to by week or month, the date displayed for each record is by default the beginning date of each period. This settings can be changed in **Project Company Standards**.
   c. To update the view, click **Reload**.
   d. If you want to open the production schedule for the selected resource, click **View**.

4. To adjust the capacity of a date period, do the following:
   a. In the **Resource Utilization** section, double-click a date.
   b. In the **Resource Capacity** dialog box, select a date period.

      To select multiple items, hold down **Ctrl**.

      To select a range of subsequent items, hold down **Shift**.
   c. Type a new value in the **Capacity** field.

      If necessary, you can restore the default hours by clicking the **Default** button.
   d. To update the capacity of all selected date periods, click **Update Selected**.
   e. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.
5. In the **Resource Maintenance** dialog box, click **Save** to save the changes.

Delete a resource

Deleting a resource is permanent and cannot be undone.

1. In the list, select the resource that you want to delete.
2. Click **Delete**.
3. In the confirmation dialog box, click **Yes** to permanently delete the resource.

View, print, and export job-specific production control reports

You can create various reports based on the information of the current production control job, including cut lists, bills of materials, and master load lists. Then, you can either view the report in **Tekla EPM Report Viewer** and email it, print the report, or export the report to another file format.

Note that before creating a cut list, the materials need to be loaded into a purchase order.

Create a report

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Reports**, or press **Ctrl+R** on the keyboard.
3. To only include specific types of items in the report, in the **Production Control Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.

4. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the items that you want to include in the report to the **Included** list.

     To select multiple items, hold down **Ctrl**.

     To select a range of subsequent items, hold down **Shift**.
   - Type the maximum and minimum values for the items that you want to include in the report.
5. Click **OK**.

   To further limit the items included in the report, repeat steps 3 to 5 for all necessary filter types.
6. To include the full assemblies of all included parts in the report, select the **Include Full Assembly of Filtered Parts** check box.
7. Click the arrow on the right side of **Weight Type** field, and select the weight type that you want to use in the report.

   Note that the **Weight Type** list is only visible if you have selected it on the **Report Settings** tab of the **Company Standards** dialog box.
8. Click **Make Report**.
9. In the **Report Selection** dialog box, click the report that you want to view, print, or export.

View the report

- Click **View**.

The report opens in **Tekla EPM Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla EPM Report Viewer** window to email the report via Microsoft Outlook.

Print the report

1. Change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. In the confirmation dialog box, click **Yes**.
4. In the **Select Printer** dialog box, click a printer to select it.
5. Click **OK** to print the report.
6. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Export the report

1. Click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.
4. Modify the file name according to your needs.
5. Browse to the location where you want to save the exported file, and click **Save**.
6. If you want to attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** check box.
7. If you want to open the file after exporting it, select the **Open Exported Document** check box.
8. Click **Export**.

   The report is saved in the selected export format.
9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

2.12 Use Trimble Connect with a production control job

You can view the production control job information in an IFC model using Trimble Connect. You can interact with the model in several ways: by sharing the production status of items to Trimble Connect, color-coding items in the IFC model, or selecting items in the IFC model or in the production control jobs.

We recommend that you start the production control job by importing an XML file from Tekla Structures. The XML file includes GUIDs, unique identifiers that match the identifiers in the IFC model. The necessary IFC settings for Tekla Structures plugin can be downloaded from Tekla Warehouse.

Before you can view the job information in Trimble Connect, your Tekla EPM administrator needs to set up the Trimble Connect integration settings. For more information, see .

See also

Link a production control job to Trimble Connect (page 197)

Color-code production control items in the IFC model (page 199)

Select the same items in the production control job and in the IFC model (page 200)

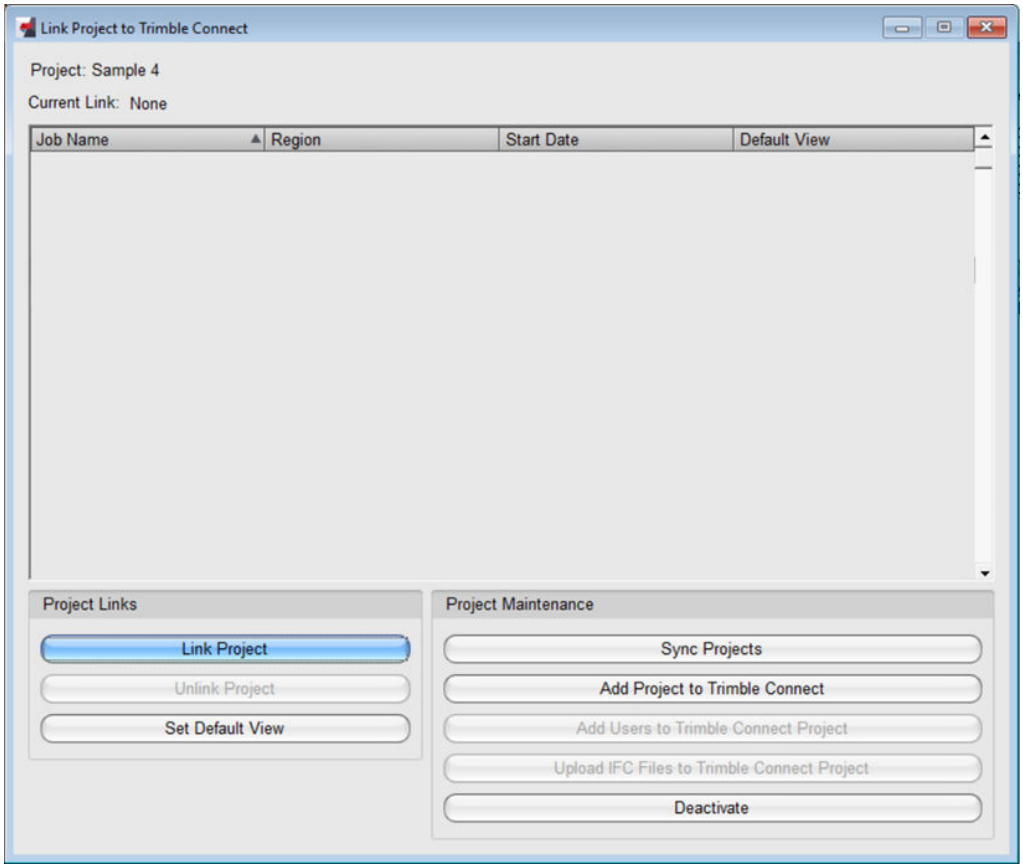
Link a production control job to Trimble Connect

Before you can view the production control job information in Trimble Connect for Desktop, you need to link the job to a Trimble Connect project. You can either link the job to an existing project or create a new project.

Note that if a production control job is linked to a project management job, the Trimble Connect project is managed through the project management job. In this case, you need to link the project management job to Trimble Connect. The link is then applied to any linked production control and estimating jobs. The Trimble Connect project cannot be modified when you access it through the production control job.

1. In the **Production Control** dialog box, right-click anywhere in the display area.
2. In the context menu, click **Model Interface**.

   A message appears, telling you that the current job is not linked to a Trimble Connect project.
3. Click **OK** to close the message.



4. In the **Link Project to Trimble Connect** dialog box, do one of the following:

To	Do this
Link the job to an existing Trimble Connect project	a. To display the available Trimble Connect projects, click **Sync Projects**. b. Select the desired project, and click **Link Project**.
Create a new Trimble Connect project and link the job to it	a. Click **Add Project to Trimble Connect**. b. In the **Add Users to Project** dialog box, click the arrow buttons to move the users that participate in the project to the **Included** list. c. Click **OK**. Tekla EPM creates a Trimble Connect project with the same name and information as the current job. d. In the **Status** dialog box, review the creation process of the Trimble Connect project. A message appears, telling you that the project has been created successfully. e. Click **OK** to close the message. f. In Trimble Connect for Desktop, press the **Back** button to exit the empty 3D view. g. In the **Explorer** side pane on the left, click the **Add File** button. h. In the **Add Files** dialog box, browse to find the IFC model. i. Select the IFC model and click **Open**. The IFC model is imported to Trimble Connect for Desktop.

The production control job and Trimble Connect project are now linked.

See also

Use Trimble Connect with a production control job (page 197)

Color-code production control items in the IFC model (page 199)

Select the same items in the production control job and in the IFC model (page 200)

Color-code production control items in the IFC model

To color-code items in the IFC model according to their properties, use the **Colorize** command in the **Model Viewer Interface** dialog box. For example, you can color-code items according to their production status or sequence. You can also set filters to only color-code particular items in the model. By using a filter, for example, you could first filter the items by their sequence, and then color-code the items in that sequence by their production status.

1. In the **Production Control** dialog box, right-click anywhere in the display area.
2. In the context menu, click **Model Interface**.
3. If necessary, in the **Model Viewer Interface** dialog box, filter the items that you want to color-code:
   a. Click **Set Filters**.
   b. In the **Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
   c. In the **Filter** dialog box, do one of the following depending on the filter type:
      - Click the arrow buttons to move the items that you want to display in the model to the **Included** list.
      - Type the maximum and minimum values for the items that you want to display in the model.
   d. Click **OK**.

      Repeat steps b to d for all filter types that you want to set.
   e. Click **Apply Filter**.
4. Click the arrow on the right side of the **Colorize By** list and select a property in the list.
5. Click **Colorize**.

The items in the IFC model are color-coded according to the selected property.

To revert to the original colors in the IFC model, click **Reset** in the **Model Viewer Interface** dialog box.

See also

Select the same items in the production control job and in the IFC model (page 200)

Select the same items in the production control job and in the IFC model

When you have linked a production control job to Trimble Connect, you can select an item that is selected in one of the software simultaneously in the other one. Do the following:

1. In the **Production Control** dialog box, right-click anywhere in the display area.
2. In the context menu, do one of the following:
   - To select the item that is selected in the production control job also in the IFC model, select **Select in Model**.
   - To select the item that is selected in the IFC model also in the production control job, select **Select from Model**.

See also

Color-code production control items in the IFC model (page 199)

2.13 Export production control information

You can export production control information, including the production status, to multiple file formats. You can save the current production control job as a KISS or CIS/2 file, export the production status to an XML file, or push the production status to Trimble Connect.

For more information, see the following links:

Export a production control job to KISS (page 201)

Export the production control job to a CIS/2 model (page 202)

Export the production status to Tekla Structures or Advance Steel (page 202)

Export the production status to SDS/2 (page 203)

Send the production status to Trimble Connect (page 204)

Export a production control job to KISS

To save the current production control job as a KISS file, do the following:

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Export** --> **Export to KISS** .
3. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla EPM saves the file to the **Export** folder.

4. If necessary, modify the file name.
5. Click **Save**.

The file is saved to the selected location as a KISS file.

Export the production control job to a CIS/2 model

Use the **Export to CIS/2 Model** command to export a production control job to CIS/2 file. Note that the **Export to CIS/2 Model** command is only available if the production control job has originally been imported from a CIS/2 file.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Export** --> **Export to CIS/2 Model** .
3. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla EPM saves the file to the **Export** folder.
4. If necessary, modify the file name.
5. Click **Save**.

   A message appears, showing the location where the CIS/2 file was saved.

Export the production status to Tekla Structures or Advance Steel

You can export the production status of the current job as an XML file to either Tekla Structures or Advance Steel.

1. Do one of the following:

Option	Description
Export the production status from the **Production Control** dialog box	a. In the **Production Control** dialog box, click the **Production Control** ribbon tab. b. In the menu, select **Export** --> **Export Production Status to XML - Tekla Structures** or **Export** --> **Export Production Status to XML - Advance Steel** .
Export the production status from the **Project Management** dialog box	a. In the **Project Management** dialog box, click the **Project Management** ribbon tab. b. In the menu, select **Data Exchange** --> **Export Production Status to XML - Tekla Structures** or **Data Exchange** --> **Export Production Status to XML - Advance Steel** .

2. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla EPM saves the file to the **Export** folder.

3. If necessary, modify the file name.
4. Click **Save**.

The production status is saved in the selected location as an XML file.

See also

Export the production status to SDS/2 (page 203)

Export the production status to SDS/2

You can export the production status of the current job to SDS/2 as an XML file.

1. Do one of the following:

Option	Description
Export the production status from the **Production Control** dialog box	a. In the **Production Control** dialog box, click the **Production Control** ribbon tab. b. In the menu, select **Export** --> **Export Production Status to XML - SDS/2** .
Export the production status from the **Project Management** dialog box	a. In the **Project Management** dialog box, click the **Project Management** ribbon tab. b. In the menu, select **Data Exchange** --> **Export Production Status to XML - SDS/2** .

2. In the **SDS/2 Field Map** dialog box, define SDS/2 import settings as follows:
   a. Click **New Field**.
   b. Click the arrow on the right side of the **SDS/2 Object** field and select the SDS/2 object type in the list.
   c. For member properties, click the arrow on the right side of the **SDS/2 Category**, and select a software solution in the list.
   d. Click the arrow on the right side of the **SDS/2 Field** field, and select the field to which the information is exported in SDS/2.
   e. Click the arrow on the right side of the **Tekla EPM Field** field, and select the Tekla EPM field from which the information is exported to the selected SDS/2 field.
   f. Click **Add Field**.

Repeat steps a to f to match all necessary SDS/2 and Tekla EPM fields to each other.

If you want to save the SDS/2 import settings for later use, type a description for the settings in the **Description** field, and click **Save**.

3. Click **OK**.
4. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla EPM saves the file to the **Export** folder.
5. If necessary, modify the file name.
6. Click **Save**.

See also

Export the production status to Tekla Structures or Advance Steel (page 202)

Send the production status to Trimble Connect

Use the **Push Status to Trimble Connect** command to send the status of the production control job manually to Trimble Connect. If you have enabled automatic status sync, Tekla EPM automatically sends the status to Trimble Connect.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Export** --> **Push Status to Trimble Connect** .

The production status is updated to Trimble Connect.

2.14 Finalize the production control job

Use the **Finalize** command to prevent any further changes to a production control job. After finalizing the production control job, you can no longer send material to purchasing. The requisitioned items assigned to the job will be deleted, and inventory items reserved for the job will be unreserved. Note that finalizing a job is irreversible and cannot be undone.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. In the menu, select **Purchasing** --> **Finalize** .
3. If you are sure that you want to finalize the job, inthe **Finalize Job** dialog box, click **Finalize**.

Index

G

H

I

J

L

M

P

R

S

T