TEAMCENTER

Schedule Management on Active Workspace — Usage

Teamcenter 2412

SIEMENS

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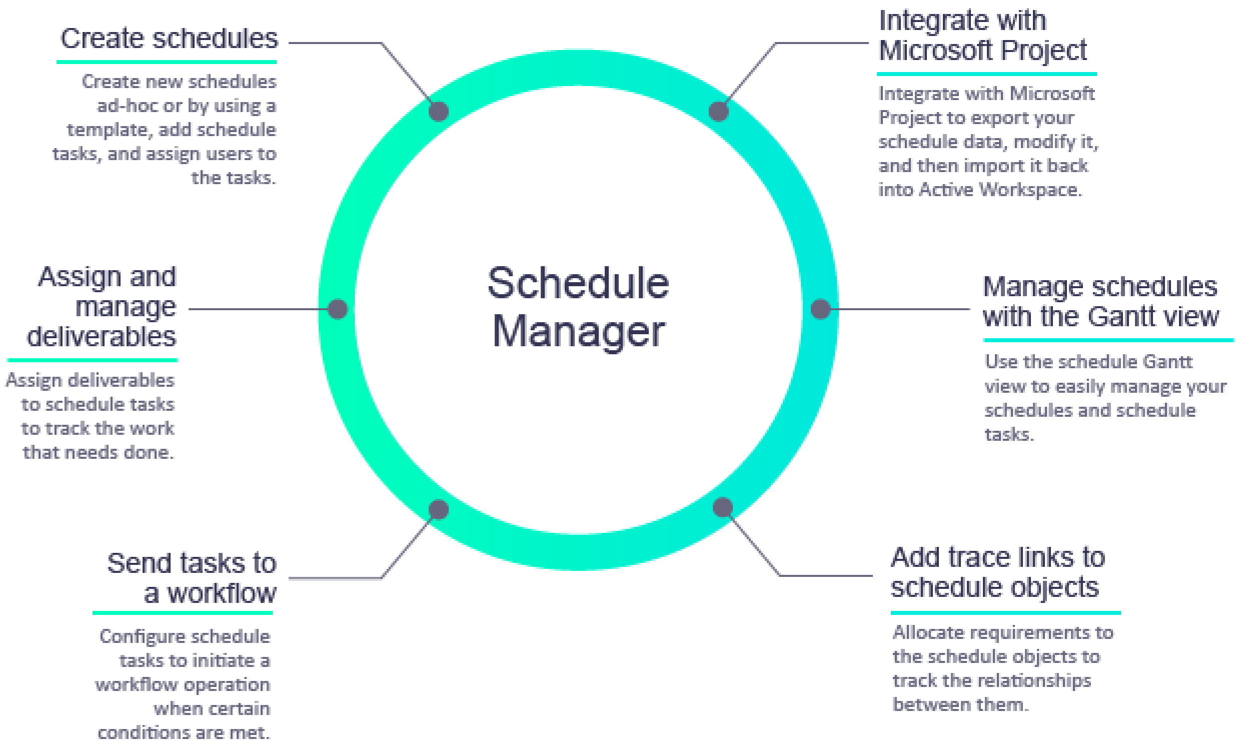
1. About Schedule Manager

Schedules allow you to plan and track a project from inception to completion. Effective use of Schedule Manager ensures that your project is completed on time, within budget, and meets the requirements of the project stakeholders. Each schedule can contain subschedules, schedule tasks, and milestones, and all work on the schedule is assignable to schedule members.



How you work on schedules in Active Workspace depends on your role. The following are the common roles involved with schedule management and the actions they typically perform:

- The schedule coordinator creates the schedules, adds members and tasks, assigns the tasks to team members, and updates the schedule properties.
- The team members assigned to the schedule track their assigned tasks and update the work on the tasks as it's completed.
- The administrator configures the schedule manager features and enables integration with Microsoft Project.

> Note:
>
> Sharing data using Multi-Site Collaboration is not supported with Schedule Management.

Where do I go from here?

The links below take you to common tasks for the roles described above.

I'm a schedule coordinator and I want to:	
Use the Gantt view to manage my schedules and schedule tasks.	Create a new schedule.
View my schedules.	Update a schedule's properties.
Use Program Views to manage multiple schedules and their tasks.	Add a schedule task.
Create a schedule template.	Import a schedule from Microsoft Project or export a schedule to Microsoft Project.
I'm a schedule team member and I want to:	
Subscribe to a resource pool and view tasks assigned to my team.	Update the status of my schedule task.
View my schedule tasks.	Create a timesheet entry.
Use the Board view to manage my schedule tasks.	Add a deliverable to my schedule task.

2. Schedule Manager configuration

Schedule Manager configuration tasks

What do I need to do before configuring?

Before you can configure Schedule Manager, you must install the required applications using either Deployment Center or Teamcenter Environment Manager (TEM).

Procedure

1. If you want to use any async operation in Schedule Manager, such as **Save As**, **schedule task reassignment**, or **shifting a schedule**, install Dispatcher as described in Installing and Configuring Dispatcher.

2. Install Schedule Manager applications in your preferred installation tool:

Deployment Center:	TEM:
Schedule Manager	**Schedule Manager** (Active Workspace→Client) **Schedule Manager** (Active Workspace→Server Extensions) (Optional) **Change Management Schedule Manager Client** (Optional) **Change Management Schedule Manager**

3. (Optional) If you want to initiate workflows on schedule tasks, install the **Workflow to Schedule Integration** application as discussed in Teamcenter features.

   This is needed for schedule tasks whose workflow trigger types are:

   - Schedule start date
   - Both Schedule start date and predecessors complete
   - Either Schedule start date and predecessors complete

4. After installing the **Schedule Manager** or **Workflow to Schedule Integration** applications, the Schedule Manager service should start automatically by rebooting the system. An administrator can also start the service manually.

   Windows systems:

   - Start the Schedule Manager service in the Services dialog box of the Windows Control Panel.

Linux systems:

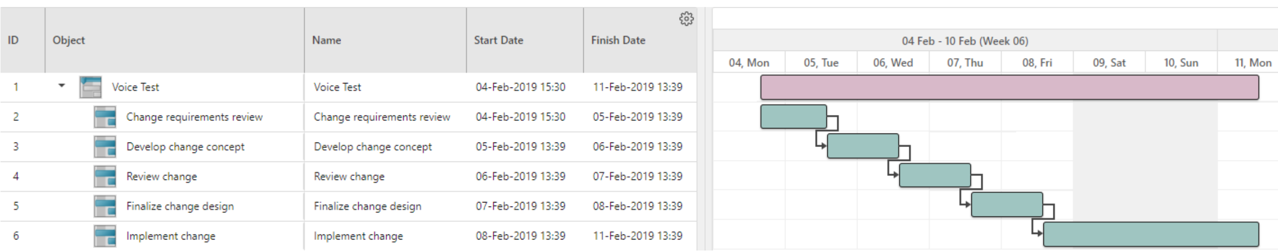
- Change to the *TC_ROOT*/bin directory.
- Run the rc.ugs.schmgtwfd script to start the Schedule Manager service.

5. If you want to enable schedule coordinators to view resource workload data, add the schedule coordinator to the Resource Graph Viewer role.

   Find more information about Active Workspace features in Teamcenter Installation on Windows or Teamcenter Installation on Linux.

What do schedules look like?

Following is an example of a schedule.



Microsoft Project Integration

Integrating Microsoft Project with Teamcenter

As a system administrator, complete the following tasks to support Active Workspace and Microsoft Project integration. This functionality is useful if there are employees in your organization who are responsible for updating schedule tasks but don't use Active Workspace or Schedule Manager.

1. Install Microsoft Project on your server.

2. Install Client for Office using the stand-alone installer. Select the Microsoft Project plugin in the **Select Features** dialog box.

Configure Teamcenter to support Microsoft Project

- Prevent updates of schedules or tasks in certain states.
- Map custom schedule task properties between Microsoft Project and Teamcenter. This ensures that when a Microsoft Project schedule is imported into Teamcenter Schedule Manager, the custom property data is automatically transferred and does need to be manually reentered. This procedure

is discussed in the Exchanging data between Microsoft Project and Schedule Manager section of Schedule Management — Deployment and Rich Client Usage documentation.

3. Search for a schedule or a schedule task

Use this procedure to search for a specific schedule or schedule task.

1. In the global search box, enter the search criteria, such as the schedule name, and click **Search**.

2. (Optional) Filter the search results to narrow the number of items that display in the **Results** list.

Alternatively, click the tiles on the home page to view only those schedules or schedule tasks that you are assigned to.

> Note:
>
> If your administrator has configured a quick access query for schedules, you can also select **Schedules** from the **Quick** search list in the **Advanced Search** panel.

4. Filter schedules and schedule tasks

Filter schedules and schedule tasks

You can filter your schedules and schedule tasks in multiple ways to reduce the amount of information displayed and quickly find the objects you are looking for. There are two primary methods for filtering your schedules and schedule tasks.

- **Member Privileges**. Allows you to filter based on your assigned role. This filter is applied on the list of schedules accessed from the **SCHEDULES** tile.

- **Filters** ▽. Opens the **Filters** panel, which contains many filter properties. This panel can be opened from the list of schedules or from the Gantt chart. Search filters are useful when you work with large schedules, or a large number of schedules, where it's difficult to find the data you need.

Keep the following in mind when applying filters to your schedules:

- Properties are not displayed if there is no associated property data.

- When filtering from the **Gantt** view, the filters are applied to schedules and subschedules.

Filter preferences

The filter properties displayed in the **Filters** panel are controlled by the following preferences.

- **SM_SCHEDULE_ADDITIONAL_FILTER_PROPS**

- **SM_SCHEDULETASK_ADDITIONAL_FILTER_PROPS**

Any custom schedule or schedule task properties must be added to the above preferences to enable filtering by the custom property.

Filter schedules by your role

You can use the **Member Privileges** list to filter by your role, such as **Coordinator**, **Participant**, or **Observer**.

Procedure

1. Click **SCHEDULES** on your Home page.

2. From the **Member Privileges** list, select the role to filter by.

Filter schedules by schedule properties, program plans, and program events

You can open the **Filters** panel from the list of schedules (accessed by clicking the **SCHEDULES** tile) to apply various filters based on the schedule data, such as filtering by the type of schedule, priority, start and finish dates, events, and program plans and events.

Procedure

1. Click **SCHEDULES** on your Home page.

2. Click **Filters**.

   The **Filters** panel opens.

3. Click the check box next to the schedule data you want to filter by. As you select the filter criteria, the list of schedules automatically updates to show the schedules meeting your criteria.

4. (Optional) If you have a large number of filter properties displayed in the **Filters** panel, you can specify the filter by typing it into the **Filter by Property** box. For example, if you only wanted to see filter properties on dates, you type **date** in the text box and the list of filters updates to only show the relevant properties.

   The list of filters automatically updates as you type in the **Filter by Property** box.

5. (Optional) To remove a filter, uncheck the selected property filter from the list.

Filter the Gantt chart by schedule properties

You can open the **Filters** panel from the schedule Gantt to apply various filters based on the schedule data, such as filtering by the type of schedule, priority, and start and finish dates.

Procedure

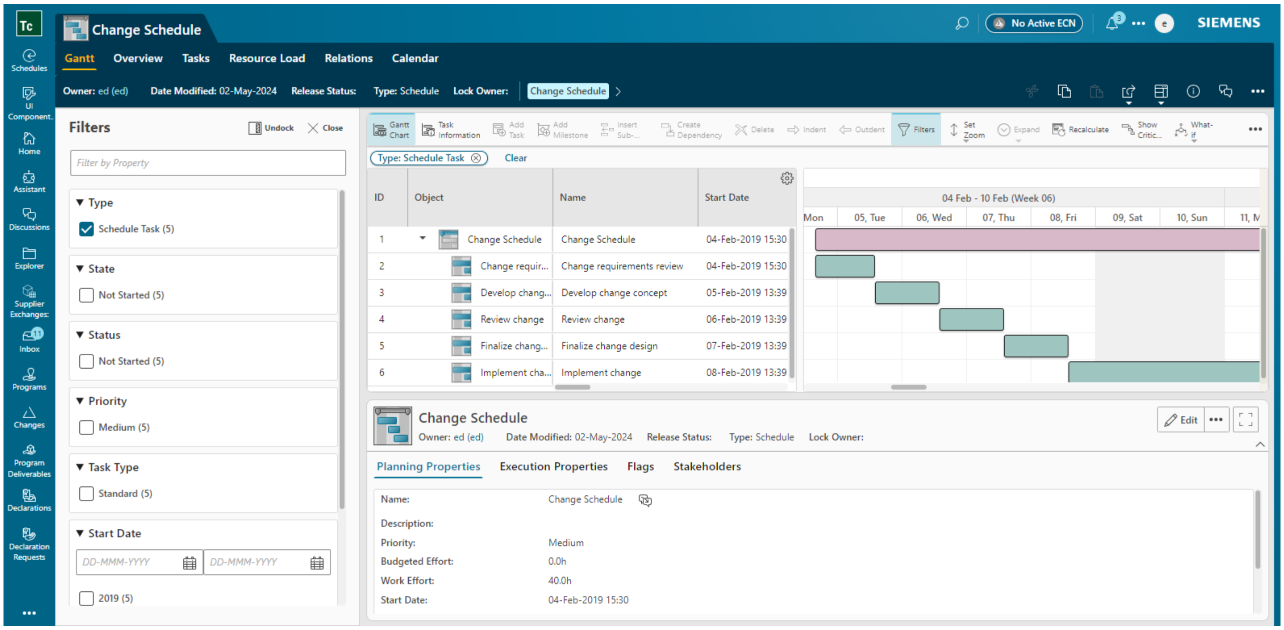
1. Click **SCHEDULES** on your Home page.

2. Select a schedule from the list and click **Open**.

3. From the Gantt view, click **Filters**.

   The **Filters** panel opens.

4. Click the check box next to the schedule data you want to filter by. As you select the filter criteria, the Gantt automatically updates to show the schedules meeting your criteria.



5. (Optional) If you have a large number of filter properties displayed in the **Filters** panel, you can specify the filter by typing it into the **Filter by Property** box. For example, if you only wanted to see filter properties on dates, you type **date** in the text box and the list of filters updates to only show the relevant properties.

   The list of filters automatically updates as you type in the **Filter by Property** box.

6. (Optional) To remove a filter, uncheck the selected property filter from the list.

Filter schedule tasks

You can open the **Filters** panel from schedule tasks list to apply various filters based on the schedule task data, such as filtering by the status, task type, priority, event type, work completed, and start and finish dates.

Procedure

1. Click **SCHEDULE TASKS** on your Home page.

2. Select one of the tabs at the top, such as **Board**, **In Progress** or **Not Started** to display the schedule tasks list.

3. Click **Filters** ▽.

   The **Filters** panel opens.

4. Click the check box next to the schedule task data you want to filter by. As you select the filter criteria, the schedule tasks list automatically updates to show the tasks meeting your criteria.

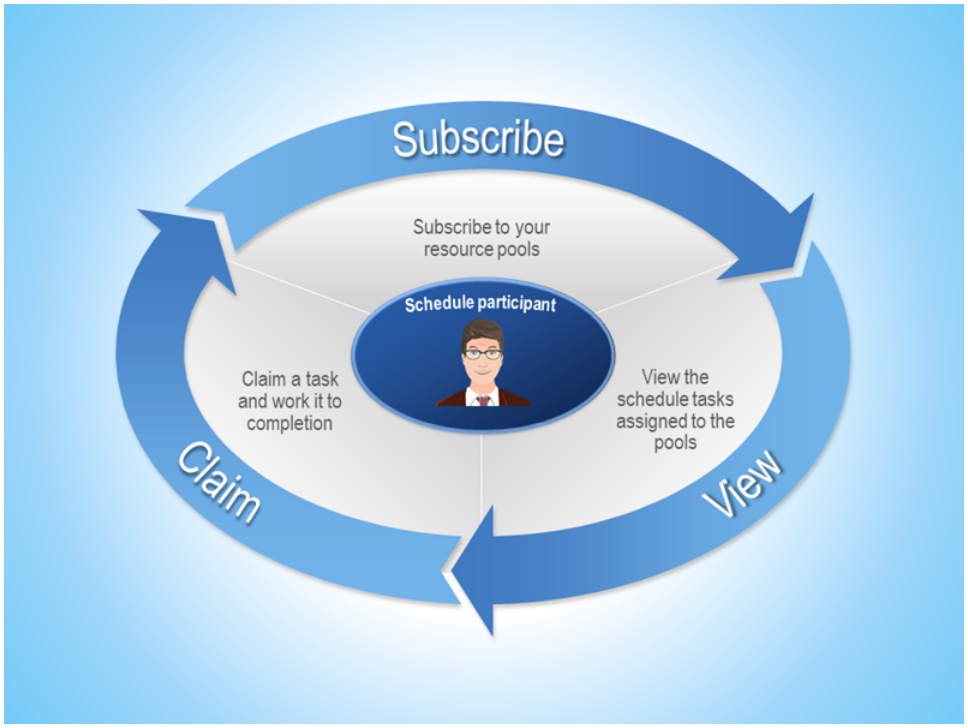
5. (Optional) If you have a large number of filter properties displayed in the **Filters** panel, you can specify the filter by typing it into the **Filter by Property** box. For example, if you wanted to see just filter properties on dates, type **date** in the text box and the list of filters updates to only show date related properties.

   The list of filters automatically updates as you type in the **Filter by Property** box.

6. (Optional) To remove a filter, uncheck the selected property filter from the list.

5. Subscribe to a resource pool

You can subscribe to resource pools to view any schedule tasks assigned to the resource pools instead of a specific user. In most cases, a resource pool contains users that all have a similar role, such as schedule or workflow participants, change analysts, and engineers. The schedule coordinator may assign schedule tasks to a resource pool when there are multiple users that can claim that task and work it to completion. Once you claim a schedule task assigned to a resource pool, the task is assigned to you and removed from the list of tasks assigned to the resource pool.



1. Click your profile icon and then select **Manage Profile** to open your user profile page.

2. In **Resource Pool Subscriptions**, click **Add** ⊕.

3. From the **Add** panel, use the search box to quickly find a desired resource pool.

4. (Optional) Click the **Filter** icon for additional search filters.

   Filters are defaulted to **Type**, **Accessible By Me**, **Group**, or **Role**. Select one of the following options to show which resource pools display in the list.

   - Under **Type**, select **Resource Pool** to show all the resource pools in your organization.

   - Under **Accessible By Me**, specify either **No** or **Yes** to show the resource pools you are permitted to join.

- Specify group members by **Group** or **Role**. Enter a name in the specific search box to filter.

5. Click **Add**.

   The resource pool appears under **Resource Pool Subscriptions**.

6. Now that you have subscribed, you can **view the schedule tasks Teams tab to claim schedule tasks assigned to your resource pools.**

Unsubscribe from a resource pool

If you no longer need to subscribe to a resource pool, you can easily remove it from your profile page.

1. Click your profile icon and then select **Manage Profile** to open your user profile page.

2. In **Resource Pool Subscriptions**, select the resource pool you want to remove.

3. Click **Remove** ⊖.

   When you remove yourself from a resource pool subscription, you are no longer able to view or claim schedule tasks assigned to the pool.

6. Using the Gantt view to manage schedules

About the Schedule Manager Gantt view

You can use the Gantt tab to view schedules and schedule tasks in a graphical view. Some schedule and schedule task actions can be performed in both the Gantt view and in other locations. Some actions, such as viewing the schedule's critical path or performing a *what-if* analysis, can be performed only from the Gantt view.

> Tip:
>
> - To select multiple schedules and tasks, hold the **Ctrl** key as you select them.
> - You can drag selected objects on the Gantt chart.
> - To zoom in and out of the Gantt chart, hold the **Ctrl** key and scroll using your trackpad or mouse.
> - You can drag a task on the Gantt chart to a different date to change the start and finish dates. As you drag the task, the dates automatically change to the new dates.
> - You can drag the duration bar of a task on the Gantt chart to set the percent complete. As you drag the duration bar of a task, the Work Complete value updates.
> - Some of the actions below can also be performed by right-clicking a schedule or task in the Gantt view.

I want to:	
Change the Gantt chart view.	Recalculate a schedule.
View task information directly in the Gantt chart.	View the schedule's critical path.
View task deliverables and dependencies from the summary view.	Perform a What-if analysis and promote changes into the schedule.
Apply filters to my schedules and schedule tasks.	Insert a subschedule.
Set the zoom level.	Add or delete new schedule tasks and milestones.
Expand and collapse task and schedules with child objects.	Create task dependencies.

I want to:	
View workflow information for a schedule task.	Modify task properties directly from the Gantt view.
Duplicate a schedule task or milestone with copy and paste.	View program events in the Gantt view.

Change the Gantt view

You can change the Gantt view to show different levels of information on the screen. For example, you can display schedule object details in the work area, or show and hide the Gantt chart that appears to the right of the tree. This allows you to efficiently manage the amount of information you are viewing when working on your schedules and their tasks.

Show or hide the Gantt chart

1. Click **Gantt Chart** to show or hide the chart that displays to the right of the tree.

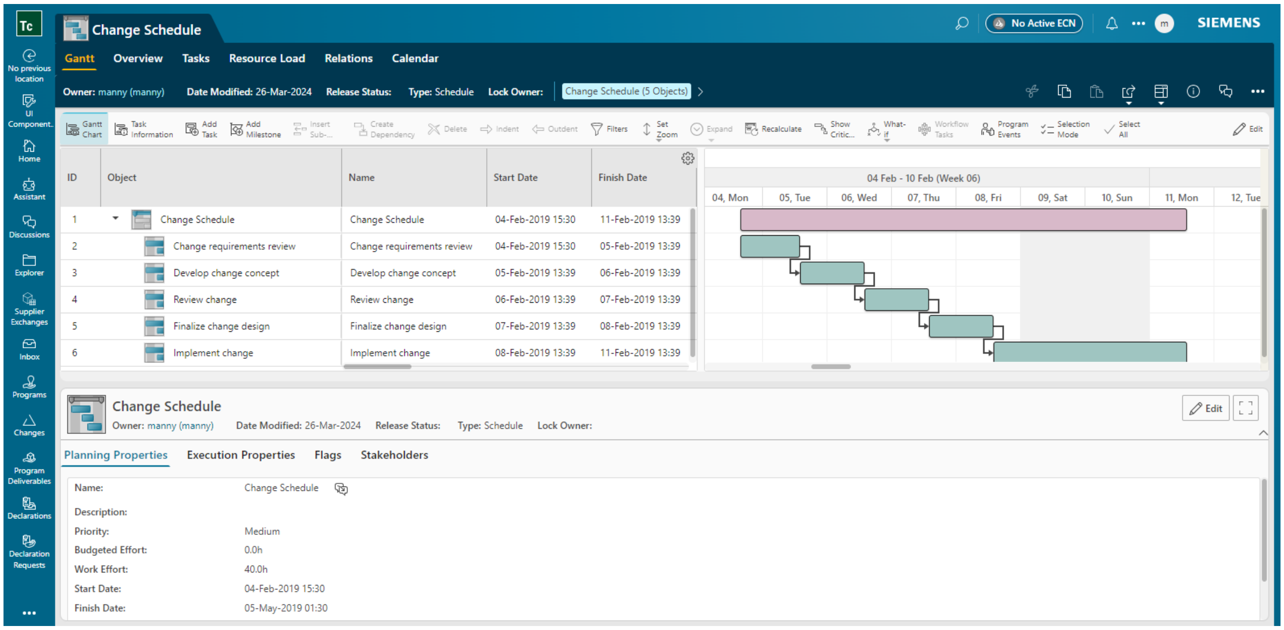
Show details in the work area

In addition to viewing the schedule object details from the work area, you can also add and view task deliverables and view the task dependencies.

1. Click **Layout Manager** and select a layout to display details in the work area.

2. Select the **Overview**, **Deliverables**, **Resources**, or **Dependencies** tab to view the corresponding details.

   Information displayed in tables within these areas can be sorted, searched, filtered by date, exported, and so on. You can also change the display method, such as showing the information in a table, as a list, in a comparison view, or as images.



Add tasks and milestones from the Gantt view

You can quickly add new tasks and milestones to a schedule from the Gantt view, or delete these objects if they are no longer needed.

1. Open a schedule.

2. From the Gantt chart view, do one of the following:

To	Do
Add a new task.	a. Click **Add Task**. A new task is added to the schedule. b. Do any of the following to change the task information: • Double-click the task name in the **Gantt** view to change it. • Select the task and then click **Information** to view and edit the task properties. • Select the task and then click **Open** to view all the task properties. From here, you can edit the task properties, add deliverables, and assign resources to the task.
Add a new milestone.	a. Click **Add Milestone**.

To	Do
	A new milestone is added to the schedule. b. Do any of the following to change the milestone information: • Double-click the milestone name in the **Gantt** view to change it. • Select the milestone and then click **Information** on the primary toolbar to view and edit the milestone properties. • Select the milestone and then click **Open** on the primary toolbar to view all the milestone properties. From here, you can edit the milestone properties, add deliverables, and assign resources to the milestone.
Delete a task or milestone.	a. Select the task or milestone on the **Gantt** chart that you want to remove. b. Click **Delete** to remove the task or milestone.

Duplicate a task or milestone from the Gantt chart

You can quickly duplicate schedule tasks and milestones from the Gantt by copying the objects you want to duplicate and pasting them into the same schedule or a different one. The task and milestone data is copied into the new object, so you don't have to recreate any of the data.

> Note:
>
> Proxy tasks cannot be duplicated.

1. From the Gantt chart, select the tasks or milestones you want to duplicate. You can select a single object, or hold the **Ctrl** key as you click the objects to select more than one.

   > Note:
   >
   > You can also click **Selection Mode** from the **work area** toolbar to toggle a check box that displays next to each item. You can then click the check boxes for all the items you want to select.

2. Do one of the following to copy the selected objects:

   - From the Gantt **Tree** on the left, right-click and then select **Copy**.
   - From the **primary toolbar**, click **Copy**.

   Active Workspace notifies you that the objects were copied to the Teamcenter and OS clipboards.

3. Navigate to the schedule, subschedule or task that you want to paste the duplicates into.

4. Do one of the following to paste the selected objects:

   - Right-click and then select **Paste**.

   - From the **primary toolbar**, click **Paste**.

Modify task properties from the Gantt chart

You can quickly modify schedule task data from the Gantt chart by double-clicking the cell you want to update and then changing the information as needed. You can also click **Edit** to enable edit mode, which turns on editing for all cells at once.

> Note:
>
> The **Resource Assignment** and **Task Deliverables** columns cannot be edited from **Tree** views.

The type of data in the cell you are modifying determines how you update the information in the cell. For example, clicking on a date shows the calendar and allows you to select a new date, while clicking on the status let you to select a different status from a list.

> Note:
>
> If you have **Autosave Tables** enabled in your user properties panel, when you click off a cell that you have modified, it saves automatically. If you do not have this feature enabled, you must manually save changes you made to any cells by clicking **Save Changes** in the upper right corner of the Gantt. If you do not click this and then try to navigate to a different page, you are prompted to save your changes or discard them.

1. From the Gantt chart view, navigate to the cell you want to modify and then do one of the following:

   - Double-click the cell and edit the contents as necessary.

   - Click **Edit** in the upper right corner of the Gantt. This puts all cells into edit mode and you can modify them as needed. When you are finished editing, click **Save Edits** to save your changes.

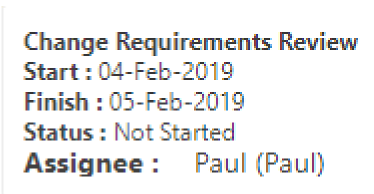
     > Note:
     >
     > If you have **Autosave Tables** enabled but use this method to edit the table, you must manually save your changes by clicking **Save Edits**.

View task information from the Gantt view

You can view task information from the Gantt view by hovering over the task, toggling the display of task information, and showing the task details in the summary view.

Hover over the task

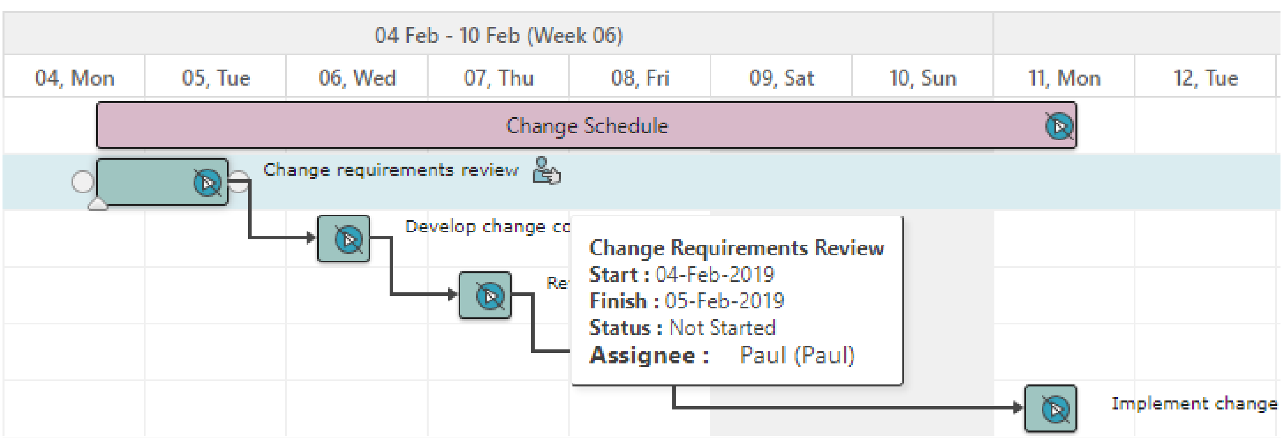
1. Hover over the task from the left column of the Gantt chart to see the task details, such as the **Start** and **Finish** dates and the task **Status**.



Toggle the display of task information

1. Click **Task Information** to toggle the display of task information.

   The task title is displayed in the Gantt view. You can hover over the icon to also view the person assigned to the task.



View deliverables and dependencies from the Gantt view

When you view a schedule using the Gantt view, you can select a schedule task and quickly view the deliverables and dependencies for the task. This allows you to track the status of deliverables and tasks across multiple schedules from one location.

View task deliverables

1. Select the task in the Gantt view.

2. Click **Layout Manager** and select a layout to display task details in the work area.

3. Click the **Deliverables** tab.

   The task deliverables and deliverable instances are displayed.

4. Alternatively, to just view task deliverables without opening the summary view, click **More Commands** ••• > **View** > **Deliverables** .

   The **Deliverables** panel opens and the selected task's deliverables are displayed.

   > Note:
   >
   > For this command to appear in the primary toolbar, the selected task must have at least one assigned deliverable.

View task dependencies

1. Select the task in the Gantt view.

2. Click **Layout Manager** and select a layout to display task details in the work area.

3. Click the **Dependencies** tab.

   The **Predecessor Tasks** and **Successor Tasks** for the selected task are displayed. Additional information for the dependent tasks, such as a count of the deliverables, work complete, start and finish dates, state, and status are also displayed.

4. (Optional) To view the deliverables for the dependent tasks, first select the dependent task. Next, click **More Commands**••• > **View** > **Deliverables** .

   The **Deliverables** panel opens and the selected task's deliverables and any dependencies are displayed.

View program events in the Gantt view

If you have a schedule associated with one of your programs, projects, or subprojects, you can view their events in the schedule Gantt view. This helps you better plan your schedule and its tasks, as you can easily see the program events and adjust your schedule accordingly.

> Note:
>
> The program events are only displayed in the Gantt view and cannot be edited. If you need to modify an event, you must open it to make the necessary changes.

1. Open a schedule that is associated with a program.

2. Click **Program Events**.

   Program events which lie within the schedule start and end date display on the gantt chart. You can hover over the program event icon to view high-level information on the event, or click on the event icon to view all the details below the gantt chart.

3. Optionally, click **Program Events** again to hide the events on the Gantt chart.

Create a dependency between a schedule milestone and a program event

You can create dependencies between a schedule milestone and a program, project, or subproject event on the schedule Gantt.

> Note:
>
> You can only create dependencies from past objects to future objects.

Procedure

1. Open a schedule that has a program associated with it.

2. Click **Program Events** and select **Show All**.

3. Hover over the target milestone or event.

   The connection points appear on either side of the target milestone or event.

4. Click and drag the secondary object's connector, and then release it on the primary object's connector.

Move the schedule milestone or program event when a dependency is defined

As a schedule manager, you can move a milestone to a new date on the schedule. When a milestone is moved to a new date, all predecessor events are automatically moved by the same number of days as the successor milestone. The milestone can move backward and forward in time. However, when dependencies are defined between the milestones and events, the following restrictions apply:

- Milestones cannot be moved to a date on the schedule that occurs prior to predecessor objects.

- Milestones cannot be moved to a date on the schedule that occurs later than the successor objects.

Procedure

1. Open a schedule that is associated with a program.
2. Click **Program Events** to show the events on the **Gantt**.
3. Create a dependency between the milestones and events.
4. Click a milestone or event on the **Gantt** to select it.
5. Do one of the following to move the milestone or event to a new date.

To	Do
Move a milestone or event to a new date on the **Gantt**.	• Drag the milestone or event to a new date on the **Gantt**.
Change the date from the **Overview** tab.	a. From the **Overview** tab, click **Edit**. Note: Select a layout from **Layout Manager** to display details below the **Gantt**, such as the **Overview** tab. b. Under **Planned**, select a new date. c. Click **Save**.
Change the date in the **Information** panel.	a. Click **Information**. b. Click **Edit**. c. Under **Planned**, select a new date. d. Click **Save**.

Change Gantt zoom level

You can change the zoom level on the Gantt view to show a shorter or longer time period.

Your administrator defines the default unit of measure for schedules using the **AWC_SM_Unit_Of_Time_Measure** preference. The defined unit of measure is applied when you create the schedule.

Tip:

The default unit of measure for the Gantt view can be updated from the schedule's **Overview** page. The Gantt table adjusts the zoom level to the unit of measure set.

Set zoom level from the work area toolbar

1. From the work area toolbar, click **Set Zoom** to view the different zoom levels.

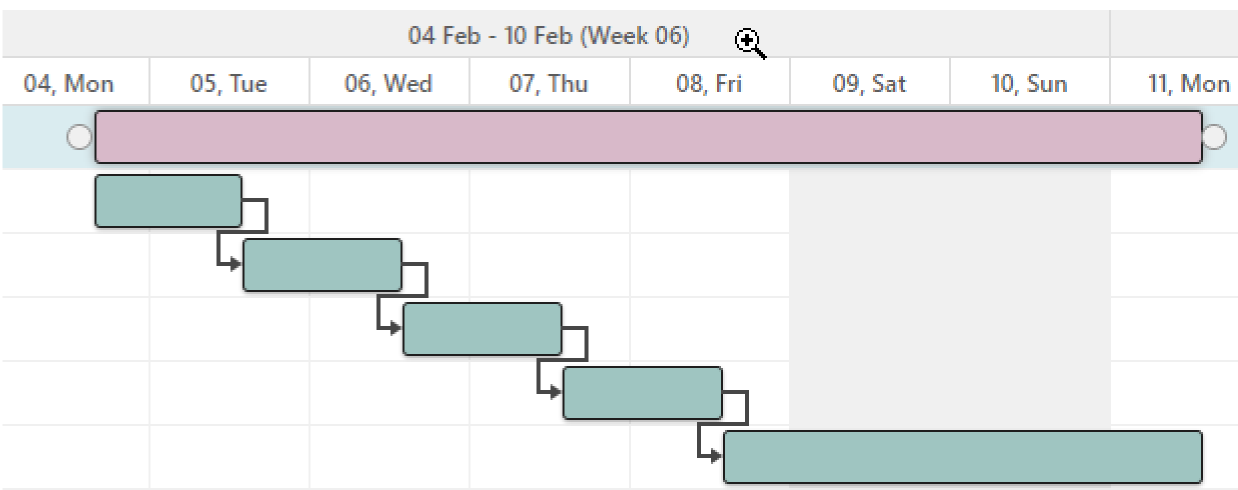
2. Choose a zoom level. You can zoom by **Days**, **Weeks**, **Months**, or **Years**.

3. (Optional) To return to the default zoom level or the level specified on the schedule overview, choose **Unit of Time Measure** as the zoom level.

Set zoom level using your mouse

1. Hover over the top area of the Gantt view.

   A magnifying glass cursor will appear.



2. Click to change the zoom level. Each time you click, the date range changes.

Expand and collapse from the Gantt view

Expand and collapse schedules and schedule tasks

You can expand and collapse schedules and schedule tasks with child objects from the work area toolbar of the Gantt view. You can also perform this action directly in the chart by clicking the expand and collapse icon displayed next to schedules and tasks with nested objects.

Expand and collapse from the work area toolbar

When you use the work area toolbar to expand and collapse the selection, all levels are expanded or collapsed.

Procedure

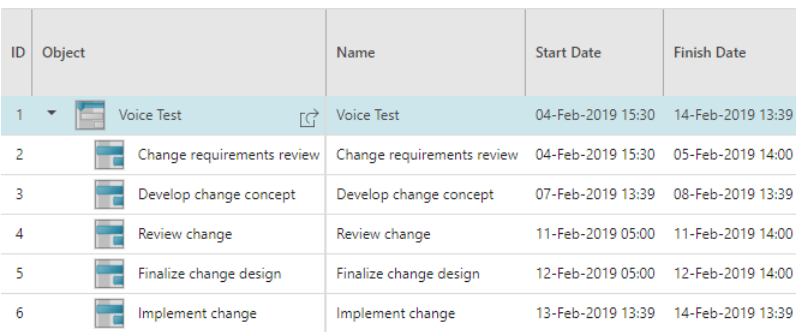
1. Select the schedule or schedule task you want to expand or collapse.

2. From the work area toolbar, click **Expand** and then choose one of the following:

   - **Expand Below** **.** Expand all levels of the selection.

   - **Collapse Below** **.** Collapse all levels of the selection.

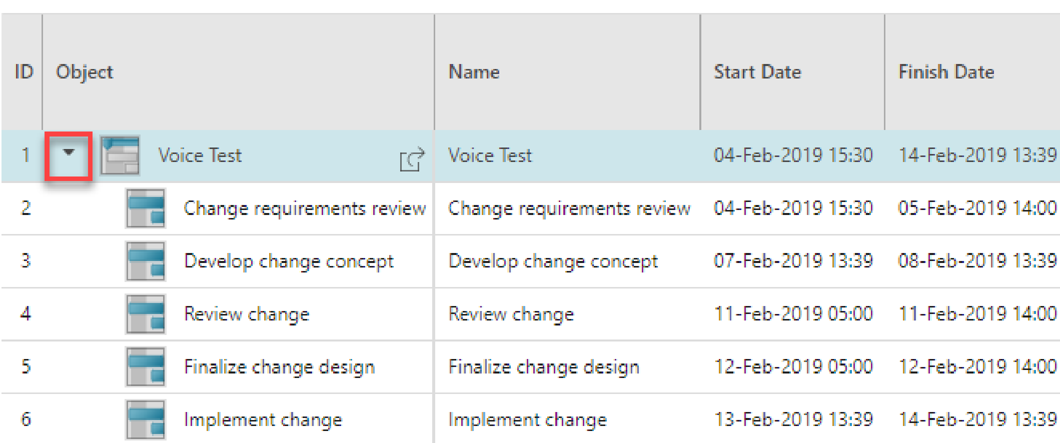
   All levels of the schedule and its nested objects are expanded or collapsed.



ID	Object	Name	Start Date	Finish Date
1	Voice Test	Voice Test	04-Feb-2019 15:30	14-Feb-2019 13:39
2	Change requirements review	Change requirements review	04-Feb-2019 15:30	05-Feb-2019 14:00
3	Develop change concept	Develop change concept	07-Feb-2019 13:39	08-Feb-2019 13:39
4	Review change	Review change	11-Feb-2019 05:00	11-Feb-2019 14:00
5	Finalize change design	Finalize change design	12-Feb-2019 05:00	12-Feb-2019 14:00
6	Implement change	Implement change	13-Feb-2019 13:39	14-Feb-2019 13:39

Expand and collapse from within the Gantt chart

You can click on the right arrow or down arrow next to a schedule or schedule task shown on the Gantt chart. This allows you to only expand or collapse that specific schedule or task. This method gives you more control over the Gantt view and lets you choose which items to expand or collapse.



ID	Object	Name	Start Date	Finish Date
1	Voice Test	Voice Test	04-Feb-2019 15:30	14-Feb-2019 13:39
2	Change requirements review	Change requirements review	04-Feb-2019 15:30	05-Feb-2019 14:00
3	Develop change concept	Develop change concept	07-Feb-2019 13:39	08-Feb-2019 13:39
4	Review change	Review change	11-Feb-2019 05:00	11-Feb-2019 14:00
5	Finalize change design	Finalize change design	12-Feb-2019 05:00	12-Feb-2019 14:00
6	Implement change	Implement change	13-Feb-2019 13:39	14-Feb-2019 13:39

Apply filters to the Gantt view

You can apply filters to a schedule from the Gantt view to personalize the view to your preferences or business process. Filters can be applied from the **Filters** panel, or by clicking a column header in the schedule Gantt, such as the **Name**, **Start Date**, or **Finish Date**.

For example, you can apply a **Resource Assignment** filter to view only tasks assigned to the selected resources. As you make choices in the **Filter** panel, the Gantt view gets dynamically updated to reflect your choices.

> Note:
>
> Your administrator can use the **SM_Gantt_Filter_Properties** site preference to define the properties that are displayed in the **Filter** panel.

Apply filters from the Filters panel

1. Click **Filters** .

   The **Filters** panel opens.

2. Select the values you want to filter by. As you select the values, the Gantt view updates automatically. When you apply filters, the order of the tasks does not change.

3. To close the **Filters** panel, click the in the panel or click **Filters** again.

Apply filters from the table column headers

1. Click one of the column headers at the top of the gantt chart to see the filtering options for the column.

   The type of data displayed in the column determines what type of filtering you can do. For example, if you click on a date column, such as **Start Date**, you can filter by entering a range of dates.

2. Do any of the following as necessary:

   - Specify the filter criteria.

     > Note:
     >
     > See the *Filtering data in a table column* topic in the *Active Workspace Fundamentals* for more information on filtering data in a table column.

   - Click **Freeze** to prevent a table column from being resized. You can click it again to allow resizing for the column.

- Click **Hide Column** to hide it from the view. If you need to see the column again, it can be added back to the table from the **Arrange** panel.
- Click **Clear** to remove the applied filters from a column.
- Click **Show Filters** to view the values for the table column. You can select the values you want to filter by.

3. Click **Filter** to apply the filter to the column.

Customize the Gantt view

You can customize the columns displayed in the Gantt view by hiding columns (except the **Name** column) or rearranging the column order.

1. Click the **Table settings** icon in the gantt view column headings and click **Arrange** .
2. In the **Arrange** panel, do one of the following.

To	Do
Hide a column.	Select the column you want to hide from the **Displayed Columns** section of the panel and then click **Remove** to hide it. Note: You cannot hide the **Name** column.
Reload the default column arrangement.	Click **Column Arrangements** and select **Default** from the list to reset a table to its default column arrangement.
Save and load a column arrangement	When creating a custom arrangement, click the **Save as new arrangement** check box to enter a name for the view. When you click **Save and Arrange** to apply the view, the custom column configuration is saved. When you want to load it again, click **Column Arrangements** and then select the saved arrangement from the list.
Rearrange the column order.	a. Select a column name from the list. b. Click either **Move up** or **Move down** .

3. Click **Save and Arrange**.

7. Viewing your schedules and schedule tasks

View my schedules

As a schedule user, you can quickly view and manage all your schedules where you are the coordinator from the **Schedules** location. You can use the drop-down list to also see schedules where you are a Participant or Observer.

> Note:
>
> Your administrator can set a date range to determine how many schedules are displayed. This range is set using the **SM_Schedule_Tile_Day_Range** preference.

1. Click the **SCHEDULES** tile on the home page.

2. (Optional) Perform the following actions from the **Schedules** list:

   - Change your view. You can choose to view a list, table, and images.
   - Open the **Filters** panel to apply search filters to the list.
   - Enable multi-select mode.
   - Select all displayed objects.
   - Select and filter the list of schedules by role, such as **Coordinator**, **Participant**, or **Observer**.

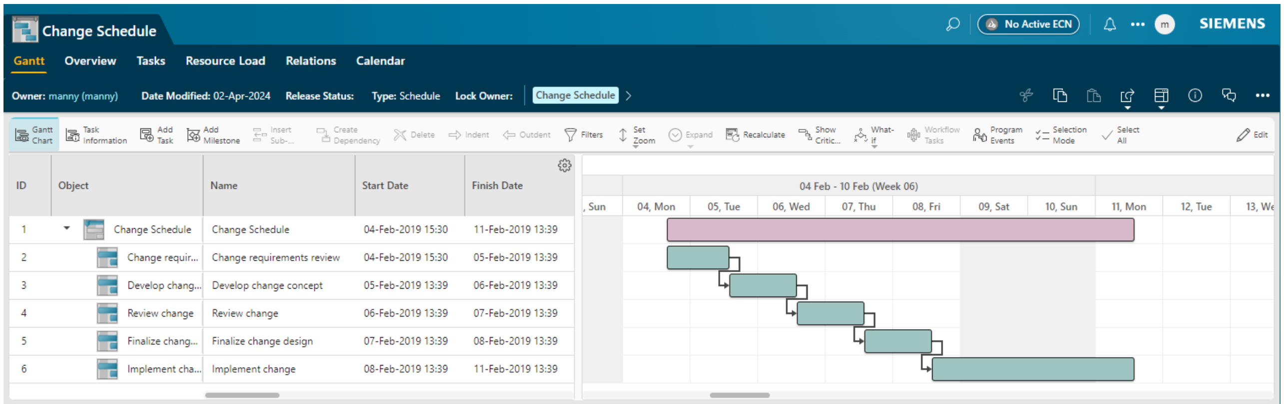
3. In the **Schedules** window, click each page to view the list of schedules that fall within each of these groupings: **Not Started**, **In Progress**, **Late Start**, **Late Finish**, **Upcoming**, **Complete**, **Closed/ Aborted**, and **Templates**.

4. To view a schedule, select the schedule from the list or click **Open**.

5. To see more attributes of the schedule, click the following tabs:

   - **Gantt** displays schedule tasks in a graphical Gantt view.
   - **Overview** displays the schedule's general properties, deliverables, members, and associated changes.

- **Tasks** displays all tasks in this schedule.
- **Resource Load** displays the users and their resource loads based on assigned schedule tasks.
- **Relations** displays a graphical view of the schedule and its related items.
- **Calendar** displays the schedule calendar.



View schedule templates

You can view your schedule templates and templates created by other users (depending on your permissions and the template settings) from the **Templates** page. The list of schedule templates can be filtered to make finding a specific template easier. You can select a template and open it to make changes or use it to create a new schedule.

1. On the home page, click the **SCHEDULES** tile and select the **Templates** page.
2. Optionally, click **Filter** to filter the list of templates, change the selection mode, or modify the view.
3. Select a schedule template and then open it to modify the template properties or create a new schedule from it.

View a subschedule

A subschedule is a schedule that is inserted within a master schedule *as a schedule task*. Although inserted into the master schedule as a schedule task, the subschedule is a standalone schedule in its own right.

You can view a subschedule as a standalone schedule, or from within the master schedule.

View a subschedule as a standalone schedule

1. From the **Schedules** location, navigate to the subschedule in your folder structure or the Gantt view.

2. Select the desired subschedule and click **Open**.

3. (Optional) To navigate to the subschedule's master schedule, click the **Master Schedule** field hyperlink under **Planning Properties**.

View a subschedule from within the master schedule

1. From the **Schedules** location, navigate to the master schedule in the Gantt tree.

2. Select the desired master schedule and click **Open** .

3. Click the **Tasks** tab.

   The subschedule is displayed, along with any master schedule and subschedule tasks. (Subschedule tasks roll up to the master schedule.)

4. (Optional) To view the subschedule task details, click **Open** .

   To navigate to the subschedule from within the subschedule task, click the **Schedule** field hyperlink under **Planning Properties**.

View my schedule tasks

You can quickly view and manage all the tasks to which you are assigned as a user from the **Schedule Tasks** location.

> Note:
>
> Your administrator can set a date range to determine how many schedule tasks are displayed. This range is set using the **SM_ScheduleTask_Tile_Day_Range** preference.

1. Click the **SCHEDULE TASKS** tile on the home page.

   The **Schedule Tasks** window opens with the **Board** page automatically selected.

2. (Optional) Perform the following actions from the **Schedule Tasks** list:

- Change your view. You can choose to view a list, table, and images.
- Open the **Filters** panel to apply search filters to the list.
- Enable multi-select mode.
- Select all displayed objects.

3. In the **Schedule Tasks** window, click each page to view the list of schedule tasks that fall within each of these groupings: **Board**, **Not Started**, **In Progress**, **Late Start**, **Late Finish**, **Upcoming**, **Complete**, **Closed/Aborted**, and **Team**.

4. To view a schedule task's properties, select the schedule task from a list or click **Open** .

> Tip:
>
> To easily update a schedule task's properties while still maintaining a view of all the schedule tasks, with the schedule task selected, click **Edit** .

View and claim schedule tasks assigned to my team

When you are subscribed to a resource pool, you can view the schedule tasks assigned to the pool and claim tasks to reassign them to yourself. Once you have claimed the task, you can then work it to completion.

> Note:
>
> Once you claim a schedule task from a resource pool, other members of your team that belong to the same resource pool are no longer able to see or claim the task. It now only appears in your tasks list based on its status. For example, if the task is in progress when claimed, it appears in your **In Progress** task list.

Keep the following in mind when viewing and claiming schedule tasks assigned to a resource pool:

- You must first **subscribe to the resource pool** to be able to see the schedule tasks assigned to it. If you do not see a task you are looking for, verify that you have subscribed to the correct resource pool.
- If a schedule task is assigned to all team members, it does not appear in the resource pool task list and cannot be claimed.
- When the schedule coordinator assigns a resource pool to the task, the pool is automatically added as a member of the schedule.
- If the schedule task is in a workflow process when claimed, there are no impacts to the workflow assignments.

1. From the **Schedule Tasks** location, click the **Team** page.

   All tasks assigned to your team are listed.

2. (Optional) If you are subscribed to many resource pools, you can filter the list of schedule tasks by the specific resource pool.

3. Select the task you want to claim and then click **More Commands** ••• > **Manage** **Claim Task**.

4. Click **Claim** on the dialog box to verify that you want to claim the task from the resource pool.

   The schedule task is reassigned to you.

SM_Schedule_Tile_Day_Range preference

The **SM_Schedule_Tile_Day_Range** preference determines how many schedules are displayed. The schedule objects that occur during the defined day range will be displayed for users. The value in the preference will be applicable for upcoming, complete, and closed schedules.

Valid values

Positive integers.

Reference the table below.

Location	Schedule Summary State	Start Date	Finish Date	Actual Start Date	Actual Finish Date
Not Started	Not Started				
In Progress	In Progress				
Late Start	Not Started	< = The current date			
Late Finish	Not Started		< = The current date		
Upcoming	Not Started	(Current date + 1) and (Current date + day range)			
Complete	Complete		(Current date - day range/2) and (current		

Location	Schedule Summary State	Start Date	Finish Date	Actual Start Date	Actual Finish Date
			date + day range/2)		
Closed/Aborted	Closed/Aborted		(Current date - day range/2) and (current date + day range/2)		

Default values

30

SM_ScheduleTask_Tile_Day_Range preference

The **SM_ScheduleTask_Tile_Day_Range** preference determines how many schedule tasks are displayed. The schedule task objects that occur during the defined day range will be displayed for users. The value in the preference will be applicable for upcoming, complete, and closed schedule tasks.

Valid values

Positive integers.

Reference the table below.

Location	Schedule Task Summary State	Start Date	Finish Date	Actual Start Date	Actual Finish Date
Not Started	Not Started				
In Progress	In Progress				
Late Start	Not Started	< = The current date			
Late Finish	Not Started		< = The current date		
Upcoming	Not Started	(Current date + 1) and (current date + day range)			
Complete	Complete				(Current date - day range/2) and (current

Location	Schedule Task Summary State	Start Date	Finish Date	Actual Start Date	Actual Finish Date
					date + day range/2)
Closed/Aborted	Closed/Aborted	(Current date - day range/2) and (current date + day range/2)			

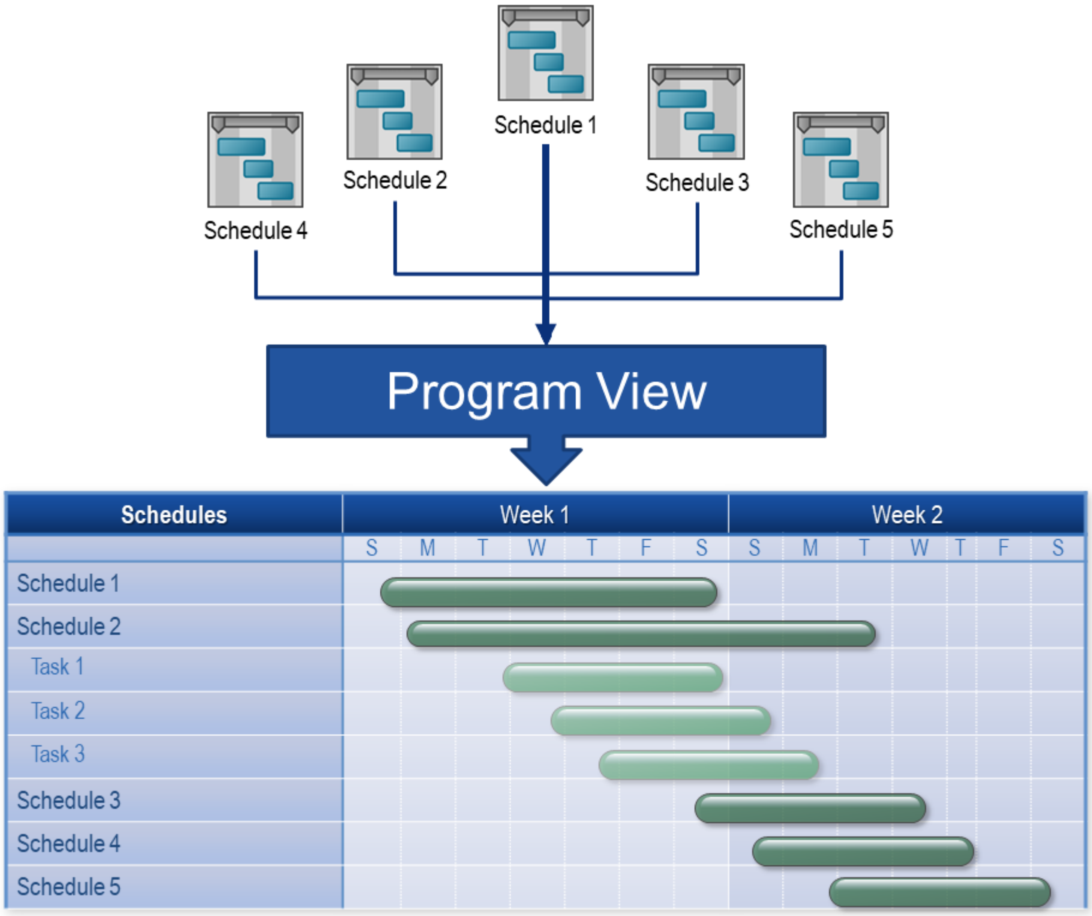
Default value

30

Creating Program Views

About Program Views

Program Views allow you to create a customized Gantt chart that contains multiple schedules and their associated schedule tasks. You can then view and manage the schedules you add to the Program View from a single location. This provides you with a better idea of how all the schedules relate to the overall program.



If you need to make changes to a schedule or schedule task, you can select it from the program view and then open it to make the necessary changes. You can also perform the following actions when using Program Views:

- **Create a new Program View.**
- **Arrange how the Program View information is displayed.**
- **Edit an existing Program View to add or remove schedules.**
- **Filter the data shown in a Program View by creating and applying filters.**

Create a new Program View

You can create a new Program View and add any existing schedules to the view. This allows you to view all the added schedules and their associated tasks from a single Gantt chart view.

1. From the **Schedules** location, navigate to the **Program Views** page.

2. Click **More Commands** ••• > **New** > **Create Program View** ⊕.

   The **Create Program View** panel opens.

3. Do the following:

   - Enter a **Name** and **Description** for the Program View.
   - In the **Schedules** section of the panel, click **Add** ⊕ to view the list of available schedules. Select the schedules you want to add to the Program View and then click **Add**.

     > Tip:
     >
     > You can select multiple schedules by holding the **Ctrl** key as you select them.

   - (Optional) To filter the list of available schedules, enter the name of a schedule in the **Filter** box.
   - Select the **Open On Create** checkbox to open the new Program View as soon as it is created.

4. Click **Create**.

   The new Program View is added to your **My Program Views** list. Other users with appropriate permissions can also see this new Program View in the **All Program Views** list.

> Note:
>
> If you need to change the name or description for the Program View, click **Information** ⓘ in the primary toolbar and update the fields as needed.

View a Program View

You can view your Program Views from the **Program Views** tab of the schedule list. You can choose to view only the Program Views you have created, or if you have the appropriate permissions, the Program Views created by other users in your organization.

1. From the **Schedules** location, select the **Program Views** page.

   The default view is **My Program Views**, which displays only the Program Views you have created.

2. (Optional) To view a list of all the Program Views created by other users in your organization that you have permission to see, click the drop-down list and select **All Program Views**.

3. Select a Program View from the list.

   A Gantt chart for the Program View opens and displays all the schedules added to the view.

4. Do any of the following:

   - Click the expand arrow to view the schedule tasks for a schedule. You can click it again to collapse the view.
   - Click **Filters** to create a new filter and apply it to your Program View.
   - Click **Change Schedules** to add or remove schedules.
   - Click **Arrange** to choose how to display the information in the Program View based on schedule and schedule task fields such as **Start Date** and **Priority**.
   - Click **Information** in the primary toolbar to view or change the name or description for the Program View.
   - Select a Program View and then click **More Commands** > **Edit** > **Delete** to delete it from your list of Program Views.

Arrange how Program View information appears

You can arrange how the schedule information is displayed for a Program View. For example, you can choose to arrange the data by the task start date, priority, or status. When you apply the filter, the Gantt chart refreshes to show the data in your desired order.

> Note:
>
> See Arranging the order of columns in Active Workspace Fundamentals for more information on the **Arrange** panel and its features.

1. Open a Program View.
2. Click **Arrange** to display the **Arrange** panel.
3. In the **Arrange** panel, do one of the following.

To	Do
Hide a column.	Select the column you want to hide from the **Displayed Columns** section of the panel and then click **Remove** to hide it. You can optionally drag the selected column(s) instead of using the icon.

To	Do
	Note: You cannot hide the **Name** column.
Reload the default column arrangement.	Click **Column Arrangements** and select **Default** from the list to reset a table to its default column arrangement.
Save and load a column arrangement.	When creating a custom arrangement, click the **Save as new arrangement** check box to enter a name for the view. When you click **Save and Arrange** to apply the view, the custom column configuration is saved. When you want to load it again, click **Column Arrangements** and then select the saved arrangement from the list.
Rearrange the column order	a. Select a column name from the list. b. Click either **Move up** or **Move down** . You can optionally drag the selected column(s) instead of using the icon.

4. Click **Save and Arrange**.

Edit an existing Program View

You can edit an existing Program View to add new schedules or remove any existing ones. This allows you to keep your Program View current as schedules are completed, changed, or deleted.

1. Open a Program View.

2. Click **Change Schedules** .

   The **Change Schedules** panel opens and displays a list of the schedules included in the view.

To add a new schedule

1. Click **Add** , select the schedule from the list or enter the schedule name in the **Filter** box, and then click **Add**.

   The selected schedule is added to your Program View.

2. Click **Change** to close the **Change Schedules** panel and update the Program View.

To remove a schedule

1. Select the schedule you want to remove from the list of schedules in the Program View, and then click **Remove** ⊖ to remove it from the list.

2. Click **Change** to close the **Change Schedules** panel and update the Program View.

Apply filters to Program Views

You can create customized filters and apply them to your Program Views. Filters help you reduce the amount of information displayed and allow you to focus on only the data you need to see. This is especially helpful when you have a Program View with a large number of schedules and schedule tasks.

You can also **edit an existing filter** to change the properties, **delete a filter** when it is no longer needed, and **filter your Program View by resource assignments**.

> Note:
>
> Filtering based on custom tasks is currently not supported.

1. **Open a Program View.**

2. Click **Filters** to open the **Filter** panel.

3. Click **Add** ⊕.

4. Choose the **Type** of filter. You can select **Schedule** or **Schedule Task**.

5. If you selected the **Schedule** filter type, do the following:

   - Select the **Condition** for the new filter. You can select **And** or **Or** as the condition. The **And** condition narrows the filter results because it requires the specified property value to be included with other filter values using the **And** condition. The **Or** condition returns broader results because the specified property does not have to be included with the other filter values.

   - Select the schedule **Property** that you want to filter on, such as **Name**.

   - Select an **Operator**, such as **Equal To** or **Not Equal To**.

   - Enter the schedule **Name** you want to filter by.

6. If you selected the **Schedule Task** filter type, do the following:

   - Select the **Condition** for the new filter. You can select **And** or **Or** as the condition. The **And** condition narrows the filter results because it requires the specified property value to be included with other filter values using the **And** condition. The **Or** condition returns broader results because the specified property does not have to be included with the other filter values.

- Select the schedule task **Property** from the list that you want to filter on, such as work completed percent, actual start date, or description.

- Select an **Operator** from the list for the chosen property. The operator changes depending on the property you select. For example, when choosing the actual finish date property, you can choose from multiple operators, such as equal to, less than or between, as well as selecting the finish date from a calendar. However, if you select the description property, you can only choose equal to or not equal to as the operator because you are filtering on a text field.

- Enter the required operator information. This may be selected from a drop-down list, entered into a text field, or selected from a calendar, depending on the type of property you selected.

7. Click **Add**.

   The new filter is added to your **Filters** list.

8. Select the filter you want to apply from the **Filters** panel, and then click **Apply**.

   The Gantt chart for the Program View refreshes to only show the schedule data matching your applied filters. This new view is also automatically saved when the filter is applied.

Filter by resource assignment

1. Select **Resource Assignment** as the filter **Property** for a **Schedule Task** filter.

2. Choose an **Operator** of **Equal To** or **Not Equal To**.

3. Click **Add** to view a list of users, resource pools, or disciplines.

   You can enter a user's name into the **Filter** box to quickly search for a specific user.

4. Select the user from the list and then click **Add** ⊕.

   The user is added as a resource for the filter.

5. Click **Save** to save the filter.

Edit an existing filter

1. Click **Filters** to open the **Filter** panel.

2. Select a filter from the list and then click **Edit**.

The filter properties display.

3. Edit the filter properties as needed and then click **Save**.

Delete a filter

1. Click **Filters** to open the **Filter** panel.

2. Select a filter from the list and then click **Delete** to remove it.

8. Using the Board view to manage schedule tasks

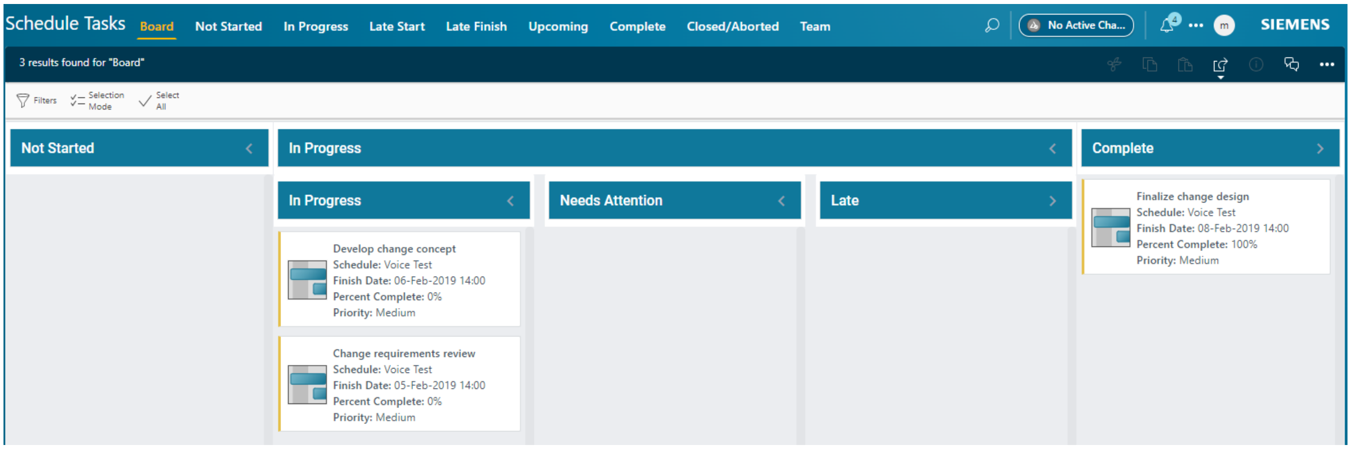
About the Board view

The **Board** is an interactive view that allows you to quickly prioritize and manage all your assigned schedule tasks for all the schedules in which you are a participant. You can drag and drop tasks from **Not Started** to other status columns, such as **In Progress**, **Needs Attention**, **Late**, and **Complete.**

> Note:
>
> The task statuses are set by your administrator and may differ from those described in this documentation.

The order in which the tasks are listed in the view is based on different factors depending on which column they are in.

- **Not Started:** Tasks are listed in order of priority, start date (earliest to latest), and then work estimate.
- **In Progress:** Tasks are listed in order of priority, finish date (earliest to latest), and then work estimate.
- **Complete:** Tasks are listed in order of actual completion date.



Each task card on the **Board** displays some task information, such as the name of the task, the related schedule, the finish date, and the priority. You can view more task details by selecting a task card, and then clicking **Information** ⓘ. This opens the **Information** panel. You can then click through the different tabs at the top of the panel to view more information on the selected task.

You can also perform the following actions from the **Board** view:

- Assign a task deliverable.

- **Limit the number of tasks displayed per column on the board.**
- **Edit the task properties from the Information panel or the task properties overview.**
- **Submit a timesheet entry.**
- Open the task from the **Board** view by selecting the task and then clicking **Open** from the task card.

Configure what information displays on the task card

Your administrator can configure the **ScheduleTask.CellProperties** preference to control the list of properties displayed in a schedule task card on the **Board**.

Modify the Board view

You can modify the default **Board** view by collapsing or expanding columns as needed. As you expand or collapse the columns, the board automatically shifts and sizes the remaining expanded columns.

- **Collapse a column:** Click on the column header, such as **Not Started** or **Complete** to collapse the column.
- **Expand a column:** Click on the collapsed column to expand it back to its normal size.

> Note:
>
> If you modify the **Board** view and then navigate to a different area in Active Workspace, when you return to the **Board** view, all the modifications are lost and you see the default view with all columns expanded.

Limit the number of tasks displayed in the Board view

You can set a limit for the number of tasks displayed per column in the **Board** view. The minimum amount of tasks that can be displayed is 1.

1. On the home page, click **SCHEDULE TASKS**.

   The **Schedule Tasks** window opens with the **Board** view automatically selected.

2. Click **More Commands** ••• > **View** > **Display Limit**.

   The **Display Limit** panel opens.

3. In the **Display Limit for Tasks in Board** box, enter the number of tasks you want to display.

4. Click **Set**.

   The board refreshes and only displays the number of tasks specified. Active Workspace determines which tasks are displayed based on the priority, start and finish dates, and work estimates.

> Tip:
>
> If you want to reset the **Board** to the default number of tasks displayed per column, click **View** > **Display Limit** and then click **Reset**.

Manage tasks in the Board view

You can manage your tasks in the **Board** view by clicking a task, and then dragging it to the desired status column. As you move the tasks to different columns on the board, Active Workspace automatically updates the task status.

> Tip:
>
> To select more than one task at a time, hold the **Ctrl** key as you click the tasks on the board.

1. On the home page, click **SCHEDULE TASKS**.

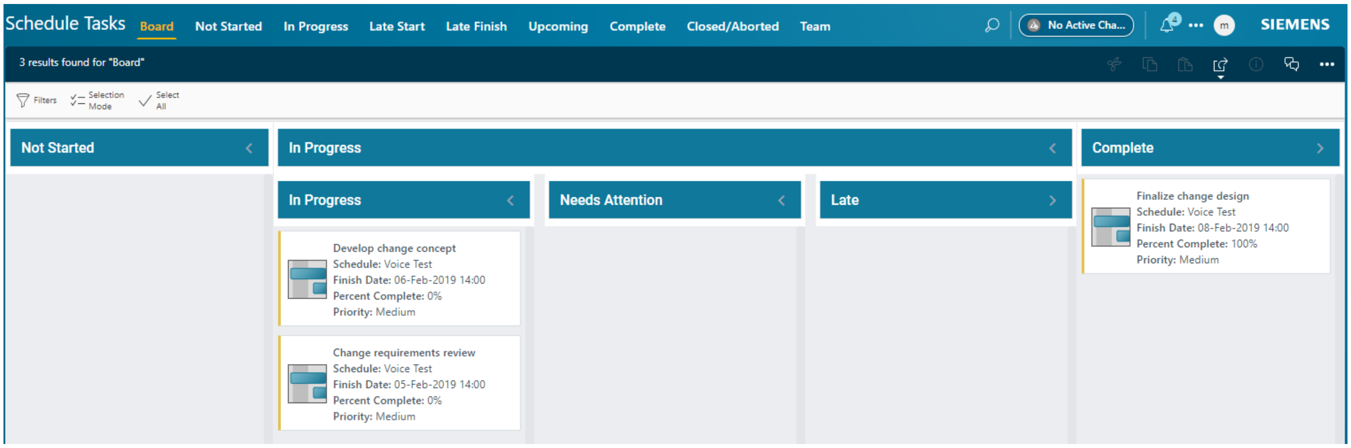
   The **Schedule Tasks** window opens with the **Board** view automatically selected.

2. Click a task card in a status column, such as **Not Started**, to select it. A selected task card is highlighted in blue.

3. Drag the selected task card to a different status column, such as **In Progress**.

   The task is now listed in the destination column.

Continue to drag your tasks across the different status columns to manage your work.



Assign task deliverable from the Board view

You can assign a task deliverable from the **Board** view. This allows you to quickly manage the deliverables for all your schedule tasks from one view.

1. From the **Board** view, select a task you want to assign the new deliverable to.

2. Click **More Commands** ••• > **Manage** > **Assign task deliverable**.

3. On the **Assign Task Deliverable** panel, do one of the following.

To	Do
Search for an existing deliverable.	a. Click the **Search** tab. b. Enter the search criteria and click . c. Select a deliverable from the returned list.
Select a deliverable that was previously copied to the paste buffer using **Copy** .	a. Click the **Palette** tab. b. Select a deliverable from the **Clipboard** section.
Select a favorite or recently viewed deliverable.	a. Click the **Palette** tab. b. Select a deliverable from the **Favorites** or **Recent** section. c. Enter the properties for the new deliverable. The properties vary depending on the type of deliverable being created.
Add a new deliverable and assign the deliverable instance to the deliverable, for example, a PDF file or Word document.	a. Click the **New** tab. b. Click **Choose File** to find and associate a deliverable instance with the new deliverable you are creating. c. Enter the properties for the new deliverable. The properties vary depending on the type of deliverable being created.

4. Click **Assign**.

   The deliverable is assigned to the task and appears in the **Deliverables** section of the task properties.

View and edit task properties from the Board view

You can select a task from the **Board** view and then open the **Information** panel to view additional details about the selected task. You can also select a task and then click **Open** directly from the task to view the task properties overview. The task properties can then be updated as necessary.

View and edit task properties from the Information panel

1. Select a task card on the board.

2. Click **Information** ⓘ.

   The **Information** panel opens.

3. Click the tabs across the top of the panel to view additional details about the schedule task.

4. (Optional) Click the schedule name hyperlink if you want to open the schedule associated with the task.

5. (Optional) Click **Edit** to change the task properties directly from the **Information** panel. When you are finished, click **Save** to update the task.

When you finish viewing or editing the task properties, close the **Information** panel to return to the **Board** view.

Open the task to view and edit the task properties

1. Select a task card on the board and click **Open**.

   The task properties overview displays.

2. Click **More Commands** ••• > **Edit** > **Start Edit**.

3. Modify the task properties as needed and then click **More Commands** ••• > **Edit** > **Save Edits** to save your changes.

Submit timesheet from the Board view

You can record the work you completed against the task by creating a timesheet entry. You can create and save multiple entries against a task before you submit the entries for approval, or you can submit the entries for approval as they are created.

1. Select a task card on the board and then click **More Commands** ••• > **New** > **Timesheet Entry**.

   The **Timesheet Entry** panel opens.

2. In the **Timesheet Entry** panel, click **Add Entry** ⊕.

3. Enter the timesheet details, including the **Description**, **Hours**, and **Work Date**.

4. Do one of the following:

   - Click **Submit** to submit the entry for approval. Submitted entries cannot be edited.

   - Click **Add** to add the entry but not submit it for approval. Entries can be edited, if necessary, and submitted for approval later.

When you have finished submitting your timesheet for the task, close the **Timesheet Entry** panel to return to the **Board** view.

9. Creating and managing schedules and schedule templates

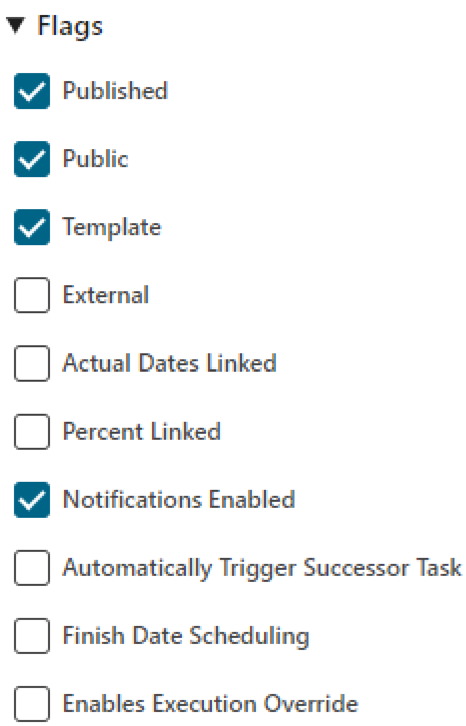
Create a schedule template

As a schedule coordinator, you can create a schedule template to support specific projects that have predefined tasks. Schedule templates are not displayed when you access the Schedule location from the **SCHEDULES** tile on the home page. However, you can manually search for a schedule template.

1. Create a schedule using one of the described methods (ad hoc, from an existing schedule, or from an existing template).

2. Open the new schedule and click **Edit**.

3. On the **Overview** tab, in the **Flags** section, select the **Template** checkbox.



4. Click **Save** to save as a schedule template.

Creating schedules

Create a schedule from a schedule template

As a schedule coordinator, use a schedule template to simplify the task of creating new schedules. A schedule template is a predefined schedule of tasks that has been established for a specific project type. Your organization may provide one or more schedule templates for you to use to create a new schedule.

When you create a schedule from a template, the new schedule takes the shift date from the template. You can change this date if necessary as you enter the details for the new schedule.

> Note:
>
> If the template you select contains both active and inactive members, only the active members in the schedule template are added to the schedule created from the template. Inactive members are removed from all schedule objects configured in the template, such as task assignments, workflow ownerships, privileged user settings, and schedule memberships.

You can also create an ad hoc schedule (one that is not based on a schedule template or an existing schedule), or you can create a schedule from an existing schedule.

> Note:
>
> When you create a schedule, you are added to that schedule as the schedule coordinator.

1. Click **SCHEDULES** on your home page.

2. On the Schedules location, click **More Commands** ••• > **New** > **Create Schedule From Template**.

   The **Create Schedule From Template** panel opens.

3. In the **Create Schedule From Template** panel, in the **Template** section, click **Add** ⊕ to add a template.

4. Select the desired template from the list and click **Add**.

5. Do the following to create the schedule from the template.

   - In the **Name** box, enter the new schedule's name.

   - (Optional) In the **Start Date** boxes, select a new date and time when this schedule becomes effective. The date specified in the schedule template is set as the default date.

Teamcenter Dispatcher Server must be installed to complete this task. Your system administrator can find information about configuring asynchronous services in *Dispatcher —Deployment and Administration* in the Teamcenter help.

- (Optional) Select the **Template** check box to make this new schedule a schedule template.

- (Optional) To run this process in the background, select **Run in Background**. This option is useful if the schedule template you selected is large.

  Teamcenter Dispatcher Server must be installed to complete this task. Your system administrator can find information about configuring asynchronous services in *Dispatcher —Deployment and Administration* in the Teamcenter help.

- (Optional) To have the new schedule open after it is created, select **Open On Create**.

  This option is not displayed if **Run in Background** is selected.

6. Click **Create**.

Create a new schedule from an existing schedule

As a schedule coordinator, use this procedure to create a new schedule that contains the same tasks and **Planning Properties** values (except **Name** and **Description**) as an existing schedule. This is useful if you create schedules for multiple projects that have similar tasks.

You can also create an ad hoc schedule (one that is not based on a schedule template or an existing schedule), or you can create a schedule from a schedule template.

> Note:
>
> When you create a schedule, you are added to that schedule as the schedule coordinator.

1. Select the schedule from which you want to create the new schedule.

2. Click **More Commands** ••• > **New** > **Save As**.

   You can create a new schedule from any tab within an existing schedule.

3. In the **Save As** panel, do the following.

   - In the **Name** box, enter the new schedule's name.

   - (Optional) Select a new date and time that this schedule becomes effective.

   - (Optional) To run this process in the background, select **Run in Background**. This option is useful if the schedule template you selected is large.

- (Optional) To open the schedule as soon as its created, select **Open on Create**. This option is useful if you need to open and modify the newly created schedule immediately.

> Note:
>
> If you select the **Run in Background** option, you cannot choose to open the schedule when it is created. Alternatively, if you choose **Open on Create**, you do not have the option to run the process in the background.

4. Click **Save**.

Create an ad hoc schedule

As a schedule coordinator, you may want to create a schedule that is not based on a schedule template or an existing schedule. Use this process to create an entirely new schedule.

> Note:
>
> When you create a schedule, you are added to that schedule as the schedule coordinator.

1. From the **Schedules** location, click **More Commands** ••• > **New** > **Create Schedule**.

2. Under **Type**, specify either **Custom Schedule** or **Schedule**.

3. In the **Create Schedule** panel, enter the schedule properties values. These property values are discussed in the Field definitions for schedule task execution properties and the Field definitions for schedule planning and execution properties, flags, and stakeholder fields topics.

   If you are not ready for other users to see or access this schedule, clear the **Published** check box if it is selected. When you are ready for others to access this schedule, modify the schedule properties to change this value.

   > Tip:
   >
   > If you want to add multiple schedules with the same or similar values, click **Pin Panel** to keep the **Create Schedule** panel open as you create the schedules.

4. (Optional) Click **Add Projects** to add this schedule to a Teamcenter security-level project. The project consists of entities that correlate groups of users with the data associated with a given project or subset of a project. Project-level security is defined by your system administrator.

   You may need to scroll down to see the project fields.

   Adding a schedule to a project allows you to constrain your schedule membership to resources found in the project, if desired.

5. Click **Create**.

Structuring subschedules

Insert a subschedule into a schedule

As a schedule coordinator, you can insert a subschedule into another schedule, which then becomes the master schedule. You can insert a subschedule using either the master schedule's **Task** tab or the **Gantt** tab—whichever view you prefer.

> Note:
>
> If your system administrator has enabled the **SM_AUTO_EXTEND_SCHEDULE_MASTER_DATE** preference, and you insert a subschedule that is outside the **Start Date** and **Finish Date** boundaries of the master schedule, the master schedule's dates automatically expand to accommodate the subschedule. If this preference is not enabled, and the subschedule's boundary dates are outside the master schedule's boundaries, the subschedule is not inserted.

The following restrictions apply:

- The subschedule must be set to **Published**.
- Subschedules are supported only one-level deep on the master schedule, which means you can't insert a subschedule into another subschedule from the **Task** or **Gantt** tab within the top master schedule. You can, however, navigate to the **Task** or **Gantt** tab within a subschedule and insert a (sub) subschedule in that manner. The subschedule then becomes the master schedule for the (sub) subschedule.

> Note:
>
> The following steps also apply to inserting a subschedule template into a master schedule template.

1. Navigate to the schedule in your folder structure or from the Gantt view.
2. Select the desired schedule (to be the master schedule) and click **Open**.
3. Click either the **Tasks** tab or the **Gantt** tab, depending on the view that you prefer.
4. Do one of the following to ensure that the subschedule is inserted in the desired location.

To	Do
Insert a subschedule between master schedule tasks.	Select the task row *above* which you want to insert the subschedule.
Insert the subschedule after all the master schedule tasks.	Select the master schedule's summary task.

5. Do one of the following.

To	Do
Insert a subschedule on the **Tasks** tab.	Click **More Commands** ••• > **Edit** > **Insert Sub-schedule**.
Insert a subschedule on the **Gantt** tab.	Click **Insert Sub-schedule**.

6. In the **Insert Sub-schedule** panel, do one of the following.

To	Do
Search for a schedule.	a. Click the **Search** tab. b. Enter the search criteria and click . c. Select a schedule from the returned list.
Select a schedule that was previously copied to the paste buffer using **Copy**.	a. Click the **Palette** tab. b. Select a schedule from the **Clipboard** section.
Select a favorite or recently viewed schedule.	a. Click the **Palette** tab. b. Select a schedule from the **Favorites** or **Recent** section.

7. Click **Insert**.

Detach a subschedule from a schedule

As a schedule coordinator, you can detach a subschedule from a master schedule without deleting the subschedule from Teamcenter. You can detach a subschedule using either the master schedule's **Task** tab or the **Gantt** tab—whichever view you prefer.

> Note:
>
> Even though you use the **Delete Tasks** command to detach the subschedule, the subschedule is not deleted from Teamcenter.

1. Navigate to the schedule in your folder structure or from the Gantt view.
2. Select the desired schedule and click **Open**.
3. Click either the **Tasks** tab or the **Gantt** tab, depending on the view that you prefer.
4. Select the subschedule from the list.
5. Do one of the following.

To	Do
Delete a subschedule on the **Tasks** tab.	Click **More Commands** > **Edit** > **Delete**.
Delete a subschedule on the **Gantt** tab.	Click **Delete**.

6. Click **Delete** on the message that is displayed.

Updating schedules

Update a schedule's properties

As work proceeds on a schedule, you can manually update schedule properties to reflect the current schedule state. Only schedule coordinators can update a schedule's **Planning Properties**, **Execution Properties**, **Flags**, and **Stakeholder** values. Schedule team members can update the **Execution Properties** values on tasks that are assigned to them as they complete work. You can update properties on a single schedule, multiple schedules, or on the Information panel.

Update properties on a single schedule

You can update properties on a single schedule in the folder structure or from the Gantt view.

1. Select the desired schedule from the folder structure or from the Gantt view.
2. Click **Edit**.
3. Edit the schedule's properties.
4. Click **Save**.

Update properties on multiple schedules

This display method enables you to update properties directly within the table. It's a convenient method to use to update properties on more than one schedule.

1. Select the **Table** display method.
2. Using multiselect mode, select the schedules from the list.
3. Click **Edit**.
4. Edit the schedules' properties in the table.
5. Click **Save Edits** to save or **Cancel Edits** to cancel your edits.

Update a schedule's properties in the Information panel

You can access the **Information** panel from within any display method.

1. Select the desired schedule.
2. Click **Information**.
3. Click **Edit**.
4. Edit the schedule's properties.

   Click > to select from the various schedule property types.
5. Click **Save**.

Change schedule owner

As an existing owner, you can change the schedule ownership an existing schedule. The new owner becomes the coordinator of the schedule.

1. Open the schedule with the owner that you want to change.
2. Click **More Commands** ••• > **Manage** > **Change Owner**.

   The **Change Owner** panel opens.
3. Select the new owner from the list. You can use the **Filter** box to quickly search for the new owner.
4. Click **Change**.

The user is added to the schedule as the new owner. The **Members** section displays the added user with the role of **Coordinator**.

Shift a schedule

As a schedule coordinator, when the projected timeline of a project changes you can shift the schedule's start date (for start date schedules) or finish date (for finish date schedules). This action shifts the entire schedule, including schedule tasks and subschedules.

This action cannot be undone.

> Note:
>
> Teamcenter Dispatcher Server must be installed to complete this task. Your system administrator can find information about configuring asynchronous services in *Dispatcher — Deployment and Administration* in the Teamcenter help collection.

1. Open a schedule.

2. Click **More Commands** ••• > **Edit** > **Shift Schedule**.

   Deselect any tasks or schedule if the **Shift Schedule** command is not available.

3. In the **Shift Schedule** panel, you can shift the schedule by days or by date.

   - Select **Days** to shift the schedule forward or backward by days. Select a direction in the **Shift direction** box and enter a numeric value in the **Number of Days** box.

   - Select **Date** to shift the schedule by a specific date and enter a new date in the **Shift Date** box.

4. Click **Shift**.

Managing schedules

Submit schedules to a workflow

As the schedule coordinator, you can submit your schedules to a workflow to review changes and get approvals from management and others involved. You can also select the workflow template and set user assignments for the workflow tasks before you finalize the submission.

1. Select the schedules that you want to submit to the workflow from the list, and then click **More Commands** ••• > **Manage** > **Submit to Workflow**.

   The **Submit to Workflow** panel opens.

2. In the **Workflow** section, do the following:

   a. Choose to show **All** workflow templates or only **Assigned** templates.

   b. Select a template from the list. The template you select determines which actions are taken on the selected schedule.

   c. Enter a **Description** if necessary.

3. Click **Assignments**. In the **Assignments** section, do the following if you want to assign or replace users or resource pools for the workflow.

   This area can vary in appearance according to what is required of the template.

   a. Select an **Assignment List(s)**, if any exist for the template. The dropdown is displayed only when lists are available to choose from.

   b. Filters are defaulted to **Type**, **Group**, or **Role**. If the target is assigned to a project, the **Project** filter is available. A search box narrows your search to a specific property.

      - Under **Type**, specify either **Group Member** or a **Resource Pool**.

      - Specify group members for the task by **Group** or **Role**, as necessary. Enter a name in the specific search box to filter.

   c. Select a group member or resource pool for the task from the results and drag it to the **Assignee** column of the task table to populate the assignee. Alternatively, you can click **Assign** in the appropriate section.

4. (Optional) In the **Targets** section, verify that the correct schedule objects are listed. You can also remove unnecessary objects from this section if necessary.

5. Click **Submit** to send the selected schedules to the workflow.

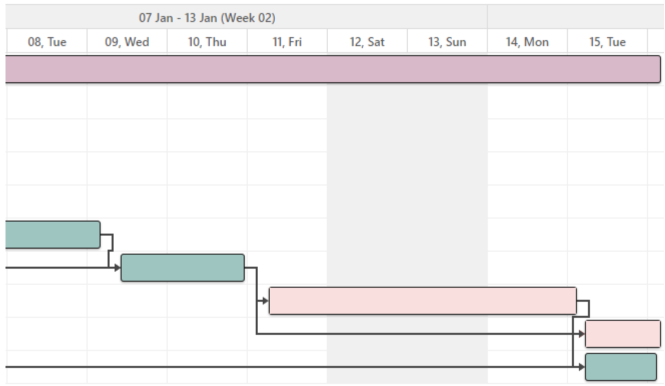
Show or hide a schedule's critical path

As a schedule coordinator, it is useful to calculate the critical path of a schedule or master schedule to monitor how the end dates of the project change as tasks and resource requirements change.

1. Navigate to the desired schedule.

2. From the Gantt chart view, click **Show Critical Path** or **Hide Critical Path** to toggle between seeing or hiding the critical path.

   The critical tasks are highlighted to show the critical path.



Assign or remove a project's schedule

As a schedule coordinator, you can assign a schedule to one or more Teamcenter projects when you create the schedule, or you can assign the projects after the schedule is created. Adding a schedule to a project allows you to constrain your schedule membership to resources found in the project, if desired.

The assigned Teamcenter projects hyperlinks display in the **Projects** field on the schedule's **Overview** tab.

1. Navigate to the schedule in your folder structure or from the Gantt view.

2. Select a schedule from the list.

3. From any tab within the open schedule, click **More Commands** ••• > **Manage** > **Projects**.

   > Note:
   >
   > This icon is available only if a security-level project has been defined in Teamcenter.

4. Do one of the following.

To	Do
Assign a schedule to one or more projects.	In the **Projects** panel, hover over a project listed under the **Available** heading and click **Add Project** ⊕, which is displayed next to the project you are hovering over. You can select more than one project by clicking **Add Project** next to each project you want to select.
Remove a schedule from a project.	Hover over a project under the **Member of** heading, and click **Remove Project** ⊖.

5. Click **Save**.

Compare schedule planning properties

As a schedule coordinator, you can compare the planning properties for multiple schedules.

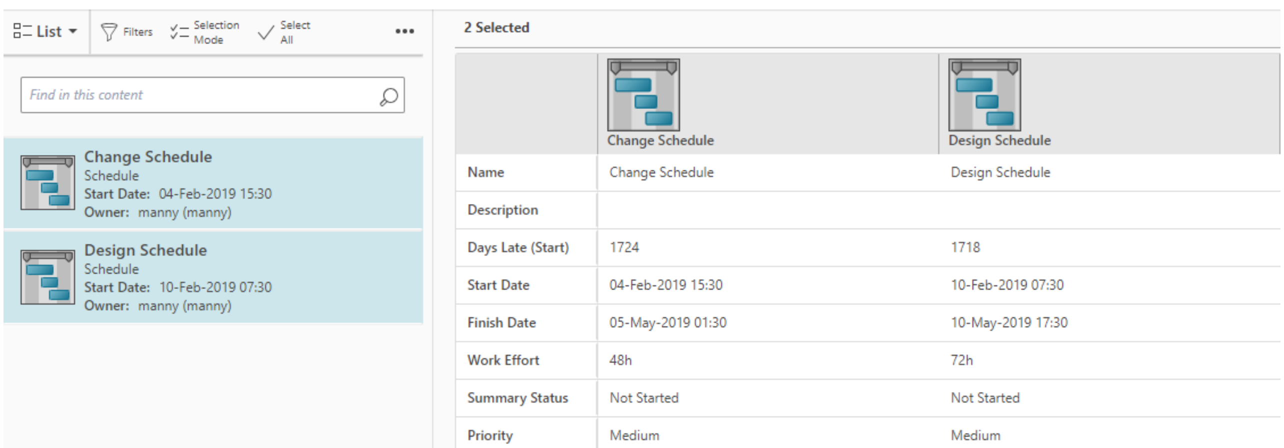
> Note:
>
> You can compare common properties for other selected objects, such as schedule tasks or schedule members in the comparison display available in many Active Workspace pages.

1. Navigate to the schedule in your folder structure or from the Gantt view.

2. Enter multiselect mode and click the schedules to include in the comparison.

   The schedules you select are highlighted.

3. Review and compare the **Planning** properties for the selected schedules.



Delete a schedule with a Not Started state

As a schedule coordinator, you may want to delete a schedule that is no longer valid. You can only delete schedules in a **Not Started** state. All schedule tasks within the schedule must also be in a **Not Started** state. All associated schedule tasks are also deleted.

The following apply:

- You cannot delete a schedule that is locked or a schedule that has schedule tasks that have been locked.

- To delete a subschedule, you must first detach the relationship to the master schedule and then delete the subschedule.

- You can delete a master schedule without first deleting any subschedules.

- If a schedule contains an associated schedule or schedule task deliverable, the relation between the schedule and the deliverable is removed when the schedule is deleted, but the deliverable object itself is not deleted.

1. From the **Schedules** location, select a schedule you want to delete from the **Not Started** tab.

   To select more than one schedule, enter multiselect mode and click the desired schedules.

2. Click **More Commands** ••• > **Edit** > **Delete Schedules**.

3. On the message that appears, click **Delete**.

Performing what-if analysis

What is a what-if analysis?

Performing a what-if analysis on a schedule allows you to change various schedule component values and observe how those changes would affect the outcome of the schedule, without actually applying those changes to the live schedule. For example, as a schedule coordinator you can change the schedule start and end dates, add and delete schedule tasks, and assign resources to tasks. If these changes have a positive effect on the schedule you can promote the changes to the live schedule. If the changes don't have a positive effect you can cancel the what-if mode without actually modifying the live schedule.

The following apply in what-if analysis mode:

- Teamcenter locks the live schedule so that only certain updates can be made against the live schedule, including actions related to schedule deliverables, schedule membership, schedule task execution, and schedule task deliverables.

- Most updates are cached until the what-if session is promoted, including actions related to schedule planning properties, schedule flags, schedule task planning properties, schedule task dependencies, schedule task assignments, and shifting a schedule.

- Some updates are not allowed while the schedule is in what-if analysis mode, including actions related to schedule execution, inserting or detaching subschedules, and schedule task flags.

- If you navigate away from the schedule or sign out of Active Workspace while in what-if analysis mode, your what-if session is preserved and the schedule remains locked.

What can I do while in what-if analysis mode?

You can perform most schedule maintenance functions while in what-if mode, including:

- Task management, including adding and deleting schedule tasks and updating schedule task planning properties.

- Creating, deleting, and updating task dependencies, including cross-schedule dependencies.
- Resource management, including assigning and reassigning resources, and removing all task assignments for a resource.
- Shifting a schedule.

Perform a what-if analysis on a schedule

As a schedule coordinator, use the what-if analysis mode to observe how changes may affect the outcome of the schedule without actually updating the live schedule.

> Note:
>
> While in what-if analysis mode, some actions are made directly against the live schedule, although most actions are cached until the what-if session is promoted or canceled. There are a few actions that are not allowed during what-if analysis, such as inserting or detaching subschedules and modifying schedule execution properties.

1. Select the desired schedule and click **Open**.
2. Click **What-if** > **What-if analysis**.
3. Make modifications to the schedule to determine how the modifications will affect the schedule's outcome.
4. Do one of the following.

To	Do
Share the what-if analysis schedule with other schedule members.	a. Click the **Overview** tab and add a schedule member. b. Under the **Secondary Role** column, select **What-if Reviewer** from the list. The user assigned as a **What-if Reviewer** will have read only privileges to the proposed schedule change. Note: Teamcenter 14.3 or later is required to use the accessor type **What-if Reviewer**. Your Teamcenter administrator must configure the following access control lists (ACLs): • **What-If Analysis Create Mode**

To	Do
	• **What-If Analysis Delete Mode**
Cancel the what-if analysis and undo the schedule changes.	• Click **What-if** > **Cancel**.
Promote the schedule changes to the live schedule and exit the what-if analysis mode.	• Click **What-if** > **Promote**.

Submit schedules in what-if analysis mode to a workflow

As a schedule coordinator, submit schedules that are in what-if analysis mode to a workflow. Your proposed schedule changes will be reviewed and approved by management and other assigned participants.

Procedure

1. Select a schedule in what-if analysis mode and click **Open**.

2. Click the **Gantt** tab and **submit the schedule to a workflow**.

3. Once the schedule is reviewed by the intended **What-if Reviewers**, promote or cancel the schedule changes to exit what-if analysis mode.

Comparing the planned schedule with the current schedule

About baselining schedules

As a schedule coordinator, you can create a schedule baseline, which represents a snapshot of the schedule at a given time. This allows you to view how the actual schedule compares with the originally planned schedule, assessing which tasks have slipped and which tasks have been completed ahead of schedule. It also allows you to compare estimated duration against actual duration.

You can also create multiple baselines for a schedule. You can manage these baselines by **editing the details**, **deleting out-of-date baselines**, and **choosing which baseline to set as *active***.

If you are using a master schedule and subschedules, all baseline operations applied to the master schedule appear on the subschedules, and vice versa. However, if you open a subschedule the baseline does not appear in the opened subschedule.

> Note:
>
> Teamcenter Dispatcher Server must be installed to baseline schedules. Your system administrator can find information about configuring asynchronous services in *Installing and Configuring Dispatcher* in the Teamcenter help collection.

Create a schedule baseline

As a schedule coordinator, you can create a baseline from the current schedule to use as a snapshot against which to compare the schedule at a future date.

In some cases, it may take Active Workspace time to create the schedule baseline. You can check your **Alerts** to see if the process has completed.

1. Navigate to the desired schedule and open it.
2. From the Gantt chart view, click **More Commands** ••• > **New** > **Create Baseline**.
3. On the **Baseline Schedule** panel, do the following.
   a. In the **Name** box, enter a meaningful name for this baseline, if desired. The default value is the schedule name.
   b. In the **Description** box, enter a meaningful description for this baseline, if desired.
   c. Select **Active** to make this baseline the active baseline. The active baseline information is shown for the baseline columns when not viewing a specific baseline.

   > Note:
   >
   > If this is the first baseline for this schedule, this option does not display. Teamcenter automatically sets this baseline as active.
4. Click **Create**.

View a schedule baseline

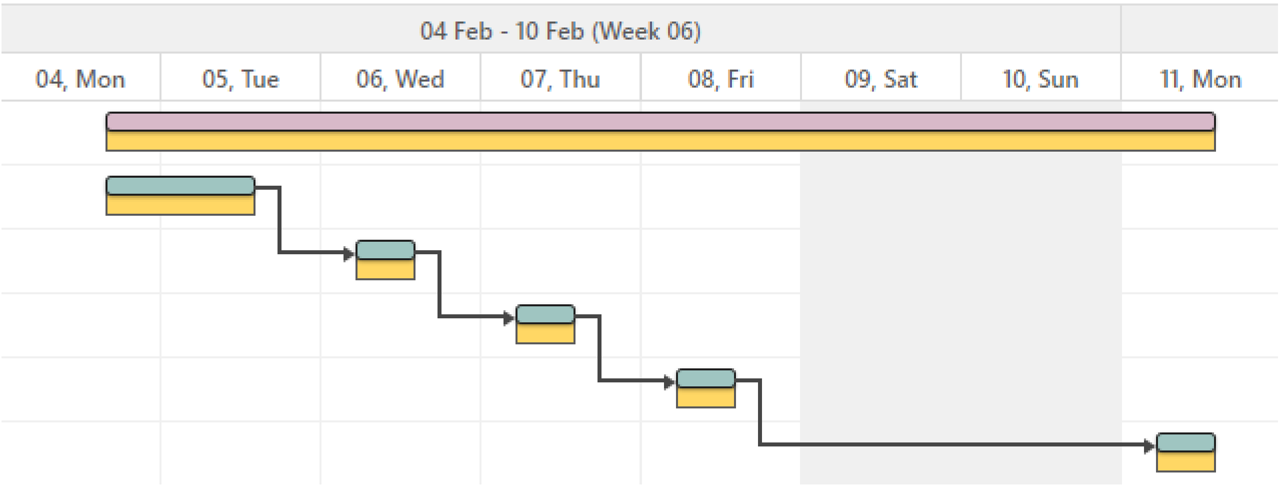
As a schedule coordinator, use this process to view a schedule against a chosen baseline so that you can see how the actual schedule compares with the selected baseline schedule. Using a baseline, you can see which tasks have slipped and which tasks have been completed ahead of schedule. You can view a schedule against any baseline, even if it is not the current baseline.

1. Navigate to the desired schedule and open it.
2. From the Gantt chart view, click **More Commands** ••• > **View** > **View Baseline**.

3. On the **View Baseline** panel, select the desired baseline and then click **Assign Baseline** ⊕.

4. Click **View**.

   The baseline schedule values display in yellow.



Set the active schedule baseline

You can choose which schedule baseline to set as active to quickly view the planned dates for the selected baseline.

1. Navigate to the desired schedule and open it.

2. From the Gantt chart view, click **More Commands** ••• > **Manage** > **Manage Baselines**.

   The **Manage Baselines** panel opens and displays all the baselines for the schedule.

   The active baseline is displayed in the **Active Baseline** section. Other baselines created for the schedule are listed in the **Available** section.

3. Select the schedule baseline you want to set as active and then click **Set Active**.

   The baseline is moved to the **Active Baseline** section and replaces the baseline that was previously set as active.

Manage schedule baselines

You can edit schedule baselines and change the name and description to keep your schedule baselines up-to-date as work progresses. If the schedule baseline is no longer needed, you can delete it.

Edit a schedule baseline

1. Navigate to the desired schedule and open it.
2. From the Gantt chart view, click **More Commands** ••• > **Manage** > **Manage Baselines** .

   The **Manage Baselines** panel opens and displays all the baselines for the schedule.

   The active baseline is displayed in the **Active Baseline** section. Other baselines created for the schedule are listed in the **Available** section.
3. Select the schedule baseline you want to change and then click **Edit** .
4. Update the schedule baseline **Name** and **Description** as necessary and then click **Save** to return to the **Manage Baselines** panel.

Delete a schedule baseline

You can delete a schedule baseline that is no longer needed. This helps you manage out-of-date baselines for your schedules.

1. Navigate to the desired schedule and open it.
2. From the Gantt chart view, click **More Commands** ••• > **Manage** > **Manage Baselines** .

   The **Manage Baselines** panel opens and displays all the baselines for the schedule.

   The active baseline is displayed in the **Active Baseline** section. Other baselines created for the schedule are listed in the **Available** section.
3. Select the schedule baseline you want to delete and then click **Delete** .
4. Click **Delete** again when prompted by Active Workspace to confirm the deletion.

Working with two schedule baselines

View two schedule baselines

As a schedule coordinator, you can and add up to two baselines to view and compare with a parent schedule.

> Note:
>
> See create schedule baselines for information on creating schedule baselines.

Procedure

1. Navigate to the desired schedule and open it.

2. From the Gantt chart view, click **More Commands** ••• > **View** > **View Baseline**.

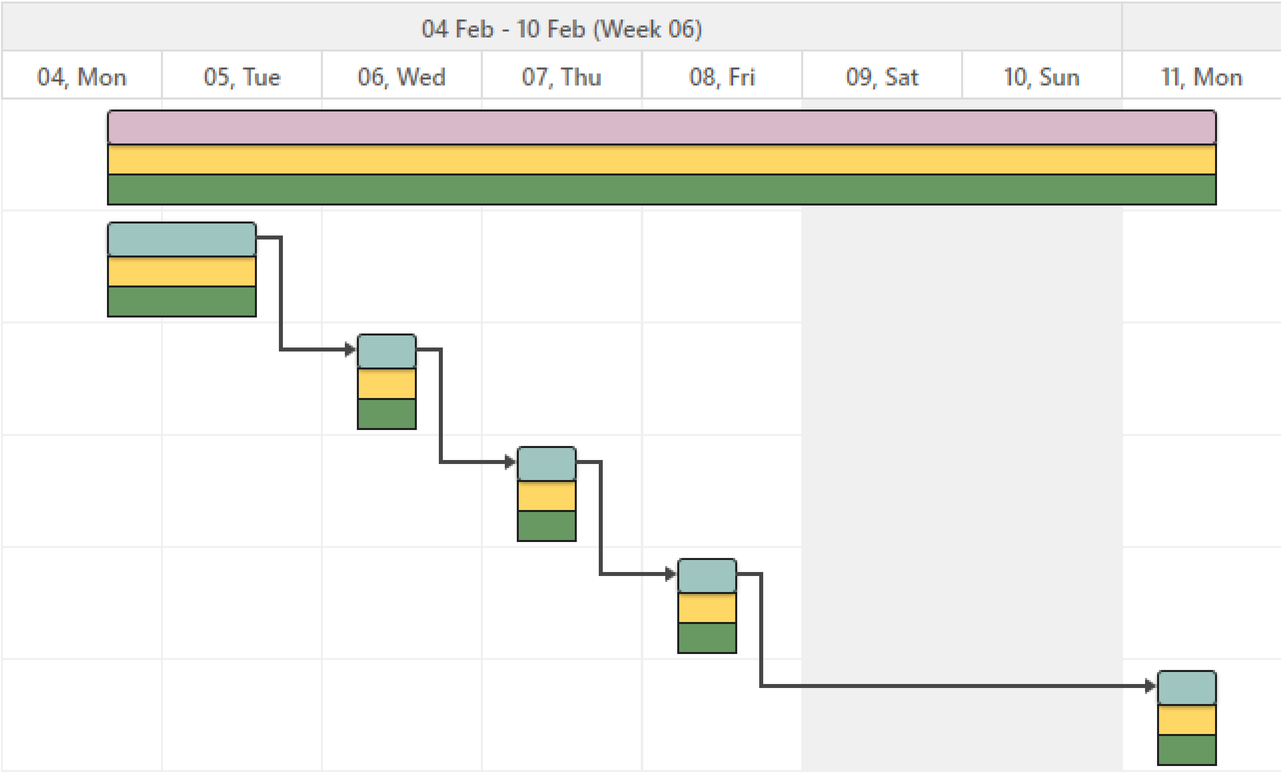
3. In the **View Baseline** panel, filter and search for baselines to view.

4. Click **Assign Baseline** and add up to two baselines.

5. Click **View**.

   The first baseline schedule values are displayed in yellow.

   The second baseline schedule values are displayed in green.



Replace a schedule baseline

As a schedule coordinator, you can replace a baseline with a new or an existing baseline and view and compare the replacement baseline with the parent schedule.

Procedure

1. Select and open a schedule with more than one baseline.

2. From the Gantt chart view, click **More Commands** ••• > **View** > **View Baseline**.

3. In the **View Baseline** panel, in the **Baselines** section, select a baseline you want to replace and click **Unassign Baseline** to unassign.

4. In the **Available** section, filter and search for a baseline to replace the baseline selected.

5. Click **Assign Baseline** to assign the baseline.

   If **Assign Baseline** is unavailable, the latest baseline that was assigned in the **Baselines** section is used as a replacement. In this case, in the **Available** section, filter and search for a baseline to replace the latest baseline and click **Replace Baseline**.

Field definitions for schedule planning and execution properties, flags, and stakeholder fields

Schedule coordinators can manually update the schedule's **Planning Properties**, **Execution Properties**, **Flags**, and **Stakeholder** values.

Field name	Definition	Valid values
Name	Uniquely identifies this schedule.	
Description	Describes this schedule.	
Projects	Displays hyperlinks to Teamcenter projects that this schedule is assigned to.	
Priority	Identifies the priority assigned to this schedule. This list of values may be modified by your system administrator.	The out-of-the-box values are: **Lowest** **Low** **Medium Low** **Medium** **High** **Very High** **Highest**
Budgeted Effort	Identifies the budgeted hours for completing this schedule.	Enter a numerical value.
Work Effort	Identifies the estimated effort needed to complete this schedule.	

Field name	Definition	Valid values
Start Date	Specifies the target start date of the schedule. Note that the date entered is not validated against the schedule's tasks at the time of creation. However, on edit, the system warns you that there may be tasks that go beyond schedule dates.	Click the date box to select a date from the calendar. Click the time box to select a time. If no value is selected, the time defaults to the current date and time.
Finish Date	Specifies the target finish date of the schedule. Note that the date entered is not validated against the schedule's tasks at the time of creation. However, on edit, the system warns you that there may be tasks that go beyond schedule dates.	Click the date box to select a date from the calendar. Click the time box to select a time. If no value is selected, the time defaults to three months in the future and the current time.
Unit of Time Measure	Identifies the unit of measure used to calculate the schedule task's **Duration**, **Work Effort**, **Work Complete**, and **Percent Complete** values. The default value is hours (h). A subschedule does not inherit the master schedule's unit of time value.	**Hours (h)** **Days (d)** **Weeks (w)** **Months (mo)**
Schedule Type	Indicates the schedule's relationship with another schedule. The **Schedule Type** value for a standalone schedule is **S** but changes when the schedule becomes a subschedule or a master schedule.	**S** - schedule **M** - master schedule **SUB** - subschedule **MS** - master subschedule
Schedule State	Identifies the current state of this schedule. A schedule progresses through a series of predefined states as the schedule work is completed. The **Schedule State** value affects the available values within the **Schedule Status** box, and the two values work together to provide a complete picture of the schedule's progress. For example, the schedule's state is **In Progress** but its status is **Needs Attention**. Select a value from the list of values.	**Not Started** **In Progress** **Complete** **Closed** **Aborted**

Field name	Definition	Valid values
Schedule Status	Identifies the current status of this schedule *within the selected state*. Note that the list of values for this field changes based on what is selected in the **Schedule State** box. The two values work together to provide a complete picture of the schedule's progress. For example, the schedule's state is **In Progress** but its status is **Needs Attention**. Once a schedule has been set to **Abort**, the status cannot be changed or reversed Select a value from the list of values. Note: When a schedule is aborted, the schedule summary task is marked as complete. Because of this, aborted schedules appear in the **Complete** tab of your schedule list.	**Not Started** **In Progress** **Needs Attention** **Late** **Complete** **Abandoned** **Aborted**
Work Complete	Identifies the number of hours completed on this schedule and reflects a rollup of the **Work Complete** field values on the schedule tasks.	
Percent Complete	Identifies the total percentage of work that has been completed on this schedule.	
Forecast Start Date	Specifies the date and time that work on this schedule is forecasted to begin.	Click the date box to select a date from the calendar. Click the time box to select a time.
Actual Start Date	Specifies the actual date and time that work on this schedule began.	
Forecast Finish Date	Specifies the date and time that work on this schedule is forecasted to end.	Click the date box to select a date from the calendar. Click the time box to select a time.
Actual Finish Date	Specifies the actual date and time that work on this schedule ended.	

Field name	Definition	Valid values
Published	Determines if the schedule is published. If a schedule is published and public (see **Is Schedule Public,**), even users who are not assigned to the schedule can see it. If this schedule is published, but is not public, only users who are assigned to the schedule can see it.	
Public	Determines who can see this schedule. If the schedule is public, all users, including users who are not assigned to the schedule, can see the schedule, if it is published.	
Template	Identifies if this schedule can act as a template for new schedules.	
External	Identifies if scheduling logic and validations are to be performed on the schedule tasks. The system sets the default value, but the schedule coordinator can change the value. When set to **True**, a schedule user can edit the schedule and task properties, but these edits are not validated by the scheduling engine.	
Actual Dates Linked	Determines if the planned schedule dates and actual schedule dates are linked as follows: • Changing the actual start or finish date changes the scheduled start or finish date. • Changing the scheduled start or finish date does not change the actual start or finish date, respectively. If true, the dates default to the scheduled date regardless of how the system is configured. If false, the actual start and finish dates are set to the configured default (either today or scheduled) set up by the system administrator.	

Field name	Definition	Valid values
	Note: This property works in conjunction with the **DefaultActualToSystemDate** site preference. When your system administrator sets this to **True**, the system date will be used for the actual start and finish dates.	
Percent Linked	Determines the correlation between work completed and percentage completed. The following applies: • If you change the work completed, the percentage completed changes to equal the percent of scheduled work completed. • If you change the percentage completed, the work completed changes to equal the schedule work multiplied by the percentage completed.	
Notifications Enabled	Specifies that notifications are sent when specific triggers occur within a schedule. These are based on various events or conditions defined on tasks in Teamcenter, for example, sending a notification when a task gets deleted or when a task is overdue.	
Finish Date Scheduling	Specifies finish-date-based scheduling. In finish-date-based schedules, you create your tasks from the finish date backward, rather than the start date forward.	
Owner	Identifies the owner of this schedule.	
Customer	Identifies the customer associated with this schedule.	
Customer Number	Identifies the customer number associated with this schedule.	

10. Creating and managing schedule tasks

About schedule tasks

Schedule tasks, which appear on the schedule's **Tasks** tab, identify the activities and deliverables for a schedule. You can open a task to view the properties, deliverables, assigned members, and task dependencies.

Schedule tasks behave the same whether they are created on a schedule, master schedule, or subschedule.

The following applies to schedule tasks:

- The top line on the **Tasks** tab is the schedule summary task for the schedule and cannot be modified or deleted.
- When you insert a subschedule into a schedule, the subschedule appears as a schedule task on the master schedule.
  - Opening a subschedule from the **Tasks** tab opens the subschedule as a **Schedule Task** of the master schedule. You can assign deliverables and create task dependencies just as you would on a standard schedule task.
  - To navigate to the subschedule from within the subschedule task, click the **Schedule** link on the subschedule task's **Overview** tab.
- When you add schedule tasks to a subschedule, the tasks roll up to the master schedule and appear on the master schedule's **Tasks** tab. They also appear on the subschedule's **Tasks** tab.
  - To add a task to a subschedule task while in the master schedule, select the subschedule task from the task list and add the task.
- To create a milestone task on a schedule or subschedule, use **Add Milestone** on the **Gantt** tab, or create a task with no duration value on the **Tasks** tab.

Add or delete a schedule task

As a schedule coordinator, you can add a task to, or delete a task from, a schedule or subschedule as the schedule scope changes. A task can be deleted even if it is associated with a running workflow. If the deleted task is associated with a running workflow, the workflow is stopped and downstream workflow tasks are prevented from starting. You can add or remove a task using the **Tasks** tab or the **Gantt** tab—whichever view you prefer.

Add a task to a schedule or subschedule

1. Navigate to the schedule in your folder structure or from the Gantt view.

2. Click the **Tasks** tab.

3. Do one of the following.

To	Do
Add a task to a schedule or master schedule.	Select the task beneath which you would like to add the new task. If you don't make a selection from the list, the task is added to the bottom of the list.
Add a task to a subschedule.	Select the subschedule task from the list. Note: A task can be added to a subschedule either from the subschedule's **Tasks** tab, or as described here by selecting the subschedule task from the master schedule's **Tasks** tab.

4. Click **Add Schedule Task** ⊕.

5. In the **Add Schedule Task** panel on the **New** tab, specify **Schedule Task** as the **Type**, or click the **Palette** tab to paste a task from the clipboard.

6. Complete the schedule task information.

7. Click **Add**.

Delete a task from a schedule

1. Navigate to the schedule.

2. Select the task that you want to delete.

3. Click **More Commands** ••• > **Edit** > **Delete**.

4. Click **Delete** on the message that is displayed.

Copy and paste an existing schedule task

As a schedule coordinator, you can quickly add a schedule task to a schedule by copying an existing task and pasting it into either the same schedule or a different schedule. This is useful when you need to create tasks that have properties similar to existing tasks.

When you copy a task from one schedule and paste it into a different schedule, the schedule task deliverables will not be included. Likewise, subscriptions do not persist when copying and pasting schedule tasks across schedules.

1. Navigate to the schedule in your folder structure or from the Gantt view.

2. Click the **Tasks** tab.

3. Select the desired task and click **Copy** .

4. (Optional) Navigate to the **Task** tab of the schedule where you want to paste the copied task.

5. Select a task and click **Paste** .

   The copied task is pasted below the selected task.

> Note:
>
> You cannot paste a task into a schedule when the schedule summary task (top row) is selected. The paste command works only when a task is selected.

Field definitions for schedule task planning properties

Schedule coordinators can update the following schedule task **Planning Properties** values.

Field name	Definition	Valid values
Name	Uniquely identifies this schedule task.	
Description	Describes this schedule task.	
Priority	Identifies the priority assigned to this task. This list of values may be modified by your system administrator.	The out-of-the-box values are: **Lowest** **Low**

Field name	Definition	Valid values
		Medium Low **Medium** **High** **Very High** **Highest**
Duration	Identifies the calendar time estimated to complete a task.	
Work Effort	Identifies the estimated work units needed to complete a task. All entries are ultimately displayed in hours so, for example, if you enter 2d it will display as 16h on the Schedule's **Task** tab. Note: Use only a single time unit when entering the work effort value, for example **25d**. This field does not accept compound time units, such as **1mo1w**.	Work efforts can be defined by the following suffixes: **h** - hours **d** - days **w** - weeks **mo** - months
Start Date	Specifies the date that work on this task is to begin. Note that the date entered is validated against the schedule start date. If the task start date precedes the schedule start date, Teamcenter prevents the update.	Click the date box to select a date from the calendar. Click the time box to select a time. If no value is selected, the time defaults to the current date and time.
Finish Date	Specifies the date that work on this task is to end. Note that the date entered is validated against the schedule finish date. If the task finish date is after the schedule finish date, Teamcenter prevents the update.	Click the date box to select a date from the calendar. Click the time box to select a time. If no value is selected, the time defaults to the current date and time.
Fixed Type	Controls which of the three factors (work, duration, or resources) remains fixed and which change to accommodate changes to the schedule. The following table show what happens when you fix one of the factors, and then change one of the other factors.	**Fixed Work** **Fixed Duration** **Fixed Resource**

<table>
<tr><th>Field name</th><th>Definition</th><th>Valid values</th></tr>
<tr><td></td><td>
<table>
<tr><th>Fixed Type</th><th>Change Resources, Schedule Manager changes</th><th>Change Duration, Schedule Manager changes</th><th>Change Work, Schedule Manager changes</th></tr>
<tr><td>Fixed Resources</td><td>Duration</td><td>Work</td><td>Duration</td></tr>
<tr><td>Fixed Duration</td><td>Work</td><td>Resources</td><td>Resources</td></tr>
<tr><td>Fixed Work</td><td>Duration</td><td>Resources</td><td>Duration</td></tr>
</table>
</td><td></td></tr>
<tr><td>Task Type</td><td>Indicates the object type.</td><td>Schedule Summary
Orphan
Standard
Milestone
Phase
Gate</td></tr>
<tr><td>Constraint</td><td>Forces a shift in the schedule based on the selected constraint type.</td><td>No Constraint

As Late As Possible works with task dependencies to schedule a task as late as the task dependency and other scheduling considerations allow.

As Soon As Possible works with task dependencies to schedule a task as soon as the task dependency and other scheduling consideration allow.

Fixed does not allow the schedule task dates to be changed.</td></tr>
<tr><td>Workflow Trigger</td><td>Identifies what action triggers the workflow for this task to begin.</td><td>No workflow trigger
Predecessors complete
Schedule start date</td></tr>
</table>

Field name	Definition	Valid values
		Both scheduled start date and predecessors complete **Either scheduled start date and predecessors complete**
Workflow Template	Defines the blueprint of the workflow to be performed.	Select from the defined list.

Adding proxy and mirror tasks

About proxy tasks

As the schedule coordinator, you can add proxy tasks in a schedule, which represent a task, from a different schedule. This allows you to track the status of the proxy task from within your schedule and can be used to create cross-schedule task dependencies. When you view the schedule containing the proxy task from the **Gantt** view, the schedule that contains the original task is displayed next to the proxy task name in parentheses.

Keep the following in mind when using proxy tasks:

- A proxy task cannot be modified. When the original task is modified, the changes to the original task are displayed in the proxy task.
- Proxy tasks cannot be created for tasks within the same schedule.
- Dependency changes made to the original task also change the dependencies on the proxy task.
- Proxy tasks are ignored when importing the schedule into Microsoft Project.
- Template schedules can contain proxy tasks from other template schedules.
- Non-template schedules can contain proxy tasks from other non-template schedules.
- Schedule baselines do not include proxy tasks or cross-schedule dependencies.

You can add the proxy task from the **Gantt** view using one of the following methods:

- **Add a proxy task by selecting the original task from the Palette tab or the Search tab of the Add Proxy Task panel.**
- **Add a proxy task by copying the original task and then selecting it from the Clipboard section of the Add Proxy Task panel.**
- **Create a dependency between two tasks in different schedules.** The target task is made a proxy task of the task you create the dependency with.

Mirror as proxy tasks

When you have a schedule that contains one or more subschedules, you can **select a schedule task from the master schedule and then mirror it as a proxy task** to either the first level of subschedules or all subschedules under the master schedule. This allows you to quickly add proxy tasks to a large schedule that contains many different levels of subschedules.

> Note:
>
> Your administrator can set the **SM_PREVENT_UPDATE_STATES** system preference to prevent schedules under the subschedule from inheriting the proxy task.

Add a proxy task to a schedule

You can add a task from a different schedule as a proxy task in the current schedule. As changes are made to the original task, the proxy task automatically updates to reflect those changes.

1. Open a schedule.
2. From the Gantt view, select the schedule from the list.
3. Click **More Commands** ••• > **New** > **Add Proxy Task**.

   The **Add Proxy Task** panel opens.
4. Do any of the following to select the proxy task:
   - Select the task from the **Clipboard**, **Favorites**, or **Recent** section of the **Add Proxy Task** panel.
   - Click the **Search** tab and then select the schedule that contains the task you want to add a proxy for from the dropdown list. From the list of schedule tasks, find the desired task and select it.

     > Note:
     >
     > You can use the **Filter** box to quickly find the desired task.
5. Click **Add**.

The proxy task is added to the current schedule. The name of the schedule that contains the original task is displayed next to the proxy task.

ID	Object	Name	Start Date	Finish Date	Duration
1	Change Schedule	Change Schedule	04-Feb-2019 15:30	11-Feb-2019 14:00	40.0h
2	Create Plan(Test Schedule)	Create Plan			
3	Change requirements review	Change requirements review	04-Feb-2019 15:30	05-Feb-2019 14:00	8.0h
4	Develop change concept	Develop change concept	06-Feb-2019 05:00	06-Feb-2019 14:00	8.0h
5	Review change	Review change	07-Feb-2019 05:00	07-Feb-2019 14:00	8.0h
6	Finalize change design	Finalize change design	08-Feb-2019 05:00	08-Feb-2019 14:00	8.0h
7	Implement change	Implement change	11-Feb-2019 05:00	11-Feb-2019 14:00	8.0h

Add a new proxy task from a copied task

You can copy a task from one schedule and create a proxy task from the copied task in a different schedule. As changes are made to the original task, the proxy task is automatically updated to reflect those changes.

1. Open a schedule.

2. Click the **Tasks** tab or the **Gantt** tab.

3. Select the task you want to copy and then do one of the following:

   - Click **Copy**.

   - Right-click the task and then select **Copy**.

   - Press **Ctrl+C** on your keyboard.

4. Navigate to the **Gantt** tab of schedule where you want to add the proxy task.

5. Click **More Commands** ••• > **New** > **Add Proxy Task**.

   The **Add Proxy Task** panel opens. Any tasks you have copied appear under the **Clipboard** section.

6. Select the task from the **Clipboard** section and then click **Add**.

   The proxy task is added to the current schedule. The name of the schedule that contains the original task is displayed next to the proxy task.

Mirror task as a proxy task

When you have a schedule that contains one or more subschedules, you can select a schedule task from the **Gantt** view and then mirror it as a proxy task to either the first level of subschedules or all subschedules under the master schedule. When you mirror the task, it creates a copy of the original task in the corresponding subschedules.

1. Open a schedule.

2. From the Gantt view, select the task you want to mirror as a proxy task to the subschedules.

3. Click **More Commands** > **New** > **Mirror as Proxy Task**.

   The **Mirror as Proxy Task** panel opens.

4. Choose one the following:

   - **All Sub-Schedules.** Mirrors the task as a proxy task in all of the sub schedules under the master schedule.

   - **1st level of Sub-Schedules.** Mirrors the task as a proxy task in only the first level of subschedules under the master schedule.

5. Click **Add**.

   The selected task is mirrored as a proxy task across the subschedules.

Updating schedule tasks

Change a schedule task's duration

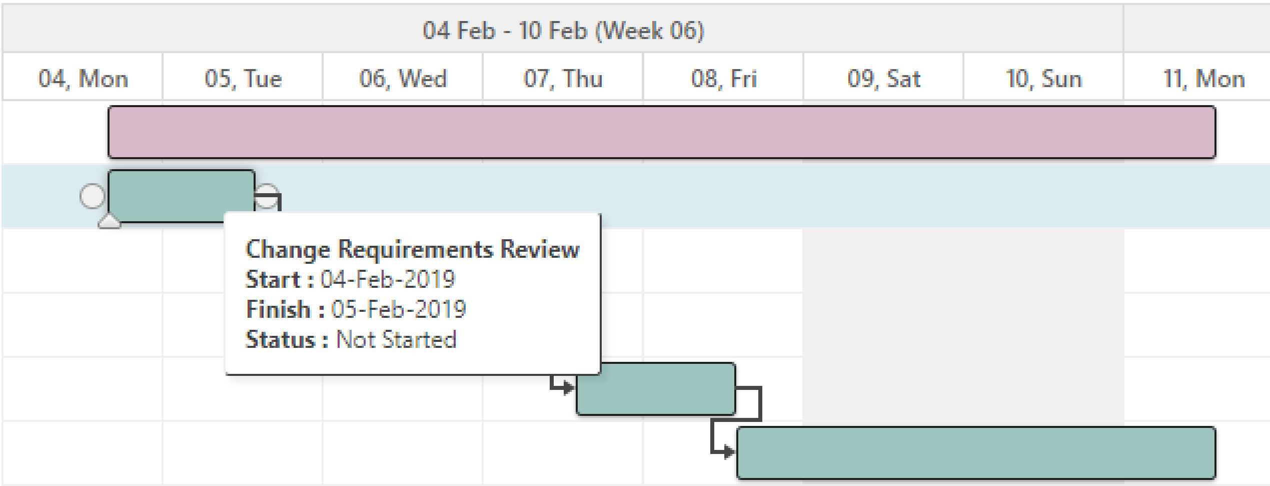
As a schedule coordinator, you can quickly update a schedule task's duration in the Gantt view by dragging the task's left handle (start date) and/or right handle (finish date) to a new spot on the date line.

> Note:
>
> You can also update a schedule task's start and finish dates by editing the schedule task's properties on schedule task's **Overview** tab.

1. Open a schedule.

2. From the Gantt chart view, hover over the task that you want to modify.

The task information appears, the task's connection points are displayed on either side of the task, and one side of the task is enabled for dragging.



Note:

This action is constrained by the **Use Finish Date Scheduling** flag. If this schedule uses finish date scheduling, the task's left handle is enabled for dragging. If this schedule does not use finish date scheduling, the task's right handle is enabled for dragging.

3. Drag the left task handle to the left to change the start date, or drag the right task handle to the right to change the finish date, and release.

   The cursor changes to a bidirectional arrow during the move process.

Reschedule a schedule task

As a schedule coordinator, you can quickly reschedule a task in the Gantt chart by dragging the task to a new start time. This action does not change the duration of the task. The task's start and finish dates are automatically updated, as are any existing task dependencies.

Note:

You can also reschedule a task by editing the schedule task's planning properties on the **Overview** tab or on the **Information** panel in the Gantt view.

1. Open a schedule.

2. From the Gantt chart view, hover over the task that you want to modify.

   The task information appears and the task's connection points are displayed on either side of the task.

3. Click and drag the entire task to the desired location.

Move a schedule task up or down the task list

As a schedule coordinator, you can resequence a schedule's tasks by moving them up or down in the task list. This can be accomplished by:

- On the schedule's **Gantt** tab, drag a task to a new location and drop the task into place.
- On the schedule's **Task** tab, copy the task and paste it into the desired location within the same schedule to duplicate the task.

Drag and drop

1. Click the **Gantt** tab.
2. In the Gantt tree, left click the task name and drag the task to the desired position within the tree and release.

Copy and paste the tasks

1. Click the **Tasks** tab.
2. In the task list, select the task that you want to move.
3. Click **Copy** .
4. Select the target location by selecting the task that will *follow* the task that you are moving and click **Paste** .

Update a schedule task's planning properties

As a schedule coordinator, you may need to update a schedule task's planning properties as work on the schedule progresses. Only schedule coordinators can update a schedule task's **Planning Properties** values. (A team member can update the task's **Execution Properties** values as they complete work on the task.) You can update properties on a single task, multiple tasks, and on the Information panel.

> Note:
>
> If you change a schedule task's **Start Date**, the **Finish Date** automatically updates based on the new date. For example, if you move the start date forward by two days and save your edits, the finish date also moves forward two days to keep the dates in sync.

Update properties on a single schedule task

You can update properties on a single schedule task in the folder structure or from the Gantt view.

1. Click **SCHEDULE TASKS** on your home page.

2. Click the task status tab, such as **Not Started** or **In Progress**, to locate the task. You can also **select a task from the Board view** and open it to modify the properties.

3. Select the desired schedule task from the list.

4. Click **Edit**.

5. Edit the schedule task's properties.

6. Click **Save**.

Update properties on multiple schedule tasks

This display method enables you to update properties directly within the table. It's a convenient method to use to update properties on more than one schedule task.

1. Select the **Table** display method.

2. Using multiselect mode, select the desired schedule tasks from the list.

3. Click **Edit**.

4. Edit the schedule task's properties in the table.

5. Click **Save Edits** to save or **Cancel Edits** to cancel your edits.

Update a schedule task's properties in the Information panel

You can access the **Information** panel from within any display method.

1. Do one of the following.

To	Do
Update the schedule task's properties from within the schedule task.	a. Click **SCHEDULE TASKS** on your home page. b. Select the desired schedule task from the list.
Update the schedule task's properties from within the Gantt tab.	a. Click **SCHEDULES** on your home page.

To	Do
	b. Select the desired schedule from the list.
	c. Click the **Gantt** tab
	d. Select the desired schedule task.

2. Click **Information** ⓘ.

3. Click **Edit**.

4. Edit the schedule task's properties.

   Click > to select from the various schedule task property types.

5. Click **Save**.

Add or remove affected items in a schedule task

Plan item schedules are schedules that are created in response to an engineering change notice (ECN) to address the work tasks, and the tasks' associated items, that are affected by the change.

> Example:
>
> A change notice is created to address a problem with a motor's operating temperature. The problem item is the motor housing and the impacted item is the cooling fin. A schedule task is created to design a solution. The motor housing is related to the schedule task as a problem item. The current revision of the cooling fin is related as an impacted item. The user executing the task revises the cooling fin to create the solution item. The user attaches the new revision to the schedule task as a solution item.

As a schedule coordinator, you can add affected items to a task in the following groups:

Solution Items

The new revisions or versions of the content that is to be released by this change.

Impacted Items

The old revision or version of the content being revised or replaced as part of the change.

Problem Items

The content causing the change.

Only schedules derived from an ECN have the **Affected Items** tab.

Add an affected item to a schedule task

1. Open a schedule.
2. Do one of the following to select a schedule task.
   - Select a schedule task from the Gantt view.
   - Click the **Tasks** tab and select a schedule task from the list.
3. Click **Open**.
4. Click the **Affected Items** tab.
5. Click **Add to** next to the desired affected item section.
6. In the **Add** panel, do one of the following:

To	Do
Search for an existing item.	a. Click the **Search** tab. b. Enter the search criteria and click . c. Select an item from the returned list.
Select an item that was previously copied to the paste buffer using **Copy** .	a. Click the **Palette** tab. b. Select an item from the **Clipboard** section.
Select a favorite or recently viewed item.	a. Click the **Palette** tab. b. Select an item from the **Favorites** or **Recent** section.
Add a new item.	a. Click the **New** tab. b. Do one of the following: • Click **Browse** to find a new item. • Select a recently used item from the **Recent** section. • Select an item type from the **Other** section, or search for an item type using the **Filter** box. c. Enter the properties for the new task.

To	Do
	The properties vary depending on the type of task being created.

7. Click **Add**.

Remove an affected item from a schedule task

1. Navigate to the schedule task.
2. Click the **Affected Items** tab.
3. Select the affected item.
4. From the primary toolbar, click **Cut**.
5. (Optional) From the primary toolbar, click **Paste** to paste a deleted (cut) item into another section.

Managing schedule tasks

Assign schedule tasks to a project

As a schedule coordinator, you can assign a schedule task to one or more Teamcenter projects.

1. Navigate to the schedule task in your folder structure, Board view, or from the Gantt view.
2. Select a schedule task from the list.
3. Click **More Commands** > **Manage** > **Projects**.

   Note:

   This feature is available only if a security-level project has been defined in Teamcenter.

4. In the **Projects** panel, hover over a project listed under the **Available** heading and click **Add Project**, which appears next to the project you are hovering over.
5. (Optional) To remove the schedule task from a project, hover over a project under the **Member of** heading, and click **Remove Project**.
6. Click **Save**.

Compare schedule task planning properties

As a schedule coordinator, you can compare the planning properties for multiple schedule tasks.

> Note:
>
> You can compare common properties for other selected objects, such as schedules or schedule members, by selecting the **Compare** display mode available in many Active Workspace pages.

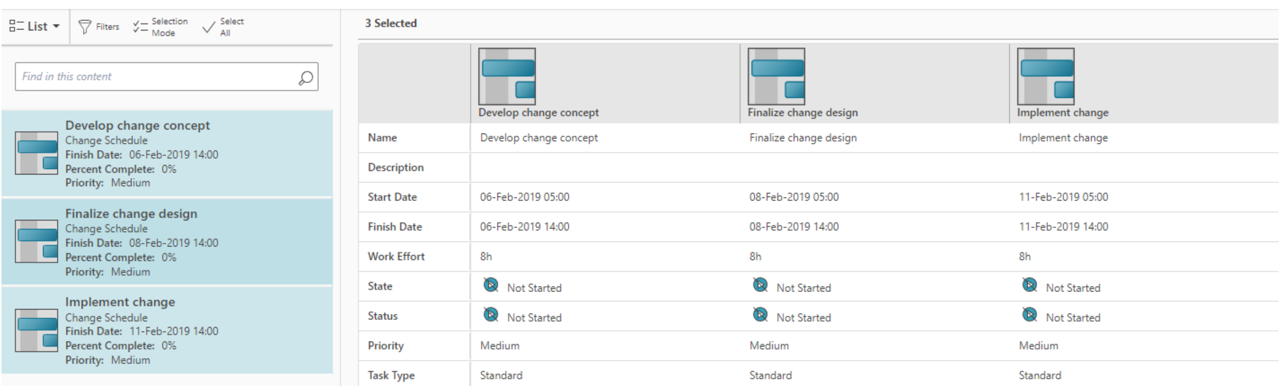
1. Navigate to the schedule task in your folder structure or from the Gantt view.

2. Enter multiselect mode and click the schedule tasks to include in the comparison.

   The schedule tasks you select are highlighted.

3. Click the schedule tasks you want to compare.

4. Review and compare the **Planning** properties for the selected schedule tasks.



Move a schedule task between schedules

You can move a schedule task from one schedule to another schedule by cutting the task from the first schedule and inserting it into the second schedule.

> Note:
>
> Task dependencies and task deliverables are not maintained when moving a task between two different schedules.

1. Navigate to the schedule in your folder structure or from the Gantt view.

2. Click the **Tasks** tab.

3. Select the task that you want to move.

4. Click **Cut**.

5. Search for the schedule that you want to move the task to using the search box, or navigate to it in your folder structure.

6. Click **Open**.

7. Click the **Tasks** tab.

8. Select a task from the table.

   Active Workspace inserts the task above the selected task.

9. Click **Add Schedule Task** and select the cut task from the **Recents** section.

Create summary and subtasks

Schedule coordinators can create summary and subtasks by indenting a task underneath another task, creating a parent/child relationship.

1. Open a schedule.

2. Do one of the following.

To	Do
Create a subtask.	Select the target task from the list and click **Indent Task** ⇨, or right-click the target task and select **Indent Task**. The task becomes a child (or subtask) of the task above it. Note: Expand the parent task to see the indented child task.
Create a summary task.	Select a child (or subtask) from the list and click **Outdent Task** ⇦, or right-click the child task and select **Outdent Task**. The subtask becomes a summary task and is no longer a child of a parent task. The task becomes a summary task and is left-justified.

Creating and managing schedule task dependencies

What is a schedule task dependency?

A dependency link is the required order of completion between two tasks within the same schedule, between tasks in a master and subschedule, or between tasks in two different schedules. The schedule coordinator defines the type of dependency, such as start-to-start or start-to-finish, and the desired lag time to ensure correct completion sequencing.

> Example:
>
> You create a task dependency so that the **Install Compressor** task is dependent on the completion of the prior **Uninstall Compressor** task with a lag time of two weeks. The first task (uninstall compressor) must be completed before the start of the second (install compressor), and the second task can't begin until two weeks after the first task is completed. This is an example of a finish-to-start dependency.

View task dependencies

Follow this procedure to view dependencies between tasks. A dependency between two tasks links their required order of completion.

1. Open a schedule task.
2. From the **Dependencies** section of the task properties, select the dependency you want to view.
3. Click **Open** to view the dependency details.

Define or remove a task dependency between two schedules

Define a task dependency

A schedule coordinator can create dependencies between schedule tasks, which ensures that the tasks are completed in the required order.

When creating schedule dependencies:

- Between tasks within the same schedule—use either the **Tasks** tab or the **Gantt** tab.
- Between tasks with a master—subschedule relationship—use either the **Tasks** tab or the **Gantt** tab.
- Between tasks in two different schedules—use the **Tasks** tab.

> Note:
>
> When you define a dependency between tasks in different schedules, the original task is automatically added to the schedule as a proxy task. As changes are made to the original task, the proxy task automatically updates to reflect those changes.

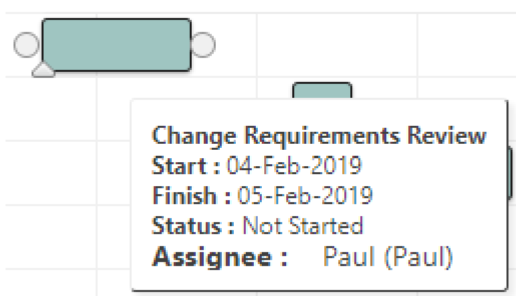
1. Open a schedule.

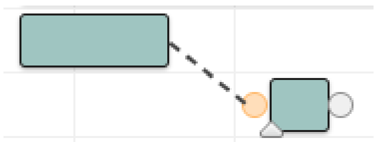
2. Do one of the following:

To	Do
Define a task dependency using the **Tasks** tab.	a. Click the **Tasks** tab. b. Select the target task from the list and click **Copy**. Note: You can create multiple dependencies to one task. When you copy a task it remains on the clipboard for reuse until you copy a new task. c. If you are creating a dependency to a task in another schedule, navigate to the desired schedule and click the **Tasks** tab. d. Select the task that you want to create the dependency with and click **More Commands** ••• > **New** > **Create Dependency**. The target task is added to the selected task as a proxy task. The name of the schedule containing the target task is displayed next to the proxy task name.
Define a task dependency from the **Gantt** tasks table.	a. Click the **Gantt** tab. b. From the list of tasks, select the task that you want to define the dependency for. c. Navigate to the appropriate table cell in the **Predecessor** or **Successor** columns and double-click it to put the cell into edit mode. • If the selected task is dependent on another task, double-click the **Predecessor** column cell. • If another task is dependent on the selected task, double-click the **Successor** column cell. d. Enter the dependency into the table cell in the following format:

To	Do

	• *<Task Row ID>[Dependency Type][+/- Lag]*
	    • The *Task Row ID* is the number displayed in the **ID** column next to the task name.
	    • The *Dependency Type* defines the type of task dependency, such as **FS** (finish-to-start) or **SS** (start-to-finish). The default value for the type is **FS**.
	    • The *Lag* defines the amount of time between each task. Use **+** when you want the lag time to be after the lag type, or use **-** when you want it to be before.
	    • See *Field definitions for task dependencies* for a list of all valid values for the dependency type and lag.
	
	For example, if you select a task that you want to be dependent on the 5th task in the table with a lag time of ten days, you enter **5FS+10d** in the **Predecessor** cell for the selected task.

Define a task dependency using the **Gantt** tab.	a. Click the **Gantt** tab. b. Hover over the target task. The task information is displayed, and the task's connection points appear on either side of the task.  c. Drag and drop either the left task handle or the right task handle to the left or right task handle of the second task. The task handle you select to drag on the first task and where you select to drop on the second task determines the dependency type. The following applies: • Dragging from the left side of the first task to the right side of the second task creates a **Start to Finish** task. • Dragging from the left side of the first task to the left side of the second task creates a **Start to Start** task.

To	Do
	• Dragging from the right side of the first task to the left side of the second task creates a **Finish to Start** task. • Dragging from the right side of the first task to the right side of the second task creates a **Finish to Finish** task. A dashed line connects the two tasks. 

Remove a task dependency

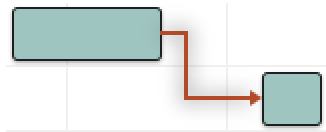
As a schedule coordinator, you can remove dependencies between schedule tasks.

Procedure

1. Open a schedule.

2. Do one of the following:

To	Do
Remove a task dependency using the **Tasks** tab.	a. Click the **Tasks** tab. b. Select a task from the list and click **Open**. c. In the **Dependencies** section, select the dependency from the list and click **More Commands** ••• > **Edit** **Delete Dependency**. The dependency between the tasks is removed. Note: The proxy task is still displayed in the **Tasks** tab and **Gantt** view for the schedule. You must manually delete the proxy task to remove it from the schedule.
Remove a task dependency using the **Gantt** tab.	a. Click the **Gantt** tab to see your task dependencies.

To	Do
	 b. Do one of the following: • Double-click the dependency link that you want to remove and then click **Delete** on the message that appears. • Select the dependency link you want to remove and then click **Delete** from the Gantt toolbar.

Modify a schedule task dependency

Follow this procedure to modify the **Type** and **Lag** dependency values. You can modify the schedule task dependency from the **Dependencies** section of the task properties, or from the schedule's **Gantt** tab—whichever view you prefer.

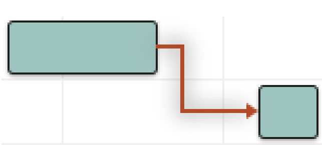
Update task dependencies from the Dependencies tab

1. Open a schedule task.
2. From the **Dependencies** section, select the desired dependency.
3. Click **More Commands** ••• > **Edit** > **Start Edit**.
4. Update the **Type** and **Lag** values.
5. Click **More Commands** ••• > **Edit** > **Save Edits**.

Update task dependencies from the Gantt tab

1. Open a schedule.
2. From the Gantt chart view, select the desired dependency link.

   The link is highlighted after you click it.



3. Click **Information** ⓘ.

4. In the **Information** panel, click **Edit**.

5. Update the **Type** and **Lag** values.

6. Click **Save**.

Field definitions for task dependencies

As a schedule coordinator, you can define the following values when setting a dependency between two schedule tasks.

Field name	Definition	Valid values
Type	Identifies the activity sequence between two tasks.	**SS** Start-to-start. (Predecessor must start before successor can start.) **FS** Finish-to-start. (Predecessor must finish before successor can start.) **SF** Start-to-finish. (Predecessor must start before successor can finish.) **FF** Finish-to-finish. (Predecessor must finish before successor can finish.)
Lag	Specifies the delay (in days) between when the first task ends and second task starts. You can specify the lag time in weeks, days, or hours by adding the **w**, **d**, or **h** suffix to the value. You can also enter decimal values. Regardless of the specified suffix, the value is converted and displayed in days.	Enter a numerical value and optional suffix value.

Using workflows with schedule tasks

What are schedule task workflows?

As a schedule coordinator, you can configure a schedule task so that when certain conditions are met, the associated workflow is initiated. The triggering rules or conditions create a workflow process. If there are updates to the workflow process tasks, a notification is sent to the schedule task so that the schedule task can be updated.

If a schedule is unpublished (not accessible to other users) or is a template, workflow triggers are not processed, the workflows are not processed, and the workflows do not appear in the user's inbox. Only schedules that are published and not templates start workflows.

You can also manually submit a schedule task to a workflow, if desired.

View the schedule task workflow

As the schedule coordinator or schedule team member, you can view a schedule task to see where it is within the workflow process.

1. Open a schedule.

2. Do one of the following to select a schedule task.

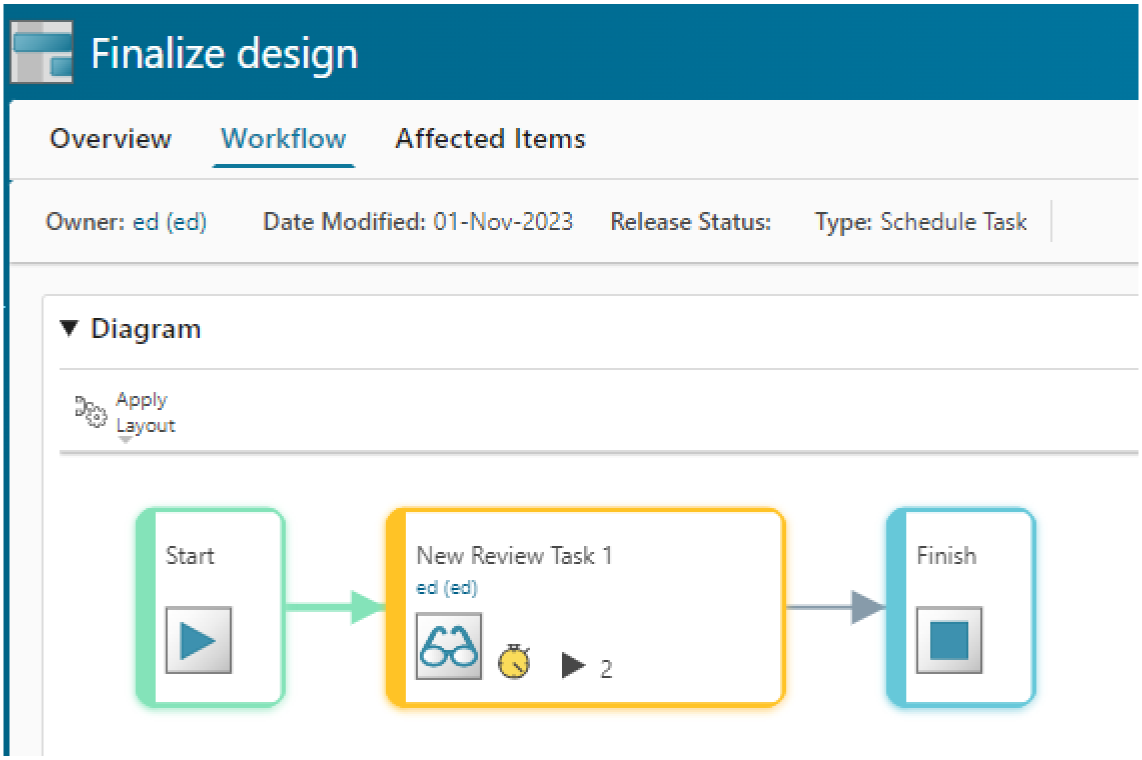
   - Select a schedule task from the Gantt view.

   - Click the **Tasks** tab and select a schedule task from the list.

3. Click **Open**.

4. Click the **Workflow** tab.

   The task is displayed within the workflow.



Access a schedule task from a workflow task

As a schedule team member, you can access the schedule task from the workflow task in your inbox.

1. Click **INBOX** on your Active Workspace home page.

2. Click **Open** on the desired workflow task.

Assign a workflow process to a schedule task

As the schedule coordinator, you can assign a workflow to a schedule task by setting the workflow template and workflow trigger, and identifying the privileged user and workflow owner. On a workflow task, work is performed after the workflow starts and the privileged user controls where the workflow goes upon launch. You assign a privileged user only for schedule tasks that have associated workflow templates.

A workflow owner is the user who initiates the workflow process. When the workflow process is initiated, the workflow owner becomes the responsible party for the workflow process; the root task of the workflow process is placed in the process owner's worklist. By default, the workflow owner is the creator of the schedule task, but you can reassign a different owner when you assign the task to the workflow.

> Note:
>
> By default, the schedule coordinator cannot change the users assigned to the schedule task once the workflow is in process. Your system administrator can set the **SM_ALLOW_WKFLOW_SCH_TASK_RESOURCE_UPDATE** preference to allow the schedule coordinator to change the assigned users for a schedule task that has started the workflow process.

1. Open a schedule.

2. From the Gantt view, select a schedule task from the list.

3. Click **Workflow Tasks**.

4. On the **Workflow Tasks** panel, do the following.

<table>
<tr><th>To</th><th>Do</th></tr>
<tr><td>Assign a workflow template and workflow trigger.</td><td>Select values from the Workflow Template and Workflow Trigger dropdown lists.

Note:

The Workflow Template and Workflow Triggers can also be defined on the Overview tab on the schedule task.</td></tr>
<tr><td>(Optional) Assign a privileged user.</td><td>a. Click Add Privileged User.

b. (Optional) Use the Filter box to filter the list for the desired user or resource pool name.

c. From the Privileged User list, select a user or resource pool.

d. Click Add.

Note:

If you do not assign a privileged user to the workflow task, the user or resource pool assigned to the schedule task becomes the privileged user for the workflow task.</td></tr>
<tr><td>(Optional) Change the workflow owner.</td><td>a. Click Add Workflow Owner.

b. (Optional) Use the Filter box to filter the list for the desired user name.</td></tr>
</table>

To	Do
	c. From the **Workflow Owner** list, select a user.
	d. Click **Add**.

5. Click **Save**.

Manually submit a schedule task to a workflow

While most schedule tasks are automatically submitted to workflow, there may be occasions when you want to manually submit the task without waiting for the workflow to trigger. As the schedule coordinator, you can manually launch a schedule task into a workflow from either the **Task** or **Gantt** tab, whichever view you prefer.

> Note:
>
> The schedule task must have an associated workflow template in order to be manually submitted.

1. Open a schedule.
2. Select either the **Tasks** or **Gantt** tab.
3. Select the schedule task from the list.
4. Click **More Commands** ••• > **Manage** > **Launch Workflow** .
5. Click **Yes** on the message that is displayed.

Trigger a schedule task without a workflow

As a schedule coordinator, you can automatically trigger successor tasks without a workflow by setting the schedule level property **Automatically Trigger Successor Task** to **True**.

Procedure

1. Open a schedule.
2. From the Gantt view, select a schedule task from the list.
3. Create dependencies between schedule tasks, which ensures that the tasks are complete in the required order.
4. When the **Predecessor** task is complete, select the task and navigate to the **State** column.

5. Double-click the cell and when it is in edit mode, select **Complete** from the list to update the **State** of the **Predecessor** task.

   The **Successor** task will be started automatically and the **State** will be updated to **In Progress**.

11. Creating and managing notifications and subscriptions

Notifications for schedules and schedule tasks

Create a notification for a schedule or a schedule task

A **notification** is used to notify users of important events associated with selected objects. You can create notifications for both schedules and schedule tasks to notify yourself, fellow team members and people outside of the team of important events such as finish dates, milestones, and task completions.

> Note:
>
> For details about **notifications**, see Teamcenter Schedule Manager.

Procedure

1. Select the schedule or schedule task in your folder structure or from the Gantt view.

2. Click **More Commands** > **Share** > **Follow** .

   The **Follow** panel opens.

3. Do the following to create the notification for a schedule or a schedule task.

   a. In the **Follow** panel, select a notification rule from the **Event Type** list.

      The Notification or subscription rules for schedules lists the notification rules for schedules and schedule tasks released with Active Workspace.

   b. Accept the default notification name or enter your own.

      Names are formatted as *Schedule name : Event type* and *Schedule task name : Event type*.

   c. Accept the autogenerated message or enter your own message in the **Message** box.

      The subject for the **E-mail Message** is autopopulated and cannot be modified.

   d. Under **Additional E-mail Recipients**, type in additional e-mail recipients who must receive notifications for the schedule. Use semicolons to separate multiple e-mail recipients.

   e. In the **Followers** section, click **Add** to add followers to the notification.

4. Click **Follow**.

View notifications

Users can view notifications for the schedules and tasks being followed.

Procedure

1. Click the **SUBSCRIPTION** tile on the home page.

2. Click the **News Feed** tab.

   Notifications appear in the **News Feed** tab when changes are made to schedules and tasks.

Manage notifications

Users can edit, delete, and activate or deactivate notifications for schedules and schedule tasks.

Procedure

1. Select and open the desired schedule or schedule task.

2. Click **More Commands** > **Share** > **Follow**.

   The **Follow** panel opens and displays a list of current notification rules.

3. Select the desired notification.

4. Do one of the following.

To	Do
Edit a notification.	• Click **Edit** and modify the notification properties as needed. When you are finished editing, click **Save** to save your changes.
Activate or deactivate a notification.	• To deactivate a notification, select the activated notification and click **Deactivate**. • To activate a notification, select the deactivated notification and click **Activate**.
Delete the notification.	• Click **Delete** to delete the notification.

Following a notification

You can follow and be notified on one or multiple objects at a time. When you no longer need to be notified, you can unfollow the object.

> Note:
>
> For more information about **following and unfollowing** objects, see Active Workspace Fundamentals

Procedure

1. Click the **SUBSCRIPTION** tile on the home page.

2. Click the **Added As Follower** tab.

   The schedules and schedule tasks where you are added as a follower appear in the **Added As Follower** tab.

Subscriptions for schedules and schedule tasks

Create a subscription for a schedule or a schedule task

A **subscription** is used to notify yourself of important events associated with selected objects. As a schedule coordinator, you can create subscriptions for both schedules and schedule tasks. Subscriptions are similar to notifications except that you only send a subscription to yourself.

> Note:
>
> Find more information about **subscriptions** in Teamcenter Schedule Manager.

Procedure

1. Select the schedule or schedule task in your folder structure or from the Gantt view.

2. Click **More Commands** ••• > **Share** > **Follow**.

3. In the **Follow** panel, select a subscription rule from the **Event Type** list.

   The Notification or subscription rules for schedules lists the subscription rules for schedules and schedule tasks released with Active Workspace.

4. Click **Follow**.

This action becomes a subscription because you are not adding or assigning users to follow the events associated with the objects.

View subscriptions

You can view the subscriptions for the schedules and tasks that you are subscribed to.

Procedure

1. Click the **SUBSCRIPTION** tile on the home page.

2. Click the **My Subscriptions** tab.

   The schedules and schedule tasks that you are subscribed to appear in the **My Subscriptions** tab.

Manage subscriptions

You can edit, delete, and activate or deactivate subscriptions for schedules and schedule tasks.

Procedure

1. Select and open the desired schedule or schedule task.

2. Click **More Commands** ••• > **Share** > **Follow** .

   The **Follow** panel opens and displays a list of current subscription rules.

3. Select the desired subscription.

4. Do one of the following.

To	Do
Edit a subscription.	• Click **Edit** and modify the subscription properties as needed. When you are finished editing, click **Save** to save your changes.
Activate or deactivate a subscription.	• To deactivate a subscription, select the activated subscription and click **Deactivate** . • To activate a subscription, select the deactivated subscription and click **Activate** .
Delete the subscription.	• Click **Delete** to delete the subscription.

Notification and subscription rules for schedules and schedule tasks

You can create notifications or subscriptions based on existing set of notification and subscription rules.

List of notification or subscription rules for schedules:

- **Add task**
- **Delete task**
- **Schedule due**
- **Schedule overdue**
- **Change Start Date**
- **Change Finish Date**
- **All Status Changes**
- **Status Change**
- **All Changes in Priority**
- **Priority change**

List of notification or subscription rules for tasks:

- **Assign User**
- **Task due**
- **Task overdue**
- **Change Start Date**
- **Change Finish Date**
- **All Task Status Changes**
- **Status change**
- **All Changes in Priority**
- **Priority Change**

- **Change in Work Estimate**
- **Change in Work Complete**
- **Work is Ready**
- **Delete task**

12. Creating and managing calendars

Base calendar

Create a base calendar

The base calendar is used as the primary calendar when creating schedules. The calendar shows the working days, working hours, holidays and days off. As an administrator, you can set up and maintain the base calendar.

There are three system calendars available:

- **Standard**
- **Night Shift**
- **24 Hour**

Procedure

1. Click the **PEOPLE** tile on the home page.
2. Click the **Base Calendars** tab.
3. Click **Add** to create a base calendar.

   Deselect any calendars if the **Add** command is not available.
4. In the **Add Calendar** panel, do the following:
   - In the **Name** box, enter a meaningful name for the base calendar.
   - (Optional) In the **Description** box, enter a meaningful description for the base calendar.
   - Select a base calendar from the list. The **Base Calendar** lists all system calendars available.

     > Note:
     >
     > If no selection is made, the **Standard** calendar is set as the default base calendar.
   - Select a time zone from the **Time Zone** list.
5. Click **Add**.

Managing the base calendar

Only administrators can manage base calendars by modifying the properties, editing the working hours, and deleting the base calendars.

Procedure

1. Click the **PEOPLE** tile on the home page.
2. Click the **Base Calendar** tab.
3. Select the desired base calendar from the list.
4. Do one of the following.

To	Do
Edit the calendar properties and the working hours.	a. Modify the base calendar properties. b. Select the desired day under **Calendar Preview**, or select a weekday from the table under **Default Working and Non-Working Days**. c. Under **Working Hours**, select a time range from the table. • To remove working hours, click **Delete**. • To add new working hours, click **Add**. d. In the **Add Hours** panel, select a time range and click **Add**. e. Click **Save**. f. Click **Continue** on the confirmation message.
Edit the details of a specific day.	a. Under **Calendar Preview**, select the desired day to modify it. b. Under **Details of the Day**, specify **Default Working Day**, **Non-Working Day**, or **Exception** as the type. c. Select a time range from the table, if applicable. • To remove working hours, click **Delete**. • To add new working hours, click **Add**. d. In the **Add Hours** panel, select a time range and click **Add**.

To	Do
	e. Click **Save**. f. Click **Continue** on the confirmation message.
Delete the base calendar.	a. Click **Delete** to delete the base calendar. b. Click **Delete** on the confirmation message. Note: Base calendars that are set via preference or referenced by other calendars cannot be deleted.

User Calendar

Create a user calendar

The user calendar is used to set days off, holidays, and working times for an individual resource. A schedule user can create their own user calendar, while administrators can create a user calendar for any resource in the organization.

Procedure

1. Create the user calendar in one of these ways:
   - As an administrator, click the **PEOPLE** tile and click the **Users** tab. Select desired user from the list and then click the **User Calendar** tab.
   - As a schedule user, click on **Manage Profile** and then click the **User Calendar** tab.

   Note:

   You cannot create a user calendar for an individual resource if one already exists for that resource.

2. Click **Add**.
3. In the **Add Calendar** panel, do the following:
   - In the **Name** box, the name is auto populated with the user's name.
   - (Optional) In the **Description** box, enter a meaningful description for the user calendar.

- Select a base calendar from the list. The **Base Calendar** lists all system calendars available.
- Select a time zone from the **Time Zone** list.

4. Click **Add**.

Managing the user calendar

A schedule user can manage and edit their own user calendar, while administrators can manage, edit, and delete a user calendar for any resource in the organization. The user calendar can be accessed from the **PEOPLE** tile or from the owning user's **Profile** page.

Procedure

1. Open the user calendar in one of these ways:
   - As an administrator, click the **PEOPLE** tile and then click the **Users** tab. Select desired user from the list and then click the **User Calendar** tab.
   - As a schedule user, click **Manage Profile**, and then click the **User Calendar** tab.
2. Do one of the following.

To	Do
Edit the calendar properties and the working hours.	a. Modify the user calendar properties. b. Select the desired day under **Calendar Preview**, or select a weekday from the table under **Default Working and Non-Working Days**. c. Under **Working Hours**, select a time range from the table. • To remove working hours, click **Delete** ✕. • To add new working hours, click **Add** ⊕. d. In the **Add Hours** panel, select a time range and click **Add**. e. Click **Save**. f. Click **Continue** on the confirmation message.
Edit the details of a specific day.	a. Under **Calendar Preview**, select the desired day to modify it. b. Under **Details of the Day**, specify **Default Working Day**, **Non-Working Day**, or **Exception** as the type.

To	Do
	c. Select a time range from the table, if applicable. • To remove working hours, click **Delete**. • To add new working hours, click **Add**. d. In the **Add Hours** panel, select a time range and click **Add**. e. Click **Save**. f. Click **Continue** on the confirmation message.
Delete the user calendar.	a. Click the **PEOPLE** tile. b. Click the **Users** tab. c. Select the desired user from the list. d. Click the **User Calendar** tab. e. Select **More Commands** ••• > **Edit** > **Delete**. f. Click **Delete** on the confirmation message.

Schedule calendar

Managing the schedule calendar

Schedule coordinators can manage the schedule calendars, edit the working hours, and reset or merge the schedule calendar with the base calendar.

To modify the schedule calendars:

- The schedule must be in an unpublished state.
- The schedule user must be a coordinator in a schedule.

Procedure

1. From the **Schedules** location, navigate to the schedule in your folder structure or from the Gantt view.
2. Select the desired schedule.

3. Click the **Calendar** tab.

4. Do one of the following.

To	Do
Edit the calendar properties and the working hours.	a. Modify the schedule calendar properties. b. Select the desired day under **Calendar Preview**, or select a weekday from the table under **Default Working and Non-Working Days**. c. Under **Working Hours**, select a time range from the table. • To remove working hours, click **Delete** ⨯. • To add new working hours, click **Add** ⊕. d. In the **Add Hours** panel, select a time range and click **Add**. e. Click **Save**. f. Click **Continue** on the confirmation message.
Edit the details of a specific day.	a. Under **Calendar Preview**, select the desired day to modify it. b. Under **Details of the Day**, specify **Default Working Day**, **Non-Working Day**, or **Exception** as the type. c. Select a time range from the table, if applicable. • To remove working hours, click **Delete** ⨯. • To add new working hours, click **Add** ⊕. d. In the **Add Hours** panel, select a time range and click **Add**. e. Click **Save**. f. Click **Continue** on the confirmation message.
Reset or merge the schedule calendar.	a. Click **Reset**. b. In the **Reset Schedule Calendar** dialog box, select one of the following: • **Reset to Base Calendar** to reset the schedule calendar to the base calendar.

To	Do
	Note: Any changes that are specific to the schedule calendar will be lost. • **Merge with Base Calendar** to update the schedule calendar with any recent changes made to the base calendar. c. Click **OK**.

13. Using trace links with schedule objects

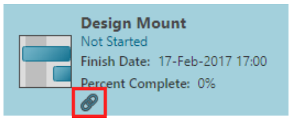
Use trace links to manage schedule objects

Use *trace links* to allocate requirements to schedule objects, such as schedules, schedule tasks, and deliverables.

A trace link is a directional relationship conveyed by the terms *defining* (start) and *complying* (end). A defining object specifies a condition that a product or a component must fulfill. A complying object must partially or completely fulfill a condition specified by a defining object. Such a relationship establishes a traceable path in which one object precedes another.

Trace links can have a one-to-many relationship. For example, one schedule task can be linked to several requirements or vice versa.

Objects that have associated trace links display the trace link icon as in the example, below:



> Note:
>
> When a change occurs in the linked requirement, the trace link icon turns red, indicating that the requirement has been modified.

Use the trace link functionality to do the following:

- Start a trace link on a requirement and end the trace link on a schedule object.
- Start a trace link on a schedule object end the trace link on a requirement.
- Generate and view traceability reports.

You can use the following process to allocate requirements to schedule tasks using trace links, and then manage and track the requirements review process and approval in Schedule Manager.

1. **Create a trace link** between a requirement and a schedule task.
2. **Assign the Requirement Signoff workflow template** to a schedule task.
3. **Create predecessor tasks** in the workflow task.

4. Complete the predecessor tasks and update the task properties. This action triggers the workflow specified in step 2.

5. Execute the sign-off process by the sign-off team to verify the requirements are complete.

Create a trace link for a schedule object

As a schedule coordinator, you can create a trace link between schedule objects, such as schedules, schedule tasks, and deliverables and a requirement. This can be a one-to-many relationship.

1. Navigate to the schedule object in your folder structure or from the Gantt view.

2. Select the desired object.

3. Click **More Commands** ••• > **New** > **Create Trace Link**.

   The **Create Trace Link** panel is displayed and the open object is displayed in the **Start** position of the trace link.

4. On the **Create Trace Link** panel, do the following.

To	Do
(Optional) Define the directional relationship.	Drag and drop the schedule object (or requirement after it is added) under **Start** or **End**.
Add the linking requirement.	Click **Add** under **Start** or **End**, depending on the desired directional relationship of the requirement, and do one of the following: • On the **Search** tab, search for a requirement. • On the **Palette** tab, expand: • **Clipboard** to select a requirement that was previously copied to the paste buffer using **Copy**. Note: If there is content in your past buffer, the **Paste** icon displays next to **Start** and **End**.

To	Do
	• **Favorites** or **Recent** to select a favorite or recently viewed requirement.
(Optional) Remove a requirement or task from the list.	Select the linking requirement and click **Remove**.

5. In the **Type** box, select **Trace Link**.

6. Click **Create**.

Review existing trace links

As a team member, you can review an object's existing trace link details to verify and access the requirements that comprise the trace link.

The trace link directionality is indicated by ↗ for defining and ↙ for complying.

1. Navigate to the schedule object in your folder structure or from the Gantt view.

2. Select the desired object.

3. Click **More Commands** ••• > **View** > **Existing Trace Link**.

4. On the **Existing Trace Link** panel, review the existing trace link relationships.

5. (Optional) Do one of the following.

To	Do
Remove a trace link.	Click **Remove**.
Open a trace link.	Click **Open**.

Generate a traceability report

As a team member, you can generate a traceability report in Excel to review the details of the trace links associated with the selected object.

1. Navigate to the schedule object in your folder structure or from the Gantt view.

2. Select the desired object.

3. Click **More Commands** > **New** > **Generate Report**.

4. On the **Generate Report** panel, select the **TL Complying and Defining Report**.

5. Under Format, select the desired style sheet, either **REQ_TraceLink_complying_template** or **REQ_TraceLink_defining_template**.

6. Click **Generate**.

7. To open the report in Excel, click **Open** on the message that displays.

14. Managing deliverables

What are deliverables and deliverable instances?

Schedules and schedule tasks generally have one or more deliverables, such as define design requirements or complete part redesign. Deliverables can have associated deliverable *instances*, such as a part, CAD drawing, or file. Deliverables are the *containers* for the actual instances of work that are delivered to your internal or external customer.

Schedule coordinators add the required deliverables to the schedules and schedule tasks. The coordinator can choose to add the deliverable instance when they create the deliverable, or they can simply create the deliverable as a placeholder for the actual deliverable instance, which can be added later. If a schedule team member is assigned to complete a schedule task, the team member can add or delete the deliverable instance as work on the deliverable commences.

When you create a schedule task deliverable, Teamcenter automatically adds the deliverable to the schedule.

> Example:
>
> In an automotive manufacturing company, a typical schedule deliverable that would be shared across many projects is **complete the engine CAD drawing**. The actual CAD drawing file (the deliverable instance) associated with the deliverable would be different for each project schedule.

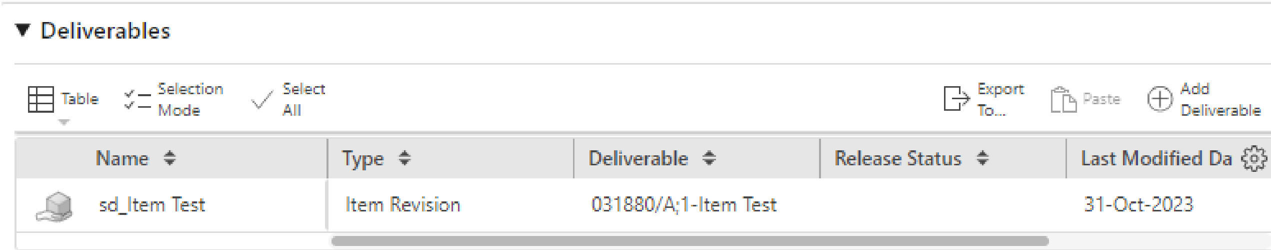
Managing schedule deliverables

View schedule deliverables

As a schedule coordinator, you can view the deliverables associated with the selected schedule. This page shows both the schedule deliverables and the rolled up schedule task deliverables. Schedule task deliverables are rolled up and display on the schedule's **Deliverable** tab when you add a deliverable instance to the schedule task deliverable.

1. Open a schedule.

2. In the **Deliverables** section, review the schedule deliverables and the rolled-up task deliverables for the selected schedule.



Rolled-up schedule task deliverables are prefixed with **sd_**.

Add or remove a schedule deliverable

As a schedule coordinator, you can add a deliverable to a schedule or remove a deliverable from a schedule. Deliverables are the containers for the actual instance of the object, such as a file, part, or drawing, that is delivered to your internal or external customer. You can add a deliverable instance to your schedule deliverable after you have created the deliverable.

> Note:
>
> Removing a schedule deliverable does not delete the deliverable from Teamcenter. It simply deletes the relationship between the deliverable and the schedule.

Add a schedule deliverable

1. Open a schedule.
2. Click the **Overview** tab.
3. From the **Deliverables** section, click **Add Deliverable** ⊕.
4. In the **Add Deliverable** panel, enter the deliverable name and select the deliverable type. Optionally, enter a description for this deliverable.
5. Click **Add**.

Remove a schedule deliverable

1. Open a schedule.
2. Click the **Overview** tab.
3. From the **Deliverables** section, select a schedule deliverable to be removed.
4. Click **More Commands** ••• > **Edit** > **Remove Deliverable** ⊖.

5. On the message that displays, click **Remove**.

Add or remove a schedule deliverable instance

As a schedule coordinator, you can add a deliverable instance, such as a file, part, or drawing, to an existing schedule deliverable (container).

> Note:
>
> Removing a schedule deliverable instance does not delete the instance from Teamcenter. It simply deletes the relationship between the instance and the schedule deliverable.

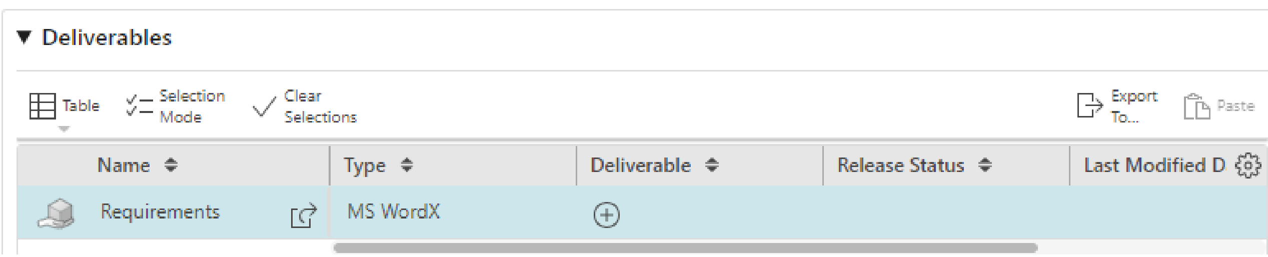
Add a schedule deliverable instance

1. Open a schedule.

2. Click the **Overview** tab.

3. From the **Deliverables** section, select a deliverable from the list.

4. Double-click the **Deliverable** cell and the **Add** command will appear. Click **Add**.



5. In the **Add** panel, do one of the following:

To	Do
Search for an existing deliverable instance.	a. Click the **Search** tab. b. Enter the search criteria and click . c. Select an deliverable instance from the returned list.
Select a deliverable instance that was previously copied to the paste buffer using **Copy** .	a. Click the **Palette** tab.

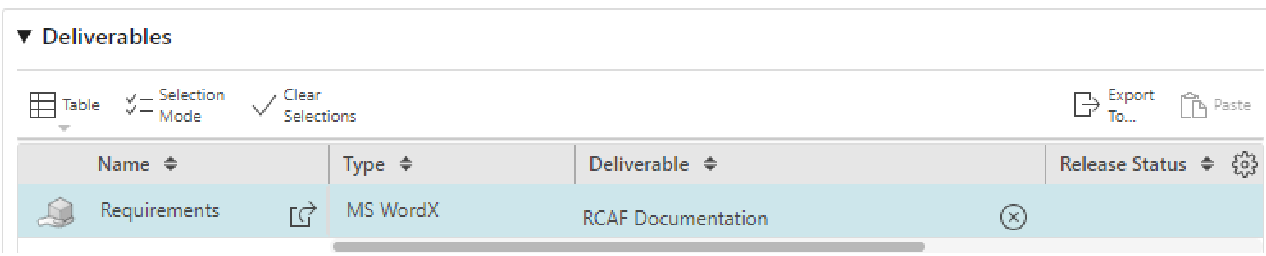
To	Do
	b. Select a deliverable instance from the **Clipboard** section.
Select a favorite or recently viewed deliverable instance.	a. Click the **Palette** tab. b. Select a deliverable instance from the **Favorites** or **Recent** section.

6. Click **Add**.

Remove a schedule deliverable instance

1. From the **Deliverables** section, select a deliverable from the list.

2. Double-click the **Deliverable** cell and the **Remove** command will appear. Click **Remove**.



Assign a schedule deliverable to a schedule task

As a schedule coordinator, you can assign an existing schedule deliverable to a schedule task. Typically, you assign a schedule deliverable to the schedule task that was created to ensure completion of the schedule deliverable.

> Note:
>
> You cannot assign a master schedule deliverable to a subschedule task.

1. Open a schedule.

2. Click the **Tasks** tab or **Gantt** tab.

3. Select a task from the list and click **More Commands** ••• > **Manage** > **Assign schedule deliverable**.

4. On the **Assign Schedule Deliverable** panel, use the **Submit Type** dropdown to specify the type of task.

- **Target** — Attach the deliverable as a target attachment, such as a drawing, to the task workflow.
- **Reference** — Attach the deliverable as a reference attachment, such as a specification document, to the task workflow.
- **Do not submit** — No deliverable is attached to the task workflow.

5. Select a schedule deliverable from the list and click **Assign**.

   The schedule deliverable appears in the **Task Deliverables** column on the schedule tasks table and on the schedule task's **Deliverable** tab.

View the schedule tasks for a schedule deliverable

As a schedule coordinator, you can view the schedule tasks associated with the selected schedule deliverable.

1. Open a schedule.

2. Click the **Overview** tab.

3. From the **Deliverables** section, select a deliverable from the list.

4. Click **Information** ⓘ.

5. In the **Information** panel, click the **Assigned Tasks** tab and review the schedule tasks associated with the selected schedule deliverable.

Replace a schedule deliverable instance

As a team member, you may be required to replace a deliverable instance on a schedule deliverable that your schedule coordinator created. Deliverable instances are parts, drawings, or files that are associated with a schedule deliverable. For example, you may need to replace an outdated drawing with a current drawing.

1. Open a schedule.

2. Click the **Overview** tab.

3. From the **Deliverables** section, select a deliverable from the list and click **Open**.

4. Click **More Commands** ••• > **Edit** > **Replace File**.

5. On the **Replace** panel, do the following.

   a. Click **Select File** to navigate to and select the desired file.

   b. Click **Replace**.

Open a schedule deliverable instance

As a schedule team member, to complete a schedule deliverable you may need to open and update an associated deliverable instance, such as a CAD drawing, part, or Microsoft Word file.

1. Open a schedule.
2. In the **Deliverables** section, review the existing deliverables for the selected schedule.
3. Select the desired deliverable from the list and click **Open** to open the instance.

   You can select to open the instance in a new window or new tab.
4. Click **More Commands** ••• > **Edit** > **Check Out** to check out the instance before making changes.
5. Click **More Commands** ••• > **Share** > **Download**.

   The downloaded instance displays at the bottom of the screen. Click to open.
6. After you complete your work on this deliverable instance, save it to Teamcenter to capture your changes.
7. Click **More Commands** ••• > **Edit** > **Check In** to check in the instance after making changes.

Edit schedule deliverable instance properties

As a schedule coordinator or team member, you may need to update a schedule deliverable instance's properties after the instance is added to the deliverable.

1. Open a schedule.
2. Click the **Overview** tab.
3. From the **Deliverables** section, select a deliverable instance from the list and click **Open**.

   You can choose to open in a new window or tab.
4. Click **Information**.
5. In the **Information** panel, click **Edit**.
6. Edit the deliverable instance's properties.
7. Click **Save**.

Managing schedule task deliverables

View the schedule task deliverables

As a schedule coordinator or team member, you can view the deliverables associated with the selected schedule task.

1. Navigate to the schedule task in your folder structure or from the Gantt view.
2. Select the schedule task and click **Open**.
3. In the **Deliverables** section, review the deliverables for this schedule task.

> Note:
>
> Select a layout from **Layout Manager** to display details below the Gantt, such as the **Deliverables** tab.

Assign a task deliverable to a schedule task

As a schedule member, you can assign a task deliverable to one or more schedule tasks.

1. Open a schedule.
2. Do one of the following.

To	Do
Assign a task deliverable to one or more schedule tasks from the **Tasks** tab.	a. Click the**Tasks** tab. b. Select a task from the list, or use multiselect mode to select multiple tasks, and click **More Commands** ••• > **Manage** > **Assign task deliverable**.
Assign a task deliverable from the **Deliverables** tab.	a. Select a task from the list. b. Select a layout from **Layout Manager** to display the **Deliverables** tab. c. From the **Deliverables** section, click **Assign deliverable** > **Assign task deliverable**.

3. On the **Assign Task Deliverable** panel, do one of the following.

To	Do
Search for an existing deliverable.	a. Click the **Search** tab. b. Enter the search criteria and click . c. Select a deliverable from the returned list.
Select a deliverable that was previously copied to the paste buffer using **Copy** .	a. Click the **Palette** tab. b. Select a deliverable from the **Clipboard** section.
Select a favorite or recently viewed deliverable.	a. Click the **Palette** tab. b. Select a deliverable from the **Favorites** or **Recent** section. c. Enter the properties for the new deliverable. The properties vary depending on the type of deliverable being created.
Add a new deliverable and assign the deliverable instance to the deliverable, for example, a PDF file or Word document.	a. Click the **New** tab. b. Click **Choose File** to find and associate a deliverable instance with the new deliverable you are creating. c. Enter the properties for the new deliverable. The properties vary depending on the type of deliverable being created. d. Click **Add**.

4. Click **Assign**.

   The schedule deliverable appears in the **Task Deliverables** column on the schedule tasks table, on the schedule task's **Deliverable** tab, and it rolls up as schedule deliverable and is appears on the schedule's **Deliverable** tab, preceded by sd_.

View the schedule task for task deliverables

As a schedule coordinator, you can view the schedule tasks associated with the selected task deliverable.

Procedure

1. Open a schedule.

The **Deliverables** and **Deliverable Instances** sections display all existing deliverables and deliverable instances associated with the schedule task deliverable.

2. Under the **Deliverable Instances** section, select a task deliverable from the list and click **Open**.

3. Click the **Schedule Tasks** tab and review the list of the schedule tasks associated with the schedule task deliverable.

Add or remove a schedule task deliverable (coordinator)

As a schedule coordinator, you can add a deliverable to a schedule task, and optionally, add a deliverable instance (such as a drawing, part, or file) at the same time you create the deliverable container. Note that you can create the schedule task deliverable now and a schedule team member can add the schedule task deliverable instance later. You can also remove a deliverable from a schedule task.

When you create a schedule task deliverable with a deliverable instance, Teamcenter automatically adds the deliverable to the schedule.

Add a deliverable to a schedule task

1. Open a schedule.

2. Do one of the following to open a schedule task.

   - Select a schedule task from the Gantt view and click **Open**.

   - Click the **Tasks** tab and select a schedule task from the list. Click **Open**.

3. In the **Deliverables** section, click **Assign Deliverable** > **Assign Task Deliverable**.

4. In the **Assign Task Deliverable** panel, do one of the following.

To	Do
Search for an existing deliverable.	a. Click the **Search** tab. b. Enter the search criteria and click . c. Select a deliverable from the returned list.
Select a deliverable that was previously copied to the paste buffer using **Copy**.	a. Click the **Palette** tab. b. Select a deliverable from the **Clipboard** section.
Select a favorite or recently viewed deliverable.	a. Click the **Palette** tab.

To	Do
	b. Select a deliverable from the **Favorites** or **Recent** section. c. Enter the properties for the new deliverable. The properties vary depending on the type of deliverable being created.
Add a new deliverable without a deliverable instance.	a. Click the **New** tab. b. Specify the **Type** for the deliverable. c. Enter the properties for the new deliverable. The properties vary depending on the type of deliverable being created.
Add a new deliverable and assign the deliverable instance to the deliverable, for example, a PDF file or Word document.	a. Click the **New** tab. b. Click **Select File** to find and associate a deliverable instance with the new deliverable you are creating. c. Enter the properties for the new deliverable. The properties vary depending on the type of deliverable being created.

5. Click **Assign**.

Remove a deliverable from a schedule task

1. Select a deliverable from the list of deliverables.

2. Click **More Commands** ••• > **Edit** > **Remove**.

Add or remove a schedule task deliverable instance (coordinator)

As a schedule coordinator, you may be required to add a deliverable instance to, or remove a deliverable instance from, an existing schedule task deliverable. Deliverable instances are the actual parts, drawings, or files that are associated with a schedule task deliverable. For example, you may be required to delete an outdated CAD drawing instance on a schedule task deliverable and add an updated drawing.

> Note:
>
> This procedure describes how to add or remove a deliverable instance, and not how to add the actual deliverable. The schedule coordinator can also add the deliverable instance when they create the deliverable.

> Note:
>
> You can only remove or add a deliverable instance on a deliverable that you created or that is assigned to you. For example, a team member cannot add a deliverable instance to a schedule task that the member isn't assigned to. You can, however, use the **Replace File** command to replace an existing deliverable instance.

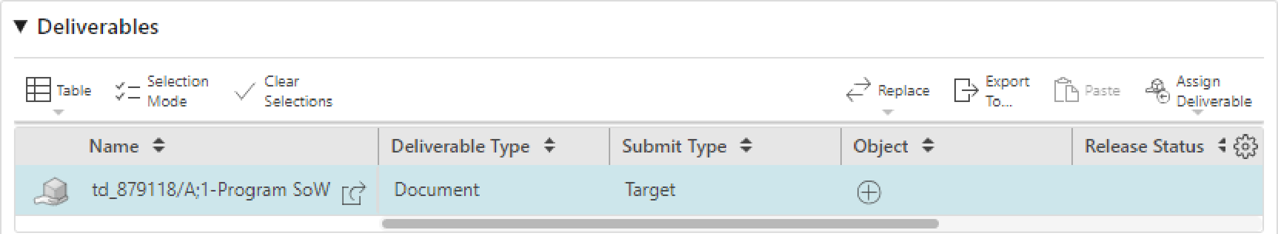
The window must be in **Table** view to complete this procedure.

Add a schedule task deliverable instance

1. Open a schedule task.

2. From the **Deliverables** section, select a deliverable from the list.

3. Double-click the **Object** cell and the **Add** command will appear. Click **Add**.



4. In the **Add** panel, do one of the following.

To	Do
Search for an existing deliverable instance.	a. Click the **Search** tab. b. Enter the search criteria and click . c. Select a deliverable instance from the list.
Select a deliverable instance that was previously copied to the paste buffer using **Copy**.	a. Click the **Palette** tab.

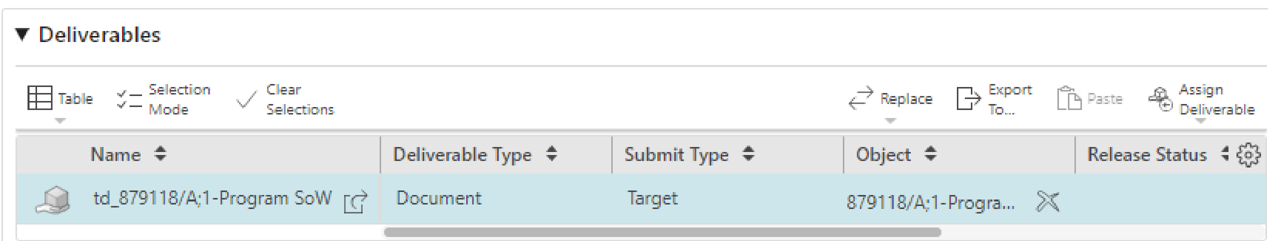
To	Do
	b. Select a deliverable instance from the **Clipboard** section.
Select a favorite or recently viewed deliverable instance.	a. Click the **Palette** tab. b. Select a deliverable instance from the **Favorites** or **Recent** section.

5. Click **Add**.

Remove a schedule task deliverable instance

1. From the **Deliverables** section, select a deliverable from the list.

2. Double click the **Object** cell and the **Remove** command will appear. Click **Remove**.



Add or remove a schedule task deliverable instance (team member)

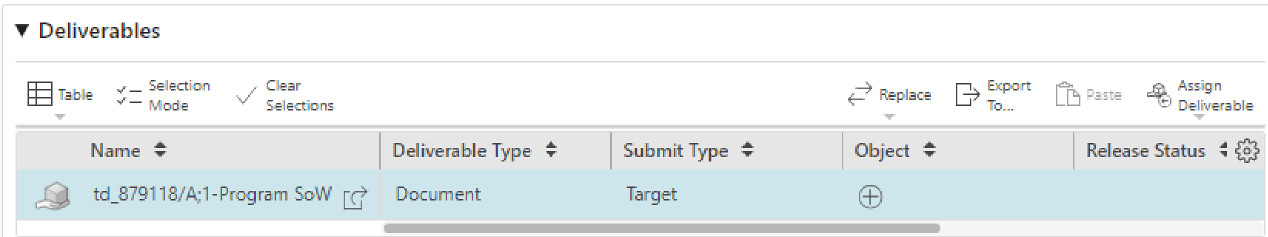
As a schedule team member, you can add a schedule task deliverable instance, such as a file, part, or drawing, to a schedule task deliverable, which is the container for the instance. The deliverable instance is the actual work item that you are completing for an internal or external customer. For example, your schedule coordinator created a schedule deliverable without specifying an actual instance of the deliverable, assigned the schedule deliverable to a schedule task, and assigned the schedule task to you for completion. You must add the actual instance (work object) of that schedule task deliverable before you can complete your work.

You may need to remove a schedule task deliverable instance. For example, if you added the wrong instance to a schedule task deliverable. When you remove a deliverable instance you are not deleting it from Teamcenter, but you are deleting the link between the instance and the schedule task deliverable (container).

You can only remove a deliverable instance that you added, and you can only add a deliverable instance to a schedule task that has been assigned to you. Use the **Replace File** command to replace an existing deliverable instance. For example, if your schedule coordinator added an outdated instance file to the schedule task deliverable, you would need to use the **Replace File** command to update the deliverable instance to the most current file.

Add a schedule task deliverable instance

1. Open a schedule task.
2. From the **Deliverables** section select a deliverable from the list.
3. Double-click the **Object** cell and the **Add** ⊕ command will appear. Click **Add** ⊕.



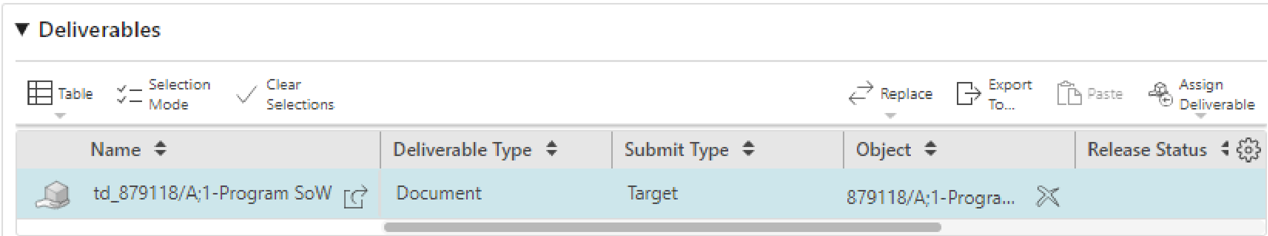
4. In the **Add** panel, do one of the following:

To	Do
Search for an existing deliverable instance.	a. Click the **Search** tab. b. Enter the search criteria and click . c. Select an deliverable instance from the returned list.
Select a deliverable instance that was previously copied to the paste buffer using **Copy** .	a. Click the **Palette** tab. b. Select a deliverable instance from the **Clipboard** section.
Select a favorite or recently viewed deliverable instance.	a. Click the **Palette** tab. b. Select a deliverable instance from the **Favorites** or **Recent** section.

5. Click **Add**.

Remove a schedule task deliverable instance

1. From the **Deliverables** section, select a deliverable from the list.
2. Double-click the **Object** cell and the **Remove** command will appear. Click **Remove** .



Replace a schedule task deliverable instance

As a team member, you may be required to replace a deliverable instance on a schedule task deliverable that you did not create (therefore, you are not the owner). Deliverable instances are parts, drawings, or files that are associated with a schedule task deliverable. For example, you may be required to replace an outdated drawing with an updated drawing on a schedule task deliverable that the schedule coordinator created.

> Note:
>
> This procedure describes how to replace a deliverable instance, and not how to add the deliverable (container). The schedule coordinator often adds the deliverable instance when they create the deliverable.

1. Open a schedule task.

2. From the **Deliverable Instances** section, select a deliverable instance from the list and click **Open** .

3. Click **More Commands** ••• > **Edit** > **Replace File** .

4. On the **Replace** panel, do the following.

   - Click **Select File** to select the desired file.

   - Click **Replace**.

Replace a schedule task deliverable revision

When a deliverable is added to a schedule task, the current revision of the deliverable is associated with the task. In some cases, this task deliverable may change or mature as the schedule is worked to completion.

If you need to update the deliverable for a task, you can choose to replace it with the latest working revision, or select a specific revision of the deliverable from a list of revisions. This allows you to keep your schedule task deliverables current as you continue the work on your schedules.

1. Open a schedule that contains the task with the deliverable you want to update.

2. Do one of the following to select the desired schedule task.

   - Select the schedule task and then click the Deliverables tab from the Gantt view.
   - Select a schedule task from the Gantt view and click **Open**.

3. In the **Deliverables** section, select the deliverables that you want to update to the latest revision.

4. Click **Replace** and then do one of the following:

   - Click **Replace Revision** to open the **Replace Revision** panel and view a list of all the revisions for the deliverable. You can select the desired revision from the list and then click **Replace** to update the deliverable to the newest revision.

     Note:

     If you select multiple deliverables, this option is grayed out. You can only select one deliverable if you want to choose a specific revision of the deliverable to replace.

   - Click **Replace with Latest Revision** to update all selected deliverables to their latest revisions. Active Workspace prompts you to confirm the update of the selected deliverables. Click **Replace** to confirm the replacement and update your deliverables to the latest working revision.

Open and complete work on a schedule deliverable instance

As a schedule team member, to complete a schedule task deliverable you may need to open and update an associated deliverable instance, such as a CAD drawing, part, or Microsoft Word file.

1. Open a schedule task.

2. In the **Deliverable Instance** section, click the link shown in the **Object** column.

3. If appropriate, click **More Commands** > **Edit** > **Check Out** to check out the instance before making changes.

4. Click **More Commands** > **Share** > **Download**.

   The downloaded instance displays at the bottom of the screen. Click to open.

5. After you complete your work on this deliverable instance, save it to Teamcenter to capture your changes.

6. Click **More Commands** > **Edit** > **Check In** to check in the instance after making changes.

Edit schedule task deliverable instance properties

As a schedule coordinator or team member, you may need to update a schedule task deliverable instance's properties after the deliverable instance is added to the deliverable. You can update properties on a single deliverable instance, multiple deliverable instances, and on the **Information** panel.

Edit properties on one or more deliverable instances

1. Open a schedule task.
2. From the **Deliverables** section, select a deliverable instance from the list, or use multiselect mode to select multiple instances.
3. Click **More Commands** ••• > **Edit** **Start Edit** .
4. Edit the deliverable instances' properties in the table.
5. Click **More Commands** ••• > **Edit** > **Save Edits** .

Edit deliverable instance properties on the Information panel

1. Select a deliverable instance from the list.
2. Click **Information** .
3. In the **Information** panel, click **Edit** .
4. Edit the deliverable instance's properties.
5. Click **Save** .

15. Managing your resources

Managing schedule members

View schedule members

Follow this procedure to view the members assigned to a schedule.

Note:

When the schedule coordinator creates the schedule, the schedule coordinator is added to the schedule membership. When the schedule coordinator assigns a resource name to a schedule task, that resource name is also added to the schedule membership.

1. Navigate to the schedule in your folder structure or from the Gantt view.
2. Select the desired schedule from the list.
3. View the members assigned to the schedule from the **Overview** tab.

   The **Members** section displays all the schedule members.

Add or remove a schedule member

Only schedule coordinators can maintain schedule membership by adding or removing members. The following apply to schedule membership:

- Adding members to a master schedule does not automatically add the members to subschedules.
- Adding members to a subschedule does not automatically add the members to the master schedule.
- When a schedule template is inserted into a master schedule template, the membership of the master schedule template is added to the subschedule template membership.
- All members of the master schedule template have access to the subschedule template.
- When you create a schedule you are automatically added to the schedule membership as the schedule coordinator.
- Assigning a resource name to a schedule task also adds the resource to the schedule membership as a participant (team member).
- The **Status** value reflects the user's status set by the Teamcenter system administrator.

The following member types apply:

Coordinator

A coordinator can read the full schedule information, write the scheduling information, and write the execution information. The scheduling information includes schedule dates, milestones, and resources. The execution information includes the task status percent complete, work complete, and task start and finish dates.

Participant

A participant can read the full schedule information and only write the execution information for tasks assigned to them, (for example, **Work Complete**). The participant role is referred to as a *team member*.

Observer

An observer can only read the full schedule information. The observer role is referred to as a *stakeholder*.

1. Navigate to the schedule in your folder structure or from the Gantt view.

2. Select the desired schedule from the list.

3. View the members assigned to the schedule from the **Overview** tab.

   The **Members** section displays all the schedule members.

4. Do one of the following.

To	Do
Add a member to this schedule.	a. Click **Add** ⊕. b. In the **Add** panel, specify the members role by **Participant**, **Observer** (stakeholder or team member), or **Coordinator** (schedule coordinator) and click **Add Member** ⊕. c. Select the users you want to add to the schedule. To add more than one member, hold **Ctrl** as you select users from the panel. d. (Optional) Click the **Filter** icon for additional search filters. Once any filters have been applied, results display on the right-side of the panel. Select the user and click **Add Member** ⊕ under the desired membership role.

To	Do
	e. Click **Add**.
Remove a member from a schedule.	a. (Optional) View all schedule tasks associated with this member. b. (Optional) Unassign the member from any schedule tasks associated with this schedule. c. Select the user that you want to remove. d. From the primary toolbar, click **More Commands** ••• > **Edit** > **Remove Member**. e. On the message that displays, click **Remove**.

Change a schedule member's role

As a schedule coordinator, you can change a schedule member's assigned role for the selected schedule.

1. Navigate to the schedule in your folder structure or from the Gantt view.

2. Select the desired schedule from the list.

3. View the members assigned to the schedule from the **Overview** tab.

   The **Members** section displays all the schedule members.

4. Change a schedule members assigned role in one of these ways:

   - Double-click the **Role In Schedule** cell and click the dropdown arrow to select the desired schedule role for this member.

   - Click **More Commands** ••• > **Edit** > **Start Edit**. This puts all cells into edit mode and you can select the desired schedule role for this member. When you are finished, click **More Commands** ••• > **Edit** > **Save Edits**.

Managing schedule task members

View users assigned to a schedule task

Follow this procedure to see which users are assigned to a schedule task. Only schedule coordinators can assign a resource to a schedule task.

1. Navigate to the schedule task in your folder structure, the Board view, or from the Gantt view.

2. Select the desired schedule task from the list and click **Open**.

   The **Resources** section displays the users assigned to the schedule task.

View all schedule tasks assigned to schedule member

As a schedule coordinator, you can view all the schedule tasks assigned to a particular schedule member.

1. Navigate to the schedule in your folder structure or from the Gantt view.

2. Select the desired schedule from the list.

3. View the members assigned to the schedule from the **Overview** tab.

   The **Members** section displays all the schedule members.

4. Select a member from the list and click **Information**.

5. In the **Information** panel, click the **Assigned Tasks** tab and review the tasks assigned to this user.

Adjust resource percentage levels

As a schedule coordinator, adjust the **Resource Level** field in the schedule task's **Resources** section to adjust your schedule based on effort-driven scheduling principles. Effort-driven scheduling automatically adjusts your schedule when you change a task's duration, the number of resources assigned to a task, or the amount of work a task requires.

1. Navigate to the schedule task in your folder structure, the Board view, or from the Gantt view.

2. Select the desired schedule task from the list and click **Open**.

   The **Resources** section displays the users assigned to the schedule task.

3. Adjust the **Resource Level** field in one of these ways:

   - Double-click the **Resource Level** cell and modify the numerical value to indicate the percentage of time that this resource can devote to working on this schedule task.

   - Click **More Commands** > **Edit** > **Start Edit**. This puts all cells into edit mode and you can modify as needed. When you are finished, click **More Commands** > **Edit** > **Save Edits**.

   View the effect that your changes had on the schedule from the schedule's **Gantt** tab.

Assign or unassign a schedule task resource

Assign a user, resource pool, discipline, or schedule member to one or more schedule tasks

As the schedule coordinator, you can assign and maintain the resources responsible for working on each schedule task by assigning the task to a user, a resource pool, or a discipline. Use resource pools if you want to allow open-ended task assignments, which permit any user to accept responsibility for a task that is assigned to a group, role, or a role in a group. Use disciplines, such as change analyst or engineer, if you do not know the actual user that you want to assign to the task. Disciplines act as a placeholder for the task assignment until you know which specific user to assign to the task.

From the schedule's **Task** tab you can add a single user, resource pool, or discipline to one or more schedule tasks. From the schedule task's **Resources** section, you can add a single user to a single schedule task.

> Note:
>
> Assigning a user to a schedule task also adds the user to the schedule membership as a participant (team member).

1. Navigate to the schedule in your folder structure or from the Gantt view.

2. Select the desired schedule from the list.

3. Click the **Tasks** tab.

4. Select a task, or enter multiselect mode to select multiple tasks from the list, and click **More Commands ••• > Manage > Assign/Unassign Resources**.

5. In the **Assign/Unassign Resources** panel, click **Add** and select a user from the list or use the search box to quickly find a user.

6. (Optional) Click **Resource Load** on the resource's tile to view the resource's work load before committing to the assignment.

   You must be assigned to the Resource Graph Viewers role to view the resource's work load.

7. (Optional) Click the **Filter** icon for additional search filters.

8. Click **Add**.

9. Click **Save**.

Unassign a user, resource pool, or discipline from one or more schedule tasks

You can unassign a user, resource pool, or discipline from a schedule task from either the schedule's **Task** tab or from the schedule task's **Resources** section.

Procedure

1. Navigate to the schedule in your folder structure or from the Gantt view.

2. Select the desired schedule from the list.

3. Click the **Tasks** tab.

4. Do one of the following:

To	Do
Remove a user, resource pool, discipline, or schedule member from one or more schedule tasks using the schedule's **Task** tab.	a. Select one or more tasks from the list and click **More Commands** ••• > **Manage** > **Assign/Unassign Resources**. Tip: To select more than one task, enter multiselect mode. b. Select the resource you want to remove from the task and click **Remove**. c. Click **Save**.
Remove a user, resource pool, discipline, or schedule member from one schedule task using the task's **Resources** section.	a. Select a schedule task from the list and click **Open**. b. In the **Resources** section, select the user, resource pool, or discipline that you want to remove. c. From the primary toolbar, click **More Commands** ••• > **Manage** > **Unassign Resource**. d. Select the resource you want to remove from the task and click **Remove**. e. Click **Save**.

Designate a discipline user to a discipline

As a schedule coordinator, you can designate a specific discipline member as responsible for *all the tasks* within this schedule that are assigned to that discipline. If you want to designate different users within the discipline to certain schedule tasks, use the **Designate Discipline** feature on the schedule's **Gantt** tab or **Tasks** tab.

The following apply:

- All the tasks within this schedule that are assigned to the discipline will now be owned by the selected discipline member.
- The discipline as a user is not removed from the schedule membership but the selected discipline member is added to the member list if they are not already a member.
- You cannot designate a discipline member if the selected discipline does not have an assigned task.
- The discipline member designation applies only to this schedule.
- You cannot designate a discipline member if the task has been sent to workflow.

1. Open a schedule.
2. Click the **Overview** tab.

   The **Members** section displays all the schedule members.
3. Select a discipline member from the list.
4. Click **More Commands** ••• > **Manage** > **Designate Discipline**
5. On the **Designate Discipline** panel, select a disciple member from the list or use the **Filter** box to filter the list for the desired member name.
6. Click **Designate**.

View a resource's work load

As a schedule coordinator, you can view a user's current workload prior to assigning the user to a schedule task. This allows you to level a schedule's workload by not over-assigning or under-assigning your resources.

> Note:
>
> To view a resource's workload, the schedule coordinator must be assigned to the Resource Graph Viewers role and the schedule coordinator must be logged in to Active Workspace under that role.

The following visual indicators are used:

- Green Availability Flag—When the user's availability > or = current task's duration.
- Red Availability Flag—When the user's availability < the current task's duration.

A resource's load and availability are calculated as follows.

Capacity	A user's total available calendar time during the selected task's timeframe.
Load	[(Capacity-Availability)/Capacity] displayed as a percentage.
Availability	Capacity-duration of user's total assigned tasks during the selected task's duration.

1. Open a schedule.
2. Do one of the following.
   - Select a schedule task from the Gantt view.
   - Click the **Tasks** tab and select a schedule task from the list.
3. Click **More Commands** ••• > **Manage** > **Assign/Unassign Resources** .
4. On the **Assign/Unassign Resources** panel, hover over a user and click **Resource Load** .

5. In the **Resource Load** section, verify the selected resource's workload availability before assigning the resource to a task.

Designate a schedule task user from a discipline placeholder or revert a user back to a discipline placeholder

As a schedule coordinator, you can assign a discipline to a schedule task as a placeholder for the user responsible for completing the task. For example, if you know that a schedule task is going to be assigned to someone in Engineering, but you don't yet know who within Engineering is going to be available to complete this task, you can assign the task to the Engineering discipline as a placeholder. Once you know which user within the discipline is going to work on the schedule task you can designate one or more users from the discipline to the task.

Likewise, you may need to revert a designated schedule task user back to a discipline placeholder. For example, if the user you assigned from the Engineering discipline is over-scheduled you can revert that user back to the Engineering discipline placeholder until you secure an available user resource.

> Note:
>
> If you want to designate that a specific discipline member is responsible for *all the tasks* within this schedule that are assigned to that discipline, use the **Designate Discipline** feature in the schedule's **Members** section.

Designate a schedule task user to a discipline placeholder

This task assumes that you have already assigned a discipline placeholder to the task.

You can designate one or more users to multiple schedule tasks at one time, as long as all the tasks share a common discipline placeholder.

1. Open a schedule.

2. Do one of the following to select a schedule task.

   - Select a schedule task from the Gantt view.

   - Click the **Tasks** tab and select a schedule task from the list.

   > Tip:
   >
   > To select more than one task, enter multiselect mode.

3. Click **More Commands** ••• > **Manage** > **Designate Discipline** .

4. On the **Designate Discipline** panel, select **Common** to show only disciplines common to all selected schedule tasks, or **All** to see all disciplines for the selected tasks.

5. Select a discipline and then select the desired user from within that discipline.

6. Click **Designate**.

   The **Resource Assignment** column on the **Gantt** tab and **Tasks** tab reflects the designated user's name instead of the discipline placeholder.

Revert a user back to a discipline placeholder

1. Select one or more tasks from the list and click **More Commands** ••• > **Manage** **Revert to Discipline**.

   Tip:

   To select more than one task, enter multiselect mode.

2. On the **Revert to Discipline** panel, select the user and then click **Revert**.

   The **Resource Assignment** column on the **Gantt** tab and **Tasks** tab reflects the discipline placeholder of the designated user.

Remove all tasks assigned to a schedule member

As a schedule coordinator, you may want to unassign a member from all tasks to which that member is assigned within a particular schedule. For example, you must unassign a member from all schedule tasks before removing the member from the schedule.

1. Navigate to the schedule in your folder structure or from the Gantt view.

2. Select the desired schedule from the list.

3. View the members assigned to the schedule from the **Overview** tab.

   The **Members** section displays all the schedule members.

4. Select the member from the list.

5. Click **More Commands** ••• > **Edit** > **Remove Assignments**.

Reassign all schedule tasks from one schedule member to another user

As a schedule coordinator, you may want to complete a bulk reassignment of schedule tasks from one member to another. For example, if a schedule member leaves the company, prior to removing that member from the schedule, you must either remove all tasks assigned to that member or reassign them to another schedule member.

The following apply:

- Tasks that are in a workflow process or a locked state cannot be reassigned.

- If any of the tasks belonging to the original team member have been started, Teamcenter cannot complete the reassignment operation.

- Task reassignment does not remove the member from the schedule.
- This is an asynchronous process which requires dispatcher services to be running in the background. Your system administrator can find information about configuring asynchronous service in *Dispatcher —Deployment and Administration* in the Teamcenter help collection.

1. Navigate to the schedule in your folder structure or from the Gantt view.
2. Select the desired schedule from the list.
3. View the members assigned to the schedule from the **Overview** tab.

   The **Members** section displays all the schedule members.
4. Select the member whose tasks you want to reassign.
5. Click **More Commands** ••• > **Manage** > **Reassign Tasks**.
6. In the **Reassign Tasks** panel, select a member from the list and click **Reassign**. This is the member to whom you are reassigning the tasks.
7. Click **Reassign** on the confirmation message.

   Note:

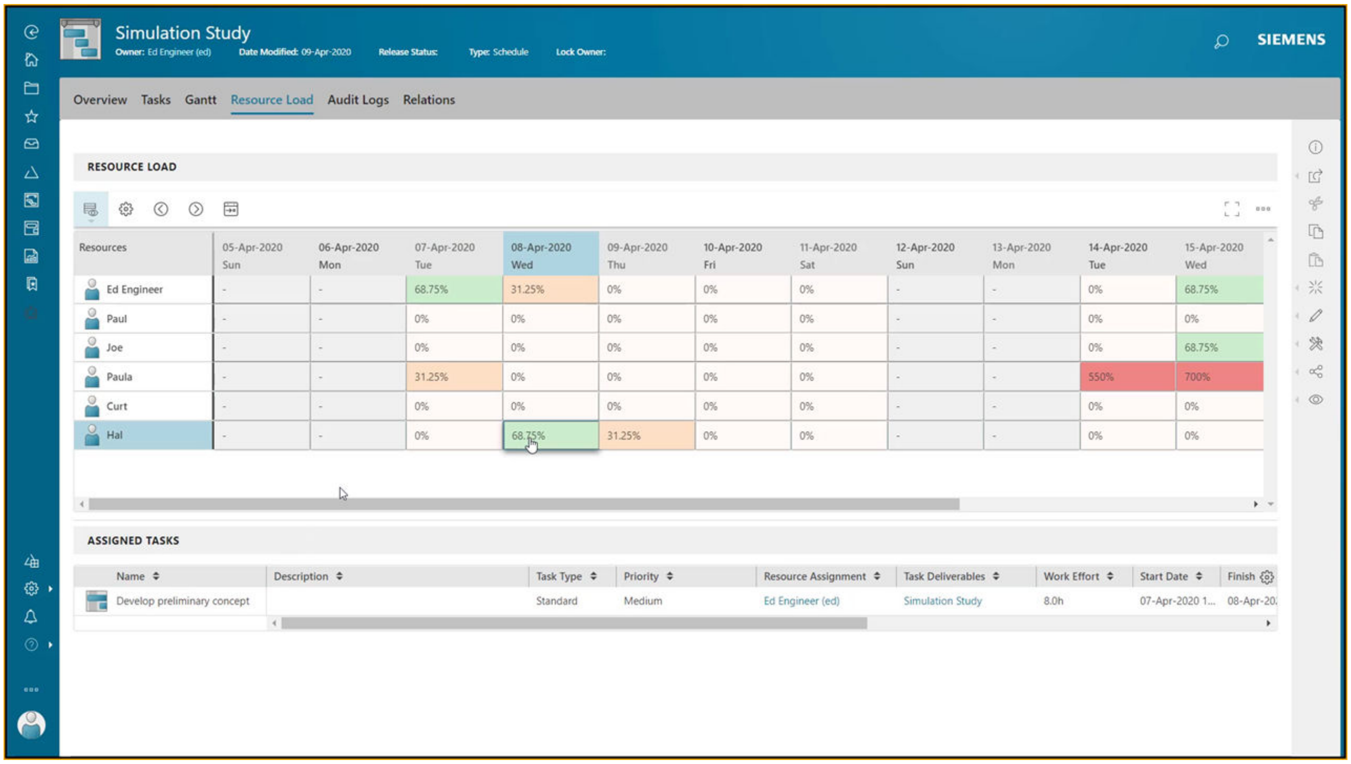
   If the selected member is not currently a schedule member, the member's name is added as a schedule member as well as assigned to the task.

Viewing resource load for schedules

About the resource load view

You can view the resource load for schedule members to get a high-level overview of the work load for the schedule resources. This allows you to more easily manage your users across teams and schedules.

The **Resource Load** view displays the resource load in two week increments. You can navigate to the previous or next two weeks, go to a specific date, and quickly return to the view that shows the current date. You can also customize the view to show only the current schedule or all schedules, and specify an exact date to view.



View resource load for schedule members

You can view the resource load for schedule members and see which tasks the members are assigned to work.

1. Open the schedule that contains the schedule members whose resource load you want to view.

2. Click the **Resource Load** tab.

   A chart opens that displays the schedule resources, a range of dates, and the percentage of resource load for the schedule members.

   > Note:
   >
   > You must be assigned to the **Resource Graph Viewers** role to view resources' work load.

3. Do any of the following:

   - Select a resource to view their assigned tasks.
   - Click **Interface Details** to choose where to display the assigned tasks list. You can display it below, to the right, or turn it off entirely.
   - Click **All Schedules** to set the resource load to all schedules.

- Click **Next** or **Previous** to view different date ranges.
- Click **Go To** to return to the current date or specify a date.

16. Updating your schedule tasks

Update the status of a schedule task

As a team member, as you complete work on a schedule task, you can manually update the **Execution Properties** values to show the schedule task's current status. If you are updating a schedule task that is associated with a workflow, these status values may be automatically updated as the workflow progresses, but you can still manually modify the values, if appropriate.

You can update properties on a single schedule task, multiple schedule tasks, or on the schedule task's Information panel.

Update properties on a single schedule task

You can update the **Execution Properties** values on a single schedule task in the folder structure or from the Gantt view.

1. Select the desired schedule from the folder structure or from the Gantt view.

2. Click **Edit** .

3. Edit the schedule task's properties.

4. Click **Save** .

Update properties on multiple schedule tasks

This display method enables you to update properties directly within the table. It's a convenient method to use to update properties on more than one schedule task.

1. Select the **Table** display method.

2. Click **Edit** .

3. Edit the schedules tasks' properties in the table.

4. Click **Save Edits** .

Update schedule task properties in the Information panel

You can access the **Information** panel from within any display method.

1. Select the desired schedule task.

2. Click **Information** ⓘ.
3. Select the **Execution Properties** tab.
4. Click **Edit**.
5. Edit the schedule task's properties.
6. Click **Save**.

Field definitions for schedule task execution properties

As a team member, you can manually update the following execution properties fields as you complete your assigned tasks. Some of these properties may also be updated automatically if this task was assigned to a workflow.

Field name	Definition	Valid values
State	Identifies the current state of this schedule task. A schedule task progresses through a series of predefined states as the work is completed. The **State** value affects the available values within the **Status** box, and the two values work together to provide a complete picture of the schedule task's progress. For example, the schedule task's state is **In Progress** but its status is **Needs Attention**. Teamcenter automatically sets this field to **Closed** when a schedule task timesheet entry is approved. Select a value from the list of values.	**Not Started** **In Progress** **Complete** **Closed** **Aborted**
Status	Identifies the current status of this schedule task *within the selected state*. Note that the list of values for this field changes based on what is selected in the **State** box. The two values work together to provide a complete picture of the schedule task's progress. For example, the schedule task's state is **In Progress** but its status is **Needs Attention**. Teamcenter automatically sets this field to **Closed** when a schedule task timesheet entry is approved.	**Not Started** **In Progress** **Late** **Needs Attention** **Complete** **Abandoned** **Aborted**

Field name	Definition	Valid values
	Select a value from the list of values. Caution: Once a schedule task has been set to **Aborted**, the status cannot be changed or reversed.	
Work Complete	Identifies the number of hours completed on this task. Teamcenter automatically updates this field when a schedule task timesheet entry is approved. If the **Is Percent Linked** field on the schedule is set to **True**, this field value updates the **Percent Complete** field on the schedule.	Enter a numerical value.
Work Complete Percent	Identifies the total percentage of work that has been completed on this task. Teamcenter automatically updates this field when a schedule task timesheet entry is approved. If the **Is Percent Linked** field on the schedule is set to **True**, this field value updates the **Work Complete** field on the schedule.	Enter a numerical value.
Remaining work	Identifies the amount of work remaining on this task.	Enter a numerical value.
Forecast Start Date	Specifies the date and time that work on this task was forecasted to begin.	Click the date box to select a date from the calendar. Click the time box to select a time.
Actual Start Date	Specifies the actual date and time that work on this task began.	Click the date box to select a date from the calendar. Click the time box to select a time.

Field name	Definition	Valid values
Forecast Finish Date	Specifies the date and time that work on this task was forecasted to end.	Click the date box to select a date from the calendar. Click the time box to select a time.
Actual Finish Date	Specifies the actual date and time that work on this task ended. Teamcenter automatically updates this field when a schedule task timesheet entry is approved.	Click the date box to select a date from the calendar. Click the time box to select a time.

17. Completing timesheets

Managing timesheets

The following statements are true for timesheets:

- You must have tasks assigned to you in order to access timesheets.
- The timesheet entry is related to the task that the work is performed against and the user who performs the work.
- Timesheet entries can have the following **Status** values: **Entry, Submitted, Approved,** or **Rejected**.
- Each timesheet entry is associated to a specific task.
- Each task can contain multiple timesheet entries.
- When the timesheet entry is approved, Teamcenter automatically:
  - Applies time entered to the associated task's **Work Complete** and **Work Complete Percent** fields.
  - Updates the value in the **Actual Finish Date** field to the date entered on the entry.

Create a timesheet entry

As a schedule member assigned to a schedule task, record the work you have completed against the task by creating a timesheet entry. You can create and save multiple entries against a task before you submit the entries for approval, or you can submit the entries for approval as they are created.

1. Click the **SCHEDULE TASKS** tile from the home page.
2. Select the task from the list and click **More Commands** ••• > **New** > **Timesheet Entry**.
3. On the **Timesheet Entry** panel, do the following.
   a. Click **Add Entry**.
   b. Enter the description, time spent, and specify a date for this entry.
   c. Do one of the following:
      - Click **Submit** to submit this entry for approval. Submitted entries cannot be edited.

- Click **Add** to add this entry but not submit it for approval. Entries can be edited, if necessary, and submitted for approval later.

Edit a timesheet entry

As a schedule member, you may need to edit a saved or rejected timesheet entry. You cannot edit an entry that has been submitted for approval or an entry that has been approved.

1. Select a task that is associated with a timesheet.
2. Click **More Commands** ••• > **New** > **Timesheet Entry**.
3. On the **Timesheet Entry** panel, do the following.
    a. Hover over the entry that you want to modify and click **Edit**.
    b. Modify the entry as necessary.
    c. Do one of the following:
        - Click **Save** to save this entry but not submit it for approval. Saved entries can be edited, if necessary, and submitted for approval later.
        - Click **Submit** to submit this entry for approval. Submitted entries cannot be edited.

Delete a timesheet entry

As a schedule member, you can delete any timesheet entry that has not been submitted for approval.

1. Select a task that is associated with a timesheet.
2. Click **More Commands** ••• > **New** > **Timesheet Entry**.
3. On the **Timesheet Entry** panel, do the following.
    a. Hover over an entry and click **Delete**.
    b. Click **Delete** in the prompt that appears to confirm the deletion.

Submit a saved timesheet entry

As a schedule member, you can submit a saved timesheet entry for approval once you are satisfied with the entry's attributes. You can also create and directly submit entries for approval as the entries are created. Submitted entries cannot be edited.

1. Select a task that is associated with a timesheet.

2. Click **More Commands** ••• > **New** > **Timesheet Entry** .

3. On the **Timesheet Entry** panel, select an entry from the list and then click **Submit**.

Approve or reject a timesheet entry

As a schedule coordinator, you can approve or reject timesheet entries submitted against schedule tasks. When you approve an entry the **Work Complete**, **Work Complete Percent**, **State**, **Status**, and **Actual Finish Date** fields on the task are automatically updated. When you reject an entry the owner receives an email stating that the entry was rejected, along with any comments you entered in the **Comments** box. When you reject a timesheet entry, the status changes to **Entry** and the timesheet entry is available for editing.

1. On the home page, click the **Inbox** tile.

2. From the inbox, select an approval task and do the following.

To	Do
View the task timesheet entry details.	• Click the **Attachments** tab.
Approve or reject the timesheet entry.	a. Optional, enter your comments in the **Comments** box. b. Click **Approve** or **Reject**.

18. Exchanging data between Microsoft Project and Schedule Manager

Import a schedule into Microsoft Project and update the schedule task planning properties

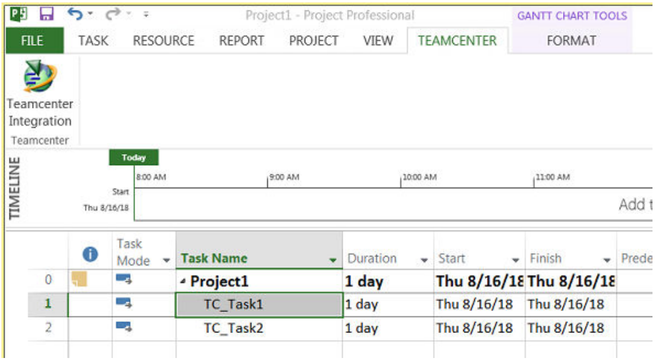
As a schedule coordinator, you can import a Schedule Manager schedule into Microsoft Project and update the schedule tasks' planning and execution properties from within Microsoft Project. This functionality is useful when there are employees in your organization who are responsible for updating schedules but don't use Active Workspace or Schedule Manager.

> Note:
>
> Your system administrator must first configure Microsoft Project integration.

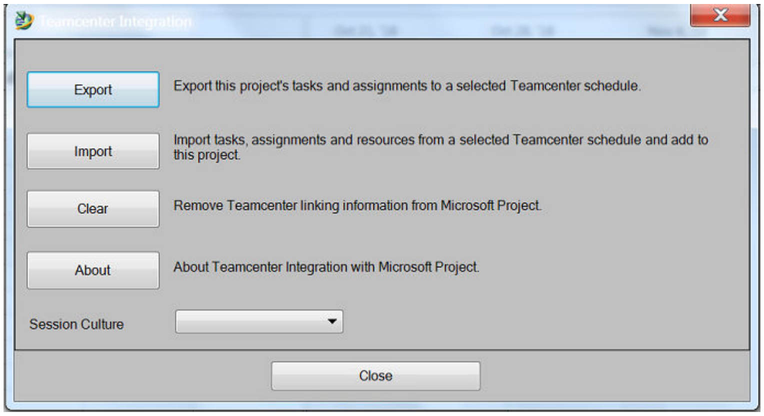
> Note:
>
> If there is any existing data in the Microsoft Project file when you import the Schedule Manager data, a message displays informing you all existing data in the Project file will be deleted. The existing data is deleted because it is overwritten with the new data.

1. Log on to Microsoft Project.

2. Click Teamcenter **Integration**.



3. On the Teamcenter Integration screen, click **Import**.



4. Log on to the Teamcenter server by entering your **User ID** and **Password**, and then clicking **Login**.

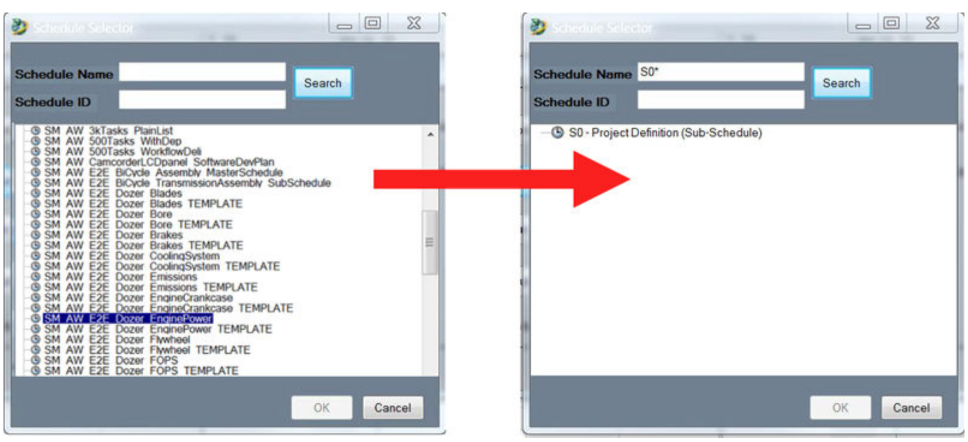
   If you are set up to use single sign-on (SSO), you may not be prompted to log into the Teamcenter server.

5. Do one of the following:

   - Select a schedule from the Schedule Selector and then click **OK**.

   - Use the **Schedule Name** and **Schedule ID** boxes to filter the list when a large number of schedules are displayed. Once you have narrowed the results, select your desired schedule and then click **OK**.

     > Note:
     >
     > If more than 500 results are still displayed after you filter the results, Active Workspace prompts you to further refine your filters. This helps optimize performance of the Teamcenter Integration plugin.



6. Use Microsoft Project to update the following schedule task planning and execution properties: Start Date, Finish Date, Duration, Work Estimate, Priority, Fixed Type, Constraint, Actual Start Date, Actual Finish Date, Percent Complete, Task State, Task Status.

7. **(Optional) Export the schedule to Active Workspace.**

Export a schedule from Microsoft Project

As a schedule coordinator, you can export a schedule from Microsoft Project into Active Workspace Schedule Manager. This updates the schedule's associated In Progress schedule tasks with the values that were updated during the import process, adds any newly created tasks, or removes any deleted tasks.

The following execution planning properties are updated:

- **Work % Complete**
- **Task State**
- **Actual Start Date**
- **Actual Finish Date**

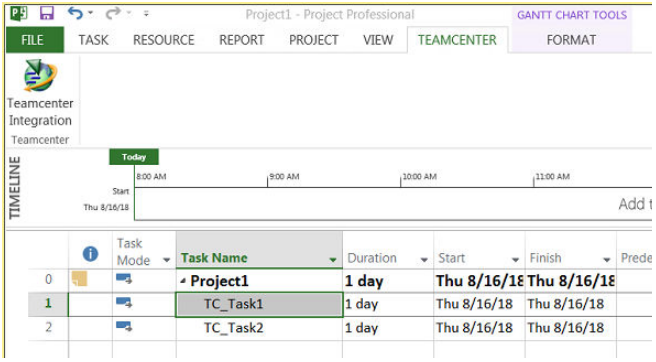
The following task planning properties are updated:

- **Work Effort**
- **Start Date**
- **Finish Date**
- **Duration**
- **Priority**
- **Fixed Type**
- **Constraint**

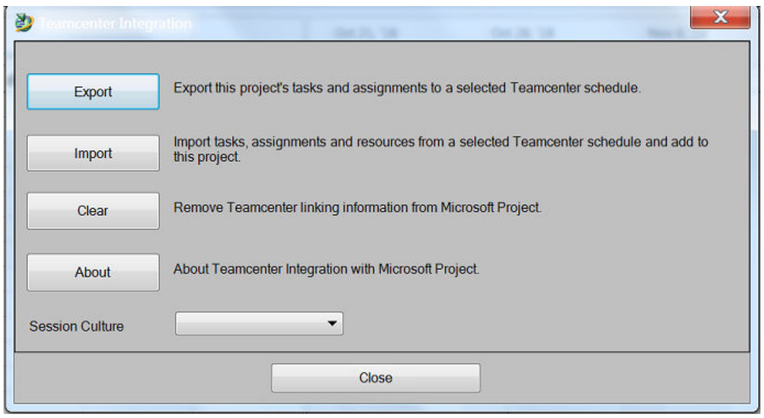
> Note:
>
> Your system administrator must first **configure Microsoft Project integration**.

1. Log in to Microsoft Project.

2. Click Teamcenter **Integration**.



3. On the Teamcenter Integration screen, click **Export**.



4. Log on to the Teamcenter server by entering your **User ID** and **Password**, and then clicking **Login**.

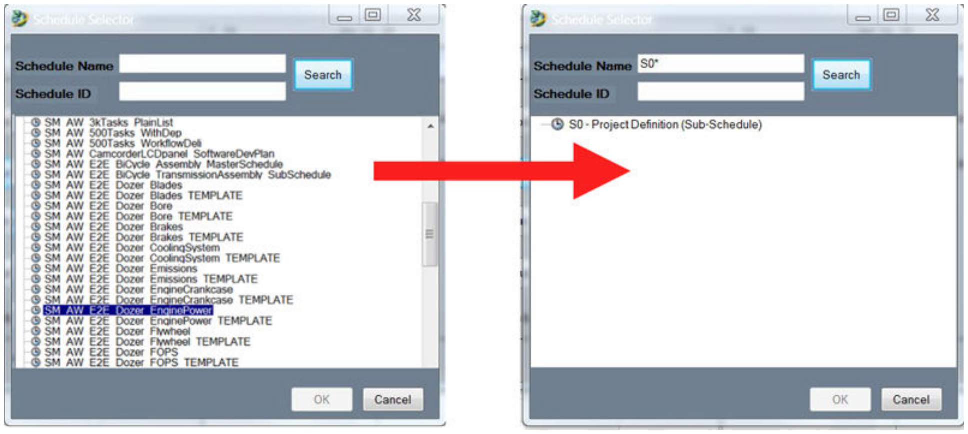
   If you are set up to use single sign-on (SSO), you may not be prompted to log into the Teamcenter server.

5. Do one of the following:

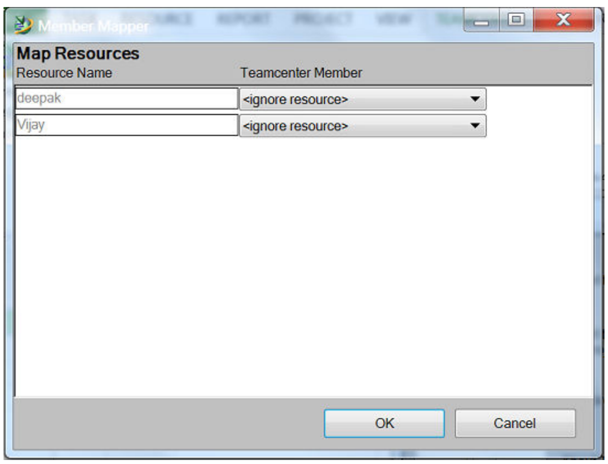
   - Select a schedule from the Schedule Selector and then click **OK**.

   - Use the **Schedule Name** and **Schedule ID** boxes to filter the list when a large number of schedules are displayed. Once you have narrowed the results, select your desired schedule and then click **OK**.

     > Note:
     >
     > If more than 500 results are still displayed after you filter the results, Active Workspace prompts you to further refine your filters. This helps optimize performance of the Teamcenter Integration plugin.



6. If schedule tasks are assigned to team members in Microsoft Project that are not associated with the Active Workspace schedule, use **Member Mapper** to map the Microsoft Project team members to the appropriate Active Workspace team member.

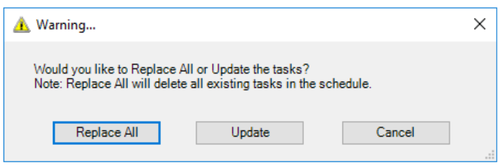


7. On the Warning dialog, do one of the following.

   The Warning dialog does not display if the schedule you are exporting to Active Workspace was not first imported from Active Workspace. In this situation the process defaults to **Replace All**.

To	Do
Update the schedule's properties, add newly created tasks, or remove deleted existing tasks.	Click **Update**.

To	Do
	Note: This option does not delete existing schedule property values, but updates the schedule with the changes made in Microsoft Project.
Delete all existing property values in Schedule Manager and replace them with the changes you made in Microsoft Project.	click **Replace All**.



The schedule is exported from Microsoft Project into Active Workspace and the schedule task planning properties are updated in Active Workspace.

> Note:
>
> Schedule tasks with a State of Completed, Closed, Aborted, and other states that your administrator has identified in the **SM_PREVENT_UPDATE_STATES** preference are not updated.

8. Recalculate the schedule.

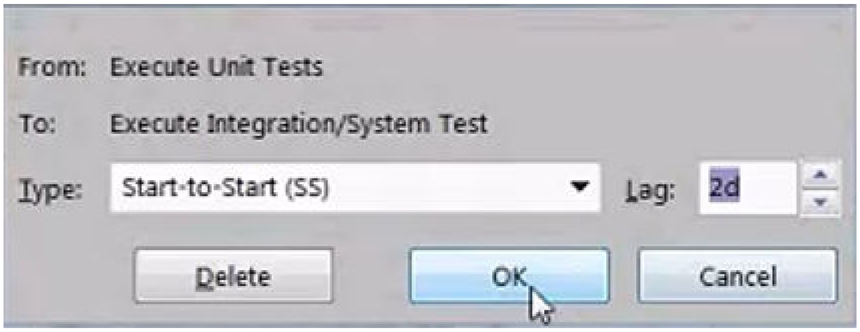
Update task dependencies when exporting schedules from Microsoft Project to Active Workspace Schedule Manager

As a Schedule Coordinator, you may need to add or delete schedule task dependencies in schedules you have imported into Microsoft Project. When you export these schedules back to Active Workspace, the associated schedule tasks can be updated with the changes you made to the dependencies.

Schedule tasks submitted to a workflow before being imported to Microsoft Project can continue moving through the workflow process while the Schedule Coordinator makes the necessary changes to the schedule tasks in Microsoft Project.

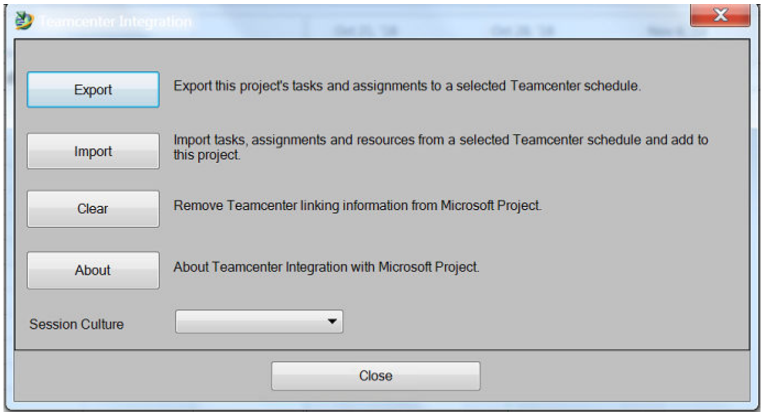
1. **Import your schedules into Microsoft Project.**

2. Create, update, or delete the schedule task dependencies in Microsoft Project. For example, you can delete a dependency between two tasks, or change the dependency type, such as changing the dependency from **Finish to Start (FS)** to **Start-to-Start (SS)**.



3. Click **Teamcenter Integration**.

4. On the Teamcenter integration screen, click **Export**.



5. Click **Update**.

   The schedule is exported to Active Workspace.

6. Open the schedule in Schedule Manager, and then recalculate the schedule to update it with the changes made in Microsoft Project.

Recalculate a schedule

As a schedule coordinator, after you have exported a schedule into Active Workspace from Microsoft Project, you should recalculate the schedule to sync the tasks and their dependencies.

1. Open a schedule.

2. From the Gantt view, click **Recalculate**.