

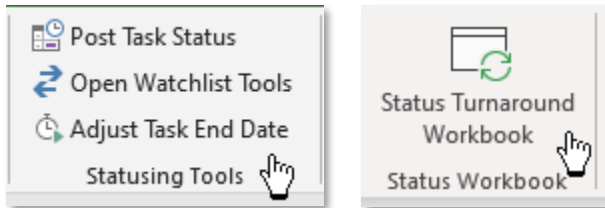
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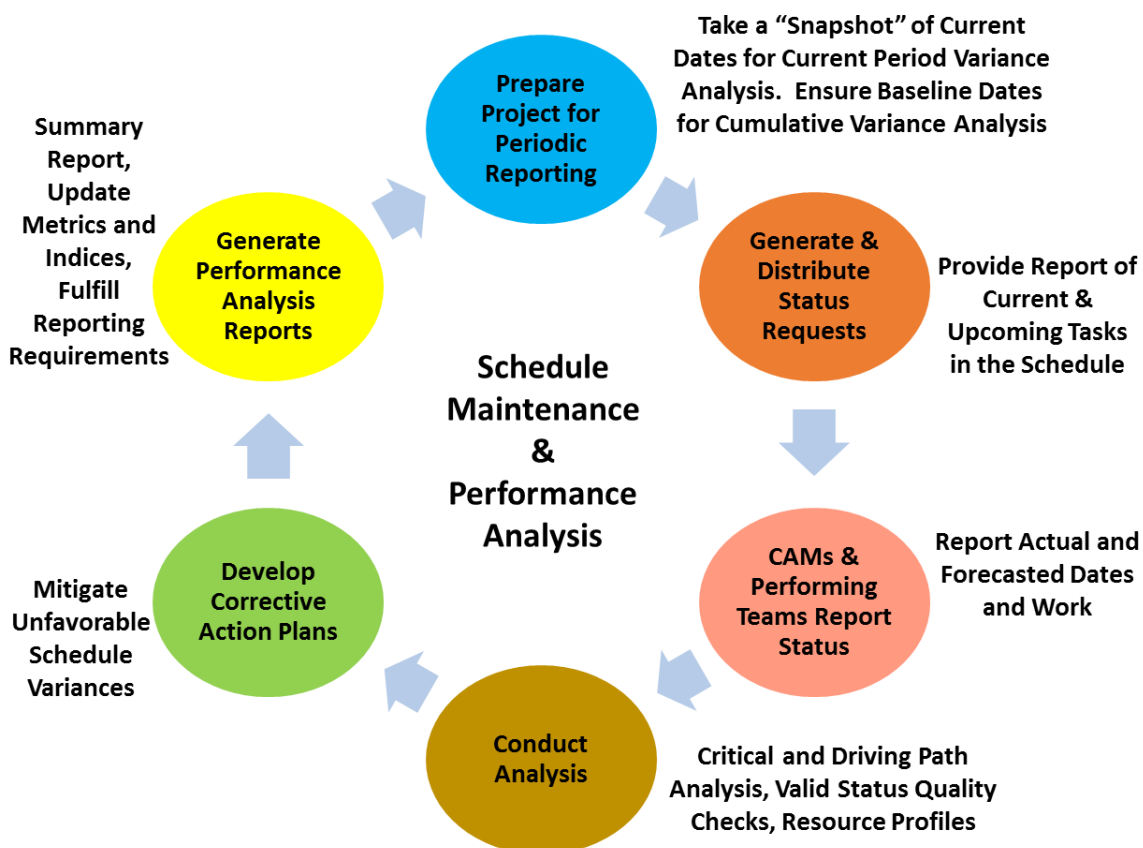
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SSI Tools for Posting Status and Identifying Schedule Variances



Overview

SSI Tools supports each step of the periodic schedule reporting cycle. Providing schedule information ("heads up", "to-do" lists of tasks) to CAMs & team members at the beginning of each reporting period preserves time at the end of the period for Analysis and Variance recovery.



Where to Get Help

<https://ssitools.com/ssi-tools-for-microsoft-project/>

<https://ssitools.com/ssi-trace-tools/>

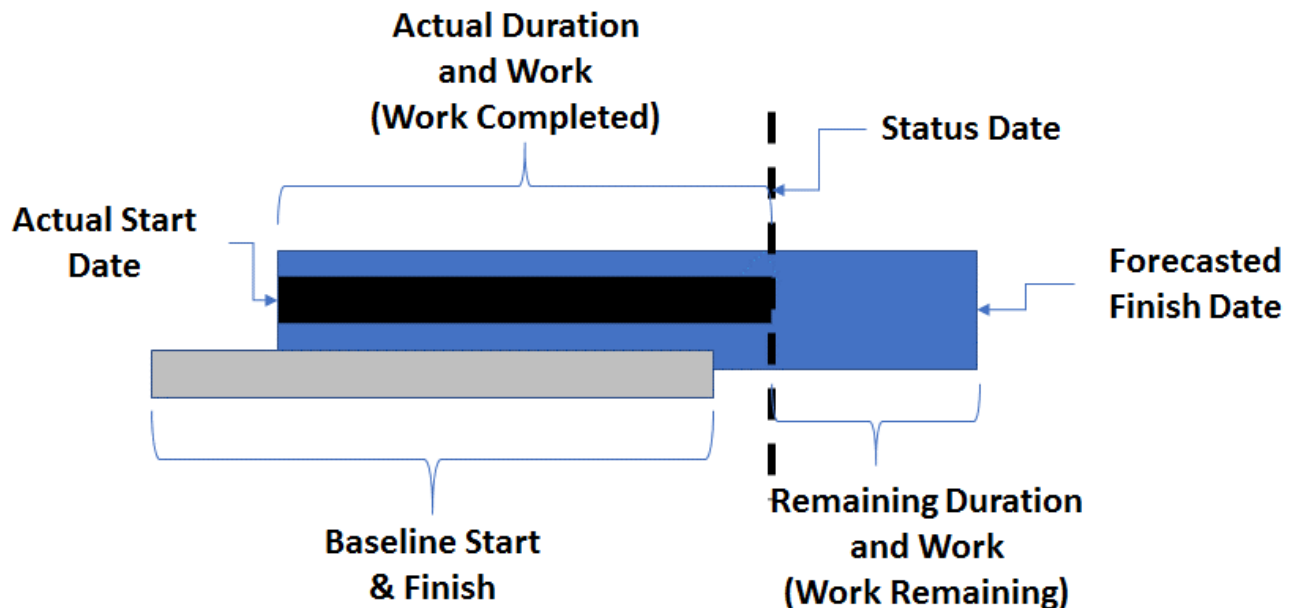
https://www.ssitools.com/helpandsuport/ssiait/ssi_status_workbook_tools.htm

Posting “Valid” Task Status

Watch our video for a detailed explanation of [How to CORRECTLY status tasks in Microsoft Project](#). Updating the status of tasks and milestones in a Project Plan is crucial to the effectiveness and accuracy of the schedule. If the status of in-progress or near-term tasks is incorrect, then the dates shown for far term tasks and key project milestones will also be incorrect. When posting status in a project you will address Task Start & Finish dates, Task Percent Complete and, if tasks have resources assigned to them, Remaining Work & Cost values. SSI's Post Task Status tool helps record Complete and Accurate Task Status where:

1. All Work Accomplished is posted prior to the Current Status date.
2. All Work Remaining is posted after the Current Status date.
3. The Actual Start and Projected Finish is accurate and up to date.
4. Task information includes a Baseline showing the original planned start/finish.

Example of Valid Status showing Work Performed & Work Remaining in Relation to the Current Status Date



Use of Baseline and Schedule Snapshots

The “Baseline” is typically established before execution begins. The baseline includes the original Start & Finish Dates and the original duration of the task. If resource assignments are included in the baseline, their dates, values and time phasing are also captured in the baseline. A “Snapshot” is typically taken at the beginning of a reporting period and only records start and finish dates for tasks.

Baseline Metrics

Having a baseline enables cumulative schedule variance analysis and certain schedule execution metrics which measures how closely the project is performing to the plan (per its baseline).

Common schedule execution metrics include the following measurements or indices:

- **Schedule Performance Index (SPI)** measures the amount of the plan that has actually been performed to date vs. the amount of the plan scheduled (per its baseline) to date. A requirement of measuring SPI is that a baseline plan was captured prior to the start of execution. Additionally, the baseline must be stable and should not be reset to mask schedule variances. SPI shows the Cumulative Schedule Variance to the baseline plan. Ref PASEG: 10.4.3 Schedule Performance Index (SPI)
- **Baseline Execution Index (BEI)** is like SPI except the item being measured is Task Completions, i.e., the number of tasks that finished vs. the number of tasks that should have finished. Like SPI, establishing a baseline is required for a meaningful BEI and BEI also shows the Cumulative Schedule Variance to the baseline plan.
- **Hit/Miss Index** is the number of tasks that are finishing on or before their baseline date (Hit) vs the number that are missing their baseline date (Miss). This metric is different than BEI in two ways. First, BEI only considers tasks having a baseline or an actual finish date through the current status date. Second, if a task has an actual finish date it is included in the numerator of the BEI calculation even if it finished later than the baseline date.

Snapshot Metrics

Having a snapshot enables current period schedule variance analysis and certain schedule execution metrics which measures how closely the project performed in the period vs. its schedule at the beginning of the period. Common schedule execution metrics include the following measurements or indices:

Current Execution Index (CEI) equals the number of tasks that actually finished at the end of the period vs the number of tasks with a current period finish date at the beginning of the period.

Prepare Schedule for Periodic Reporting

Definitions:

Cumulative Schedule Variance

The difference between the current Start and Finish dates and Baseline Start and Finish Dates

Current Period Schedule Variance

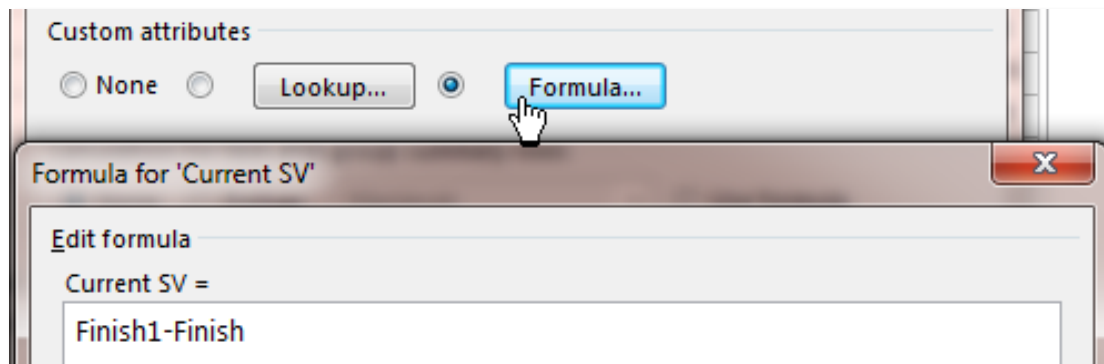
The difference between the current Start and Finish dates and the Start and Finish dates at the end of the prior reporting period.

Microsoft Project enables both Cumulative and Current Period variance analysis using its Baseline capture tool (**Project / Set Baseline**)

SSI Recommendations & Suggestions

To enable Current Period variance analysis, you will need to know the difference between current task start & finish dates and those from the last reporting period. SSI recommends archiving all Start and Finish dates from the prior reporting period before you post performance in the current reporting period as follows:

1. Change the Project status date to the end the current reporting period by selecting "Project Information" from the **Project** menu
2. Display **Start1** & **Finish1** (or any of the other Start/Finish 1 through 10 date fields) as an archive or "Snapshot" of the current schedule dates
3. Copy current Start & Finish dates into the Start/Finish archive
4. Display one of the **Number1** (or any of the Number 1 through 10 fields)
5. Right-click on Number1 and add a formula to its custom attributes: **Finish1-Finish** (shown below)





6. As an option, you can add graphical indicators to show current period schedule variances

Graphical Indicators for "Current SV"

Indicator criteria for

☒ Nonsummary rows

☐ Summary rows

☐ Summary rows inherit criteria from nonsummary rows

☐ Project summary

☐ Project summary inherits criteria from summary rows

Cut Row Copy Row Paste Row Insert Row Delete Row

Test for 'Current SV'	Value(s)	Image
is less than	0.00	
is greater than	0.00	

To display graphical indicators in place of actual data values, specify the value range for each indicator and the image to display. Tests are applied in the order listed and processing stops at the first successful test.

☒ Show data values in ToolTips

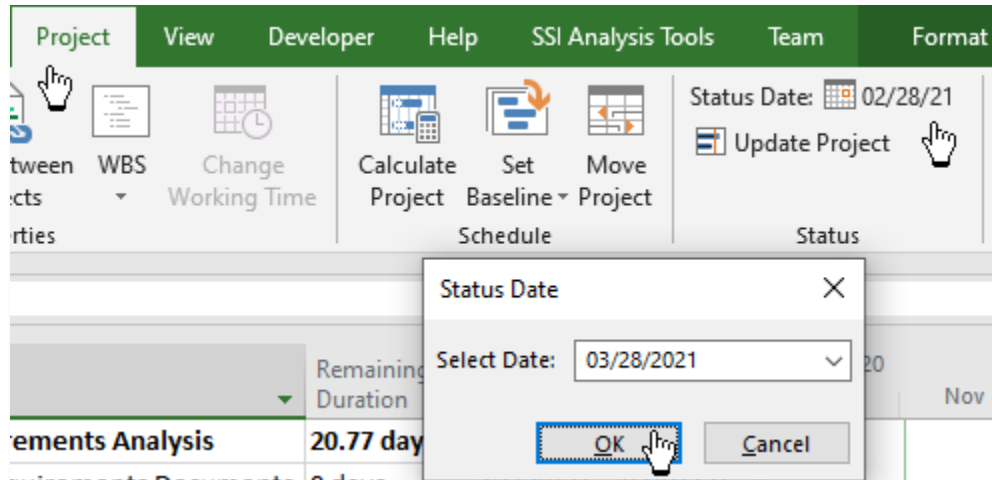
Help Import Indicator Criteria... OK Cancel

Class Exercise – Prepare Schedule for Periodic Reporting:

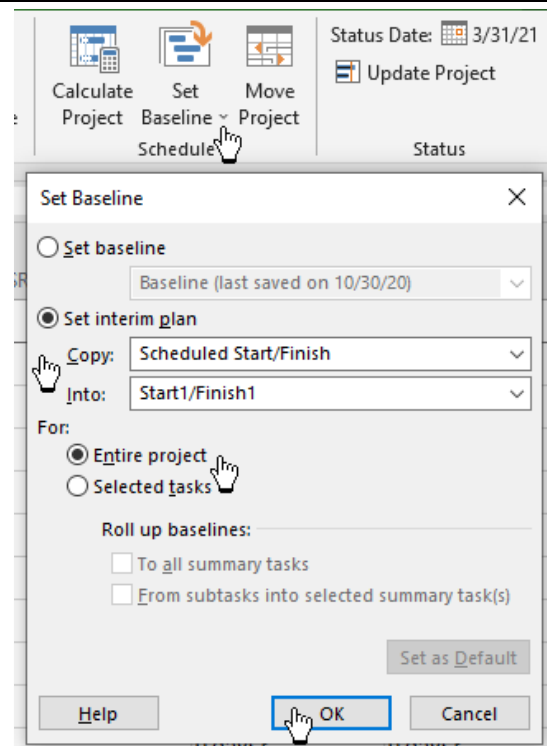
Open the Example Project for SSI Status Tools (ExampleProjectStatus.mpp)*

*If needed, download the Example Project at: [Example Project for Status Tools Exercises](#)

- Set the Project's Status date to the end date of the reporting period (for the exercise we use 3/28/2021)
 - Select Project Information from the Project menu in *Microsoft Project*
 - Set the Status Date to 3/28/2021



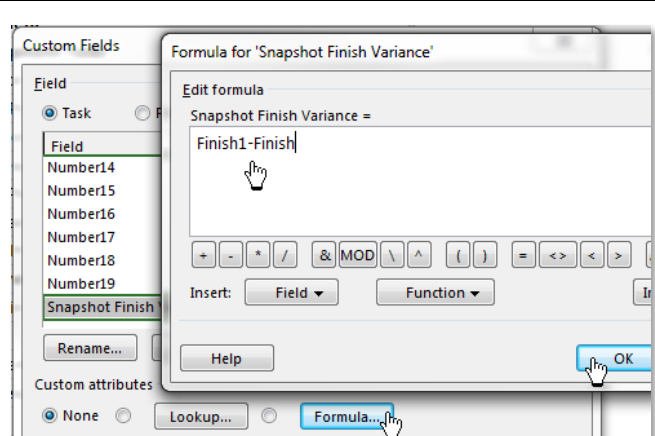
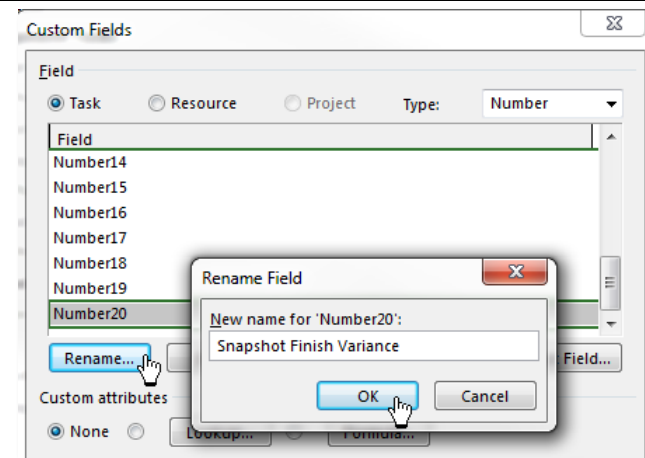
- Take a "Snapshot" of the current schedule dates in the project by copying schedule dates into Start1 & Finish 1 (or any other non-scheduled date field)
 - Select **Schedule / Set Baseline** from the **Project** menu in *Microsoft Project*
 - Choose the option to Set interim plan. Ensure the options selected are to **Copy** Scheduled Start/Finish **Into** Start1/Finish1.



- Make a formula field in *Microsoft Project* to show the difference between Finish and Finish1

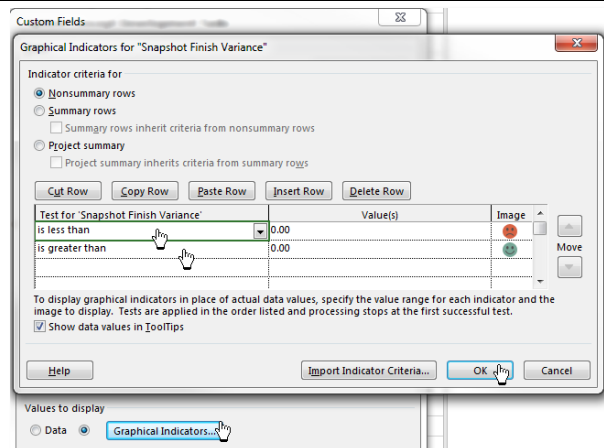
- Display Number 20 in the Project's current table (or any other number field)
- Right-click on the title for the Number 20 field and select **Custom Fields**
- Click **Rename** on the **Custom Fields** form and type "Snapshot Finish Variance" as the new name for Number 20

Click **Formula** on the **Custom Fields** form and type "Finish1-Finish" as the Formula for Number 20



4. Add Graphical Indicators that show Snapshot Finish Variances

- Click **Graphical Indicators** on the Custom Fields form and configure indicators that show positive and negative differences between Finish and Finish1 as shown to the right



End of Exercise

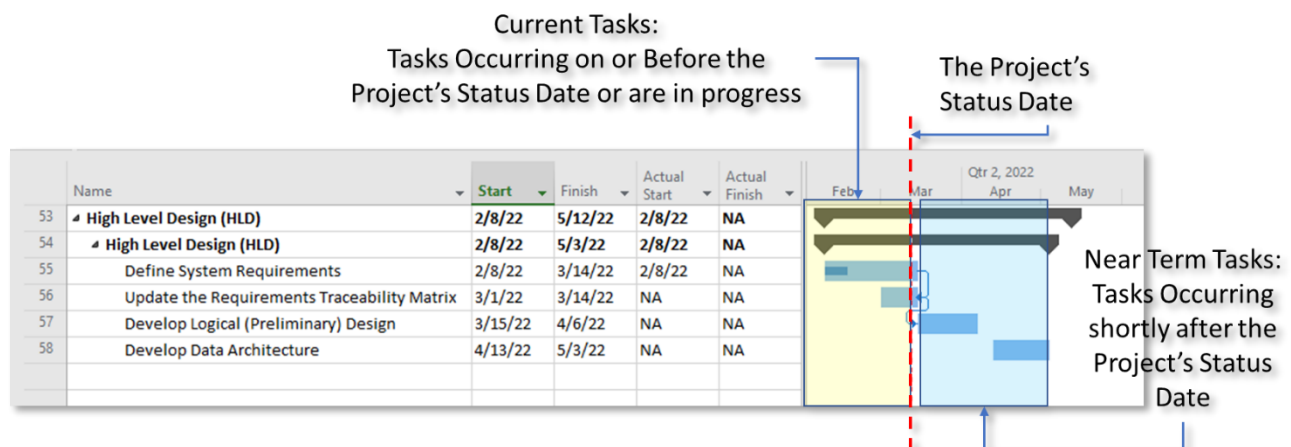
Using the SSI Status Workbook

The **SSI Status Workbook** tool makes a turn-around status worksheet, in *Microsoft Excel*, for each task owner in a *Microsoft Project* file. The workbook tool automates much of the status gathering, posting and manual data entry, which maximizes the time available for schedule analysis.

A **task owner** is the person responsible for assessing the performance of certain tasks in a schedule. Task owners must be identified, in a text or Contact field, for each task and milestone in a project file to use this tool. The SSI Status Workbook tool makes a worksheet in the workbook, based on the sheet named "Template", for each unique task owner.

Status worksheets for each task owner can be posted or sent to each task owner as a "look ahead" report of current and near-term tasks in the schedule. Each task owner completes their worksheet and returns it to the scheduler or has it available for incorporation into the schedule.

The Status Worksheet finds **Current** and **Near-Term** tasks according to their Task Owner.



Then it lists them in an Excel Worksheet by Task Owner

	B	C	D	E	F	G	H
1	Current Project Status Date: 03/12/2022		Existing Dates In Schedule		Updates Go Here		
2	ID	Task Name	Start	Finish	Assessed % Complete	Updated Start	Updated Finish
3	53	High Level Design (HLD)					
4	54	High Level Design (HLD)					
5	55	Define System Requirements	02/08/22	03/14/22	60%	2/8/2022	
6	56	Update the Requirements Traceability Matrix	03/01/22	03/14/22	0%	should strt	
7	57	Develop Logical (Preliminary) Design	03/15/22	04/06/22	0%		
8	58	Develop Data Architecture	04/13/22	05/03/22	0%		

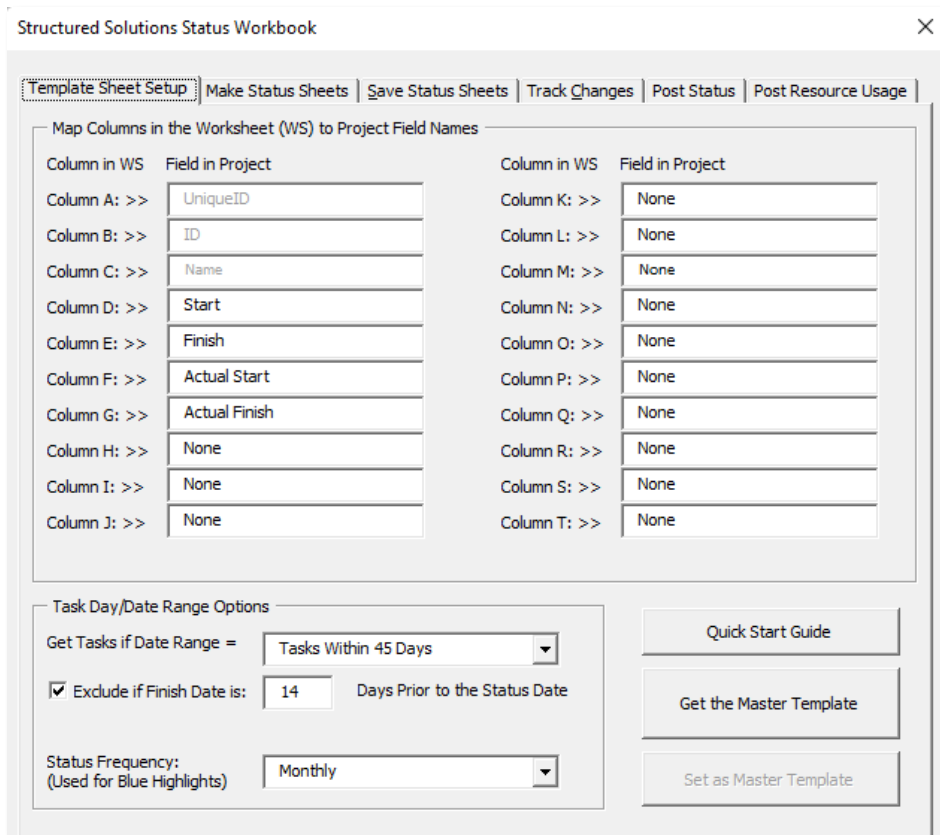
Gray = An Actual Date, Yellow = a Current Period Task and Blue = a Near Term Task

Setting up a Template for Status Worksheets

There are two ways to get started using the Status Workbook. 1. Start Excel and open a new blank workbook. 2. Open an existing Excel workbook containing Status Worksheets made from a previous session. Either way, the workbook needs to contain a sheet named **Template**.

When starting a new Status Workbook, open the tab named **Template Sheet Setup** and click the button named **Get the Master Template**. Once the Template has been added to the current workbook, it can be modified to suit the needs of the project. Modifications to the master template can even become the new Master Template by pressing the button named **Set as Master Template**.

The Template is the basis for each Status Worksheet created by SSI Tools. The column mapping shown on the **Template Sheet Setup** tab determines where data is taken from the active *Microsoft Project* file for status worksheets. Columns A, B and C are fixed and will take data from a *Microsoft Project*'s task **UniqueID**, **ID**, and **Name** respectively. All other columns are user defined and can be modified if needed. **Column in WS** shows the column letter in Excel and **Field in Project** is an exact matching field name in *Microsoft Project*. **Field in Project** can use the Native field names used by *Microsoft Project*, such as Text1, Text2, Text3, or they can be the Custom field names given to the project field by a *Microsoft Project* user. See the topic named How to add a Custom Field Name in Project for an explanation of *Microsoft Project* Custom Fields.



Structured Solutions Status Workbook

Template Sheet Setup | Make Status Sheets | Save Status Sheets | Track Changes | Post Status | Post Resource Usage

Map Columns in the Worksheet (WS) to Project Field Names

Column in WS	Field in Project	Column in WS	Field in Project
Column A: >>	UniqueID	Column K: >>	None
Column B: >>	ID	Column L: >>	None
Column C: >>	Name	Column M: >>	None
Column D: >>	Start	Column N: >>	None
Column E: >>	Finish	Column O: >>	None
Column F: >>	Actual Start	Column P: >>	None
Column G: >>	Actual Finish	Column Q: >>	None
Column H: >>	None	Column R: >>	None
Column I: >>	None	Column S: >>	None
Column J: >>	None	Column T: >>	None

Task Day/Date Range Options

Get Tasks if Date Range = Tasks Within 45 Days

☒ Exclude if Finish Date is: 14 Days Prior to the Status Date

Status Frequency: (Used for Blue Highlights) Monthly

Quick Start Guide

Get the Master Template

Set as Master Template

Note – SSI recommends including **Actual Start** and **Actual Finish** in every template with columns titled **Updated Start** and **Updated Finish**. Therefore, if an actual date exists in the project, it will be shaded gray to clearly show that a task already has an actual date, or the cell will be shaded yellow with prompts requesting Actual or Forecast dates. Blue highlights and prompts are also used in these cells if a task is due to start or finish in the next reporting period. Highlights and prompts are added automatically to columns used for Actual dates.

B	C	D	E	F	G
Current Project Status Date: 03/19/2022		Existing Dates In Schedule		Updates Go Here	
ID	Task Name	Start	Finish	Updated Start	Updated Finish
53	High Level Design (HLD)				
54	High Level Design (HLD)				
55	Define System Requirements	02/08/22	03/14/22	2/8/2022	should fin
56	Update the Requirements Traceability M	03/01/22	03/14/22	should strt	should fin
57	Develop Logical (Preliminary) Design	03/15/22	04/06/22	should strt	change fin?
58	Develop Data Architecture	04/12/22	05/02/22	change strt?	change fin?
59	Conduct Preliminary Design Review (PDR)				
60	Generate Presentation Materials for PD	05/03/22	05/09/22	change strt?	change fin?

Structured Solutions Status Workbook

Template Sheet Setup | Make Status Sheet

Map Columns in the Worksheet (WS) to

Column in WS	Field in Project
Column A: >>	UniqueID
Column B: >>	ID
Column C: >>	Name
Column D: >>	Start
Column E: >>	Finish
Column F: >>	Actual Start
Column G: >>	Actual Finish

The Template Sheet Setup tab includes options for **Task Day/Date Range Options**.

Get Tasks if Date Range = provides options for the date range of tasks taken from *Microsoft Project*.

Note – You can change the numeric value of Days (but not Months) shown in the option to increase or decrease the look-ahead calendar day range.

Task Day/Date Range Options

Get Tasks if Date Range = All Tasks

☐ Exclude if Finish Date is:

Status Frequency:
(Used for Blue Highlights)

All Tasks
Tasks in the Current Year
Tasks Within 45 Days
Tasks Within 3 Months
Tasks Within 6 Months
Tasks Within 12 Months
Tasks Within 24 Months

Double-clicking this control, displays **Look Ahead Date Range** showing how date ranges are used.

Exclude if Finish Date is: provides the option to exclude completed tasks if they finished a certain number of days before the Project's Status date. If the Exclude option is checked and set as shown below, tasks that finished more than 25 days before the Status date will not be shown in Status Sheets.

☒ Exclude if Finish Date is:

25

Days Prior to the Status Date

Status Frequency options control the blue highlighting in Status Sheets. Item in sheets highlighted in **Blue** start or finish in the next reporting period, whereas items highlighted in **Yellow** are in the current reporting period.

Status Frequency: (Used for Blue Highlights)	Monthly
	Daily
	Weekly
	Bi-Weekly
	Monthly
	Other

Press **Quick Start Guide** to open simplified instructions when using the Template Sheet Setup tab. Quick Start includes links to a specific topic as well as a link to this online user's guide.



Quick Start Guide: Status Workbook Tools

Template Sheet Setup

Step 1:
The Excel Workbook must have a sheet named "Template". You can Press "Get The Master Template" using the button in the lower-right of the form, or you can open an existing workbook with a Template that you already created.

Step 2:
Once you have a Template in your workbook, you can modify columns D - T by entering valid Microsoft Project field (column) names on row 2 of the template.

Note - you can either use the Native or Custom Microsoft Project field name or you can use a name that your users will understand as long as you enter the Native or Custom Microsoft Project field name as a cell note.

Click "Read Template Column Names (From Row 2 or Cell Notes)" to validate field names using the active project.

Click "Set as Master Template" to make your current Template the master template at the application level.

Quick Start Guide

Get the Master Template

Quick Start Guide

Read Template Column Names
(From Row 2 or Cell Notes)

Set as Master Template

Status Workbook Help Online

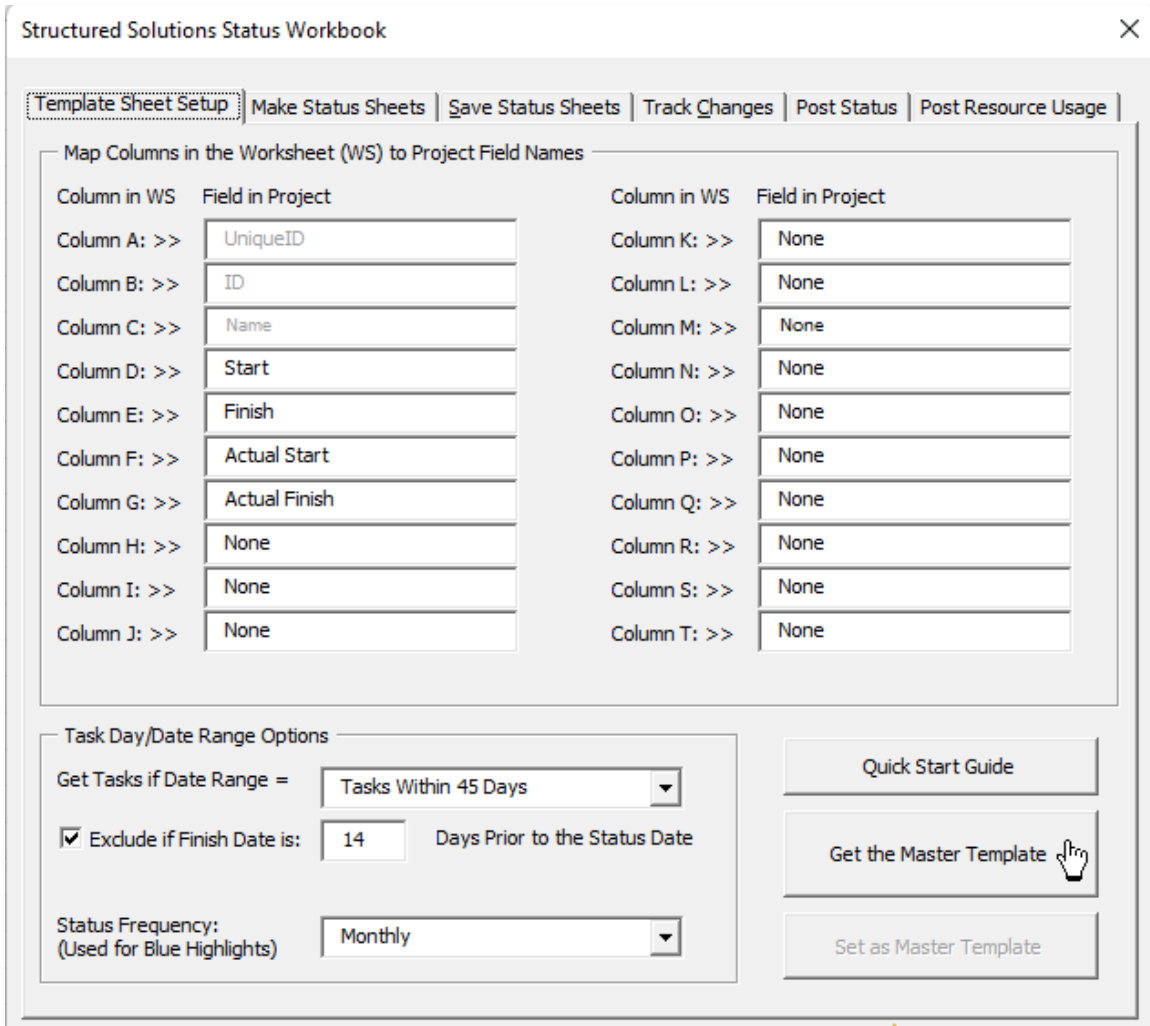
More Help on Template Sheet Setup

Class Exercise – Setup Status Worksheets:

Use the file from the previous exercise or open the Example Project for SSI Status Tools (ExampleProjectStatusSetup.mpp)*

*If needed, download the Example Project at: [Example Project for Status Tools Exercises](#)

1. Open a new workbook in Excel
2. Press Status Turnaround Workbook on the SSI Tools menu.
3. Press **Get the Master Template** to add a worksheet named **Template** to the Excel workbook.



Structured Solutions Status Workbook

Template Sheet Setup | Make Status Sheets | Save Status Sheets | Track Changes | Post Status | Post Resource Usage

Map Columns in the Worksheet (WS) to Project Field Names

Column in WS	Field in Project	Column in WS	Field in Project
Column A: >>	UniqueID	Column K: >>	None
Column B: >>	ID	Column L: >>	None
Column C: >>	Name	Column M: >>	None
Column D: >>	Start	Column N: >>	None
Column E: >>	Finish	Column O: >>	None
Column F: >>	Actual Start	Column P: >>	None
Column G: >>	Actual Finish	Column Q: >>	None
Column H: >>	None	Column R: >>	None
Column I: >>	None	Column S: >>	None
Column J: >>	None	Column T: >>	None

Task Day/Date Range Options

Get Tasks if Date Range = Tasks Within 45 Days

☒ Exclude if Finish Date is: 14 Days Prior to the Status Date

Status Frequency: (Used for Blue Highlights) Monthly

Quick Start Guide

Get the Master Template

Set as Master Template



4. Edit the template if you like (optional) by adding or removing Columns in the Excel sheet named **Template** as follows:

1. Add a column for task owners to update their "Assessed" Percent Complete after Column E.
2. Name this column "Assessed % Complete" on Row 2.
3. Right-Click the title "Assessed % Complete" and add a Cell Note describing where the value is taken from in the Project.
4. Enter the *Microsoft Project* field name of Physical % Complete" in the cell note.

Now the Template sheet may look like this:

	B	C	D	E	F	G	H	I	J
1	Project Status Date:		Existing Dates In Schedule		Updates Go Here			Physical % Complete	
2	ID	Task Name	Start	Finish	Assessed % Complete	Updated Start	Updated Finish		

5. Select the entire column where you added Assessed % Complete.
6. Configure this entire column as Text by selecting **Text** from the **Number** group in *Microsoft Excel's Home* menu as shown below.

The screenshot shows the Microsoft Excel interface with the 'Home' tab selected. The 'Number' group in the ribbon is expanded, and 'Text' is selected. The worksheet shows the same template structure as the previous image, with column F highlighted in green.



7. Press Status Turnaround Workbook on the SSI Tools menu.
8. Read the configuration of the Template into Template Sheet Setup by clicking Read Template Column Names (From Row 2 or Cell Notes).

Structured Solutions Status Workbook

Template Sheet Setup | Make Status Sheets | Save Status Sheets | Track Changes | Post Status | Post Resource Usage

Map Columns in the Worksheet (WS) to Project Field Names

Column in WS	Field in Project	Column in WS	Field in Project
Column A: >>	UniqueID	Column K: >>	None
Column B: >>	ID	Column L: >>	None
Column C: >>	Name	Column M: >>	None
Column D: >>	Start	Column N: >>	None
Column E: >>	Finish	Column O: >>	None
Column F: >>	Physical % Complete	Column P: >>	None
Column G: >>	Actual Start	Column Q: >>	None
Column H: >>	Actual Finish	Column R: >>	None
Column I: >>	None	Column S: >>	None
Column J: >>	None	Column T: >>	None

Task Day/Date Range Options

Get Tasks if Date Range = Tasks Within 45 Days

☒ Exclude if Finish Date is: 14 Days Prior to the Status Date

Status Frequency: (Used for Blue Highlights) Monthly

Quick Start Guide

Read Template Column Names (From Row 2 or Cell Notes)

Set as Master Template

End of Exercise

Make Status Worksheets for Task Owners

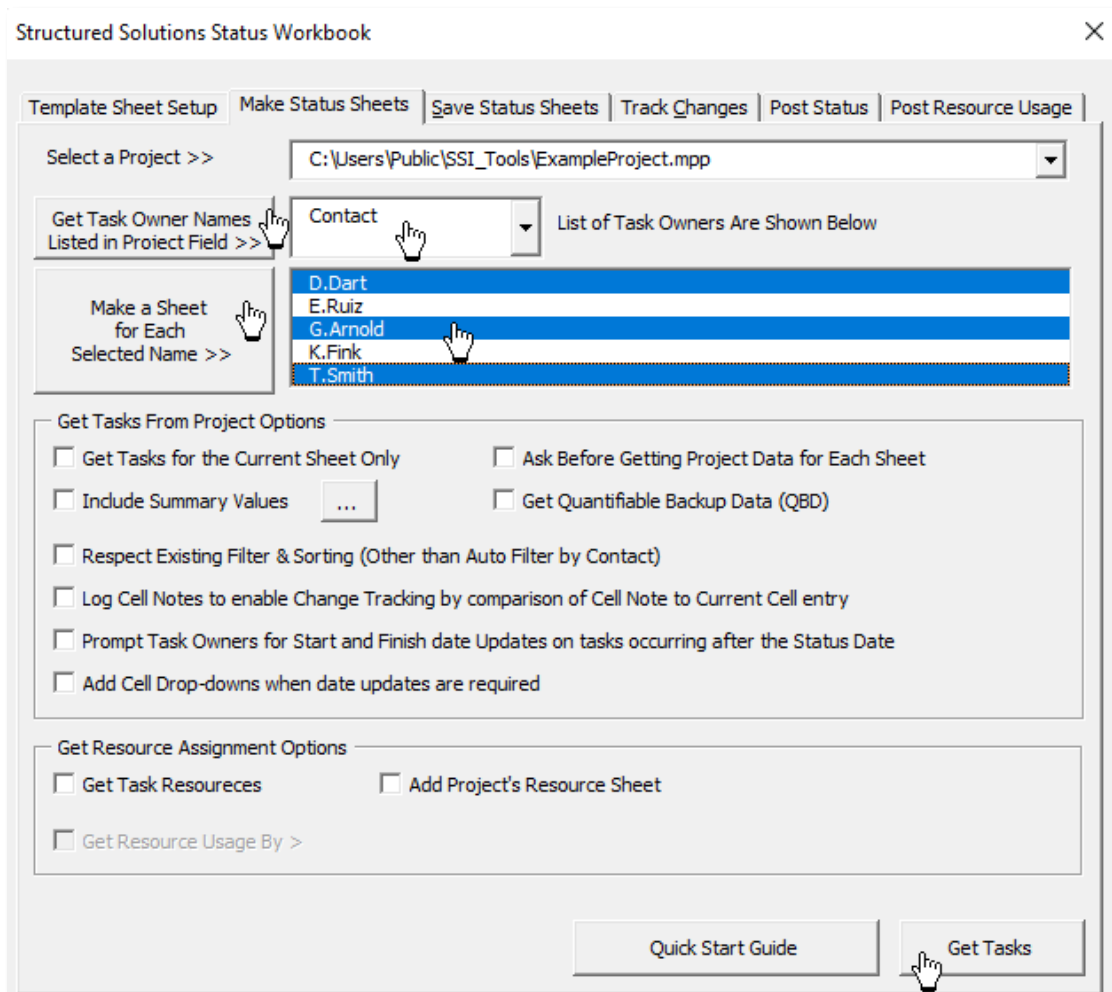
The tab named **Make Status Sheets** is where you will generate a “to-do” sheet for every member of the project team with tasks in the schedule needing to be updated.

Quick Start Step 1: Select the field name in the active project where **Task Owners** are identified. In the example Below, Contact is where the names of Task Owners are listed in the project, but you can also use any other field that describes task ownership such as the field used for Organization Breakdown Structure (OBS), Control Account or Control Account Manager (CAM).

Quick Start Step 2: Click the button named **Get Task Owner Names Listed in Project Field >>** to list each unique Task Owner name in the list below the button. Then select those names in the list.

Quick Start Step 3: Select each name in the list needing a status worksheet and click **Make a Sheet for Each Selected Name**.

Quick Start Step 4: Now just select **Get Tasks From Project Options** and **Get Resource Assignment Options** and click **Get Tasks** to make a separate worksheet for each task owner.



Structured Solutions Status Workbook

Template Sheet Setup | **Make Status Sheets** | Save Status Sheets | Track Changes | Post Status | Post Resource Usage

Select a Project >> C:\Users\Public\SSi_Tools\ExampleProject.mpp

Get Task Owner Names Listed in Project Field >> Contact List of Task Owners Are Shown Below

Make a Sheet for Each Selected Name >>

D.Dart
E.Ruiz
G.Arnold
K.Fink
T.Smith

Get Tasks From Project Options

☐ Get Tasks for the Current Sheet Only ☐ Ask Before Getting Project Data for Each Sheet

☐ Include Summary Values ... ☐ Get Quantifiable Backup Data (QBD)

☐ Respect Existing Filter & Sorting (Other than Auto Filter by Contact)

☐ Log Cell Notes to enable Change Tracking by comparison of Cell Note to Current Cell entry

☐ Prompt Task Owners for Start and Finish date Updates on tasks occurring after the Status Date

☐ Add Cell Drop-downs when date updates are required

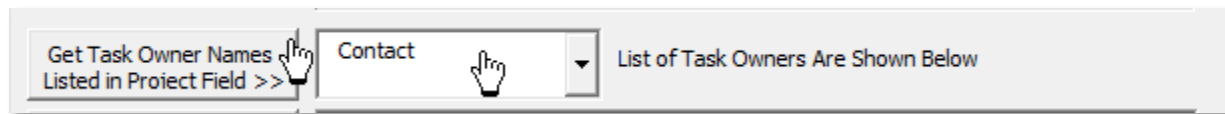
Get Resource Assignment Options

☐ Get Task Resources ☐ Add Project's Resource Sheet

☐ Get Resource Usage By >

Quick Start Guide Get Tasks

Getting Task Owner Names from the Project



This drop-down list shows *Microsoft Project's* Contact field plus all 30 of Project's Text fields. Select the field showing task ownership. Task ownership can be the name of an individual, an owning department or organization, an accounting code or any other task attribute that denotes a project team member who is responsible for posting task status.

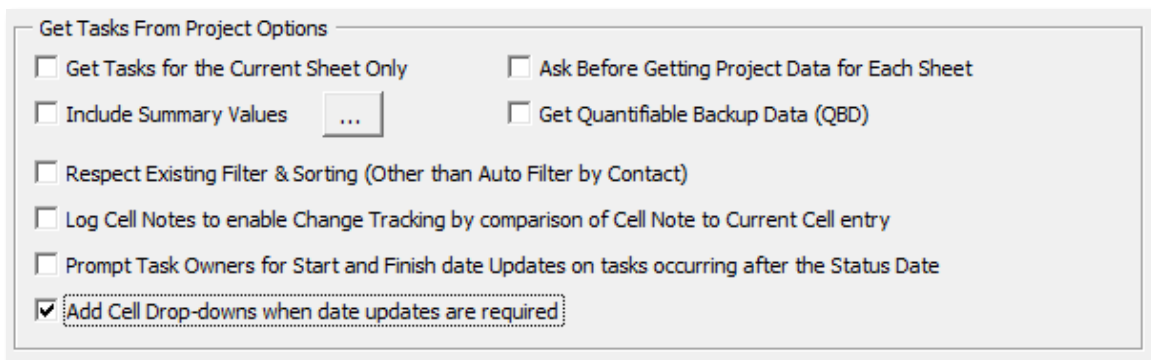
If the project field you need is not in the list, simply type it instead of using one of the drop-down choices. If the name of the field you enter matches a project field, it will read and write the unique values in that field in the list below the drop-down.

Once you click the button named **Get Task Owner Names Listed in Project Field >>** a alphabetically sorted list of the unique names in the field you selected above will display in a list box. Select one or more of those names and click **Make a Sheet for Each Selected Name** to copy the Template sheet as a new worksheet for each task owner. Once you have task owner sheets created, you are ready to select options and Get Tasks from the Active Project.



Options for Getting Tasks from the Active Project

This option group provides all the options you need for getting task information, including Quantifiable Backup Data that you created using SSI Tools QBD Tools in *Microsoft Project*.

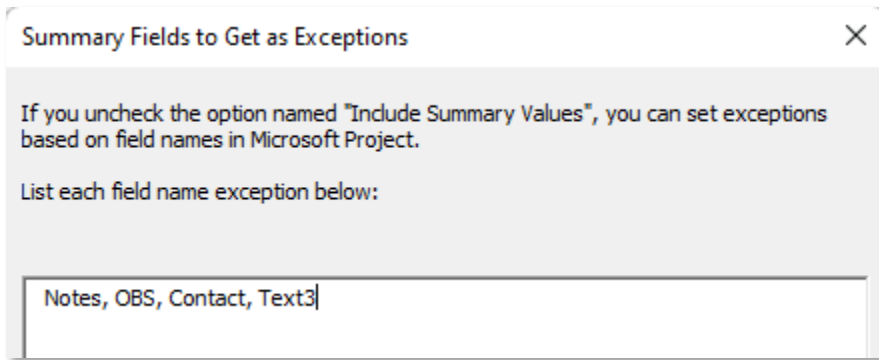


Get Tasks for the Current Sheet Only, makes a to-do list only for the task owner on the current Excel worksheet. Uncheck this option to get tasks for all worksheets you made when you clicked "Make a Sheet for Each Selected Name" from the instructions above this section.

Ask Before Getting Project Data for Each Sheet displays a prompt allowing you to skip certain task owner sheets if desired if the option is checked.

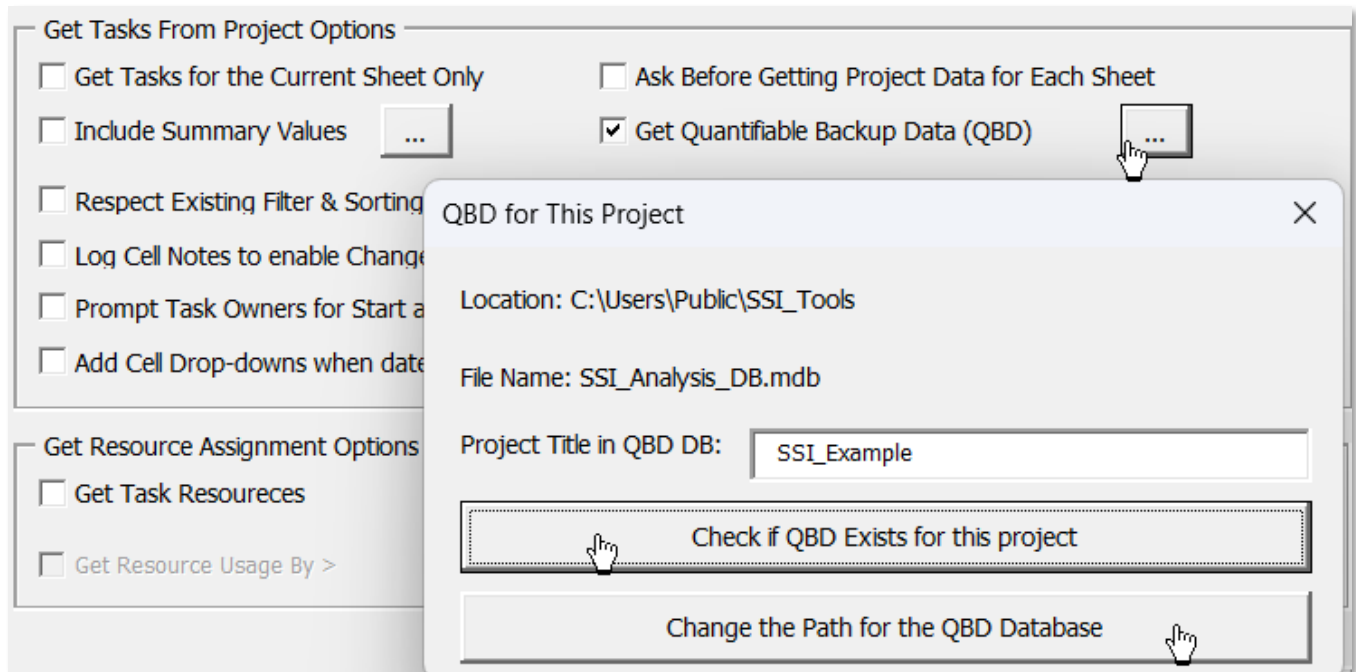
Include Summary Values shows all the same values for summaries as it does for tasks on each sheet if the option is checked. It's often helpful to the users if you leave this option off since users typically update tasks instead of summaries.

Summary Names are always shown *regardless* of how you set this option. You can also set Exception fields to get from summaries even if the option is turned off. Click the button next to **Include Summary Values** to enter **Summary Fields to Get as Exceptions**. Make a list of fields to get for summaries, separated by commas like the example below, to get these values for summaries even when **Include Summary Values** is not checked.



Get Quantifiable Backup Data (QBD). Having QBD is often beneficial when you have tasks that require many steps, but it is not practical to add these steps as task in a project. QBD steps may be sequential. An example of sequential steps for a task named "Plant a tree" could be "Dig hole", "Place tree" and "Water tree". Sequential steps must be performed in a particular order. QBD may also represent steps that can be performed in any order. An example of non-sequential steps for a task named "Submit Drawing Package" might be "Drawing 1", "Drawing 2" and "Drawing 3".

SSI Analysis Tools for Microsoft Project includes **SSI QBD Tools** for managing QBD steps in an external database that is linked to a project and its tasks. You can follow this link to see more information about using [QBD Tools in a project file](#). Checking the option named **Get Quantifiable Backup Data (QBD)** causes SSI Excel tools to check for the presence of a QBD database associated with the active project. You can check and set the location for the QBD database using the ellipse button to the right of the Get QBD option. Also note that QBD is associated with a project according to its Project Title. The project title must be an exact match of the title used when initially creating QBD using SSI Analysis Tools for Microsoft Project. The default value for a project title is the name that appears on the project summary task in Microsoft Project. The project title is visible when you select **Summary Task** from the **Show/Hide** group of the **Gantt Chart Format** menu in a project.



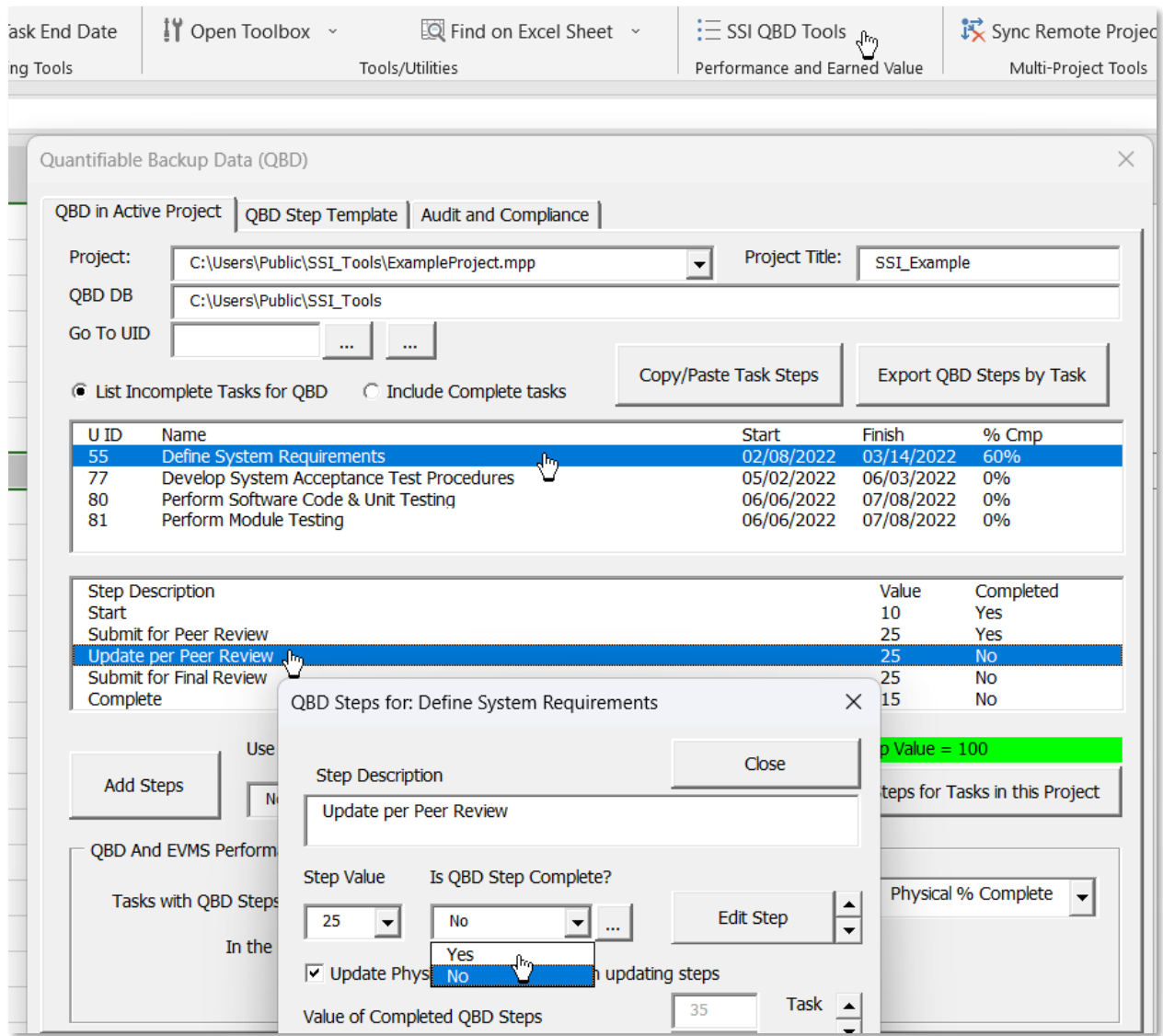
When this option is selected, and QBD exists for the active project, those QBD will be added to each task owner's worksheet. If you do not have columns named "QBD Value" and "QBD Finish" in your template, these columns can be added for you automatically by responding "Yes" to an *SSi Tools* message that is displayed when selecting this option.

QBD steps are displayed as indented, *italicized* items below their associated task. Task 55, "Define System Requirements", in the example below, includes its 5 QBD Steps. The steps named Start and Submit for Peer Review had already been marked as completed the last time this project posted status. The owner of this task can update the remaining steps and indicate an actual or forecast finish date for the associated task. If the task is complete, all 5 steps will also be complete. If the task is not complete, one or more of the steps should not be marked as complete.

Current Project Status Date: 03/19/2022		Existing Dates In Schedule		Updates Go Here			
ID	Task Name	Start	Finish	Updated Start	Updated Finish	QBD Value	QBD Finish
53	High Level Design (HLD)						
54	High Level Design (HLD)						
55	Define System Requirements	02/08/22	03/14/22	2/8/2022	should fin		
55	QBD Step: Start					10	Yes
55	QBD Step: Submit for Peer Review					25	Yes
55	QBD Step: Update per Peer Review					25	No
55	QBD Step: Submit for Final Review					25	No
55	QBD Step: Complete					15	No
56	Update the Requirements Traceability Matrix	03/01/22	03/14/22	should strt	should fin		

The status of QBD steps can be updated in the QBD database using **SSi QBD Tools** in *Microsoft Project*, as shown below. Or you can use the Status Turnaround Workbook's **Track Changes** and **Post**

Progress features, found later in this document, to update Tasks in a project and Steps in a project's QBD database.



Task End Date | Open Toolbox | Find on Excel Sheet | SSI QBD Tools | Sync Remote Project

ing Tools | Tools/Utilities | Performance and Earned Value | Multi-Project Tools

Quantifiable Backup Data (QBD)

QBD in Active Project | QBD Step Template | Audit and Compliance

Project: C:\Users\Public\SSi_Tools\ExampleProject.mpp | Project Title: SSI_Example

QBD DB: C:\Users\Public\SSi_Tools

Go To UID: [] [] []

☒ List Incomplete Tasks for QBD ☐ Include Complete tasks

Copy/Paste Task Steps | Export QBD Steps by Task

U ID	Name	Start	Finish	% Cmp
55	Define System Requirements	02/08/2022	03/14/2022	60%
77	Develop System Acceptance Test Procedures	05/02/2022	06/03/2022	0%
80	Perform Software Code & Unit Testing	06/06/2022	07/08/2022	0%
81	Perform Module Testing	06/06/2022	07/08/2022	0%

Step Description	Value	Completed
Start	10	Yes
Submit for Peer Review	25	Yes
Update per Peer Review	25	No
Submit for Final Review	25	No
Complete	15	No

Add Steps | Use | N

QBD And EVMS Perform

Tasks with QBD Steps

In the

QBD Steps for: Define System Requirements

Close

Step Description: Update per Peer Review

Step Value: 25 | Is QBD Step Complete?: No

☒ Update Phys | No

Value of Completed QBD Steps: 35 | Task

Physical % Complete

Respect Existing Filter & Sorting preserves filters and sort orders in any project field, other than the field you use to identify task owners. For example, you might have "Apportioned Tasks", "Schedule Visibility Tasks", "Schedule Margin" or "Level of Effort" tasks in a project that do not require direct progress reporting. If you use a flag or some type of marking to identify these tasks, you can create a filter that excludes these tasks from task worksheets. If you don't check this option, all filters and sort orders are removed before generating worksheets except an automatic filter used to identify task owners.

Log Cell Notes to enable Change Tracking by comparison of Cell Note to Current Cell entry records notes in each worksheet cell displaying the current entry in the project. These notes are useful for determining changes made in a worksheet by task owners. If you don't check this option, you can

still track changes by comparing the worksheet cell value to its current value in *Microsoft Project*. The topic named **Track Changes** provides further explanation, advantages and disadvantages of checking or unchecking this option.

Prompt Task Owners for Start and Finish date Updates on tasks occurring after the Status Date, adds prompts and highlights to cells below columns used to display and update Actual Start and Actual Finish. SSI recommends using Actual Start and Actual Finish for all date updates since these can double as Actual dates, which should always be prior to the project's status date, or forecast dates when they are after the status date.

Add Cell Drop-downs when date updates are required add in-cell drop-down lists to columns used for updated actual or forecast dates. Cell drop-down lists can be configured using the ellipse button next to the option.

C	D	E	F	G
Current Project Status Date: 03/19/2022	Existing Dates In Schedule		Updates Go Here	
Task Name	Start	Finish	Updated Start	Updated Finish
High Level Design (HLD)				
High Level Design (HLD)				
Define System Requirements		03/14/22	2/8/2022	should fin
Update the Requirements Traceability M	03/01/22	03/14/22	should	Enter Date
Develop Logical (Preliminary) Design	03/15/22	04/06/22	should	Keep Date
Develop Data Architecture	04/12/22	05/02/22		Move Per Status
Conduct Preliminary Design Review (PDR)				
Generate Presentation Materials for PD	05/03/22	05/09/22		

Options for Getting Resource Assignments

This option group gives you the ability to get current resource names, assignments, and time phasing from tasks in a project.

Get Resource Assignment Options

☒ Get Task Resources
☒ Add Project's Resource Sheet
User Defined Calendar File:
C:\Users\Public\SSi_Tools\TSV\TSV

☒ Get Resource Usage By >
Defined Periods

Get Task Resources causes each resource assigned to a task to be shown as an indented and *italicized* item below the associated task. Task ID 60, "Generate Presentation Materials...", in the example below, has 4 resource assignments showing below the task line. When getting task resources, it is also useful to include a column displaying Work or Cost values such as **Remaining Work** like the following example.



ID	Task Name	Start	Finish	Remaining Work
59	Conduct Preliminary Design Review (PDR)			
60	Generate Presentation Materials for PD	05/03/22	05/09/22	32.00
	SW Engineer			8.00
	HW Engineer			8.00
	Systems Engineer			8.00
	Program Manager			8.00

Current Project Status Date: 03/19/2022

Existing Dates In Schedule

Updates Go Here

Get Task Owner Names Listed in Project Field >>

Make a Sheet for Each Selected Name >>

Get Tasks From Project Options

Get Resource Assignment Options

Get Resource Usage By > is an option that can only be selected when **Get Task Resources** is also selected. When you pick this option, new columns are added to each worksheet showing the time phased usage of work or costs (**Remaining** values only) for tasks having resource assignments. Time periods can be by **Week**, **Month** or **Defined Periods** from a custom calendar you create as a comma separated values (CSV) table.

Get Resource Assignment Options

☒ Get Task Resources ☐ Add Project's Resource Sheet

☒ Get Resource Usage By >

Month

Week

Month

Defined Periods

Here's an example of a worksheet with Resource Usage by week. New columns are added to a worksheet showing resource assignment value in time-phased periods.

Current Project Status Date: 03/30/2022		Existing Dates In Schedule		Updates Go Here		02/16/2022	02/20/2022	02/27/2022
ID	Task Name	Start	Finish	Updated Start	Updated Finish	02/19/2022	02/26/2022	03/05/2022
53	High Level Design (HLD)							
54	High Level Design (HLD)							
55	Define System Requirements	02/08/22	03/14/22	2/8/2022	should fin			
	HW Engineer					8.80	16.00	16.00
56	Update the Requirements Traceability Matrix	03/01/22	03/14/22	should strt	should fin			
	Systems Engineer							16.00
57	Develop Logical (Preliminary) Design	03/15/22	04/06/22	should strt				

Special Notes about Getting Resource Usage over time:

Tasks not marked as Active are ignored. The date range for Resource Assignment Usage Over Time is set to the earliest **Resume** date for tasks that are in progress or the earliest **Start** date for tasks that have not started. Time phased Resource Assignment Usage can be edited and imported with certain limitations. See this topic about [importing resource usage over time](#).

Using the option named **Defined Periods** displays a file browser that allows you to select a calendar file you can create in Excel and save as a CSV (Comma delimited) file type.

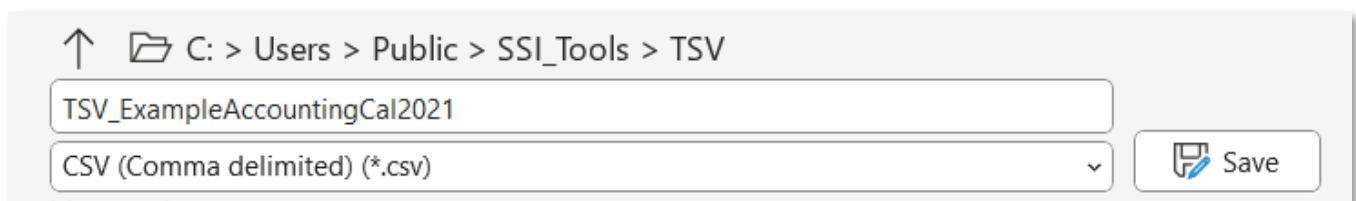
Creating Defined Periods

Defined Periods are intervals of time that do not correspond to any standard calendar period and are defined by the user. These periods can be anything but are most often used to represent an organization's fiscal calendar.

The easiest way to create your own defined periods is in *Excel*. In an Excel worksheet, Column A will represent the **Period Label**, column B is the **Start date** of the period and column C is the **End date** of the period. A Period's **start date** must be the next day after the prior period **end date**.

	A	B	C
1	2019-01	12/29/2018	2/1/2019
2	2019-02	2/2/2019	3/1/2019
3	2019-03	3/2/2019	3/29/2019
4	2019-04	3/30/2019	5/3/2019
5	2019-05	5/4/2019	5/31/2019

When finished creating the defined periods, the file **MUST** be saved as a .csv file and the file name **MUST** be prefixed with "TSV_". If these conventions are not followed, SSI will not be able to recognize the file as a defined periods file. Save the file in the TSV folder of the SSI Tools folder (most likely C:\Users\Public\SSI_Tools\TSV). This is the default location the Time Scaled Values tool will look to when the Defined Periods option is selected.



↑ C: > Users > Public > SSI_Tools > TSV

TSV_ExampleAccountingCal2021

CSV (Comma delimited) (*.csv)

Save



Add Project's Resource Sheet makes one additional worksheet in the workbook listing the items in the Resource Sheet in the active project. When this option is combined with **Get Task Resources**, the project's resource name list is added as an in-cell drop-down list for each resource name below a task line like the following example.

ID		Task Name	Start	Finish	Updated Start	Updated Finish
53		High Level Design (HLD)				
54		High Level Design (HLD)				
55		Define System Requirements	02/08/22	03/14/22	2/8/2022	should fin
6		HW Engineer				
		HW Engineer	3/01/22	03/14/22	should strt	should fin
		Systems Engineer				
		Program Manager				
		PM Office	3/15/22	04/06/22	should strt	

Class Exercise – Make Status Worksheets:

Use the Excel workbook from the previous exercise*

*If needed, download the Excel template for this exercise at: [Status Workbook Example](#)

1. Use the workbook you created in the previous exercise.
2. Press Status Turnaround Workbook on the SSi Tools menu.
3. Select the tab named **Make Status Sheets**.

Structured Solutions Status Workbook

Template Sheet Setup | **Make Status Sheets** | Save Status Sheets | Track Changes | P

4. Use the drop-down list next to the button named **Get Task Owner Names Listed in Project Field >>** to select a *Microsoft Project* text field containing Task Owners (sometimes called Control Account Manager or CAM). Use **Text2** for the exercise.
5. Click the button named Get Task Owner Names Listed in Project Field >>

Get Task Owner Names
Listed in Project Field >>

Text2

List of Task Owners Are Shown Below

6. Select all the names that appear in the list box
7. Click the button named **Make a Sheet for Each Select Name >>**. Notice that a new worksheet is added to the workbook for each named selected in the list.

Make a Sheet
for Each
Selected Name >>

Deployment
Design
Dev
PMO
Sys Eng

8. Click the button named **Get Tasks** on the lower right corner of the tab.

Quick Start Guide

Get Tasks

9. Select the sheet named **Sys Eng**



10. Check the option named **Get Tasks for the Current Sheet Only** and try some of the other options in the group named **Get Tasks From the Project Options**

Get Tasks From Project Options

☒ Get Tasks for the Current Sheet Only ☐ Ask Before Getting Project Data for Each Sheet

☐ Include Summary Values ☐ Get Quantifiable Backup Data (QBD)

☐ Respect Existing Filter & Sorting (Other than Auto Filter by Text2)

☐ Log Cell Notes to enable Change Tracking by comparison of Cell Note to Current Cell entry

☐ Prompt Task Owners for Start and Finish date Updates on tasks occurring after the Status Date

☐ Add Cell Drop-downs when date updates are required

11. Now try some of the options in the group named **Get Resource Assignment Options**

Get Resource Assignment Options

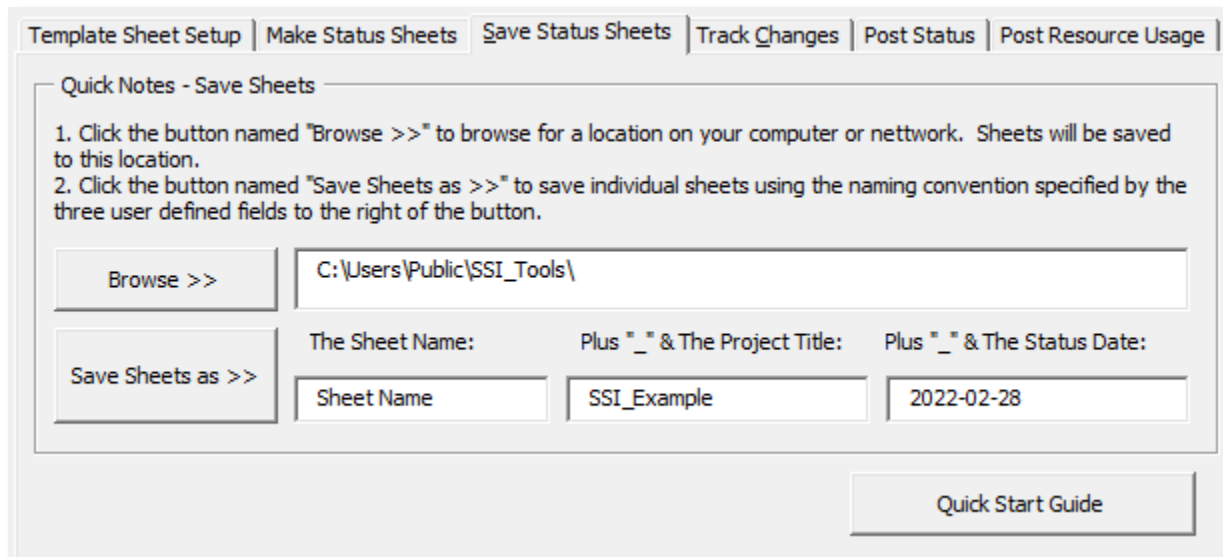
☒ Get Task Resources ☐ Add Project's Resource Sheet

☐ Get Resource Usage By >

End of Exercise

Options for Saving Status Worksheets for each Task Owner

Once worksheets have been created, you can separate each Excel Worksheet, by task owner, making an Excel file and workbook for each worksheet.



Browse to the location on your system for saving status worksheets. Worksheets in the Workbook will be separated and saved as new *Excel* files in this location.

Sheet Naming options

When task owner sheets are saved, the name given to each new Excel file has three distinct parts.

You can change the sheet naming parts but we recommend using SSI's default values.

The three parts of a task owner's sheet are: **The Sheet Name, Plus "_" & The Project Title, Plus "_" & The Status Date.**

- **The Sheet Name:** is the worksheet name in the workbook. These names correspond to the name of each task owner. Since each of these will be unique, we recommend using the default setting for the first part of the file created for each task owner.
- **Plus "_" & The Project Title:** is the name (or title) of the project. The default value for a project title is the name that appears on the project summary task in *Microsoft Project*. The project title is visible when you select **Summary Task** from the **Show/Hide** group of the **Gantt Chart Format** menu in a project.
- **Plus "_" & The Status Date** is the Project's status date.

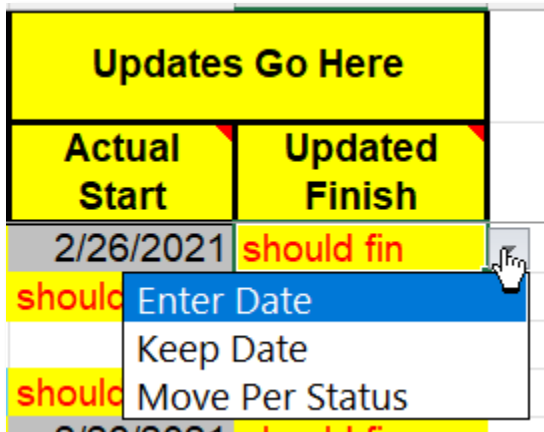
Press **Save Sheets as** when you are ready to make individual sheets for each task owner.

Changes and Updates to a Worksheet by Task Owners

Yellow highlights note that task performance must be assessed by the task owner. Tasks with Start/Finish dates prior to the project status date, but no actual performance, show as yellow cells with red text to indicate an update is required. Task owners should not return a sheet containing the notes "should strt" and "should fin" - these must be replaced with actual or forecast dates. Blue cells are tasks due to Start or Finish in the next reporting period and gray cells show Actual Start or Finish dates. The bottom of each worksheet shows a legend of highlights and font colors with instructions for completion by a task owner.

	B	C	D	E	F	G	H
1	Current Project Status Date: 03/19/2022		Existing Dates in Schedule		Updates Go Here		
2	ID	Task Name	Start	Finish	Assessed % Complete	Actual Start	Updated Finish
3	26	Requirements Analysis					
4	31	Perform Software Requirements Analysis					
5	34	Conduct User Surveys	02/28/22	03/03/22	20%	2/28/2022	should fin
6	35	Develop System Software Requirements	03/04/22	03/10/22	0%	should strt	should fin
7	36	Generate Requirements Analysis Documents					
8	37	Develop Requirements Traceability Matrix (RTM)	03/11/22	03/31/22	0%	should strt	change fin?
9							
10		Legend and User Instructions					
11	Gray	An Actual Start or Actual Finish date - no update required					
12	Yellow	The Current Date is on or before the Current Status Date <i>should strt', 'should fin' MUST be replaced by dates</i>					
13							
14	Blue	Current Date is on or before the end of the Next Reporting Period (Status Date + 1 reporting interval) <i>change strt?', 'change fin' should be reviewed</i>					
15							
16	No Color	Date is after the end if the Next Reporting Period (Status Date + 1 reporting interval) <i>change strt?', 'change fin' should be reviewed</i>					
17							
18		Use of Drop-downs lists in Date Update cells					
19	"Enter Date": Replace W/Actual date if <= Status date or Forecast Date if > Status Date						
20	"Keep Date": Hold the Current Start or Finish, if possible, regardless of status of predecessors						
21	"Move Per Status": Allow date to move according to the status of predecessors						
22							

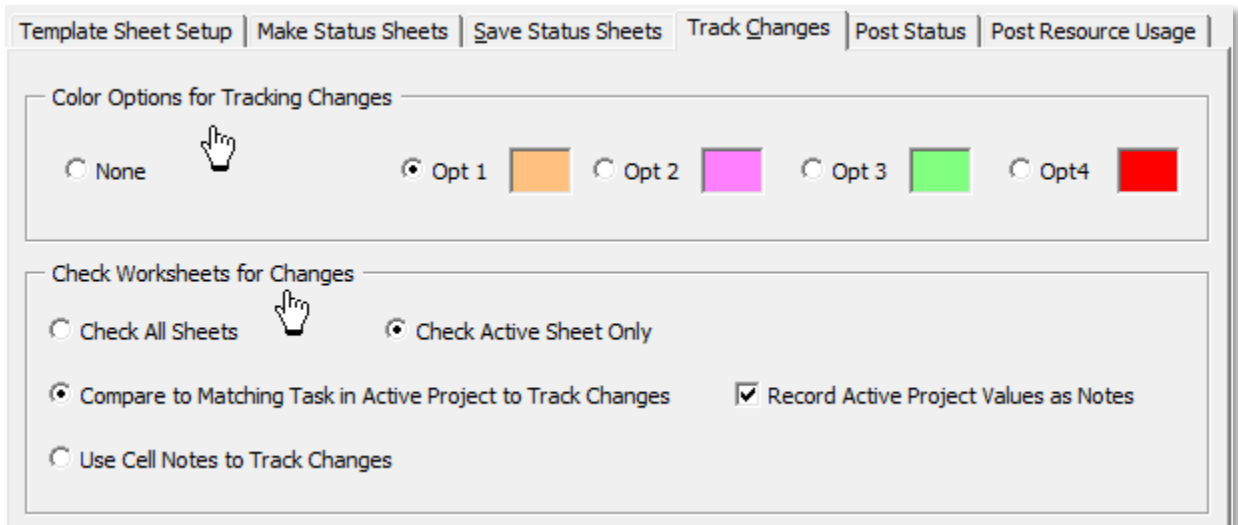
Cells used for Updated dates may even include a drop-down list of actions or options. This drop-down list is configurable by the workbook creator, therefore, instructions to task owners should be provided according to the intent of the configuration.



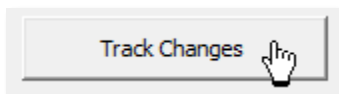
Tracking Changes and Updates in a Status Worksheet

The *SSI Status Worksheet* tools contains a tab named **Track Changes**. It provides two methods for identifying changes made by task owners. You can track changes in all sheets or just the active sheet by selecting **Check All Sheets** or **Check Active Sheet Only**. Methods and options for identifying changes are shown below:

- Select a Color Option for Tracking Changes.
- **Compare to Matching Task in Active Project to Track Changes**, works well if you have the project open in *Microsoft Project* that was used to create the current worksheet. When this option is selected, SSI Tools will lookup the current task in the active project and compare the cell value in the Excel worksheet to the corresponding task's value in *Microsoft Project*. If different, a change will be indicated in the worksheet cell. You can also **Record Active Project Values as Notes** to place in-cell notes showing the current value in the project when you hover over the cell or select **Edit Note** from the menu that appears when you right-click a cell in a worksheet.
- **Use Cell Notes to Track Changes**, reads embedded cell notes (which show the initial values of each cell) to identify a cell value that was changed by the user. Note - Change tracking may not be able to identify changes if a user copies and pastes values from other columns*.



- Click **Track Changes** – to identify changes using your preferred tracking method.



*Note – Ask users not to copy and paste from other cells on the sheet if you plan to **Use Cell Notes to Track Changes**. Copy/Paste includes cell notes which are used to determine if a cell's value is different than the value provided in the original worksheet.



Changes are identified by the bold border around a cell, a back slash (\), and the highlight color you selected. In the example below, the current value of Actual Start for the task named Develop Logical (Preliminary) Design is "NA". The task owner wants to change "NA" to an actual start date for the task of 3/18/2022.

C	D	E	F	G	H	I
Current Project Status Date: 03/30/2022	Existing Dates In Schedule		Updates Go Here			
Task Name	Start	Finish	Updated Start	Updated Finish		
High Level Design (HLD)						
High Level Design (HLD)						
Define System Requirements	02/08/22	03/14/22	2/8/2022	3/17/2022		
Update the Requirements Traceability Matrix	03/01/22	03/14/22	3/1/2022	3/17/2022		
Develop Logical (Preliminary) Design	03/15/22	04/06/22	3/18/2022			
Develop Data Architecture	04/13/22	05/03/22				
Conduct Preliminary Design Review (PDR)						
Generate Presentation Materials for PDR	05/04/22	05/10/22				
Ensure PDR Exit Criteria Has Been Met	05/11/22	05/11/22				

ExampleProject.mpp
Actual Start is: NA

Class Exercise – Tracking Changes:

Use the Excel workbook from the previous exercise*

*If needed, download the Excel template for this exercise at: [Status Workbook Example](#)

1. Use the workbook you created in the previous exercise.
2. In the columns for *Updated Start* and *Updated Finish* dates, manually enter dates as if you are the task owner.

B	C	D	E	F	G
Current Project Status Date: 03/28/2025		Existing Dates In Schedule		Updates Go Here	
ID	Task Name	Start	Finish	Updated Start	Updated Finish
53	High Level Design (HLD)				
54	High Level Design (HLD)				
55	Define System Requirements	02/07/25	03/13/25	2/7/2025	3/20/2025
56	Update the Requirements Traceability M	02/28/25	03/13/25	2/28/2025	3/20/2025
57	Develop Logical (Preliminary) Design	03/14/25	04/07/25	3/21/2025	
58	Develop Data Architecture	04/14/25	05/02/25		

3. Click **Status Turnaround Workbook Tools** on the SSI Tools for Excel menu to open the options window.
4. Select the tab named **Track Changes**:

Structured Solutions Status Workbook

5. In the top section, choose your preference for the **Color Option for Tracking Changes**:

Color Options for Tracking Changes

☐ None
 ☐ Opt 1 
☐ Opt 2 
☒ Opt 3 
☐ Opt 4 

6. In the middle section, choose your preference for how to **Check Worksheets for Changes**:

Check Worksheets for Changes

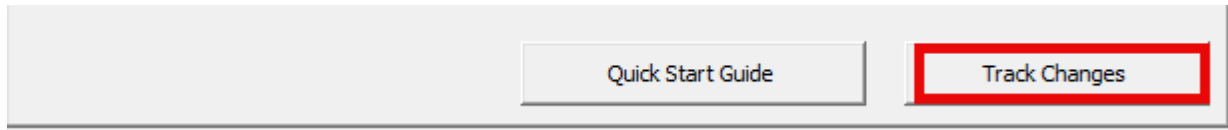
☐ Check All Sheets
 ☒ Check Active Sheet Only

☒ Compare to Matching Task in Active Project to Track Changes
 ☒ Record Active Project Values as Notes

☐ Use Cell Notes to Track Changes



7. Click the button named **Track Changes** on the lower right corner of the tab:



8. Observe the changes you made in Step 2 are identified with a **bold border** and **slash** through the cell and highlighted using the **Color** chosen in step 5 above.

B	C	D	E	F	G
Current Project Status Date: 03/28/2025		Existing Dates In Schedule		Updates Go Here	
ID	Task Name	Start	Finish	Updated Start	Updated Finish
53	High Level Design (HLD)				
54	High Level Design (HLD)				
55	Define System Requirements	02/07/25	03/13/25	2/7/2025	3/20/2025
56	Update the Requirements Traceability M	02/28/25	03/13/25	2/28/2025	3/20/2025
57	Develop Logical (Preliminary) Design	03/14/25	04/07/25	3/24/2025	
58	Develop Data Architecture	04/14/25	05/02/25		

End of Exercise

Posting Changes and Updates to a Project

You can copy updates provided by team members directly to their corresponding *Microsoft Project* task using **Post Status**. Use caution when you post status this way as it can have unintended consequences. Here are some SSI recommendations when posting status.

- Even if you use **Post Status** features, SSI recommends meeting with task owners to review updates and assess consequences at every status interval.
- SSI does not recommend posting updated **Start/Finish** dates, **Work**, **Cost**, **% Complete** or **% Work Complete** values to their direct matching field in a project due to the potential for this to cause unexpected schedule variances, invalid status and impacts on downstream tasks. However, SSI Tools provides special options to map updated Start & Finish dates to **Start# or Actual Start** and **Finish# or Actual Finish**. When using these options, SSI Tools will evaluate dates provided and use them as Actual dates if prior to the project's status date, otherwise, they go to the Start# or Finish# reference field.
- Updates to **Start/Finish** dates, **Work**, **Cost**, **% Complete** or **% Work Complete** values can be posted to reference fields in *Microsoft Project*. Updates to Start and Finish, for example can be posted to Start1 and Finish1 (or any other Start/Finish 1-10 reference date field) since these are reference dates only having no impact on directly changed and downstream tasks.
- SSI never recommends posting performance percent updates to **% Complete**, either by means of a Status Worksheet or when working directly with a task owner in *Microsoft Project*. Performance percent updates should always be placed in **Physical % Complete** and you should establish an in-progress task's dates first, then use the **Mark on Track** tool in the **Schedule** group of the **Task** menu in *Microsoft Project* to calculate a duration based **% Complete**.
- Watch this video for a great explanation of [How to CORRECTLY status tasks in Microsoft Project](#) using our recommended approach.



Follow these steps to Post Status from an *Excel* worksheet to tasks in a project:

1. Select the **Workbook** and **Worksheet** containing updates to be posted.
2. Check the option named **Only Post Changed Values** (recommended) if you only want to post cell values that were changed by the user to the active project.

Template Sheet Setup | Make Status Sheets | Save Status Sheets | Track Changes | **Post Status** | Post Resource Usage

Post From Workbook: MyStatusWorkbook.xlsx

Post From Worksheet: G.Arnold

Post to Project: C:\Users\Public\SSI_Tools\ExampleProject.mpp

☒ Only Post Changed Values

3. Map the columns in the worksheet to fields in the active project.

Setup Options for Posting Worksheet Data to Project

Post Worksheet Column:	To Project Field:	Post Worksheet Column:	To Project Field:
Unique ID	None	Column K	None
ID	None	Column L	None
Task Name	Name	Column M	None
Updated Start	Start1	Column N	None
Updated Finish	Finish1	Column O	None

Note – SSI Tools provides special options to map updated Start & Finish dates to **Start# or Actual Start** and **Finish# or Actual Finish**. When using these options, SSI Tools will evaluate dates provided and use them as Actual dates if prior to the project's status date, otherwise, they go to the Start# or Finish# reference field.

Updated Start: Start1 or Actual Start

Updated Finish: Finish1 or Actual Finish

4. Select a **Project Field Used to Log a Change was Posted**.
5. Click **Post Values**.

Project Field Used to Log a Change was Posted >> Text10

Quick Start Guide

Post Values



An X in a cell shows you that a value was posted to its corresponding task in a project.

ID	Task Name	Start	Finish	Updated Start	Updated Finish
55	Define System Requirements	02/08/22	03/14/22	2/8/2022	3/17/2022
56	Update the Requirements Traceability Matrix	03/01/22	03/14/22	3/4/2022	3/17/2022

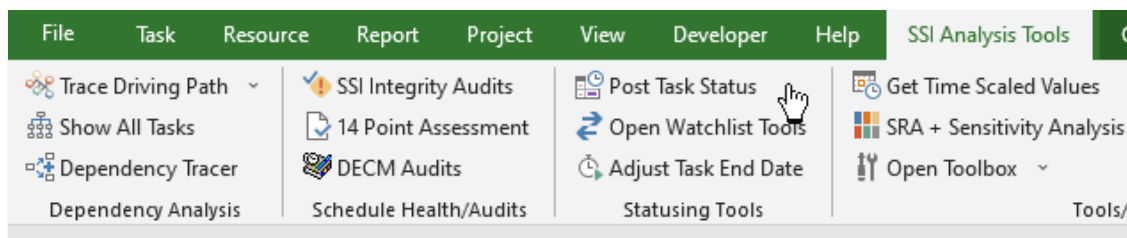
If you selected a project field in the option named **Project Field Used to Log a Change was Posted**, display that field in *Microsoft Project* to see notes regarding the value posted from the status sheet as shown in Text10 below.

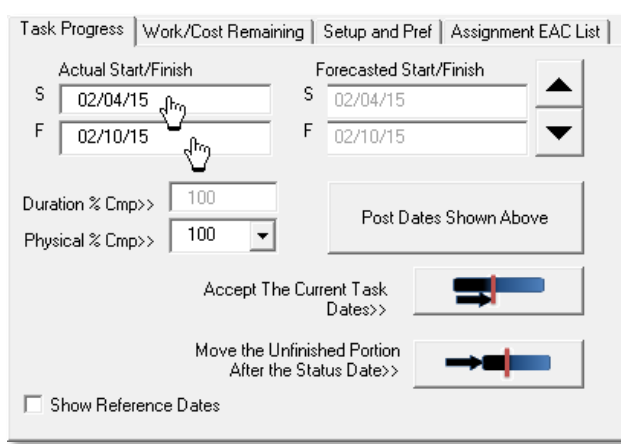
Name	Text10
Define System Requirements	Status Sheet Value Posted 3/10/2023 3:24:44 PM
Update the Requirements Traceability Matrix	Status Sheet Value Posted 3/10/2023 3:24:44 PM

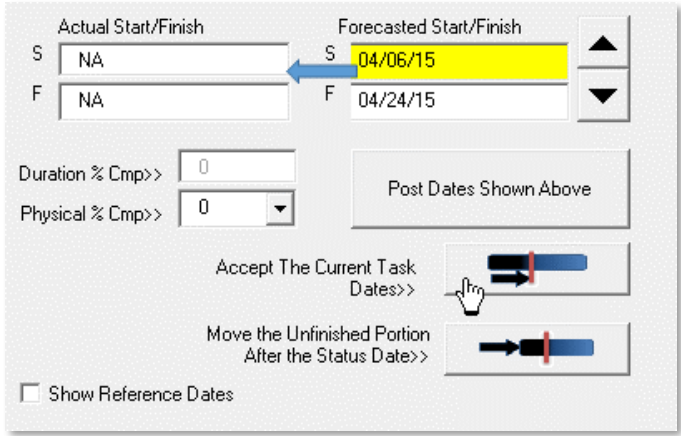
Posting Status in Microsoft Project Using SSi Status Tools

Updating the status of tasks and milestones in a Project Plan is crucial to the effectiveness and accuracy of the schedule. If the status of in-progress or near-term tasks is Incorrect, then the dates shown for far term tasks and key project milestones will also be incorrect. When posting status in a project you need to address task Start & Finish dates, Task Percent Complete and, if tasks have resources assigned to them, Remaining Work & Cost values.

The SSi Tools named **Post Task Status** in the **Statusing Tools** group of the **SSi Analysis Tools** menu is helpful to ensure valid status is posted to the project. The tables below show how to use this tool when tasks have started, finished or have been delayed.



Scenario	Description / Image View
Task is Complete: SSI Tips: Enable Current Period Variance Analysis: - Copy current dates into Start 1 & Finish 1 (or any of the Start/Finish 1-10 date fields). - Track variances using a Number field with a formula such as: Finish1-Finish. - Use the SSi Watchlist tools to capture before & after dates for key milestones.	A task Start and Finish is before the project status date. Enter the Actual Start and Actual Finish in the <i>Microsoft Project</i> Actual Start/Finish date fields. Using SSi Post Status tools: Or use the SSi Post Task Status tool to do the same as shown below. 

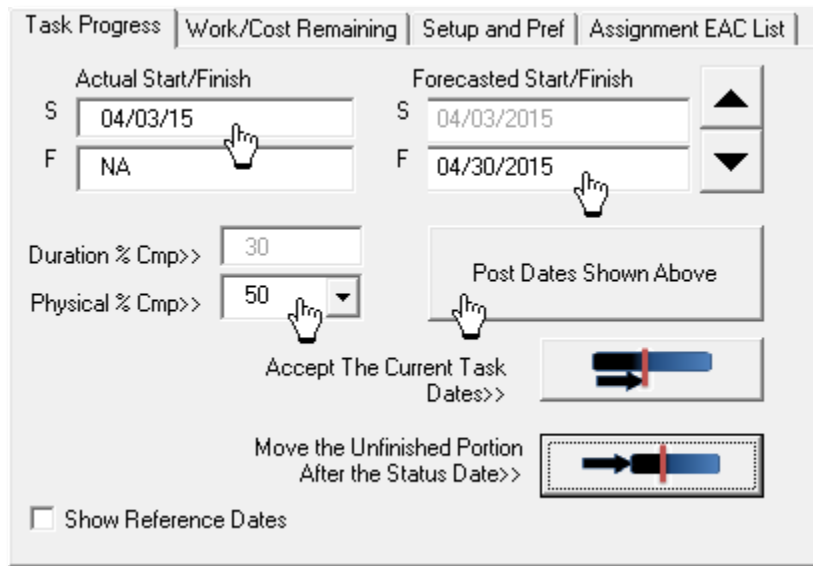
Scenario	Description / Image View
Task is In-progress – current dates ok:	A Task started and will finish after the current project status date. Its current start and finish are accurate, but it does not have an Actual Start date recorded
Use Microsoft Project's Mark on Track from the Schedule group of the Task menu.  Mark on Track 	
Using SSI Post Task Status tools: SSI Post Task Status tool has its own version of “Mark on Track” that transfers Forecast Start/Finish dates to Actual Dates if appropriate according to the project status date. 	

Scenario	Description / Image View
Task is In-progress – current dates not ok:	A Task started (but not on its current start date) and will finish after the current project status date and on a different date than shown in the project

Enter the Actual Start in the *Microsoft Project* Actual Start date field and adjust the Remaining duration until you reach the Forecast Finish date.

Using SSI **Post Task Status** tools:

1. Enter the Actual Start in the SSI Post Status tool in the **Actual S** field (double-click to show the calendar)
2. Enter the Forecast Finish in the SSI Post Status tool in the **Forecast F** field (double-click to show the calendar)
3. Press Post Dates Shown Above
4. If necessary you can enter your own assessment of Percent complete using the **Physical % Cmp** field. Project automatically calculates its own percent complete based on work or duration remaining.

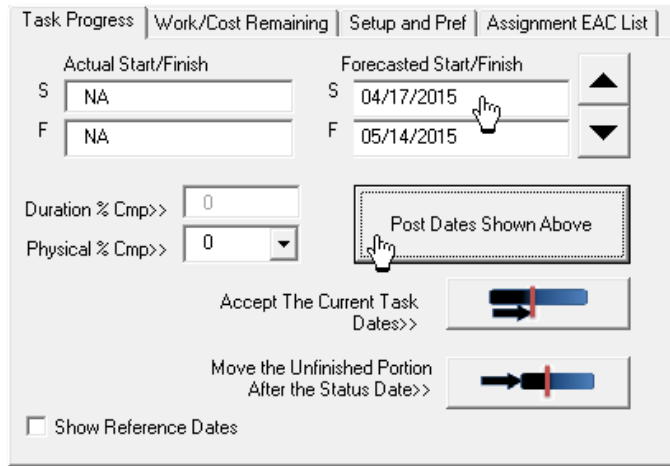


Scenario	Description / Image View
Task did not Start – duration did not change:	A Task has not started, none of its predecessors are the cause if its delay and its current duration is correct

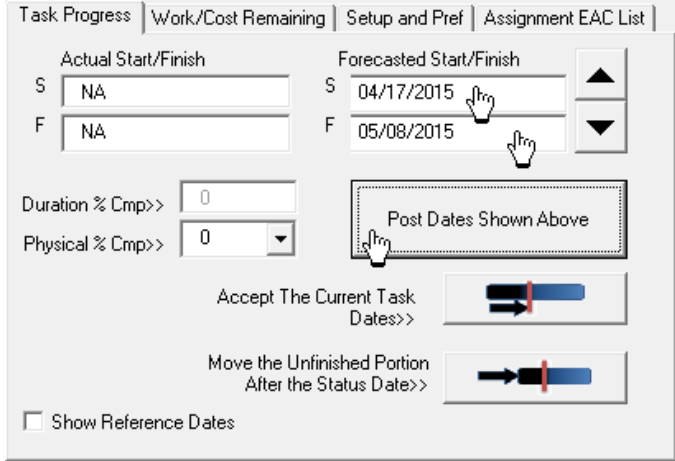
Enter a **Start No Earlier Than** date constraint date that is later than the project status date in *Microsoft Project*. *Microsoft Project* will automatically calculate the new Forecast Finish date based on the task's duration.

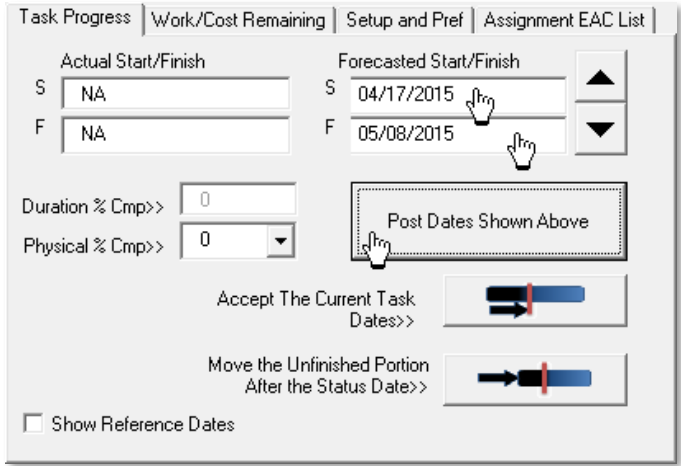
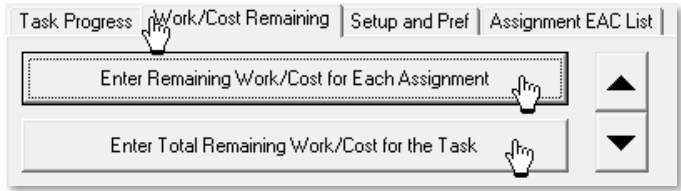
Using SSI Post Status tools:

1. Enter the Forecast Start in the SSI Post Status tool in the **Forecast S** field (double-click to show the calendar).
2. Press **Post Dates Shown Above** – SSI Tools will automatically calculate the new Forecast finish date based on the task's duration.





Scenario	Description / Image View
Task did not Start – duration has changed:	A Task has not started and none of its predecessors are the cause if its delay Enter a Start No Earlier Than date constraint date that is later than the project status date in <i>Microsoft Project</i>. Change the task's duration. Using SSI Post Status tools: 1. Enter the Actual Start in the SSI Post Status tool in the Actual S field (double-click to show the calendar) 2. Enter the Forecast Finish in the SSI Post Status tool in the Forecast F field (double-click to show the calendar) 3. Press Post Dates Shown Above – SSI Tools will automatically calculate the new Duration based on the task's Forecast Start & Finish dates. 

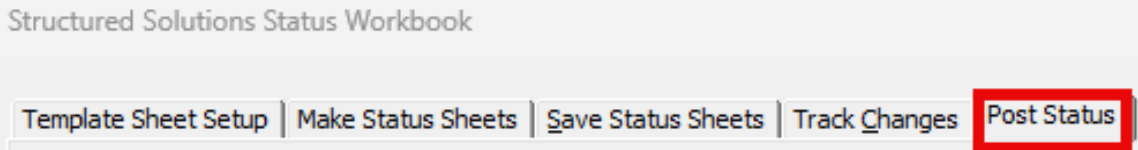
Scenario	Description / Image View
Task is In-progress with Remaining Work/Cost:	An in-progress tasks has remaining work and cost values to be updated as required
Step 1. – Establish correct Start and Finish dates - Enter the Actual Start in the <i>Microsoft Project</i> Actual Start date field - Adjust the Remaining duration until you reach the Forecast Finish date Step 2. – Evaluate & Update Remaining Work/Cost - Display Remaining Work/Cost (using a split window or some other project view) - Change the task type to “Fixed Duration” (this ensures the values entered in step 1 do not change). - Update the remaining work or cost values for each resource assigned to the task if using an assignment view or for the task in total if using a task view Using SSI Post Status tools: - Enter the Actual Start in the SSI Post Status tool in the Actual S field (double-click to show the calendar) - Enter the Forecast Finish in the SSI Post Status tool in the Forecast F field (double-click to show the calendar) - Press Post Dates Shown Above	
	
Click the tab named Work/Cost Remaining and enter Remaining Work/Cost for Each Assignment or Enter Total Remaining Work/Cost for the task	
	

Class Exercise – Posting Changes to MS Project:

Use the Excel workbook from the previous exercise*

*If needed, download the Excel template for this exercise at: [Status Workbook Example](#)

1. Start with the workbook you have tracked changes in from the previous exercise.
2. Click **Status Turnaround Workbook Tools** on the SSI Tools for Excel menu to open the options window.
3. Select the tab named **Post Status:**

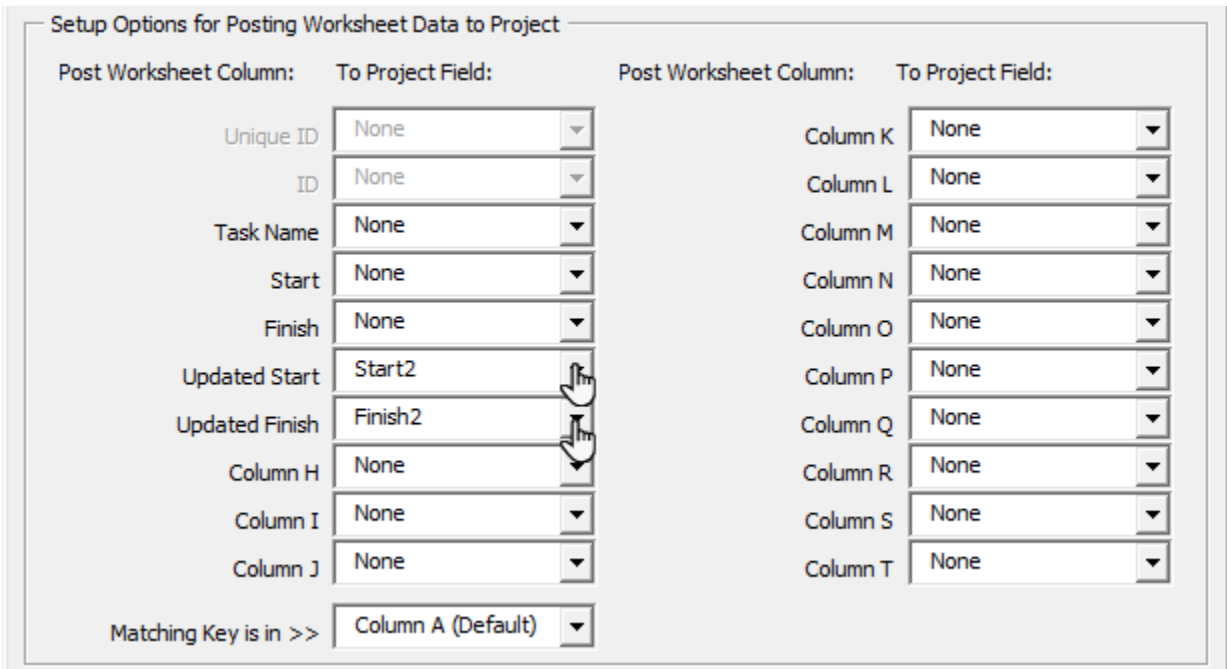


4. In the top section, choose the worksheet you will be posting data FROM and ensure you have the correct MS Project file selected to post the data TO. You can also specify to post only the changed values from the status worksheet.



The screenshot shows the 'Post Status' options window. It has two main sections. The top section is labeled 'Post From Workbook:' and 'Post From Worksheet:'. Under 'Post From Workbook:', there is a dropdown menu showing 'Book2'. Under 'Post From Worksheet:', there is a dropdown menu showing 'Design'. The bottom section is labeled 'Post to Project:' and has a text box showing the file path 'C:\Users\Public\SSi_Tools\ExampleProject.mpp'. To the right of this text box is a checkbox labeled 'Only Post Changed Values' which is checked. Hand icons indicate where to click on the dropdown menus and the checkbox.

5. In the middle section, map the columns where updates have been made in the status worksheet to the field in MS Project that you want to post the data into:



The screenshot shows the 'Setup Options for Posting Worksheet Data to Project' window. It has two columns of dropdown menus. The left column is labeled 'Post Worksheet Column:' and the right column is labeled 'To Project Field:'. The left column has dropdowns for 'Unique ID', 'ID', 'Task Name', 'Start', 'Finish', 'Updated Start', 'Updated Finish', 'Column H', 'Column I', and 'Column J'. The right column has dropdowns for 'Column K', 'Column L', 'Column M', 'Column N', 'Column O', 'Column P', 'Column Q', 'Column R', 'Column S', and 'Column T'. The 'Updated Start' dropdown is set to 'Start2' and the 'Updated Finish' dropdown is set to 'Finish2'. Hand icons indicate where to click on the dropdown menus. At the bottom, there is a label 'Matching Key is in >>' followed by a dropdown menu set to 'Column A (Default)'.

6. Select the field you want to have the **Posted Changes Logged** in and click the button named **Post Values**:

Project Field Used to Log a Change was Posted >>

7. Observe the changes that were tracked in the previous exercise now have a "X" through the cell. That is the indication that the data has been successfully posted to MS Project.

B	C	D	E	F	G
Current Project Status Date: 03/28/2025		Existing Dates In Schedule		Updates Go Here	
ID	Task Name	Start	Finish	Updated Start	Updated Finish
53	High Level Design (HLD)				
54	High Level Design (HLD)				
55	Define System Requirements	02/07/25	03/13/25	2/7/2025	3/20/2025
56	Update the Requirements Traceability M	02/28/25	03/13/25	2/28/2025	3/20/2025
57	Develop Logical (Preliminary) Design	03/14/25	04/07/25	3/24/2025	
58	Develop Data Architecture	04/14/25	05/02/25		

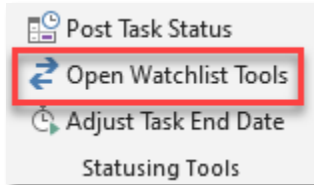
End of Exercise

Variance Analysis Tools and Techniques

As performance is received from task owners and recorded in the schedule, you will be able to assess and quantify the impact of added or deleted tasks and changes to schedule dates, durations and dependencies. This assessment, or Variance Analysis, can be done from the perspective of original baseline (Cumulative Variance Analysis) or for the current period only (Current Period Variance Analysis).

The following *Microsoft Project* and SSI Analysis Tools and methods are useful when performing Variance Analysis and developing Corrective Action plans.

The SSI Watchlist Tool



Overview

The **SSi Watchlist Tool** enables *Microsoft Project* users to keep track of the current finish dates of important items (as determined by the user) in comparison to a saved date field. The SSI Watchlist gives users real time feedback if changes made in the project file are impacting any of the watched items.

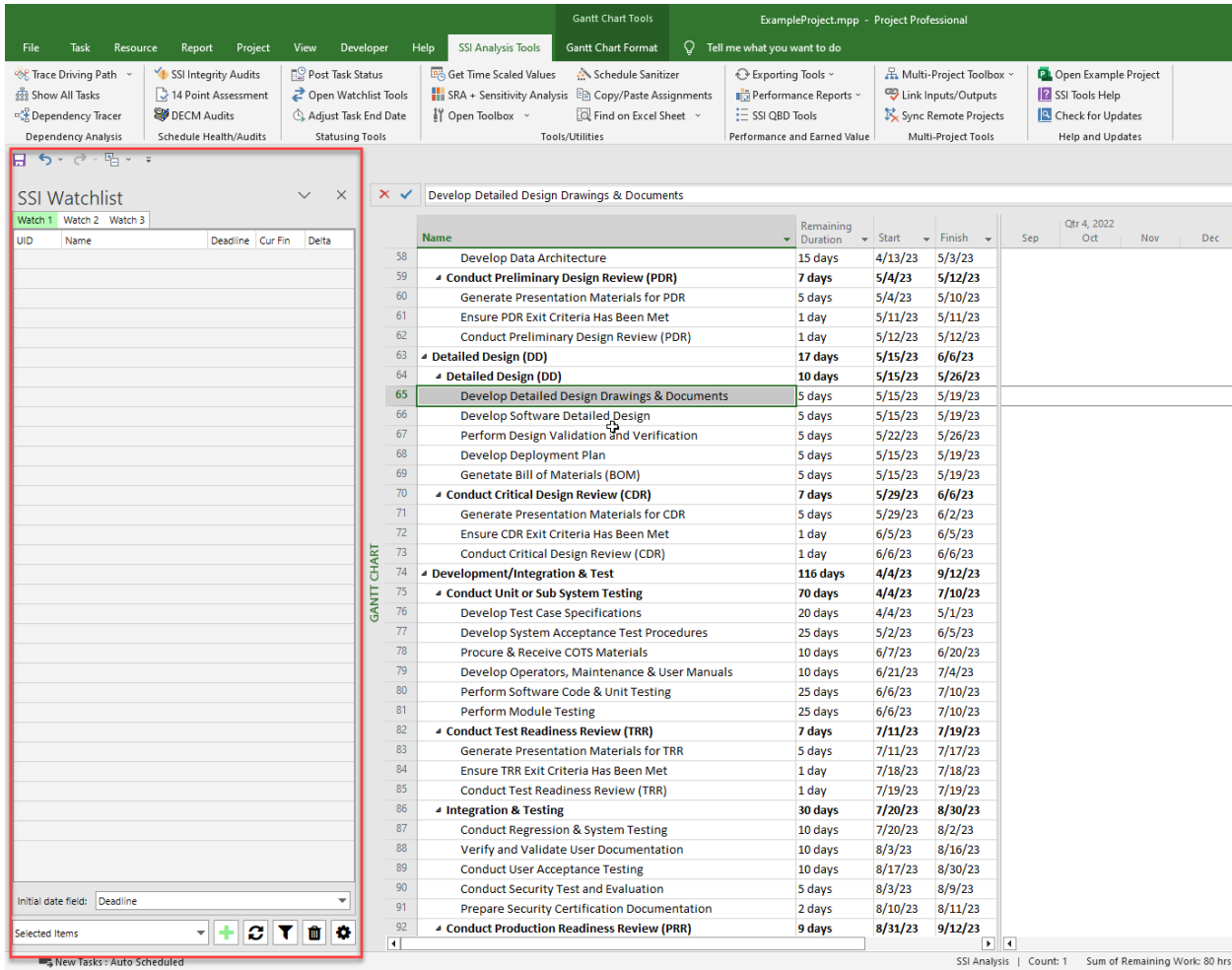
SSi Watchlist				
Watch 1 Watch 2 Watch 3				
UID	Name	Deadline	Cur Fin	Delta
4	Solution Engineering Review (SER)	3/8/23	2/27/23	7 days
5	System Definition Review (SDR)	4/26/23	4/12/23	10 days
6	Preliminary Design Review (PDR)	5/24/23	6/16/23	-17 days
7	Critical Design Review (CDR)	6/14/23	7/11/23	-19 days
9	Test Readiness Review (TRR)	NA	8/17/23	NA
10	Production Readiness Review (PRR)	9/27/23	10/11/23	-10 days
11	Operational Readiness Review (ORR)	11/8/23	11/27/23	-13 days
12	Receive Authority to Operate (ATO)	11/22/23	12/11/23	-13 days
Initial date field: Deadline				
Selected Items + ↺ ⌵ 🗑 ⚙				

The **SSi Watchlist Tool** allows users to keep track of up to three watchlists at a time for any Project.

Getting Started

To open the SSI Watchlist Tool, click the *Open Watchlist Tool* in the *SSi Analysis Tools* ribbon in *Microsoft Project*.

The *SSi Watchlist Tool* is displayed on a *Task Pane*. A task pane is a user interface that can be docked to any side of the *Microsoft Project* window. By default, the *SSi Watchlist Tool Task Pane* is docked to the left side of the *Microsoft Project* window.



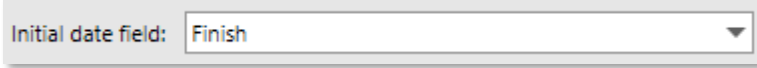
The screenshot shows the Microsoft Project interface with the SSI Analysis Tools ribbon active. The SSI Watchlist Tool is docked on the left, displaying a table with columns: UID, Name, Deadline, Cur Fin, and Delta. The main window shows a Gantt chart for the task 'Develop Detailed Design Drawings & Documents' (Task ID 65). The task is expanded, showing a list of sub-tasks with their durations, start, and finish dates.

Name	Remaining Duration	Start	Finish
Develop Data Architecture	15 days	4/13/23	5/3/23
Conduct Preliminary Design Review (PDR)	7 days	5/4/23	5/12/23
Generate Presentation Materials for PDR	5 days	5/4/23	5/10/23
Ensure PDR Exit Criteria Has Been Met	1 day	5/11/23	5/11/23
Conduct Preliminary Design Review (PDR)	1 day	5/12/23	5/12/23
Detailed Design (DD)	17 days	5/15/23	6/6/23
Detailed Design (DD)	10 days	5/15/23	5/26/23
Develop Detailed Design Drawings & Documents	5 days	5/15/23	5/19/23
Develop Software Detailed Design	5 days	5/15/23	5/19/23
Perform Design Validation and Verification	5 days	5/22/23	5/26/23
Develop Deployment Plan	5 days	5/15/23	5/19/23
Generate Bill of Materials (BOM)	5 days	5/15/23	5/19/23
Conduct Critical Design Review (CDR)	7 days	5/29/23	6/6/23
Generate Presentation Materials for CDR	5 days	5/29/23	6/2/23
Ensure CDR Exit Criteria Has Been Met	1 day	6/5/23	6/5/23
Conduct Critical Design Review (CDR)	1 day	6/6/23	6/6/23
Development/Integration & Test	116 days	4/4/23	9/12/23
Conduct Unit or Sub System Testing	70 days	4/4/23	7/10/23
Develop Test Case Specifications	20 days	4/4/23	5/1/23
Develop System Acceptance Test Procedures	25 days	5/2/23	6/5/23
Procure & Receive COTS Materials	10 days	6/7/23	6/20/23
Develop Operators, Maintenance & User Manuals	10 days	6/21/23	7/4/23
Perform Software Code & Unit Testing	25 days	6/6/23	7/10/23
Perform Module Testing	25 days	6/6/23	7/10/23
Conduct Test Readiness Review (TRR)	7 days	7/11/23	7/19/23
Generate Presentation Materials for TRR	5 days	7/11/23	7/17/23
Ensure TRR Exit Criteria Has Been Met	1 day	7/18/23	7/18/23
Conduct Test Readiness Review (TRR)	1 day	7/19/23	7/19/23
Integration & Testing	30 days	7/20/23	8/30/23
Conduct Regression & System Testing	10 days	7/20/23	8/2/23
Verify and Validate User Documentation	10 days	8/3/23	8/16/23
Conduct User Acceptance Testing	10 days	8/17/23	8/30/23
Conduct Security Test and Evaluation	5 days	8/3/23	8/9/23
Prepare Security Certification Documentation	2 days	8/10/23	8/11/23
Conduct Production Readiness Review (PRR)	9 days	8/31/23	9/12/23

Adding Tasks to the Watchlist

Setting the Initial Date Field

Before adding tasks into the currently watchlist tab, it's important to take notice of the field selected as the *Initial Date Field*:



The *Initial Date Field* option controls the original date that will be watched when items are added to the watchlist. Once an item has been added to the watchlist, the initial date value will remain static unless the initial date field option is changed.

Using the Add Button

Tasks can be added into the current watchlist by clicking the  button. This button will add tasks that correspond to the selection in the drop-down menu to the left of the button.



For example, if *Selected Items* is currently selected from the menu when the  button is clicked, only the tasks currently selected in the Gantt table will be added into the Watchlist. If *Zero Duration Items* is selected, only the items in the schedule with a duration equal to zero will be added into the Watchlist.

The Watchlist Table

UID	Name	Deadline	Cur Fin	Delta
4	Solution Engineering Review (SER)	3/8/23	2/27/23	7 days
5	System Definition Review (SDR)	4/26/23	4/12/23	10 days
6	Preliminary Design Review (PDR)	5/24/23	6/16/23	-17 days
7	Critical Design Review (CDR)	6/14/23	7/11/23	-19 days
9	Test Readiness Review (TRR)	NA	8/17/23	NA
10	Production Readiness Review (PRR)	9/27/23	10/11/23	-10 days
11	Operational Readiness Review (ORR)	11/8/23	11/27/23	-13 days
12	Receive Authority to Operate (ATO)	11/22/23	12/11/23	-13 days

The following data will be displayed for tasks in the Watchlist:

- **UID** – The unique ID of the task
- **Name** – The name of the task
- **Initial Date Field** – This column will show the value of the initial date that was watched when the task was added into the watch list. The date field shown in the column title will be determined by the initial date field option selected by the user. In the image above, the field is set to *Deadline*.



- **Current Finish** – This column will show the current finish date of the task. Unlike the Initial Date Field Column, the date value in this column will update in real time whenever a change is made to the project.
- **Delta** – This column will show the delta (in days) between the Initial Date Field value and the Current Finish value. A negative number means the current finish date is later than the initial date. A positive number means the current finish date is earlier than the initial date.

Double clicking any item in the watchlist will cause Microsoft Project to select that task in the Gantt Table. Pressing the delete key on any item in the watchlist will remove it from the list.

Additional Features



Users have access to the following other buttons in the SSI Watchlist Tool:



will force the SSI Watchlist to recalculate the current finish date values and the delta values.



will filter the project file for the items currently selected in the watchlist.

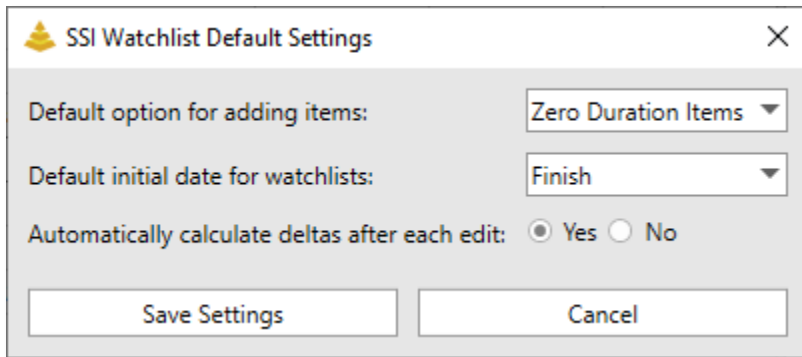


will clear the current watchlist of all tasks being watched.



will open the watchlist default settings form.

SSI Watchlist Tool Default Settings



Users can adjust the following default settings from the SSI Watchlist Default Settings dialog:

- **Default option for adding items** – this option controls what selection will be made by default for adding items.
- **Default initial date field** – This option controls which date field will be selected by default as the initial date field to watch.
- **Automatically calculate deltas after each edit** –this option will control if the current finish dates and delta values will be calculated in real time after each edit. If the option is set to *No*

these values will only be updated when the  button is clicked.

Click **Save Settings** to save the selections made. Click **Cancel** to exit the SSI Watchlist Default Settings dialog without saving any selections made.

Moving the SSI Watchlist Task Pane

The SSI Watchlist Task Pane can be undocked and moved around and transformed into a free floating form or redocked to a different side of the *Microsoft Project* window. The easiest way to move the SSI Watchlist Task Pane is to position the mouse cursor to the top of the Task Pane until the cursor looks like this:

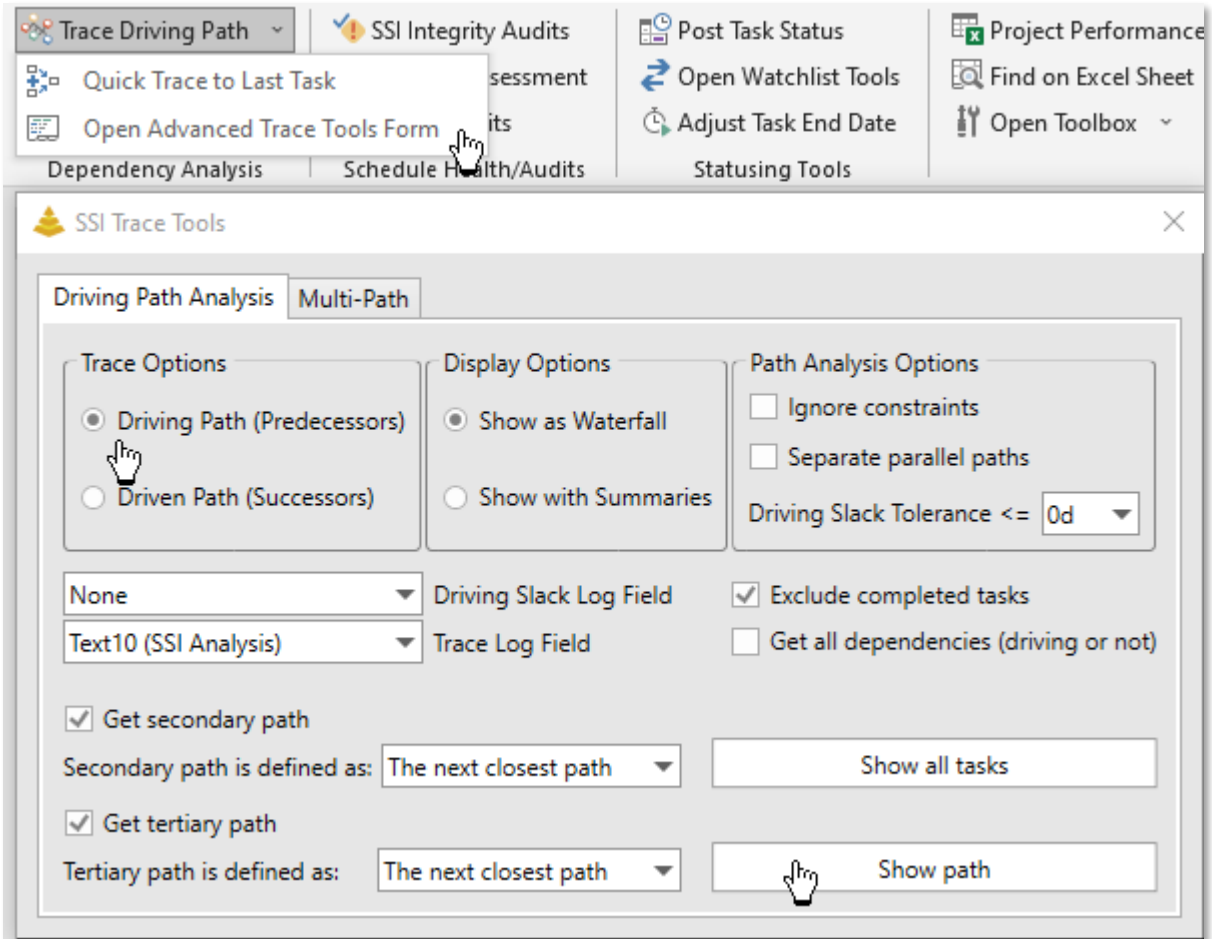


Then simply hold down the left click button on the mouse and drag the cursor in any direction.

SSi Trace Tools & Variance Analysis Techniques

Select an item in the Watch List having a variance and trace its Driving Path

1. Select the first row number for an item in the watch list that has a schedule variance
2. Select Open Advanced Trace Tools Form from the Dependency Analysis group of the SSi Analysis Tool menu in *Microsoft Project*
3. Select Driving Path from Trace Options and click Show path



Trace Driving Path ▾

Quick Trace to Last Task

Open Advanced Trace Tools Form

SSi Integrity Audits

Post Task Status

Open Watchlist Tools

Adjust Task End Date

Project Performance

Find on Excel Sheet

Open Toolbox ▾

Dependency Analysis | Schedule Health/Audits | Statusing Tools

SSi Trace Tools

Driving Path Analysis | Multi-Path

Trace Options

☒ Driving Path (Predecessors)

☐ Driven Path (Successors)

Display Options

☒ Show as Waterfall

☐ Show with Summaries

Path Analysis Options

☐ Ignore constraints

☐ Separate parallel paths

Driving Slack Tolerance <= 0d ▾

None ▾

Text10 (SSi Analysis) ▾

Driving Slack Log Field

Trace Log Field

☒ Exclude completed tasks

☐ Get all dependencies (driving or not)

☒ Get secondary path

Secondary path is defined as: The next closest path ▾

☒ Get tertiary path

Tertiary path is defined as: The next closest path ▾

Show all tasks

Show path

Graphical Indicators of Variances in Microsoft Project

The example uses a number field and graphical indicators to show negative variances in red.

Current SV is a calculated number field (with a custom field name) showing the difference between the current finish and a snapshot of a prior finish date. It uses a formula such as "Finish1-Finish" and graphical indicators to show negative variances in red.

	Current SV	Task Name	Duration	Start	Finish	Last Report Finish
34		Conduct User Surveys	5 days	2/27/15	3/5/15	3/5/15
35		Develop System Software Requirements	5 days	3/6/15	3/12/15	3/12/15
37	●	Develop Requirements Traceability Matrix (RTM)	20 days	3/13/15	4/9/15	4/2/15
50	●	Finalize Presentation Materials for SDR	5 days	4/10/15	4/15/15	4/9/15
51	●	Ensure SDR Exit Criteria Has Been Met	1 day	4/17/15	4/17/15	4/10/15
52	●	Conduct SDR	1 day	4/20/15	4/20/15	4/13/15
5	●	System Definition Review (SDR)	0 days	4/20/15	4/20/15	4/13/15

Note – the exercise named **Prepare Schedule for Periodic Reporting** shows how you can make this type of a variance indicator.

This example uses a custom bar style to show finish variances in the Gantt chart

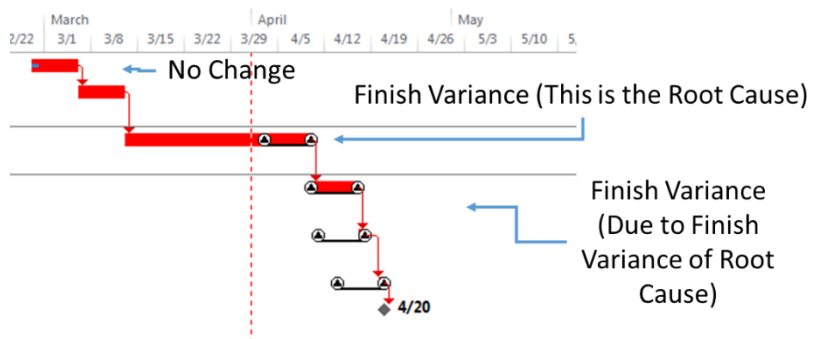
Identification of the Root cause:

- Often a completed or in progress task
- Preceding driving tasks have no variances
- Root Cause, by definition, causes other tasks to have schedule variances

Add a custom bar style for variance analysis

Name	Appearance	Show For ... Tasks	Row	From	To
Task		Normal,Active,Not Critical,Not Manually Scheduled	1	Task Start	Task Finish
Split		Normal,Split,Active,Not Critical,Not Manually Scheduled	1	Task Start	Task Finish
Milestone		Milestone,Active,Not Group By Summary	1	Task Start	Task Finish
Summary		Summary	1	Task Start	Task Finish
Project Summary		Project Summary	1	Task Start	Task Finish
*Group By Summary		Group By Summary	1	Task Start	Task Finish
Critical		Normal,Critical,Active,Not Placeholder	1	Task Start	Task Finish
Critical Split		Normal,Critical,Split,Active,Not Placeholder	1	Task Start	Task Finish
Progress		Normal,Not Manually Scheduled	1	Actual Start	Complete Through
Prior Finish		Normal	1	Last Report Finish	Task Finish

Root Cause of Current Period Finish Variance is visible in the Gantt Chart



Developing Corrective Action Plans

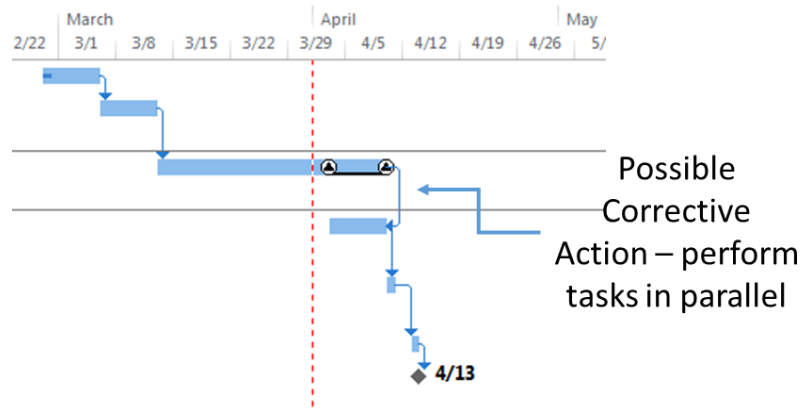
Use SSI **Trace Driving Path Tools** to find opportunities along driving paths to mitigate the impact of schedule delays. Use Watch List tools to check if corrective action meets objective.

Driving Path analysis using SSI **Trace Driving Path Tools** shows opportunities to recover schedule delays by accelerating or overlapping task in the driving path

Opportunities to recover variances usually require schedule changes to task that follow the Root Cause. Possible solutions include:

- Change task dependencies to allow tasks to overlap
- Change task dependencies to remove a task from the driving work stream (move it to another project phase or assign it to another performing organization if possible)
- Shorten the remaining duration of driving path tasks
- Consider if tasks can be eliminated altogether while still fulfilling the Statement of Work obligations

Trace tools show opportunities to recover schedule variances



Watch List tools show if variance mitigation efforts meet project objectives

UID	Name	Deadline	Cur Fin	Delta
4	Solution Engineering Review (SER)	3/8/23	2/27/23	7 days
5	System Definition Review (SDR)	4/26/23	4/12/23	10 days
6	Preliminary Design Review (PDR)	5/24/23	6/16/23	-17 days
7	Critical Design Review (CDR)	6/14/23	7/11/23	-19 days
9	Test Readiness Review (TRR)	NA	8/17/23	NA
10	Production Readiness Review (PRR)	9/27/23	10/11/23	-10 days
11	Operational Readiness Review (ORR)	11/8/23	11/27/23	-13 days
12	Receive Authority to Operate (ATO)	11/22/23	12/11/23	-13 days

Initial date field: Deadline

Selected Items