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ProjectExceller 2 Users Guide

Excel based EVM Project Management Tool for Professional

Version 2.104

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Chapter 1. Basics of ProjectExceller

1.1. What ProjectExceller is

It is a project management tool that meets a wide range of demands, from novice project management to professional aiming project management conforming to PMBOK. Full-scale project management can be realized with simple operation.
For example, simply entering the planned date and the actual date allows anyone to easily perform EVM (Earned Value Management) analysis, which is a method for grasping the progress of the project objectively.
Also, as its name suggests, all the functions were realized on Excel. We provide full-fledged project management functions by leaving Excel's excellent operability and functions as it is. Especially, in the progress management, simple and powerful functions are implemented.

1.2. System Requirements

- **Operating System**

Microsoft Windows 7, 8, 8.1, 10, 11
*1, *2

- **Prerequisite applications**

Excel included in Microsoft Office 2007, 2010, 2013, 2016, 2019,2021 or Microsoft 365
*1, *2

- **Hardware**

The above application requires a computer that can operate normally.
Note: The processing speed varies depending on the CPU of the computer, the amount of memory installed, and other environments.

Recommended Configuration:
CPU: Intel Core i3 or higher
Memory: 4 G byte or more
Display resolution: XGA 1024 x 768 or more
Hard disk space required for installation: 200 MB or more

*1: Japanese or English version.
*2: products for which official Microsoft support has ended may not be supported.

1.3. Installation

[1] Download the latest version from the following site to the PC.
https://projectexceller.com/download/
[2] Run the installation program and follow the instructions on the screen to install.

Silent Installation

Silent installation is a function that performs installation without displaying the screen. This allows you to automate the installation process. To perform silent installation, add the "***-silent***" argument to the installation program and execute it.

Example: PX02JPNF-2-055-20220125.exe ***-silent***

Note: No message will be displayed when the installation is completed.

1.4. Uninstallation

ProjectExceller can be uninstalled in either of the following two ways.

1. Select "ProjectExceller" from the Windows Start menu, then "Uninstall" and follow the on-screen instructions.
2. Standard operation for uninstalling applications in Windows. From the Windows Start menu, select Settings, then Apps, and follow the on-screen instructions.

Note: If the application has been activated on your PC, please deactivate the license before uninstalling it.

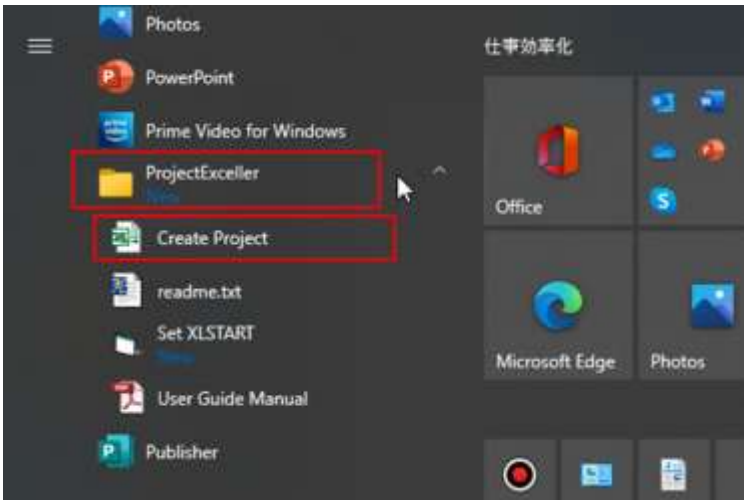
1.5. Invoke ProjectExceller

Create New Project

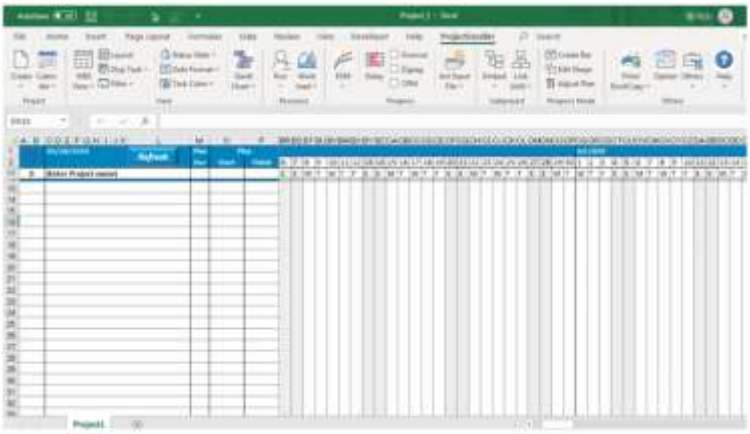
Click on the Create Project icon on the desktop,

or Click the Start button and click [ProjectExceller], [Create Project] .

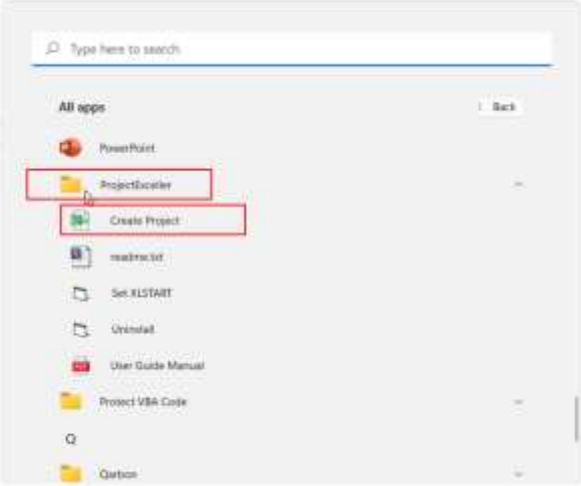
Windows 10



Open a new project.



Windows 11



Open Existing Project

Open the Excel workbook by clicking on the project file as you open it.

Note: The project file is a regular Excel workbook.

- Because no macro is included, it is not necessary to lower the standard security level of Excel.
- You can view it as an Excel workbook even in an environment where ProjectExceller is not installed.
- If you store it in Microsoft's OneDrive etc, you can browse it with a web browser.

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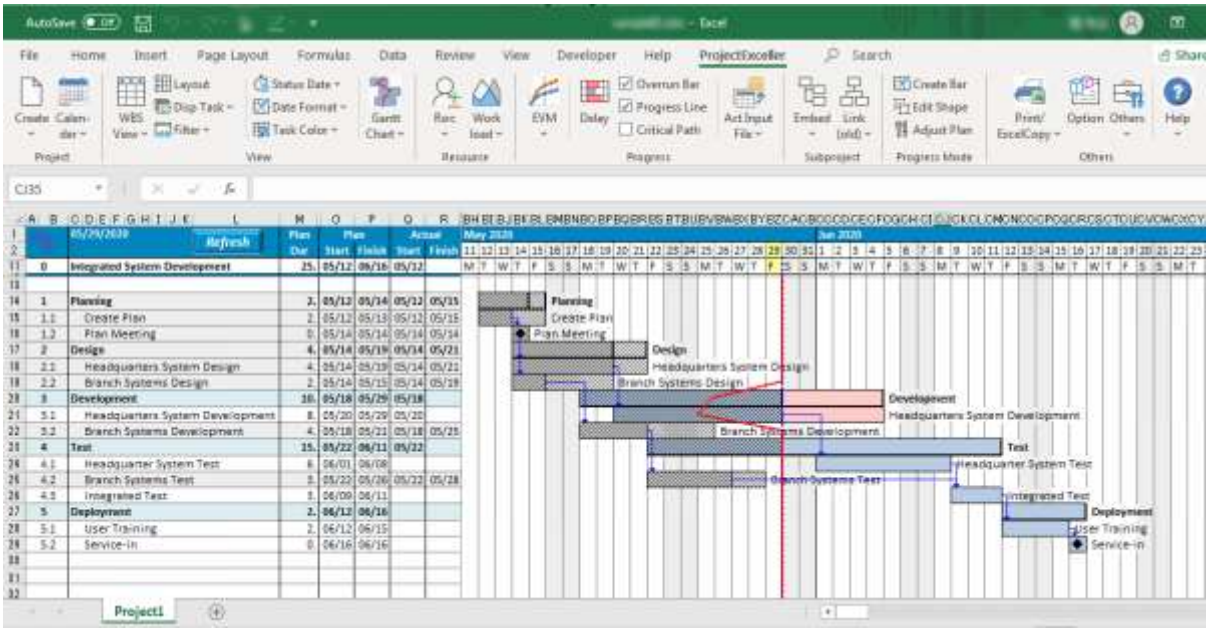
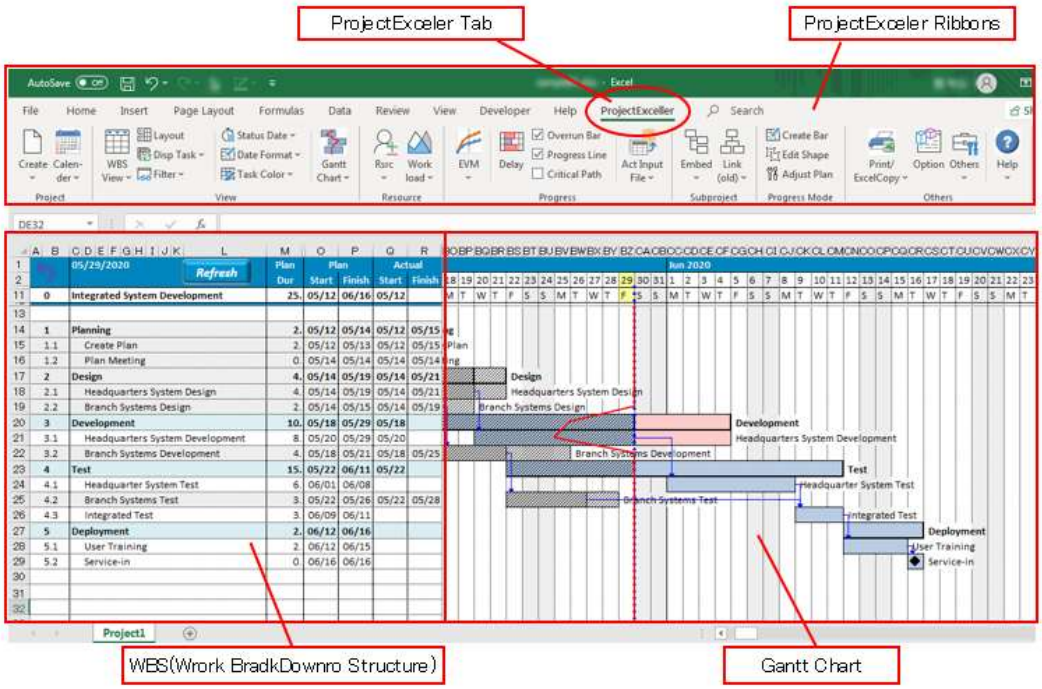


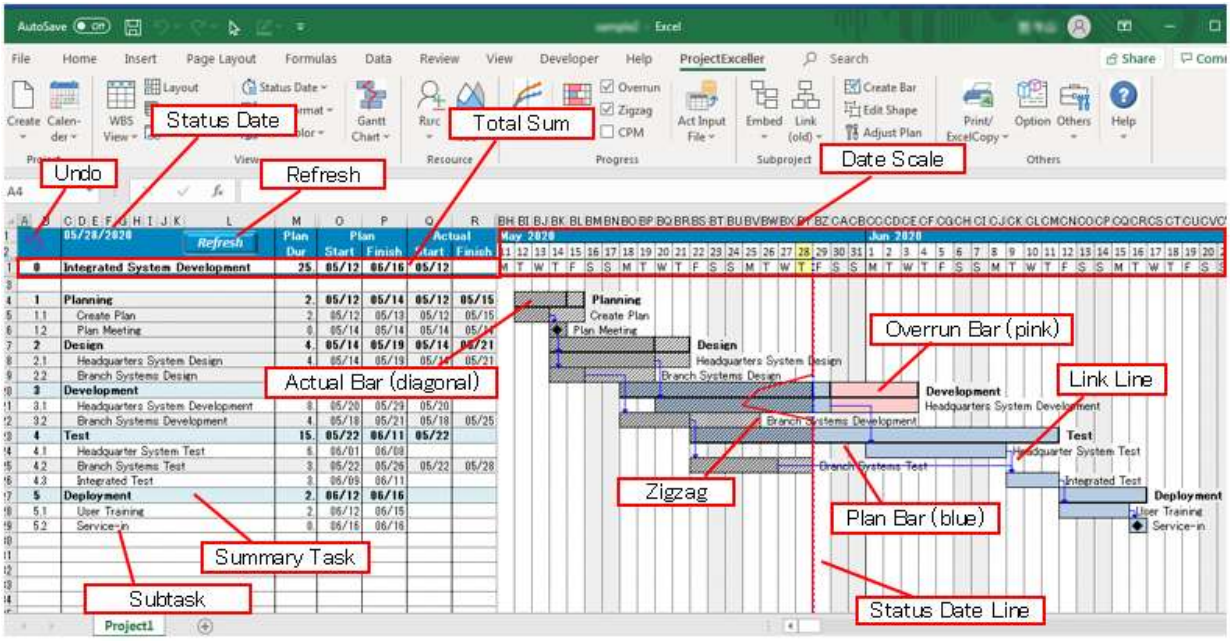
1.6. Screen Layout

When you select a project sheet, the **[ProjectExceller]** tag is displayed on the ribbon. A **WBS(Work BreadDown Structure)** is displayed on the left side of the worksheet and a **Gantt chart** on the right side.
On the ProjectExceller ribbon, the main setup and function execution button of ProjectExceller are arranged.



The main parts on the project sheet are shown in the following figure.

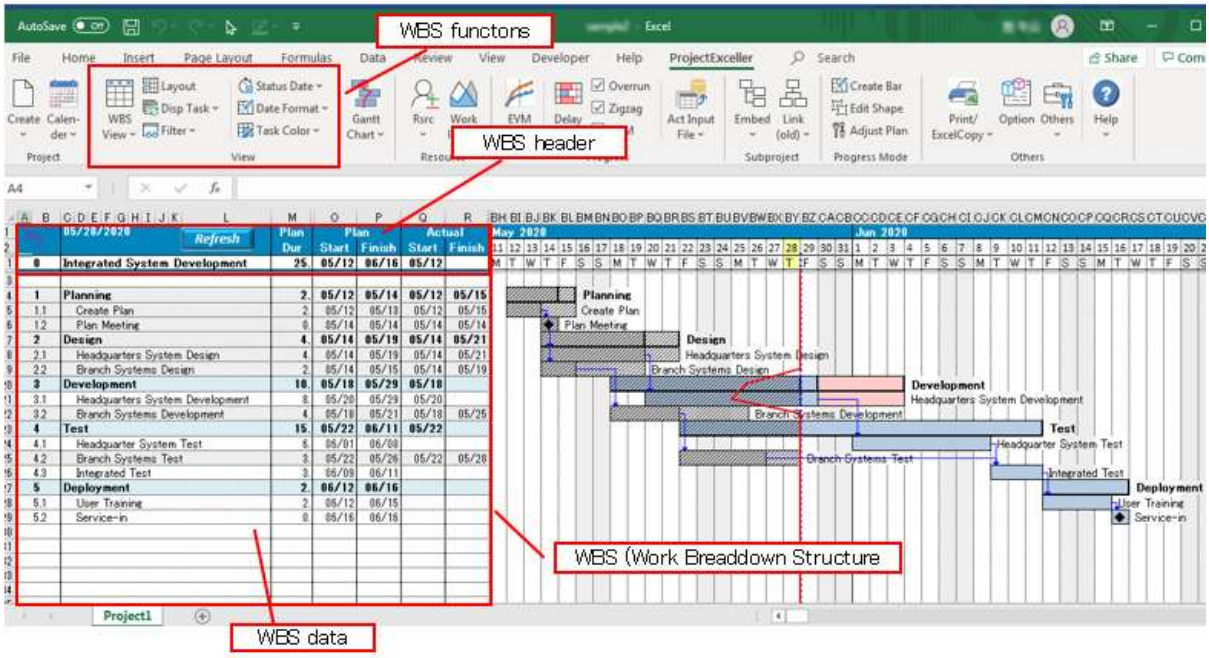
WBS（Work BreakDown Structure）



For detailed functions of WBS, see "Chapter 3 Operating WBS".

WBS refers to Work Breakdown Structure. Register work items necessary for carrying out the project in WBS. The work items registered are called **"tasks"**. Tasks can be displayed in up to 10 hierarchical structures.

- The left side of the worksheet part is WBS. It consists of two parts: the top **WBS header** and the bottom **WBS data**.
- The task management items are displayed in the WBS header. In addition to the basic information such as the task name and plan date, there are various management items such as actual date, resource, achievement rate. In the WBS header, the status of each management item of the entire project is displayed as a numerical value.
- The settings and functions related to WBS are operated with the button on the **WBS related ribbon** or the right-click menu on the WBS.

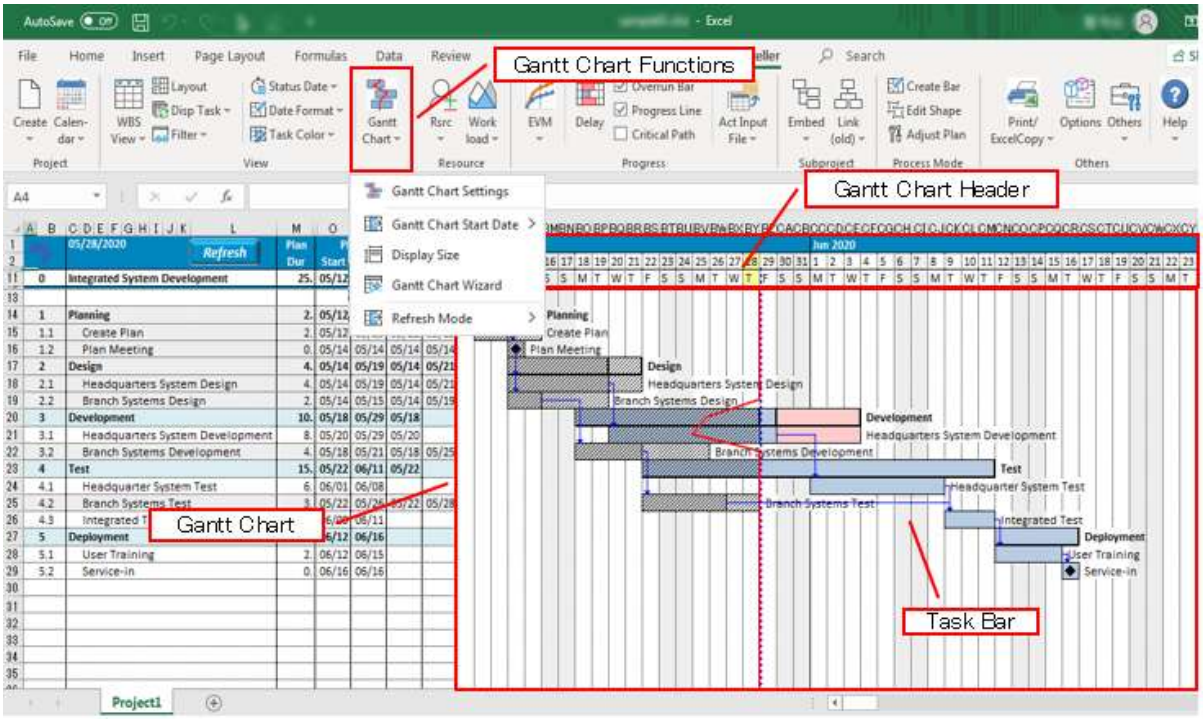


Gantt chart

For details on the Gantt Chart, refer to "Chapter 6: Gantt Chart Operation".

The Gantt chart displays tasks registered in the WBS as task bars. ProjectExceller's Gantt chart provides a variety of functions that are useful not only for displaying the plan bar and the performance bar but also for managing the progress of the project.

- The Gantt chart on the right side of the worksheet consists of two parts, the Gantt chart header at the top and the task bar at the bottom.
- The Gantt Chart header is a timescale that can be switched in units of days, weeks, months, quarters, and years.
- The task schedule registered in the WBS is displayed as the task bar in the task bar portion.
- You can make various settings for the Gantt chart from the "Gantt Chart" button on the ribbon. By selecting options such as Progress line, prediction bar, critical path etc., task progress status is visualized more easily on Gantt chart.

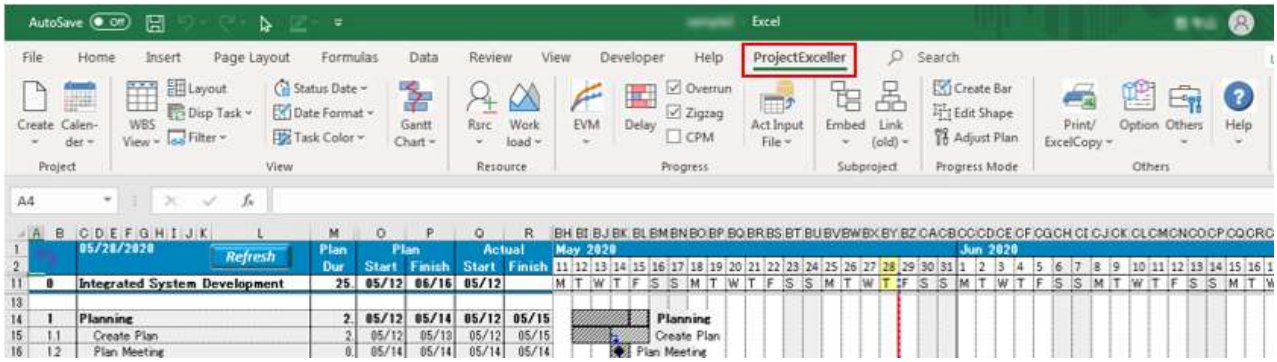


Chapter 2. Ribbon

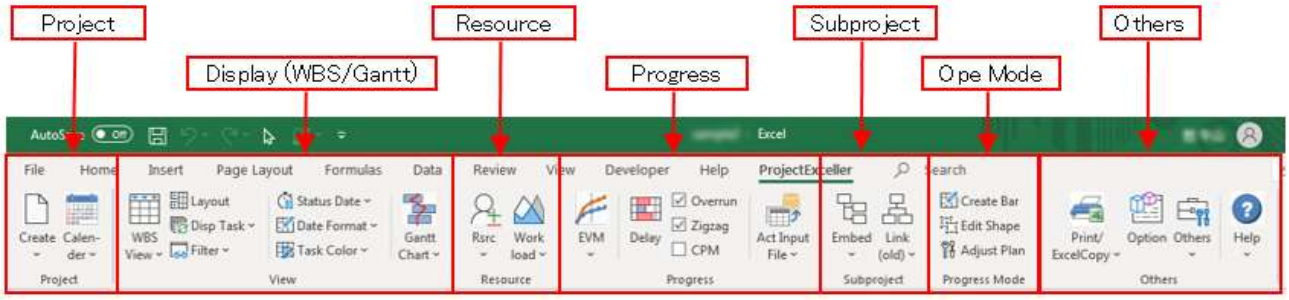
The main function of ProjectExceller can be executed from Excel ribbon.

2.1. Ribbon Layout

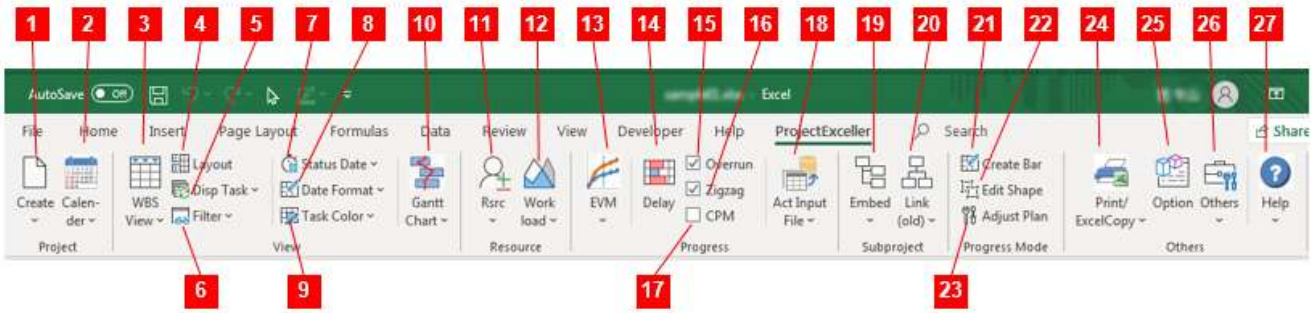
The ProjectExceller's ribbon is placed in the [ProectExceller] ribbon tab. This ribbon tab is displayed when a project sheet is selected, otherwise it is not displayed.
Note: The [ProjectExceller] tab is not displayed immediately after switching to the project sheet. Click one of the cells on the sheet or select the "ProjectExceller" tab from the ribbon.



The buttons of ProjetExceller are arranged by function.

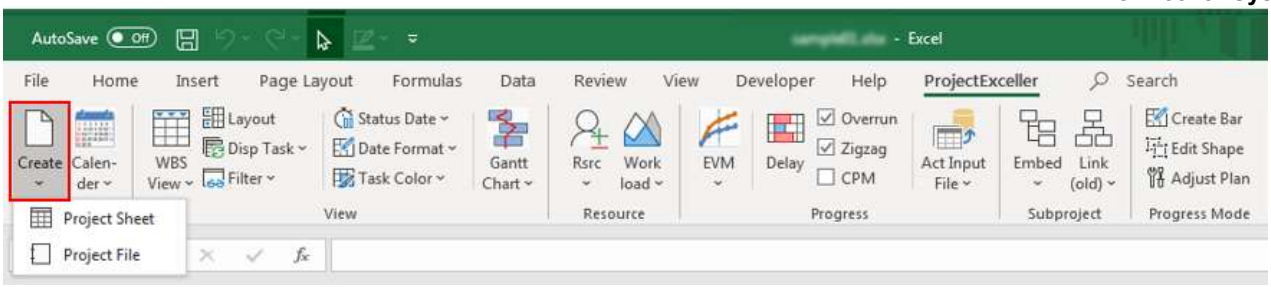


2.2. Overview of Ribbon Functions



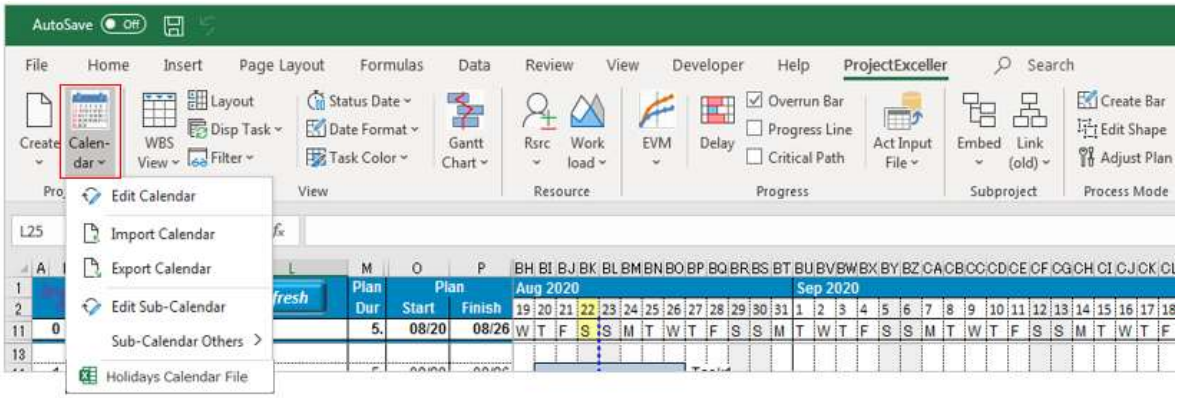
[1] Create

Create a new project file or project sheet. The project sheet will be added to the currently selected project file.



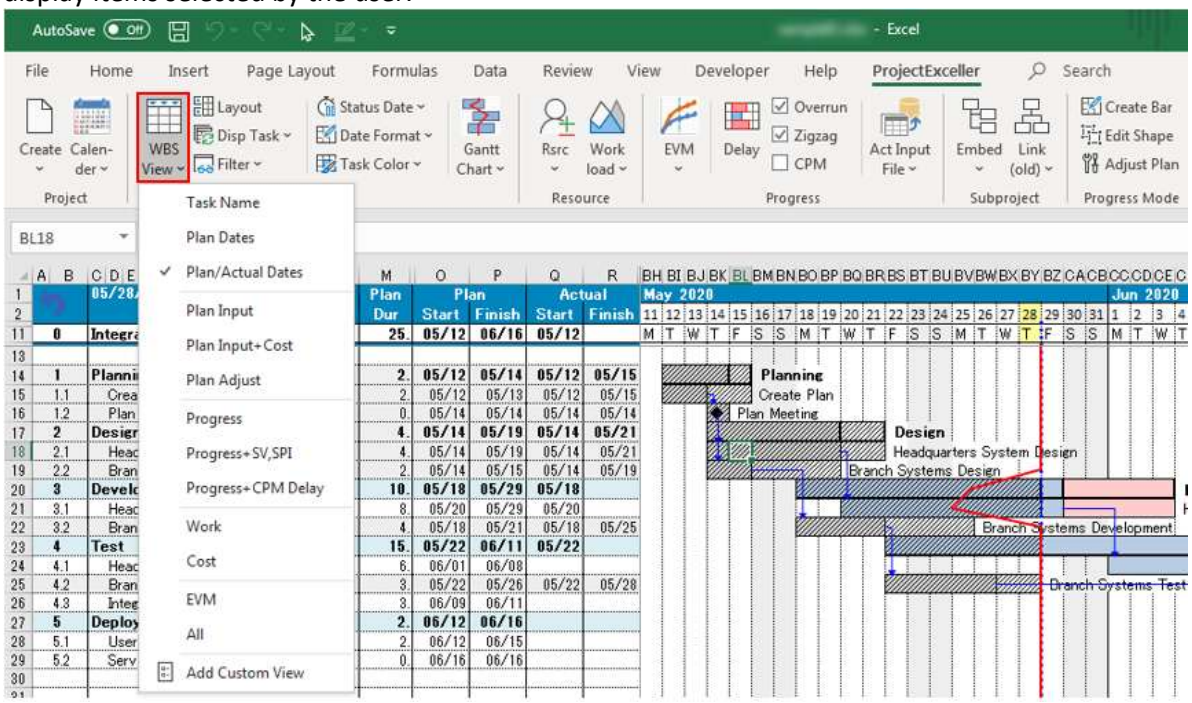
[2] Calendar

Two types of calendars can be set for a project. The project calendar is automatically created when you create a project file. One project calendar is set for each project file and applied to all tasks in the project file.
You can optionally add a "Sub-Calendar". Sub-calendars are assigned to specific tasks.



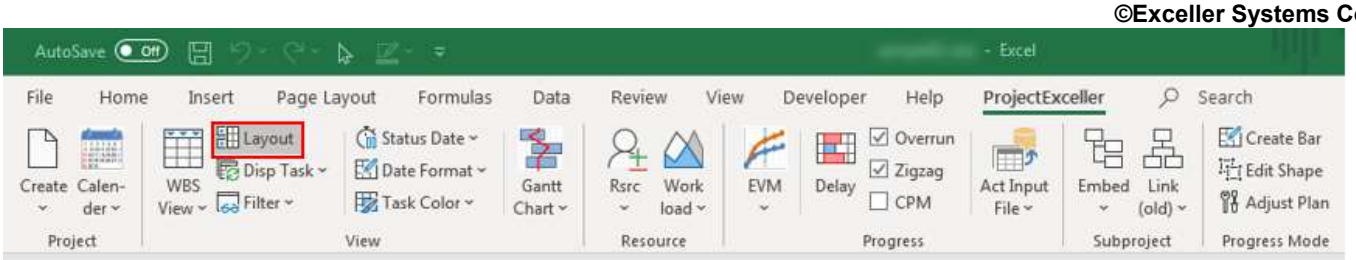
[3] WBS View

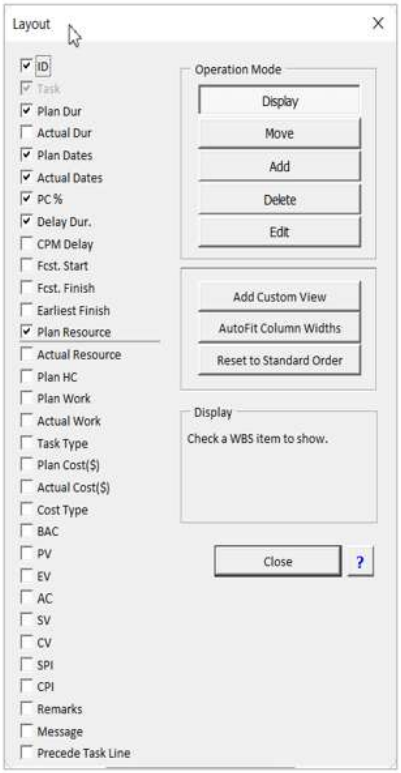
Switch the WBS view (display item combination). In addition to the standard view, you can register a custom view of display items selected by the user.



[4] Layout

Customize the WBS view. Select items to display from more than 30 standard WBS data items. In addition, you can add user-defined items yourself and set the order of items.

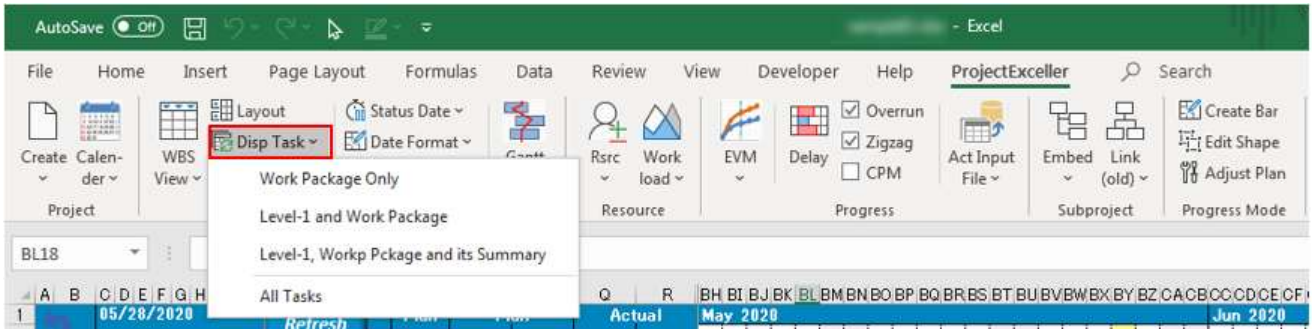




[5] Display Task

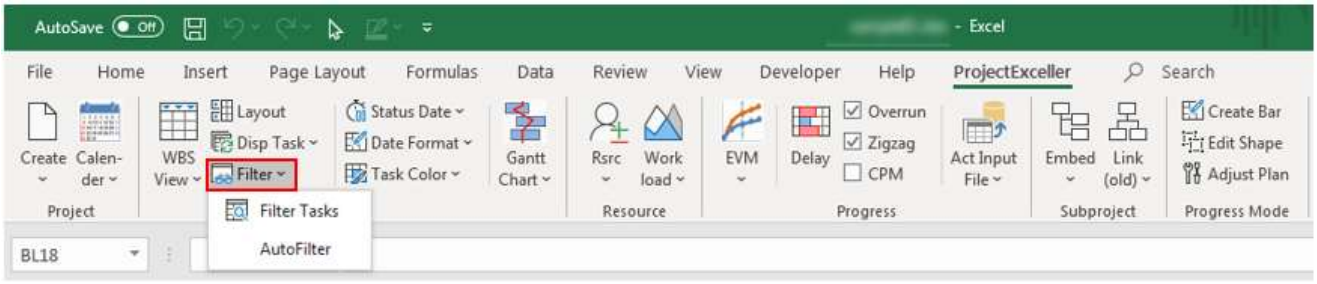
* This is a new function added in ProjectExceler2.

Tasks displayed on the WBS will be displayed in an easy-to-understand manner according to the task level combination.



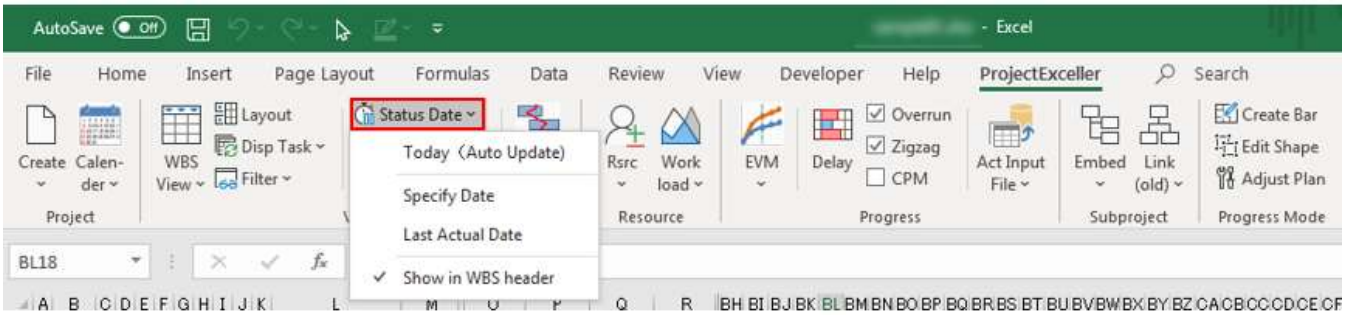
[6] Filter

Only task lines that match the specified conditions are displayed on the WBS.



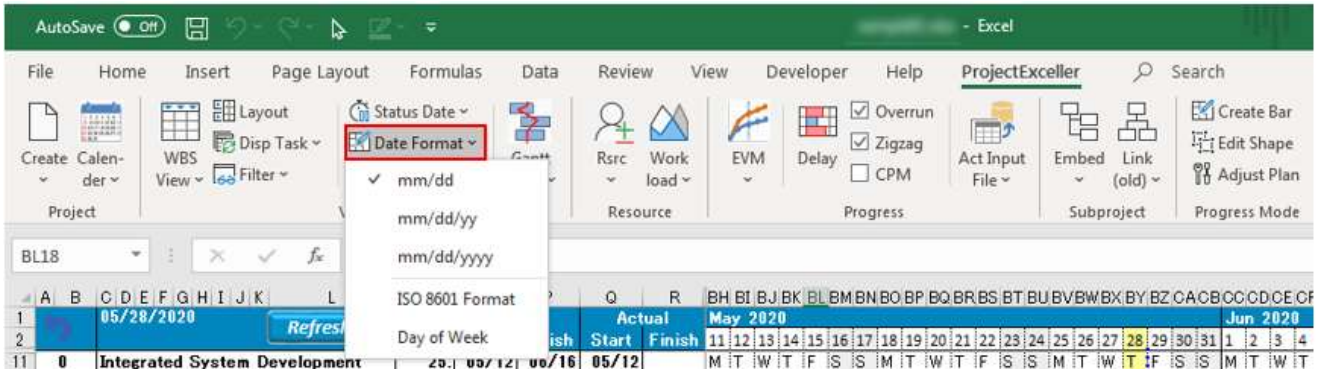
[7] Status Date

The status reporting date is the project progress date. Values such as delay period displayed on WBS, various EVM indices, EVM graph, etc. are evaluated based on the status reporting date.



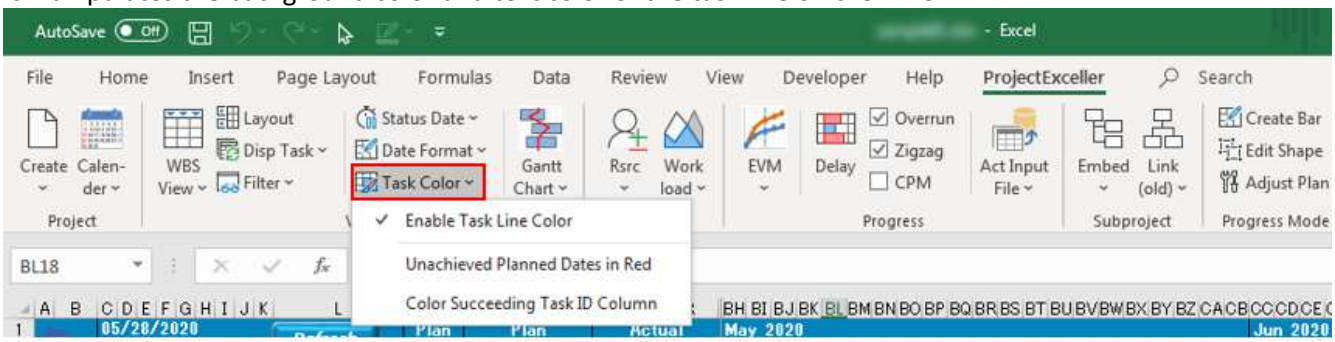
[8] Date Format

Specify the date format on the WBS. The default is “mm/dd” format. Task row color



[9] Task Color

It manipulates the background color and text color of the task line on the WBS.



- Enable Task Line Color

Summary Task, Completed Task Enable the background color of the line. The default value is ON.

- Redden Plan Dates Not Achieved

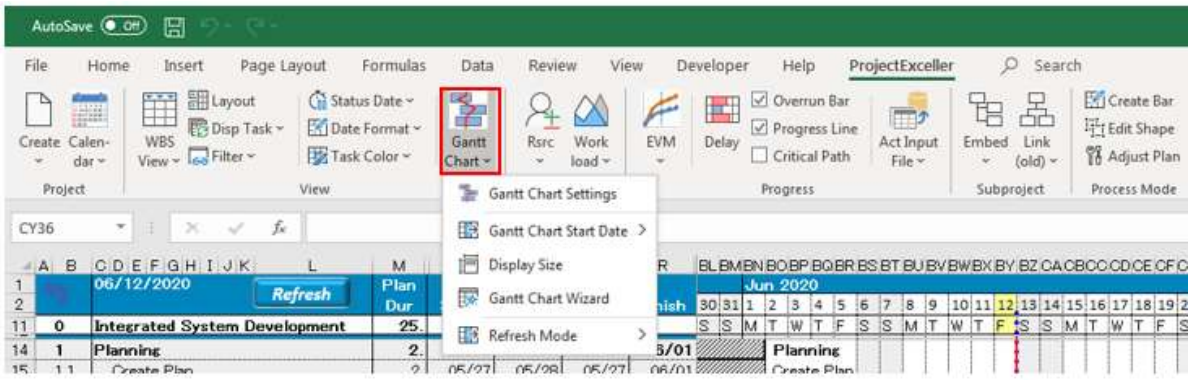
Even if the scheduled date is passed, the task starts or ends, and the scheduled start and end dates of tasks are red. This makes it easy to identify delayed tasks. The default value is OFF.

- Highlight Successor Task ID

Color-categorize the tasks for which the preceding link is set so that they can easily be identified. The default value is OFF.

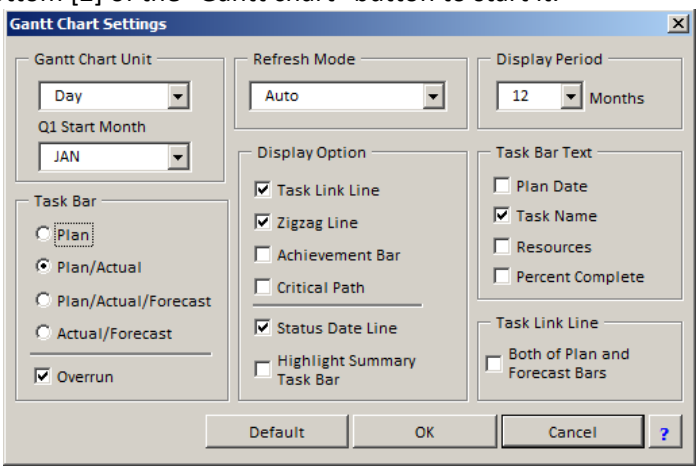
[10] Gantt Chart

It is a button that summarizes functions related to Gantt chart.



- **Gantt Chart Settings**

It is the dialog which can set most of Gantt chart. Click on the submenu "Gantt Chart Settings" at the top [1] or bottom [2] of the "Gantt chart" button to start it.

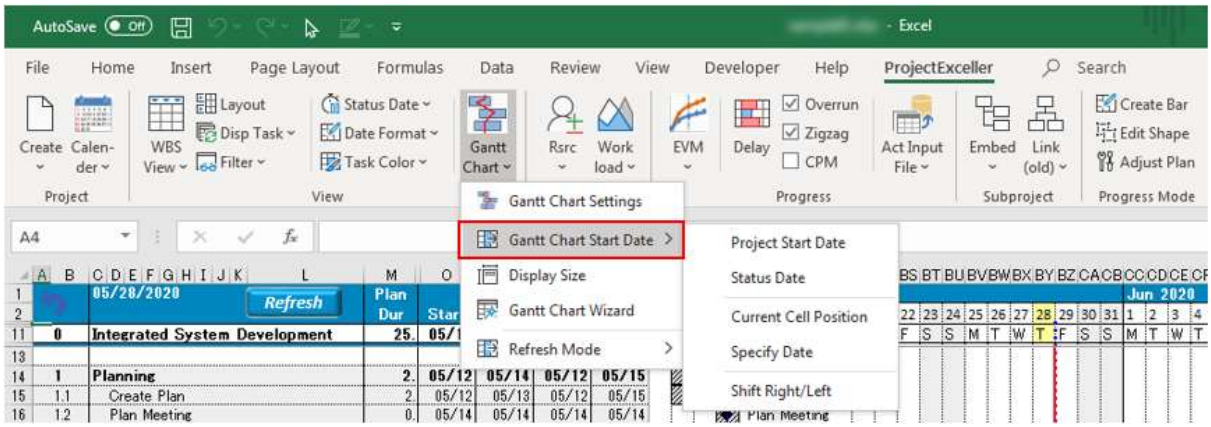


- **Gantt Chart Wizard**

The main settings of the Gantt chart can be selected in a selected format.

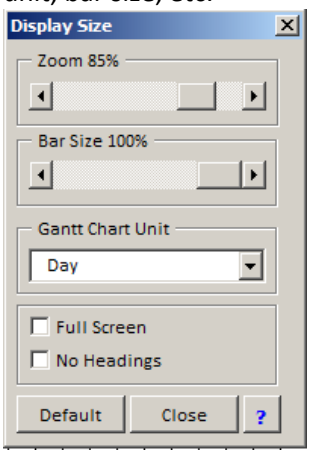
- **Gantt Chart Start Date**

Set display start date of Gantt chart from several options.



- **Display Size**

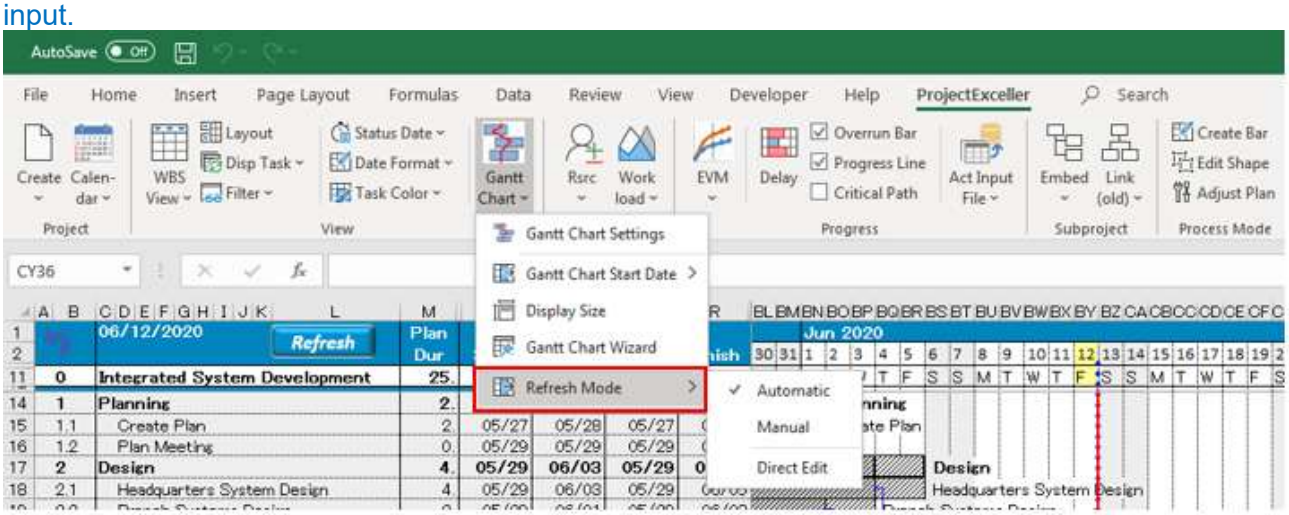
Open the settings dialog related to display size such as project sheet, WBS, Gantt chart screen, Gantt chart display unit, bar size, etc.



- **Refresh Mode**

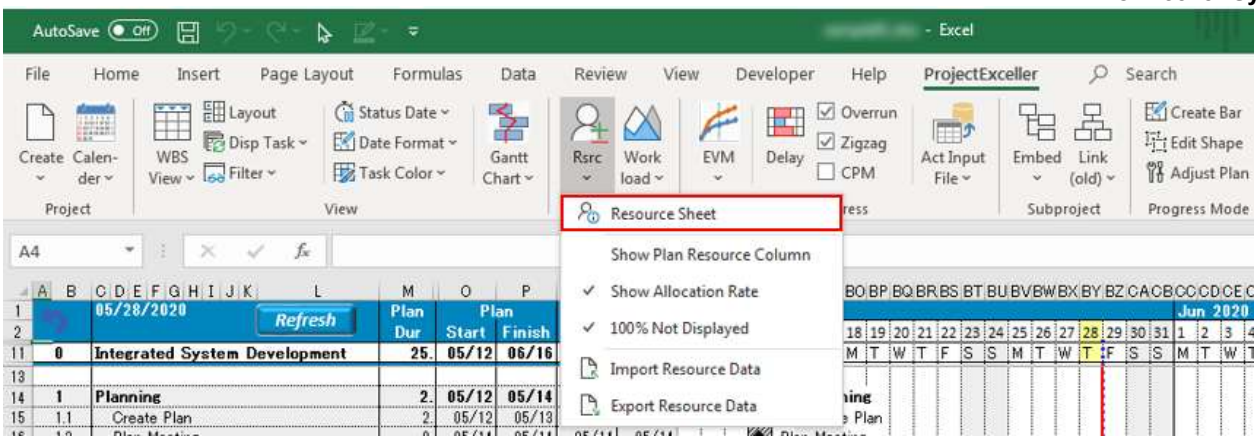
Set up how to update the Gantt chart when entering to WBS. The default value is "Automatic". By switching to “Manual” or “Direct Edit” mode, you can improve the performance of input processing to WBS.

Note: In the "Direct Edit" mode added from V2.040, you can input at the same speed as standard Excel input.



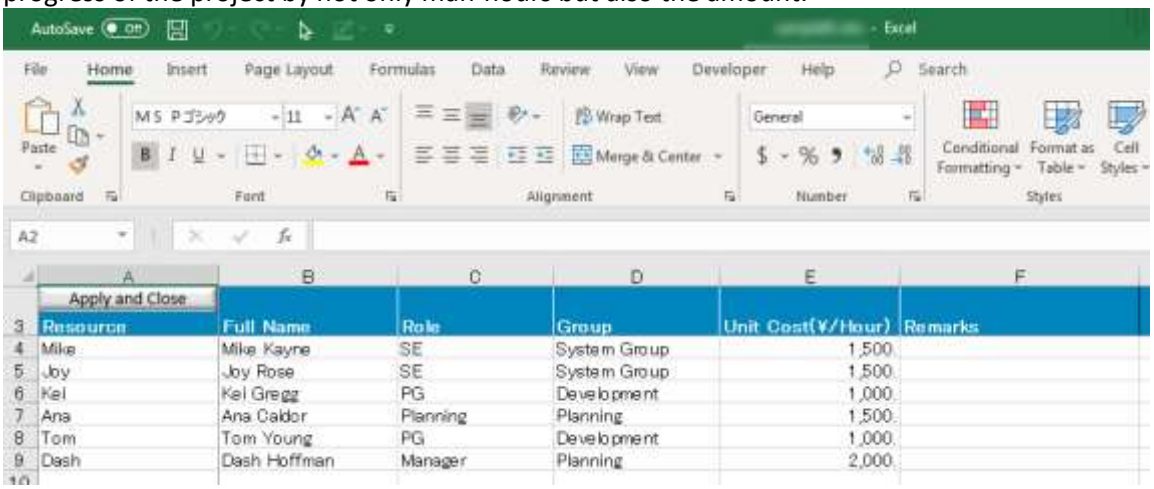
[11] Resources

It is a button that summarizes the functions related to resources.



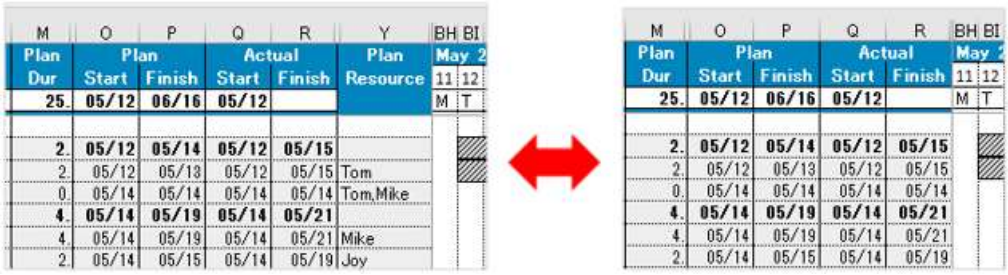
- **Resource Sheet**

Display the resource sheet. Register the resources on the project file. If you set the unit price, you can manage the progress of the project by not only man-hours but also the amount.



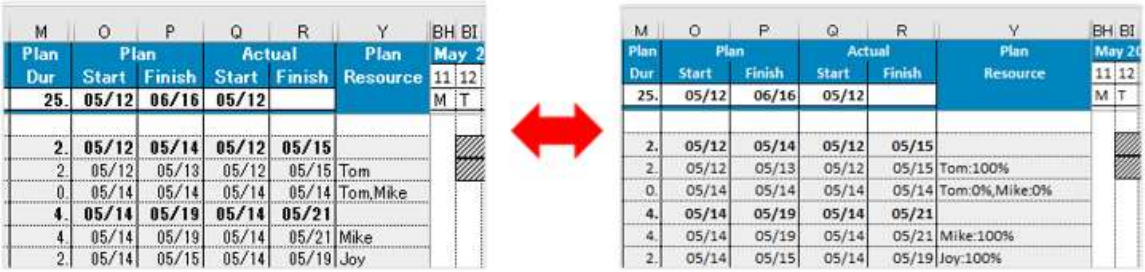
- **Display Plan Resource Column**

Toggle display and hide of WBS resource columns.



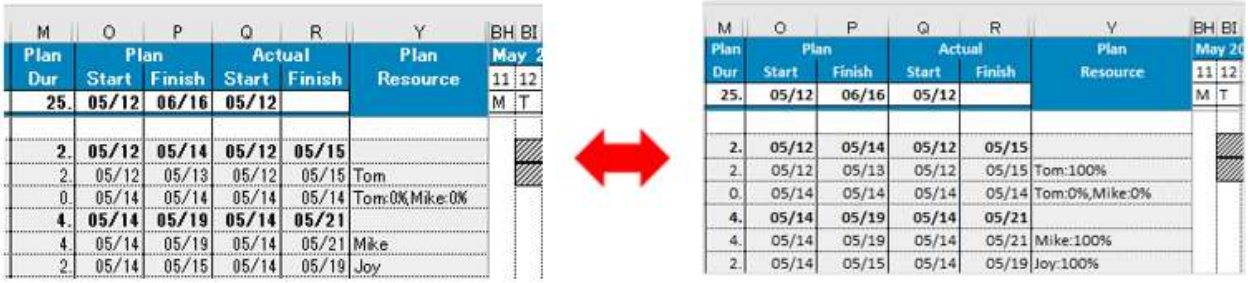
- **Display Allocation Rate**

Toggle display / non-display of allocation rate on WBS resources.



- **100% Not Displayed**

Toggle display / non-display of allocation rate on WBS resources.



M	O	P	Q	R	Y	BH	BI
Plan Dur	Plan Start	Plan Finish	Actual Start	Actual Finish	Plan Resource	May 2 11	12
25.	05/12	06/16	05/12			M	T
2.	05/12	05/14	05/12	05/15			
2.	05/12	05/13	05/12	05/15	Tom		
0.	05/14	05/14	05/14	05/14	Tom:0%,Mike:0%		
4.	05/14	05/19	05/14	05/21			
4.	05/14	05/19	05/14	05/21	Mike		
2.	05/14	05/15	05/14	05/19	Joy		

M	O	P	Q	R	Y	BH	BI
Plan Dur	Plan Start	Plan Finish	Actual Start	Actual Finish	Plan Resource	May 20 11	12
25.	05/12	06/16	05/12			M	T
2.	05/12	05/14	05/12	05/15			
2.	05/12	05/13	05/12	05/15	Tom:100%		
0.	05/14	05/14	05/14	05/14	Tom:0%,Mike:0%		
4.	05/14	05/19	05/14	05/21			
4.	05/14	05/19	05/14	05/21	Mike:100%		
2.	05/14	05/15	05/14	05/19	Joy:100%		

- **Import Resource Data**

Import resource data from the resource file created by "Export resource data" function or from other project file into the project file.

- **Export Resource Data**

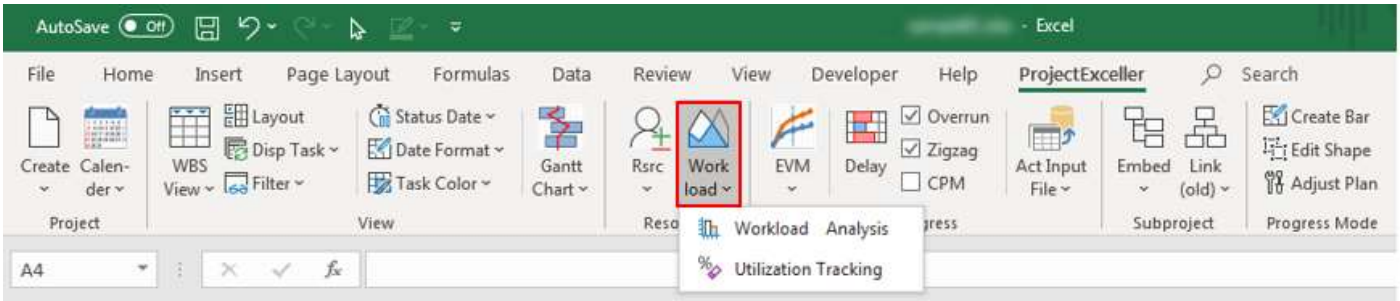
Extract the contents of the resource sheet of the project file as a resource file.

Note:

You can migrate resource data from another project file by using the resource data export and import function.

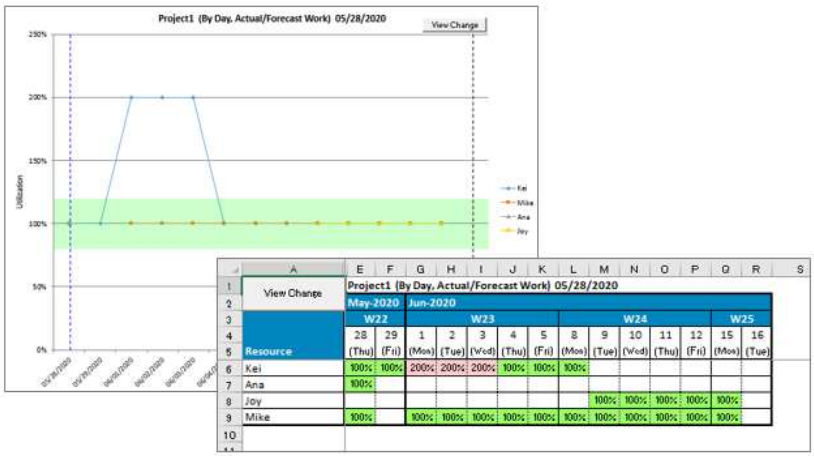
[12] Workload

It is a button that summarizes the functions related to workload.



- **Workload Analysis**

Analyze whether resources are appropriately allocated by converting the workload of the resources allocated to the project into resource utilization by day or week and displaying it as a graph or table.

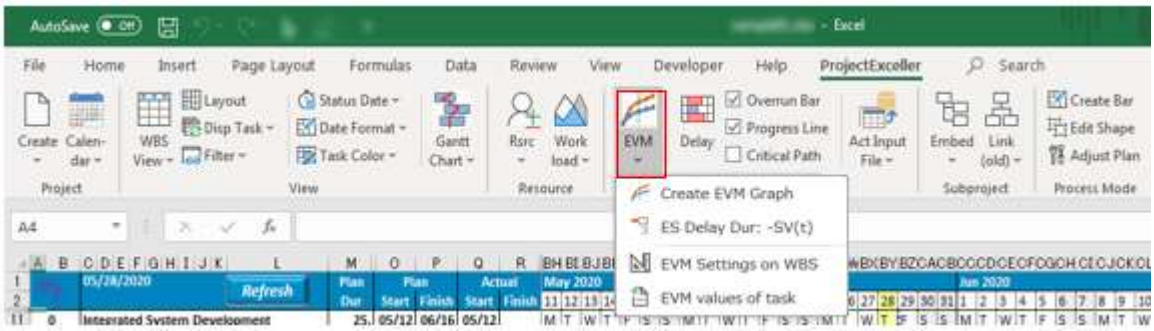


- **Utilization Trucking**

This function displays the utilization rate of a specific resource on the task bar on the Gantt chart. You can use it in conjunction with workload analysis to find out when, which task, which resource workload is over (or vice versa).

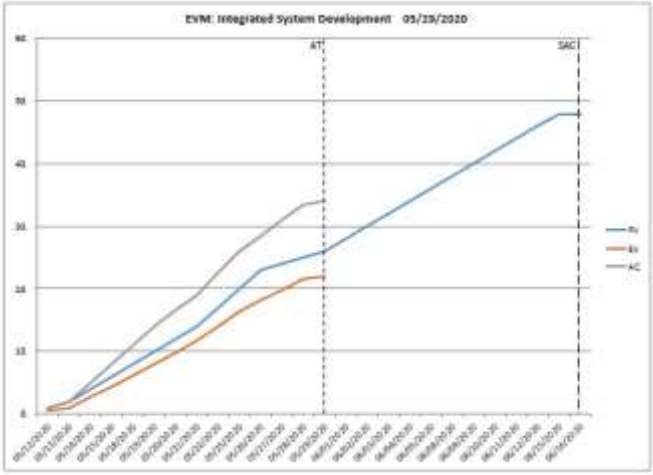
[13] EVM Analysis

Perform EVM analysis.



- **Create EVM Graph**

We will create an EVM graph using EVM (Earned Value Management) which is a method to objectively evaluate the progress of the project.
For details of EVM analysis, please see here.



- **ES Delay**

Calculate objective days of delay using the ES method (earned schedule), which is newly certified as a standard method of PMI. Even if the task link is not set, the number of effective delay days can be calculated, and it is suitable for evaluating the entire project.

- **EV Auto Allocation**

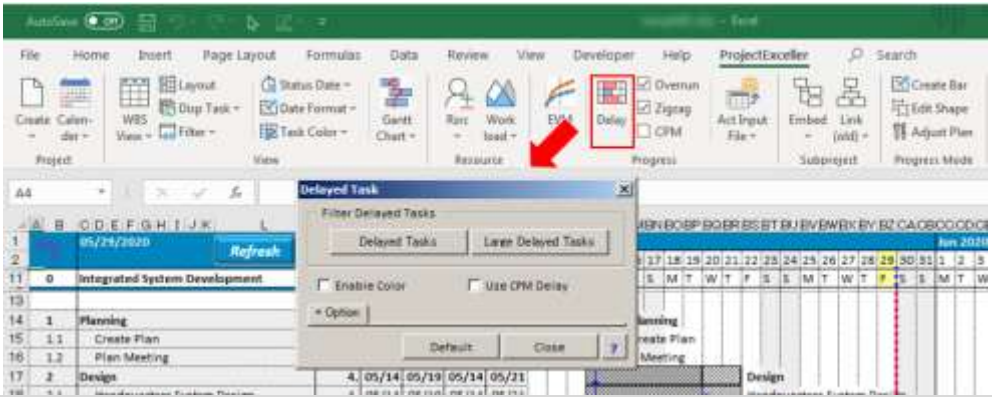
We set the upper limit for automatic allocation of EV value (volume) on WBS, the unit of EV value (man hour, amount).

- **Display EVM values of Task**

Switch the WBS view to "EVM view" and display the EVM data string on the WBS.

[14] Delayed Task

It is a function to grasp the delayed task. You can classify tasks without large delays, small delays, and no delays, and you can extract only color-coded display and delayed tasks on the WBS.

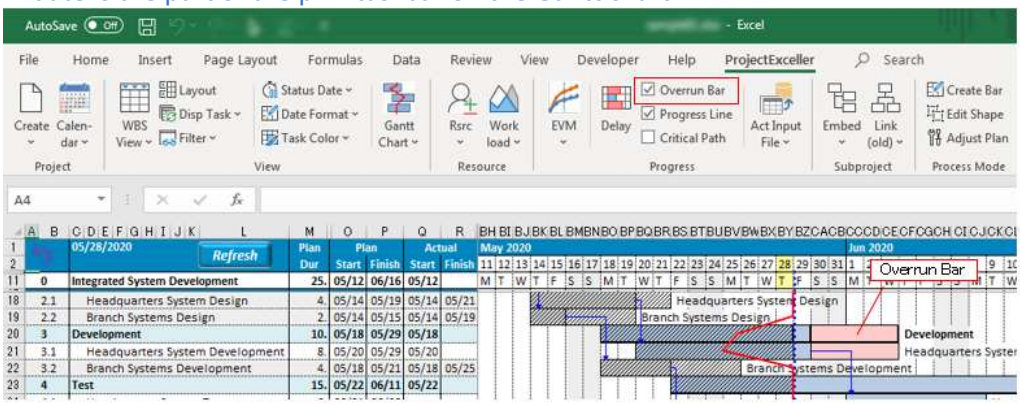


[15] Overrun Bar

Set the overrun bar on the Gantt chart to show or hide. The default value is ON.

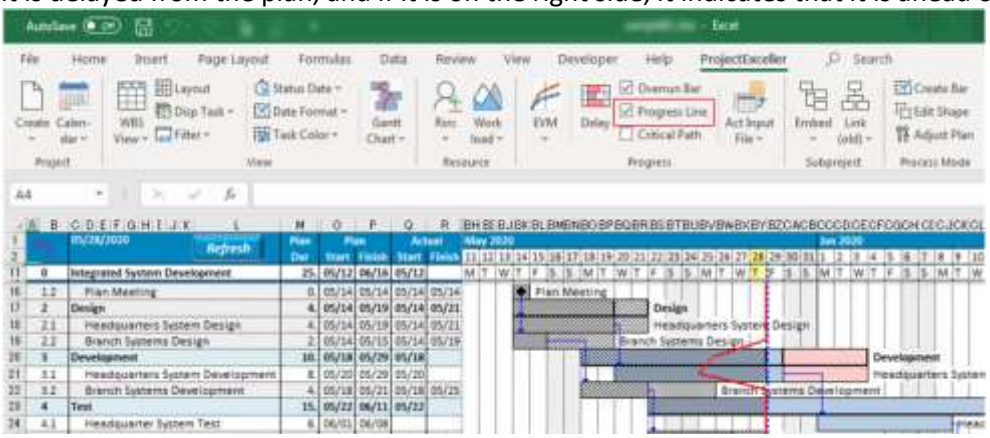
Note: What is overrun bar

Judging from the current progress situation clearly the period over which the work will exceed the planned finish date is the part of the pink taskbar on the Gantt chart.



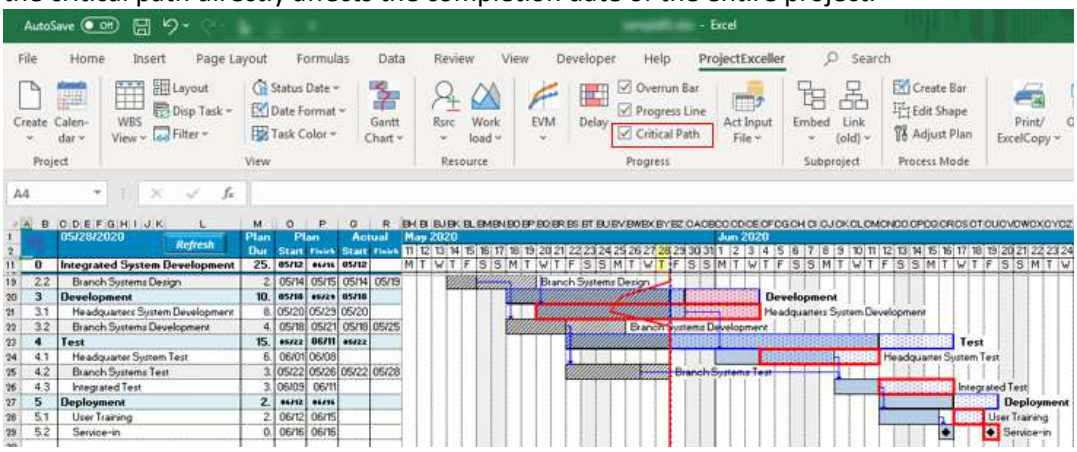
[16] Progress Line

Set display / non-display of Progress line on Gantt chart. The default value is OFF. Progress line is a red line showing the progress of the task based on the status reporting date. When it is on the left side of the situation reporting date, it is delayed from the plan, and if it is on the right side, it indicates that it is ahead of the plan.



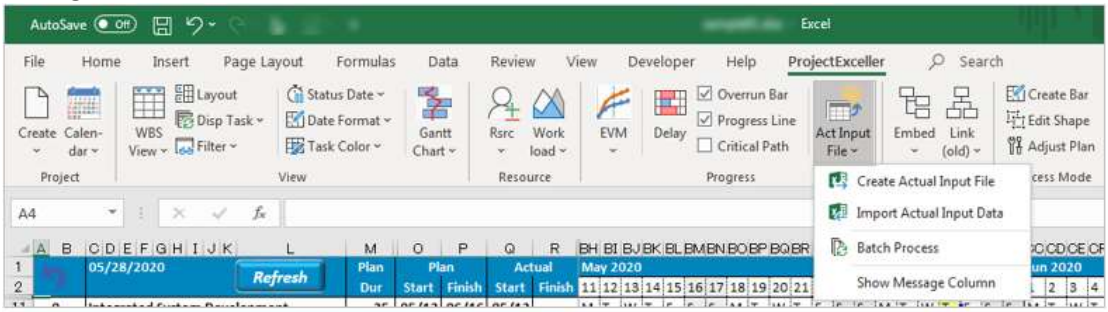
[17] Critical Path

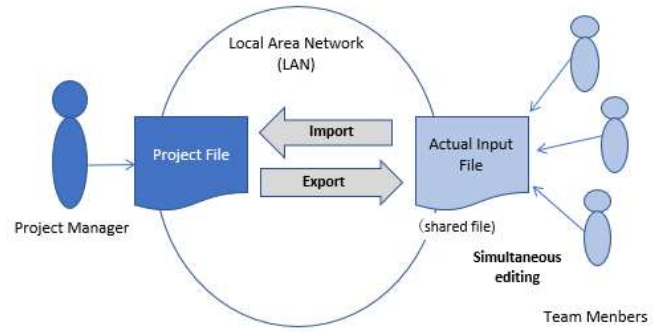
Display the critical path on the Gantt chart with a red frame bar. The default value is OFF. The delay of the task on the critical path directly affects the completion date of the entire project.



[18] Actual Input File

It is a function to collect actual data simultaneously from multiple project members without inputting actual data directly into the project file. This greatly reduces the workload of collecting and reflecting actual data of the project manager.

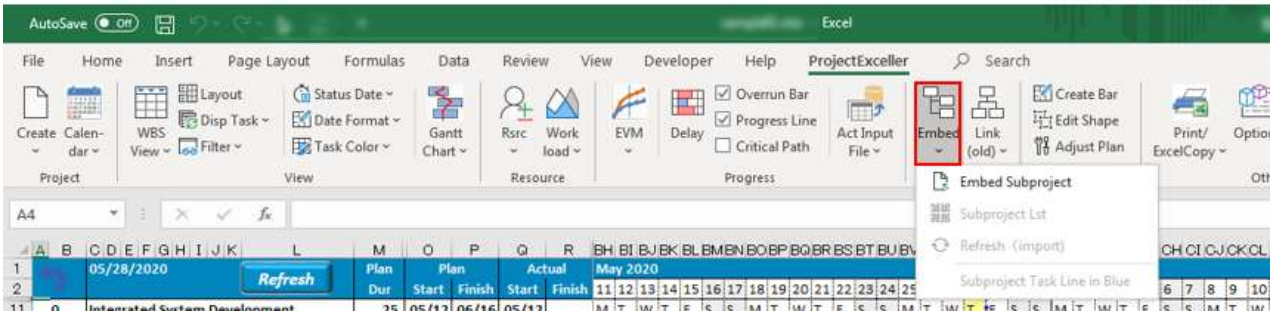


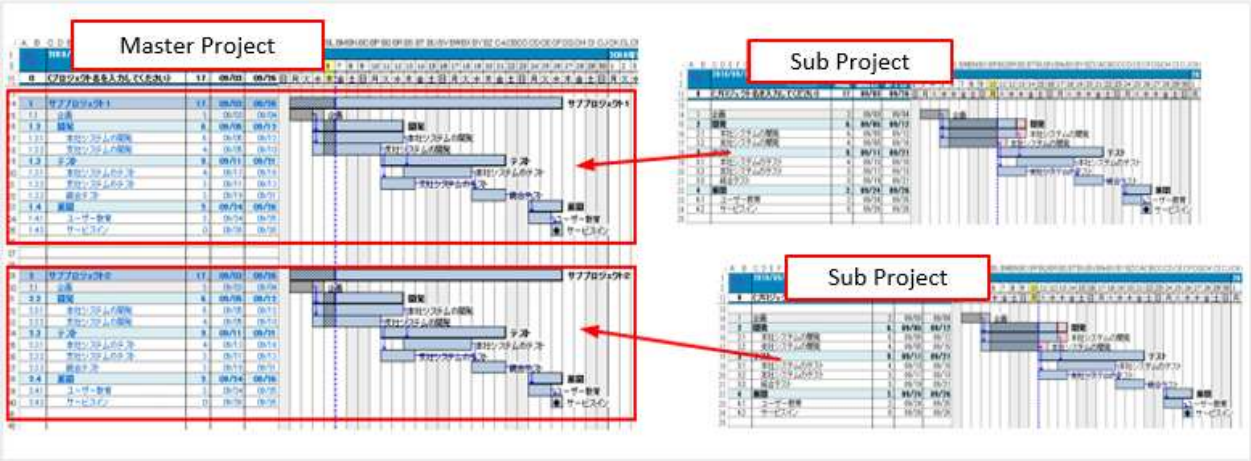


Simultaneous Editing of Shared Book by Multiple Menbers on the LAN

[19] Embedded Subproject

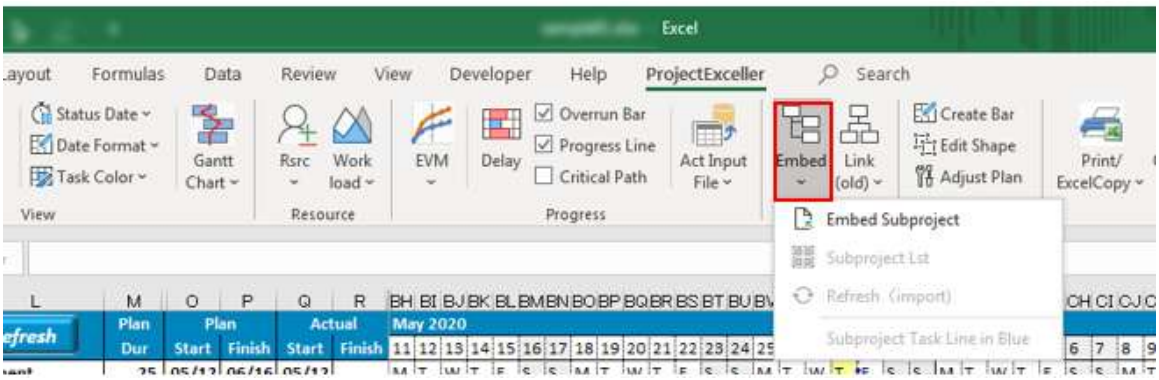
This is a new feature of version 2. Multiple subprojects (child projects) can be managed in one project sheet. In addition to EVM analysis, this has made it possible to analyze the workload of the whole project that could not be done with linked subprojects.





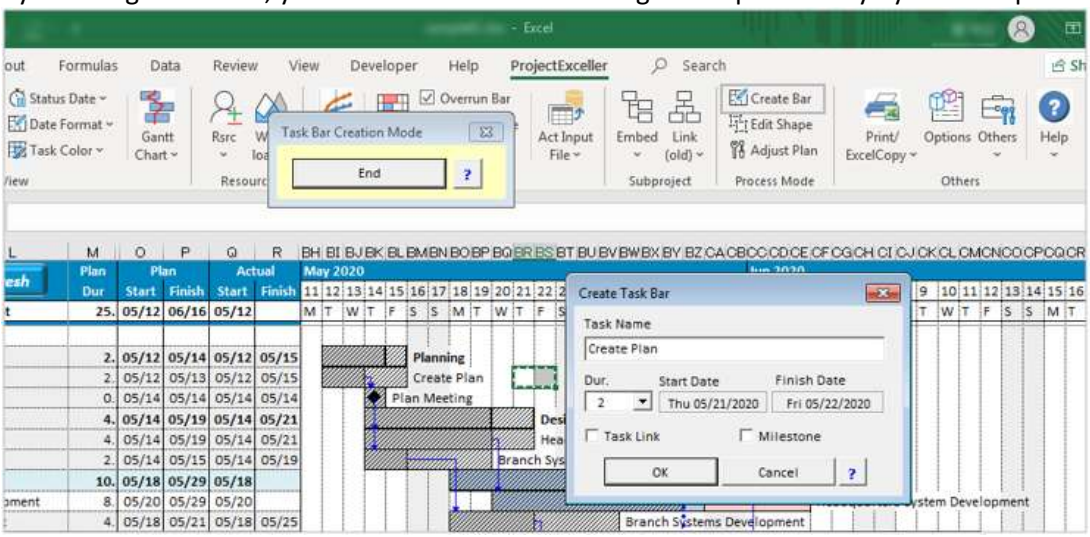
[20] Linked Subproject

This feature is also supported in version 1. You can register the entire subproject as one task of the master project and manage the master project (parent) and the subproject (child). This enables EVM analysis of the entire project including subprojects.
However, it is not possible to perform embedded project-wide workload analysis.



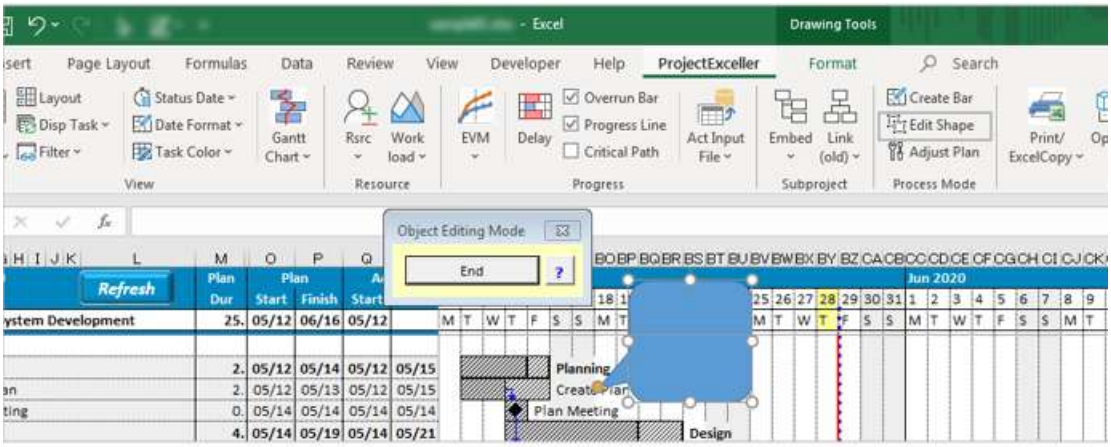
[21] Create Task Bar

By enabling this mode, you can create tasks and change their period only by mouse operation on Gantt chart.



[22] Edit Shape

You can not create or edit shapes on the project as they are protected. By enabling this mode, you can newly create a shape like a callout and edit it.



[23] Adjust Plan

It includes two functions: *Adjust Plan Mode* and Move Tasks.

Adjust Plan Mode

By enabling this mode, you can adjust the effort, duration, number of people (or resources). These elements are interdependent. Fix one of these three elements, change the remaining two elements and calculate. The element to be fixed is determined by "task type" on WBS. In this "plan adjustment" mode, recalculation can be done without changing the task type on WBS.

You can also apply the projected planning schedule to WBS planning.

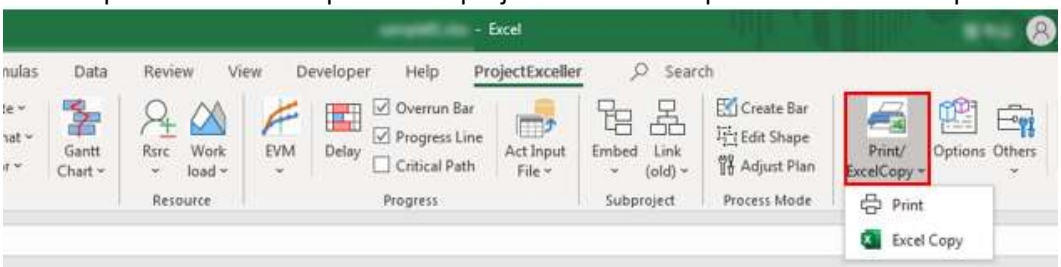
Move Tasks

Task schedules can be moved back and forth, leaving the planning period intact.

The “Move Task” function allows you to update the planned start dates of multiple selected tasks at once for a specified number of days. This is especially useful for projects that do not have task link settings.

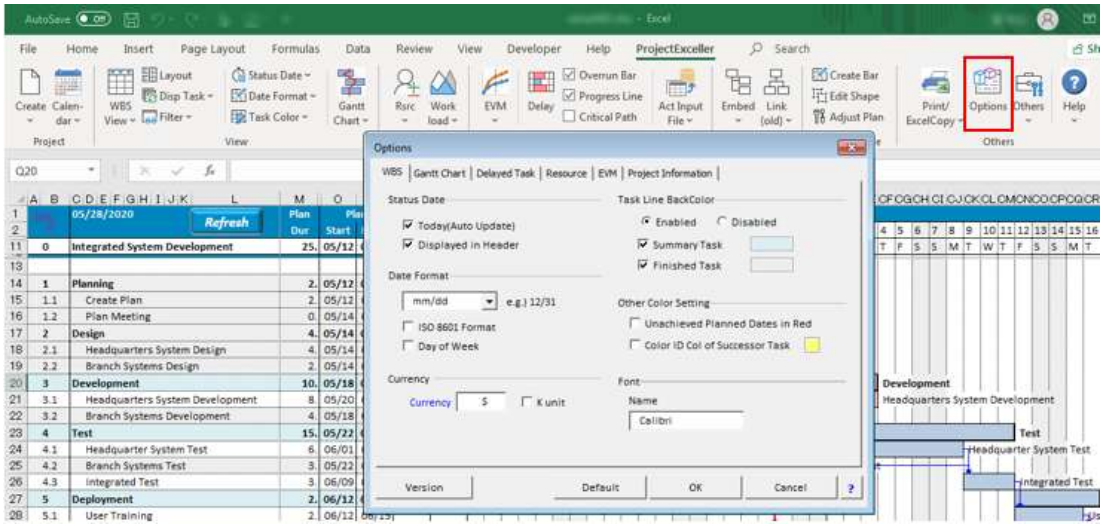
[23] Print／Excel Copy

You can print the whole or part of the project sheet in an optimized form or output it to a standard Excel book.



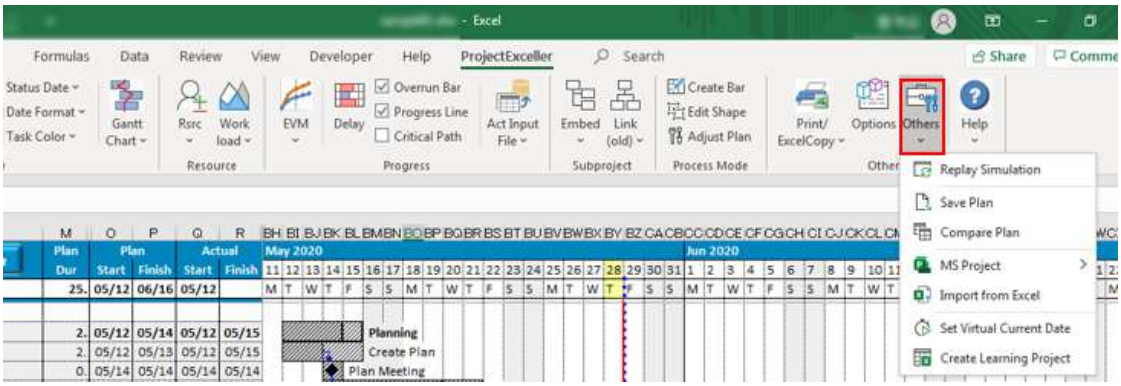
[25] Options

Most settings of ProjectExceller can also be done from this dialog. The settings are basically applied to each project sheet and partially to the entire project file.



[26] Others

Other features are in this ribbon.



- **Replay Simulation**

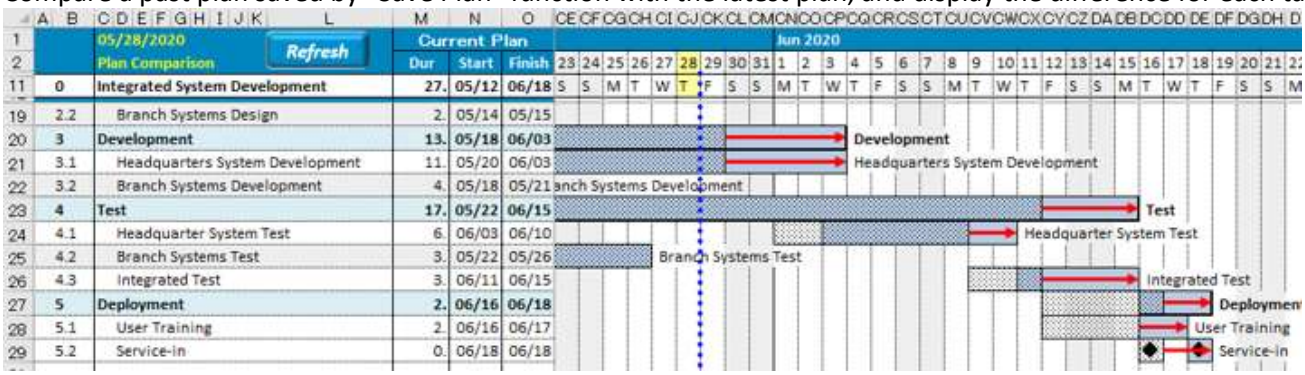
It is a function to replay a completed or ongoing project back to the project start date or to a designated date. Useful for project presentation, learning and education.

- **Save Plan**

You can save up to 10 projects per project sheet. “Compare Plan” function allows you to view the differences between the current plan and the plans saved in the past.

- **Compare Plan**

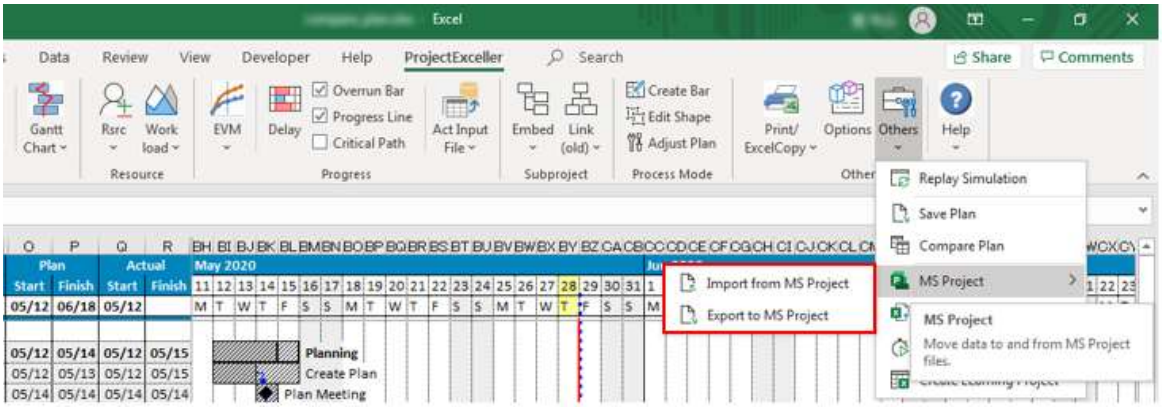
Compare a past plan saved by “Save Plan” function with the latest plan, and display the difference for each task.



- **MS Project**

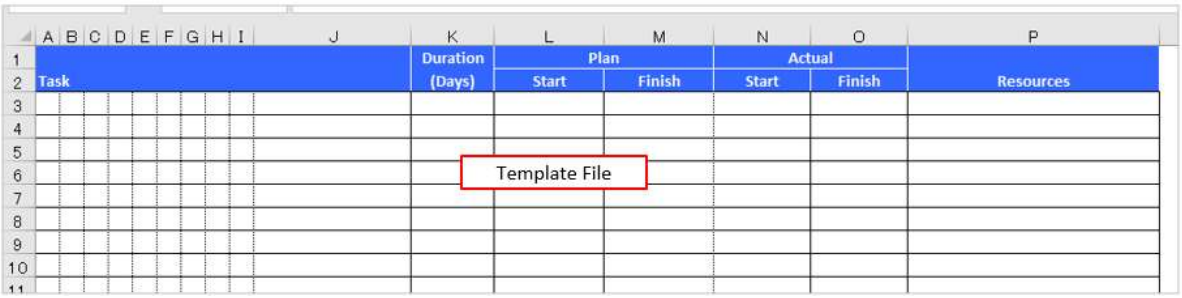
Import Microsoft Project data into ProjectExceller and export Microsoft Project data into Microsoft Project.

Note: This feature does not always guarantee complete conversion of the data.



- **Import from Excel**

You can import data from a Excel template file for input into a project file.



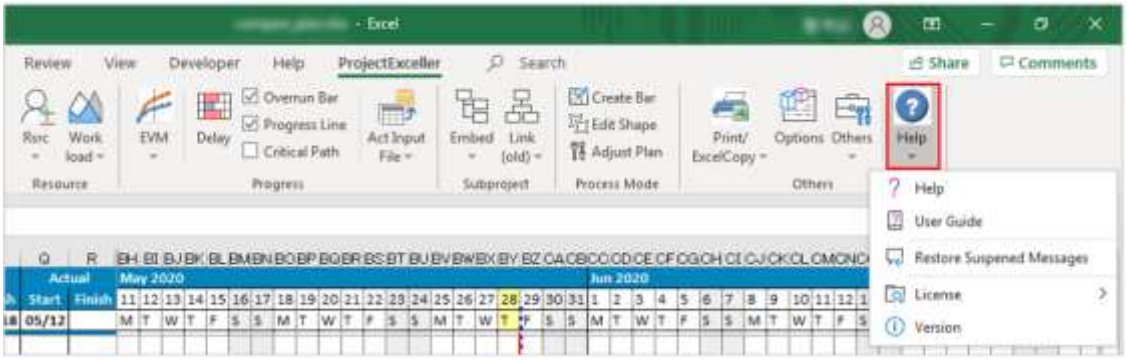
- **Set Virtual Current Date**

  'Virtual current date' is a function to virtually change the date of the computer. With this feature, you can simulate the project progress on ProjectExceller without changing the actual computer date.
  Note: This function is mainly used for learning ProjectExceller.

- **Create Learning Project**

  To learn the functions and operations of ProjectExceller, you need a in-process project. This feature creates a learning in-process project that is currently almost halfway through the planning period.

[27] Help



- **Help**

  Display the help.

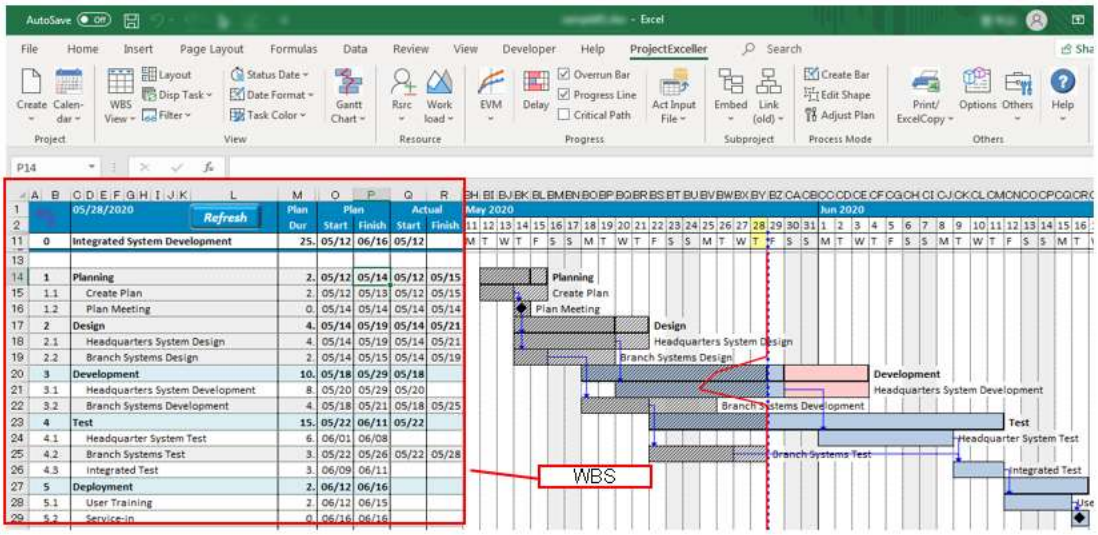
- **User Guide**

Display the user guide.

- **Resotre Suspened Messages**
  Restore error messages which are suspended by checking “Do not show this message again” on a error dialog.
- **License**
  Activate or deactivate license.
- **Version**
  Disapy information of installed product.

Chapter 3. WBS Operation

WBS (Work Breakdown Structure) is the process of the project divided into work item levels and registered as a task. For tasks, set plan start dates, plan finish dates and resources to be assigned, etc. of the work. There are also data items that control the progress of the task, such as actual start date, actual finish date, achievement rate, delay period, effort, cost, etc. In addition, ProjectExceller supports various EVM index values as standard, in order to quantitatively grasp objective progress.

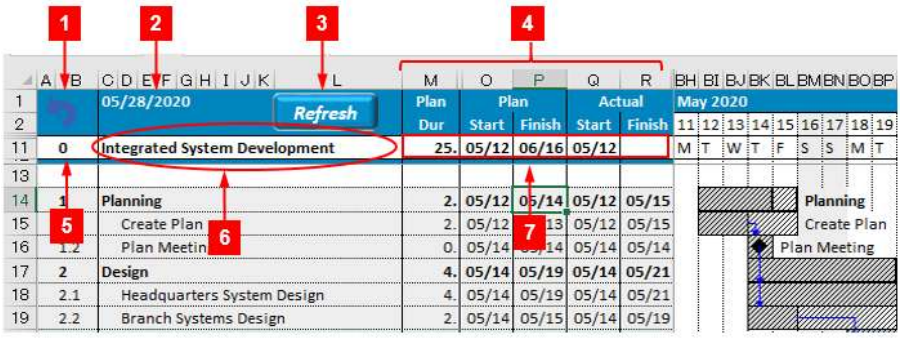


3.1. WBS Configuration

WBS Header

The upper part of WBS is called "WBS header". This part contains the project and important information and features.

Eexplains each part of the WBS header.

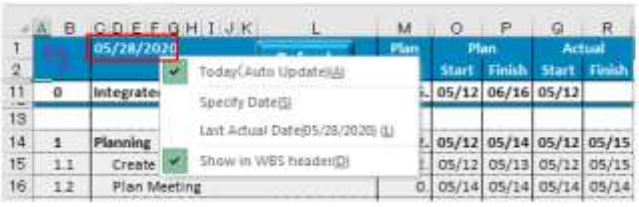


[1] Undo Button

Cancel the project sheet input operation and return to the state before input.

[2] Status Date

Project status date. By clicking this part, you can set the status report date from the following menu. This is the same function as the Project Reporter Ribbon Tag Status Report Date button.



[3] Refresh Button

Press Refresh button to redraw WBS and Gantt charts. If the input data is not reflected in WBS or Gantt chart, etc., it can be displayed correctly by executing Refresh.

Note: If no respond after pressing Refresh button

The Refresh button does not work if the ProjectExceller event has been disabled for some reason. In that case, press ***Ctrl + Shift + X*** to activate the Refresh function.

[4] WBS Item Name

Displays the name of the data item of WBS. More than 30 standard items have been set for WBS data items. You can add more user-defined items.

[5] Overall Summary

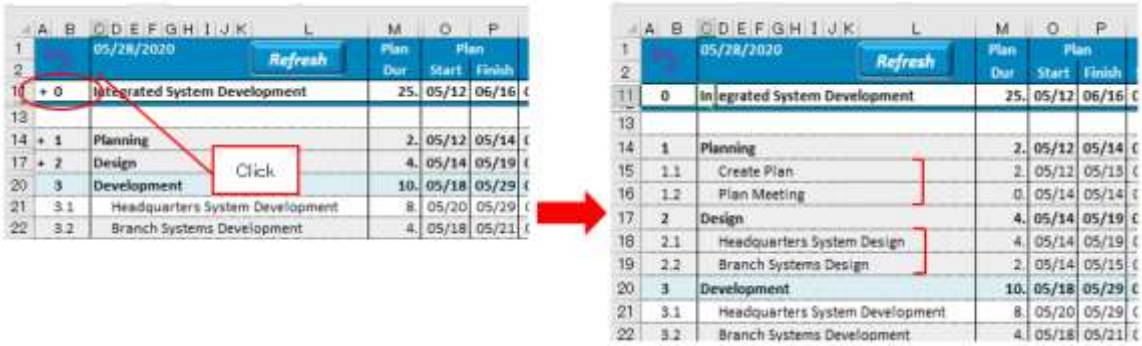
The total value of the entire project sheet for each WBS item data is displayed. However, in the case of "Start Date" etc., the minimum date is displayed, and the maximum date is displayed as "End Date"

[6] Project Task Level

Since the task level of the whole project is 0, 0 is always displayed.

Note: Expand Collapsing Task Lines

You can collapse the summary task's subtasks into one row by clicking on the summary task's A or B column. If there is at least one collapsed task on the project sheet, "+0" is displayed. Clicking on this cell at this time expands all collapsed tasks on the project sheet.



[7] Project Name

You can set the project name on the project sheet. The project name set here is synchronized with the project name set in the Project tab in the ribbon options.

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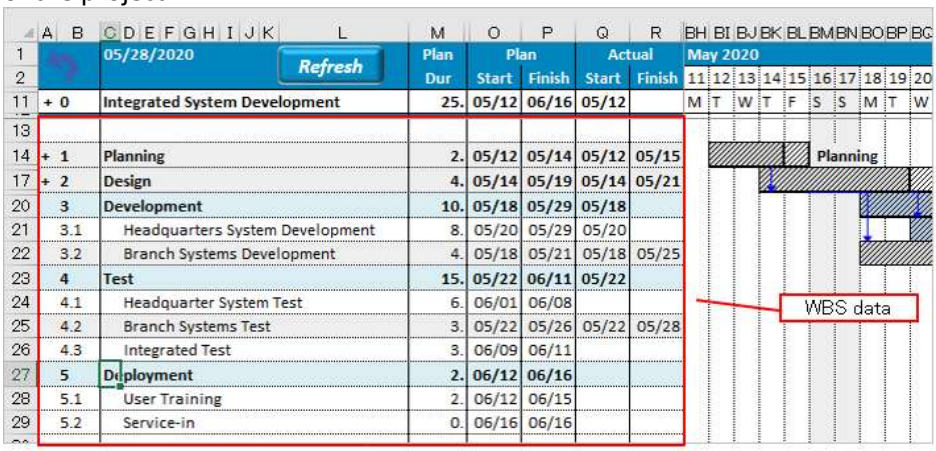
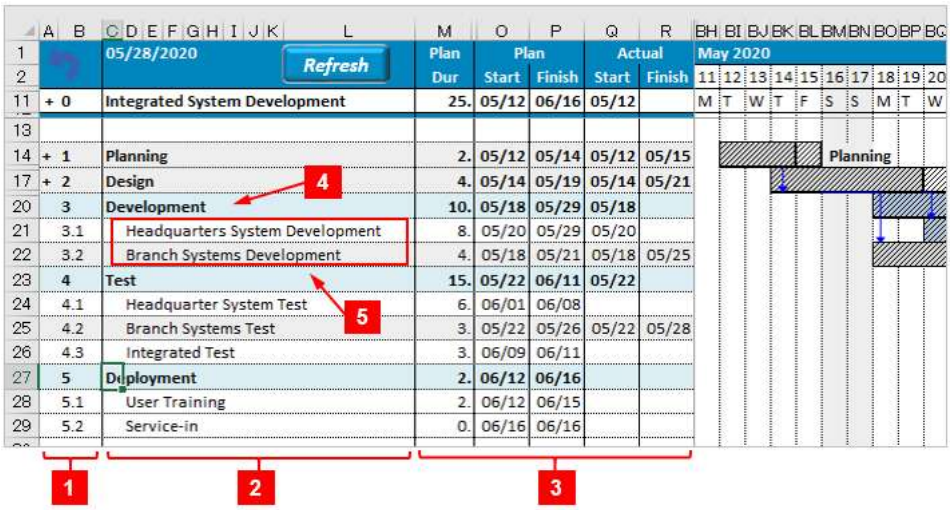
WBS Data Area

The part other than the header part of WBS is called "WBS data area". Here you set the tasks that are the work items of the project.



It describes the main parts of the WBS data area.



[1] Task ID

It is a number to identify each task. Shows task level and hierarchy structure.

[2] Task Name

Set the task name. Tasks can be configured in a hierarchy of up to 10 levels. The leftmost (column C) of the task name area is task level 1, and the rightmost (column L) is task level 10.

[3] Task Data Columns

You can display over 30 standard data item columns. These can be displayed from [WBS View] on the ribbon or [WBS View] on the right-click menu of the WBS header.

[4] Summary Task

This task is called a summary task (parent task) because it has subtasks.

[5] Lowest Task (Work Package Task)

A task that does not have a subtask located at the bottom of the task hierarchy of WBS. It will be the minimum management unit of the project. Also called Work Package Task.

3.2. WBS Items

On WBS, there are 31 items (data strings) as standard WBS items. This section gives an overview of these data items.

Note: User-defined items

In addition to standard WBS items, users can add their own data items as "user-defined items".

WBS items other than EVM

1	2	3	4	5		6		7	8	9	10	11	12	13	14	
A B	C D E F G H I J K L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1 2023/06/18	Refresh	Plan Dur	Actual Dur	Plan Start	Plan Finish	Actual Start	Actual Finish	PC %	Delay Dur.	CPM Delay	Fcst. Start	Fcst. Finish	Earliest Finish	Plan Resource	Actual Resource	Plan HC
11 0	Integrated System Development	25.		06/01	07/06	06/01		39.5%	0.	2.	06/01	07/10	07/06			
13																
14 1	Planning	2.	4.	06/01	06/05	06/01	06/06	100%	1.	1.	06/01	06/06	06/06			
15 1.1	Create Plan	2.	4.	06/01	06/02	06/01	06/06	100%	2.	2.	06/01	06/06	06/06	Tom		1.
16 1.2	Plan Meeting	0.	0.	06/05	06/05	06/05	06/05	100%	0.	0.	06/05	06/05	06/05	Tom:0%,Mike:0%		0.
17 2	Design	4.	6.	06/05	06/08	06/05	06/12	100%	2.	2.	06/05	06/12	06/12			
18 2.1	Headquarters System Design	4.	6.	06/05	06/08	06/05	06/12	100%	2.	2.	06/05	06/12	06/12	Mike		1.
19 2.2	Branch Systems Design	2.	4.	06/05	06/06	06/05	06/08	100%	2.	2.	06/05	06/08	06/08	Joy		1.

EVM indeces

15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	BI
Actual Resource	Plan HC	Plan Work	Actual Work	Task Type	Plan Cost($)	Actual Cost($)	Cost Type	BAC	PV	EV	AC	SV	CV	SPI	CPI	Remarks	Message	Precede Task Line	31
		48.	27.		512,000.	224,000.		48.	24.	19.	27.	-5.	-8.	0.79	0.	0.	0.		W
		2.	4.		16,000.	32,000.		2.	2.	2.	4.	0.	-2.	1.	1.				
	1.	2.	4 ?		16,000.	32,000.		2.	2.	2.	4.	0.	-2.	1.	1.				
	0.	0.	0.		0.			0.	0.	0.	0.	0.	0.	1.	1.			15.	
		6.	10.		72,000.	120,000.		6.	6.	6.	10.	0.	-4.	1.	1.				
	1.	4.	6 ?		48,000.	72,000.		4.	4.	4.	6.	0.	-2.	1.	1.			16.	
	1.	2.	4 ?		24,000.	48,000.		2.	2.	2.	4.	0.	-2.	1.	1.			16.	

[1] Task ID

The task is automatically assigned a unique number. The lines are numbered in ascending order from the top line, and the task level can be displayed by separating them with a colon ":". Example) 2.2.1 is task level 3 and 2.2.1.3 is task level 4 etc.

Note: Collapse / Expand Tasks

By clicking the task ID part of the summary task, you can collapse (hide) and expand (show) the subtasks of the summary task.

[2] Task Name

Set the task name. The task level is determined by the position of the column for entering the task name. Column C is the top task level 1 and column L is task level 10.

Note: Create a Comment Line

If you enter a character string beginning with a semicolon ";", it becomes a comment line, not a task line.

[3] Plan Duration

The planned work period of the task is the number of work days (does not include holidays). If you enter the planned start date and end date, work days will be calculated automatically according to the project calendar.

[4] Actual Duration

The work period actually required is displayed as the number of work days (not including holidays). This is only displayed for finished tasks and is calculated automatically when the actual finish date is entered. You can not input directly to this item.

[5] Plan Start/Finish Dates

This is the date when the task work was actually started or finished on plan. For tasks for which a preceding task has been set, they are automatically set in conjunction with the end date of the preceding task.
The date set as a holiday in the calendar can not be set.

[6] Actual Start/Finish Dates

This is the date when the task work was actually started or finished. By entering these actual dates, delay periods and various EVM index values are calculated automatically.
The date set as a holiday in the calendar can not be set.

[7] Percent Complete

Percent Complete is the degree of completion of the planned work of the task in%. For example, if you have a task that runs 10 tests, it will be 10% if you have run one, 50% if you have 5 runs, and 100% if you have all done. (Assuming that the number of steps to run one test is the same).
You can enter the percentage of tasks that have been launched in the range of 1% to 99%. The achievement rate for unstarted tasks is automatically set to 0%, and the completed tasks to 100%.

Note: EV Automatic Allocation
If you have a large number of tasks, it is difficult to percent complete(%) everyday. it is a function that automatically calculates the percent complete up to a certain value, assuming that the progress will be as planned. The default is 50%. For more details, please refer to the section on EV automatic allocation.

Note: Difference between Percent Complete and Schedule Efficiency Index (SPI)
Achievement rates do not indicate the degree of progress on a volume basis. The degree of progress based on volume is indicated by the schedule efficiency index SPI, which is one of the index values of EVM.

SPI = EV ÷ PV
(EV: Earned Value, PV: Planned Value)

On the other hand, the percent complete rate is

Percent Complete (%) = EV ÷ BAC
(BAC: Budget at Completion)

[8] Delay Duration

The Delay Duration is the number of work days that are behind the plan. Specifically, it is a difference period that does not include holidays with the shortest end date and the status report date (usually the current day). If there is one workday behind schedule, it is be displayed as 1 (plus 1) in red, and conversely, if it is one work-day advance of schedule, it is displayed as -1 (minus 1) in black.

Note: Delay Duration and SV, SPI

"Delay period" is indicator to easily understand the progress of the project. However, although this is suitable for evaluating the work package (lowest level) task, which is the smallest unit of tasks, it can not always correctly evaluate a summary task consisting of multiple tasks or the entire project.
For these progress assessments, it is necessary to use "schedule difference (SV)" or "schedule efficiency index (SPI)" which is one of EVM index values together. "Delay period" is the difference between the planned finish date and the actual finish date of the task, while SV and SPI evaluate the difference in the volume at a certain point in time.
These three indicators will be displayed at the same time by selecting "Progress + SV, SPI" in the WBS view.

[9] CPM Delay

※ It is a new function of ProjectExceler2. It is not supported in version 1.

This is forecasted delay duration. The "Delay Dur" item is the number of work days actually delayed from the plan, on the other hand, "CPM Delay " is the number of work days potentially expected to occur in the future if no measures are taken. This is the difference period (excluding holidays) between the "forecast end date" and the "planned end date" of the WBS calculated by the CPM (critical path method).

Note: Applicable tasks for forecast overrun

Forecast overrun is applied only to tasks having a preceding task. The value of the "CPM Delay" of the task with no preceding task is the same as the "Delay Dur".

Memo: ES delay duration

The ES delay duration calculated by the ES (earned schedule) method of EVM does not depend on the task links. Please refer to both the ES delay duration and the CPM delay duration and use them comprehensively to evaluate the project status.

[10] Forecasted Start Date

The forecasted start date is the task start date forecasted from the current progress and task link relationship.

- For started tasks, the forecast start date is the same as the actual start date.
- For unstarted tasks, the forecast start date is calculated based on the forecasted finish date of the preceding task.
- For a completed task, it is the same as the actual start date.

[11] Forecasted Finish Date

This is the finish date of the task forecasted from the current progress and task link relationship.

- For started tasks, the forecasted finish date is calculated on the assumption that the remaining work will be performed at the originally planned work efficiency.
- For a completed task, it is the same as the actual finish date.

[12] Fastest Finish Date

This is the finish date calculated on the assumption that the task's remaining work will be performed at the originally planned work efficiency. It does not consider the preceding task progress.

Note: Fastest Finish Date and Gantt chart Overrun Bar

If a task is delayed, a pink overrun bar is displayed on that task line on the Gantt chart. The left end of the bar is the fastest finish data of ths task.

[13] Plan Resource

Assign resources (people) to perform task tasks. You can also specify the resource allocation rate. The resources to be assigned are defined in the resource sheet in advance. If the resource name has not been determined, the resource name is displayed as "TBD". TBD means "To Be Determined"" in English.

[14] Actual Resource

You can optionally set actual resrouce in this field if it is different from the planned resource, or its allocation rate.

[15] Plan Headcount

This is the number of people assigned to the task. More precisely, it is the number of man-days assigned to tasks per day. If the standard workiing hours of the day is 8 hours, the planned headcount of people 2 means that 2 x 8 = 12 hours is assinged to the task. In this case, two different resources are not necessarily assigned.

[16] Plan Work

Thi is displayed in man-day. For example, if one resource is allocated 100% and the planned duration of the task is 5 days, the planned work is equal to 1 man-day x 5 days = 5 man-days.

[17] Actual Work

Actual man-days are calculated and set automatically from planned work and actual duration. The actual work that have been set automatically is followed by “?” (i.e. 10 ?) If you want to overwrite it, you can manually enter the actual work value(man-days). The actual work value manually entered is not followed by "?".

[18] Task Type

Task Type is the type of calculation method for work(person^days), duraction, headcout. For each task, you can set one of the following three as "task type". You can set priority among work, duration, headcount.

Fixed HeadCount (default): Fix headcount and recalcuate work or duration.
Fixed HeadCount: Fix duration and recalculate work or headcount.
Fixed Duration: Fix duration and recalculate work or headcount.

Note: If task type field on WBS is blank, it means default type of "Fixed HeadCount".

[19] Plan Cost

- When the cost type is "work based" (default), it is the cost of resource assigned to the task and it is automatically calculated and displayed in the field by multiplying the resource unit price by its work hours.
- When the cost type is "Fixed", you need manually set the fixed amount regardless of the amount of work.

[20] Actual Cost

- When the cost type is "work based" (default), it is the cost of resource assigned to the task and it is automatically calculated and displayed in the field by multiplying the resource unit price by its work hours.
- When the cost type is "Fixed", you need manually set the fixed amount regardless of the amount of work.

-If the cost type is "Fixed", the planned cost is displayed as the default value. However, you can manually change the actual cost if it is different from the actual cost.

[21] Cost Type

Select a method to calculate the cost of the task. The cost of a task is the amount of money required to perform that task. There are two ways to calculate the cost:

- Work-Based It depends on resource cost (man-days ×unit cost)
- Fixed It is fixed cost

[22] – [29] EVM Values

[30] Remarks

(Added to standard WBS items from ProjectExceller 2)
Please fill in the supplementary information as necessary.

■ **“Memo (Remarks)” function**

You can also right-click on a task, click on “Memo (Remarks),” and edit it in the Task Info dialog.

■ **"Display memo mark in task row" option**

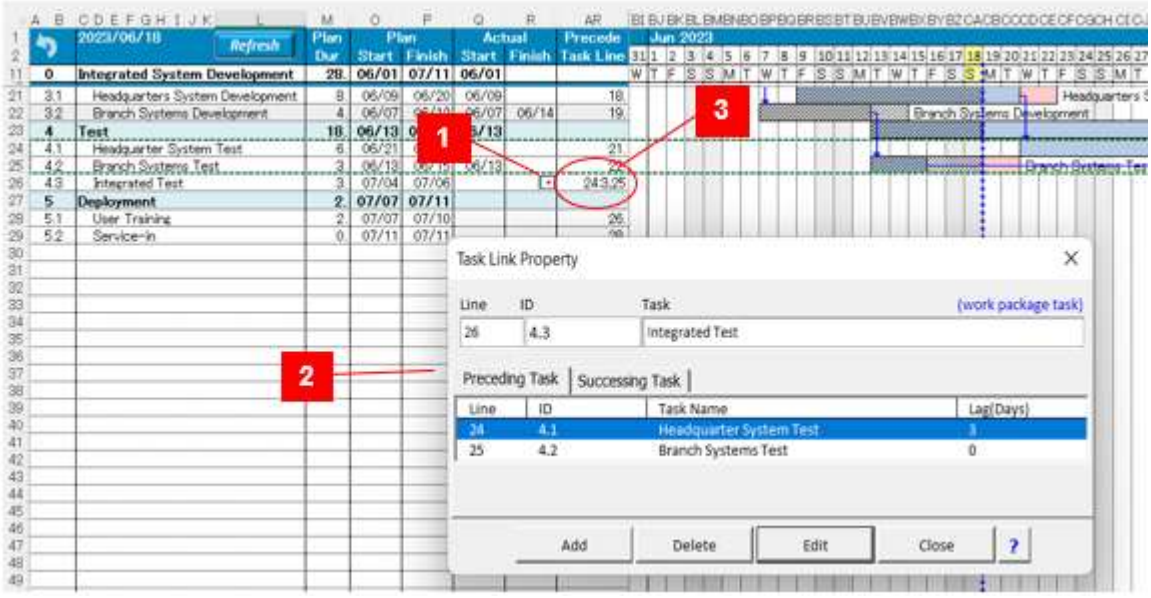
If this option is enabled, a "memo mark" will appear on tasks with remarks data, and clicking on the mark will open the Task Info dialog.

[31] Message

(Added to standard WBS items from ProjectExceller 2)
When importing actual input data in the actual input file function, the contents of "message" column of the actual input sheet are copied to "message" column of the project sheet.

[32] Precede Task Line

(Added to standard WBS items from ProjectExceller 2)
Displays the line number of the preceding task for which a task link has been set.
This item cell cannot be entered directly. You can edit it from the Link Properties dialog ([2]) via the ▽ ([1]) button in the figure below, or use the Set Task Link, Delete Task Link from the right-click menu.
If there are multiple preceding tasks, they will be listed side by side, separated by ",", and if there are link intervals, they will be displayed in the format "**Line Number:Interval Days**". For task "4.3 Integration Test" in the figure, the value of "Precede Task Line" is "24:3,25" ([3]). This indicates that there are two preceding tasks, lines 24 and 25, and that the link interval for the preceding task in line 24 is "+3 days.

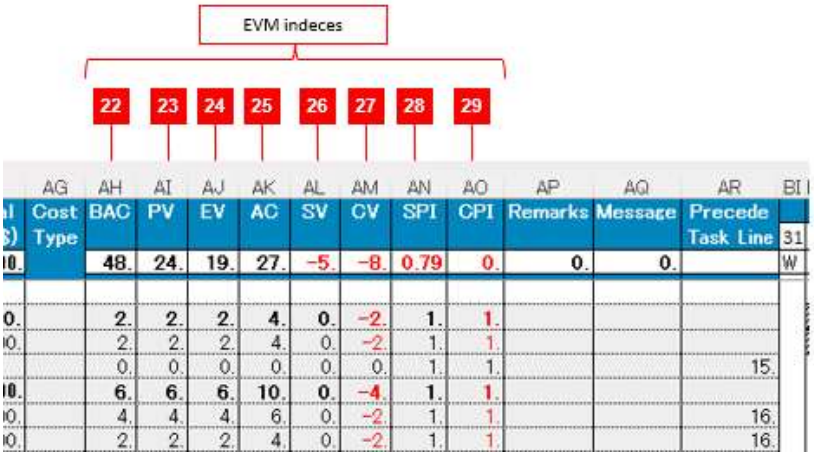


EVM Values

EVM is a method of quantifying project progress and work performance by cost and evaluating the current and future status of the project. ProjectExceller supports the following EVM values as WBS items:

Memo: What is EV (Earned Value)?

EV is the planned output value previously assigned at the time of planning to the work completed at a certain point. Use "Work(man-days)" or "Cost (amount of money" as the unit of value.



AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	BI
Cost Type	BAC	PV	EV	AC	SV	CV	SPI	CPI	Remarks	Message	Precede Task Line	31
	48.	24.	19.	27.	-5.	-8.	0.79	0.	0.	0.		W
	2.	2.	2.	4.	0.	-2.	1.	1.				
	2.	2.	2.	4.	0.	-2.	1.	1.				
	0.	0.	0.	0.	0.	0.	1.	1.			15.	
	6.	6.	6.	10.	0.	-4.	1.	1.				
	4.	4.	4.	6.	0.	-2.	1.	1.			16.	
	2.	2.	2.	4.	0.	-2.	1.	1.			16.	

[22] BAC

Budget At Completion

Memo: What is the cost?

You may think of money as "cost", but in project management, it is a physical quantity required to complete a certain task. you can select the unit of value as either "Work(man-days)" or "Cost (amount of money)". Default value is work (man-days).

Note: How to select cost unit

Click Option button in ProjectExceller tab on the ribbon and select EVM Tab, EV unit on Option dialog.

[23] PV

Planned Value
The output value assigned to each work at the time of planning.

[24] EV

Earned Value
The amount of cost originally assigned to the cost completed up to the present time. For example, if you were to assign 10 as a cost at the time of planning and complete them at a cost of 20, the Earned Value (EV) would be 10.

[25] AC

Actual Cost
The cost actually required to do the work.

[26] SV

Schedule Variance
SV = EV-PV
Show the differences seen from the schedule side of each task.

SV> 0 advanced
SV <0 delayed
SV = 0 on schedule

[27] CV

Cost Variance
CV = EV-AC
We show the difference in terms of the cost of each task.

CV> 0 under budget

CV <0 over budget
CV = 0 on budget

[28] SPI

Schedule Performance Index
SPI = EV / PV
It shows the efficiency seen from the schedule side of each work.

SPI <1 advanced
SPI> 1 delayed
SPI = 1 on schedule

[29] CPI

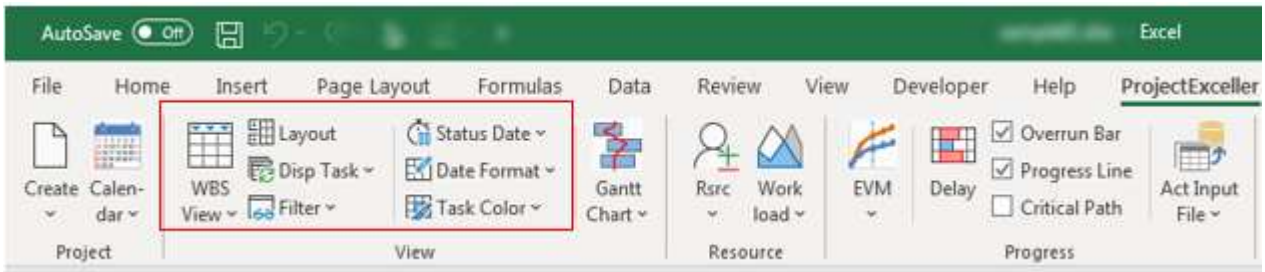
Cost Performance Index
CPI = EV / AC
Shows the cost efficiency of each task.

CPI <1 over budget
CPI> 1 under budget
CPI = 1 on budget

3.3. WBS Related Menu

You can perform functions related to WBS from the WBS group menu of ProjectExceller ribbon tab and the right click menu on WBS.

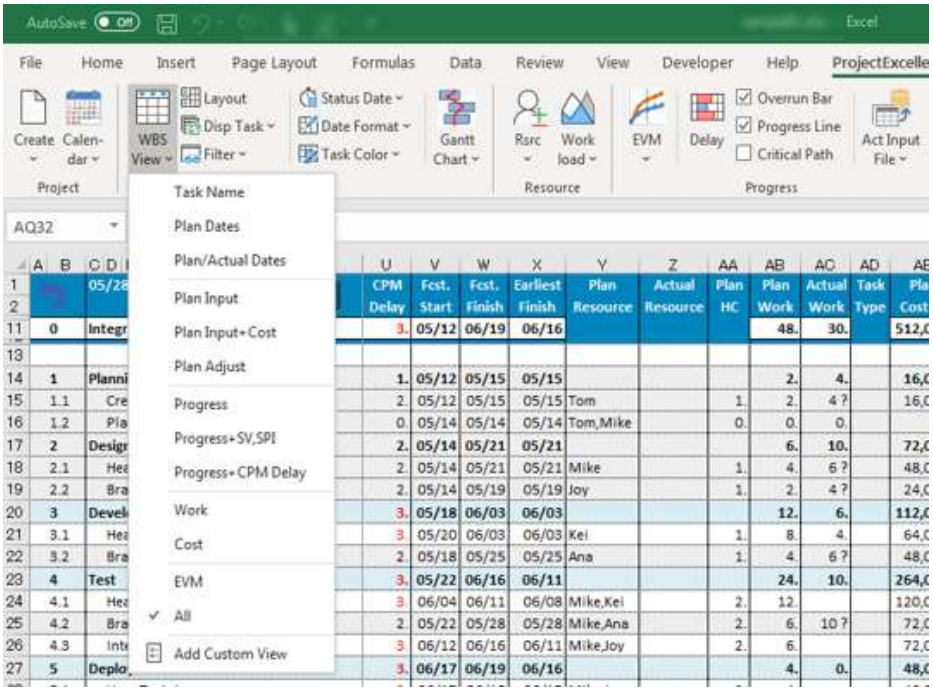
Ribbon WBS Related Menu



A menu of functions and settings related to the entire WBS.

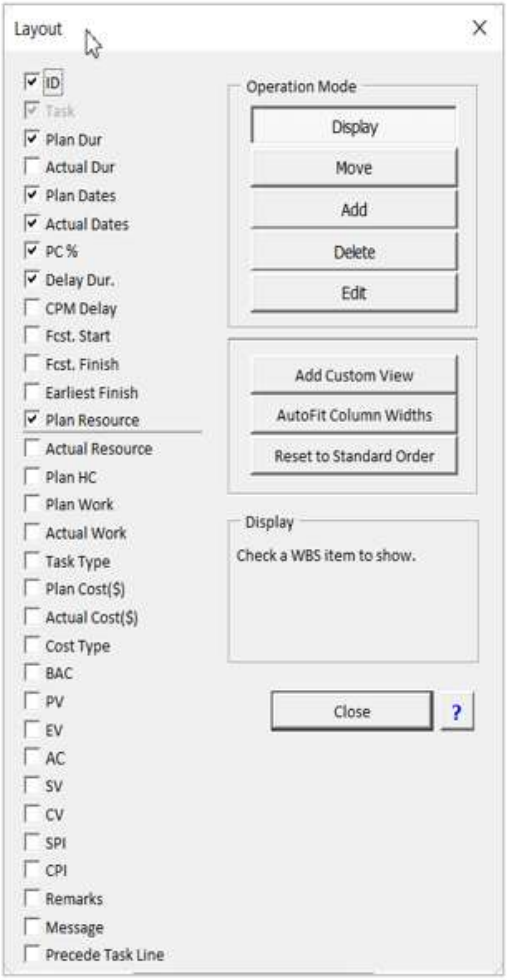
WBS View

Switches the WBS view (combination of items displayed in WBS). Select from standard views or user-defined user-defined views. It can also be executed from the right click menu of the WBS header.



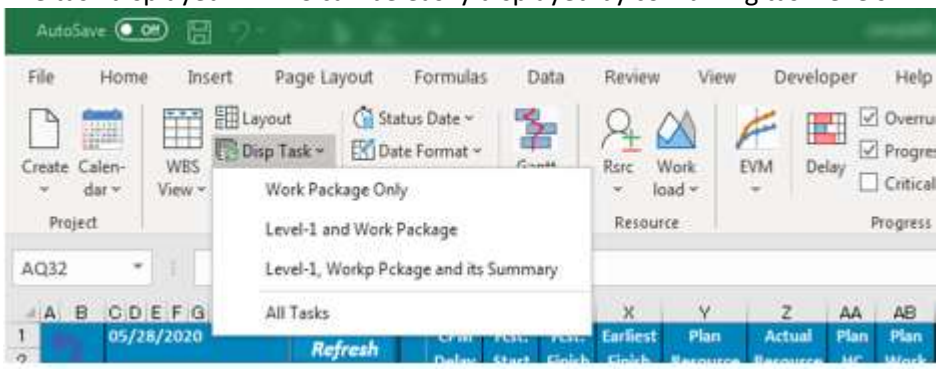
Layout

Customize WBS view. Select items to display from 30 or more standard WBS data items. In addition, users can add their own user-defined items and set the order of items.



Display Task

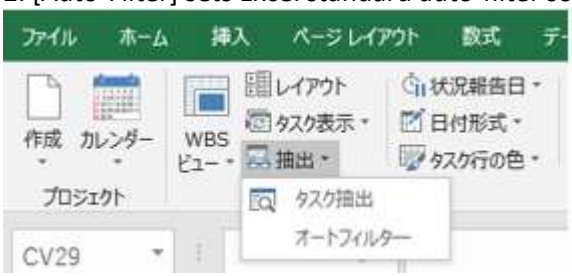
The task displayed in WBS can be easily displayed by combining task levels.



Filer

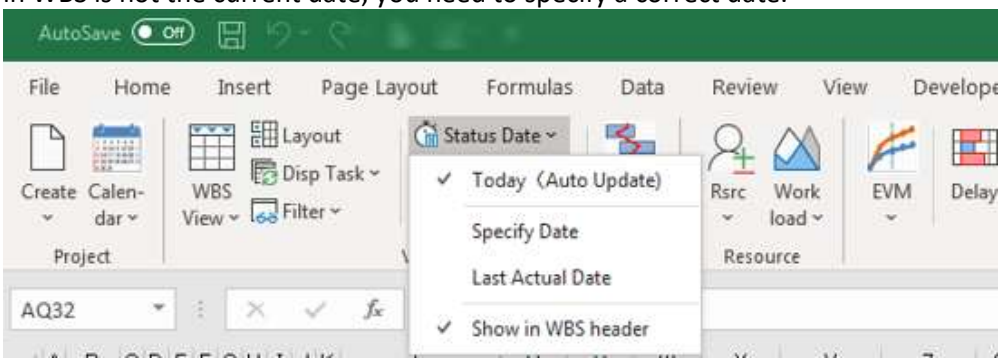
There are the following two extraction methods.

1. [Extract Task] displays and extracts the dialog for specifying the extraction condition.
2. [Auto-Filter] sets Excel standard auto-filter so that task line can be extracted.



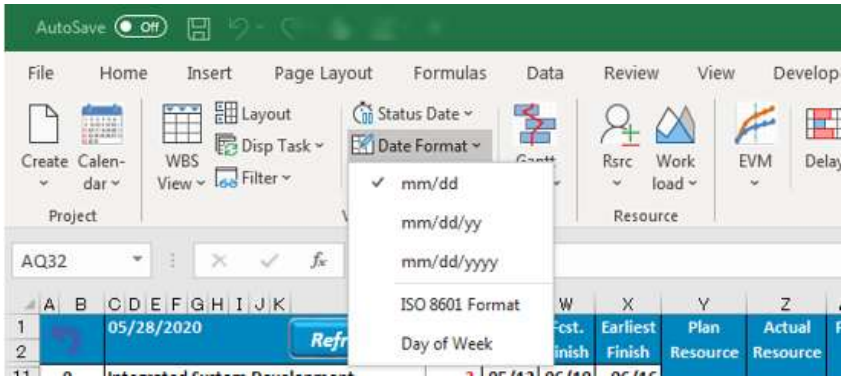
Status Date

The status date is the date of progress of the project. The delay period displayed in the WBS, various EVM indicators, EVM graph values, etc. are determined by the status report date. The default is the current day. If the data entered in WBS is not the current date, you need to specify a correct date.



Date Format

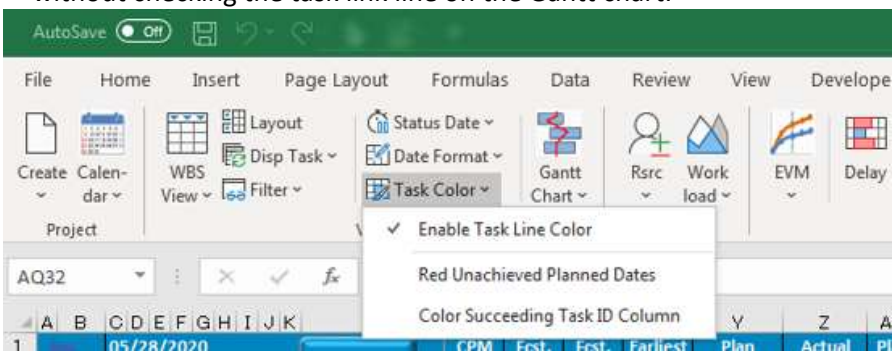
Specifies the date format on WBS. The default is “mm/dd” format.



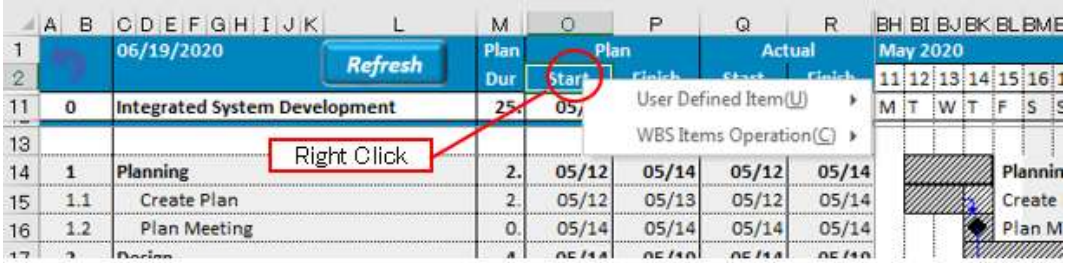
Task Color

Set the color of WBS line.

- Enable Task Line Color
  Enable background color for summary task, complete task lines.
- Unachieved Planned Dates in Red
  The planned start date and end date of tasks that have started or have not been completed even after the planned date will be in red. This makes it easy to identify delayed tasks.
- Color ID col of follow link task
  You can easily identify the task for which a lead link is set. This makes it possible to determine with WBS alone without checking the task link line on the Gantt chart.

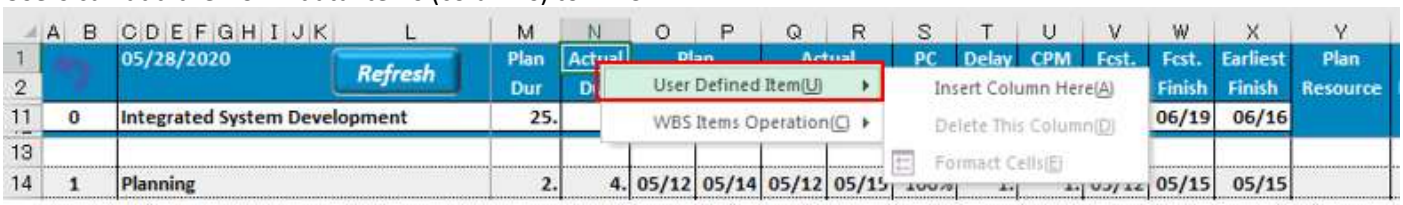


Right Click Menu in WBS header



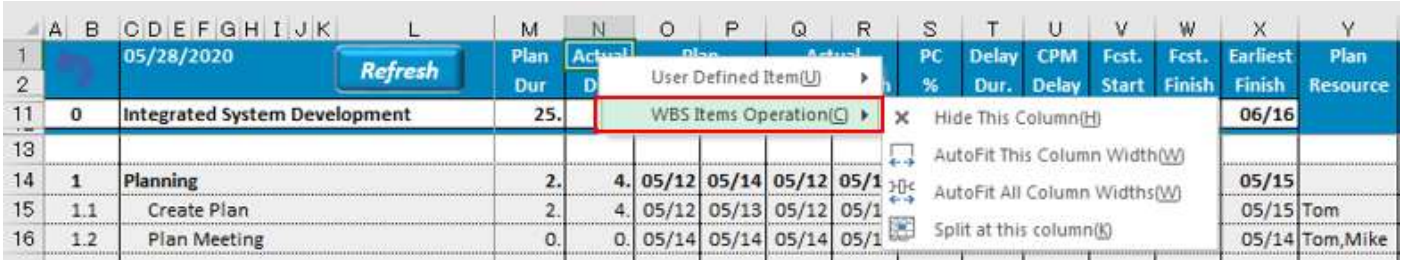
User Defined Item

Users can add their own data items (columns) to WBS.

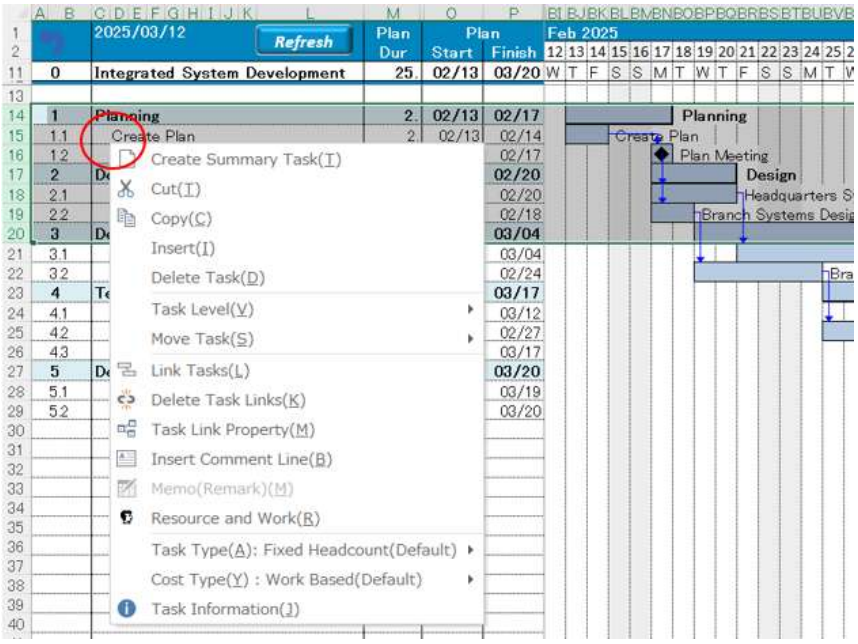


WBS Item Operation

It is a function to operate the data item column of WBS. Select the target column and execute.



Right Click Menu on Task Lines



Create Task

Create a new task on the selected line.

Copy, Paste

Copy selected task line. When copying, [Paste] item is displayed in the right-click menu.

Note:

1. You can not use the Excel built-in copy and paste icons on the ribbon. Use the right-click copy and paste function.
2. You can not copy multiple areas (the area to be copied is divided into two or more).
3. You can not paste on a summary task line.
4. In some cases, pasting WBS items into cells may be restricted to maintain integrity on the project sheet.
5. You can copy and paste multiple lines by copying the entire line. However, you can not paste to overwrite existing task lines.
6. If you want to copy some tasks from another project sheet, you need to select and copy the entire task lines.
7. When pasting into a cell that can not be pasted, the error dialog about sheet protection may be displayed. If this error dialog is displayed by entering or pasting into the WBS, it means that the cell can not be entered.

Insert

Insert a blank line.

Delete Task

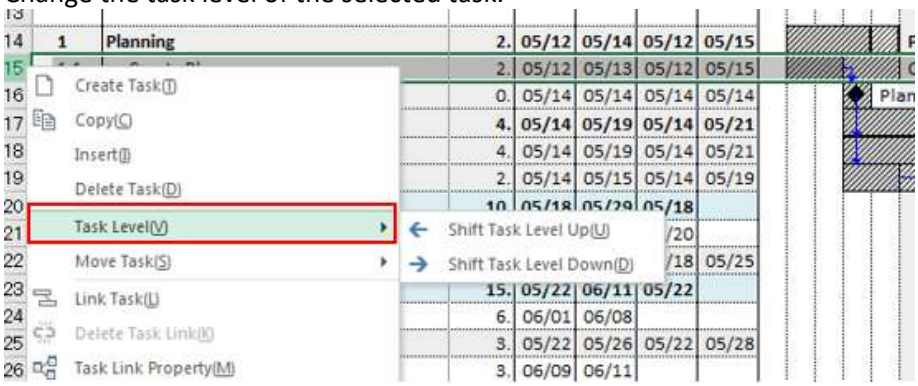
Delete selected a task row or range.

Note:

1. You can delete multiple tasks at once by specifying a range. However, you can not specify multiple areas (the selection range is divided into multiple).
2. If the delete target includes summary tasks, its all sub tasks are expanded to delete.
3. If a task linked to a preceding task is deleted, the link automatically establishes the successor task, preceding task, and successor task of the deleted task.

Task Level

Change the task level of the selected task.

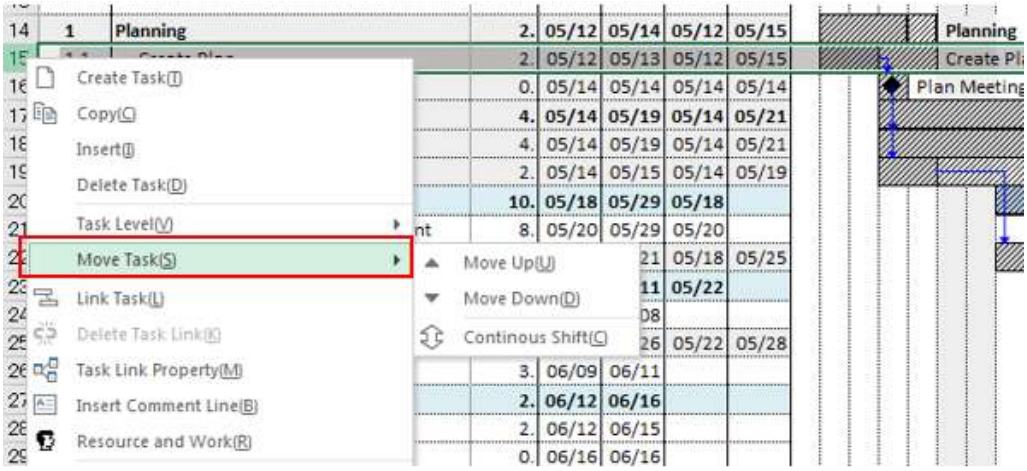


Memo:

Tasks are defined in 10 levels. Task level 1 is the top-level task on WBS and is defined in the leftmost column (column C) of the task name field (columns C to F). Below are the levels 2, 3 ... 10 one line in the right direction. Also, the task level is 0 for the entire project sheet.

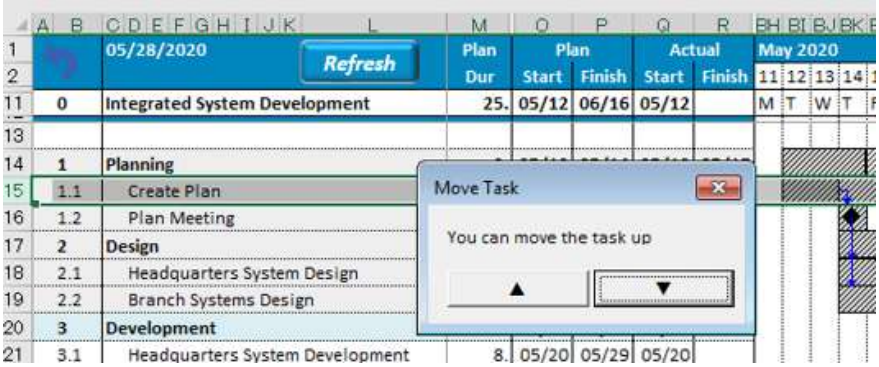
Move Task

Moves the line position on the WBS of the selected task up or down.



Contious Shift

The following dialog is displayed. You can move tasks up and down continuously by pressing the up and down buttons.



Link Tasks

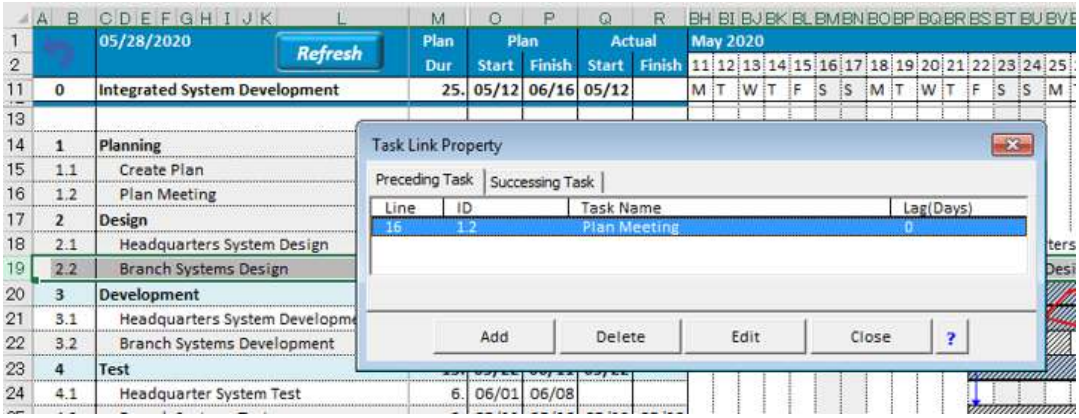
Set dependencies between tasks.

Delete Task Link

Release the dependencies between tasks.

Task Link Property

Displays a dialog that displays the dependencies set for the task. You can set and release task links in the dialog.

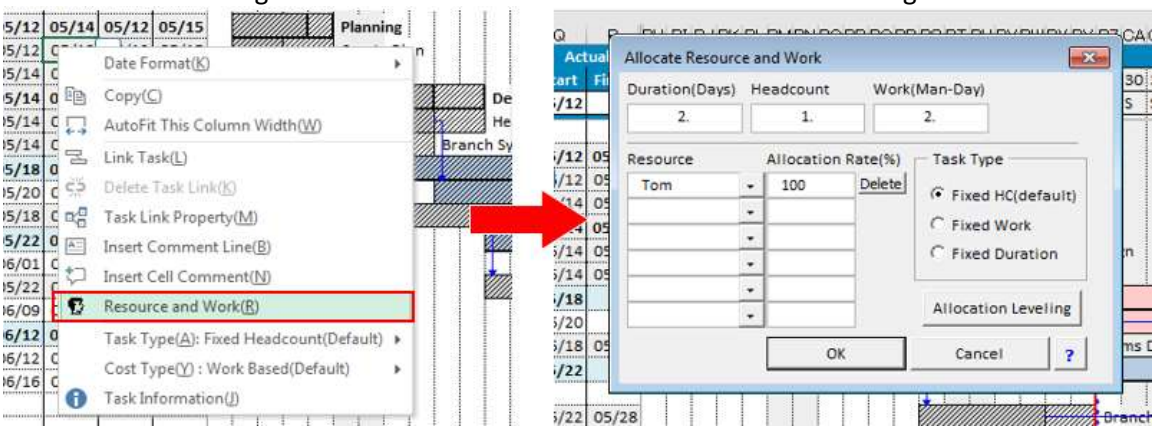


Insert Comment Line

Insert a comment line in the specified task line.

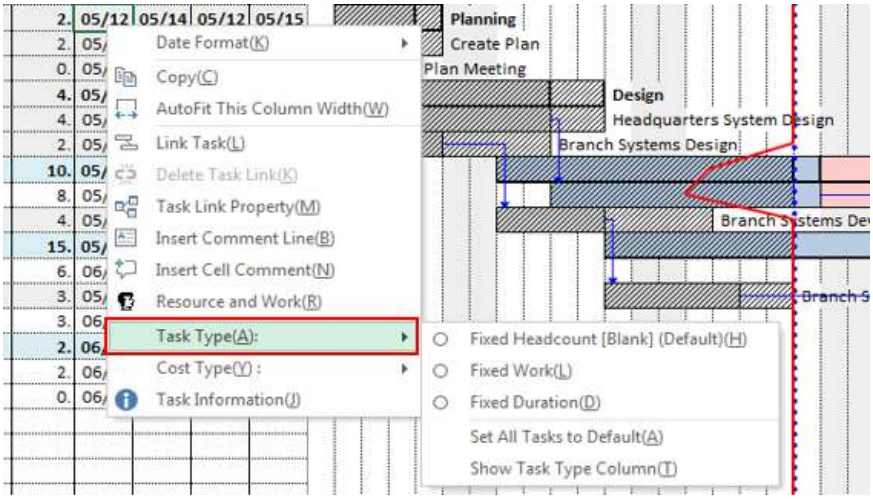
Assign Resource and Work

You can set and change resources and work of the selected task in the dialog.



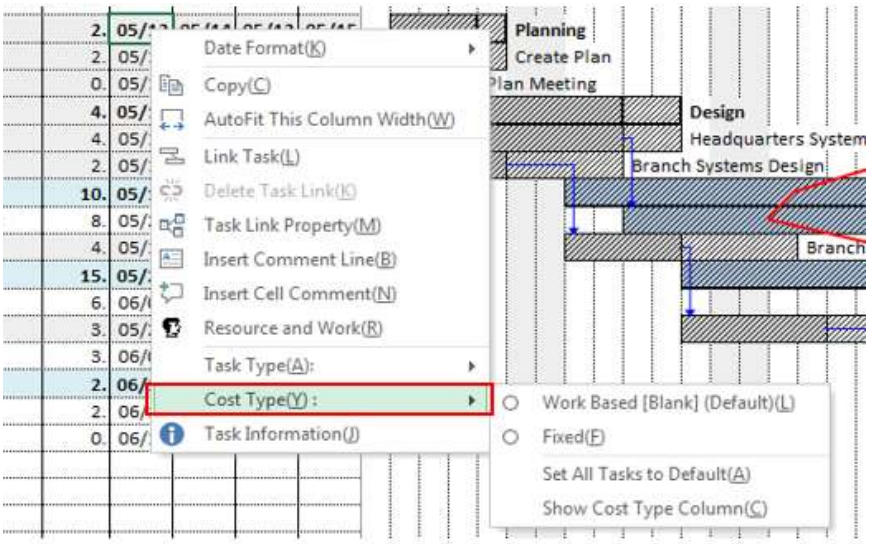
Task Type

The task type of the selected task is displayed in the right-click menu. You can select and change the task type from the submenu.



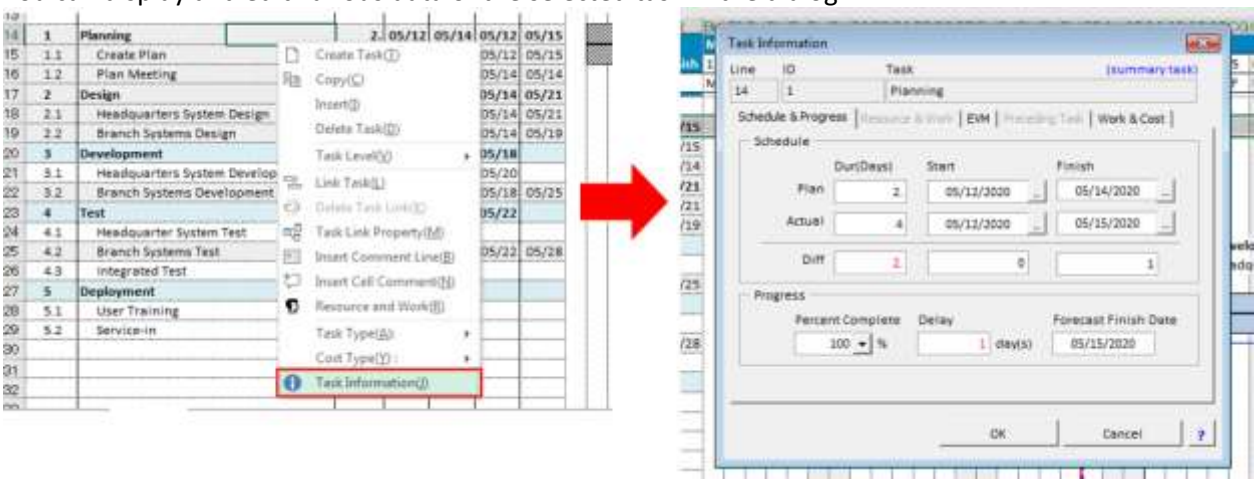
Cost Type

The cost type of the selected task is displayed in the right-click menu. You can select and change the cost type from the submenu.



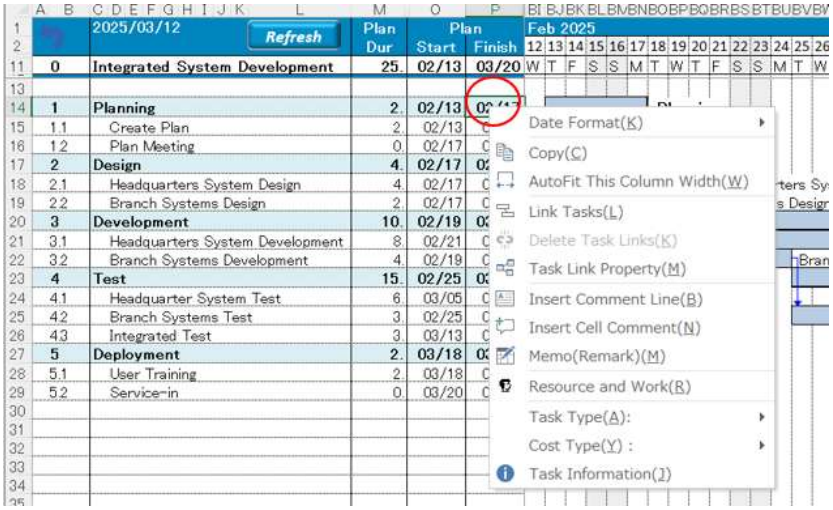
Task Information

You can display and edit various data of the selected task in the dialog.



Right Click Menu in WBS data range

Here, only the functions specific to cell selection are explained. For other functions, refer to "Right-click menu in task row selection".



Date Format

You specify the date format on WBS. The default format is “mm/dd”. This is the same function as the “Date Format” button on the ProjectExceller Ribbon.

AutoFit This Column Width

Optimizes the column width of the selected WBS data item.

Insert Cell Comment

Set the Excel standard function comment to the selected cell.

Memo (Remarks)

Information can be written without displaying the Remarks column of the task.

3.4. Change WBS view

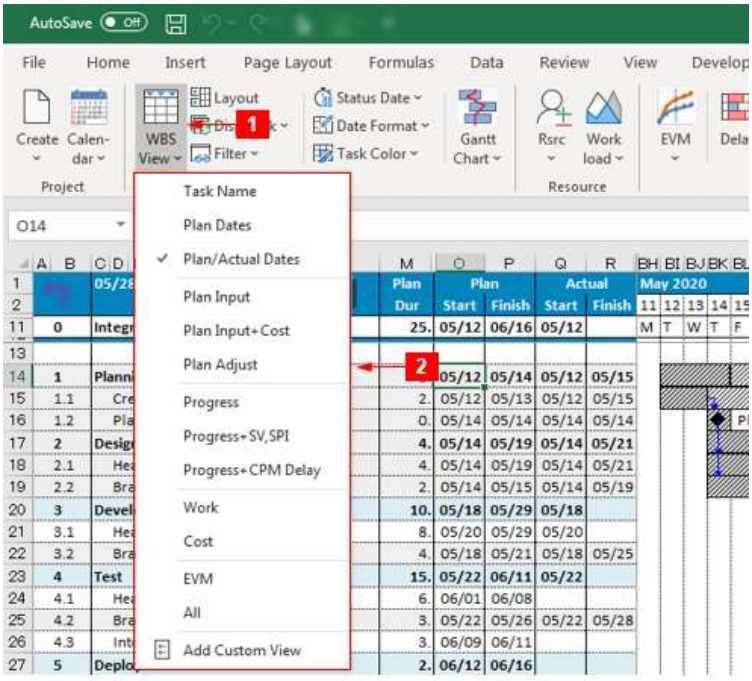
WBS has more than 30 standard data item sequences. A combination of frequently used items is provided as a standard WBS view. In addition, you can register up to four combinations of user-specified items as custom views.

Standard WBS view

You can select a standard WBS view as follows:

[1] Click the [WBS View] button on the ribbon.

[2] Select from the list of standard WBS views.



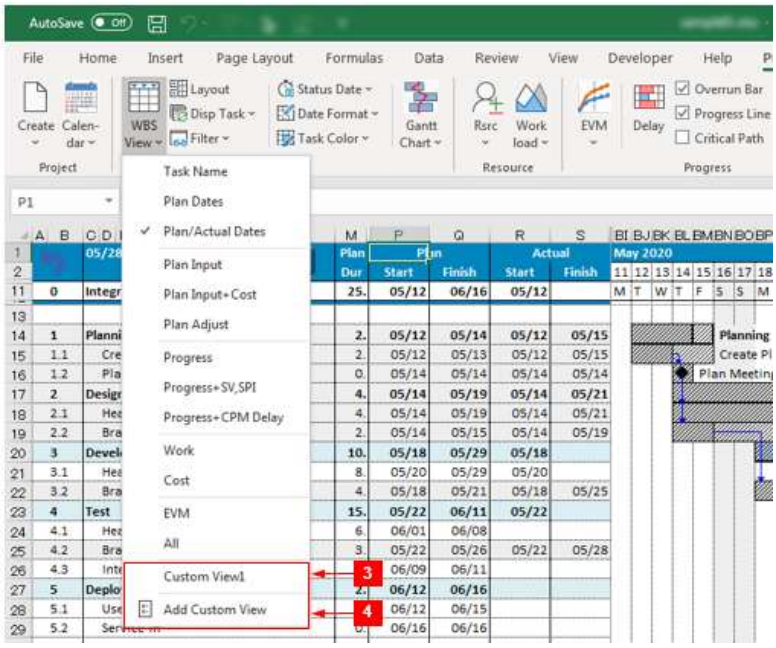
Custom WBS View

You can set your own WBS view (custom view) of the combination of WBS items selected by the user according to the following procedure.

[3] Up to four currently displayed WBS views can be registered as "custom views".

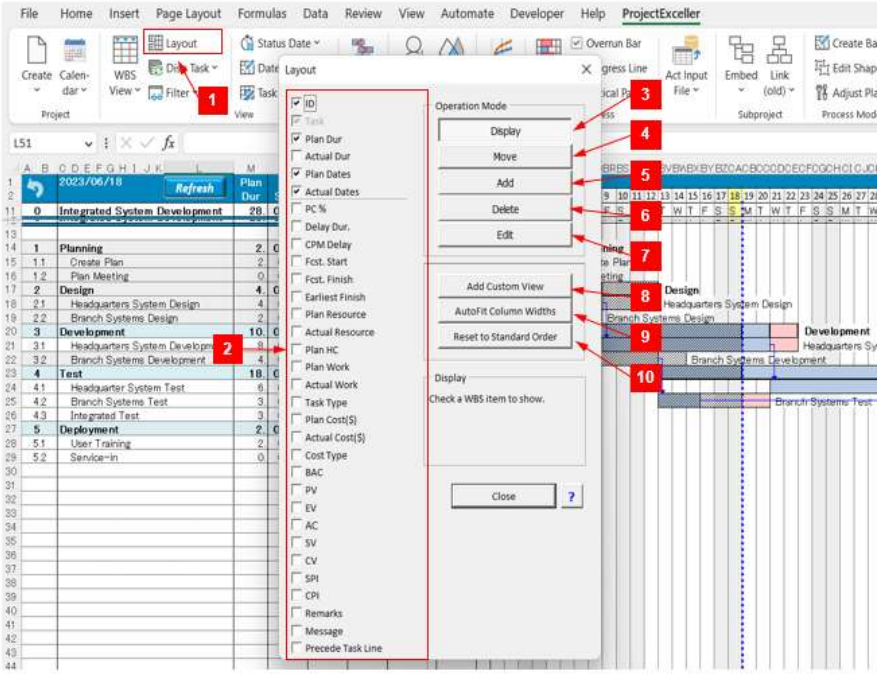
Registered custom views are displayed in the [WBS View] list. (**[4]**. in the figure)

Note: You can choose to show or hide individual WBS items from the Layout button on the ribbon.



3.5. Change Layout of WBS items

WBS consists of over 30 standard WBS data items. Although the display of these items can be selected by the [WBS View] function, the following "Layout" function allows more detailed settings.



It is invokded in the following steps.

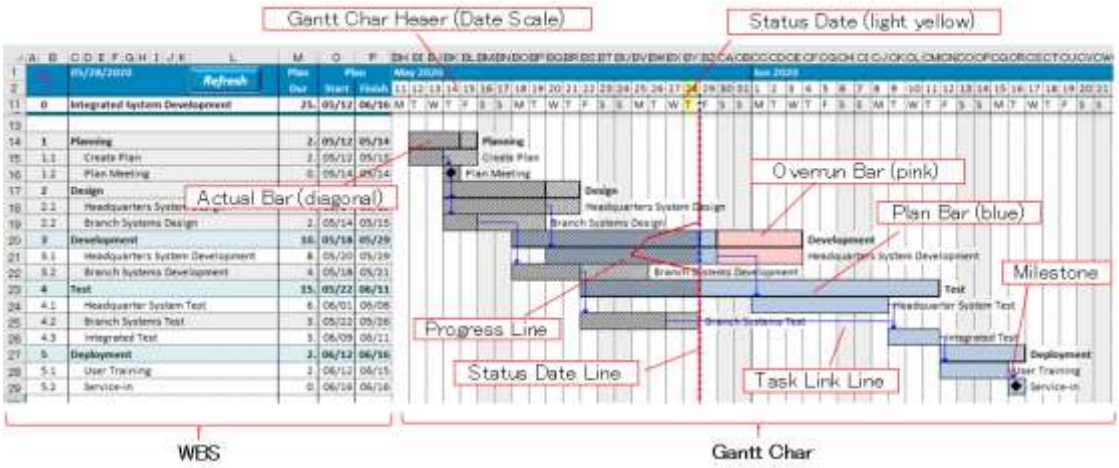
[1] Invoke [Layout] function
Click the Layout button on the ProjectExceller ribbon tab. A dialog is displayed.
Select the required function from the next [Layout] dialog.
[2] WBS Item List
Select the item to be processed.
[3] Display
Select the item to be displayed from the list.
[4] Move
Move the position of the item.
[5] Add
Create a user-defined item. User-defined items are displayed in blue on the item list.
[6] Delete
Delete a user-defined item. Standard items can not be deleted.
[7] Edit
You can change the properties (field name, format, etc.) of user-defined items.
[8] Add Custom View
Registers the combination of items currently displayed as a custom view. The registered view can be selected from the WBS view.
[9] AutoFit Column Widths
Adjust the currently displayed WBS item column to the optimum width.
[10] Reset to Standard Order
If the position of the WBS item has been changed with the [Move] function, the standard order is set to default.

Chapter 4. Gantt Chart Operation

The Gantt chart represents the duration of each WBS task as a task bar. ProjectExceller has many features that let you see the status of your project plans and progress at one glance. This chapter describes the Gantt chart functions.

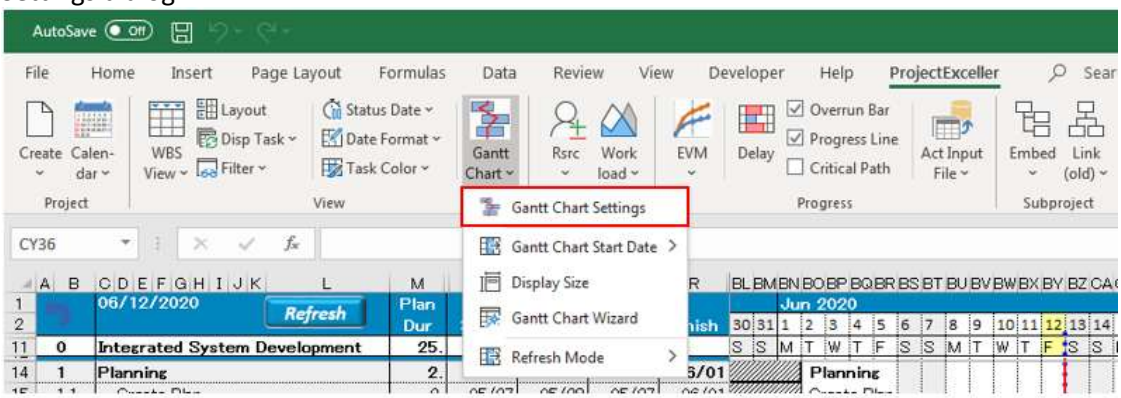
4.1. Gantt Chart Layout

The right side of the project sheet is the Gantt chart. The main parts of the Gantt chart are shown in the following sample. This is default settings.

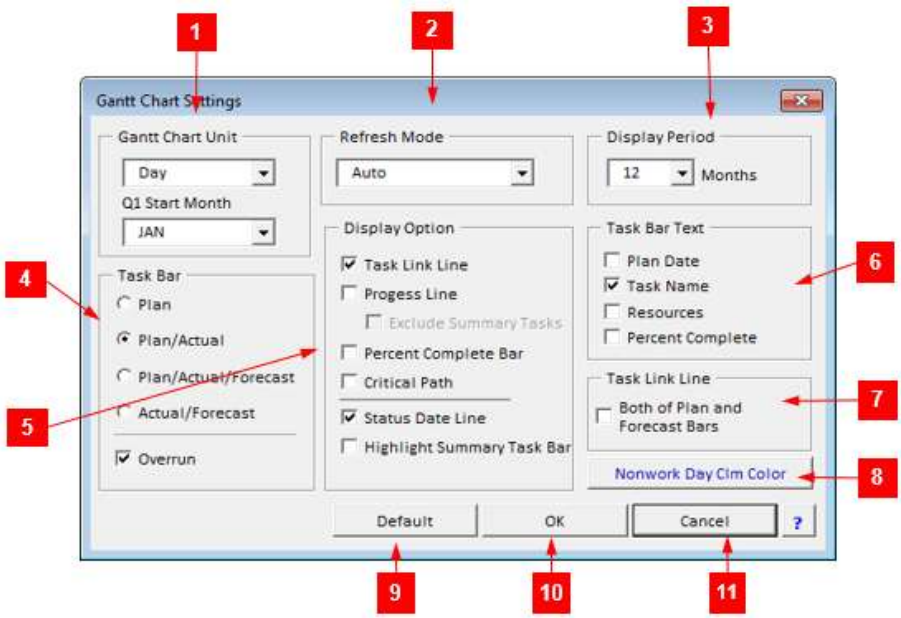


4.2. Gantt Chart Settings

Click the Gantt Chart Setting on the Gantt Chart sub menue on the ProjectExceller tab to display the Gantt Chart Settings dialog.



You can configure most of the Gantt chart settings in this dialog. Settings can be set for each project sheet.



[1] Gantt Chart Unit

The Gantt chart can be displayed on a daily, weekly, monthly, quarterly and yearly. The default is daily.

[2] Refresh Mode

Set the Gantt chart update method when data of WBS is input. If the project has many tasks, you can improve input response to the WSB by switching to Manual or Direct Edit mode.

Auto: All areas of Gantt chart will be updated. (Default)

Manual: Gantt chart is not updated. Update with Refrsh button.

Direct Edit: You can edit Excel directly at high speed without ProjectExceller. The Gantt chart is updated with the Refresh button.

[3] Display Period

This is the display period when the Gantt chart is in daily units. The expected value is 1 year (12 months). You can select between 6 and 36 months from the combo box, or enter a value directly to extend it up to 10 years (120 months).

Note: Extending the period will slow down processing. The default value of 12 months is recommended.

[4] Task Bar

Select the task bar to be displayed from the following combinations.

- Plan bar
- Plan/Actual bar
- Plan/Actual/Forecast bar
- Actual/Forecast bar

Overrun bar as an addition to the above combination

[5] Display Option

- Display Item: Task link line, Progress line, Percent Comple bar, Critical path, Status report date line.
- Summary Taskbar Color: Highlights the color of summary task lines to make it clearly distinguishable from the work package (lowest-level) task lines.

[6] Task Bar Text

Displays the following information about the task on the right side of the task bar (the start date is left):

- Planned Date
- Task name (default)
- Resource

[7] Percent Complete (%)
Task link line (simultaneous display on both plan bar and forecast bar)
When a forecast task bar is displayed, link lines are displayed on both the plan and forecast task bars.
[8] Nonwork Dasy Clm Color

Changes the background color of the non-working day column. This is set for each project file.

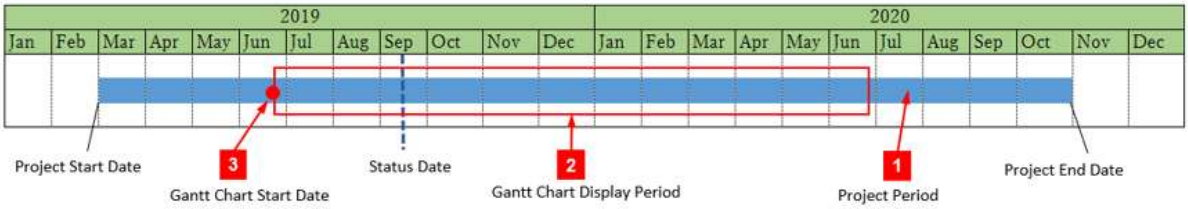
[9] Default
Restore Gantt chart settings to the default values.

[10] OK
Apply the selected setting to the Gantt chart and confirm.

[11] Cancel
Closes the dialog without reflecting the selected settings on the Gantt chart.

4.3. Gantt chart start date

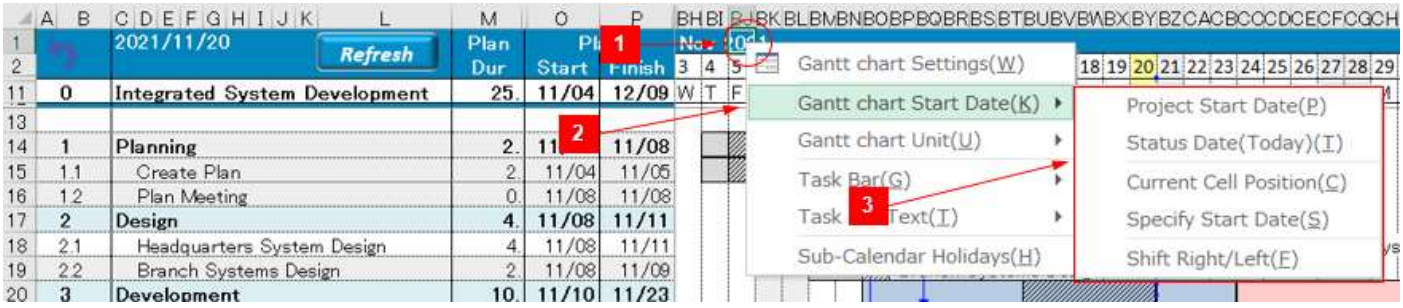
The Gantt chart display period **[2]** is 12 months (Note 1) in the case of daily units. If the project period **[3]** is longer than the Gantt chart period, you need to adjust the Gantt chart start date **[1]**.



注 1: ガントチャート表示期間は、日単位の場合、36 か月まで拡張可能です。
Note 1: The Gantt chart display period can be extended to 36 months in the display unit of day.

Change start date of Gantt chart

You can change the Gantt chart start date as follows.
[1] Right click on Gantt chart header.
[2] Click [Gantt chart Start Date].
[3] Select the start date from the submenu.



■ **Project Start date**
Display Gantt chart from project start date.
■ **Status Date**

Display Gantt chart from the status date.

■ **Current Cell Position**

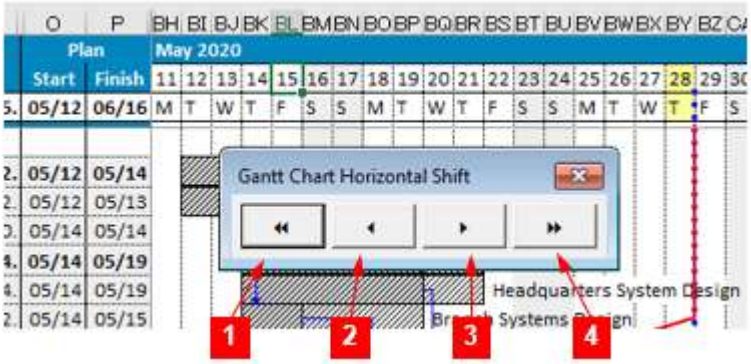
Displays Gantt chart from the currently selected cell position.

■ **Specify Start Date**

Select a specific date in the calendar dialog and display Gantt chart form the date.

■ **Shift Left/Right**

Shift the Gantt chart start date to the left or right in the next dialog.



[1] Shift start date to the left by one screen
[2] Shift start date by Gantt chart display unit to the left
[3] Shift start date to Gantt chart display unit, right
[4] Shift start date to the right by one screen

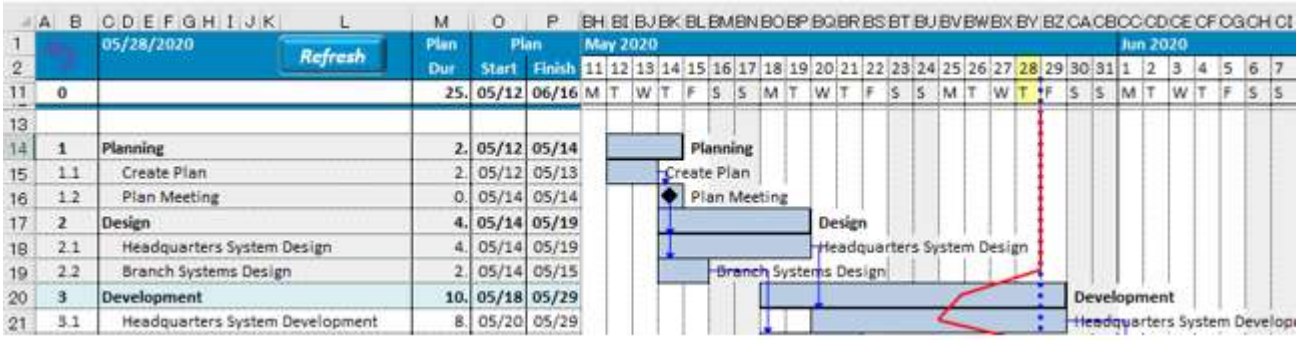
4.4. Gantt chart Display Unit

The Gantt chart header (1 to 11 lines at the top of the Gantt chart) shows the date scale. The default value for this display unit is days. By changing the display unit to week, month, quarter, half year or year, you can display a project with a longer period.

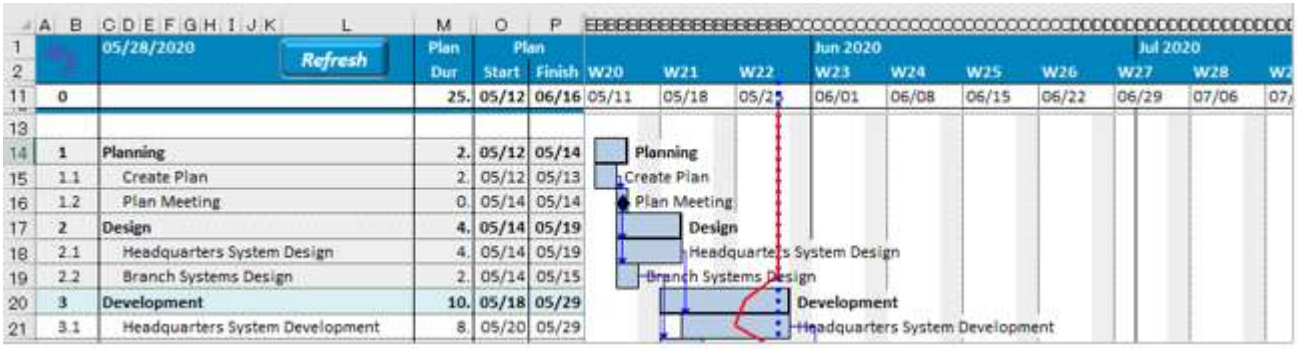
Change Display Unit

You can change the display unit as follows.
[1] Right click on the Gantt chart header.
[2] Click [Gantt chart Unit].
[3] Select the unit you want to set from the submenu.

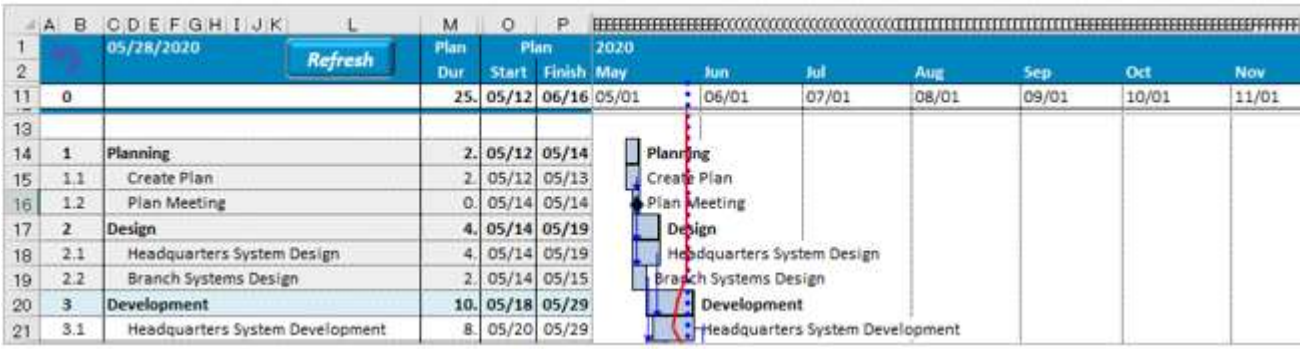
Day



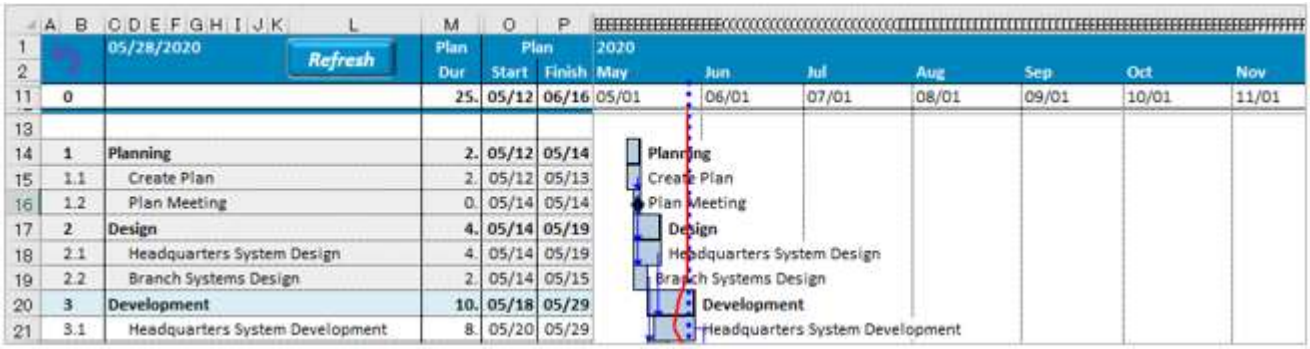
Week



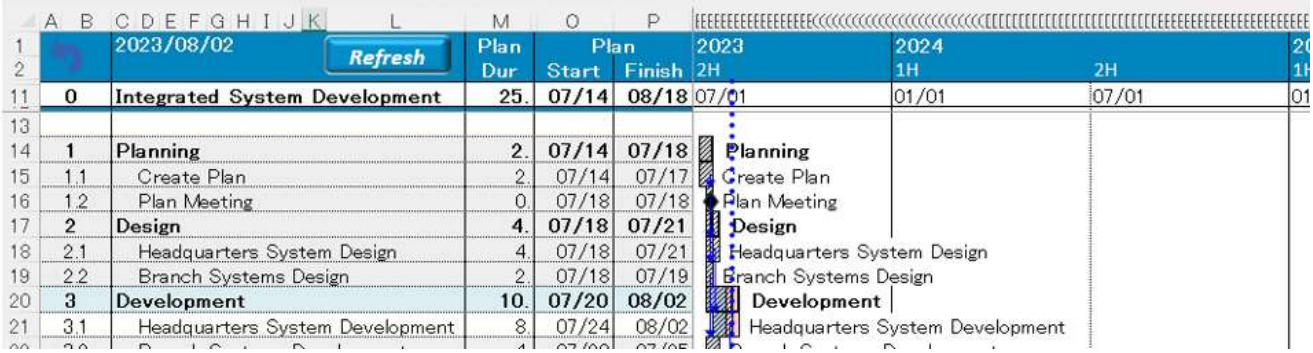
Month



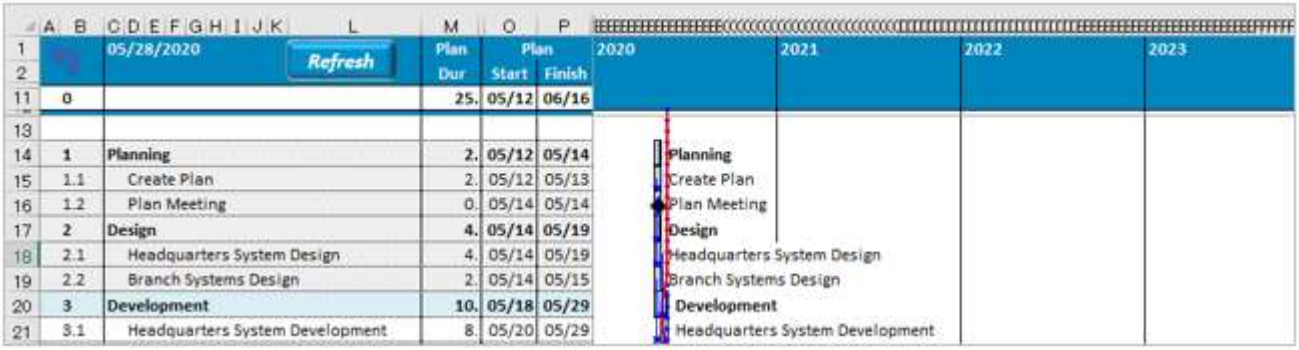
Quater



Half Year



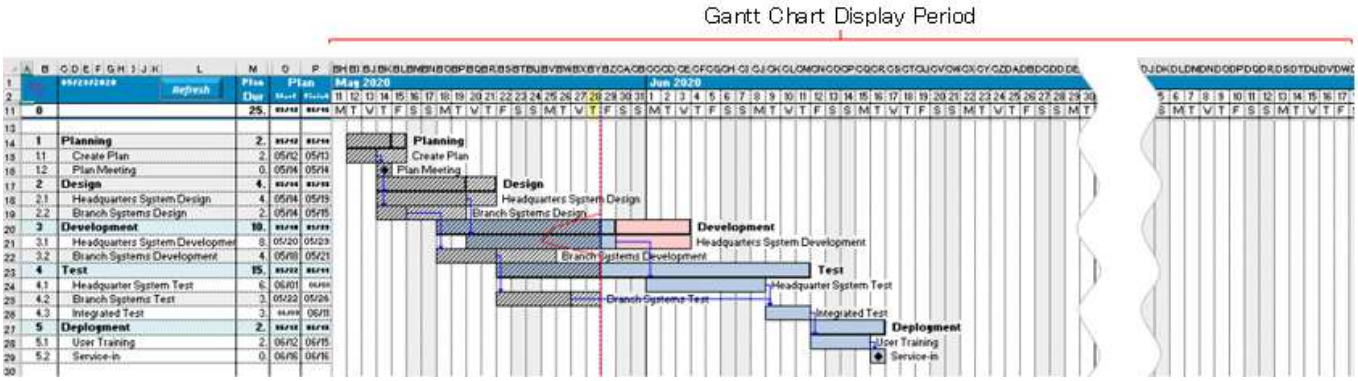
Year



4.5. Gantt chart display period

The Gantt chart display period can be changed from 6 months to a maximum of 10 years (120 months) when the Gantt chart display unit is in days.

Note: Setting the display period unnecessarily long may slow the Gantt chart update response.

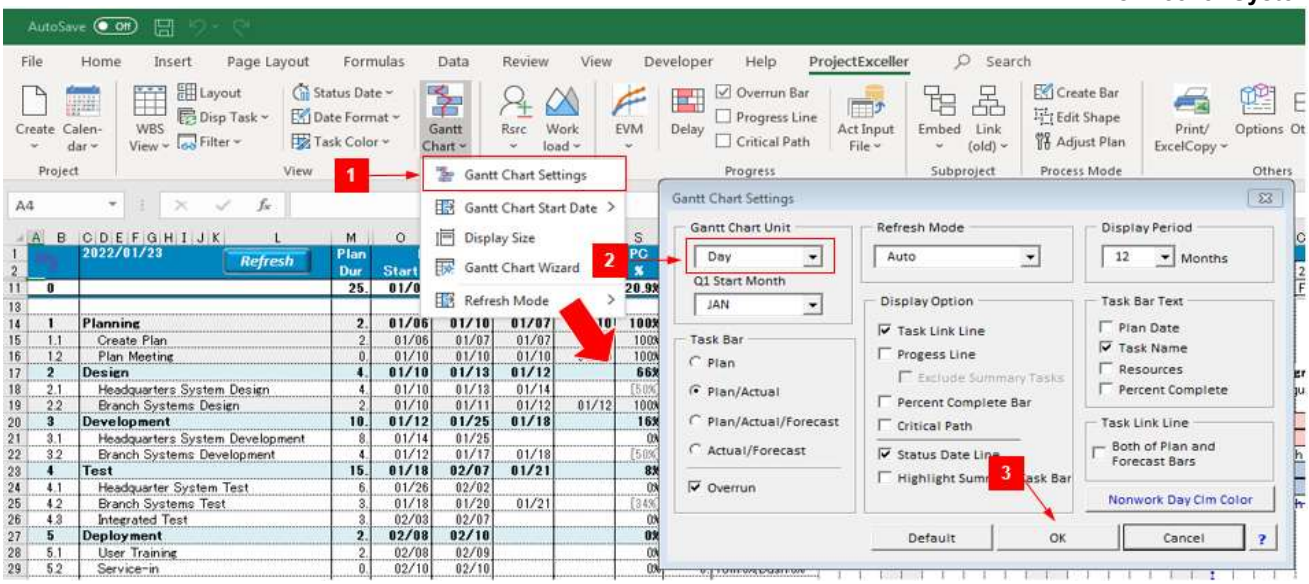


Use the following procedure to change the display period.

[1] Click the Gantt Chart button on the ribbon.

[2] Press the [▼] button of the [Display Period] of the displayed dialog to select a period.

[3] Press the OK button to confirm.



Note: In display unit of month, quarter or year, the display periods are fixed as follows.

Gntt Chart Unit	Disaply Period
Day	6 months to 10 years (default: 12 months)
Week	6 months to 10 years (default: 12 months)
Month	5 years
Quoter	5 years
Year	10 years

4.6. Task Bars

Task Bar Type

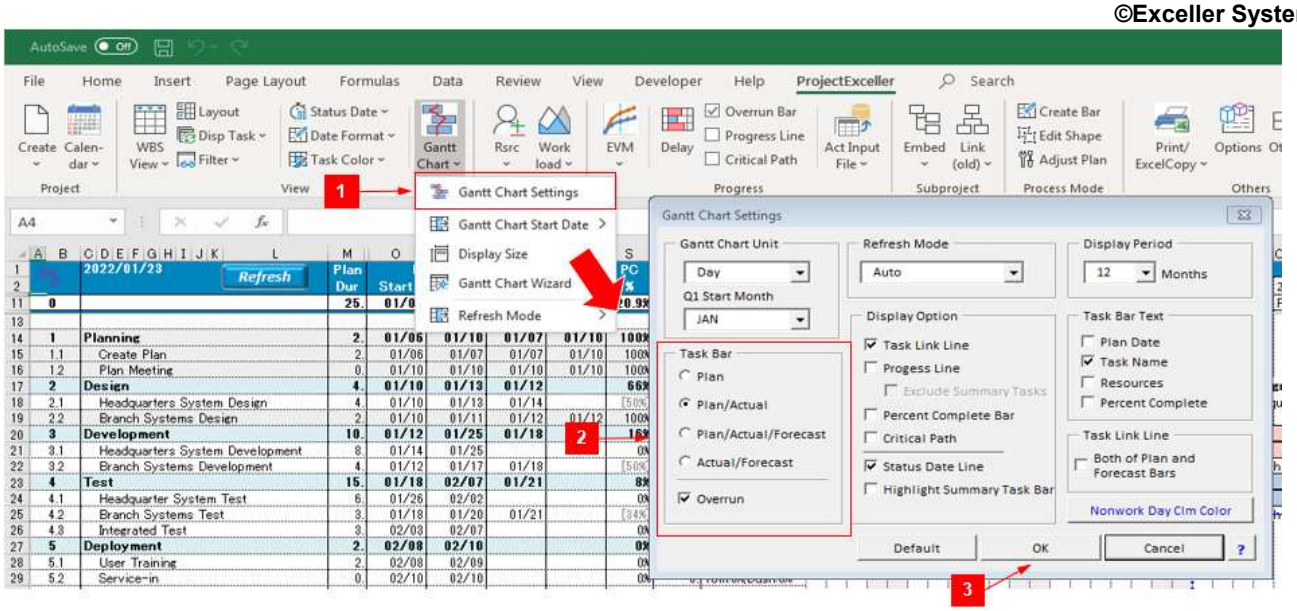
There are five types of task bars that appear on the Gantt chart: It is designed to show the progress of the task at a glance by overlaying these five bars on one task line.

Bar Type	Bar Color	Description
Plan Bar		plan period
Actual Bar		actual work period
Overrun Bar		additional work Period to complete
Forecast Bar		forecast work period in the future
Completed Bar		compled task period

To change task bar display

You can change the taskbar by following these steps:

[1] Click the Gantt Chart button on the ribbon.
[2] Select the task bar combination from the "Task bar" section of the "Gantt Chart Settings" dialog displayed.
[3] Confirm with the OK button.

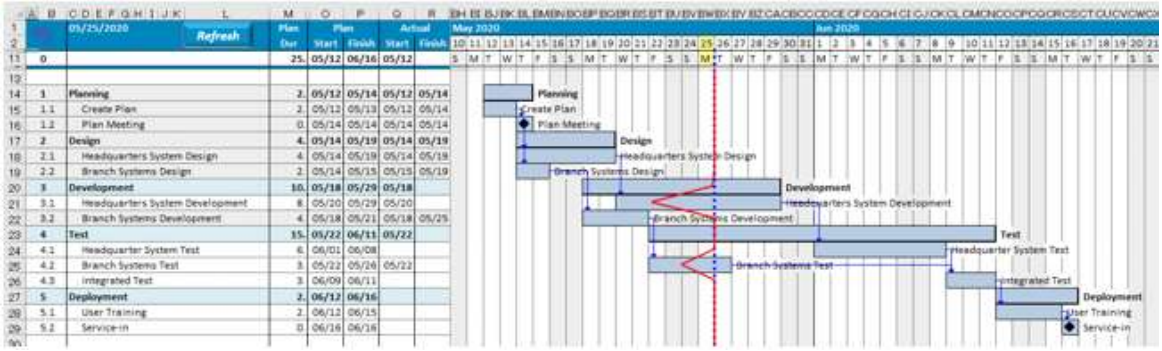


You can also select it from the right-click menu of the Gantt chart header.

The following describes the task bar types.

Plan Bar

Display Plan Bar only.



Plan/Actual Bar

This is the default setting for the taskbar. You can compare the plan and actual results and see the progress at one glance.

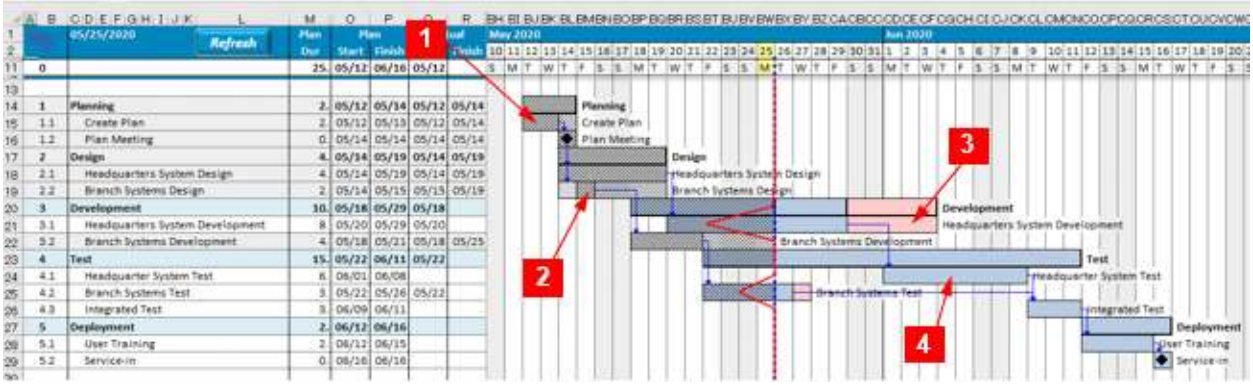
I will explain some of the tasks.

[1] [1.1] 'Create Plan' task started on schedule but ended one day late.

[2] [2.2] 'Branch System Design' task started one day behind schedule but ended as planned.

[3] [3.1] Headquater System Develoment' task is estimated to end 3 workdays behind schedule. The pink bar shows the overrun duration.

[4] [4.1] 'Headquater System Test' has not started yet.

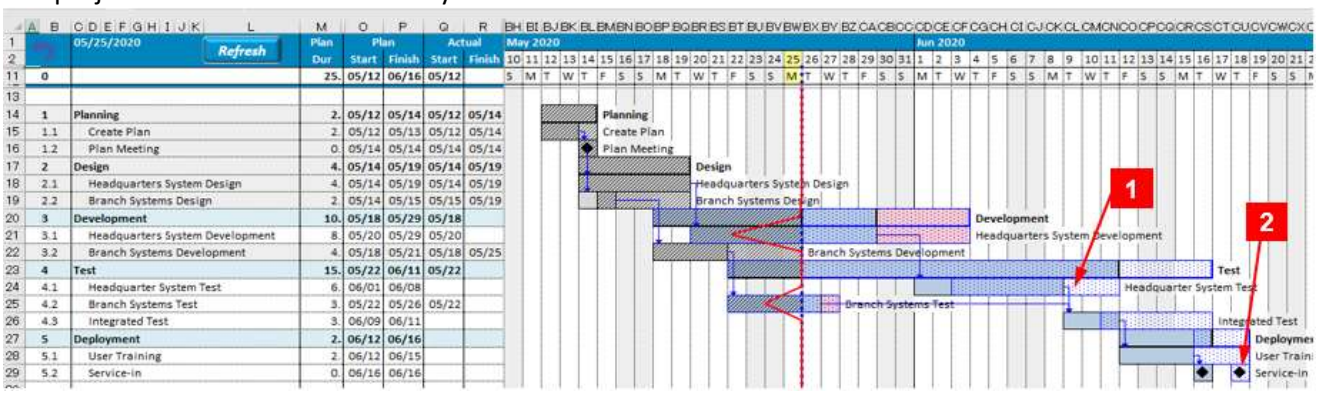


Plan/Actual/Forecast Bar

It displays the forecast bar in addition to the plan bar and the actual bar. The forecast bar is the work period predicted from task link settings and current progress.

The following describes some of the tasks.

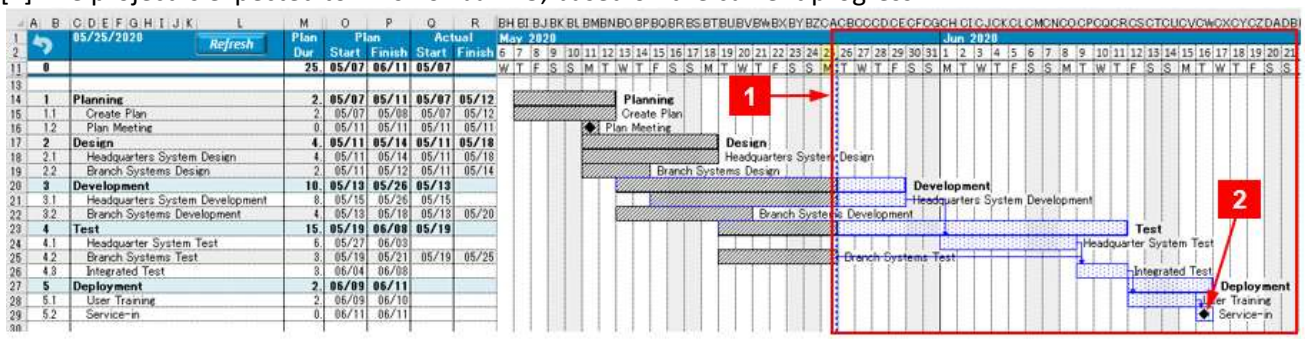
[1] [4.1] 'Headquater System Test' is forecasted to start 2 days behind schedule and end 3 days late.
[2] The project is forecasted to end 2 days behind schedule.



Actual/Forecast Bar

It does not display the plan bar. Only show actual bar (in the past) and forecast bar (in the furture).

[1] This is a forecast plan in the future.
[2] The project is expected to finish on Jun 15, based on the current progress.



Note: Update the plan
This forecasting plan becomes the current plan if you accept the current situation and update the current with it.
You can use the Set forecast to plan button in Plan adjustment mode.

Overrun and Forecast Bar

The displayed range of the overrun bar indicates "the delay has occurred and the period for further work to occur in the future". The rightmost end of the overrun bar is the shortest expected end date calculated from the current progress of the task.

The forecast bar is calculated in consideration of the progress of the preceding task for which the task link is set. Therefore, the rightmost end of the forecast bar is the longest expected finish date.

In other words, from the viewpoint of project management, the overrun is an apparent problem (Issue) that has already been delayed, while the forecast bar may possibly delay in the future if no action is taken. It can be considered as a potential problem (Risk).

In general, the larger the pink area of the overrun, the greater the project delay.

(Note 1) However, if no link relationship is set for all the tasks of the project, the longest expected date may not be calculated.

Minimum Task Bar Width is Cell's

Whne Gantt chart unit is day, one cell of Excel sheet is one day. And the minimum display unit of the task bar is one cell.
Therefore, even if the task period is less than one day, starts in the middle of a day, or finishs in the middle of a day, the task bar display is displayed in units of one cell. Even tasks that do not originally overlap will be displayed overlapping for up to one day.
Although the task bar is displayed overlapping, the data on WBS is calculated correctly, so it does not affect the value of data on WBS or analysis results such as EVM analysis.
Example)
The tasks 1 to 4 in the link relationship should originally be displayed as shown in Fig. A, but they will be expressed as shown in Fig-B on daily basis.

Fig-A

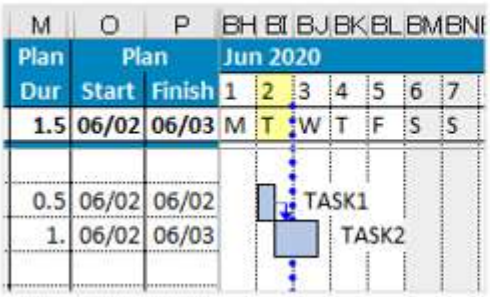
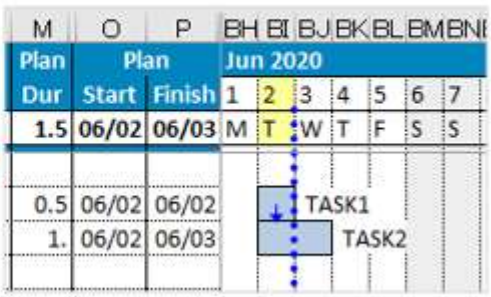
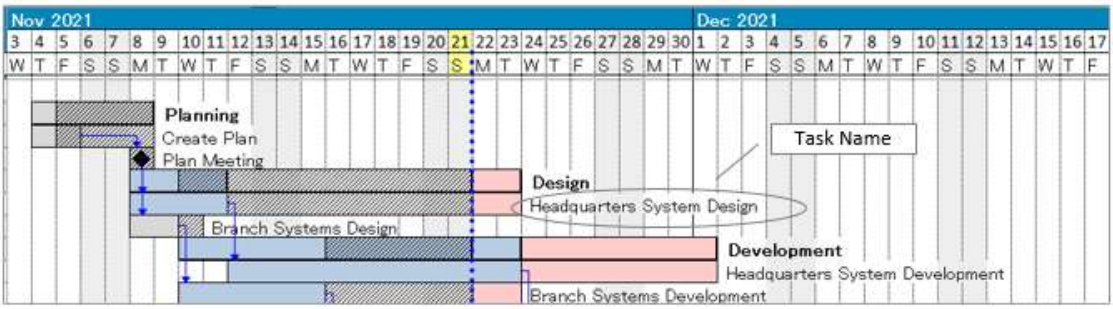


Fig-B

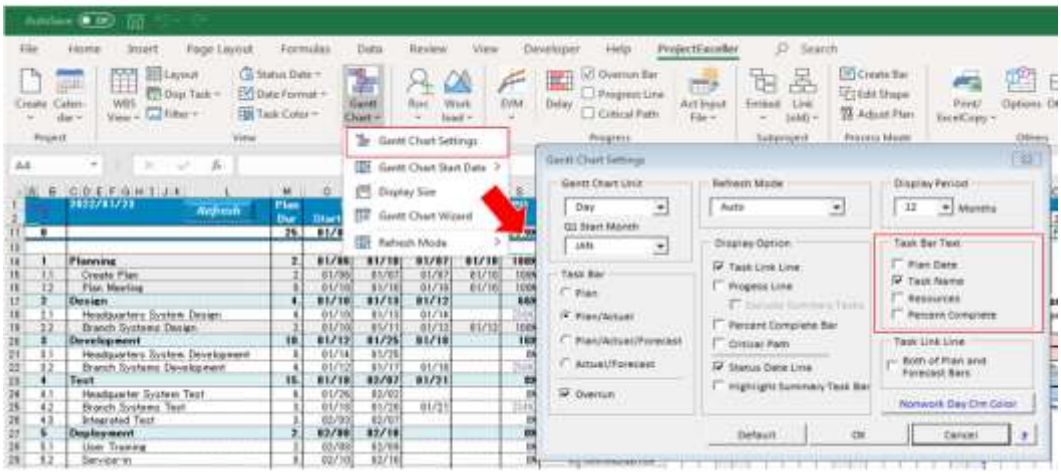


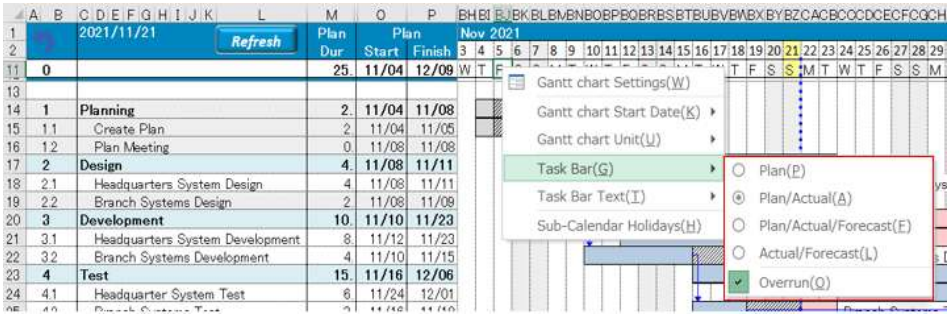
4.7. Task Bar Text

The Gantt Chart task bar can display some task information. By default, the task name is displayed on the right side of the bar.



The type of task bar text can be selected from the Gantt Chart Settings dialog in the ribbon, or by right-clicking on the Gantt Chart header.



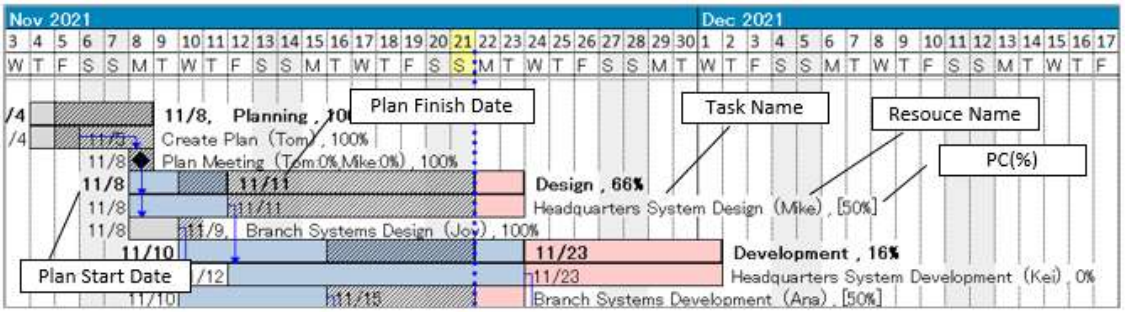


The types of data that can be displayed are as follows

- Task Name
- Planned Date (start date, finish date)
- Resource Name (*1)
- PC(%) or percent comple

(*1) If the allocation rate is displayed in the resource item of the WBS, it is displayed along with the resource name.

In the following figure, all data types are displayed.

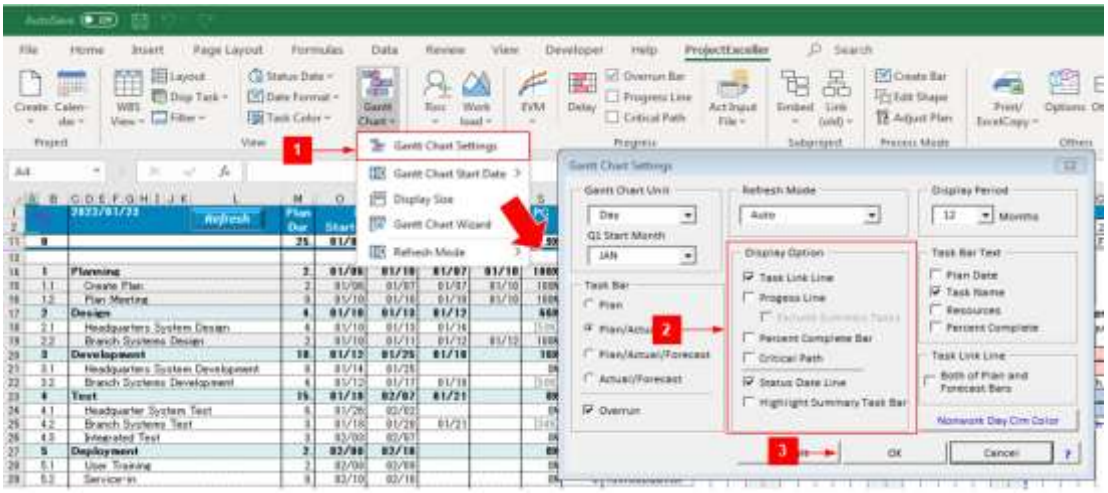


4.8. Gantt chart Display Options

Although the ProjectExceller Gantt chart is designed to show the progress of the project from the task bar alone, the following display options will further enhance the "visualization" of the project status.

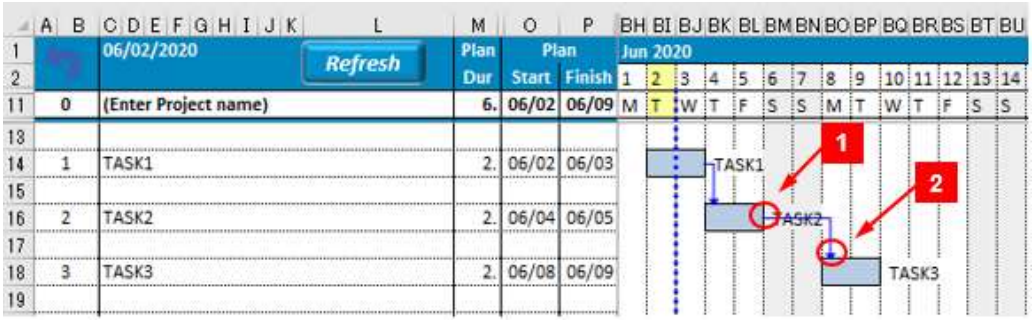
Follow the steps below to set the display options.

[1] Click [Gantt Chart] button on the ribbon.
[2] Select from "Display Option" section of "Gantt Chart Settings" dialog.
[3] Confirm with the OK button.



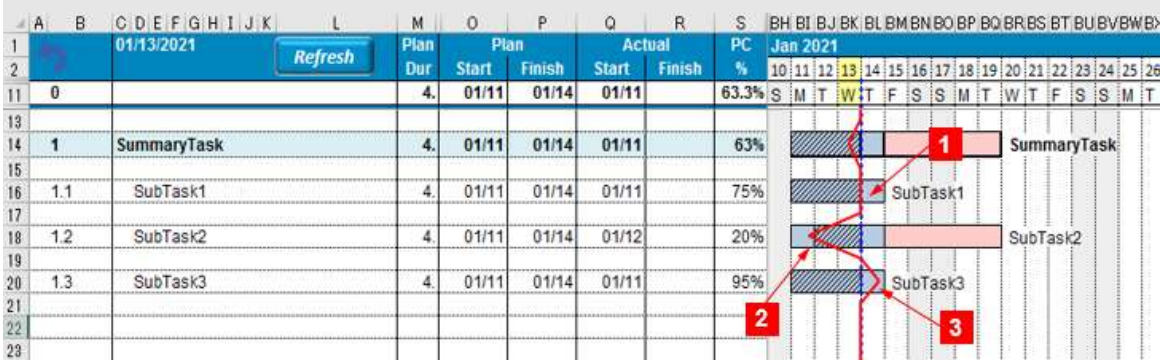
Task Link Lines

A blue arrow line is drawn from the end of the preceding task to the start of the following task. It is displayed as default.



Progress Lines

Displays the progress line on the Gantt chart. The default is no display.
The progress line connects the plot points between tasks with a line from the start date position in the planning task bar to the position corresponding to the percent complete as the plot point. It shows the progress of the task based on the status report date as a red broken line.



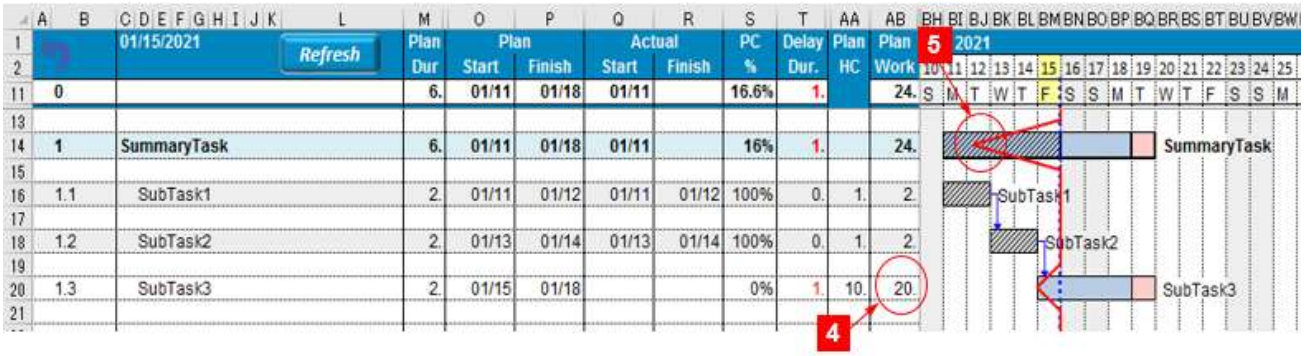
The position of the top of the line with respect to the status date shows the progress as follows.

[1] If on status report date, as planned or completed.
[2] If it is on the left of the status report date, it is behind the plan.
[3] If it is on the right of the status report date, it is ahead of plan.

Progress lines are not displayed as default.

Progress Lines on Summary Tasks

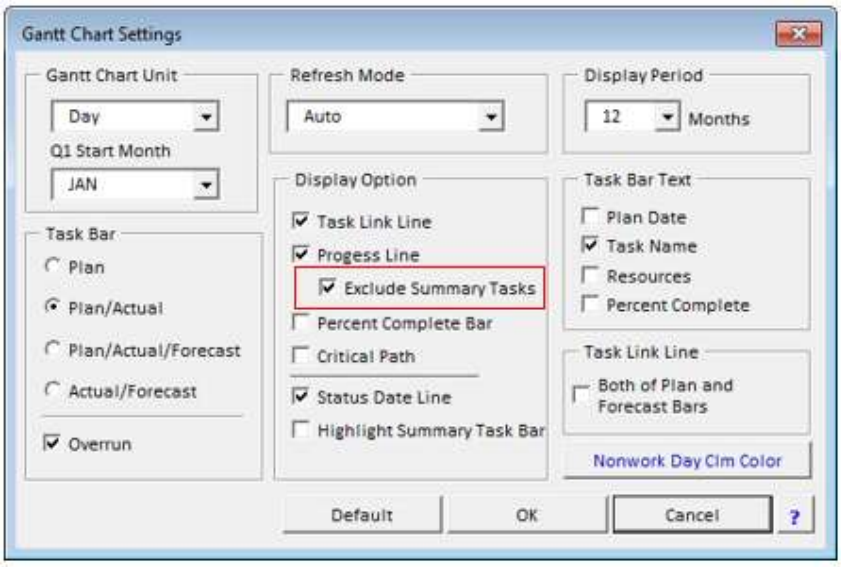
The progress line is generally not suitable for summary tasks where the man-days are not uniform. For example In the following example, where 20 man-days of the total 24 man-days of the “Summary Task” are concentrated in “”SubTask3” (**[4]**), the summary task appears to be lagging behind, even though subtasks 1 and 2 have been completed as planned. (**[5]**).



If the original method of calculating the inertia line is applied as is, in rare cases it may be opposite to the actual progress. In that case, ProjectExceller will modify the plot point of the summary task to be the status report date.

“Exclude Summary Tasks" option

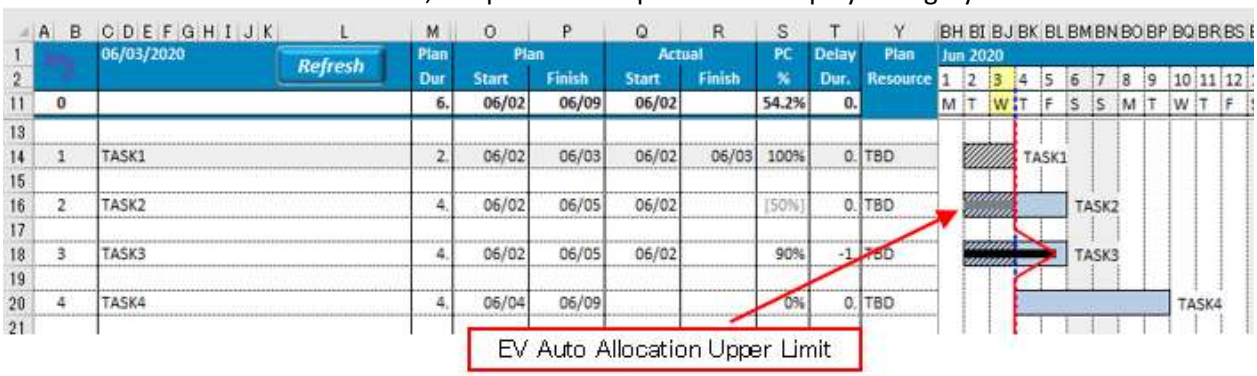
You can select the "Exclude summary task" option for the Inazuma line in the "Cant Chart Settings" option.



Percent Complete Bar

Displays the percentage of tasks achieved as a bar on the plan task bar. Default is not displayed.

- If the percent complete is 50%, the percent complete bar will be drawn from the left end of the plan bar to 50% of the length.
- For completed tasks, the percent complete bar is not displayed.
- In "Task 2", the percent complete is displayed as [ ]. This indicates that it was assigned automatically by EV Auto-Allocation function. In this case, the percent complete bar is displayed in gray.



Note: Percent Complete.

The "Percent Complete" does not indicate the degree of delay (or progress) from the original plan value. It indicates the degree to which the task's total work has been completed.

Note: EV Auto-Allocation

Although the percent complete of each task can be manually entered for each task, ProjectExceller automatically allocate the percent complete up to the set upper limit by using the [EV Auto-Allocation] function.

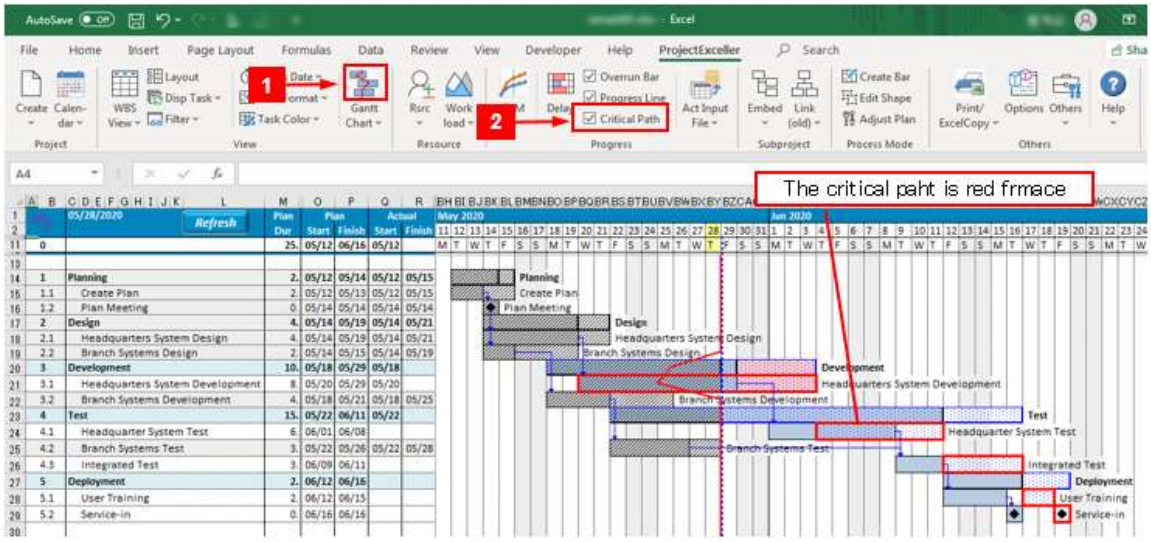
Critical Path

Critical Path is a series of tasks (Note 1) in a linked relationship that determines the lead time for the entire project. If the start date or duration of a task on this critical path changes, the project end date will also be affected. Project managers need to be especially careful in managing the progress of tasks on critical paths.

ProjectExceller identifies the tasks that are on the critical path and marks its planning task bar with a red frame.

Note 1: If the task links are not set enough for the tasks on the project sheet, the exact critical path can not be calculated.

To display the critical path on the Gantt chart, use [Gantt Chart] button on the ribbon, select [Gantt Chart Settings], or use [Critical Path] checkbox on the ribbon.



Planned Critical Path and Forecast Critical Path

The displayed critical path differs depending on the setting of the task bar displayed on the Gantt chart. For the [Plan] bar, display the "Planned Critical Path" based on the plan schedule. When a project is actually started, the progress of each task also changes the critical path. ProjectExceller can calculate critical paths based on actual progress. This is called "forecast critical path" and is displayed on the forecast bar on the Gantt chart.

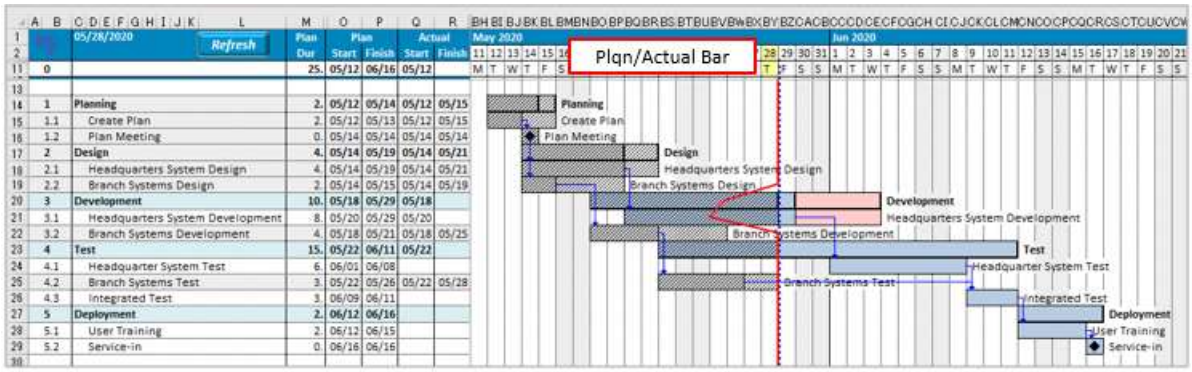
Note: The [Plan/Actual] Bar, which is the default setting on the taskbar, does not display critical paths, so when Show Critical Paths is selected, it changes to the [Plan/Actual/Forecast] bar settings.

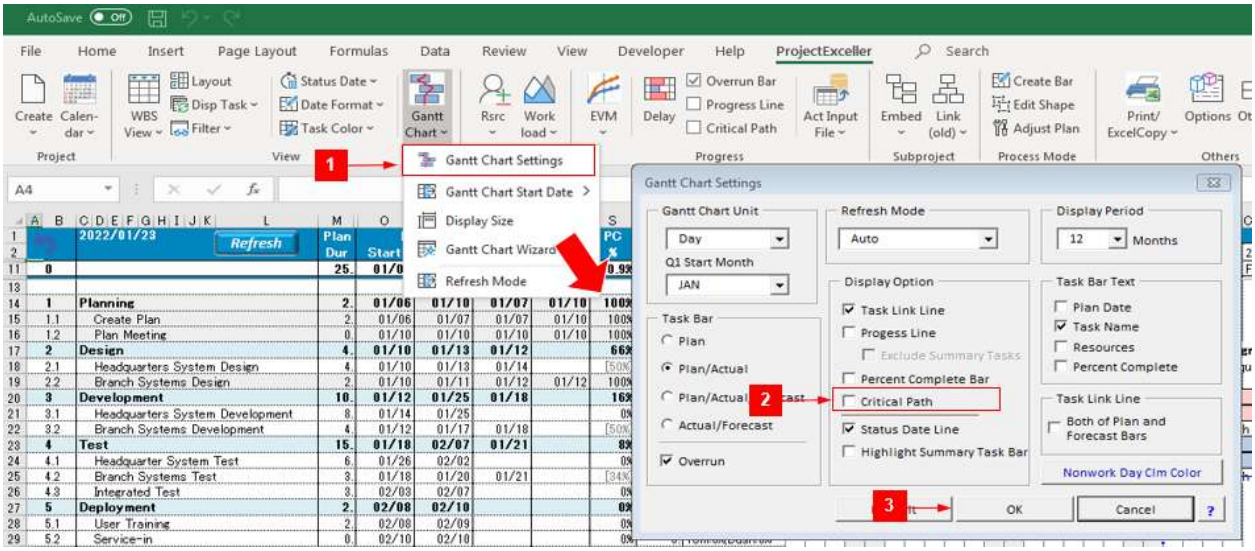
Task Bar Settings	Critial Path Type	Displayed on
Plan	Planned	On Plan Bar
Plan/Actual	None	Change to [Plan/Actual/Forecast] setting
Plan/Actual/Forecast	Forecast	On Forecast Bar
Actual/Forecast	Forecast	On Forecast Bar

Procedure for displaying Forecast Critical Path

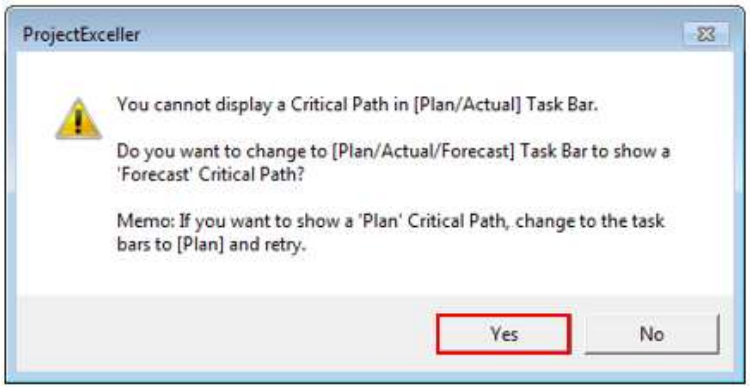
The following describes the [Plan/Actual] bar setting case (default).

[1] Click [Gantt Chart] button on the ribbon.
[2] Select the [Critial Path] in [Display Option] of [Gantt Chart Setting] dialog.
[3] Confirm with the OK button.

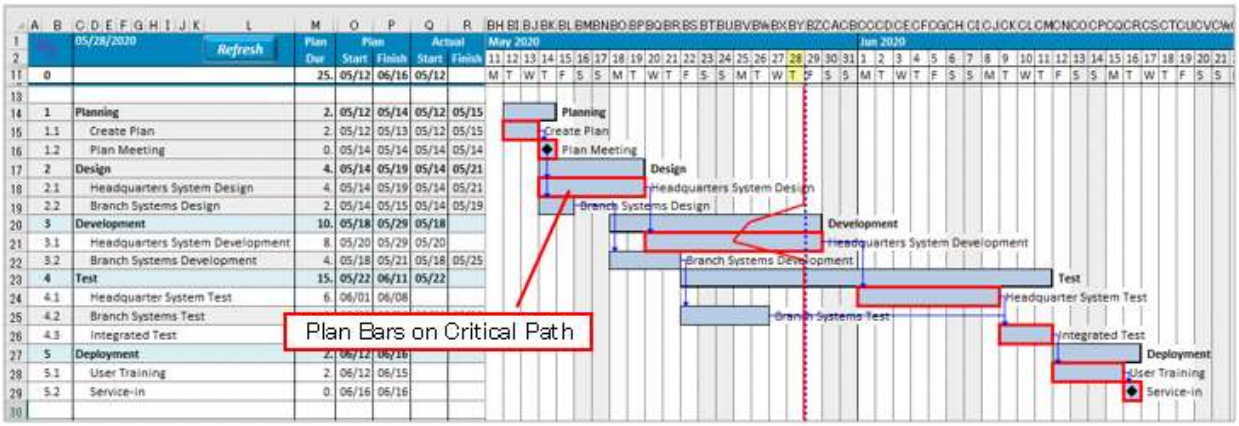




Critical paths can not be displayed for [Plan/Actual] bar setting. When "Yes" is selected in the dialog below, the forecast critical path is displayed by switching the task bar setting to [Plan/Actual/Forecast] bar.

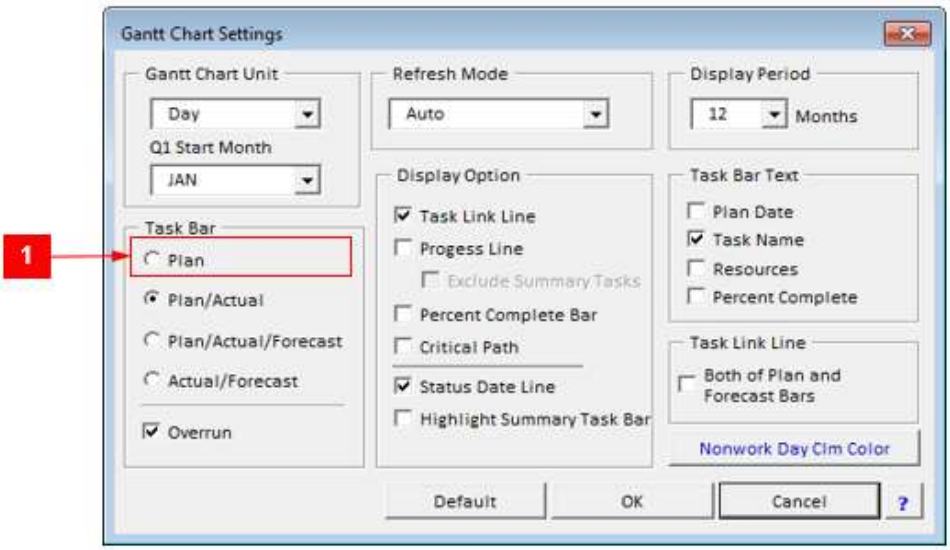


The red frame on the taskbar is the critical path.

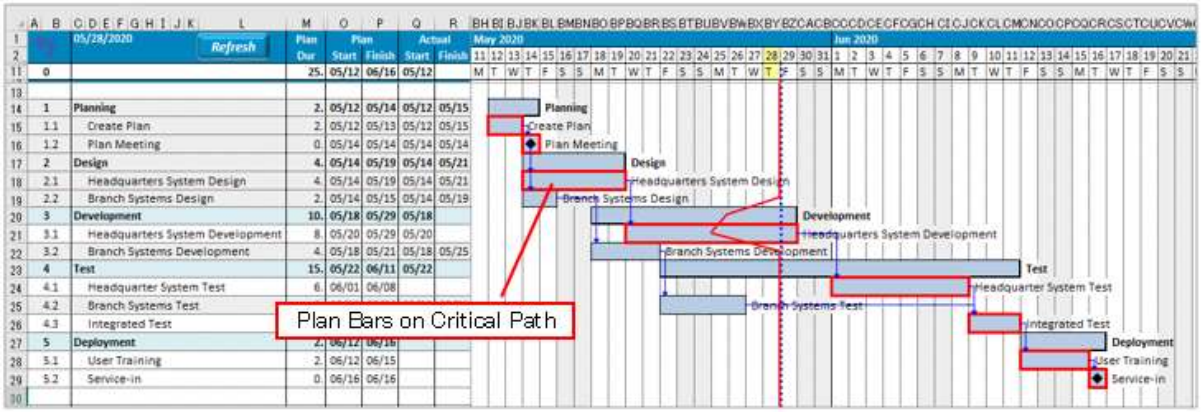


Procedure for displaying Planned Critical Path

To switch the display of forecast critical paths to the planned critical path, select Plan([1]) on the task bar section.



The planned critical paths are displayed as you switch to the [plan] bar setting.

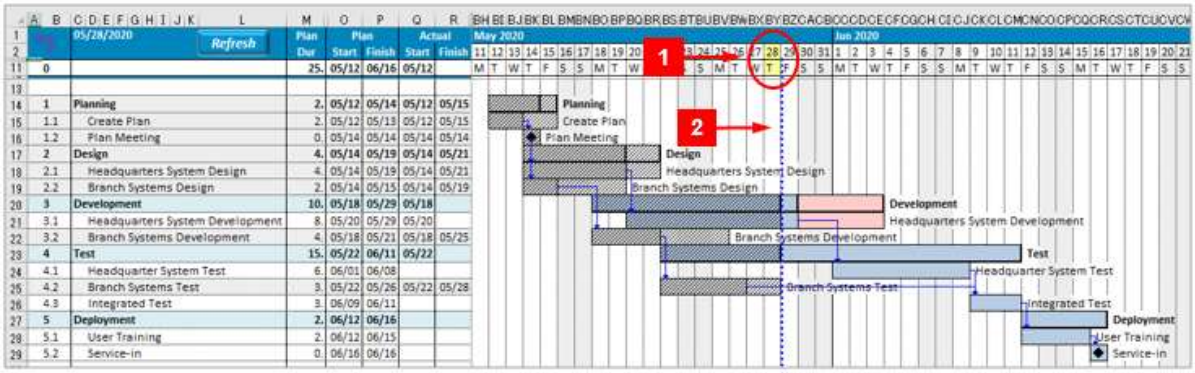


Status Date Line

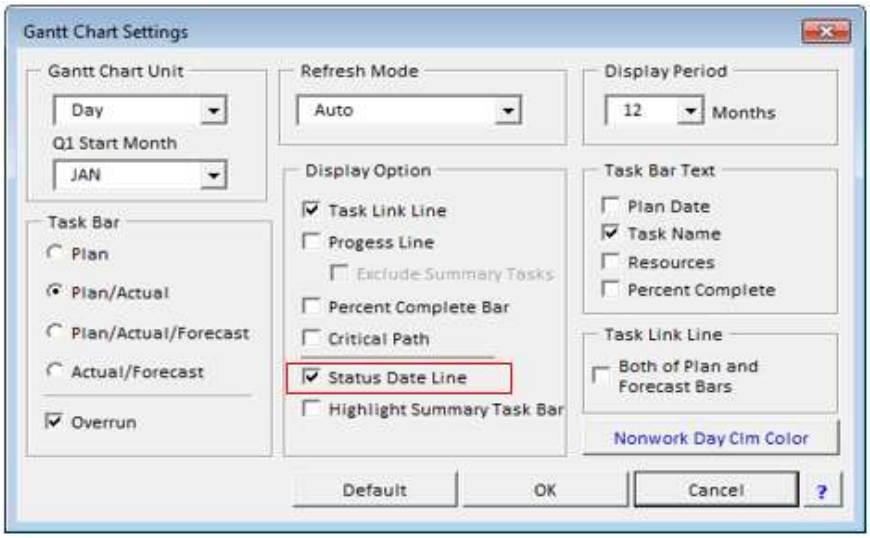
Display the status date line on the Gantt chart. It is displayed as default.

[1] The status report date of the Gantt chart header turns yellow

[2] The status date line is displayed on the Gantt chart.

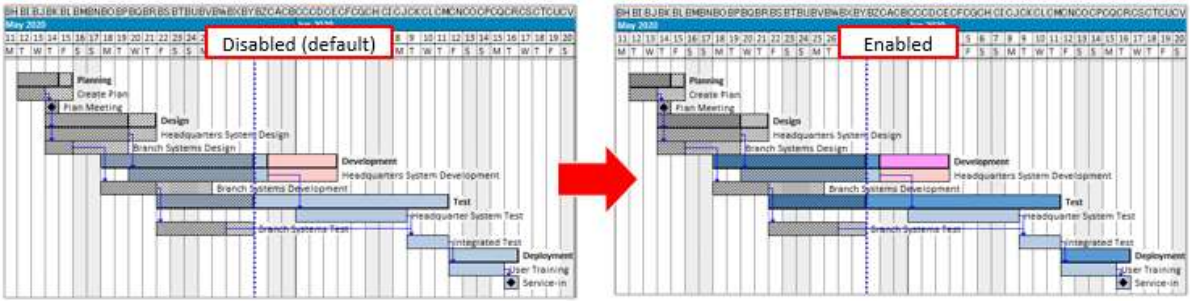


Click [Gantt Chart] button on the ribbon, and in the following dialog, select the check box of the status date line.



Summary Task Bar Color

Highlights the color of the summary task bar. The default is off.



Set with [Grant Chart] button on the ribbon and "Summary Task Bar Color" on "Gantt Chart Settings" dialog. The default is OFF.

Chapter 5. Calendar Settings

One project-specific calendar can be set for each project file. By default, only weekends are non-working days. If you want to use any other holidays as a workday, or to use weekends as workdays, you need to calendar them.
Two types of calendars can be set for a project. When a project file is created, the "Project Calendar" is automatically created. One project calendar is set for each project file, and it applies to all tasks in the project file.

In addition to the project calendar, you can optionally add a "Sub-Calendar". Up to two sub-calendars can be created for each project file. Sub-calendars are set for specific tasks. For example, you can use them when you want to plan a task on a holiday in the project calendar.

Note: Sub-Calendar Compatibility
When using a project file with a sub-calendar set, be sure to use a product version 2.030 or later. If you use an older version, the schedule of the task with the sub-calendar set may not be processed correctly.

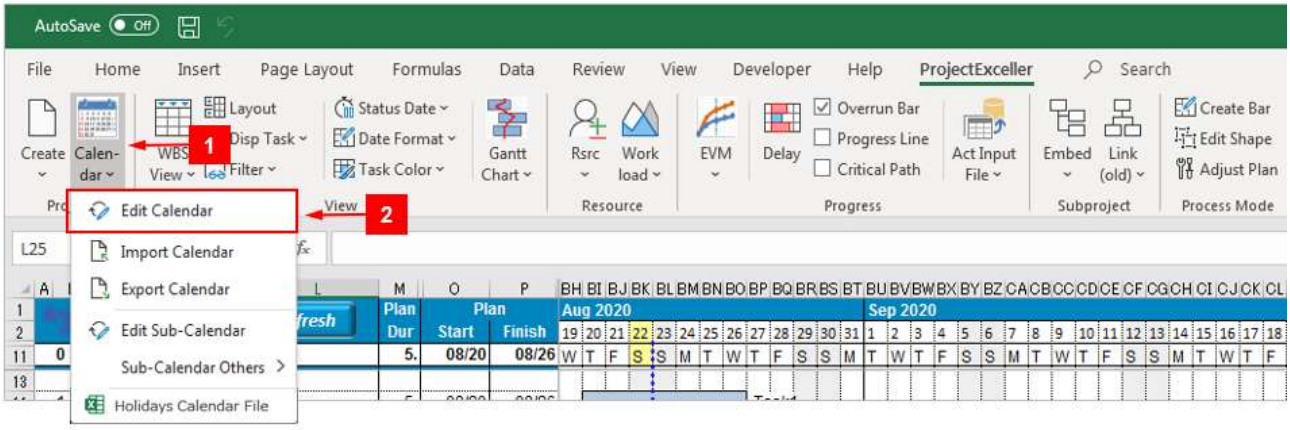
5.1. Edit Calendar

There are two ways to edit the calendar:

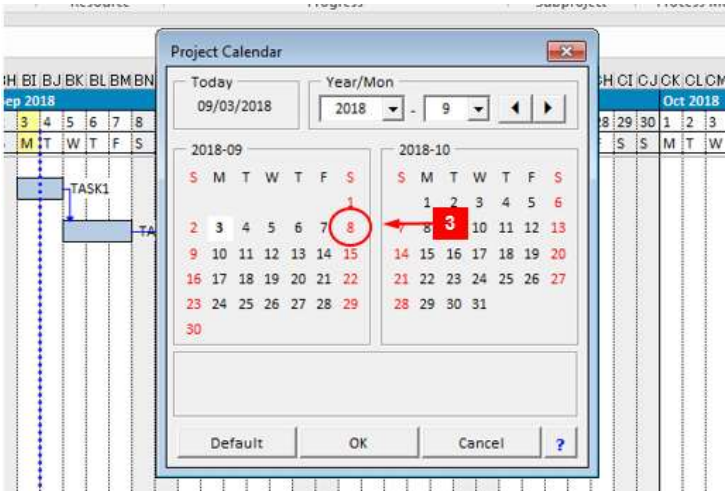
1. Edit with the Calendar Dialog
2. Edit with the Calendar File

Edit with the Calendar Dialog

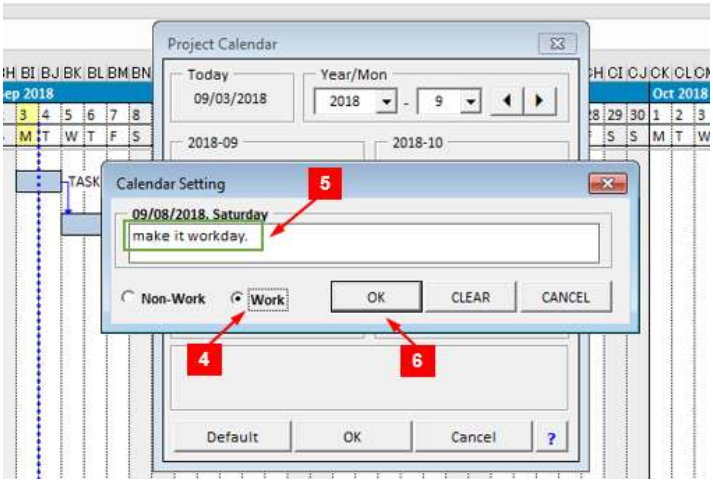
[1] Click [Calendar] button in the ribbon.
[2] Click [Edit Calendar] in "Project Calendar" dialog.



[3] Click the date for which you want to change the settings. "Project Calendar" dialog is displayed. In this sample, September 8 (Saturday) is changed to work day.



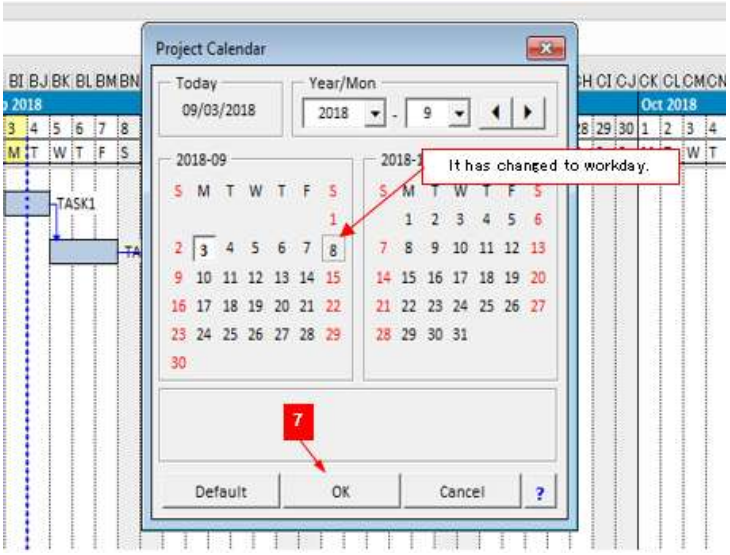
[4] Click [Work] in "Calendar Settings" dialog.
[5] Fill a comment as necessary.
[6] Click the [OK] button to save.

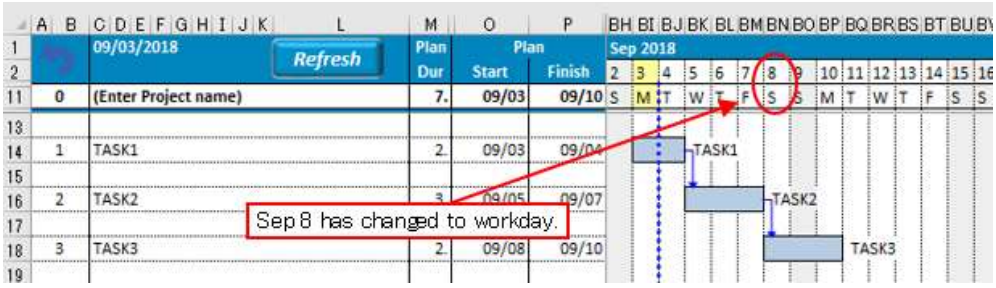


[7] Click the [OK] button. The changes to the calendar will be reflected in the project file.

Note: Calendar Coverage

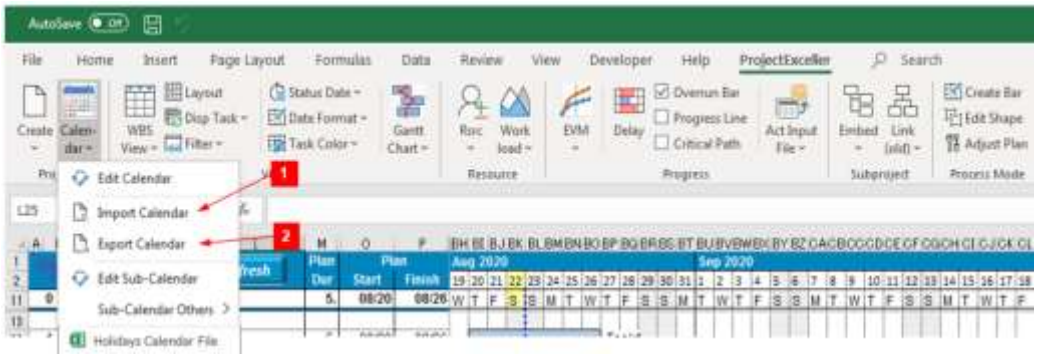
- Only one calendar can be defined in one project file.
- If there are multiple project sheets in the project file, changes in the calendar will be reflected in all project sheets.





Edit with the Calendar File

When registering a lot of dates, it is more efficient to create a calendar file, edit it, and import it rather than using the Calendar dialog.



Procedure:

1. Create a calendar file (default: Calendar.xlsx) in **[2]** **Export calendar**.
2. Open, **Edit**, and Save the calendar file.
3. Import the calendar file edited in **[1]** **Import calendar** into the project.

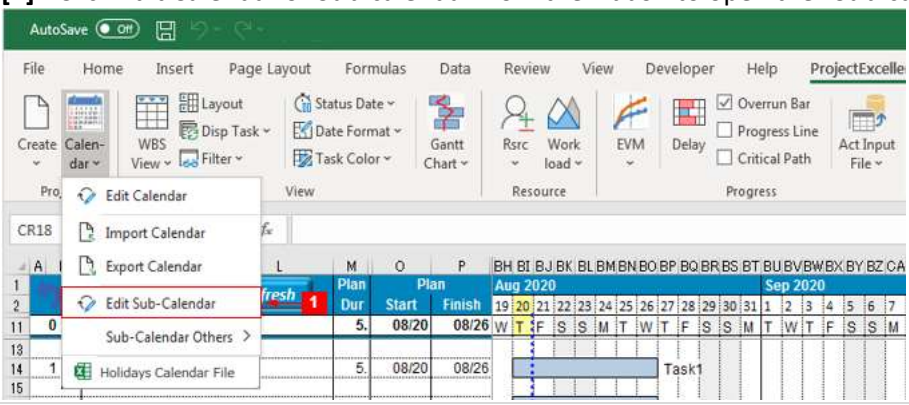
5.2. Sub-Calendar

Sub-calendars are options that complement the project calendar. Project calendars apply to the entire project, while sub-calendars apply to specific tasks. This allows you to plan specific tasks on holidays in your project calendar. Apart from the project calendar, you can create up to two sub-calendars for each project.

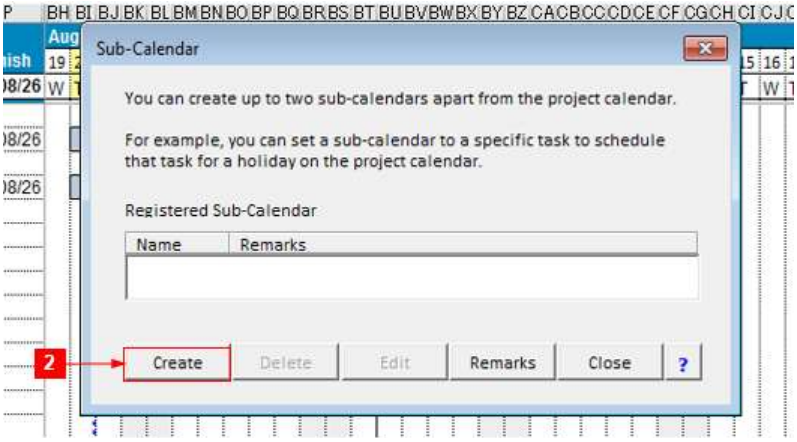
In the initial state of the project file, the sub calendar is not set. Let's create and edit a subproject and reflect it in the project.

Create Sub-Calendar

[1] Click Edit Calendar or Sub-calendar from the ribbon to open the "Sub-calendar" dialog.

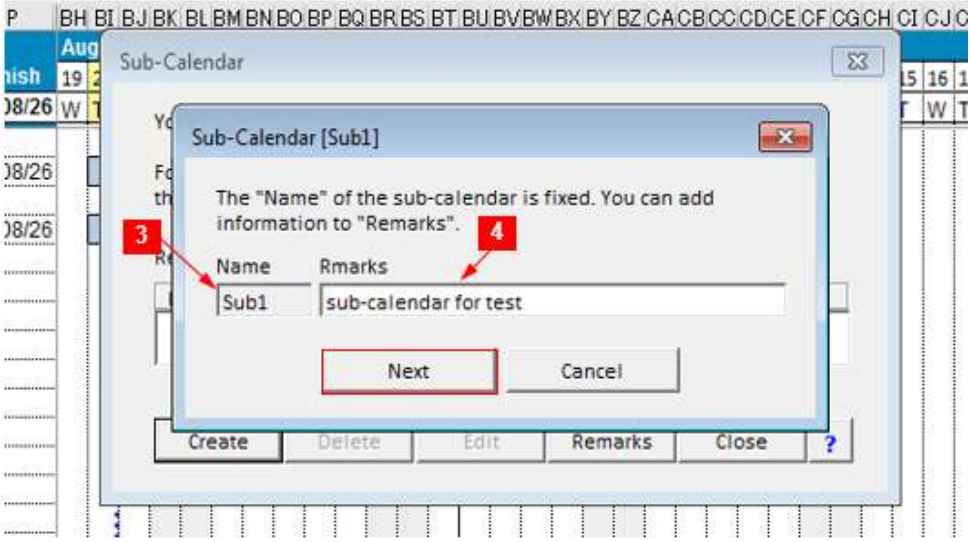


[2] The sub-calendar is not set in the initial state of the project file. Click the "Create" button to create the sub-calendar.



[3] The sub-calendar name is fixed to "Sub1" or "Sub2".

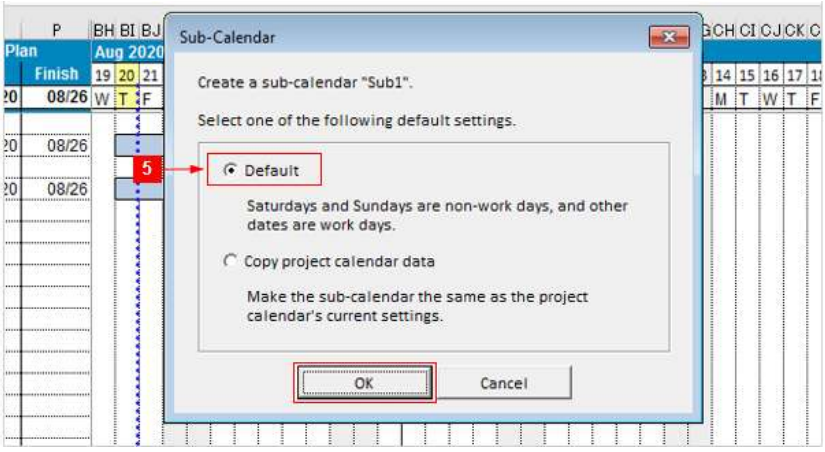
[4] You can optionally add information to the "Remarks". Click the "Next" button to proceed.



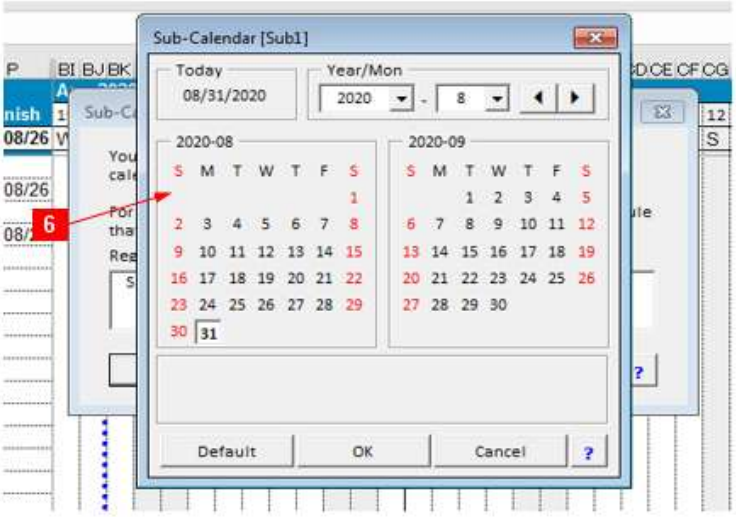
[5] Select the initial value of the sub calendar. This time, select the default value to proceed. When you press the OK button, a sub-calendar named "Sub1" will be registered in the project file.

Memo: Name of sub-calendar

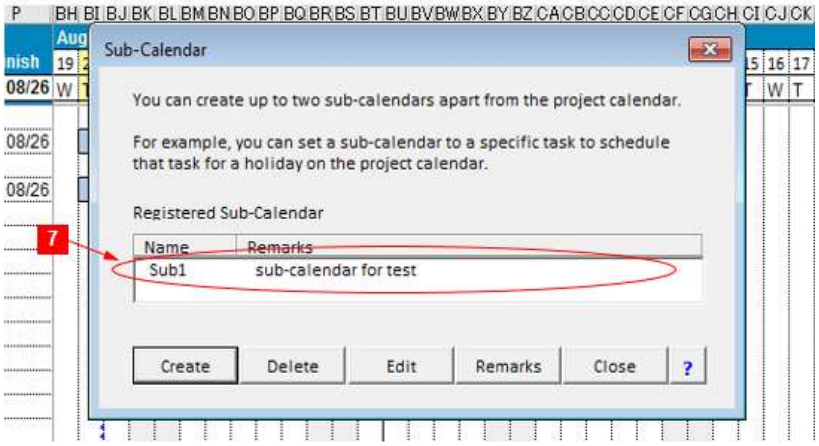
Up to two sub-calendars can be created for each project file. The name of the sub calendar is fixed to "Sub1" and "Sub2". The first one created is "Sub1".



[6] The Edit Calendar dialog is displayed. Define a project-specific calendar here and press the OK button.

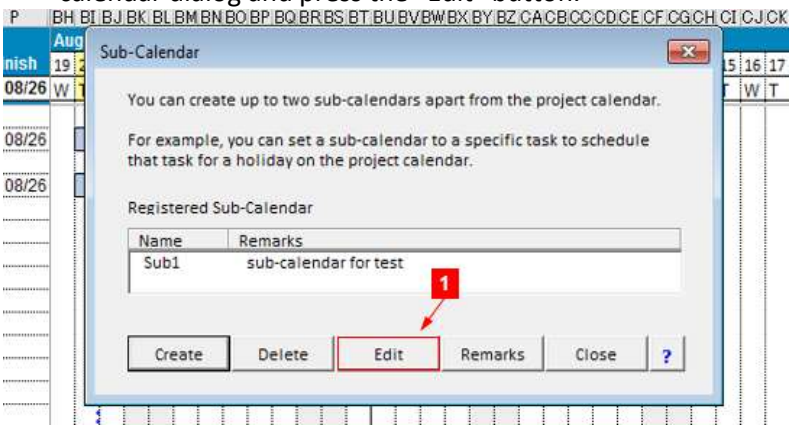


[7] The sub-calendar "Sub1" has been created.

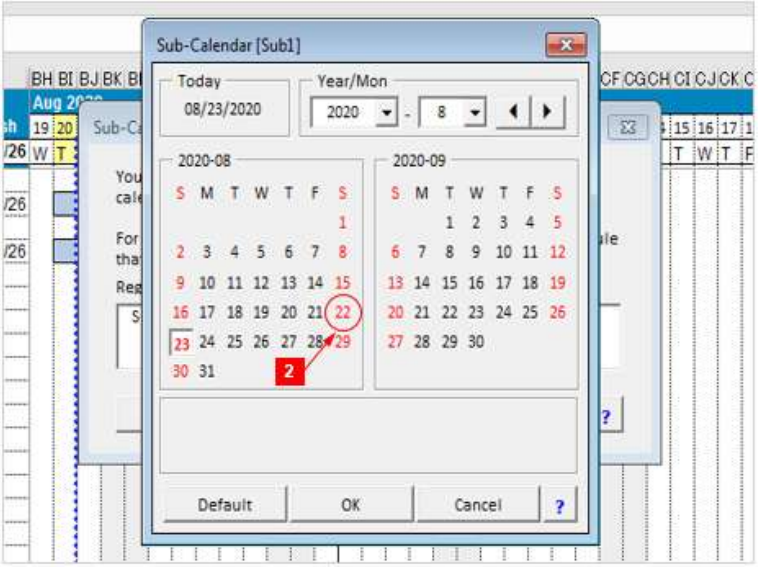


Edit Sub-Calendar

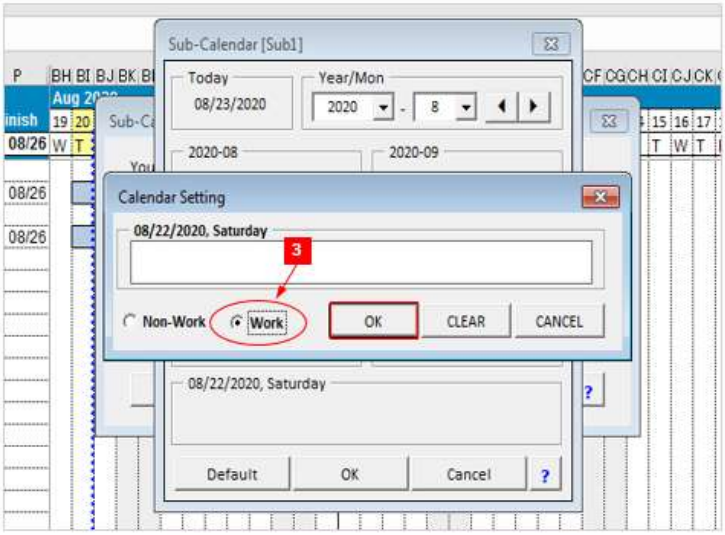
[1] Just like creating a sub-calendar, click the calendar and edit sub-calendar from the ribbon to display the sub-calendar dialog and press the "Edit" button.



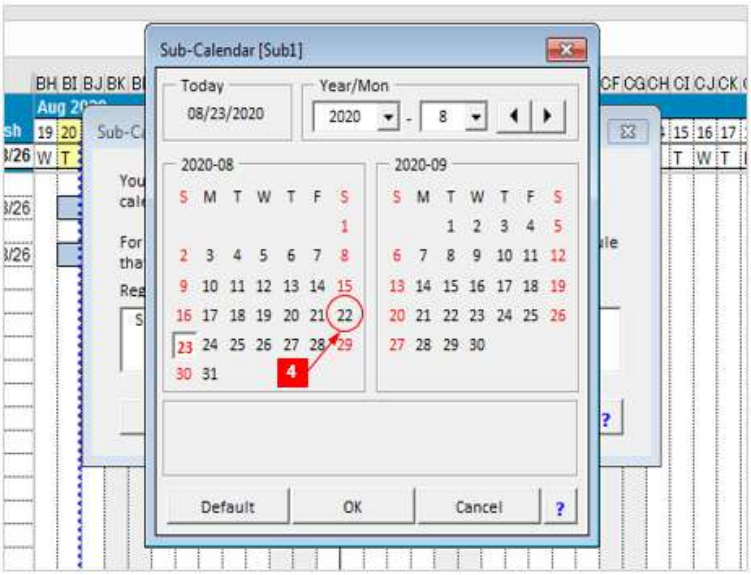
[2] The method of editing the sub-calendar is exactly the same as the project calendar.
This time, Saturday, August 22 will be changed to "Working day". Click on the 22nd part.



[3] Select a work day and press the OK button.



[4] Saturday, August 22nd was changed from a holiday to a working day. Press OK to confirm.

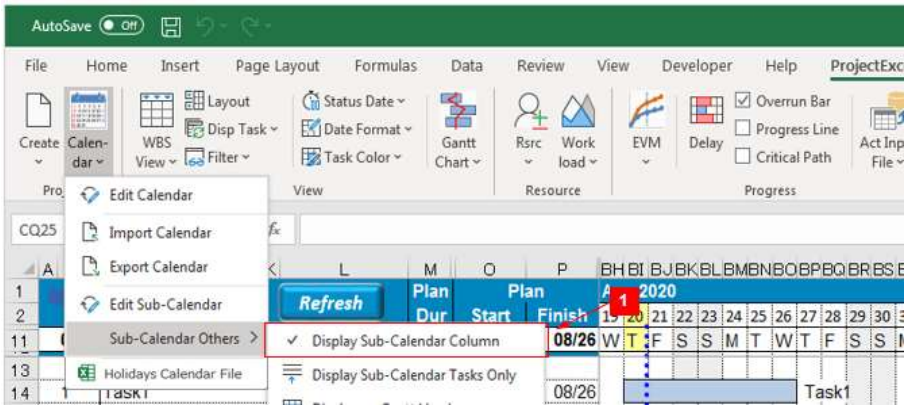


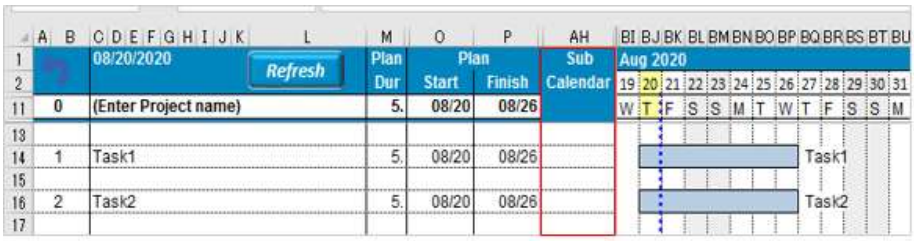
At this point, the two tasks in the project have not changed. To apply a subproject to a project, you need to assign a subcalendar to the task.

Assign Sub-Calendar to Task

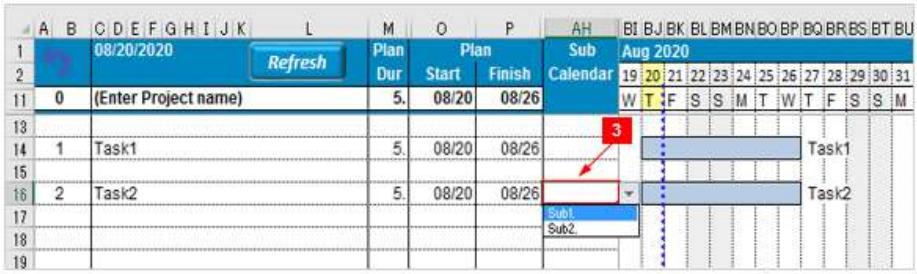
[1] Assign the sub calendar "Sub1" created earlier to task 2 of the next project.

[2] Click "Show sub-calendar column" on the ribbon. The "Sub-Calendar" column is displayed on the WBS.

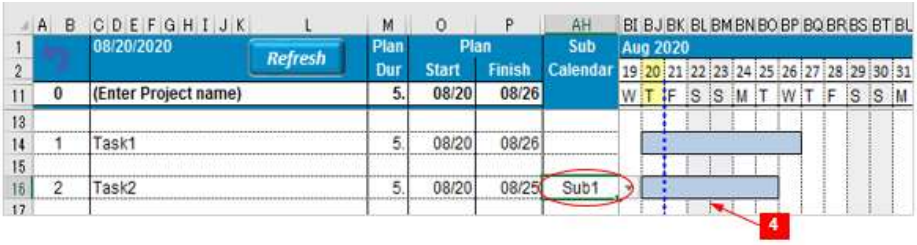




[3] Select the sub-calendar row of task 2 and select "Sub1" from the pull-down list.



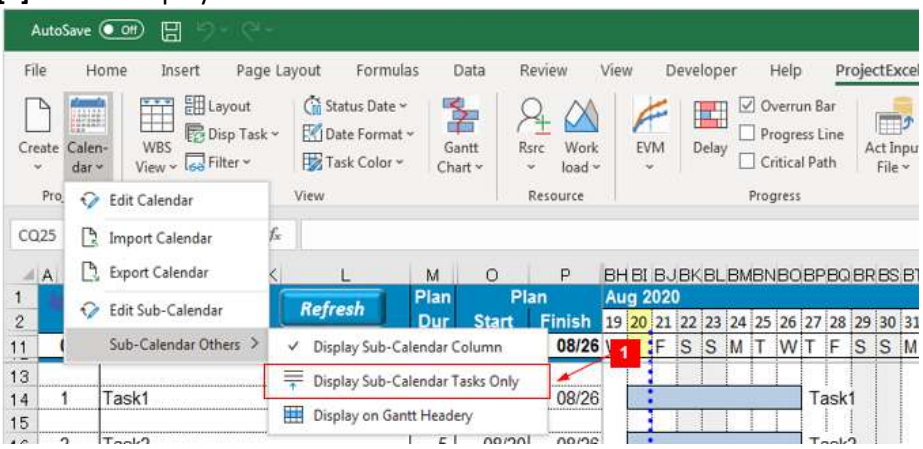
[4] The sub-calendar "Sub1" has been assigned to task 2. Since Saturday, August 22 is set as a work day, the end date of task 2 has been changed from August 26 to August 25.



Display Only Sub-Calendar Tasks

Tasks that have a sub-calendar assigned to them on the project can be seen in the sub-calendar column, but it is easier to see them with the "Show sub-calendar tasks only" feature.

[1] Click "Display sub-calendar task" from the ribbon.

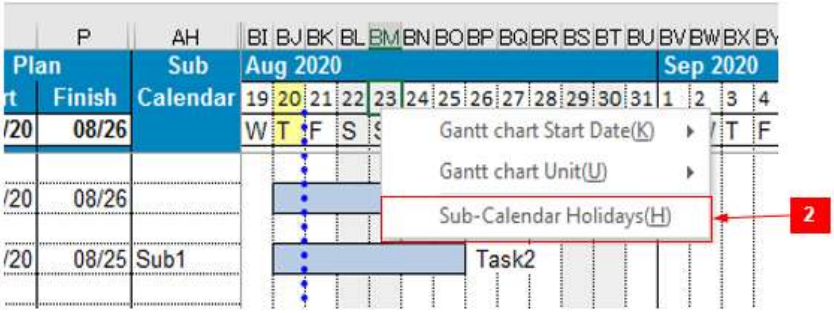


[2] サブカレンダーが割り当てられているタスク行のみ抽出され表示されます。

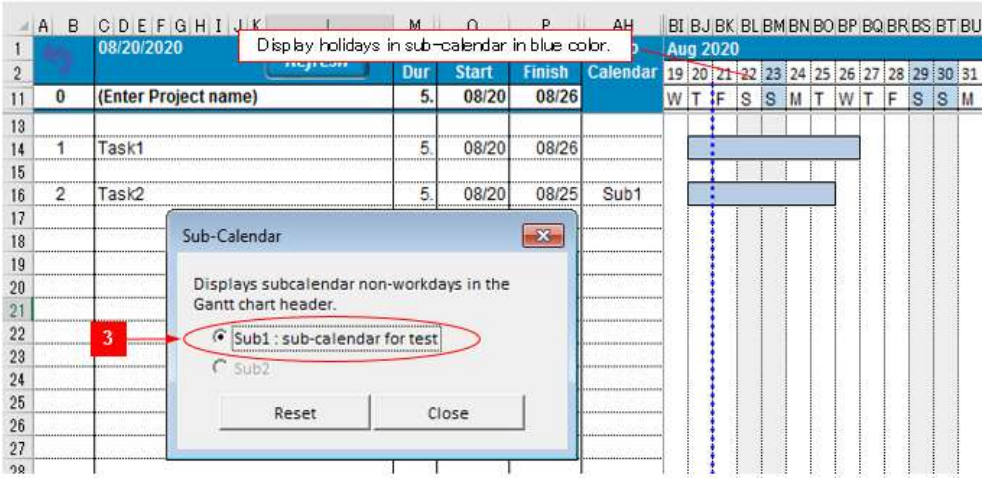
Display Sub-Calendar on Gantt Chart

Although the sub-calendar holidays are not displayed on the Gantt chart, you can display the sub-calendar in the Gantt chart header.

[1] Click “Display on Gantt Header” in the ribbon, or **[2]** click “Sub-Calendar Holidays” in the right-click menu in the Gantt chart header.



[1] Sub-calander holidays are displayed in blue in the header part of the Gantt chart when the sub calendar "Sub1" is selected. In the figure below, the date of Saturday, August 22 is set to "work day" for sub-calenter "Sub1".



5.3. Apply Calendar to Other Project Files

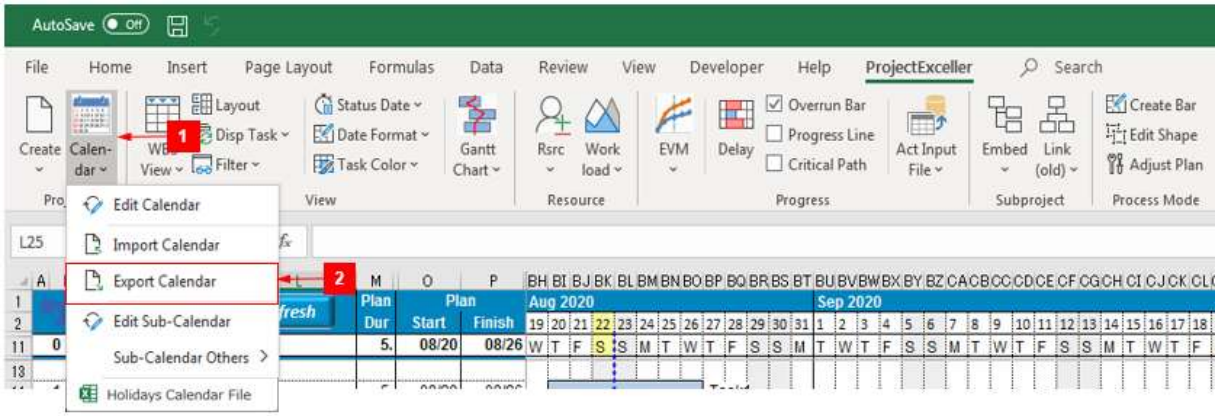
Calendar data can be applied to other project files by exporting/importing.

Export Calendar

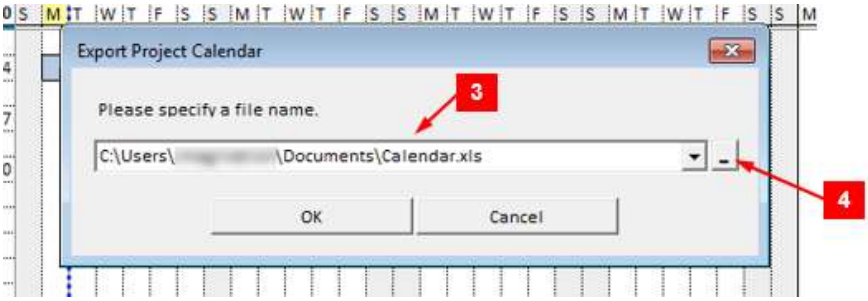
Extract calendar data of project file as Excel book.

[1] Click [Calendar] button in the ribbon.

[2] Click [Export Calendar] in the submenu.

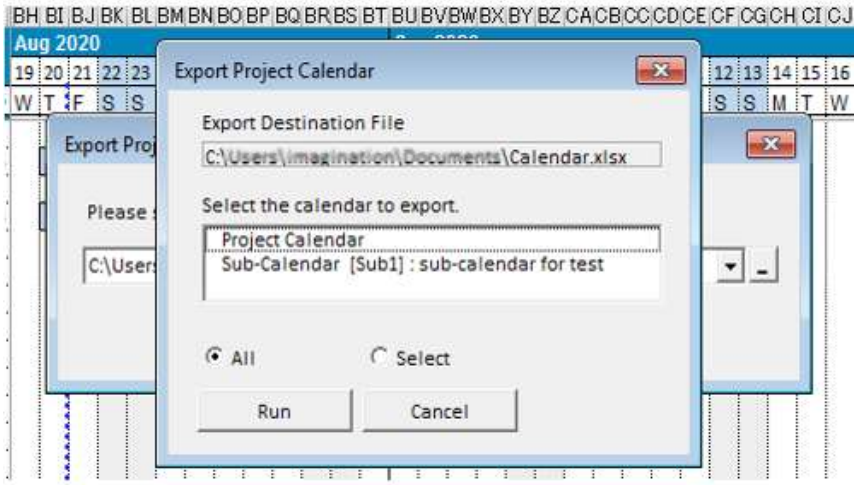


[3] Specify the export destination file name. The default file name is “Calendar.xlsx”.
[4] If necessary, change the save destination and file name.



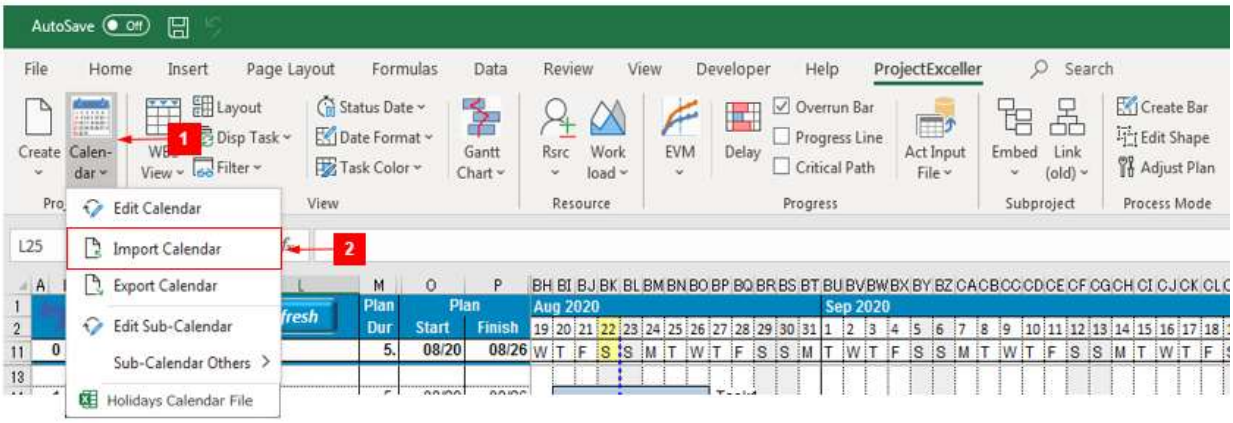
For Sub-Calendar

If a sub-calendar is set, you can select the export target in the next dialog.

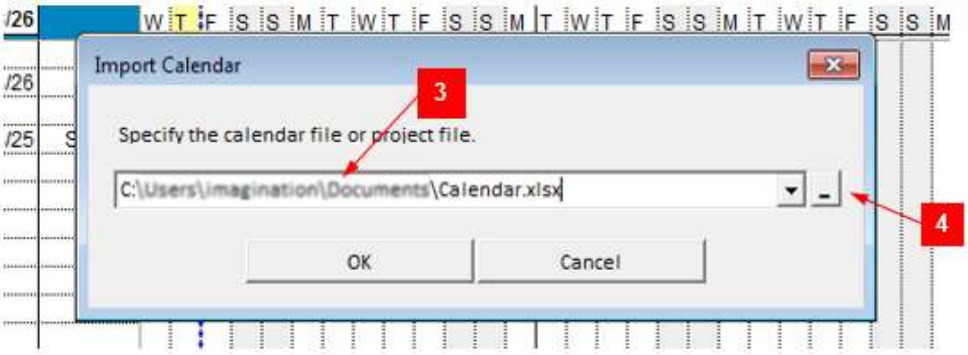


Import Calendar

Import calendar data into a project file.
[1] Click [Calendar] button in the ribbon.
[2] Click [Import Calendar] in the submenu.



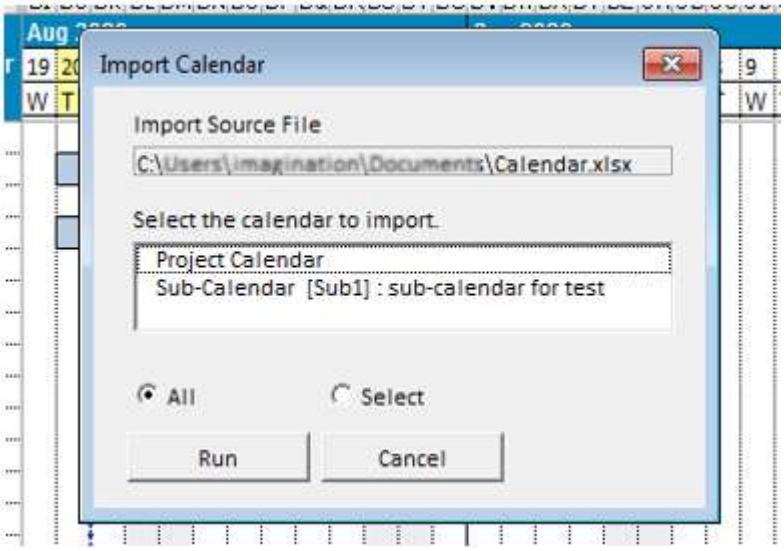
[3] Import by specifying a calendar file or another project file. (Calendar.xlsx in this sample)
[4] Change the save destination and file name if necessary.



Memo: Importng from a project file
Import the calendar data of the project file and replace the current calendar data.

For Sub-Calendar

If a sub-calendar is set for the resource file or project file that is the import source, you can select the export target in the next dialog.



Edit Calendar File

The exported calendar file (default file name: Calendar.xls) is an Excel book. You can also edit this book directly and import it.

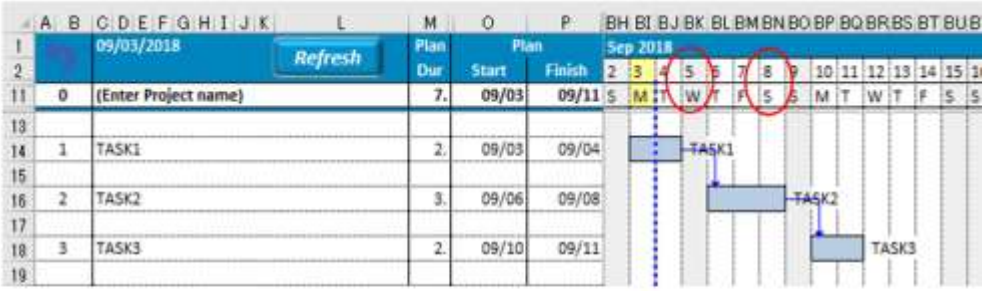
How to edit:
1) By default, Saturday and Sunday are holidays, and Monday through Friday are work days.
2) If you want to set a work day on Saturday or Sunday, please register as [Workday].
3) If you want to set any day from Monday to Friday as a non-work day, please register as [Holiday].

The exported calendar file (default file name: Calendar.xls) is an Excel book. You can also edit this book directly and import it.

How to register:
1) By default, Saturday and Sunday are public holidays, and Monday through Friday are work days.
2) If you want to set a workday on Saturday or Sunday, please register as [Working Day].
3) If you want to set a holiday from Monday to Friday, please register as [Holiday].

In the following sample, Wednesday, September 5th is set as a non-work day, and Saturday, September 8th is set as a work day.

Project Sheet

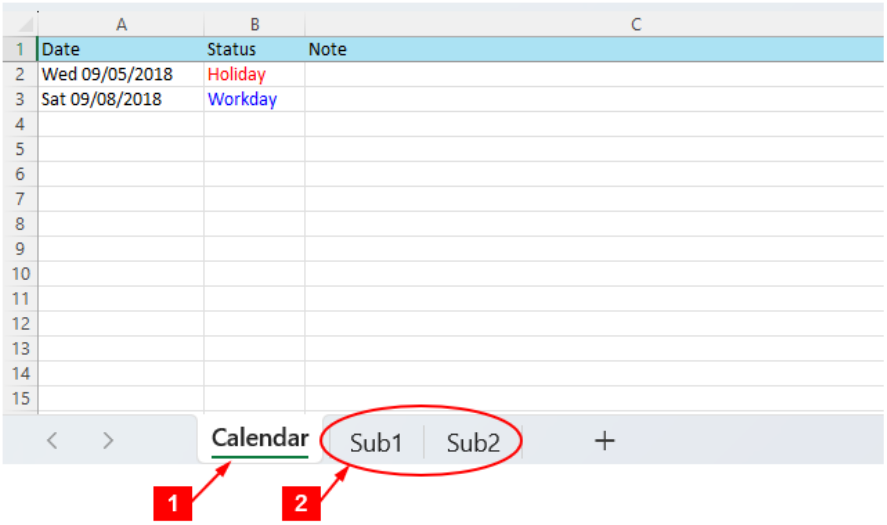


Calendar Data File

	A	B	C
1	Date	Status	Note
2	Wed 09/05/2018	Holiday	
3	Sat 09/08/2018	Workday	

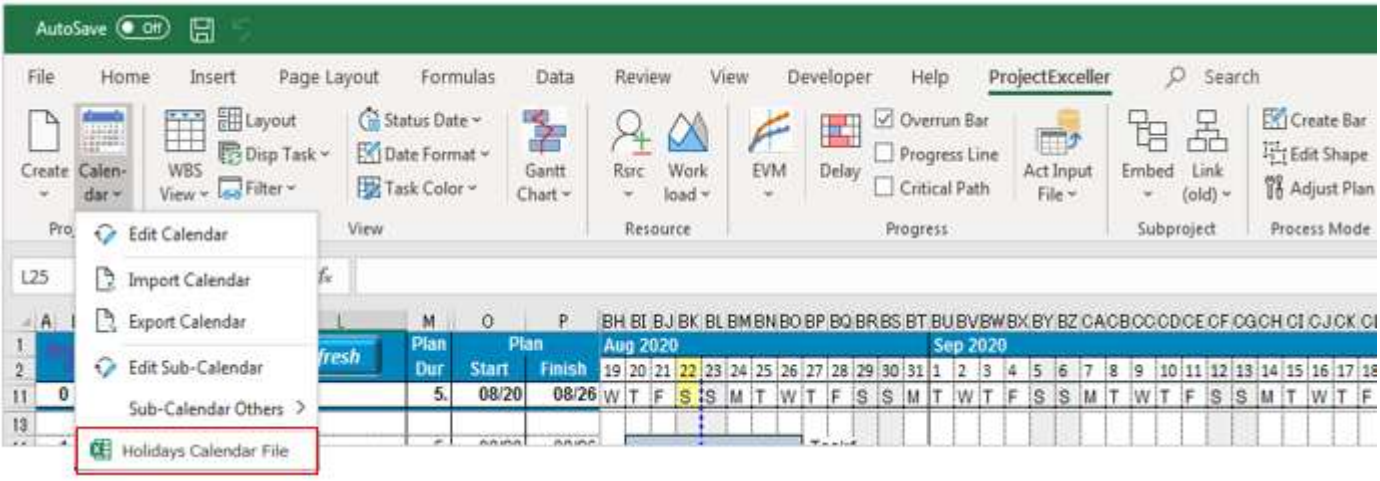
For Sub-Calendar

The calendar file is divided into a project calendar and sub-calendar data sheets.
[1] The sheet name "Calendar" is a project calendar.
[2] Sheet names "Sub1" and "Sub2" are sub-calendars.



5.4. Holidays Calendar File

The initial settings for the project calendar are that Saturdays and Sundays are holidays, and Mondays to Fridays are working days. Holidays such as New Year's Day are not set. Click 'Holiday Calendar File' to download a calendar file with Japanese holidays set. The downloaded holiday file can be imported using the '[Import Calendar](#)' function.

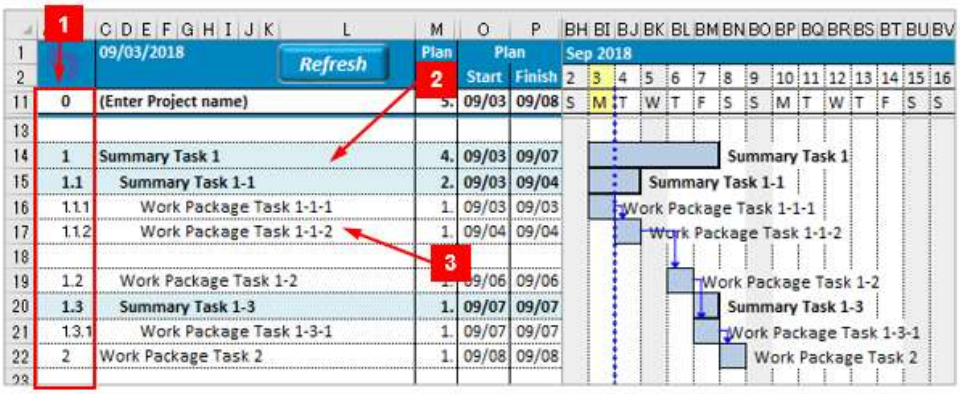


Chapter 6. Create Tasks

Describes the types of tasks on the WBS and how to create them.

6.1. Task Type

There are two task types in the project sheet, the work package (lowest level) task and the summary task.



[1] Work Package Task (Lowest -Level)
It is a task that does not have a subtask. In other words, it is the smallest unit of tasks that is a detailed project work. When performing project management, you can set the schedule, effort, resources, etc. directly.

> **Memo: Work Package and Activity**
> The lowest-level task is called “Work Package”. This work package may be further broken down into some activities (specific work), which may be described as the minimum unit of project management. In this case, consider the lowest-level task in ProjectExceller as the "activity" and the task at the next higher level as the "work package".

[2] Summary task
Summary Task is a task that has one or more subtasks. The summary task line shows the total value of its subtasks. Summary tasks have the following limitations:
Restrictions:

- You can not edit summary tasks directly. Please edit the subtask.
- You can not set task links for summary tasks. (Can not be a preceding task, a successor task.)
- Resources can not be allocated.

[3] Task ID
The task is automatically assigned a task ID. Task ID is a combination of numbers that displays the hierarchical structure of tasks.

Memo: The overall summary line in the WBS header displays "0" as the task ID. This means that the entire project sheet is the top task.

6.2. Create Task

Create Task from WBS

Let's create a next task in WBS of a blank project sheet.

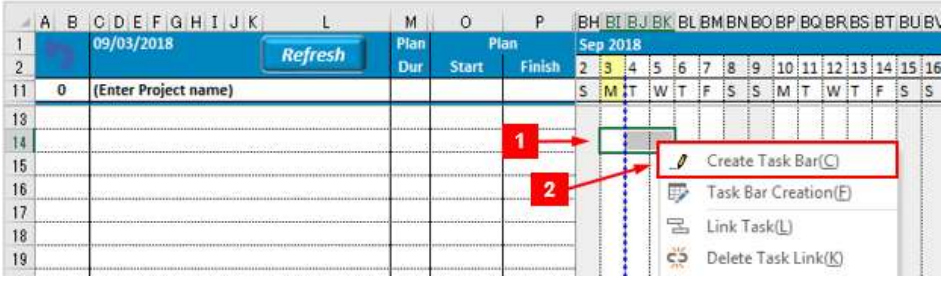
The task name is “Development” and the duration is 3 days.

[1] Enter "Development" in a task name field of line 14 in the WBS. The start date of the task will automatically be September 3 (today) and the duration will be 1 day.

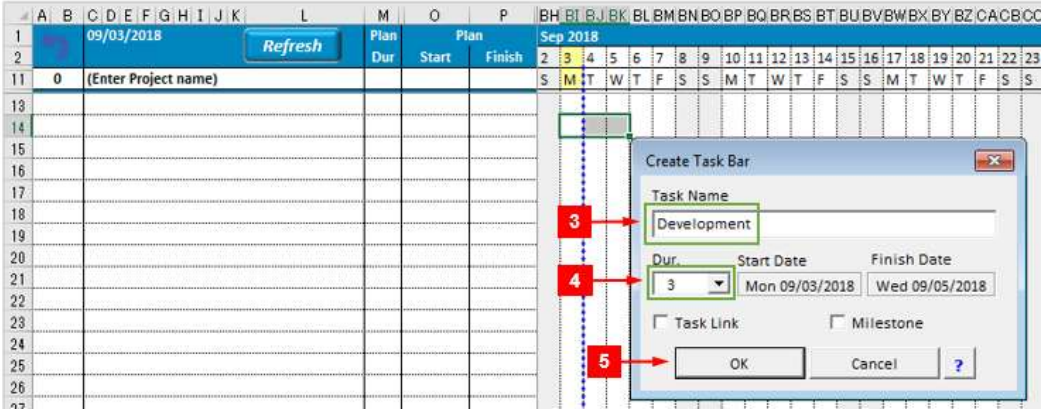
[2] Change the plan duration by entering “3” in the plan duration field.

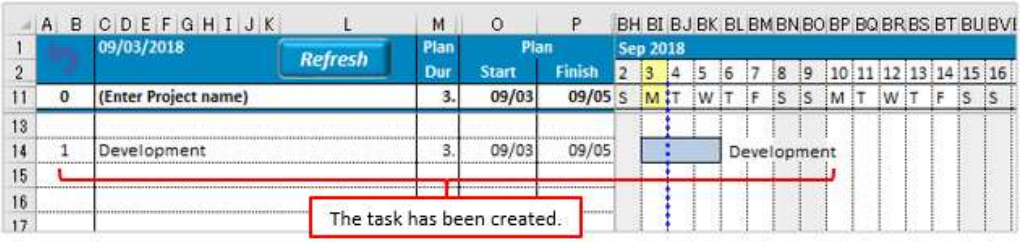
Create Task from Gantt chart

[1] Select the cell range corresponding to the task duration on the Gantt chart and right click.
[2] Click [Create Taskbar] in the right-click menu. “Create Task Bar” dialog is displayed.



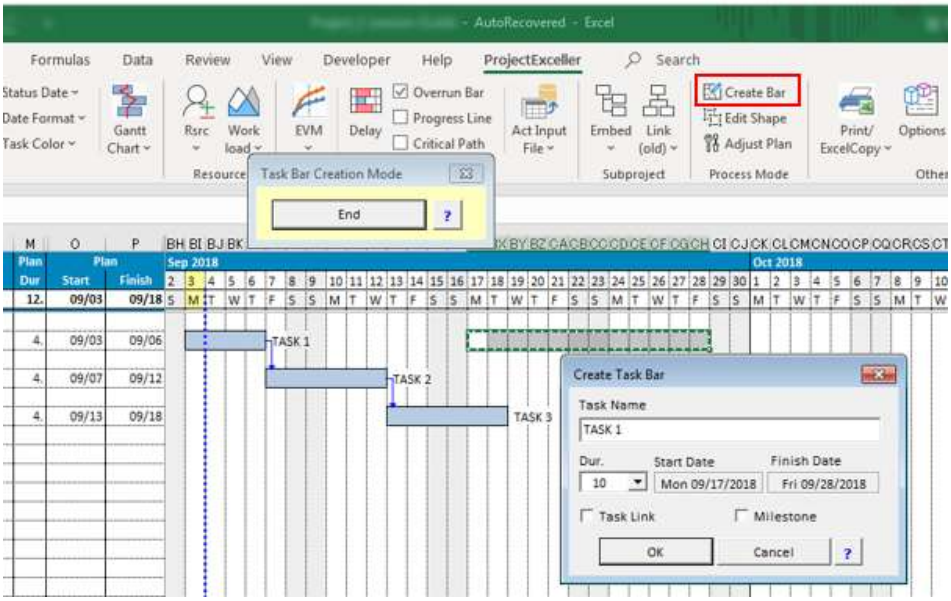
[3] Enter "Development" in the task name field.
[4] Enter “3” in the plan duration field.
[5] Click OK button. A new task of "Development" is created on the project sheet.





Create Task Bar mode

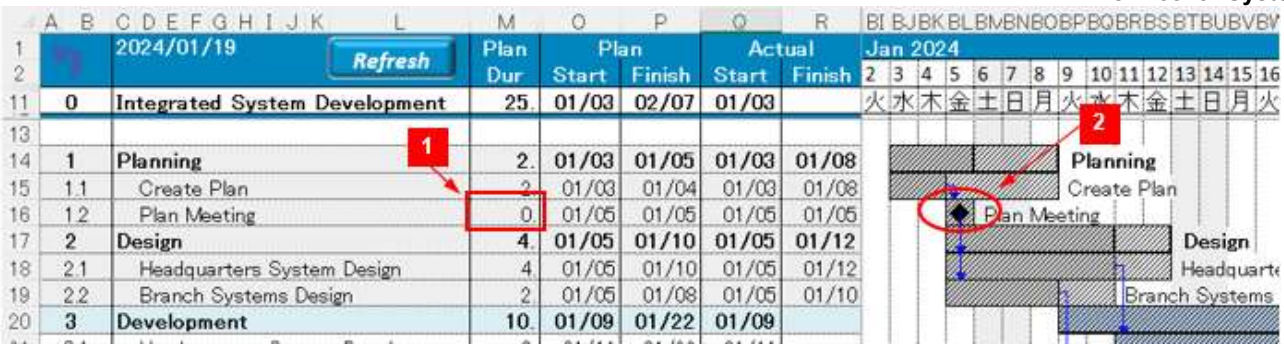
By switching to "Create Task Bar", tasks can be created continuously by mouse operation only.



Milestone

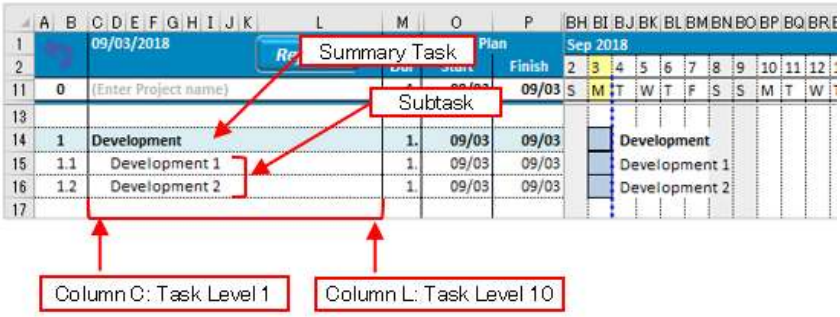
Milestones are tasks with a duration of 0 (zero). For example, they set dates for important project decisions, approvals or their meetings.

- Milestone tasks can be created on the WBS using the same procedure as for normal tasks. However, the planning period of the task must be set to 0 (**[1]**). Milestones are indicated on the Gantt chart by the ◆ symbol (**[2]**).
- To create a task directly on the Gantt chart in the 'Create Taskbar' dialog, tick the 'Milestone' item in the dialog.



6.3. Create Summary Task

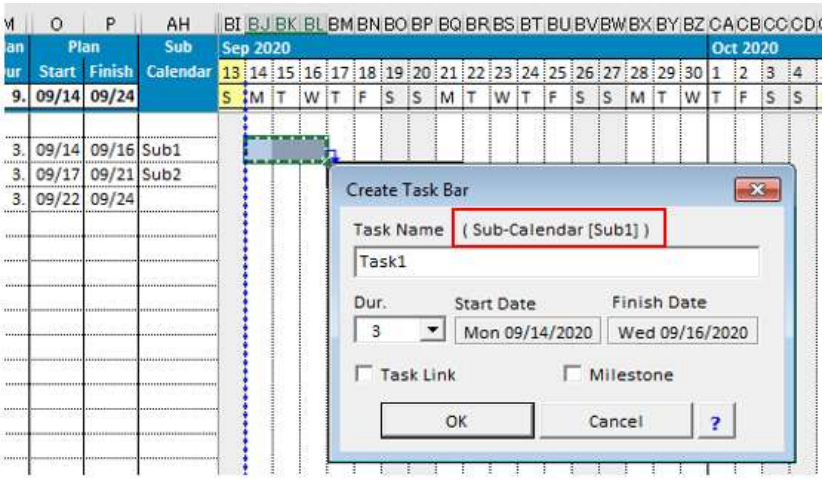
- Tasks can be set in 10 levels from task level 1 (top level) to task level 10.
- In the following sample, "Development" on line 14 is the summary task (parent task) of task level 1. A summary task is a task consisting of multiple subtasks (child tasks). Line 15 "Development 1" and line 16 "Development 2" are its subtasks.



There are three ways to create summary tasks:

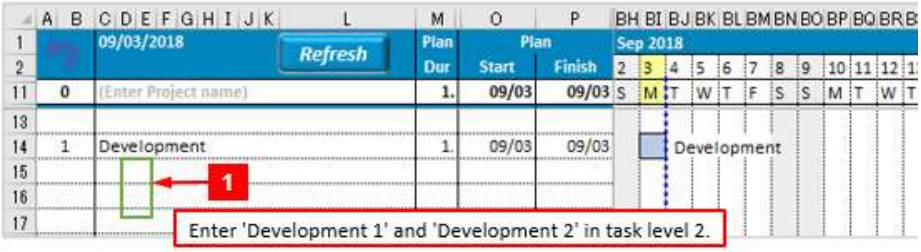
Note: Tasks for Sub-Calendar

When a task to which a sub-calendar is assigned is selected, the corresponding sub-calendar name is displayed next to "Task name" in the dialog.

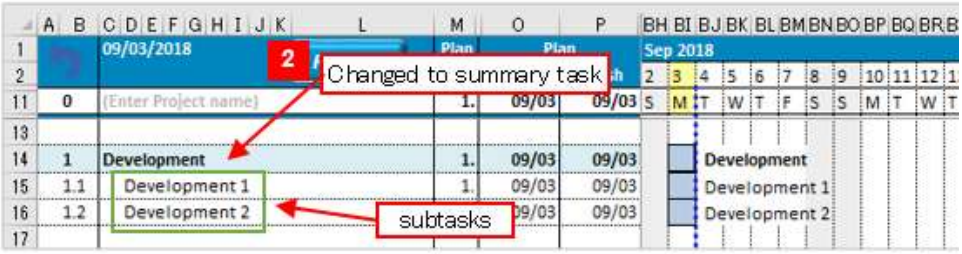


Enter Subtask Name

[1] Enter "Development 1" and "Development 2" as subtasks in the lines immediately below task "Development" . At this time, enter in the position (column D) of the task level (level 2) lower than the task level (level 1) of the summary task "Development".

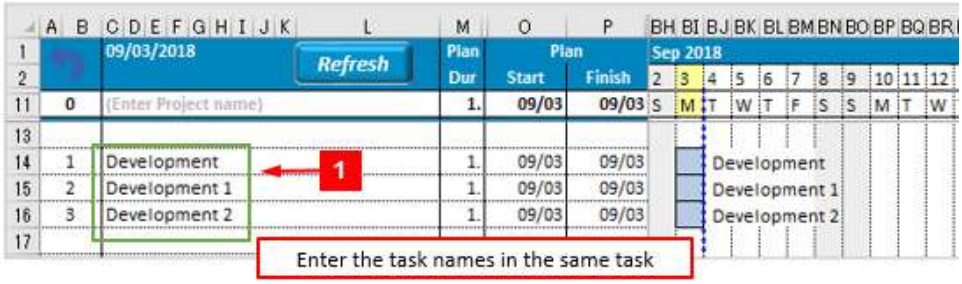


[2] Task "Development" is converted to summary tasks.



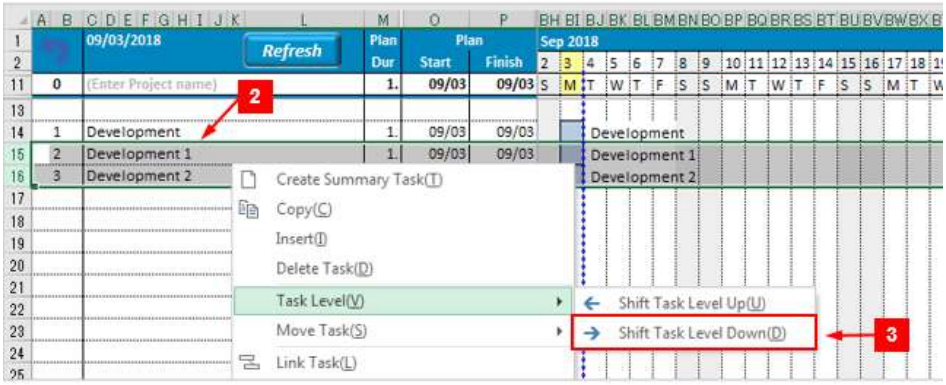
Create by changing task level

[1] Create three tasks at the same task level.

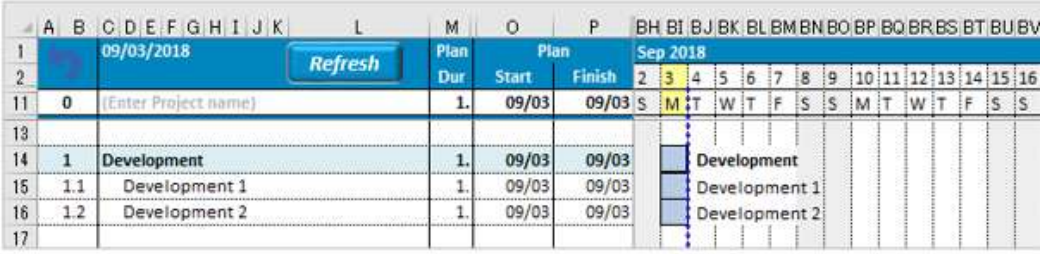


[2] Select the lines of task "Development 1", "Development 2" and right click.

[3] Click [Task Level], [Shift Task Level Down] in the right click menu.

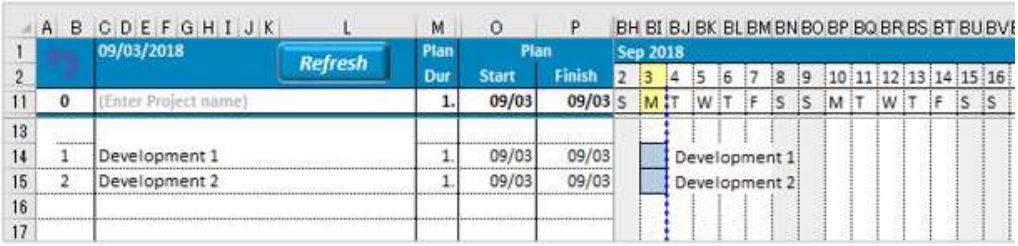


The task levels of "Development 1" and "Development 2" tasks changed down, and task "Development" is converted into a summary task accordingly.

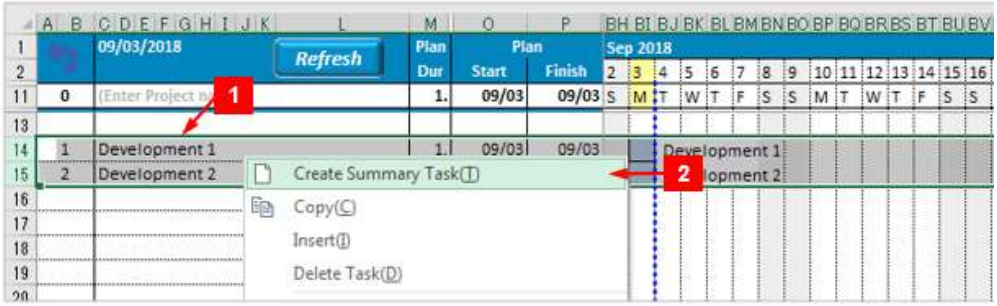


Create by Selecting Subtasks

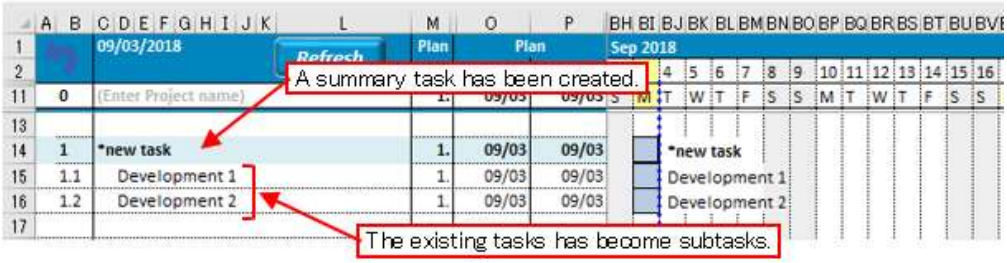
Group existing tasks into one summary task.



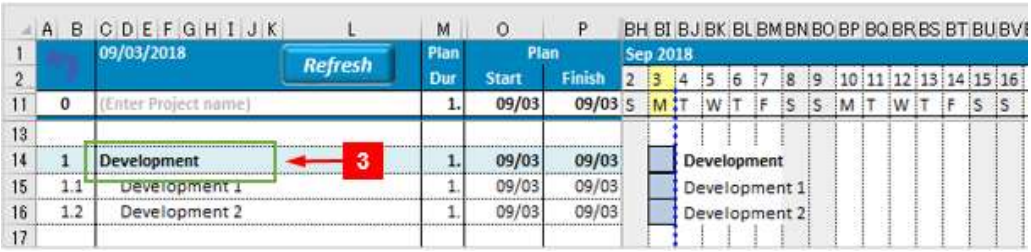
[1] Select the target task row and right click.
[2] From the menu, click [Create Summary Task].



The task level of the selected task group is lowered by one level, and a summary task line is inserted at the top.



[3] Rename the created summary task to "Development".



Chapter 7. Link Tasks

Describes the setting of dependencies between tasks.

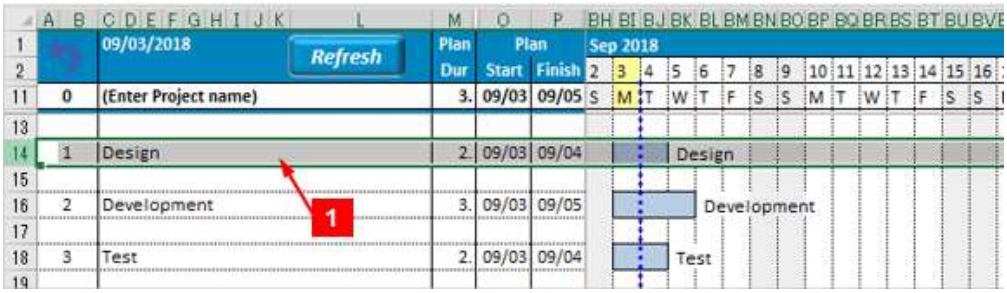
7.1. Set Task link

You can schedule the next task to start after one task is finished. ProjectExceller supports FS (Fish-Start) type task link which is the most commonly used

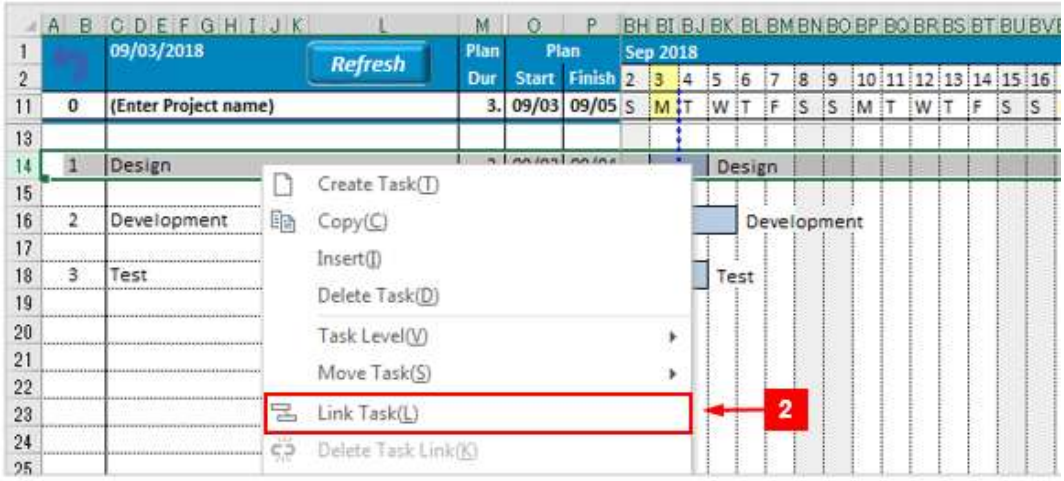
Note: Task links can not be set for summary tasks or linked subproject tasks.

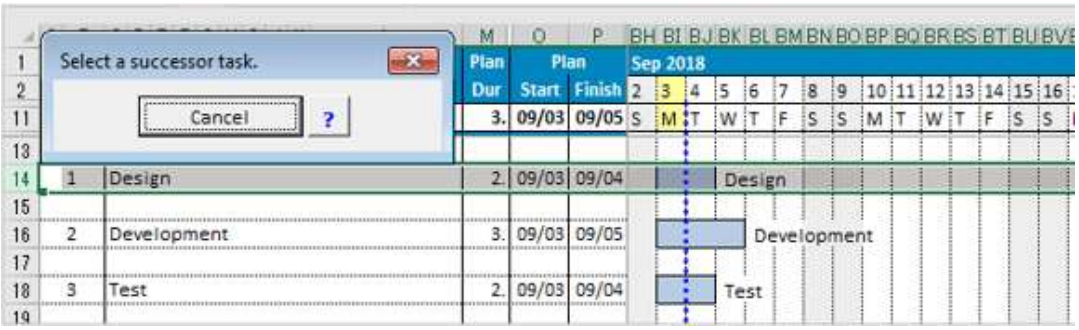
Link Tasks by Selecting Preceding Task

[1] Click task "Design". It is a preceding task.

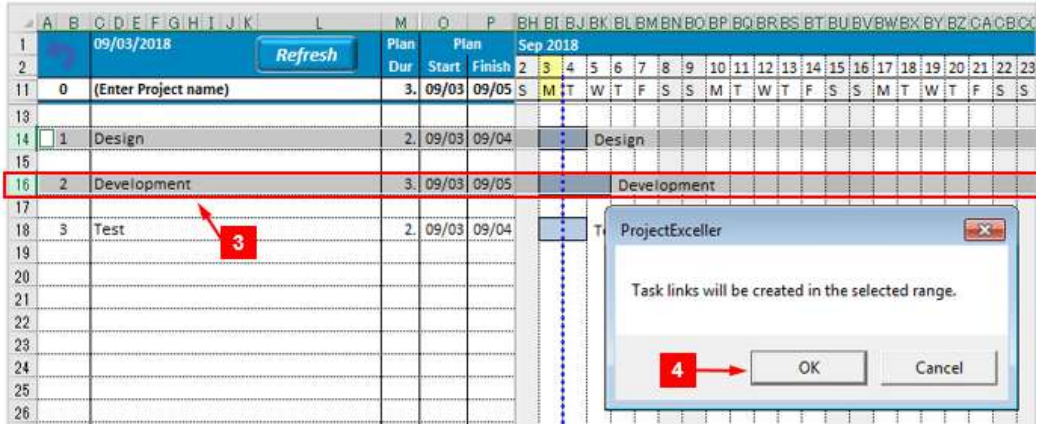


[2] Right-click on the selected task line, and click [Set Task Link] from the menu. It prompts to select a succeeding task.

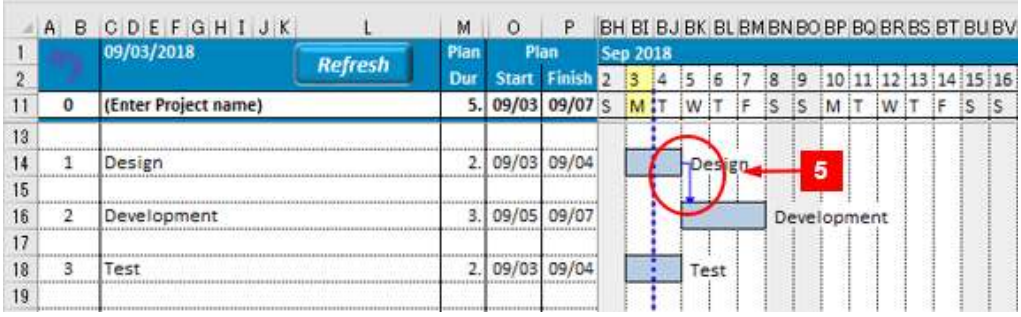




[3] Click task “Development” as a succeeding task,
[4] Click OK to confirm.



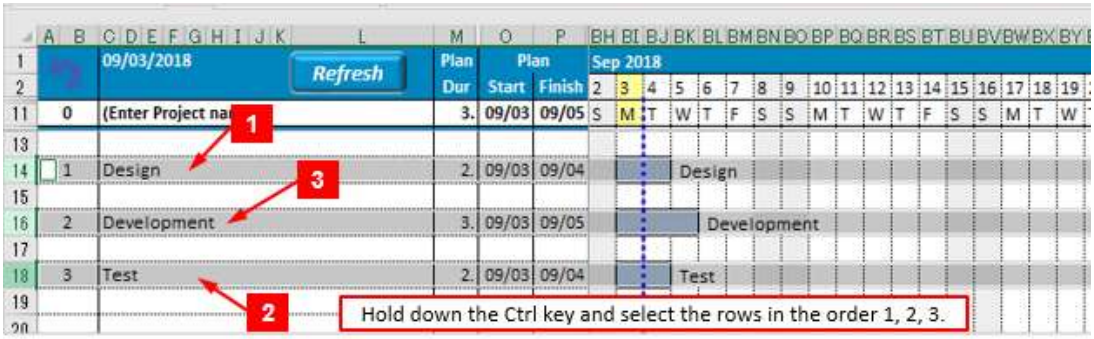
[5] Linked to task “Development” as a succeeding of task “Design“. A blue link line is displayed onto the task bar.



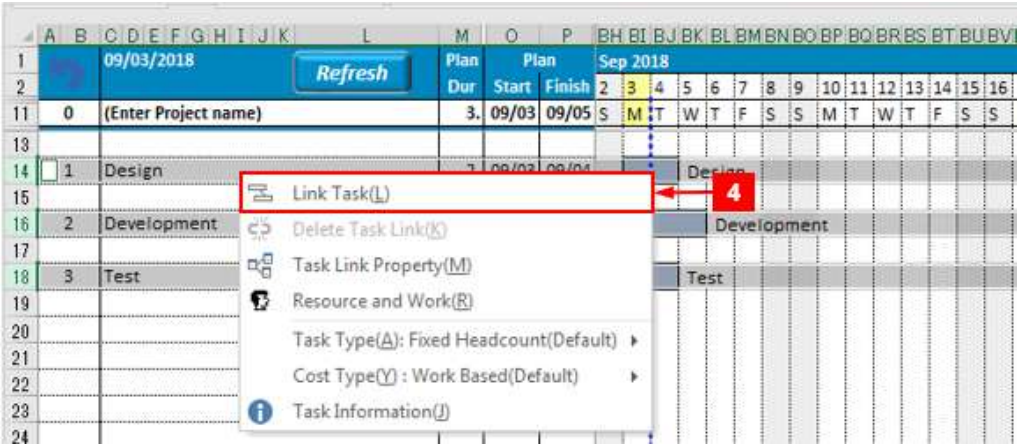
Link Tasks by Specifying the order

You can set links in the order by selecting multiple task lines in order while holding the Ctrl key.

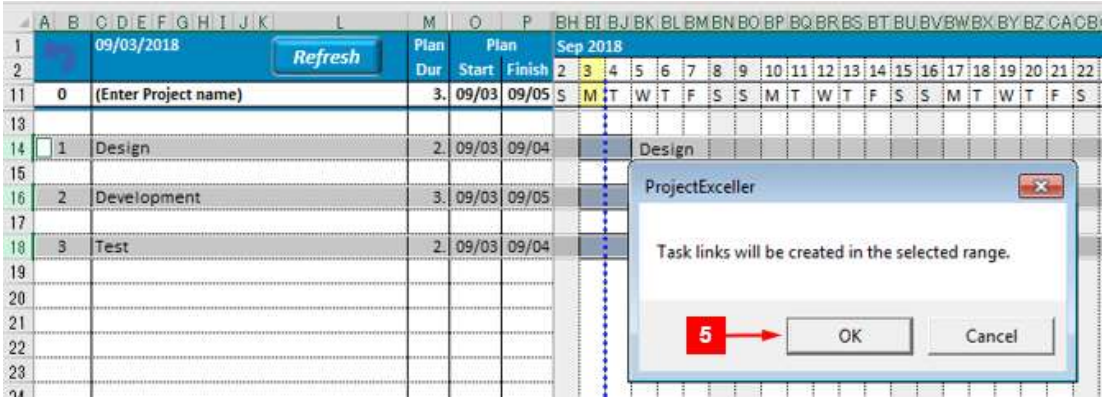
[1] [2] [3] While holding down the Ctrl key, click the task line in the order of "Design", "Test", and "Development" tasks.



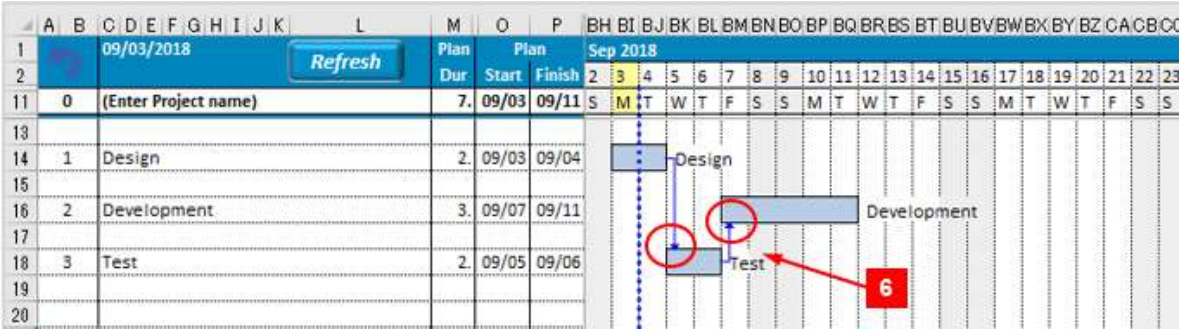
[4] With the target task lines selected, right-click, and click [Set Task Link] from the menu.



[5] Click the [OK] button.



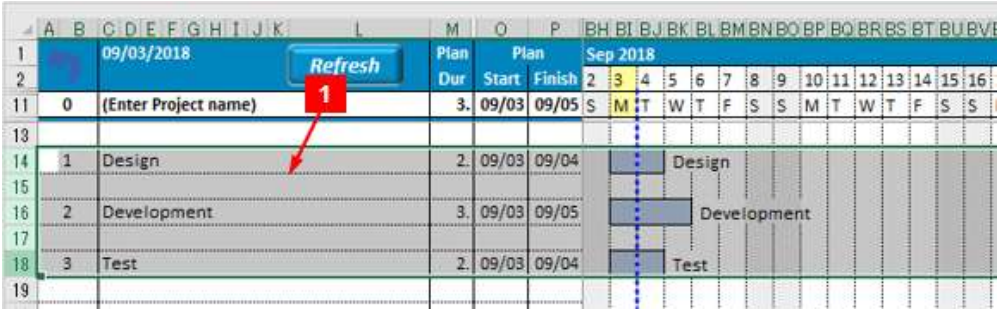
[6] Task links have been set in the selected order.



Link Tasks in the Specified Range Continuously

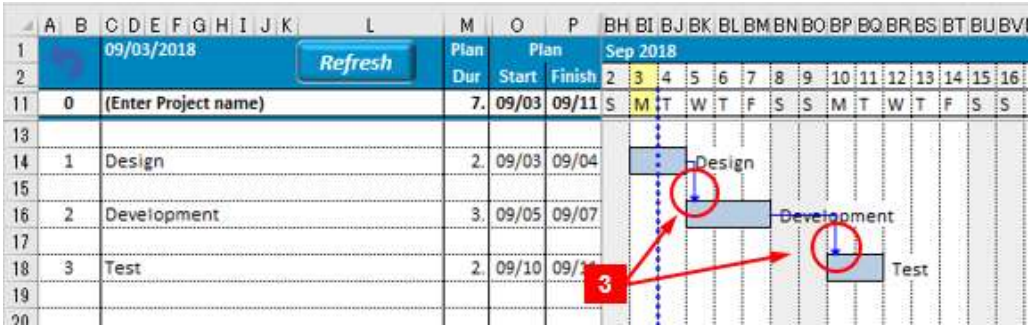
If you select multiple task lines as one range, you can link sequentially from the top of the range in sequence. The next three tasks "Design", "Development" and "Test" are linked in order from the top.

[1] Select task line range to link and right click.



[2] From the menu, click [Link Task].

[3] Three tasks have been linked.

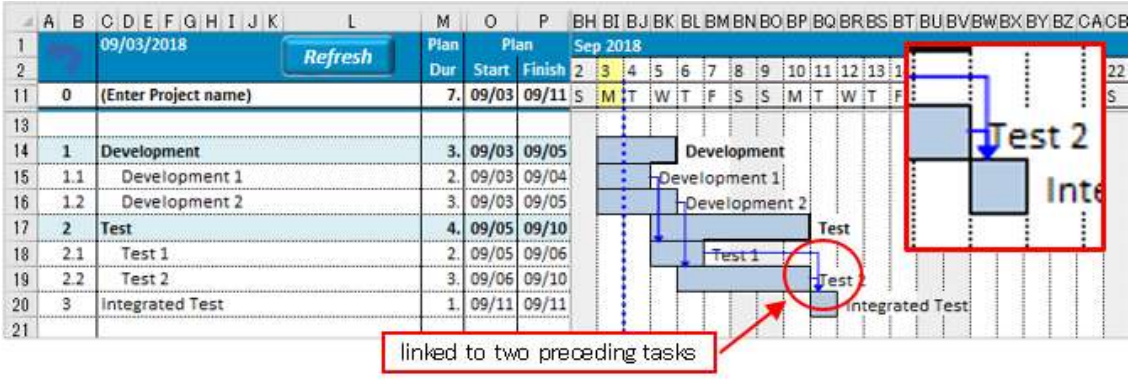


7.2. Delete Task Links

Task links can be deleted in whole or in part.

Delete the link to the preceding task.

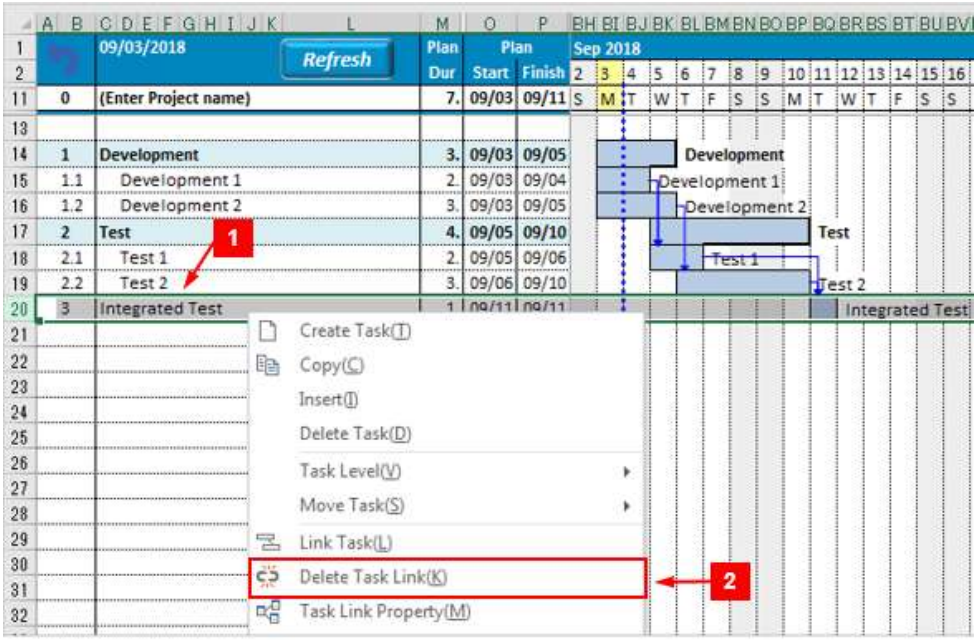
In the following example, ” Integration Test” task has two preceding links to “Test 1” and “Test 2” tasks.



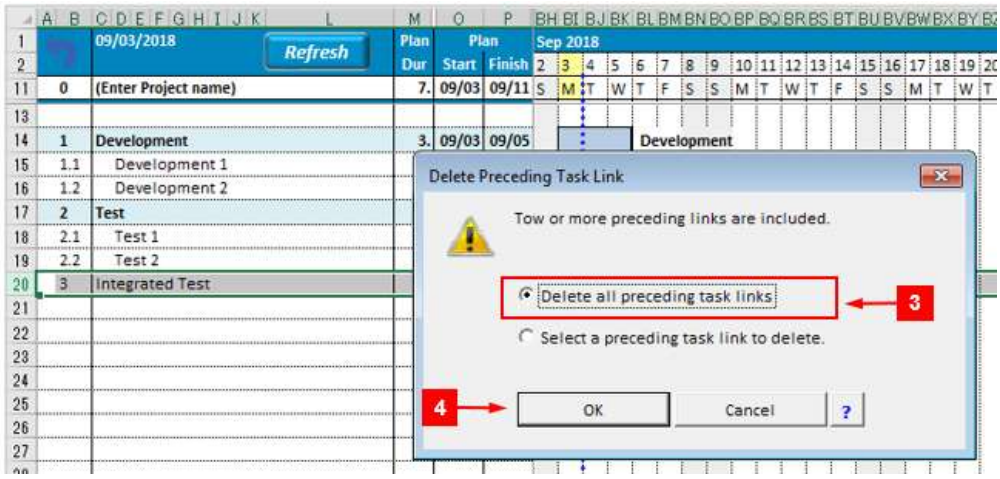
1. Delete All Links to Preceding Tasks

[1] Select the line of "Integrated Test" task having the preceding task.

[2] From the menu, click [Delete Task Link]. The [Delete Preceding Task Link] dialog box is displayed.

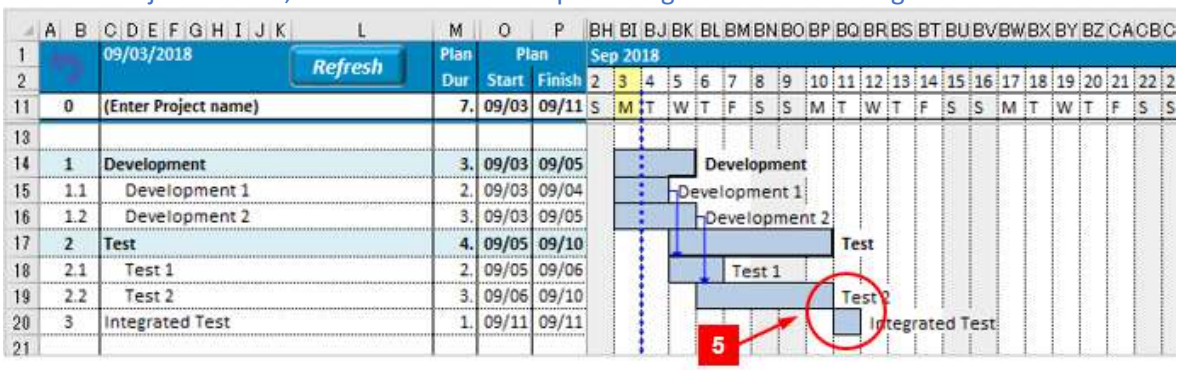


[3] Select [Delete all preceding task links] checkbox.
[4] Click the OK button.



- The link line to this taskbar on the Gantt chart disappears because the task link of "Integration Test" task have been deleted.

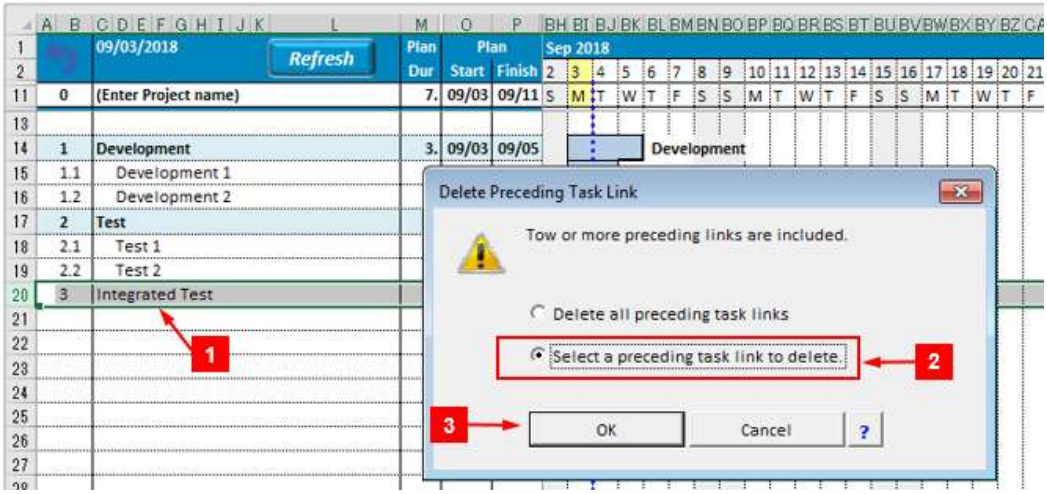
Note: In ProjectExceller, the start dates of the preceding tasks do not change even if the task links are deleted.



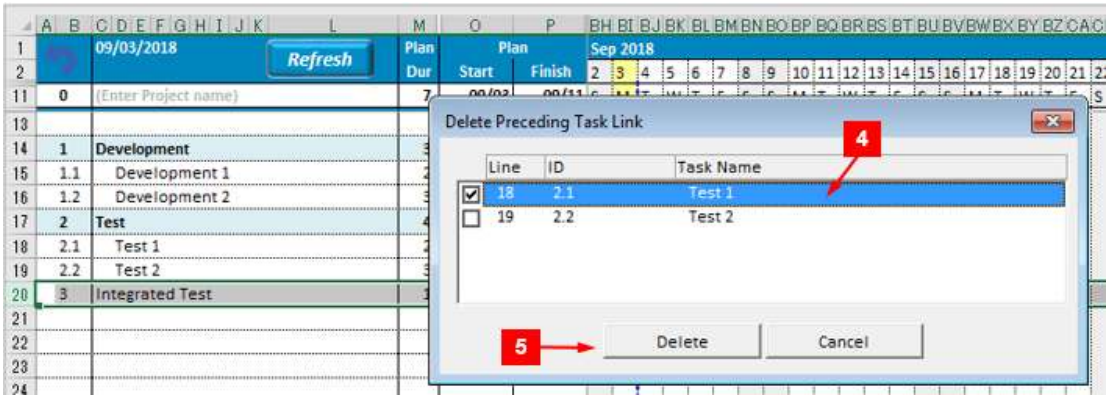
2. Select Preceding Task Link to Delete

■ If multiple preceding task links are set, only a part of them can be deleted.
[1] Select "Integrated Test" task and right click.

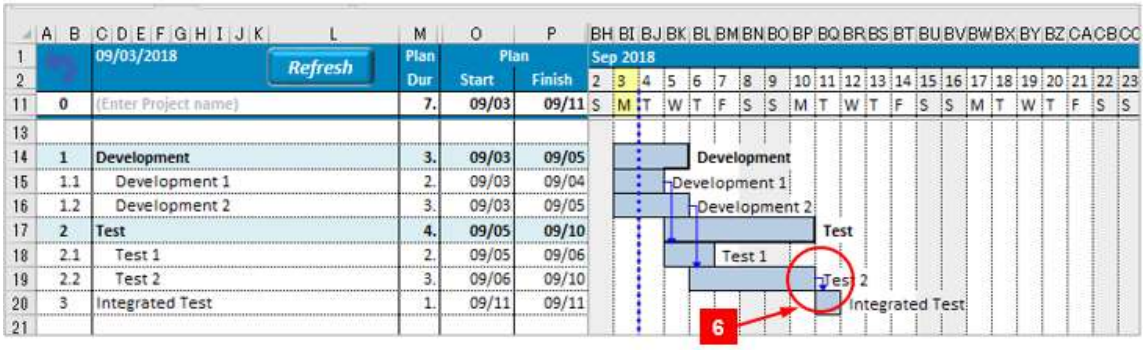
[2] From the menu, click [Select a predecessor task link to delete] checkbox.
[3] Click the OK button.



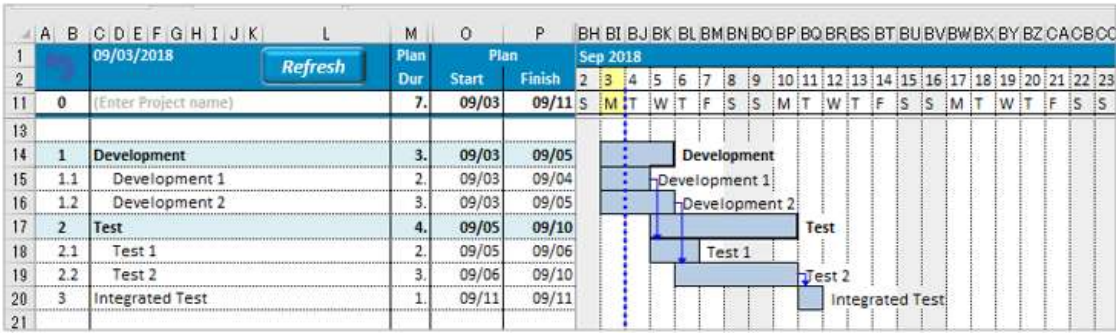
[4] Click the "Test 1" task from the preceding task list.
[5] Click [Delete Link] button.



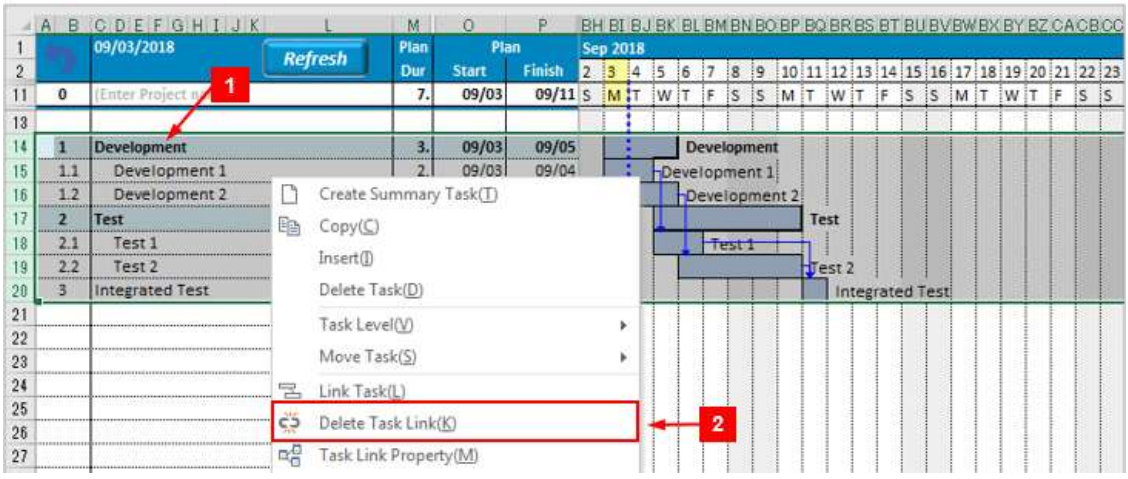
[6] The preceding link to the "Test 1" task set in the "Integration Test" task has been deleted.



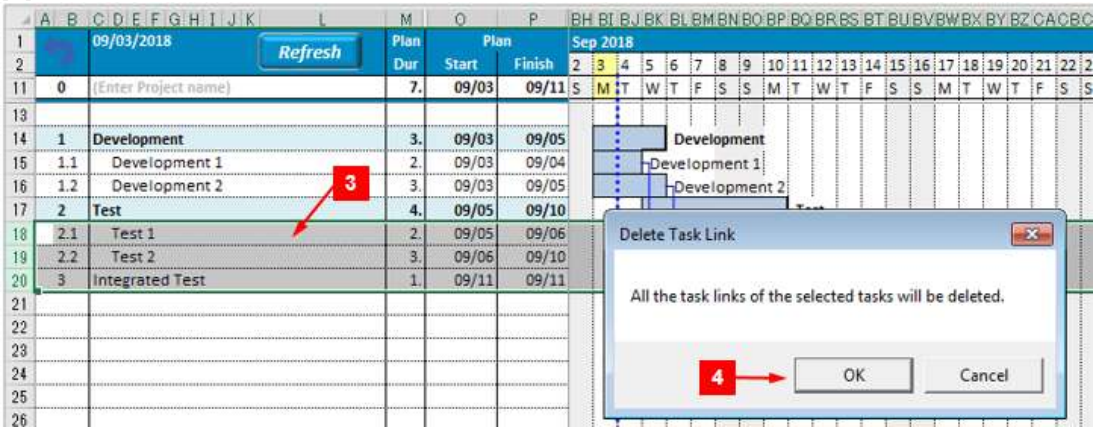
Preceding task links of multiple tasks can be deleted at once.



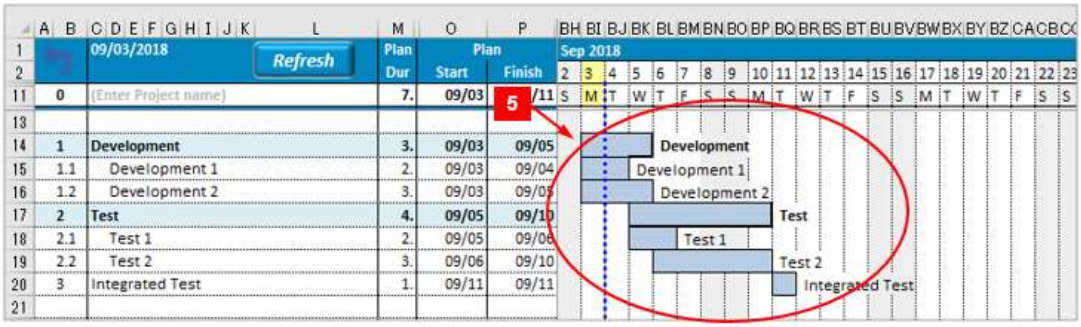
[1] Select the task range for which you want to delete the links, and right-click.
[2] Click [Delete Task Link] from the menu.



[3] Only task lines for which a preceding task link is set in the selected range are automatically selected.
[4] Click the OK button.



[5] All preceding task links of the selected task are deleted, and all task link lines on the Gantt chart disappear.

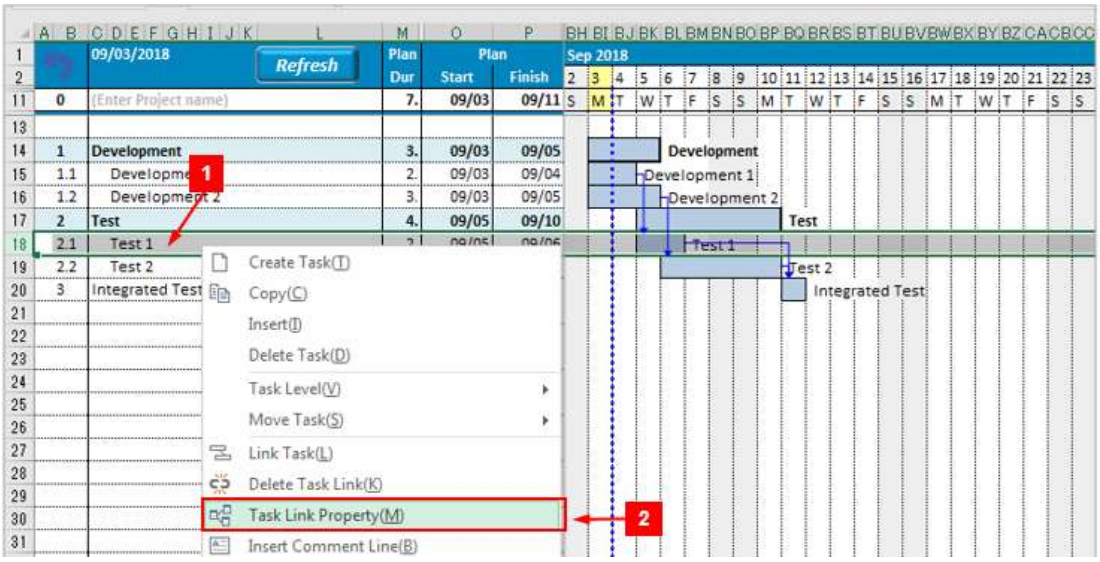


7.3. Task Link Property

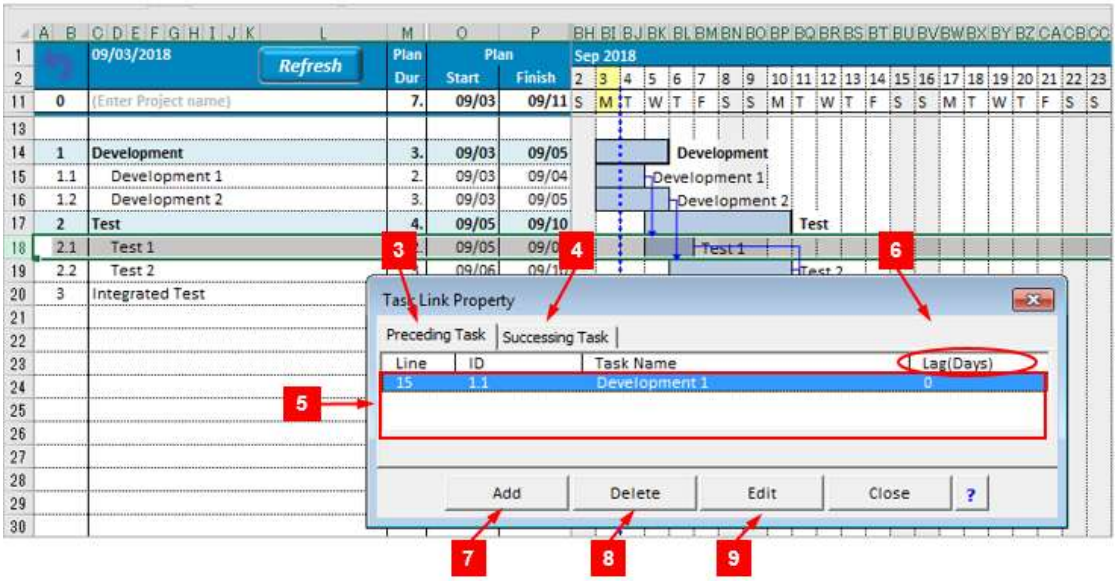
Task link properties of tasks can be viewed from [Task link Property] in the right-click menu. You can delete, add, and edit preceding and succeeding links of the tasks.

Open Task Link Properties

Let's open the task link property of the "Test 1" task.
[1] Select the "Test 1" task line and right click.
[2] Click [Task Link Property] on the menu.



The Task Link Properties dialog is displayed. The following describes the functions of the dialog.



[3] Preceding Task

Display the preceding tasks.

[4] Succeeding Task

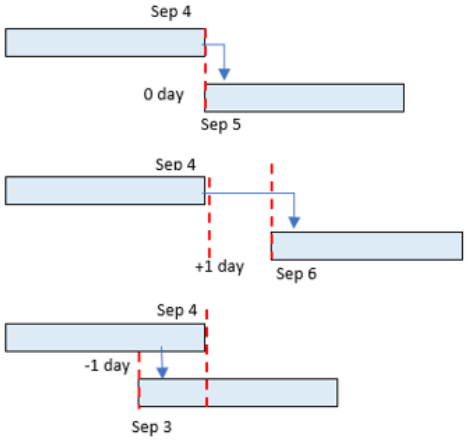
Display the succeeding tasks.

[5] Task List

Display line numbers, IDs, task names, and lags of preceding or succeeding tasks.

[6] Lag (Days)

Set the number of workdays as the difference between the finish date of the preceding task and the start date of its follow-on task. The default is 0 days. When the interval is a negative value, it is called lead time, and when it is a positive value, it is called lag time.



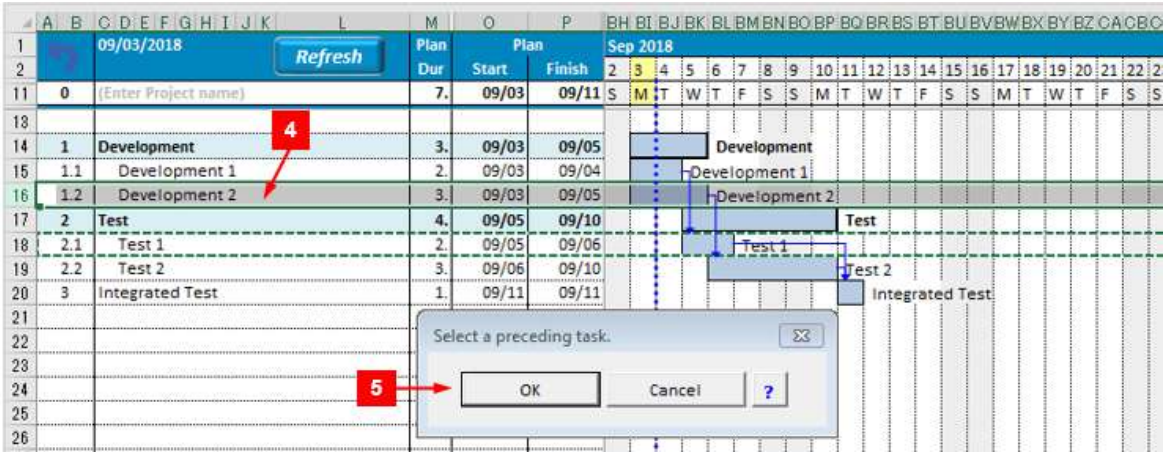
[7] Add
Add a preceding task or a succeeding task.
[8] Delete
Delete a preceding task or a succeeding task.
[9] Edit
Change the lag.

Add a Preceding Task

Add the "Development 2" task as a preceding task of the "Test 1" task.

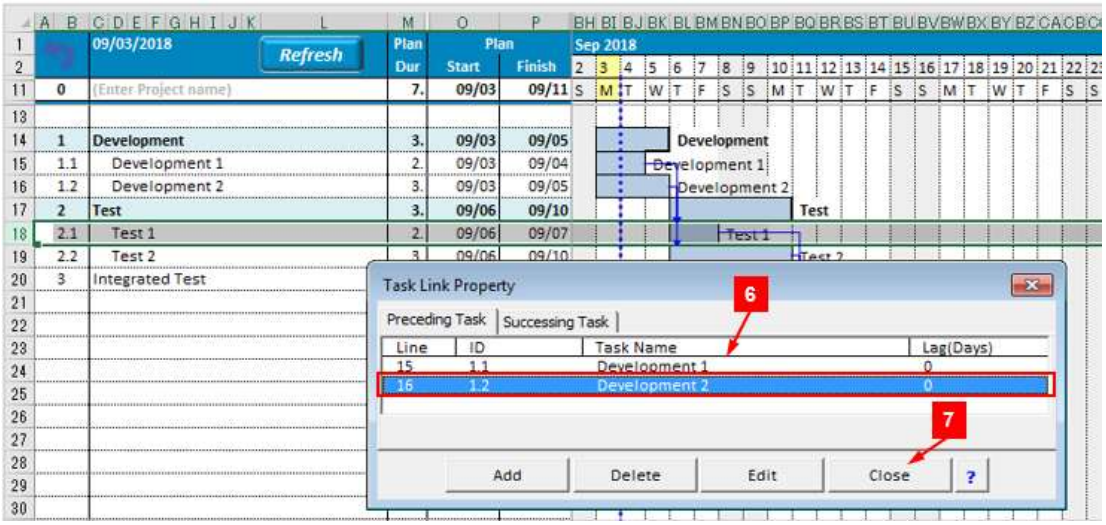
[1] Select "Test 1" task, right-click, and click [Task Link Property] from the right-click menu.
[2] Click the [Preceding Task] tab on the displayed dialog.
[3] Click the [Add] button. “Select Preceding Task” dialog is displayed.

[4] Click on the preceding task line you want to add. In this sample, add the "Development 2" task.
[5] Click the OK button.



[6] The "Development 2" task has been set as a preceding task.

[7] Click the [Close] button.



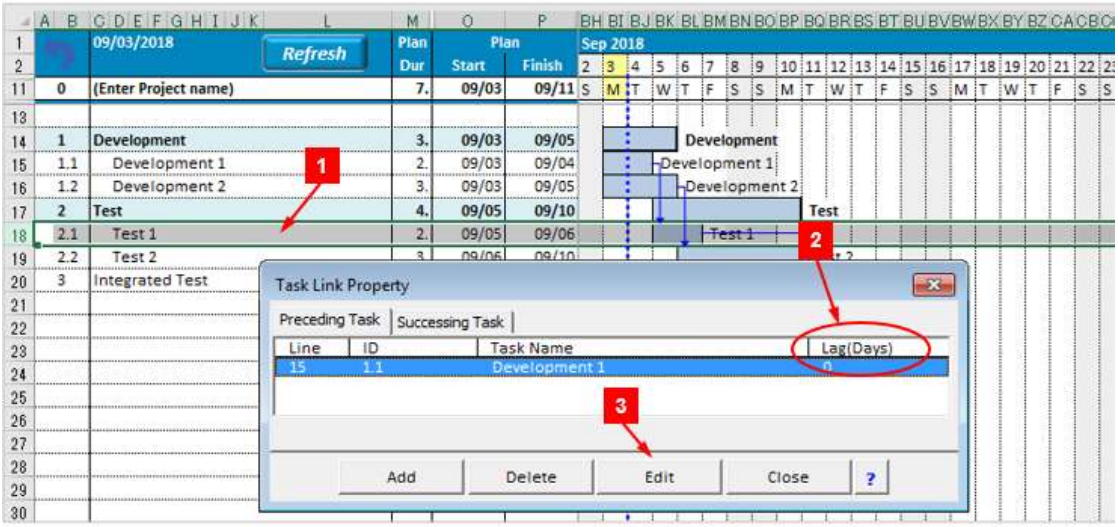
Set Task Link lag

You can set the difference period between the finish date of the preceding task and the start date of the succeeding task as "Lag" in days of work. Let's change the [Lag] to the "Development 1" task, which is the preceding task of the "Test 1" task.

[1] Select the "Test 1" task, right-click, and click [Task Link Properties] from the menu. The Task Link Properties dialog will be displayed.

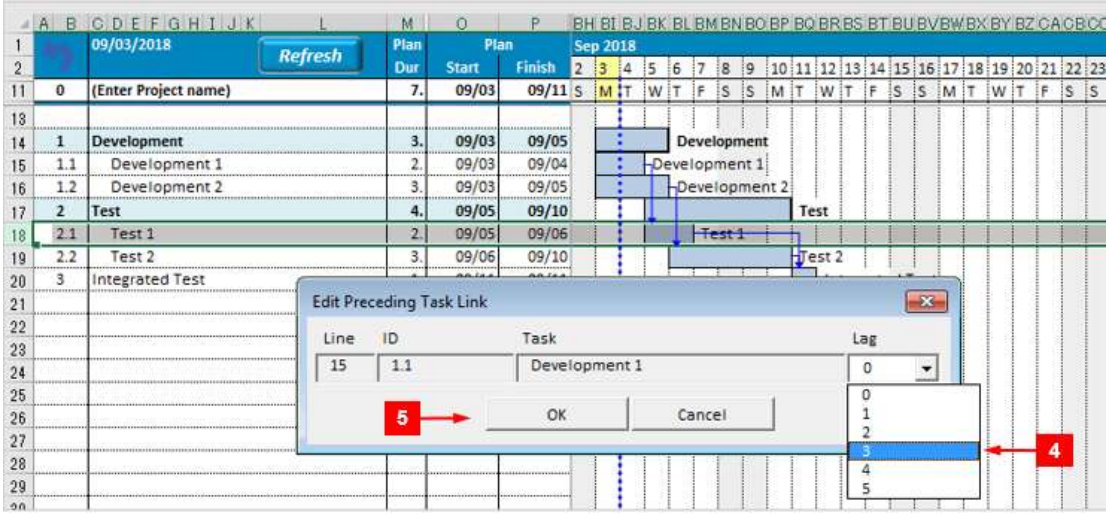
[2] Make sure that [Lag] on the [Preceding Task] tab is set to the default value of 0 days.

[3] Click the [Edit] button. [Edit Preceding Task Link] dialog is displayed.

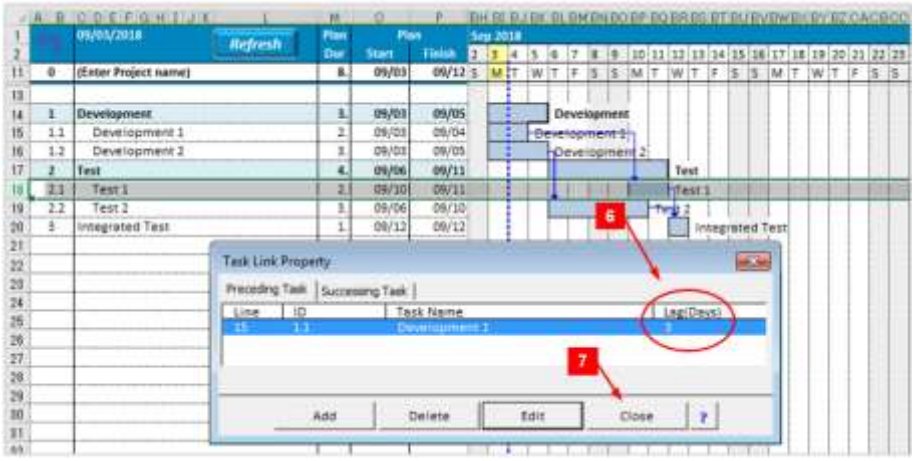


[4] Set [Lag] to +3 days.
[5] Click the [OK] button.

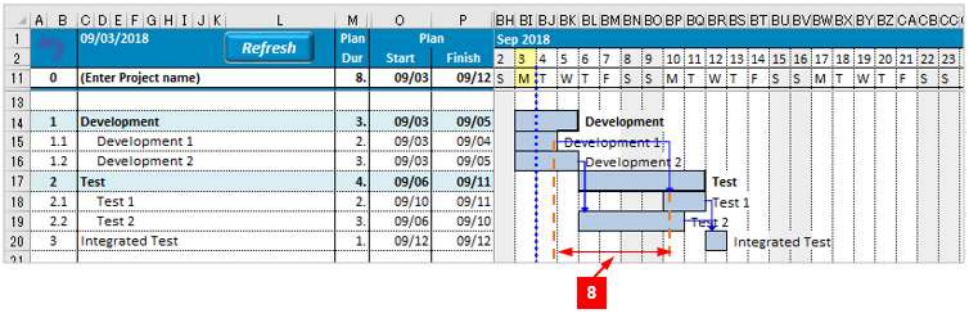
Note: You can enter values other than pull-down lists, such as negative values, directly in the Interval field.



[6] [Lag] is changed to +3 days.
[7] Click the Close button to close the Task Link Property dialog.



[8] You can confirm on the Gantt chart that the lag between the "Test 1" task and its predecessor "Development 1" has changed to 3 days.


09/03/2018
Refresh
Plan
Dur
Plan
Start
Finish
Sep 2018
0
(Enter Project name)
8.
09/03
09/12
1
Development
3.
09/03
09/05
1.1
Development 1
2.
09/03
09/04
1.2
Development 2
3.
09/03
09/05
2
Test
4.
09/06
09/11
2.1
Test 1
2.
09/10
09/11
2.2
Test 2
3.
09/06
09/10
3
Integrated Test
1.
09/12
09/12
Development
Development 1
Development 2
Test
Test 1
Test 2
Integrated Test
8

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Chapter 8. Allocate Resource

It describes the operation of allocating resources (people) to project tasks.

8.1. Prepare for Resource Allocation

Prepare resources before assigning them to tasks.

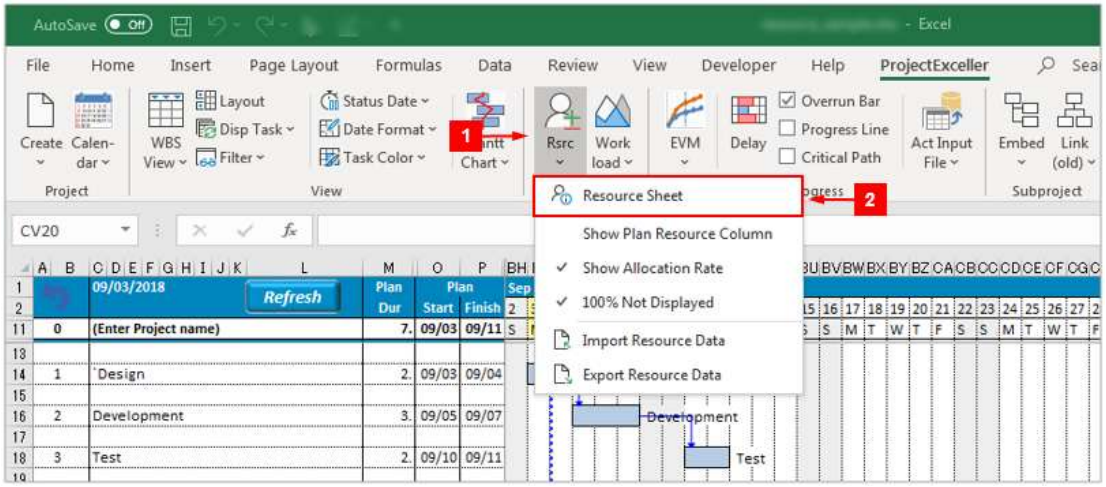
Register Resources in Resource Sheet

Resources to be assigned can be registered in advance in the resource sheet on the project file.

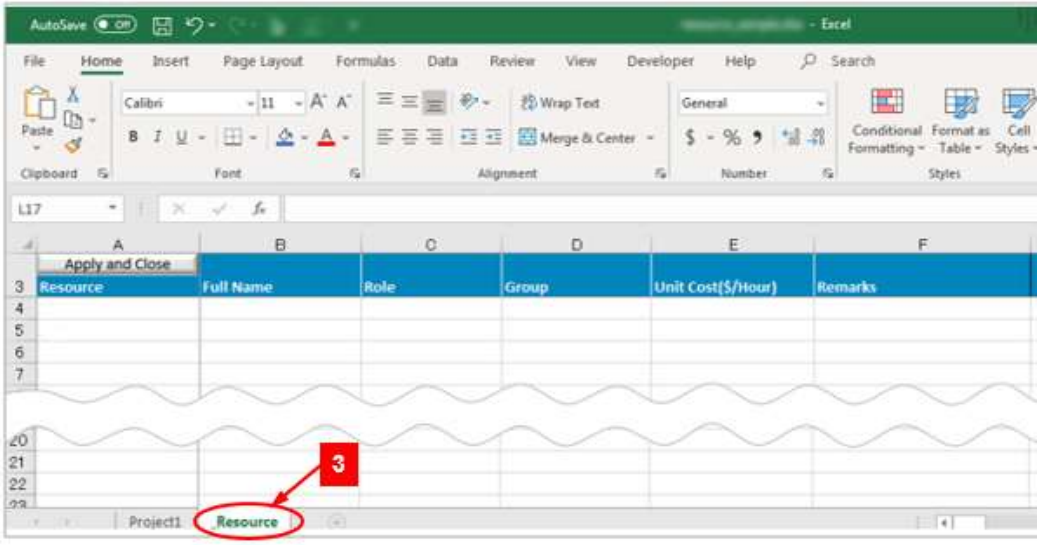
Note: The resource sheet is set for each project file. If there is more than one project sheet in the project file, it applies to all the project sheets.

[1] Click the [Resource] button on the [ProjectExceller] ribbon tag.

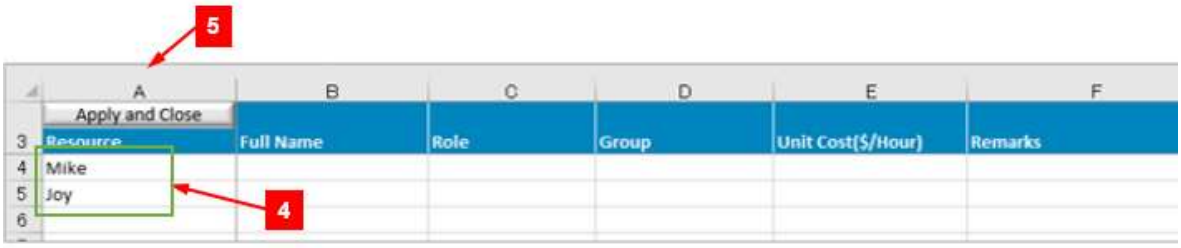
[2] Click [Resource Sheet] from the menu.



[3] The resource sheet is displayed. (The sheet name is _Resouce)



Enter the resource name in [Resource Name] of the resource sheet.



Resource (Required)
It is a short name of the resource name displayed on the project sheet. The string specified here is displayed in [Planned resource] or [Actual resource] of the project sheet. The name should be as few as possible and easy to understand. For example, if the name is "Mike Kayne", "Mike, "Kayne" or "MK" can be freely set.
[Resource] is required, the following items are optional.

Full Name
It is a full name of the resource. You can set the official name. The string in this field is not displayed on the project sheet.

Role
You can freely set the role name etc. used in the project.

Group
Set the group name to which the resource belongs.

Unit Price ($/hour)
You can set the unit price of the resource. By setting a unit price for resources, you can accurately grasp the cost (amount of money) of each task and the entire project.

Note: Hide Cost Information

- If the project manager does not want to show cost data to team members, the "Disable Cost Data" feature can hide resource prices and cost data for the project. It can be displayed again by re-enabling the cost data.
- Operation: Click [Option] button on the ribbon to open Option dialog. And In the dialog, select Resources tab, and Disable Cost Data button.

Remarks
Fill in the additional information about the resource as required.

Resources and EVM Analysis

- **EVM Analysis by Resource or Group**

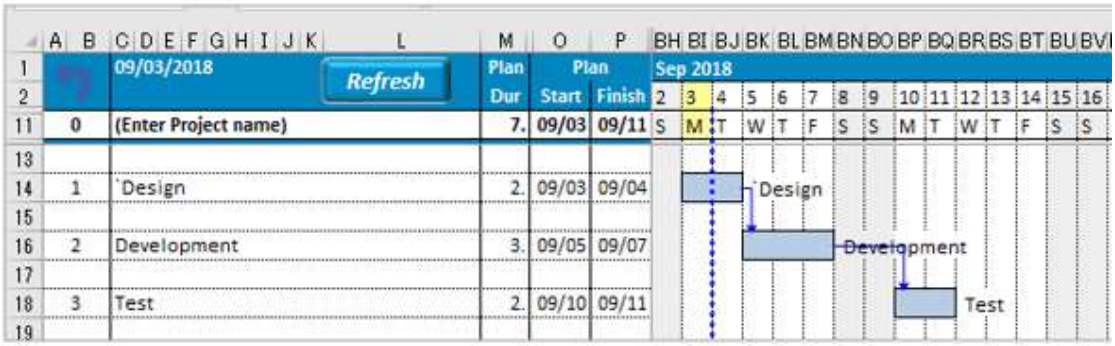
ProjectExceller's EVM analysis allows you to analyze not only the entire project but also resources or groups. For example, if you set the name of a resource outsourcing company in the group name, you can compare the performance of each outsourcing company in the EVM graph.

- **EVM Analsys by Cost-based**

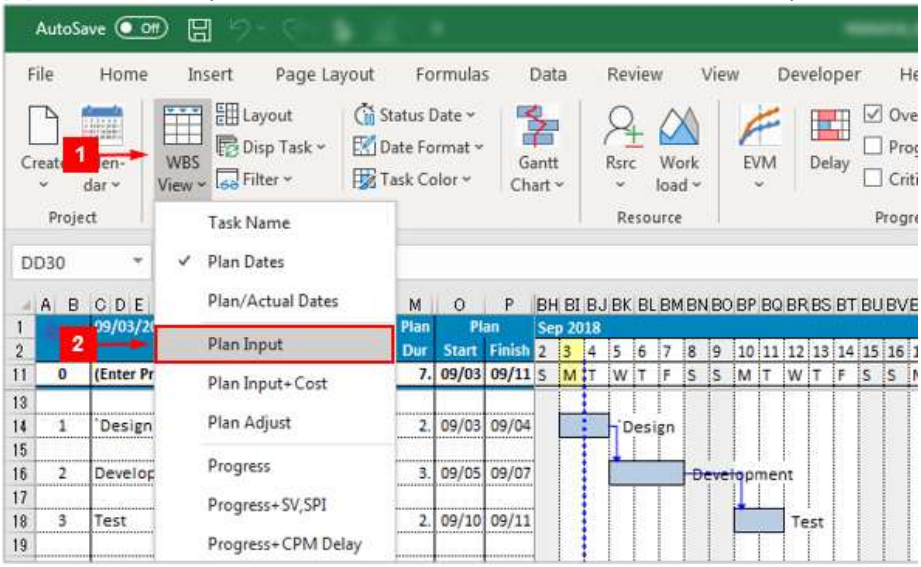
By setting the unit price of resources, EVM analysis results can be output as [cost (amount of money)] instead of [manhours]. This allows you to view progress in terms of cost.

Display Resource Column on WBS

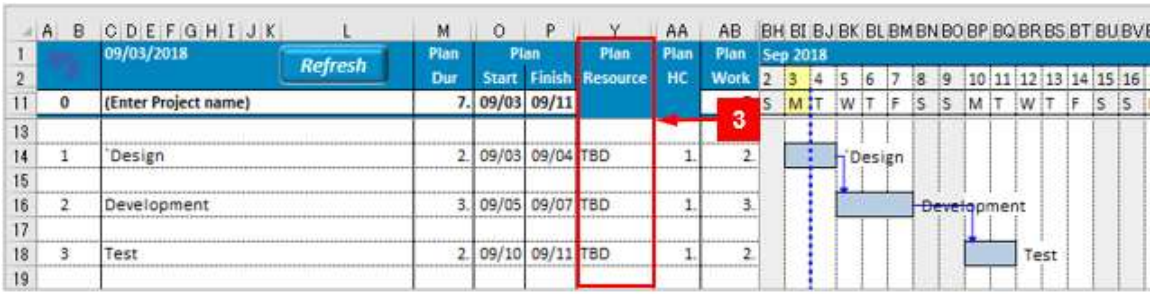
Display the Planned Resource column in the following WBS.



[1] Click the [WBS View] button on the ribbon.
[2] Click [Plan Input] from the WBS view list. ⇒ Switch to [Plan Input] view.



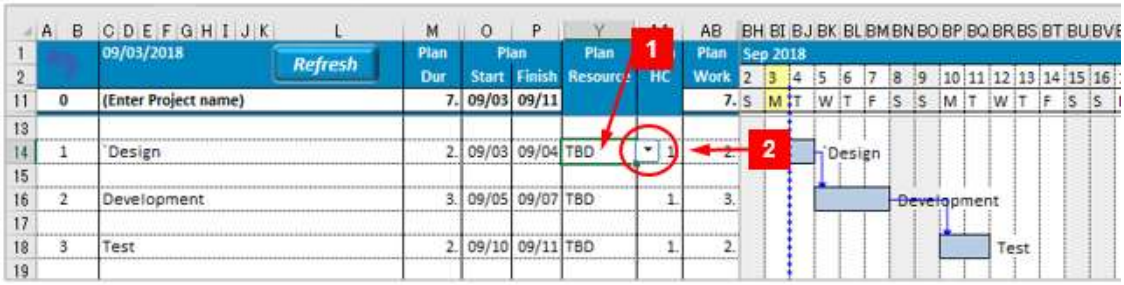
[3] The allocated resources are displayed in the Planned resources column. "TBD" means “To Be Determined”.



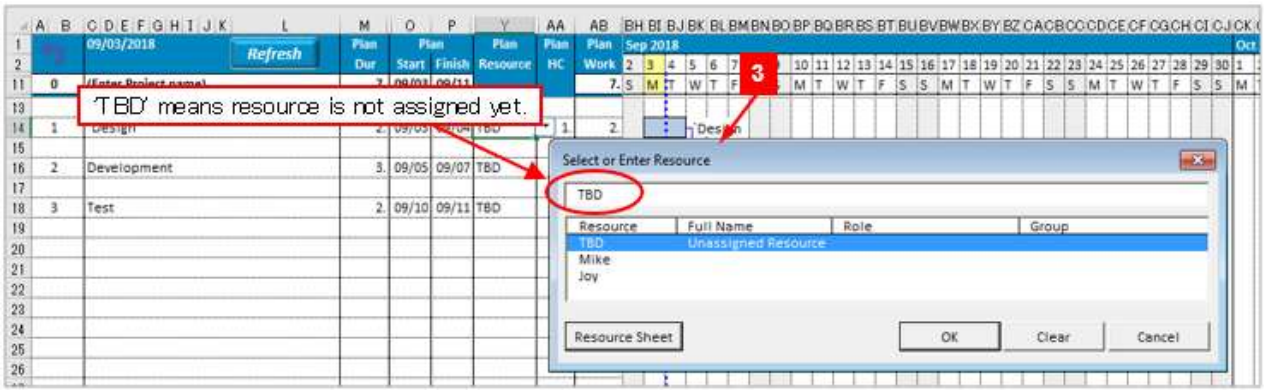
8.2. Allocate Resources to Tasks

Select a Resource from the List

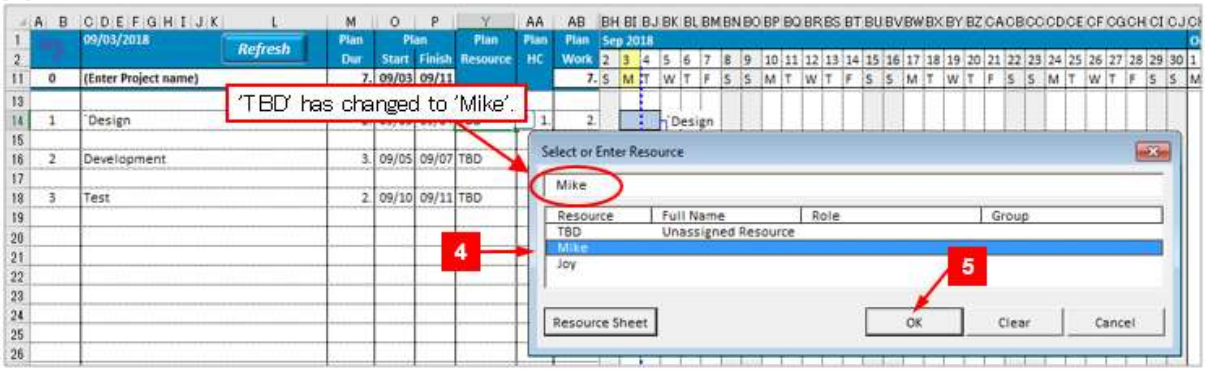
Select and assign the resources registered in the resource sheet from the resource list.
[1] Click the [Plan Resource] cell of the “Plan” task in line 15.
[2] Click the [▼] button displayed on the right of the cell.



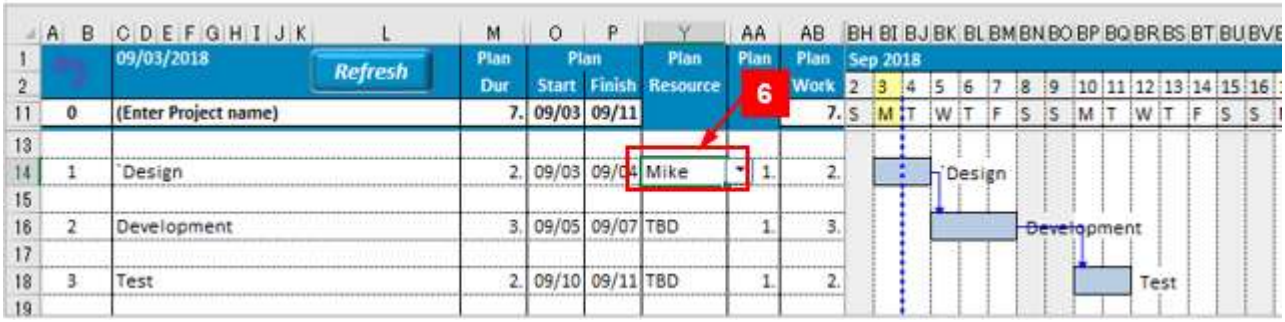
[3] A list of resources registered in the resource sheet is displayed. "TBD" is selected now.



[4] Click "Mike" from the list. "TBD" will be replaced by “Sato”.
[5] Click the OK button.

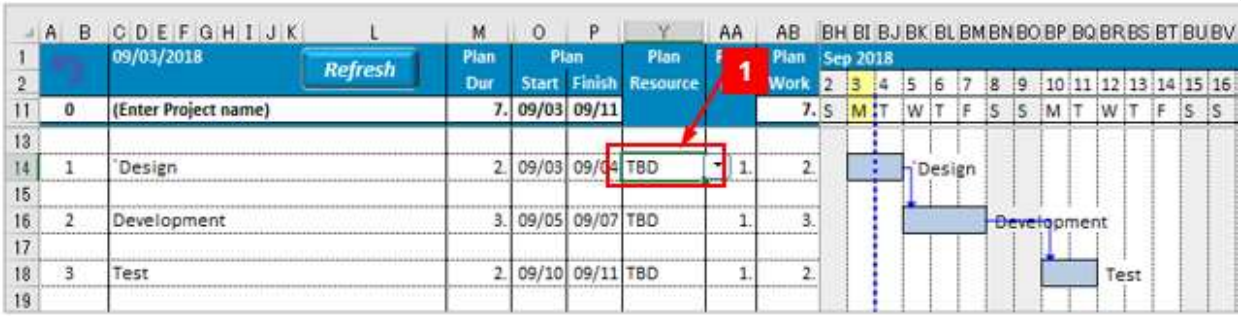


[6] "Mike" was allocated as a resource to the task.

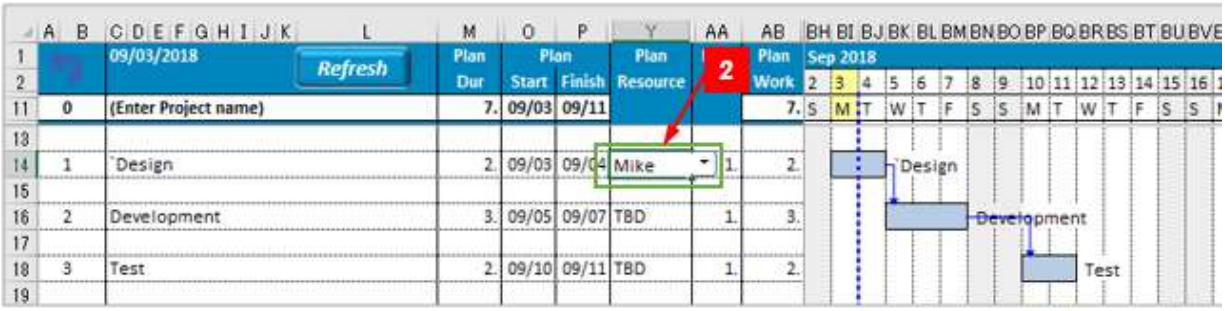


Enter Resources Directly into the Resource Column

You can allocate resources to tasks by entering resource names directly in the Planned Resource column on the WBS.
[1] The resource of "Plan" task on line 15 is "TBD".

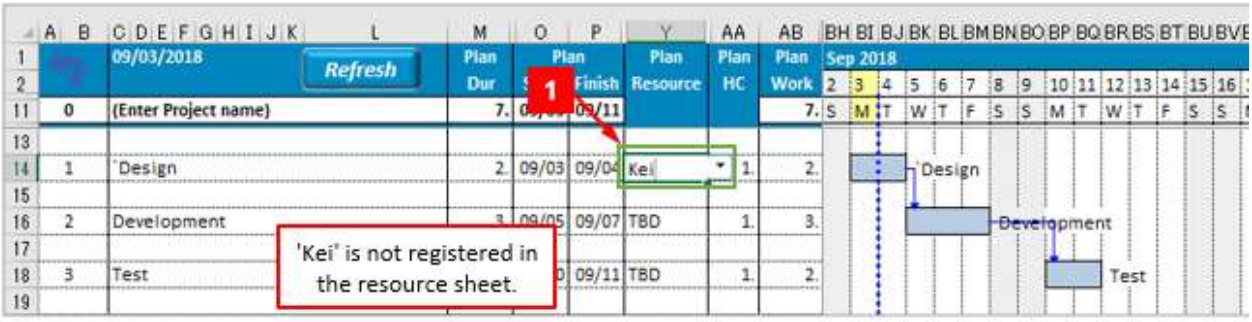


[2] Enter “Mike”.

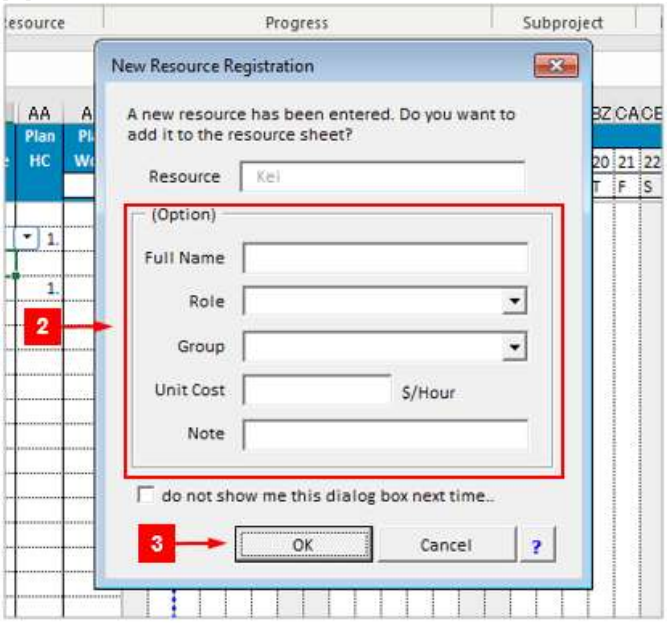


Assign an Unregistered Resource Name

[1] Enter the resource name "Kei" not registered in the resource sheet in the resource column.



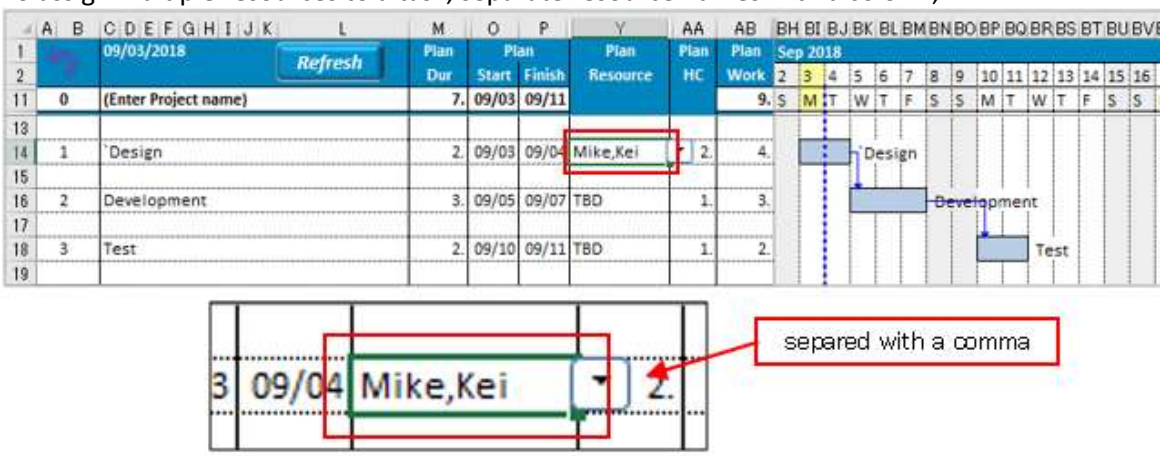
[2] Fill in items other than resource name (optional)
[3] Click the [OK] button.



[4] "Kei" is added to the resource name when opening the resource sheet.

Assign Multiple Resources to a Task

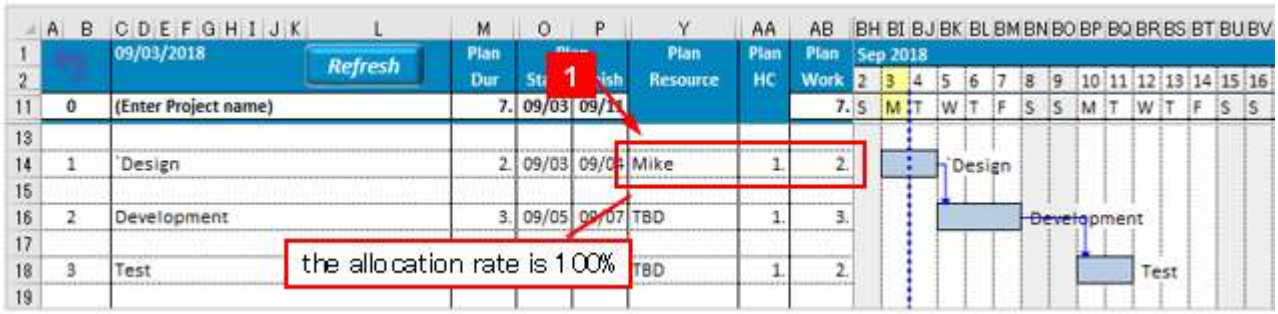
To assign multiple resources to a task, separate resource names with a colon ";".



8.3. Allocation Rate of Resources

Assign quotas to resources

[1] If you set a resource name in the Plan Resource, the allocation rate is 100% by default.



[2] If you want to set the allocation rate other than 100%, you can enter it after the resource name.

[Resource Name]: [Allocation Rate]

If the allocation rate of resource name "Mike" is 50%, enter "Mike:50" or "Mike:50%".

Note: What is the Allocation Rate?

It represents what percentage of a resource's standard work time is assigned to that task. If you allocate one man-day (the standard work hours) per day, the allocation rate will be 100%.

For example, when the standard work hours are 8 hours, the following is an example of the allocationo rate when assigning a resource to a task.

100% when working for 8 hours
50% when working for 4 hours
125% when working for 10 hours

©Exceller Systems Corp.

Note: Definitions of Work, Headcount (HC), Duration

There is a relation of

Work (man-days) = Headcount × Duration(days)

Headcount

Number of people allocate per day

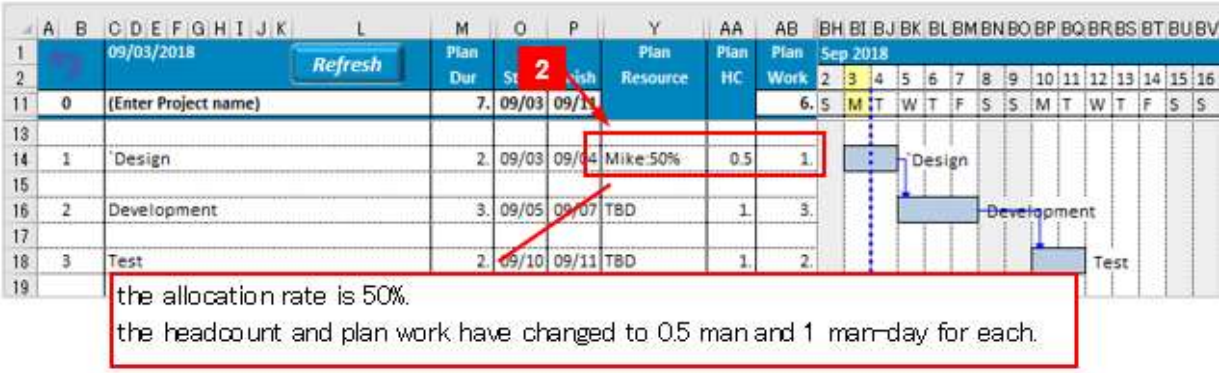
1 Headcount = Allocation Rate 100%.

Work

The amount of work required for the entire duration of the task. It is man-day.

Duration

Total number of work days required for the task. No-work day is not included.



Display 100% Resource Allocation Rate

The [Plan Resource] column shows the resource name and its allocation rate, but by default the allocation rate is omitted if it is 100%. In this example, Joy's allocation rate is 100%.

To display the allocation rate 100%

[2] Click [Resource] of ProjectExceller ribbon tag.

[3] Click [Hide 100%] from the menu and turn off the check mark.

[4] The allocation rate of Joy was displayed 100%.

Entering Comments for Summary Tasks

No resources can be assigned to summary tasks. Therefore, the "Plann Resource" field in the summary task is blank, but you can enter any text here as a comment. When inputting, please add ";" at the beginning.

Example: ;This is a comment.

Note: Opening a file with a version older than V2.059 will delete all comments set in the summary task.
*Be sure to use ProjectExceller V2.059 or later.

8.4. Port Resource Data to Other Projects

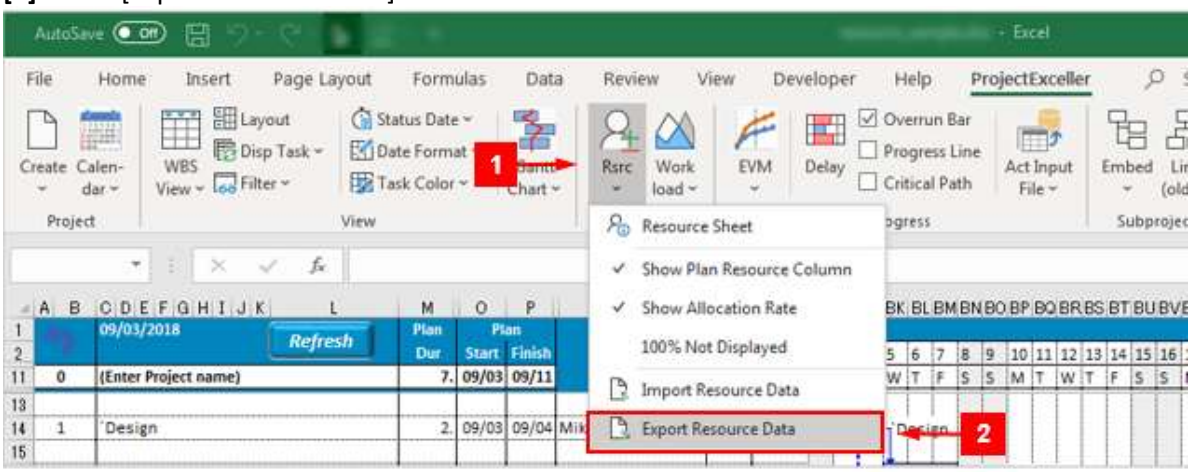
Resource sheet registration data can be exported as a resource file. You can port the data by importing the resource file in another project file.

Export resource data

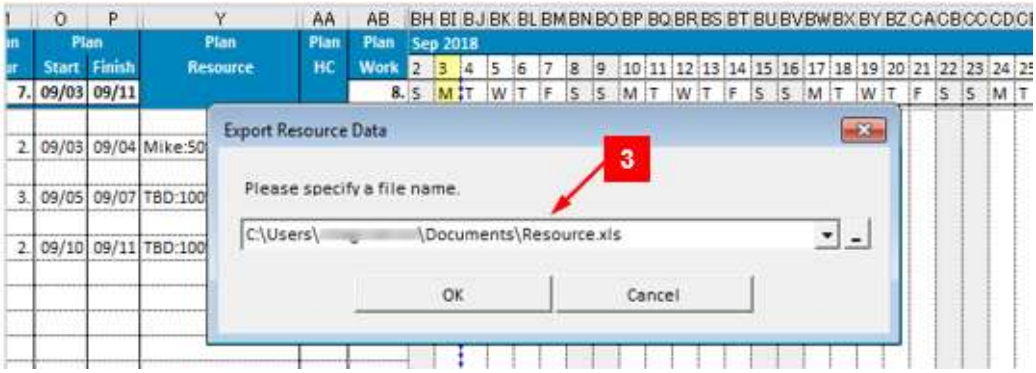
Open a project file and export resource data (registered in the resource sheet) as a resource file (Excel book).

[1] Click the [Rrsc] button on the ProjectExceller ribbon tab.

[2] Click [Export Resource Data] from the menu.



[3] Specify the file name for saving resource data in the dialog. The default is "Resource.xls".

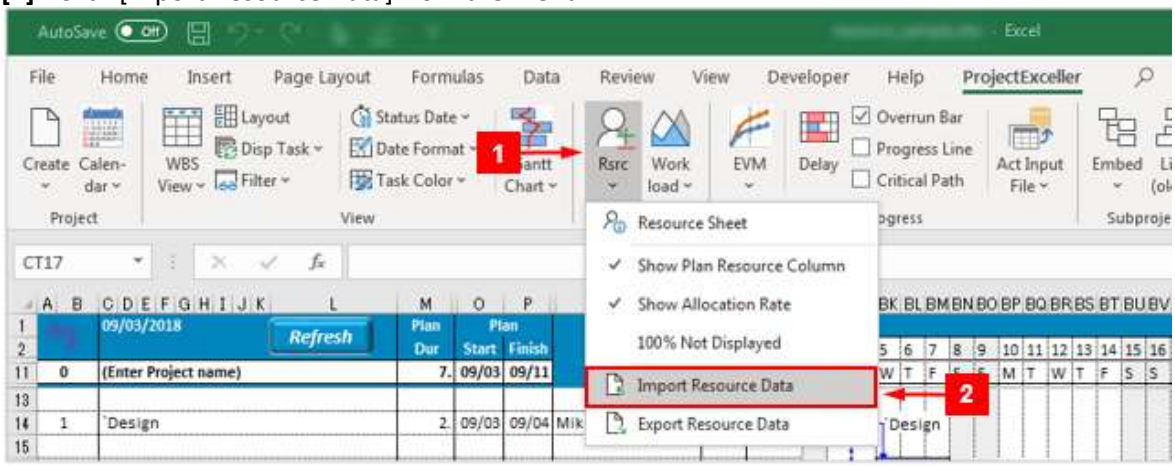


Import Resource Data

You can import resource data from a resource file or another project file and update the resource sheet in the project file.

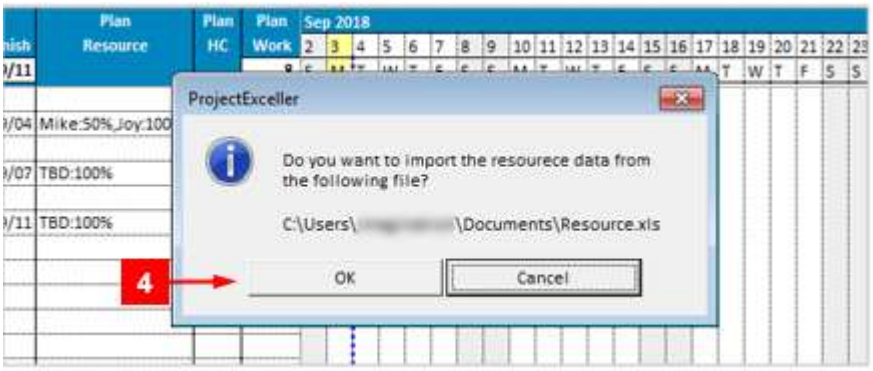
[1] Click the [Rsrc] button on the [ProjectExceller] ribbon tab.

[2] Click [Export Resource Data] from the menu.

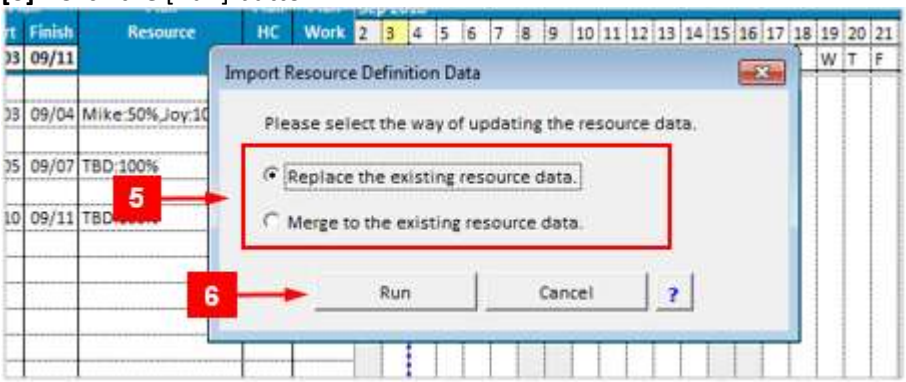


[3] Specify the resource file to be imported or another project file.

[4] Click the [OK] button to start importing.



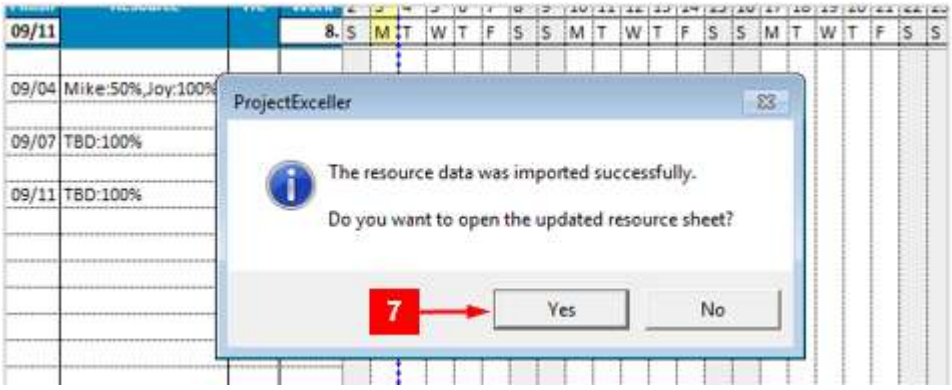
[5] If a resource is already registered in the project file, select the processing method.
[6] Click the [Run] button.



The import of resource data is complete. If you want to check the updated resource sheet, click the [Yes] button.

Note: Recalculate Project Data

When resource data is updated by importing resource data, it is automatically reflected in project data. For example, if a resource's unit price changes, the project cost is recalculated at the new unit price.



Chapter 9. Setting of Work, Duration, and Headcount

It explains the relationship between work, duration, and headcount, which are the key elements of the project, and how to set them.

9.1. Definition of Work, Duration, and Headcount

What Work is

The amount of task work, in ProjectExceller, expressed in units of "man-day".
One man-day is the standard amount of work performs in one day. For example, when the standard work hours are 8 hours, the work for person A working for 8 hours will be 1, and 1.5 for 14 hours. Also, if person A and B work for 4 hours each, person A and B's work will be 0.5 man-day respectively, and the work for the entire task will be 1 man-day.

What Headcount is

The total number of resources allocated per day, that is, the number of man-days per day.
For example, if two people, person A and B, are allocated 100% to a task, the headcount will be 2. Also, if person A and B are allocated 50% each, the headcount will be 1, even if 2 different resources are allocated.

What Duration is

The number of workdays (not including non-workdays) in the period from the task start date to the end date.

9.2. Importance of Work(man-days)

It is very important not only for budget and personnel planning, but also for managing the progress of the project, to accurately grasp the work(man-days) of the project.
For example, EVM analysis provides objective project progress management that does not depend on an organization or an individual. In this EVM analysis, the work is used as a unit of earned value.
When creating a project plan, set the schedule for each task in time for the project completion date. At that time, in order to determine the feasible project period, it is necessary to consider the amount of work for each task and the headcount to be assigned.

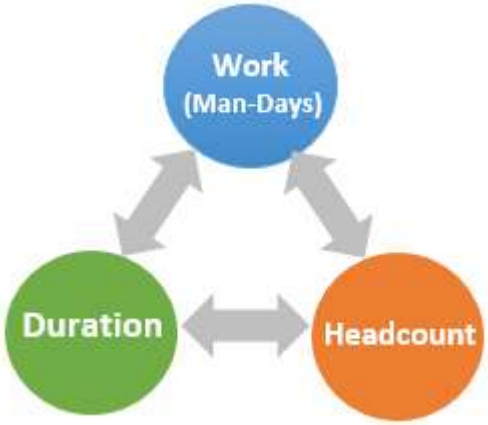
9.3. Interrelationship of Work, Duration, Headcount

Interrelationship

There is the following relationship between Work, Duration, and Headcount.

Work = Duration × Headcounte

The project manager needs to determine and adjust which of these three factors is to be prioritized according to the characteristics and situations of each task.



Task Type

"Task Type" is to specify the calculation method when "work", "duration", and "headcount" in interdependency is changed. There are three task types:

- Fixed Headcount (default)
- Fixed Duration
- Fixed Work

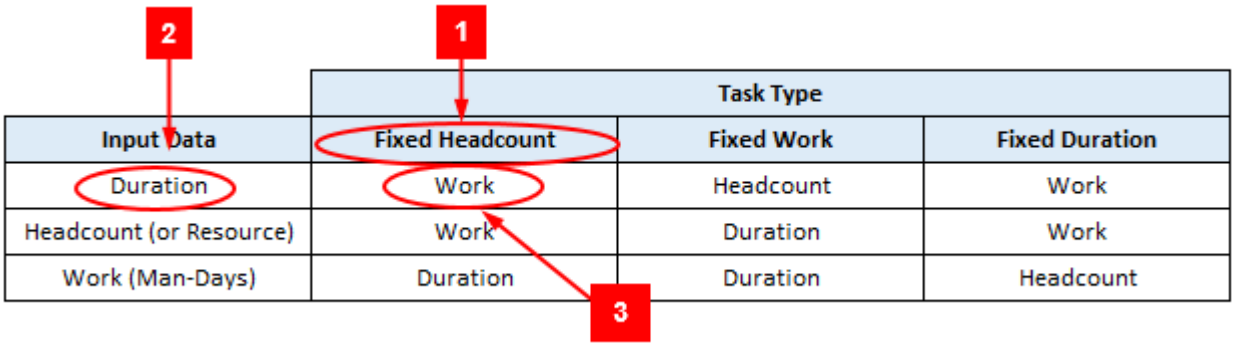
Task types can be set independently for each task on WBS. However, it can not be set for summary tasks. The default is Fixed Work.

Task Type and Change of Work, Duration, Headcount

The task type determines which data will be recalculated if either work, duration, or headcount change.

	Task Type		
Input Data	**Fixed Headcount**	**Fixed Work**	**Fixed Duration**
Duration	Work	Headcount	Work
Headcount (or Resource)	Work	Duration	Work
Work (Man-Days)	Duration	Duration	Headcount

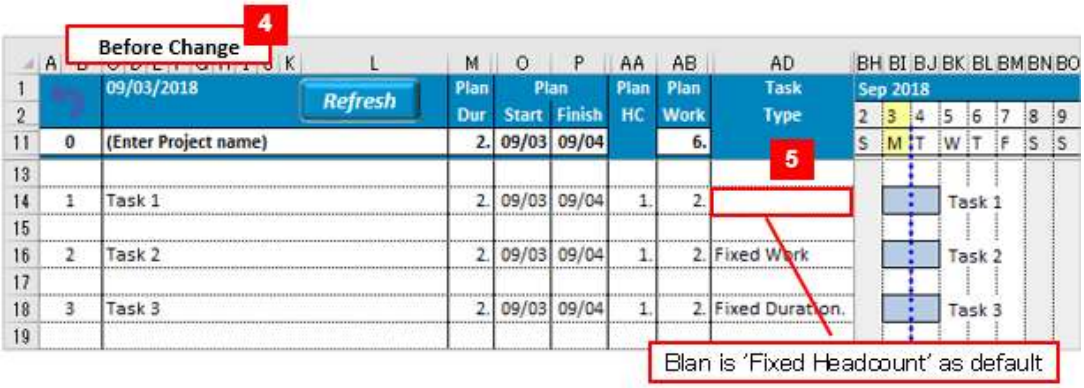
It explains this table. For example, if the task type is Fixed Headcount [1], entering the duration [2] will recalculate the work [3].



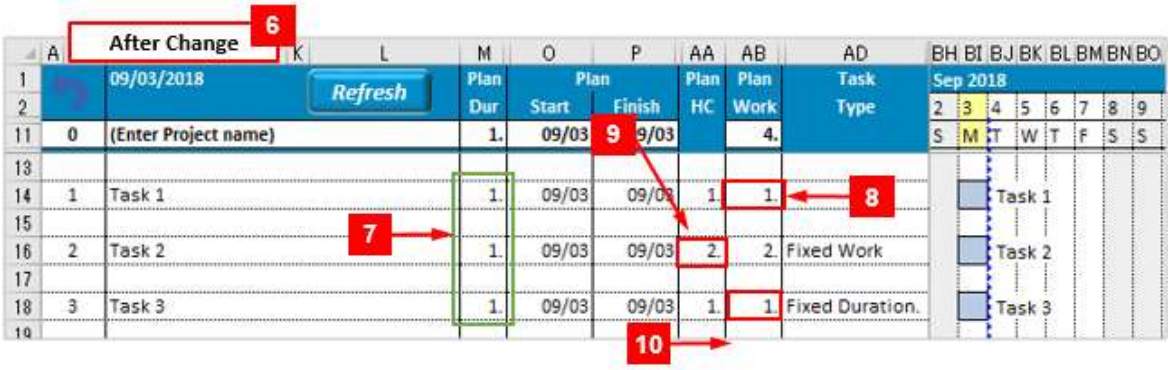
It explais what data changes for each task type by changing the Plan Duration value.

[4] The "Before" sample project has three tasks with different task types.

[5] The task type of "task 1" on line 14 is blank. This means the default setting , "Fixed Headcount" type.



[6] The WBS after changing the plan durations of each task.
[7] Change [Plan Dur] from 2 days to 1 day.
[8] For Task 1 of task type "Fixed Headcount" (default blank), the planned headcount is changed from 2 man-days to 1 man-day.
[9] For Task 2 of task type "Fixed Work", the planned headount is changed from 1 man-day to 2 man-days.
[10] For Task 3 of task type "Fixed Duration", the planned work is changed from 2 man-day to 1 man-day.



Create Tasks with Zero man-days

You cannot set the man-day of tasks other than the milestone task to 0 in normal operation on Project Exceller. However, you can exceptionally create it in the following way:

How to make:

1. Set the task type of the relevant task to "Fixed Duration".
2. Set "Planned number" to 0.0000000001 (10 digits after the decimal point).

As a result, the planned man-hour on WBS becomes 0.

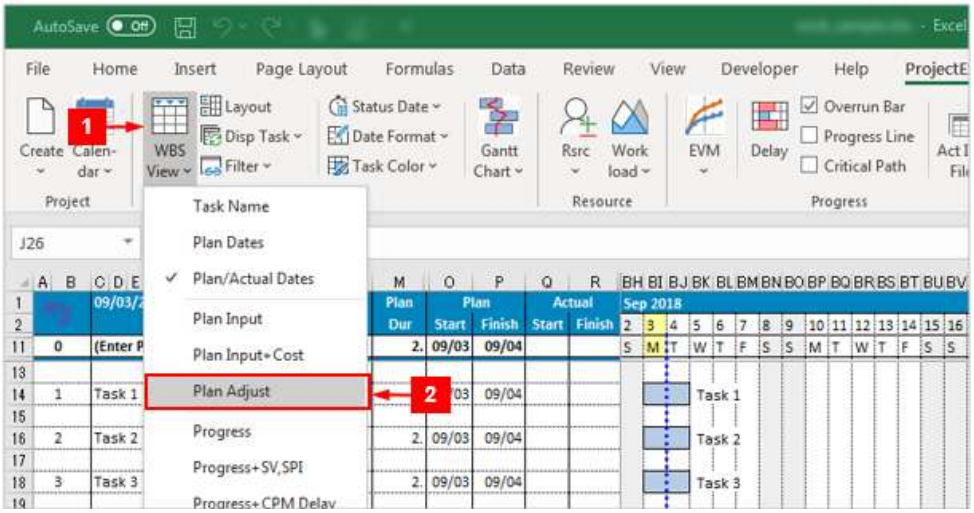
Note:

The task created by this method has 0 man-hours, but like other tasks, you can display the progress line input of the achievement rate. However, since EVM index values such as BAC, PV, and EV are 0, they are not subject to EVM analysis.

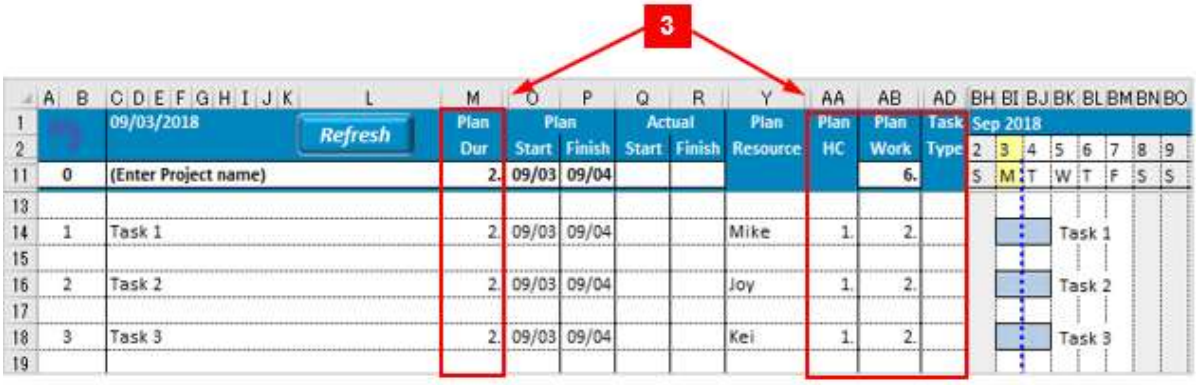
9.4. Change Work, Duration, Headcount

Change form Wbs View

[1] Click the [WBS View] button on the [ProjectExceller] tab.
[2] Click [Adjust Plan] on the menu.

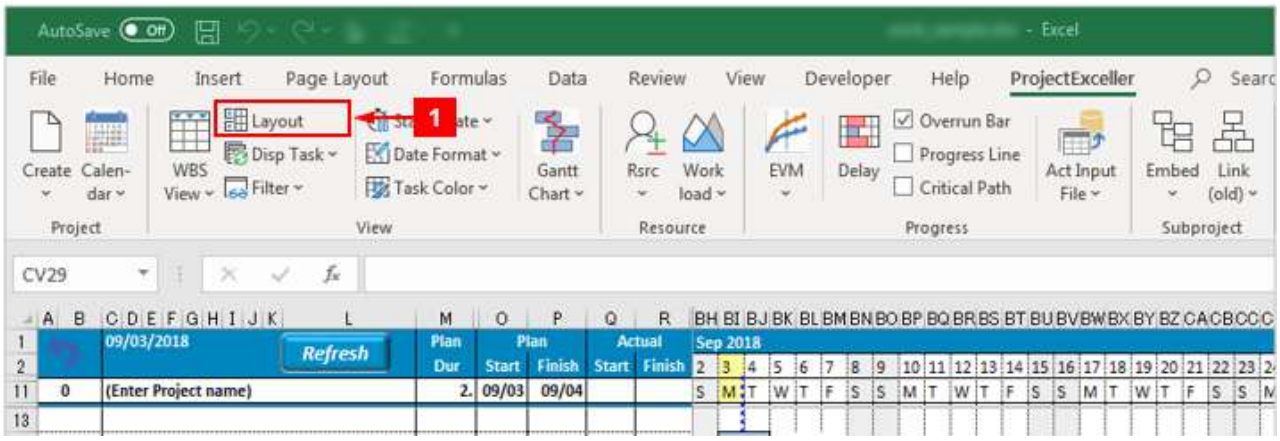


[3] The colums of [Plan Dur], [Plan HC], [Plan Work] are displayed.



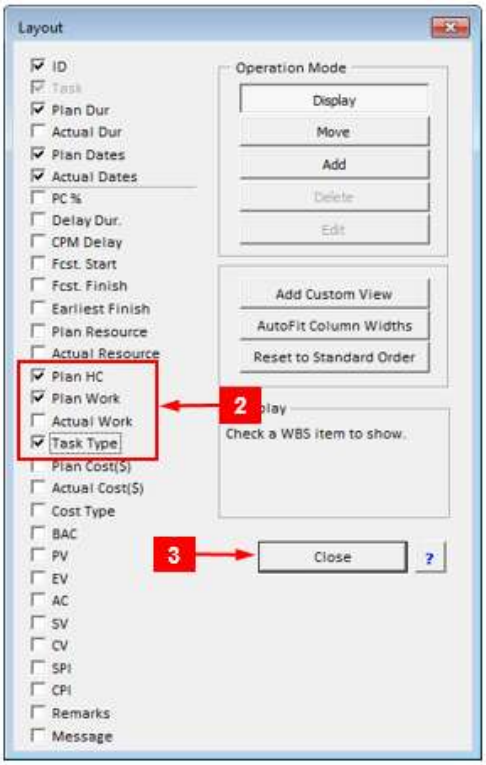
Display from the Layout button

[1] Click the [Layout] button on the [ProjectExceller] tab.

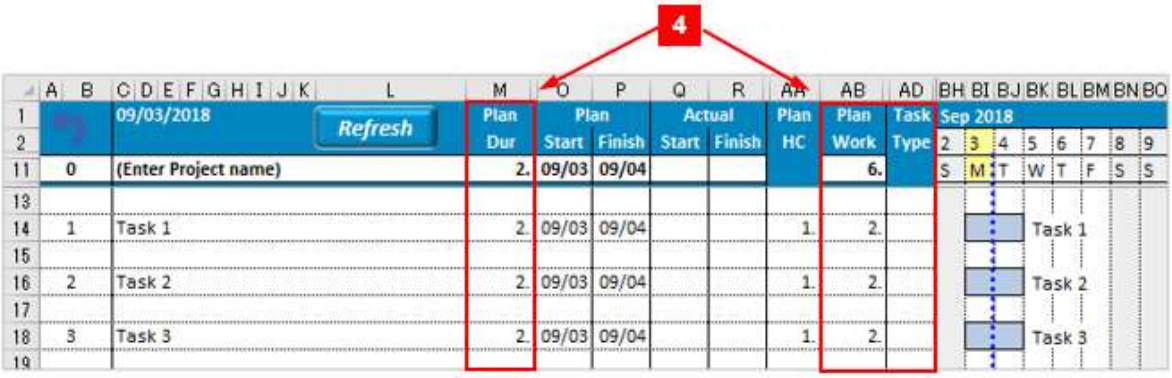


[2] Clikc the item to display from the [Layout] dialog. Click the items of [Plan HC], [Plan Work] and [Task Type] on the dialog.

[3] Click the [Close] button.



[4] The colums of [Plan Dur], [Plan HC] and [Plan Work] are displayed.



9.5. Confirm Change Task Types

Confirm or Change by Task Type Column

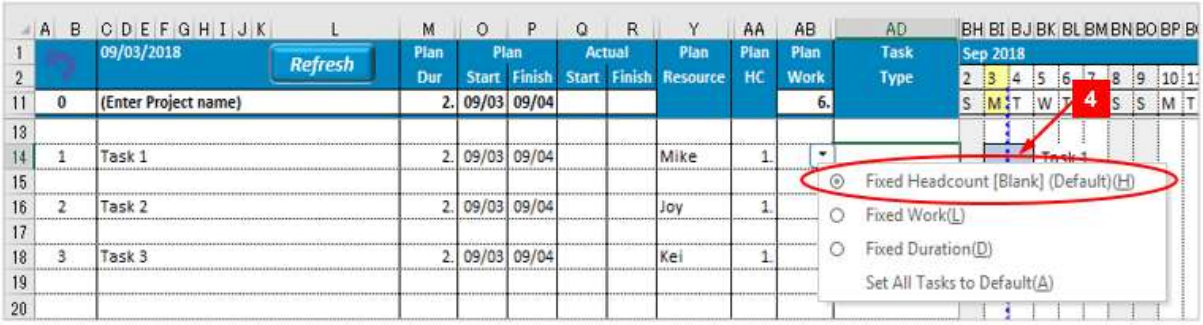
It explains how to check and change the task type of a task with the [Task Type] column displayed.

[1] The task type of each task is displayed on the [Task Type] column.

[2] However, it is blank for the default task type “Fixed Headcount”.

[3] Let's change the task type of "task 1" on the 14th line. Click the corresponding cell on the Task Type column, and click the displayed [▼] button.

[4] You can check the current task type on the menu. In this example, [Fixed Headcount] at the top of the menu is checked.



[5] Click the [Fixed Headcount] on the menu.

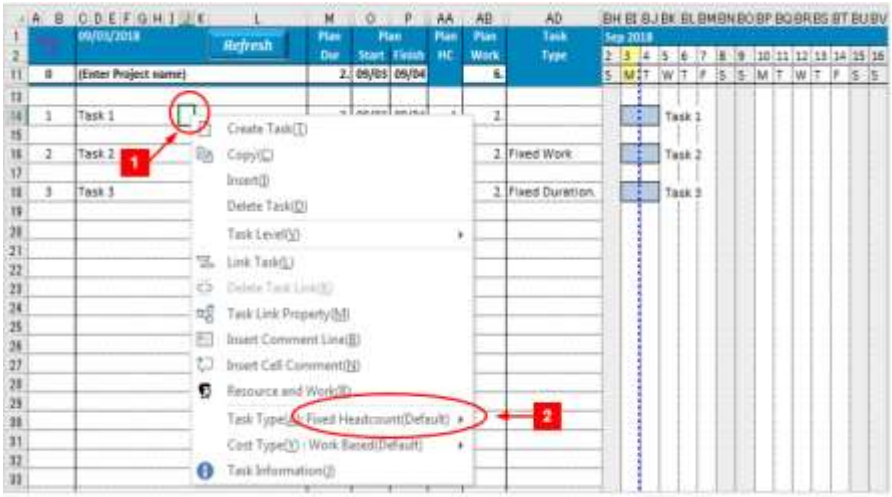
[7] The task type of "task 1" has been changed from “Fixed Headcount” (blank) to "Fixed Work".

Confirm and Change on the Right Click Menu

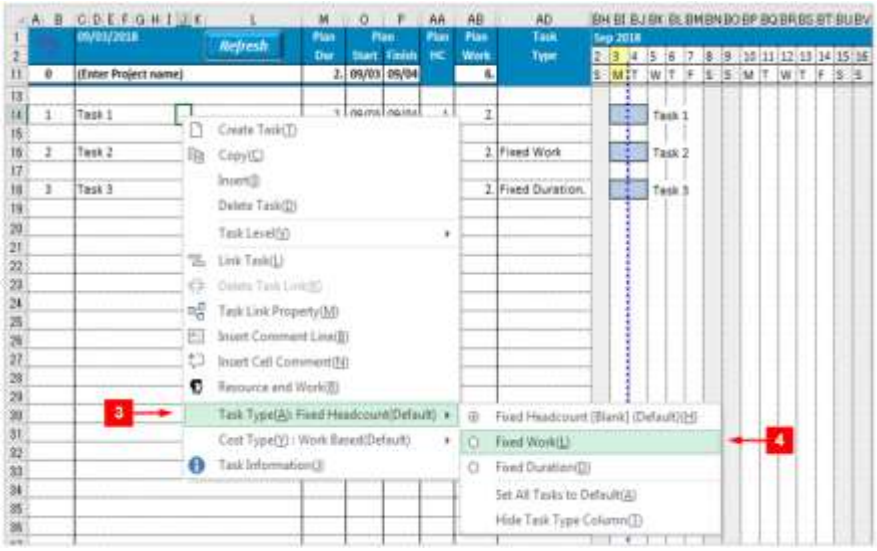
It explains how to check and change the value of the current task type from the right-click menu without editing the Task Type column directly. In the following example, the Task Type column is displayed, but you can operate without displaying it.

[1] Right click the target task line.

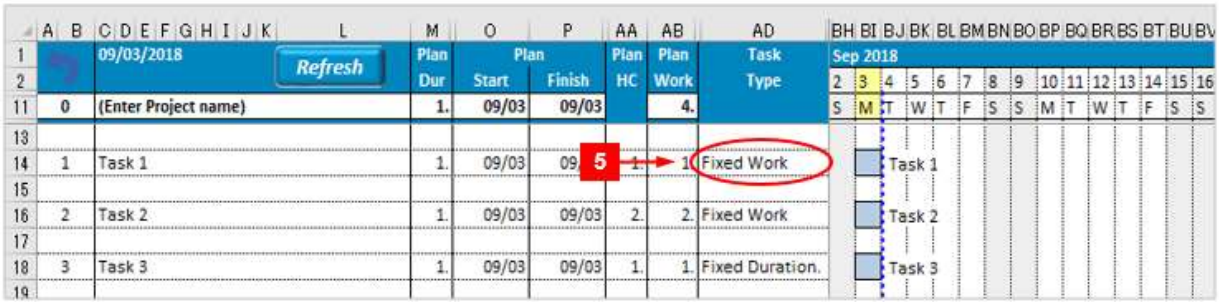
[2] The current task type is displayed in the [Task type] item of the menu. In this example, "Fixed Headcount(default)” is displayed.



[3] Move the mouse pointer to the [Task Type] on the menue.
[4] Click the [Fixed Work] on the submenu.



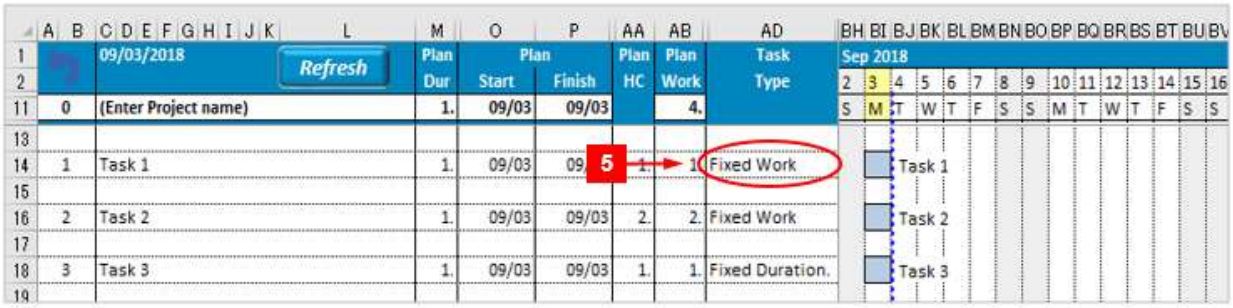
[5] The task type of “Task 1” has been changed to “Fixed Work”.



Batch Change Task Types of Multiple Tasks

[1] Select the range of task you want to change and right click.
[2] From the menu, click in the order of [Task Type] and [Fix Work].

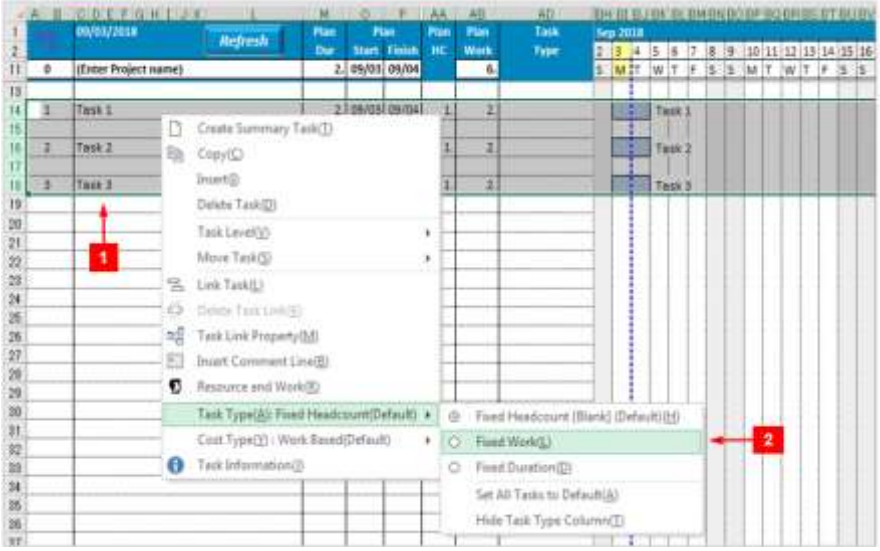
[3] The task type of all selected tasks has been changed to “Fixed Work”.



Revert Task Types of All tasks to the Fixed Headcount(default)

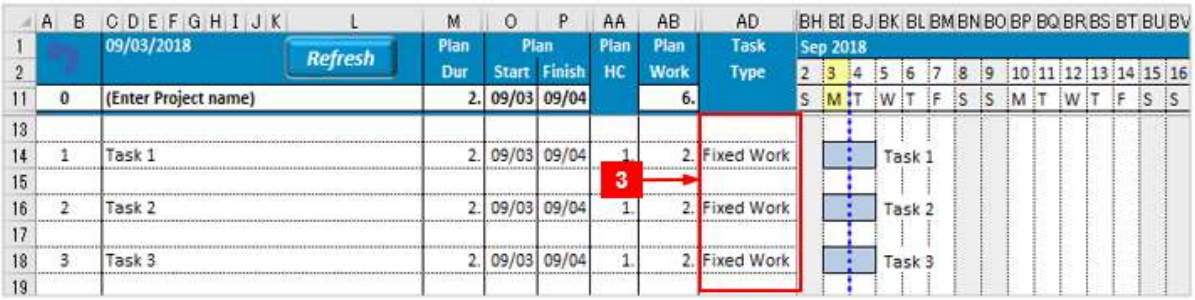
[1] Right click on the WBS data area of the project sheet.

[2] From the right-click sub menu, click [Task Type] and then [Set All Tasks as Default].



The task types of all tasks have been changed to the default of “Fixed Headcount”.

Note: Blank in the Task Type column means that it set default.

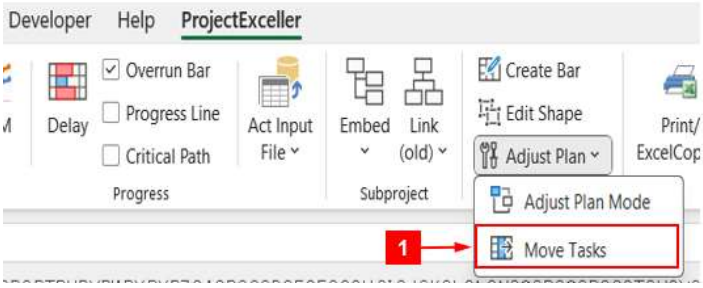


9.6. Edit Work, Duration, Headcount in Adjust Plan mode

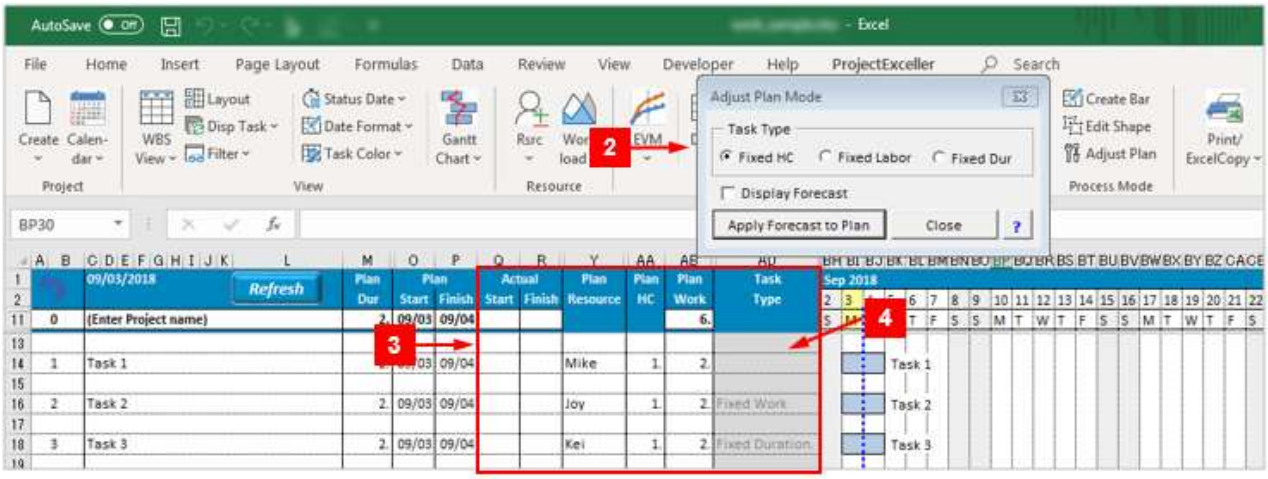
Adjust Plan Mode

In the Plan Adjust mode, you can temporarily invalidate the task type of each task, set the task type of the entire project, and you can efficiently adjust the work(man-days), duration and headcount in the plan. In addition, you can replace the current plan with the current forecasting schedule.

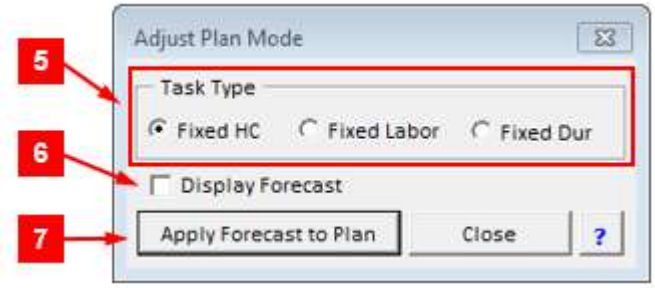
[1] Click Adjust Plan, Adjust Plan Mode on the [ProjectExceller] ribbon tab.



[2] When switching to the [Plan Adjust] mode, The Plan Adjust dialog is displayed on the upper right of the screen.
[3] In addition, the WBS view switches to the [Plan Adjust] view. The columns of Actual Start Date / Finish Date, Planned Resource, Plan Headcount, Plan Work, and Task Type are added to visible columns.
[4] In the Plan Adjust mode, the setting in the task type column is disabled and grayed out in the WBS.



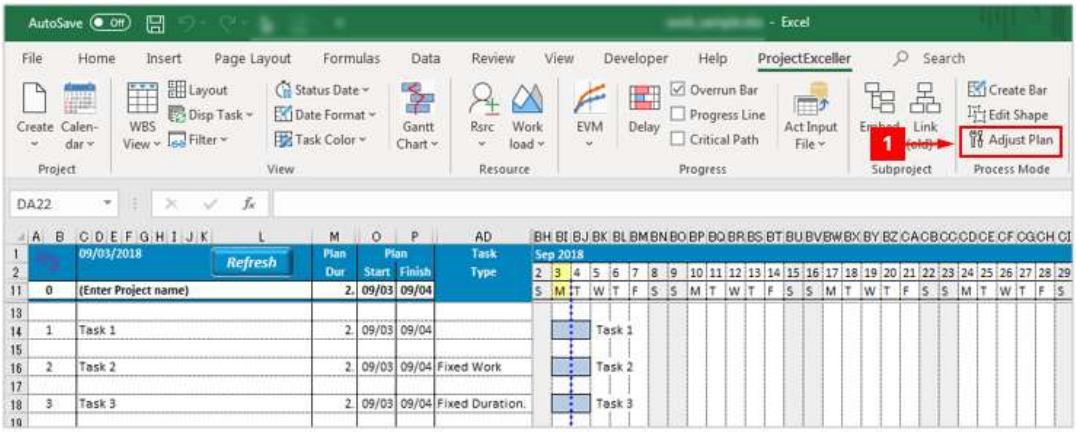
[5] Instead of the task type of each task, the setting of [Task Type] on the dialog applies to all tasks of the project.
[6] The forecast schedule calculated based on the plan and actual is displayed on the Gantt chart.
Note: This is the same function as selecting the Plan / Actual / Forecast bar on the Gantt Chart Settings dialog.
[7] Make the forecast schedule the current plan. That is, replace the current plan with the forecast schedule.



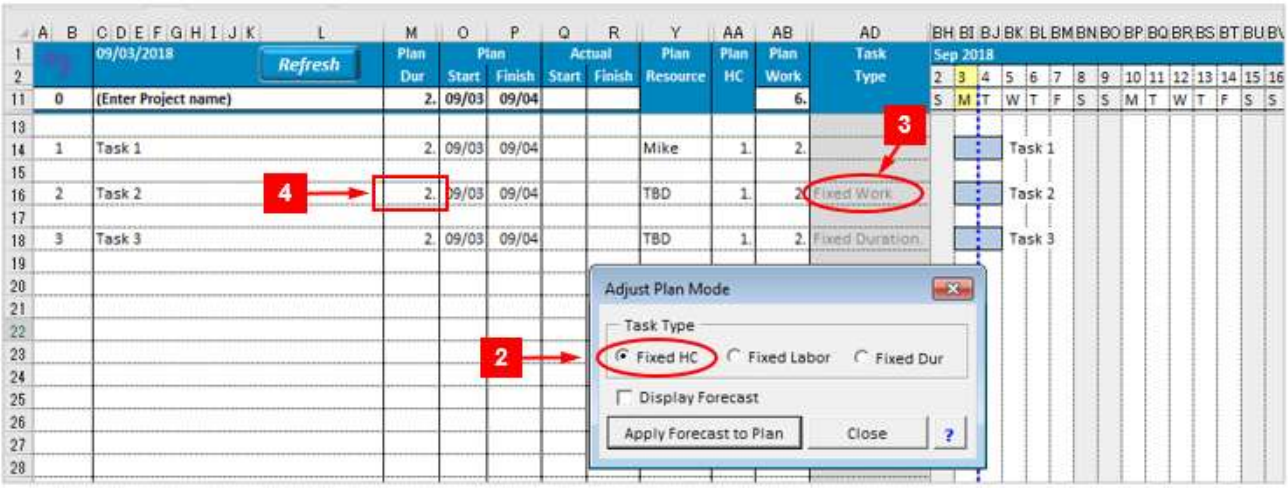
Edit in Plan Adjust mode

In Plan Reconciliation Mode, the task type is applied to the whole project in preference to the task type of each task. The following sample shows the actual movement.

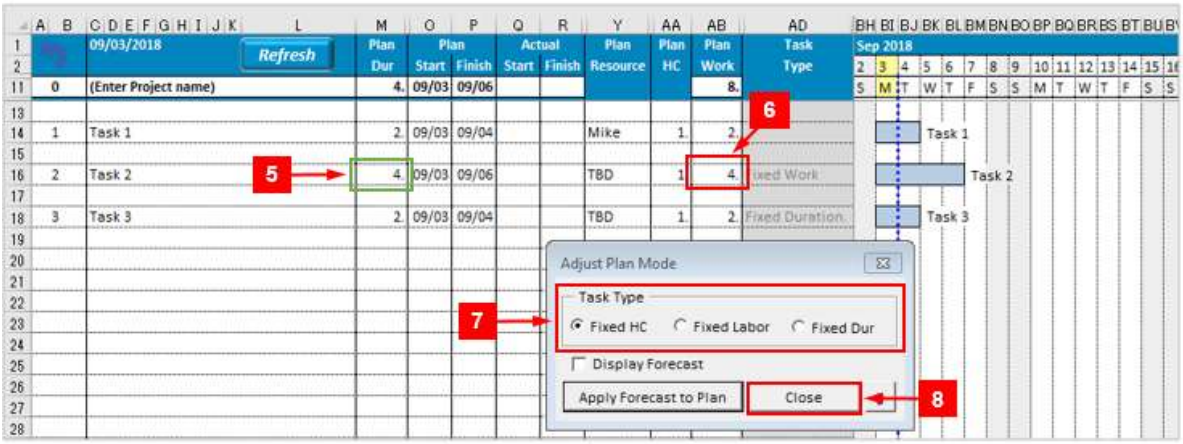
[1] Invoke [Plan Adjust] from the ribbon.



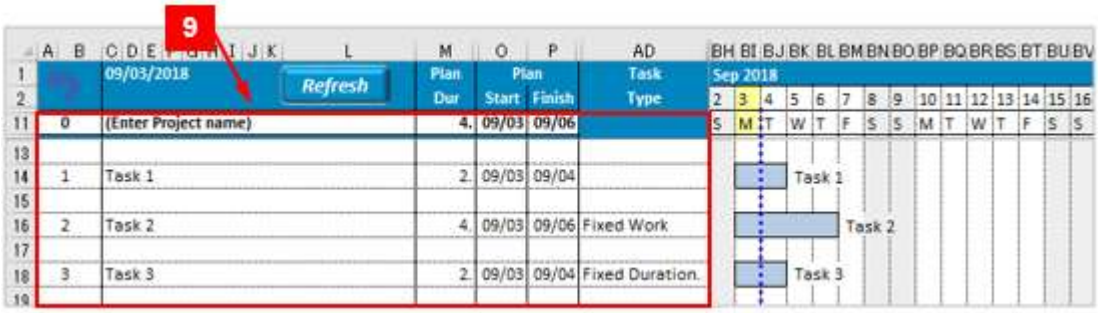
[2] The task type in the Plan Adjust mode is “Fixed Headcount”.
[3] The value of "Task 2" in line 16 set in the task type column on WBS is "Fixed Work”.
[4] Let's change the value of the Plan Dur column of "Task 2".



[5] The Plan Duration has been changed from 2 to 4 days.
[6] As a result, the Plan Headcount has not changed and the Plan Work has been recalculated and updated from 2 to 4 man-days.
[7] According to the target you want to adjust, you can efficiently edit by switching by clicking [Task type] on the dialog.
[8] Click the [Close] button. The Plan Adjust mode ends.



[9] When the Plan Adjust mode ends, the WBS view will return to the WBS view before activating the Plan Adjust mode.

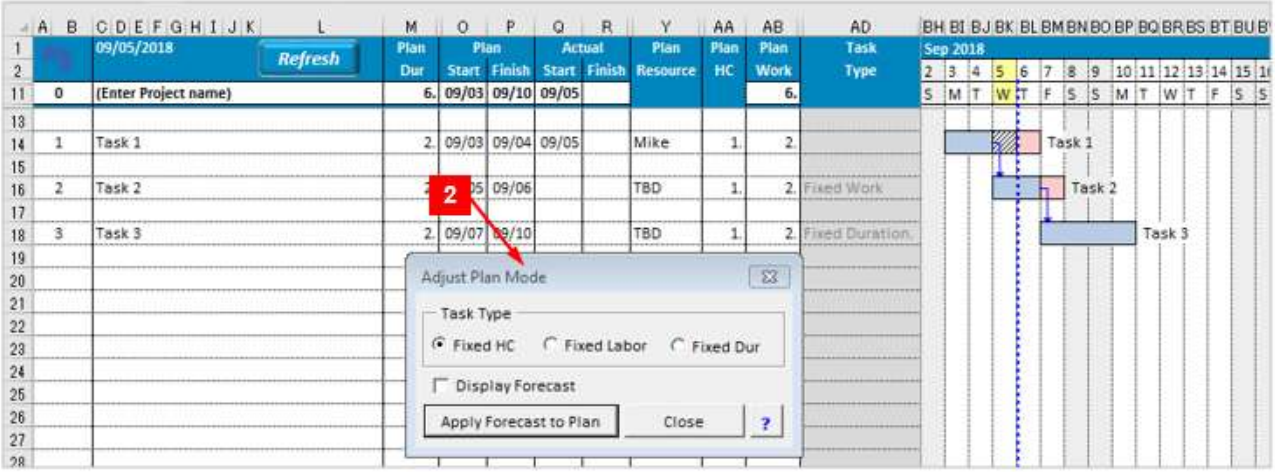


Set Forecast Schedule to Plan in the Plan Adjust mode

ProjectExceler creates forecasting schedules from current plans and actuals. Plan Adjustment Mode has the ability to apply forecast schedules to the current plan.

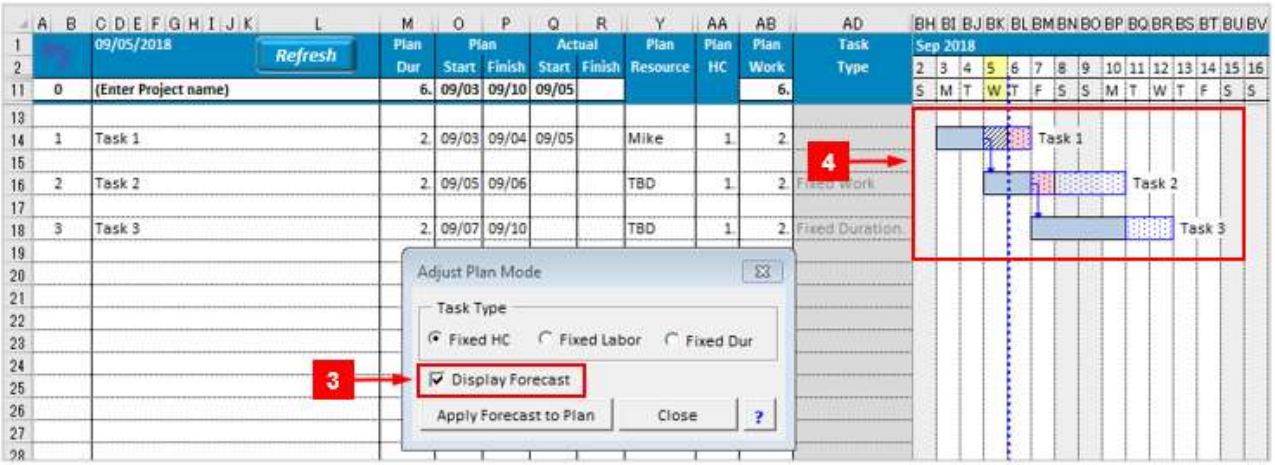
[1] This section describes a sample project that has link settings for tasks and actual input for some tasks. This WBS view is the [Plan/Actual] view.

[2] Click on the [Plan Adjust] button on the ProjectExceller ribbon tab. The Plan Adjust Mode dialog is displayed.



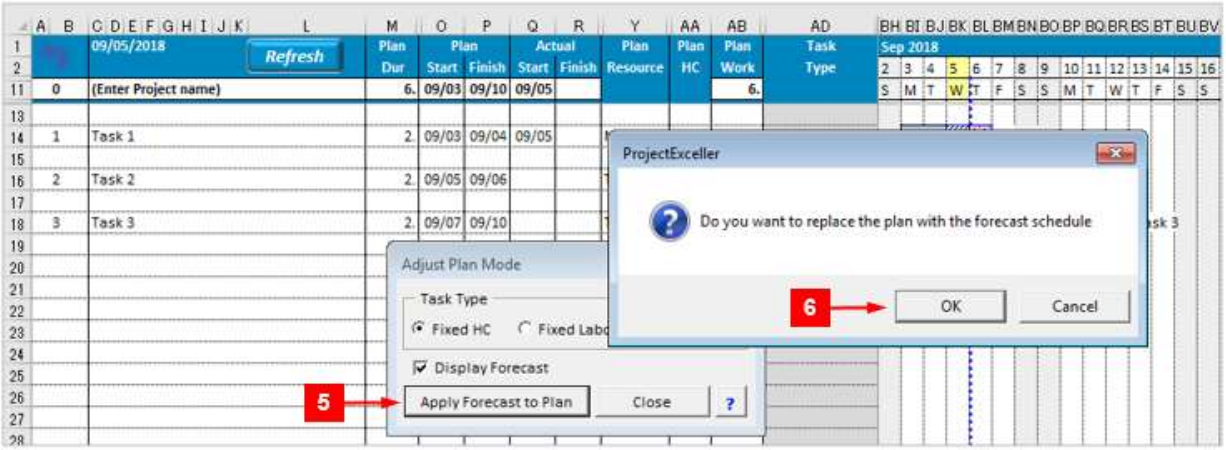
[3] Click the [Display Forcest] button to enable the forecast bars.

[4] On the Gantt chart, in addition to the plan, actual, and overrun bars were displayed, the forecast bar (blue spotted bar) is displayed.

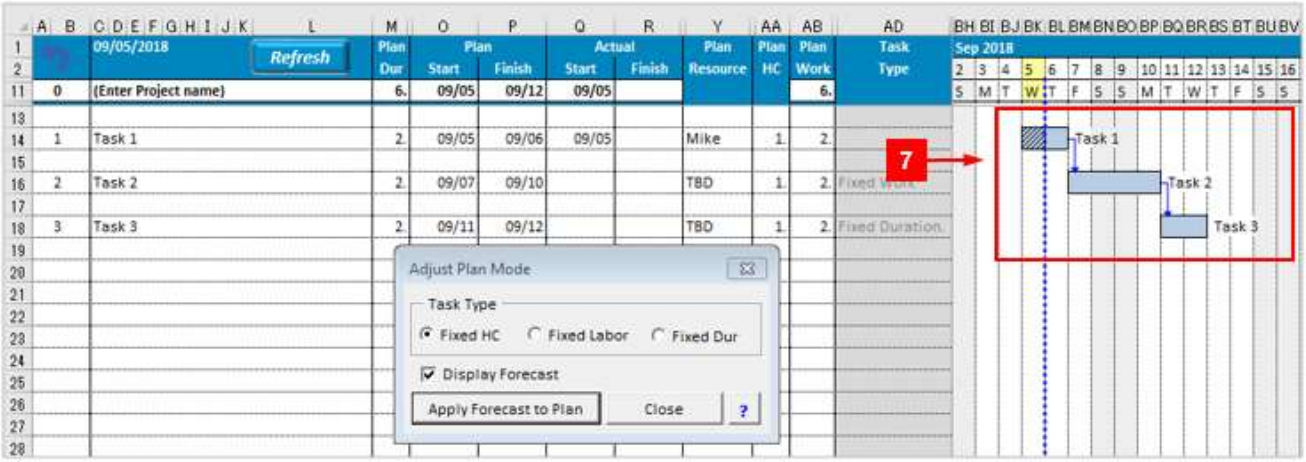


[5] Click the [Apply Forecast to Plan] button.

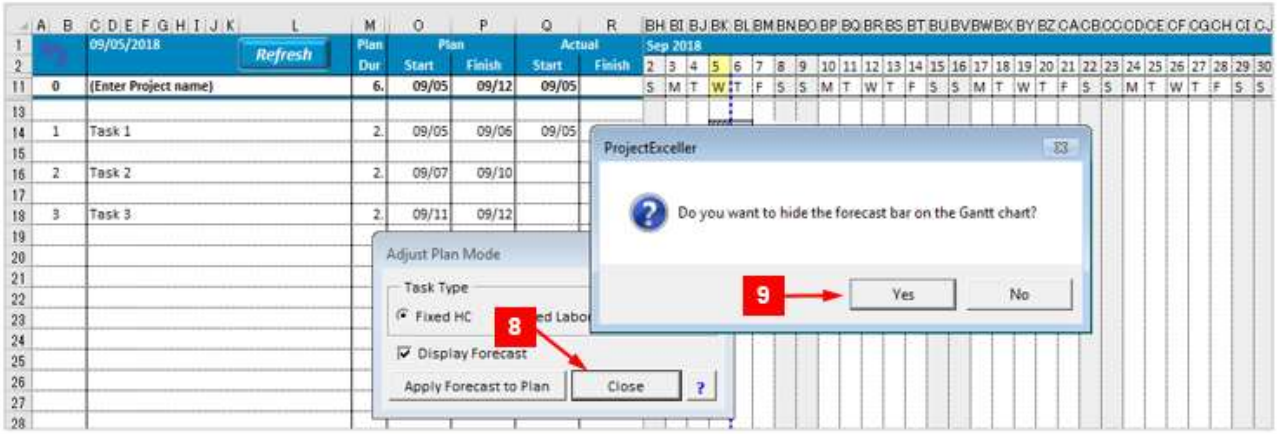
[6] Click the [OK] button ⇒ The current plan is replaced with the forecast schedule indicated in the forecast bars.



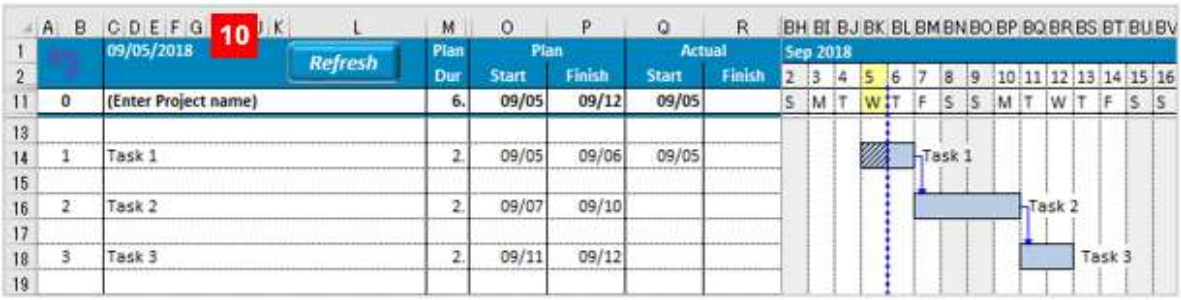
[7] The original plan, the actual, overrun disappeared, and the forecast bars change to plan bars.



[8] Click the [Close] button.
[9] Click the [Yes] button to cancel displaying the forecast bars.



[10] The WBS view has returned to the [Plan/Actual] view before launching the Plan Adjust mode.



9.7. Edit the Work, Duration and Headcount by [Allocate Resource and Work]

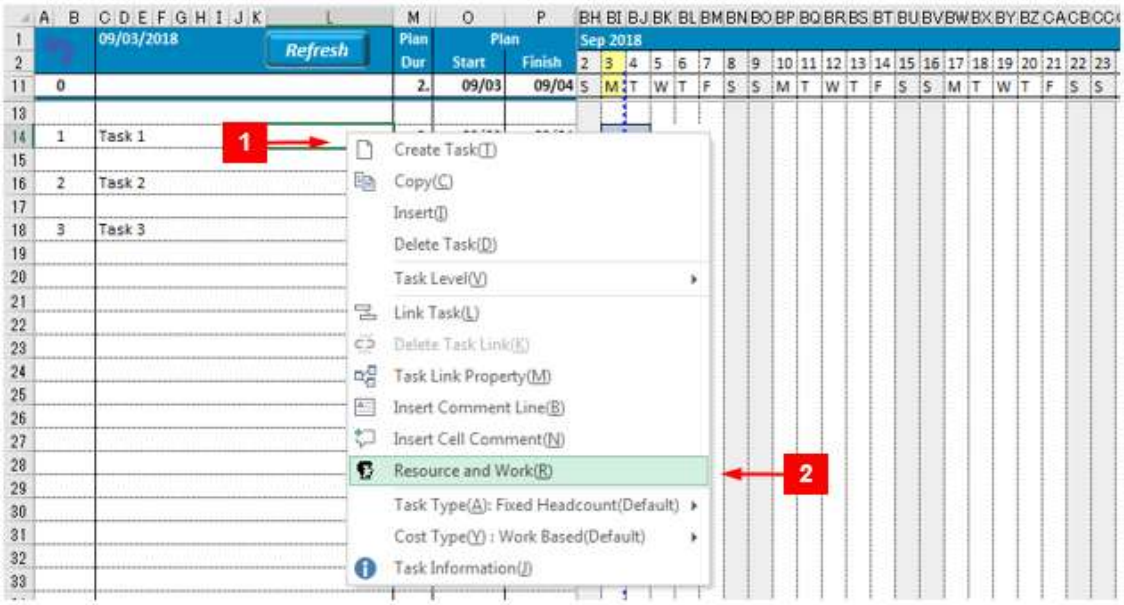
Allocate Resource and Work

The [Resource and Effort Allocation] function can allocate resources in addition to editing the work, duration, and headcount for each task. Since all of these can be operated on the dialog, editing is possible even when the work, duration, headcount, resources, task type columns, etc. are not displayed on WBS.

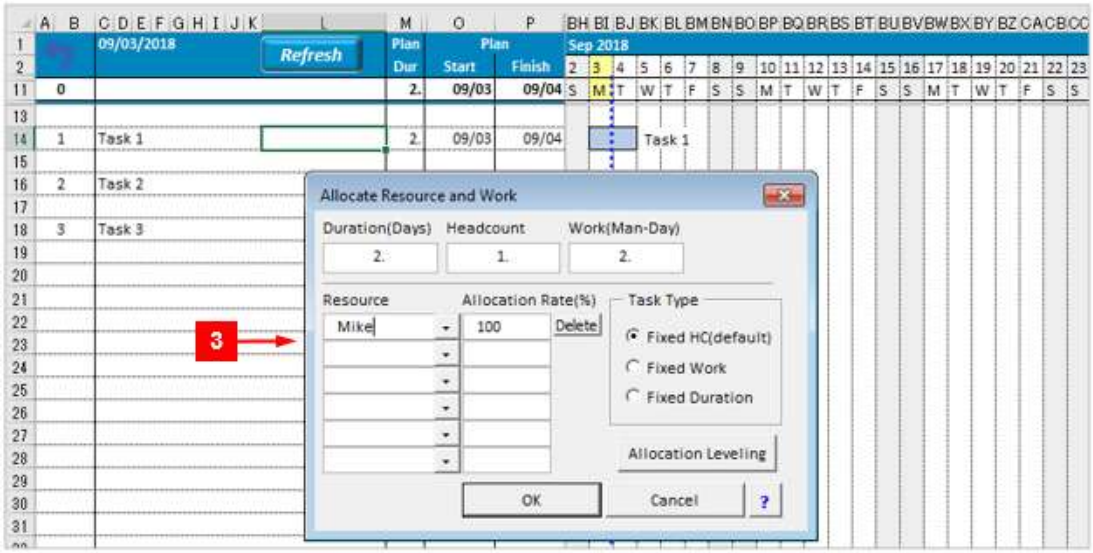
Start [Allocate Resources and Work]

[1] Select the task line you want to edit and right click.

[2] Click the [Resource and Work] from the menu.

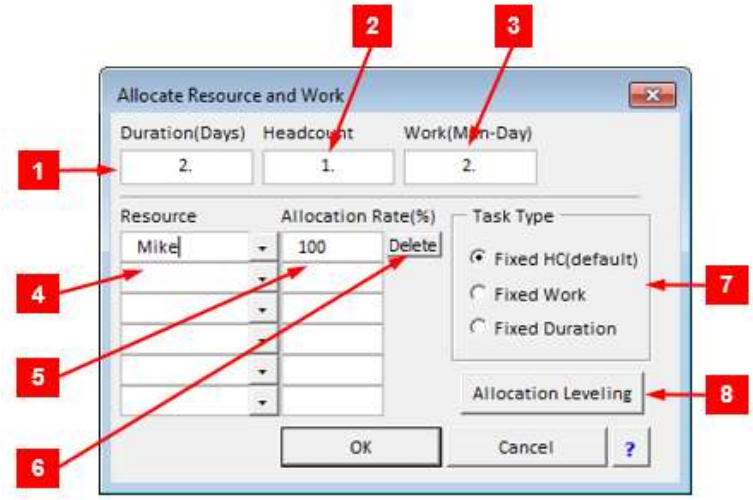


[3] The [Allocate Resource and Work] dialog is displayed.



Allocate Resource and Work Dialog

It describes the [Resource and Work] dialog.



[1] Duration

The number of work days from the task start date to the finish date. It does not include non-work days.

[2] Headcount

Total number of resourc allocated to a task per day. In other words, it is man-days/day. If person A and B are allocated to the task, if 50% of person A's work and 100% of person B's work are assigned, the headcount will be 1.5 man-day per day.

[3] Work (man-day)

The work is the total number of man-days required for the task.

Work (man-days) = Duration (work days) × Headcount (man-day / day)

[4] Resource

You can select the resource name to assign to the task. If the resource name has not been determined, it will be displayed as "TBD" (To Be Determined).

[5] Allocation Rate

The percentage of daily work assigned to the resource. The calculation formula is as follows.

Allocation Rate = Allocated Working Hours per day × Standard Work Hours per day

For example, if the standard work hours is 8 hours, one man-day is 8 hours. If you allocate person 4 hours a day to a task, the allocation rate is

4 hours ÷ 8 hours = 0.5, which means 50%.

[6] Delete

Delete the allocated resource. When all resources are deleted, "TBD" (To Be Determined) is set as 100% allocation rate.

[7] Task Type

Specify the calculation method when calculating the duration, headcount(resources), work in this dialog.
There is the following relationship between them.

Work = Duration × Headcount

Task type

- Fixed Headcount: Fix the headcount and recalculate the work or duration
- Fixed Work: Fix the work and recalculate the duration or headcount.
- Fixed Duration: Fixed the duration and recalculate the work or headcount.

Note:

Task types can adjust the effort, duration, and number of people on the dialog without changing the task type value on WBS. If you want to change the task type of each task on WBS, you need to change the task type directly on WBS.

[8] Level Allocation Rate

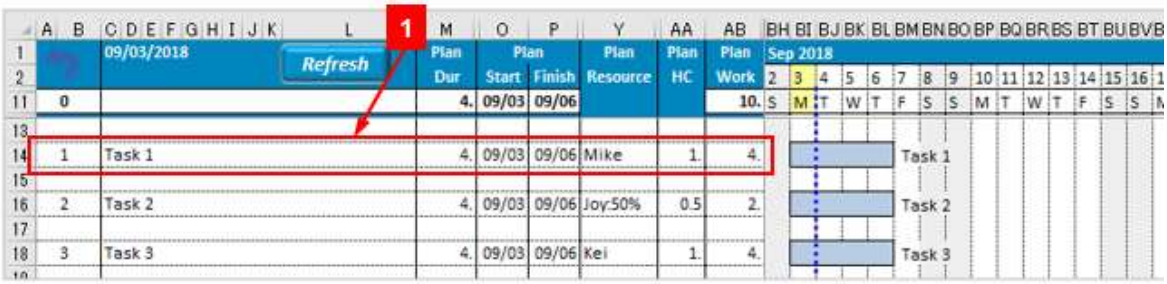
Make the allocated rates of resources the same without changing the task types.

For example, if the allocation rate is 80% for person A and 120% for person B, both rates of person A and B will be 100% when leveled.

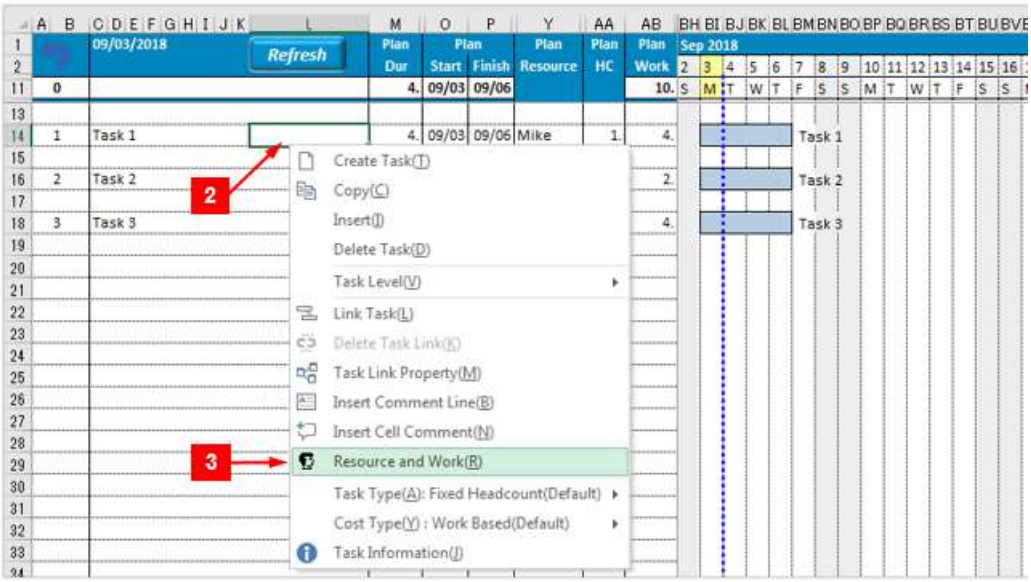
Add Resources

Add resources to "Task 1" using the "Resource and Work" function.

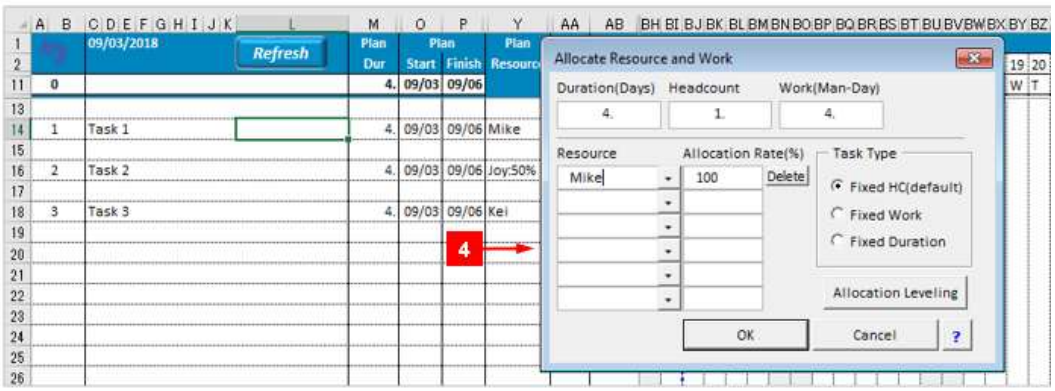
[1] Select the Task1 and right-click on it.



[2] Select the Resourceand Work from the menu.



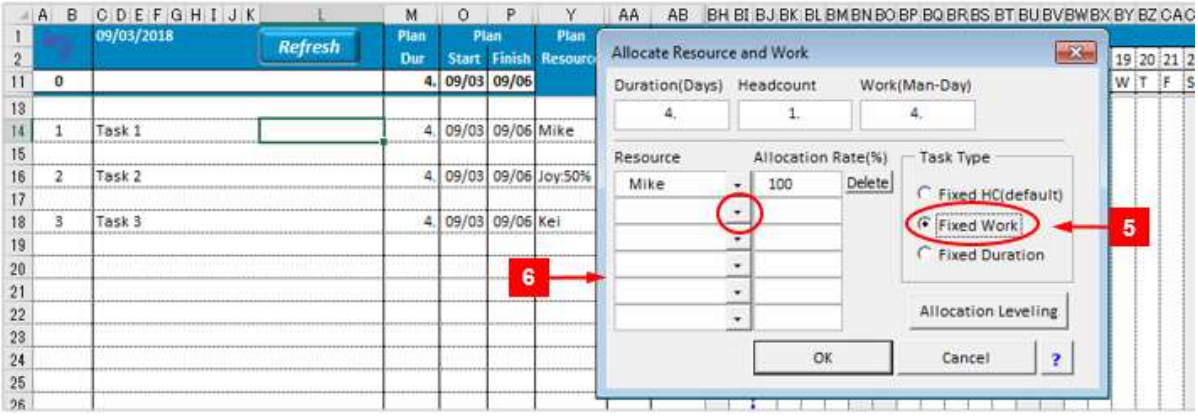
[4] The dialog is displayed. The duration, headcount, work, resources, resource allocation rate, and task type currently set in "Task 1" are displayed.



Since the task type set in the "Task 1" task is "Fixed Headcount", adding resources increases the work. This time, let's adjust without changing the work.

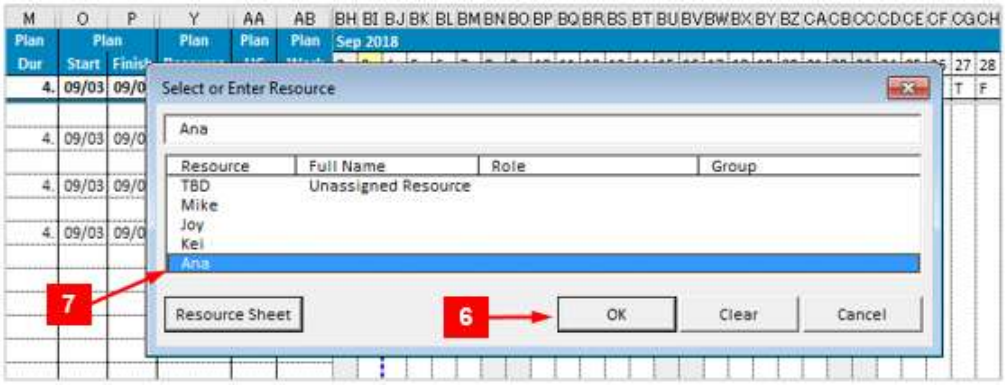
[5] Select "Fixed Work" in the task type on the dialog.

[6] Click the resource selectoing button of blank item. The resource list dialog is displayed.



[7] Select “Yamada” from the resource list.

[8] Click the [OK] button. Return to the [Allocate Resource and Work] dialog.

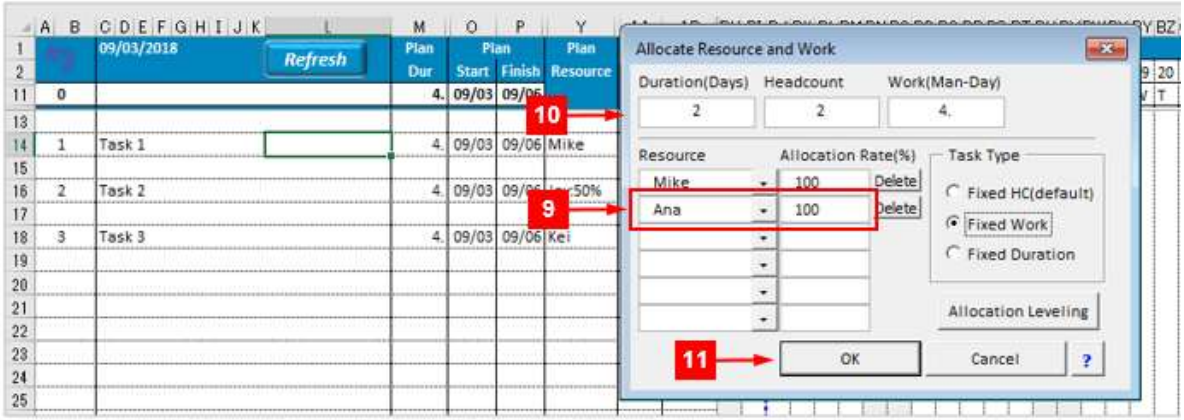


[9] Resource “Yamada” has been added to the dialog.

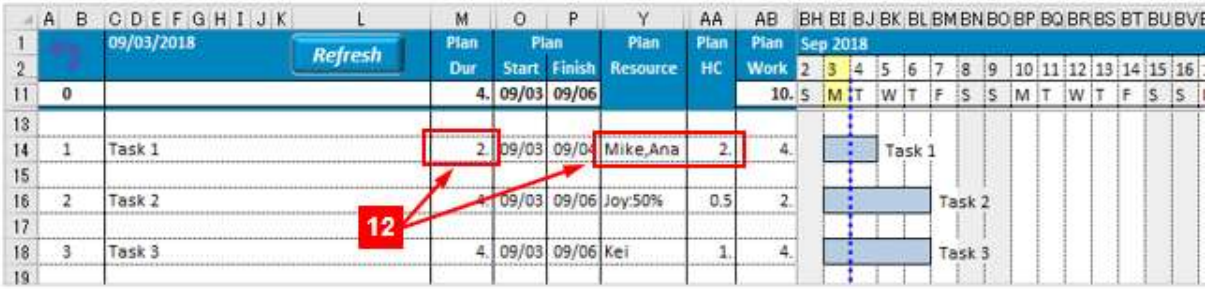
[10] The number of people has been increased from 1 to 2 because one person was added as a resource. Since the task type is “Fixed Work”, when the headcount is updated, the duration is recalculated and updated from 4 to 2.

[11] Click the [OK] button. Changes are applied to WBS.

Note: The task type changed on the dialog is not reflected in WBS.

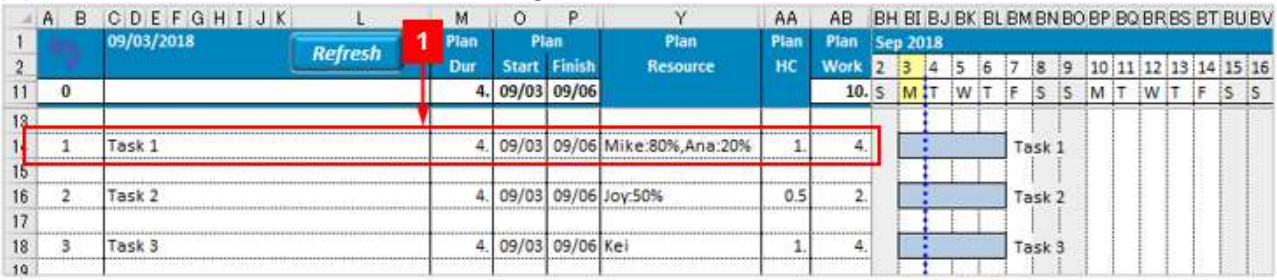


[12] The changes on the dialog are reflected in the "Task 1" task.

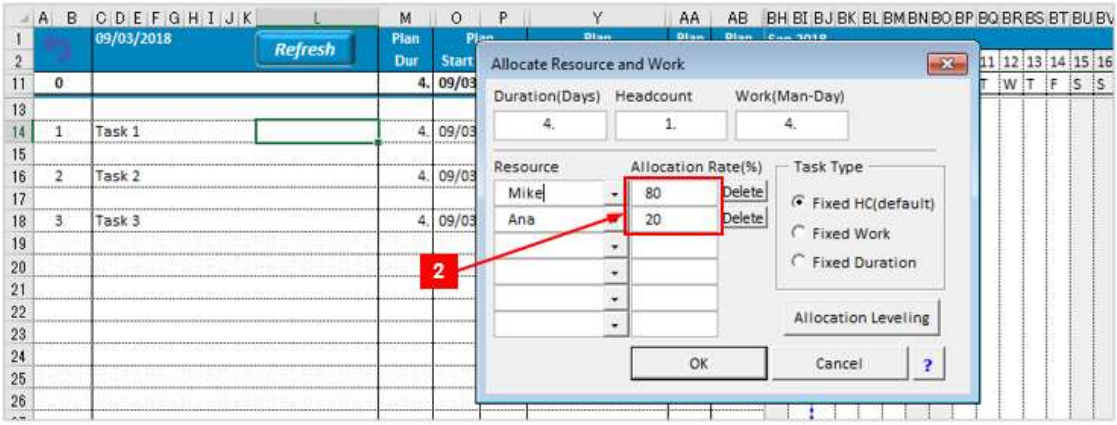


Level Resources

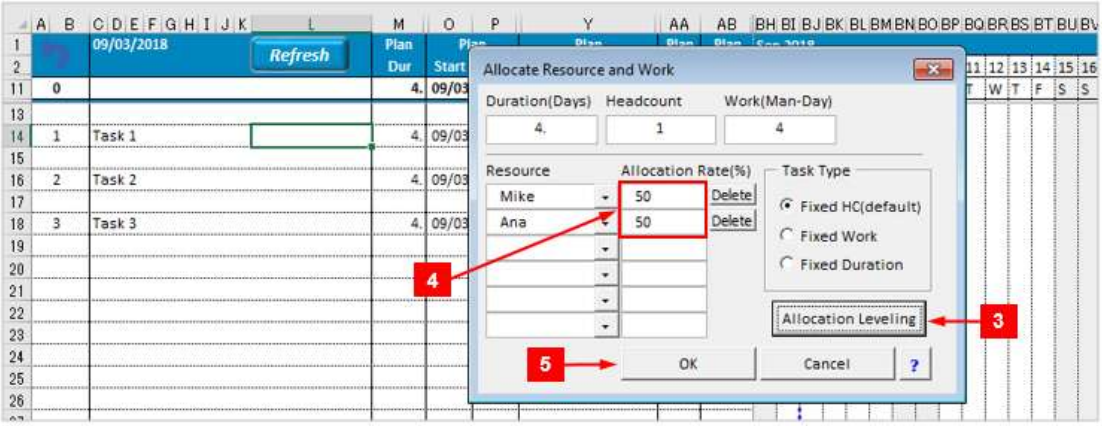
[1] Level the resources of "Task 1" task using the "Allocate Resource and Work" function. Invoke the function.



[2] "Task 1" task has two resources allocated, but the allocation rates are different. These resources will be leveled and adjusted to the same rate.



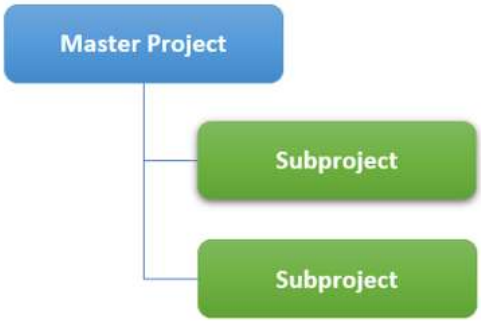
[3] Click the [Allocation Leveling] button.
[4] The allocation rates of “Sato” and “Yamada” have been adjusted to the same 50%.
[5] Click the [OK] button ⇒ The changes will be reflected in WBS.



[6] The resoures have been leveled.

Chapter 10. Subproject

One project can be registered as one task of another project, and linkage relationships between projects can be set. A project registered as one task is called a "subproject" and the other is called a "master project".



Two types of subprojects are supported.

- Linked subproject
- Embedded subproject

The link type is a traditional feature. Embedded type is a new feature of ProjectExceller 2. The following table is a comparison overview of features.

Functions	Link Type	Embed Type
Link to subprojects	✔	✔
Embed subprojects (import/export)	✔	✔
EVM analysis for subprojects	✔	✔
Workload analysis for subprojects	✔	✔
Mutiple subproject layers	3 layers	✔ (*1)

*1: subprojects must be updated in advance.

10.1. Embedded Subproject [Embed-Type]

Note:

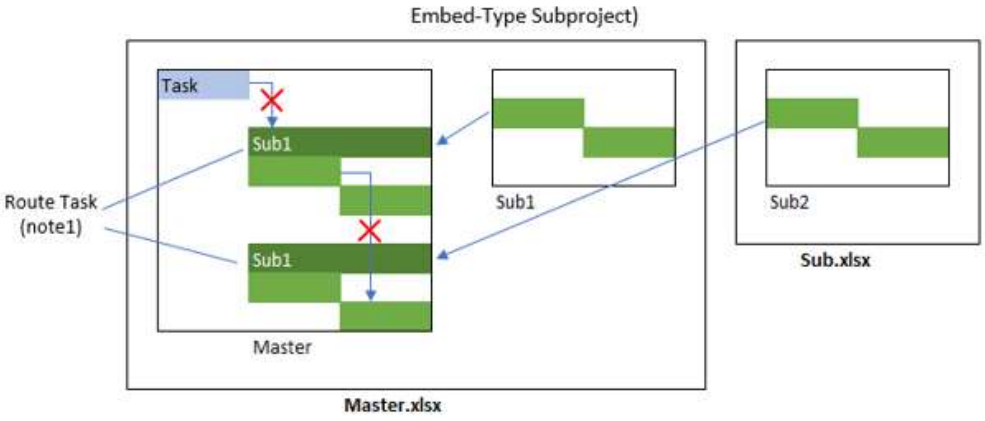
- This is a new function in ProjectExceller2.
- In ProjectExceller version 1, project sheets with embedded subprojects can not be edited.

It has the following features.

In embedded subprojects, the entire subproject is incorporated into the master project. In the Link-type, the subproject is displayed as a one-line task on the master project, but in the Embed-type, all tasks of the subproject are displayed as they are on the master project.

Note 1: What is the **Root Task**

The summary task at the top of the embedded subproject tasks is called "root task". When you delete a root task on WBS, the entire embedded subproject task is deleted from the master project.



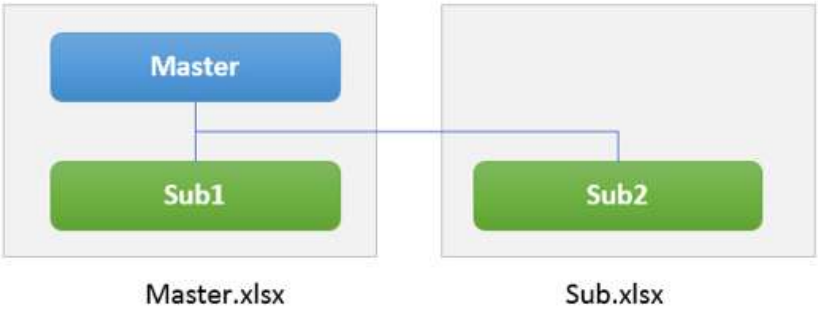
- You can create multiple subproject tasks in a master project.
- You can create another project sheet on the master project or another project file as a subproject.
- EVM analysis of the master project allows you to understand the progress of the entire project including subprojects.
- You can analyze workloads including master projects and subproject resources.

Create Embedded Subproject Task [Embed-Type]

It creates an embedded subproject task for the following case.

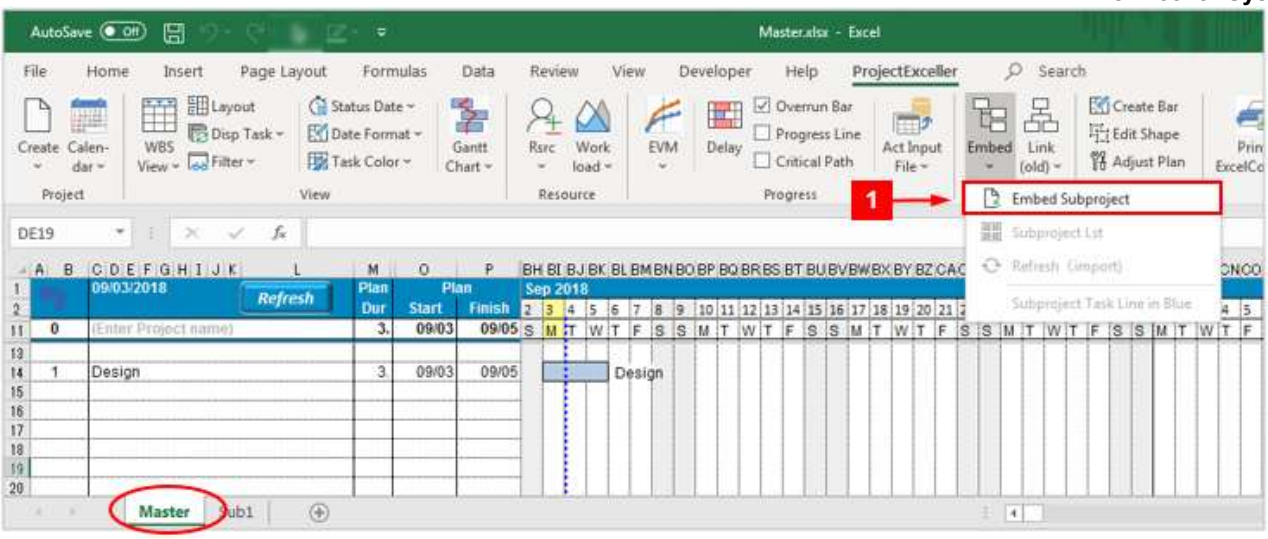
■ Sample Subproject Configuration

1. Project file “Master.xlsx”, project sheet "Master" as a master project, project sheet "Sub 1" in the same file as its subproject.
2. Furthermore, project sheet "Sub 2" in another project file “Sub.xlsx” is also a subproject.

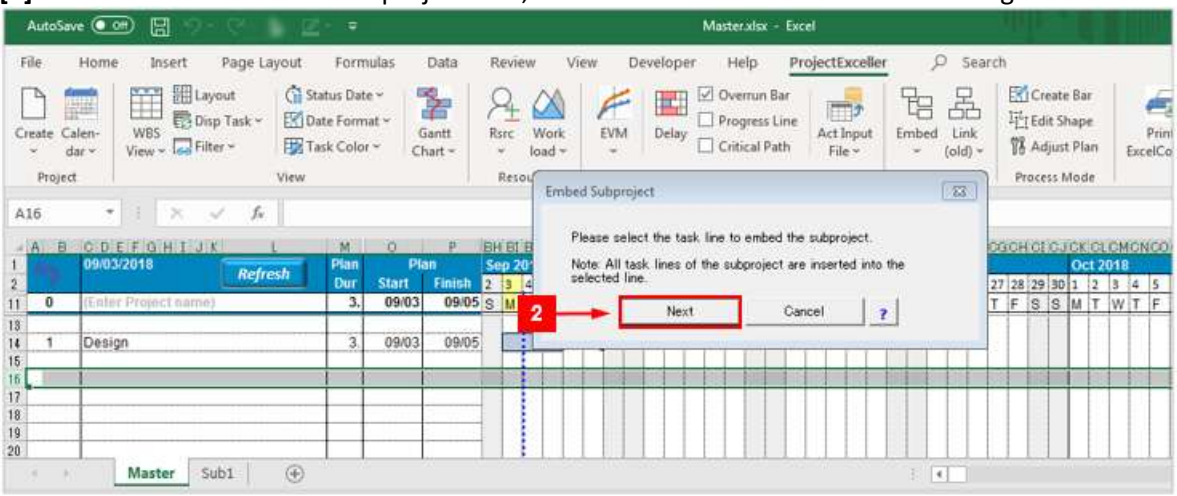


■ Procedure

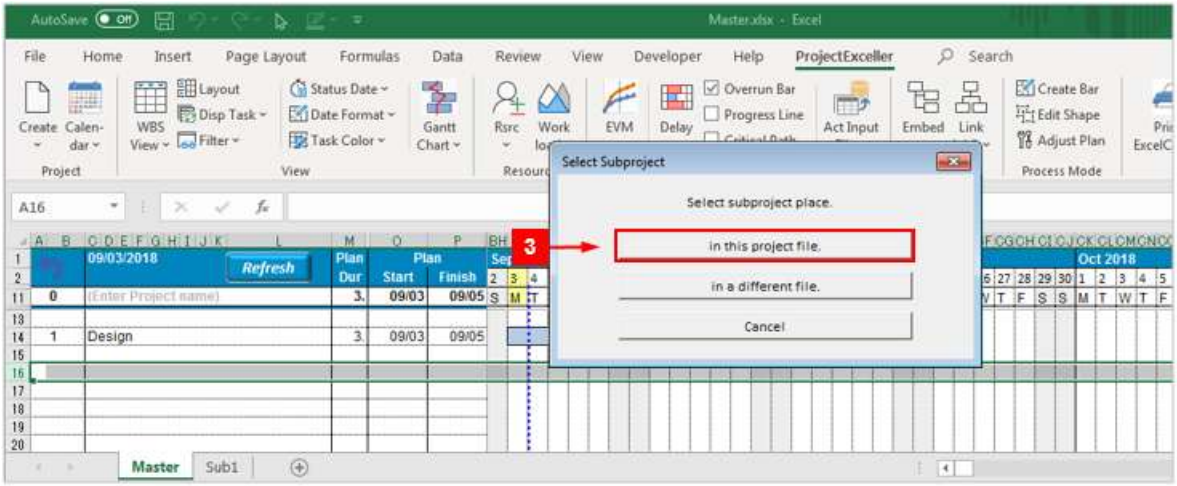
Open the file “Master.xlsx” and click [Embed Subproject] in the Embed button in the Subproject group on the ribbon.



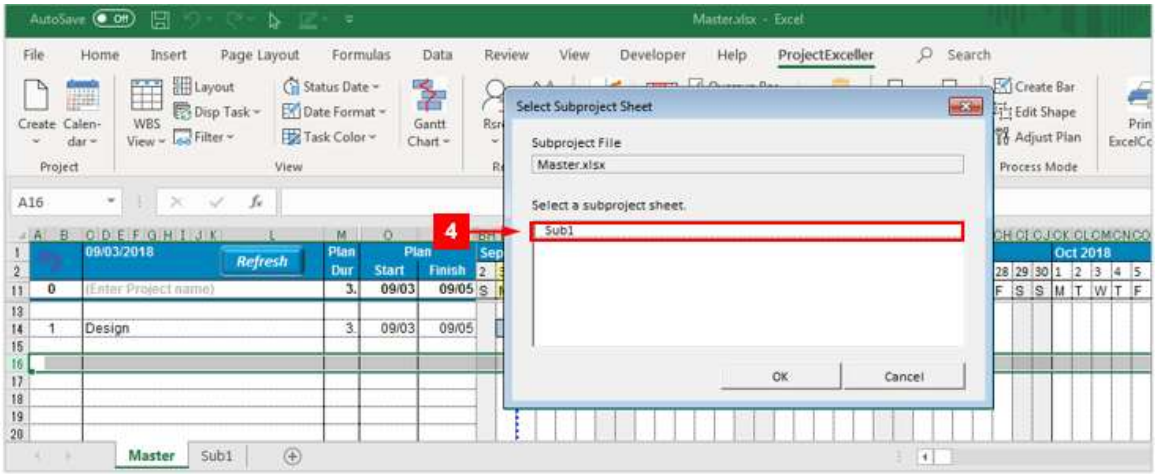
[2] Select a line to create a subproject task, and click the "Next" button in the dialog.



[3] Select [in a different file] from the Select Subproject dialog.



[4] Select sub project sheet "Sub 1" from the list of sub projects and confirm with the OK button.



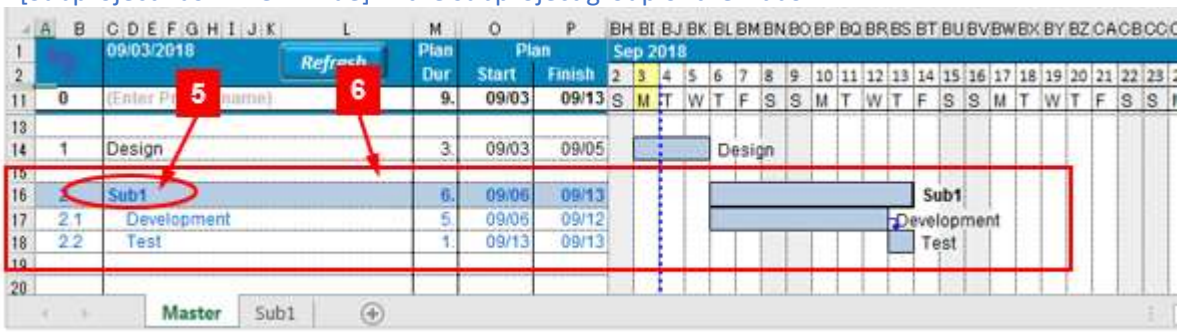
[5] The summary task of "Sub 1" was created on the master project sheet. This is called a "**Root Task**".

[6] As a subtask of the root task, all tasks of sheet "Sub 1" designated as a subproject are incorporated.

Memo: Embedded subproject task row color

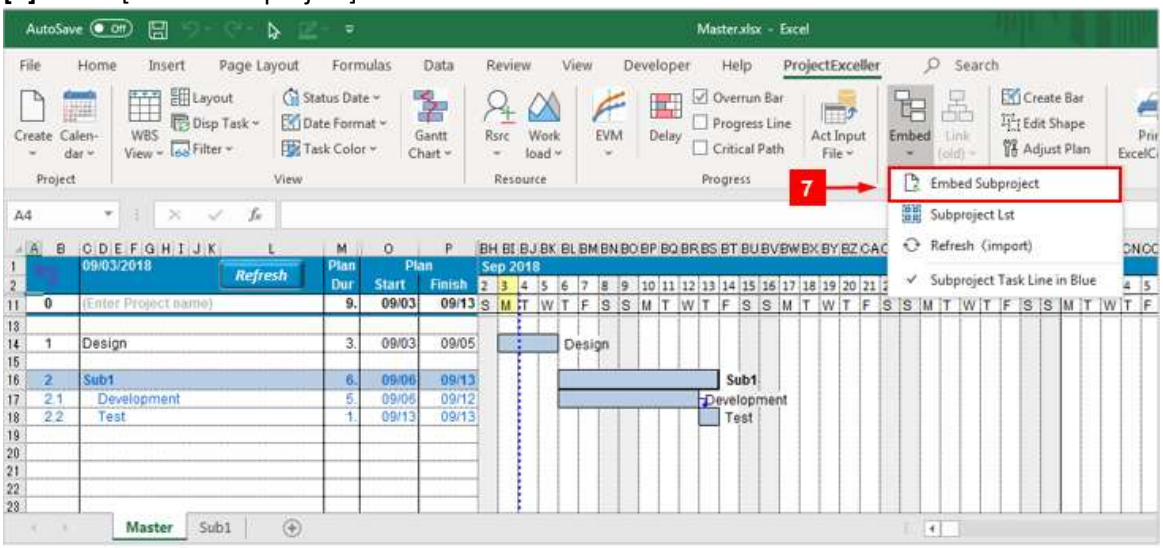
The characters on the WBS of the embedded subproject task lines are in blue. Also, the background color of the **Root Task** line is a little darker blue than the background color of the normal summary task line.

In addition, the color of these characters can be changed to normal black by turning off "Embed-Type" and [Subproject Task Line in Blue] in the subproject group of the ribbon.

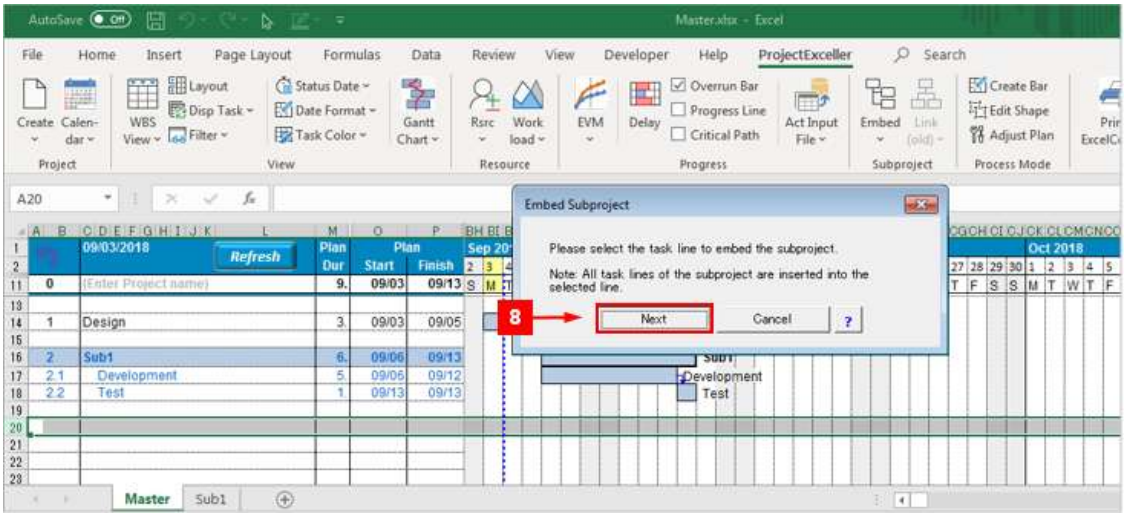


Next, create project sheet "Sub 2" in another file “Sub.xlsx” as a subproject task.

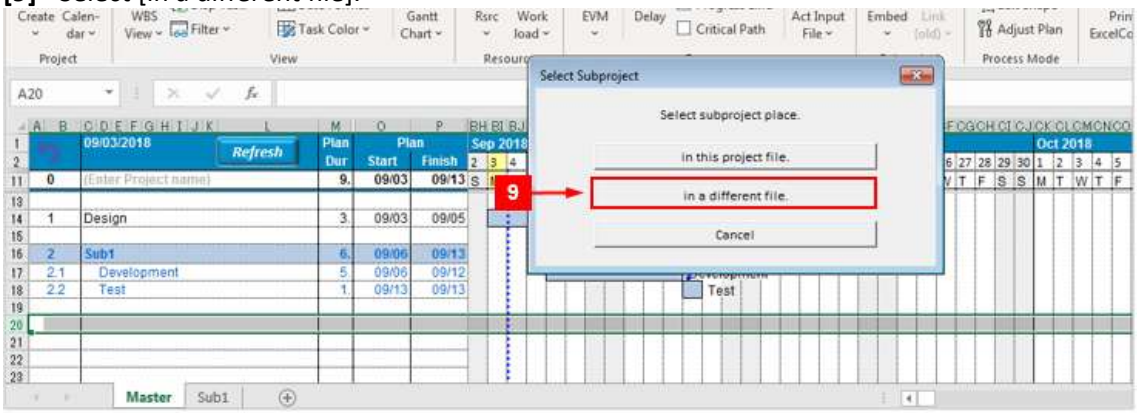
[7] Click [Embed Subproject] from the ribbon.



[8] Select a line to create a subproject task, and click the Next button.

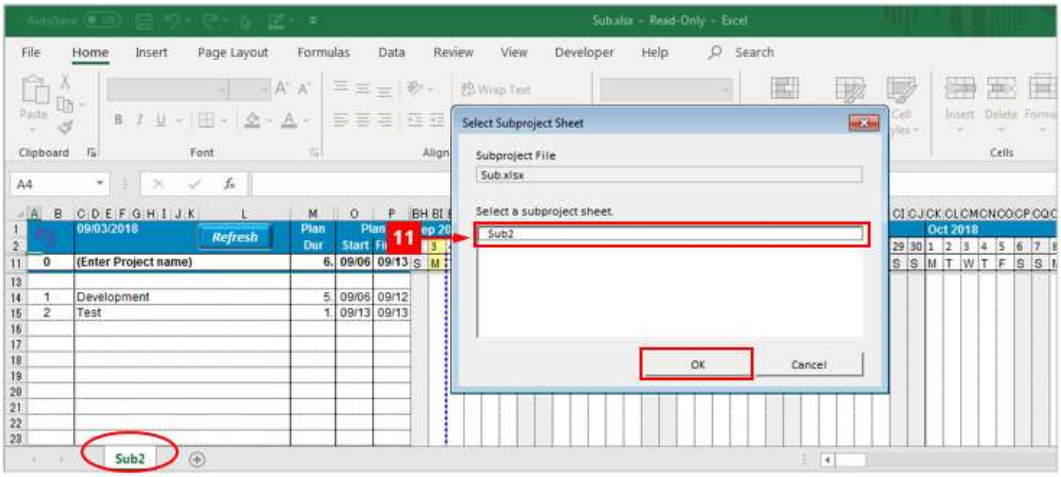


[9] Select [in a different file].

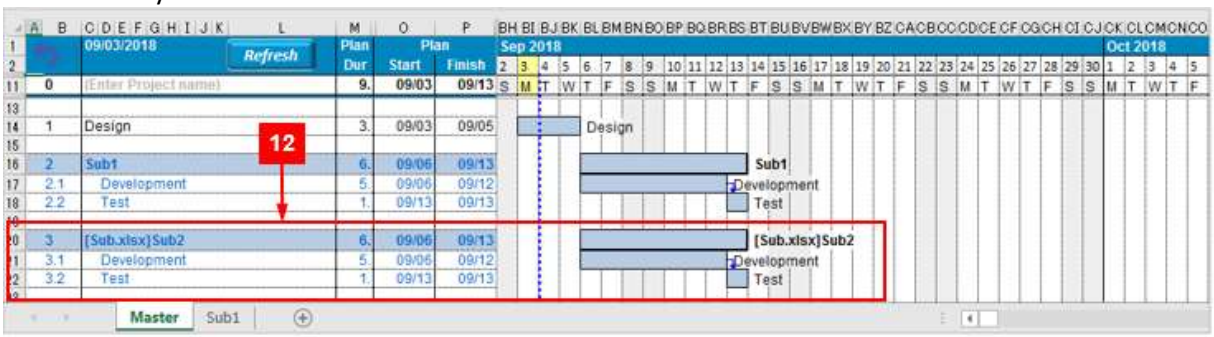


[10] Select the subproject file “Sub.xlsx” in the dialog.

[11] Select the sheet “Sub2” in the subject file “Sub.xlsx” and confirm with the OK button.



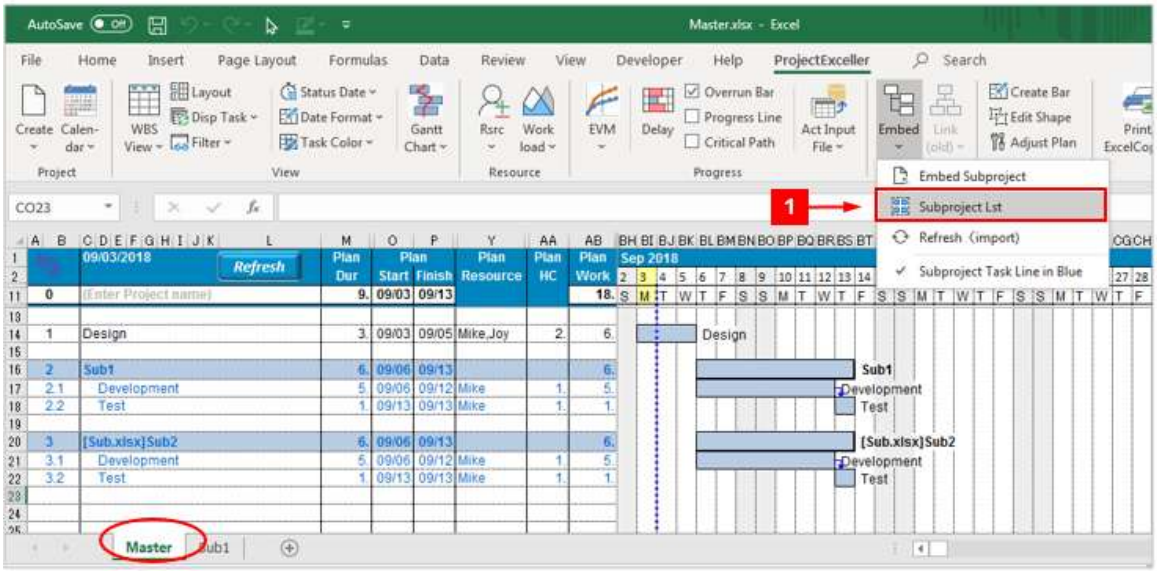
[12] Another project file has been embedded as a subproject. The name of the subproject task can be changed on WBS as you want.



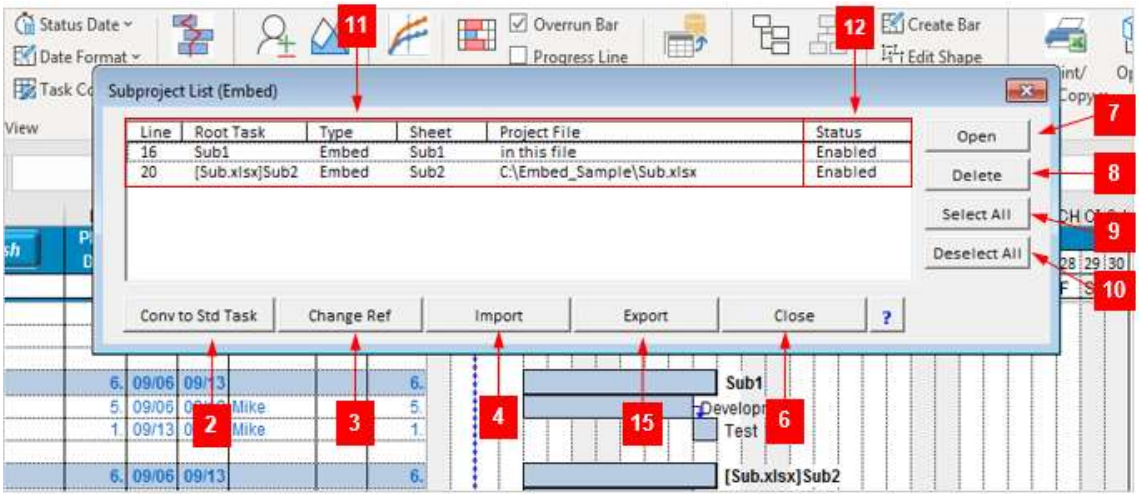
Subproject list [Embed-Type]

Displays a list of built-in subproject tasks set in the currently selected project. You can delete, change reference destination, import and export of the subproject tasks.

[1] Click [Embed Subproject] in the Embed button.



The functions of the Subproject List dialog are explained below.



[2] Convert to Regular Tasks

Cconvert embedded subproject tasks into regular tasks on the master project sheet. This will break the reference to the original subproject.

[3] Change Reference Destination

Change the reference destination of the currently set subproject.

[4] Import

Import the task data of the original subproject and update the embedded subproject tasks on the master project sheet.

Note: If a subproject task on the master project sheet has been updated, it will be overwritten with the data of the original subproject.

[5] Export

Export embedded subproject task data on master project sheet to original subproject.

Note: All data on the original subproject sheet will be overwritten.

[6] Close

Close the dialog.

[7] Open

Open the specified subproject source file or source sheet.

[8] Delete

Delete the embedded subproject task on the master project sheet. This also removes the reference to the original subproject.

[9] Select All

Select all the subprojects on the list.

[10] Select All

Deelect all the subprojects selected on the list.

[11] Project File, Sheet Name

Display the project file path and sheet name to which the subproject refers.

[12] State

The status of the referenced subproject is displayed as either "Enabled" or "* Disabled *".
"Enabled" indicates that the referenced subproject exists and data is reflected in the master project.
"* Invalid *" indicates that the referenced subproject does not exist. Data in invalid subproject task lines on the master project is displayed in gray text.

■ Trouble Shoot:

In the case of an invalid subproject task, please identify the cause below, and reset the reference to the correct subproject in "Change Reference".

■ Cause of "Invalid":

In the same file as the master project

- Subproject sheet has been deleted.

In the case of a project with a separate file from the master project

- The referenced project file has been deleted or moved.
- The referenced project sheet on the referenced project file has been deleted.
- The name of the referenced project sheet on the referenced project file has been changed.

If the referenced project file is loaded, there is no problem because even if the name is deleted, the master project is also linked and changed. This problem occurs if you load only the subproject file and change the sheet name without loading the master project.

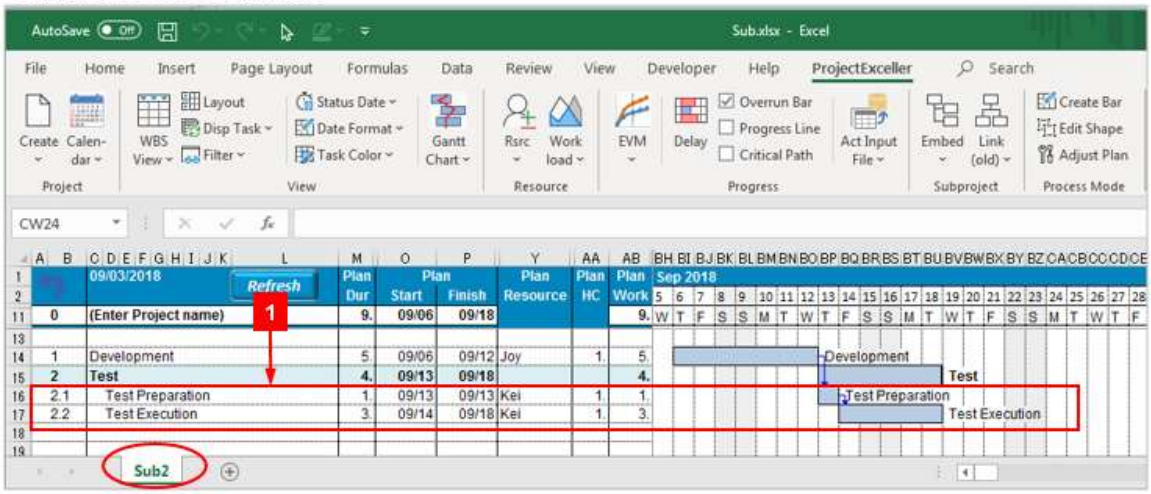
Refresh Subproject Task (Import) [Embed-Type]

Update the embedded subproject tasks on the master project by importing the original subproject.

Memo: Changes on the master project will be overwritten
If the user changes the built-in subproject task on the master project, the changed part is overwritten with the data of the original subproject.
Memo: Importing Resource Data
All data of the resource sheet on the subproject file is copied to the resource sheet of the master project. If the resource sheets of the master project and subproject have the same resource name and their definition contents are different, a dialog is displayed to select which is preferred.

[1] The "Test" task of sub project sheet "Sub 2" in another project file consists of two subtasks "Prepare Test" and "Run Test". Person “Kei” is newly assigned to the "Test" task. assigned.

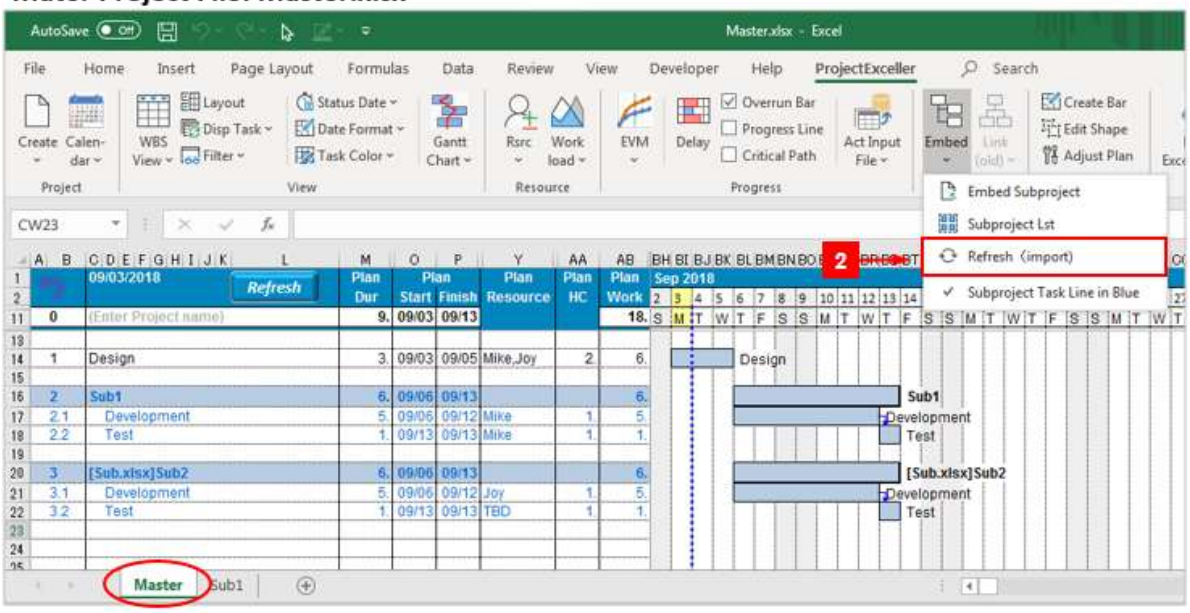
Subproject File: Sub.xlsx



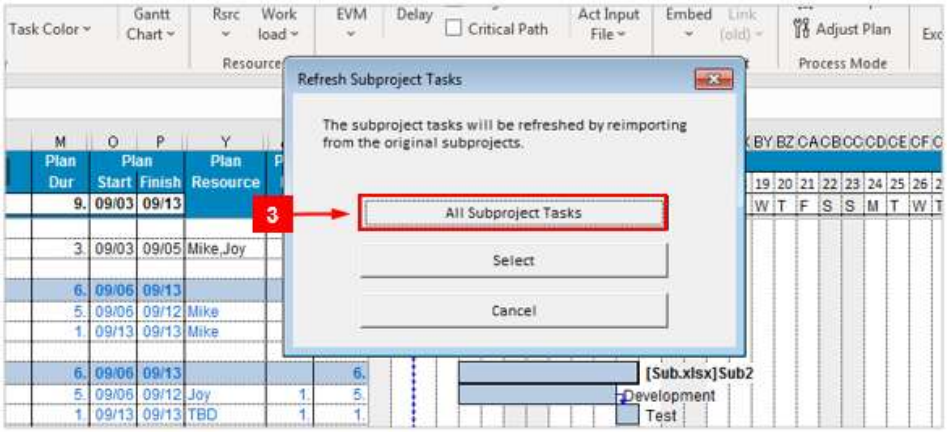
Let's see that this change is reflected in the master project by executing "Refresh".

[2] Select and display the master project and click [Embed] button in the Subproject group on the ribbon, and then click [Refresh].

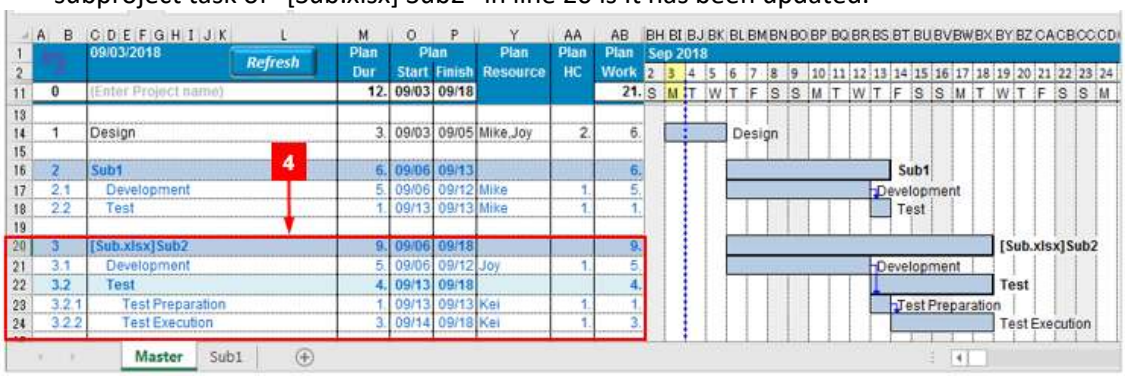
Mater Project File: Master.xlsx



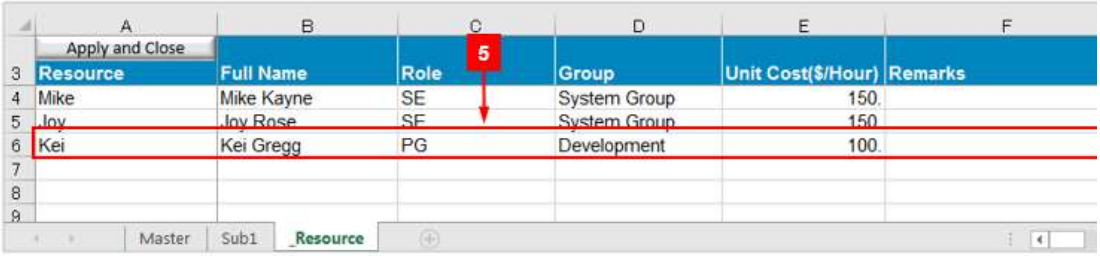
[3] Select the [All Subproject Tasks] button to update all subproject tasks on the master project. If you want to update only a part, click the [Select] button.



[4] In this example, the subproject sheet "Sub2" in another project file (“Sub.xlsx”) has been updated, so the subproject task of "[Sub.xlsx] Sub2" in line 20 is It has been updated.



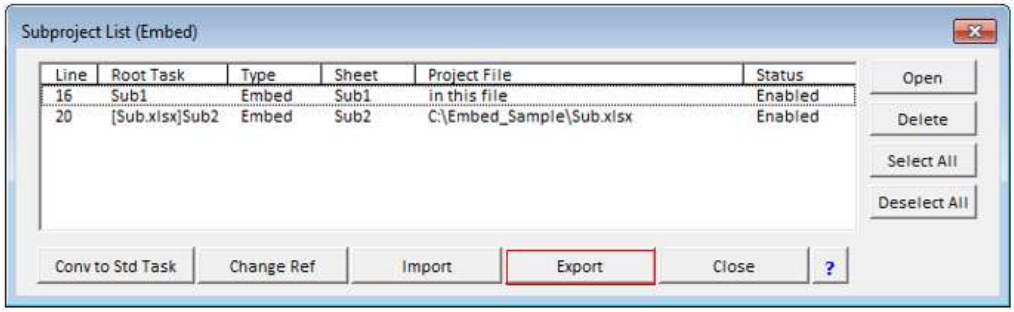
[5] Person "Kei" is added as a new resource to the original subproject file “Sub.xlsx”. When re-importing the original subproject, if there is a resort that does not exist in the master project, it is automatically copied to the master project's resource sheet.



Memo: Alternative ways to refresh subproject tasks

There are two alternative ways to refresh as follows.

- [Import] button on the Subproject List dialog.



- Refresh Refresh

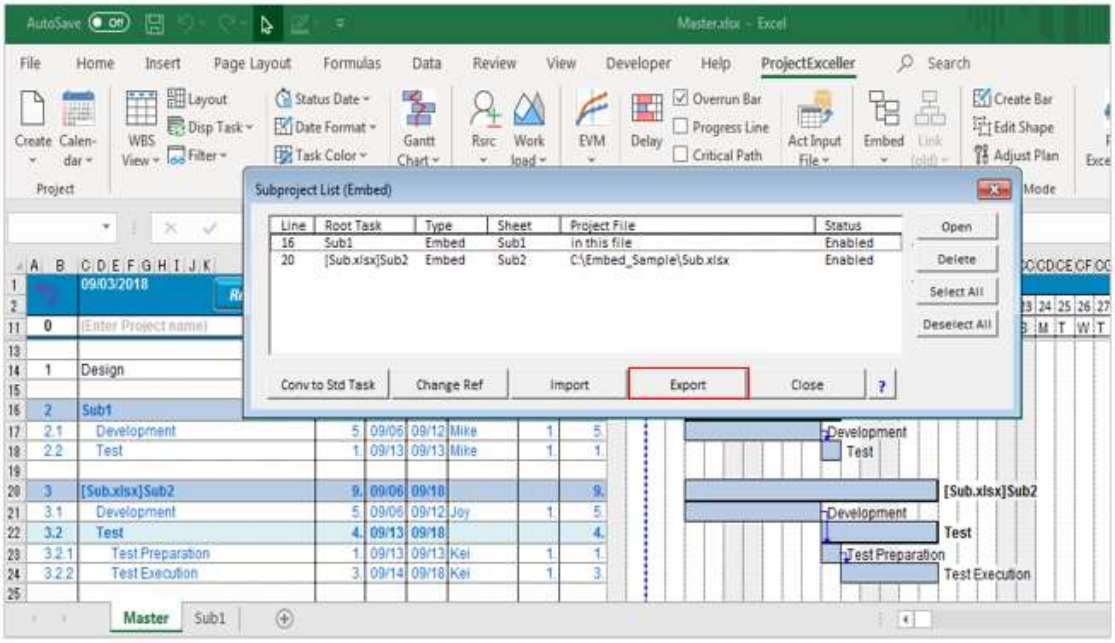
  Click the "Refresh" button on the WBS header to re-import from the subproject.

  Note: Only imported if the original subproject is updated. If the subproject is in a different file, it will be imported if that file is updated.

Export Subproject Task [Embed-Type]

You can edit th embedded subproject tasks on the master project as you would any regular task.

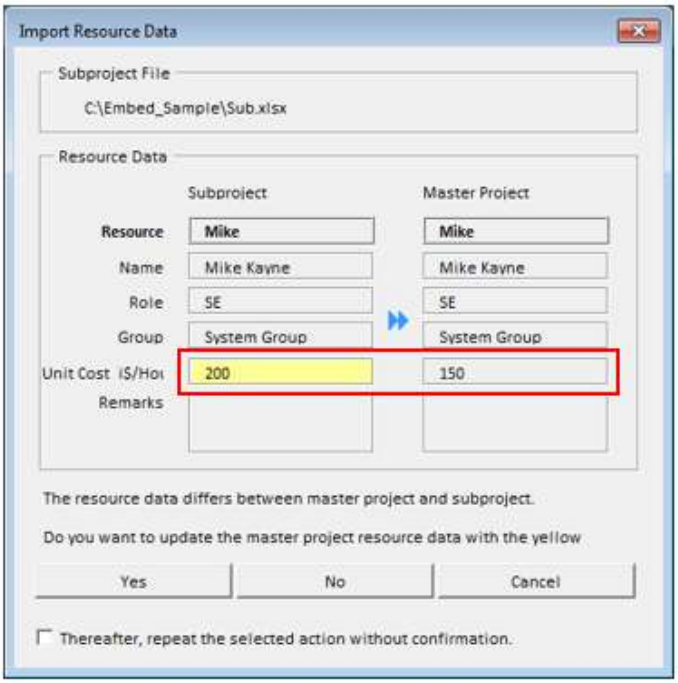
To reflect the subproject task edited on the master project to the original subproject, use [Export] in the Subproject List dialog.



Processing of Resource Sheet Data [Embed-Type]

If the subproject is in a separate file from the master project, the resource data on the resource sheet is processed as follows:

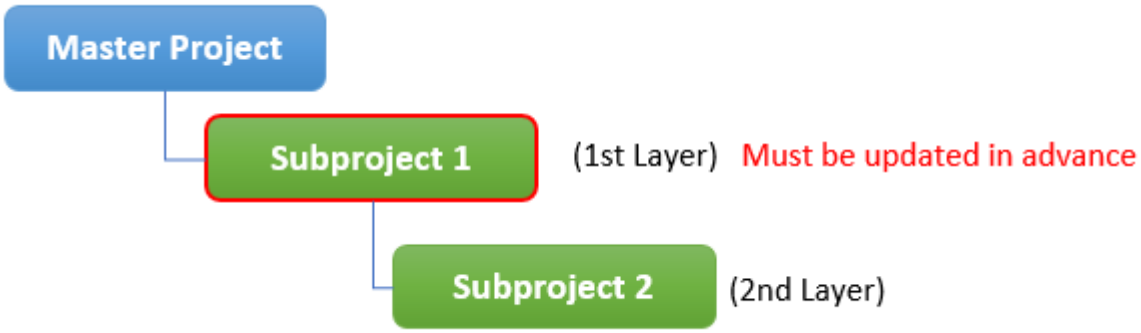
1. For Refresh (Import):
All subproject resource sheet data is added to the master project resource sheet. If there are duplicate resource names, you will be asked to confirm whether to overwrite.
2. For Export:
Data in the master project's resource sheet is not added to the subproject's resource data. However, if the resource name data defined in both the master project and the subproject are different (for example, the unit price data is different), you will be asked to confirm which is preferred.
3. When data of the same resource name of master project and subproject are different
For example, if the unit price of the resource name "Yamamoto" is 1,500 yen for the copy source and 2,000 yen for the copy destination, the following dialog will be displayed and you will be asked to decide which is to be prioritized.



Restrictions on Embedded Subproject

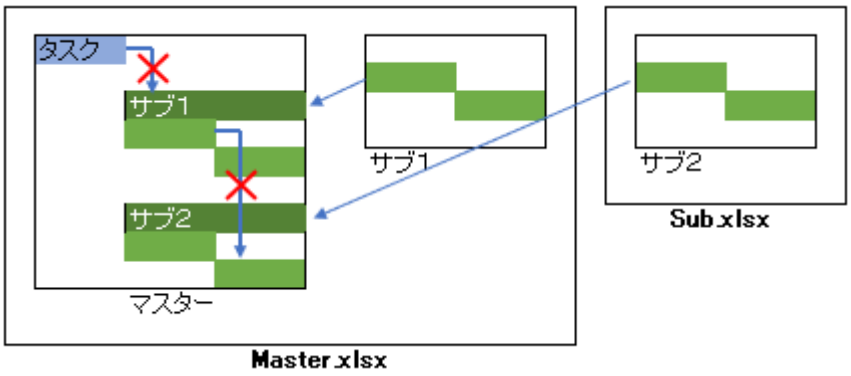
the configuration of two or more layyers

- Subprojects can be composed of two or more levels. However, only the data of the first level of subprojects will be incorporated into the master project. Data from subprojects below the second level is not automatically reflected in the **Master Project**. For example, in the following example, to reflect the data of **Subproject 2** of the second level in the **Master Project,** it is necessary to update **Subproject 1** of the first level beforehand by Refresh, etc.
- If more subprojects are set in a subproject, it is not possible to export them. In the following example, **Subproject 1** cannot be exported from the master project.



Task Links

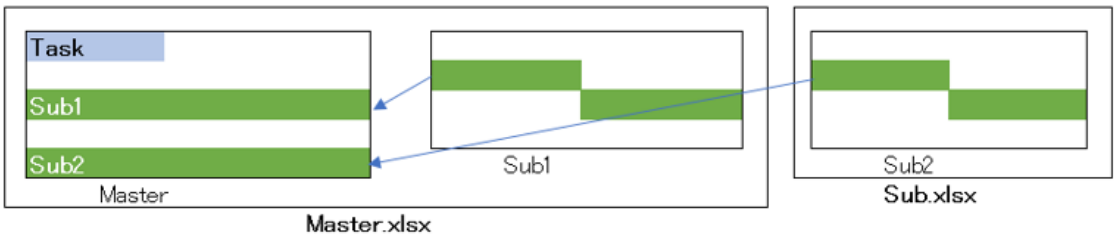
- You can not set task links between embedded subproject tasks and other tasks. You can set task links between the same embedded subproject tasks (between tasks under the same root task).
- Subprojects are limited to one hierarchy.



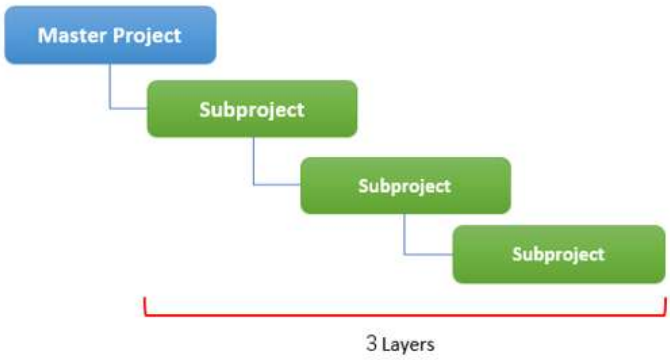
10.2. Linked Subproject [Link-Type]

Linked subprojects are subproject functions compatible with ProjectExceller version 1. It has the following features.

- The total summary line of the subproject is is created as one task line on the master project.



- You can create multiple subproject tasks in a master project.
- You can register another project sheet or a project sheet on another project file as a subproject task on the master project.
- By EVM analysis of the master project, you can grasp the progress of the whole related project event including the subproject.
- You can configure subprojects up to three levels.



Create Linked Subproject Task [Link-Type]

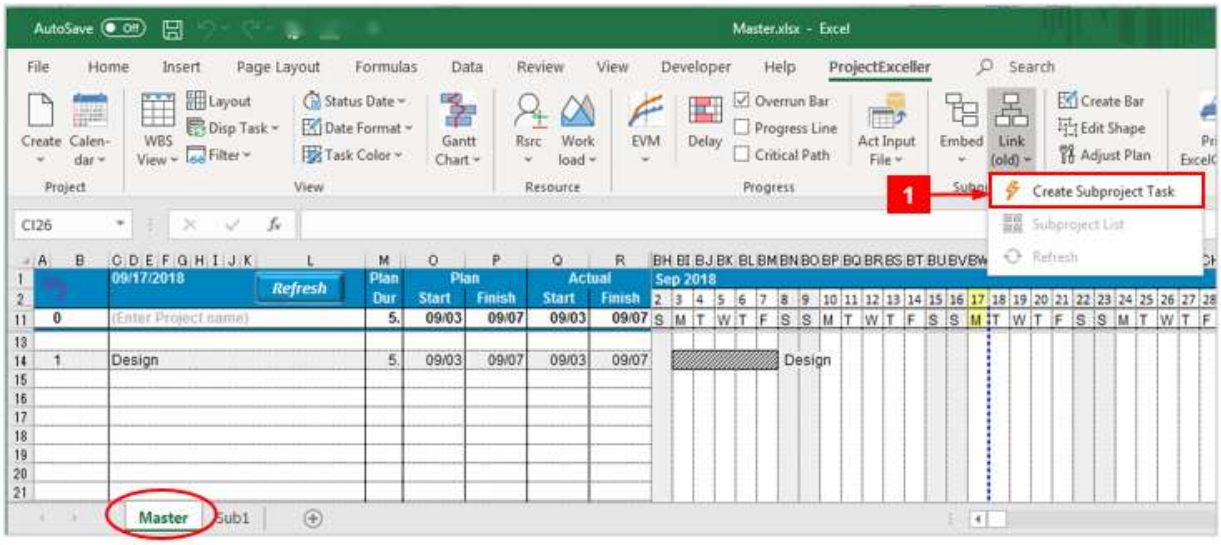
It creates a linked subproject task for the following case.

■ Sample subproject configuration

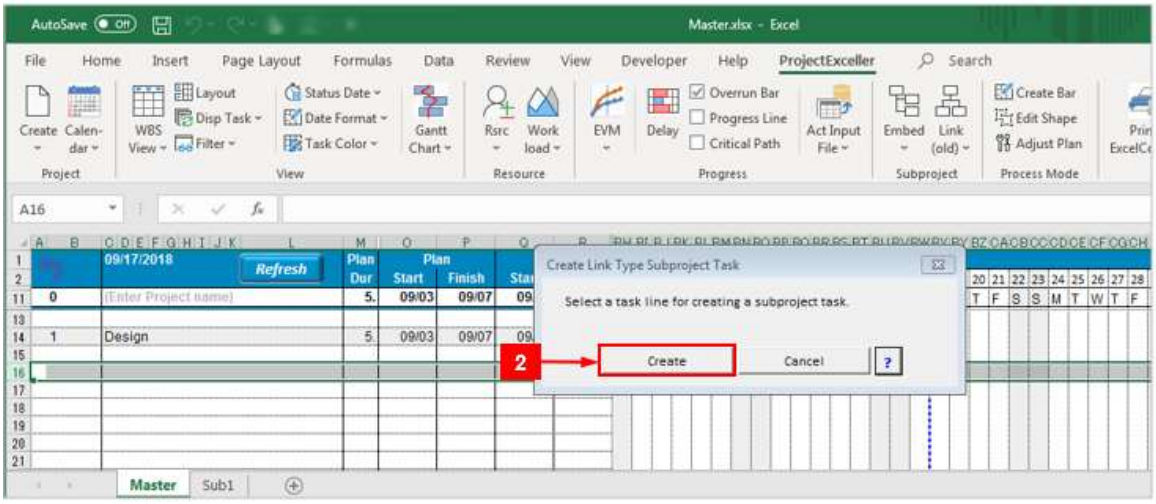
1. Project file “Master.xlsx”, project sheet "master" as a master project, project sheet "sub 1" in the same file as its subproject.
2. Furthermore, project sheet "sub 2" in another project file “Sub.xlsx” is also a subproject.

■ Procedure

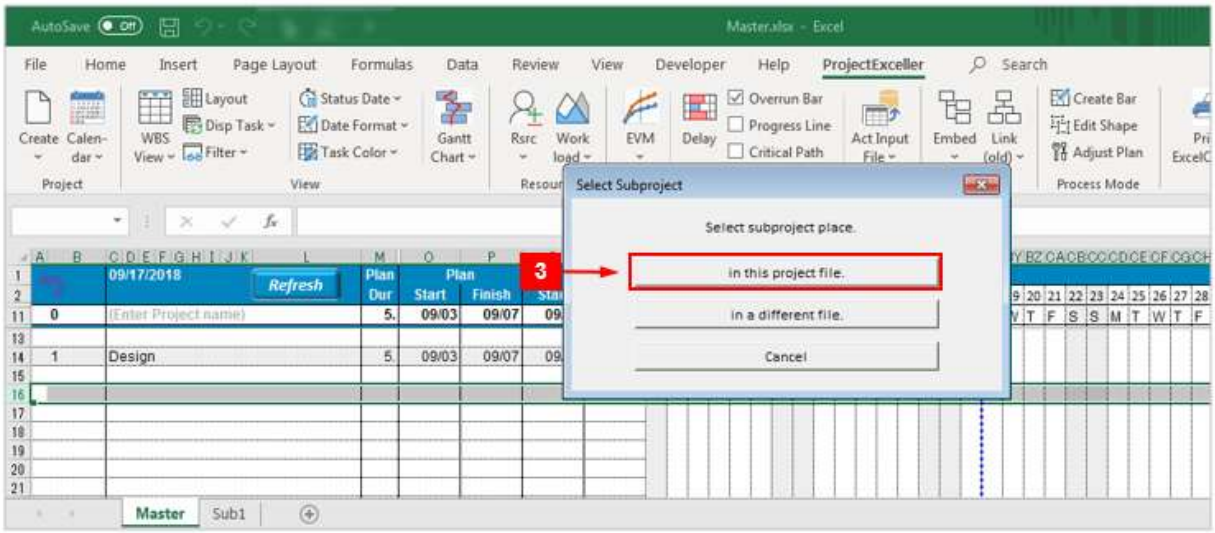
[1] Open “Master.xlsx” file, and click [Create Subproject Task] in the [Link (Old)] button in the subproject group on the ribbon.



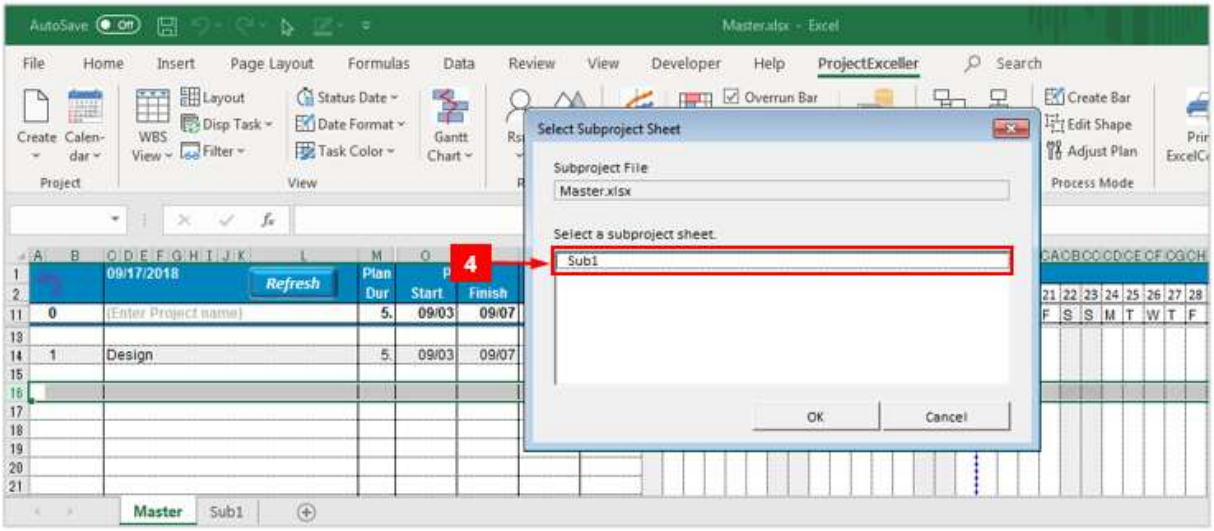
[2] Select a line to create a subproject task, and click the "Create" button in the dialog.



[3] Select [in a different file] button on the Select Subproject dialog.



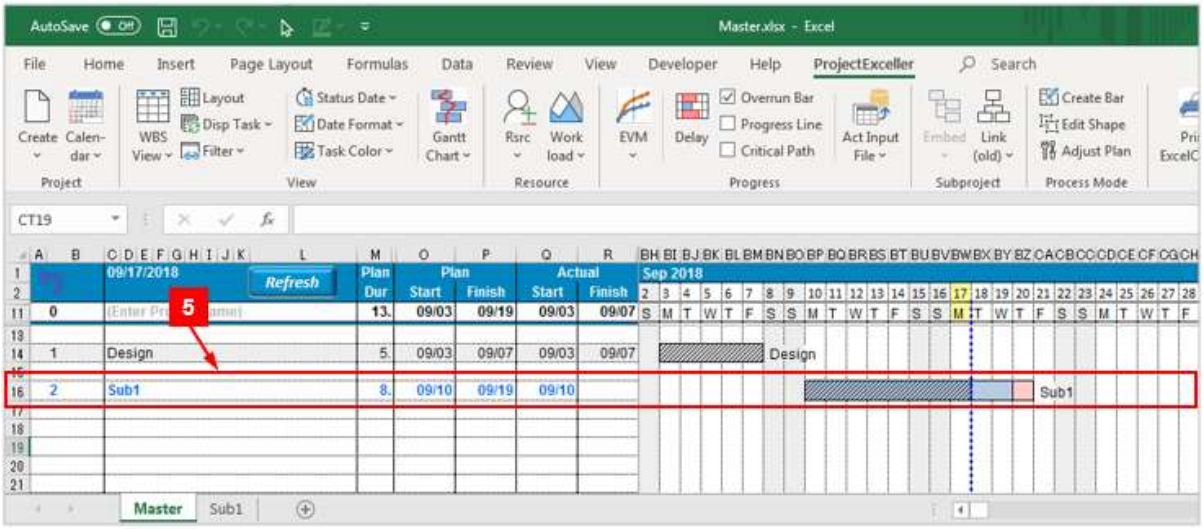
[4] Select subproject sheet "sub 1" from the list of subprojects, and confirm with the OK button.



[5] The subproject task "sub 1" has been created on the master project sheet.

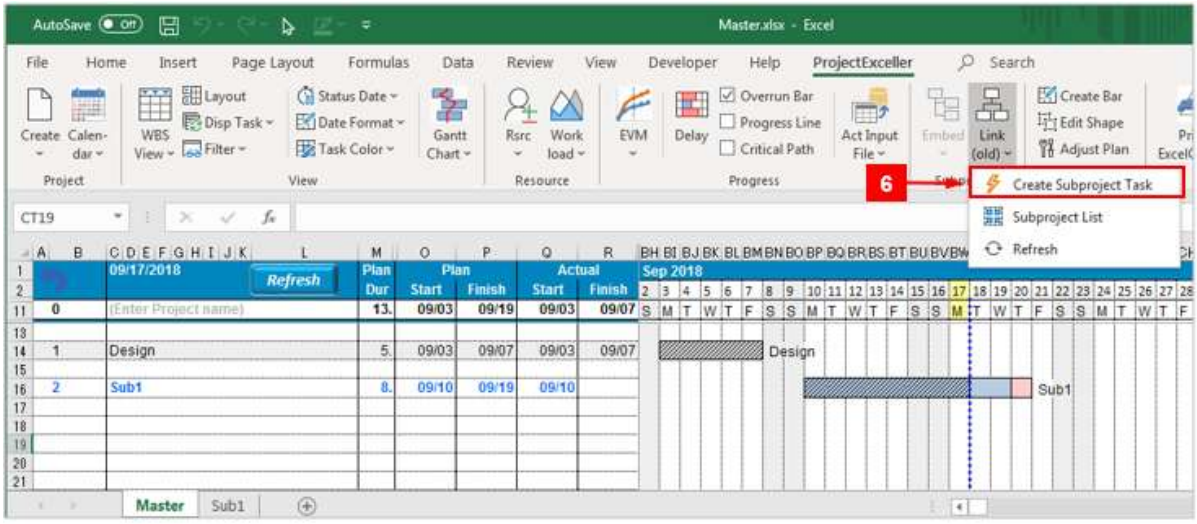
Note: Embedded subproject task line color

The characters on the WBS of the embedded subproject task line turn blue.

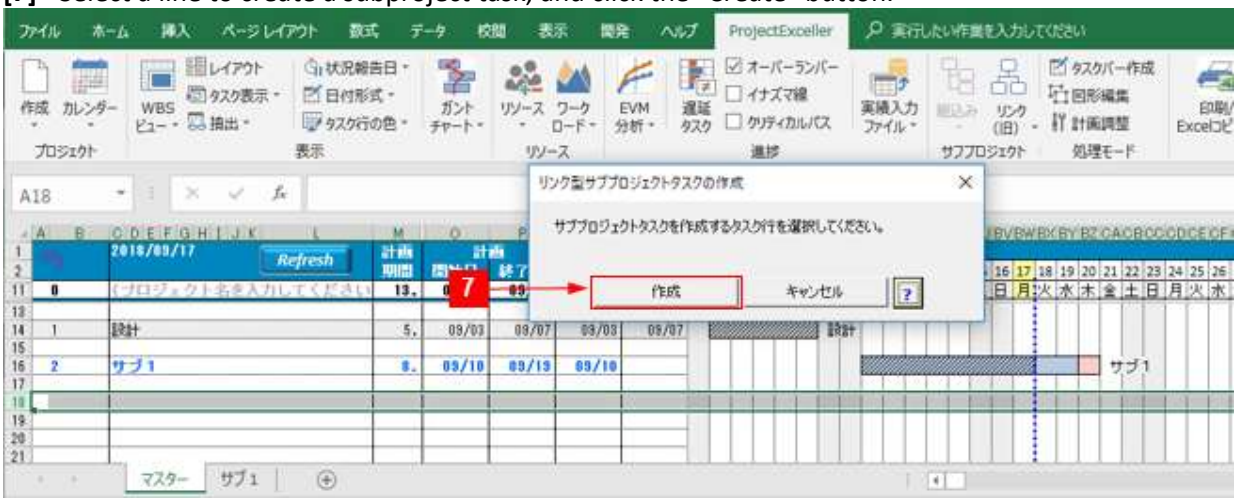


Create project sheet "sub 2" in another file “Sub.xlsx” as a subproject task.

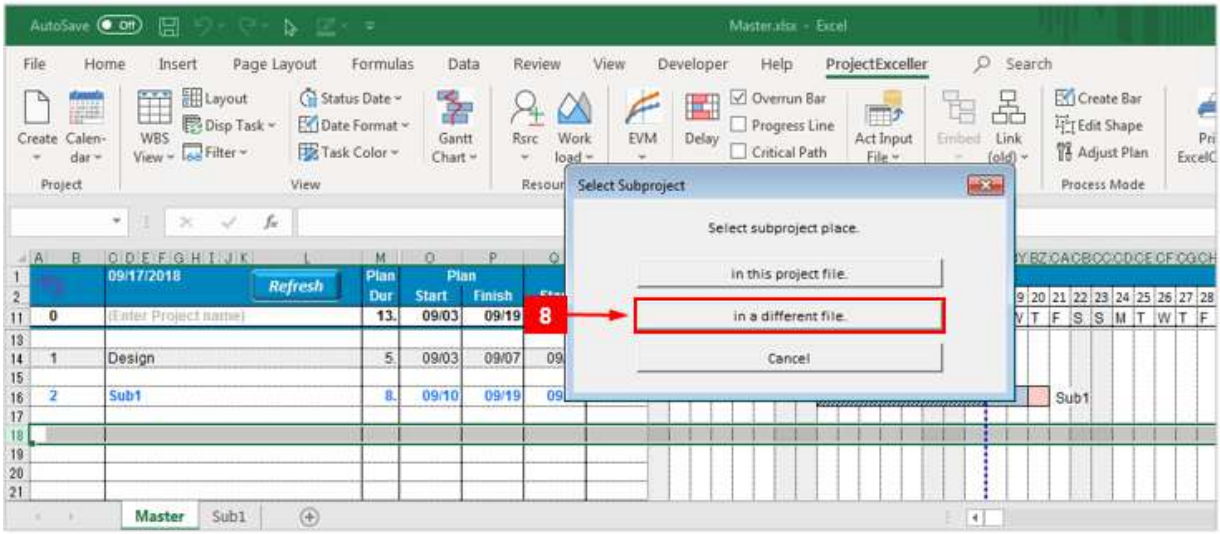
[6] Click [Create Subproject Task] from [Link (Old)] on the ribbon.



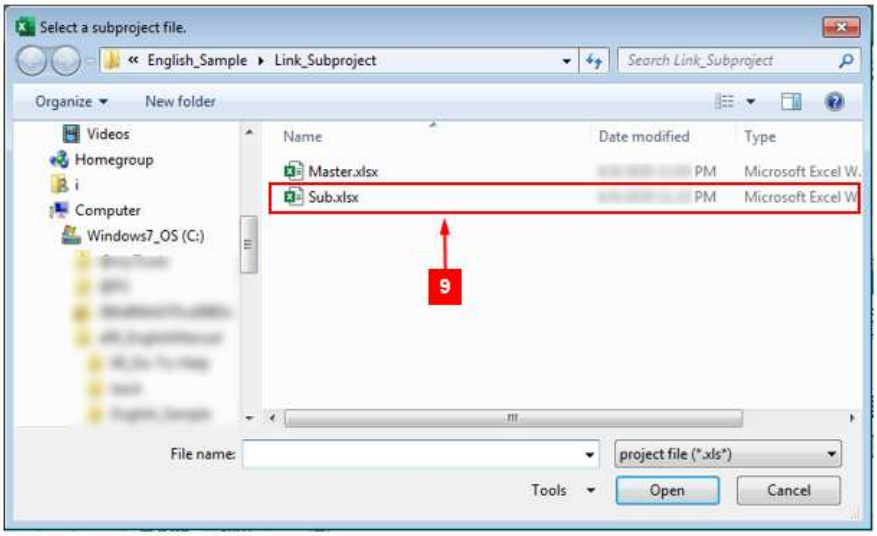
[7] Select a line to create a subproject task, and click the "Create" button.



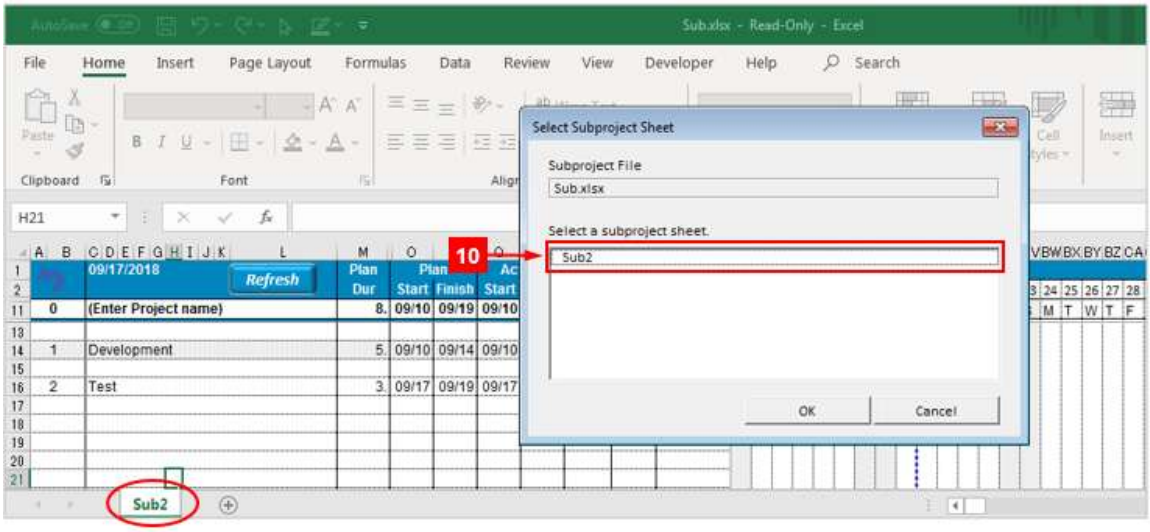
[8] Select [in a different file].



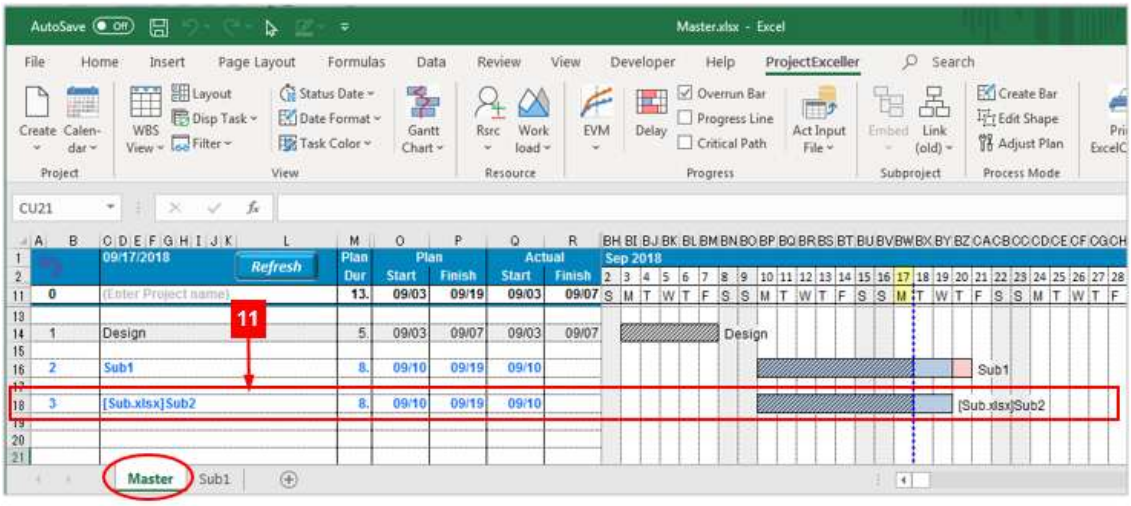
[9] Select the target subproject file "Sub.xlsx" from the dialog.



[10] Select sheet "Sub 2" from the subproject file "Sub.xlsx" and confirm with OK.



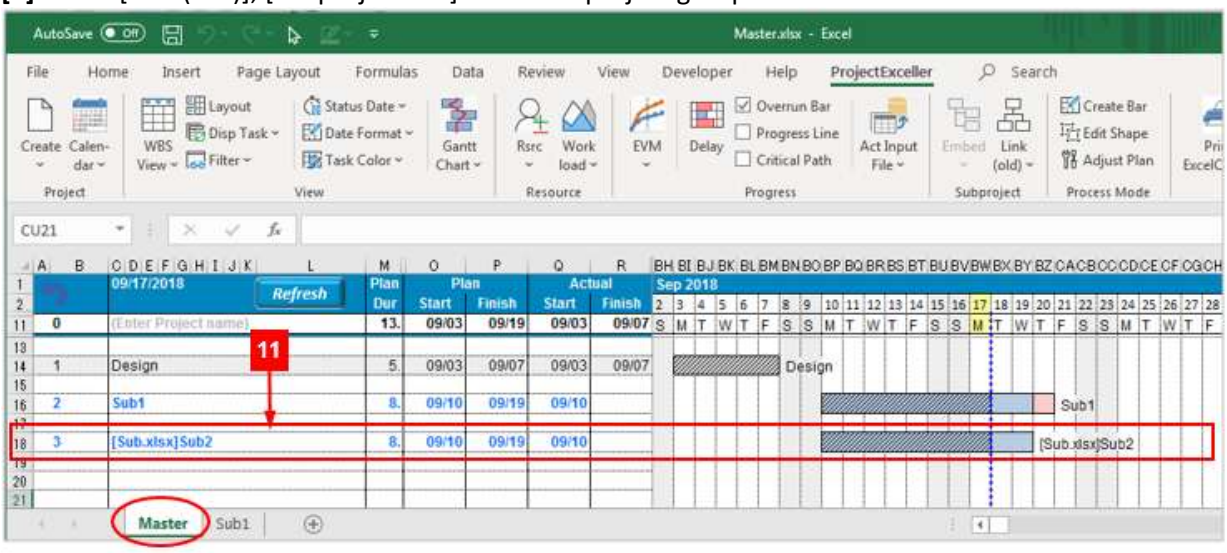
[11] A separate file project has been set as a subproject task. The name of the subproject task can be freely changed on WBS.



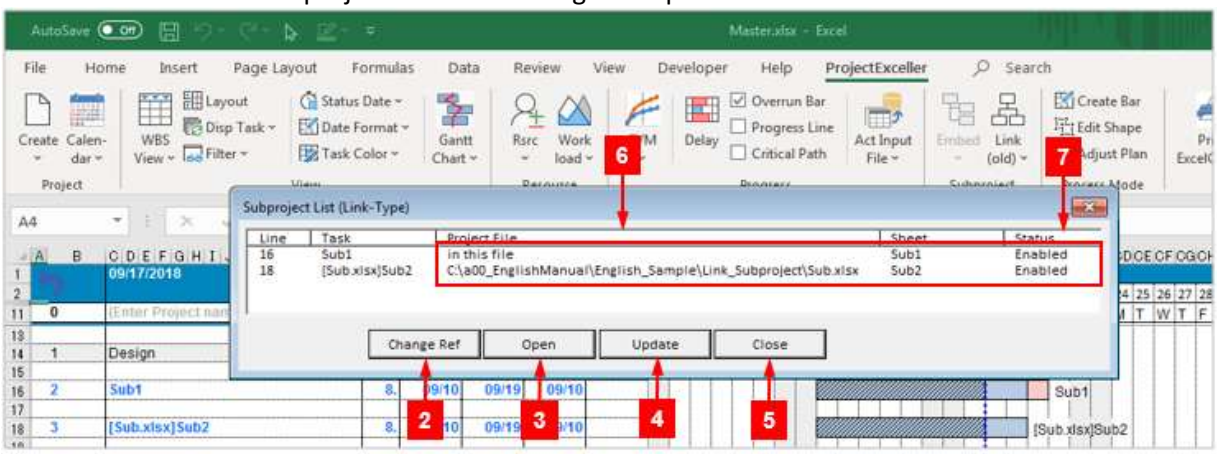
Subproject List [Link-Type]

It displays a list of linked subproject tasks set in the currently selected project. In addition, it performs processing such as changing reference destinations for subproject tasks and updating values.

[1] Click [Link (Old)], [Subproject List] of the subproject group of the ribbon.



The functions of the "Subproject Task List" dialog are explained below.



[1] Change Ref

Change the reference destination of the currently set subproject.

[2] Open

Opens the specified subproject file or subproject sheet.

[3] Update

Reflect the latest data of subprojects to the master project. Normally, it is reflected automatically, so there is no need to update it.

[4] Close

Close the dialog panel.

[5] Project File, Sheet

Indicates the project file path and sheet name to which the subproject refers.

[6] Status

The status of the referenced subproject is displayed as either "Enabled" or "*Disabled*".
"Enabled" indicates that the referenced subproject exists and data is reflected in the master project.
"*Disabled*" indicates that the referenced subproject does not exist. Data in invalid subproject task lines on the master project is displayed in gray text.

■ **Action:**

In the case of an invalid subproject task, identify the cause below, and reset the reference to the correct subproject in "Change Ref".

■ **Cause of "invalid"**

In the same file as the master project

- Subproject sheet has been deleted.

In the case of a project with a separate file from the master project

- The referenced project file has been deleted or moved.
- The referenced project sheet on the referenced project file has been deleted.
- The name of the referenced project sheet on the referenced project file has been changed.

If the referenced project file is loaded, there is no problem because even if the name is deleted, the master project is also linked and changed. This problem occurs if you load only the subproject file and change the sheet name without loading the master project.

Restrictions on Linked Subproject

- Subprojects can not be set as predecessor tasks. It can be set as a follow-on task.
- Subprojects can not be configured over more than three levels.
- Master project workload analysis does not include subprojects.
- In EVM analysis of the master project, the narrow down options "resource" and "group" do not apply to subproject tasks.

Chapter 11. Workload Analysis

Workload is the amount of work of resources (people) assigned to a project. If the workload allocated to the resource is not appropriate, the project will collapse.
ProjectExceller uses **Utilization Rate** as a value that the workload of each resource judges appropriate.

Note: What is Utilization Rate

The utilization rate is a measure of how busy a resource is. ProjectExceller uses two utilization rates. For example, if the standard work hours per day is 8 hours, the utilization rate is 100% if 8 hours of work is assigned. 50% if only 4 hours are allocated, 150% for 12 hours.

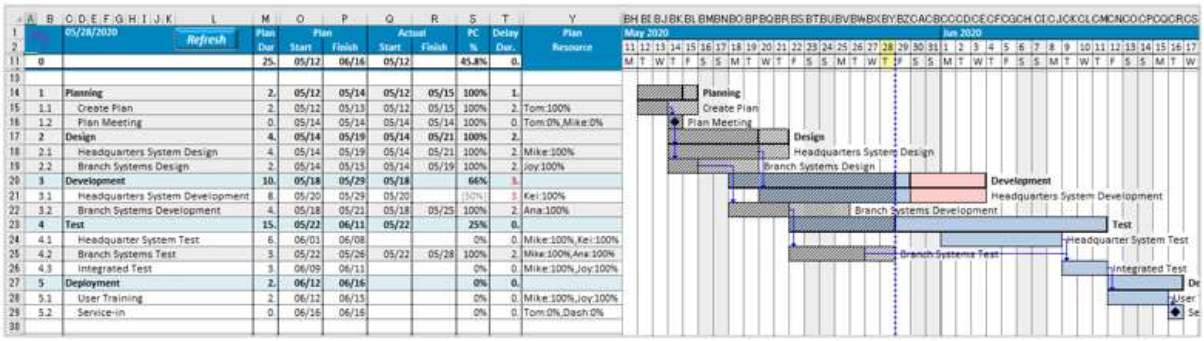
The workload analysis converts the workload of each resource assigned to a project into daily or weekly availability and displays it as a graph or a table to analyze whether resources are properly assigned.

11.1. Analyze Workload

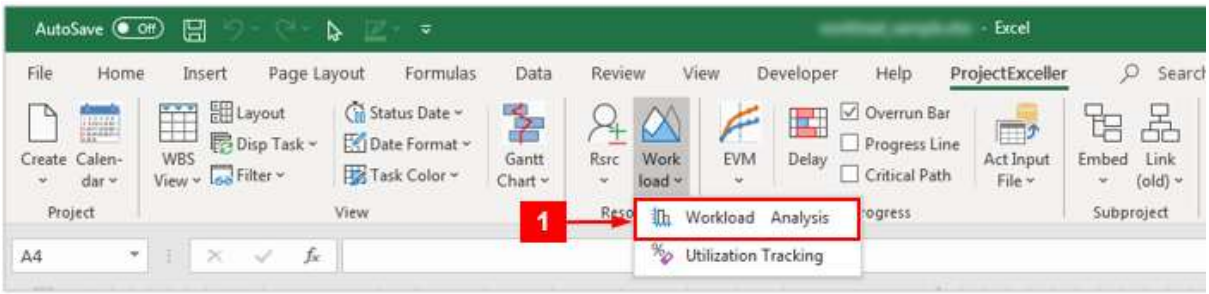
Workload analysis is performed for each project sheet. Analysis results are output as separate sheets on the project file, as a utilization graph or an utilization rate table.
If there are multiple project sheets in the project file, select the sheets to be analyzed and execute each one.

Procedure to Analize Workload

Analize workload on the following sample project:

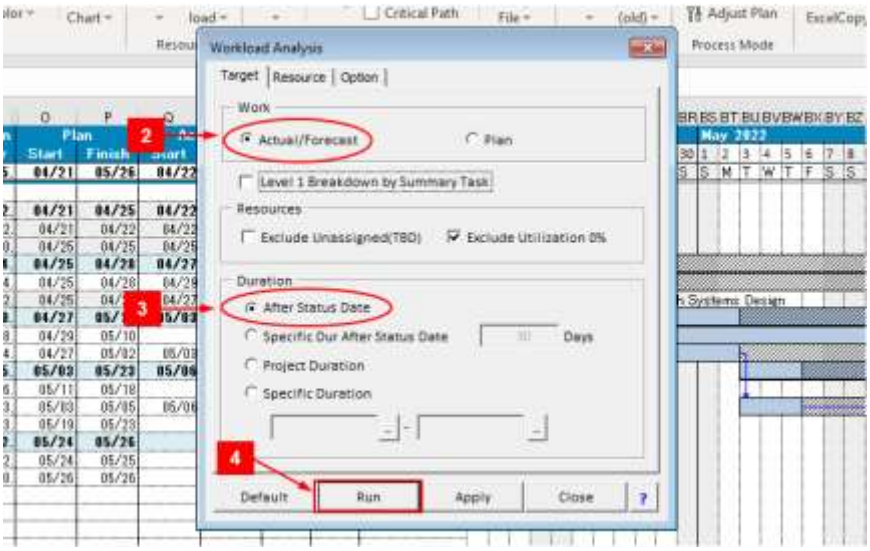


[1] Click [Workload Analysis] from the [Workload] button on the ProjectExceller tab on the ribbon to display the dialog.



In this dialog, you can execute by changing the target resource, period, and output graph settings. In this case, set the work [2] to “Actual/Forecast”, and set the duration from now on (post the status date).

1. Press the run button **[4]** to start analysis.



The workload analysis result sheet is created on the right of the project sheet as shown in the following figure.

2. Analysis Result Sheet

When created, a daily utilization graph chart for each resource is displayed. You can switch the type of result sheet from the [View Change] **button ([9]).**

[6] Status Date Line

Indicates the status date of the project.

[7] Plan End Date Line

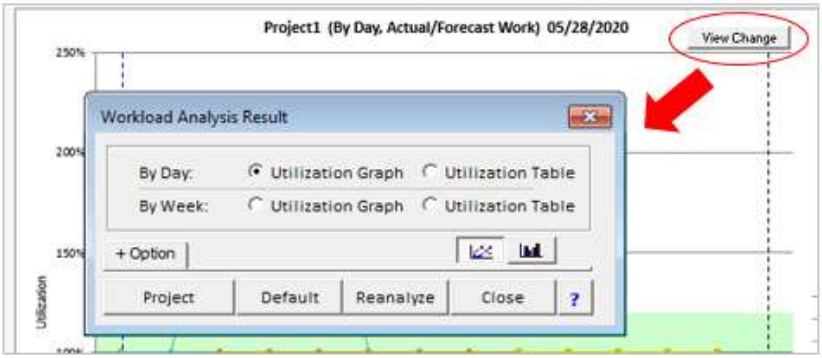
Indicates the planned finish date of the project.

[8] Tolerable Utilization Range

It can be set as a guideline for proper management. By default, the operating rate is 80-120%, but it can be changed from the dialog at the time of execution or [View Change] button (**[9]**).

[9] View Change

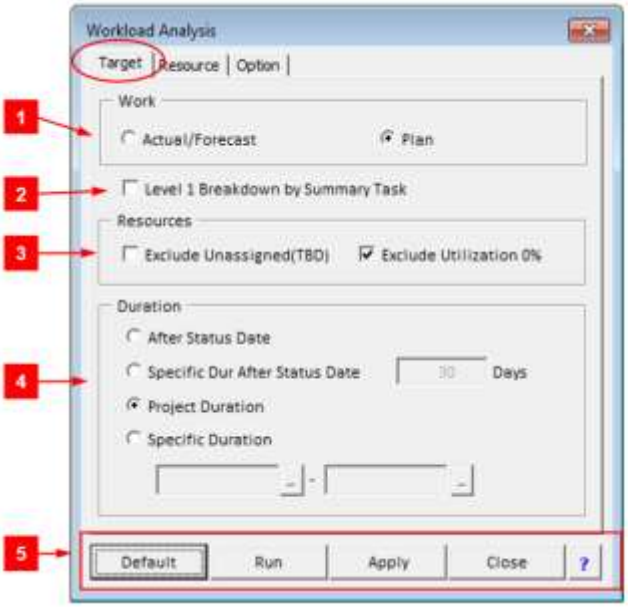
There are four types of result output: daily and weekly graphs and tables. You can switch these graphs, tables and narrow down the target resources.



Workload Analysis Dialog

Describes the items in the dialog box that appears when you perform workload analysis.

Analysis Target Tab



[1] Work

- Actual / Forecast

It is not based on project planning, but on the basis of actual and forecast data. The analysis target is the actual period, actual man-hours, and actual resources for completed tasks, and for uncompleted tasks, the utilization rate of each resource is calculated based on the predicted period, estimated man-hours, and planned resources.

- Plan (default)

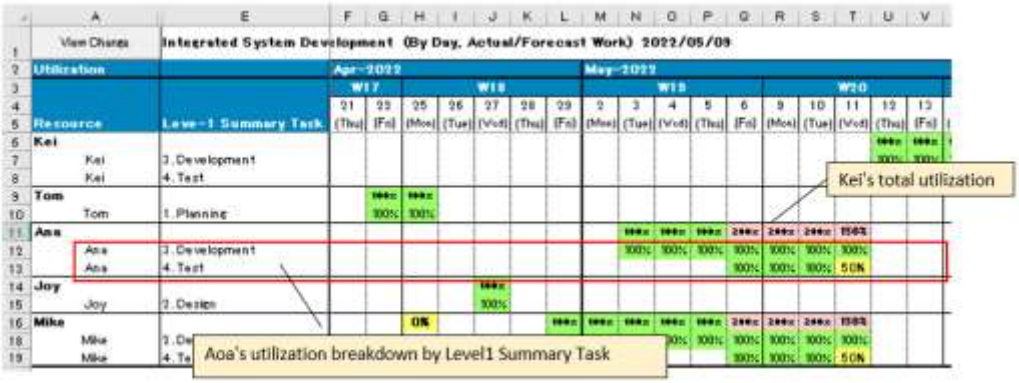
Analyze based on the plan. An analysis target is a planned duration, planned work, and planned resources.

[2] Breakdown by Level 1 Summary Task

It displays a breakdown by level 1 summary task in the utilization rate table and work(man-day) table.

Memo: Useful usage example:

If you set up subprojects as a level 1 summary task of the master project, you can also display resource utilization rates by subproject. This facilitates coordinating resource allocation among subprojects.



[3] Resources

■ Exlude TBD

If no resources have been allocated to the task, the planned resources are displayed as "TBD" (meaning "To Be Determined"). If enabled on this option, do not include TBD as analysis target. If disabled, it is analyzed including TBD resources, so when the utilization rate of resource name “TBD” shows 200%, it indicates that two people are not allocated.

■ Exclude Utilization 0%

If a resource is not allocated to a task in the entire analysis period, then that period has a utilization rate of 0%. If enabled on this option, excludes utilization 0% resources for analysis. For example, when identifying resources with their utilization rate below the lower limit, the resource with utilization 0% is excluded from the scope.
If disabled, the resource with its utilization 0% will be included for analysis scope. You will see which resources have not been assigned work and their duration.

[4] Duration

Specify the target duration to analyze. When adjusting the allocation of resources in the future, specify "After Status Date" as the duration and "Actual/Forecast" as the analysis work.

1. After Status Date (default)

It is suitable for future resource allocation adjustments based on current progress and results. In this case, it is better to specify “Actual/Forecast” for the Work option.
The final day of the analysis duration is the maximum forecast finish date.

2. Specific Dur After Status Date

Suitable for future resource allocation adjustments based on current progress and results. In this case, it is better to specify “Actual/Forecast” for the work option.
Because you can specify the length of the analysis period, you can concentrate on the most recent period when you need to make specific adjustments.

3. Project Duration

Analyze the entire period from the start to the end of the project. In this case, the end date of the analysis period will be the planned end date of the project, or the maximum actual date, whichever is larger.
Note: By not including the forecast period, we prevent the analysis period from becoming unnecessarily long if there is even one uncompleted task.

4. Specific Duration

Analyzes for a specified period of time.

[5] Common Buttons

■ Default

Restore settings to their default values.

■ Run

Start analysis and save the current settings. The saved settings can be used next time.

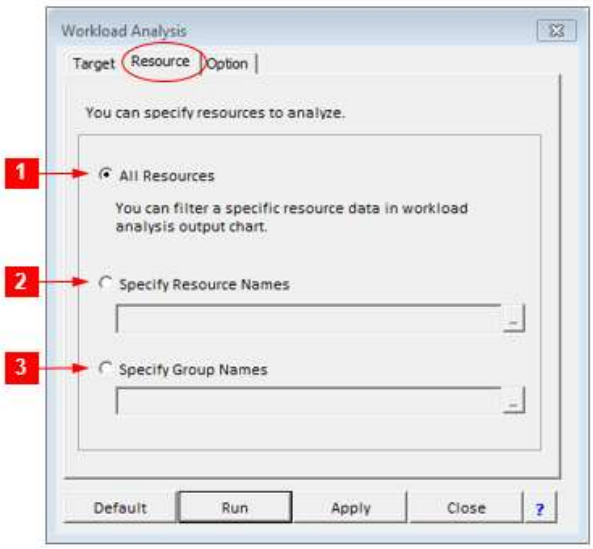
■ Apply

Save current settings. The saved settings can be used next time.

■ Close

Close the dialog

Resource Tab



[1] All Resources

Analyzes all resources on the project sheet. Analysis results are output to workload analysis graphs, sheets, or analysis table sheets.

The View Change button displays the Workload Analysis Result dialog. Only specific resources can be narrowed down and displayed on this dialog.

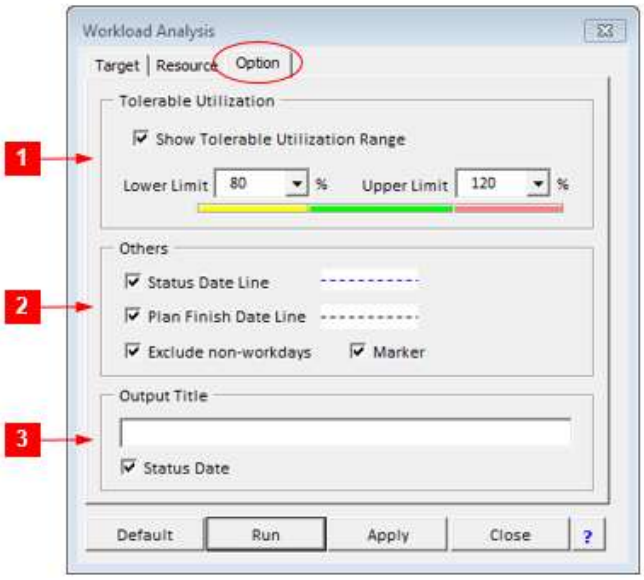
[2] Specify Resource Names

Analyzes only the specified resource.

[3] Specify Group Names

Only resources belonging to a specified specified group are analyzed.

Option Tab



[1] Tolerable Utilization

- Show Tolerable Utilization Range

The tolerable utilization range set on the graph of analysis results is displayed by a band mark.

- Lower / Upper Limit

Set the lower and upper limits of the tolerable utilization rate. The default is 80% and 120% respectively.

On the utilization table, the part exceeding the tolerance range is colored in pink, less than is the yellow range, and the tolerance range is colored in the work day part in green.

[2] Others

- Status Date line

A blue vertical dashed line is displayed at the position of the status date on the graph. The default is to display.

- Plan Finish Date Line

Displays a black vertical dashed line at the planned end date of the project. Default is to display.

- Exclude non-workdays

Non-workdays are not displayed in the graph or table. Default is not to display.

- Marker

Specifies whether to show or hide plot markers on the graph line. The default is to display.

[3] Title

Specify a title text for the utilization graph or table on the analysys result sheet. If nothing is specified, the project name is displayed.

Note: Project Name

The project name is specified in the task name part of the total field in the WBS header of the project sheet, or in the Project Information tab of the option dialog.

- Status Date

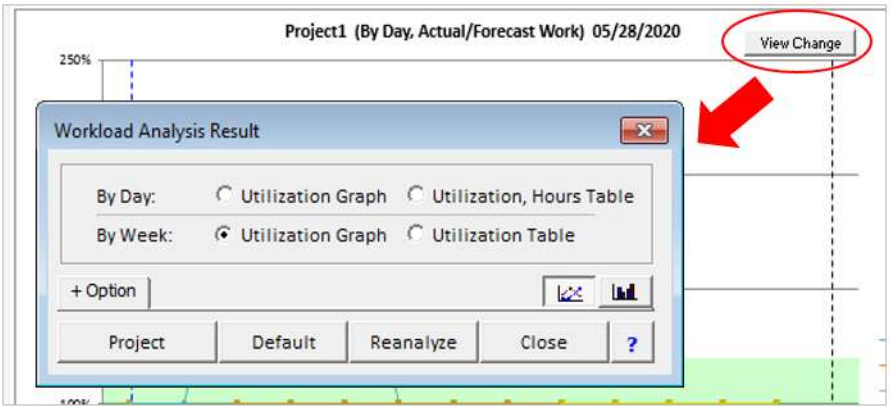
The status report date is displayed on the right of the tile part of the output result sheet.

11.2. Switching Display of Analysis Results

The display format of the analysis result can be selected by the View Change button. You can narrow down the analysis results by the resources and the utilization range.

Workload Analysis Results Dialog

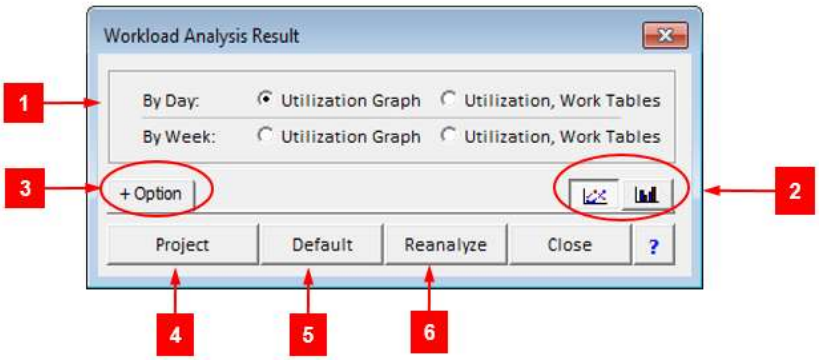
Click the View Change button on the upper right of the analysis result sheet to display the Workload Analysis Result dialog.



The following explains this dialog.

Basic Function Menu

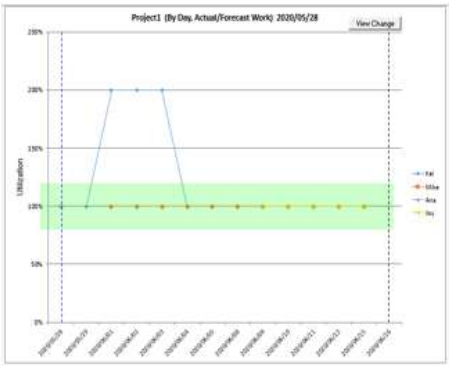
This is a menu of the dialog that is displayed when the View Change button is pressed.



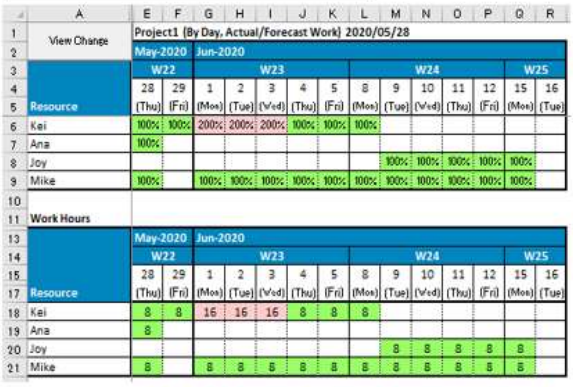
[1] Switching of Analysis Results

The workload analysis results are the following four, but only one can be displayed at a time. Switch the display of the result. The work (man-days) table is created along with the utilization rate table.

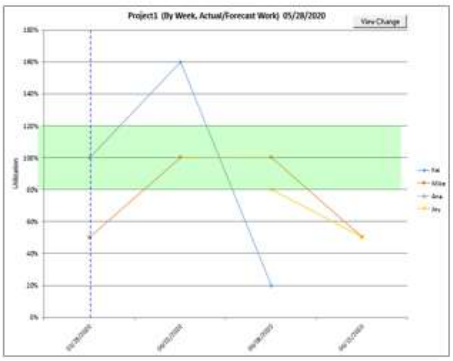
Utilization Rate Graph by Day



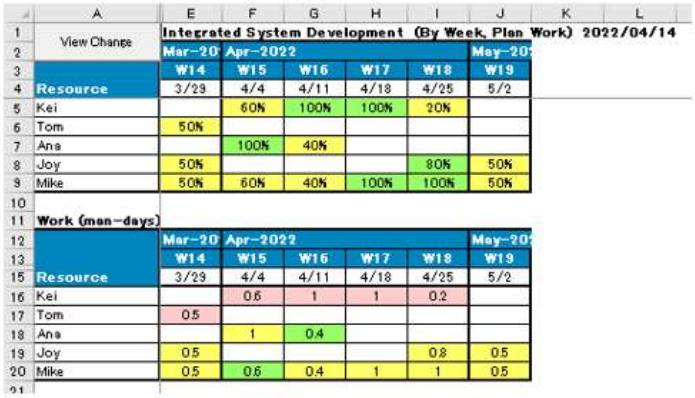
Utilization Rate & Work Hours Table by Day



Utilization Rate Graph by Week

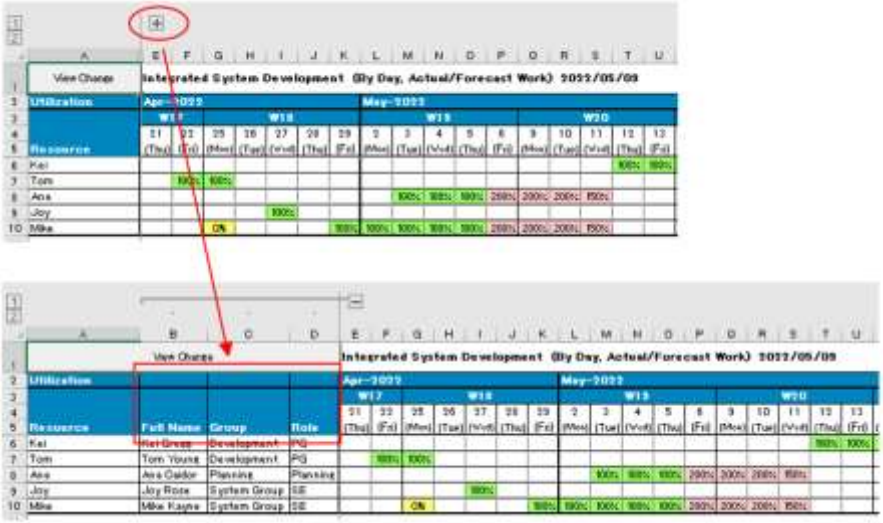


Utilization Rate Table by Week



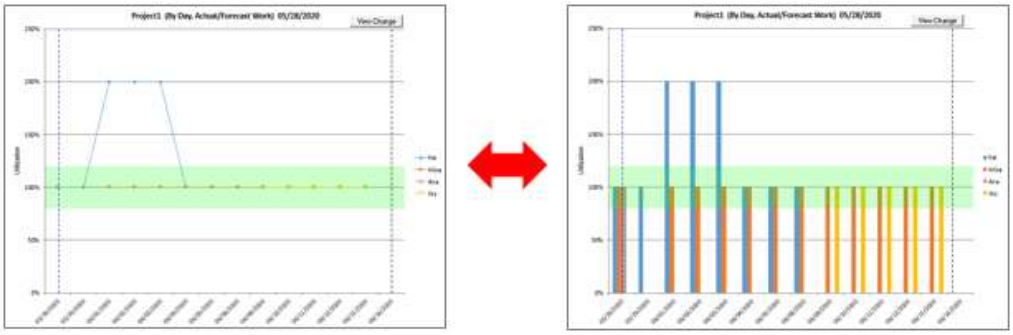
Memo: Display resource information

By clicking on the "+" at the top of the “utilization/work(man-day) table” sheet, you can view the resource's name, group, and role.



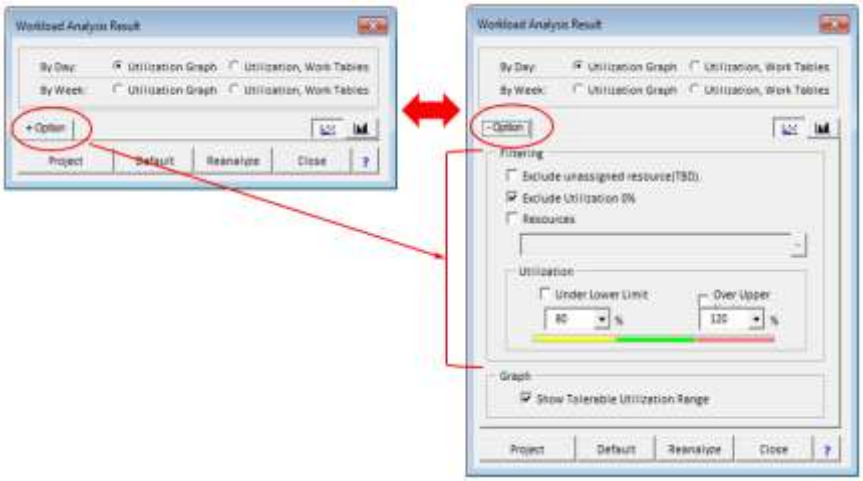
[2] Switching Graph Types

In the case of the utilization graph, you can switch to a line graph or a bar graph.



[3] Show / Hide Option

Show or hide the menu such as the narrowing function.



[4] Project

Switch to the project sheet to be analyzed.

[5] Default

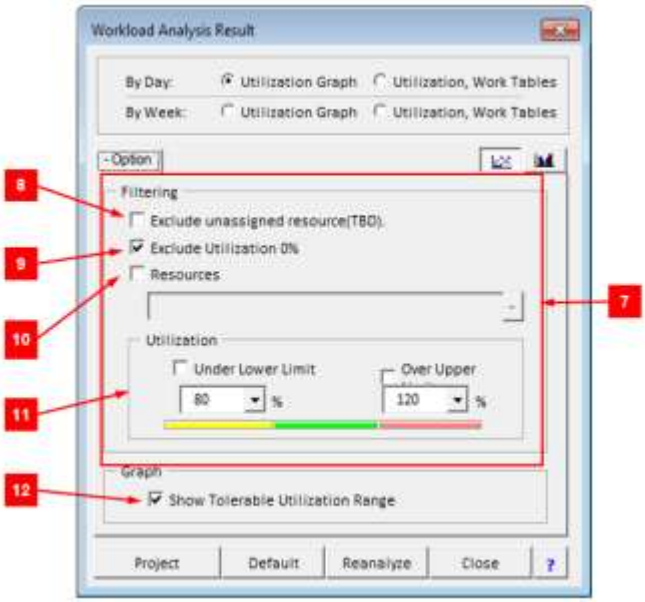
Restore the settings in the Workload Analysis Results dialog to the settings when the result sheet was created.

[6] Reanalze

Perform workload analysis based on the latest project data and update the analysis result sheet.

Option Menu

An additional menu that appears when you press the "+ Options" button on the dialog



[7] Filtering

Display only data that matches the conditions specified in the analysis result data.

Note: The data excluded by the workload analysis is not included in the filtering. For example, when [Exclude unassigned resource (TBD)] is enablded in the workload analysis dialog, the TBD is not included in the analysis result. Even if [Exclude unassigned resource (TBD)] is enabled, TBD resources will not be displayed on the analysis result sheet.

[8] Exclude unassigned resource (TBD)

If no resources have been assigned to the task, the planned resources are displayed as "TBD" (not to be determinded).

- When ON, TBD is not included as analysis target.
- When OFF, analysis is performed including undecided resources, so when the utilization rate of resource name “TBD” indicates 200%, it indicates that two people are not allocated.

[9] Exlude Utilization 0%

If a resource is not assigned to a task in some of the entire analysis period, then that period has a utilization rate of 0%.

- When ON, the utilization 0% is excluded from analysis. For example, when identifying resources that is below the tolerable utilization lower limit with the "Refine" option, if the operating rate is 0, it is excluded from the scope.
- When OFF, the operation rate is also considered 0%. You can identify unassigned resources and their duration.

[10] Resource

When you run workload analysis with default values, it displays the utilization of all the resources assigned to the task during the analysis period.

By specifying the resource that you want to narrow down, you can display only that resource in the output result.

[11] Utilization

- Less than lower limit

Display only resources of which utilization rate is below the lower limit.

- Upper limit exceeded

Display only resources of which utilization rate is over the lower limit.

Note: If both the upper and lower limits are specified, only resources that match either of the conditions will be displayed.

[12] Show Tolerable Utilization Range

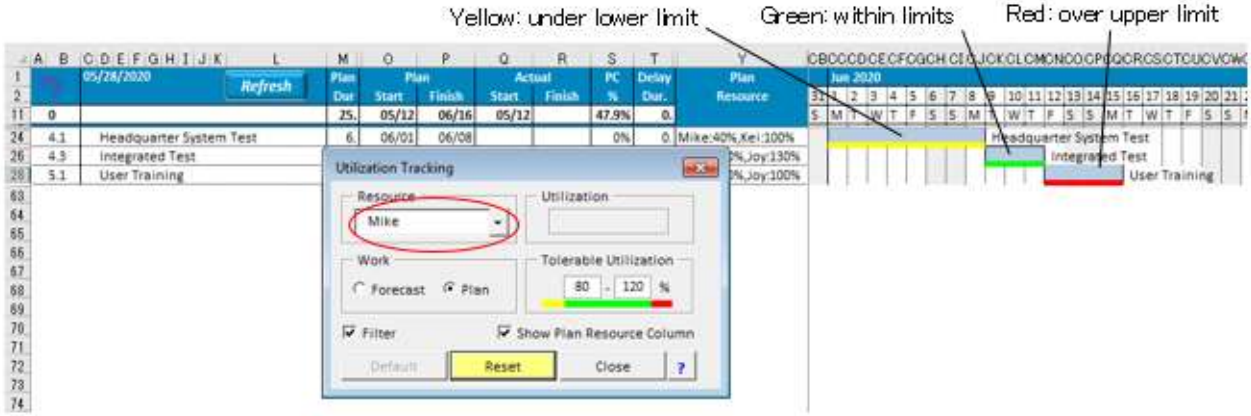
In the case of the utilization rate graph, the rate range is displayed as a green rectangle on the graph.

In the case of the utilization rate table, cells with values within the tolerable range are displayed with green, and cells with values outside the range with yellow background color.

11.3. Utilization Tracking

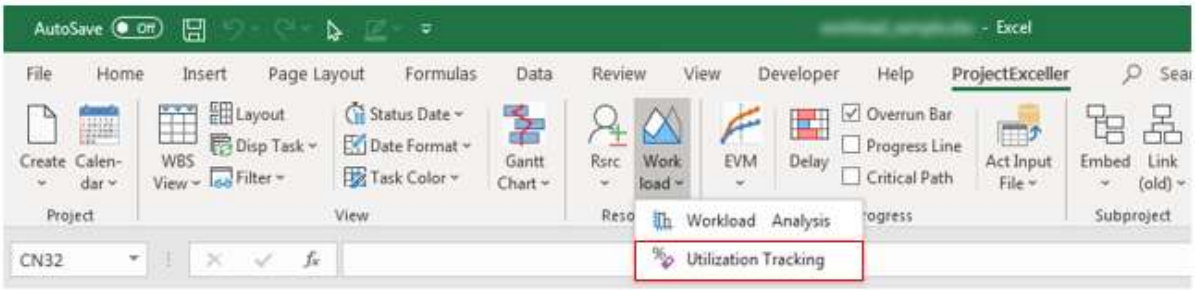
You can check the utilzation status of the specified resource on the Gantt chart. The task bar can be color-coded according to the utilization rate (under, over or in the ulization range) or only the task line can be extracted and displayed. Used in conjunction with the workload analysis feature, resource allocation can be adjusted efficiently.

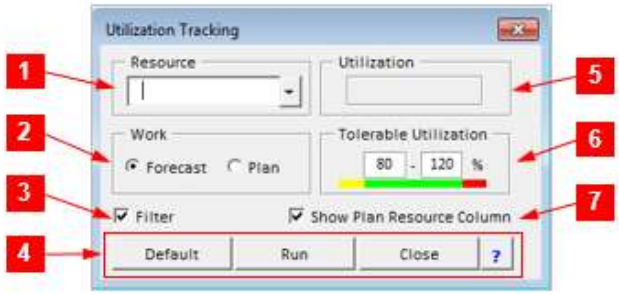
The forecast bar of the task to which the specified resource is assigned, or the part after the status date of the plan bar is color-coded and displayed in three by the operating rate of the resource. You can also extract and display only that task line.
Used in conjunction with the workload analysis feature, resource allocation can be adjusted efficiently.



Dialog

The following dialog will be displayed when you click the [Utilization Tracking] from the [Workload] button on the ProjectExceller tab on the ribbon.





[1] Resource

Only one resource to analyze be specified. Specify a resource and press the [Run] button to color-code the lower part of the task bar to which the resource is allocated into three than the size of the utilization rate of the resource. When extract ([3]) is ON, only the task bar assigned the specified resource is extracted and displayed on the Gantt chart.

- Over Tolerable Utilization Range: Red ■
- In Tolerable Utilization Range: Green ■
- Under Tolerable Utilization Range: Yellow ■

[2] Work

■ Forecast

The utilization rate is calculated based on the duration of the forecasting task and work(man-days), it is color-coded and displayed on the forecast task bars on the Gantt chart after the status date.
If forecaset task bar is not displayed on the Gantt chart, the task bar setting is switched to display the forecast task bars.

■ Plan (default)

The utilization rate is calculated based on the period of planning task and work. It is color-coded and displayed on the planned task bars on Gantt chart after the status date.

[3] Extract

Extract only the task bar assigned the specified resource and display it on the Gantt chart. WBS can be edited when extracting.

[4] Bottom Buttons

■ Defaut

Restore the settings of the utilization tracking dialog to default.

■ Run

Perform the utilization tracking analysis of the specified resource.

■ Close

Close the dialog.

[8] Utilization

When the date field of the Gantt chart header part or any cell of the Gantt chart is selected, the utilization rate of the analysis target resource for that date is displayed. In addition, the background color is displayed in three colors, red (above tolerance), green (within range) and yellow (below), based on the tolerable utilization rate range.

[6] Tolerable Utilization

Displays the range (upper and lower limit value) of the tolerable utilization rate which is the basis for color-coding the task bar.

Note:

In this dialog, you can only view the range of tolerable rate currently set for the project, and you can not change it. If you want to change the tolerable utilization rate, you need to change it in the Workload Analysis dialog.
The Workload Analysis dialog can be displayed by clicking the [Workload] button on the ribbon and then [Workload Analysis].

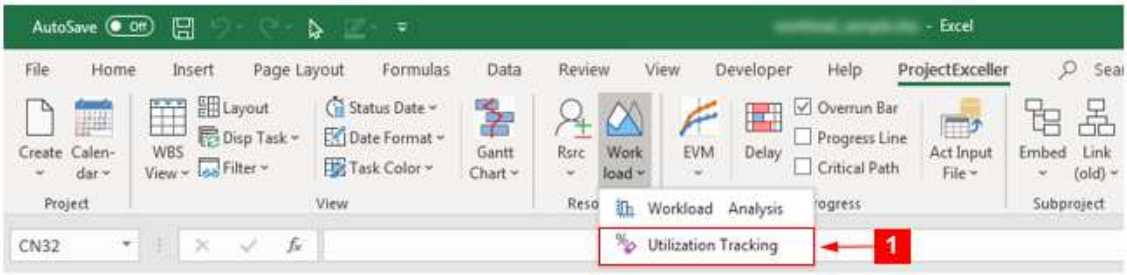
[9] Show Plan Resource Column

When this is turned on, the Planned Resources column is displayed on the WBS. It will not be displayed if you turn it off.

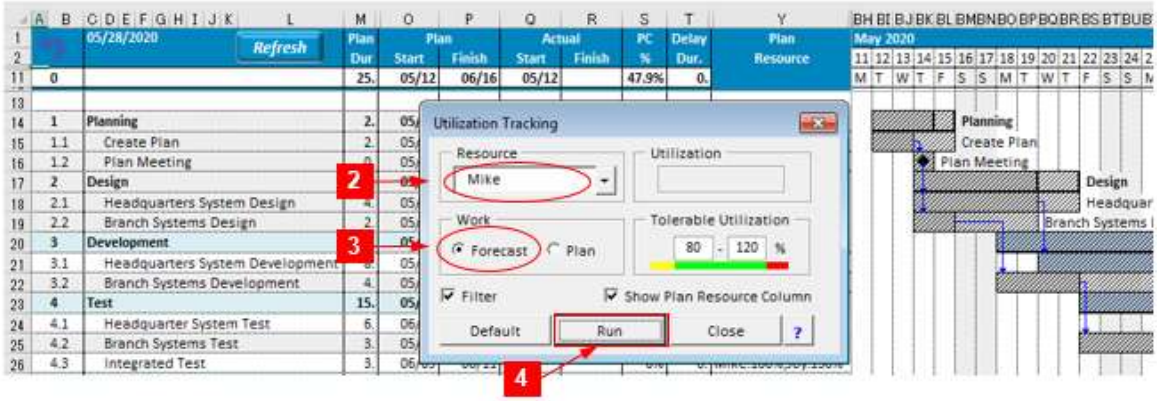
Operating Procedure

The sample project demonstrates the operation.

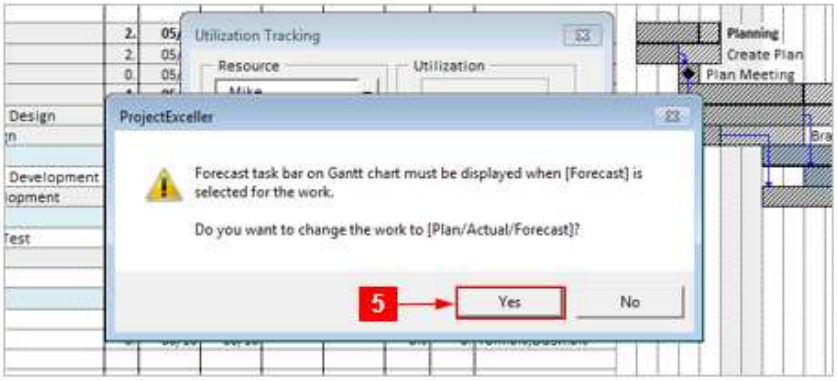
[1] Launch Utilization Tracking from the ribbon and display the dialog.



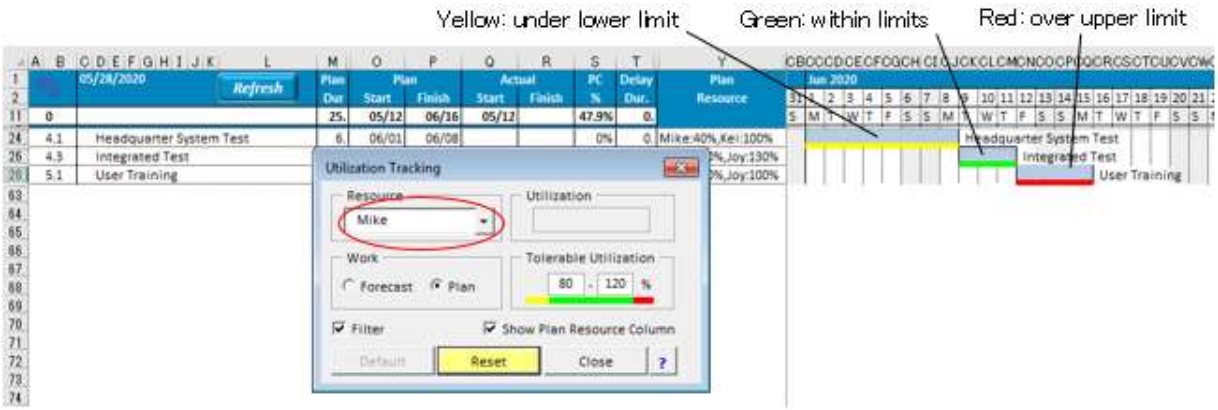
[2] Specify person “Mike” as a resource to be analyzed.
[3] Select "Forecast" as the Work to analyze the future.
[4] Start analysis with Run button.



[5] Since "Forecast" is selected for the Work, the Gantt chart display is switched to the forecast task bar.

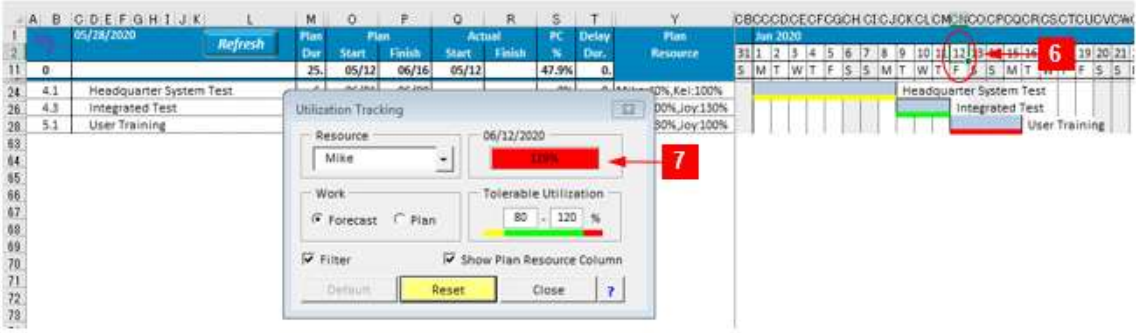


Only Sato's task line is displayed on the Gantt chart. The bottom of the task bar is color-coded into three according to the utilization rate predicted for each date. It can be seen that the red or yellow part deviates from the tolerable utilization rate range.



[6] The utilization rate of each date can be known by selecting the date of Gantt chart date header. Select the cell of September 27.

[7] The utilization rate of the selected date is displayed on the dialog. The rate on September 27 is 121%.

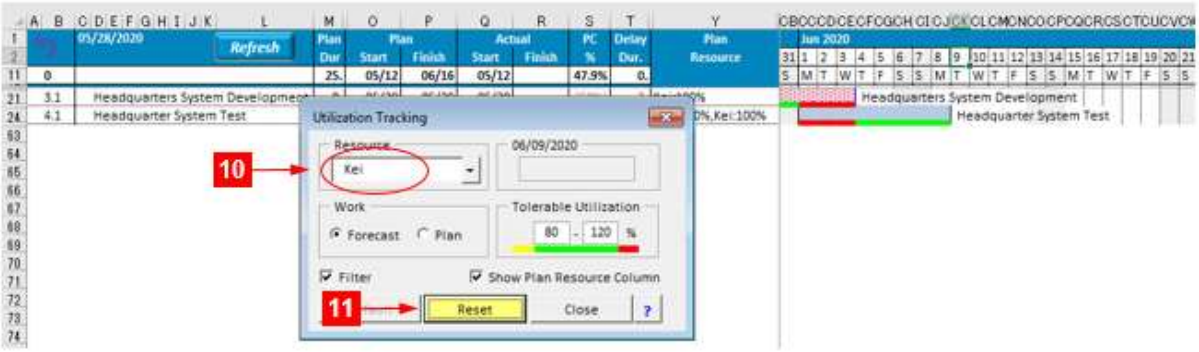


[8] Select the cell of September 30th.

[9] You can see that the utilization rate is 100%.

[10] Change the resource to person "Kei". The displayed task changes to Kei.

[11] Press the [Cancel] button to cancel the analysis result display. If you want to end utilization tracking, press the [Close] button.



Chapter 12. EVM Analysis

EVM (Earned Value Management) is a method for objectively evaluating the progress of a project based on earned value. With ProjectExceller, you can achieve full-fledged EVM simply by inputting plan and actual dates without any special EVM knowledge or experience. In addition to EVM analysis of the entire project, you can specify various options for more detailed analysis.

12.1. What EVM is

How can you accurately track the progress of a project?
For example,

• Ask the person responsible for the task to report what percentage is completed.

・ How many of the planned number of deliverables have been completed?

• How many of the tasks you plan to complete to date have been completed.

-Calculate the difference (delay period) between the planned end date and the actual end date of the task, and sum the total.

These methods may give you some idea of your progress in a limited range of tasks and phases. However, depending on the content of work, workers and managers, the weight of each task is unclear, and there are various problems, it is not possible to objectively grasp the progress of the entire project.

ProjectExceller solves these problems using a technique called EVM.EVM is a method that uses 'Earned Value' (EV) to quantitatively grasp the progress of the entire project process and perform an objective evaluation independent of individuals or organizations. This allows you to objectively evaluate a project both in terms of schedule and cost.

Note: What is volume (EV)?
Also called EV (Earned Value). A plan value that has been assigned to the work completed at a certain point in time at the time of planning. Use 'man-days' or 'amount of money' as the unit of volume.
For example, if a task is to create 10 test cases for 10 days at a pace of 1 per day,
The plan value (PV) is 5, (5 test cases created), which is 5 man-day work. If it actually takes only four man-days, the EV on the 5th would be four man-days.

12.2. EVM Basics for ProjectExceller

This is an easy-to-understand explanation of the basics of EVM using simple samples, which you should refer to before using EVM functions.

. https://projectexceller.com/doc/evm_basic/

12.3. Features of EVM function of ProjectExceller

With ProjectExceller, you can achieve full-fledged EVM simply by inputting the planned date and the actual date without any special EVM knowledge or experience. In general, EVM analysis, you only need to create EVM graphs of PV and EV of the entire project. However, ProjectExceller also provides the following functions.

- Automatic creation of EVM graphs for PV, EV and AC
- EAC analysis based on standard EAC and CPI
- Detailed management by specifying the task achievement rate

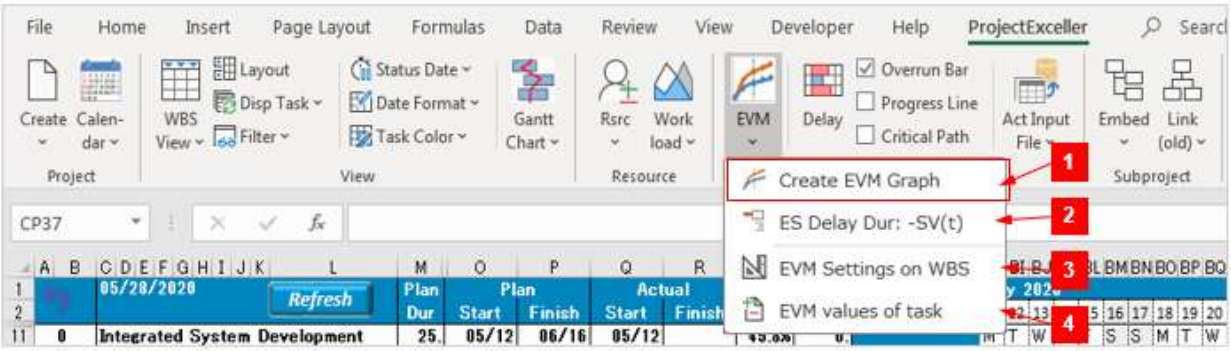
- Narrow down analysis by analysis by resource, group, and summary task
- Comparative analysis by creating multiple graphs of multiple analysis targets (resources, groups)
- Selection of man-hour or cost (amount) unit
- Multiple analysis settings and results coexist on the same project file
- Automatic correction at the beginning of task start by automatic EV calculation
- Management of EVM index data for each task (BAC, PV, EV, AC, SV, CV, SPI, CPI)

Starting with version 2.020 of ProjectExceller 2, the latest EVM function, ES (earned schedule), has been introduced so that projects can be evaluated based on time (period) as well as conventional costs (man-hours and costs). As a result, the following functions have been added.

- Calculation of objective delay period based on EVM analysis (ES delay period)
- Project completion date based on EVM analysis.
- Application of the schedule efficiency index “SPI (t)” based on the period.
- Creation of efficiency index graphs (SPI, CPI)
- EVM index values are displayed in a table (EVM data table)

EVM analysis ribbon menu

Click the "EVM Analysis" button on the "ProjectExceller" tab of the ribbon, and you can select the following four submenus.



[1] Create EVM Graph

Select various options and create an EVM graph according to your purpose.

[2] ES Delay

The delay duration calculated by the ES (Earned Schedule) method of EVM analysis. Suitable for evaluating an entire project. This is different from the ‘Delay Dur’ and ‘CPM Delay’ on WBS.

[3] EV Settings on WBS

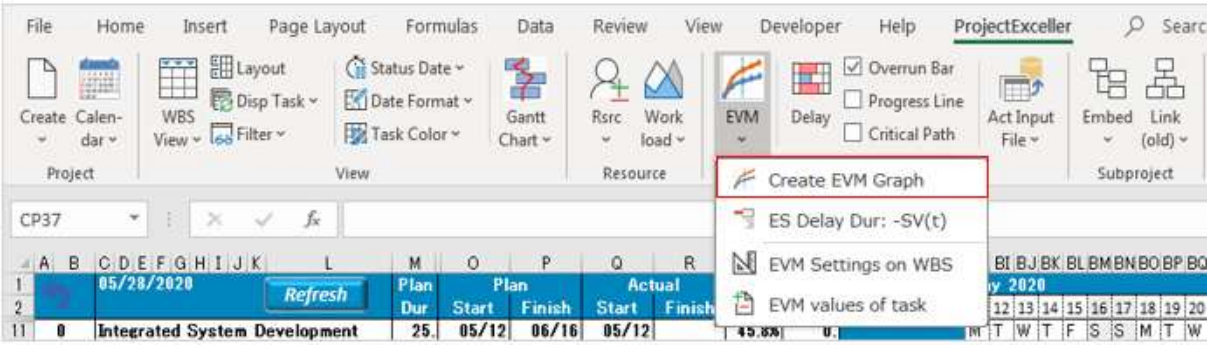
Set the upper limit of EV automatic accounting when calculating EVM data in WBS, and the unit of EV value (man-hour or amount).

[4] EVM values of task

Displays all EVM index values of the task on WBS.

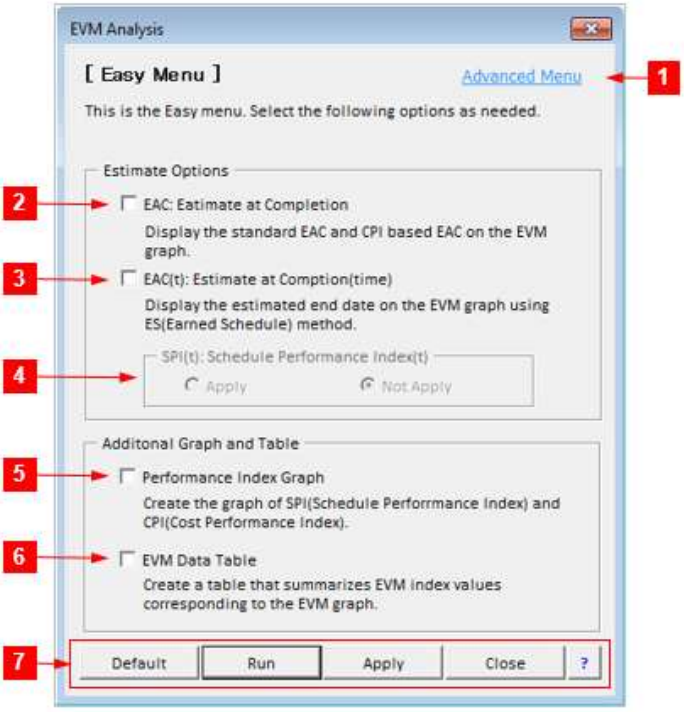
12.4. EVM Analysis Dialog

Select ‘Create EVM Graph’ from the submenu of the ‘EVM Analysis’ button on the ribbon to display the ‘EVM Analysis’ dialog. All settings for the EVM analysis are specified in this dialog. There are two main menus, ‘Easy Menu’ and ‘Advanced Menu’. For standard use, select "Easy Settings". To set more detailed analysis contents and output format, select ‘Advanced Menu’.



Easy Menu

The Easy Menu can perform EVM analysis with standard settings. You can easily create EVM graphs for the entire project with PV, EV, and AC by pressing the Enter key. You can select several options as needed.



Switch to the advanced menu. If you want to analyze with more detailed specifications such as analysis by resource, please switch to the Advanced.

[1] Advanced Menu

Switch to the Easy Menu.

[2] EAC: Estimate at Completion

Display the cost estimate at completion (EAC) in the EVM graph. Displays two forecast lines, ‘Standard EAC’ and ‘ECA based on CPI’. "Cost" in EVM analysis of ProjectExceller is ‘man-day’ or ‘amount of monay’.

Memo:

Standard EAC: Cost estimate at completion when the future cost efficiency is as originally planned (CPI = 1).

EAC based on CPI: Cost esitamte at completion when future cost efficiency (CPI) is assumed to be the same as past performance.

[3] EAC (t): Eatimate at Completion(time) or Estimated End date

The Estimated End Date (EAC (t)) calculated by the ES (Earned Schedule) method of EVM analysis is displayed on the EVM graph.

[4] SPI (t): Schedule Performance Index (t)

EAC (t) (Estimated end date) is calculated by the following formula. The default value is ‘Not Apply’.

EAC (t) = AT + (SAC – ES) / SPI (t)

- **Apply**
  Apply the SPI (t) value of the status report date to the above formula. You can get a forecast end date assuming that your performance has remained the same.
- **Not Apply**
  Calculate EAC (t) assuming SPI (t) = 1. This will give you an estimated end date, assuming future performance will be as planned.

Note:

- SPI (t) indicates that 1 is as planned, if it is greater than 1, it is advanced, and if it is less than 1, it is delayed.
- SPI (t) is different from SPI. SPI is a schedule efficiency calculated from a cost perspective.

[5] Efficiency index graph

Create another efficiency index graph separately from the EVM graph. The graph shows two data, the Schedule Peformance Index (SPI) and the Cost Performance Index. This gives you a more accurate picture of trends and trends in schedules and costs.

[6] EVM Data Table

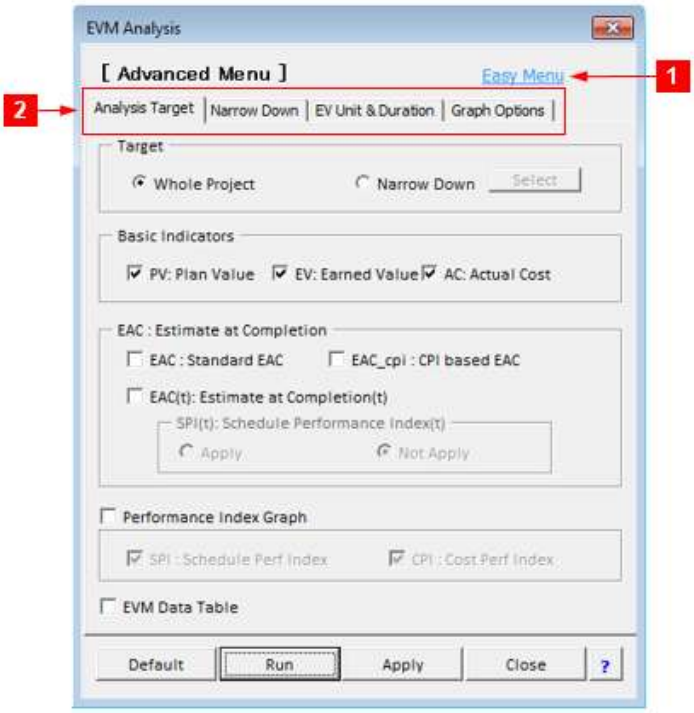
Various index values at the present time (status date) on the created EVM graph are displayed in a table in an easy-to-understand manner. In addition to the rough trends shown in the graphs, you can grasp the situation with specific numerical values.

[7] Common Buttons

Default: Returns to the default settings.
Execution: Create an EVM graph.
Apply: Saves the selected options and sets them the next time you start up.
? (Help): Displays the corresponding section of the user guide.

Advanced Menu

In the "Advanced Menu", you can make detailed settings for the analysis target, output format, conditions, etc. From this menu, you can perform EVM analysis by resource, group, and summary task.



[1] Easy Menu

Switch to 'Easy Menu".

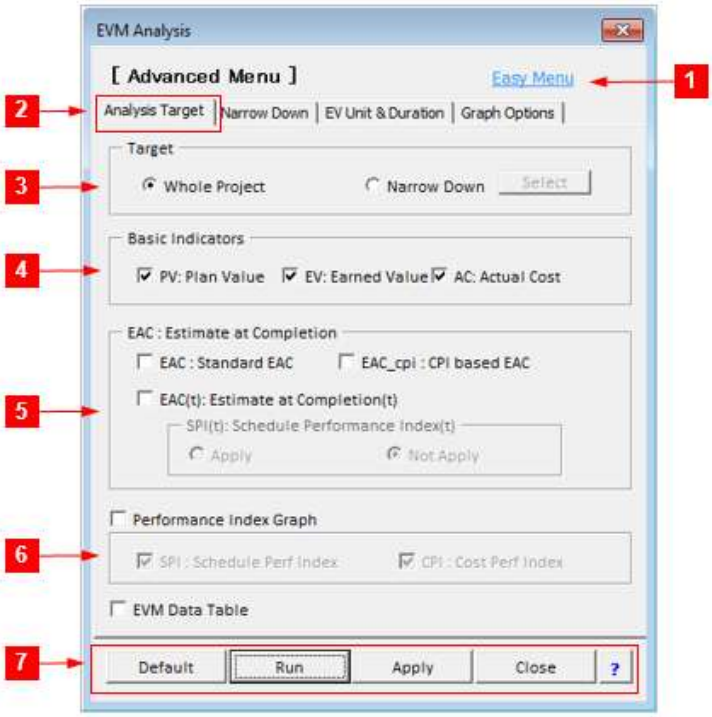
[2] Tabs

You can select options on the following four tabs.

- **Analysis target**
  Specify charts, tables, metrics to be analyzed, etc.
- **Narrow Down**
  You can specify individual elements (resources, groups, summary task) .
- **EV Unit & Duration**
  You can specify the EV unit (man-day or amount of moeny) and the analysis duration.
- **Graph Options**
  You can specify display options and output for the output graph.

Analysis Target Tab

Specify graph charts, tables, metrics to be analyzed, etc.



[1] Target
Select what to analyze for the project. Select "Refine" to switch to the refinement tab.

[2] Basic Indicators
Specify the index value of the EVM graph. PV is required, EV and AC can be selected as options.

[3] EAC: Estimate at Completion
Displays EAC (cost at completion) values on the EVM graph. EAC can be one or both of the following:

- **Standard EAC:**
  Predicted cost at completion, assuming that future cost efficiency is as originally planned (CPI = 1).
- **EAC based on CPI:**
  EAC calculated by assuming future cost performanceis the same as past performance.

[4] EAC (t): Estimate at Completion(time) or Estimated End Date
The estimated end date (EAC (t)) is calculated and displayed on the EVM graph using the ES (Earned Schedule) method of EVM. When calculating, you can select whether to apply SPI (t) which is time-based 'Schedule Performance Index'.
Memo: SPI (t) indicates that the value of 1 means 'on schedule', the value equal or greater than 1 means 'ahead of schedule', and the value less than 1 means 'behind schedule'.

- **Apply**
  Aassume that the project will proceed in the future with the past performance up to now.
- **Not Apply**
  Assume that the process proceeds with efficiency as originally planned. That is, SPI (t) = 1.

[5] Performance Index Graph

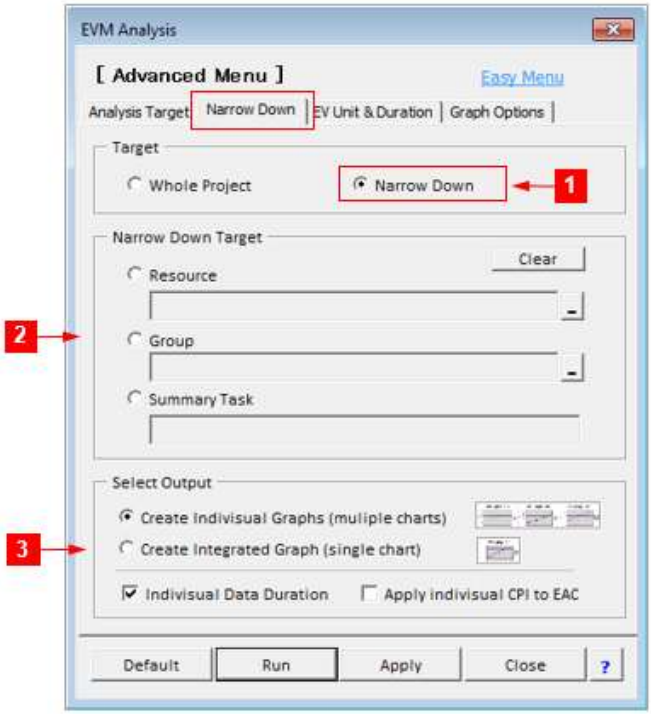
It Creates another performance index graph in addition to the EVM graph. The graph shows two data lines, the Schedule Performance Index (SPI) and the Cost Performance Index. This gives you a more accurate picture of trends and trends in schedules and costs.

[6] EVM Data Table

It creates a table that displays various index values for the current day (status date) in an easy-to-understand manner. In addition to the rough trends shown in the graphs, you can grasp the situation with specific numerical values.

Narrow Down Tab

Instead of the entire project, you can specify the elements (resources, groups, summary task) of the project.



[1] Narrow Down

Select this option if you want to perform EVM analysis not on the entire project but on its resources, groups, and summary tasks.

[2] Narrow Down Target

The target can be selected from resources, groups, and summary tasks, and specify the specific target data for each.

[3] Select Output

You can select the output format of the graph when narrowing is selected.

- **Create Indivisual Graphs (muliple charts)**

For example, if you select a resource to narrow down and specify resources as resources and specify A, B, and C, they will be displayed in separate EVM graphs. For three people, three EVM graphs are created simultaneously.

- **Create Integrated Graph (single chart)**

EVM analysis is performed by regarding the tasks of A, B, and C resources as one project. In this case, it is displayed in one EVM graph. Each resource data is not displayed on the graph.

- **Indivisual Data Duration**

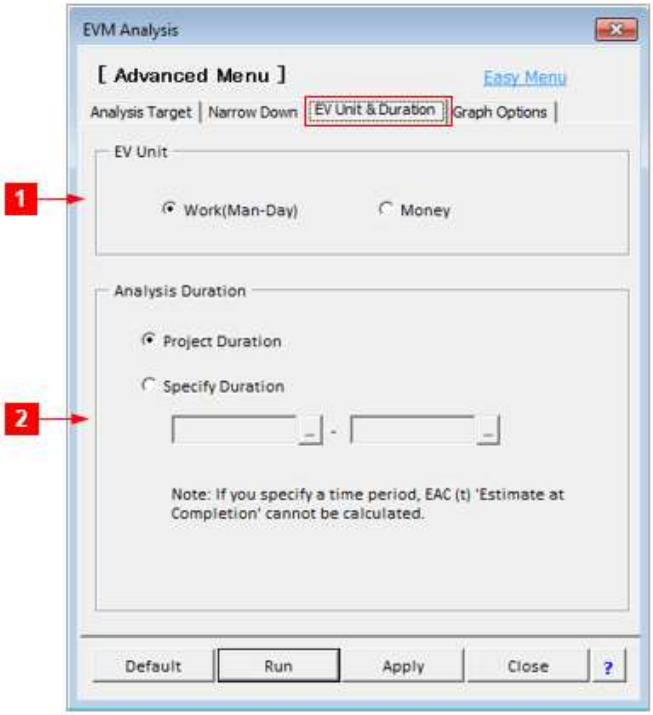
The duration for EVM analysis is the entire project period by default. When this option is enabled, it applies only when you specify specific targets for analysis, such as resources, groups, and summary tasks. For example, if resource 'A' is specified as a resource to be analyzed, the analysis will be between the minimum and maximum days of the period to which resource 'A' is assigned.

- **Apply indivisual CPI to EAC**

If 'EAC based on CPI' is enabled on the 'Target Analsys' tab and this option is turned ON, the CPI used to calculate the EAC of the target data will be an indivisual CPI for each data. If this option is OFF, the project-wide CPI will be used.

EV Unit & Duration Tab

You can specify the EV unit (man-day or amount of cost) and the analysis duration.



[1] EV Unit

EVM analysis unit can be either man-hour or amount. The default value is effort.

Note: If you choose an amount, you must set a standard unit price for the project. Click the "Option" button on the ribbon and set the standard unit price on the resource tab.

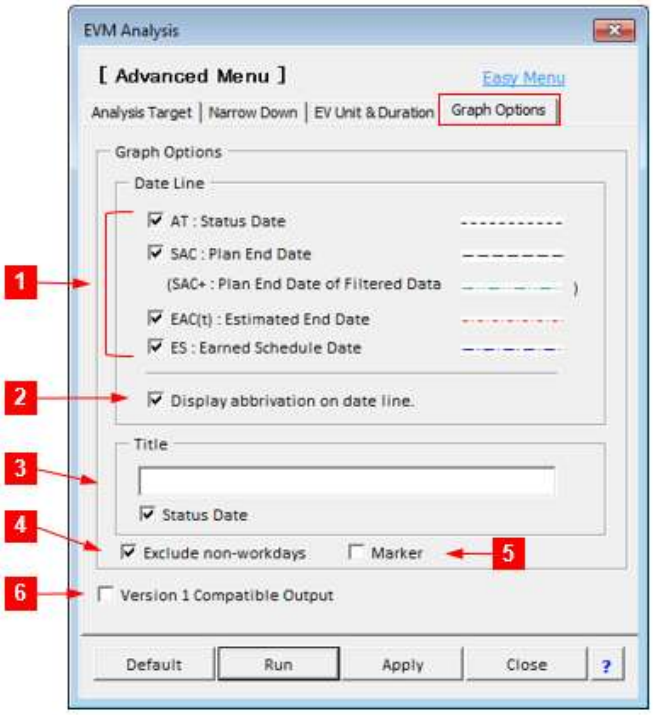
[2] Analysis Duration

You can specify the period for EVM analysis.

Note: if specified other than the project duration, EAC(t): Estimated End Date may not be calculated correctly. Please select the project duration if you do not have any specific purpose.

Graph Options Tab

Various graph options and ‘Version 1 Compatible Output’ can be specified.



[1] Date Line

It displays the date line on the EVM graph and Performance Index graph. Default is ON.

[2] Display abbrivation on date line

Default is ON. Example) **'AT'** for the status date line.

[3] Title

You can specify a title that appears at the top of the chart. If not specified, the project name will be displayed in the title of the graph, and if no project name has been set, the project sheet name will be the title of the graph. Default is blank.

[4] Exclude Non-Workdays

It does not display non-workdays on the date axis of the graph. This makes the graph easier to read. Default is ON.

[5] Marker

It enables markers on the graph. Default value is OFF.

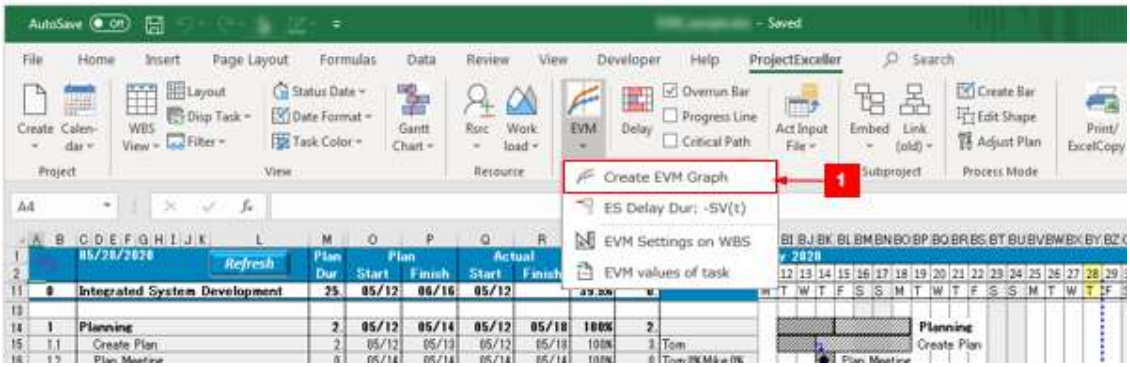
[6] Version 1 Compatible Output

The output format is the same as ProjectExceller version 1.

Note: If enabled, the following features are disabled. EAC(t), Performance Index Graph, EVM data table. Default is OFF.

12.5. Create EVM Graph

This section describes the procedure for creating an EVM graph. Let's create an EVM graph using the following sample project.



Click the EVM graph (**[1]**) from the ProjectExceller tab on the ribbon to launch the EVM analysis dialog.

EVM Basic Indicators

There are three basic indicators for EVM analysis.

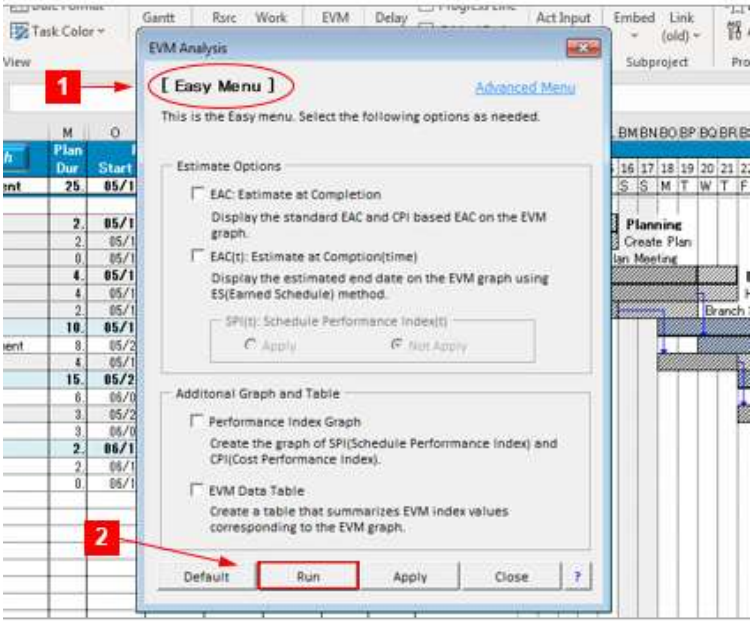
- **PV (Planned Value):**
  The 'man-days' or 'amount of cost' required for the work estimated at the time of planning.
- **EV (Earned Value):**
  The value assigned at the time of planning for work (or deliverables) that has been completed up to a certain point.
- **AC (Actual Cost):**
  Cost (man-hour or cost) actually required up to a certain point of time.

Also, the overall plan value is called "Budget at Completion (BAC)".

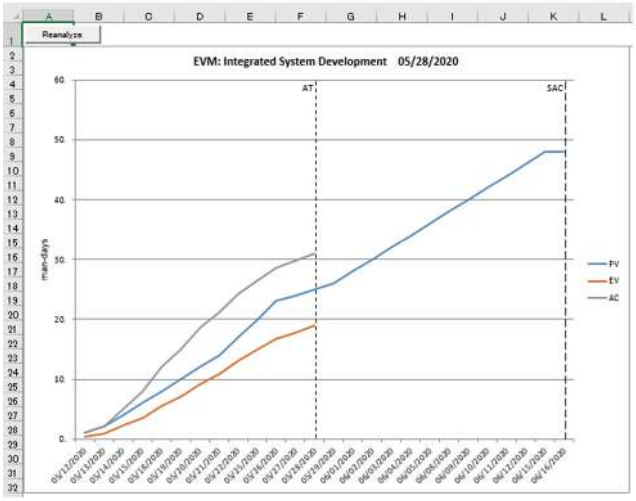
- **BAC (Budget at Completion):**
  The total planning value required to complete the task estimated at the time of planning.

Basic Graph: PV, EV, AC

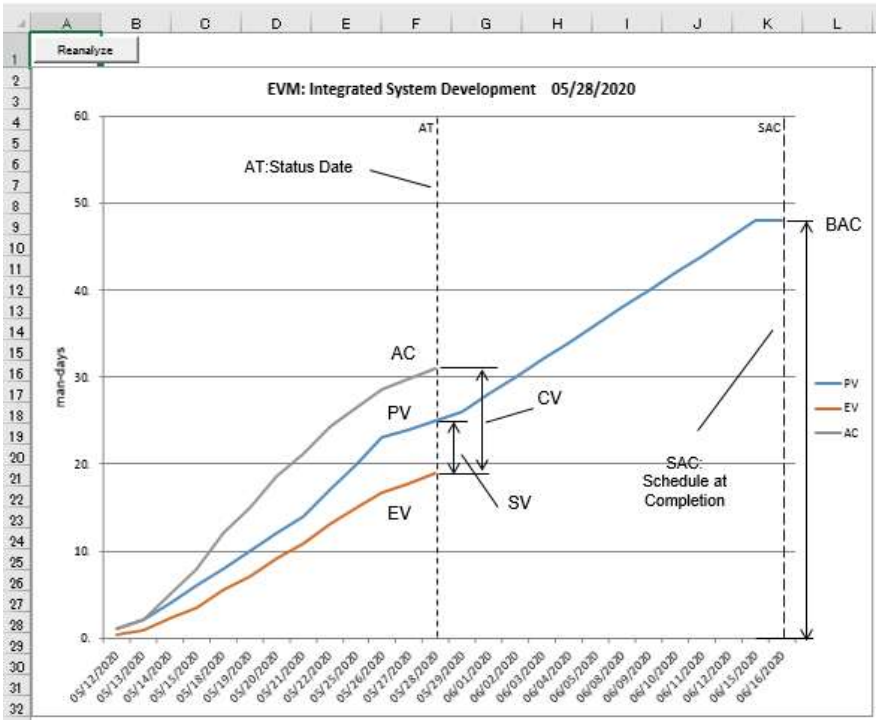
Let's create an EVM graph consisting of basic indicators of PV, EV, and AC.



Select 'Easy Menu' from the EVM analysis dialog and press the Enter key without selecting any options to create an EVM graph sheet.



This graph is the standard EVM graph consisting of PV, EV, and AC, which are the basic indicator values of EVM. From this graph, you can objectively know the progress of the project at the present time in terms of cost (man-day or amount of cost).



In this sample, you can see that the work is behind schedule because PV> EV. This difference is represented by the value of SV.

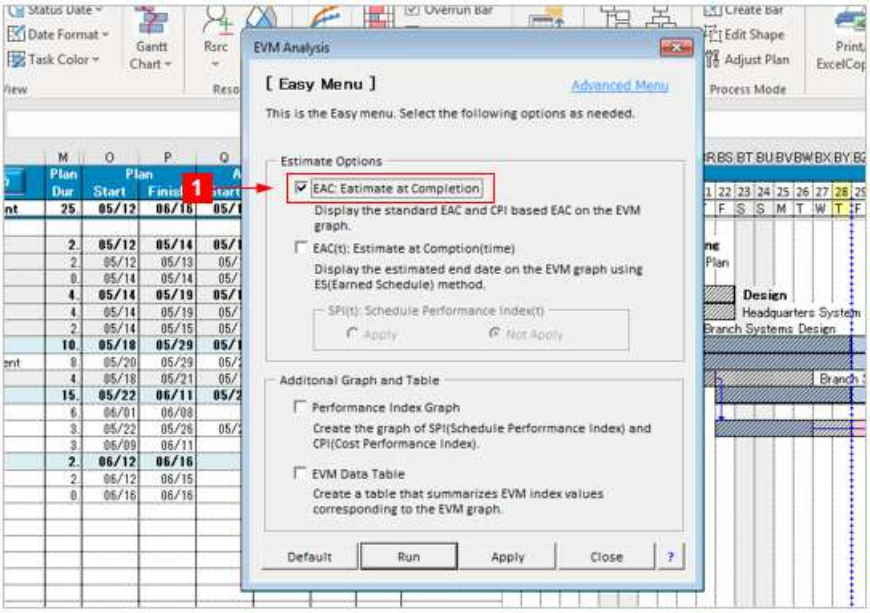
- **SV (Schedule Variance):**
  It is one of the indicators to evaluate the progress of work at a certain point of time. It is calculated by the following formula.
  SV = EV – PV
  If SV> 0, it is ahead of schedule, if SV <0, there is a delay, and if SV = 0, it is as planned.
  Also, in this example, the actual cost is less than the planned cost because PV> AC. This difference is represented by the value of CV.

- **CV (Cost Variance):**
  It is one of the indicators to evaluate the progress of work at a certain point of time. It is calculated by the following formula.
  CV = EV-AC
  CV> 0 indicates on budget, CV <0 indicates over budget, and CV = 0 indicates on budget.

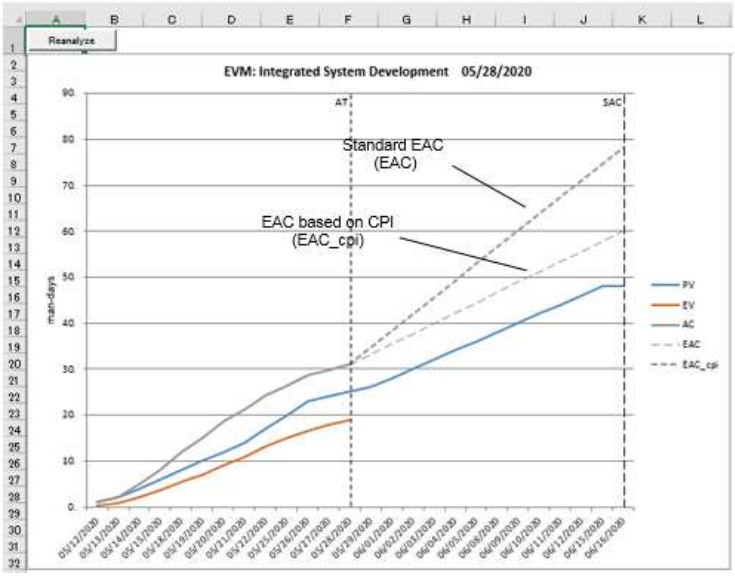
Note: What are the cost and budget units for EVM?
In ProjectExceller, you can select the man-day or amount of cost. The default value is 'man-day'. You can change the settings on the 'EV Unit & Duration'tab in the EVM Analysis dialog.

Graph with EAC (Estimate at Completion)

In the 'Easy Menu', turn on 'EAC: Estimate at Completion' and press the Enter key.



As shown in the following figure, in addition to PV, EV, AC, two types of EAC (Estimate at Completion) are displayed in the EVM graph.



- **EAC (Estimate at Completion)**

  An estimate of the cost at completion, estimated at a ceresome point. It is calculated by one of the following formulas:

  - **Standard EAC**

    In the future, assuming that performance will be performed as originally planned.

    EAC = AC + (BAC-EV)

  - **EAC based on CPI**

    Performance to a certain point (CPI) will continue in the future

    EAC = AC + (BAC-EV) / CPI

- **CPI (Cost Performance Index)**

  This is an index that evaluates the cost efficiency at a certain point of time. It is calculated by the following formula.

  CPI = EV / AC

  The CPI indicates the degree of budget overrun.

  CPI< 1: unde budget

  CPI=1: on budget

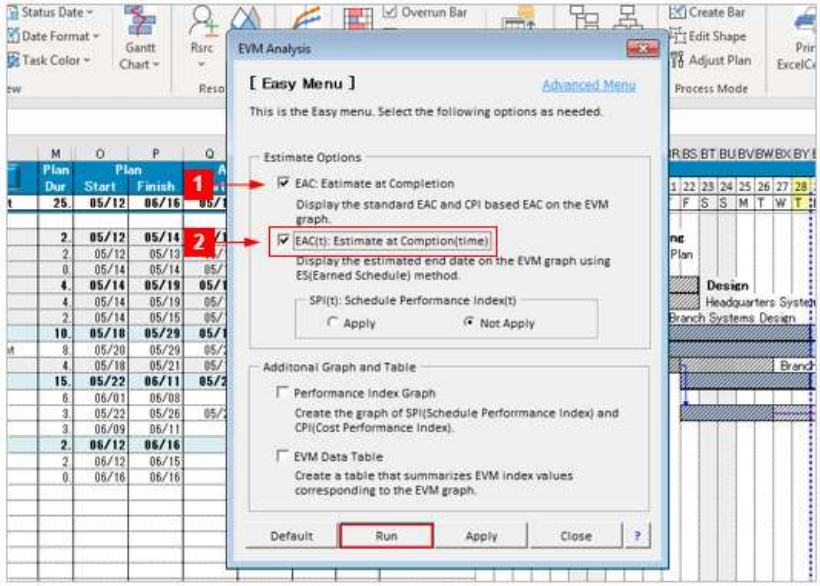
  CPI>1: over budget

For example, 0.9 indicates that only 90% of the input cost has been completed. In other words, it means that you need to invest 10% more of the cost you have used to complete the task.

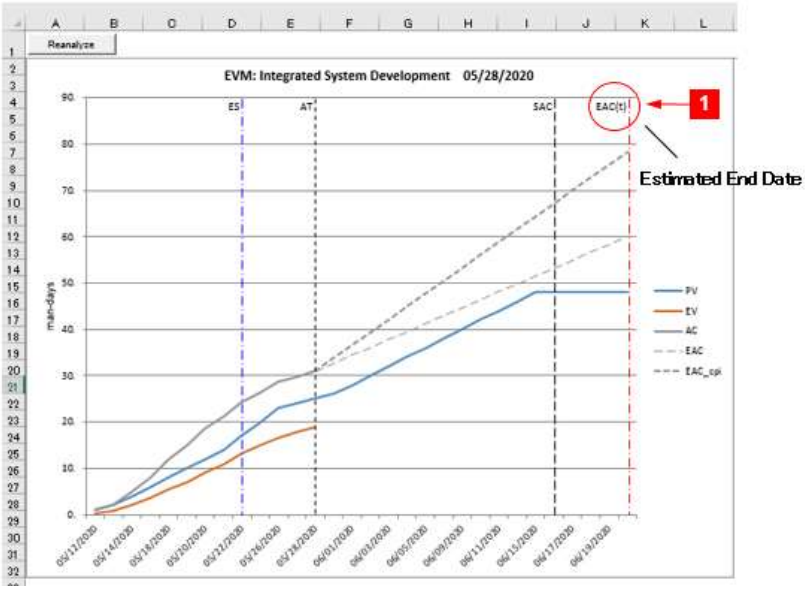
Graph with EAC(t)

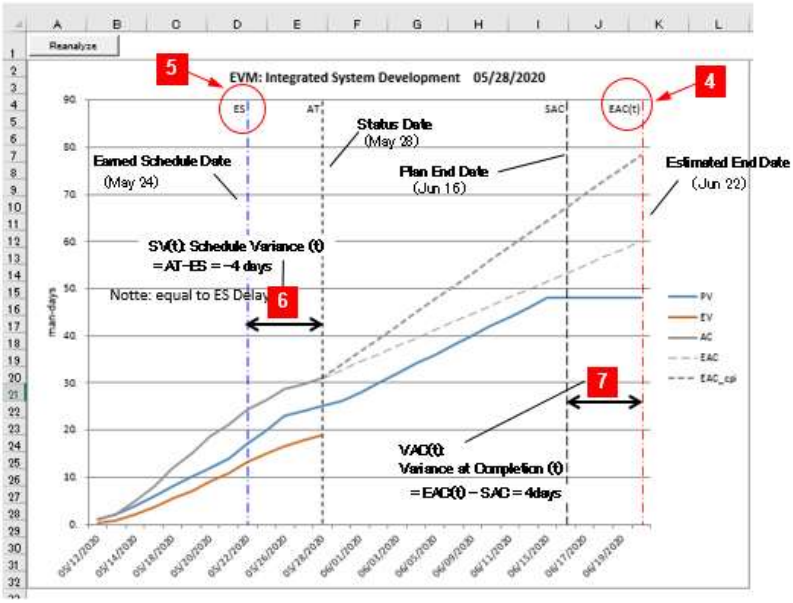
Enable 'EAC (t): Estimate at Completion(time)' **[2]** in the Easy Menu and press the Enter key to create EVM graph with the estimated end date of the project.

Note: When this option is enabled, 'EAC: Completion at Completion' **[1]** is automatically turned ON.



The following EVM graph is created. The time axis of the graph is extended to the estimated end date (EAC (t)).





In this graph, **EAC(t)** (*Estimated End Date*) (**[3]**) and **ES** (*Earned Schedule Date*) (**[4]**) are displayed as vertical lines. The Estimated End Date is calculated using ES method of EVM analysis.

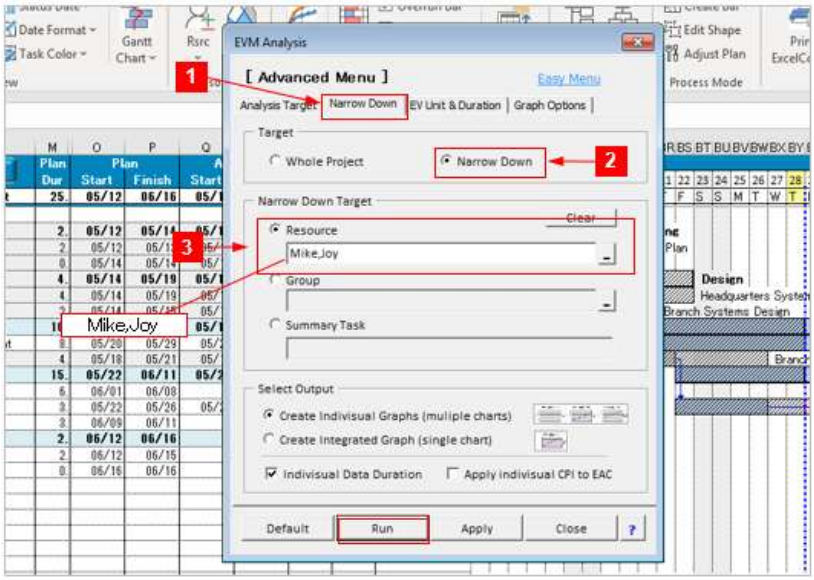
- **ES: (Earned Schedule)** (**[4]**)
  Find out when the PV (Plan Value) corresponding to the EV (Earned Value) of the status report date (AT) will be at the point in the plan. This correspoing date is called ES (Earned Schedule).
- **SV(t): Schedule Variance(t)** (**[5]**)
  The difference period (days) between the planned and actual schedules at a given point in time. It is calculated by the following formula.
  SV(t) = ES - AT
  If SV(t)> 0, it is ahead of schedule, if SV(t) <0, it is behind schedule, and if SV(t) = 0, it is as planned. The difference period is the number of working days within that period.
  Note: In ProjectExceller, SV(t) is called 'EVM Delay Duration'. However, the sign is reversed.
  EVM Delay Duration = -SV(t)
- **SPI(t): Schedule Performance Index(t)**
  It displays the difference between the planned and actual schedules at a certain point in time using an index. It is calculated by the following formula.
  SPI (t) = ES / AT
  If SPI (t)> 1, it is ahead of schedule, if SV (t) <1, it is behind schedule, and if SV (t) = 1, it is as planned.
- **EAC(t): Estimate at Comptiion(t) or Estimated End Date** (**[3]**)
  The Estimated End Date of the project at a certain point of time. It is calculated by the following formula.
  Note: In the Easy Menu, 'SPI(t) Not Applied' is used. Use the Advanced Setings Menu if you want to apply SPI(t).
  - **SPI(t) applied**
    It assumes that the future schedule performance is the same as in the past.
    EAC(t) = AT + (SAC-ES) / SPI(t)
  - **SPI(t) Not Applied**
    It assumes the future performance is original performance in the plan. (SPI (t) = 1).
    EAC (t) = AT + (SAC-ES)

- **VAC (t): Variance at Completion(t)** (**[6]**)
  The difference between the EAC(t) and the SAC (Sum at Completion or Plan End Date of the project) at a certain point of time. It is calculated by the folwoing formula.
  VAC (t) = SAC – EAC (t)

EVM Analysis by Resources

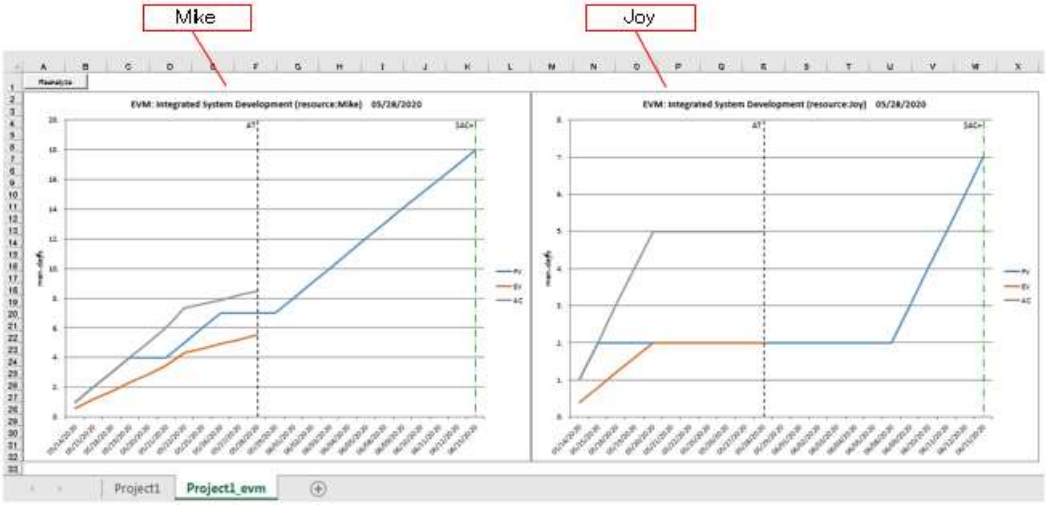
Generally, EVM analysis is performed on the entire project. With ProjectExceller, you can do EVM analysis not only for the entire project but also for each resource. Also, you can do it by group and task.

Note: To perform EVM analysis for each resource, group, or task, use the 'Advanced Munu' in the EVM analysis dialog.

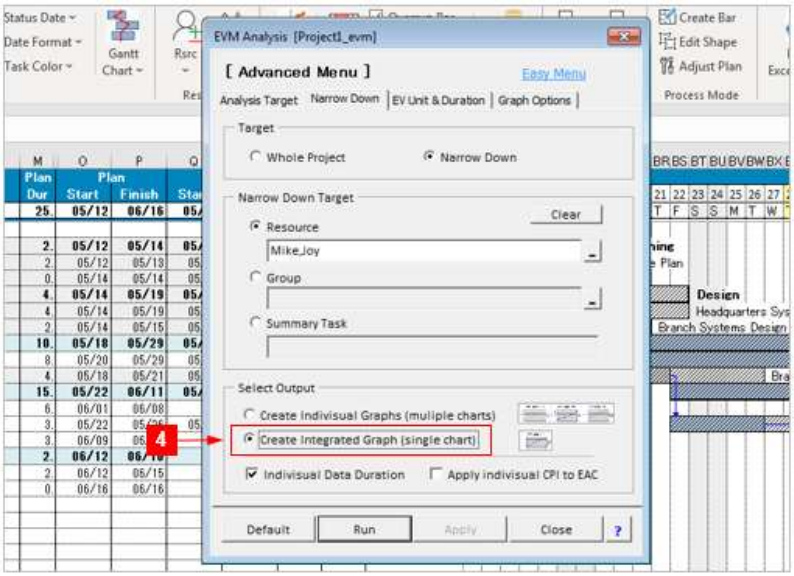


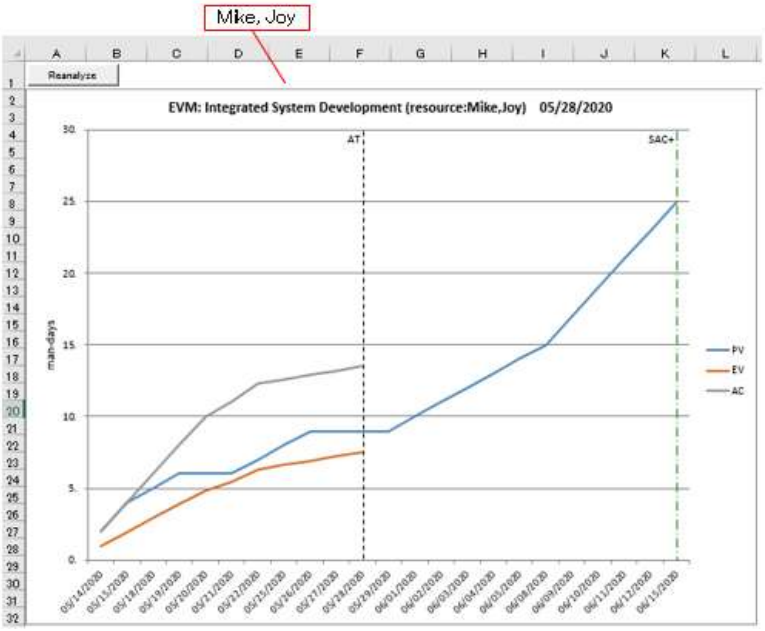
Select the Narrow Down tab **[1]** from the Advanced Settings Menu, select 'Narrow Down' **[2]** as the target, select 'Resource' **[3]** as the target, and specify Yamada and Sato as the analysis target.

When you press the Enter key, EVM graphs for resources of Yamada and Suzuki are created on the same output sheet.



If you enable the option of 'Create Integrated Graph (single chart)' **[4]** and execute, the tasks of Sato and Suzuki are analyzed and displayed in the same EVM graph as one project.

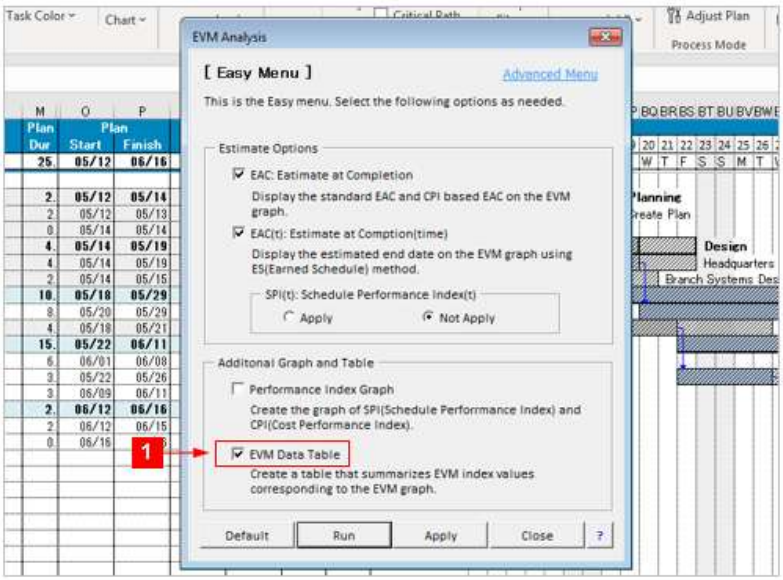




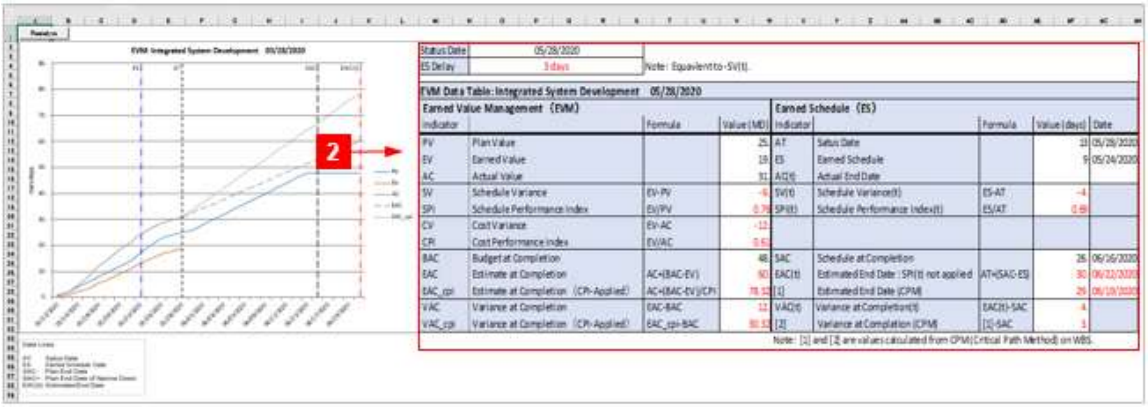
EVM Data Table

Various EVM indicators related to EVM analysis can be summarized in a table and displayed in the same output sheet of the EVM graph.

Execute EVM analysys with enabling the option of 'EVM Data Table' (**[1]**) in the EVM dialog.



An EVM data table (**[2]**) is created along with the EVM graph on the output sheet.



Status Date	05/28/2020	
ES Delay	3days	Note: Equavlent to-SV(t).

EVM Data Table: Integrated System Development 05/28/2020

Earned Value Management (EVM)				Earned Schedule (ES)				
Indicator		Formula	Value (MD)	Indicator		Formula	Value (days)	Date
PV	Plan Value		25.	AT	Satus Date		13	05/28/2020
EV	Earned Value		19.	ES	Earned Schedule		9	05/24/2020
AC	Actual Value		31.	AC(t)	Actual End Date			
SV	Schedule Variance	EV-PV	-6.	SV(t)	Schedule Variance(t)	ES-AT	-4.	
SPI	Schedule Performance Index	EV/PV	0.76	SPI(t)	Schedule Performance Index(t)	ES/AT	0.69	
CV	Cost Variance	EV-AC	-12.					
CPI	Cost Performance Index	EV/AC	0.61					
BAC	Budget at Completion		48.	SAC	Schedule at Completion		26.	06/16/2020
EAC	Estimate at Completion	AC+(BAC-EV)	60.	EAC(t)	Estimated End Date : SPI(t) not applied	AT+(SAC-ES)	30.	06/22/2020
EAC_cpi	Estimate at Completion (CPI-Applied)	AC+(BAC-EV)/CPI	78.32	[1]	Estimated End Date (CPM)		29.	06/19/2020
VAC	Variance at Completion	EAC-BAC	12.	VAC(t)	Variance at Completion(t)	EAC(t)-SAC	4.	
VAC_cpi	Variance at Completion (CPI-Applied)	EAC_cpi-BAC	30.32	[2]	Variance at Complation (CPM)	[1]-SAC	3.	

Note: [1] and [2] are values calculated from CPM (Critical Path Method) on WBS.

3

[3] Estimated End Date (CPM)

'Estimated End Date (CPM)' is not EVM indicator. It is the value of 'Fcst Finish'(Forecast Finish Date) column on WBS. This is the date calculated by the CPM (Critical Path Method) on the WBS. You can refer this value together with EAC(t) when evaluating the project.

Performance Index Graph

The EVM graph consists of PV, EV, and AC, and can show the overall progress and trends of the project, but is not suitable for understanding the daily performance trend. The performance index graph is suitable for monitoring daily performance from the viewpoint of schedule and cost. The following two index values are targeted.

■ **SPI (Schedule Performance Index)**

It is an indicator to evaluate the progress efficiency of the schedule at a certain point. It is calculated by the following formula.

SPI = EV / PV

SPI indicates the degree of delay to the plan. In the case of $ 1, as planned, if it is larger than 1, it is ahead of schedule, and if it is less than 1, it is delayed.

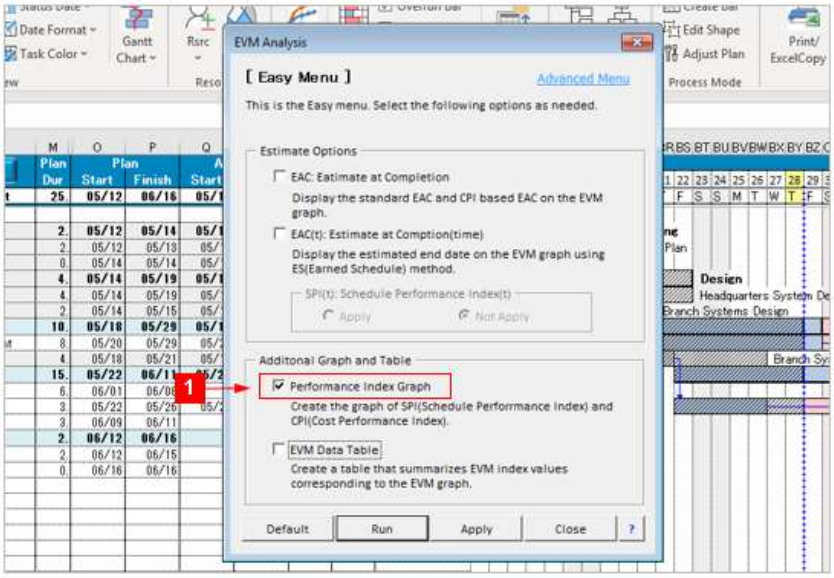
■ **CPI (Cost Performance Index**

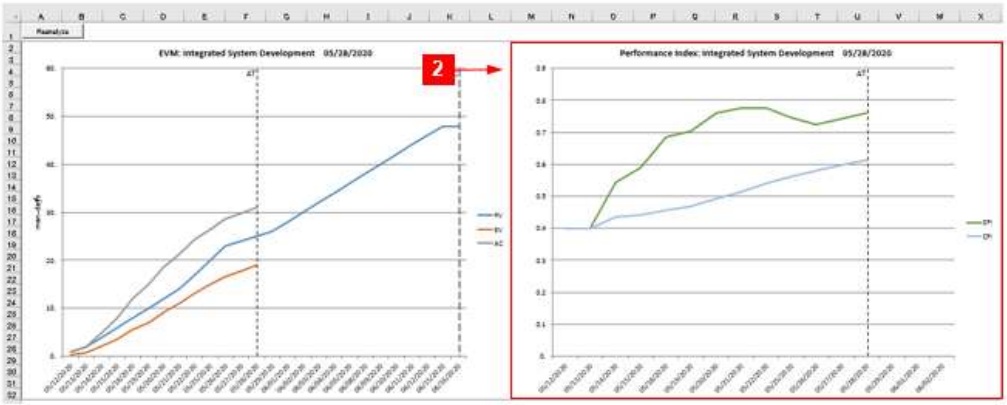
This is an index that evaluates the cost performance at a certain point of time. It is calculated by the following formula.

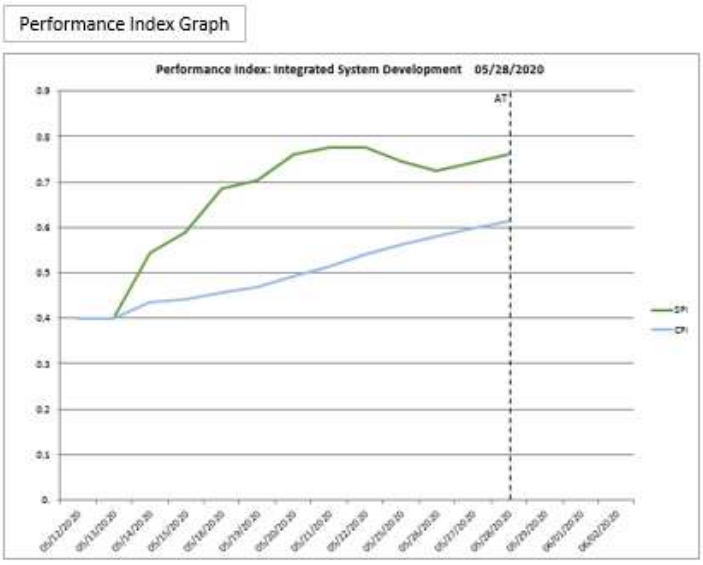
CPI = EV / AC

The CPI indicates the degree of budget overrun. If CPI is 1 or less, it is managed within the budget, if it is over 1, it is over budget.

Enable the option of 'Performance Index Graph' (**[1]**) and execute.





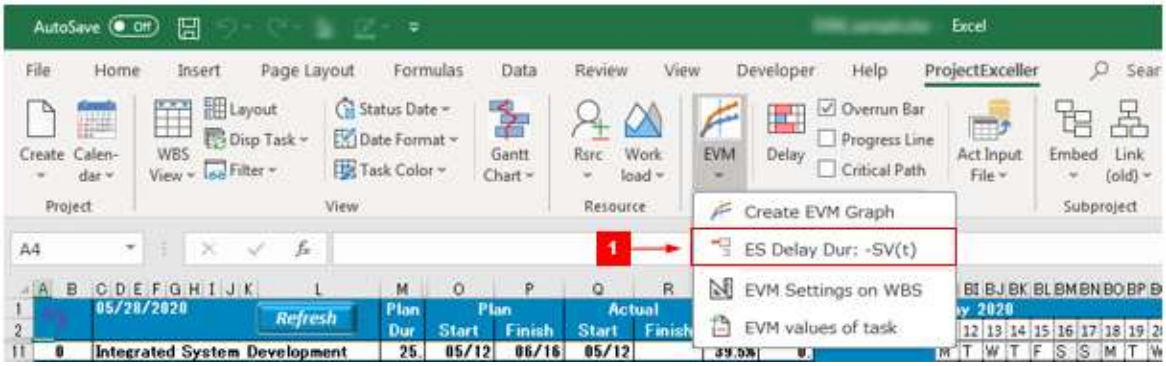


12.6. ES Delay Duration

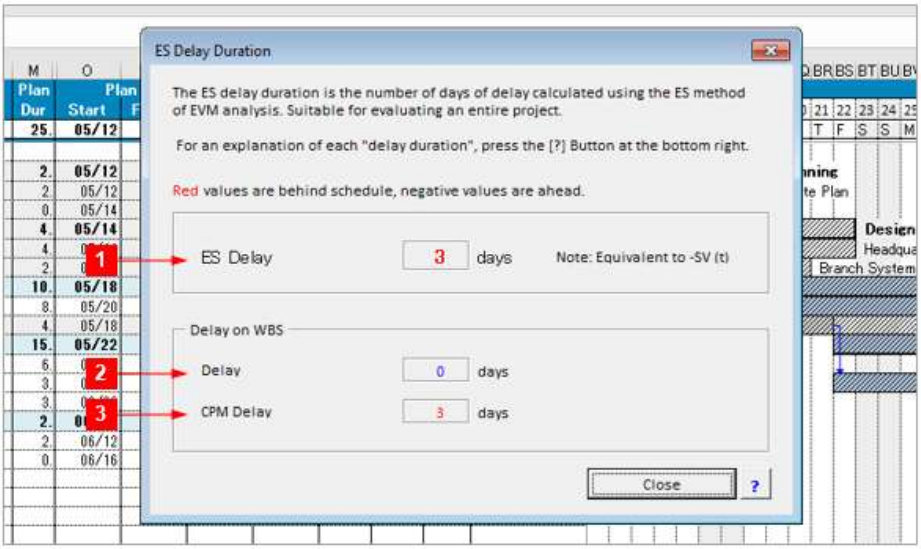
It calculates objective days of delay using the ES method (earned schedule), which is newly certified as a standard method of PMI. It is equivalent to SV (t) of EVM index value. (Positive / negative display is reversed)
Even if the task link is not set, the number of effective delay days can be calculated, and this is suitable for evaluating the entire project.

■ **How to display the ES delay duration**

It can be displayed by one of the following operations.
[1] EVM analysis from the ProjectExceller tab of the ribbon, select by 'ES Delay Duration'.
[2] Click the header part of the 'Delay Dur' and 'CPM Delay' item on WBS.



The following dialog is displayed.



[3] ES Delay Duration

It calculates objective delay days of the project, using the ES (Earned Schedule) method, which is newly incorporated as the standard for EVM of PMI. The ES Delay Duration is equivalent to SV (t) of EVM indicator. (Positive / negative display is reversed)

Note: Even if task-links are not set, the number of effective delay days can be calculated, and it is suitable for evaluating the entire project.

The following two delay durations are specific to ProjectExceller. They are calculated from the arrangement of tasks on the WBS. It is usefull to comprehensively evaluate a project in conjunction with the ES delay duration.

[4] Delay Duration (Delay Dur)

It appears in the 'Delay Dur' column of WBS. It is delay duration that has already been determined.

Note: It does not take into account that current delays will affect future tasks. It is not suitable for assessing the progress of the entire project.

[5] CPM Delay Duration

It appears in the 'CPM Delay' column of WBS. This is calculated based on the critical path method. It gets the delay of the predecessor task directly affects the schedule of the successor task.

Note: If task-link are not set on the project, you will not get a valid result.

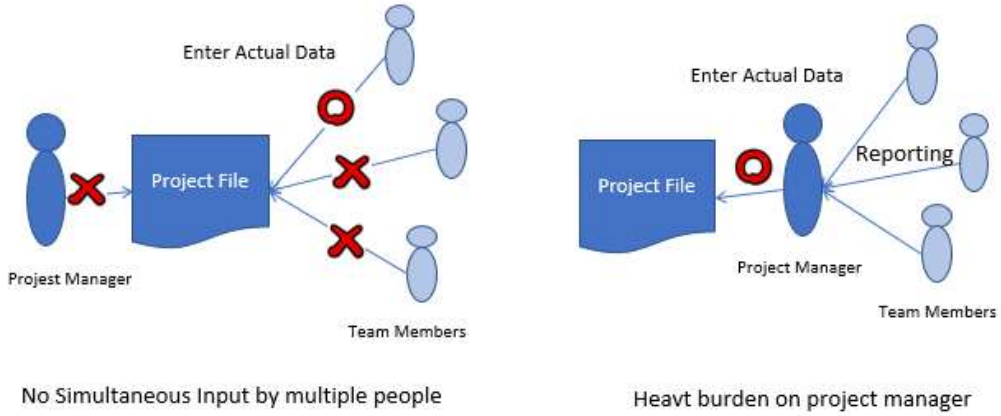
Chapter 13. Actual Input File

Note:
- This feature is added to ProjectExceller 2.
- The actual input file can not be edited with ProjectExceller version 1.

13.1. Overview

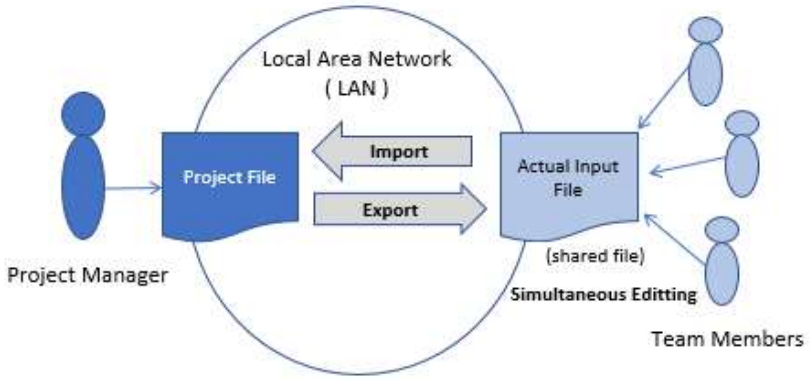
Problem with Actual Input in ProjectExceller version 1

Since project files can not be edited simultaneously by multiple members, in ProjectExceller version 1 , a project manager is required to enter actual data in WBS on behalf of the project members. The actual data are actual start dates, finish dates and percent complete.



Improvement by Actual Input File Feature

With ProjectExceller 2, it becomes possible to collect actual data and import them into a project file via the actual input file, which is a shared book on the LAN, instead of directly entering actuals into project files. This feature can significantly reduce the burden on the project manager.



■ **Simultaneous Editing**

"Actual Input File" is an Excel book dedicated for actual input, which is generated from the project sheet. Since Excel shared book (legacy) is set in advance, placing it in a shared folder on the LAN allows team members to edit it simultaneously.

■ **Import (import actual data into project file)**

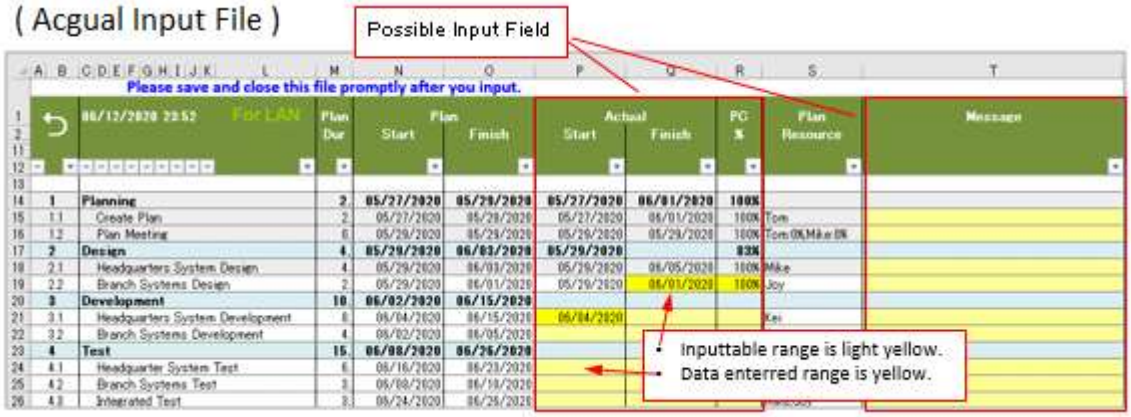
The project manager can import actual input data into a project file using the import function.

■ **Export (updating of actual input file)**

In addition, with the export function, team members can update the "actual input file" with the latest project data.

What is the Actual Input file

"Actual Input File" is an Excel file generated from ProjectExceller's project sheet and it is dedicated for actuals input of the project. As it is created as an Excel shared book at creation time, placing it on the LAN allows team members to input at the same time.



1. Supported Version

ProjectExceller2 (version 2) is required.

Note: **Actual input file** can not be edited in ProjectExceller version 1.

2. Input Field

The actuals input file consists of one actual input sheet. The items that can be entered are in the red frame below.

- Actual Start Date
- Actual Finish Date
- Percent Complete
- Message

In "Message", enter the message from the member to be entered to the project manager, or the message from the project manager to the member.

3. Background Color of Input Field

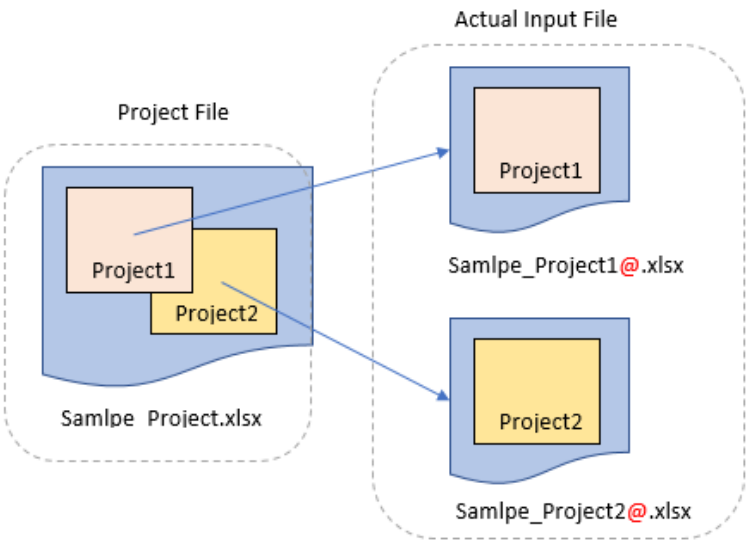
By default, cells for which actuals have been entered at the file creation file are input prohibited. The cells which are allowed to input is in light yellow. The backcolor of these cells are changed to yellow when they are entered actual data.

4. File Name

One actual input file is created for One project sheet. Also, the file name of the actual input file is set as follows by default.

Project file name + @. xlsx

The project file name part can be changed to any string, but "@" is required at the end.

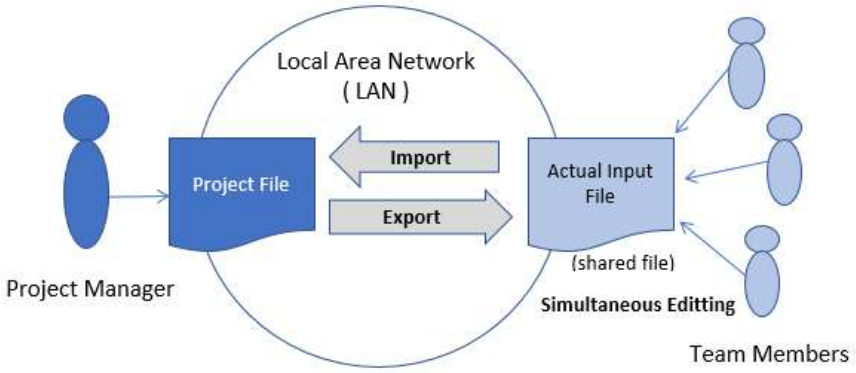


13.2. Collect Actual Data

■ **There are two ways to collect actual data from team members using the Actual Input File.**

Simultaneous editing by multiple members with shared book (LAN environment)

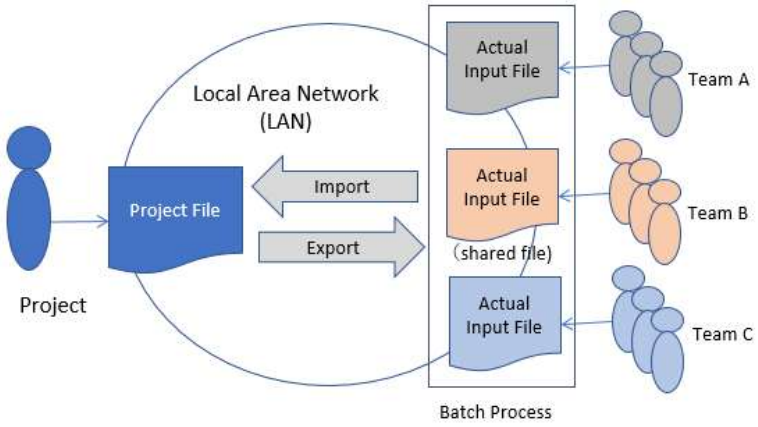
You can create a file for actual input only (actual input file) from the project file. This file is set to Excel's shared book mode, so placing it in a shared folder on the LAN allows multiple members to input simultaneously.



■ **Register in batch processing list and process**

By registering the actual input file to be updated regularly in the "Batch Process" list in advance, you can update (export) and import multiple results input files more efficiently.

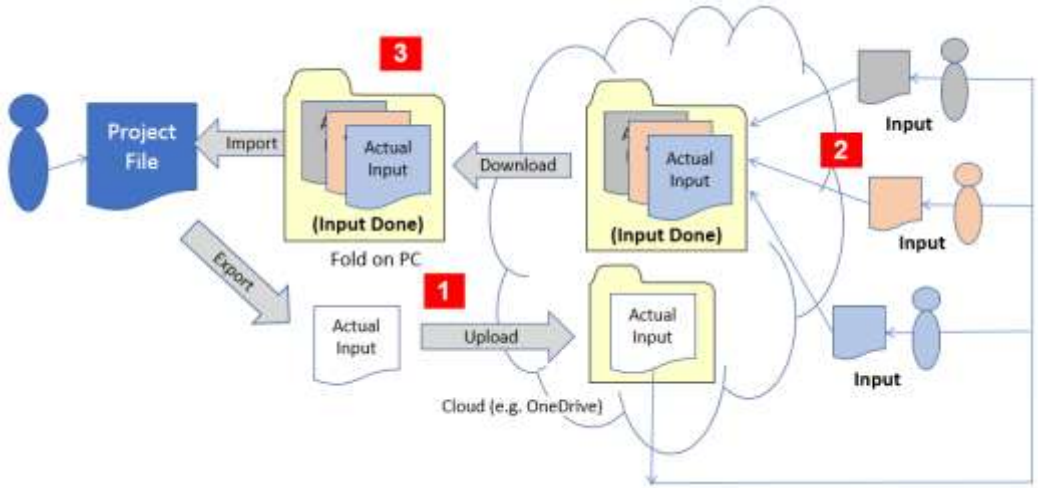
For example, create a actual input files for team A, B, and C respectively, and register them in the "batch process" list. This enables independent management of actual data entry management on a team basis. Also, if you manage project sheets separately for each team, you can disclose only the necessary project data for each team by specifying only the project sheets required for that team and creating an actual input file.



■ **Import Multiple Files from Folder**

If you do not have a LAN environment, you can also download multiple actual input files to a specific folder via email or through the cloud, and then batch import them into a project file.
For example, when using Microsoft OneDrive function, you can collect actual data from multiple members according to the following procedure.

[1] The project manager creates an actual input file from the project and copies it to the upload folder. Files are synchronously uploaded to OneDirve.
[2] Each member copies the latest uploaded input file, enters actual data, and then copies it to the OneDrive folder for import. Files are synchronously downloaded to the administrator's import folder.
[3] The project manager imports actual data collectively from the import folder.



13.3. Create Actual Input File

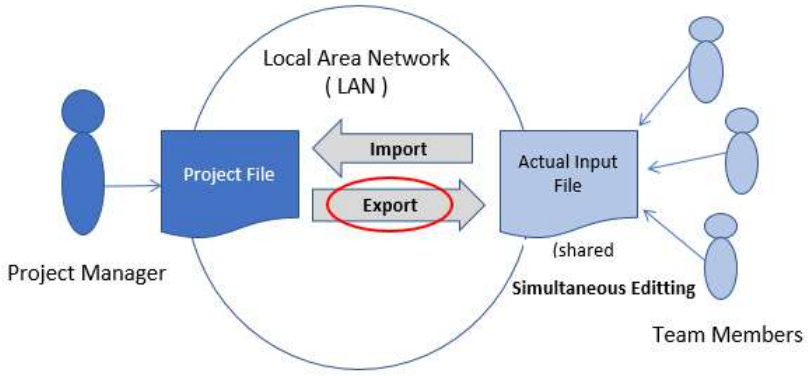
This section describes the procedure for creating an actual input file from a project sheet.

Memo: Difference between Create and Export

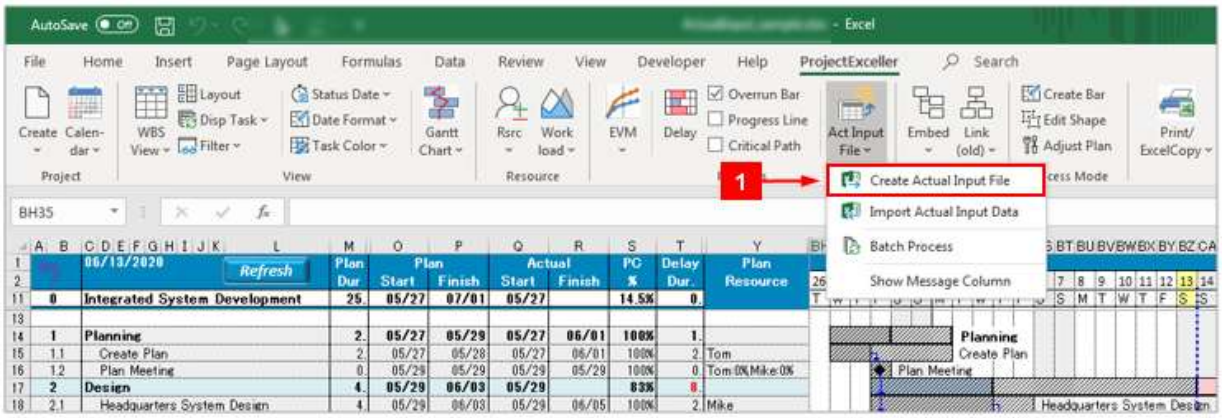
Both are exactly the same in that they generate actual input files from projects. When creating a new project file by specifying a file name and save file, it is called "Create", and when updating an existing actual result input file by "Batch Process" function, it is called "Export".

Memo: shared.ini file

In the folder where the actual input file was created, a hidden file of "shared.ini" is created. This is used temporarily for internal working when editing files. There is no problem if you delete it by mistake.

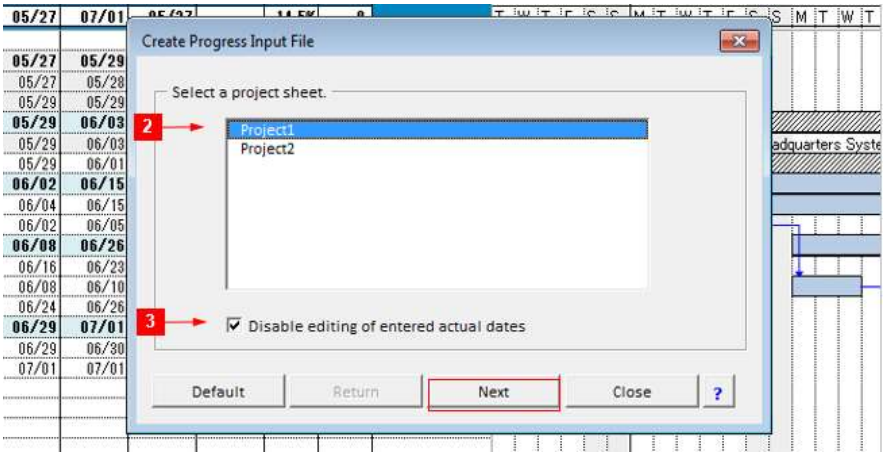


[1] In the ProjectExceller tab on the ribbon, click "Act Input File" and then "Create Actual Input File".



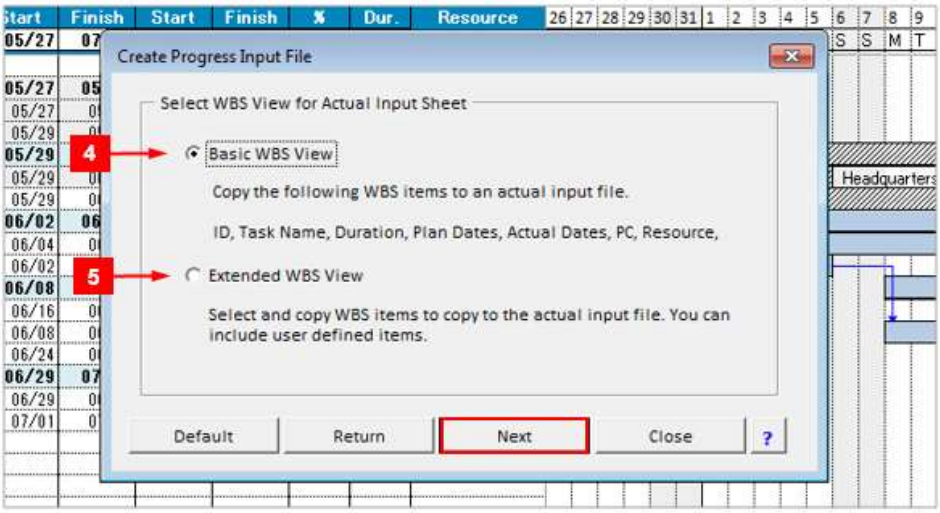
[2] Select the target sheet in the following dialog.
[3] Select "Disable editing actual dates".
If you set it to ON, you will be protected from changing the actual start date and actual finish date already entered on the project sheet on the actual input file. In this sample, leave it ON (default value).

Proceed with the Next button.



Select the WBS items to be created on the actual input sheet from the following two.

- Basic WBS view
- Extended WBS view



[4] Basic WBS view

This is the default settings. The minimum WBS items necessary for the actual input file are created.

- Task ID
- Task name
- Duration
- Plan Start Date, Plan Finish Date
- Actual Start Date, Actual Finish Date (Inputable)
- Percent Complete (Inputable)
- Resources
- Message (Inputable)

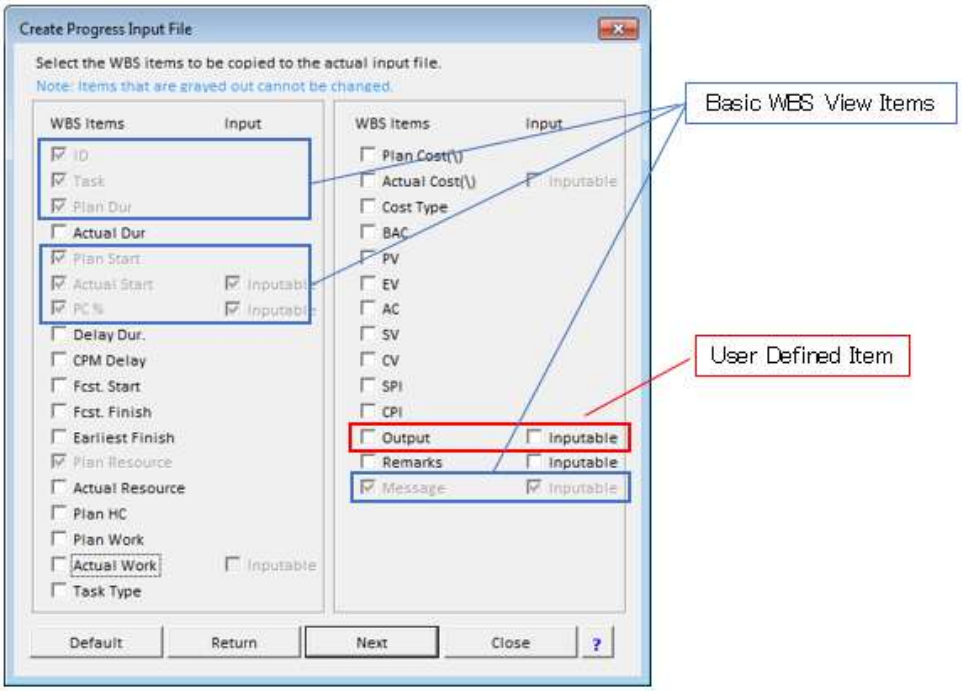
Items that can be entered are limited to "Actual Start Date", "Actual Finish Date", and "Percent Complete".

[5] Extended WBS view

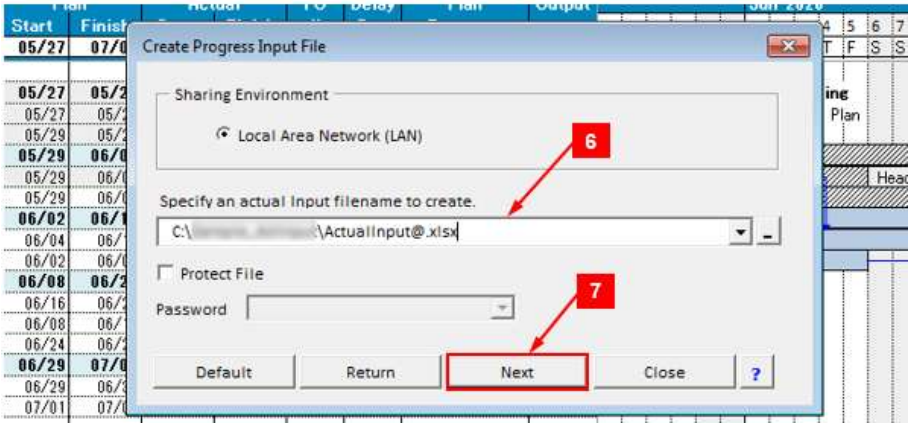
When "Extended WBS view" is selected, the following dialog is displayed. The Items of “Basic WBS View” are already selected as required items. Other items can be freely selected. However, the following four items can be added as “Inputable” items in the actual input file.

- Actual Work (man-days) (Inputable))
- Actual cost (Inputable) (*1)
- Remarks (Inputable)
- User-defined item (Inputable) (*2)

(*1) Actual cost is inputable only for task with cost type of ‘Fixed’.
(*2) From V2.023, it is also possible to input to the summary task part of the user-defined item. Except when the total value is displayed in the summary task line of the user-defined item.



In this explanation, select “Basic WBS View” to continue.

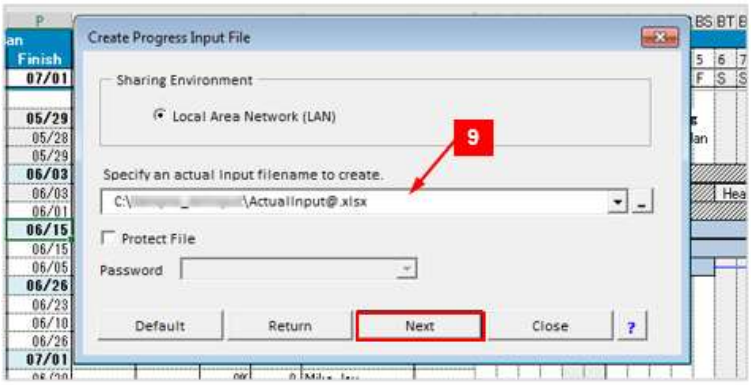


[6] Set "Sample_Project@.xlsx" as an actual input file.

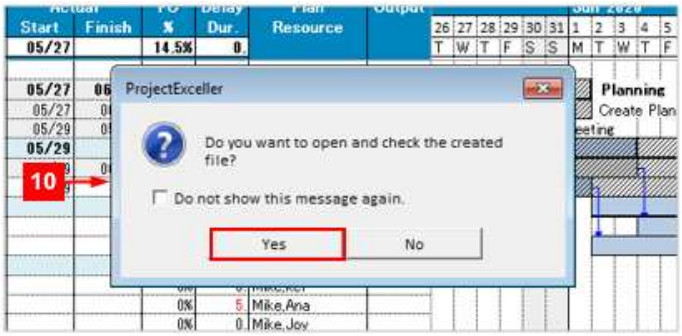
Memo: "@" is required at the end of the actual input file name. If you do not specify it, it will be added automatically by the Next button.

[7] Press the Next button to select the folder to save.

[8] Click “Save” button to finalize the destination.

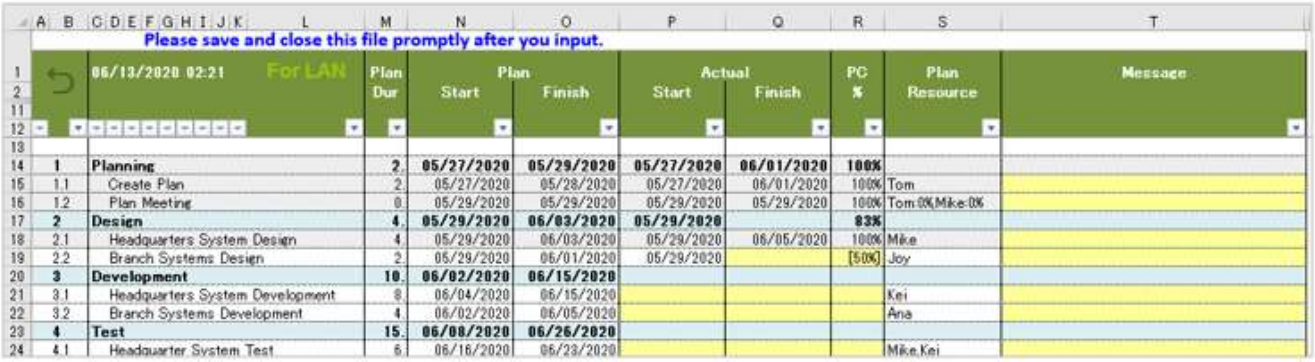


[9] Confirm the destination and file name. Then click “Next” to start creating the actual input file.



■ The following message will be displayed when the actual file is created. Select "Yes" to open the created file.

The actuals input file consists of one actual input sheet.



Please save and close this file promptly after you input.

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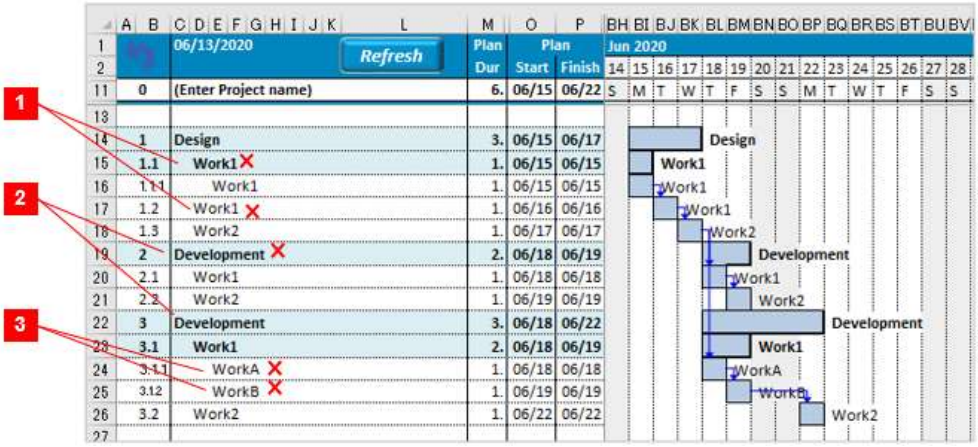
		Plan Dur	Plan Start	Plan Finish	Actual Start	Actual Finish	PC %	Plan Resource	Message
1	Planning	2	05/27/2020	05/29/2020	05/27/2020	06/01/2020	100%		
1.1	Create Plan	2	05/27/2020	05/28/2020	05/27/2020	06/01/2020	100%	Tom	
1.2	Plan Meeting	0	05/29/2020	05/29/2020	05/29/2020	05/29/2020	100%	Tom:0%,Mike:0%	
2	Design	4	05/29/2020	06/03/2020	05/29/2020		83%		
2.1	Headquarters System Design	4	05/29/2020	06/03/2020	05/29/2020	06/05/2020	100%	Mike	
2.2	Branch Systems Design	2	05/29/2020	06/01/2020	05/29/2020		[50%]	Joy	
3	Development	10	06/02/2020	06/15/2020					
3.1	Headquarters System Development	8	06/04/2020	06/15/2020				Kei	
3.2	Branch Systems Development	4	06/02/2020	06/05/2020				Ana	
4	Test	15	06/08/2020	06/26/2020					
4.1	Headquarter System Test	6	06/16/2020	06/23/2020				Mike,Kei	

No Duplicate Task Names Allowed.

The same task names cannot be used for the tasks under the same summary task on a project sheet that is used for “Actual Input File”. If task names are duplicated, an error will occur when creating the actual input file.
The following example shows three cases where there are invalid duplicate task names.



13.4. Edit Actual Input File

■ **ProjectExceller 2 is required**

You need to install ProjectExceller 2 (version 2) in order to edit the actual input file.

Note:

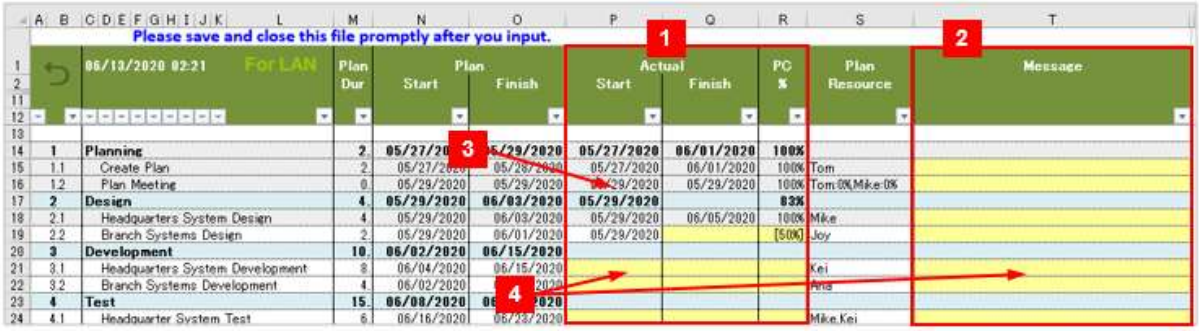
- It can not be edited in ProjectExceller version 1.
- -Since the function has been enhanced in V2.004 of ProjectExceller 2, results input files are not compatible with V2.003 or earlier and V2.004 or later. Please use V2.004 or later when using the achievement input file in the team.
- In the Free version of ProjectExceller 2, the number of task lines is limited.
-

■ **File Name**

Results input file is Excel file. The feature is that the file name ends with "@".

■ **Actual Input Sheet**

Open the actuals input file “Smaple_Project@.xlsx”.



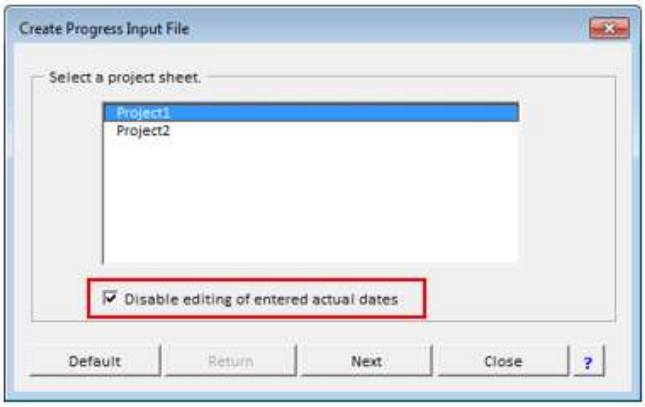
[1] It is an input field of actual data. You can enter actual start dates, an actual finish dates, and percent completes.

[2] Fill in the message between the project manager and the members who enter actual data.

[3] You can enter in the field in light yellow backcolor.

[4] The actual data field already filled when creating the actual input file can not be edited as default setting.

Memo: It is possible to change it by setting "Disable editing of entered actual dates” to OFF at the time of creation.

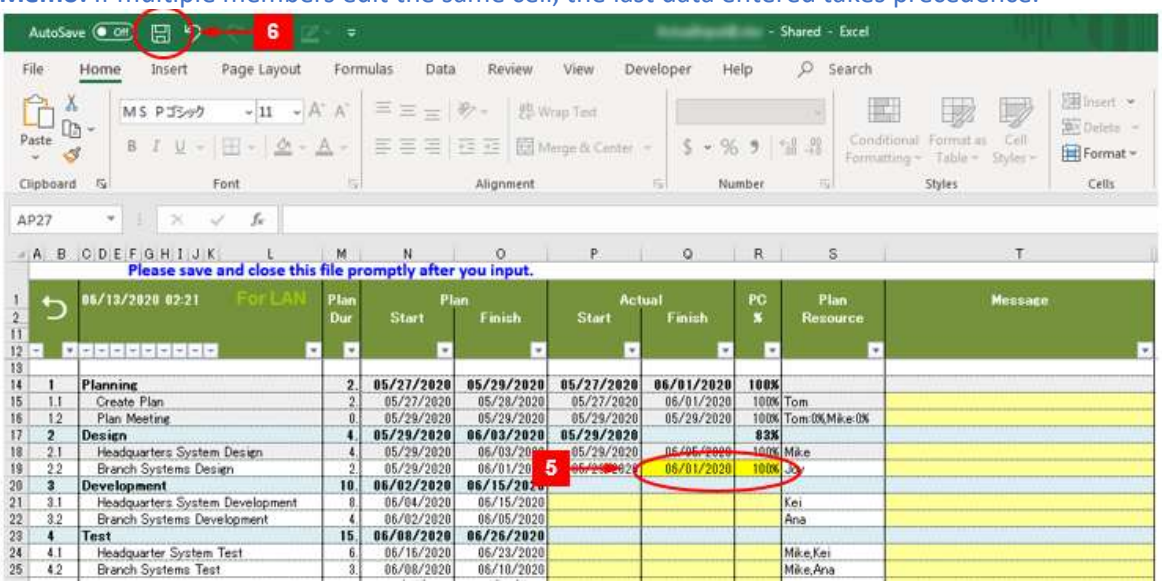


[5] Enter the actual finish date (Aug 14, 2018) for the "Head Office System Development" task. The cell for which you entered data has a yellow background color. The data of this yellowed field will be reflected to the project when performing "import of actual input data".

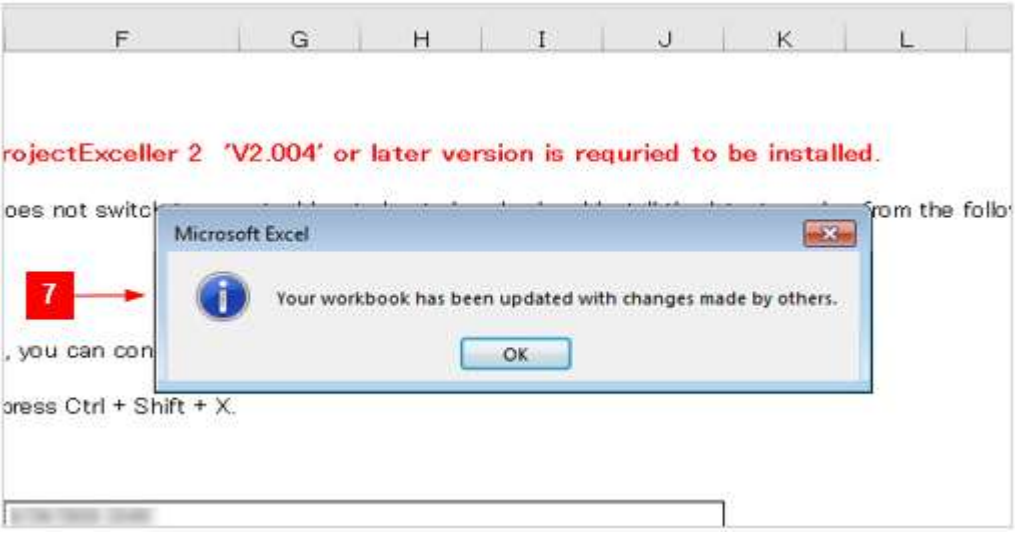
[6] Save button to display the latest data

The actual input file is shared book which is a standard function of Excel, so multiple members can edit it simultaneously in the LAN environment. With the actual input file open, press the Save button in Excel to display the latest changes entered by other members on the screen.

Memo: If multiple members edit the same cell, the last data entered takes precedence.

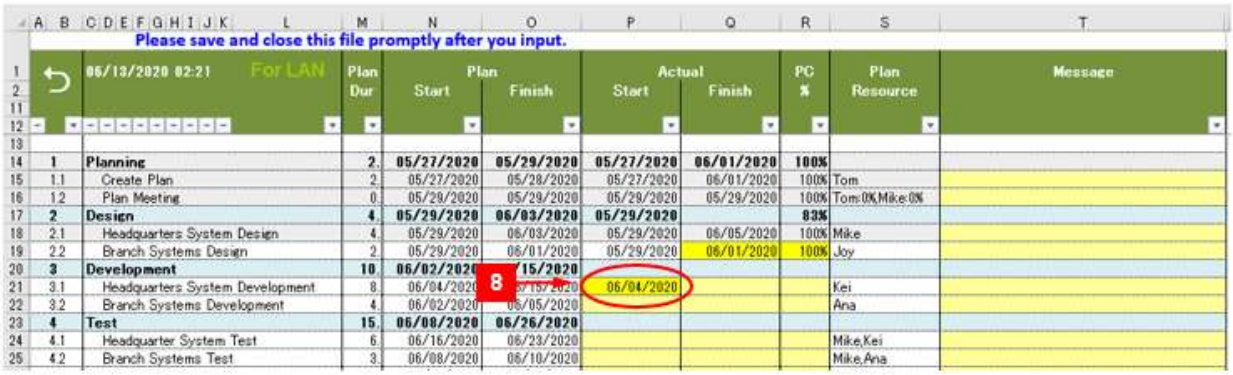


[7] Pressing the Save button switches the sheet and the following dialog is displayed. Proceed with OK.



[8] If another member has entered the actual start date of the "Test Head Office System" task as Aug 14, 2018, pressing the Save button will display it in the corresponding cell of the actual input entry sheet.

Note: If multiple members update the same location, the last updated value takes effect.

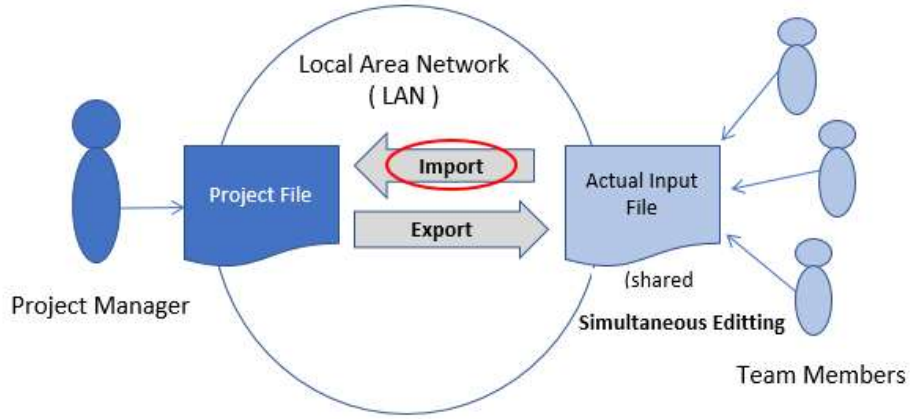


Please save and close this file promptly after you input.

	06/13/2020 02:21 For LAN	Plan Dur	Plan Start	Plan Finish	Actual Start	Actual Finish	PC %	Plan Resource	Message
1	**Planning**	**2.**	**05/27/2020**	**05/29/2020**	**05/27/2020**	**06/01/2020**	**100%**		
1.1	Create Plan	2.	05/27/2020	05/28/2020	05/27/2020	06/01/2020	100%	Tom	
1.2	Plan Meeting	0.	05/29/2020	05/29/2020	05/29/2020	05/29/2020	100%	Tom:0%,Mike:0%	
2	**Design**	**4.**	**05/29/2020**	**06/03/2020**	**05/29/2020**		**83%**		
2.1	Headquarters System Design	4.	05/29/2020	06/03/2020	05/29/2020	06/05/2020	100%	Mike	
2.2	Branch Systems Design	2.	05/29/2020	06/01/2020	05/29/2020	06/01/2020	100%	Joy	
3	**Development**	**10.**	**06/02/2020**	**06/15/2020**					
3.1	Headquarters System Development	8.	06/04/2020	06/15/2020	06/04/2020			Kei	
3.2	Branch Systems Development	4.	06/02/2020	06/05/2020				Ana	
4	**Test**	**15.**	**06/08/2020**	**06/26/2020**					
4.1	Headquarter System Test	6.	06/16/2020	06/23/2020				Mike,Kei	
4.2	Branch Systems Test	3.	06/08/2020	06/10/2020				Mike,Ana	

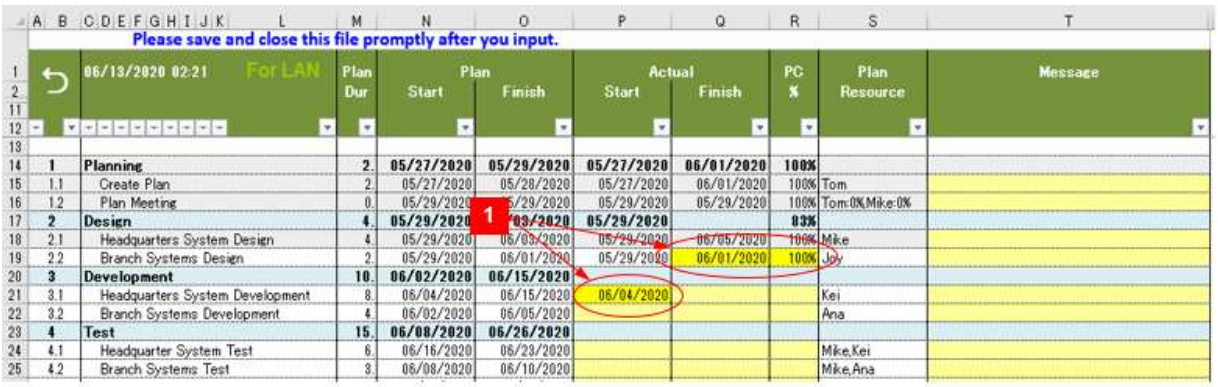
13.5. Import Actual Input File

Describes how to import actual data from the actual input file.



Let's import the following actual input file.

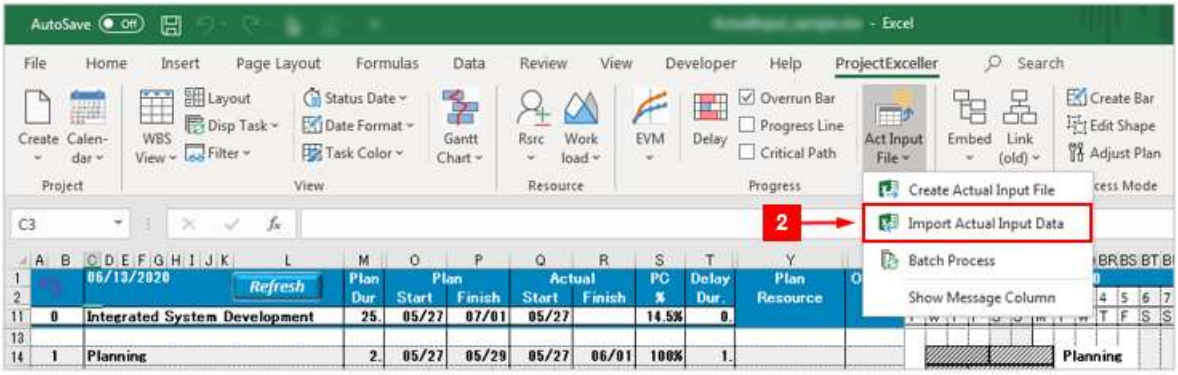
[1] Import an actual input file consisting of the following project sheet. The yellow background color indicates that new actual data has been entered.



Please save and close this file promptly after you input.

	06/13/2020 02:21 For LAN	Plan Dur	Plan Start	Plan Finish	Actual Start	Actual Finish	PC %	Plan Resource	Message
1	**Planning**	**2.**	**05/27/2020**	**05/29/2020**	**05/27/2020**	**06/01/2020**	**100%**		
1.1	Create Plan	2.	05/27/2020	05/28/2020	05/27/2020	06/01/2020	100%	Tom	
1.2	Plan Meeting	0.	05/29/2020	05/29/2020	05/29/2020	05/29/2020	100%	Tom:0%,Mike:0%	
2	**Design**	**4.**	**05/29/2020**	**06/03/2020**	**05/29/2020**		**83%**		
2.1	Headquarters System Design	4.	05/29/2020	06/03/2020	05/29/2020	06/05/2020	100%	Mike	
2.2	Branch Systems Design	2.	05/29/2020	06/01/2020	05/29/2020	06/01/2020	100%	Joy	
3	**Development**	**10.**	**06/02/2020**	**06/15/2020**					
3.1	Headquarters System Development	8.	06/04/2020	06/15/2020	06/04/2020			Kei	
3.2	Branch Systems Development	4.	06/02/2020	06/05/2020				Ana	
4	**Test**	**15.**	**06/08/2020**	**06/26/2020**					
4.1	Headquarter System Test	6.	06/16/2020	06/23/2020				Mike,Kei	
4.2	Branch Systems Test	3.	06/08/2020	06/10/2020				Mike,Ana	

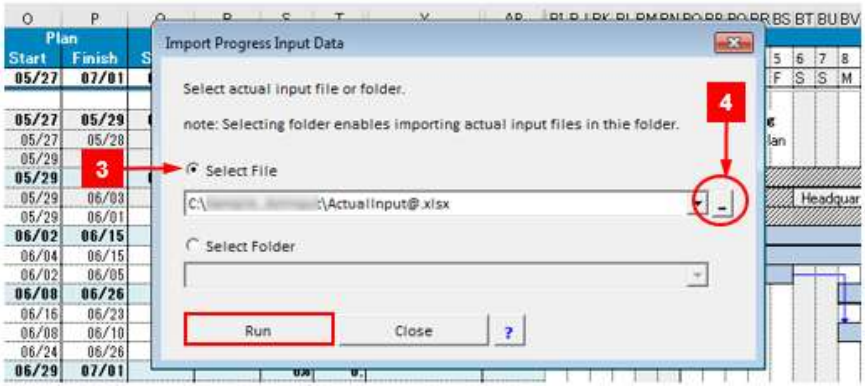
[2] Select "Import Actual Input Data" from the "Act Input File" button from the ribbon.



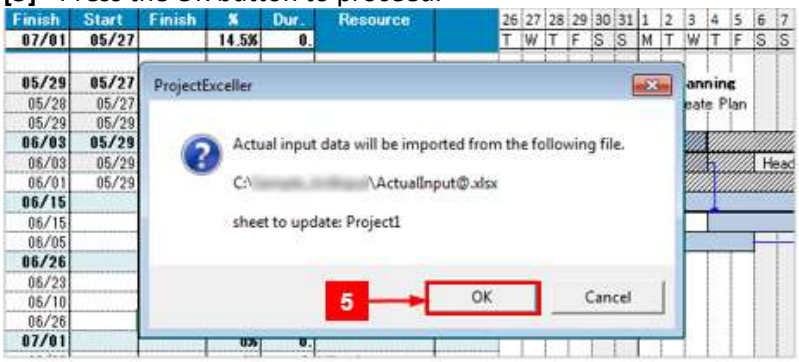
[3] Select "Select File" from the dialog.

Memo: Selecting "Select Folder" allows you to specify and import all actual input files or partial files in the folder.

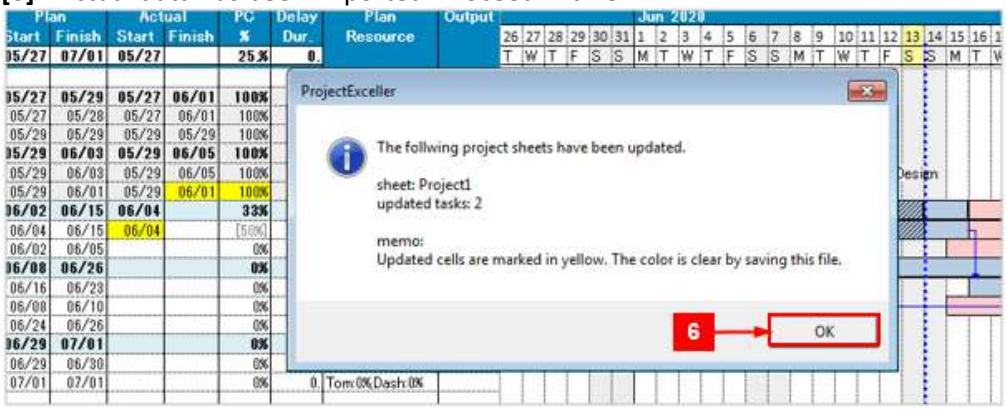
[4] Select the target file with the button **[4]** and press the Run button.



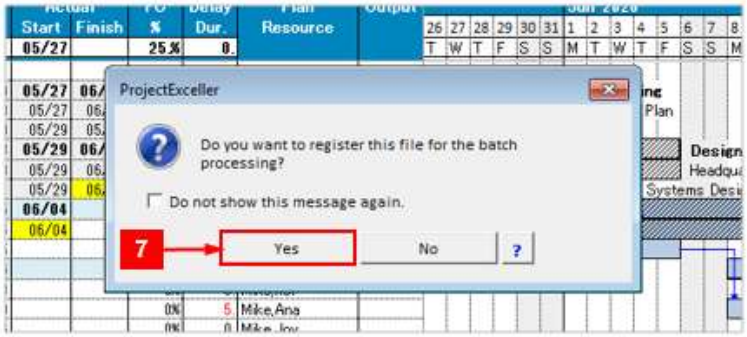
[5] Press the OK button to proceed.



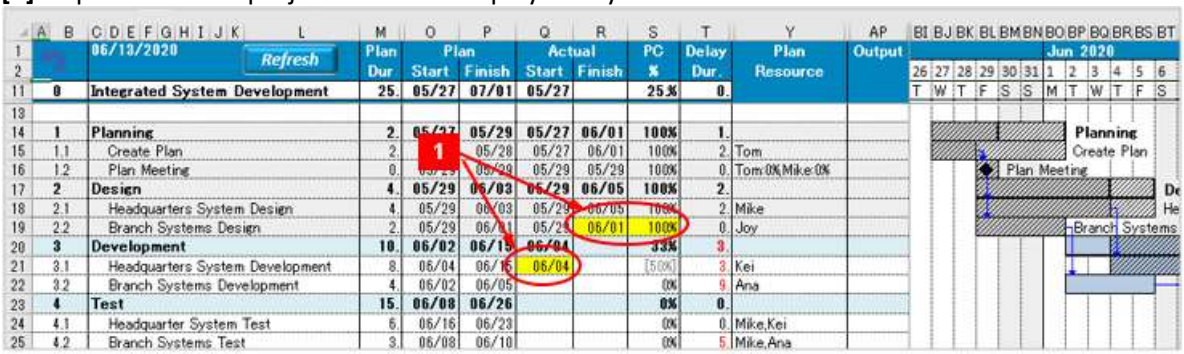
[6] Actual data has been imported. Proceed with OK.



[7] There is a function to register multiple actual input files for batch processing. I will proceed without registering this time.



[8] Updates on the project sheet are displayed in yellow.

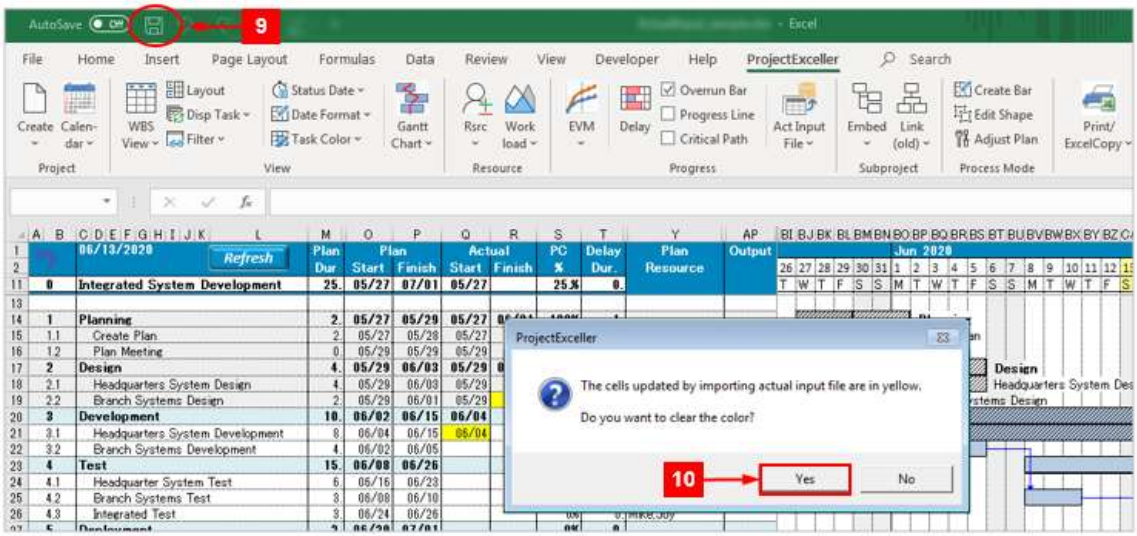


Note: "Undo" function after import

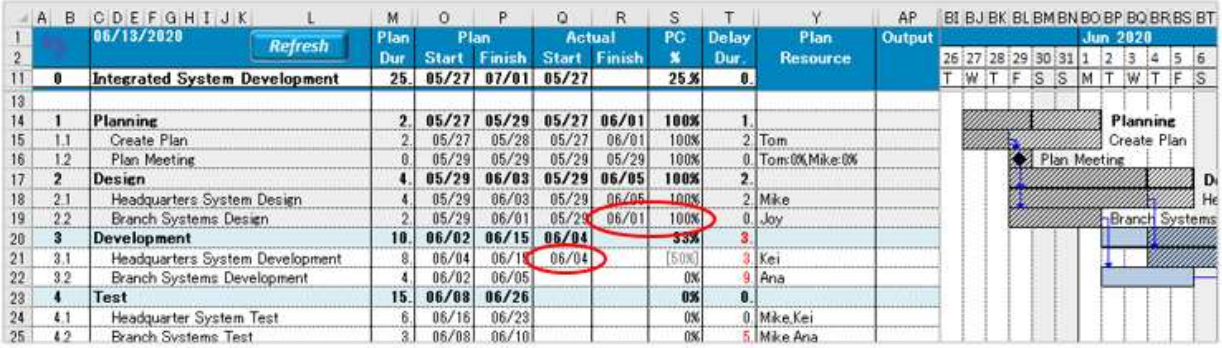
Immediately after importing, click the "Undo" mark at the top left of the project sheet to return to the project data before import. However, if you register multiple project sheets in the "Batch process" list and import all of them at once, the "Undo" function is enabled only for the last imported project sheet.

[9] Import and check the contents. If there is no problem, save the project file.

[10] The yellow mark on the update disappears.



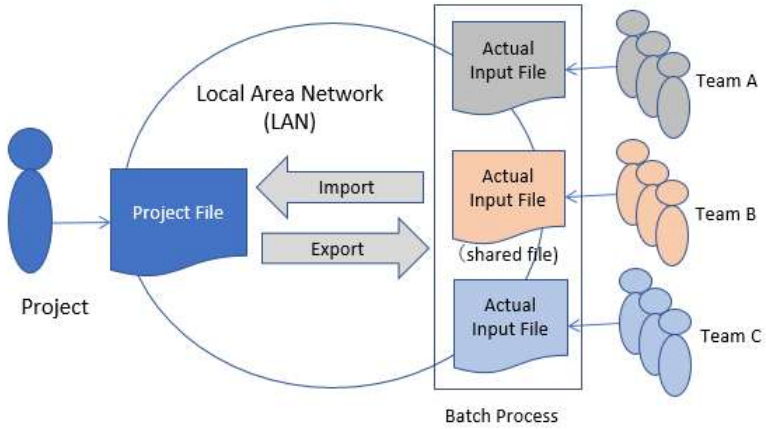
[11] Project sheet with actual data updated and saved in a file.



1		06/13/2020 Refresh	Plan	Plan		Actual		PC	Delay	Plan	Output
2			Dur	Start	Finish	Start	Finish	%	Dur.	Resource	
11	0	Integrated System Development	25.	05/27	07/01	05/27		25%	0.		
13											
14	1	Planning	2.	05/27	05/29	05/27	06/01	100%	1.		
15	1.1	Create Plan	2.	05/27	05/28	05/27	06/01	100%	2.	Tom	
16	1.2	Plan Meeting	0.	05/29	05/29	05/29	05/29	100%	0.	Tom:0%,Mike:0%	
17	2	Design	4.	05/29	06/03	05/29	06/05	100%	2.		
18	2.1	Headquarters System Design	4.	05/29	06/03	05/29	06/05	100%	2.	Mike	
19	2.2	Branch Systems Design	2.	05/29	06/01	05/29	06/01	100%	0.	Joy	
20	3	Development	10.	06/02	06/15	06/04		33%	3.		
21	3.1	Headquarters System Development	8.	06/04	06/15	06/04		50%	3.	Kei	
22	3.2	Branch Systems Development	4.	06/02	06/05			0%	9.	Ana	
23	4	Test	15.	06/08	06/26			0%	0.		
24	4.1	Headquarter System Test	6.	06/16	06/23			0%	0.	Mike,Kei	
25	4.2	Branch Systems Test	3.	06/08	06/10			0%	5.	Mike,Ana	

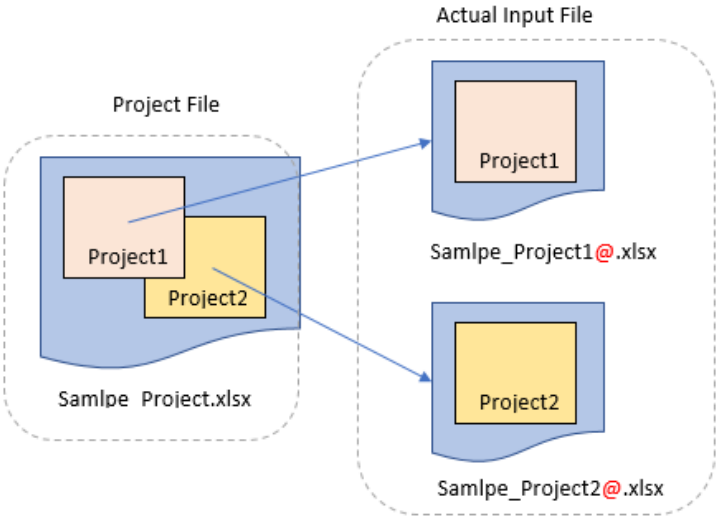
13.6. Batch Processing of Actual Input File

When regularly importing and exporting the created actuals input file, or collectively processing multiple actual input files, it is convenient to register these actual input files in the "Batch Process" list.

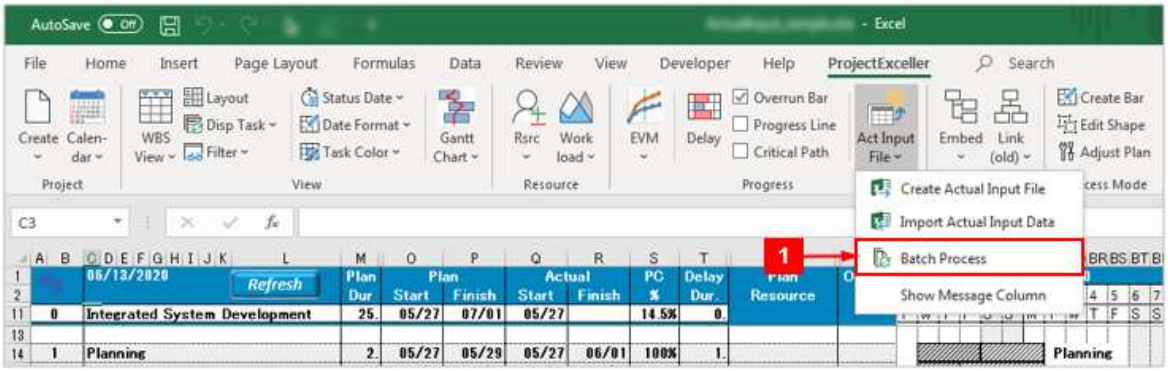


Let's explain the actual operation for the following sample case.
In this sample, the project file consists of two project sheets, and the following actual input file is created for each.
Register these files in the "Batch Process" list.

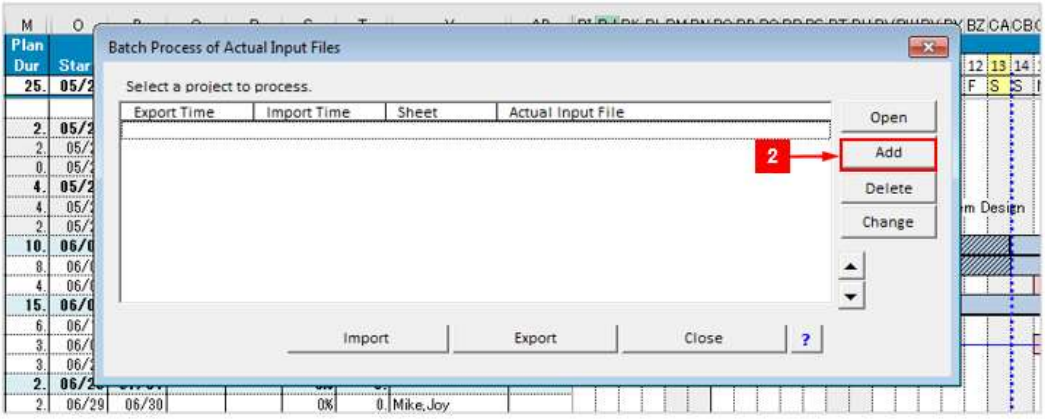
- Sample_Project1@.xlsx
- Sample_Project2@.xlsx



[1] Click “Batch Process” from “Actual Input File” button on the ribbon.



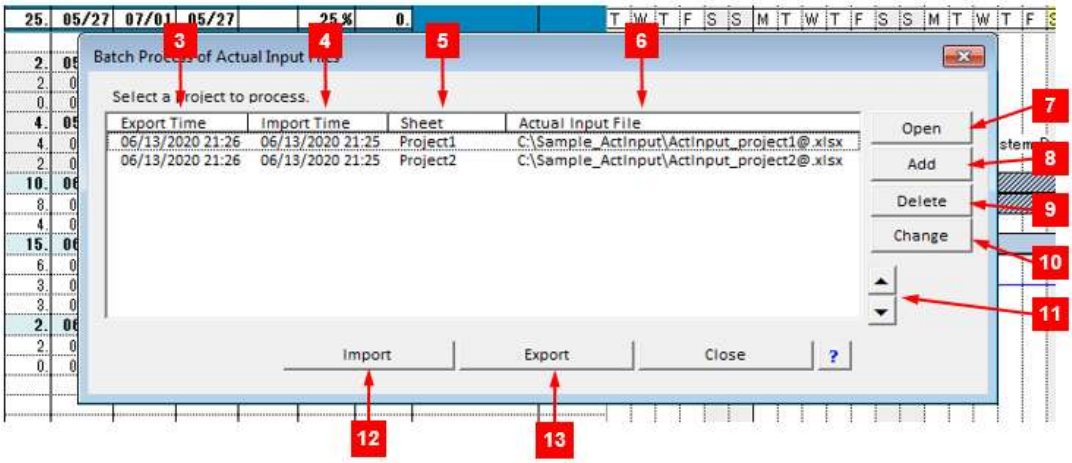
[3] Click the Add button in dialog **[3]** to select the actual input file to be registered.



The selected actuals input file has been registered. In the future, you can import and export actual input files from this dialog.

Memo:

- Export here means updating the actual input file with the latest project data.
- Max 10 files can be registered to the batch list.



Describes the function of each button on the dialog.

[3] Import time

[4] Export time

[5] Project sheet

[6] Actual Input file path

[7] Open: Opens the actual input file.

[8] Add: Register a new actual results file.

[9] Delete: Remove the registered actual input file. The actual input file itself is not deleted.

[10] Change: New create an actual input file and replace a selected registaion content with it. You can change WBS items displayed on the project sheet with this function.

[11] UP/DOWN: Change the order of registered actual input file. This allows you to change the order of execution.
[12] Import: Import actual data from actual input file into project.
[13] Export: Update the actual input file with the current project data.

Notes on Exporting

- Export overwrites the existing actual input file. If you have actual data that you have not yet imported, import and export it.
- If the actual input file is opened, the user is required to close it and the user can not overwrite and save the file being edited. If necessary, change the name as a separate file and save it.

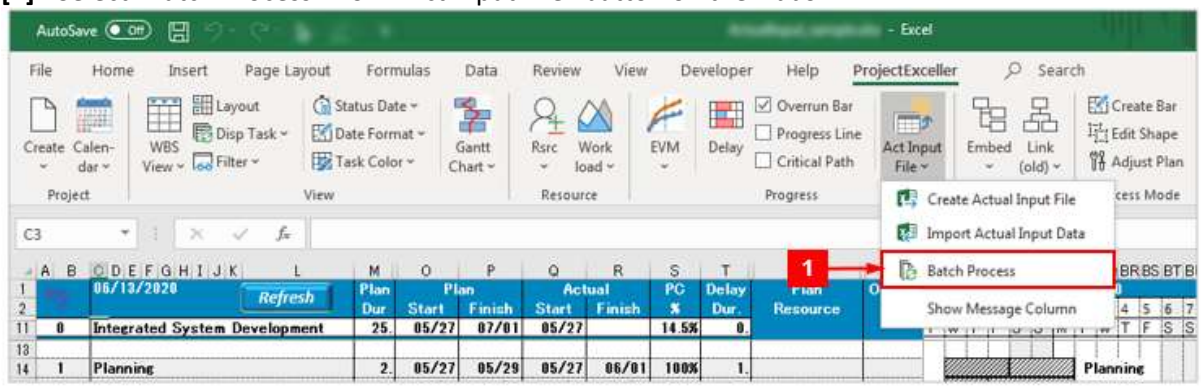
13.7. Export to Actual Input File

The actual input file registered in the "Batch Process" dialog is updated with the current project data by "Export".

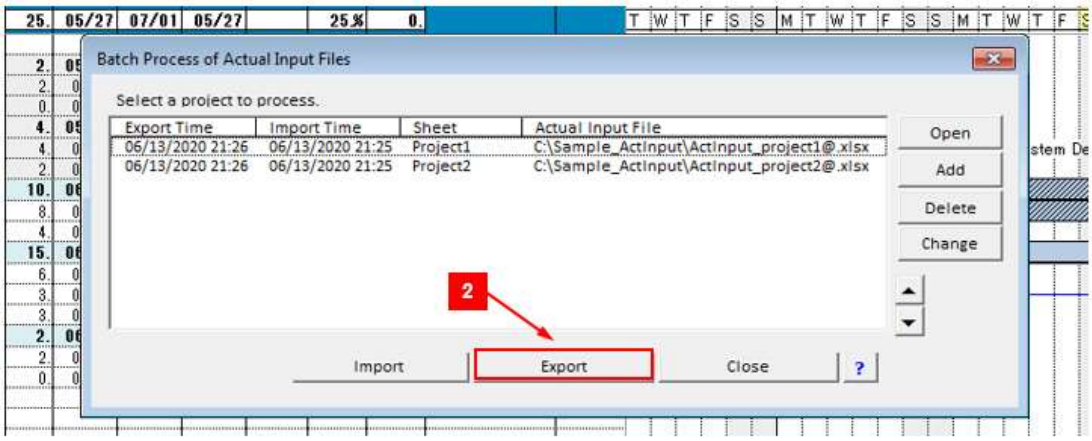
Memo: Project and Actual Input File Synchronization
You can synchronize data between project and actual input file by continuing import and export in "Batch process" dialog.

The sample used in the section Batch Processing of Actual Input Files explains the export procedure.

[1] Select "Batch Process" from "Act Input File" button on the ribbon.



The already registered actual input file is displayed on the dialog.
[2] Press the "Export" button to proceed.

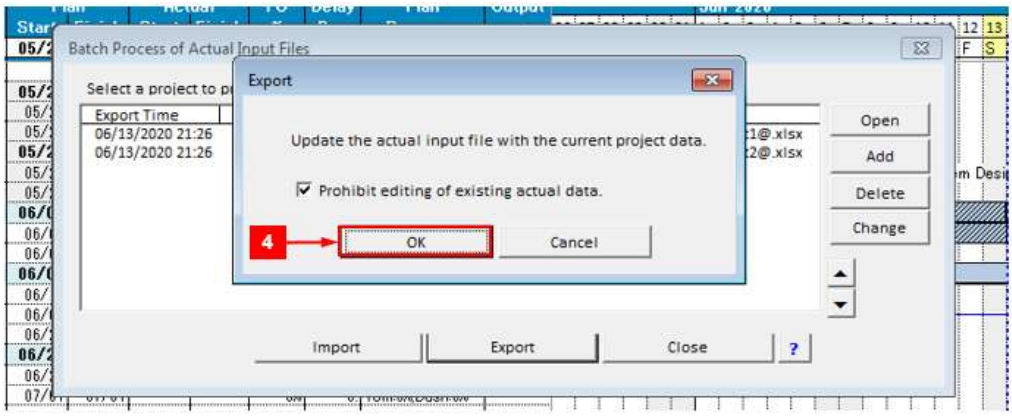


[3] If multiple files are registered, the following dialog is displayed. This time, select "All files" and press OK.
Memo: You can also select the target file before pressing the "Export" button.

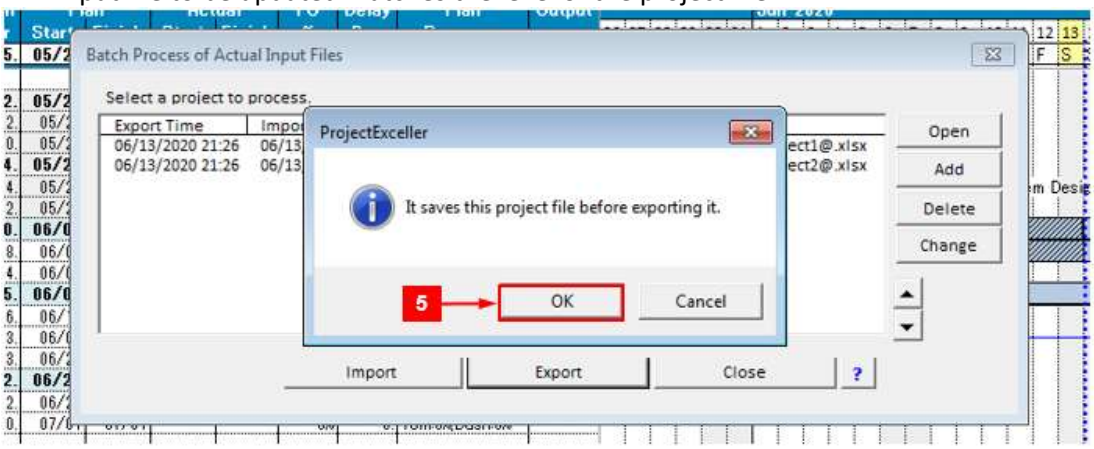
[4] The export starts with the OK button.

Note: "Disable editing of entered actual dates"

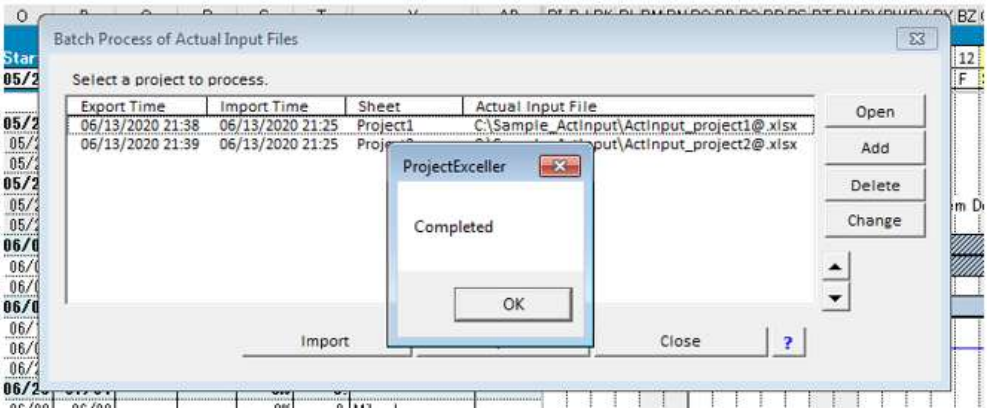
The default value is ON so that entered actual data is not changed unintentionally. When this is turned off, it can be changed in the actual input file where actual data already entered in the project is created. It is recomend default ON if you do not have a particular purpose.



[5] It is recommended that you save the project file before exporting to ensure that the level of the achievement input file to be updated matches the level of the project file.



The following dialog will be displayed when the export is complete.


Batch Process of Actual Input Files
Select a project to process.
Export Time
Import Time
Sheet
Actual Input File
06/13/2020 21:38
06/13/2020 21:25
Project1
C:\Sample_ActInput\ActInput_project1@.xlsx
06/13/2020 21:39
06/13/2020 21:25
ut\ActInput_project2@.xlsx
Open
Add
Delete
Change
ProjectExceller
Completed
OK
Import
Close
?

Chapter 14. Options

Launch from the Options button on the ProjectExceller Ribbon tab.

Make general settings for the project.

Items that can be set only from the option dialog

Although many items set on this option dialog can also be set from the ribbon or the right-click menu, the following items can only be set in the option dialog box.

- **WBS Tab**
  - Fonts
  - Amount display (currency, in thousands)
- **Gantt Chart Tab**
  - Gantt chart display period
  - Q1 Start Month
  - Task Link Line – Both Plan and Forecast Bars
  - Nonwork day Clm Color
- **Resource Tab**
  - Standard Unit Cost
  - Standard Work Hours
  - Cost Data (Disable / Enable)
- **EVM Tab**
  - EV Automatic Allocatoin Upper Limit
  - EV (Earned Value) Unit
  - Enable actual work (man-days), cost input for in-process tasks
- **Project Information Tab**
  - Project Manager
  - Notes
- **Others**
  - Avoid Refresh macro problem

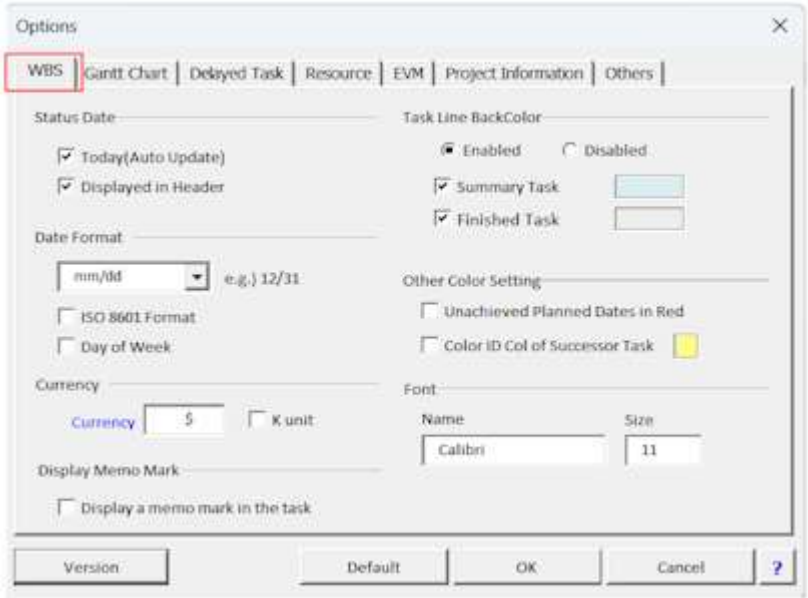
Setting Items Applied to the Entire Project File

Except for the following items, they apply to the entire project file. These item names are displayed in blue letters. Other items apply to each project sheet.

- **WBS tab**
  - Currency
- **WBS tab**
  - Nonwork Day Clm Color
- **Resource tab**
  - Standard Unit Cost
  - Standard Work Hours
  - Cost Data (Enable / Disable)
- **Project Information**
  - Project Manager
  - Notes
- **Others**
  - Avoid Refresh macro problem. Note: set by each PC.

14.1. WBS Tab

Set WBS display options and status date. For details of each item, refer to the following.



- **Status Date**
  - Today (Auto Update): The status date is linked to the date on the computer, and is automatically set on the current date.
  - Displayed Header: Display the status date in WBS header.
- **Task Line BackColor**

  Automatically colorize summary tasks and completed tasks.
- **Date Format**
  - Select the display format of the status date on WBS date.

mm/dd/yyyy e.g.) 12/31/2017

mm/dd/yy e.g.) 12/31/17

mm/dd e.g.) 12/31

- ISO 8601 Format

Date format specified in ISO8601. e.g.) 12-31-2017

- Day of Week

It also displays the day of the week. Ee.g.) 12/31/2017 (Sun)

■ **Currency**

- Currency

The specified currency is displayed in the header of the display item of the cost (amount of money) data of WBS.

- K unit

e.g.) 1,000,000 is displayed as 1,000.

■ **Other Color Setting**

- Unachieved Planned Dates in Red

The planned start date or finish date that has not been done on schedule is displayed in red.

- Color ID Col of Successor Task

The background color of the ID column of the task for which the preceding linked task is set is light yellow.

■ **Font**

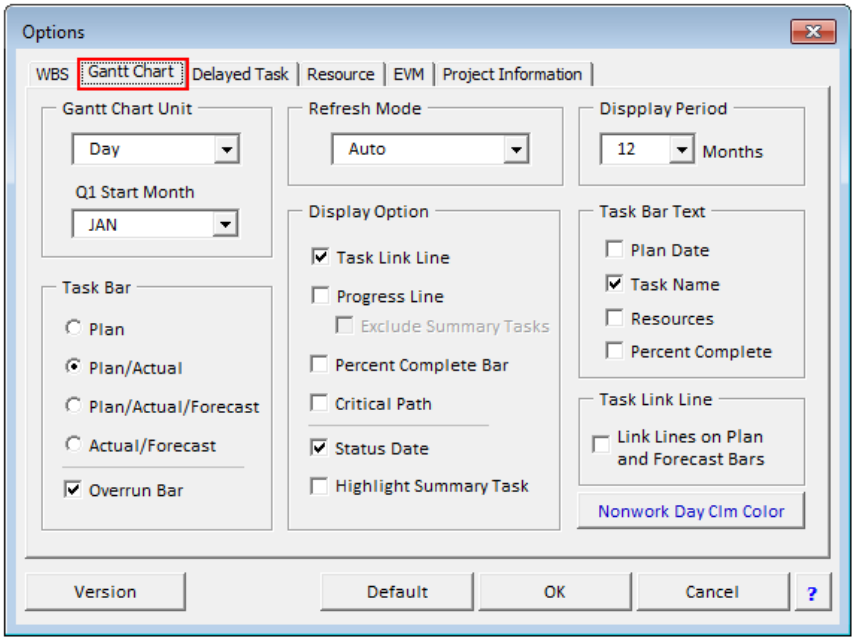
You can select character font of menu and data on the project sheet. The standard font used varies from country to country. You can change the font suitable for global projects. For example, MS Gothic in Japan, Arial, Calibri, etc. in the United States.

■ **Display a memo mark in the task line**

If there is information in the “Remarks” column cell of a task, a memo mark (||) will appear to the left of the task row (columns A and B). Clicking on that symbol will open the Task Information dialog, where you can view and edit the “Remarks” contents.

14.2. Gantt Chart Tab

Configure Gantt chart display and operation settings.
Memo: This feature is the same as the Gantt Chart button on the ProjectExceller tab on the ribbon.
For details of each item, please refer to the following.



Gantt Chart Unit

Sets the Gantt chart display unit. You can switch to day, week, month, quarter, year. The default is day.

Display Period

This is the display period when the Gantt chart is in daily units. The expected value is 1 year (12 months). You can select between 6 and 36 months from the combo box, or enter a value directly to extend it up to 10 years (120 months).

Note: Extending the period will slow down processing. The default value of 12 months is recommended.

Refresh Mode

Select the Gantt chart update method. There are three modes: The default is automatic mode.

Automatic: The Gantt chart is updated when the WBS is changed.

Manual: The Gantt chart is updated only when the Refresh button is pressed.

Direct Edit: Fastest mode. Edit Ecxel directly and refresh the Gantt chart with the Refresh button

Task Bar

Specifies the type of task bar displayed on the Gantt chart.

Choose from a combination of plan bar, actual bar, forecast bar, and overrun bar. The default is plan/ actual bar with overrun bar.

Display Option

Specifies the Gantt chart display options.

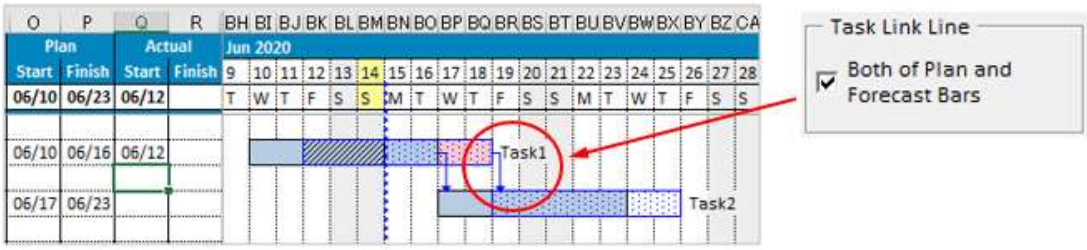
Set the color of task link line, progress line, compete bar, critical path, status date line, and summary task bar. The default is that task link line is ON, others are OFF.

Task Bar Text

You can view planned dates, task names, resources, and percent complete as supplementary information on the task bars of the Gantt chart. The default is that the task name is ON and others are OFF.

Task Link Line

If both the plan bar and the forecast bar are displayed, you can specify whether to show task link lines only in the plan bar (default) or to display task link lines in both the plan bar and the forecas bar.

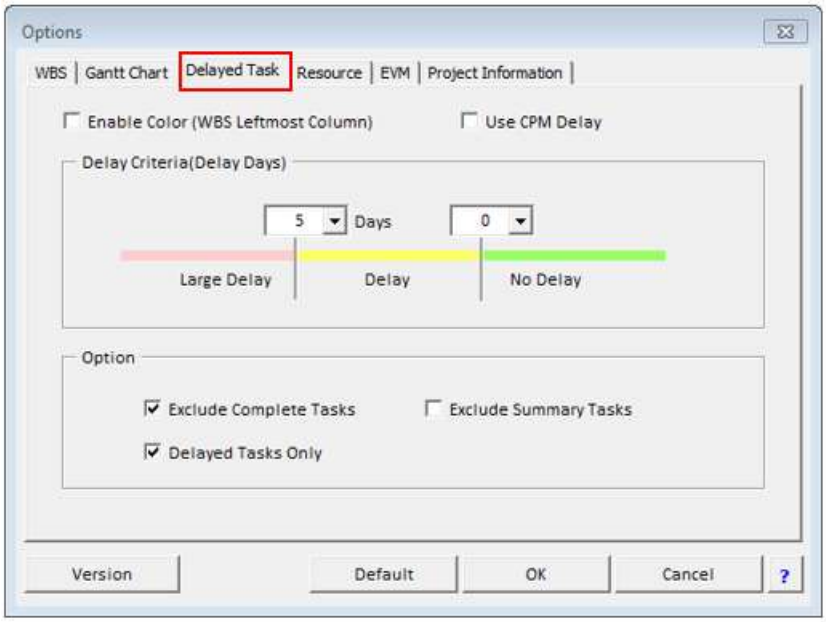


■ **Nonwork Day Clm Color**

Changes the background color of the non-working day column. This is set for each project file.

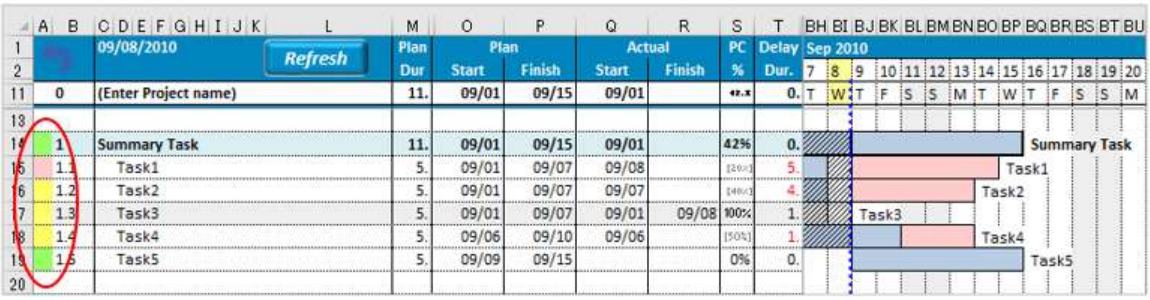
14.3. Delayed Task Tab

It changes the setting of the "Delayed Task" function on the ProjectExceller tab on the ribbon.



■ **Enable Color (WBS Leftmost Column)**

Color-codes the task into three: large delay, small delay, and no delay. Only cells in the leftmost column of WBS are colored.



■ **Use CPM Delay**

The value in "CPM Delay" column is used instead of the "Delay Dur" column.

Note: This is a new option added in ProjectExceller 2. When saving a project file with ProjectExceller version 1, "Use CPM Delay Dur" setting is reset to OFF.

■ **Delay Criteria (Delay Days)**

The distinction between small and large delays is determined by the size of the delay period.

The default is

- Delay: delay days is greater than 0 days and less than 5 days.
- Large Delay: delay days is 5 days or more.

This setting can be changed for each project sheet.

■ **Option**

- **Exclude Complete Tasks**

Do not color the complete tasks. Default is ON. Setting to OFF, the tasks completed behind schedule are in color.

- **Exclude Summary Tasks**

Do not color the summary tasks. Default is ON, Setting to OFF, the summary tasks behind schedule is in color.

- **Delayed Tasks Only**

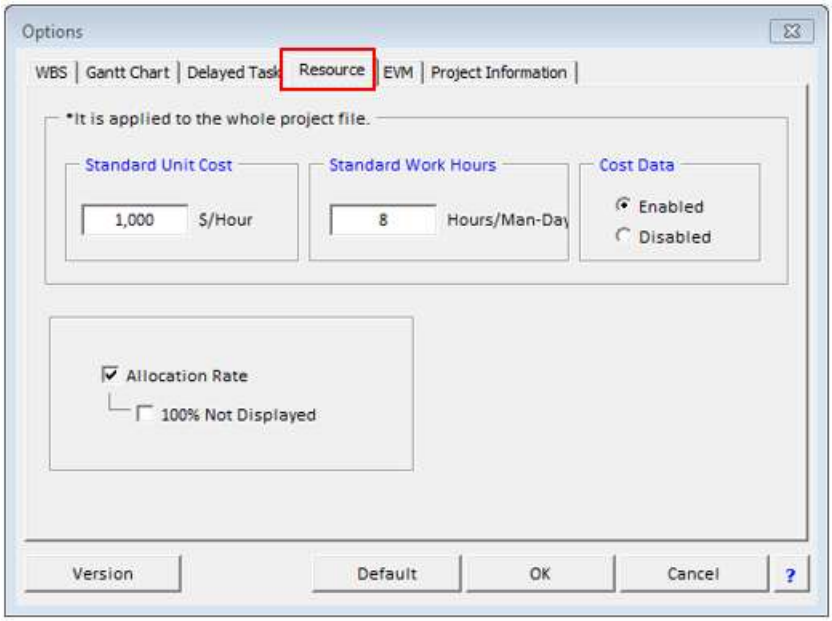
Only tasks with delays are colored. The default (on) does not color tasks that do not have a delay. When turned off, the tasks with no delays in green.

Note:

These three choices are applied in the AND condition. In other words, by default, incomplete and delayed tasks, including summary tasks, are subject to coloring.

14.4. Resource Tab

It is settings for resources.



■ **Standard Unit Cost**

It is used to calculate the cost of the project when the unit cost of the resource registered in the resource sheet is not set or the resource is not assigned to the task.

■ **Standard Work Hours**

The unit of work in ProjectExceller is man-days. Standard work hours is the hours per person per day. As an initial setting, 8 hours are set. For example, if the standard work hours is 8 hours, and one task requires 1.5 hours, the work hours will be 12 hours.

- **Cost Data (Enable/Disable)**

You can disable the cost data if you do not want to share information on resource cost and project cost with other members. Hide the resource unit cost registered in the resource sheet and disable the execution of cost calculation for the project sheet.

Note: The cost of Fixed Cost-Type task is not hide.

- **Display Resource Fields**

Along with the resource name assigned to the resource column, you can select whether to display the allocation rate. Also, when the allocation rate is 100%, the display of the rate can be omitted. (Displayed only when other than 100%)

Note: Settings of Standard Unit Cost, Standard Work Hours, Cost Data (Enable/Disable), Currency

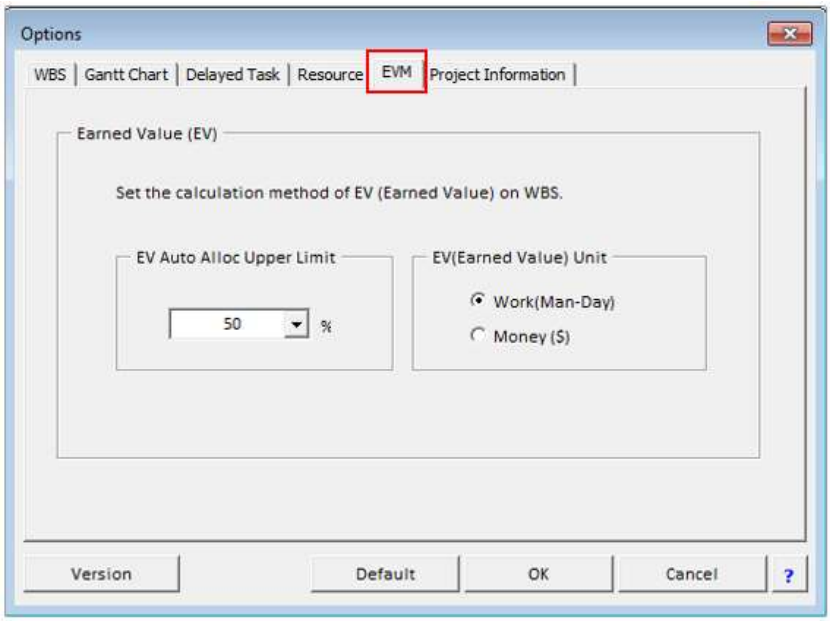
- These items are set for the entire project file. That is, if there were multiple project sheets, these changes would apply to all project sheets.
- These items do not return to their default values by pressing the "Default" button on the Options dialog. If you want to change it, you need to change the settings individually.

14.5. EVM Tab

It is settings of EVM (Earned Value Management).

Note: This feature can also be configured from the EVM analysis on the ribbon.

Refer to the chapter of "EVM Analysis" for EVM function.



- **EV Auto Alloc Upper Limit**

EV (Earned Value) is a method that automatically accounts for EV (volume), assuming that work has been performed as planned in proportion to the number of days elapsed until the upper limit value of EV lume) of the task started.

Note: Traditional EVM analysis can update EV values only twice, at the start and end of a task. Therefore, the progress status of tasks in progress is not displayed correctly. With this function, it is possible to realize a near-realistic accounting.

■ **EV (Earned Value) Unit**

The unit of EV can be workload(man-day) or cost (amount of money). The default is workload(man-days). When the cost is selected, the display unit of EVM index values (BAC, PV, EV, SV, CV) on WBS is switched to cost (amount of money).

Note:

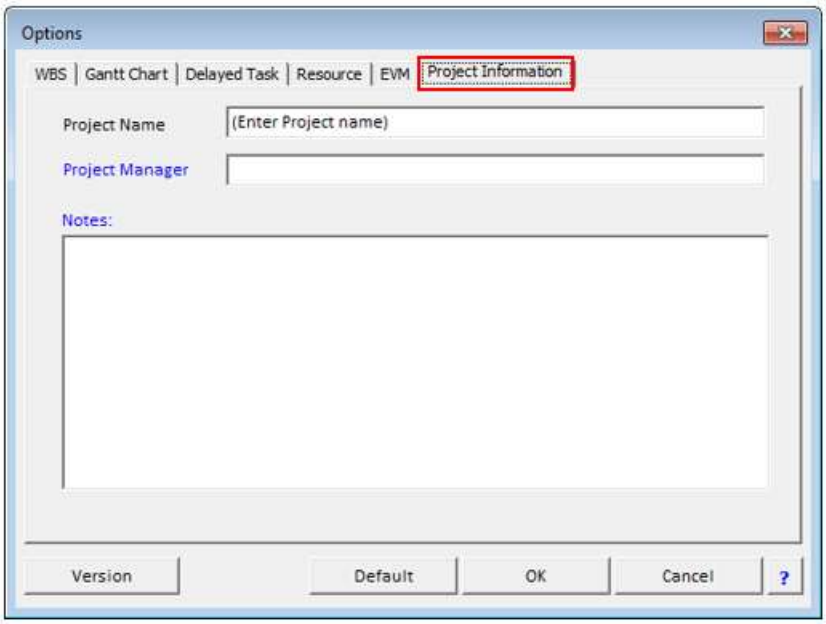
- When selecting a cost in EV units, it is mandatory to set a "standard price".
- When creating an EVM graph, you can also select and execute the unit of EVM analysis as either effort or cost, independently of the settings on this option dialog.

■ **Enable actual work (man-days) and cost input for in-process tasks**

Note: This option iwas present in previous versions, but has been removed since V2.057 because it is now always enabled.

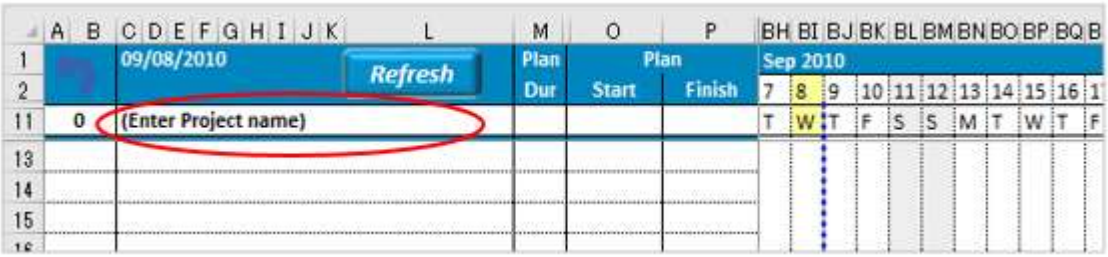
14.6. Project Information Tab

You can enter information about the project. It is set for each project sheet.



■ **Project Name**

The contents written in this field will be displayed in the header part of the project sheet. Also, if you fill in the project name field of the project sheet, it will be reflected in the option dialog.



■ **Project Manager**

Fill in information such as project manager. There is no restriction on the content of the entry.

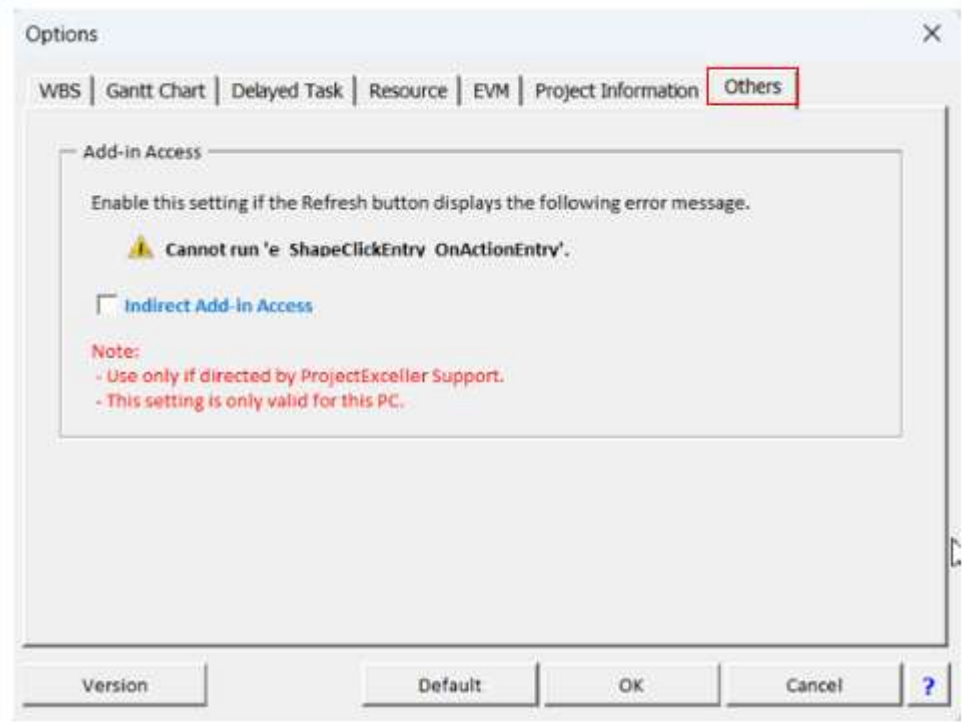
Note: This information is set only once per project file.

- **Notes**

You can enter information about the project.

Note: This information is set only once per project file.

14.7. Others Tab



- **Indirect Add-in Access**

On some PCs, when you click the Refresh button or a shape on a project sheet, a message may appear stating that macros are disabled. This is because security rules are set on that PC that restrict access to add-in files. Enabling this option will allow it to operate under those security rules.

Note:

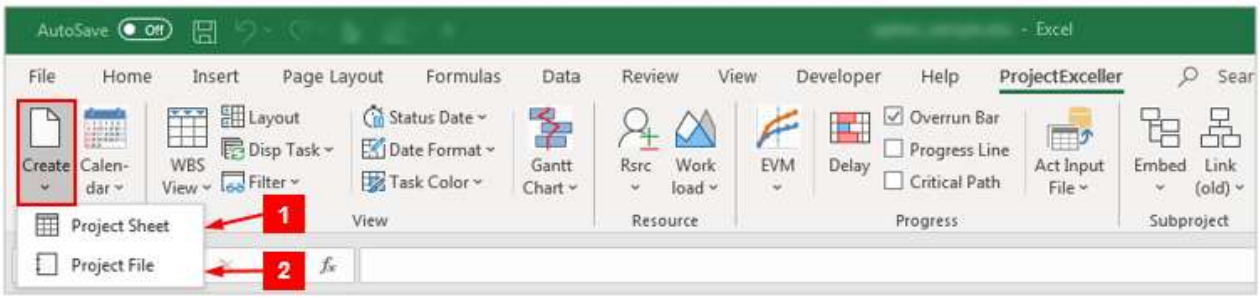
- Enabling this option when not applicable will cause malfunctions. Use only when instructed to do so by ProjectExceller support. This applies to the entire PC, not to each file.
- When this option is enabled, a file called pxobject2.xlsm will always be open. This file will always be in a minimized window.

Chapter 15. Other Functions

This chapter describes the main features that were not described in detail in earlier chapters. Features not found in this chapter are described in other chapters.

15.1. Create Project

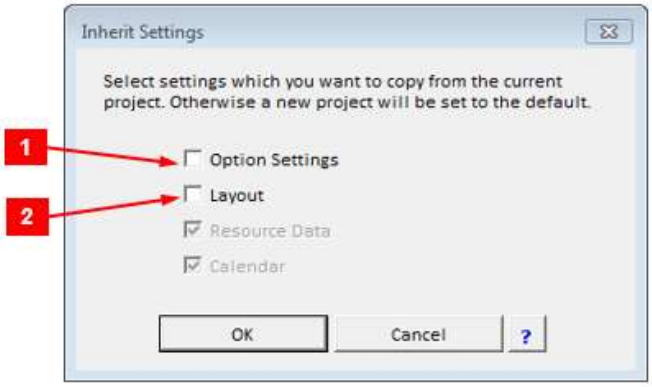
Create a new project file or add a new project sheet on an existing project file.



[1] Project Sheet
Add a new project sheet
[2] Project File
Create a new project file

Create Project Sheet

Add a new project sheet to the project file. In the "Inherit Settings" dialog, you can inherit the optional settings of the currently selected project and the WBS layout.

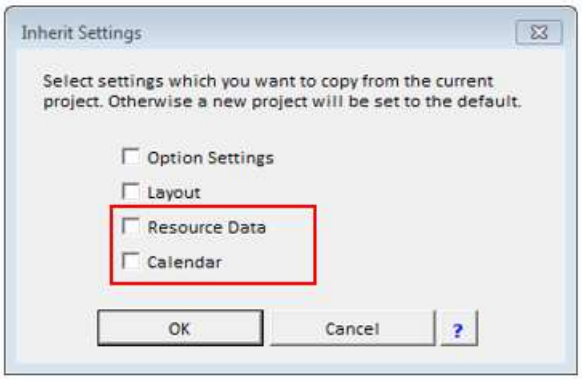


[1] Option Settings
Inherit project settings set in the options dialog.
[2] Layout
Inherit the WBS item order, WBS view, and user-defined items.

Memo: Copy Project Sheet
Project sheets can be copied using the Excel standard copy function within the same project file. If you want to use a part of the existing sheet data, it may be more efficient to copy the sheet with the standard function of Excel and edit the data instead of "Create a new project sheet".

Create Project File

It creates a new project sheet. In the followinig "Inherit Settings" dialog, you can inherit the WBS layout and option settings of the currently project sheet. You can also inherit "Resource Data" and "Calendar".

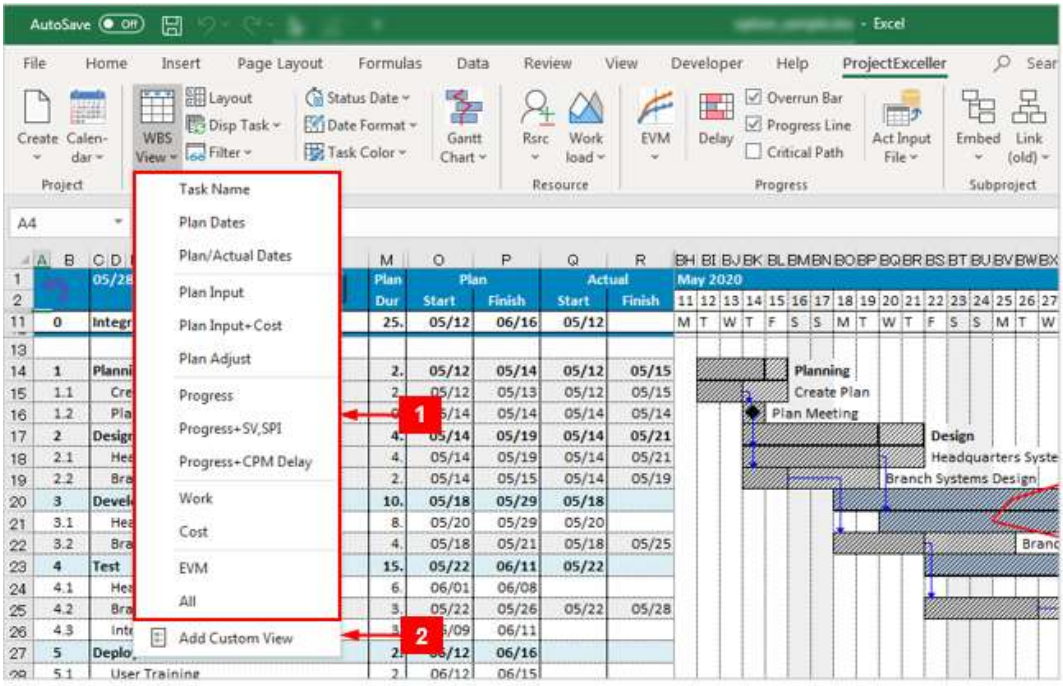


Memo: Invoke from Windows Start menu.

You can also select “ProjectExceller” from Windows Start menu to create a new project file.

15.2. WBS View

Select the combination of items displayed on WBS (WBS View). Click the WBS View button on the ribbon to display the WBS view list.



The combination of WBS items displayed on the project sheet is called "WBS View". There are 13 standard "WBS views" available. Furthermore, you can register up to four **Custom Views** that users register on their own.
By selecting these from the WBS header right-click menu "WBS View" (**[1]**), you can easily switch the view.

Contents of WBS View

The following table shows the contents of each WBS view. Custom views 1 to 4 are not checked in this table because they are customized by the user.

WBS View	Item Name																															
	ID	Task	Plan Dur	Actual Dur	Plan Start	Plan Finish	Actual Start	Actual Finish	PC%	Delay Dur	CPM Delay*	Fcst Start	Fcst Finish	Earlist Finish	Plan Resource	Actual Resource	Plan HC	Plan Work	Actual Work	Task Type	Plan Cost	Actual Cost	コストタイプ	BAC	PV	EV	AC	SV	CV	SPI	CPI	Remarks*	Message*
Task Name	✓	✓																															
Plan Dates	✓	✓	✓																														
Plan/Actual Dates	✓	✓	✓		✓	✓	✓	✓																									
Plan Input	✓	✓	✓		✓	✓									✓		✓	✓															
Plan Input+Cost	✓	✓	✓		✓	✓									✓		✓	✓			✓												
Plan Adjust	✓	✓	✓		✓	✓	✓								✓		✓	✓															
Progress	✓	✓	✓		✓	✓	✓	✓	✓	✓					✓																		
Progress+SV,CPI	✓	✓	✓		✓	✓	✓	✓	✓	✓					✓													✓		✓			
Progress+CPM delay	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓				✓													✓		✓			
Work	✓	✓	✓		✓	✓	✓	✓							✓			✓	✓														
Cost	✓	✓	✓		✓	✓	✓	✓							✓						✓	✓											
EVM	✓	✓	✓		✓	✓	✓	✓																✓	✓	✓	✓	✓	✓	✓	✓		
All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Custom View1																																	
Custom View2																																	
Custom View3																																	
Custom View4																																	

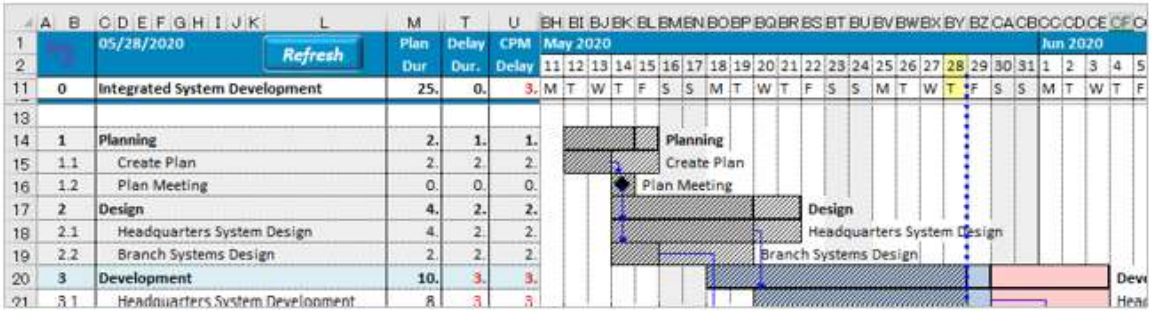
Note: ✳ is new in version 2.

Create Custom View

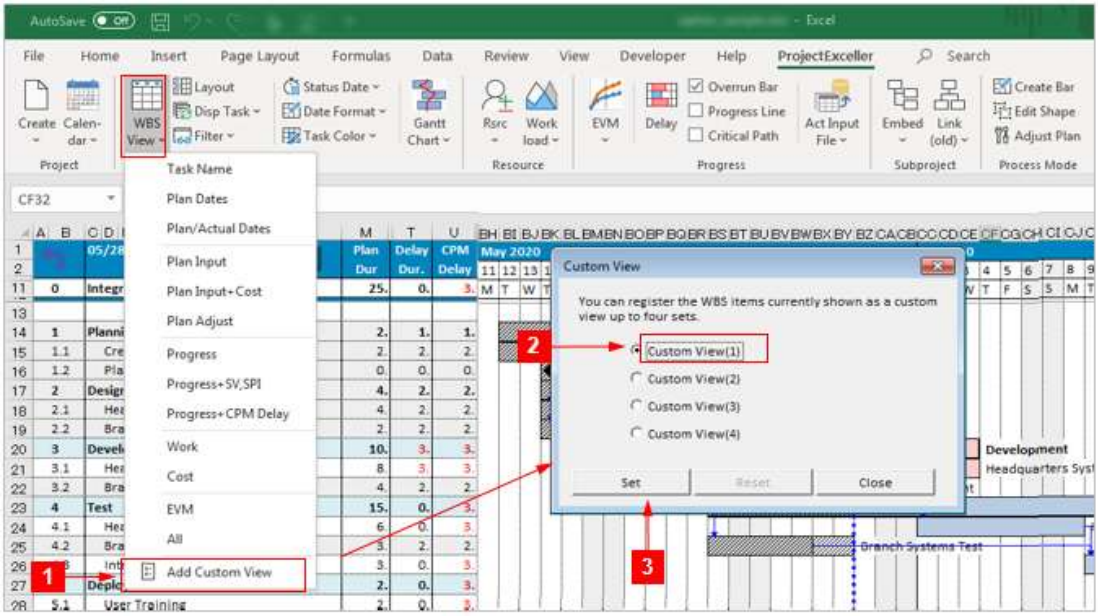
The items displayed in WBS can be customized freely using the "Layout" function. Up to four customized WBS views can be registered as "Custom View".

Note: Custom views are set for each Windows user account on your PC. The registered custom view is not saved in the project file.

The following WBS example consists of four items: task name, plan duration, delay duration, and CPM delay.
Let's register this as a "Custom View".



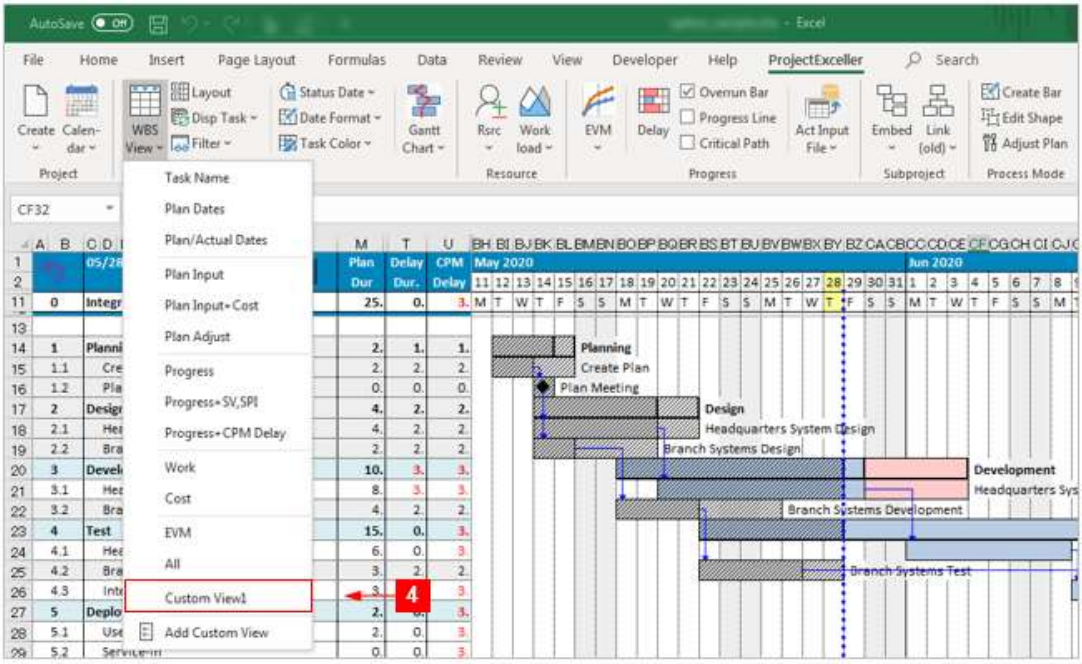
[1] Click “Add Custom View” from the “WBS View” button on the ribbon.



[2] Select "Custom View (1)" from the "Custom View" dialog displayed.

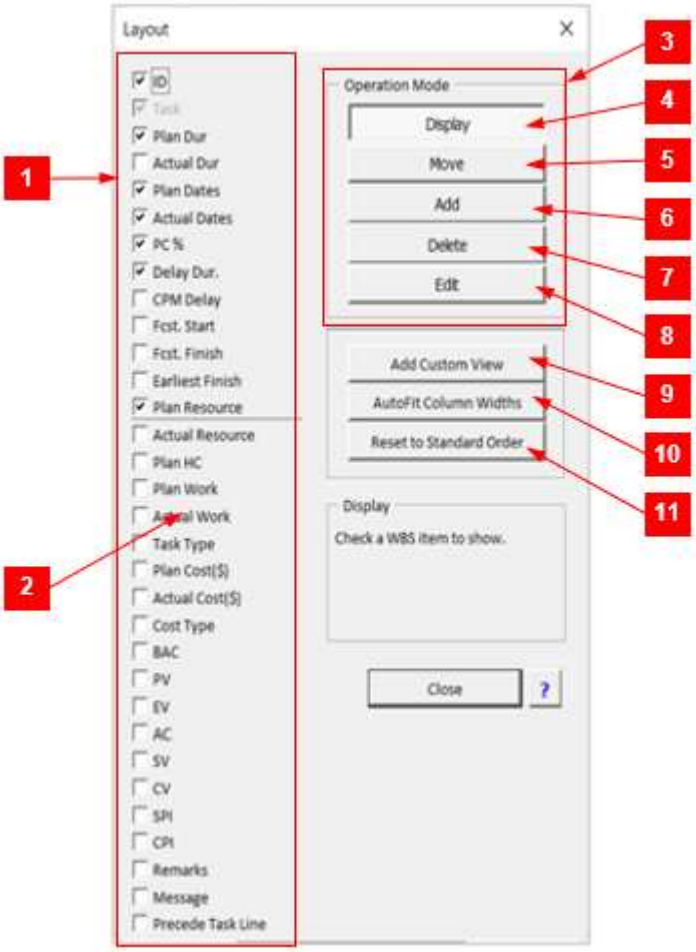
[3] The "Set" button registers the current WBS view as "Custom view (1)". The existing registration can be deleted by "Reset" button.

[4] When a custom view is registered, the custom view name registered in the WBS view list is displayed as shown in the following figure. You can switch to the registered WBS view by licking this.



15.3. Layout

Display, move, add and delete WBS items. A dialog is displayed when you click "Layout" from the ribbon.



WBS has more than 30 items as standard WBS items. You can display or hide these standard item columns, move the display position (column), and add or delete user defined item. In addition, it provides functions such as custom view definition, standard order return, and optimization of all item column widths.
Each part of the "layout" dialog is explained as follows.

[1] WBS Item List

This red box shows all items that can be displayed on WBS. The planned start date / finish date, and the actual start date / finish date are displayed as one item in each pair. Also, if there is a "user-defined item" that the user adds on their own, it is also be displayed.

[2] Split Column Line

The horizontal line displayed between items indicates the position of splitting column in the current project sheet. In other words, the screen is divided left and right with this line as a line, the display item on the left side (above the line in the dialog) is fixed, and the right side indicates that you can scroll left and right.

The fixed column setting can not be changed on this dialog. You can change it by “Split at this column” of “WBS Items Operation” of the right-click menu on WBS header.

[3] Operation Mode

Select the processing mode to edit the item displayed in the WBS Item List (**[1]**).

[4] Display

You can select the items to be displayed on the project sheet. When “Display” mode is selected, a check box is displayed on the left of the WBS Item List (**[1]**). The checked items are displayed on the project sheet. The items not checked are hidden, but the data itself is maintained in the project sheet.
The "task" item can not be hidden.

[5] Move

You can change the display position of the item. According to the displayed message, select the item you want to move, and then specify the move destination position.
The items of "ID" and "task" can not be moved.

[6] Add

In addition to standard items, users can add their own WBS items. Please specify the insertion point according to the displayed message. When the insertion position is confirmed, the “User Defined Items” dialog is displayed.

User-defined items can also be added from the right-click menu "User Defined Items" in the WBS header.

[7] Delete

You can delete a user-defined item. Once you delete it, the data cannot be recovered. The standard items can not be deleted.

[8] Edit

If there is a user-defined item, you can edit the item name and formatting. The standard items can not be edited.

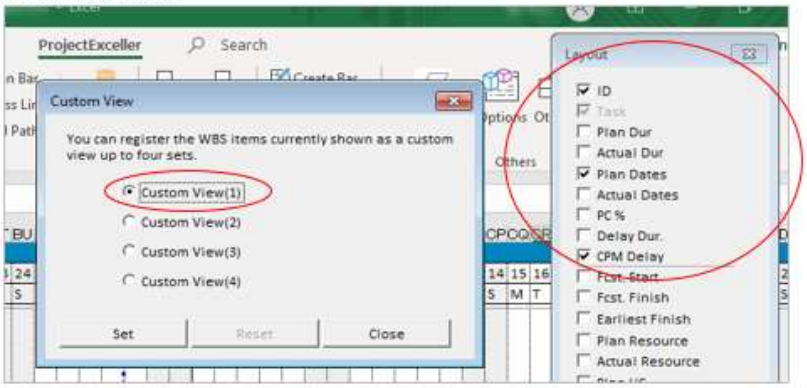
[9] Add Custom View

In addition to standard WBS views, users can create their own WBS views. When the "Custom view" button is clicked, "Custom view registration" and "Layout" dialogs are displayed on the screen.

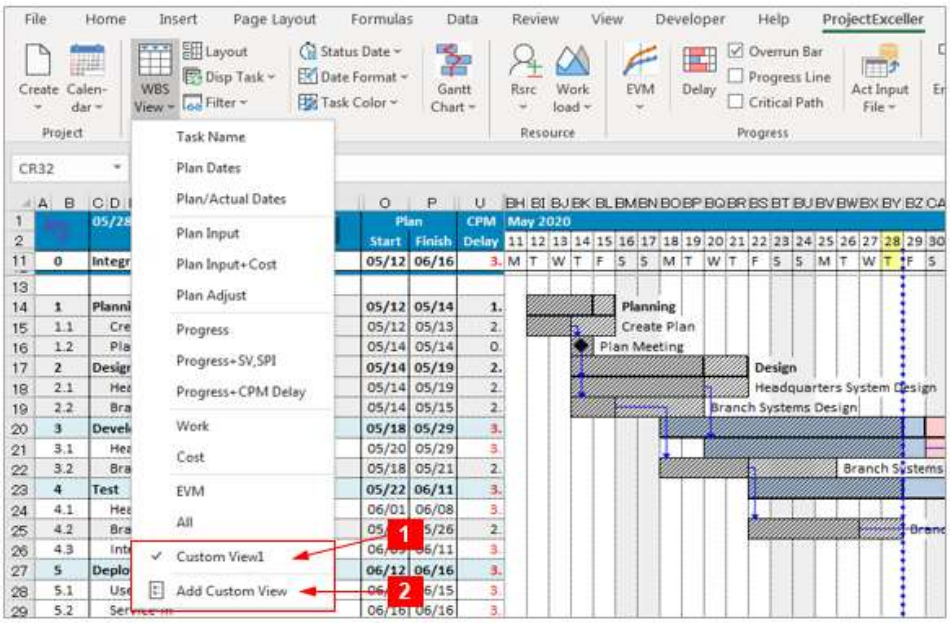
You can register up to four custom views. Select the custom view (1) to (4) you want to register, select the items that make up the view from the "Layout" dialog, and confirm by pressing the "Register" button in the "Custom View" dialog.

In the example below, the view consisting of ID, task name, planned date, and forecast start date is registered as "Custom View (4)".

Add Custom View



The registered custom view can be selected in the same way as other standard views by selecting it in the ribbon "WBS view". (**[12]**). You can add a new custom view by “Add Custom View” (**[13]**) in the WBS View menu.



[10] Autofit Column Widths

Automatically adjust the column width of all items so that the optimum column width suited to the character size is obtained.

The same function can also be executed with the right-click menu "WBS Item Operation" in the WBS header.

[11] Reset to Standard Order

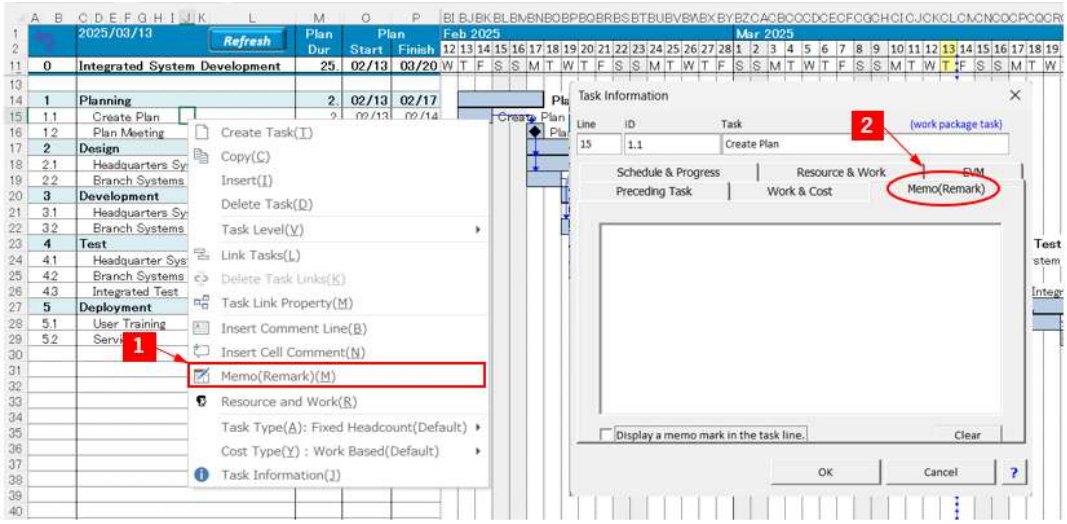
If you change the order of the standard WBS item column by the function of “Move”([5]), you can restore the order to default.

15.4. Memo (Remarks)

(Function since V2.079)

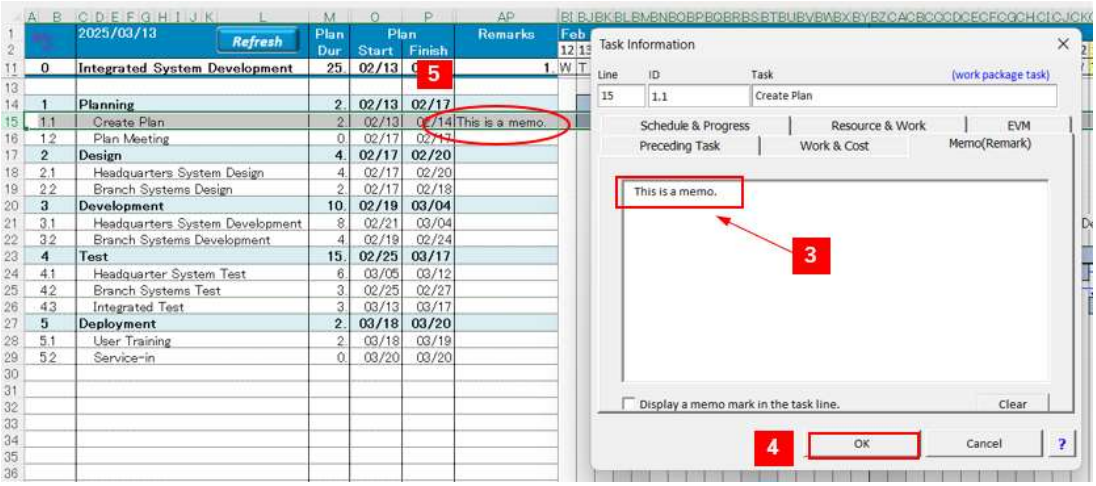
The contents of “Remarks” of a task can be displayed and edited from the right-click menu of WBS.

Edit Remarks



[1] Click “Memo (Remarks)” from the right-click menu.

[2] The “Memo (Remarks)” tag of the Task Information dialog opens.



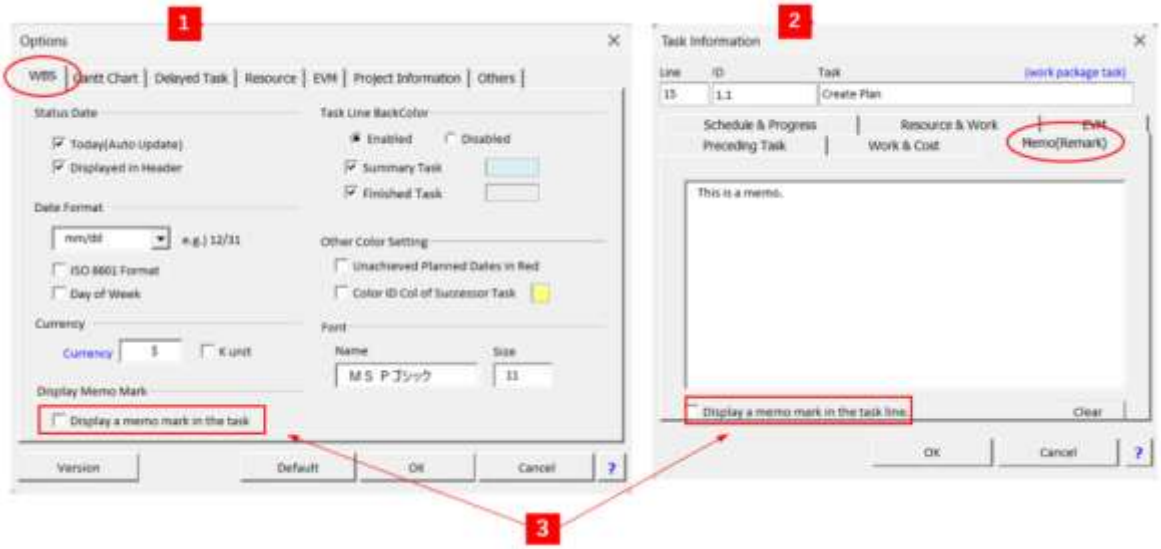
[3] Enter text. This is a memo.”

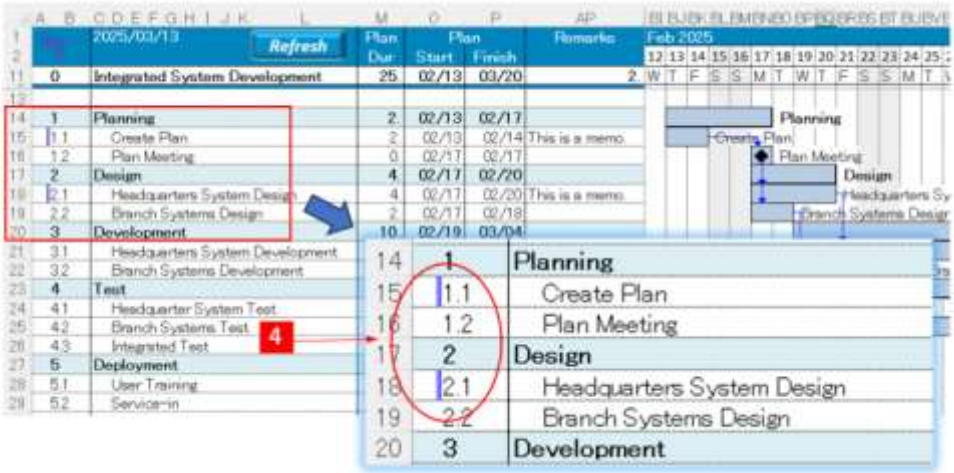
[4] Click the OK button and the “Remarks” ([5]) column will reflect this.

15.5. Disaplay a memo mark in the task line

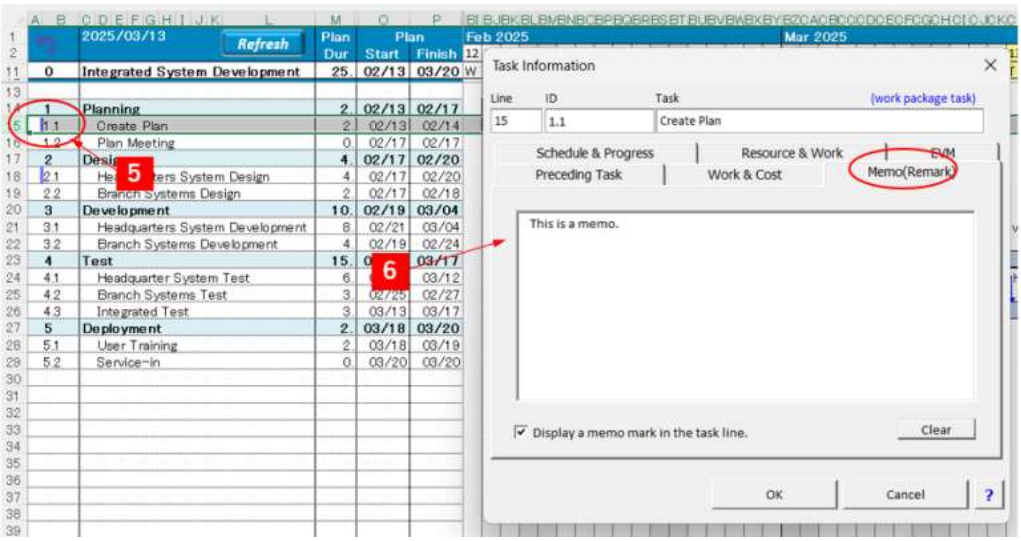
(Function since V2.079)

There is an item “Display a memo mark in the task line” (**[3]**) in the WBS tab of the Options dialog (**[1]**) and in the “Memo (Remarks)” tab of the Task Info dialog (**[2]**).





If this option item '**Display a memo mark in the task line**' (**[3]**) is enabled, a memo mark (**[4]**) (blue double vertical ruled line) will appear in the task ID column (column B) if there is data in the task's "Remarks".



Clicking on the memo mark portion (**[5]**) (column A or B) of the task line opens the **Task Information dialog** (**[6]**), and the data in the "Remarks" column will be displayed in the **"Memo (Remarks)"** tab. Edit the text and click OK to update the remarks data in WBS.

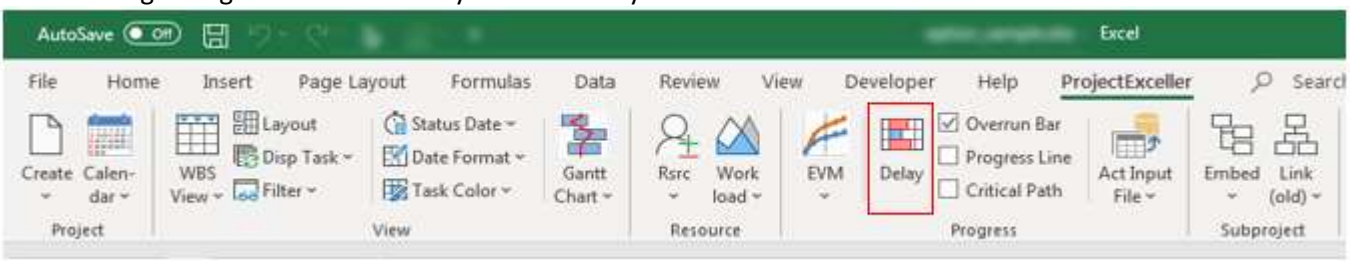
This allows you to update the remarks data without displaying the WBS remarks column. Also, if you select another task with the Task Info dialog open, the data for that task will appear in the dialog.

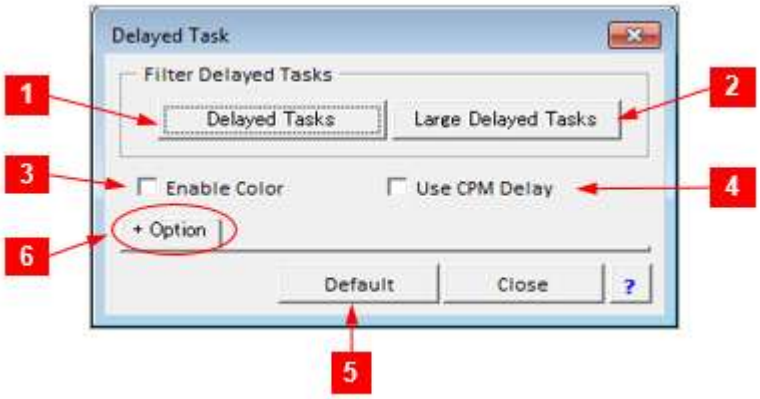
15.6. Delayed Task

In order to execute the project as planned, it is important to know the delayed task accurately and to take appropriate action early.

It provides the following features:
1. Categorize tasks into large delays, small delays, no delays, and color-code them on WBS.
2. Extract and display only delayed tasks or large delayed task lines.

The following dialog is launched when you click "Delayed Task" on the ribbon.





[1] Delayed Task

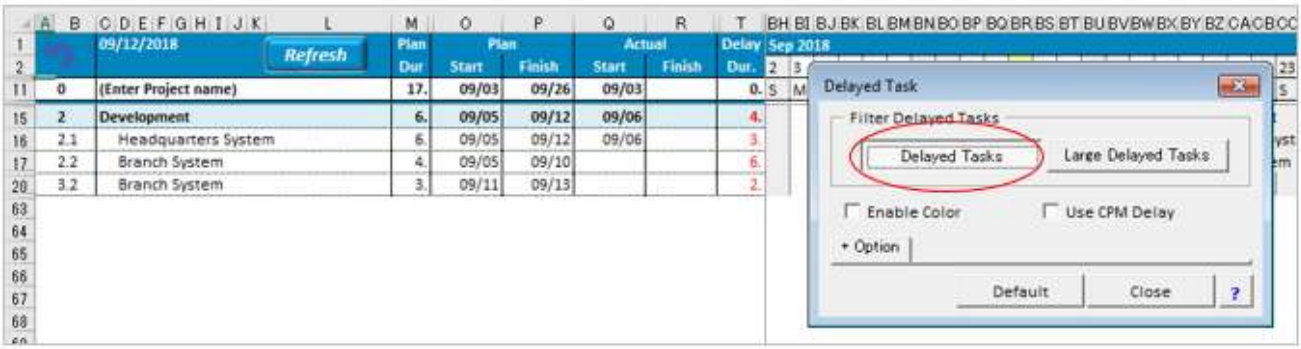
Extract the delayed task lines. The judgment criteria for delay can be set in "Delay Criteria".

default criteria for delay

Progress Status	Delay Criteria（Default） *1	Color
No Delay	0 day or less	No color or green ■ *2
Small Delay	less than 5 days	yellow ■
Large Delay	5 days or greaters	pink ■

*1) Delay criteria can be customized in the dialog displayed by the "criterion criteria" button.
*2) The "no delay" task is not colored by default. It can be displayed in green as option.

When extracted by "Delayed Task"

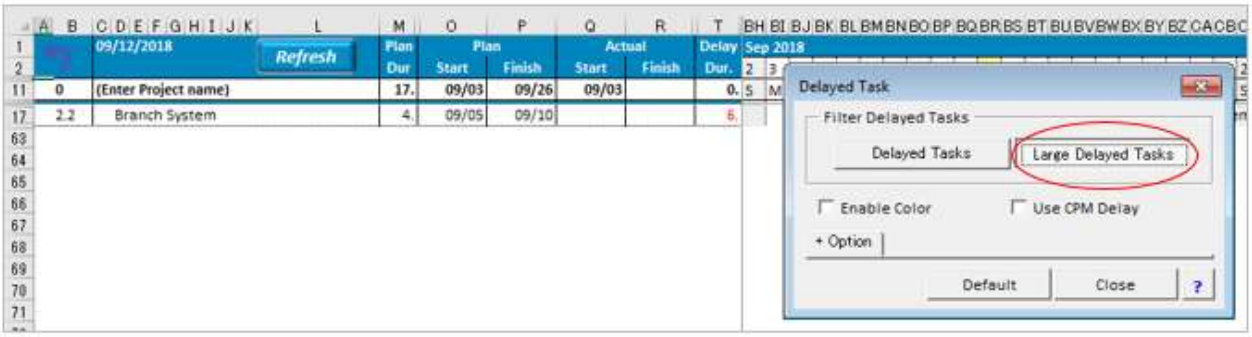


Note: Select the WBS column to display from the WBS View or Layout.

[2] Large Delayed Task

Extract large delayed task lines. Large delay criteria can be defined in "Delay Criteria".

When extracted by "Large Delay Task"



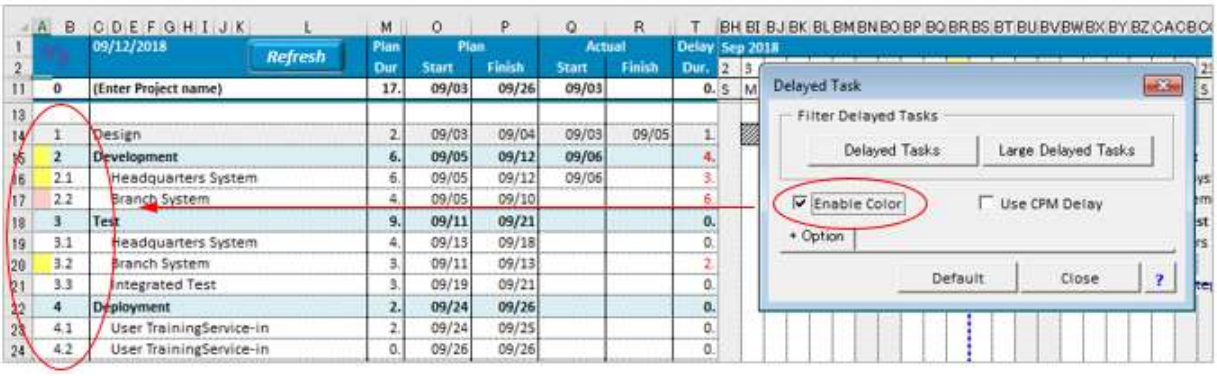
[3] Enable Color

The progress of the task is divided into three parts, "No delay", "Small delay" and "Large delay", and is color-coded in the leftmost column of WBS. By default, only uncompleted delayed tasks that are not summary tasks are colored.

Default settings:

- Exclude Complete Taskss: ON
- Do not include summary tasks: off
- Colorize Delayed Tasks Only: On

Color-coded example (setting is default)

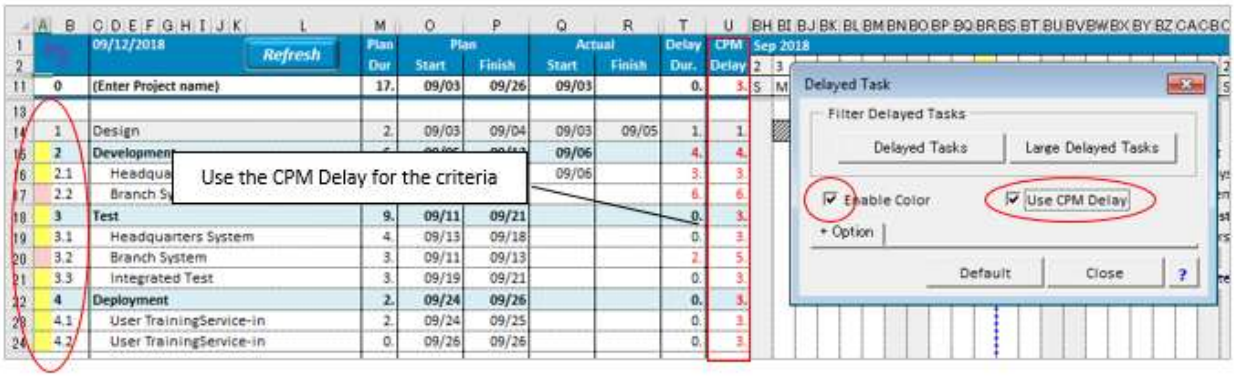


[4] Use Forecast Delay Dur

The value in the “CPM Delay” column is used as the delay value instead of the “Delay Dur” column.

Note: This is a new option added in ProjectExceller 2. When saving a project file with ProjectExceller version 1, this option setting is reset to OFF.

Color-coded example (use "delay period" for judgment)



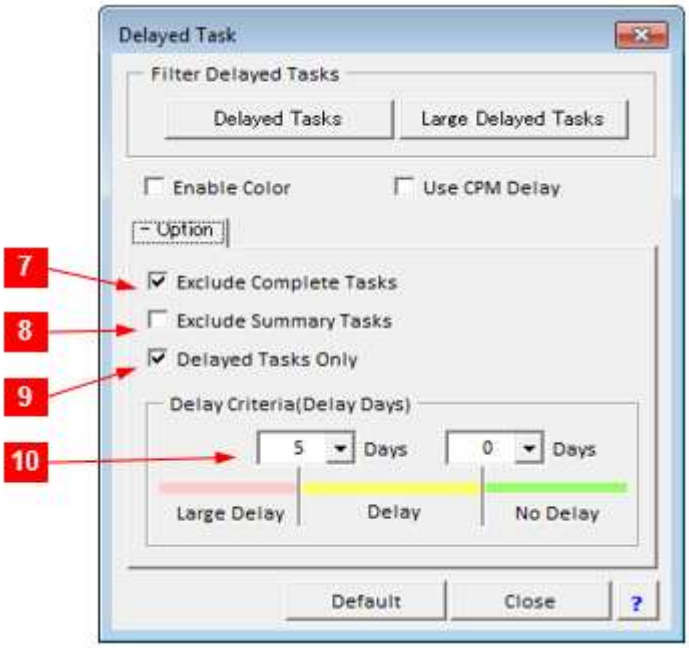
[5] Default

Restore default settings.

[6] Option

You can set advanced settings for delayed task color coding and extraction.

Click the "+ Option" tab to display the advanced setting fields shown in the figure below. Click the "-Option" tab again to hide the advanced setting fields.



[7] Exclude Complete Tasks

Set whether to include tasks completed for coloring and filter delayed tasks. The default is ON.

[8] Exclude Summary Tasks

Select whether to include a summary task as a target for coloring and filter delayed tasks. The default is OFF.

[9] Delayed Tasks Only

Only tasks with delays are colored and filtered. The default is ON.

When turned off, tasks with no delay are marked green.

Note: These three choices (**[7][8][9]**) are applied in the AND condition. In other words, by default, incomplete and delayed tasks, including summary tasks, are subject to coloring and delayed extraction.

[10] Delay Criteria (Delay Days)

The distinction between small and large delays is determined by the size of the delay days.

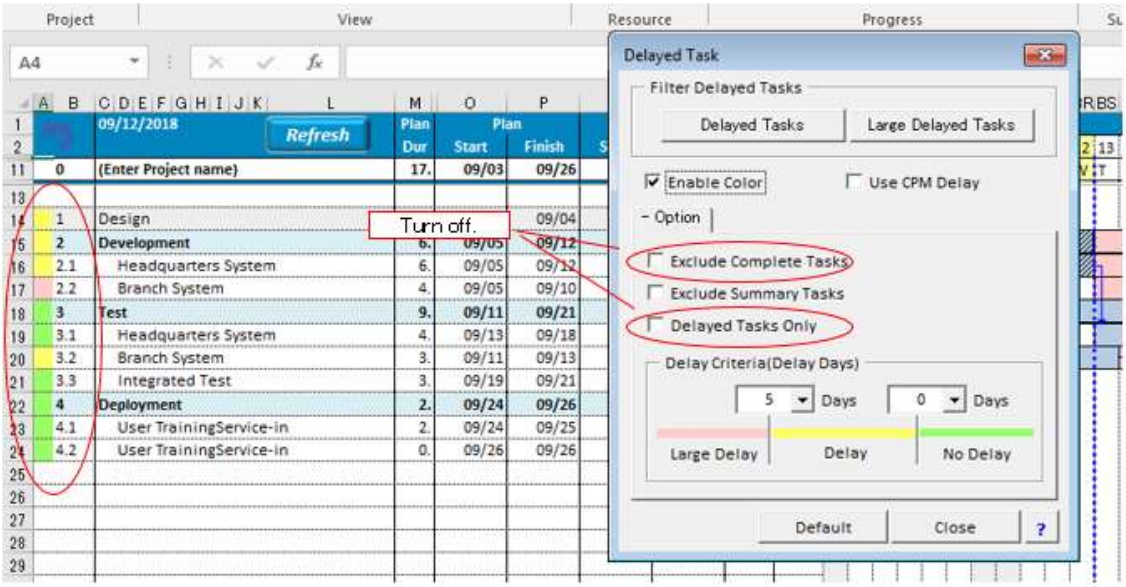
The default is

- Small Delay: delay days is greater than 0 days and less than 5 days
- Llarge Delay: delay days is 5 days or greater

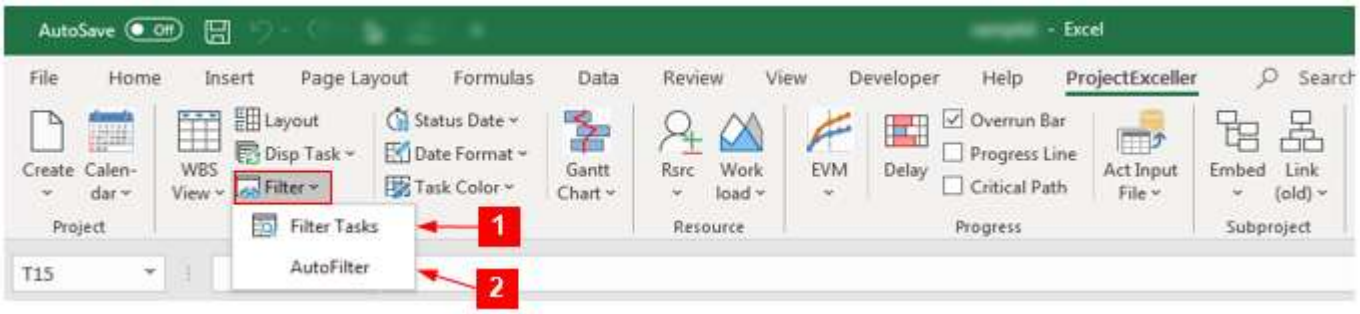
This setting can be changed for each project sheet.

Example of changing options

If you change the options as follows, all tasks will be color-coded to indicate progress, as shown in the figure below.



15.7. Filter



It filters and displays task lines that match the specified conditions. The following two functions are available.

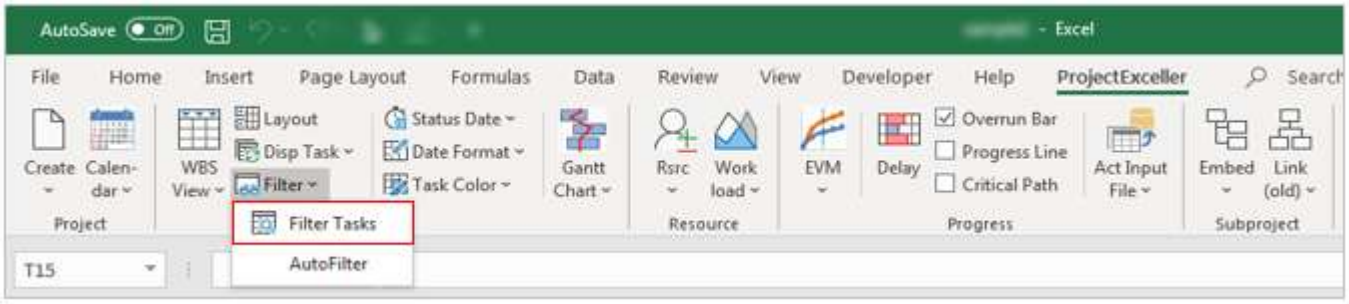
[1] Filter Tasks

Filter with specific items such as resources, delay status, duration, task name, task level, etc.

[2] AutoFilter

Apply Excel standard AutoFilter function to all WBS items in project sheet.

Filter Tasks



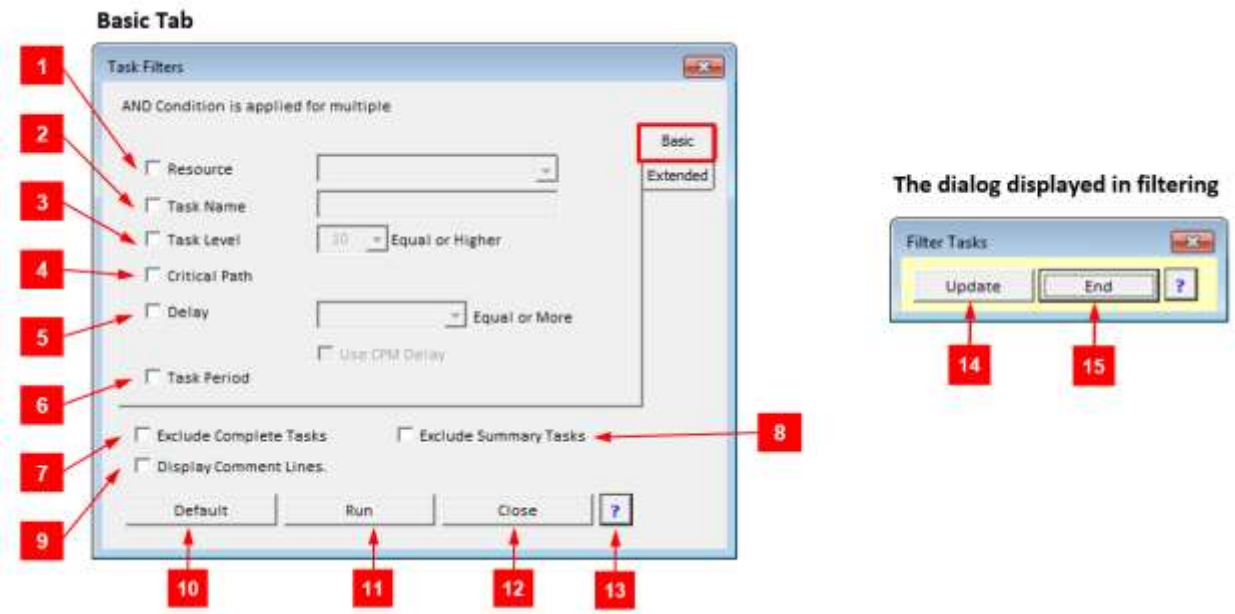
The “Filter Tasks” dialog is displayed. Select each filtering condition and press "Run" button to filter and display only task lines that match the conditions. You can edit the WBS data in the extraction state. If you use the "Extended" tab, it will be an alternative to the auto-filter.

Note: Specifying multiple items

When multiple items are selected, all conditions will be matched (AND condition). However, if more than one resource is specified in the resource item, one of them will be matched (OR condition).

Filter Tasks: Basic Tab

You can filter the corresponding task lines according to the basic items. For detailed specification, please use the "Extended" tab.



[1] Resource

It filters the task assigned the specified resource. If multiple resources are specified, the task to which one of them is assigned is filtered.

Note:

- If the option of “Exclude Summary Tasks” is OFF, the tasks that include the specified resource and their summary tasks are also displayed.
- The target WBS items for search are both “Plan Resource” and “Actual Resource”.

[2] Task Name

The task that contains the specified string in the task name is filtered.

[3] Task Level

It filters task-level task lines at or above the specified task level. For example, if the task level is set to "3", task levels 1, 2 and 3 is filtered.

[4] Critical Path

It Filters the task on the critical path. The critical path in task extraction is the forecast critical path based on the forecast schedule.

See: Critical Path

[5] Delay

Specify the period to filter. If not specified, all tasks whose delay is greater than 0 are filtered.

■ **Use "Plan/Actual/Forecast"**

The “Frcst Delay” value is used instead of the “Delay Dur” value.

Note: This is a new option added in ProjectExceller 2. When saving a project file with ProjectExceller version 1, "Use Forecast Delay Dur” is forced to be OFF.

Note: Delay and SV, SPI

- “Delay Dur” is a very easy to understand a task progress. However, although this is suitable for evaluating the work package (lowest-level) task, which is the smallest unit of the project, Summary tasks, or the project as a whole, cannot always be evaluated correctly.
- For evaluating non-work package (non-lowest-level) tasks or entire project, it is necessary to use “SV” (Schedule Variance) or “SPI” (Schedule Performance Index) which is one of EVM index values . "Delay Dur" is the difference between the planned finish date and the actual finish date of the task, while SV and SPI evaluate the difference in EV (Earned Vvalue) at a certain point in time.

These three indicators will be displayed at the same time by selecting "Progress + SV, SPI" in the WBS view.

[6] Task Period

It is extracted when all or part of the task period is within the specified period.

[7] Exclude Complete Tasks

It excludes the complete tasks. By enabling it, you can filter only tasks in process or to process in the future. The default is OFF.

[8] Exclude Summary Tasks

It excludes the summary tasks. By enabling this, you can filter only the work package (lowest-level) tasks. The default is OFF.

[9] Display Comment Lines

When it is enabled if there is a comment line immediately above the filtered task, that comment line is included in the filtered tasks lines.

[10] Default

Restore all settings to default values.

[11] Extraction

Extract and display task rows that match the set conditions.

[12] Close

Save the selected setting conditions and close the dialog.

[13] Help

Displays a description of this feature.

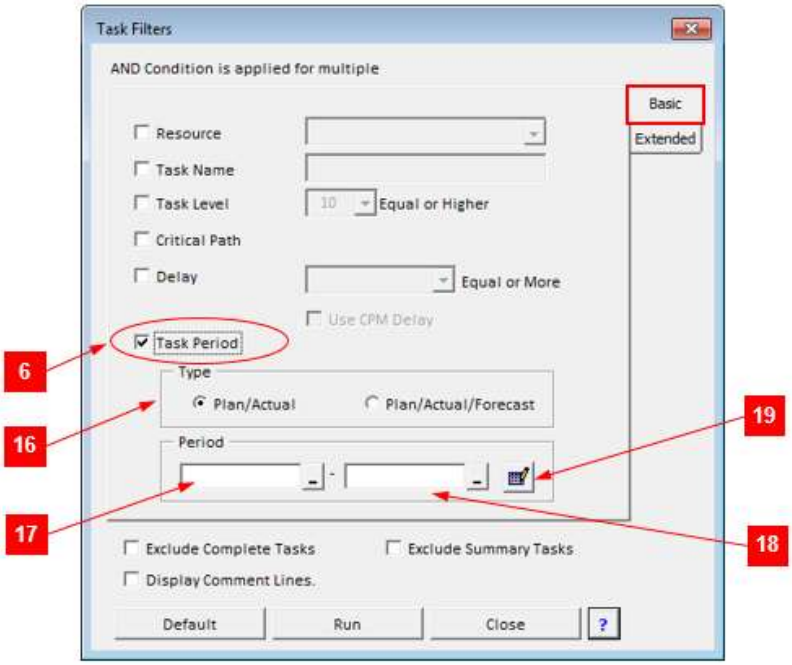
[14] Update

After editing the filtered task lines, you can filter again with the current filtering conditions.

[15] End

End the filtering and switch back to the filtering dialog.

The dialog when the Task Period is enabled



[6] Task Period

It is extracted when all or part of the task period is within the specified period.

[16] Type

It filters the tasks of which duration is withn the specified period. If the task duration between the start data and finish data overlaps the specified Task Period, only these tasks are filtered and displayed.

- Plan/Actual: Use Plan and Actual Schedule
- Plan/Actual/Forecast: Use Plan, Actual and Forecast Schedule

[17], [18] Start Date, End Date of the Period

The filtering period is specified by Start Date (**[15]**) and End Date (**[16]**). If one or the other is specified (that is, the other is blank), the other is searched as the minimum or maximum day of the project period.

Example) If the project period is from January 1st to March 31st, the start date is February 1st, and the end date is blank, the search period will be from February 1st to March 31st.

[19] Specify the period on Gantt chart

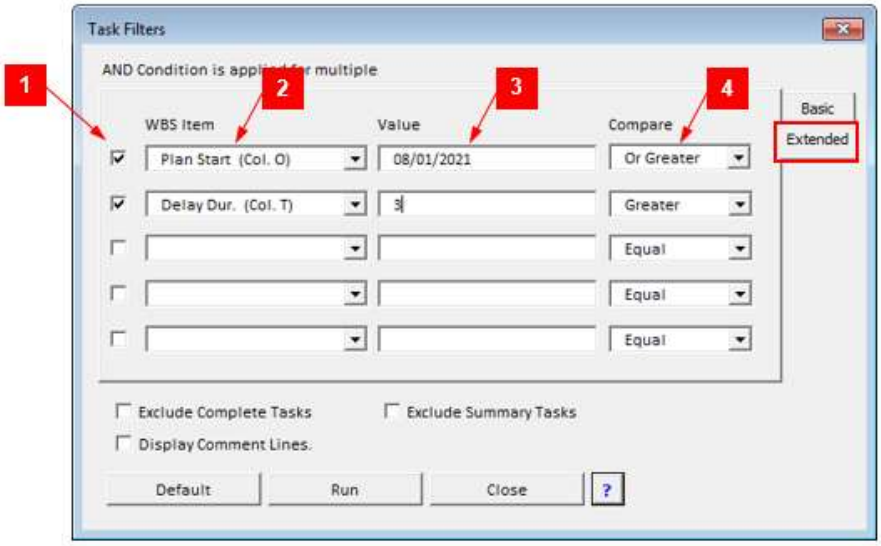
When this button is pressed, the area selected with the mouse on the Gantt chart can be specified as the search period (**[15], [16]**).

Filter Tasks: Extended Tab

You can specify any WBS item (including user-defined items) and set up to five extraction conditions for tasks. If you use this feature instead of AutoFilter, you can edit the WBS while extracting tasks.

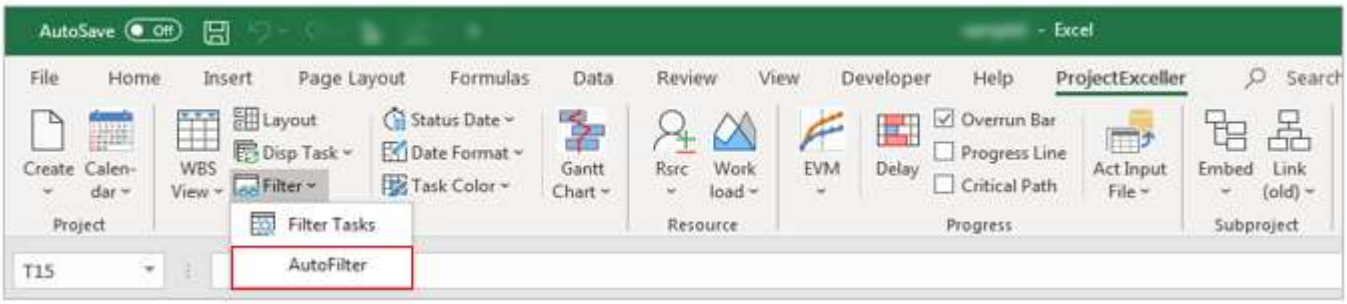
Note: You can also edit with auto-filter, but auto-filter may be canceled when you enter the data.

Extended Tab



[1] Applyt
Enables/Disables the extraction conditions for WBS items.
[2] WBS Items
Allows you to select a WBS item on the project sheet. Select a user-defined item.
[3] Value
Specify the value of the extraction condition.
[4] Comparison
Specify the comparison method of extraction conditions.

AutoFilter



It applies the AutoFilter function, which is a standard function of Excel, to all items of WBS. You can set or cancel by pressing the "AutoFilter" button ON or OFF.

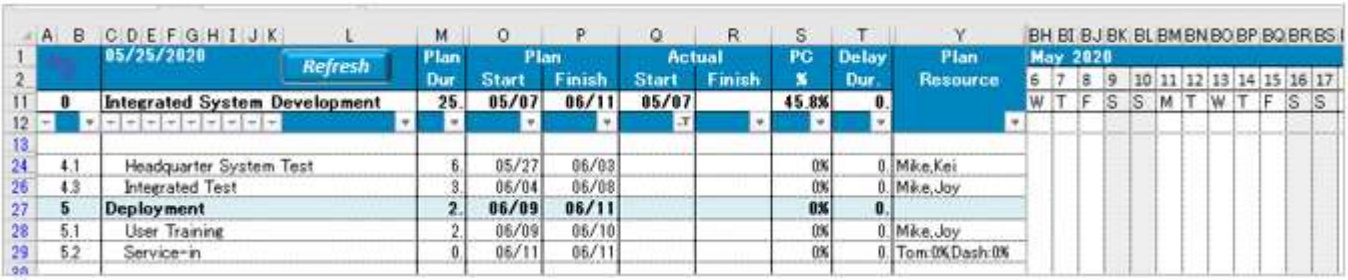
Note: If an operation is performed in the extraction state

- In some functions, the extraction state will be released after the operation.
- In addition, even if the extraction state is maintained, the condition will be canceled when the date condition is specified.

Enable AutoFilter.

	05/25/2020	Refresh	Plan Dur	Plan Start	Plan Finish	Actual Start	Actual Finish	PC %	Delay Dur.	Plan Resource
0	Integrated System Development		25.	05/07	06/11	05/07		45.8%	0.	
1	Planning		2.	05/07	05/11	05/07	05/12	100%	1.	
1.1	Create Plan		2.	05/07	05/08	05/07	05/12	100%	2.	Tom
1.2	Plan Meeting		0.	05/11	05/11	05/11	05/11	100%	0.	Tom:0%,Mike:0%
2	Design		4.	05/11	05/14	05/11	05/18	100%	2.	
2.1	Headquarters System Design		4.	05/11	05/14	05/11	05/18	100%	2.	Mike
2.2	Branch Systems Design		2.	05/11	05/12	05/11	05/14	100%	2.	Joy
3	Development		10.	05/13	05/26	05/13		66%	3.	
3.1	Headquarters System Development		8.	05/15	05/26	05/15		(50%)	3.	Kei
3.2	Branch Systems Development		4.	05/13	05/18	05/13	05/20	100%	2.	Ana
4	Test		15.	05/19	06/08	05/19		25%	0.	
4.1	Headquarter System Test		6.	05/27	06/03			0%	0.	Mike,Kei
4.2	Branch Systems Test		3.	05/19	05/21	05/19	05/25	100%	2.	Mike,Ana
4.3	Integrated Test		3.	06/04	06/08			0%	0.	Mike,Joy
5	Deployment		2.	06/09	06/11			0%	0.	
5.1	User Training		2.	06/09	06/10			0%	0.	Mike,Joy
5.2	Service-in		0.	06/11	06/11			0%	0.	Tom:0%,Dash:0%

Filter the tasks of which actual date is blank.



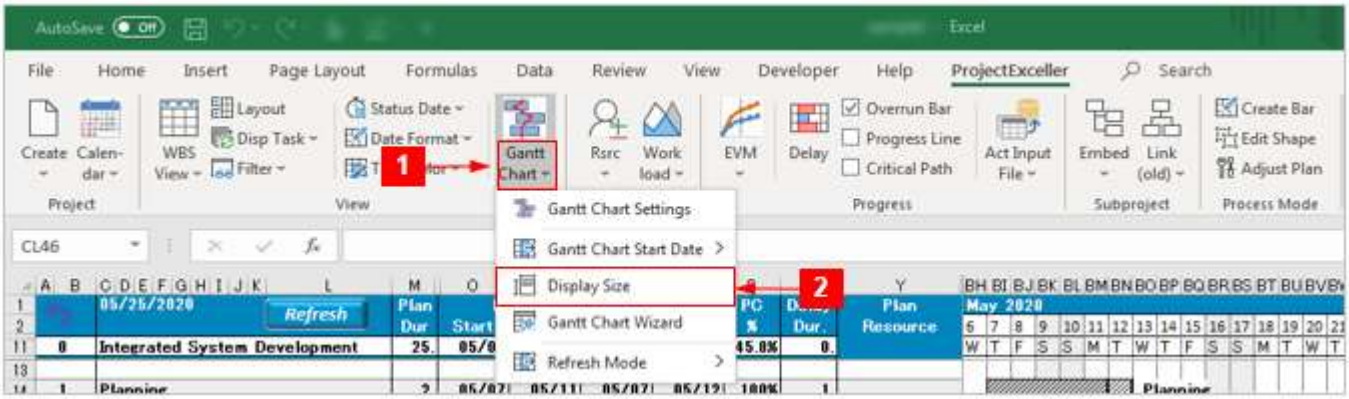
	05/25/2020	Refresh	Plan Dur	Plan Start	Plan Finish	Actual Start	Actual Finish	PC %	Delay Dur.	Plan Resource
0	Integrated System Development		25.	05/07	06/11	05/07		45.8%	0.	
4.1	Headquarter System Test		6.	05/27	06/03			0%	0.	Mike,Kei
4.3	Integrated Test		3.	06/04	06/08			0%	0.	Mike,Joy
5	Deployment		2.	06/09	06/11			0%	0.	
5.1	User Training		2.	06/09	06/10			0%	0.	Mike,Joy
5.2	Service-in		0.	06/11	06/11			0%	0.	Tom:0%,Dash:0%

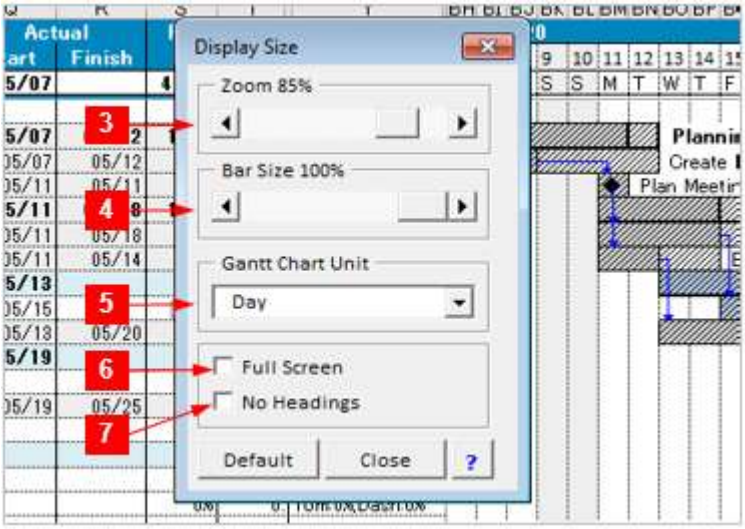
15.8. Display Size

The display size related settings can be set fomr the following dialog.

- Zoom
- Bar Size
- Gantt Chart Unit
- Full Screen
- No Headings

[1] Click the lower part of "Gantt Chart" button on the ribbon, and click "Display Size" (**[2]**) to start the dialog.





[2] Zoom

You can change the screen zoom.

[3] Bar Size

Only the display width of the Gantt chart can be enlarged or reduced without changing the screen zoom.

[4] Gantt Chart Unit

You can switch the Gantt chart display unit to Day, Week, Month, Quarter, or Year. Gantt chart unit is the period assigned to one column of Excel. In case of Day or Weekl unit, one column is one day.

This makes it possible to display the entire project over a long period of time on the screen or in an Excel sheet.

[5] Full Screen

You can view the project sheet in full screen. It is usefull for presentations.

The full screen display can be canceled by pressing Esc key. or by "Cancel Full Screen" in the right-click menu on the WBS header.

[6] No Headings

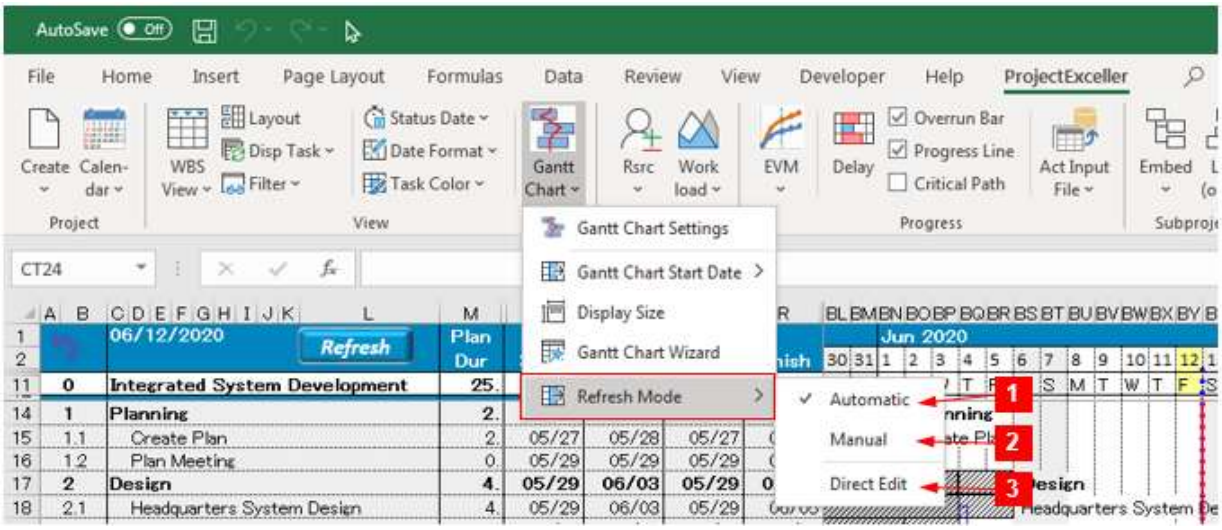
Hide the headings (line and column number space) in Excel. When used in combination with full screen display, the screen display space can be further expanded, resulting in more presentation effects.

If you want to redisplay the headings, you can restore it by "Enable Headings" in the right-click menu of the WBS header.

15.9. Refresh Mode

Set the Gantt chart Refresh method when input to WBS. The default is "Automatic". In this mode, the Gantt chart is updated in real time as you enter data into the WBS. Data entry performance is improved by switching to "Manual (Munaul)" and "Direct Edit (Direct)" modes.

NOTE: "Semi-Auto" mode is not supported since V2.040.



Click the Gantt Chart button on the ribbon and then click Refresh. You can switch the Refresh mode to to "Automatic", "Manual", or "Direct Edit".

Memo: It can also be set from the "Option" or "Gantt Chart Settings" dialog.

[1] Automatic

The Gantt chart will be updated automatically when WBS is updated. Therefore, there is no need to update the Gantt chart with the Refresh button. The default is Automatic.

In the Automatic mode, nothing is displayed in the WBS header.

[2] Manual

The Gantt chart is not updated even if WBS is updated. If there is an unupdated task on the Gantt chart, the caption of the Refresh button on the WBS header turns in yellow and the Gantt chart is updated by pressing the Refresh button.

Note:

Without updating Gantt charts, the integrity of each task or the entire project WBS data is completely ensured. Workload analysis, EVM analysis, etc. can also be performed without problems.

The WBS header will display "Manual" in yellow. You can switch to automatic mode by clicking this part.

[3] Direct Edit

This is the fastest input mode. Processing such as data consistency checks at the time of input is minimised and the entire consistency is done later in one go using the Refresh button. This makes editing the WBS faster and more flexible than other Refresh modes (automatic, manual).

The WBS header turns green, the yellow text "Direct" ([1]) appears, and a small dialog ([2]) called "Direct Edit" appears.

Features of Direct Editing

The features of this mode are as follows

1. data entry performance is superior to other Refresh modes (automatic and manual) and does not deteriorate easily, especially when the number of tasks increases.

2. data consistency check at the time of input is minimized, and consistency check of the entire data, summary tasks, and Gantt chart updates are performed with the Refresh button.(*1)

3 Data can be edited more freely than in other modes, and "Undo" and "Redo" functions can be used for input data.

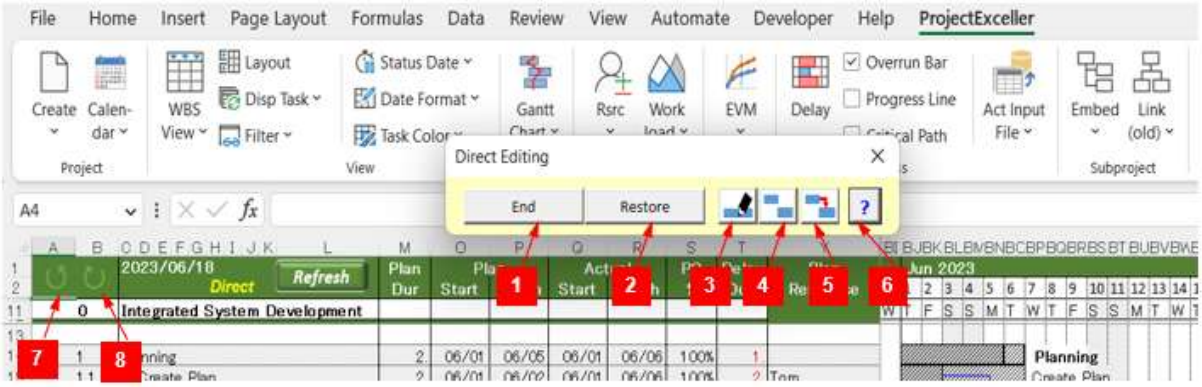
4. the project sheet before editing is backed up as a hidden sheet, so if some inconvenience occurs during editing, the sheet can be completely restored to the state before editing. 5.

The "Task Link" and "Create Taskbar" functions can also be used from the buttons on the respective dialogs.

Note: (*1) Data reconciliation with Refresh may result in changes or deletions of data entered.

Direct Edit Dialog

In Direct Edit mode, the "Direct Edit" dialog is always displayed. The buttons and functions on this dialog are described below.



[1] End

Ends the direct editing and sets the Refresh mode to "Auto". The edited data will be reflected in the project sheet.

[2] Restore

Ends direct editing and returns to the original project sheet before editing. The edited data will be discarded and not applied to the project.

[3] Create Taskbar

Update the planning date of WBS by creating or changing the planning taskbar on the Gantt chart of the direct editing sheet by mouse operation only.

Note 1: Refresh is required to update the Gantt chart.

[4] Delete Task Link

By selecting a task line or a task range to which a task link has been set, the task link can be unlinked.

Note 2: The "Prior Task Row" column will automatically appear on the WBS and the task link status will be displayed there.

Note 3: Refresh is required to reflect task links in the Gantt Chart.

[5] Set Task Links

Set a Task Link by selecting a Task Line or a range of Tasks to which the Task Links have been set. See notes 2, 3.

[6] Help

Displays help on direct editing.

[7] Undo

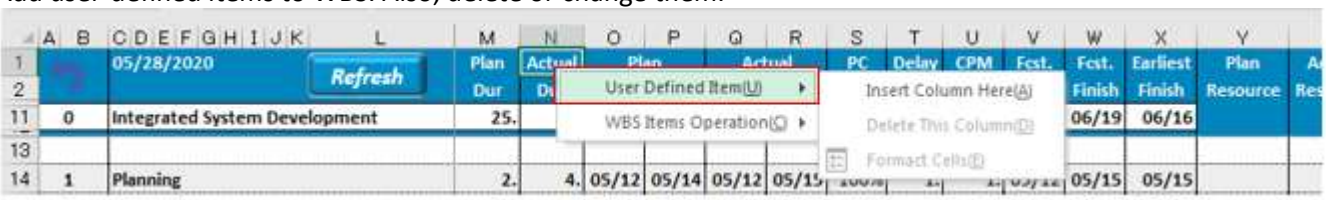
Restores the data to the state it was in before the update.

[8] Redo

Restores the data to the state before it was recovered with "Undo" ([7]).

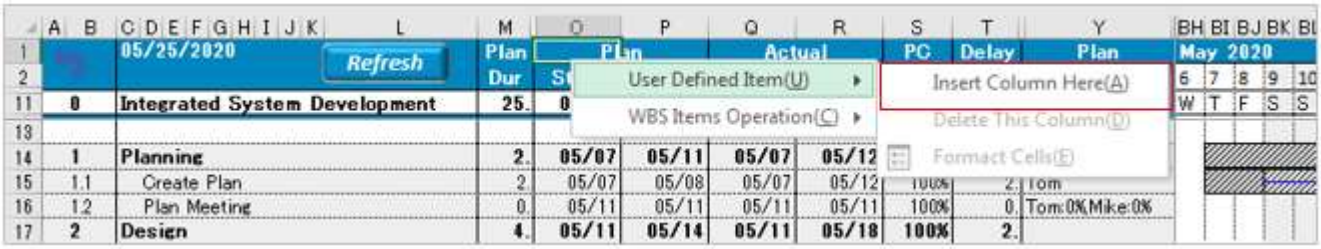
15.10. User Defined Items

Add user-defined items to WBS. Also, delete or change them.

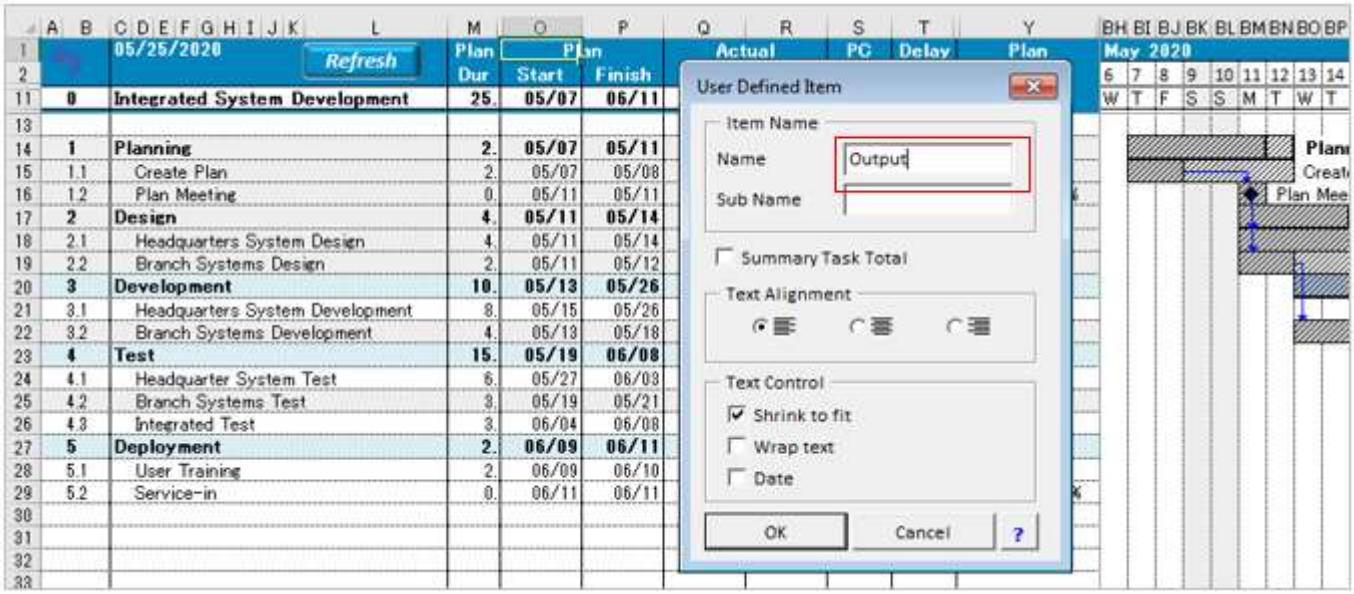


Add User Defined Items

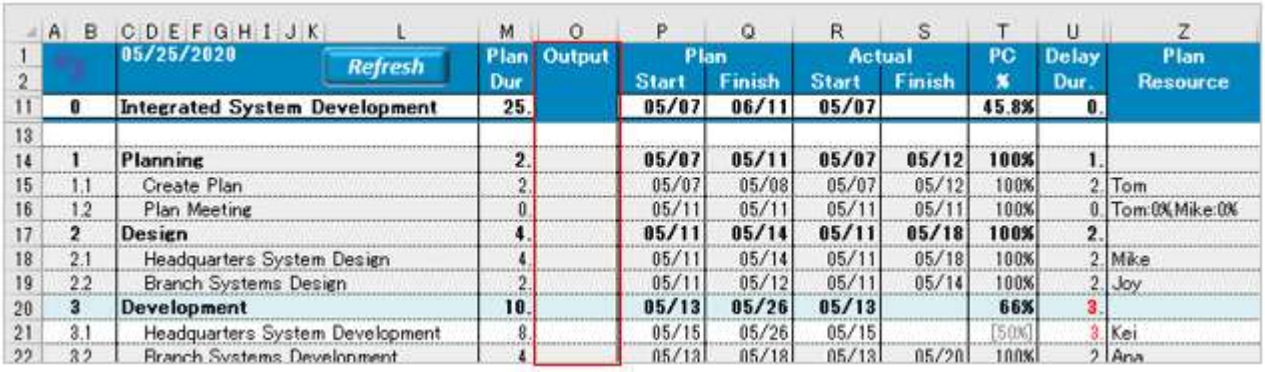
Let's create a user-defined item called "Work Product" before "Plan Dur" (Column “M”).
Select the header of the column to which you want to add the user-defined item, right-click and click "User-Defined Item", "Insert Column Here".
You can add up to 40 user-defined items (*1).
(*1) Prior to V2.077, the limit was 20.



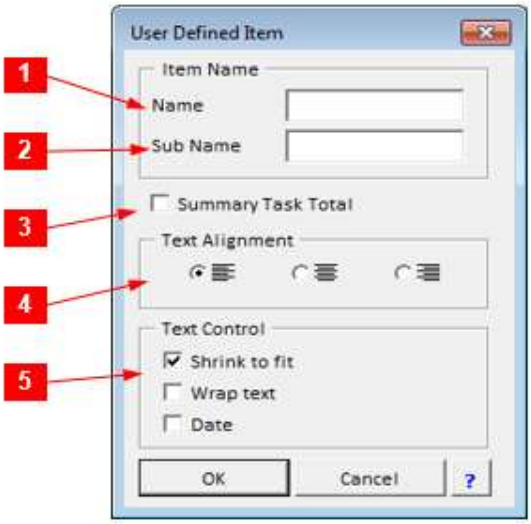
The “User Defined Items” dialog is displayed. Enter "Work Product" in the title and confirm with the "OK" button.



The column of "Deliverables" has been added.



Dialog of User Defined Items



[1] Title

Specify the title (first header line) of the user defined item. (Required)

[2] Subtitle

Specify a subtitle (second header line).

[3] Summary Task Total

Specify when numeric data is entered in the field. The summary task shows the total value of its subtask values.

[4] Text Alignment

Specify the alignment to display the text.

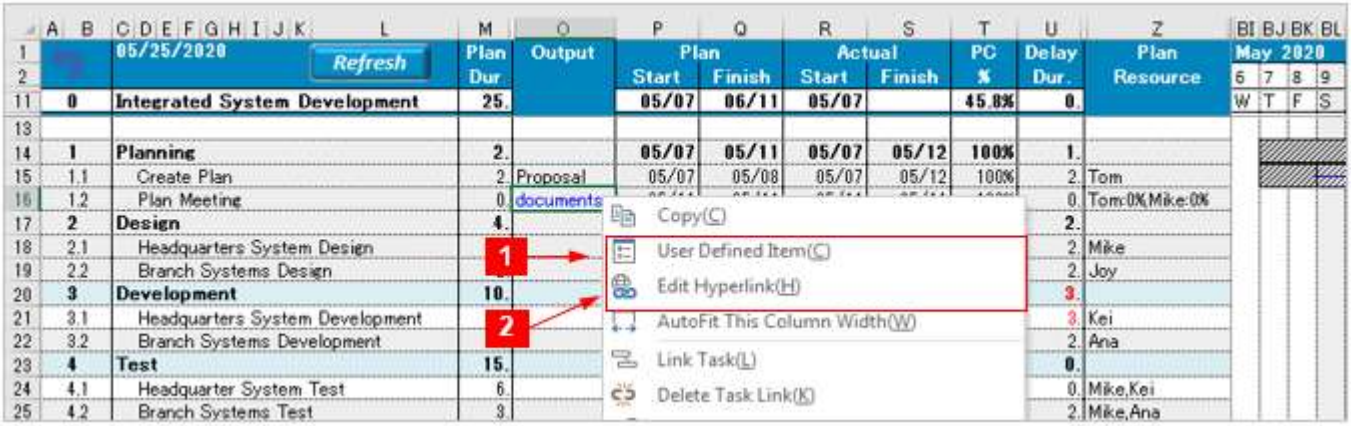
[5] Text Control

- You can choose to “Shrink to fit”, or “Wrap Text”.
- When "Date" is turned on, the data is displayed in date format. In this case, the summary task summary option is automatically turned off

Note: You can also launch this dialog with the "Add" button in the "Layout" function from the ribbon..

Edit User Defined Items

The following two menus have been added to the right-click menu of the user defined item column.



[1] User Defined Items

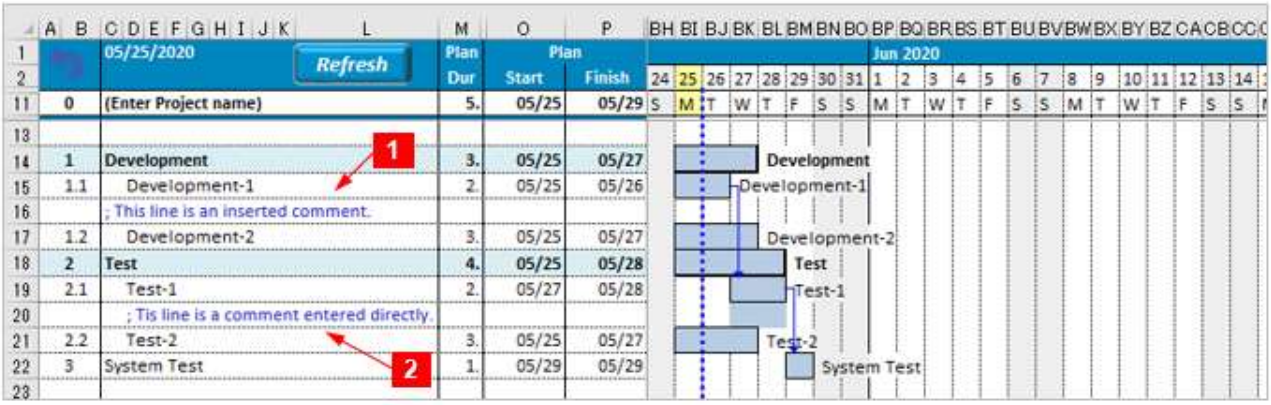
You can change the settings of the selected user defined item.

[2] Hyperlink

You can set a link to a file or a cell with the Excel standard hyperlink function in the cell of the user defined item.

15.11. Comment Line

You can set a comment in the task name field of WBS instead of the task name. **[1]** and **[2]** are comment lines. The comment lines are text that begins with a semicolon ";" and is displayed in blue text.

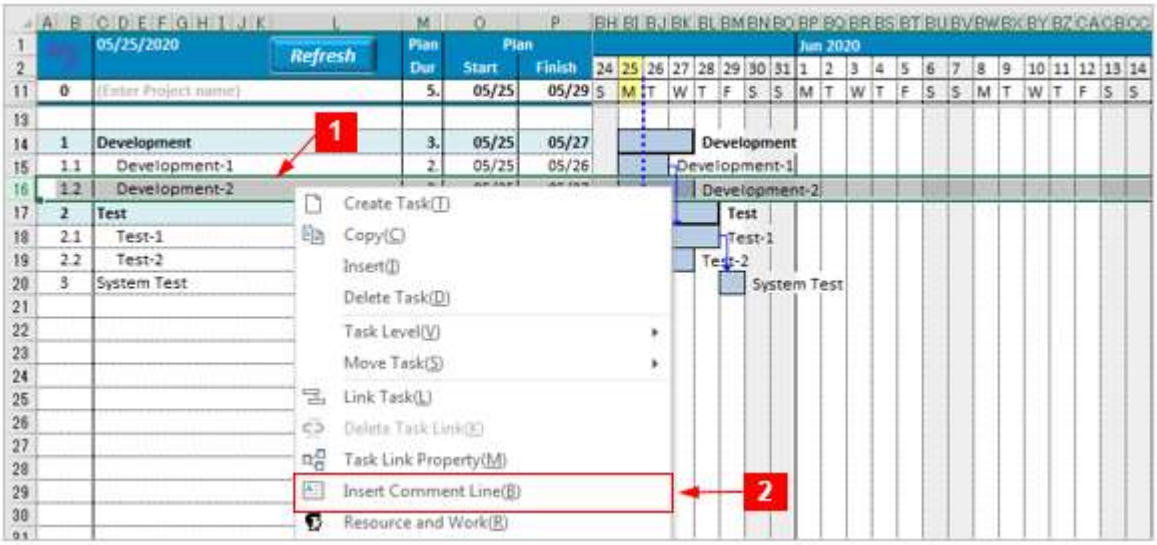


Create with "Insert Comment Line" Function

Let's insert a comment line in the line above the "Development 2" task.

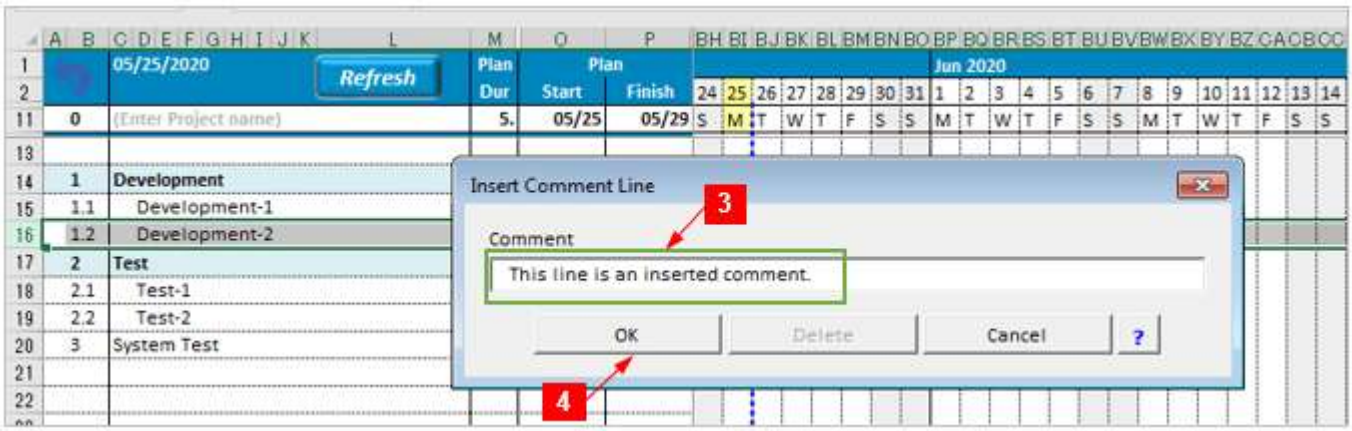
[1] Select "Development 2" task line and right click.

[2] Click "Insert Comment Line" in the menu.



[3] Enter a comment text in the Comment Input field of the "Insert Comment Line" dialog.

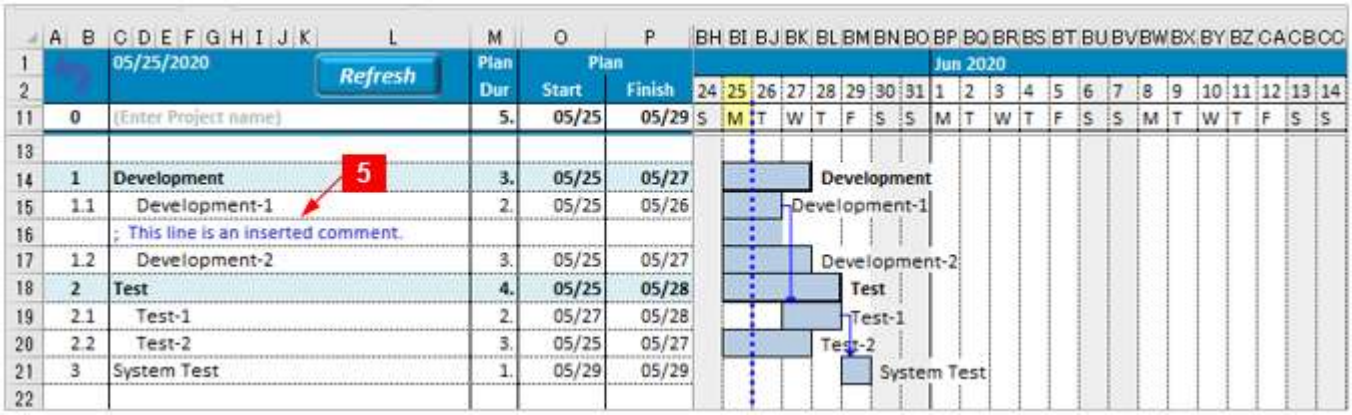
[4] Click OK button.



[5] Comment line has been inserted.

Note: Column position of comment text

The comment text created by the “Insert Comment Line” function is set to the position of task level 1 (column “D”). If you want to set comments in other columns, enter them directly into the WBS task name field.

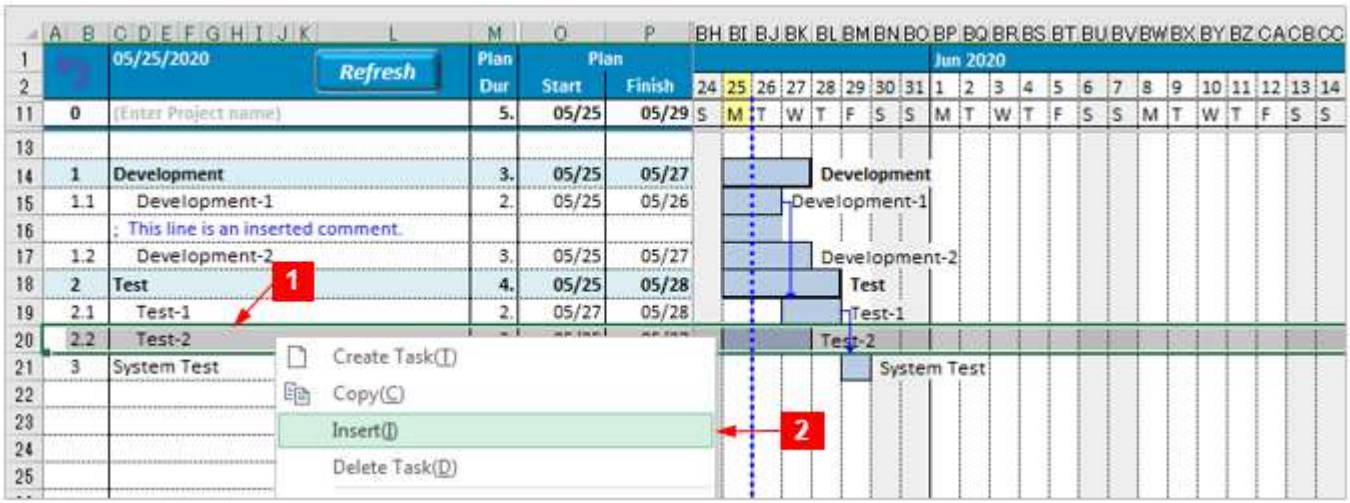


Create by typing directly into the task name field

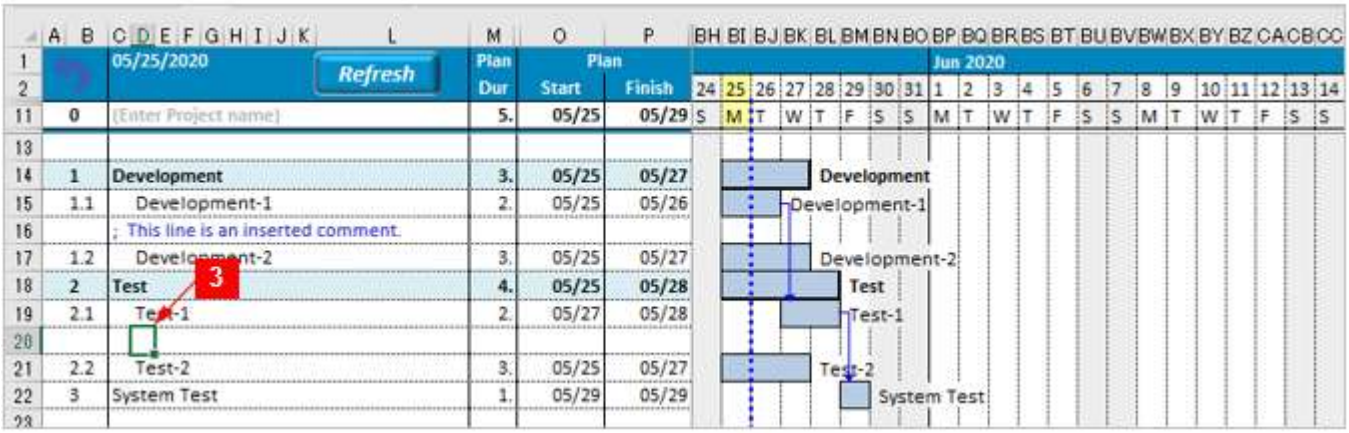
Let's insert a blank line above the "Test 2" task line and enter a comment at the position of task level 2 (column “D”) of that line.

[1] Select "Test 2" task and right click.

[2] Click “Insert” from the menu. A blank line is inserted.

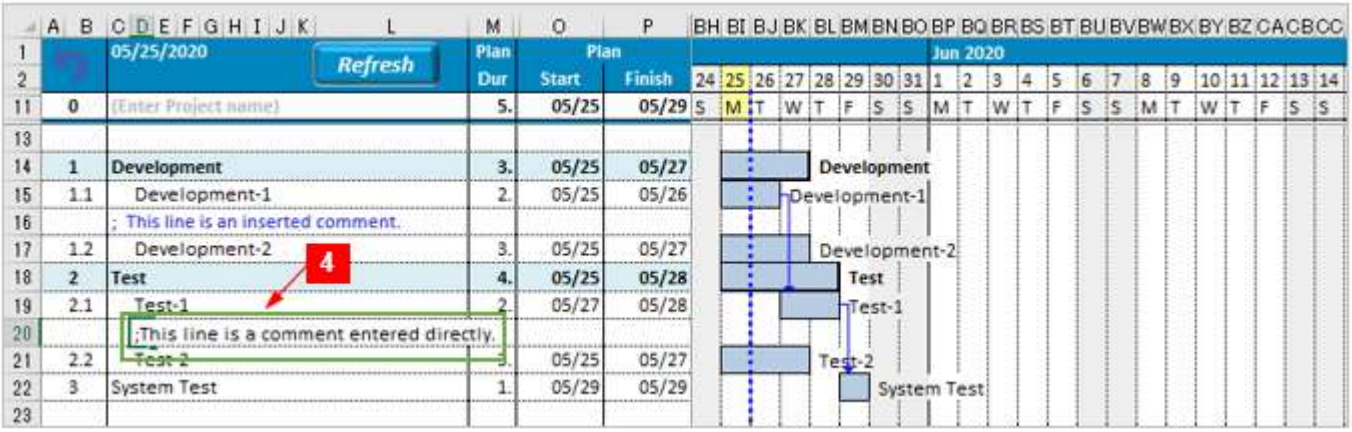


[3] Select the position of task level 2 (column “D”).



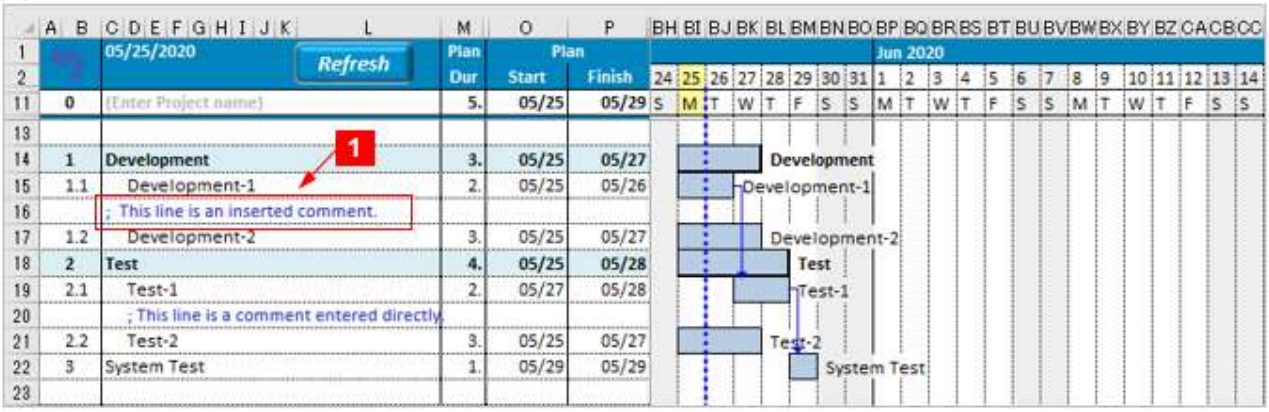
[4] Enter a comment text.

Memo: When entering a comment text directly, be sure to add a semicolon ";" at the beginning. If there is no semicolon, it is considered as the task name and the task is created.



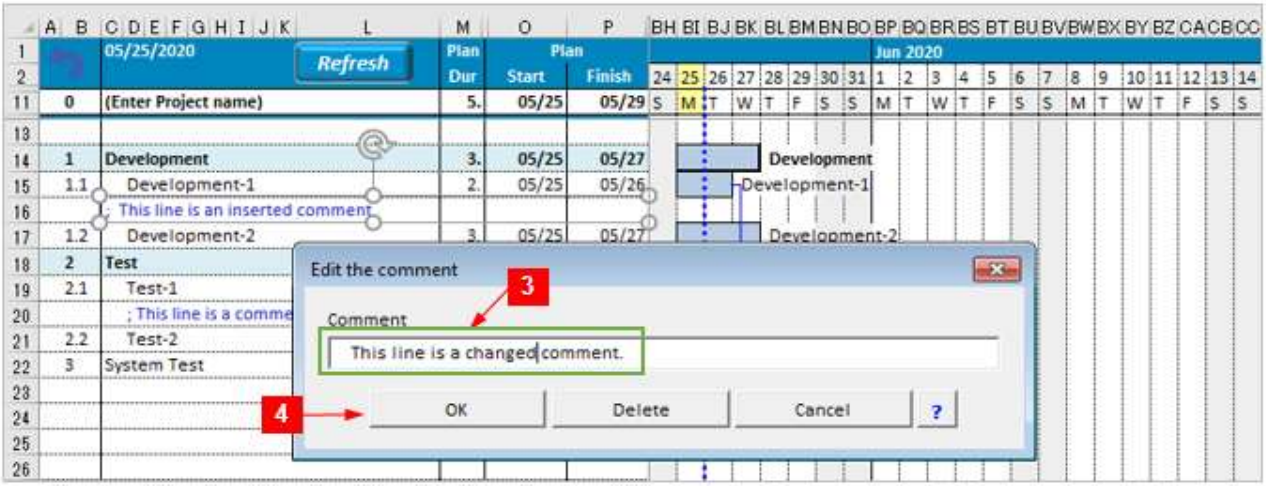
Change the text of the comment line

[1] Click on the comment text.

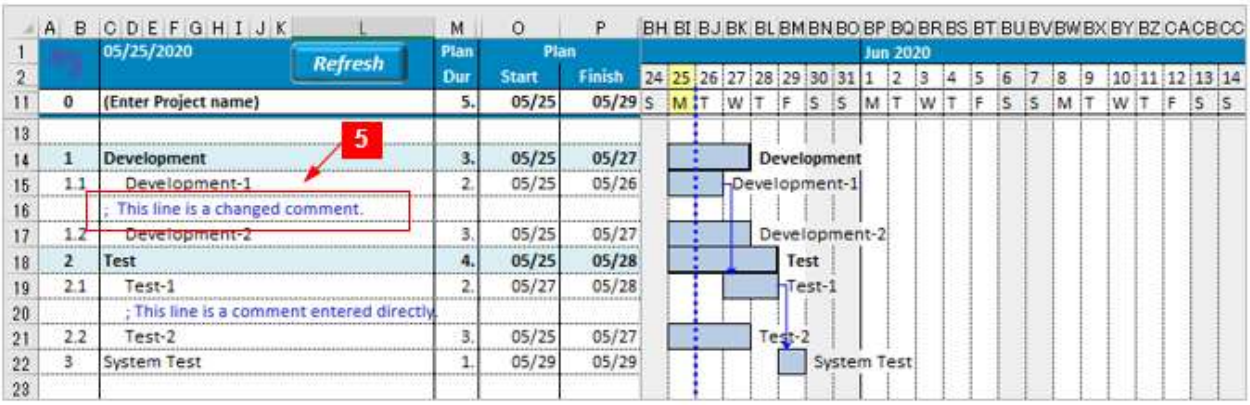


[2] [Edit Comment] dialog is displayed. The Comment field shows the original comment.

[3] Change the comment.
[4] Click OK button.



[5] The comment text has been changed.



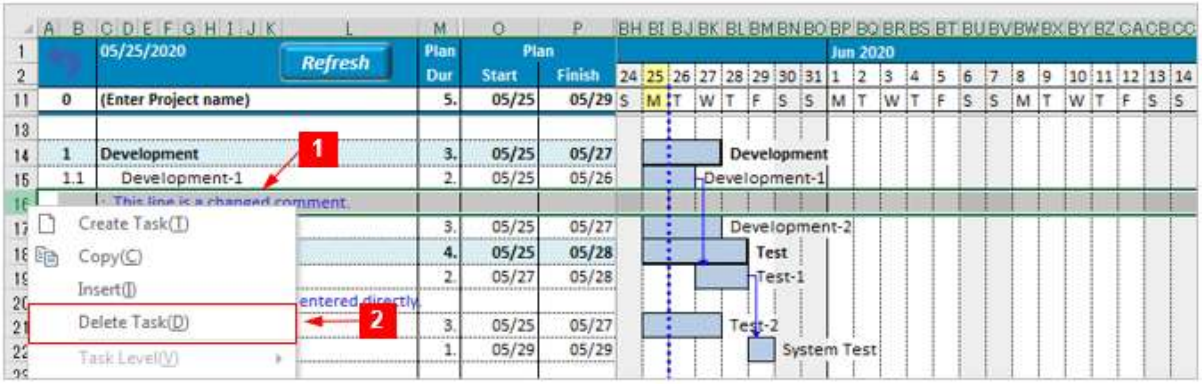
Delete Ccomment Lines

■ **Delete Entire Comment Line**

This is the same as deleting a task line.

[1] Select the comment line you want to delete and right click.

[2] Click “Delete Task” from the menu.

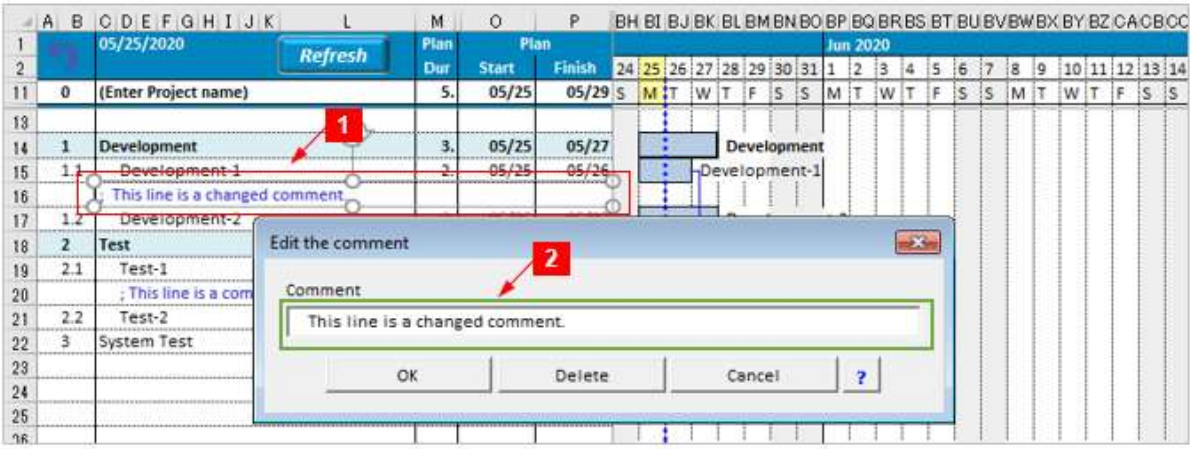


Or you can delete it with the "Delete" button on the dialog.

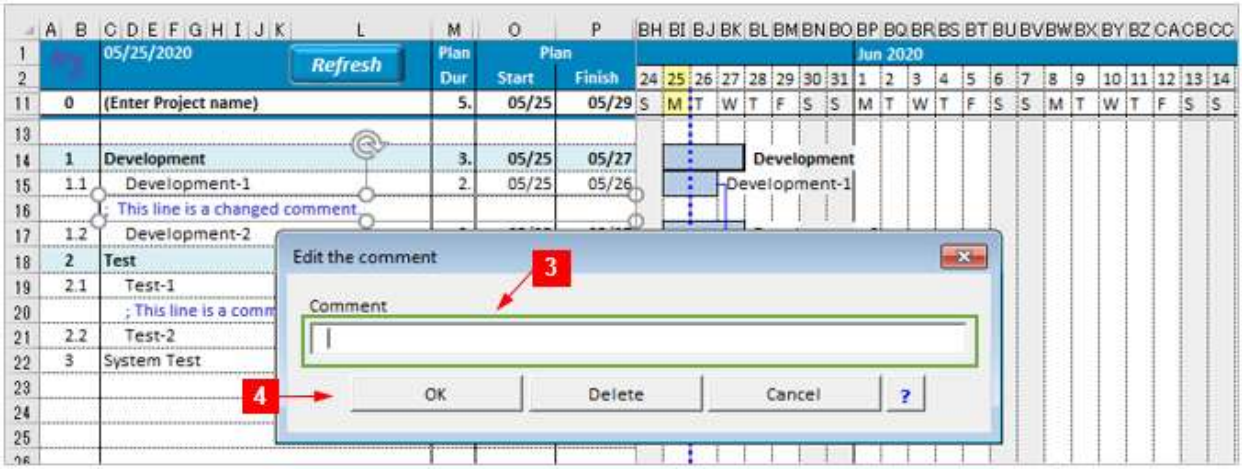
■ **Delete Only Comment Text**

If you want to delete only the comment text without deleting the line, change the comment text with blank in the “Edit the commnet” dialog.

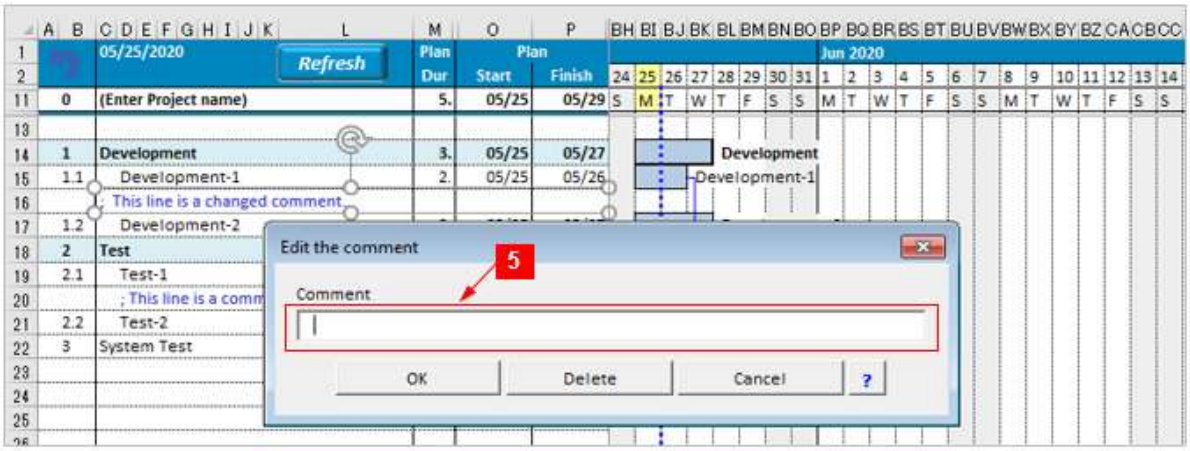
[1] Click on the comment text you want to delete.
[2] The "Edit the comment" dialog is displayed, and the current text is displayed.



[3] Clear the current text.
[4] Click OK button.



[5] The comment line text in the WBS is cleared.

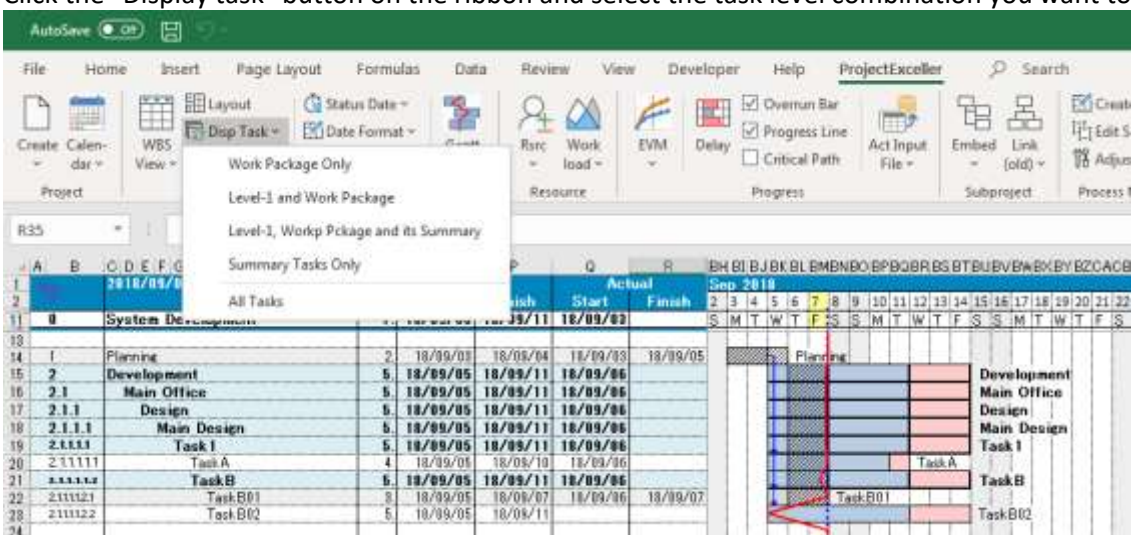


15.12. Display Task

The tasks on the WBS can be subdivided into up to 10 task levels, so it is difficult to see the lowest-level task (work package task), when therer are many tasks and task levels. "Display task" makes it easy to grasp the status of the task by filtering the work package (lowest-level) tasks only.

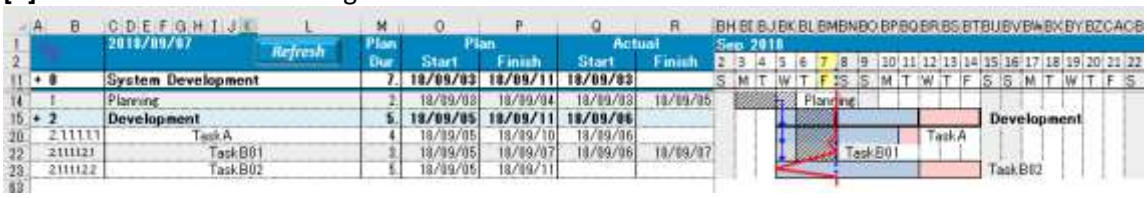
Operation:

Click the "Display task" button on the ribbon and select the task level combination you want to display.

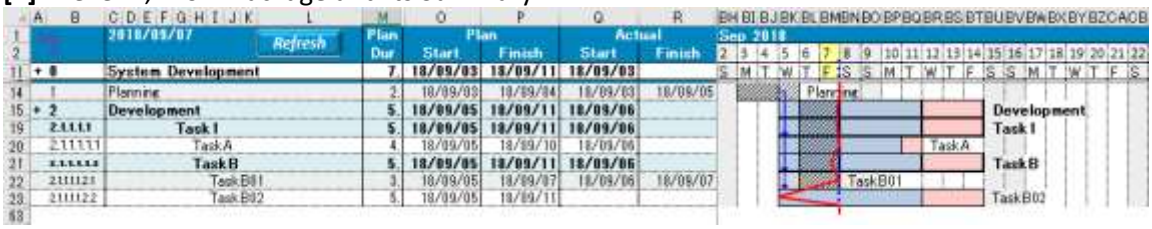


[2] Work Package Only

[3] Level-1 and Work Package



[4] Level-1, Work Package and its Summary



[5] Summary Tasks Only

[6] All Tasks

15.13. Collapse/Expand Summary Tasks

Click on the leftmost column of a summary task row to collapse (show) or expand (hide) the subtasks of that summary task.

A "+" will be displayed in the leftmost column of the collapsed summary task.

	A B	C D E F G H I J K L	M	O	P	Q	R
1		2021/11/28 Refresh	Plan	Plan		Actual	
2			Dur	Start	Finish	Start	Finish
11	0	Integrated System Development	25.	11/11	12/16	11/12	
13							
14	1	Planning	2.	11/11	11/15	11/12	11/15
15	1.1	Create Plan	2.	11/11	11/12	11/12	11/15
16	1.2	Plan Meeting	0.	11/15	11/15	11/15	11/15
17	2	Design	4.	11/15	11/18	11/17	
18	2.1	Headquarters System Design	4.	11/15	11/18	11/19	
19	2.2	Branch Systems Design	2.	11/15	11/16	11/17	11/17
20	3	Development	10.	11/17	11/30	11/23	
21	3.1	Headquarters System Development	8.	11/19	11/30		
22	3.2	Branch Systems Development	4.	11/17	11/22	11/23	
23	4	Test	15.	11/23	12/13	11/26	
24	4.1	Headquarter System Test	6.	12/01	12/08		
25	4.2	Branch Systems Test	3.	11/23	11/25	11/26	
26	4.3	Integrated Test	3.	12/09	12/13		
27	5	Deployment	2.	12/14	12/16		
28	5.1	User Training	2.	12/14	12/15		
29	5.2	Service-in	0.	12/16	12/16		

Click on the "+" in the total row of the WBS header to show all summary tasks.

	A B	C D E F G H I J K L	M	O	P	Q	R
1		2021/11/28 Refresh	Plan	Plan		Actual	
2			Dur	Start	Finish	Start	Finish
11	+ 0	Integrated System Development	25.	11/11	12/16	11/12	
13							
14	1	Planning	2.	11/11	11/15	11/12	11/15
15	1.1	Create Plan	2.	11/11	11/12	11/12	11/15
16	1.2	Plan Meeting	0.	11/15	11/15	11/15	11/15
17	+ 2	Design	4.	11/15	11/18	11/17	
20	+ 3	Development	10.	11/17	11/30	11/23	
23	4	Test	15.	11/23	12/13	11/26	
24	4.1	Headquarter System Test	6.	12/01	12/08		
25	4.2	Branch Systems Test	3.	11/23	11/25	11/26	
26	4.3	Integrated Test	3.	12/09	12/13		
27	5	Deployment	2.	12/14	12/16		
28	5.1	User Training	2.	12/14	12/15		
29	5.2	Service-in	0.	12/16	12/16		

15.14. Task Color

It automatically sets the background or character color of the task line depending on the task status.

Enable Task Line Color

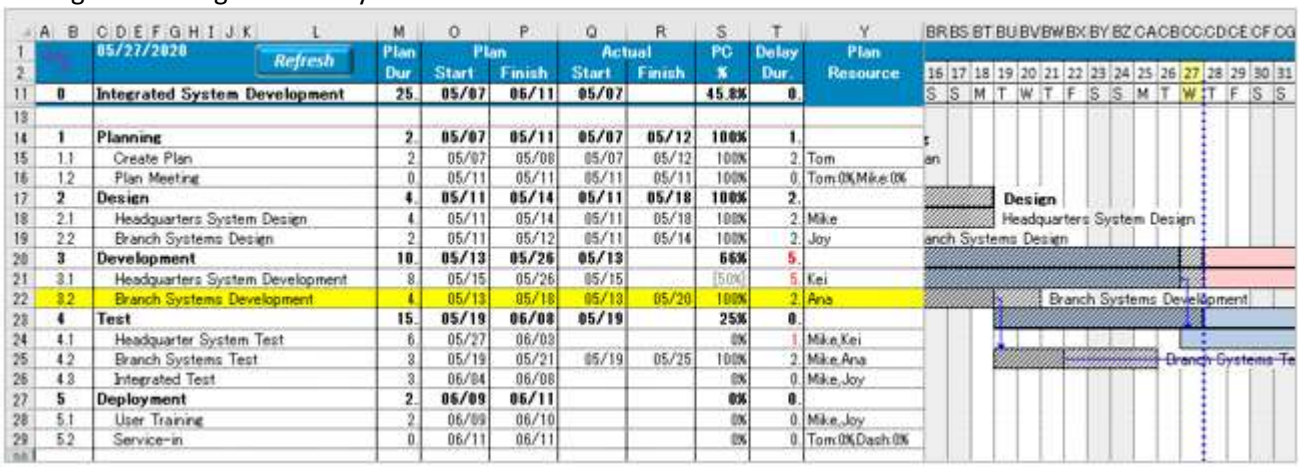
The background color of the task line is automatically colored according to the type and status of the task as follows. The default is ON.

- Complete Task Line Gray
- Summary Task Line Light Blue

If this setting is ON, users can not add their own color to the cell background or text on WBS. When this setting is OFF, users can color task lines background color.

Note: The text color of the task line can not be changed.

In the example in the following figure, the line of the "Develop Branch System" task that is the most delayed by turning off coloring is colored yellow.



Unachieved Planned Dates in Red

If the task does not start or end as planned, make the planned start date or planned finish date of the task red. The default is OFF.

Notes: Red color is clear when you enter actual dates of the task.

- If the task has not started even after the planned start date, set the date of the plannef start date in red.
- If the task is not finished even after the planned finish date, set the planned finish date to red.

This makes it easy to check the start and finish delays for each task simply by checking the color of the planned date.

Note:

If the planned date is not in red, it may not mean that the task has not been delayed. Even if the start date is delayed with respect to the planned date, the red start disappears when the actual start date is entered, but the

task itself may be delayed. Tasks that are displayed in red on the planning date indicate that special attention is required among tasks that are delayed.

In the example shown in the following figure, the "Develop Branch system" task is displayed in red because it has not ended even on September 15 of the planned finish date.

		Plan Dur.	Plan Start	Plan Finish	Actual Start	Actual Finish	PC %	Delay Dur.	Plan Resource
05/27/2020 Refresh									
0	Integrated System Development	25.	05/07	06/11	05/07		45.8%	0.	
1	Planning	2.	05/07	05/11	05/07	05/12	100%	1.	
1.1	Create Plan	2	05/07	05/08	05/07	05/12	100%	2	Tom
1.2	Plan Meeting	0	05/11	05/11	05/11	05/11	100%	0	Tom:0%,Mike:0%
2	Design	4.	05/11	05/14	05/11	05/18	100%	2.	
2.1	Headquarters System Design	4	05/11	05/14	05/11	05/18	100%	2	Mike
2.2	Branch Systems Design	2	05/11	05/12	05/11	05/14	100%	2	Joy
3	Development	10.	05/13	05/26	05/13		66%	5.	
3.1	Headquarters System Development	8	05/15	05/26	05/15		[50%]	5	Kei
3.2	Branch Systems Development	4	05/13	05/18	05/13	05/20	100%	2	Ana
4	Test	15.	05/19	06/08	05/19		25%	0.	
4.1	Headquarter System Test	6	05/27	06/03			0%	1	Mike,Kei
4.2	Branch Systems Test	3	05/19	05/21	05/19	05/25	100%	2	Mike,Ana
4.3	Integrated Test	3	06/04	06/08			0%	0	Mike,Joy
5	Deployment	2.	06/09	06/11			0%	0.	
5.1	User Training	2	06/09	06/10			0%	0	Mike,Joy
5.2	Service-in	0	06/11	06/11			0%	0	Tom:0%,Dash:0%

Color Succeeding Task ID Column

The cells in the ID column (column “B”) at the left end of the task for which the preceding task link is set are colored in light yellow. This makes it possible to know the presence or absence of a preceding link task only on WBS without checking the task link line in the Gantt chart. The default is OFF.
You cannot edit the planned start date and finish date of this task as it depends on its preceding task.

The ID column of the task for which the lead link task is set is colored.

		Plan Dur.	Plan Start	Plan Finish	Actual Start	Actual Finish	PC %	Delay Dur.	Plan Resource
05/27/2020 Refresh									
0	Integrated System Development	25.	05/07	06/11	05/07		45.8%	0.	
1	Planning	2.	05/07	05/11	05/07	05/12	100%	1.	
1.1	Create Plan	2	05/07	05/08	05/07	05/12	100%	2	Tom
1.2	Plan Meeting	0	05/11	05/11	05/11	05/11	100%	0	Tom:0%,Mike:0%
2	Design	4.	05/11	05/14	05/11	05/18	100%	2.	
2.1	Headquarters System Design	4	05/11	05/14	05/11	05/18	100%	2	Mike
2.2	Branch Systems Design	2	05/11	05/12	05/11	05/14	100%	2	Joy
3	Development	10.	05/13	05/26	05/13		66%	5.	
3.1	Headquarters System Development	8	05/15	05/26	05/15		[50%]	5	Kei
3.2	Branch Systems Development	4	05/13	05/18	05/13	05/20	100%	2	Ana
4	Test	15.	05/19	06/08	05/19		25%	0.	
4.1	Headquarter System Test	6	05/27	06/03			0%	1	Mike,Kei
4.2	Branch Systems Test	3	05/19	05/21	05/19	05/25	100%	2	Mike,Ana
4.3	Integrated Test	3	06/04	06/08			0%	0	Mike,Joy
5	Deployment	2.	06/09	06/11			0%	0.	
5.1	User Training	2	06/09	06/10			0%	0	Mike,Joy
5.2	Service-in	0	06/11	06/11			0%	0	Tom:0%,Dash:0%

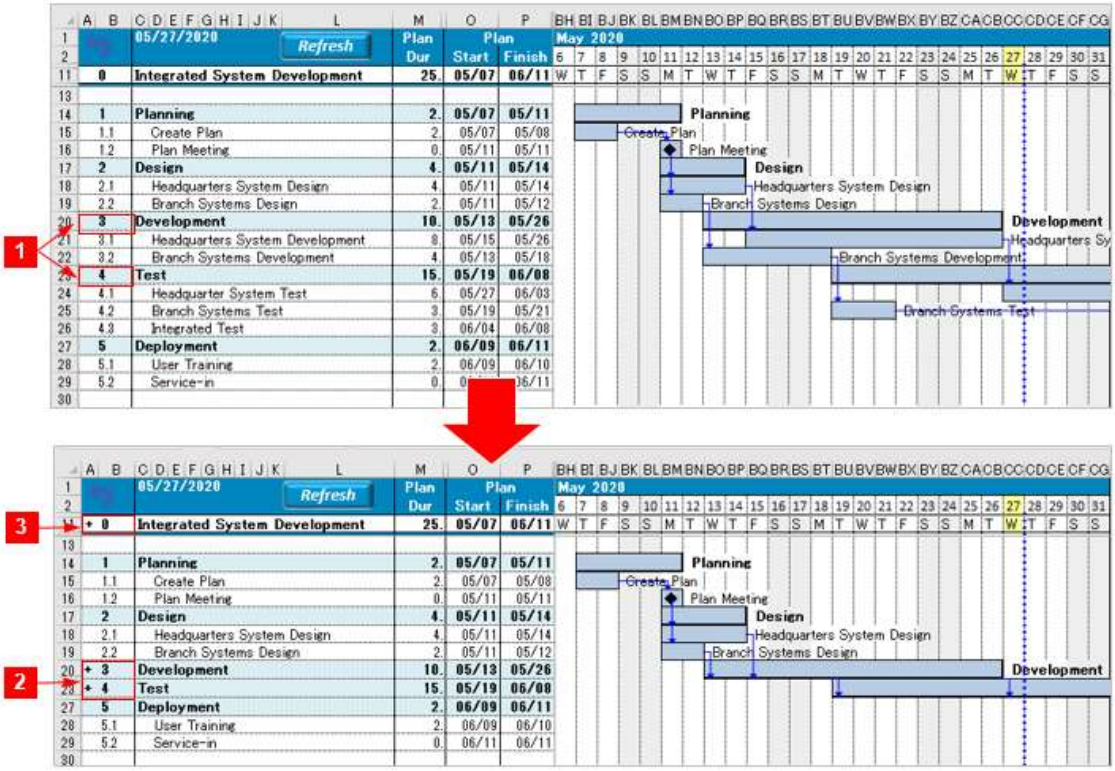
15.15. Collapse/Expand Summary Task Lines

Hides (collapses) or displays (expands) subtask rows of summary tasks.
Memo: By collapsing summary task lines, you can display only the required task lines. By using this function together with "Excel copy", only necessary task data can be disclosed.

Operation:
Click column “A” or “B” (task ID) of the target summary task line. To expand (show) all task lines on the WBS, click column “A” or “B” in the WBS header.

[1] Collapse Summary Task Lines

Clicking a task ID column of a summary task collapses its subtask lines and hides them. If you click on the summary tasks "Development" and "Design" ([**1**]), the subtask lines of those summary tasks will be collapsed (hidden). On the left side of the collapsed summary task line, a "+" mark is displayed (**[2]**).



[2] Expand Summary Task Lines

When you click the "+" mark part (**[2]**) of a collapsed summary task, the subtask row of that summary task is expanded (displayed).

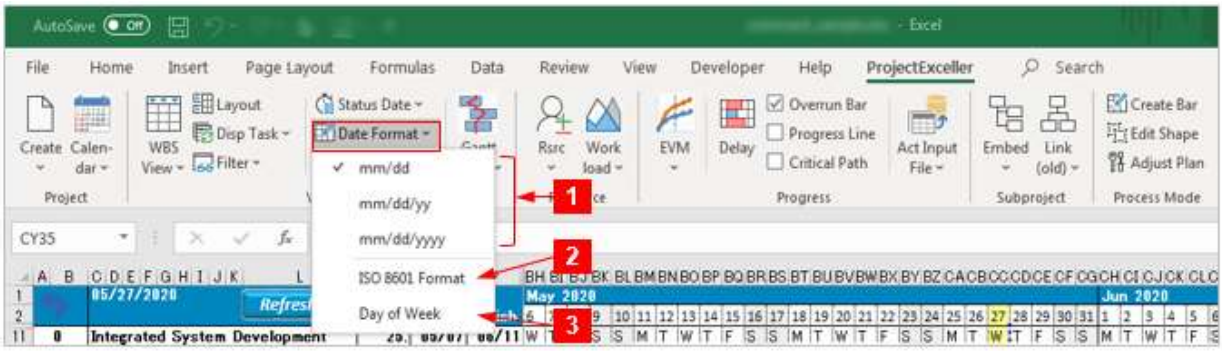
[3] Expand All Task Lines

If there is a collapsed summary task in the project sheet, a "+" mark is displayed in the Task ID column (**[3]**) of the header part. Clicking this part will expand (display) all summary tasks.

15.16. Date Format

Set the date format on WBS.

Click the "Date Format" button on the ribbon, or right-click the date column of the WBS.



[1] Date Format

Date valie is displayed in the following format. (In the case of December 31, 2018)

- mm/md 12/31
- mm/dd/yy 12/31/18
- mm/dd/yyyy 12/31/2018

Note: The order in which the dates appear is dependent on the date format settings for your Windows country / region.

[2] ISO 8601 display format

The date format conforms to the international standard ISO-8601. When this option is turned on, the date format changes as follows. (In the case of December 31, 2018)

- mm-dd 12-31
- yy-mm-dd-yy 18-12-31
- yyyy-md-dd 2018-12-31

Note: Global project date display format

In the case of the ISO8601 format, the display order of the date does not differ depending on the country. Regardless of the country-specific date format on Windows, it is always be in year-month-date order.

[3] Display the day of the week

Displays the day of the week after the selected date display.
e.g.) 2018/12/31 (Tuesday)

15.17. Status Date

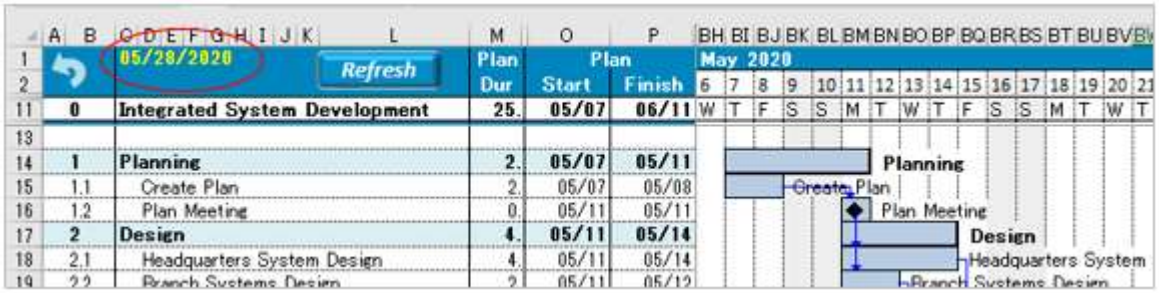
"Status Date" is the date when the progress indicated by the project sheet is occurring. The default is "Today (Auto Update)", which automatically sets the computer's system date.
Depending on when you set the status date, the evaluation result differs greatly even for the same project data.
Note: For example, if you are reporting with data updated on the previous day, the project's "Status Date" should be set to the previous day, not the actual reporting date.

Display Status Date

The status date is displayed in the following three places in the project sheet.

[1] WBS Header

If the status date matches the current date (today), it is displayed in white text. If the status date is not the current date, it is highlighted in bold yellow text.

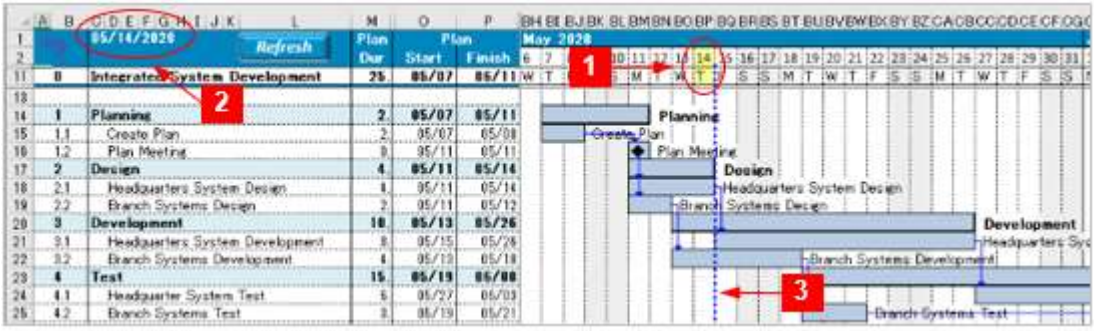


[2] Gantt Chart Header

The cells of the status date displayed on the Gantt chart time schedule header is colored in light yellow.

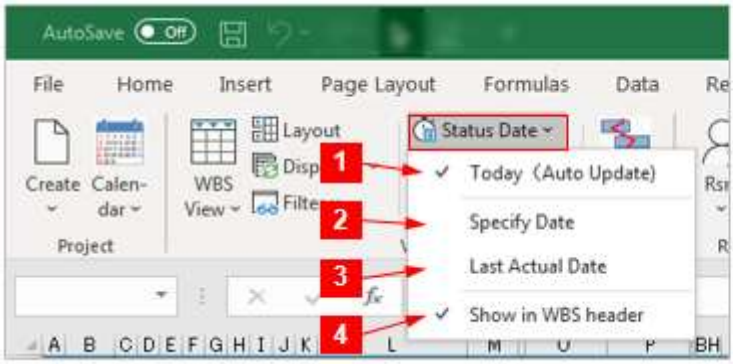
[3] Status Date Line

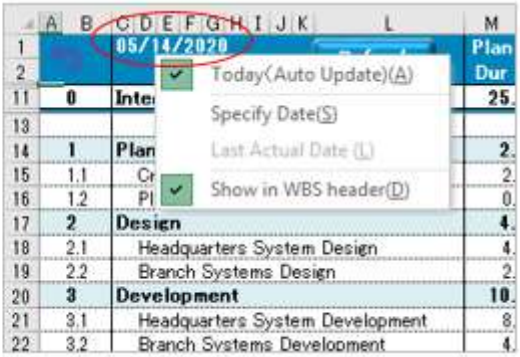
It is displayed as a blue broken line with a vertical line at the position of status date of Gantt chart.



Change Status Date

The status date can be set for each project sheet. The default is "Today (Auto Update)". To change the status date, click the “Status Date” button on the ribbon.





[1] Today (Auto Update)

It is updated automatically on the current date. That is, if the computer's date changes from today to the next day, it is be automatically set to the next day's date. Default is ON

[2] SpecifyDate

Change to the specified date. Specify a date that indicates the status of project data, for example, when reporting on a project sheet. "Today (Auto update)" is changed to off when you set to the specified date.

Note: You can not set a status date that is less than the project's maximum actual date (actual start date, maximum date among actual finish dates).

[3] Last Actual Date

Set the status date to the maximum date of the task's actual date (actual start date or actual finish date) for the project. This allows you to view the progress at the time when the actual date was last updated on the WBS or Gantt chart.

[4] Show in WBS header

Specify whether to display the status date on the WBS header. Default is ON (displayed).

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15.18. Finalize Actual Work

Finalize the provisionally recorded actual work (man-days).

Operation:

Select the task or task range that you want to confirm, and select Confirm Actual Effort from the WBS right-click menu.

Details:

If you enter the actual finish date, the actual work (man-days) is provisionally calculated from the planned duration, planned work (man-days) and actual duration. This provisional work value is followed by a question mark (?).

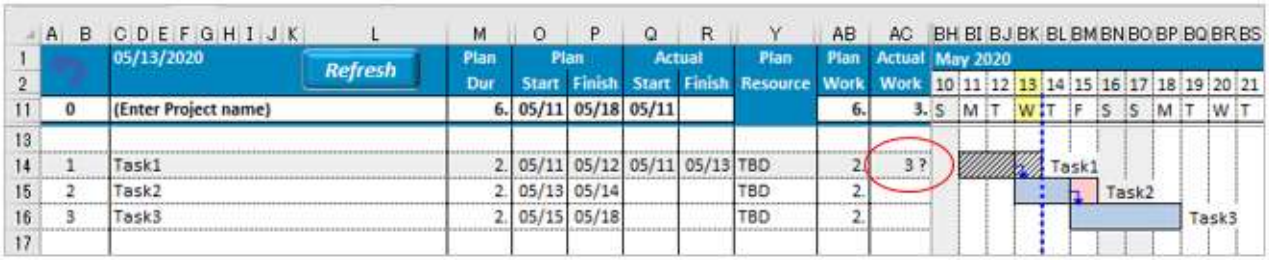
(Formula for provisional actual work)

Actual Work = Planned Work x (Actual Duration ÷ Planned Duration)

If the real actual work is from the provisional actual work, you can correct the actual work by overwriting it.
When overwriting, "?" will not be added. If the actual work value is not followed by "?", it is regarded as "finalized" actual work.
If you select a task range and execute "Finalize Actual Work" from the right-click menu, you can finalize all actual work in the selected range of tasks.

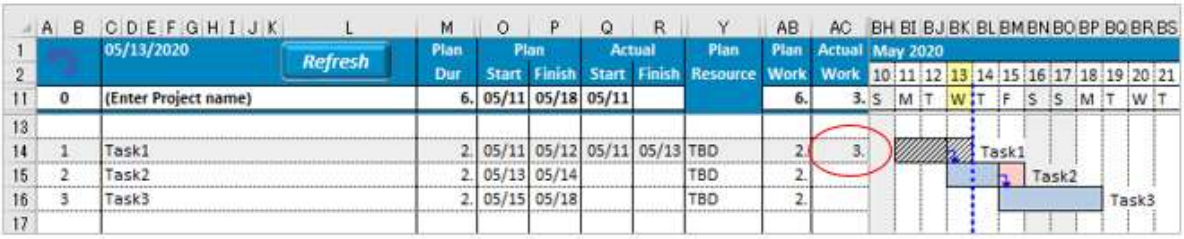
Note: Even if it is provisional work (with "?") Or finalized work (without "?"), there is no difference in the result of other WBS data.

1. When you enter the actual finish date of task 1, "?" is added to the actual work. (provisional actual work)



2. Finalize the actual work.

3. The actual work of "Task 1", "3?" is changed to "3".



15.19. Task Information

It displays data about the selected task in the dialog. You can also update some of that data in the dialog. You can display task information one after another by selecting another task line while keeping the dialog displayed. This allows you to refer to the detailed information you need without displaying all the item columns of WBS on the sheet.

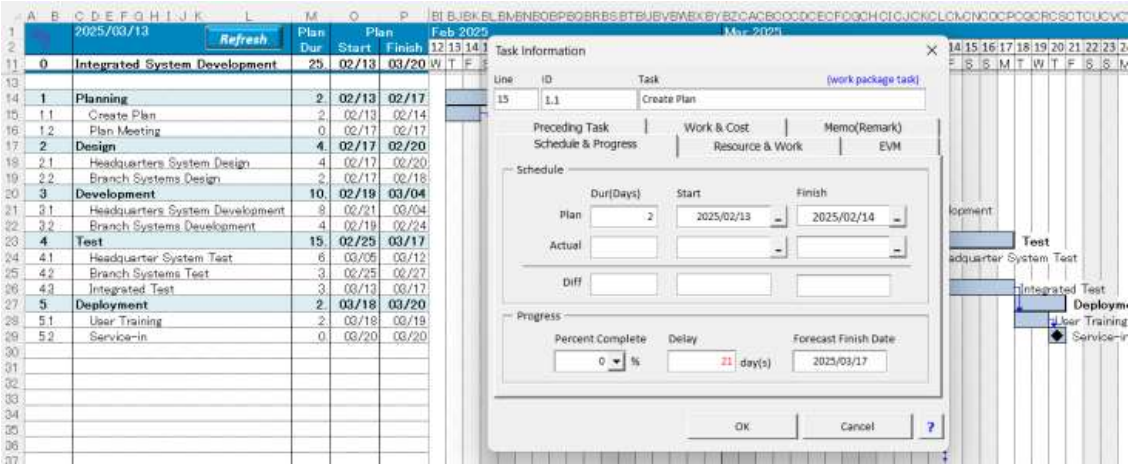
Operation:

Select the task row for which you want to display data, and select task information from the right-click menu.

Details:

In the following example, select the "Design Head Office System" task and select task information from the right-click menu.

The Task Information dialog is displayed.



Task Information Dialog

[1] Task type

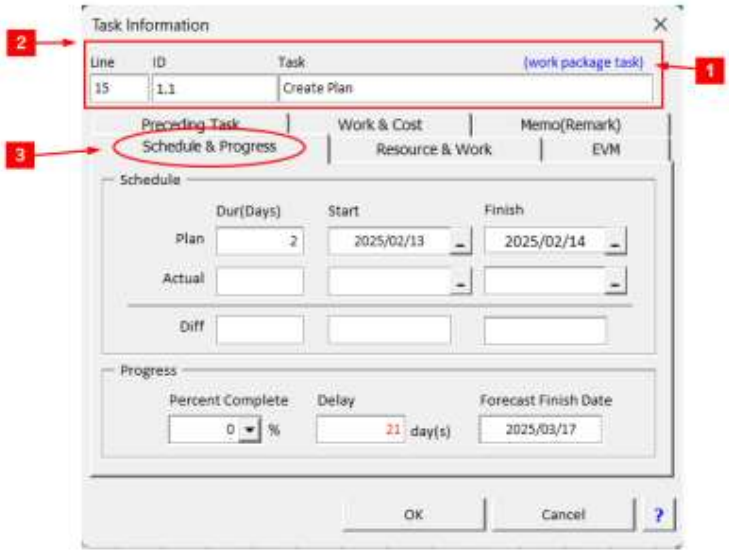
the task type (summary task or lowest task) of the selected task..

[2] General Information

At the top of the task dialog, line numbers, ID numbers, and task names are displayed, which are information that identifies the task.

[3] Schedule & Progress

There multiple tabs in the dialog. The below is the "schedule and progress" tab.



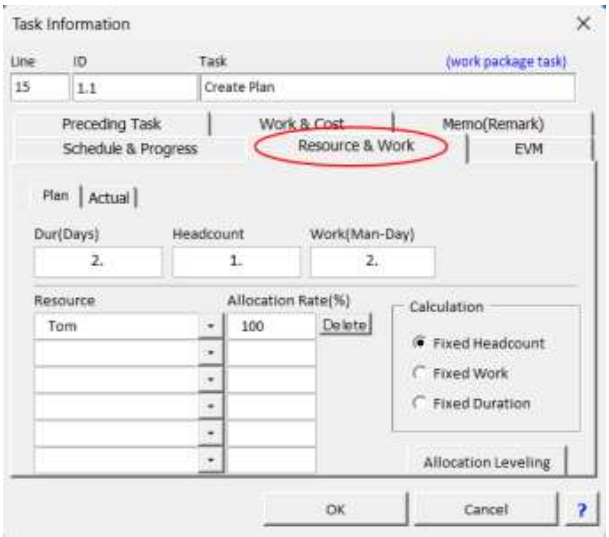
[4] Resources and Work

Display and set the resources to be allocated to tasks and their amount of work. By specifying the calculation method, it is possible to calculate the work by fixing one of duration, head count or work.

Memo: This function is the same as"Resource and Work" function on the right-click menu.

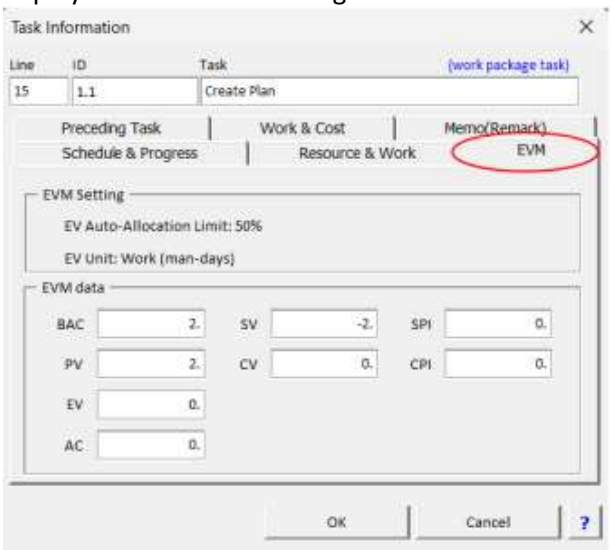
Note:

The task types displayed on the dialog are displayed when the dialog is launched. Changing this task type on this dialog does not affect the WBS task type. When changing task types on WBS, it is necessary to change task types of each task directly on WBS.



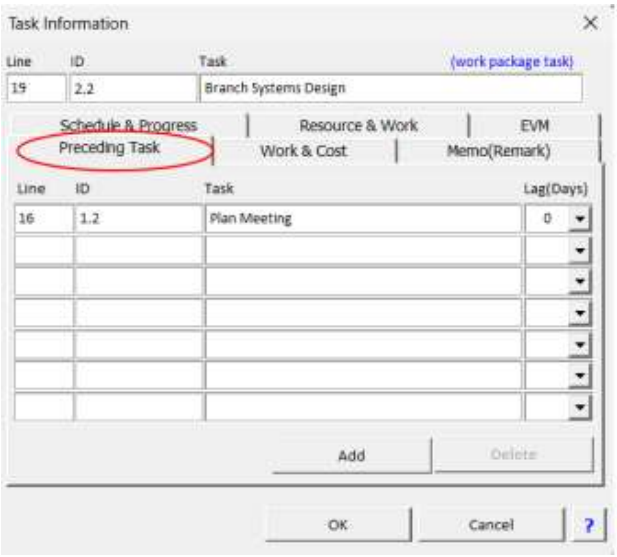
[5] EVM

Displays EVM related settting and data of the selected task.



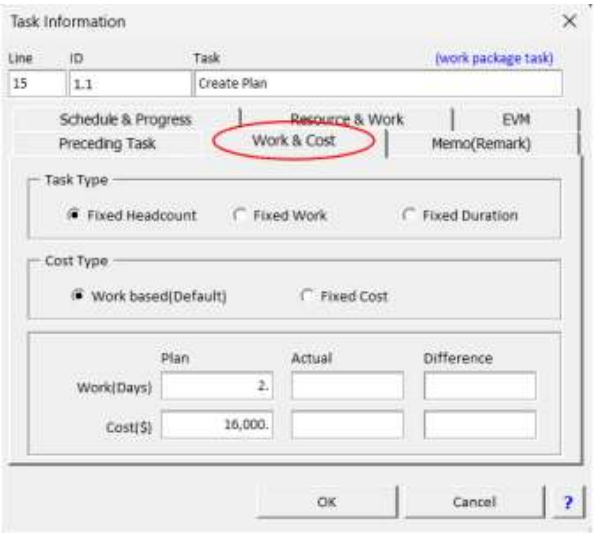
[6] Preceding Task

The preceding tasks of the selected task if it has a task link.



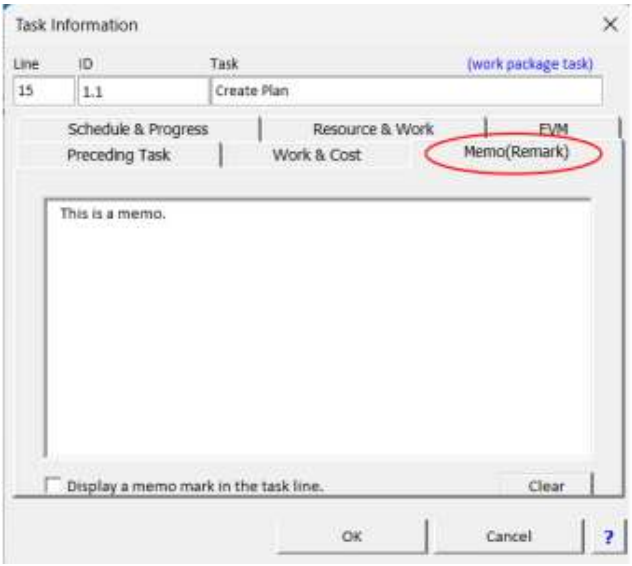
[7] Work & Cost

Task Type and Cost Type, Work (man-days) and Cost of the selected task are displayed.



[8] Memo (Remarks)

You can also display and edit the values in the “Remarks” column of the WBS.
If the option “Display a memo mark in the task row” is enabled, a memo mark (**||**) is displayed on the left side of the task row (columns A and B) for tasks with remarks data in the left side of the task row (columns A and B).

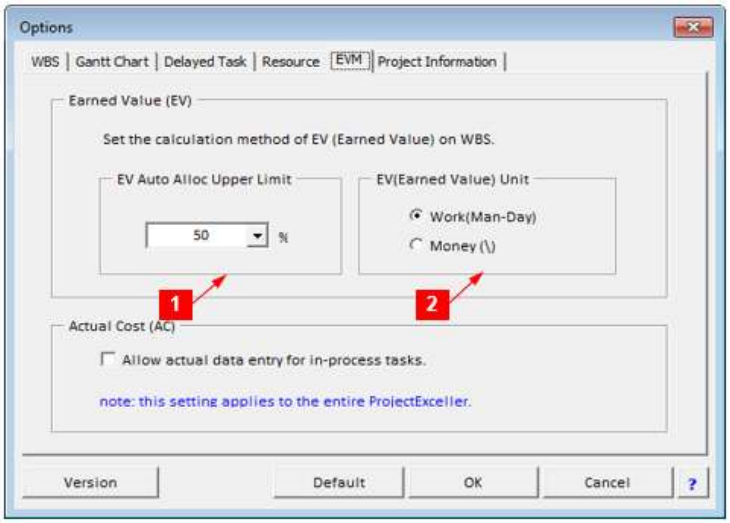


15.20. EV Auto Allocation

The EV Auto Allocation is the method automatically allocates EV (Earned Value) of the task, assuming that work has been performed as planned in proportion to the number of days elapsed until the upper limit value of EV.
In a typical traditional EVM analysis, a fixed percentage of EV is recorded at the start and end of the task. Therefore, the accuracy of the EV value of the task in progress tends to fall. The “EV Auto Allocation” function can realize the EV value more closely.

■ **Operation:**

Click the “Option” button on the ribbon to invoke the following dialog box and select the EVM tab.



"Percent Complete (or PC%)" indicates how much of the planned work of the task has been completed. For example, in the task of creating 10 programs, if 3 are completed, you can enter 30% for the Percent Complete.
However, it is not realistic for you to accurately fill in this percent complete every day for every task.
“EV auto allocation” function automatically update the EV in WBS. It automatically calculates the EV, assuming that work has been performed on schedule in proportion to the number of days elapsed until the upper limit value set beforehand.
The default limit is 50%. In this case, for tasks with a 5-day planning period, the first day is automatically accounted for 10% and the fifth day is 50%. After the 6th day, you need to enter it manually. If you enter the actual end date, the Percent Complete will automatically be 100%.

Memo:

- The automatically calculated percent complete value is shown in parentheses (“[ ]”) in the WBS.

- You need to update the percent complete directly in WBS after the automatic updating period or if you want to more accurate percent complete.

■ **Explanation with example:**

"EV Auto Allocation" is explained in the following example
Let's look at the EV changes over time when the upper limit value of the EV auto allocation is set to 50% and the task starts with a total duration of 10 man-days and a duration of 10 days. The table below shows the change of EV value.

- Until the fifth day, the percent complete is automatically updated up to 50% by the EV Auto Allocation function. The EV is also updated at the same rate accordingly.
- On the 6th day, automatic updating stops. Because there is no user input, it remains at 50%.
- On the 7th and 8th day, the actual percent complete is entered by the user, so it becomes 75% and 85% respectively.
- On the 9th day, the task finished one day earlier than the plan.

With the EV Auto Allocation, EV updates automatically without your entering WBS in the first 5 days. If you use the general "fixed ratio method" 30-70 rule, etc., EV will be counted as 3 on the first day, and suddenly jump to 10 on the 9th day of the final day. EVM analysis results may be less accurate, especially if the task duration is long. In this way, EV automatic allocation can achieve more realistic EVs with minimum effort.

[Example]

Elapsed Days	PC %	EV	Allocate Method
Day 1	[10%]	1	Auto Update
Day 2	[20%]	2	Auto Update
Day 3	[30%]	3	Auto Update
Day 4	[40%]	4	Auto Update
Day 5	[50%]	5	Auto Update
Day 6	[50%]	5	No Auto Update
Day 7	75%	7.5	Enter 75% manually
Day 8	89%	8.9	Enter 89% manually
Day 9	100%	10	Complete

Memo: Notation of Percent Complete (PC%)

The "PC%" column in WBS shows the Percent Complete. If it is displayed with [ ], it indicates that it has been updated by the EV Auto Allocation function. Non [] indicates that the user has entered it manually.

Memo: General EV Accounting Method

As a method of accounting(updating) for EV, the "fixed ratio rules" is generally used. This is a way to account for a percentage of the planned value at the start of the task and the rest at the end. In this accounting method, there are 0-100 rule, 30-70 rule, 50-50 rule, etc. The 0-100 rule is 0% at the start (does not count) and 100% at the end. Since this method of accounting is based on only two points at the start and end, there are no man-hours for tabulation, but the value is far away from the real value sometimes.

■ **Unit of EV**

As unit of EV, "Work" (man-day) or "Cost" (amount of money) can be set. The default is Work (man-day). When "Cost" is selected, the display unit of EVM index values (BAC, PV, EV, SV, CV) on WBS is switched to "Cost" vlaue (amount of money).

Memo:

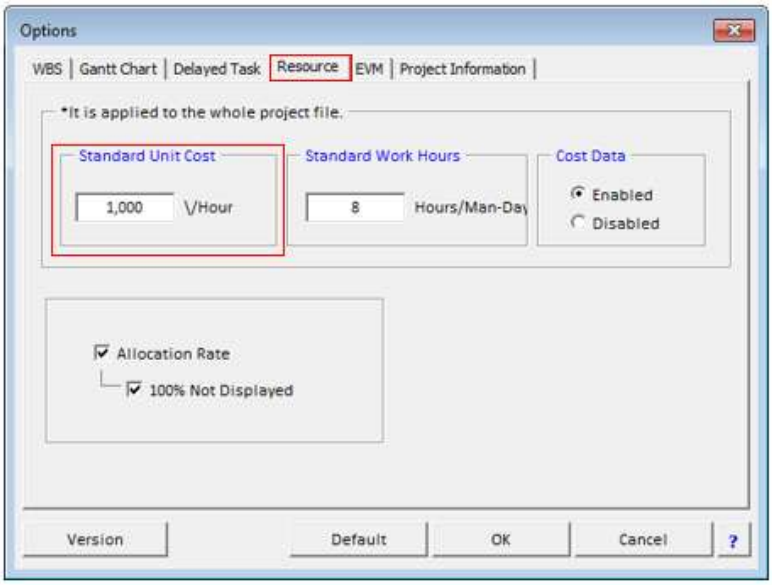
- If "Cost" is selected for EV, it is mandatory to set a "Standard Unit Cost".
- When creating an EVM graph, you can also select and execute the unit of EVM analysis as either "Work (man-day)" or "Cost (amt. of money)", independently of the settings on this option dialog.

15.21. Standard Unit Cost

Set the standard unit cost of resources assigned to the project.

■ Operation:

Open the Options dialog from the “Option” button on the ribbon and select the Resources tab.



- Since the standard unit cost is set for each project file, it is common settings for projects on the same project file.
- This standard unit cost is be applied when calculating the cost of the task, if there is no unit price for unassigned resources (“TBD”) or resources registered in the resource sheet.
- If “Cost” (amount of money) is set for EV, it is mandatory to set a standard unit cost.
- There is no default value for standard unit cost. When creating a new project file, the standard unit cost is set as blank (= 0).
- If you reset the settings to default using the “Default” button on the options dialog, the “Standard Unit Cost” value does not change.

15.22. Cost Data (Enable / Disable)

By disabling cost data, the following cost data is not displayed.

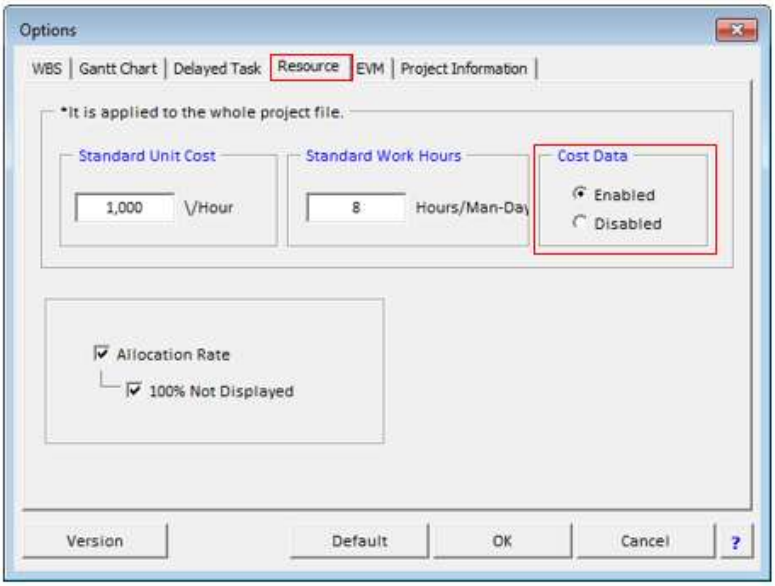
- Cost data is not displayed on the resource sheet.
- The cost data calculated from the unit cost of the WBS resource is not displayed.

Note: This is displayed if the cost type of the task is "Fixed".

It is a function to protect the unit cost of resources and the cost (amount of money) information of the project with a password. This allows only some members who know the password to know the cost of the project.

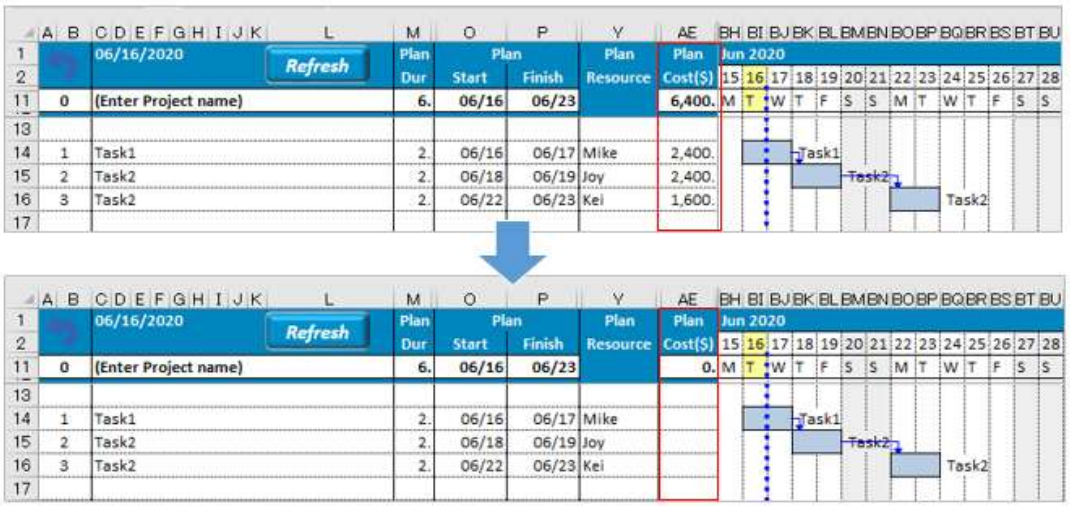
Operation:

Select the resource tab of the option dialog and click the "Enable" (or "Disable") button for "Cost data".
The default is enabled.



By disabling cost data, numbers of cost data on WBS is not displayed.

Note: However, if the cost type is fixed, the cost data is DISPLAYED.



Also, the Unit Cost field column on the resource sheet is not displayed.

■ **Disable**

Clear resource cost data from the resource sheet and invalidate project cost data. The following process is performed.

1. The resource unit cost is encrypted, passwords are set and saved.
2. The unit cost column in the resource sheet is hidden.
3. The cost of the task is 0. However, if the cost type is fixed, it is displayed.
4. EVM analysis based on cost can not be performed.

■ **Enable**

Restore the saved resource cost data and eanble the cost data. To enable it, you need the password you set when you disable it.

1. Recover the resource cost data that has been encrypted and saved.
2. The unit cost column of the resource sheet is displayed.
3. The cost of the task is recalculated.
4. You can perform cost-based EVM analysis.

Note: If you lose your password

If you lose your password, you can not recover registered resource prices and can not calculate cost data on that file.

Workaround:

In this case, create a new project book, copy (* 1) all project sheets on the project book with the lost password to the new project book, and register the unit cost in the resource sheet again.

Note 1: Use the standard sheet copy function of Excel for copying sheets.

15.23. Task Type

Set the calculation method of task task.

Memo:

In the "Adjust Plan" mode, "Resource and Work"(on right-click menu)", or "Resource & Work" tab of "Task Infromation", without changing the task type set for each task on the WBS, by temporarily switching the task type, you can edit the duration, head count, and work(man-days).

Operation:

Select the task type from the right-click menu of the WBS header.

Details:

The task type is the type of calculation method for the headcount, duration, work (man-days or resource or resource allocation rate) of each task. You can set one of the following three as "Task Type" for each task. In this way, you can set priority targets among headcount, duration, and work (man-days).

Task Type	Changed data and Recalculated resault		
	Change Duration	Change Headcount	Change Work(man-days)
Fixed Headcount (default) Note: the cell value is blank.	Work	Work	Duration
Fixed Work	Headcount	Duration	Duration
Fixed Duration	Work	Work	Headcount

The following interdependencies exist between "Duration", "Work" and "Headcount".

Work (man-days) ＝ **Duration** × **Headcount**

■ Task Type

Fixed Headcount (default)	Fix headcount, Recalculate work (man-day) and duration.
Fixed Work (man-day)	Fix work (man-day), Recalculate duration and headcount
Fixed Duration	Fix duration, Recalculate work(man-day) and headcount

The default is "Fixed Headcount".

To use task types correctly, you need to understand the definition of "Work". For more information, see "What is man-hour?"

Note: Planning with Fixed Work

Even if you change the duration or headcount, the work (man-days) does not change. The work is calculated in advance from the amount of work output. For example, for "Test Execution" task, the required work (man-days) can be calculated from the number of test cases to be executed and the execution time per test case. Assuming that the average execution time of one test case is one day, 10 cases require 10 man-days. The amount of work does not change depending on the headcount assigned and the duration of execution. If it is necessary to complete this task within 5 days, changing the duration to 5 days results in 2 people (man-days/day) without changing the work (man-days). This means that you need to allocate two resources.
In this way, it is recommended to calculate the work (man-days) for each project after clarifying the estimation basis for each task, and to set a plan with fixed work. Then, adjust the required duration or headcount (resouces) to create a plan.

■ How to Confirm Task Type

The task type of each task can be confirmed as follows.

- Check on "Task Type" column
- Select the task line to check, right-click, and confirm the selected "Task Type".

■ How to Change Task Type

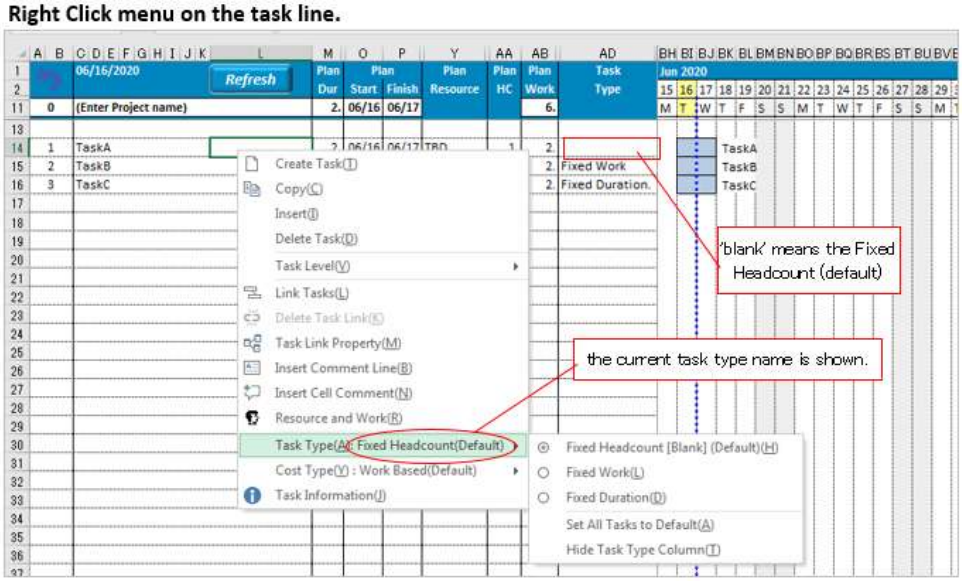
Task types can be configured in the same interface as the confirmation method.

- Select on "Task Type" column
- Select the task line to set, right-click and select the type from the “Task Type” submenu.

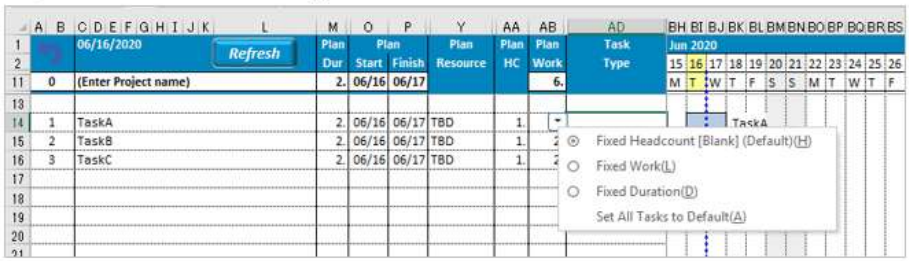
Note: Set Task Types for Multiple Tasks at Once

If you select multiple tasks and set from the right-click menu, you can set the task type of all the tasks in the selected range once.

Right Click menu on the task line.



Right Click menu on the Task Type column



15.24. Cost Type

Select a method to calculate the cost of the task. The cost of a task is the amount of money required to perform the task. There are two ways to calculate the cost:

Work Based	The cost changes in conjunction with the work (man-days).
Fixed Fixed	The cost is fixed, no change.

Select the task range and select "Cost Type" from the right-click menu of WBS or Gantt chart, and click "Work Based" or "Fixed".

Details:

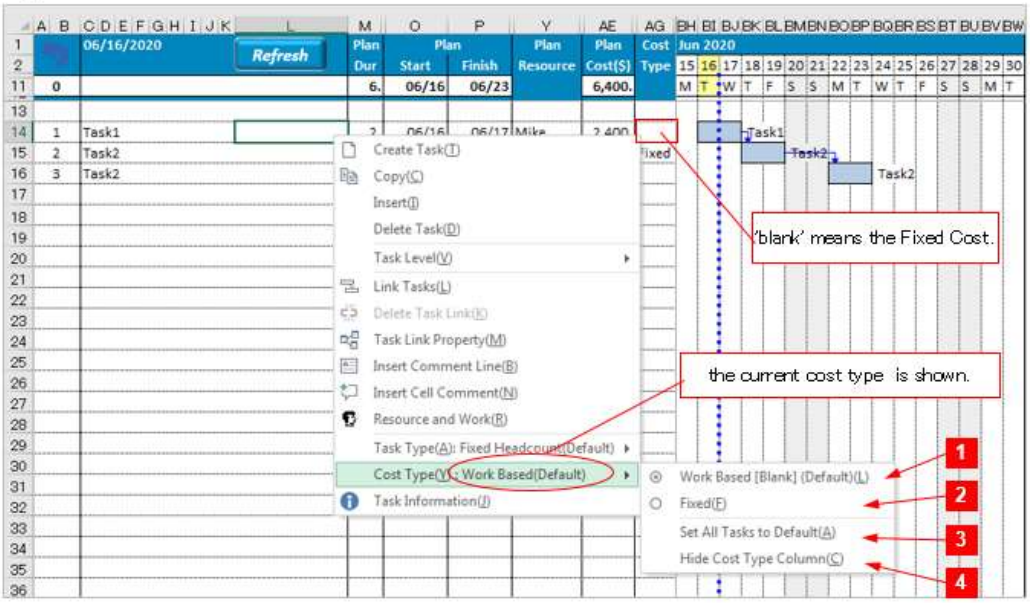
- **How to Confirm Cost Type**

  The cost type set for each task is displayed on the right side of the "Cost Type" menu in the right-click menu of WBS or Gantt chart. Or, display the cost type column of the WBS item. If the cost type cell is blank, it means that it is the default "**Work Based**". If the cost type is fixed, "**Fixed**" is displayed.

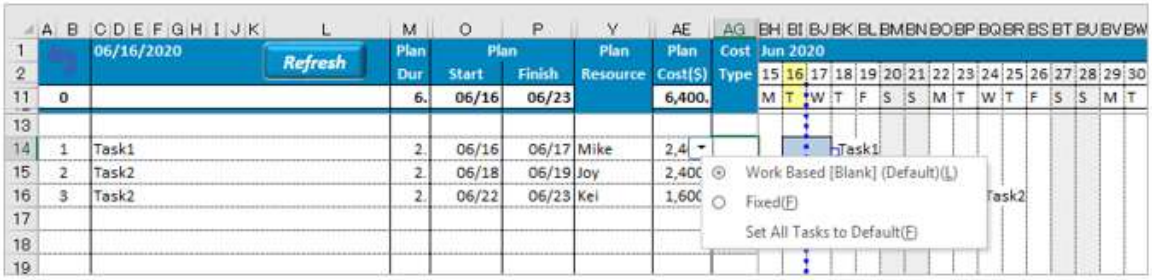
- **How to Change Cost Type**

  Select the range of tasks you want to set on the WBS, select Cost Type from the right-click menu, and select “Word Based (Default)” or “Fixed” from the submenu. If multiple task rows are selected, all tasks in the selection have the same settings.
  If "Set All Tasks to Default" is selected, all tasks of the project sheet are set to default setting, “Word Baed” regardless of the selection range.
  Another way is to display the cost type column of the WBS item, and select "Work Based (default value)" or "Fixed" from the button displayed there. The cost type is blank if you select the default "Work Based".

Right Click menu on the task line.



Right Click menu on the Cost Type column



[1] Work Based [Blank] (Default)

This is default setting. The cell of the Cost Type column is blank.

In this setting, task cost and work (man-days) are related as shown in the following formula.

Task Cost = Work (man-days) × Unit Cost of Resources

When the resource work (man-days) or its unit cost changes, the task cost changes accordingly. For example, if a task is delayed and work (man-days) increases, the cost of the task increase and the planned cost may be exceeded.

[2] Fixed

It is a fixed cost. It is not affected by the work (man-days) or resource allocation or their unit cost.

[3] Set All Tasks to Default

Resets the cost type of all tasks in the project to the default value (worktime interlocking).

[4] Show Cost Type Column

Display the cost type column of the WBS item.

15.25. Work (man-days)

"**Work (man-days)**" is the amount of labor required to perform a task. Its unit is man-days.

Importance of Work (man-days)

It is very important not only for budget and resource planning, but also for managing the progress of the project, to accurately grasp the work (man-days) of the project. For example, EVM analysis manages the progress of a

project based on EV, but “Effort” relates to EV directly or indirectly. To create a viable, non-failing schedule, you need to consider its work (man-days) and headcount.

Relationship between Work (man-days), Duration and Headcount

Work (man-days) = Duration × Headcount

The project manager needs to determine and adjust which of these three factors is to be prioritized according to the characteristics and situations of each task.

Here, let's reconfirm the definition of **Work** (man-days), **Duration** and **Headcount**.

1. **Definition of "Work"**
   The amount of labor to do the task. Its unit is "man-days". "One man-day" means the work for one person's standard work hours per day. For example, if the standard work hours per day is 8 hours, for a certain task, if Mr. A works for 8 hours, the number of man-hours will be 1 and for 14 hours, it will be 1.5. Also, if Mr. A and Mr. B work for 4 hours each, Mr. A and Mr. B's man-hours will be 0.5 respectively, and the man-hours for the entire task will be 1. "

2. **Definition of "Headcount"**
   The total number of resources assigned per day, that is, the number of man-days per day.
   For example, if two people, Mr. A and Mr. B, are assigned 100% to a task, the number of people will be 2. Also, if Mr. A and Mr. B are assigned 50% each, the number of people will be 1, even if 2 resources are allocated.

3. **Definition of "Duration"**
   The number of work days excluding holidays from the start to the end of the task.

15.26. Adjust Plan Mode

Refer: page111, 9.3 Interrelationship of Work, Duration, Headcount

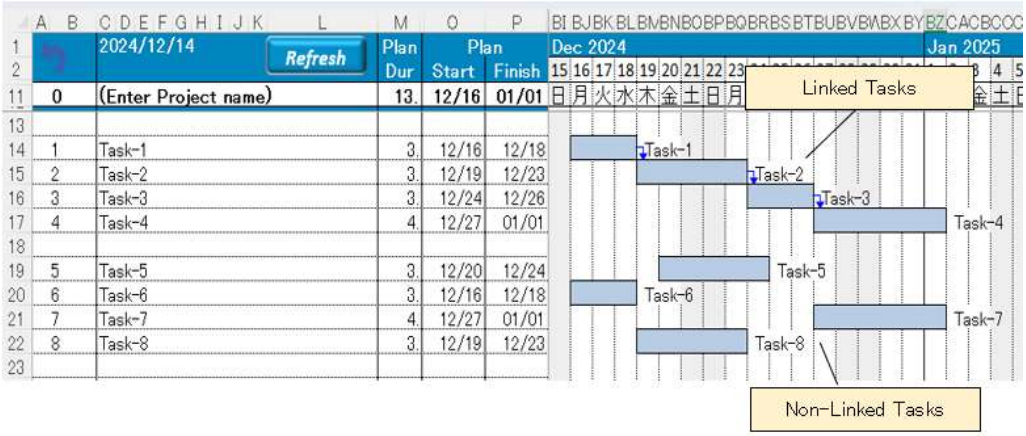
15.27. Move Tasks

Task schedules can be moved back and forth, leaving the planning period intact.
The “Move Task” function allows you to update the planned start dates of multiple selected tasks at once for a specified number of days. This is especially useful for projects that do not have task link settings.

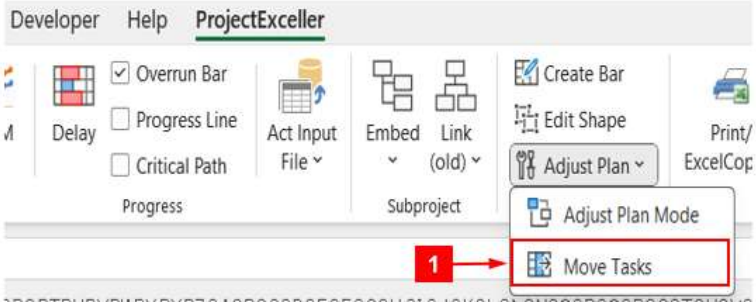
Note: not apply to the following tasks only.

- Summary Tasks
- Tasks with preceding tasks set
- Link-Type Subproject Tasks

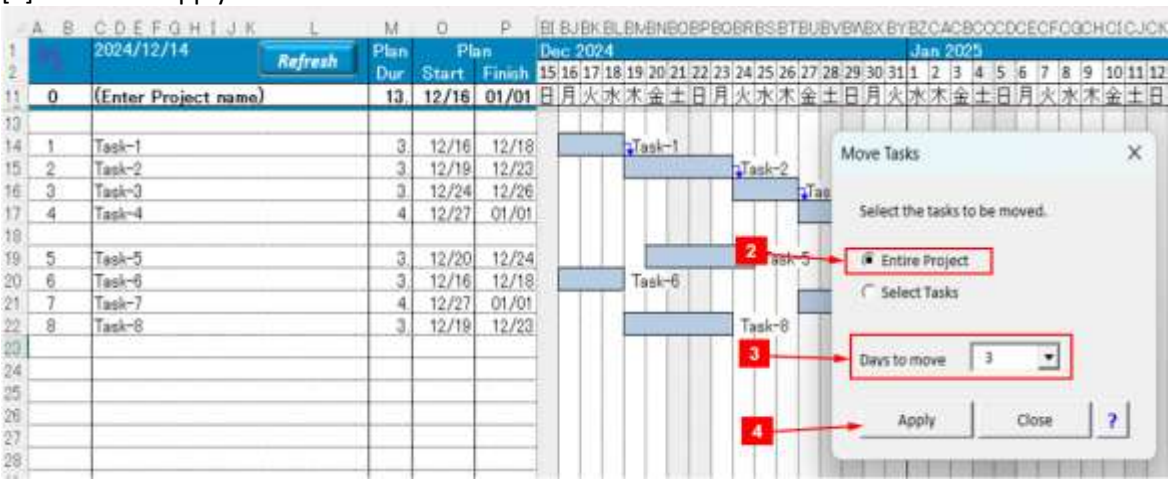
Let's select all tasks in the following project and delay the schedule by 3 days. For this project, Task-1 through Task-4 are linked and Task-5 through Task-8 are not.



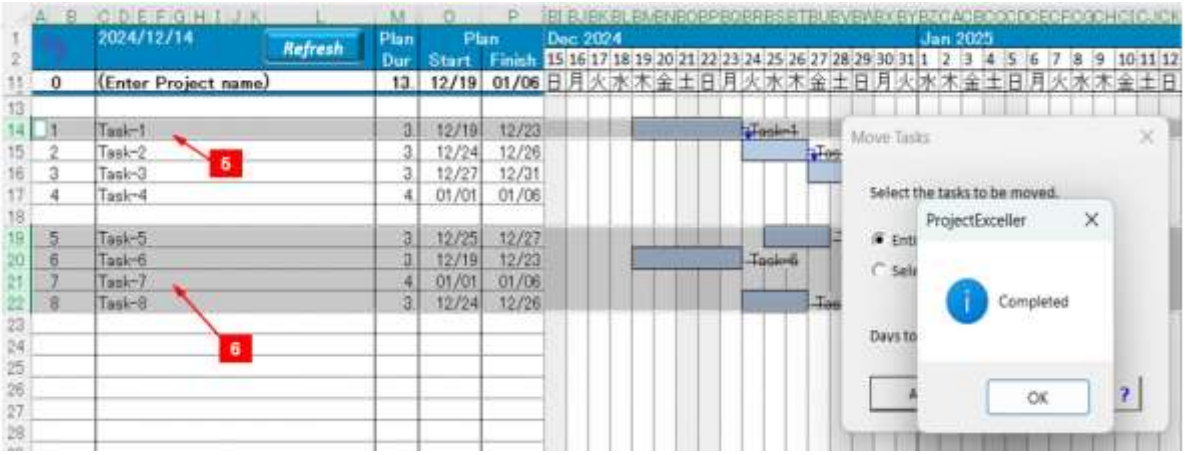
[1] In the ribbon, click on Adjust Plan, then Move Task, to display the Move Task dialog box.



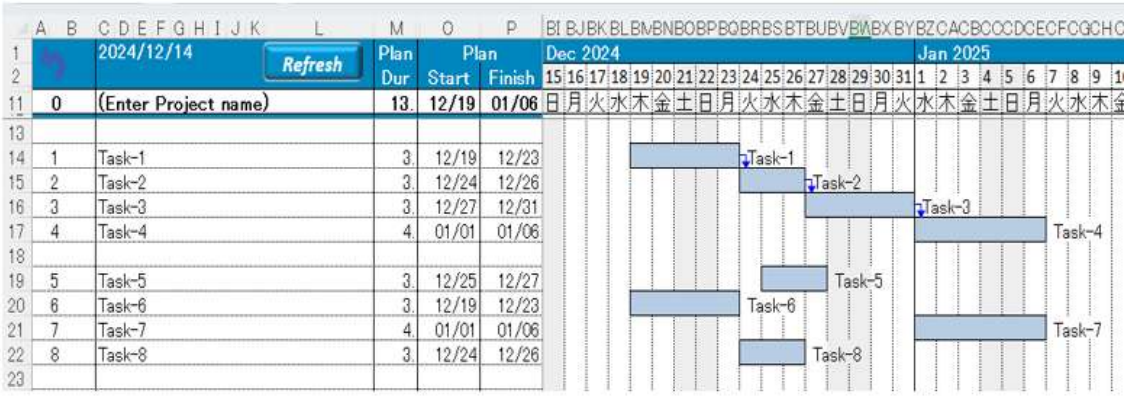
[2] Select the Entire Project.
[3] Select “3 days” as the “number of days to move” on the dialog box.
[4] Click the “Apply” button to execute.



The entire task has been moved to the right for 3 days. The changed tasks of the task move startup are selected and displayed.
[5] Task-1 to Task-4 are linked. Only Task-1 has been updated by Task Move. However, Task-2 to Task-3 are automatically updated because they are linked.
[6] Task-5- through Task-8 are not linked. If you want to move them manually, you need to change the start date of each of the four tasks, but here, you can move them all at once with the Move Task function.



The following is the project after moving the task.



15.28. Replay Simulation

It is a function to trace back the progress of a project that has actually been completed or is in process.

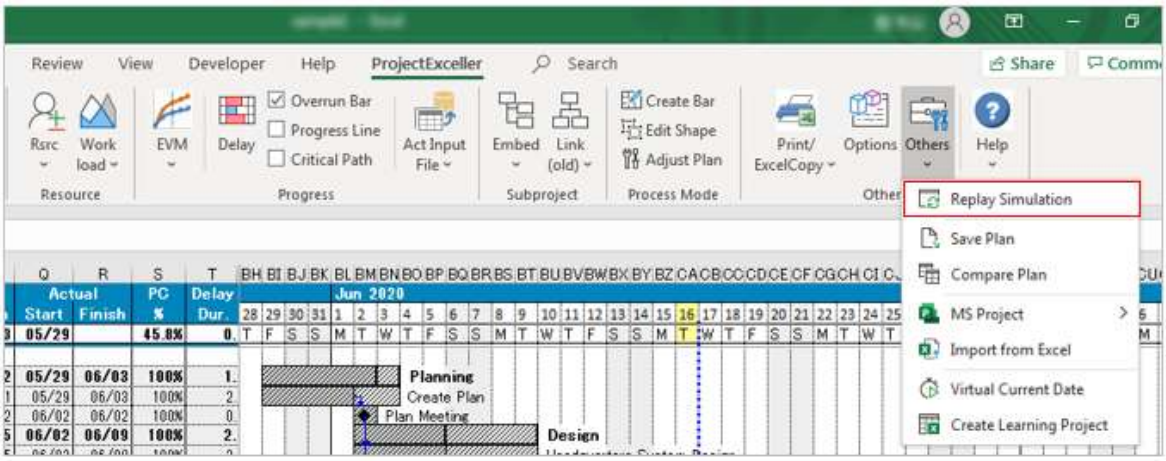
Note: Not applicable for projects that contain subproject tasks.

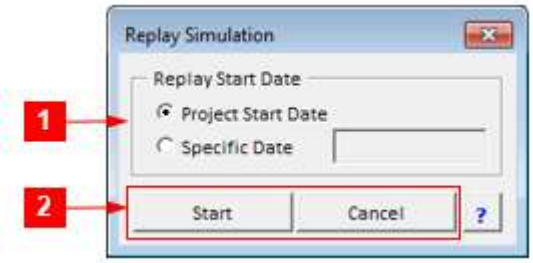
This function allows you to check the progress at a certain point in the past on the project sheet in detail. It can also be used for presentation in project status reports, etc., education for ProjectExceller, self-learning, etc.

The operation dialog of reproduction simulation can change the project date by one day or by one week unit like the video player and reproduce the state at that time.

Invoke Replay Simulation

A dialog is displayed when you click "Replay Simulation" from "Other" button on the ribbon.





[1] Replay Start Date

■ **Project Start Date**

Set the status to one day before the start date of the target project. Select this if you want to replay the progress from the start of the project.

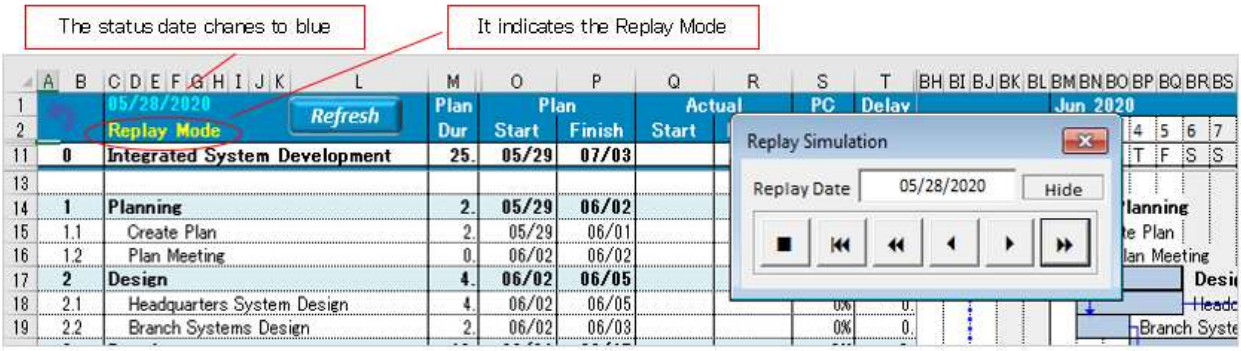
■ **Specific Date**

Set to the specified date state.

[2] Bottom buttons

■ **Start**

Backup the current project sheet data to be analyzed and display the following dialog with the specified start date by pressing “Start” button.



In the WBS header, "Replay Mode" is displayed to indicate that the replay simulation has started, and the status report date turns blue.

All data on the project sheet (status report date, WBS data (planned and actual values), Gantt chart, etc.) will change to the date of replay.

Memo: Assumptions

Reproduce the progress based on the assumptions below.

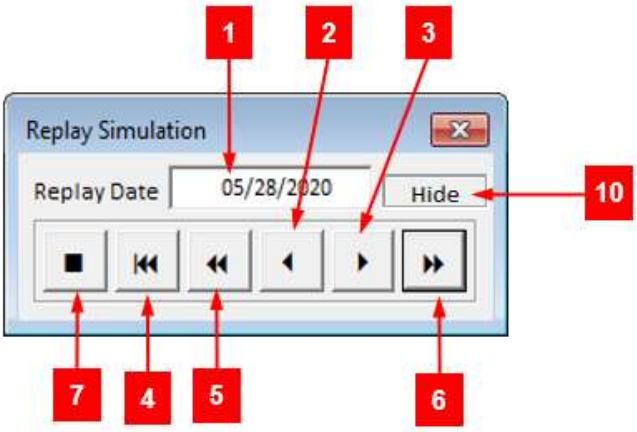
- Assume that the current project plan has not changed since the start date of the reproduction simulation.
- Assume that the increase in the task completion rate is uniform throughout the actual period.

■ Cancel

Cancel the request and close the dialog.

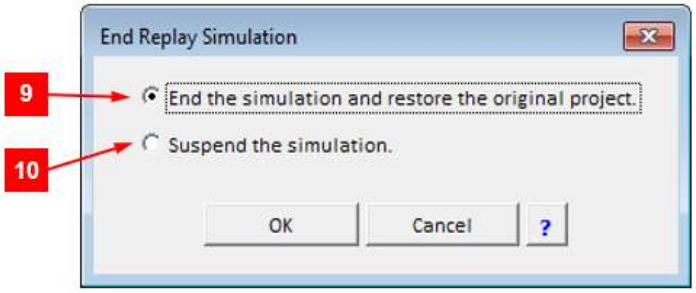
"Replay Simulation" Operation Dialog

When the replay start date is specified in the startup dialog and "Start" button is pressed, the following operation dialog is displayed.



[1] Replay Date
Indicates the date of the data being reproduced in the project sheet.
[2] Advance one day
[3] Back one day
[4] Return to replay start date
[5] Back one week
Back to the first past Monday from the current replay date.
[6] Advance one week
Advance to the next Monday from the currentl replay date.

[7] End or suspend the replay simulation.
The following dialog is displayed.



[8] End the simulation and restore the original project.
Memo: Restore Original Data
Since the sheet itself is restored, all settings and data changed during the replay mode are replaced. Even if an error occurs during the replay and the sheet itself becomes inconsistent, the original project sheet state can be completely recovered.

[9] Suspend the simulation.
It suspends the simulation and closes the operation dialog in the reproduction mode. It does not restore the original project sheet. It is used to close the operation dialog and see the state at a certain point in the past.

■ Display suspended status
The text of "Replay Mode" is displayed in yellow in the WBS header, and the status date is in light blue.

■ Resume and terminate the simulation
There are two ways to resume or terminate from the suspended state of replay simulation.
- Click on the "Replay Mode" part of the WBS header.
- Select "Replay Simulation" from "Other" buttom on the ribbon.

[10] Hide the dialog.

You can hide the dialog and change the date back or forth using the short keys.

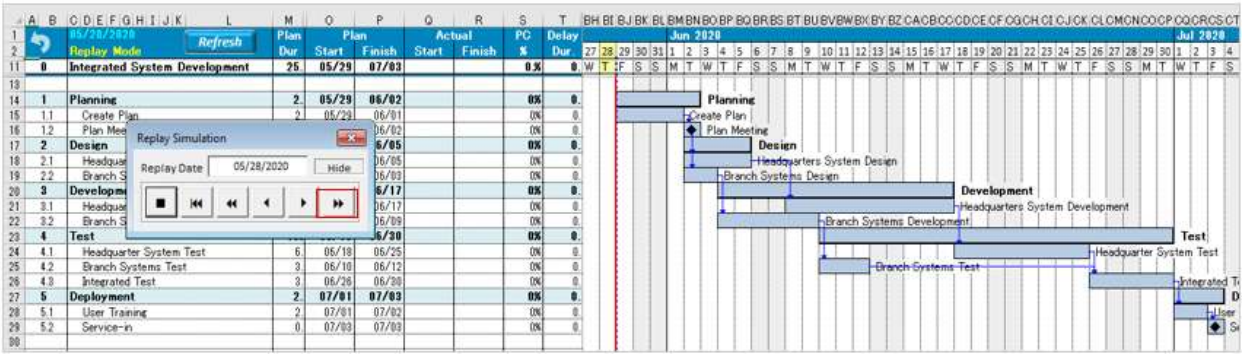
Shortcut keys:

Ctrl + Shift + U	Back 7 days
Ctrl + Shift + I	Back one day
Ctrl + Shift + O	Advance one day
Ctrl + Shift + P	Advance 7 days
Ctrl + Shift + K	Unhide a hidden dialog.

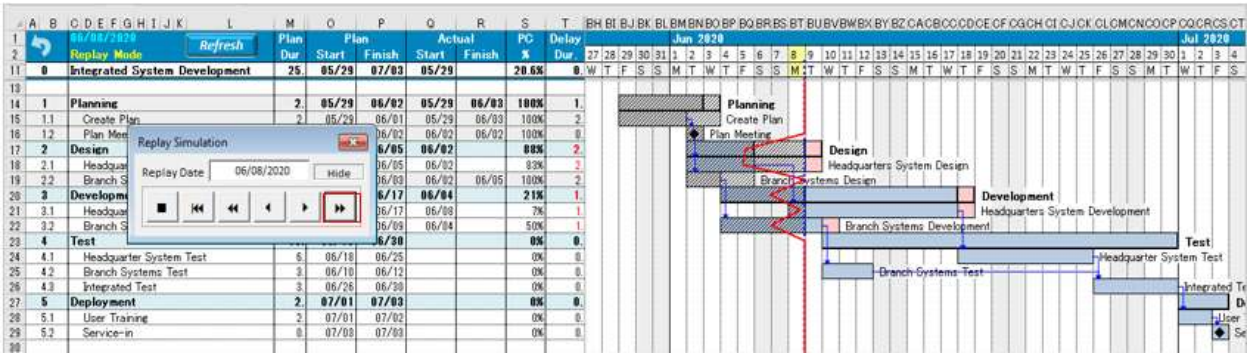
Example of Replay Simulation

It explains the replay simulation using the sample project.

Select "Replay Simulation" from "Other" button on the ribbon to display the operation dialog. Click the Start button on the dialog to return to the project start date.

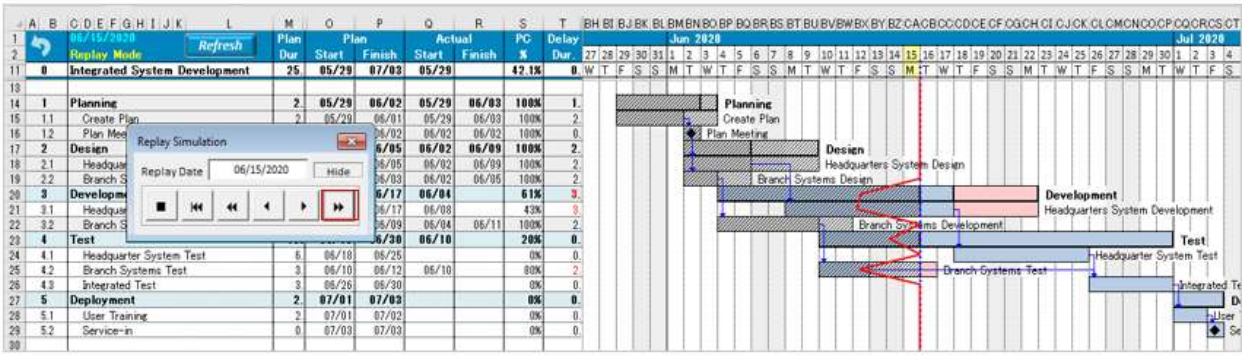


Advance one week.



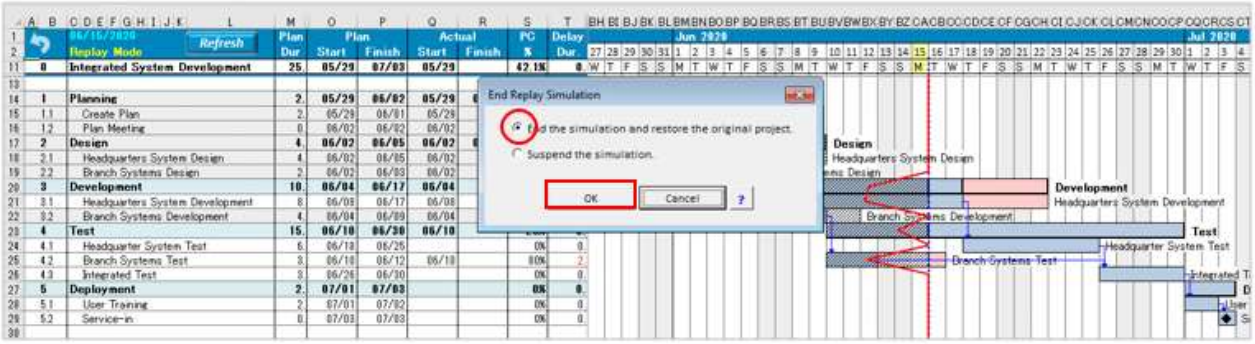
Advance another week.

Advance one more week.



It returned to the current status date. Press the End/Suspend button to end the simulated simulation.

Restore the original project and finish the replay simulation.



15.29. Save and Compare Plan

You can save up to 10 plans per project sheet. You can compare the current plan and past saved plans for each task and check the differences. The Gantt chart for comparing plans shows red changes pointing to the right of past plans and red arrows pointing to the left, and blue changes pointing to the left so you can see at a glance where the changes are and their impact.
The items to be compared for each task are start date, finish date, duration, work(man-days), cost, and resource.

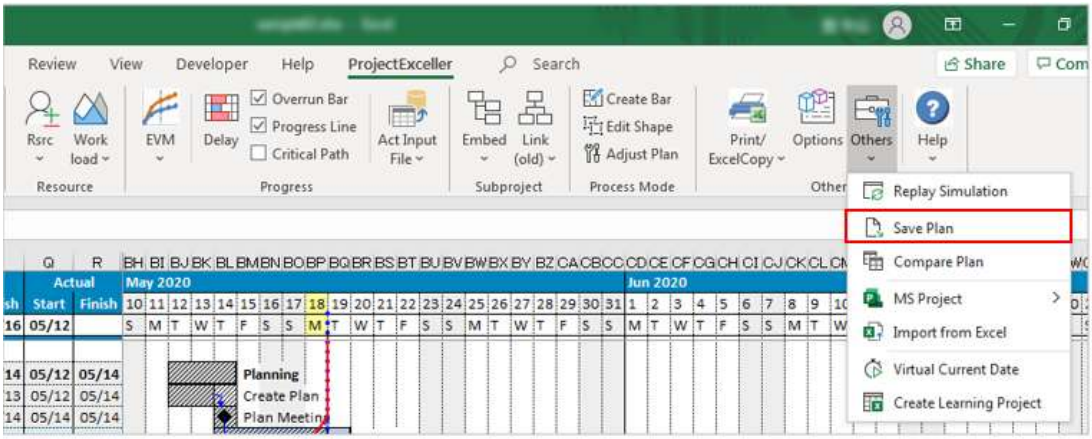
Save the plan

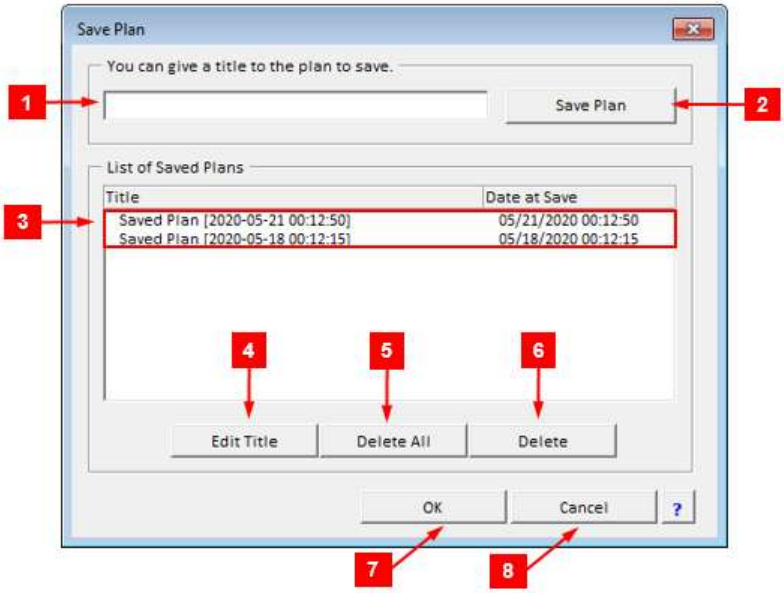
Save the plan data of the currently selected project sheet. You can save up to 10 per project sheet. The saved data is used as a "past plan" to compare with the current plan in the "Compare Plan" function.

Note:

This function is to save part of the data of the current plan in the project sheet and to compare with the current plan later. Saved plans can not be restored as original project sheets. If you want to save it completely in the current project, please backup the project file.

Click Save Plan from the "Other" button on the ProjectExceller tab of the ribbon to display the following dialog.





[1] Title of plan to save

Specify the title (name) of the plan data to be saved. If not specified (blank), the title of the title will be the text of "Saved Plan" and the date and time.

Example) “Ssaved plan [2012-08-29 02:52:49”]

[2] Save plan

Save the plan data of the currently selected project.

Memo: Validity of retention plan data

Saved plan data is saved in the project sheet for each task that exists at the time of save. If a task row is deleted, the lowest task row is changed to a summary task row, or the summary task row is changed to the lowest task row, the retention plan data of that task is deleted.

[3] Saved plan list

A list of storage plans for the selected project is displayed.

[4] Edit title

Edit the title of saved plan data. Select and edit the saved plan whose title you want to edit from the storage plan list.

[5] Delete all

Delete all planning data displayed in the saved plan list.

[6] Delete

Deletes the saved data selected on the storage plan list.

[7] OK

Reflect all changes made on the dialog in the project sheet.

[8] Cancel

Cancel all operations on the dialog.

Memo: Save changes

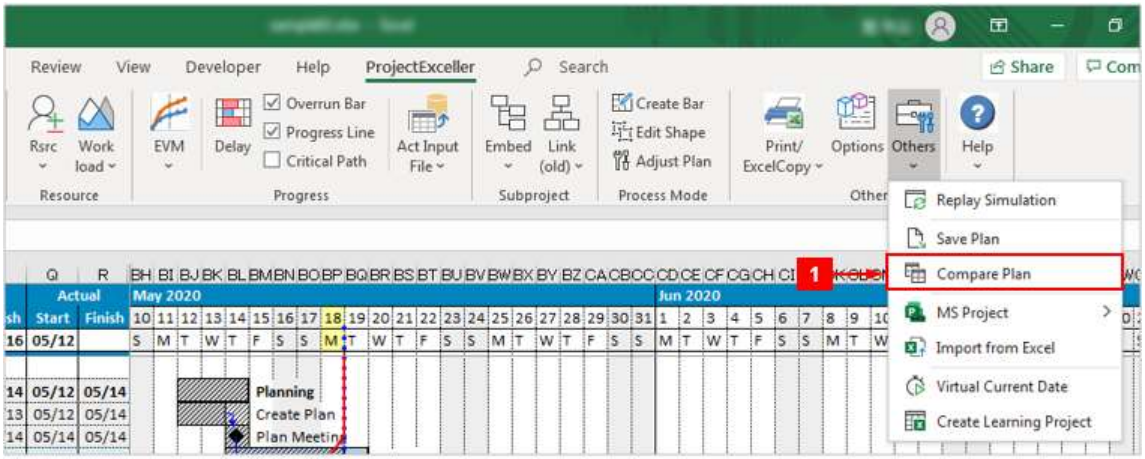
All changes on the dialog is confirmed and saved in the project sheet by OK butto. The changes is cancelled by Cancel button.

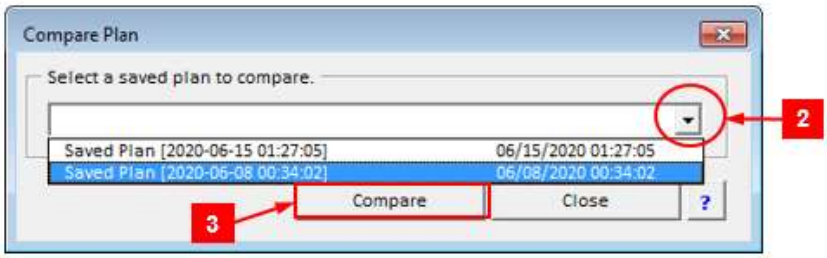
Compare Plan

Compare past plan saved with "Save plan" function with current plan, and display the difference of the plan finish dates on Gantt chart.

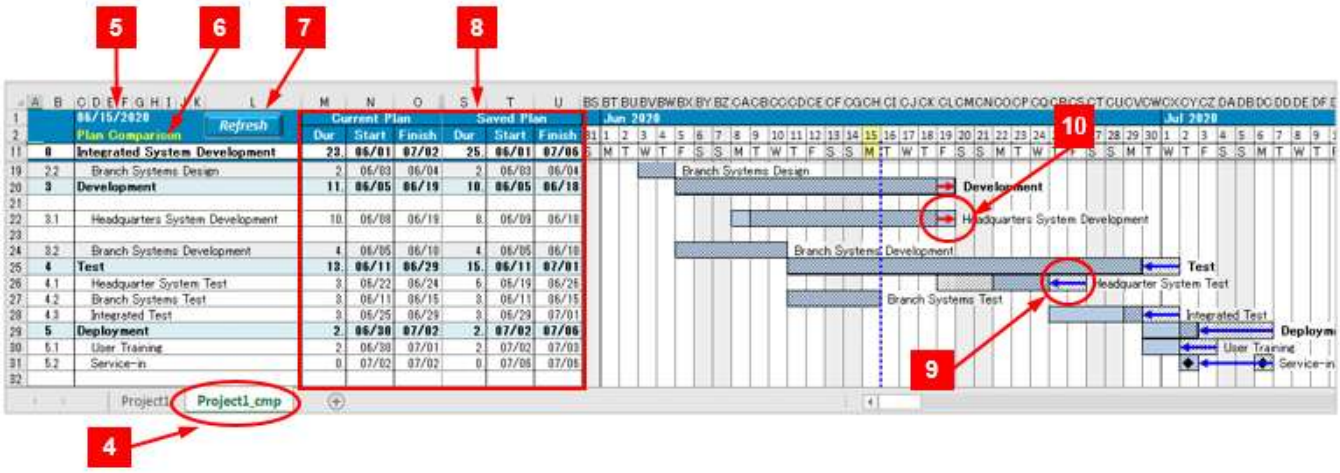
[1] Click "Compare Plan" from "Other" button on the ProjectExceller tab of ribbon. The following dialog is displayed.

©Exceller Systems Corp.



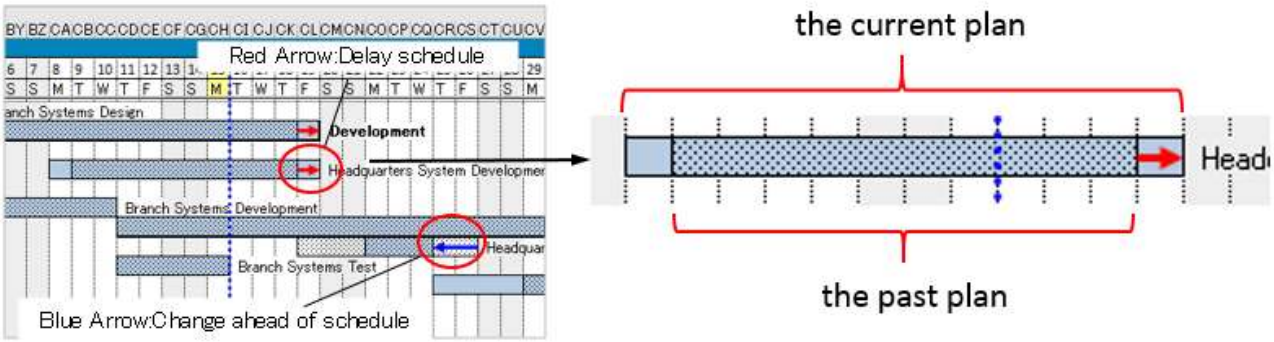


[2] The list of saved plans is displayed by the ▼ button.
[3] Select a past plan to compare and press the "Compare Plans" button.
[4] A plan comparison sheet will be created next to the target project sheet. The sheet name will be the project sheet name + "_comp". In this sample, it is "Project1_comp".



The plan comparison sheet is explained below.
[5] Project status date when creating comparison sheet
[6] Text of "Plan Comparison" is shown in yellow. This distinguishes the sheet form the project sheet.
[7] Refresh button
Update the comparison sheet with the latest project content.
[8] WBS item
By default, the current plan and retention plan period, start date and finish date are displayed respectively. You can select the items to be displayed in "Plan Comparison Option" of the header right-click menu.
[9] Forword Change
If the current planned finish date of the task is smaller than the retention plan finish date, it will be displayed as a blue left-pointing arrow. The length of the arrow indicates the forward period.
[10] Backword Chane

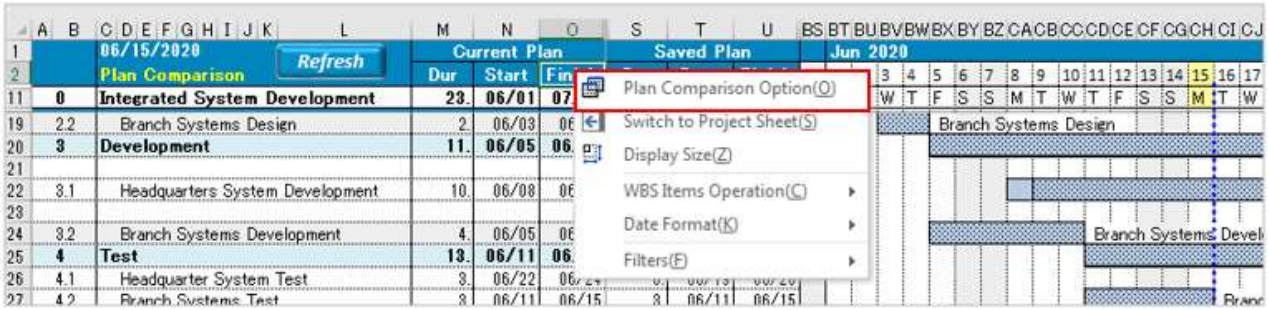
If the current planned finish date of the task is greater than the retention plan finish date, it is displayed as a red right-pointing arrow. The length of the arrow indicates the delayed period.



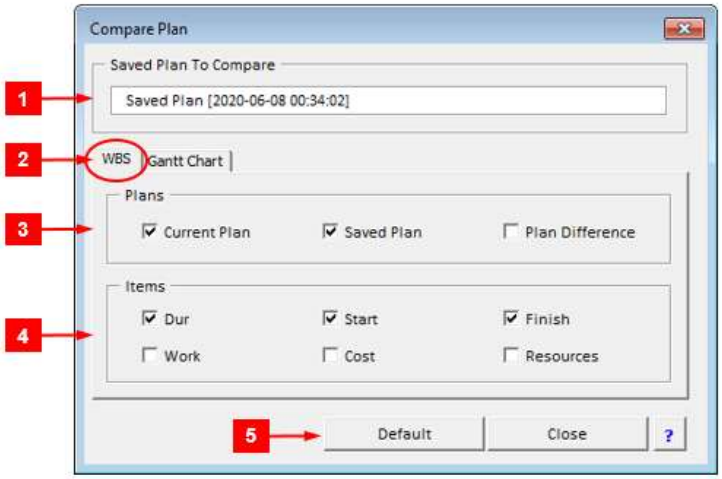
Plan Comparison Option

It explains how to change the WBS of the plan comparison sheet and the Gantt chart display. On the plan comparison sheet, the ProjectExceller tab does not appear on the ribbon. Instead, you can make various settings from the right-click menu for the header section (lines above line 11).

Right click on the header and select "Plan Comparison Options".



The following Plan Comparison dialog is displayed. You can change the display settings on the WBS tab and the Gantt chart tab.



[1] Preservation plan to compare

Displays the name of the storage plan compared.

[2] WBS tab

Select the display column and display item of WBS items on the plan comparison sheet.

[3] Display plan column

Select the current plan, saved plan, and columns of these variances. The default is the current plan.

[4] Display item

Select the item to display as a display plan column. The items are duration, start date, finish date, work(man-days), cost, resource. The default settings are duration, start date, finish date.

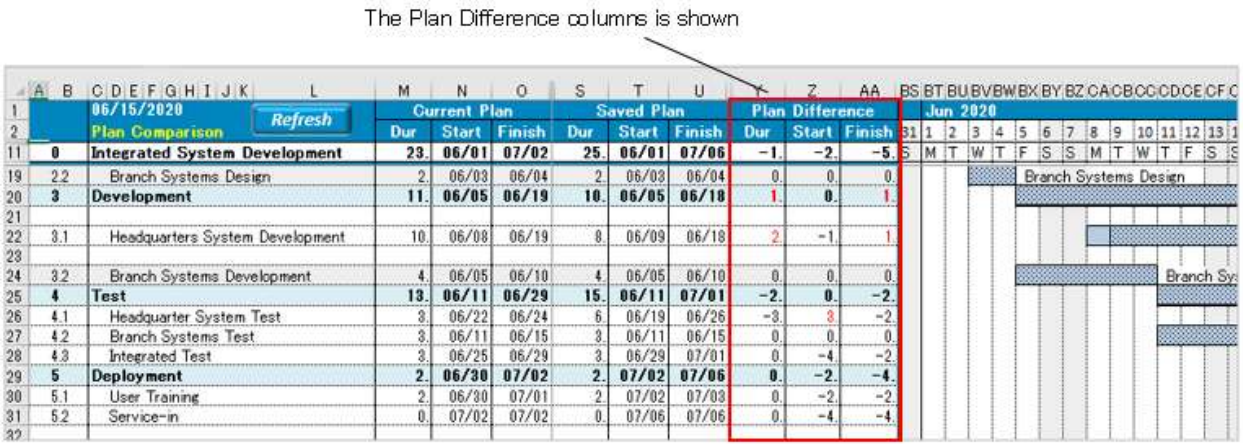
Memo: View Allocations for Resources

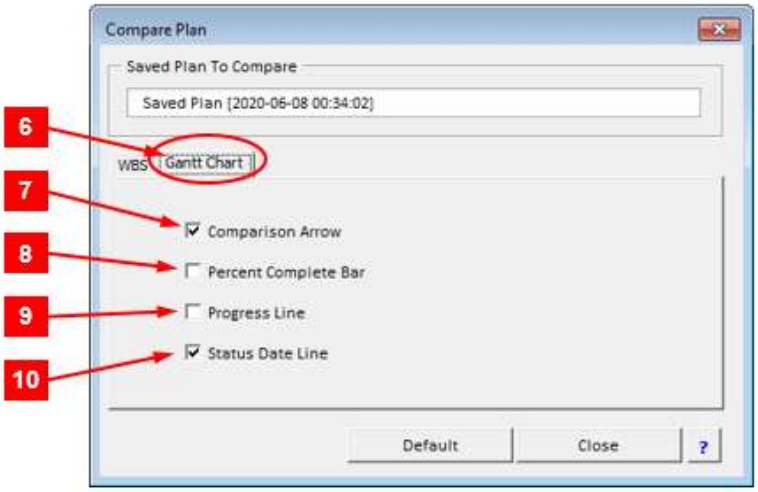
If the allocation rate is 100%, it will not be displayed.

Example) Yamada: 100%, Suzuki: 50% is displayed as Yamada, Suzuki: 50%.

[5] Default

Restores the settings on the Compare Plans dialog to default settings.





[6] Gantt chart tab

In the Gantt Chart tab of the Compare Plans dialog, select the Gantt chart display options.

[7] Comparision Arrow

On the Gantt chart, connect the planned finish date of the current plan and the planned finish date of the saved plan with an arrow. The color and direction of the arrow allow you to evaluate the plan variance that you want to compare with the current plan for each task. If there are many red arrows pointing to the right, it indicates that changes have been made to delay the current plan's schedule beyond the original plan.

[8] Percent Complete Bar

Displays the percent complete on the current plan.

[9] Progress Line

Displays Progress lines on the current plan.

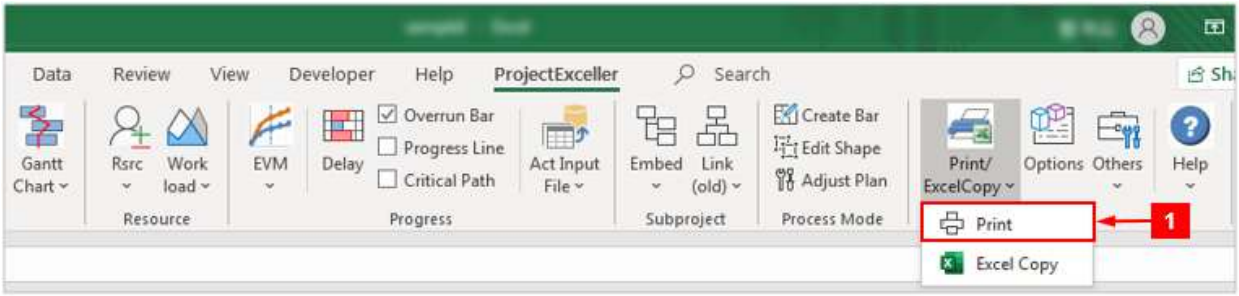
[10] Status Date Line

Displays the status date line on the Gantt chart.

.

15.30. Printing

You can select a specific area of Gantt chart that you want to print, and automatically optimize and print that part, WBS data, and Gantt chart header. If the area is not specified, the entire project range displayed is printed.

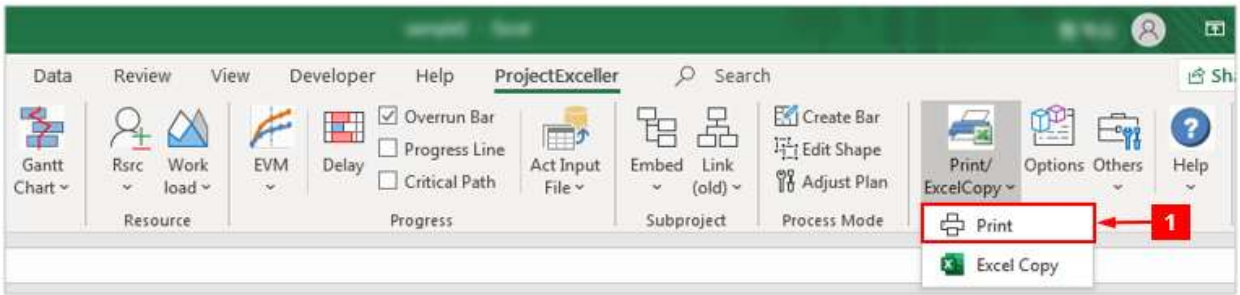


It is explained in the following section.

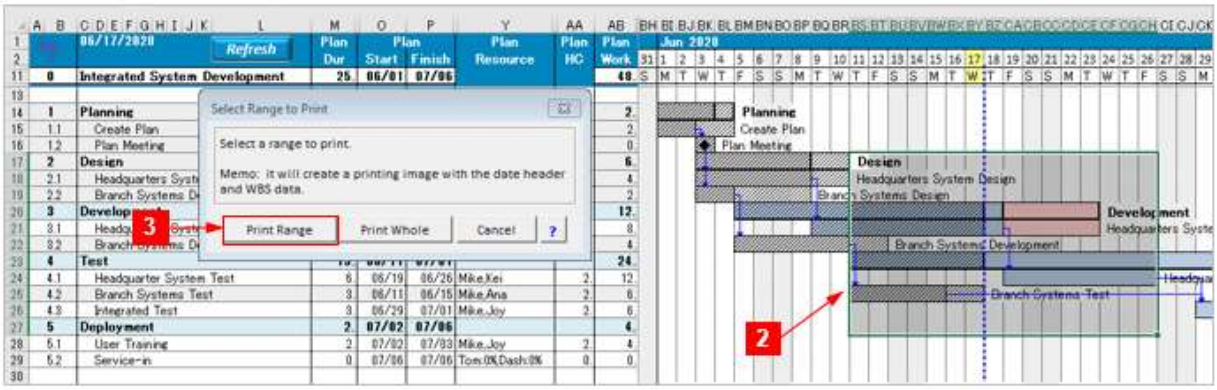
Print a Range

You can combine a part of the Gantt chart area you want to print on the project sheet and the WBS data of the task contained in it, and optimize and print only the necessary part. This allows you to extract only the parts you need, even for projects with long durations and large task lines.

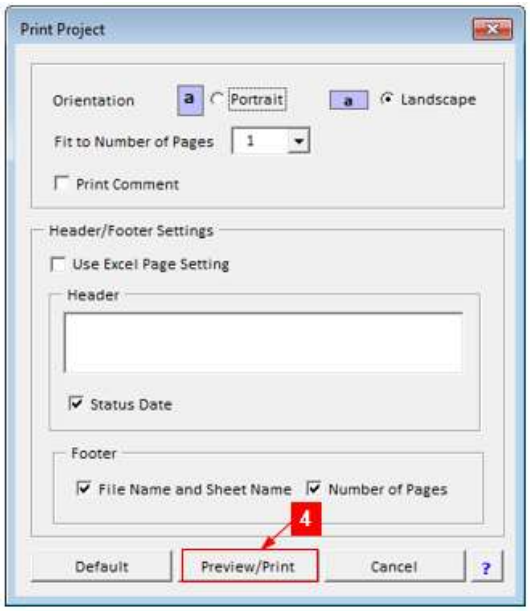
[1] Click “Print” from “Print/ExcelCopy” on the ProjectExceller tab on the ribbon to display the following dialog.



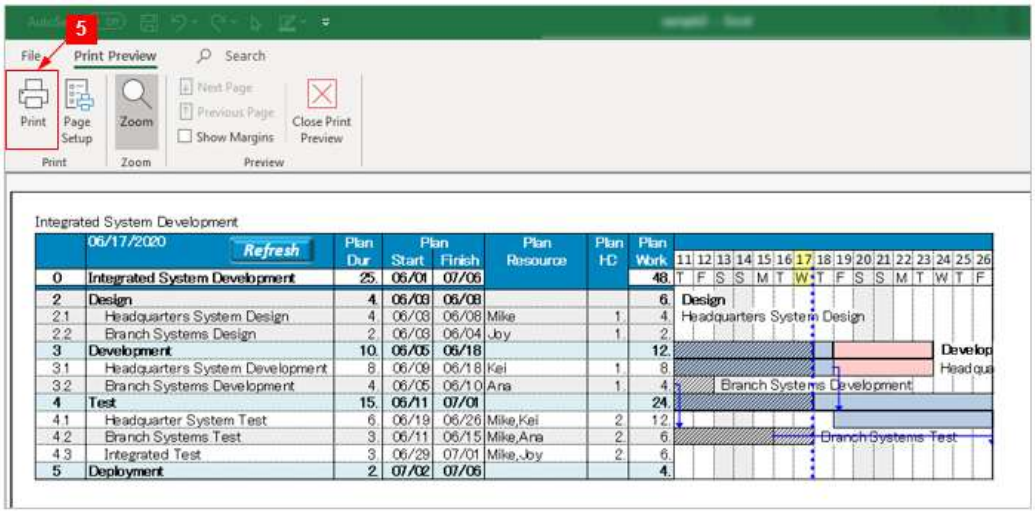
[2] Select a range you want to print on the Gantt chart.
[3] Press the "Print Range" button.



[4] Press the "Preview/Print" button. Please change the settings if necessary.



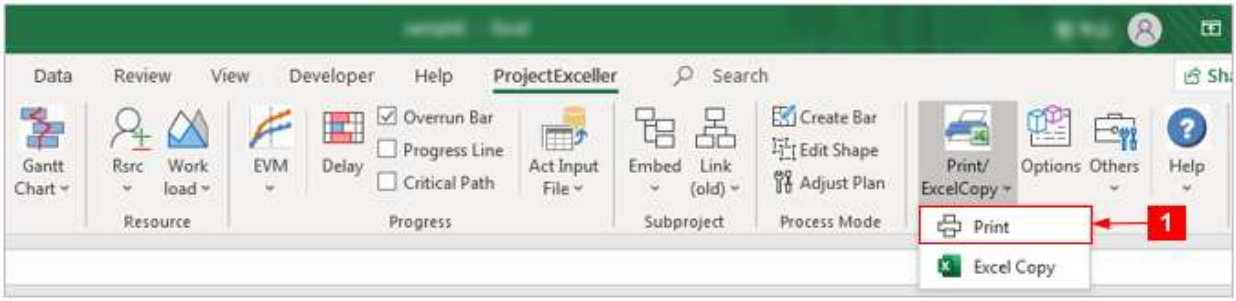
[5] The selected Gantt chart part and the corresponding WBS part is be processed optimally. Check the contents on the standard print preview screen of Excel, and confirm it with the "Print" button.



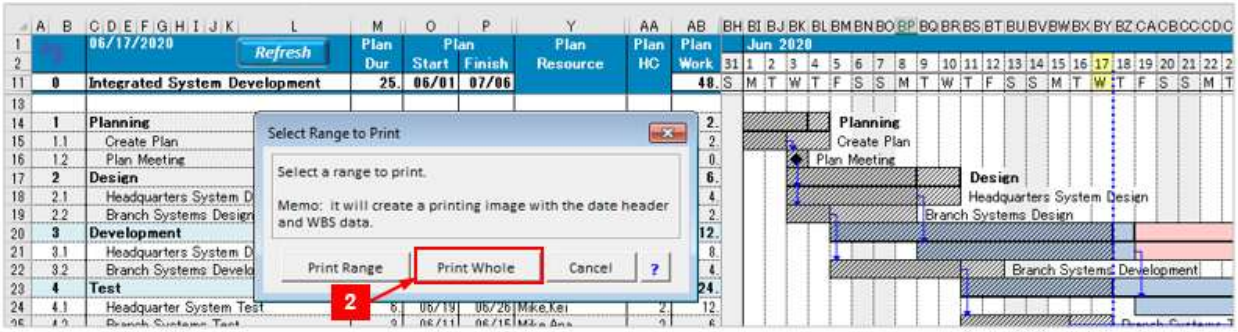
Print Whole

It optimizes and prints the entire project.

[1] Click “Print” from “Print/ExcelCopy” on the ProjectExceller tab on the ribbon to display the following dialog.

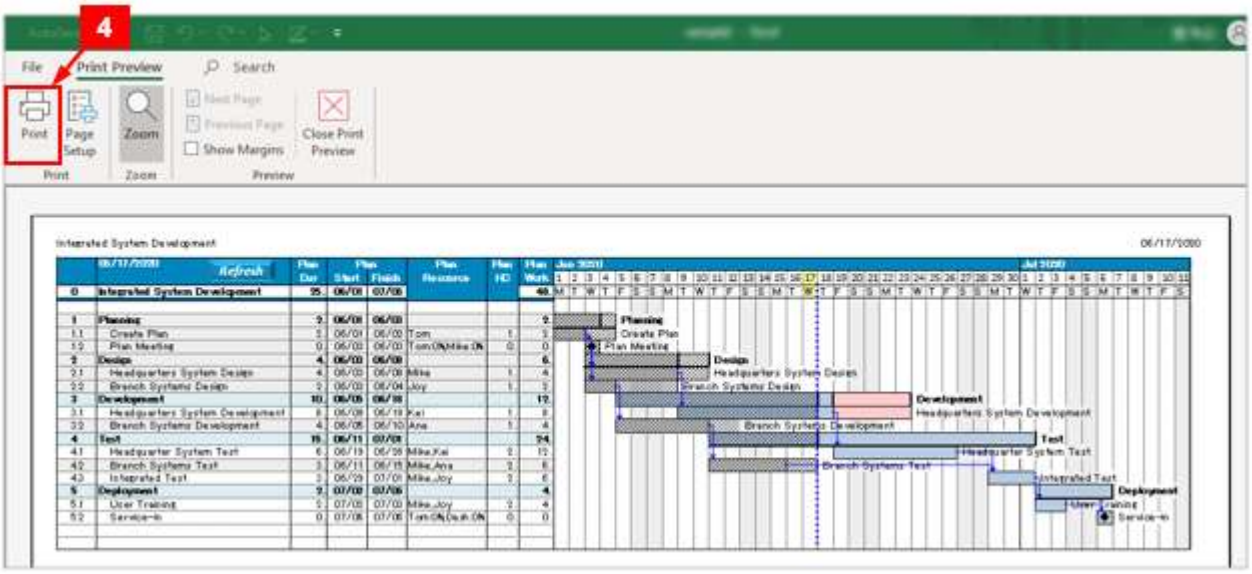


[2] Click “Print Whole” button.



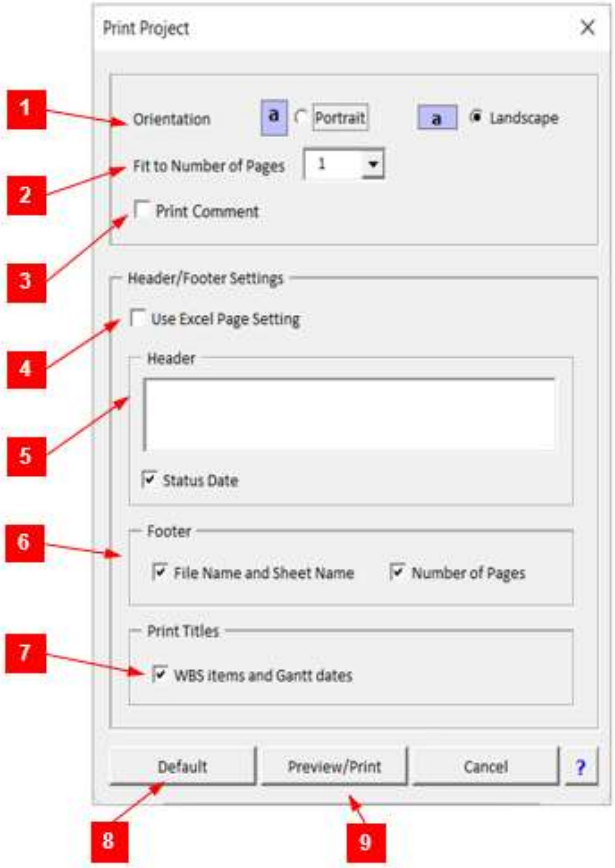
[3] Click “Preview/Print” button.

[4] The entire Gantt chart is printed. Check the contents on the print preview screen of Excel function, and confirm it with the "Print" button.



Print Project Dialog

After confirming the print area, the "Print Project" dialog is displayed. You can select some options for customizing printing.



[1] Orientation

Select the direction to print.

[2] Fit to Number of Pages

Set the number of pages in the horizontal direction. Specify as required when printing a Gantt chart range with a long period.

[3] Print Comment

Print including the comments set in the cells of the project sheet. Comments to be printed must be displayed.

[4] Use Excel Print Setting

For the header / footer settings, apply the setting values of the "Page setting" function of Excel print preview instead of using the settings of this dialog. This allows you to set detailed settings for header/footer.

[5] Header

Specify the contents to be displayed in the header. The entered text is displayed on the left side of the header. If nothing is specified (blank), the project name is automatically displayed in the header.

When “Status Date” check box is enabled, the project status date is displayed to the right of the header.

[6] Footer

Specifies the content to be displayed in the footer.

- File Name and Sheet Name
- Page Number

[7] Print Titles

The WBS item names and Gantt chart dates are displayed at the top of each page.

[8] Default

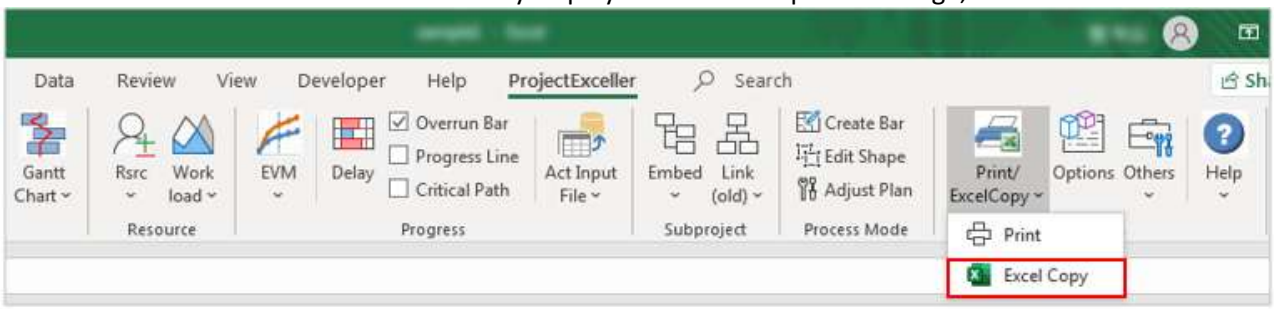
Restore the dialog settings to their default values.

[7] Preview/Print

Displays the preview screen with the specified range and settings. If you want to print, please press the "Print" button on the preview screen.

15.31. Excel Copy

It is a function to convert the project sheet to a regular Excel file. Although the project file is also an Excel file, project data is stored in internal hidden sheets, hidden columns, rows, etc. "Excel Copy" excludes these internal data and takes out the entire content of the currently displayed sheet or a specified range, and creates a new Excel file.



Note:

Excel files created as output do not function as ProjectExceller project sheets. It can only be used as a standard Excel file.

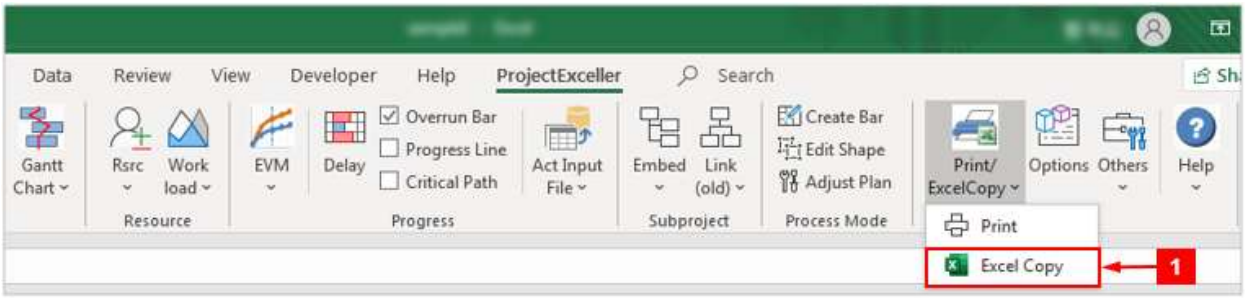
Feature

- Only the visible part is copied, so only the necessary data can be disclosed.
- If you select a range on the Gantt chart, it can be extracted in an optimized form together with the corresponding Gantt chart date header, WBS data.
- If the "English Header" option is enabled, WBS item names and Gantt chart dates are converted to English and copied. Useful for creating a schedule for English speaking members.

Copy Range

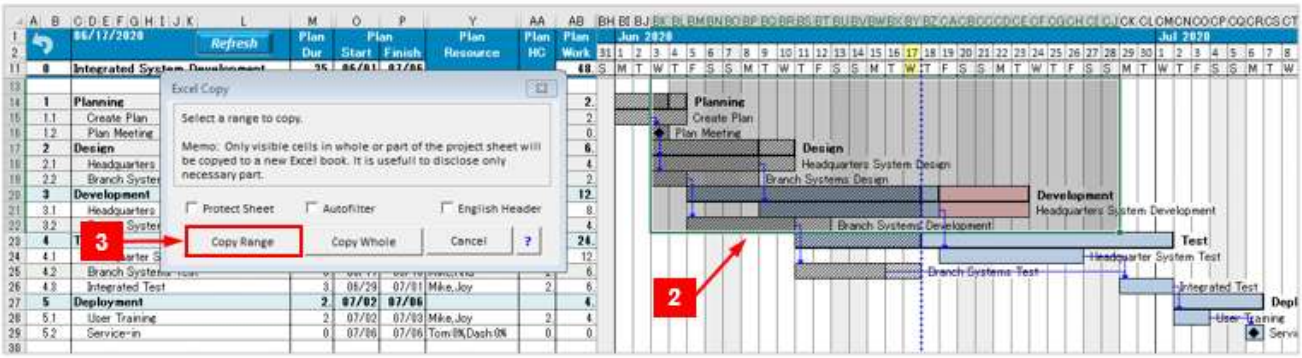
Combine the Gantt chart range that you want to copy on the project sheet and the WBS data of the task contained in it, optimize only the necessary parts, and create a new Excel file.

[1] Click “Excel Copy” from the “Print/Excel Copy” button on the ProjectExceller tab on the ribbon.

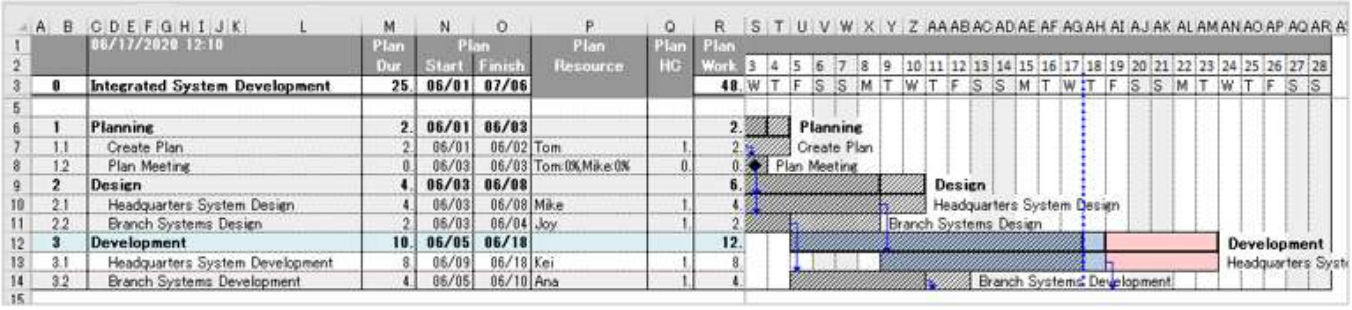


[2] Select the range you want to copy into an Excel file.

[3] Press “Copy Range”.



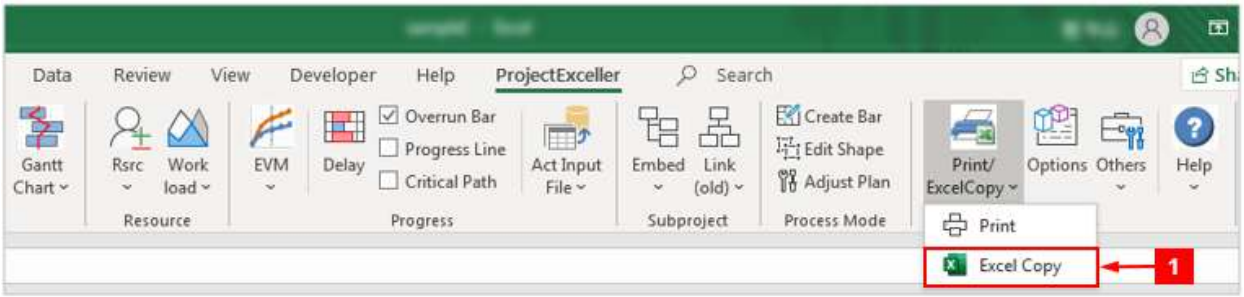
The optimized data of the specified range of Gantt chart and the corresponding WBS items are created in a new Excel file.



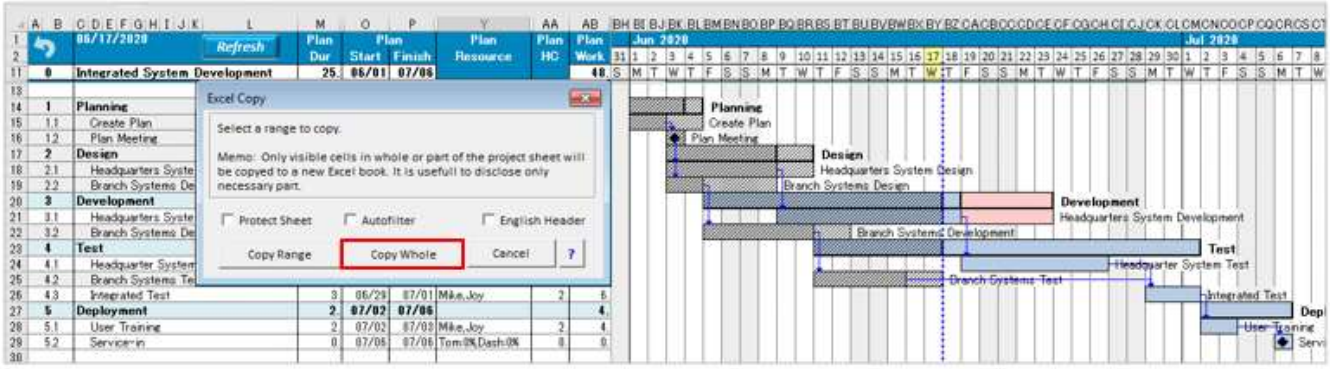
Copy Whole

Optimize the entire displayed project on the project sheet and create a new Excel file.

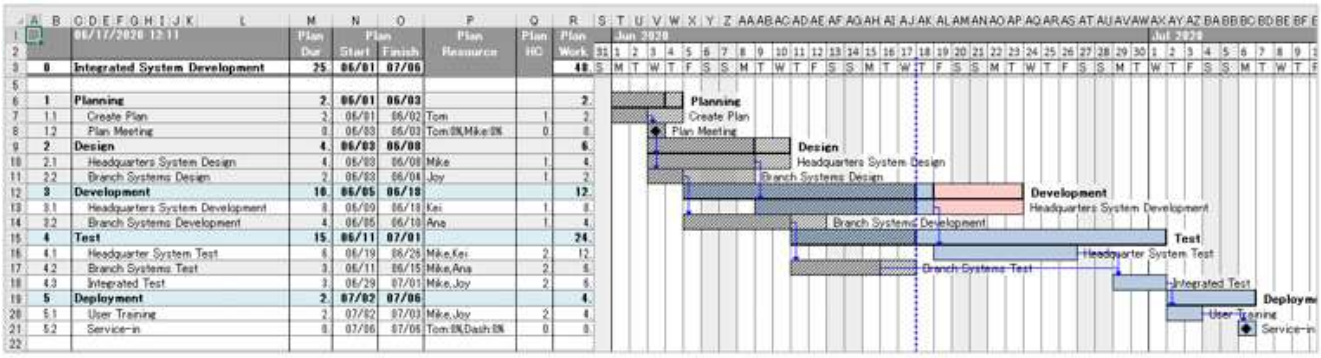
[1] Click “Excel Copy” from the “Print/Excel Copy” button on the ProjectExceller tab on the ribbon.



[2] Click “Copy Whole” button.

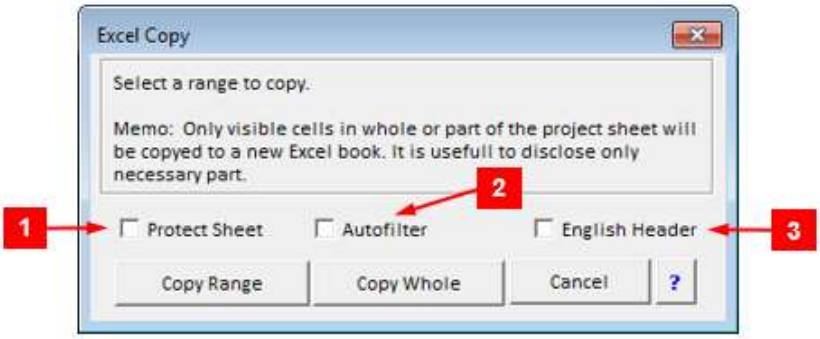


The project sheet is copied as a new Excel file.



Excel Copy Dialog

Several settings can be made as options for creating Excel data sheet.



[3] Protect Sheet

The output sheet is protected. It prevents accidental changes to the copied sheet data and shapes. The password is not disclosed to the creator.

Note: This feature is sheet protection of Excel standard feature. It is not a function to prevent data tampering.

[4] Autofilter-

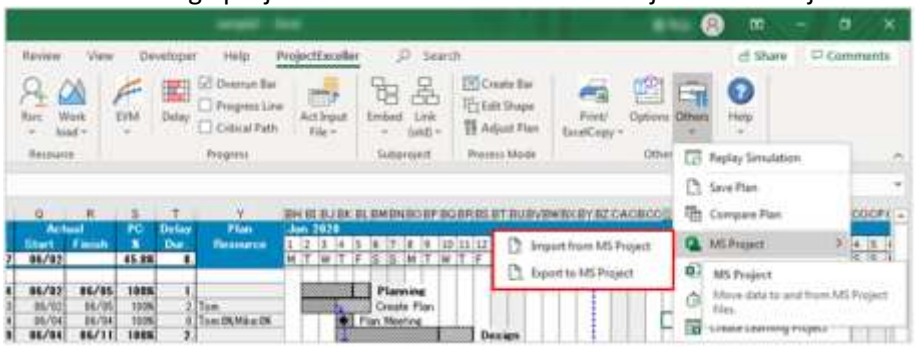
Set Autofilter in the WBS item columns of the output sheet.

[5] English Header

Automatically convert WBS item names of copied data and Gantt chart date header text to English.

15.32. Data Conversion with MS Project

You can exchange project data between Microsoft Project® and ProjectExceller.



Note:

1. Microsoft Project® must be installed on your PC.
2. Data conversion is not always guaranteed. Conversion may not be possible depending on the data structure and settings of MS Project.

Note:

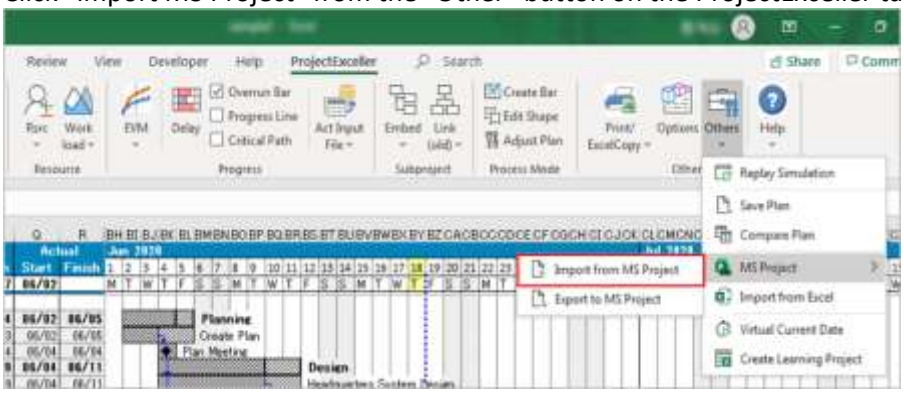
Before importing, be sure to save the baseline on MS Project. The baseline data is imported as the plan for ProjectExceller.

Import from MS Project

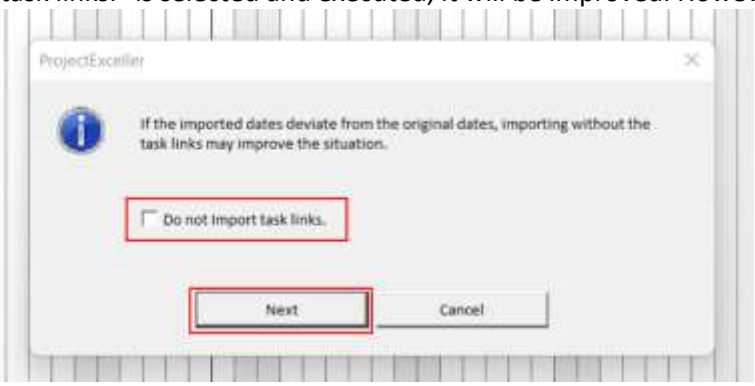
Import project data from MS Project into ProjectExceller.

- Example) Data of the source MS Project

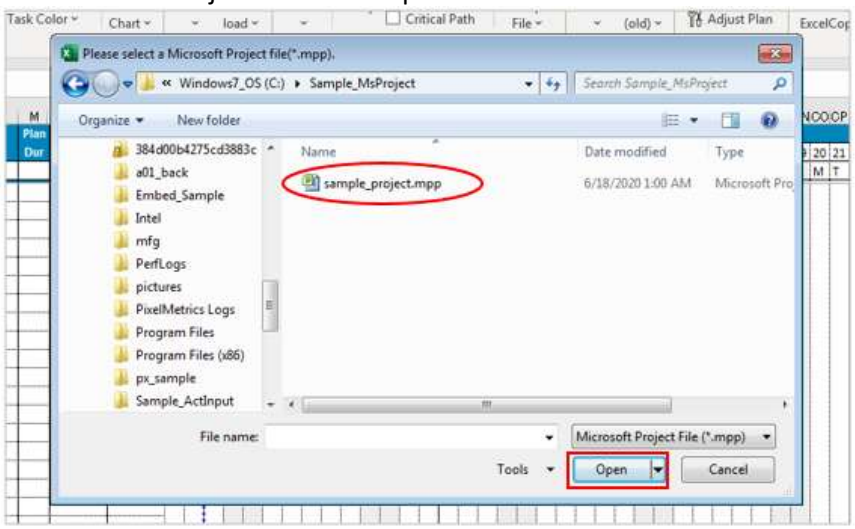
Click "Import MS Project" from the "Other" button on the ProjectExceller tab on the ribbon.



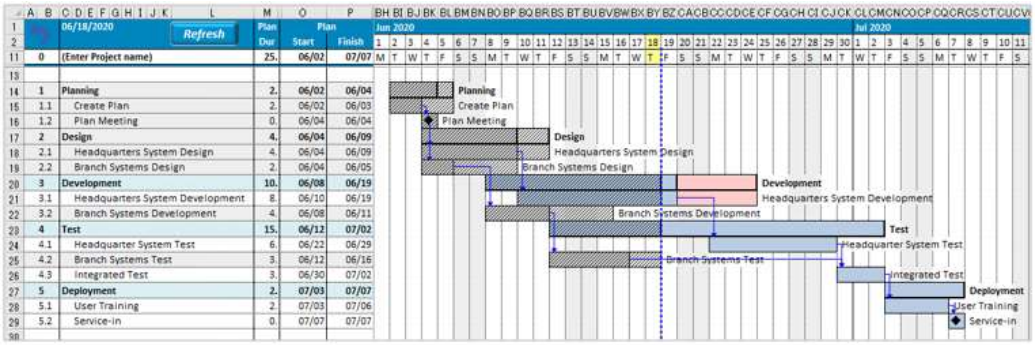
If the imported planning dates are out of alignment, this can be remedied by selecting and executing "Do not import task links." is selected and executed, it will be improved. However, the task link will be removed.



Select the MS Project file to be imported.

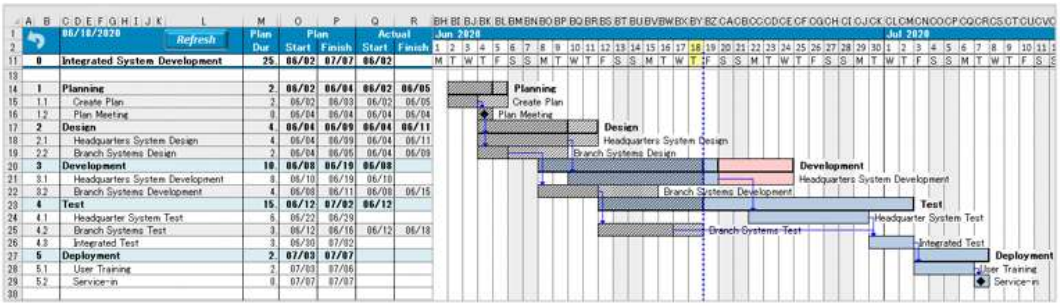


Invoke MS Project and ProjectExceller project data will be converted to MS Project data file.

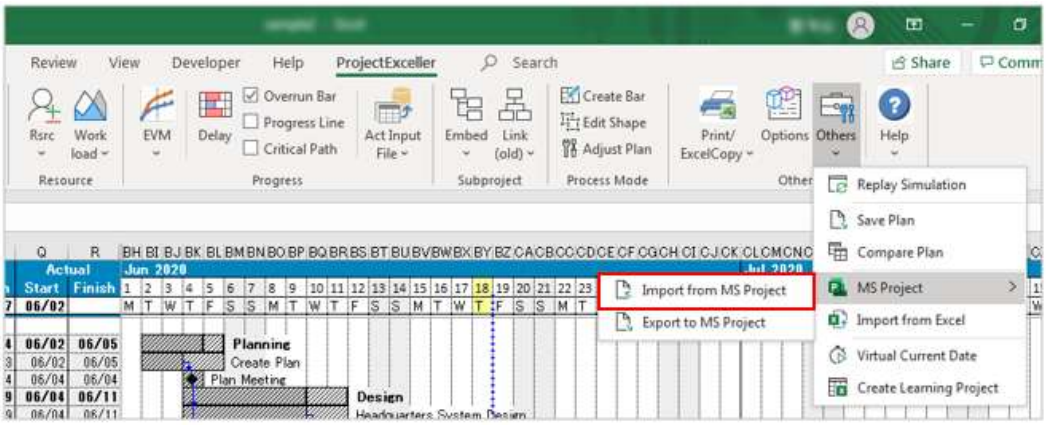


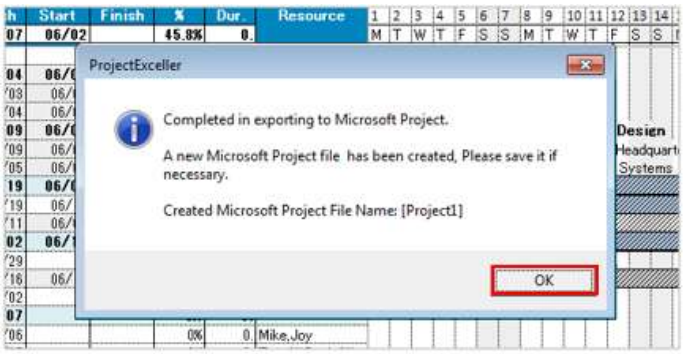
Export to MS Project

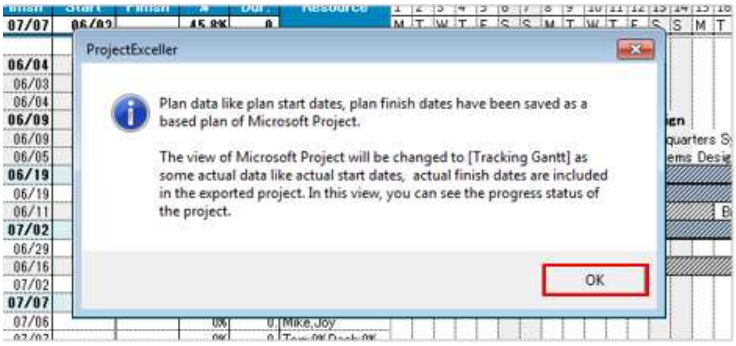
Export ProjectExceller's project data to MS Project.
Example) ProjectExceller data to export



Click "Export to MS Project" from the "Other" button on the ProjectExceller tab on the ribbon. The data of ProjectExceller project sheet is converted to a new MS Project file.







■ Created MS Project data

- Project Exceller's plan data is set in Microsoft Project "baseline".
- ProjectExceller's actual data is set as Microsoft Project's actual data.
- When exporting ProjectExceller data including actual data, “Gantt Chart with Progress” view is set in Microsoft Proect. If it does not contain actual data, “Gantt Chart” view is set. In addition, the view of Microsoft Project can be switched by users.

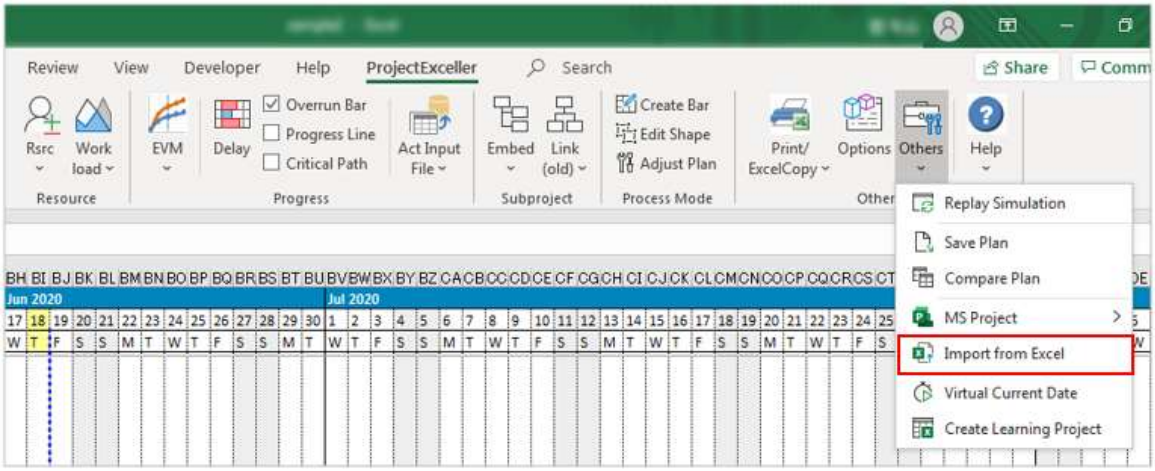
15.33. Import from Excel

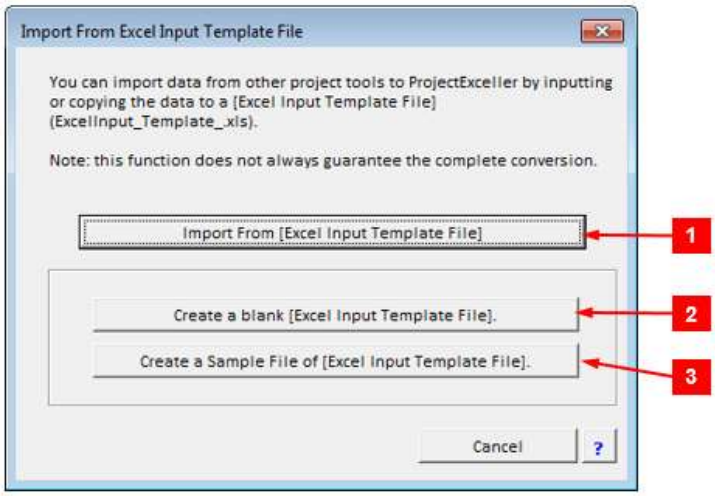
You can migrate data to ProjectExceller by posting project data managed by other project management tools and Excel to "Excel Input Template File" and importing it.
Note:

• It is not for extracting project data of ProjectExceller.

• It is an aid to data migration and does not guarantee complete conversion of data.

When you click "Import from Excel" from the "Other" button on the ProjectExceller tab on the ribbon, the following dialog is displayed.





Import from "Excel Input Template File"

Specify the input template file and import the data you want to import. The imported data is created as a new project file.
The WBS view of the created project sheet is set to "Planning view". (Task name, period, planning date).

Create a blank file of "Excel Input Template File"

A blank template file for input is created. Fill in the data you want to import into this blank template file.
Note: The template input items are task name, planned period, planned date (start date, end date), actual date (start date, end date), resources, percent complete(PC %) , preceding task, work(man-days) and task type. Other items can not be added.

Note:

1. the percent complete (PC) is supported in V2.052, the preceding task is V2.054, the work(man-days), task type is in V2.063 or later version.
2. Specifying a preceding task takes precedence over the plan start date and plan end date.
3. If the Work(man-days) is specified, the headcount will be calculated from the duration and work(man-days). In this case, the resource allocation rate will be changed.

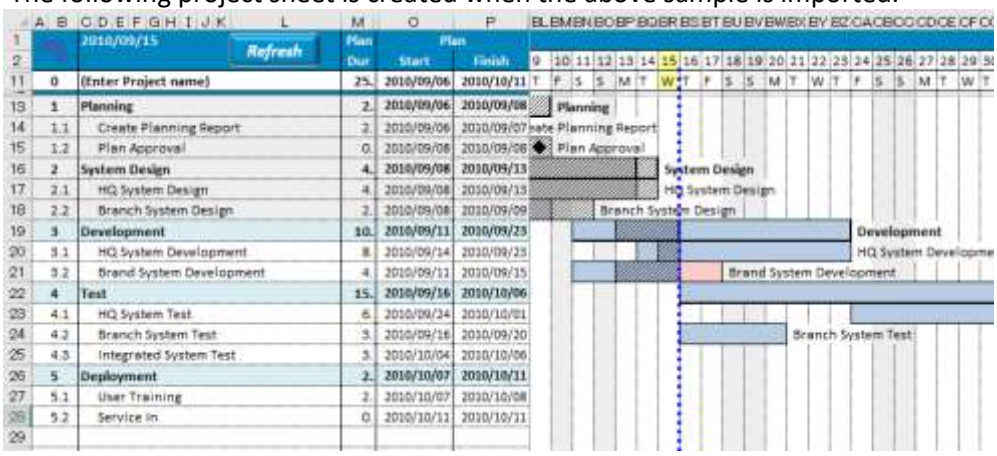
Create a sample file of "Excel Input Template File"

Create a template file containing sample data. Please refer to this template file to create a template file for actual import.

Task	Duration (Days)	Plan Start	Plan Finish	Actual Start	Actual Finish	Resources	PC(%)	Preceding Task (line number)	Work (man-days)	TaskType
Planning	2	2023/6/5	2023/6/7	2023/6/5	2023/6/8					
Create Planning Report	2	2023/6/5	2023/6/6	2023/6/5	2023/6/8	Noah				
Plan Approval	0	2023/6/7	2023/6/7	2023/6/7	2023/6/7	Noah:0%,Ava:0%				
System Design	4	2023/6/7	2023/6/12	2023/6/7	2023/6/14					
HQ System Design	4	2023/6/7	2023/6/12	2023/6/7	2023/6/14	Jacob				
Branch System Design	2	2023/6/7	2023/6/8	2023/6/7	2023/6/12	Sophia				
Development	10	2023/6/9	2023/6/22	2023/6/9						
HQ System Development	8	2023/6/13	2023/6/22	2023/6/13		Mason	40%			
Brand System Development	4	2023/6/9	2023/6/14	2023/6/9	2023/6/16	Emma	50%			
Test	15	2023/6/15	2023/7/5	2023/6/15						
HQ System Test	6	2023/6/24	2023/6/30			Jacob,Mason				
Branch System Test	3	2023/6/15	2023/6/19	2023/6/15	2023/6/21	Jacob,Emma				
Integrated System Test	3	2023/7/3	2023/7/5			Jacob,Sophia				
Deployment	2	2023/7/6	2023/7/10							
User Training	2	2023/7/6	2023/7/7			Jacob,Sophia				
Service In	0	2023/7/10	2023/7/10			Ava:0%				

Note: Save this sample file and try importing it to get a better understanding of this feature.

The following project sheet is created when the above sample is imported.



Input Item on the Template

■ **Task (required)**

You can set up to 10 levels of task hierarchy.
Example) Child tasks of task 1 are tasks 1-1 and 1-2
Task 1
Task 1-1

Task 1-2
Task 2

■ **Duration, plan start date, plan finish date**

The planning start date is mandatory. If both the duration and the finish date are entered, the duration is prioritized and the finish date is calculated from the start date and the duration. When calculating from the duration, the work days of the project calendar will be applied.
Note: set the duration to 0 for a milestone.

■ **Actual start date, actual finish date**

If the task has been started or has been completed, please enter the actual data.

■ **Resources**

You can set the resource name assigned to the task and its allocation rate.

Example) When allocating Mike 100% and Joy 50%,
Mike,Suzuki:50%
Note: the allocation rate can be omitted if it is 100%.

If you do not specify the resource, the resource is treated as undecided (TBD)

■ **PC(%).**

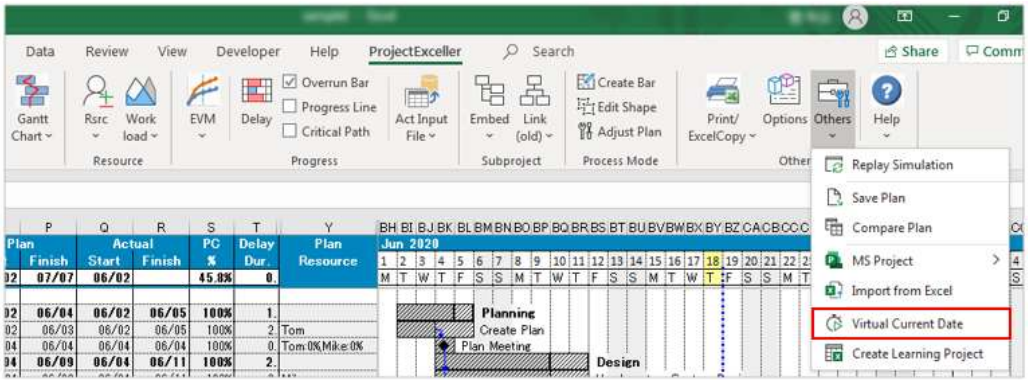
This only applies to tasks that have an actual start date entered.
Note: ProjectExceller older than V2.052 does not import the percent complete(PC %) .

■ **Preceding Task (Line Number)**

Specifies the line number of the preceding task. For multiple tasks, separate them with a comma.
eg) If the preceding task lines are 22 and 24, specify "22,24".
note:
1. The preceding task cannot be set to any task other than the workpackage task (lowest-level task)
2. The task to be preceded by any task other than the workpackage task.
3. One of the following processing methods can be selected when importing
   - Adjust the plan dates with priority on the link setting.
   - Adjust the link interval with priority given to the specified plan dates.

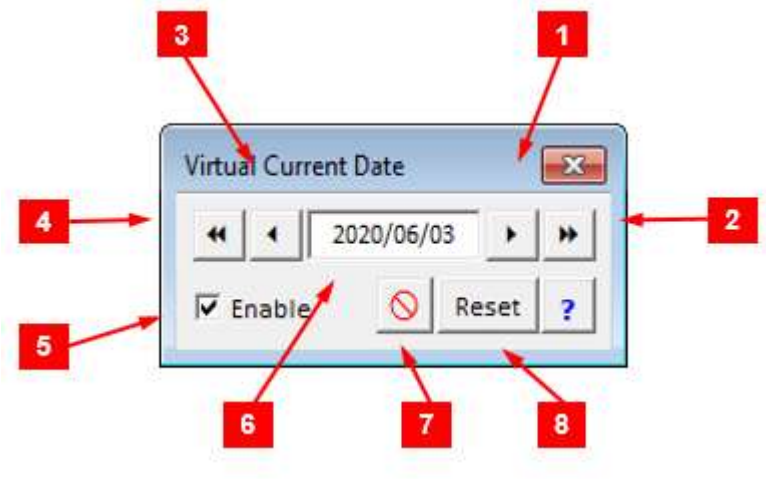
15.34. Set Virtual Current Date

"Virtual Current Date" is a function that virtually changes the computer date. This feature allows you to simulate project progress on ProjectExceller without changing the actual computer date.
Note: This function is mainly used for checking operations and learning of ProjectExceller.



"Set Virtual Current Day" dialog

Clicking “Set Virtual Current Date” from the “Other” button on the ProjectExceller tab of the ribbon will display a small dialog “Set Virtual Current Date” in the upper right corner of the screen.
This function can also be started with the shortcut key Ctrl + Shift + K.



[1] [2] [3][4] Change Virtual Current Date

The virtual current date can be advanced by one day (**[1]**) , one week (**[2]**)or moved back by one day (**[3]**), by one week([**4**]). · This function can be operated when the virtual current date is enabled.

[5] Enable

Select to enable the virtual current date. If the virtual current date is not set in **[6]**, a calendar for setting it will be displayed. When deselected, the current date recognized by ProjectExceller reverts to the computer date.

Note: To enable, the setting of the project status date is required to ‘Today (Auto Update)’.

[6] Virtual Current Date

Specifies the virtual current date. When **[5]** is enabled, clicking this field displays a calendar for setting the date.

[7] Hide the Dialog to Operate

Hide the dialog. You can change the virtual current date forward or backward by simply operating the key while it is hidden.

[8] Reset

Deselect **[5]** and clear and set the virtual current date (**[6]**) to the current date (today).

Note: Difference from Status Report Date

By changing the status report date, the status of the date specified on ProjectExceller can be displayed in the same way as the virtual current date. However, the status report date must be set independently for each project sheet. On the other hand, the virtual current date is applied to the entire ProjectExceller.

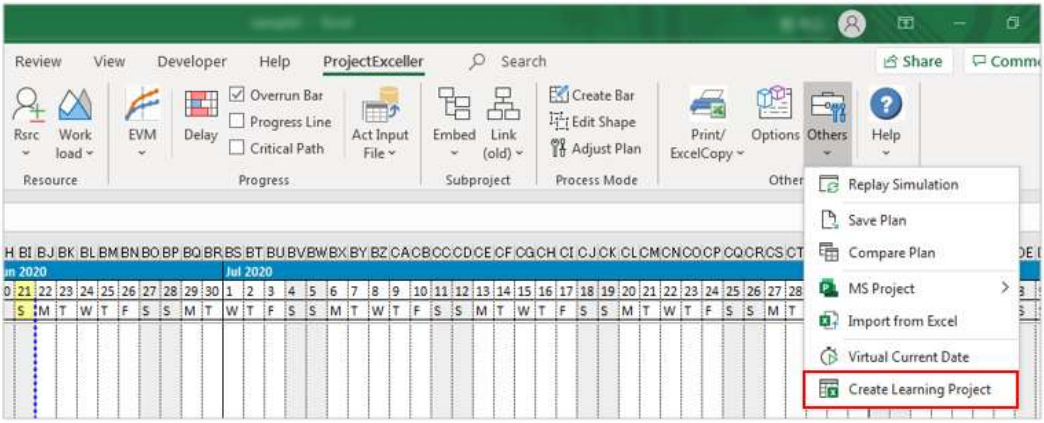
Hide the Dialog to Operate

The dialog can be hidden by clicking the [⃠] button. Even if it is hidden, you can change the virtual current date forward or backward by the following shortcut key operation.
Note: This shortcut key works only when the dialog is hidden.

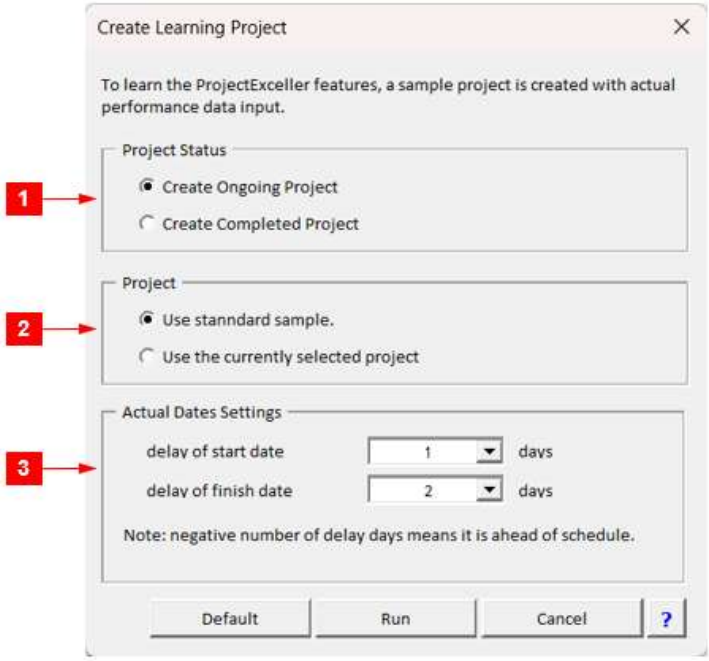
Ctrl + Shift + K Redisplay dialog
Ctrl + Shift + U Go back 7 days
Ctrl + Shift + I Go back one day
Ctrl + Shift + O Advance 1 day
Ctrl + Shift + P Advance 7 days

15.35. Create Learning Project

To check the functions and operations of ProjectExceller, you need an ongoing project. This feature creates a learning project that is currently almost halfway through the planning period.



From the ProjectExceller tab of the ribbon, click "Other", then "Create a learning project", and execute according to the following dialog.



1. **Project Status**
   - **Create Ongoing Project**
     Create a project with half of the project duration having elapsed.
   - **Create Completed Project**
     Create a project with all tasks completed.
2. **Project**
   Specify the project file to be rewritten for learning.
   - **Use Standard Template**
     Create a standard project template for learning.
   - **Use the currently selected project**
     Convert the project file prepared by the user for learning. Actual project files can also be converted for learning. Please open the target file beforehand and then execute.

   Note:
   - The data of the target file is rewritten. When using an actual project file, copy it for learning in advance before using it.
   - Projects with subproject tasks cannot be converted for learning.

[3] Actual Date Settings

Defines specifications for setting actual dates for tasks that are scheduled to start or end by the current date.

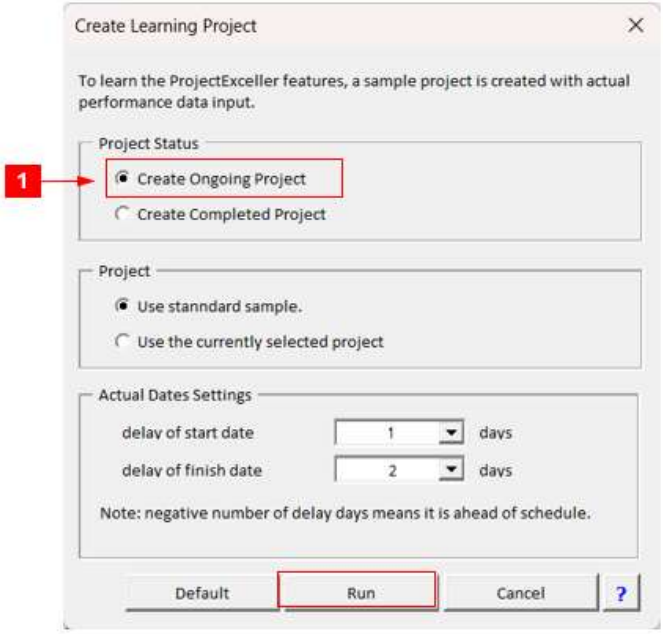
- **Number of Delay Days for Starting Tasks**
  The number of days to set a task's actual date after its planned start date.
- **Number of Delay Days fro Ending Tasks**
  The number of days to set the actual end date of a task to be later than its planned end date.

Note: If the number of days delayed from the start date and end date of the actual result is a negative value, it will be set earlier than the planned date.

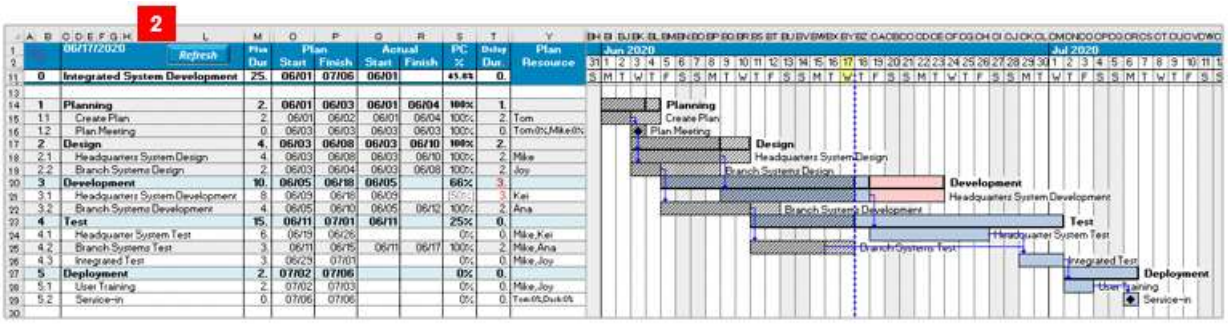
Use Standard Template

Create a learning project file based on the standard template.

[1] Select the Use Standard Template option and press the Run button.

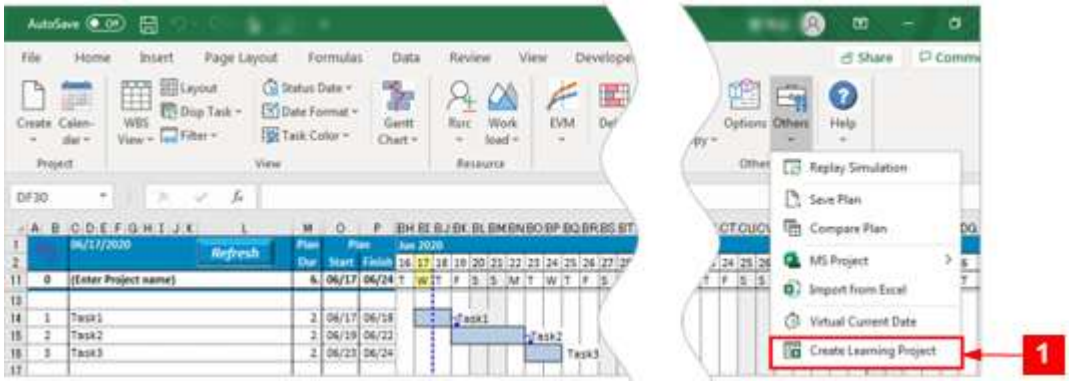


[2] The learning project file is created on the standard template as follows.

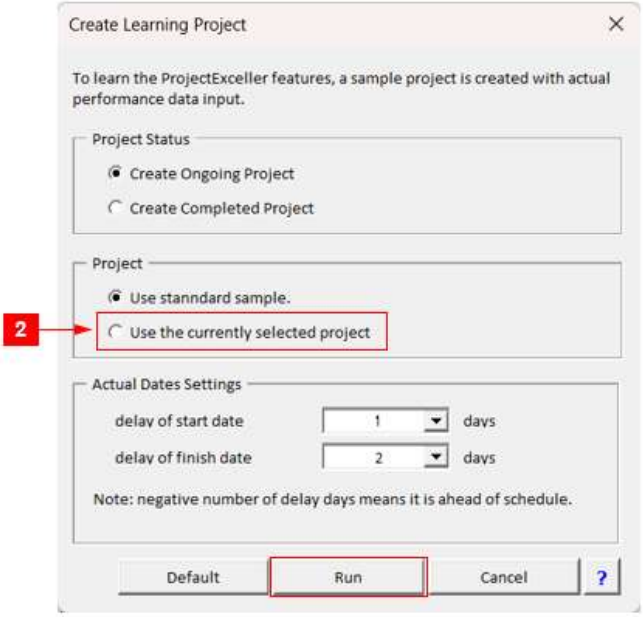


Use the currently selected project

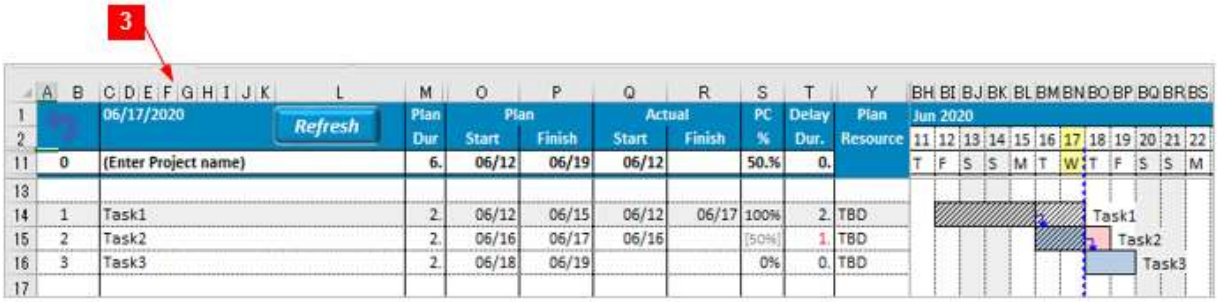
[1] Select the original project sheet on which you want to create a learning project file based and invoked the Create Learning Project form the ribbon.



[2] Select the Use the currently selected project option on the dialog and press the run



[3] The learning project file is created on your specified original project as follows.



15.36. Edit Shape

Please refer here.

15.37. License

To use all the functions of ProjectExceller as a product version, it is necessary to purchase a license and activate it on the PC. ProjectExceller 2 requires a license for each user account on the PC.

Trial and Free Versions

On the first PC with ProjectExceller 2 installed, you can use the full functionality of the product as an evaluation version for the first 90 days.
After the evaluation period, it can be used as a free version, but there are the following function restrictions.

(Free version feature restrictions)

- Up to 50 tasks can be edited on one project sheet.
- Up to three project sheets can be created on one project file.

Note: Specifications of evaluation version and free version are subject to change.

To use all the functions of ProjectExceller after the evaluation period, you need to activate it.

Activate License

To use all features of the product, you must perform license authentication.

Note: The license activation procedure changed from V2.100.

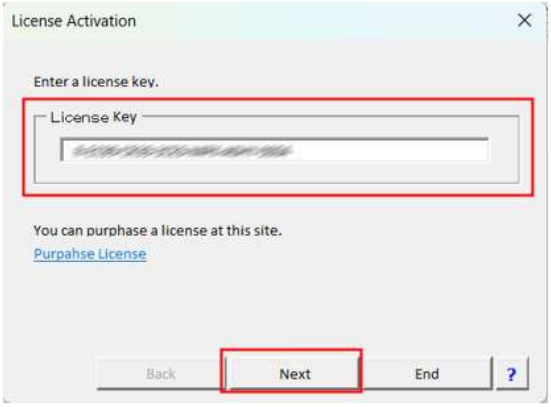
In versions prior to V2.100, you had to obtain an activation key and enter it to perform license authentication, but this is no longer necessary in V2.100.

Activation Procedure (V2.100 or later)

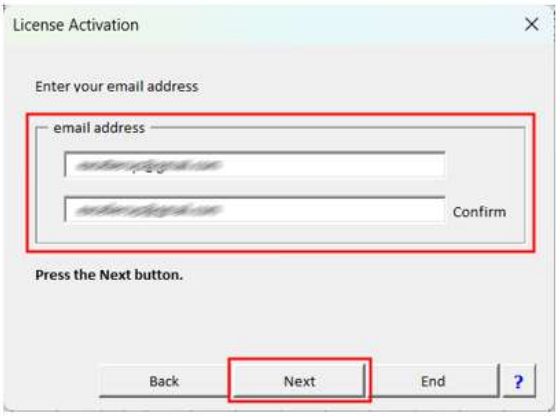
1. License authentication begins by entering the license key on your PC. Please purchase the license key in advance. https://projectexceller.com/order

2. Open the project sheet, select the ProjectExceller tab on the ribbon, and click Help, License, and Authentication in that order.

3. Enter your license key and click the “Next” button to proceed.

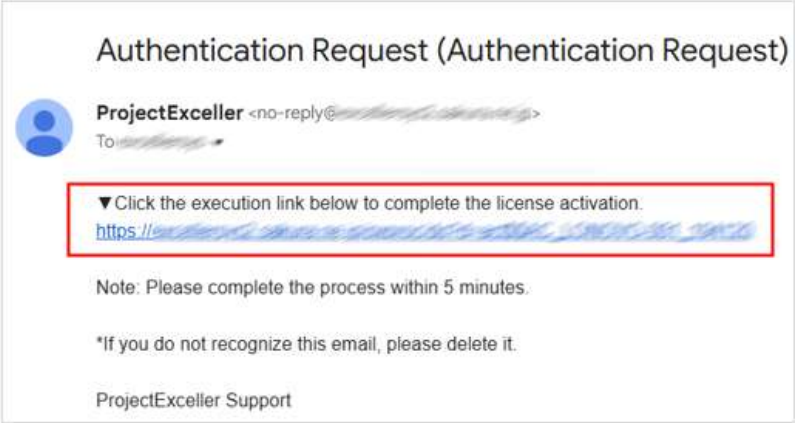


4. Enter your email address and click “Next” to proceed.

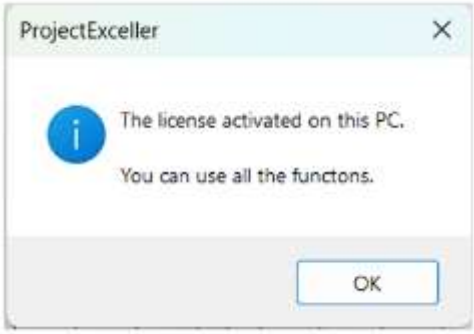


5. Your PC screen will switch to your browser and a “confirmation code” is displayed. An email will be sent to the email address you entered earlier.

6. Open the email, click the link, enter the “confirmation code” in the dialog box that appears, and press OK.



7. Switch to the ProjectExceller screen to complete the license activation.



8. Once license authentication is complete, a completion notification email will be sent to the specified email address.

Note: Please keep this information in a safe place as it may be required for license management and inquiries.

Chapter 16. Performance Considerations

As the number of tasks defined on the project sheet increases, the processing time for WBS data input or updating Gantt chart (Refresh) also increases. Actual processing time depends on Excel version, computer hardware specifications, and ProjectExceller options.
This section explains the points to consider to improve the processing speed by setting ProjectExceller.

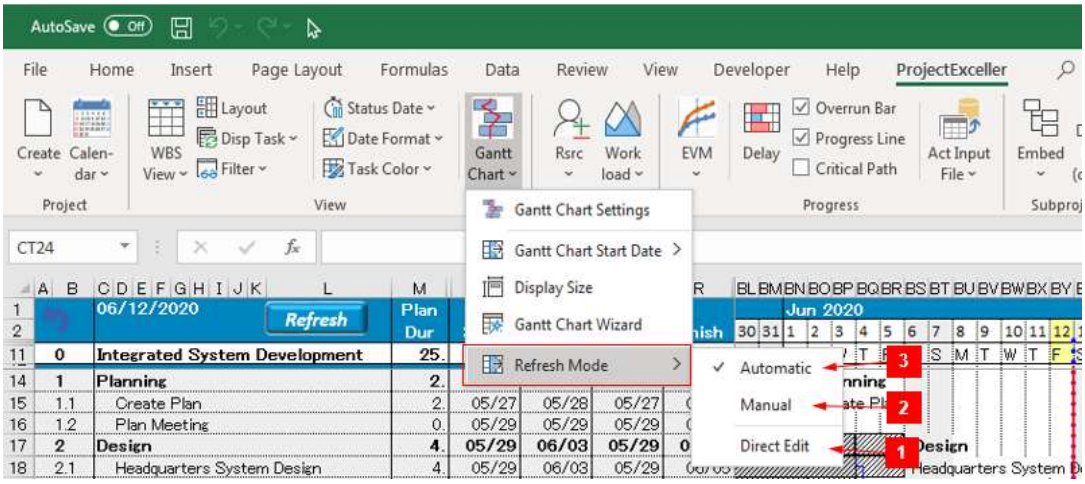
The main items related to the processing performance of ProjectExceller are as follows. You can improve performance by turning off items that do not always need to be displayed or set.

16.1. Refresh Mode

The best order of input processing performance is as follows:

[1] Direct Edit:
Minimizes data checking at input to improve performance, and performance does not deteriorate easily even whenthe number of tasks increases.
[2] Manual:
WBS data processing only
[3] Automatic (default):
WBS data processing and Gantt chart update

Operation:

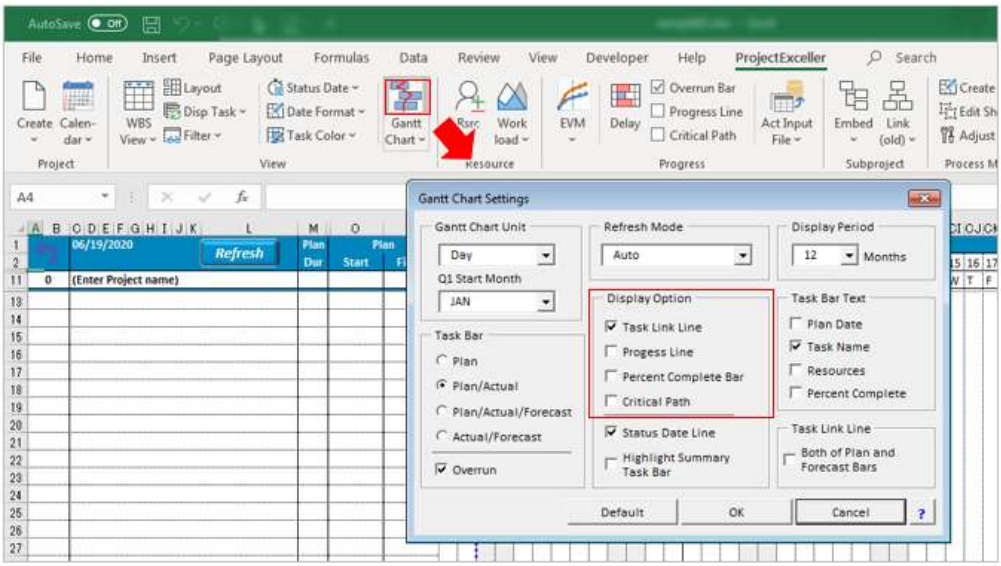


16.2. Gantt Chart Display Options

Turning off the following options improve Gantt chart update performance. (Displayed in order of performance effect.) The default setting is OFF except for task link lines.

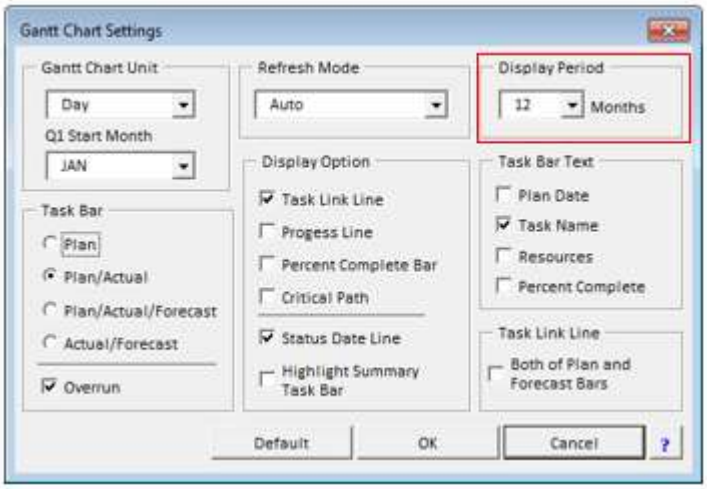
- Task link line
- Critical path
- Progress Line
- Percent Complete bar

Operation:



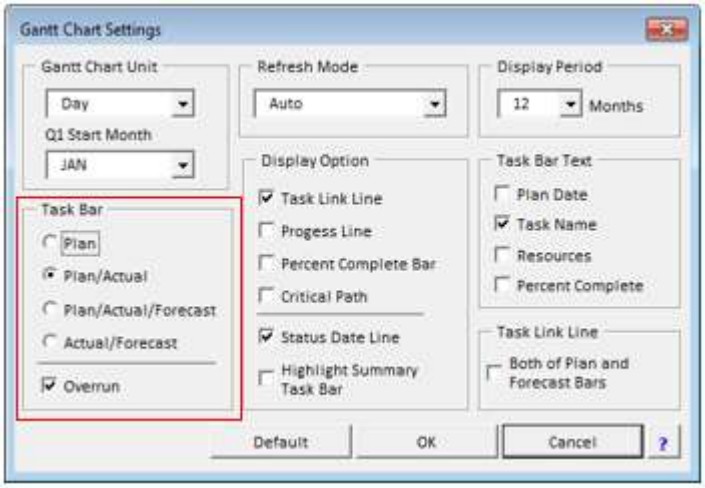
16.3. Gantt Chart Display Period

If the display unit of the Gantt chart is daily or weekly, the Gantt chart update performance improves with a smaller display period. The minimum Gantt chart display period is 6 months.



16.4. Task Bar Type

The fewer types of taskbars to display, the better the Gantt chart update performance.
If you do not need to display the prediction bar all the time, you can improve performance by turning it off.



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