

ADVANCED PROJECT MANAGEMENT

with



**For Time-Efficient
Project Managers**

**ASMARIZAN BINTI MAT ESA
ZAREENA BINTI ROSLI**

Advanced Project Management

with Ms Project

*For Time-Efficient Project
Managers*

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Preface

This book is one of the additional reference sources that focus on Project Management for all students who take Computer Application Subject or who are interested in this topic.

The book's originality is evident in the easy-to-understand content, which is presented in a compact format to make it easier for students and readers to make references. The book is illustrated with photos that are linked to the issue being addressed, in order for the students to be able to relate to the real-life situation.

Contents

Acknowledgement	i
Preface	ii

1

PROJECT OPTIONS SETTING

Introduction	2
Setting Your Project	3
Currency Formatting	4
Options Schedule Setting	5
Advanced Setting	6
Practice 1	7

2

SCHEDULING TECHNIQUES

Scheduling Techniques Overview	9
Task Relationship	10
Constraints to Control Task Scheduling	14
Calendar Set up	16
Change Working Time	18
Create a recurring task	20
Practice 2	23

Contents

3

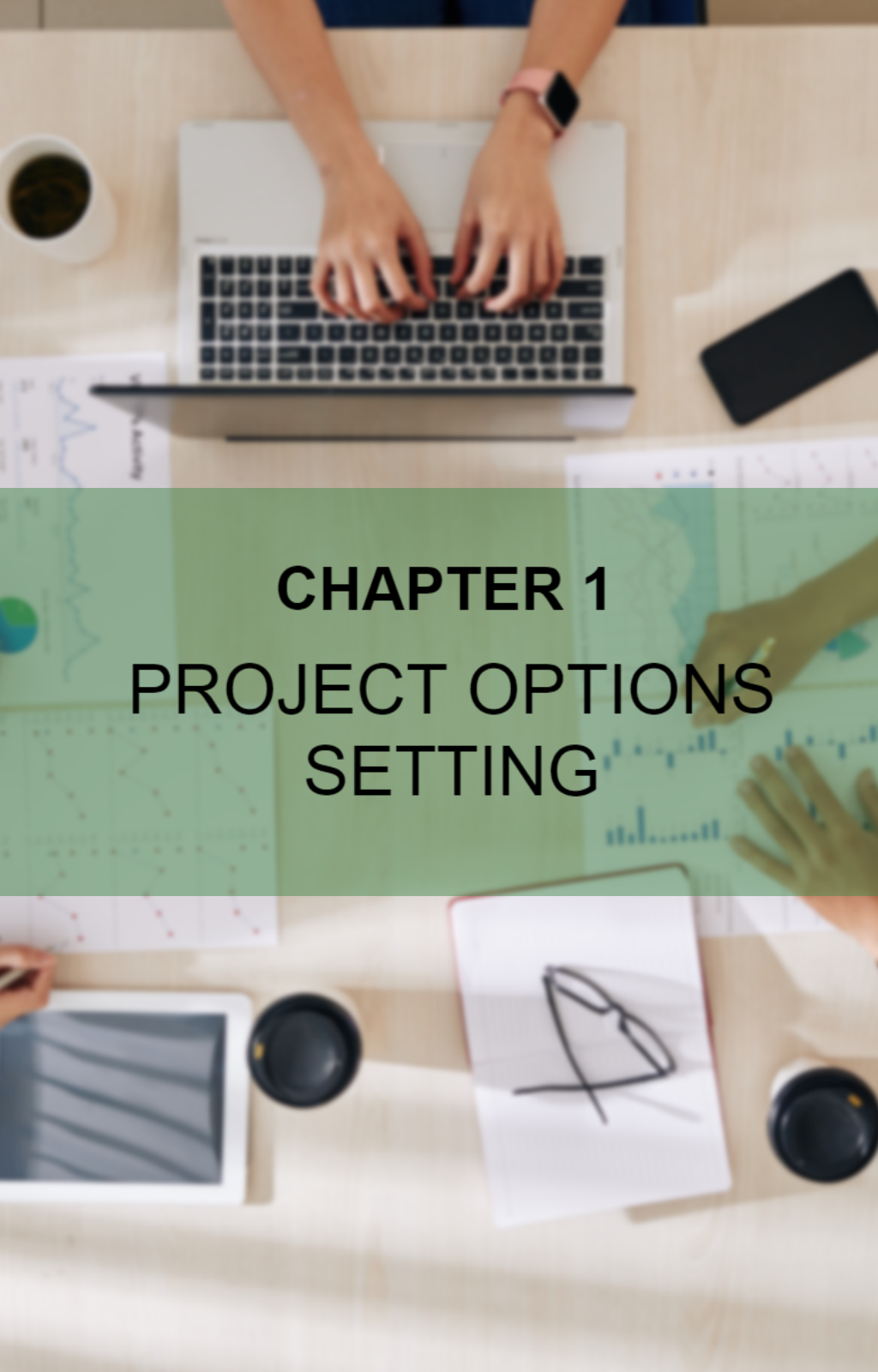
VIEW AND REPORTING

Reporting Overview	25
Project Status: View and Report	26
View Project Statistics	27
View Report on Dashboard	28
Display Cost table in the Task Sheet View	32
Display Task Cost Overview or Cash Flow Report	32
Display Cost table in the Resource Sheet View	33
Practice 3	34

4

FORMAT AND PRINT

Format and Print Overview	36
Organize Global Template	37
Format a Gantt Chart View	38
Timeline View Formatting	39
Create Custom Report	40
Add Chart to a Report	41
Change a Chart's Format and Style	42
Add a Table to a Report	42
Print a View or Report	43
Check Out the Print Layout	44
Practice 4	45
Keyboard Shortcuts	46
References	47



CHAPTER 1
PROJECT OPTIONS
SETTING

PROJECT OPTIONS SETTING

There are many project's basic options and settings that can be customised in MS Project so that every schedule is set up the same way.

In this topic, we will learn how to set options to make it easier to start scheduling a project. These basic options are fundamental to starting a schedule on the right foot.

Changes to these settings can be made from the File tab, often known as the Backstage, or through the Microsoft Project user interface on the ribbon.

Microsoft Project offers three (3) types of options in the Project Options dialog.

These option types include:

- **Application Options –**

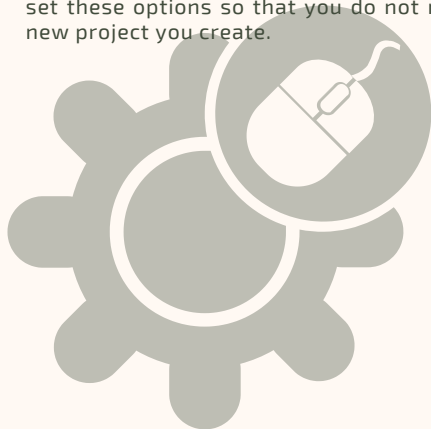
These options control how the software looks and works, and they impact every project you open. You only need to set these options once, as they are not project-specific.

- **Project-Specific Options –**

You can set these options to any project currently open. Because these options are project-specific, you can specify different options for each project, depending on the type of project.

- **Options for All New Projects**

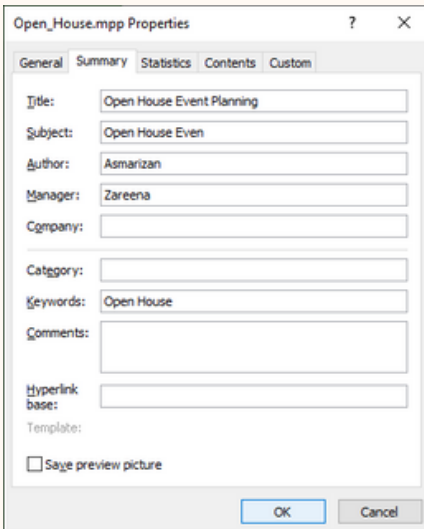
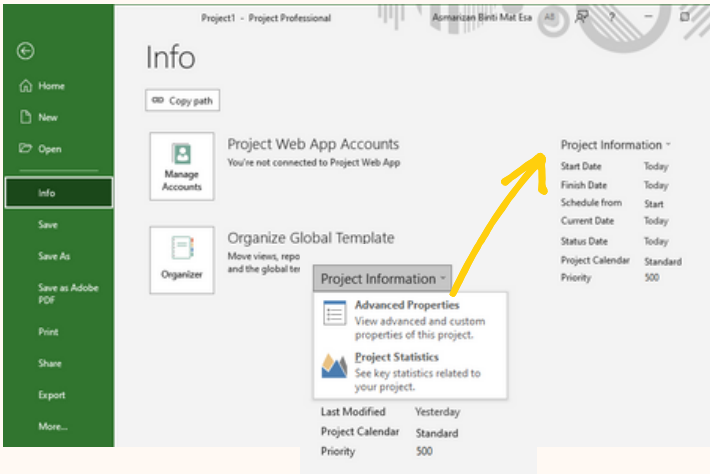
These options impact all new projects created from the Blank Project. If you regularly create new projects from a blank project, you definitely need to set these options so that you do not need to set them manually for every new project you create.



Setting Your Project

Enter Plan Title and Other Properties

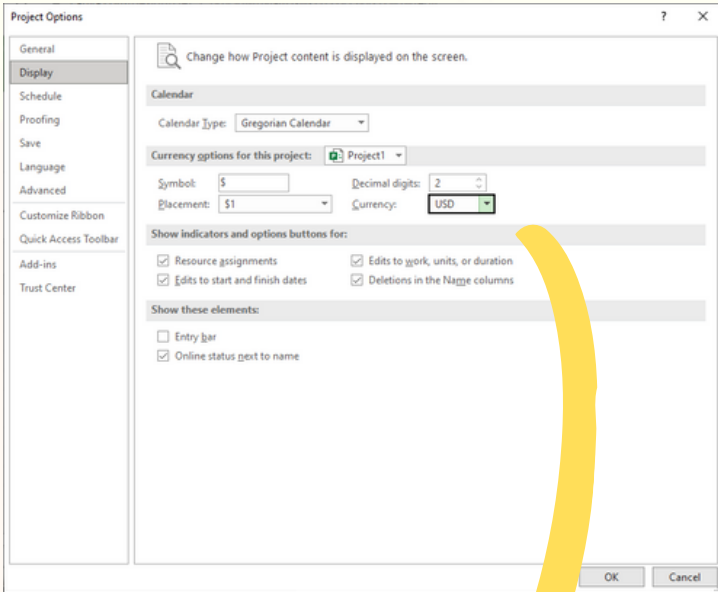
The MS Project, like other Microsoft Office programs, maintains track of a variety of document attributes. Statistics, such as the number of times the document has been updated, are among these features. Other characteristics include information about a plan that you would want to keep track of, e.g., the name of the project manager, the project title, or search terms to aid in finding it. Majority of these characteristics are used in Page Headers, Page Footers, Reports, and Views when printing. The Properties dialogue box allows you to review and make a note of these properties.



Click **Info**, go to **Project Information** and click, Choose **Advanced Properties**, Properties popup appear, click **Summary** Tab and give the title for your project. The title will appear on Summary Task (ID: 0)

Currency Formatting

Default currency is USD, you need to change it based on country used, as Malaysia we change to MYR



The screenshot shows the 'Project Options' dialog box with the 'Display' tab selected. The 'Currency options for this project' section is set to 'Project1'. The 'Symbol' is '\$', 'Decimal digits' is '2', 'Placement' is '\$1', and 'Currency' is 'USD'. A yellow arrow points from the 'USD' dropdown to the 'MYR' dropdown in the second screenshot.

Project Options

Change how Project content is displayed on the screen.

Calendar

Calendar Type: Gregorian Calendar

Currency options for this project: Project1

Symbol: \$ Decimal digits: 2

Placement: \$1 Currency: USD

Show indicators and options buttons for:

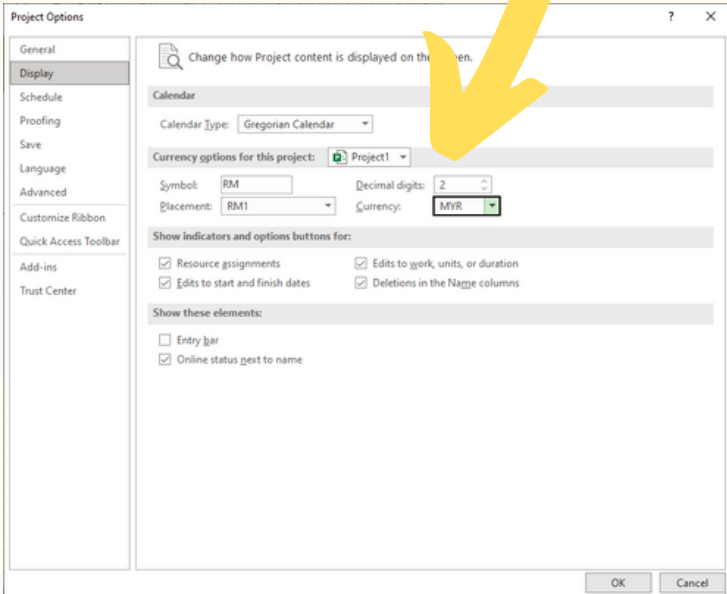
- Resource assignments
- Edits to work, units, or duration
- Edits to start and finish dates
- Deletions in the Name columns

Show these elements:

- Entry bar
- Online status next to name

OK Cancel

Click on **Option**, go to **Display** on Project Option and change the **Currency Formatting**



The screenshot shows the 'Project Options' dialog box with the 'Display' tab selected. The 'Currency options for this project' section is set to 'Project1'. The 'Symbol' is 'RM', 'Decimal digits' is '2', 'Placement' is 'RM1', and 'Currency' is 'MYR'. A yellow arrow points from the 'USD' dropdown in the first screenshot to the 'MYR' dropdown in this screenshot.

Project Options

Change how Project content is displayed on the screen.

Calendar

Calendar Type: Gregorian Calendar

Currency options for this project: Project1

Symbol: RM Decimal digits: 2

Placement: RM1 Currency: MYR

Show indicators and options buttons for:

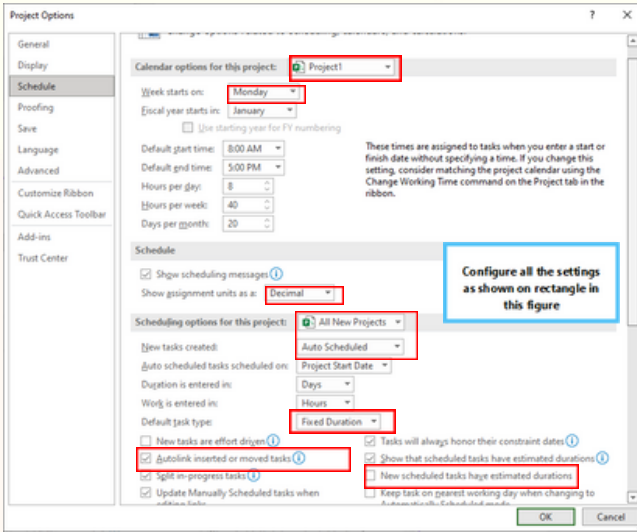
- Resource assignments
- Edits to work, units, or duration
- Edits to start and finish dates
- Deletions in the Name columns

Show these elements:

- Entry bar
- Online status next to name

OK Cancel

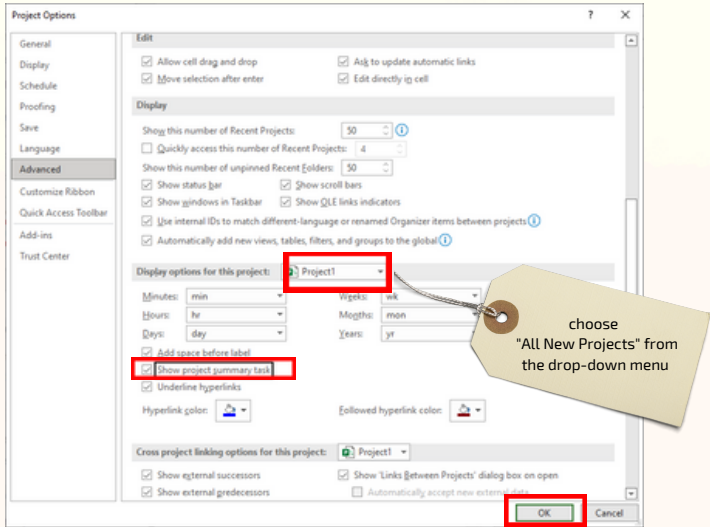
Options Schedule Setting



The Project Schedule Setting Options.

1. Run Microsoft Project → open a blank project.
2. Click on **File** tab → select the **Options** menu item..
3. The project options dialog appears as figure in above
4. Select the **Schedule** item.
5. Choose the **All-New Projects** option from the picklist after finding the scheduling options for this project area.
6. On New tasks created → **Auto Scheduled**.
 - i. Set *Auto scheduled tasks scheduled on* → **Project Start Date**.
 - ii. Duration is entered in → **Days**.
 - iii. Work is entered in → **Hours**.
 - iv. Default task type → **Fixed Duration**.
 - v. New tasks are effort-driven → **uncheck**.
 - vi. Auto link inserted or moved tasks → **uncheck**.
 - vii. Keep task on the nearest working day when changing to Automatically Scheduled mode → **uncheck**.
 - viii. All other checkboxes in the scheduling options section → **check**
 - ix. Click **OK** button.

Advanced Setting



The show project summary task dialog box

A common mistake people make in Microsoft Project is to create a task with the project name at the very top of their project plan.

Microsoft Project will do this for you automatically by displaying the project summary task.

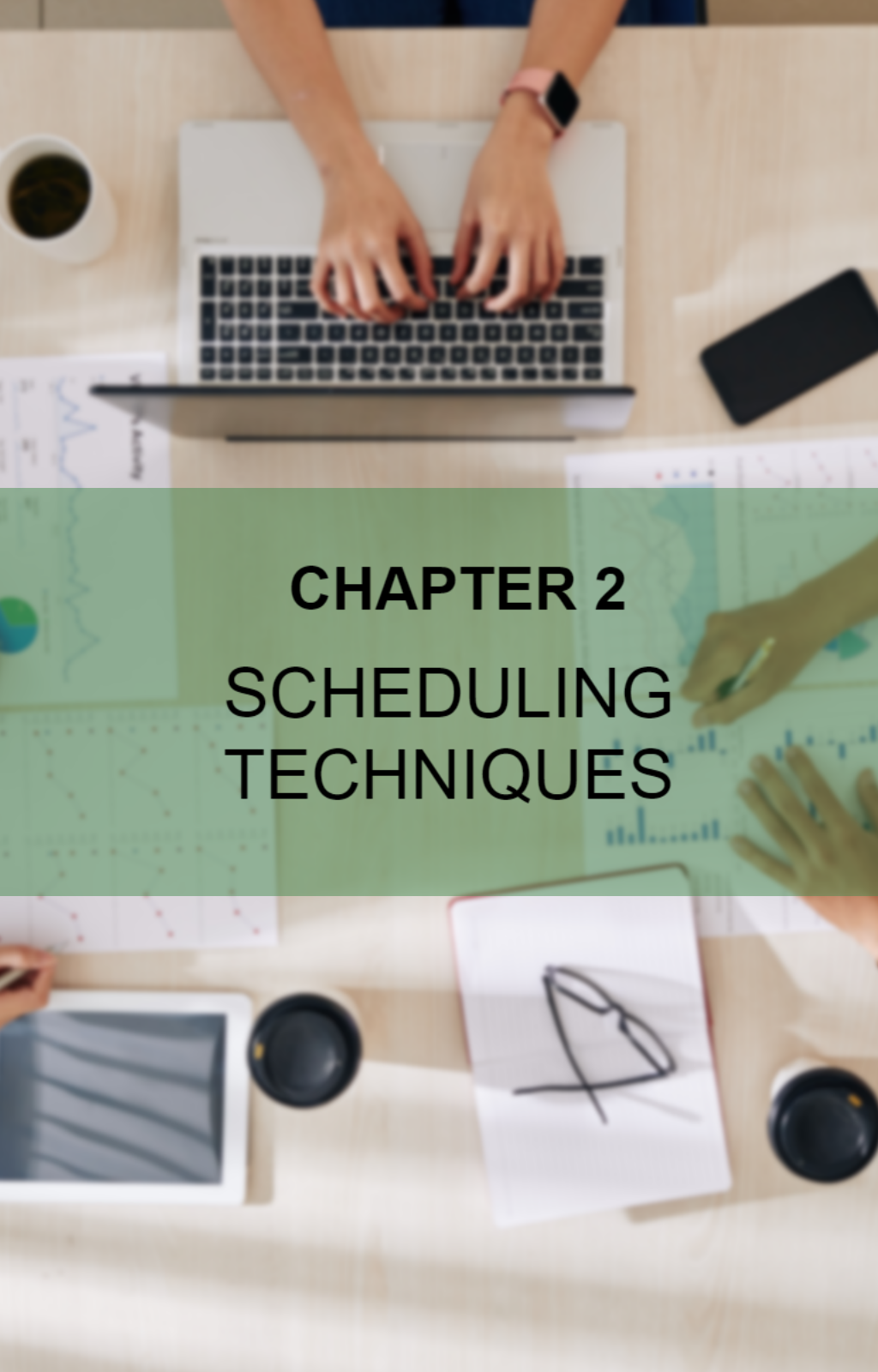
Since the project summary task is not a default option, you need to enable it. Follow these steps to display the project summary task at the top of your project:

- i. Go to **File** tab → **Options** menu item.
- ii. The project options dialog appears as shown above
- iii. Click the **Advanced** item.
- iv. Locate the section titled "**Display choices for this project**" and choose "**All New Projects**" from the drop-down menu..
- v. Tick checkbox of the **Show project summary task**.
- vi. Click **OK** button

Practice 1

You want to establish a new company and need to develop a business plan. Before you begin working on your MS project, make sure you have the following configuration and options:

1. A new task on the status bar show: Auto scheduled
2. Currency in Ringgit Malaysia
3. Start working day on Monday
4. Auto Project Summary task Appear
5. Setting an Author and Manager of the project



CHAPTER 2

SCHEDULING

TECHNIQUES

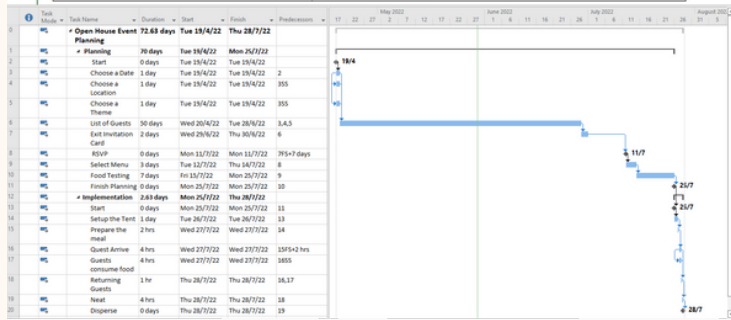
Scheduling Techniques Overview

A schedule is made up of all the activities involved in planning, implementing, and completing a project within the time frame specified. A project schedule assists in prioritizing and organizing the work required to complete a project. Furthermore, it aids in the selection of the best candidate for the position as well as the efficient distribution of available resources.

A schedule is a list of all the tasks that must be completed within the time frame specified during the project's planning and execution. A project timetable aids in task prioritization and project completion. Furthermore, it aids in making the best hiring decisions and making the best use of available resources.

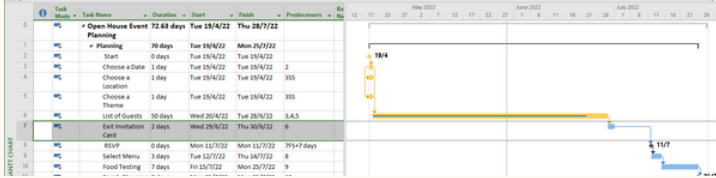
Task Relationships

This chapter describes how to control task scheduling with constraints, view task relationships with Task Path, changing task link relationships, delay a preceding task, adjust the working hours for specific tasks, use **Task Kinds** to control task scheduling, and use **Task Inspector** to view task schedule specifics.



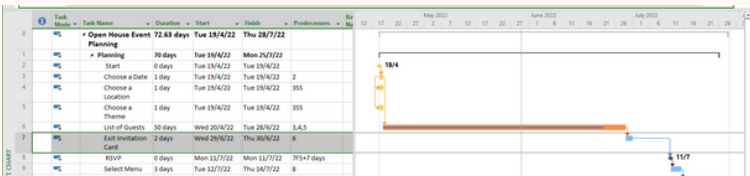
All tasks in this Gantt chart view, regardless of their ties to predecessor and successor jobs, have the same bar and link colours.

Enable Task Path Predecessor Formatting to view the preceding tasks in a task sequence.



Task Path formatting highlights the Gantt bars of task 7's predecessor tasks in gold.

There may be a large list of tasks that came before it, but which of them is in charge of scheduling the current task? Task Path can be used to visually discern these driving ancestors.



Task Path format gives the Gantt bars of task 7's preceding driving tasks a dark orange glow.

Using the Task Path style, format a task's predecessor or successor tasks.

1. In a **Gantt chart** → **task name** column.
2. On the **Format** tab → **Bar Styles** group → **Task Path** button → Select the choices you need.

Remove Task Path formatting

1. Select **Format** tab → **Bar Styles** group → **Task Path** button → click **Remove Highlighting**.

Modify the relationships of task link

There are **four (4)** different kinds of task dependencies or relationships:

- **Finish-to-start (FS)**
The predecessor task's completion date determines when the successor work will begin.
- **Start-to-start (SS)**
The start date of the successor task is determined by the start date of the predecessor task.
- **Finish-to-finish (FF)**
The successor task's completion date is set by the conclusion of the predecessor task.
- **Start-to-Finish (SF)**
The predecessor task's start date affects the successor task's completion date.

Activities in Project are automatically given a finish-to-start relationship when they are linked using the Link Tasks button on the Task tab in the Schedule group. This is acceptable for a lot of activities, but as you polish your plan, you will undoubtedly need to change certain task linkages. The jobs that require relationships other than finish-to-start relationships include some of the following.

As soon as you begin working on an illustration assignment for a book, you can begin setting pages (a **start-to-start (SS) relationship**). The total time required to complete both tasks is decreased because the two tasks are performed simultaneously.

Task Mode	Task Name	Duration	Start	Finish	Predecessors
	Choose a Date	1 day	Tue 19/4/22	Tue 19/4/22	2
	Choose a Location	1 day	Tue 19/4/22	Tue 19/4/22	355
	Choose a Theme	1 day	Tue 19/4/22	Tue 19/4/22	355

In a start-to-start relationship (SS), the predecessor task's start date sets the start date of the successor task.

The start of the succeeding work is delayed by this lag time by 7 days and 2 hours.

Task Mode	Task Name	Duration	Start	Finish	Predecessors
	Exit Invitation Card	2 days	Wed 29/6/22	Thu 30/6/22	6
	RSVP	0 days	Mon 11/7/22	Mon 11/7/22	7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31
	Select Menu	3 days	Tue 12/7/22	Thu 14/7/22	8
	Food Testing	7 days	Fri 15/7/22	Mon 25/7/22	9
	Finish Planning	0 days	Mon 25/7/22	Mon 25/7/22	10
	Implementation	2.63 days	Mon 25/7/22	Thu 28/7/22	10
	Start	0 days	Mon 25/7/22	Mon 25/7/22	11
	Setup the Tent	1 day	Tue 26/7/22	Tue 26/7/22	13
	Prepare the meal	2 hrs	Wed 27/7/22	Wed 27/7/22	14
	Quest Arrive	4 hrs	Wed 27/7/22	Wed 27/7/22	14

Add lag time to the relationship to create a pause between the predecessor end and the start of the successor.

When two tasks are linked from finish-to-start:

- The successor task starts before the predecessor task is finished because of lead time.
- Due to lag time, the successor work begins after the predecessor task has been completed.

Task Mode	Task Name	Duration	Start	Finish	Predecessors
	Food Testing	7 days	Fri 15/7/22	Mon 25/7/22	9
	Finish Planning	0 days	Mon 25/7/22	Mon 25/7/22	10
	Implementation	2.63 days	Mon 25/7/22	Thu 28/7/22	10
	Start	0 days	Mon 25/7/22	Mon 25/7/22	11
	Setup the Tent	1 day	Tue 26/7/22	Tue 26/7/22	13
	Prepare the	2 hrs	Wed 27/7/22	Wed 27/7/22	14

The default task relationship for a project is finish-to-start (FS)

- For example, it is feasible to begin preparing book editing before the manuscript is ready. However, it cannot be done until the manuscript is completed. You want both chores completed simultaneously time.(a finish-to-finish relationship).

Task Mode	Task Name	Duration	Start	Finish	Predecessors
	Returning Guests	1 hr	Thu 28/7/22	Thu 28/7/22	16,17
	Neat	4 hrs	Thu 28/7/22	Thu 28/7/22	18
	Disperse	0 days	Thu 28/7/22	Thu 28/7/22	19FF

The finish date of the predecessor task dictates the finish date of the successor work in a finish-to-finish relationship (FF).

To change the sort of task relationship that exists between tasks

1. Choose a successor task that you want to modify..
2. Click **Information** button in the **Task** tab. View the **Task Information** dialogue box, which displays details of the selected task.
3. Select Predecessors from tab menu.
4. On Predecessors tab, in the Type column, choose the form of relationship to establish between the tasks. , then click **OK**.
5. Click **OK**.

To add time between related tasks as a lead or lag

1. Select the successor task which you want to add lead or lag time.
2. Select the **Information** button in the **Properties** group of the Task tab.
3. Select the **Predecessors** tab in the **Task Information** dialogue box, and then choose one of the following options:

- For a predecessor task, specify the exact lead value in the Lag field. Negative lag values represent lead values. Lead can be stated in terms of working days (for example, -2d) or as a percentage of the prior tasks duration (for example, -25 percent).
- Put the appropriate lag value in the Lag area for a preceding task. For lag values, positive numbers are used. Lag can be stated as a number of working days (for example, 3d) or as a percentage of the prior task s time (for example, 50 percent).

The screenshot shows the 'Task Information' dialog box with the 'Predecessors' tab selected. The 'Name' field contains 'Choose a Date' and the 'Duration' is set to '1 day'. The 'Estimated' checkbox is unchecked. Below the fields is a table with the following columns: ID, Task Name, Type, and Lag. The first row contains the value '2' in the ID column, 'Start' in the Task Name column, 'Finish-to-Start (FS)' in the Type column, and '0d' in the Lag column. The table has a scroll bar on the right side. At the bottom of the dialog, there are 'Help', 'OK', and 'Cancel' buttons.

ID	Task Name	Type	Lag
2	Start	Finish-to-Start (FS)	0d

Task Scheduling Constraints

Every task you enter into Project comes with a constraint. A limitation governs how far an automatically scheduled task can be postponed. The constraint details of automatically scheduled jobs can be managed.

However, you cannot change the constraint type or specify a constraint date when working with a manually scheduled task .

Constraints are divided into three categories:

- **Flexible constraint**

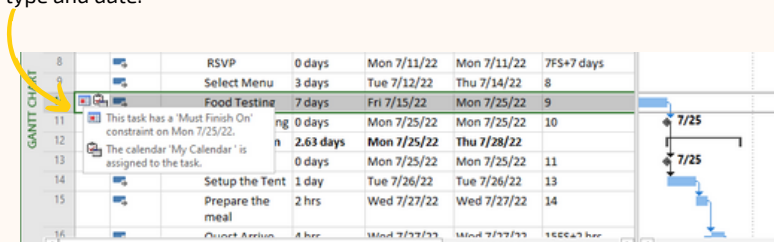
- **Semi-flexible constraints**

With this restriction, a task has a start or end date boundary. Within that limit, however, Project has the scheduling flexibility to change a task's start and finish dates.

- **Inflexible constraint**

A constraint that requires a task to start or end on a specific date. **MSO** (Must Start On) and **MFO** (Must Finish On) are both rigid limitations.

Click the constraint indicator in the Indicators column to reveal the constraint type and date.



Using a task constraint

1. Select the task to which you want to apply the constraint.
2. Click the Information button in the Task tab s Properties group.
3. Select the **Advanced** tab in the **Task Information** dialogue box.
4. In the Constraint Type box, select the constraint type you want.
5. Enter or choose the preferred date in the Constraint Date box, then click OK.

All constraint types, with the exception of As Soon As Possible and As Late As Possible, demand a constraint date.

TIPS

The Task Information dialogue box can be opened by double-clicking a task name.

Task Information dialog box, Advanced tab. Fields include: Name: Food Testing, Duration: 7 days, Estimated: unchecked, Constraint task: (empty), Deadline: NA, Constraint type: Must Finish On, Constraint date: Mon 7/25/22, Task type: Fixed Units, Effort driven: unchecked, Calendar: My Calendar, Scheduling ignores resource calendars: unchecked, WBS code: 1.9, Earned value method: % Complete, Mark task as milestone: unchecked. Buttons: Help, OK, Cancel.

Close-up of the Constraint type dropdown menu. Options: Must Finish On (selected), As Late As Possible, As Soon As Possible, Finish No Earlier Than, Finish No Later Than, Must Start On, Start No Earlier Than, Start No Later Than. Other fields visible: Constraint date: Mon 7/25/22, Effort driven: unchecked, Scheduling ignores resource calendars: unchecked. Buttons: Help, OK, Cancel.

To remove a task constraint

1. Choose a task to which a constraint has been applied.
2. In the **Properties** group of the **Task** tab, select the **Information** button.
3. Select the **Advanced** tab in the **Task Information** dialogue box.
4. Select **As Soon As Possible** or **As Late As Possible** in the **Constraint Type** box (if scheduling from the project finish date).

SET UP A CALENDAR

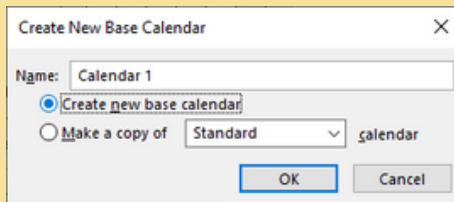
Adjust working time for individual tasks

Here are some scenarios in which a task calendar may be useful:

- You're working on a task that needs to run overnight, and you're using the Standard base calendar as your project calendar. Your typical working hours are 8:00 a.m. to 5:00 p.m.
- You have a task that needs to be completed on a certain weekday.
- You have a task that needs to be completed over the weekend.

Create a **new base calendar**.

1. On Project tab, Click the **Change Working Time** button in the **Properties** group to access the Change Working Time dialogue box.
2. Click **Create New Calendar** in the Change Working Time dialogue box to launch the **Create New Base Calendar** dialogue box.



Give a new base calendar a name that makes sense to everyone who will be using it.

3. Type the name of the new base calendar in the Name Box, and then select one of the following :

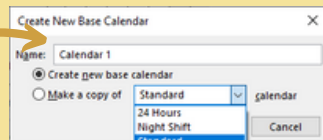
- Click Create New Base Calendar to make a new calendar with working hours of 8:00 a.m.–5:00 p.m. Monday–Friday.
- To make a new calendar that is based on an existing base calendar, select Make a copy of from the drop-down menu and choose the base calendar you want from the list (24 hours, Night Shift, Standard).

4. Select OK.

5. Enter the particular working time exceptions or overall modifications you desire for this calendar on the Exceptions and Work Weeks tabs of the Change Working Time dialogue box.

6. To close , click OK.

You can change Calendar 1 to **New Name**



To use a base calendar to complete a task

1. Select the task to which the base calendar will be applied.
2. Click the **Information** button in the **Task** tab s to launch the **Task Information** dialogue box.
3. Select the **Advanced** option from the drop-down menu.
4. Select the **base calendar** from the list of available in the Calendar box.

The screenshot shows the 'Task Information' dialog box with the 'Advanced' tab selected. The 'Name' field contains 'Disperse' and the 'Duration' is '0 days'. The 'Deadline' is set to 'NA'. The 'Constraint type' is 'As Soon As Possible' and the 'Constraint date' is 'NA'. The 'Task type' is 'Fixed Units'. The 'Calendar' dropdown is set to 'My Calendar'. The 'WBS code' is '2.8' and the 'Earned value method' is '% Complete'. The 'Mark task as milestone' checkbox is checked. The 'OK' button is highlighted.

Apply a base calendar to a task using Calendar field in the Task Information dialogue box.

5. Close the dialogue box by clicking **OK**.

The base calendar is applied to the task. In the Indicators column, a calendar icon appears, informing the task has a task calendar assigned to it.

6. Point at the calendar icon to see the calendar s details. The calendar details are displayed in a ScreenTip.

	Task Mode	Task Name	Duration	Start
19		Neat	4 hrs	Thu 28/7/22
20		Disperse	0 days	Thu 28/7/22

The calendar show s on Screen Tip displayed

CHANGE WORKING TIME

A project that you create schedules work using a base calendar that is set up by default. This may be a standard Monday through Friday, 8 AM to 5 PM workweek, or it could be something else that better fits the requirements of your organization.

If the working hours for your project are different from the standard hours, you can:

- Adjust the project calendar's working hours to fit your needs.

OR

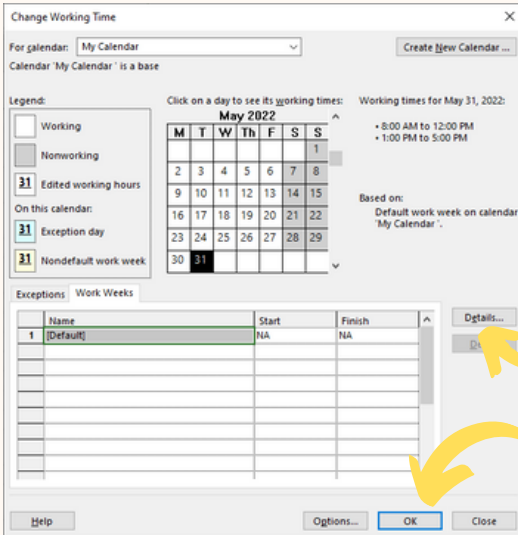
- Change to a different base calendar (24 Hours or Night Shift, for example).

Change the working hours for your project.

If none of the base calendars available match the regular working schedule for your project, you can change the project's working days and hours to make sure that work is scheduled appropriately.

Is there a similar schedule being used by other projects? Create a new basic calendar for your project's schedule to save your teammates time!

Let's start make a change



Click on **Work Weeks** tab

Click **Details** button

After **finish** setting

Click **Ok** button when finish.

Let s Set working time for My Calendar

Click on **Use Project default times for these days.**

Select the days that should use the default working hours, which are 8:00 A.M. to 12:00 P.M. and 1:00 P.M. to 5:00 P.M., Monday through Friday, and nonworking hours on weekends, and click **OK**.

Details for "[Default]"

Set working time for this work week

Select day(s):

- Use Project default times for these days.
- Set days to nonworking time.
- Set day(s) to these specific working times:

Select day(s):

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday
- Sunday

	From	To
1	8:00 AM	12:00 PM
2	1:00 PM	5:00 PM

Help OK Cancel

Details for "[Default]"

Set working time for this work week

Select day(s):

- Use Project default times for these days.
- Set days to nonworking time.
- Set day(s) to these specific working times:

Select day(s):

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday
- Sunday

	From	To
1	8:00 AM	1:00 PM
2	2:00 PM	5:00 PM

Help OK Cancel

Click **Set day(s) to these specific working times** for standard time working and click **OK**.

To set the working times for the selected days, type the times that you want work to start in the **From** column and the times you want work to end in the **To** column.

Click **Set days to nonworking time** by choose the days which no work can be scheduled. The change that you make will be reflected in all the months in the calendar. Click **OK**

Details for "[Default]"

Set working time for this work week

Select day(s):

- Use Project default times for these days.
- Set days to nonworking time.
- Set day(s) to these specific working times:

Select day(s):

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday
- Sunday

	From	To

Help OK Cancel

Then,

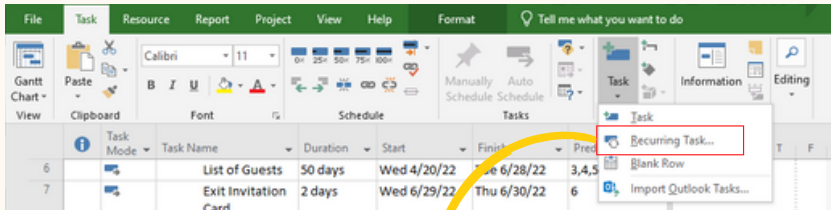
Right-click the **task**, choose **Information**, select the **Advanced** tab, and then select the calendar from the **Calendar** list.

Create a recurring task

In calendar program like Microsoft Outlook, recurring tasks in Project are similar to recurring appointments. You can specify its repeating pattern (for example, once daily or once weekly) as well as the timeframe or number of repetition.

To create a recurring task

Click on Task tab → go to Insert group → Click on Task → Click on Recurring Task

A screenshot of the 'Recurring Task Information' dialog box. The 'Task Name' is 'Meeting' and the 'Duration' is '1d'. Under 'Recurrence pattern', 'Weekly' is selected with a radio button, and 'Recur every 1 week(s) on:' is set. The days of the week are listed with checkboxes: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday. Under 'Range of recurrence', 'Start' is 'Tue 4/19/22' and 'End by' is 'Thu 7/28/22'. The 'Calendar for scheduling this task' is set to 'My Calendar'. There are 'Help', 'OK', and 'Cancel' buttons at the bottom.

Recurring Task Information dialog box

1. Type the name of the recurring task in the **Task Name** area.
2. Type the duration of each recurring task instance in the Duration field.
3. Specify how frequently the task should recur under Recurrence pattern.
4. Enter a start date in the **Range of Recurrence** box. You have the option of specifying a specified number of occurrences or specific end date for the end date.
5. To use a specific base calendar for the task, select it under Calendar for scheduling this task. Select the **Scheduling ignores resource calendars** check box if you want the specified calendar to override resource calendars.
6. Select **OK**.

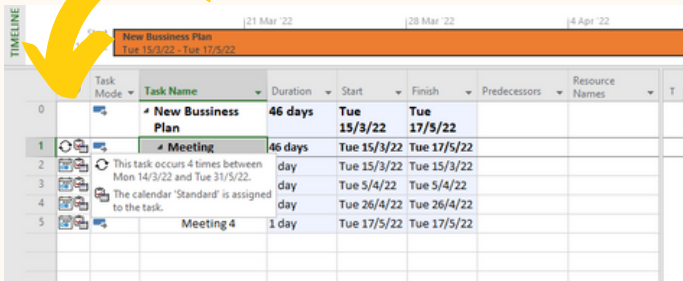
Allocating resources to a recurring task

1. Pick the summary recurring task and then expand it.
2. In the **Resource** tab, click **Assign Resources** button.
3. In the Assign Resources dialogue box, choose the resources you want to attach with the recurring activity. To choose many resources, keep holding down the Ctrl key while selecting other names.
4. Select **OK**.

Assigning resources to a particular example of a recurring task

1. To see the instances of the summary recurring task, expand it.
2. Choose the precise occurrence to which a resource should be assigned.
3. On the Resource tab. click the **Assign Resources** button
4. In the Assign Resources dialogue box, choose the resources you want to attach with the recurring activity. To choose many resources, keep holding down the Ctrl key while selecting other names.
5. Select **OK**.

On the screen tip
shows the recurring



Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names	T
	New Business Plan	46 days	Tue 15/3/22	Tue 17/5/22			
	Meeting	46 days	Tue 15/3/22	Tue 17/5/22			
	This task occurs 4 times between Mon 14/3/22 and Tue 31/5/22.	day	Tue 15/3/22	Tue 15/3/22			
	The calendar 'Standard' is assigned to the task.	day	Tue 5/4/22	Tue 5/4/22			
	Meeting 4	1 day	Tue 26/4/22	Tue 26/4/22			
			Tue 17/5/22	Tue 17/5/22			

Recurring setting for meeting during a project planning

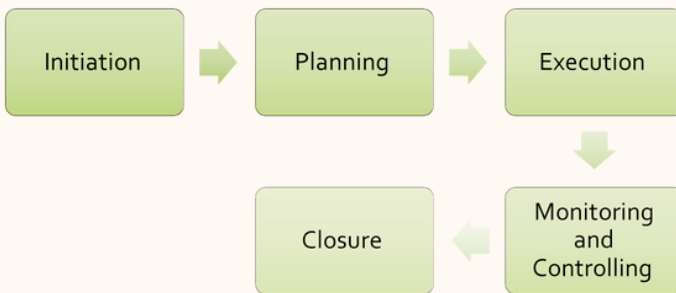
Examine resource allocations over time

A resource's maximum units and resource calendar determine its capacity to operate in a given time period. Allocation is the link between a resource's capacity and its task allocations. A work resource could be any of the following at any one time:

- **Underallocated:** The resource's assignments do not use up all of the resource's working capacity.
 - **Example:** In a 40-hour workweek, a full-time resource with just 25 hours of work assigned is underutilized.
- **Fully allocated:** The resource's assignments have used up all of the resource's available capacity.
 - **Example:** A full-time resource with 40 hours of work assigned in a 40-hour workweek
- **Overallocated:** The number of assignments assigned to the resource exceeds the resource's maximum capacity to work.
 - **Example:** A full-time resource who is allotted 65 hours of work during a 40-hour workweek is overallocated.

Practice 2

Once the configuration and settings are complete, create the task and specify the start and end dates for each task to establish a new company for the planning project. see the following steps to create a project plan.



Create tasks for each cycle to detail the planning. Assign resources for each task such as based on organizational setting or equipment needed. From the task set the :

1. Task Relationship
2. Set Resources
3. Set the constraints
4. Create your own Calendar
5. Change working time
6. Set a recurring task for meeting



CHAPTER 3

VIEW AND REPORT

View and Report Overview

The most crucial duty of a project manager is to communicate the project status to key stakeholders. A project with poor communication is almost certain to fail, even while good communication does not ensure project success.

The following questions must be addressed in order to successfully communicate project status: *Whom and why should be updated on the project's progress? What kind of format or degree of detail are these people looking for?*

The best time to address these questions is during the project's early planning stages. Following the start of the project, your major communication role will be to update the status of the project. This can take a variety of forms:

- Reports on the status of the project in terms of cost, scope, and schedule.
- Progress reports that detail the project team's individual accomplishments.
- Forecasts that indicate how well a project will perform in the future

Project Status: View and Report

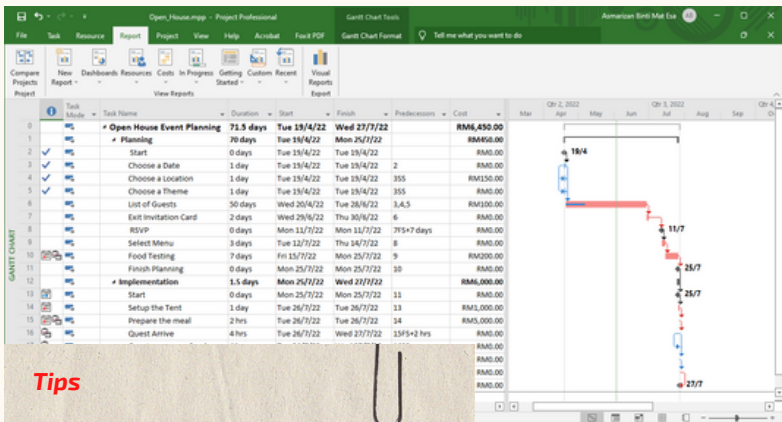
The project manager's attention switches from planning to obtaining, analyzing, and disseminating performance information once work has begun and the baseline for a plan has been established.

There are **3 (three)** main things to ask when analyzing project performance details in most plans:

- Is the plan on schedule to conclude when we expect it to at the current rate of completion?
- What about the plan's length, scope, or cost changed?
- How much has the plan's development cost thus far, and how much more is anticipated going forward?

By comparing the results to the baseline, the project manager and other stakeholders may assess the situation and decide whether corrective action is required.

When actual or scheduled performance deviates from the initial plan, a variance arises. Variance is typically quantified in terms of time (days behind schedule) or expense (dollars above budget). Following the completion of initial planning, many project managers devote the majority of their time to finding, researching, and responding to variance. You must first detect variance before you can respond to it.

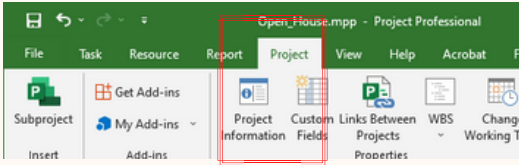


Tips

Display the project summary task on the Format tab in the Show/Hide group to see the overall project-wide numbers. In tabular views like the Gantt Chart and using views, you may also use a number of useful tables, like the Cost and Variance tables. The task- and resource-specific chapters that follow this chapter go into further depth about these tables.

Complete planning task for Open House Event

View Project Statistics



Click on **Project** tab → **Project Information** in Properties group → **Statistics** button

The 'Project Information for 'Open_House'' dialog box is shown. It contains the following fields:

- Start date: Tue 19/4/22
- Current date: Fri 3/6/22
- Finish date: Wed 27/7/22
- Status date: NA
- Schedule from: Project Start Date
- Calendar: Standard
- All tasks begin as soon as possible.
- Priority: 500
- Enterprise Custom Fields: Department (dropdown)
- Table with columns: Custom Field Name, Value

Buttons at the bottom: Help, Statistics..., OK, Cancel.

Get a quick "**status-at-a-glance**" overview of the situation by using the **Project Statistics** dialogue box to start.

The 'Project Statistics for 'Open_House.mpp'' dialog box is shown. It contains the following data:

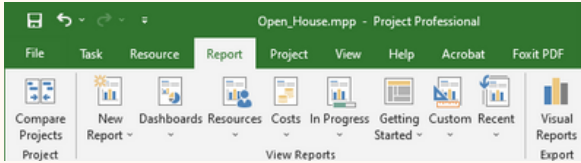
	Start	Finish
Current	Tue 19/4/22	Wed 27/7/22
Baseline	Tue 19/4/22	Wed 27/7/22
Actual	Tue 19/4/22	NA
Variance	0d	0d

	Duration	Work	Cost
Current	71.5d	0h	RM6,450.00
Baseline	71.5d	0h	RM6,450.00
Actual	16.33d	0h	RM175.00
Remaining	55.17d	0h	RM6,275.00

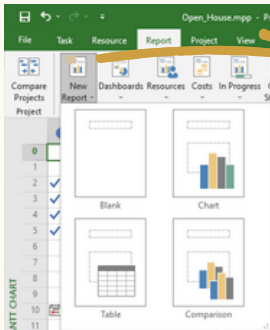
Percent complete:
Duration: 23% Work: 0%

Close

View Report on Dashboard



Click on **Report** tab → Click on **New Report** in View Reports group



New Report

Make a new report.

Reports can be used to assess data in your project and then shared with your team.

You can choose the elements you want to include while constructing a **new report**.

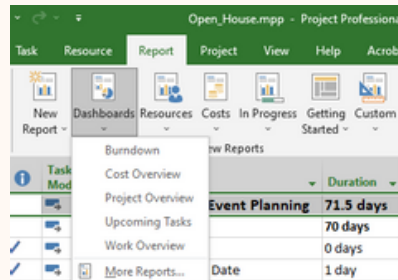
Dashboard report that includes"

- **"Project Overview"**
- **"Cost Overview"**
- **"Burndown reports"**

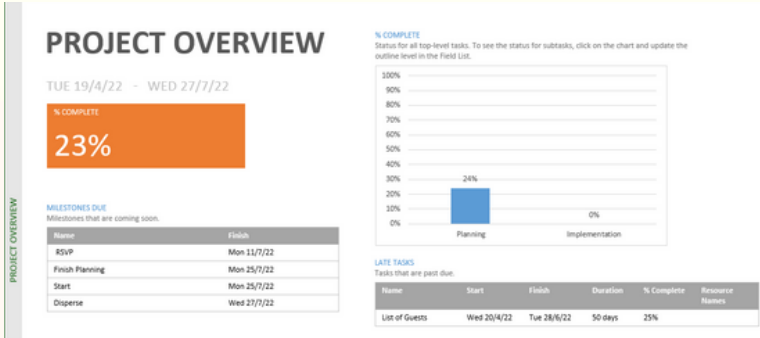
Click **Report** tab → on **View Reports** group → **Dashboards** → click on the Dashboard report you want.

Dashboards

To improve your decision-making, view eye-catching, interactive reports built on the facts from your project.



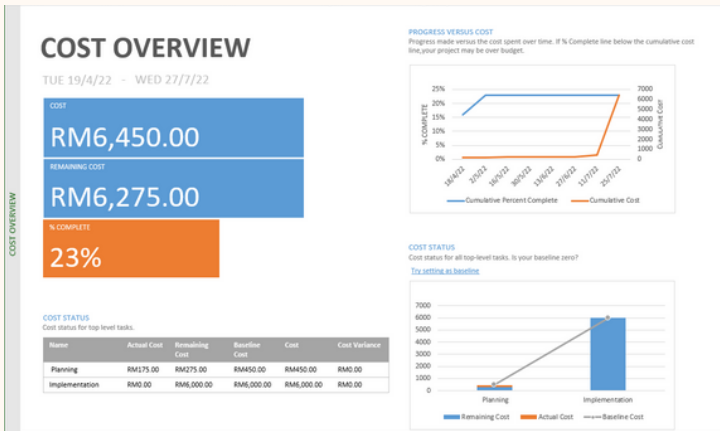
Use the Project "dashboard" reports for **reporting and analysis** of wide schedule and expense changes. We'll start by examining the Project Overview report.



The "Project Overview" report clearly displays the plan's overall completion percentage of duration (in this case, 23%), a completion percentage of each summary task, and other information.

The overall progress of the summary tasks and milestones is the main emphasis of this report. Sharing this report with project stakeholders who need a high-level overview is a great idea.

When producing cost-focused reports, start with the "Cost Overview" report. This report includes the total scheduled cost as well as the plan's current cost status.



The Plan's total and remaining expenses, as well as previous and anticipated cost trends, are displayed in the Cost Overview report.

The "**Burndown**" report is also another cost report that is essential for total cost reporting.



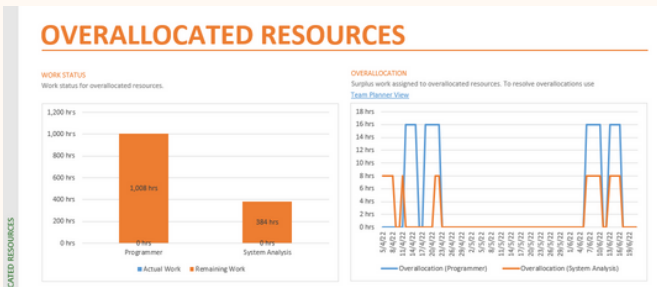
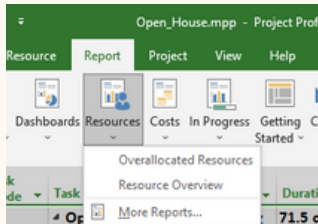
The Burndown report assists you in determining when the project will be finished at the current rate of work.

This report outlines the amount of work completed, the amount still to be done, and the anticipated pace of completion.

View Other Report

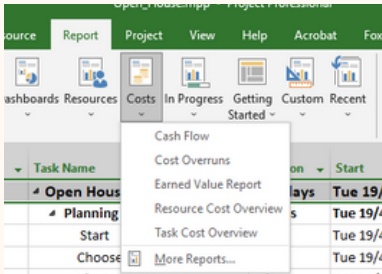
Resource Report

Analyze reports based on resource data to better manage your team's work.



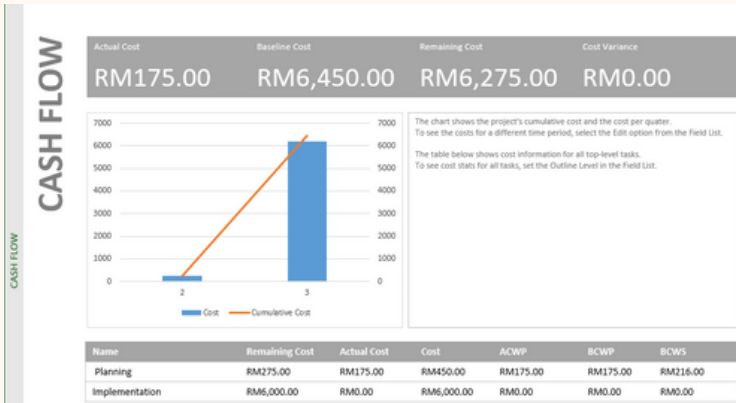
Display the Overallocated Resources

When a resource is scheduled for more work than they can reasonably complete given their regular work capability, this condition is known as overallocation.

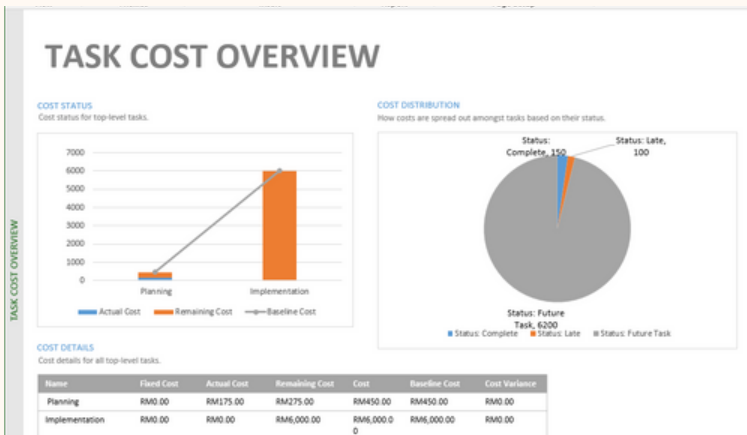


Cost Reports

By examining cost data in a report, you can keep track of your project's costs.



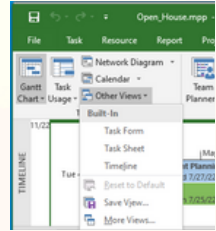
To see the cost of the plan and its accumulated cost values over time, display the **Cash Flow report**.



The **Cost Distribution pie chart** in the "Task Cost Overview" report totals task costs according to their level of completion.

Display the Cost table in the Task Sheet view

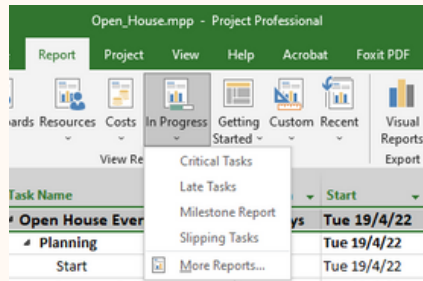
1. On the **View** tab → click "**Task Views**" group → got to **Other Views** to display the Task Sheet view → click **Task Sheet**.
2. On the **View** tab → **Data** group → **Tables** → **Cost**.



Display the Cash Flow report / Task Cost Overview

1. On the **Report** tab → **View Reports** group → **Costs**.
2. **Select** the report you want

In Progress
Examine how your project has progressed so far



The "Late Tasks" report's primary focus is the current date, unless you specify a different status date.

LATE TASKS

Tasks that are late as compared to the status date. A task is late if its finish date has passed or it is not progressing as planned.

Name	Start	Finish	% Complete	Remaining Work	Resource Names
List of Guests	Wed 20/4/22	Tue 28/6/22	25%	0 hrs	


Legend:
■ Status: Complete ■ Status: Late
■ Status: Future Task

Use the "Late Tasks" report to concentrate on tasks that were finished or will be finished later than expected.

Display the Cost table in the Resource Sheet view

1. On the **View** tab → click "**Resource Views**" group → "**Resource Sheet**" to display the Resource Sheet view.
2. On the **View** tab → **Data** group → click **Tables** → select **Cost**.

Sort resources by cost amounts

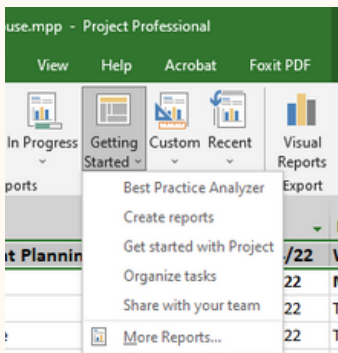
1. Present the **Cost table**.
2. Click the **AutoFilter**  dropdown arrow next to a column heading: **Cost** or **Variance** → **Sort Largest to Smallest** from the menu that appears.

Display the Cost table and cost details in the Resource Usage view

1. On the **View** tab → "**Resource Views**" group → "**Resource Usage**" to display the Resource Usage view.
2. On the **View** tab → **Data** group → **Tables** → **Cost**.
 - In the "Resource Usage" view, the "**Cost table**" can be seen.
3. On the "**Resource Usage**" **Tools** → **Format** tab → **Details** group → **Cost** detail to add to the time-phased side of the view.
4. To add **more time-phased** details → **Add Details** → Detail Styles dialog box open. Then, in the **Available Fields** list → cost-related fields add → **Show**.

Display the Resource Cost Overview report

- On the **Report** tab → "**View Reports**" group → **Costs** → "**Resource Cost**" **Overview**.



Getting Started

Learn the ins and outs of Project.

Practice 3

Create a report for each of the progress and costing involved from the project plan in Practice 2



CHAPTER 4

FORMAT AND PRINT

Format and Print Overview

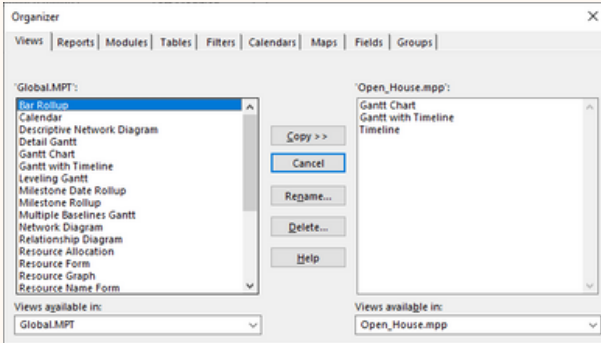
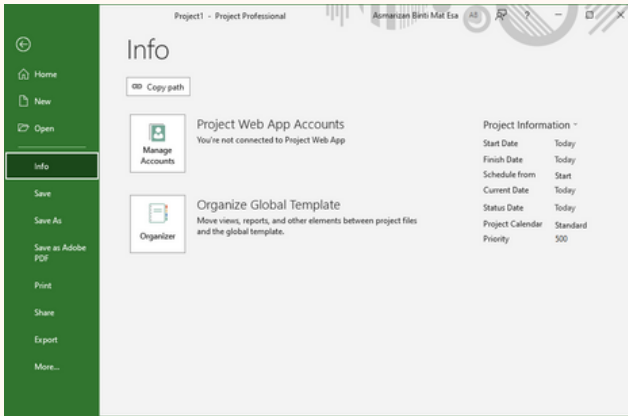
You can learn about some of MS Project's more complex formatting choices in this chapter. An effective format can be very helpful for delivering information to resources, clients, and other stakeholders. Some formatting options in Project are comparable to those in style-based word processors like Microsoft Word, where applying a style once has an impact on all content in the document. In Project, styles can be used to alter a certain type of Gantt bar's appearance throughout a plan, such as a summary bar. Additional formatting options are provided in this chapter, including task-specific formatting and formatting of some of the most popular views.

This chapter explains how to format and print views using Project's more sophisticated formatting and printing tools.

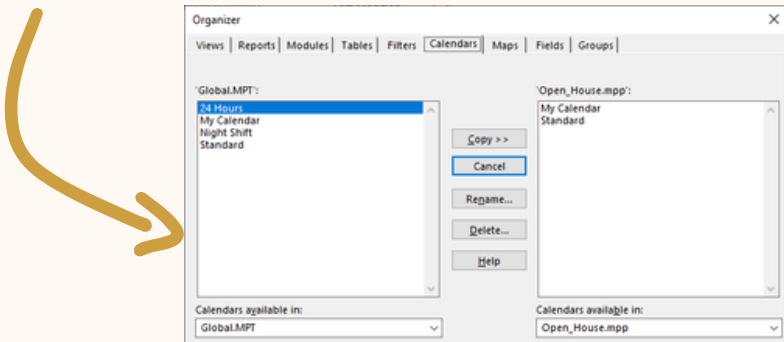
Organize Global Template

When you open Microsoft Project, an empty project file contains all of the typical Views, Tables, and Calendars, but no Tasks or Resources. The Global Template for Microsoft Project, which is a file with the name Global, contains all of this information.

Click **File** tab → click **Organize Global Template** → windows popup appear



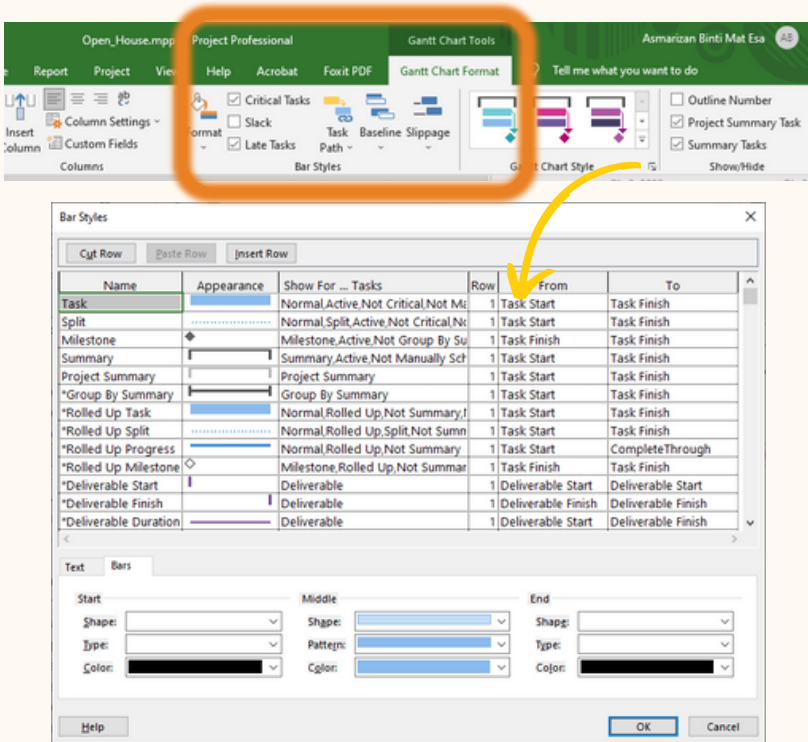
Organizer popup show the calendars available in project planning



Format a "Gantt chart" View

Different types of items can be formatted to alter how they appear in a Gantt chart view. You can accomplish this by using the "Bar Styles" dialogue box. A Gantt chart view's formatting and bar style changes only impact that view.

On Gantt Chart Tools → Click on **Gantt Chart Styles** group and select the styles or click on small arrow on the bottom of the left side → **Bar Styles** Dialog box were open



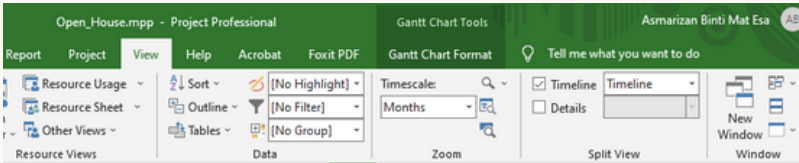
To change the appearance of entire categories of items in the Gantt chart views as demonstrated above, use the Bar Styles dialogue box.

The formatting modifications you make to a certain bar type (critical tasks, for instance) or other elements in this dialogue box are applied to all of that bars or other items in the Gantt chart.

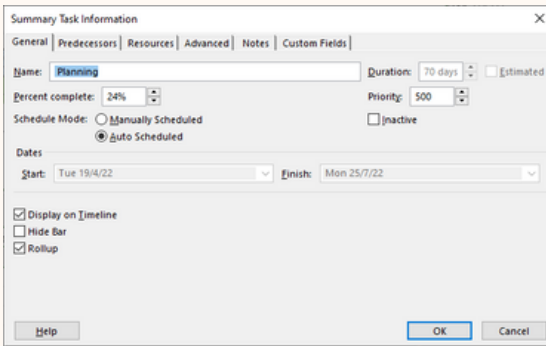
Format a Timeline view

The **"timeline view"** is a convenient method to understand the plan s "big picture." In a single Timeline view, you can display one or more timeline bars, each of which can be customized separately.

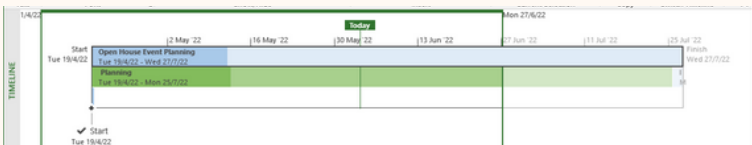
On **View** tab → **Split View Group** → **tick** on the check box of **Timeline**



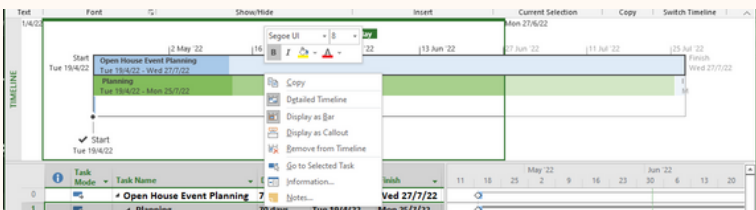
Click on **Display on Timeline** to appear the Planning Task



Task will be displayed on Timeline.



Right-Click on Timeline to change the formatting



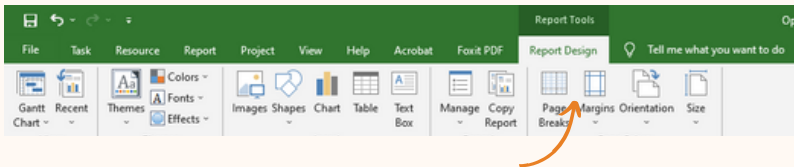
Create a custom report

Any combination of data that you desire can be included in **custom reports**. To communicate information that isn't available anywhere else in Project, you can really integrate tasks, resources, and other data into a single report.

Custom report to be considered for any of the following elements:

- **Charts** Create a report with bar, area, or other sorts of charts.
- **Tables** are used to present data in a row-and-column format.
- Add **images** to a report, such as JPEG or PNG format files.
- Insert and customize pre-made shapes like speech bubbles, circles, and arrows. Shapes are a great way to draw attention to important information in a report.
- Boxes for text Insert a **Text Box** anywhere on a report..

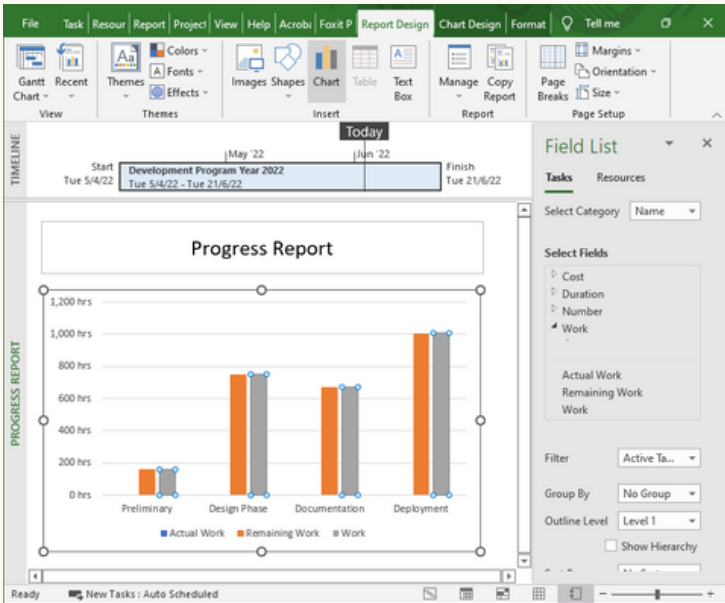
The "**Insert group**" in the "**Report Tools Design**" tab contains the buttons for adding various components to a report.



To add elements to a report, use the buttons in the insert group of the Report Tools Design tab.

Use these features in a Project report the same way you would in a PowerPoint presentation or an Excel spreadsheet in Microsoft Office.

Charts and tables are distinct from the rest of the report's components. Charts and tables use data from the project's open-task plans and resource fields. As the underlying data in the plan changes, the field values on a chart or table will be immediately updated.



Create A Bar chart for Progress report

Add Chart to a Report

1. On the "Report Tools Design" tab → Insert group, → Chart to open the "Insert Chart" dialog box.
2. On the left side of the dialog box → choose chart types you want → select the specific chart layout you want.
3. Click **OK**.
 - The project displays the Field List pane and adds the new chart to the report.
4. Drag the chart to position anywhere you want it on the report.



The Chart Tools Design and Format tabs show up when you add or select a chart.

Drag the chart to the desired location on the report.

- The **Design tab** is where you can get creative. Using the buttons on this page, you can alter the chart's format and appearance as well as add features like data labels.
- The **Format tab** is located on the toolbar. Format chart elements such as data series using the buttons on this tab.

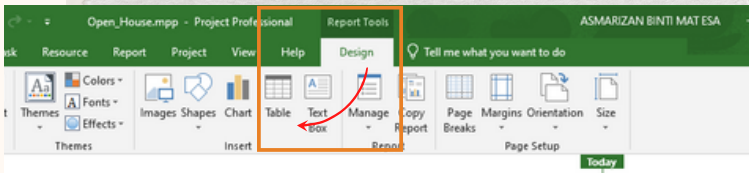
Change a chart's format and style

1. Click on the **chart**.
2. On the "**Chart Tools - Format**" tab → choose the chart elements, and other options you want.
3. On the "**Chart Tools - Design**" tab → choose the layout, color, or style options you want.

Add Table to a report

1. On the "**Report Tools - Design**" tab → **Insert** group → click **Table**.
2. Drag the table to any place on the report

You can also add a table report and customize the table.

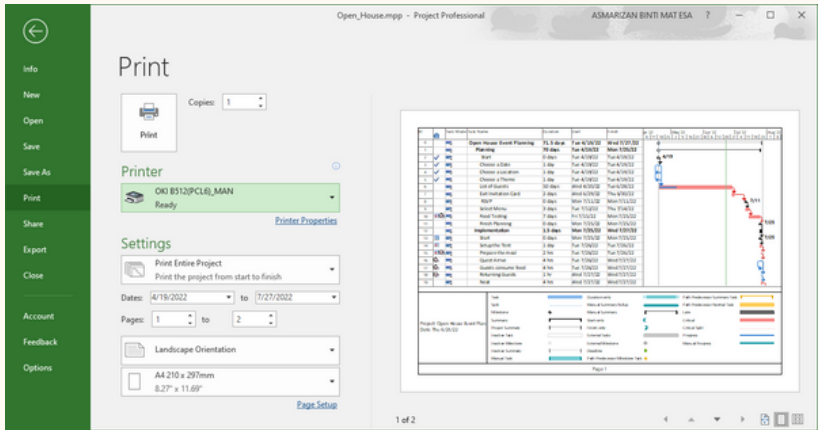


Print a View or Report

A printed view of a project is more than just a pretty way to display project information. It may occasionally be the best course of action. You can share views of Project that exactly present the data you want to convey.

A view, report, or calendar can be printed in Project in a manner that is quite similar to that of other Office applications:

- Choose **File** → **Print** → 

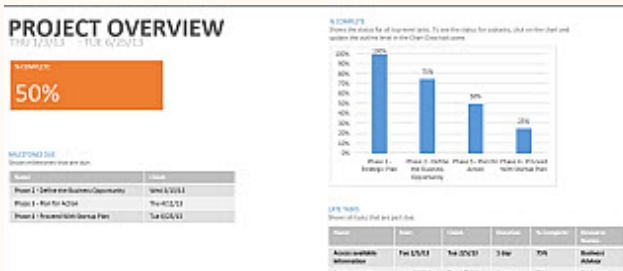


Make a report ready for printing

- Format the report

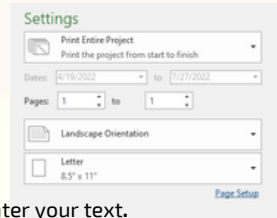
To ensure that the report only contains the information you want to print, create it and make any required edits.

You can change the colours and add visuals, as well as add charts, tables, and links.



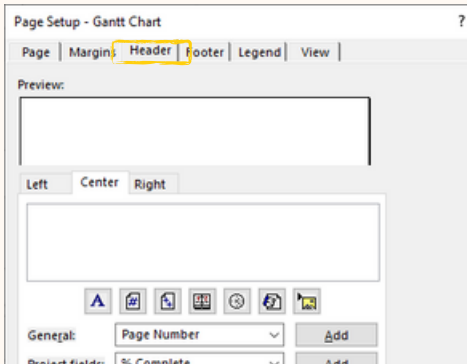
View the Print Design

1. On the report, choose the **"Report Tools - Design"** tab → **"Page Setup"** group
→ Select following options : *"Page Breaks"*, *"Margins"*, *"Orientation"*, or *"Size"*.
2. The report will display recommendations that adapt to your decisions.
3. To set other print options,
 - Click **File** tab → **Print** → select options under Settings.

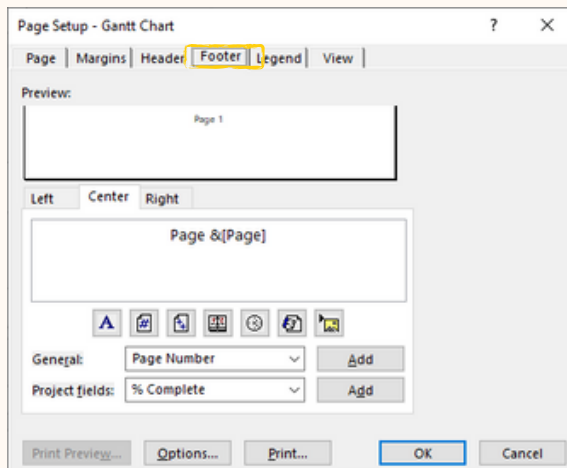


Add a header or footer

1. Click the **File** tab → **Print** → **Page setup**
2. Click on the **Header** or **Footer** tab.
3. Use the **Left**, **Center**, or **Right** text boxes to enter your text.
4. To format the text or add items, use the **buttons beneath the text box**:



or





Prepare a report for printing

Format the report

See the print layout as you work on the report

Put a header or footer



Choose your preferred viewpoint.

To display only the information you want to share, change the view.

As an illustration:

- a. To display just top-level tasks, hide subtasks.
- b. To emphasize certain information, sort tasks or dates.
- c. Temporarily hide columns on the printout

Practice 4

From the Project plan from Practice 3, format each as follow:

1. Bar Styles
2. Timeline view
 - a. Show each phase involved
 - b. Format the timeline
 - c. Show each subtask in the timeline
3. Custom report as chart, tables or images included.

Keyboard Shortcuts

☀ General Shortcuts ☀

Open an Existing project (**Ctrl + O**)

Create a new project (**Ctrl + N**)

Save a project (**Ctrl + S**)

Print a project (**Ctrl + P**)

Close a file (**Ctrl + W**)

Close project (**Alt + F4**)

Help (**F1**)

Spell check (**F7**)

Zoom in (**Ctrl + /**)

Zoom out (**Ctrl + Shift + ***)

☀ Editing ☀

Cut (**Ctrl + X**)

Copy (**Ctrl + C**)

Paste (**Ctrl + V**)

Undo (**Ctrl + Z**)

Redo (**Ctrl + Y**)

Find (**Ctrl + F**)

Create a hyperlink (**Ctrl + K**)

Add a new task (**Insert**)

Cancel and entry (**Esc**)

Clear/reset field (**Ctrl + Delete**)

Fill down (**Ctrl + D**)

Link tasks (**Ctrl + F2**)

Unlink tasks (**Ctrl + Shift + F2**)

Set task to manually schedule
(**Ctrl + Shift + M**)

Set task to manually schedule
(**Ctrl + Shift + A**)

☀ Navigation and Views ☀

Up one Screen (**Page Up**)

Down one Screen (**Page Down**)

Show filtered tasks or resources (**F3**)

Display Field Settings (**Alt + F3**)

Show task or resource information
(**Ctrl + F2**)

Hide subtasks (**Alt + Shift + -**)

Show all tasks (**Alt + Shift + ***)

☀ Formatting ☀

Bold (**Ctrl + B**)

Italics (**Ctrl + I**)

Underline (**Ctrl + U**)

References

Book

Carl Chatfield, Timothy Johnson. (2016). Microsoft Project 2016: Microsoft Project 2016 Step by Step. (First Printing). Redmond, Washington: Microsoft Press.

Website

[https://support.microsoft.com/en-gb/project
ref.customguide.com](https://support.microsoft.com/en-gb/project-ref.customguide.com)



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