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# Tutorial B: Enter a Project Using the Network Diagram in Microsoft Project

## Introduction

In this tutorial we enter a project network with an end to end constraint. We start with the Gantt Chart method of entering activities and finish off with the Network Diagram method.

We then examine ways of copying and moving activities and examine the More Views option.

## Initial Settings

Set the week to start on a Sunday

Set the project start date be 2 July 2017.

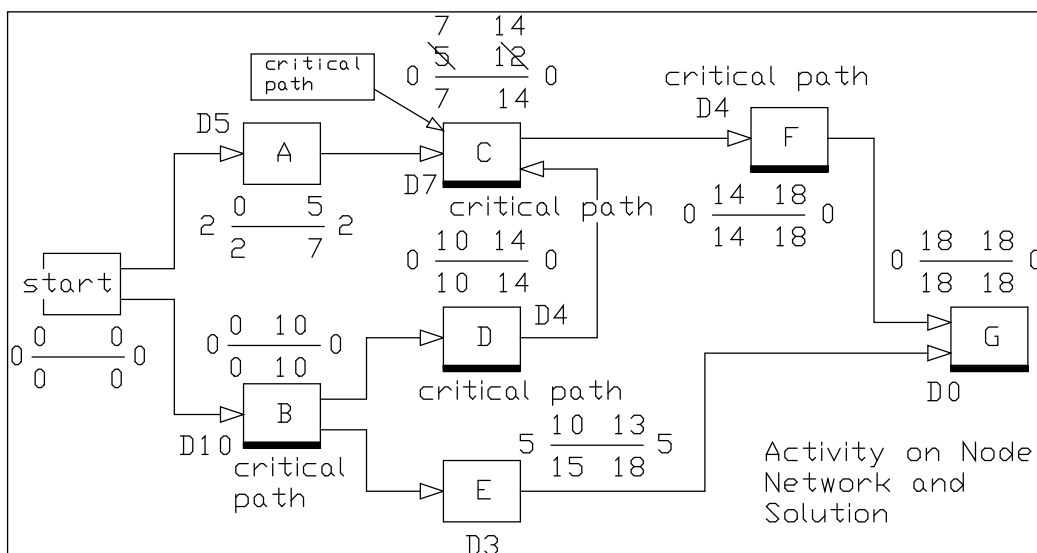
Set the calendar so that there are no weekends or holidays.

These settings will be shown in later section.

## The Project Network Example

The network in this example includes an end to end constraint.

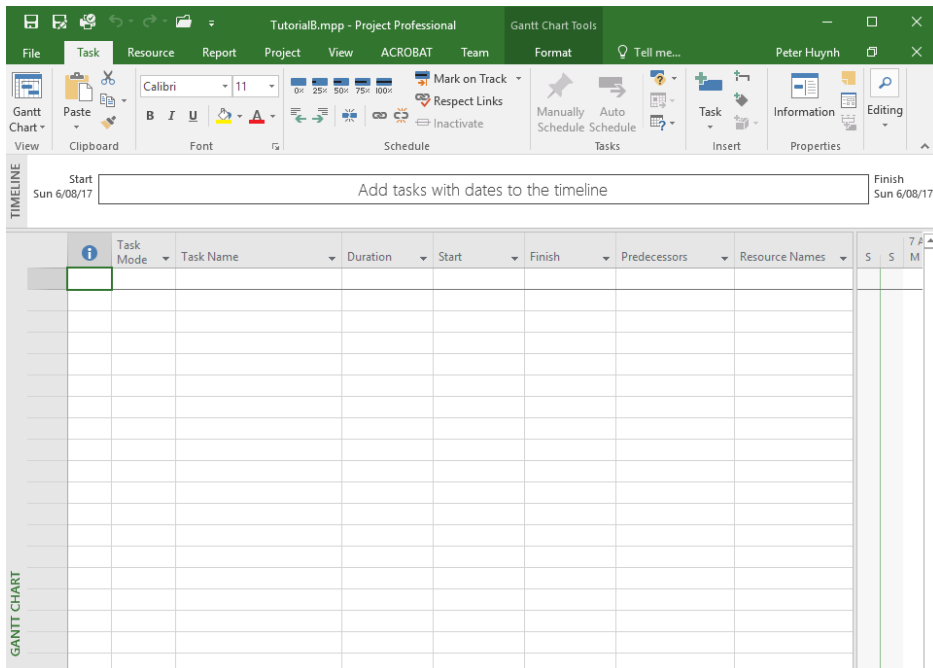
## Activity on Node Network



## Start Microsoft Project

Invoke Microsoft Project 2016

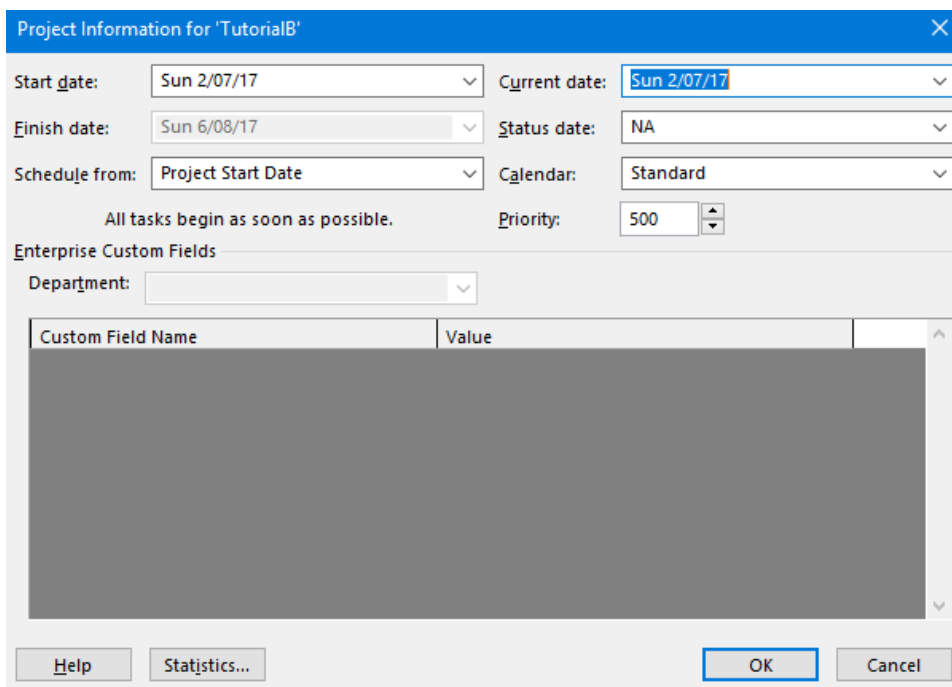
The default name is Project1. Use Save As (File->Save As) to save the project as TutorialB.



## Enter Project Start Date and Calendar

- Click on **Project->Project Information**

Ensure both the current date and start date are on 2 July 2017.



## Make a project calendar

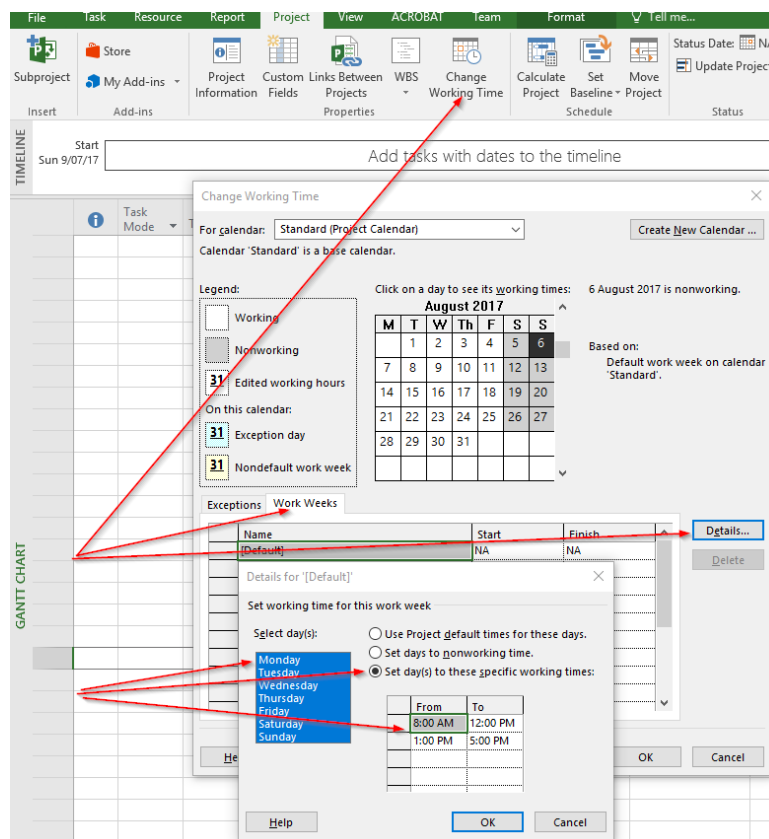
Set the calendar for July and August 2017 so that there are no weekends or holidays.

### Steps

1. Click on **Project->Change Working Time**
2. From **Change Working Time** dialog, click **Work Weeks** tab
3. Click **Details...** button
4. From the **Details for '[Default]'** dialog, highlight all days (under **Select day(s):** section), then select **"Set day(s) to these specific working times:"**

In the table, enter as following:

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



## Enter activities START, A, B and C

Enter activities using the Gantt chart graphical method.

## Enter START, A, B and C details

Task Name	Duration
START	0
Activity A	5 days
Activity B	10 days
Activity C	7 days


- When you enter text into a field you are typing into the text entry window. Press the Enter key to finish text entry for the field

Task Name	Duration	Start	Finish	Predecessors	Resource Names
START	0 days	Sun 2/07/17	Sun 2/07/17		

- Enter the rest of the tasks from the table above
- Select all tasks and click on Auto Schedule, the dates will be adjusted automatically

Task Name	Duration	Start	Finish
START	0 days	Sun 2/07/17	Sun 2/07/17
ACTIVITY A	5 days	Sun 2/07/17	Thu 6/07/17
ACTIVITY B	10 days	Sun 2/07/17	Tue 11/07/17
ACTIVITY C	7 days	Sun 2/07/17	Sat 8/07/17

## Link activity START to ACTIVITY B

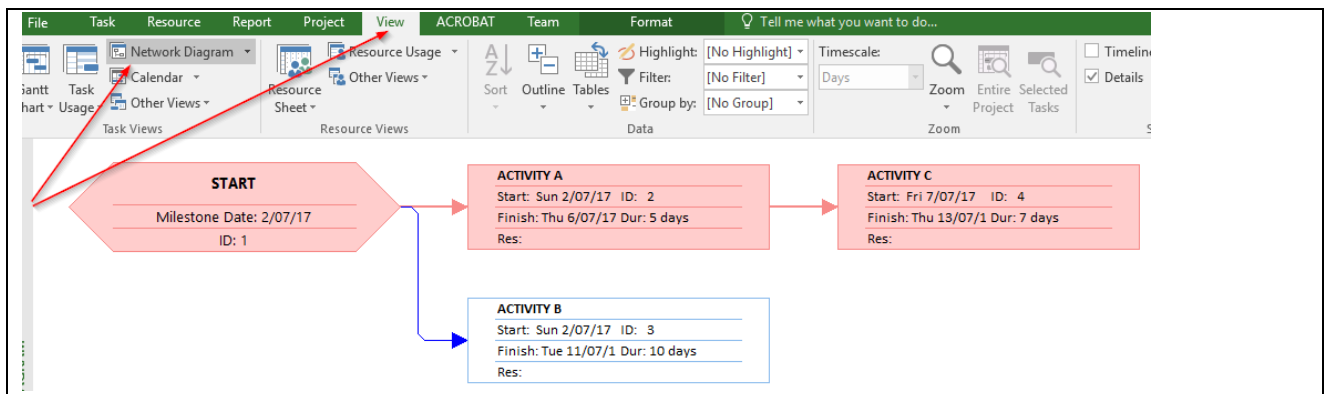
On the Gantt Chart panel, click on the activity START  click here and drag the mouse down and drop on the ACTIVITY A bar

Repeat the same procedure as above to link activity START to ACTIVITY B and ACTIVITY A to ACTIVITY C. Your diagram should look like the diagram below

Task Name	Duration	Start	Finish	Pred
START	0 days	Sun 2/07/17	Sun 2/07/17	
ACTIVITY A	5 days	Sun 2/07/17	Thu 6/07/17	1
ACTIVITY B	10 days	Sun 2/07/17	Tue 11/07/17	1
ACTIVITY C	7 days	Fri 7/07/17	Thu 13/07/17	2

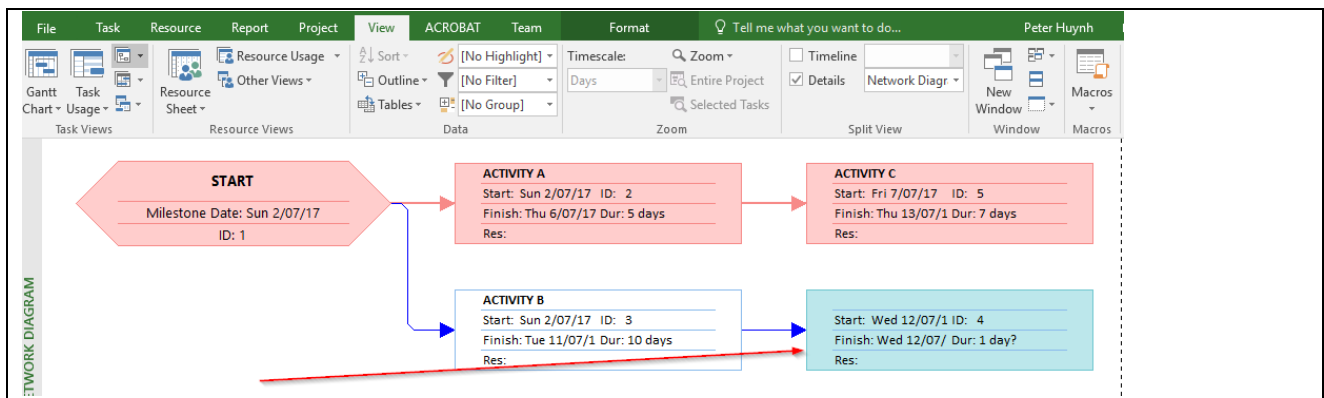
## Enter activities D, E, F and G using the Network Diagram method

- Highlight all tasks (row 1 to 4)
- Click View->Network Diagram (within Task View group)->Network Diagram



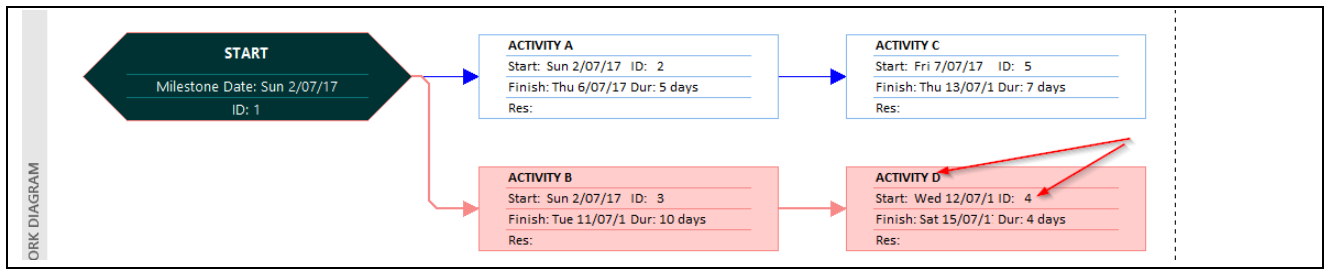
### Make ACTIVITY D and link it to ACTIVITY B

- Click on ACTIVITY B box and hold down the mouse key
- Release the mouse button when the cursor is in position for ACTIVITY D. The box for ACTIVITY D is created with no name and default duration of 1 day. Its default relationship to ACTIVITY B is finish to start.
- Move the mouse pointer over the new activity, without pressing the button, to see the details of the new activity.



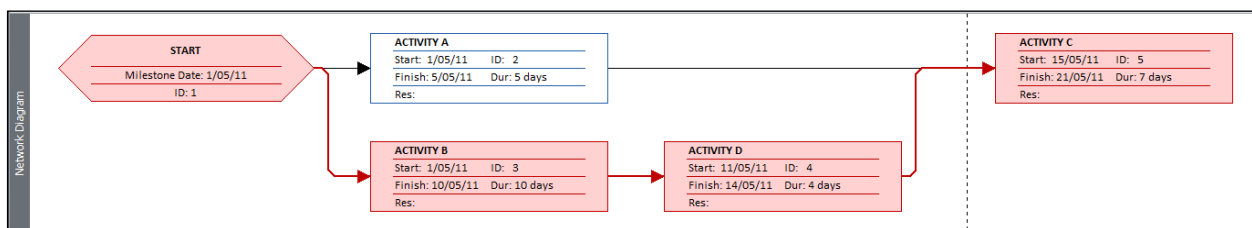
### Enter ACTIVITY D details

- Click Task Name and enter ACTIVITY D
- Click Duration and enter Duration 4




### Link ACTIVITY D to ACTIVITY C

- Select ACTIVITY D and drag and drop on top of ACTIVITY C box. This creates a default Finish-to-Start relationship between ACTIVITY D and ACTIVITY C.



The next step is to change the Finish-to-Start relationship between D and C into a Finish-to-Finish relationship.

- Double click on the arrow  linking the boxes for activities D and C. Select Finish-to-Finish from the list and then press OK button.

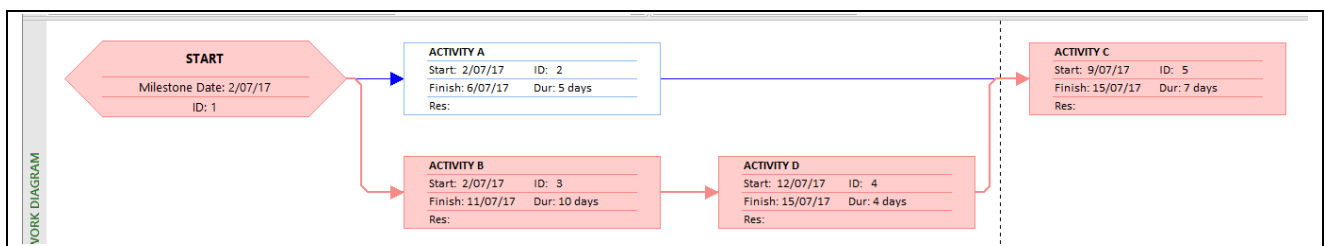
Task Dependency

From: ACTIVITY D  
To: ACTIVITY C

Type: **Finish-to-Finish (FF)**  
 Finish-to-Start (FS)  
 Start-to-Start (SS)  
 Finish-to-Finish (FF)  
 Start-to-Finish (SF)  
 (None)

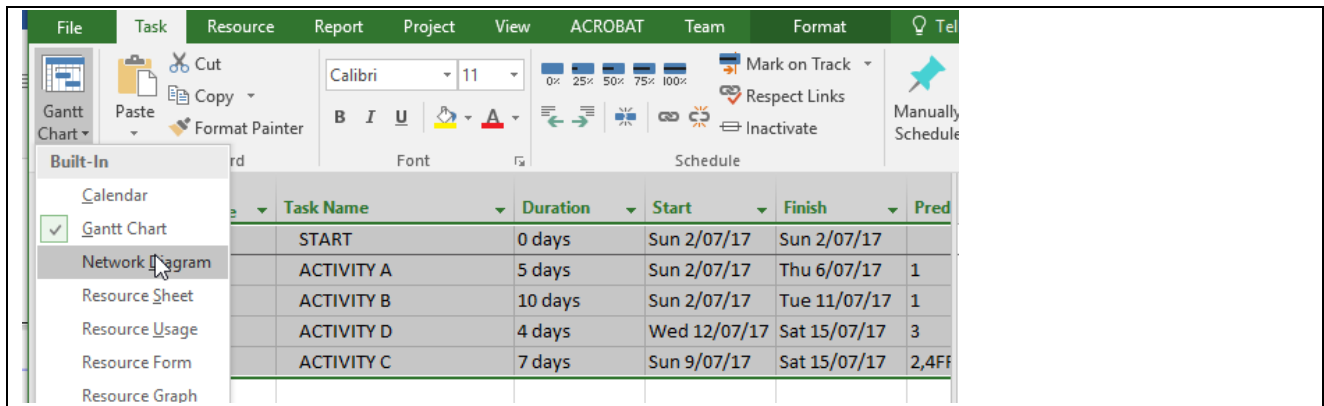
Lag: 0d

Cancel

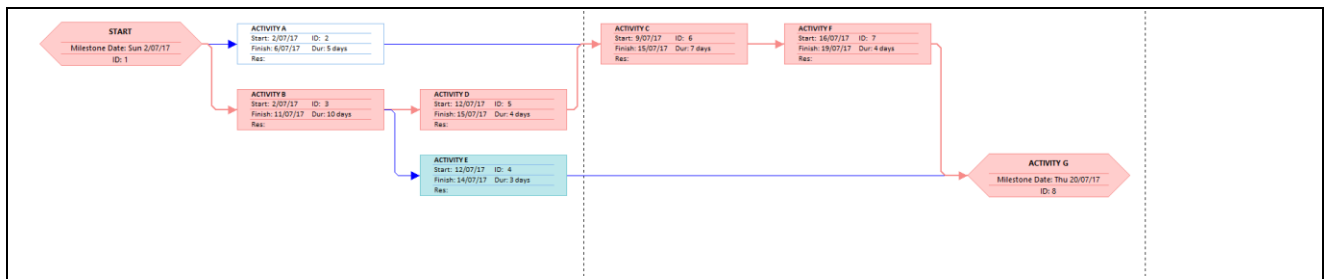


## Enter remaining activities

Go back to Gantt Chart, highlight all existing tasks and select Network Diagram from the Task->Gantt Chart list:

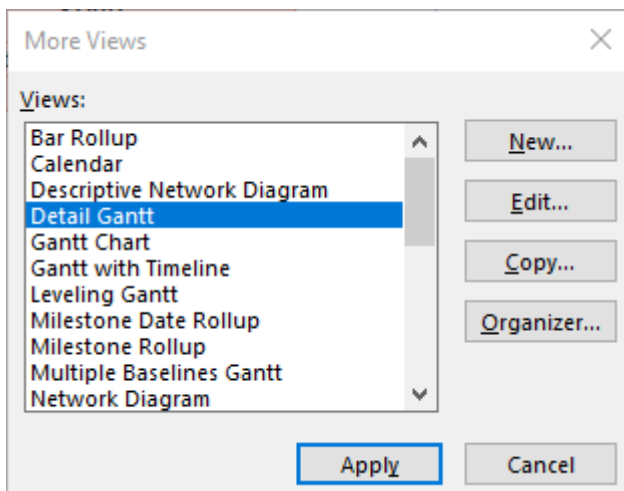


Refer back to the network diagrams and enter remaining activities using the Network Diagram method.

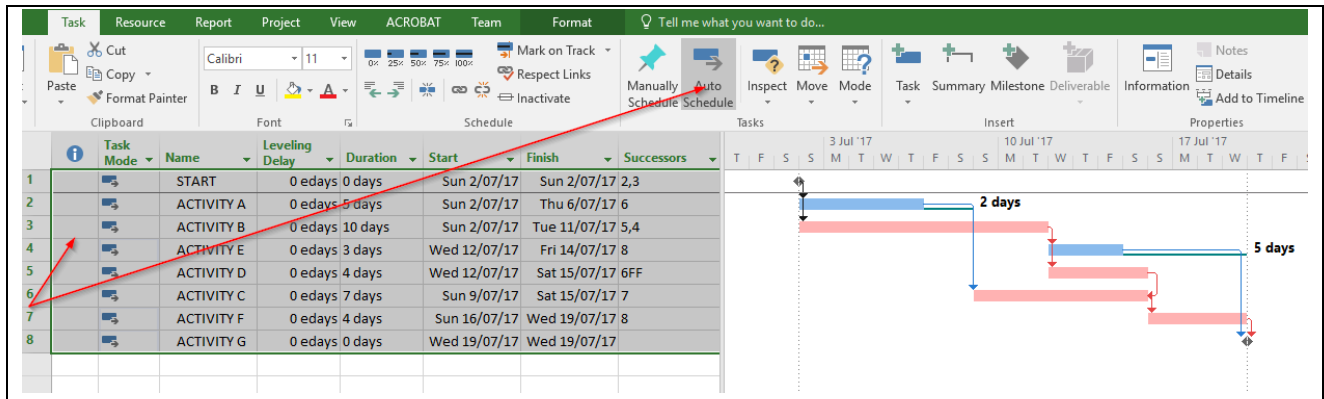


## Examine Detail Gantt Chart

- Click on **View->Other Views->More Views (within Resource View group)**
- Select **Detail Gantt** and click **Apply**
- Select all tasks and click on **Task->Auto Schedule**







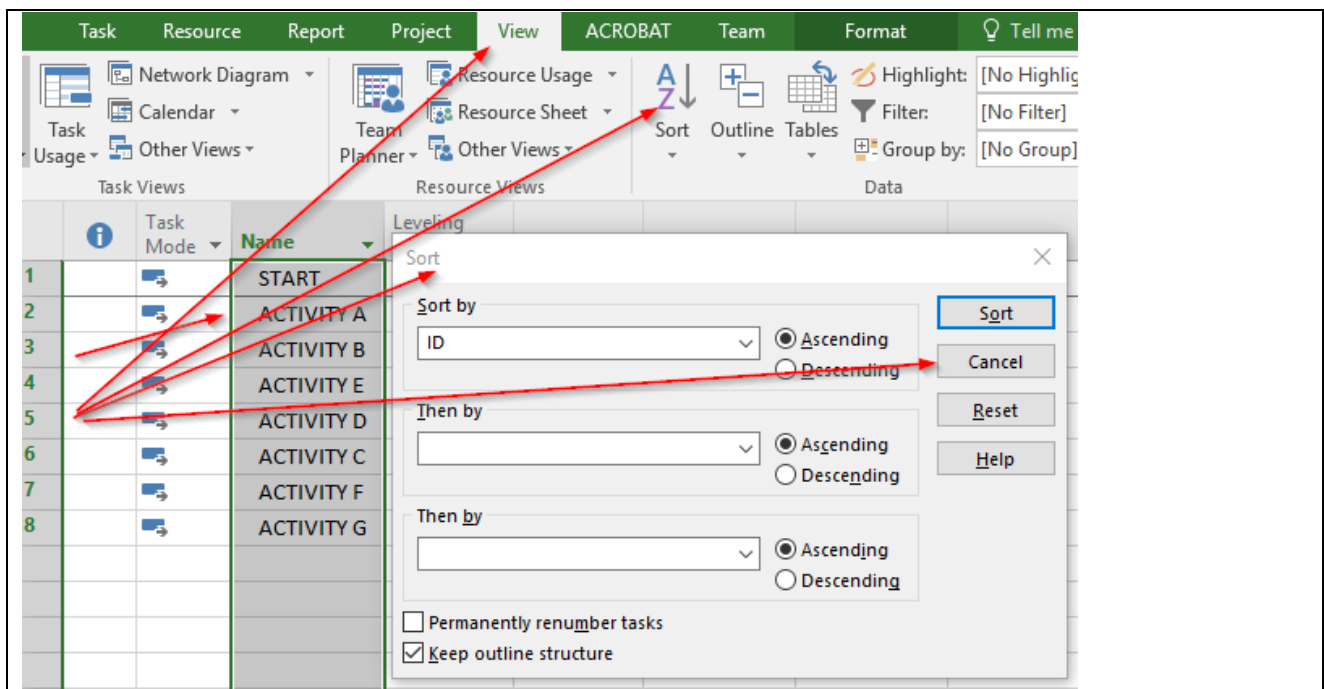
## Save the project

- Click on **File->Save**. Follow the prompts and save the project.

## Moving, Copying and Reordering Activities

### Reordering Activities

- Highlight the **Name** column in the Task Panel
- Click on **View->Sort By...**



- Examine the **Sort** window. Once finished, click on **Cancel** button to go back to previous screen

## Make an empty row between activities B and E

- Highlight row 4 and select Insert Task to insert a new task (row).

	i	Task Mode	Name	Leveling Delay	Duration	Start	Finish	Successors
1		Calibri	11	0 edays	0 days	Sun 2/07/17	Sun 2/07/17	2,3
2				0 edays	5 days	Sun 2/07/17	Thu 6/07/17	6
3				0 edays	10 days	Sun 2/07/17	Tue 11/07/17	5,4
4			ACTIVITY E	0 edays	3 days	Wed 12/07/17	Fri 14/07/17	8
5			ACTIVITY D	0 edays	4 days	Wed 12/07/17	Sat 15/07/17	6FF
6			ACTIVITY C	0 edays	7 days	Sun 9/07/17	Sat 15/07/17	7
7			ACTIVITY F	0 edays	4 days	Sun 16/07/17	Wed 19/07/17	8
8			ACTIVITY G	0 edays	0 days	Wed 19/07/17	Wed 19/07/17	

	i	Task Mode	Name	Leveling Delay	Duration	Start	Finish	Successors
1			START	0 edays	0 days	Sun 2/07/17	Sun 2/07/17	2,3
2			ACTIVITY A	0 edays	5 days	Sun 2/07/17	Thu 6/07/17	7
3			ACTIVITY B	0 edays	10 days	Sun 2/07/17	Tue 11/07/17	6,5
4			<New Task>	0 edays				
5			ACTIVITY E	0 edays	3 days	Wed 12/07/17	Fri 14/07/17	9
6			ACTIVITY D	0 edays	4 days	Wed 12/07/17	Sat 15/07/17	7FF
7			ACTIVITY C	0 edays	7 days	Sun 9/07/17	Sat 15/07/17	8
8			ACTIVITY F	0 edays	4 days	Sun 16/07/17	Wed 19/07/17	9
9			ACTIVITY G	0 edays	0 days	Wed 19/07/17	Wed 19/07/17	

- Undo what you just did by clicking on **Undo** icon or press **<Ctrl>+Z**

## Move activity C to between B and E

- Click on row ACTIVITY C
- Drag ACTIVITY C and release it between row ACTIVITY B and ACTIVITY E

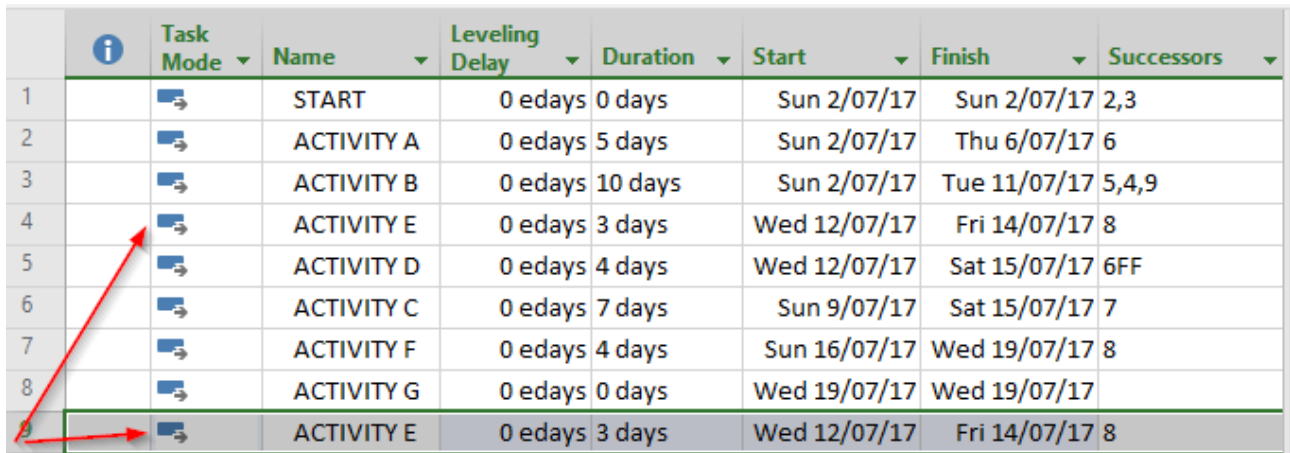
	i	Task Mode	Name	Leveling Delay	Duration	Start	Finish	Successors
1			START	0 edays	0 days	Sun 2/07/17	Sun 2/07/17	2,3
2			ACTIVITY A	0 edays	5 days	Sun 2/07/17	Thu 6/07/17	6
3			ACTIVITY B	0 edays	10 days	Sun 2/07/17	Tue 11/07/17	5,4
4			ACTIVITY C	0 edays	7 days	Sun 9/07/17	Sat 15/07/17	7
5			ACTIVITY E	0 edays	3 days	Wed 12/07/17	Fri 14/07/17	8
6			ACTIVITY D	0 edays	4 days	Wed 12/07/17	Sat 15/07/17	4FF
7			ACTIVITY F	0 edays	4 days	Sun 16/07/17	Wed 19/07/17	8
8			ACTIVITY G	0 edays	0 days	Wed 19/07/17	Wed 19/07/17	

- Undo what you just did by clicking on **Undo** icon or press **<Ctrl>+Z**











A copy follows the same procedure but press and hold down the Control key while dragging the mouse.

A copy means that the original row is duplicated in the new position rather than moved to the new position. Links between tasks are copied.

- Select row ACTIVITY E and press Copy button (or right-click to select Copy)
- Highlight row 9, and press Paste button (or right-click to select Paste)
- ACTIVITY E will be copied with maintaining links



The screenshot shows a table with 9 rows. Row 4 contains 'ACTIVITY E' with a duration of 3 days, starting on Wed 12/07/17 and finishing on Fri 14/07/17. Row 9 is highlighted and also contains 'ACTIVITY E' with the same details. A red arrow points from row 4 to row 9, indicating a copy-paste action. The table has columns for Task Mode, Name, Leveling Delay, Duration, Start, Finish, and Successors.

		Task Mode ▾	Name ▾	Leveling Delay ▾	Duration ▾	Start ▾	Finish ▾	Successors ▾
1			START	0 edays	0 days	Sun 2/07/17	Sun 2/07/17	2,3
2			ACTIVITY A	0 edays	5 days	Sun 2/07/17	Thu 6/07/17	6
3			ACTIVITY B	0 edays	10 days	Sun 2/07/17	Tue 11/07/17	5,4,9
4			ACTIVITY E	0 edays	3 days	Wed 12/07/17	Fri 14/07/17	8
5			ACTIVITY D	0 edays	4 days	Wed 12/07/17	Sat 15/07/17	6FF
6			ACTIVITY C	0 edays	7 days	Sun 9/07/17	Sat 15/07/17	7
7			ACTIVITY F	0 edays	4 days	Sun 16/07/17	Wed 19/07/17	8
8			ACTIVITY G	0 edays	0 days	Wed 19/07/17	Wed 19/07/17	
9			ACTIVITY E	0 edays	3 days	Wed 12/07/17	Fri 14/07/17	8

- Undo what you just did by clicking on Undo icon or press <Ctrl>+Z