



MS-project training  
for Epicflow users  
*The basics*

October 2020

# Agenda first session

- Creating an MSP plan, the basics
- Working with MSP resource pool
- Uploading files to Epicflow
- Using Your MSP template
- Discussing homework for second training

# Creating an MSP plan

*the basics*

# You will learn

- Define tasks and relations in MSP.
- Make a detailed plan with milestones, resources, work estimations, relations.
- Use the wiki help pages.

# The Wiki page

How can we help?

Search the knowledge base...

## Help Topics



### My account

- How to create account for new users
- Logging In and Personal Settings
- Log in via Mobile App
- Change Your Account Email Address



### Manage resources

- Resource management overall overview
- Manage Groups



### Training and Exercises

- Exercise files



### Integration with external systems

- Planning prerequisites
- MS-Project basics
- Integration with MS Project
- Integration with Jira
- Integration with CSV File
- Working with multiple external systems
- MSP Plug-in installation



### Manage the projects

- Pipeline overall overview
- Manage Milestones

### Popular Articles

- Integration with MS Project
- MS-Project basics
- How to create account for new users
- Planning prerequisites
- Logging In and Personal Settings

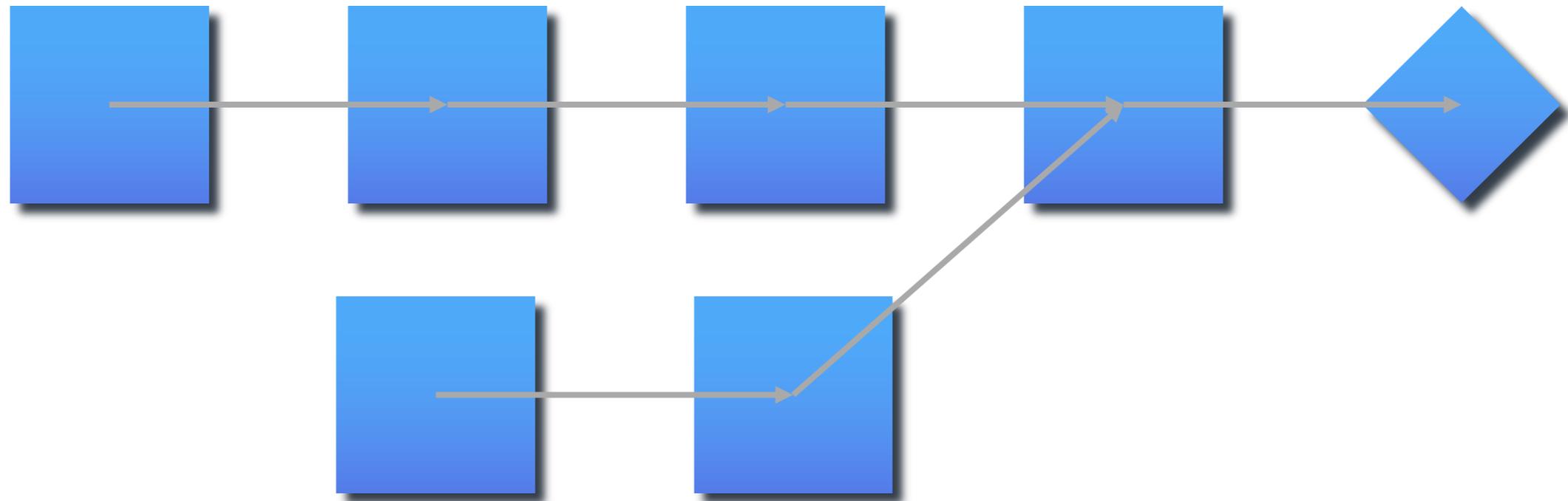
### Need Support?

Can't find the answer you're looking for? Don't worry we're here to help!

CONTACT SUPPORT

link: [wiki.epicflow.com](https://wiki.epicflow.com)

# Minimum prerequisites

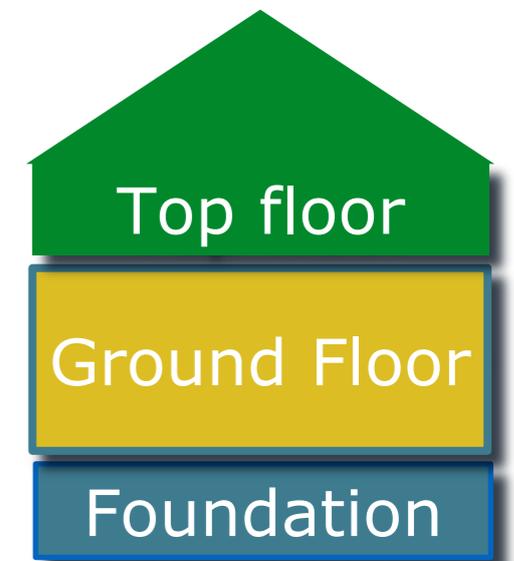


Order of tasks,  
Role or resource group,  
Rough estimation of work,  
Delivery date.

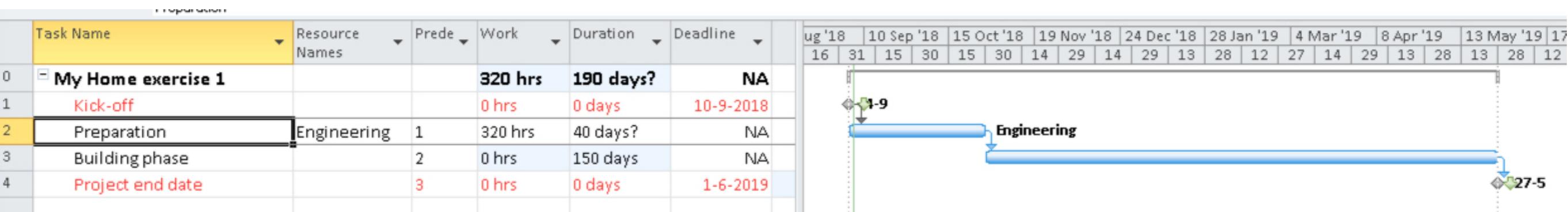
See Wiki: [Integration with External Systems > Planning prerequisites](#)

# Build a house:overview

- Download training files at wiki: Training and Exercises > exercise files
- Store the files at a shared File location  
See Wiki: [Integration with MS Project > Shared file location](#)
- Open “Epicflow Build a house exercise start.mpt” and:
  - Change Task name at line 0 to <Your names>-house.mpp
  - Save file as <Your names>-house.mpp



- At the start your project looks like this:



# Build a house: overview

- Goal is to create a project plan to build a house:
  - Foundation
  - Ground floor
  - Top floor
- We will use Wiki: [MS-Project basics > Defining tasks](#)
- You learn how to add these tasks as details of the Building phase.



# Build a house: Add tasks

- Create the 3 tasks by:
  - Inserting 3 tasks below the building phase task.  
See Wiki: [Defining Tasks > Creating a new task](#)
  - Type task names.
  - Indent the 3 new tasks.  
See Wiki: [Defining Tasks > Adding the Summary tasks](#)



Screenshot of the EpicFlow Gantt software interface showing a task list and a Gantt chart.

**Task List:**

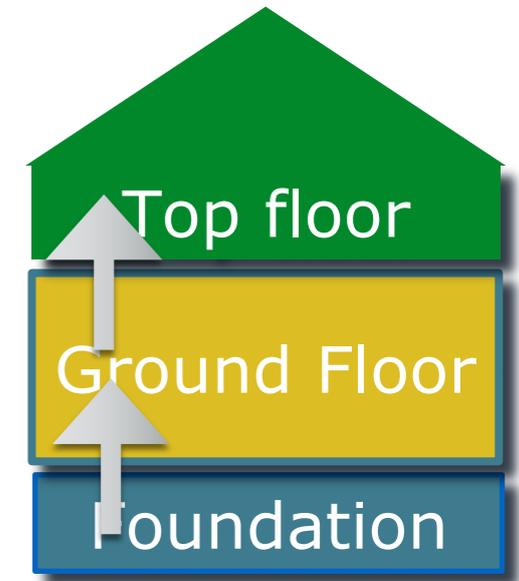
Task ID	Task Name	Level	Work	Duration	Deadline
0	My Home exe		320 hrs	41 days?	NA
1	Kick-off		0 hrs	0 days	10-9-2018
2	Preparation		320 hrs	40 days?	NA
3	Building phase	2	0 hrs	1 day?	NA
4	Foundation		0 hrs	1 day?	NA
5	Ground Floor		0 hrs	1 day?	NA
6	Top Floor		0 hrs	1 day?	NA
7	Project end date	3	0 hrs	0 days	1-6-2019

**Tooltip: Indent Task (Alt+Shift+Right)**  
 Indent the selected tasks one level at a time.  
 When you indent a task, it becomes a subtask of the nearest preceding task at a higher level in the task list.

**Gantt Chart:** Shows a task bar for 'Engineering' starting on 10 Sep '18 and ending on 30-10. A dependency arrow points from the end of the 'Engineering' task to the start of the 'Project end date' task.

# Build a house: Add relations

- Add relations between tasks:
    - Drag relations by hand by clicking on task bar
      - \* The bars have default a length one day, you can make them bigger by typing 20 days in the duration column. This makes it easier to drag and you can adjust it later.
    - Or use predecessor column and type task ID.
    - Optionally you can also use the successor column.
- See Wiki: [Defining Tasks > Defining task relations](#)

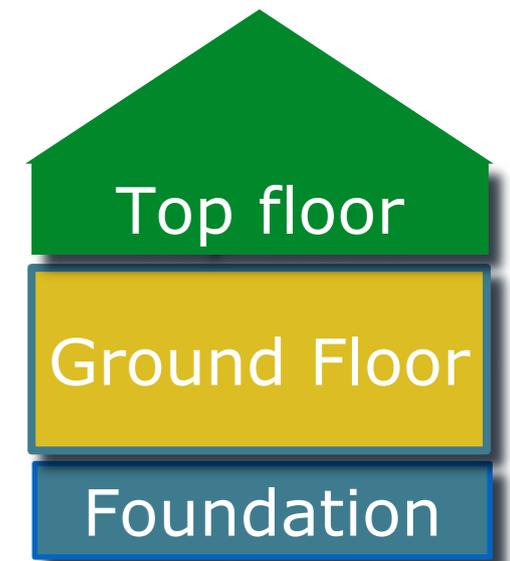


Task Name	Resource Names	Pred	Work	Duration	Deadline	Aug '18	10 Sep '18	15 Oct '18	19 Nov '18	24 Dec '18	28 Jan '19						
<b>My Home exercise 1</b>			<b>320 hrs</b>	<b>100 days?</b>	<b>NA</b>	16	31	15	30	15	30	14	29	14	29	13	28
<b>Kick-off</b>			0 hrs	0 days	10-9-2018												
Preparation	Engineering	1	320 hrs	40 days?	NA												
<b>Building phase</b>		2	<b>0 hrs</b>	<b>60 days</b>	<b>NA</b>												
Foundation			0 hrs	20 days	NA												
Ground floor		4	0 hrs	20 days	NA												
Top floor		5	0 hrs	20 days	NA												
<b>Project end date</b>		3	0 hrs	0 days	1-6-2019												

The Gantt chart visualizes the project schedule. The 'Engineering' task (ID 1-9) is a long blue bar starting at the beginning of the project. Below it, the 'Building phase' is shown as a series of four shorter blue bars, each representing a task: Foundation, Ground floor, Top floor, and Project end date. Arrows indicate dependencies: the Engineering task is a predecessor for the Foundation task, and each subsequent building task is a successor to the previous one. The project end date is marked with a diamond at the end of the timeline.

# Build a house: Add Resources

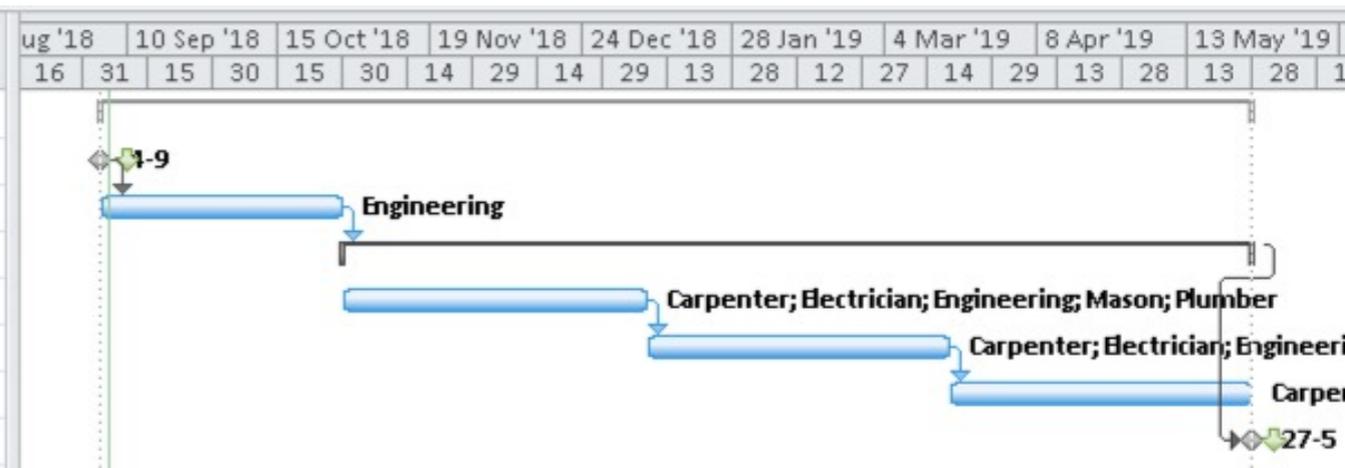
- Check which resources there are available: menu View-> Resource sheet.
- Go back to Gantt: View -> Gantt chart  
See Wiki: [MS-Project Basics > Gantt, Network and Resource view](#)
- For the new tasks:
  - Select names from dropdown list in "resource names column".
  - add to at least one task multiple resources to one task: The plumber, mason, carpenter and electrician  
See Wiki: [Defining Tasks > Assigning Resources](#)



# Build a house: the end result

- The end result of first exercise looks like this:

	Task Name	Resource Names	Prede	Work	Duration	Deadline
0	<b>My Home exercise 1</b>			<b>1.820 hrs</b>	<b>190 days?</b>	<b>NA</b>
1	Kick-off			0 hrs	0 days	10-9-2018
2	Preparation	Engineering	1	320 hrs	40 days?	NA
3	<b>Building phase</b>		2	<b>1.500 hrs</b>	<b>150 days</b>	<b>NA</b>
4	Foundation	Carpenter;Elec		500 hrs	50 days	NA
5	Ground Floor	Carpenter;Elec	4	500 hrs	50 days	NA
6	Top Floor	Carpenter;Elec	5	500 hrs	50 days	NA
7	Project end date		3	0 hrs	0 days	1-6-2019



# Build a house: Add Estimations

- Add a rough estimation in the “work” column e.g. 100 hrs.
- Open the split window below: View -> Details.
- Play with the units, work duration, task type in the split window. Try to discover the relations.
- Set the task type back to “Fixed work”.  
See Wiki: [Defining Tasks > Defining work hours](#)

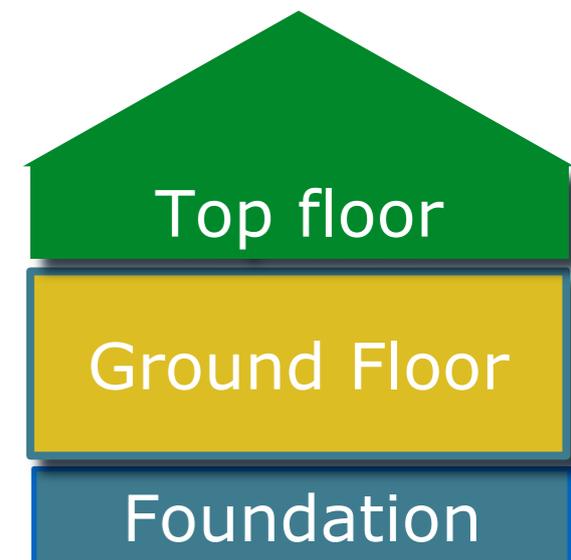
The screenshot displays the Microsoft Project interface. At the top, a summary bar shows a total of 160 hours. Below it is a task list table with columns for Resource Names, Predecessors, Work, Duration, Deadline, and Start. Task 4, 'Foundation', is highlighted in yellow and has a work value of 160 hrs and a duration of 48,75 days. To the right, a Gantt chart shows task bars for 'Engineering', 'Carpenter; Electrician[20%]; Engineering; Mason[40]', and 'Carpenter; Electrician; E'. A split window for the 'Foundation' task is open at the bottom, showing task details and a resource breakdown table.

ID	Resource Name	Units	Work	Ovt. Work	Baseline Work	Act. Work	Rem. Work
2	Carpenter	100%	50h	0h	0h	0h	50h
3	Electrician	20%	10h	0h	0h	0h	10h
1	Engineering	100%	30h	0h	0h	0h	30h
5	Mason	40%	10h	0h	0h	0h	10h
4	Plumber	100%	60h	0h	0h	0h	60h

On the right side of the split window, there is a green arrow pointing to the 'Top floor' label, a yellow arrow pointing to the 'Ground Floor' label, and a blue arrow pointing to the 'Foundation' label.

# Build a house: Save your file

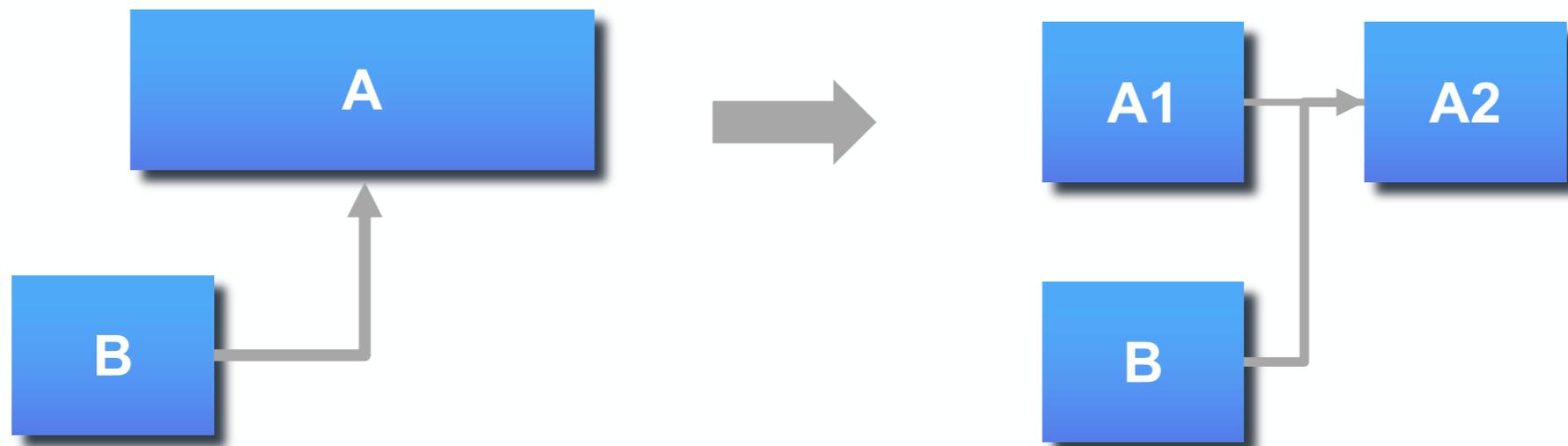
- Forget all the other settings you made in the split window, in Epicflow we only look at “Work” and “remaining work”. Regardless the mess you made with duration and units.
- If you like you can change the length of the bars and stretch them till the delivery date of the 1st of June 2019, the date you see in the deadline column.  
Epicflow only looks at the work related to the task.
- Give your project a title (on line 0).  
See Wiki: [Defining Project Settings > Project Title](#)
- Optionally define the name of the project manager.  
See Wiki: [Defining Project Settings > Project Manager](#)
- Save your file (you can use same name as the title).



# Detail the plan

## exercise 2

# How much detail?



Sufficient details: If B is required during the execution of A, split A into A1 and A2. Meaning: A2 can only start when A1 and B are ready.

# How much detail?



If A1 and A2 have no other successors and A2 and A3 have no other predecessors, these tasks can be replaced by a single task if they are executed by the same resource.

No unnecessary details; unless there is a good reason for it.

Note that a good reason can be the size of the task. For tracking purposes you can decide to break the task up in manageable deliverables.

# Detail the plan

## exercise 2

### General sequence:

1. Add detailed tasks
2. Add relations
3. Add resources
4. Add work estimation

- The budget specification can be found in excel sheet "Budget & tasks my house.xlsx" (see downloaded files)
- Add new tasks per phase and copy them in.
- Remove the resources from the summary task to prevent double count.
- See Wiki: [MS-Project basics > Defining Tasks](#)

<b>Total budget</b>		<b>1.800 hrs</b>
<b>Preparation</b>		<b>320 hrs</b>
Engineering-construction	Engineering	160 hrs
Engineering-electric	Engineering	160 hrs
<b>Building phase</b>		<b>1.480 hrs</b>
<b>Foundation</b>		<b>560 hrs</b>
Create formwork for concrete	Carpenter	80 hrs
Pooring Concrete	Mason	40 hrs
Remove formwork	Mason	40 hrs
Placing of floor elements	Carpenter	40 hrs
Construction of sewerage	Plumber	120 hrs
Construction waterpipe	Plumber	80 hrs
Construction of main power, glass-fiber	Electrician	160 hrs
<b>Ground floor</b>		<b>440 hrs</b>
Placing of wall elements and ceiling	Carpenter	40 hrs
Brick walls	Mason	160 hrs
Place window and door frames	Carpenter	40 hrs
Create kitchen	Carpenter	80 hrs
Place bathroom	Plumber	40 hrs
Create electricity network	Electrician	40 hrs
Painting	Painter	40 hrs
<b>Topfloor</b>		<b>400 hrs</b>
Placing of wall elements	Carpenter	40 hrs
Brick walls	Mason	160 hrs
Place window and door frames	Carpenter	40 hrs
Place bathroom	Plumber	40 hrs
Create electricity network	Electrician	40 hrs
Painting	Painter	40 hrs
Build roof	Carpenter	40 hrs
<b>Finishing</b>		
Rework and handover to owners	Carpenter	80 hrs

# Task times

Why is it so difficult to answer how long it takes to accomplish a task?

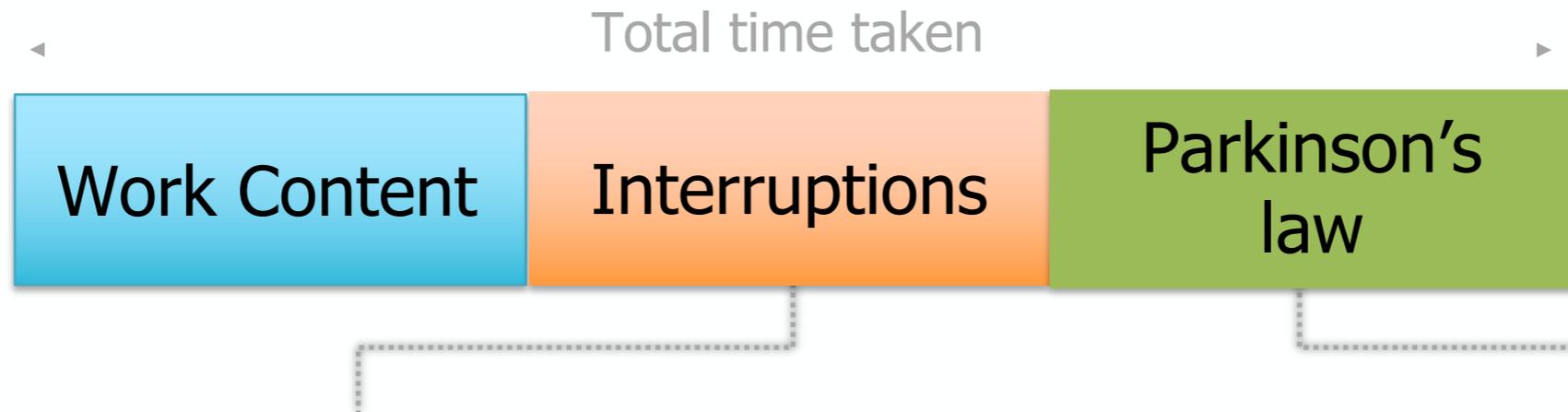
Is it important to know when every task starts and ends?

# Task times & execution losses



- Resources are temporary not available
- Rework
- Delays in approvals and resolving issues
- Information missing
- Materials not available
- Meetings
- Material delays
- Paperwork delays
- High prio unplanned projects
- Change in project priorities, causing trashing
- Mis-communication between departments
- ....

# Task times & execution losses



- Resources are temporary not available
- Rework
- Delays in approvals / Reviews
- Information missing
- Materials not available
- Meetings
- Material delays
- Paperwork delays
- High prio unplanned projects
- Change in project priorities, causing trashing
- Mis-communication between departments
- ....

- Sense of urgency more towards the milestone
- Most completions of work items reported on or after estimated time
- Gold plating / polishing
- Wait till longest task is finished
- Too long tasks
- Student syndrome
- .....

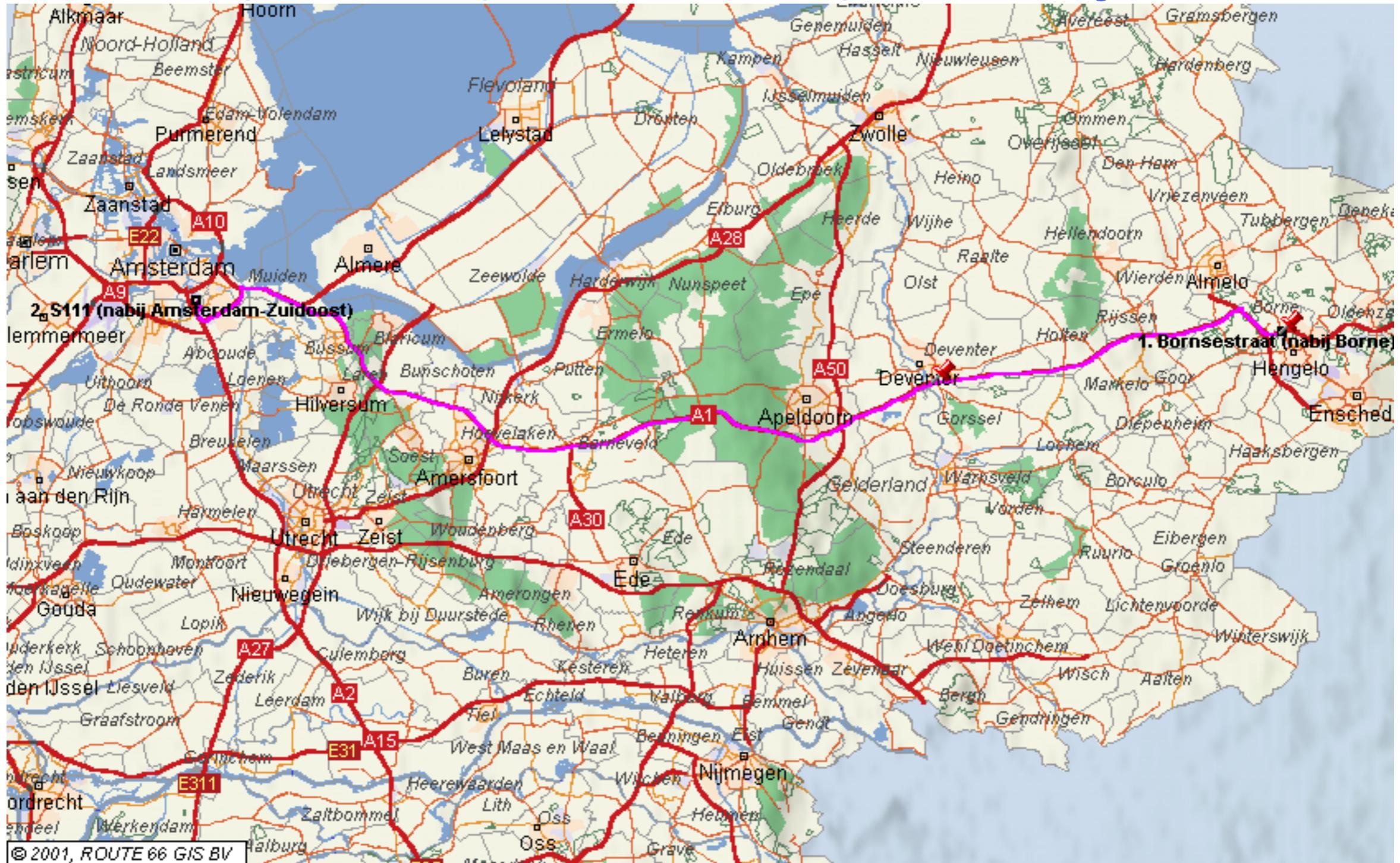
Is it important to know when every task starts and ends?

# A Route Planning

Locatie	Afstand	Aanwijzing	Tellerstand	Tijd
Bornsestraat	140 m	rechtsaf, verder per auto de op-/afrit op	140 m	00:04:08
(A1)	3,5 km	wegnummer wijzigt in A35	3,6 km	00:06:03
(A35)	2,6 km	neem de afslag naar de A1 (E30) richting Deventer, Amsterdam	6,3 km	00:07:16
(A1) 23 Deventer	37,6 km		43,8 km	00:24:51
(A1)	9,8 km	wegnummer wijzigt in A50	53,6 km	00:29:21
(A50)	40 m	wegnummer wijzigt in A1	53,7 km	00:29:23
(A1) 21 Bussloo	1,4 km		55,1 km	00:30:01
(A1)	3,4 km	wegnummer wijzigt in A50	58,4 km	00:31:34
(A50)	40 m	wegnummer wijzigt in A1	58,5 km	00:31:35
(A1) 20 Apeldoorn-Zuid	1,0 km		59,5 km	00:32:03
(A1)	1,2 km	wegnummer wijzigt in A50	60,7 km	00:32:37
(A50)	20 m	wegnummer wijzigt in A1	60,7 km	00:32:37
(A1) 11 Eembrugge	49,1 km		110 km	00:55:12
(A1)	1,8 km	volg de A1 richting Hilversum-Noord, Amsterdam	112 km	00:56:02
(A1) 3 Muiden	20,9 km		133 km	01:05:39
(A1)	3,0 km	neem de afslag naar de A9 richting A'Dam-Zuidoost, Haarlem, Schiphol	136 km	01:07:01
(A9) 2 Bijlmermeer	5,0 km		141 km	01:09:26
(A9)	1,9 km	neem de afslag naar de A2 (E35) richting Amsterdam, Zaanstad	142 km	01:10:19
(A2)	1,4 km	neem afslag 2 naar de S111, richting Ouderkerk Ad Amstel, Duivendrecht	144 km	01:11:08
	380 m	linksaf richting Burgemeester Stramanweg	144 km	01:11:49
Burgemeester Stramanweg	100 m	ga de op-/afrit op naar de S111	144 km	01:12:03
	110 m	linksaf	145 km	01:13:19
	390 m	linksaf naar de S111	145 km	01:17:14
(S111) Holterbergweg	890 m		146 km	01:20:14

# A Route Planning

146 km, 1h20min, ETA 11.00 AM, no traffic jam



# Task times

Which times we want to know?

- When project starts and ends.
- Some crucial delivery dates in the project.

For those moments we add milestones

When are task durations important?

- For durations that are hard to influence. e.g. drying time, order lead-time, processing time external parties, in general: **waiting times**

For those tasks we add Un-Compressible Lead Time (UCLT)

Natural law: every milestone will cost extra effort from the team to meet and management to manage.

# Task times

Add the following milestones:

- Preparation ready
- Foundation ready
- Roof ready

wiki: [MS-Project basics > Defining Tasks > Creating Milestones](#)

Add the following UCLT tasks wiki: "UCLT"

- Ordering goods (4 weeks, prep phase)
- Waiting for building permits (8 weeks)
- Drying time of concrete (4 weeks)

wiki: [MS-Project basics > Defining Tasks > Creating UCLT Task](#)

# Network view

Instead of the Gantt view you can also look at the Network view to see how tasks are related.

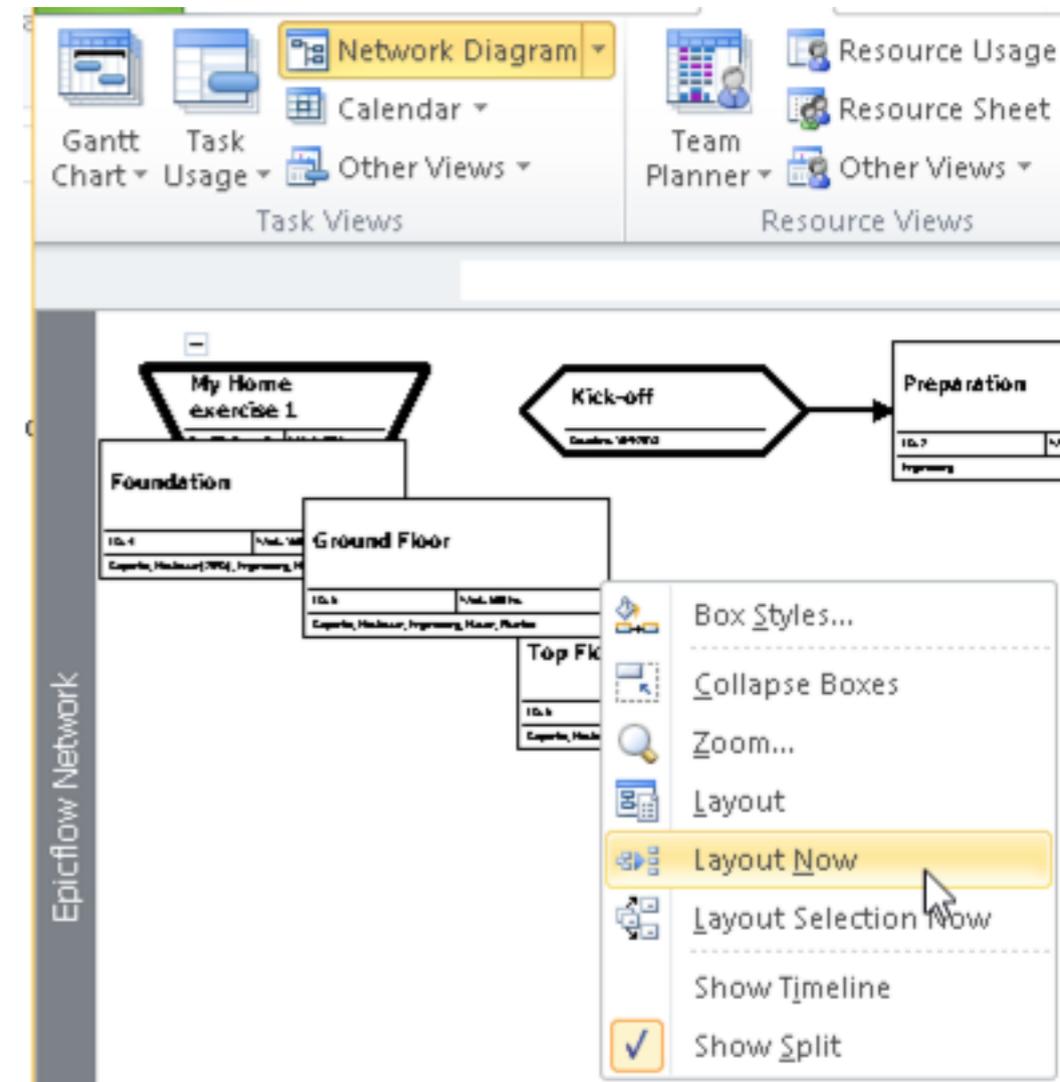
You can view this network by: [wiki: "Network MSP"](#)

- Select View-> Network Diagram (Epicflow Network)
- Right click outside the blocks and select "Lay-out now"
- Check the lay-out, look for summary task and expand and collapse them to see what happens
- Double click on relations, check options and delete a relation
- Create the relation again by click-hold-drag from one task to the other

What happens to the network if the duration changes in the Gantt?

What happens to the network if the task is rescheduled?

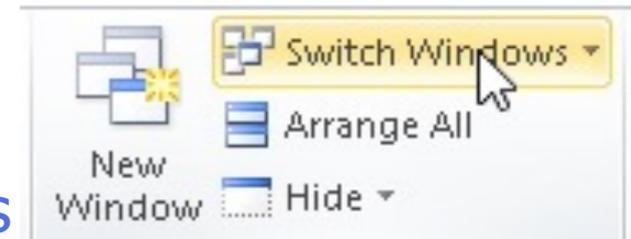
wiki: [Gantt, Network and Resource view > Network Diagram](#)



# Working with MSP resource pool

# Share resource pool

- Open resource sheet of your project file again. Here you see only the resource related to this project.
- Open "Epicflow Resource pool Training v1.mpp" (does not matter if it is in read only or read-write mode)
- Switch to your project file. View->Switch window
- Go to Resources->Resource pool->Share Resources
- Select Use Resources From "Epicflow Resource pool Training v1.mpp"  
wiki: [Defining the resource pool>Connect to Resource Pool](#)



The screenshot shows the Microsoft Project interface with the Resource Sheet view. The 'Share Resources' dialog box is open, showing the following options:

- Resources for 'Epicflow Project Build a house.mpp'
- Use own resources
- Use resources (requires at least one open resource pool)
- From: Epicflow Resource pool Training.mpp
- On conflict with calendar or resource information:
  - Pool takes precedence
  - Sharer takes precedence

The Resource Sheet table below shows the task details:

Task ID	Task Name	Resource Names	Predecessor	Work	Duration	Start
0	My Home			2.400 hrs	165 days	10-9-2018
1	Kick-off			0 hrs	0 days	10-9-2018
2	Preparation		1	800 hrs	60 days	10-9-2018
3	Engineering-construction	Engineering		160 hrs	20 days	10-9-2018
4	Engineering-electric	Engineering	3			
5	Wait for Permits	UCLT	3			
6	Ordering goods	UCLT	3			
7	Preparation finished		2			
8	Foundation		7			
9	Create form work for concrete	Carpenter				
10	Pouring Concrete	Mason	9			
11	Concrete drying time	UCLT	10			
12	Remove form work	Mason	11			
13	Placing of floor elements	Carpenter	12			
14	Construction of roof	Plumber				

# The resource pool

In the Resource Sheet of your project File you can now see all resources from the resource pool.

Every Resource group has now resources in its group.

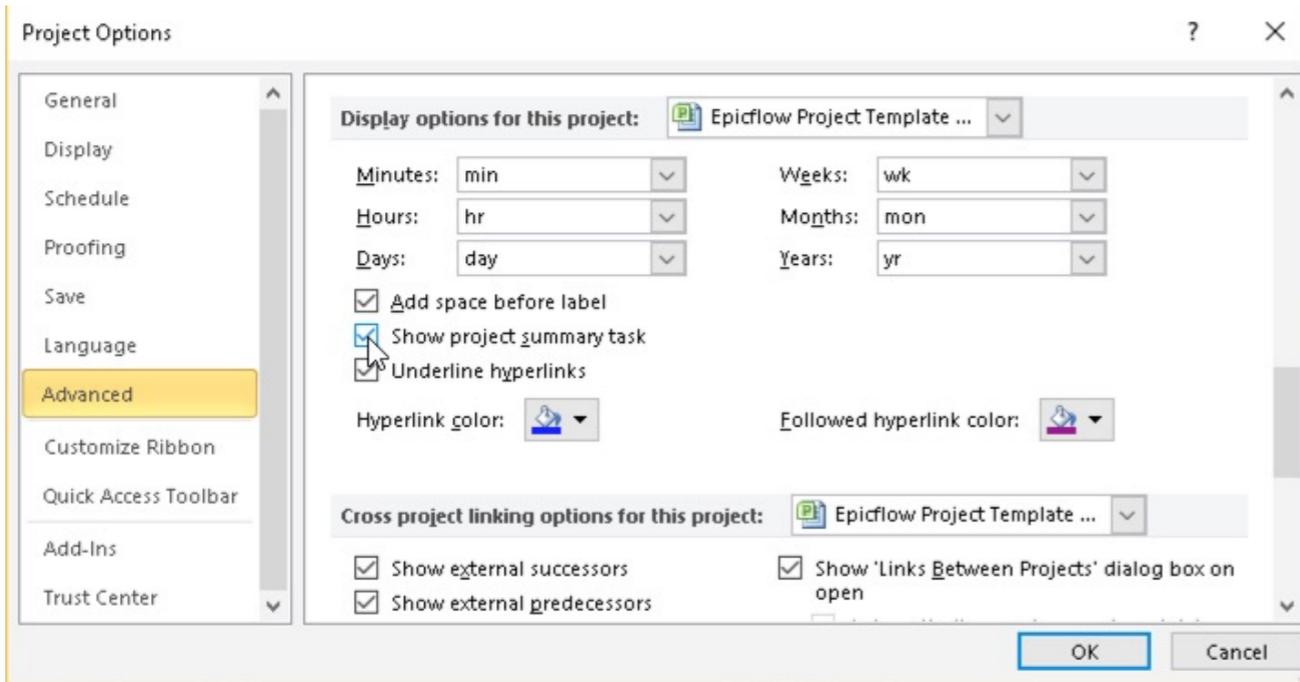
MSP does not support assignment to resource groups. That's why we create a special resource that.

## Columns:

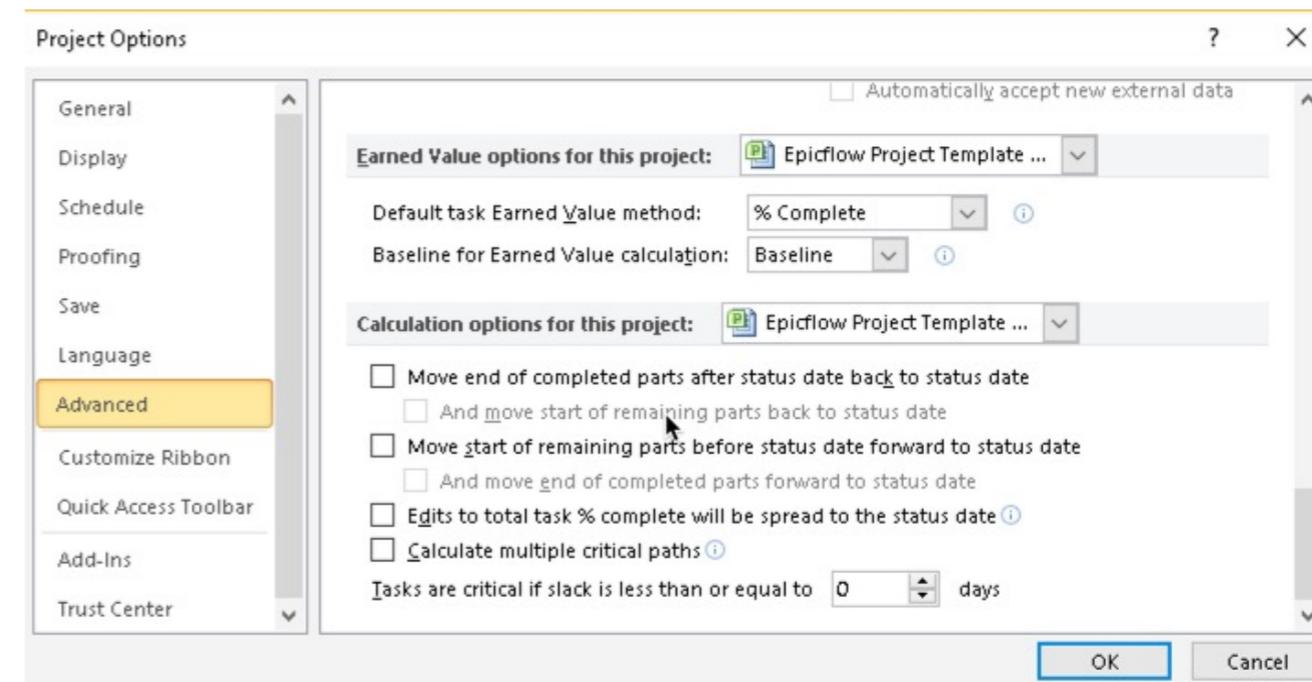
- R & G (Epicflow custom field):  
R=Resource, G=Group
- Parent (Epicflow custom field):  
Tells a resource to which group it belongs
- Unique ID: MSP field that identifies resource, strange thing that it changes when you close the resource pool.  
[wiki: Gantt, Network and Resource view > Resource Sheet](#)

	Un ID	Name	Group	R or G	Type
1	2	ResourceGroupNam	ResourceGroupName1	G	Work
2	3	ResourceName1	ResourceGroupName1	R	Work
3	4	ResourceName2	ResourceGroupName1	R	Work
4	5	ResourceGroupNam	ResourceGroupName2	G	Work
5	6	ResourceName1	ResourceGroupName2	R	Work
6	7	ResourceName2	ResourceGroupName2	R	Work
7	8	UCLT	UCLT	G	Work

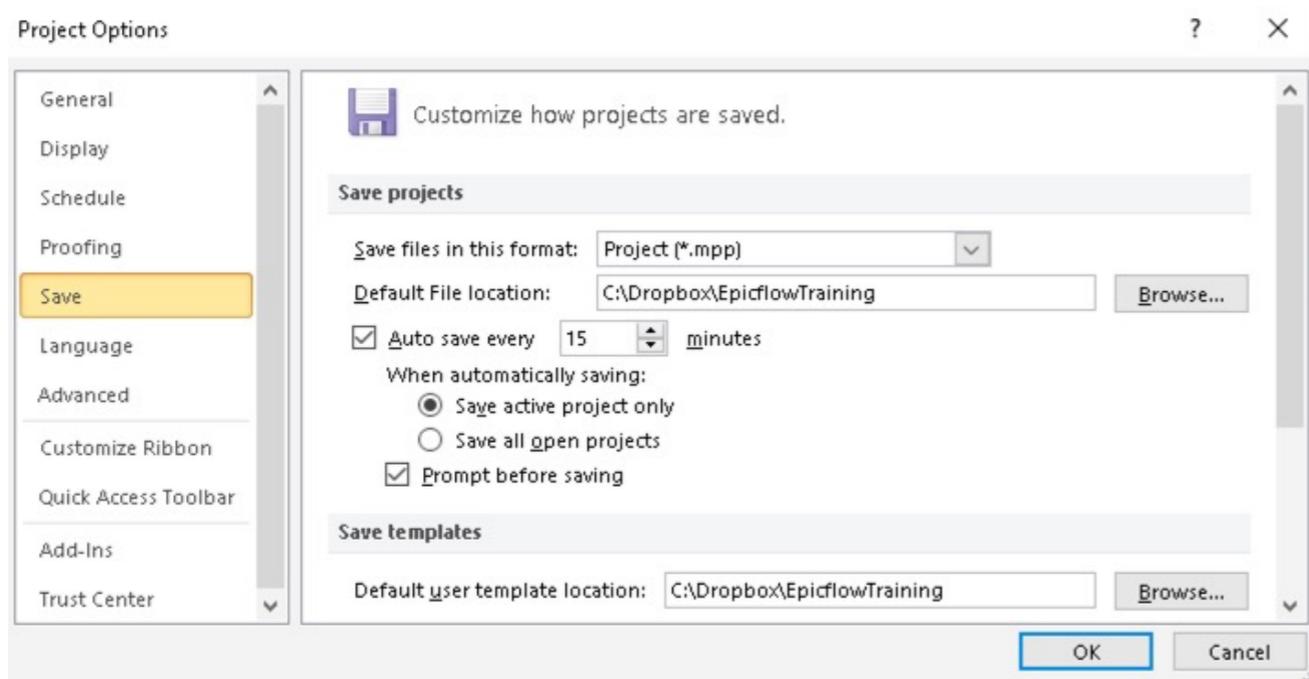
# MS-project Config



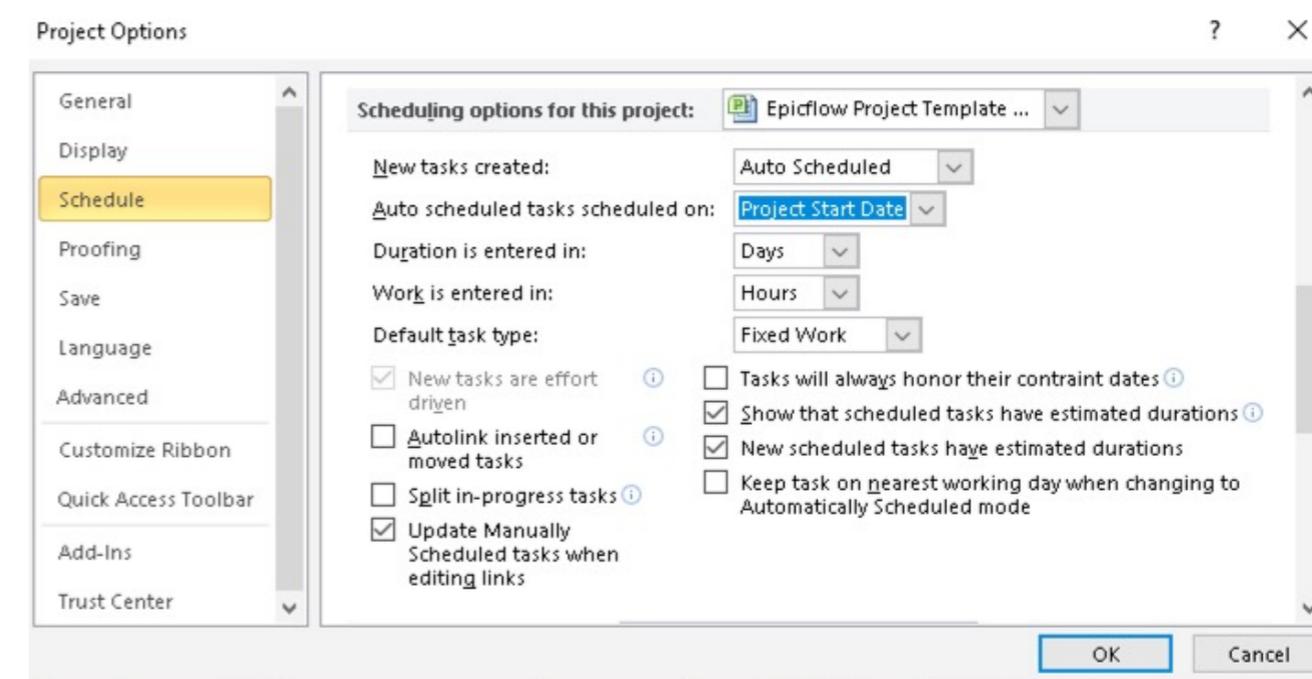
Show project summary task on line 0



Switch off schedule update settings



Change default file save location



Set default task type to fixed work

# Create FLOW



Not overhead!