MS Project Professional 2016

Tutorial #4 – Resource Pool

CS 587 – Software Project Management
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Resource pool project and Sharer project

- **Resource pool project** - the project containing the resources that you want to share

- **Sharer project** - the project that will share resources from another project

Tasks for both projects

Resource pool project

		Task Mode	Task Name	Duration	Start	Finish	Predecessors
1			◢ Project_1_ResourcePool	169.1 days	Fri 18/2/23	Thu 18/10/18	
2			◢ Project Plan	7 days	Fri 18/2/23	Mon 18/3/5	
3			Write Plan	6 days	Fri 18/2/23	Fri 18/3/2	
4			◢ Review Plan	1 day	Mon 18/3/5	Mon 18/3/5	
5			Preparation for Review	1 day	Mon 18/3/5	Mon 18/3/5	3
6			◢ Requirement	12 days	Tue 18/3/6	Wed 18/3/21	
7			Write Requirements	12 days	Tue 18/3/6	Wed 18/3/21	5
8			◢ Analysis	8.33 days	Thu 18/3/22	Tue 18/4/3	
9			Write Analysis Document	5 days	Thu 18/3/22	Wed 18/3/28	7
10			◢ Review DD	3.33 days	Thu 18/3/29	Tue 18/4/3	
11			Preparation for Review	3.33 days	Thu 18/3/29	Tue 18/4/3	9
12			◢ Design	40.43 days	Tue 18/4/3	Tue 18/5/29	
13			Write DD	38.77 days	Tue 18/4/3	Mon 18/5/28	11
14			◢ Review DD	1.67 days	Mon 18/5/28	Tue 18/5/29	
15			Preparation for Review	1.67 days	Mon 18/5/28	Tue 18/5/29	13
16			◢ Coding and Unit Testing	96 days	Tue 18/5/29	Wed 18/10/10	
17			Write Test Cases	90 days	Tue 18/5/29	Tue 18/10/2	15
18			Code Review	6 days	Tue 18/10/2	Wed 18/10/10	17
19			◢ Testing	5.33 days	Wed 18/10/10	Thu 18/10/18	
20			Write Test Plan	3 days	Wed 18/10/10	Mon 18/10/15	18
21			◢ Review Test Plan	2.33 days	Mon 18/10/15	Thu 18/10/18	
22			Preparation for Review	2.33 days	Mon 18/10/15	Thu 18/10/18	20

Sharer project

		Task Mode	Task Name	Duration	Start	Finish	Predecessors
1			◢ Project_2_Sharer	140.99 days	Fri 18/2/23	Fri 18/9/7	
2			◢ Project Plan	9.9 days	Fri 18/2/23	Thu 18/3/8	
3			Write Plan	7.4 days	Fri 18/2/23	Tue 18/3/6	
4			◢ Review Plan	2.5 days	Tue 18/3/6	Thu 18/3/8	3
5			Preparation for Review	2.5 days	Tue 18/3/6	Thu 18/3/8	3
6			◢ Requirement	6.5 days	Thu 18/3/8	Mon 18/3/19	5
7			Write Requirements	6.5 days	Thu 18/3/8	Mon 18/3/19	5
8			◢ Analysis	31.47 days	Mon 18/3/19	Tue 18/5/1	7
9			Write Analysis Document	30.4 days	Mon 18/3/19	Mon 18/4/30	7
10			◢ Review Analysis Document	1.07 days	Mon 18/4/30	Tue 18/5/1	9
11			Preparation for Review	1.07 days	Mon 18/4/30	Tue 18/5/1	9
12			◢ Design	38.4 days	Tue 18/5/1	Mon 18/6/25	11
13			Write DD	36.8 days	Tue 18/5/1	Thu 18/6/21	11
14			◢ Review DD	1.6 days	Thu 18/6/21	Mon 18/6/25	13
15			Preparation for Revie	1.6 days	Thu 18/6/21	Mon 18/6/25	13
16			◢ Coding and Unit Testing	45 days	Mon 18/6/25	Mon 18/8/27	15
17			Write Code	40 days	Mon 18/6/25	Mon 18/8/20	15
18			Code Review	5 days	Mon 18/8/20	Mon 18/8/27	17
19			◢ Testing	9.73 days	Mon 18/8/27	Fri 18/9/7	18
20			Write Test Plan	8.95 days	Mon 18/8/27	Fri 18/9/7	18
21			◢ Review Test Plan	0.78 days	Fri 18/9/7	Fri 18/9/7	20
22			Preparation for Review	0.78 days	Fri 18/9/7	Fri 18/9/7	20

Step to create a resource pool

- **<u>Step 1</u>**: Click the sharer project, remember to have the resource pool project also open

- **<u>Step 2</u>**: On the Resource Tab, click **Resource Pool**, and then click **Share Resources**

- **<u>Step 3</u>**: Specify the **resources** and **precedence** in the pop-up window, and then click OK.

- If your project already had resources entered, the resources from both the projects are combined
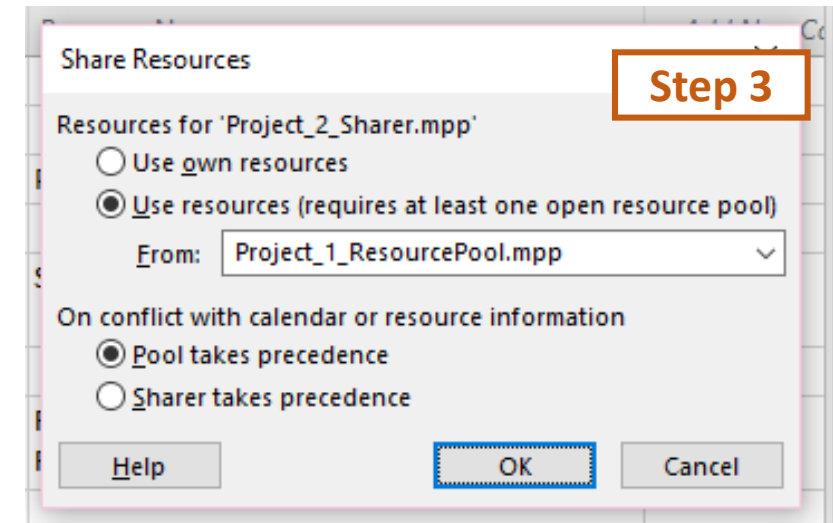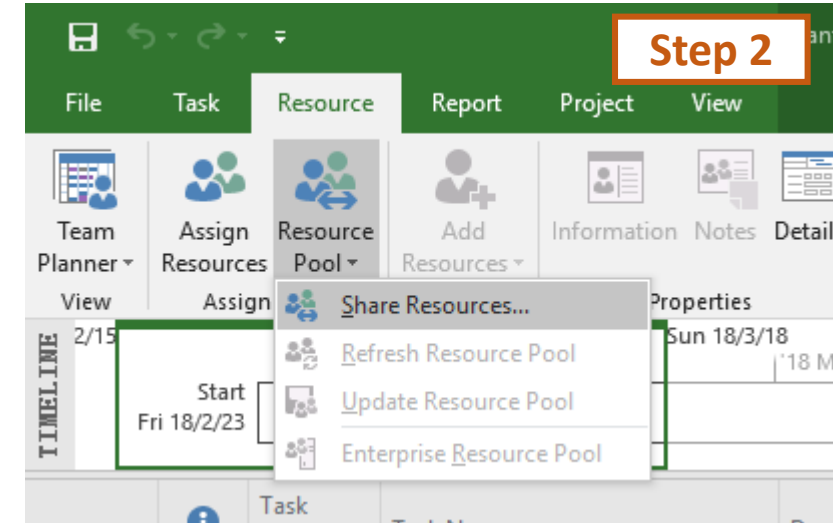
Handle conflicts

Pool takes precedence

- Resource information in the resource pool project to override any conflicting information from the sharer project (default)

- For example, if the resource named Karen Berg has maximum units of 100% in the sharer project, and 75% in the resource pool project. If the pool takes precedence, then the value of 75% is retained as the maximum units for Karen Berg.

Sharer takes precedence

- Resource information in the sharer project to override any conflicting information from the resource pool project

- For example, if Karen Berg has a standard rate of $50 in the sharer project, and a standard rate of $45 in the resource pool project. If sharer takes precedence, the value of $50 is retained as the standard rate for Karen Berg

Tasks for both projects

Resource pool project

Sharer project
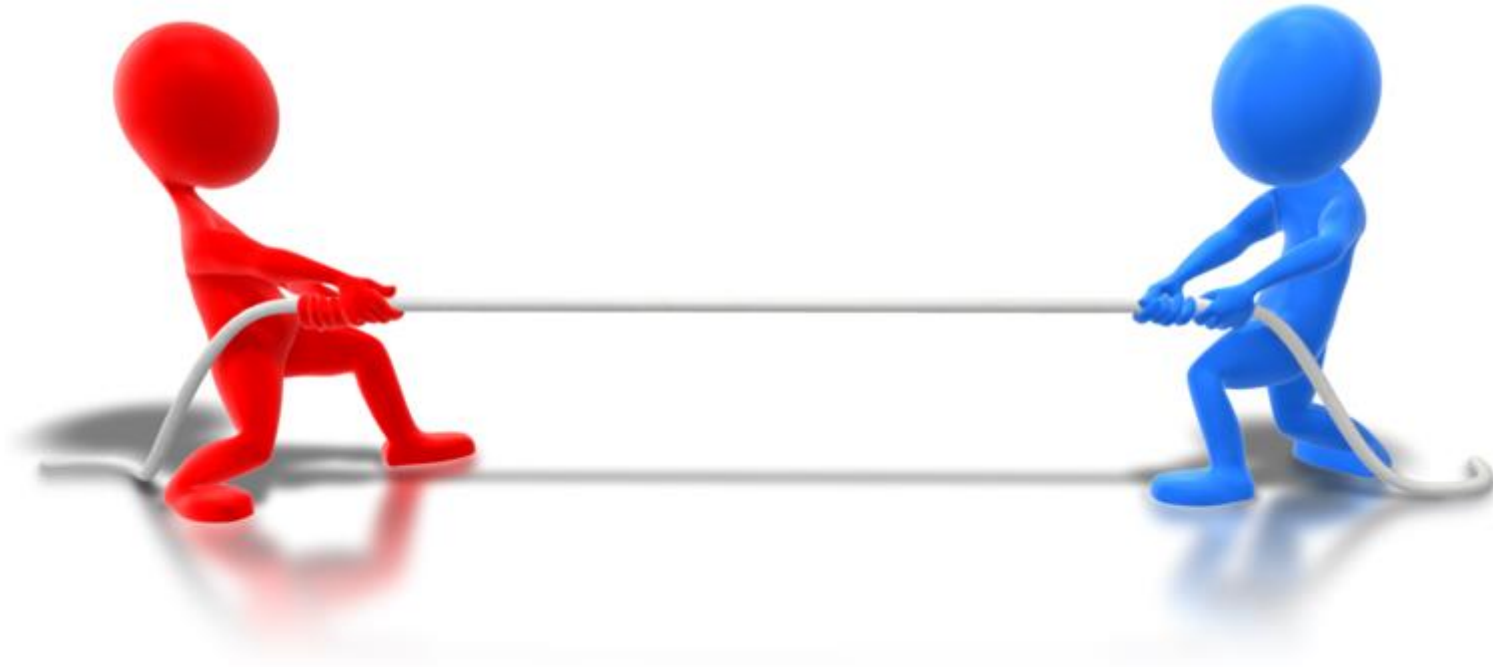
Open the projects

Open the resource pool
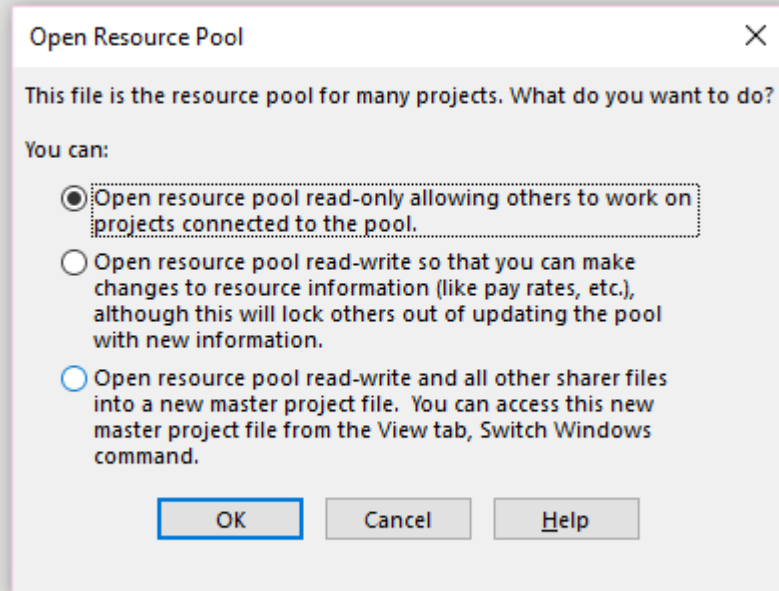
Open the sharer
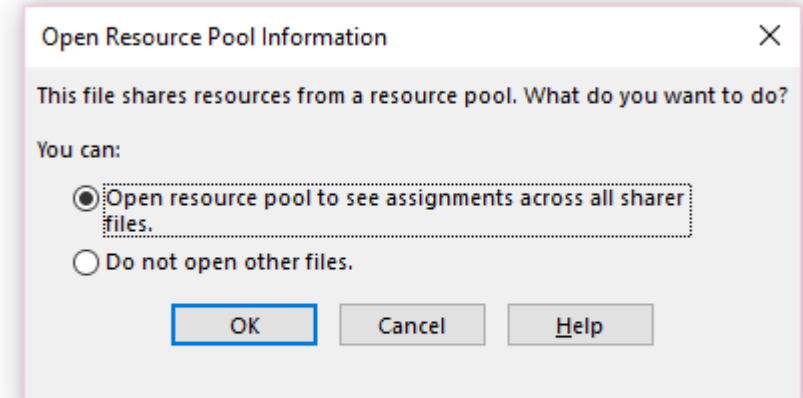
Handle the conflicts

Conflicts can happen when two or more tasks are done in parallel, and the same resource is assigned to work on all the tasks simultaneously

Handle the conflicts

- View conflicts

	ⓘ	Task Mode	Task Name	Duration	Start	Finish	Predecessors	R **View in Gantt Chart** ew
1		⇥	⊿ **Project_1_ResourcePool**	**166.1 days**	**Fri 18/2/23**	**Mon 18/10/15**		
2		⇥	⊿ **Project Plan**	**4 days**	**Fri 18/2/23**	**Wed 18/2/28**		
3	🔴	⇥	Write Plan	3 days	Fri 18/2/23	Tue 18/2/27		Project Manager 2
4		⇥	⊿ **Review Plan**	**1 day**	**Wed 18/2/28**	**Wed 18/2/28**		
5	🔴	⇥	Preparation for Review	1 day	Wed 18/2/28	Wed 18/2/28	3	Requirement Engineer 9,Syste
6		⇥	⊿ **Requirement**	**12 days**	**Thu 18/3/1**	**Fri 18/3/16**		
7		⇥	Write Requirements	12 days	Thu 18/3/1	Fri 18/3/16	5	Requirement Engineer21

	ⓘ	Resource Name	Type	Material	Initials	Group	Max.	Std. Rate **View in Resource Sheet** as
1		Requirement Engineer11	Work		RE11		100%	$0.0 ar
2		Requirement Engineer21	Work		RE21		100%	$0.00/hr $0.00/hr $0.00 Prorated Star
3		Programmer12	Work		P12		100%	$0.00/hr $0.00/hr $0.00 Prorated Star
4		Tester2	Work		T2		100%	$0.00/hr $0.00/hr $0.00 Prorated Star
5	🔴	**Project Manager 2**	**Work**		**P2**		**100%**	**$0.00/hr $0.00/hr $0.00 Prorated Star**
6	🔴	**Requirement Engineer 9**	**Work**		**RE9**		**100%**	**$0.00/hr $0.00/hr $0.00 Prorated Star**
7		Requirement Engineer 12	Work		RE12		100%	$0.00/hr $0.00/hr $0.00 Prorated Star
8		Requirement Engineer 13	Work		RE13		100%	$0.00/hr $0.00/hr $0.00 Prorated Star

How to resolve conflicts ?

There are two ways to solve conflicts:

- **Strategy 1**

  Allocate 50% (or any %) units of resource to one project and the remaining units to the other project

- **Strategy 2**

  Assign 100% units of resource to both projects, but at different time slots

Note: The above strategies can be used for solving conflicts within the same project

Strategy 1

- **Step 1**: Select the task that has conflicts
- **Step 2**: Double click the resources
- **Step 3**: Change the percentage

Strategy 2

- **Step 1:** Select the task that has a conflict
- **Step 2:** On the Resource Tab, click on "Level Resource"
- **Step 3:** Select the responsible resources
- **Step 4:** Click on "Level now"

Note: The tasks in the project having precedence will start at the scheduled time. The tasks in the project **NOT** having precedence will be delayed until the resource is available to work on that task

Questions ?