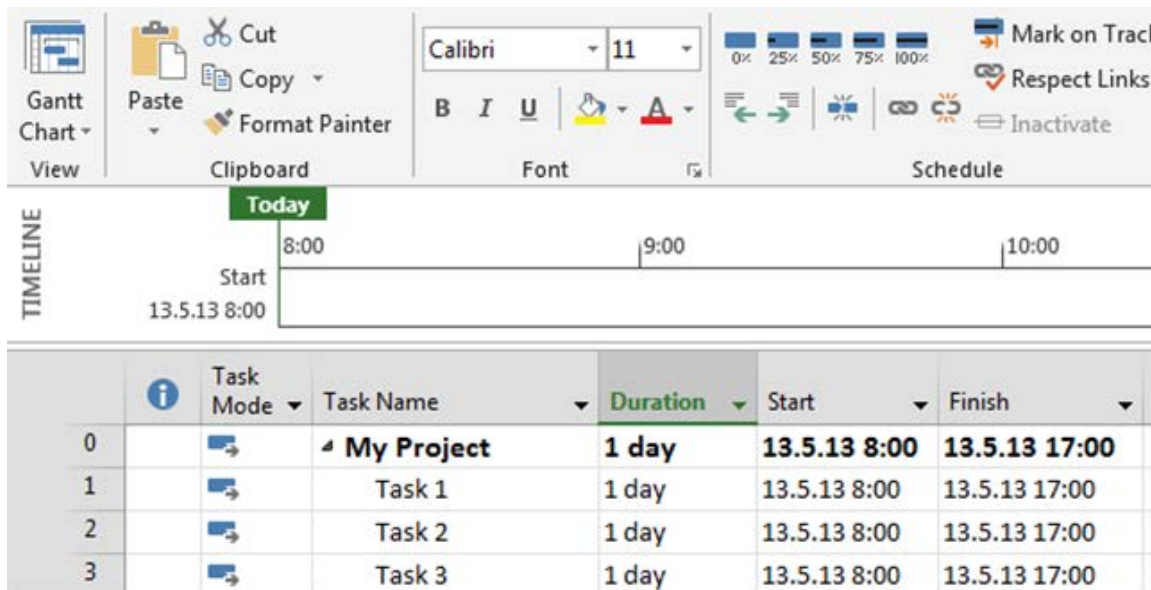# Resources and Over Allocation in Project
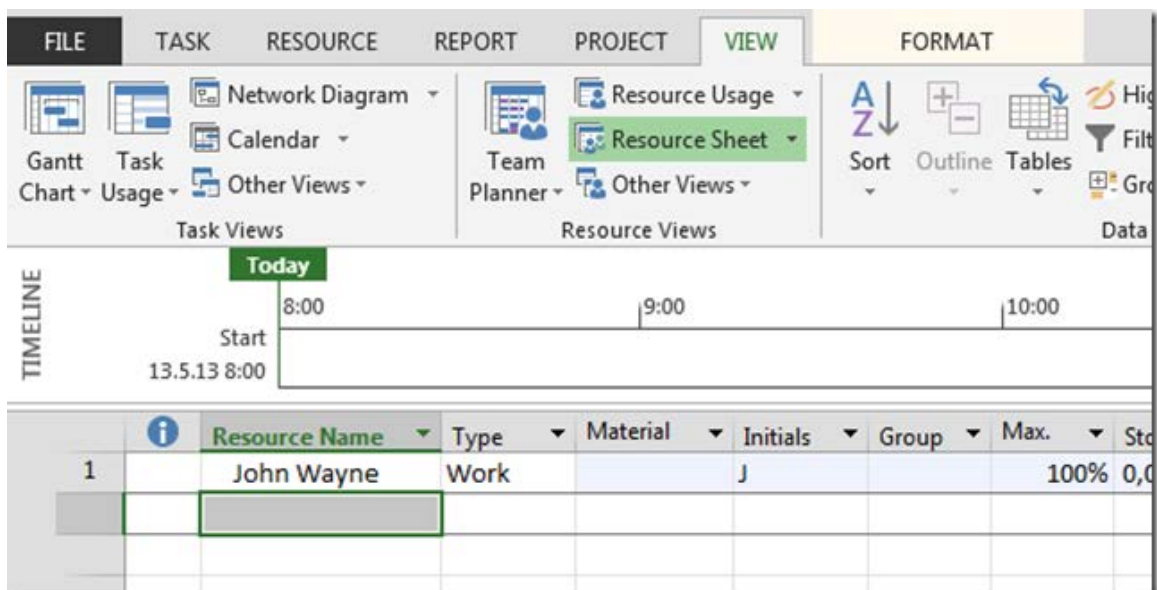
Very often there is a question: "When is a Resource over allocated, and how is **MICROSOFT PROJECT** dealing with it?"

That is very easy to explain. First I will add the three Tasks:

and my Resource will be *John Wayne*:

Of course that I will assign John Wayne to all three Tasks:

As you can see, *John Wayne* is over allocated in all three Tasks. Let's see Resource Usage diagram:

Now, suppose that *John Wayne* is a *Superman!* He can work 24 hours at Monday, so you do not want him to be marked as over allocated. You can do it here:
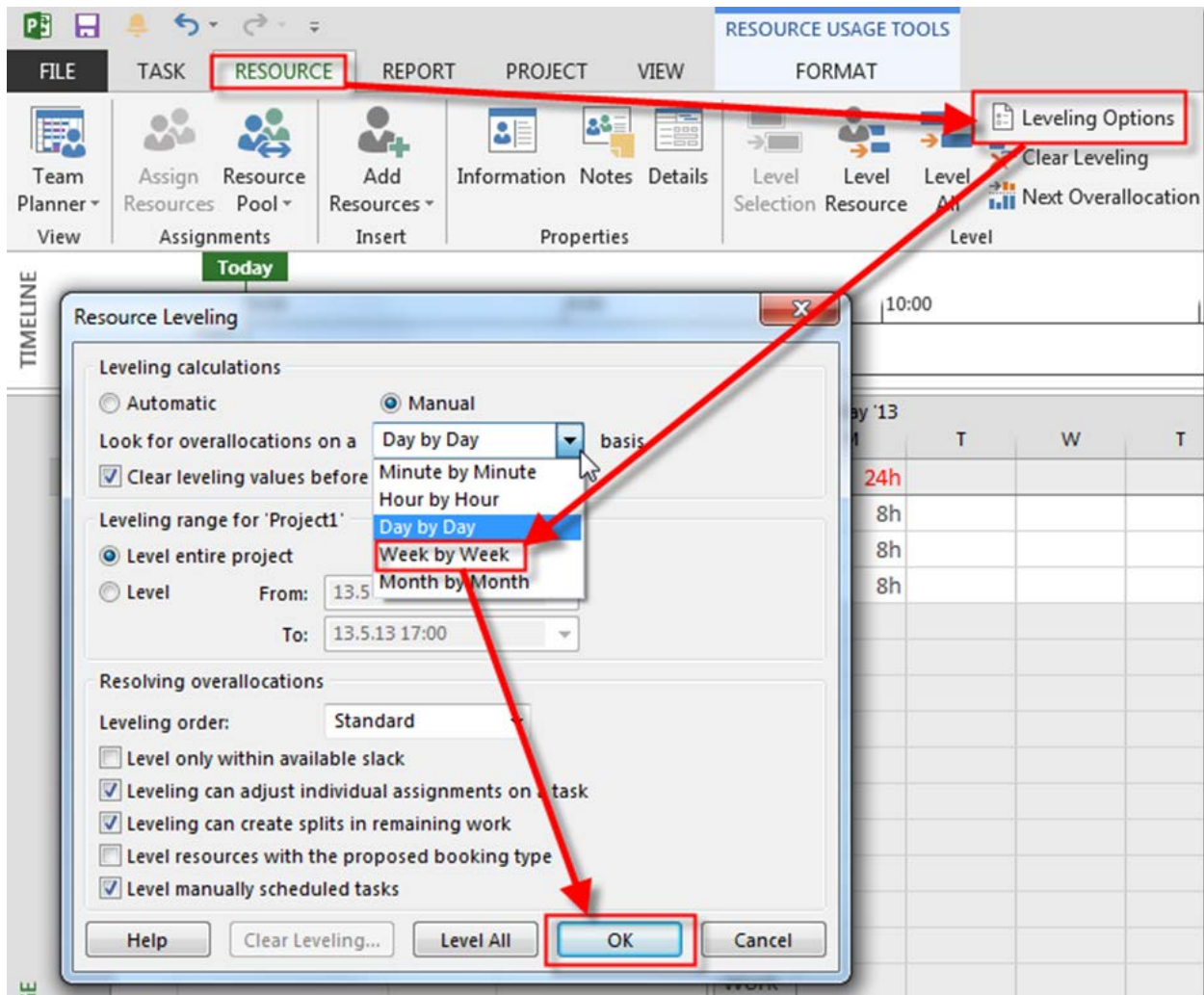
and I will get:

WHY? The answer is easy! I told **MICROSOFT PROJECT** that over allocation is calculated on *Week by Week* Basic. What does it mean? It means that **MICROSOFT PROJECT** is making calculation: 5 days * 8 house per day = 40 hours. *John Wayne* is occupied on 3 Tasks (Monday) * 8 hours = 24 hours, and that is less than 40 hours.

I will add *Task 4,* and *Task 5,* and I will assign *John Wayne* on it, and I will get:

	ⓘ	Task Mode ▾	Task Name ▾	Duration ▾	Start ▾	Finish ▾	Predecessors ▾	Resource Names ▾
0		⬛	◢ **My Project**	**1 day**	**13.5.13 8:00**	**13.5.13 17:00**		
1		⬛	Task 1	1 day	13.5.13 8:00	13.5.13 17:00		John Wayne
2		⬛	Task 2	1 day	13.5.13 8:00	13.5.13 17:00		John Wayne
3		⬛	Task 3	1 day	13.5.13 8:00	13.5.13 17:00		John Wayne
4		⬛	Task 4	1 day	13.5.13 8:00	13.5.13 17:00		John Wayne
5		⬛	Task 5	1 day	13.5.13 8:00	13.5.13 17:00		John Wayne

John Wayne is now occupied 40 hours!

Finally I will add *Task 6* with 1 minute *Duration,* and I will assign *John Wayne* to it, and I will get:

	ⓘ	Task Mode ▾	Task Name ▾	Duration ▾	Start ▾	Finish ▾	Predecessors ▾	Resource Names
0		⬛	◢ **My Project**	**1 day**	**13.5.13 8:00**	**13.5.13 17:00**		
1	👤	⬛	Task 1	1 day	13.5.13 8:00	13.5.13 17:00		John Wayne
2	👤	⬛	Task 2	1 day	13.5.13 8:00	13.5.13 17:00		John Wayne
3	👤	⬛	Task 3	1 day	13.5.13 8:00	13.5.13 17:00		John Wayne
4	👤	⬛	Task 4	1 day	13.5.13 8:00	13.5.13 17:00		John Wayne
5	👤	⬛	Task 5	1 day	13.5.13 8:00	13.5.13 17:00		John Wayne
6	👤	⬛	Task 6	1 min	13.5.13 8:00	13.5.13 8:01		John Wayne

Tralaaaaaaaa! *John Wayne* is over allocated now because he is working 40 hours + 1 minute on six Tasks, and that is larger than 40 hours.

Finally, does it make a sense to put one Resource to work 40 hours + 1 minute on various Tasks at the same day? Of course not. So I will make predecessors for those Tasks:

	ⓘ	Task Mode ▾	Task Name ▾	Duration ▾	Start ▾	Finish ▾	Predecessors ▾	Resource Names
0		⬛	◢ **My Project**	**5 days**	**13.5.13 8:00**	**17.5.13 17:00**		
1	👤	⬛	Task 1	1 day	13.5.13 8:00	13.5.13 17:00		John Wayne
2	👤	⬛	Task 2	1 day	14.5.13 8:00	14.5.13 17:00	1	John Wayne
3	👤	⬛	Task 3	1 day	15.5.13 8:00	15.5.13 17:00	2	John Wayne
4	👤	⬛	Task 4	1 day	16.5.13 8:00	16.5.13 17:00	3	John Wayne
5	👤	⬛	Task 5	1 day	17.5.13 8:00	17.5.13 17:00	4	John Wayne
6	👤	⬛	Task 6	1 min	13.5.13 8:00	13.5.13 8:01		John Wayne

John is still over allocated because in a week he is working more than 40 hours (even 1 minute more makes him over allocated)!

But what if *John* will work on *Task 6* after *Task 5?*

	ⓘ	Task Mode ▾	Task Name ▾	Duration ▾	Start ▾	Finish ▾	Predecessors ▾	Resource Names ▾
0		🔀	▲ **My Project**	**5 days**	**13.5.13 8:00**	**20.5.13 8:01**		
1		🔀	Task 1	1 day	13.5.13 8:00	13.5.13 17:00		John Wayne
2		🔀	Task 2	1 day	14.5.13 8:00	14.5.13 17:00	1	John Wayne
3		🔀	Task 3	1 day	15.5.13 8:00	15.5.13 17:00	2	John Wayne
4		🔀	Task 4	1 day	16.5.13 8:00	16.5.13 17:00	3	John Wayne
5		🔀	Task 5	1 day	17.5.13 8:00	17.5.13 17:00	4	John Wayne
6		🔀	Task 6	1 min	20.5.13 8:00	20.5.13 8:01	5	John Wayne

He is not over allocated anymore? WHY? Because *Task 6* is scheduled on the **next week!**