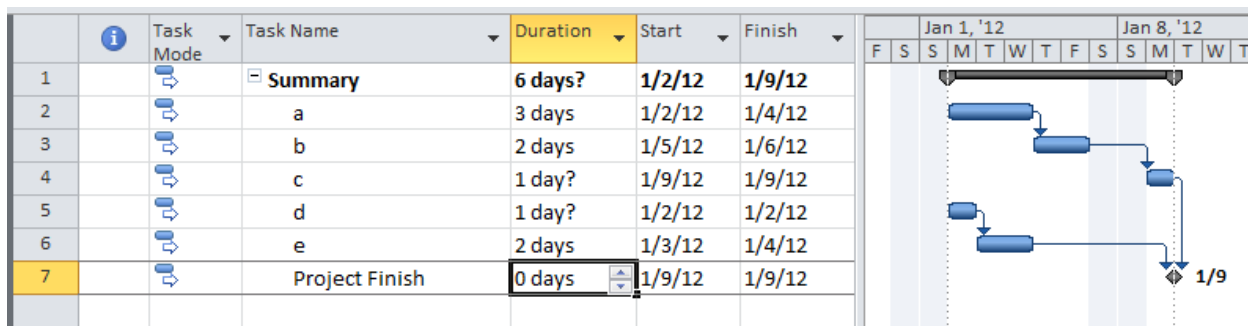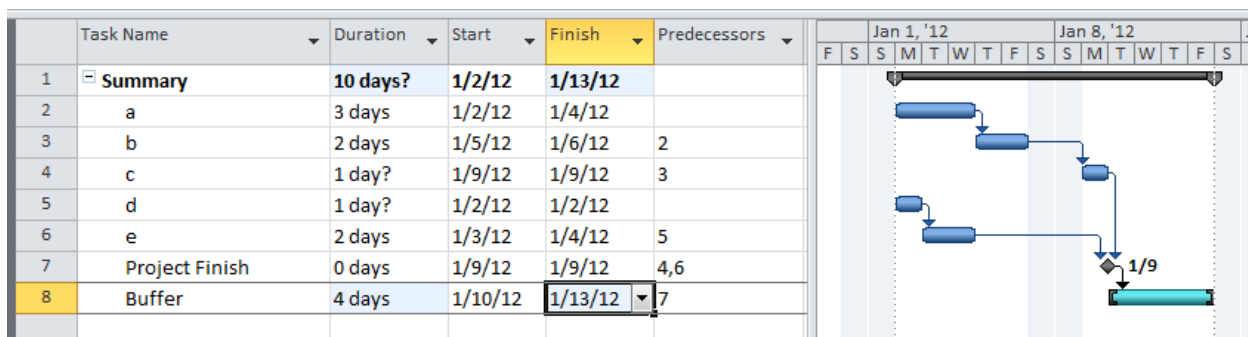# Add a Buffer Task Using a Manually Scheduled Task

Now we all know that the finish date a project is automatically calculated by Project and might not necessarily be the due date. If the finish date is before the due date, you have some buffer, if the finish date is after the due date, you have a problem. Let's assume you are in the first case - it is important to track this buffer and I've found manually scheduled tasks are useful for this since they won't automatically move but they'll warn you when there is a problem.

Let's say you have this project (this will work for all projects; just make sure you have a milestone representing the project finish that all task chains are connected to):

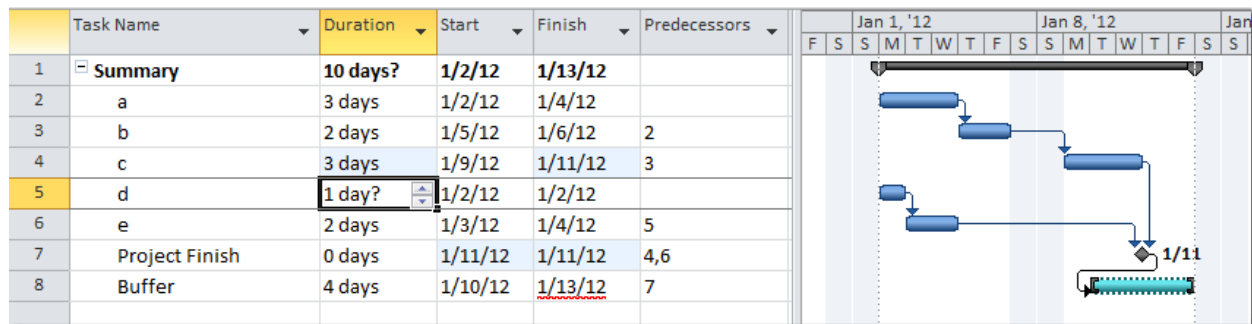|	ⓘ	Task Mode	Task Name	Duration	Start	Finish	
1			⊟ **Summary**	**6 days?**	**1/2/12**	**1/9/12**	
2			a	3 days	1/2/12	1/4/12	
3			b	2 days	1/5/12	1/6/12	
4			c	1 day?	1/9/12	1/9/12	
5			d	1 day?	1/2/12	1/2/12	
6			e	2 days	1/3/12	1/4/12	
7			Project Finish	0 days	1/9/12	1/9/12	

My project finish date is January 9th but I actually don't have to be done until the 13th so I have a few days of buffer. To represent that I add a new manually scheduled task with the Project Finish milestone as the predecessor and the end date as 1/13:

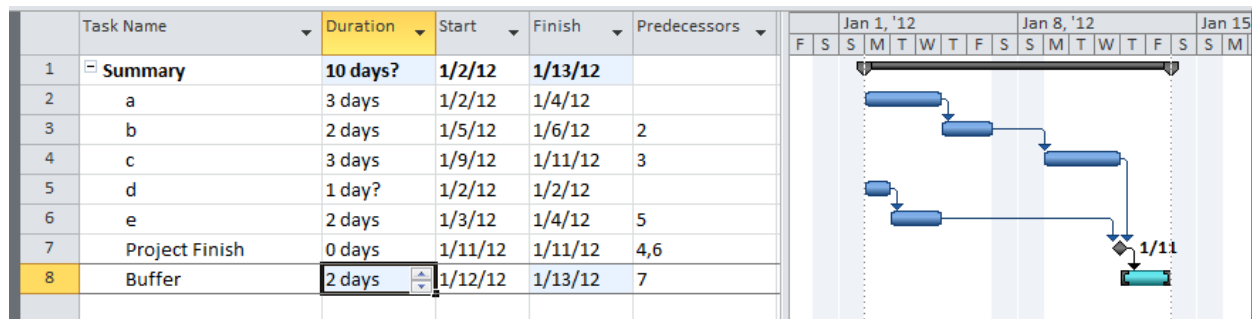|	Task Name	Duration	Start	Finish	Predecessors	
1	⊟ **Summary**	**10 days?**	**1/2/12**	**1/13/12**		
2	a	3 days	1/2/12	1/4/12		
3	b	2 days	1/5/12	1/6/12	2	
4	c	1 day?	1/9/12	1/9/12	3	
5	d	1 day?	1/2/12	1/2/12		
6	e	2 days	1/3/12	1/4/12	5	
7	Project Finish	0 days	1/9/12	1/9/12	4,6	
8	Buffer	4 days	1/10/12	1/13/12	7	

You can now easily tell that you have 4 days of buffer.

Now say that task 4 takes 3 days instead of 1 day. Your schedule will look like this:

	Task Name	Duration	Start	Finish	Predecessors
1	⊟ **Summary**	**10 days?**	**1/2/12**	**1/13/12**	
2	a	3 days	1/2/12	1/4/12	
3	b	2 days	1/5/12	1/6/12	2
4	c	3 days	1/9/12	1/11/12	3
5	d	1 day?	1/2/12	1/2/12	
6	e	2 days	1/3/12	1/4/12	5
7	Project Finish	0 days	1/11/12	1/11/12	4,6
8	Buffer	4 days	1/10/12	1/13/12	7

Notice how the buffer tasks didn't move but you get a warning that there is an issue. Now go in and for the Buffer task, right-click and select Respect Links. This will push the task out. Now you need to decrement the duration until the finish date is once again the 13th:

	Task Name	Duration	Start	Finish	Predecessors
1	⊟ **Summary**	**10 days?**	**1/2/12**	**1/13/12**	
2	a	3 days	1/2/12	1/4/12	
3	b	2 days	1/5/12	1/6/12	2
4	c	3 days	1/9/12	1/11/12	3
5	d	1 day?	1/2/12	1/2/12	
6	e	2 days	1/3/12	1/4/12	5
7	Project Finish	0 days	1/11/12	1/11/12	4,6
8	Buffer	2 days	1/12/12	1/13/12	7

So you can now tell from task 4 slipping that you only have 2 days left of buffer.

I find that manually having to update your buffer task helps to make you more aware of when you are using up buffer. You can use this same technique on individual task chains, etc., if you want. Additionally, if you want to make sure you remember the deadline, you can set a deadline on the buffer task to make sure you always adjust the buffer back to it.