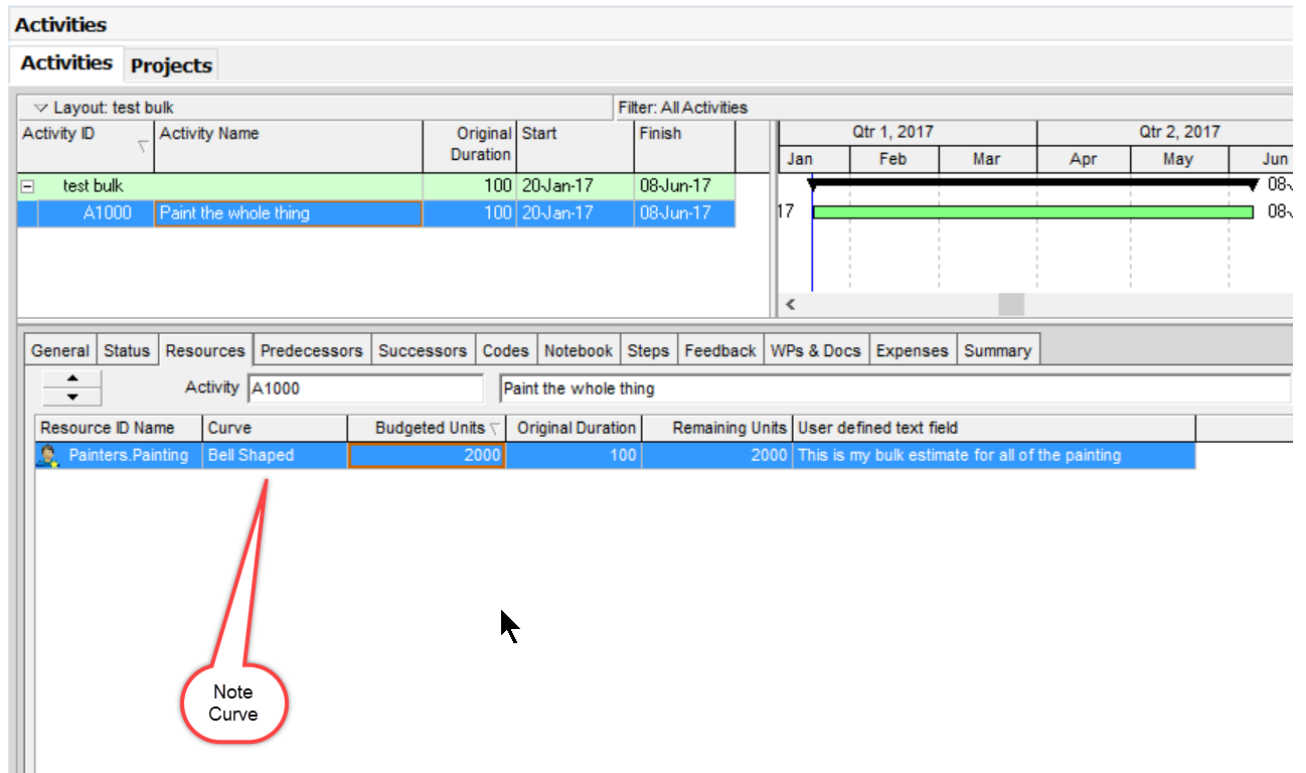
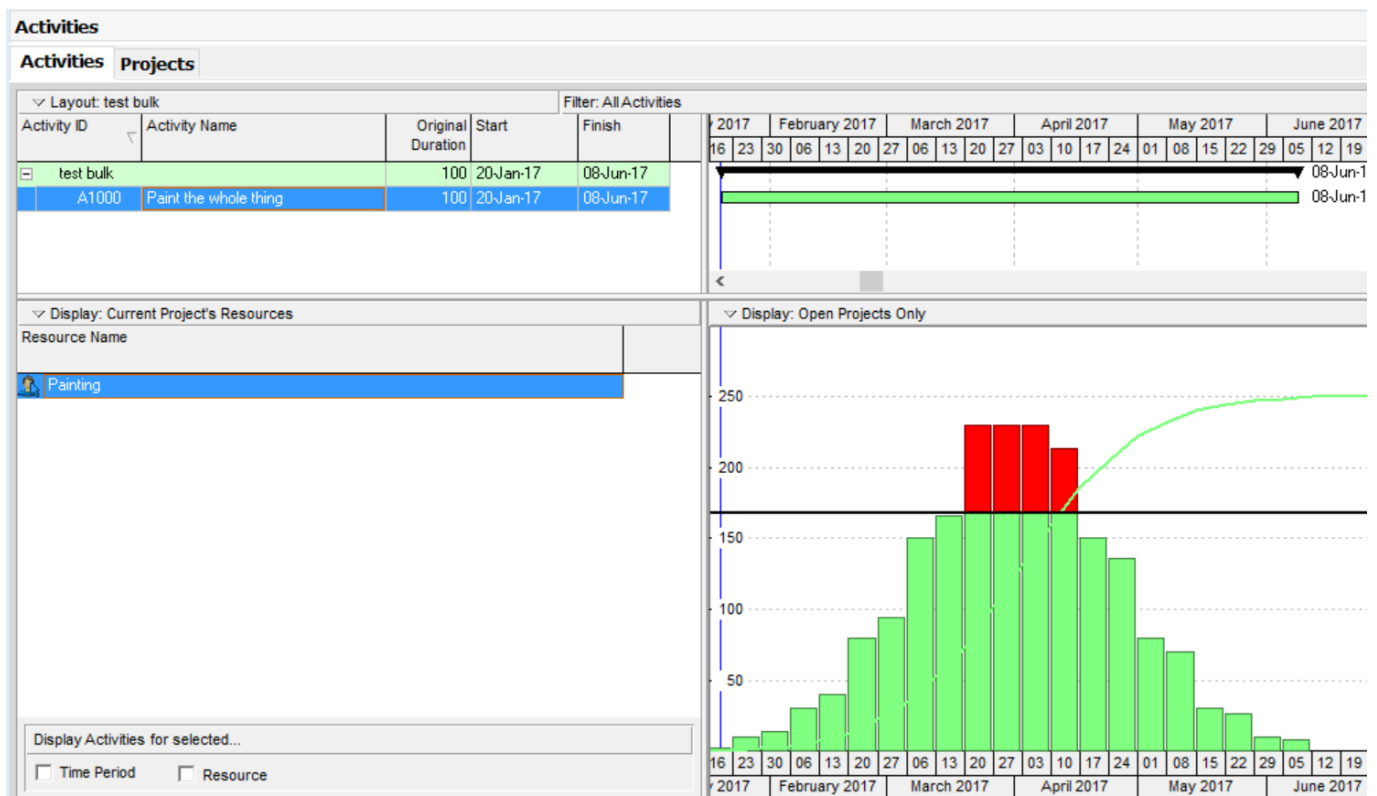


Appendix L - Breaking down bulks

Very often at the start of projects we wish to see an overall “S” curve without a full “bottom up” estimate being complete. Perhaps Design and Fabrication are properly defined, but all we know about construction is that we have allowed 100,000hrs. We need to show this in an overall “S” curve, and need to reflect the eventual break down of that into many activities in due course, without losing the history of what we did and why.



The above shows 2000 hours of painting spread using a bell curve over 100 working days. Note the use of the User Defined Field at the resource assignment level to annotate the record. The resulting histogram:



Eventually a bottom-up process to estimate individual painting activities will take place. It would be nice, but unlikely, if all of the painting were properly estimated at the same time. Probably this is done on a piecemeal basis. Perhaps half of the outstanding painting has now been estimated. We add to the existing bulk activity another resource assignment with a negative value:

The screenshot shows the Primavera P6 Activities window. The main table lists activities with columns for Activity ID, Activity Name, Original Duration, Start, and Finish. A summary table below shows resource assignments for activity A1000, including a negative budgeted unit value of -1000 for 'Painters.Painting'.

Activity ID	Activity Name	Original Duration	Start	Finish
test bulk		100	20-Jan-17	08-Jun-17
A1000	Paint the whole thing	100	20-Jan-17	08-Jun-17

Resource ID Name	Curve	Budgeted Units /	Original Duration	Remaining Units	User defined text field
Painters.Painting	Bell Shaped	2000	100	2000	This is my bulk estimate for all of the painting
Painters.Painting	Bell Shaped	-1000	100	-1000	Finalised estimate in area one.

Of course many “real” activities will now be added to represent the painting we are actually doing. Whether those activities add up to the 1000 hours we are subtracting is quite a different subject!

The screenshot shows the Primavera P6 Activities window with a resource assignment for 'Painting'. The resource assignment table shows a bell-shaped curve for the activity. A Gantt chart on the right displays the activity's duration and resource usage over time, showing a bell-shaped curve for the resource usage.

Activity ID	Activity Name	Original Duration	Start	Finish
test bulk		100	20-Jan-17	08-Jun-17
A1000	Paint the whole thing	100	20-Jan-17	08-Jun-17

Resource Name	Curve	Budgeted Units /	Original Duration	Remaining Units	User defined text field
Painting	Bell Shaped	2000	100	2000	This is my bulk estimate for all of the painting

Progress

What happens when the project begins, and the work to slowly break down the bulks has not been completed?

Some rules:

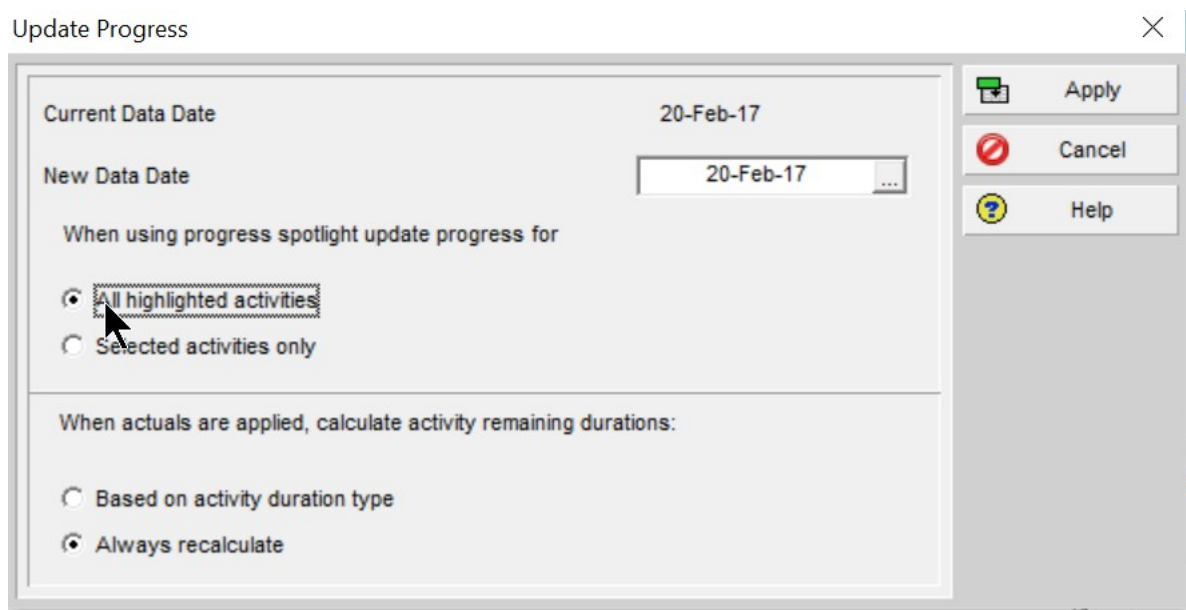
We do not Earn Value against our bulk activities, only against the activities that we create to break down the bulks.

We do not book Actual Hours against our bulk activities, only against the activities that we create to break down the bulks.

There needs to be an understanding and a procedure to allow for growth when the break down of the bulk happens. In the data above, for example, 2000 hours was allowed for all painting. There are two areas of equal size to be painted. When we have properly scoped "Area One" then we reduce the hours in the bulk activity by 1000. However the sum of the manhours associated with all of the activities we have created to properly paint Area One is unlikely to equal 1000. This is normal, but should be accounted for. This appendix might be extended to examine the use of the P6 facility "Cost Account" to do exactly that.

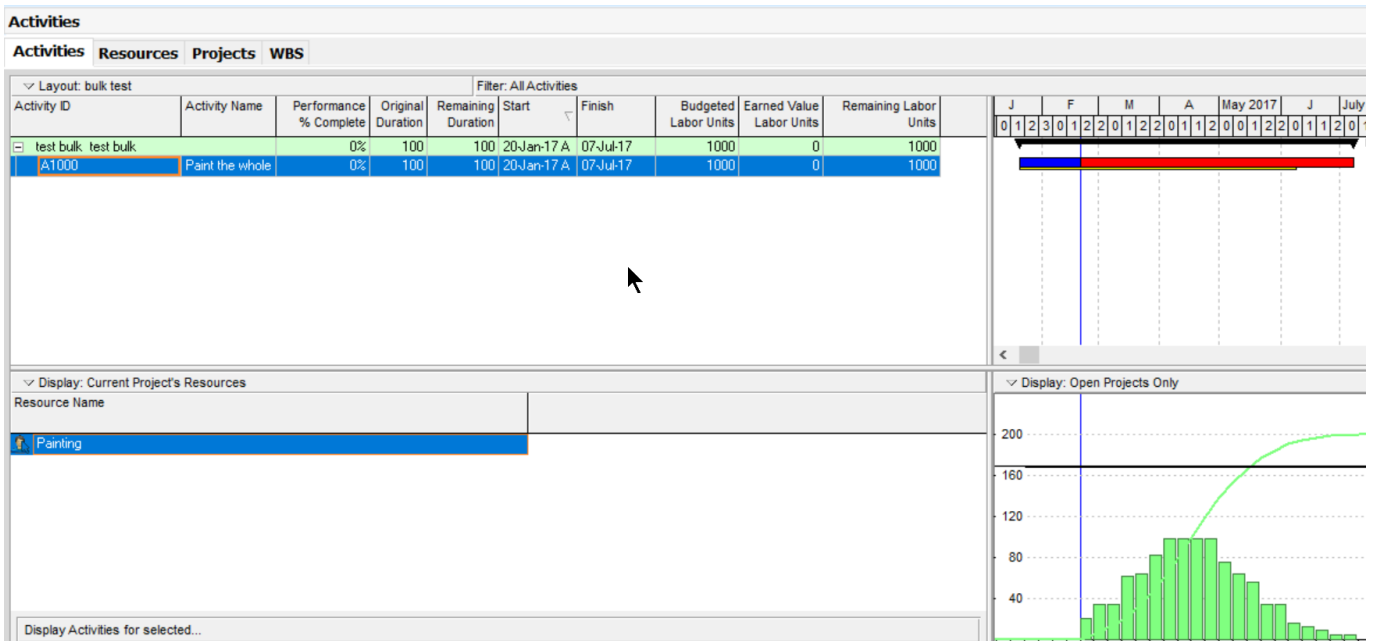
Progressing Bulks

Bulk activities are progressed as if progress is perfect through them. In our worked example, we have the original 2000 hours painting on a Bell Curve, and we have the -1000 hours of "Area One" also on a Bell Curve because we are going to add all of the detail activities that constitute Area One. Let us assume that we are going to report progress as of the 20th February compared to our current data date of the 20th January. We highlight the bulk activity(ies) in question, and select "Tools: Update Progress"



The use of this facility means that our bulk Activity(ies) has no schedule impact, and the resource curve distribution of quantities is preserved in the appropriate way.

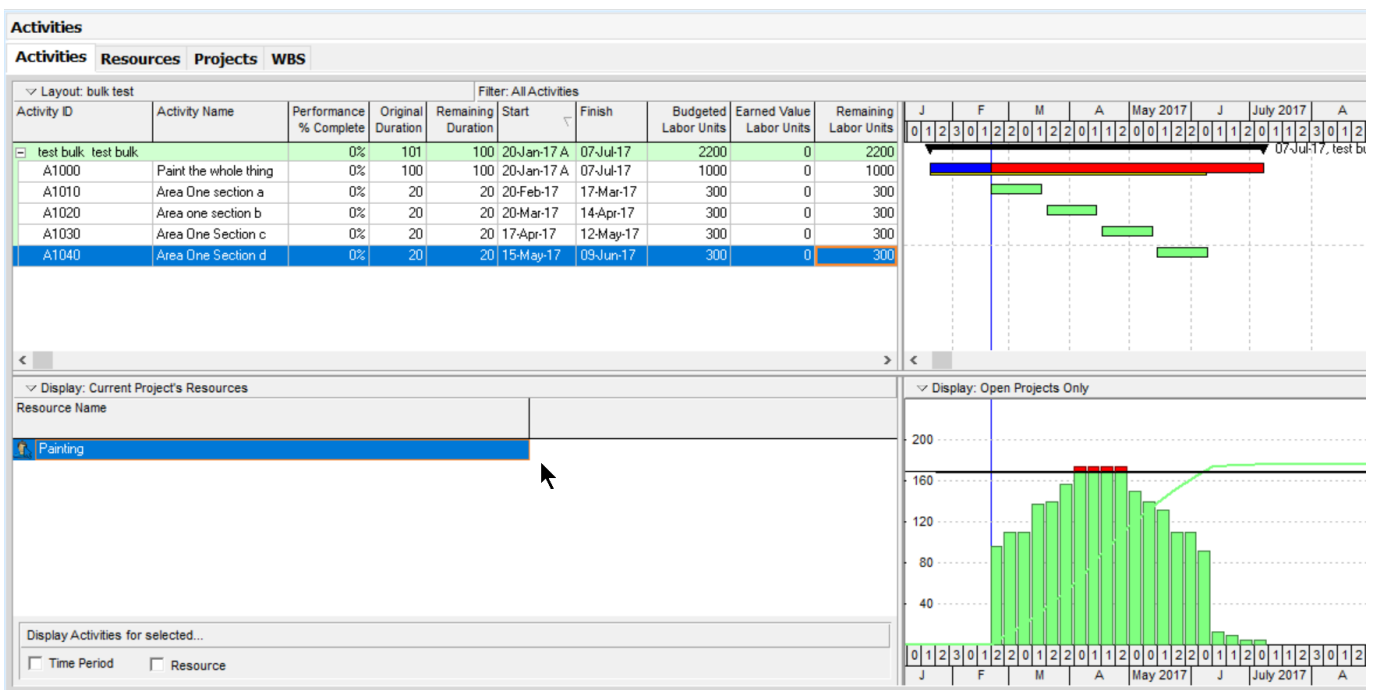
“Apply” will move the data date over the bulk activities, and the new resource curve correctly “misses out” the “tail” at the start of the curve.



NOTE that it is necessary to apply a Start Date to the activity(ies) before doing this.

We will now add the detail activities. (These are being added now, rather than before the “Update Progress” step purely to make the picture story board clearer.)

Four activities of 300 hours each have been added. The extra activities that we add are unlikely to use a resource curve, here no curve has been used.



These new activities are the activities which will be measured, have time booked to them, and can have a schedule impact.