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 loosing the history of what we did and why.

Activities																
Activities PI	rojects															
∠ Layout: test t	bulk						Filter: A	Il Activitie	es							
Activity ID	Activity N	ame		Origin	al Sta	irt	Finish	h			Qt	r 1, 2017			Qtr 2, 2	017
,				Durati	n					Jan		Feb	Mar	Apr	Мау	Ju
test bulk				1	00 20-	Jan-17	08-Ji	un-17		. 1						
A1000	Paint the	whole thing		1	JO 20-	Jan-17	08-J	un-17		17						
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General Status	Resourc	es Predecesso	rs Succ	essors C	odes	Notebook	Steps	Feedba	ack	WPs &	Docs	Expenses	Summar	ry		
•	Activi	y A1000			Paint	the whole	thing									
Resource ID Na	ame Cu	ve	Budge	eted Units	Orig	ginal Durat	ion	Remainir	ng Uni	its Us	er defir	ed text fiel	d			
🤶 Painters.Pa	inting Be	l Shaped		200)	1	100		200	00 Thi	is is my	bulk estim	ate for all	of the paintin	g	
	N. C.	ote rve			×											

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:

Activities			
Activities Projects			
✓ Layout: test bulk		Filter: All Activities	
Activity ID	Original Start Duration	Finish	r 2017 February 2017 March 2017 April 2017 May 2017 June 2017 16 23 30 06 13 20 27 03 10 17 24 01 08 15 22 29 05 12 19
test bulk	100 20Jan-17	7 08Jun-17	▼ 08Jun-1
A1000 Paint the whole thing	100 20Jan-17	7 08-Jun-17	UBJun-1
✓ Display: Current Project's Resources			✓ Display: Open Projects Only
Resource Name			
Rainting			250
			. 200
			150
Display Activities for selected			
Time Period Resource			2017 February 2017 March 2017 April 2017 May 2017 June 2017

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:

V Layout: test bulk Filter: All Activity Activity Name Original Start Duration Initial 2 test bulk 100 20.Jan-17 A1000 Paint the whole thing 100 20.Jan-17 08.Jun-17 A1000 Paint the whole thing 100 20.Jan-17 08.Jun-17 09.Jun-17 Activity A1000 Paint the whole thing Paint the whole thing Paint the whole thing Paint the whole	110	jects										
Activity D C Activity Name Original Start Finish Duration Start Finish Duration Start Finish Duration Start Finish Duration Start T 08-Jun-17 08-J	✓ Layout: test bul	k		Filt	er: All Activities							
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General Status Resources Predecessors Successors Codes Notebook Steps Feedback WPs & Docs Expenses Summary						<						
Activity A1000 Paint the whole thing F 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.	General Status	Resources Predecesso	rs Successors Cod	les Notebook S	teps Feedback W	Ps & Docs Expen	ses Summary					
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.	•	Activity A1000	F	Paint the whole thi	ng							Pro
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.	Resource ID Nam	e Curve	Budgeted Units /	Original Duration	Remaining Units	User defined text	t field					
Painters.Painting Bell Shaped -1000 100 -1000 Finalised estimate in area one.	Dainters Paint			-								
►	- runtera.Fdint	ing Bell Shaped	2000	100	2000	This is my bulk es	stimate for all of	f the painting				
	Painters.Paint	ing Bell Shaped	2000 -1000	100 100	2000 -1000	This is my bulk es Finalised estimate	stimate for all of e in area one.	f the painting				

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!

Activities													
Activities Project	ts												
✓ Layout: test bulk				Filter: All Activitie	\$								
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Time Period	Resource				16 23 30 06 13 20 27 06 13 20 27 7 06 13 20 27 03 10 17 24 01 08 15 22 29 05 12 19 26								
					2017 reordary 2017 march 2017 April 2017 may 2017 June 2017								
	Portfolio: All Projects	Access Mode: SI	hared Da	ta Date: 20-Jan-1	17 Baseline: Current Project User: admin DB: david (Professional)								

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"

current Data Date	20-Feb-17	
New Data Date	20-Feb-17	O Cancel
When using progress spotlight update progre	ss for	Help
All highlighted activities		
C Selected activities only		
When actuals are applied, calculate activity re	maining durations:	_
C Based on activity duration type		

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.

Activities															
Activities Re	sources Projects	WBS													
✓ Layout: bulk te	est			Filter: Al	Activities	s									
Activity ID	Activity Name	Performance % Complete	Original Duration	Remaining Star Duration	t v	Finish	Budgeted Labor Units	Earned Value Labor Units	Remaining Labor Units		J F 0 1 2 3 0 1	M 2 2 0 1 2	A 20112	May 2017	J July
😑 test bulk test b	bulk	0%	100	100 20	an-17 A	07-Jul-17	1000	0	1000						
A1000	Paint the who	le 0%	100	100 20	an-17 A	07-Jul-17	1000	0	1000				1		
						k									
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✓ Display: Curre	ent Project's Resources										✓ Display: O	pen Projects	Only		
Resource Name															
											200				
👔 Painting											200				
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										ŀ	80		hÌR		
											40 · · · · ·				
Display Activities	s for selected														

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.

Activities											
Activities	Resou	rces Projects V	VBS								
Zayout:	bulk test				Filt	er: All Activitie	s				
Activity ID		Activity Name	Performance % Complete	Original Duration	Remaining Duration	Start	Finish	Budgeted Labor Units	Earned Value Labor Units	Remaining Labor Units	J F M A May 2017 J July 2017 A 0 1 2 0
😑 test bulk	test bulk		0%	101	100	20-Jan-17 A	07-Jul-17	2200	0	2200	07.jul-17, test b
A1000		Paint the whole thing	0%	100	100	20-Jan-17 A	07-Jul-17	1000	0	1000	
A1010		Area One section a	0%	20	20	20-Feb-17	17-Mar-17	300	0	300	
A1020		Area one section b	0%	20	20	20-Mar-17	14-Apr-17	300	0	300	
A1030		Area One Section c	0%	20	20	17-Apr-17	12-May-17	300	0	300	
A1040		Area One Section d	0%	20	20	15-May-17	09Jun-17	300	0	300	
4										>	
✓ Display:	Current Pro	oject's Resources									Display: Open Projects Only
Resource Na	ame										- 200
						ł					160
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											· 40 · · · · · · · · · · · · · · · · · ·
Display Ac	tivities for s	selected									
Time P	eriod	Resource									Image: Image and the

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