

# TECH TIP

### CREATING CASH FLOW CURVE – P6 SCHEDULE & UNIFIER COST DATA ORACLE PRIMAVERA P6 & UNIFIER

To utilize dates from a P6 schedule to create a cash flow curve in Unifier based on cost business process data. This tech tip details the steps to do this.

The following example uses the Unifier base product Cost Controls application.

#### Pre-Requisite Set Up

#### **Unifier:**

1. Unifier project (shell) has been created using the base product shell template - this will include the default Data Mapping required in the schedule sheet.



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2. Unifier CBS Cost Codes have been created in the cost sheet for the Unifier project.

Pro	Project Cost Sheet					
	Cost Code	Cost Item				
1	⊡- <u>01-000</u>	Site Construction				
2	<u>01-01A</u>	Site Design				
3	<u>01-01B</u>	Site Excavation				
4	⊡- <u>02-000</u>	Concrete & Masonry & Metal				
5	<u>02-02A</u>	Concrete Work				
6	<u>02-02B</u>	Masonry Work				
7	<u>02-02C</u>	Metal Work				
8	⊡ <u>03-000</u>	Wood & Plastic & Thermal				
9	<u>03-03A</u>	Wood & Plastic Work				
10	<u>03-03T</u>	Thermal Work				

3. Cost sheet data has been populated using a base product cost business process. The example uses Budget Approvals and budgets two Cost Codes.

File Edit View Acti	ons Help			
Close Window				
Budget Approval	Bud	jet Approval		_
General				-,  ≏
Record	I Number: BA-001	Creator:	Company Administrator	
	Title: Initial Budget - Summary Code 01	Creation Date:	05/08/2014 01:55 PM Local (GMT-8)	
Project	t Number: AP0001	Due Date:	05/15/2014 01:50 PM Local (GMT-8)	
Proje	ect Name: All Projects	Status:	Approved	
		Contract Reference:		-
💾 Task Details				
Record has been cl	osed. (Click here to view process details)			
	( <u></u> p,			
Line Items				
Current View: All			Show Currency in: Transaction Currency	· •
2 Item(s)	I	age 1 of 1	Display 100 👻 items	per page
No. A Cost Code	Code Name Short	Description Spend Category	Amount	
001 01-01A	Site Design 01-01	A	250,000.00	<u>~</u>
002 01-018	Site Excavation 01-01	8	250,000.00	
				-
•				
Grid Q Fine	d		Total Amount: \$ 50	0,000.00



Cost sheet view of the cost business process record. Two Cost Codes have budgets against them.

Pro	Project Cost Sheet						
	Cost Code	Cost Item	Budget Approval (Approved)				
1	⊡ <u>01-000</u>	Site Construction	500,000.00				
2	<u>01-01A</u>	Site Design	<u>250,000.00</u>				
3	<u>01-01B</u>	Site Excavation	<u>250,000.00</u>				
4	<u></u>	Concrete & Masonry & Metal	0.00				
8	<b>⊞</b> <u>03-000</u>	Wood & Plastic & Thermal	0.00				

#### P6:

1. P6 Application Settings have been set with the correct Unifier environment settings - this creates the association between P6 and the Unifier environment.

rimavera Unifier —
Enter the Primavera Unifier URL and credentials to enable Primavera Unifier link to P6
Primavera Unifier URL
https://unifier.mycompany.com
Company Short Name
COMPANY
Authentiactics Code
Authentication Code
*****

2. Unifier Project Settings for the P6 schedule has been set in Project Preferences - this links the P6 schedule with the Unifier project.

	Primavera Unifier
Analytics Calculations <u>Contract Management</u> Defaults General <b>Primavera Unifier</b> Progress Reporter Services Team Member Interfaces	<ul> <li>Link project to a Primavera Unifier project</li> <li>Project Name</li> <li>Office Building Addition Two</li> <li>Schedule Sheet</li> <li>Office Building Add. Two Schedule</li> <li>Data Mapping</li> <li>P6 Integration</li> <li>Delete activities no longer in the P6 Schedule from Primavera Unifier</li> <li>Only send activities with CBS codes assigned</li> </ul>



3. CBS Cost Codes (from the Unifier project's cost sheet) are assigned to Activities using the CBS column.

Activities of Office Building Addition Two							
Actions - Edit - View -	2 🗣 🗶 🎦 🖓 🚷	🔥 🗈 🏝 💷 🛧 🗸	▶ ♦ ♦  # 4, \$,   🖻 \7 • \$   🔁 🖩 ﴾ 🛍				
WBS / Activity	Activity Name	CBS	Select CBS				
💷 📄 Office Building Addit							
🗉 🧧 Tite Construction			Search				
SC1020	Architect	01-000~~01-01A 🛄	=-01-000 - Site Construction				
SC1030	Civil Engineering/ALT	01-000~~01-01A	the design     the design				
😑 SC1040	Geotech	01-000~~01-01B	⊕−01-01B - Site Excavation				
🔲 👄 SC1050	General Construction S	01-000~~01-01B	O2-000 - Concrete & Masonry & Metal				
🖃 🗉 Concrete			4 U3-000 - Wood & Plastic & Thermal				
🗖 👄 CO1000	General Construction C	02-000~~02-02A					
🖃 📑 Masonry							
👄 MA1000	General Conditions Ma	02-000~~02-02B					
🖃 🖃 Metals			14				
🔲 👄 MT1000	General Conditions Met	02-000~~02-02C					
😑 📲 Wood, Plastics an			14				
- WPC1000	General Construction	03-000~~03-03A	4				
🔲 WPC1010	Cable Television	03-000~~03-03A	4				
🔲 💭 WPC1020	Exterior Signage	03-000~~03-03A	4				
🔲 💭 WPC1030	Telephone Systems	03-000~~03-03A					
	•		OK Cancel				

4. P6 schedule has been sent to Unifier.

Activ	Activities of Office Building Addition Two						
Actio	ns - Edit - View - 📄 🥝	• 🗣 🗶	Ъ	2		化电路电	44
	Save	Ctrl-S		ame		CBS	Ea
0	Cancel	Escap	е				
	Add		•				23-De
X	Delete	Delete					23-De
-	Dissolve			<u> </u>		01-000~~01	23-De
2	Assign Resource			ng /.	ALT	01-000~~01	20-Ja
1	Assign Role				_	01-000~~01	17-Fe
÷.	Define Baselines			ucti	on S	01-000~~01	17-Ma
6.							21-Ap
1 à	Release Evolusive Look			ucti	on C	02-000~~02	21-Ap
	Open Dependent Projects						09-Ju
	View Colordor			ions	s Ma	02-000~~02	09-Ju
							07-Ju
	E-mail Activity Details			ions	s Met	02-000~~02	07-Ju
 	Jump to next highlighted	Ctrl-Do	wn				18-Au
12	Jump to previous highlighted	Ctrl-Up		uctio	on	03-000~~03	18-Au
	Link Selected Activities			in		03-000~~03	15-Se
	Run		•	e		03-000~~03	22-Se
5	View Service Status			tem	s	03-000~~03	29-Se
8	Print	Ctrl-P					06-00
8	Print Preview			ucti	on-T	03-000~~03	06-00
	Page Setup						
	Import/Export		-		Import	from Excel	
				2	Export	to Excel	
					Create	Import Template	
				đ	Send t	o Primavera Unifier	



5. Check the P6 schedule data has been populated in the Unifier project's schedule sheet.

8	🖫 Save 🖺 Add 🔹 🔆 Delete 📰 Indent 📳 Outdent 📲 Gantt 🌌 Progress 🔟 Columns 🤍 Find 💿 Zoom In 💿 Zoom Out 🔶 Focus 👿 Close Window											
0	ffice Building Add. Two Schedule					-						
							20	14				
ld	Activity Name	P6 Activity Nu	P6 CBS	Start date	Finish date	Jun	Jul	Aug	Sep	Oct	Nov	
8	⊡- <u>Metals</u>			12/08/2014	01/16/2015						12/08/2014	
9	General Conditions Metals	MT1000	02-000~~02-02C	12/08/2014	01/16/2015						12/08/2014	
10	E- <u>Masonry</u>			11/10/2014	12/05/2014					11/10/2014	Masonr	TV 12/
11	General Conditions Masonry	MA1000	02-000~~02-02B	11/10/2014	12/05/2014					11/10/2014	Genera	al Co 12/
12	E- <u>Concrete</u>			09/22/2014	11/07/2014	4		09/22/	2014	Concrete	11/07/201	
13	General Construction Concrete	CO1000	02-000~~02-02A	09/22/2014	11/07/2014			09/22/	2014	General Cons	truction Con 11/07/201	ncret 4
14	Site Construction			05/26/2014	09/19/2014	Site (	onstruction		09/19	/2014		
15	General Construction Sitework	SC1050	01-000~~01-01B	08/18/2014	09/19/2014		08/18/20	Gen 14	eral Constru 09/19	ction Sitewor /2014	k	
16	Geotech	SC1040	01-000~~01-01B	07/21/2014	08/15/2014	07/21/2	Geo 014	ech 08/15/20	)14			
17	Civil Engineering / ALTA Survey	SC1030	01-000~~01-01A	06/23/2014	07/18/2014	Civi 014	Engineering 07/18/2	/ ALTA Sur 014	vey			
18	Architect	SC1020	01-000~~01-01A	05/26/2014	06/20/2014	hitect 06/20/	2014					
•	•	4			•	•						Ĺ



#### Creating the Cash Flow Curve

- 1. In the Cost Manager of the Unifier project:
  - a. Select Cash Flow node.
  - b. Click New and select Detail Curves.

This will create the detail level the curve data will be based on.

- 2. In the General Tab:
  - a. Provide a name.
  - b. Select WBS (the curve will use the CBS Cost Codes).

User Mode 👻 😥	File Edit View Help
G-B Office Building Addition Two - Ho	🗊 New 🔹 🎦 Copy 🗃 Open 🔣 Properties 🗟 Permission 📓 Summary 🔹 🤇 Find 📿
Alerts	Cash Flow - Current View: All
	See Properties - Windows Internet Explorer
	General Curves Filter Options Schedule Summary
Gates	Name: Detail Curves *
	Description:
Cost Sheet	
E Schedule of Values	
Document Manager	Rollup Status:
Portfolio Manager     Schedule Manager	Detail Level
	© Project / Shell
	Summary WBS
	• WBS
	Commitment
	Dusiness ProcessSelect
	Select
	Base Commit Record:
	Time Scale:
	By: Month 🕶
	Format: MM YY -
	Period Close Settings
	Enable auto snapshot on Select
	Cutoff spends
	Apply Spends to:
	The same month as the effective date
	The next month if after the cutoff date
	The previous month if on or before the cutoff date
	OK Cancel



- 3. In the Curves tab:
  - a. Click Add and select a curve. The curve selected in this example (baseline) is one of the default curve types (Baseline, Actuals, Forecast) from the Cost Controls application.
  - b. Click Ok to close window.

General	Curves	Filter	Options	Schedule	Summary
Name		Туре			
Baseline Actuals Forecast Original B Approved I Shared Bu Baseline2 Actuals2	udget Budget Idget				
۹ Add –	Modify	ove	Þ	Move Up	Move Down
		ОК	Cancel		

A distribution profile (curve type) will be assigned to each CBS Cost Code.

- 4. In the Distribution section:
  - a. Select 'Auto by default profile per WBS' radio button.
  - b. Click Details.



5. Select all the rows to take advantage of the Bulk Edit feature.

# 

a. Click the Bulk Edit.

DCD ( U		
IBS Details		
WBS Code	<ul> <li>WBS Item</li> </ul>	Default Profile
03-03T	Thermal Work	
03-03A	Wood & Plastic Work	
02-02C	Metal Work	
02-02B	Masonry Work	
02-02A	Concrete Work	
01-01B	Site Excavation	
01-01A	Site Design	

There are four default profiles to pick from: Linear, S Curve, Front Loaded and Back Loaded.

- 6. In the example the S Curve is selected:
  - a. Select the desired row.
  - b. Click Select.





All WBS Code (Cost Code) rows now have the distribution profile S Curve.

7. Click Save will also close the window.

Save 🗃 Bulk E	dit 🤍 Find 🔣 Close Window	
WBS Details		
WBS Code	<ul> <li>WBS Item</li> </ul>	Default Profile
03-03T	Thermal Work	S curve
03-03A	Wood & Plastic Work	S curve
02-02C	Metal Work	S curve
02-02B	Masonry Work	S curve
02-02A	Concrete Work	S curve
01-01B	Site Excavation	S curve
01-01A	Site Design	S curve

The curve now needs to know which cost data to use from the cost sheet and also how the distribution will be allocated over time (in months). This example the Budget amounts are used and distributed over date ranges from the schedule sheet. These date ranges look at the earliest Start Date and latest Finish Date for activities per assigned Cost Code.

- 8. In the Cost section:
  - a. Select Distribute amount from cost sheet column radio button.

b. Select the appropriate business process (with specific status). This example will use approved Budget Approval business process records.

- 9. In the Schedule section:
  - a. Select Use Dates from Schedule Sheet radio button.
  - b. Click Select.
  - c. Select Start Date for the From Date and Finish Date for the To Date.
  - d. Click OK to close the window.



# CREATING CASH FLOW CURVE - P6 SCHEDULE & UNIFIER COST DATA

Name:	Baseline
Type:	Baseline
Distribut	tion
	Manual
	Auto by default profile per WBS     Details.
	Use data from Schedule Sheet     Select.
Cost	
	Manually enter amounts for each period
	Auto distribute total amount across all periods
	Distribute amount from cost sheet column     Budget Approval (Approved) -
Schedu	le
	Manual
	Use dates from Schedule Sheet Office Building Add. Two Schedule Select
	From Date
	Data element from schedule shee Start date
	To Date
	Data element from schedule shee
	Data element irom schedule shee

The newly created baseline curve is listed.

10. Click OK to close the window.

General	Curves	Filter	Options	Schedule	Summary
Name		Туре			
Baseline		Baseline	9		·
1					
Add	Modify Domo			Movelle	Mayo Down
Add +	Remo			Move Op	MOVE DOWN
		01	Canaal		
		OK	Cancel		



## CREATING CASH FLOW CURVE - P6 SCHEDULE & UNIFIER COST DATA

The cash flow curve window will automatically appear showing the example baseline curve. The rolled up summary budget amounts (per month) can be seen in the row in the bottom pane. The From and To Date represent the earliest Start and latest Finish Date of activities that have cost data assigned per Cost Code.



Selecting the row and clicking Open will bring up the details for the curve.

In this example there were two Cost Codes assigned to activities that had approved budget amounts. Note how each budget amount per Cost Code is distributed between the corresponding From and To Dates.

Number	Name	From Date	To Date	Profile	Total	Unassigned	05 14	06 14	07 14	08 14	09 14
01-01A	Site Design	05/26/2014	07/18/2014	S curve	250000.00	0.00	42500.00	165000.00	42500.00		
01-01B	Site Excavation	07/21/2014	09/19/2014	S curve	250000.00	0.00			42500.00	165000.00	42500.0
02-02A	Concrete Work	09/22/2014	11/07/2014	S curve	0.00	0.00					0.0
02-02B	Masonry Work	11/10/2014	12/05/2014	S curve	0.00	0.00					
02-02C	Metal Work	12/08/2014	01/16/2015	S curve	0.00	0.00					
03-03A	Wood & Plastic Work	01/19/2015	03/06/2015	S curve	0.00	0.00					
03-03T	Thermal Work	03/09/2015	04/10/2015	S curve	0.00	0.00					
			Total	500000.00	0.00	42500.00	165000.00	85000.00	165000.00	42500.0	

