Welcome to the
Eastwood Harris Pty Ltd
Primavera P6
Version 7
COST MANAGEMENT WITH EXPENSES

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Purpose of the Presentation

- Companies often want to see their costs in P6 for cash flow and Earned Value purposes,

- There are advantages and disadvantages in using either Resources and/or Expenses for cost management in P6,

- The purpose of this presentation is to demonstrate the Use of Expenses and Excel for the cost management of Projects at WBS Level.

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COST MANAGEMENT USING WBS ACTIVITIES AND EXPENSES

- P6 will not record costs at WBS Node or Activity level and costs have to be assigned to Expenses and/or Resources,

- Many software packages collect costs at WBS Node which includes SAP,

- This section will outline how one can use P6 WBS Activities and Expenses to manage costs collected by other systems at WBS level,

- The prerequisite for the process outlined in this paper is for the Cost Management System to:

  - Have a one-to-one mapping (match) to the schedule WBS Activities, and

  - To be able to produce reports with costs summarised to the schedule WBS Activity level.

Background Information

It is important that users understand:

- Costs in Cost Management Systems usually have a number of elements including (but not limited to):

    - Original Budget and Current Budget,

    - Committed Budget, often calculated from one or more line items on multiple contracts and purchase orders),

    - Received, Quality Checked, Invoiced and Outstanding Commitment, again often calculated from one or more multiple contracts and purchase orders,

    - Accruals,

    - Uncommitted Budget, the value of unawarded work,

    - Payroll costs of Day Labour, and

    - Unallocated WBS funds (Remaining Contingency).

Background Information ....

- P6 Expenses have **ONLY** the following cost fields:

    - Budget,

    - Actual,

    - Remaining and

    - At Completion,

- Therefore cost from a cost management system have to be summarised before reporting in P6,

- Only the P6 Budget, Actual, Remaining and At Completion Costs fields are added up and displayed against activities,

- P6 Expense User Definable Fields and Units may not be summarised at Activity level,

- Therefore if P6 User Definable Fields are to be used for displaying other Cost Data then the costs have to be imported against both Expenses and Activity UDF.

Updating the Project

The following Process could be considered:

- Create the project schedule,

- Create the Expense and Activity UDFs,

- Create one or more WBS Activity for each WBS Node,

- Assign the Budget and At Completion Costs against each Expense,

- Baseline the Project,

- Export the Activity and Expense UDFs to Excel,

- Update the schedule Dates,

- Populate the Activity and Expense UDFs in Excel,

- Import the data from Excel to Activity and Expense UDFs ,

- Run a Global Change to populate the Expense Cost Fields from the Expense UDFs.

Creating WBS Activities and Expenses

To import cost at WBS Node it is suggested that you:

- Create a WBS Activity in each WBS Node to manage costs.

- Assign Costs to Expenses and not Resources, then you will not run into issues such as:

  - The Cost zeroing out when the Remaining Duration equals Zero as may happen with resources. Often costs are incurred in a cost management system after an activity is complete due to back charges or retention etc,

  - An additional benefit of Expenses is that they allow cost to be incurred before an activity commences, representing a contractors up front payment,

  - Expense costs are not affected by duration changes, which may happen with resources.

Set Up the User Definable Fields – continued....

To manage these cost fields you may consider:

- Setting up **Expense User Definable Fields** to import all the accounting cost data into,

- Costs in the **Expense User Definable Fields** may then be Global Changed into the appropriate **Expense Costs** fields for reporting and comparing to the Baseline via **Activity Expense Costs** fields,

- Set up **Activity User Definable Fields** to import accounting cost data into allowing all the accounting cost data to be displayed in columns,

    - This is because Expense User Definable Fields may not be displayed in Gant chart columns,

    - This is an optional step.

Set Up the User Definable Fields – continued….

All the following fields contain the same costs:

- **Expense User Definable Fields** which hold all the different types of costs and are used to import costs into,

- **Expense Costs** fields which are populated by a Global Change from the Expense User Definable Fields,

- **Activity User Definable Fields** allowing costs to be show in Gantt Chart Columns,

- **Activity Expense Costs** are populated from the **Expense Costs** fields.

Set Up the User Definable Fields – continued….

- Set up User Definable Fields in a similar way to the pictures below,

- The Activity and Expense are identical,

- The "PO" prefix keeps the field order in the database and thus keeps the fields together.
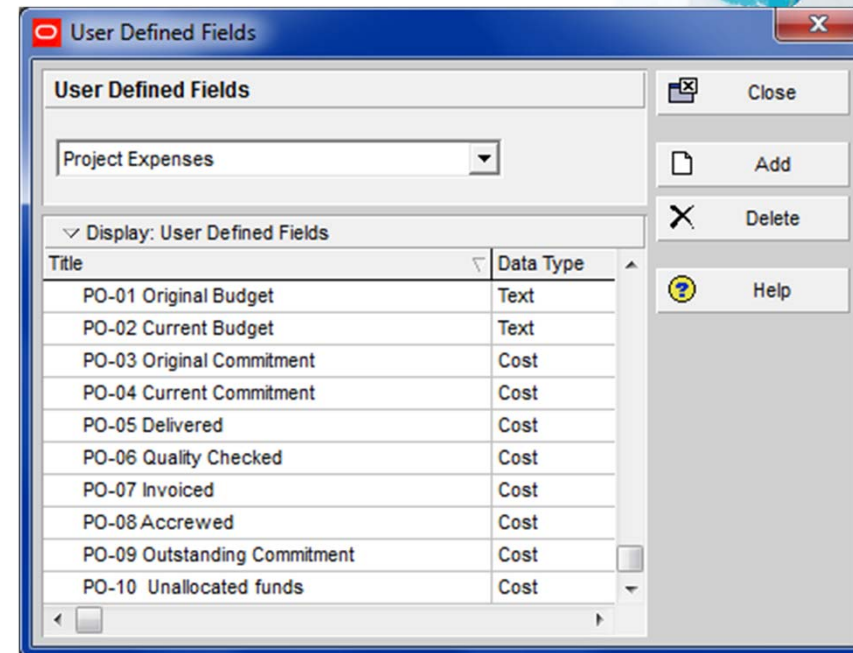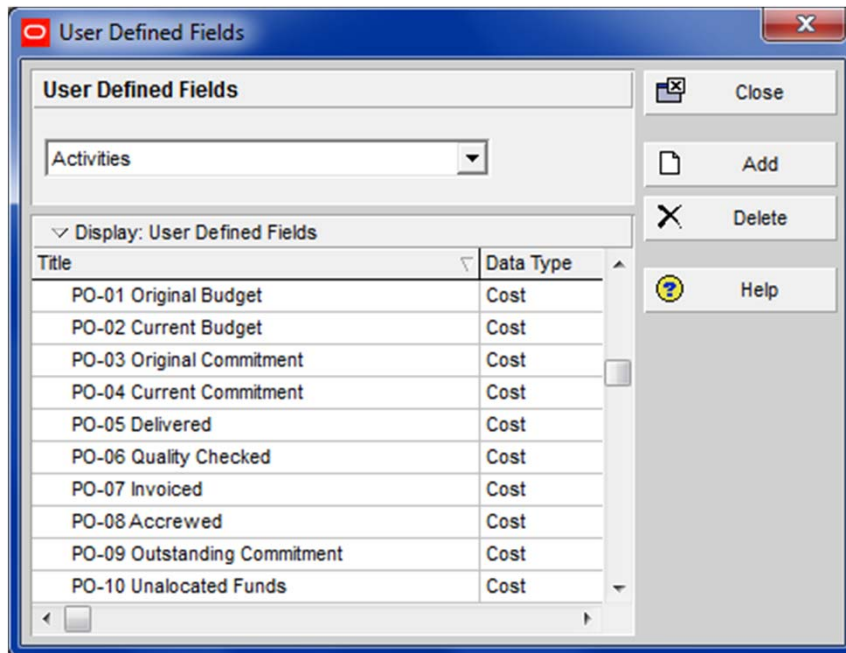
Export the UDS Fields to Excel

- Export the Activity and Expense UDF Fields to Excel,

- These will be populated from the Cost Management System and imported,

- Create a template as per the picture below, and

- Filter on WBS Activities:
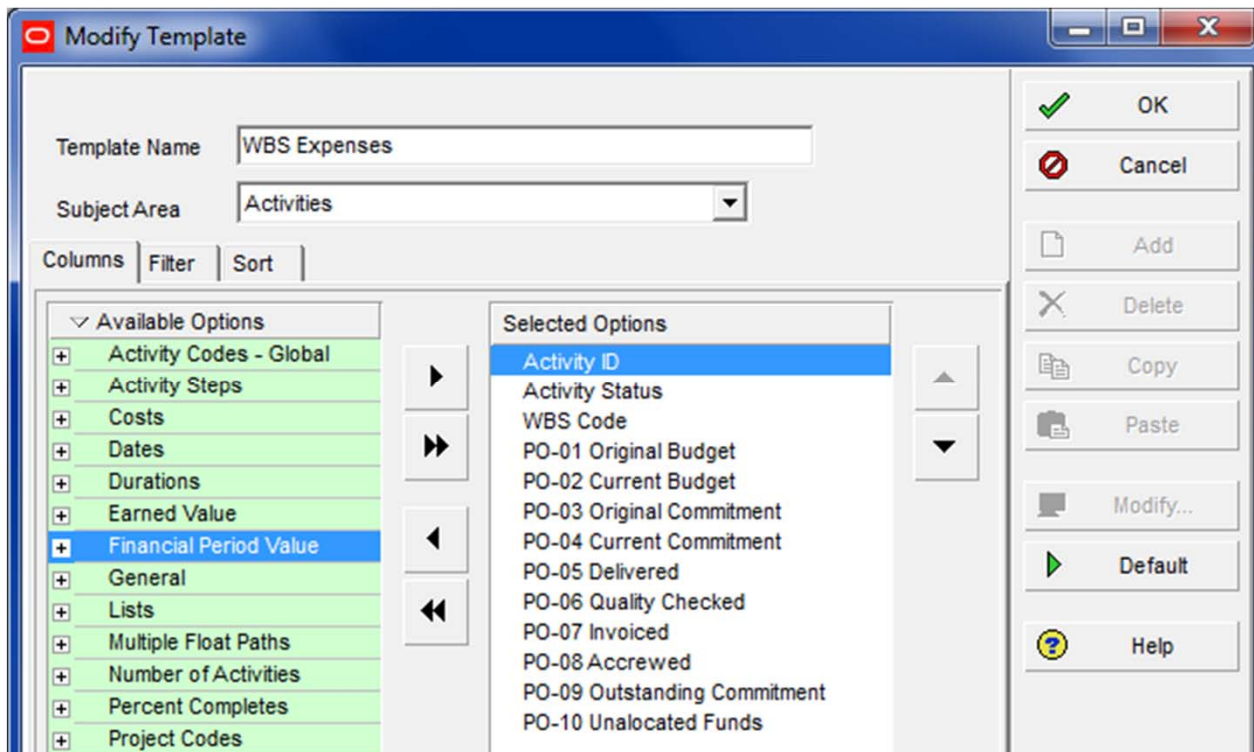
Update the Spread Sheet & Import

- The Activity and Expenses sheets will both have exactly the same fields,

- Populate the **TASK** sheet from your Cost Management system,

- Copy & Paste to the **PROJCOST** sheet, and

- Import the data:

	A	B	C	D	E	F	G
1	task_code	status_code	wbs_id	user_field_268	user_field_269	user_field_265	user_field_262
2	Activity ID	Activity Status	WBS Code	PO-01 Original Budget(A$)	PO-02 Current Budget(A$)	PO-03 Original Commitment(A$)	PO-04 Current Cor
3	WBS-1	Completed	WBSS.1	100	110	90	100
4	WBS-2	In Progress	WBSS.2	200	220	180	190
5	WBS-3	Not Started	WBSS.3	300	330	300	310
6							

TASK / PROJCOST / USERDATA

	A	B	C	D	E	F	G
1	task_id	cost_name	TASK__status_code	user_field_258	user_field_259	user_field_250	user_field_251
2	Activity ID	Expense Item	(*)Activity Status	PO-01 Original Budget(A$)	PO-02 Current Budget(A$)	PO-03 Original Commitment(A$)	PO-04 Current Comm
3	WBS-1	WBS-1	Completed	100	110	90	100
4	WBS-2	WBS-2	In Progress	200	220	180	190
5	WBS-3	WBS-3	Not Started	300	330	300	310
6							

TASK / **PROJCOST** / USERDATA

Global Change UDF values into Expense Costs Columns

- Depending on what cost you want put where, run a Global Change like the one below,

- Actual Costs are often calculated from Invoiced + Accrual, and

- Remaining costs are often calculated from Outstanding Commitment + Unallocated Funds (Unawarded Work):

Review Data

- Review the data, the costs should be assigned against the Activity UDFs and the Expense UDFs and should be the same:

Review Data...

- The picture below shows
- Baseline the project,
- Update the WBS Activities by importing from Excel:

Activity ID	Orig Dur	BL Project Expense Cost	Actual Expense	Remaining Expense Cost	At Completion Expense Cost	Qtr 1, 2014 Jan Feb Mar	Qtr 2, 2014 Apr May Jun	Qtr 3, 2014 Jul Aug Sep	Qtr Oct
WBS Summ	185d	A$600.00	A$198.31	A$401.69	A$600.00				
WBS 1	86d	A$100.00	A$100.00	A$0.00	A$100.00				
WBS-1	86d	A$100.00	A$100.00	A$0.00	A$100.00				
XX1010	0d	A$0.00	A$0.00	A$0.00	A$0.00				
XX1020	25d	A$0.00	A$0.00	A$0.00	A$0.00				
XX1030	21d	A$0.00	A$0.00	A$0.00	A$0.00				
XX1040	22d	A$0.00	A$0.00	A$0.00	A$0.00				
XX1050	18d	A$0.00	A$0.00	A$0.00	A$0.00				
WBS 2	59d	A$200.00	A$98.31	A$101.69	A$200.00				
WBS-2	59d	A$200.00	A$98.31	A$101.69	A$200.00				
XX1070	23d	A$0.00	A$0.00	A$0.00	A$0.00				
XX1080	16d	A$0.00	A$0.00	A$0.00	A$0.00				
XX1090	20d	A$0.00	A$0.00	A$0.00	A$0.00				
WBS 3	40d	A$300.00	A$0.00	A$300.00	A$300.00				
WBS-3	40d	A$300.00	A$0.00	A$300.00	A$300.00				
XX1110	20d	A$0.00	A$0.00	A$0.00	A$0.00				
XX1120	20d	A$0.00	A$0.00	A$0.00	A$0.00				
XX1130	0d	A$0.00	A$0.00	A$0.00	A$0.00				
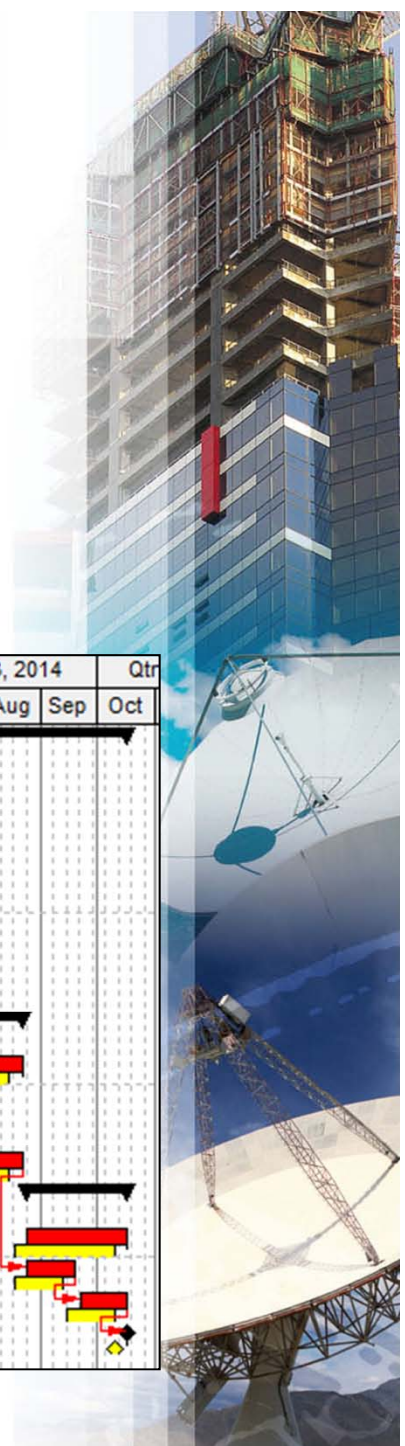
Attached Files

- The following files are available for download in a zip file:

  - **Apply UDF WBS Values.pcf** the Global Change Used

  - **WBS Summary Activities with Costs.plf** the layout used. **NOTE:** You may find that the UDF fields will not be displayed as your database will create User Field numbers.

  - **WBSS.xer** the P6 file used.

  - **WBSS.xls the spreadsheet** used. **NOTE:** You must create your own spreadsheet and not import this one.

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