



Cash Flowing with Expenses in Oracle Primavera P6

1 Introduction

Creating cashflows with P6 Expenses has many advantages and some disadvantages over using resources. For example Expenses may:

- Be negative to allow for charge back to contractors, Resources may not,
- Be applied to Milestones, Resources may not,
- Have a value assigned before an activity has started allowing the payment of contractor mobilisation, and
- Have a remaining cost after an activity is complete to represent contract retention.
- But it is difficult to get time phase Expense quantities out of P6.

Expenses are intended to be used for one off non-resource type costs and could include:

- Purchase of office equipment to set up a project office,
- Travel costs,
- Payment for a consultant's report,
- Insurance costs, and
- Training courses.

2 Creating Expenses

Expenses may be created using the:

- **Expenses Window** and assigned to an activity, or
- Created in the **Expenses** tab of an activity.

2.1 Expenses Window



The **Expenses Window** is opened by:

- Clicking in the  icon on the **Project** toolbar, or
- Selecting **Project, Expenses**.

Creating a new **Expense** is similar to creating a new activity:

- Select **Edit, Add**, and
- The **Select Activity** form will then be displayed and the activity the expense is to be associated with is selected.



Expense Item	Expense Category	Vendor
 Training Manuals	Training	Eastwood Harris Pty Ltd
 Primavera Training Course	Training	Eastwood Harris Pty Ltd

General	Activity	Costs	Description
Expense Item	Expense Category		
Training Manuals	Training		
Vendor	Eastwood Harris Pty Ltd		
Cost Account	Document Number		
Con.11.4 Training	110803 P6V81S		



Enter the following Information in the tabs in the bottom window:

General Tab

- **Expense Item** – A free form field to enter the description of the Expense.
- **Vendor** – A free form field to enter the vendor or supplier name.
- **Expense Category** – Select the Expense Category; these are created in the **Admin Categories** form.
- **Cost Account** – Select a Cost Account should you wish to see or report the costs against a Cost Account. Costs accounts are created in a similar method to other hierarchical structures in Primavera, such as the WBS, by selecting **Enterprise, Cost Accounts....**
- **Document Number** – A free form field to enter the document number that could represent the Purchase Order, Contract, or Invoice Number.

Activity tab displays information mainly adopted from an activity, the Accrual Type, is editable:

- **Accrual Type** – this enables you to select if the costs are accrued or cash flowed at the beginning, end, or uniformly over the duration of the activity.

Costs tab is mainly self-explanatory. The following information is entered:

- **Budgeted Units, Actual Units, Remaining Units and At Completion Units** – the quantity of the Expense item. When an Expense is created it is set a default value of 1. If set to zero then the costs are set to zero and costs may now not be entered.
- **Price/Unit** – the cost per Expense item,
- **Unit of Measure** – the units of the Expense; for example, each, foot, meter, etc.
- Check **Auto Compute Actuals** to allow the software to calculate the Actual and Remaining Costs and Units (quantities) based on the **Remaining Duration**,
- The remainder of the fields are used when the activity is progressed.

General	Activity	Costs	Description
Budgeted Units	Actual Units	Remaining Units	At Completion Units
10.000	0.000	10.000	10.000
Price/Unit	Unit of Measure		
\$100	each		
Budgeted Cost	Actual Cost	Remaining Cost	At Completion Cost
\$1,000	\$0	\$1,000	\$1,000
Expense % Complete	<input type="checkbox"/> Auto Compute Actuals		
0%			

Description tab is where you enter an extended description of the Expense item.



2.2 Expenses Tab in the Activities Window

This tab may have all the columns of data available in the **Expenses Window** displayed. All the fields may be edited from this tab:

Activity ID		Activity Name		January 2014				February 2014				March 2014			
				06	13	20	27	03	10	17	24	03	10	17	24
P6 Training		Primavera Training Course													
A1000		Primavera Training Course													

Expenses						
Activity		Project				
A1000		Primavera Training Course		Training		
Expense Item	Accrual Type	Price / Unit	Unit of Measure	Remaining Units	Budgeted Cost	
Primavera Training Course	Uniform over Activity	\$1,600	day	3.000	\$4,800	
Training Manuals	Uniform over Activity	\$100	each	10.000	\$1,000	

3 How Expenses cash flow:

I created a 10-day activity and assigned an Expense with the value of \$30.00 and then applied various scenarios and in progress activities have a different At Completion Costs to the Budget Costs:

- The top green bar is the Early bar,
- The middle orange bar are the Planned Dates as No Baseline has been set,
- The bottom brown bar is the Late bar.

3.1 Unstarted Activity with no Actual Expense Costs

This cash flows as expected with values of \$30 Budget, \$0 Actual and \$30 Remaining and At Completion:

Nov 28							Dec 05							Dec 12							Dec 19							Dec 26							Jan 02							
S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat	
[Gantt chart showing bars for Early (green), Planned (orange), and Late (brown) dates]																																										
Cost		Dec 05							Dec 12							Dec 19							Dec 26							Jan 02												
at	S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat
Actual Expense																																										
At Completion Expense															\$3	\$3	\$3	\$3	\$3				\$3	\$3	\$3	\$3	\$3															
BL Project Expense															\$3	\$3	\$3	\$3	\$3				\$3	\$3	\$3	\$3	\$3															
Remaining Expense															\$3	\$3	\$3	\$3	\$3				\$3	\$3	\$3	\$3	\$3															
Remaining Late Expense																							\$3	\$3	\$3	\$3	\$3				\$3	\$3	\$3	\$3	\$3							

3.2 Unstarted Activity with Some Expense Costs Expended

The \$20 Actual is placed on the Data Date, \$20 Remaining Early on the Early bar, \$30 Budget on the Planned dates and \$20 Remaining Late on the Late bar:

Nov 28							Dec 05							Dec 12							Dec 19							Dec 26							Jan 02							
S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat	
[Gantt chart showing bars for Early (green), Planned (orange), and Late (brown) dates]																																										
Cost		Dec 05							Dec 12							Dec 19							Dec 26							Jan 02												
at	S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat	S	M	T	W	Thr	Fri	Sat
Actual Expense															\$20																											
At Completion Expense															\$20																											
BL Project Expense															\$3	\$3	\$3	\$3	\$3				\$3	\$3	\$3	\$3	\$3															
Remaining Expense															\$2	\$2	\$2	\$2	\$2				\$2	\$2	\$2	\$2	\$2															
Remaining Late Expense																							\$2	\$2	\$2	\$2	\$2				\$2	\$2	\$2	\$2	\$2							



3.7 Completed Activity with No Expense Costs

An interesting result:

- The \$30 Remaining Early and \$30 At Completion are Cash Flowed on the Planned dates, and
- The Late expenditure is placed on a Late Milestone,

Nov 28							Dec 05							Dec 12							Dec 19							Dec 26							Jan 02						
S	M	T	W	Th	Fri	Sat	S	M	T	W	Th	Fri	Sat	S	M	T	W	Th	Fri	Sat	S	M	T	W	Th	Fri	Sat	S	M	T	W	Th	Fri	Sat	S	M	T	W	Th	Fri	Sat



4 Summary

P6 handled illogical cash flows the following way:

- **Actual Expense** costs assigned before activity starts are put on the **Data Date**,
- **Remaining Expense** costs for a complete activity are put on **Planned Dates**, which depending on how the schedule was updated often contain irrelevant information. I would have expected these to be placed on the Data Date, as per my notes above.
- **Late Expenses** on a complete activity (with an **Actual Duration**) are placed on a **Late Milestone** (without an **Actual Duration**). This date is available as P6 calculate late dates for complete activities when it calculates a schedule.

As it can be seen Expense Cash flows may be displayed in tables, but the Expense Quantities are not available graphically in any Resource View or Activity View. I have also not found a Report giving Expense Quantities by period, thus making it difficult for say predicting concrete demand by week etc using resources, but this may be achieved using Material resources and .

5 Recommendations

I would certainly use Expenses for cash flows and the advantages such as being able to assign Expenses to Milestones and having negative Expenses are good, but the downside is the difficulty of getting Expense quantities by period out of P6.

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