Welcome to the Eastwood Harris Pty Ltd
Primavera P6
Versions 8.2 to 15.1
EPPM Web Tool
2 day training course
“Enterprise Portfolio Project Management”

Administration
- Evacuation
- Facilities, timings and meals
- Mobile phones & Emails
- Introductions:
  - Your name,
  - The types of projects you are involved in,
  - Your experience in scheduling software and
  - What you seek from this course,
- Course attendance sheet,
- Course conduct.

Course Objectives
This course objectives are to teach participants:
- Introduction to the user interface,
- How to create and plan projects without resources
  including creating the WBS, adding activities,
  relationships and constraints,
- Formatting, filters, layouts and printing,
- Assigning Baselines and updating an un-resourced
  project,
- Administering and assigning Roles and Resources,
- Updating a Resourced project,
Successful completion of the workshops is required to
complete the course.

Course Agenda
DAY 1
1 - Introduction
2 - Creating a Project Plan
3 - Starting Up and Navigation
4 - Creating a New Project
5 - Defining Calendars
6 - Creating a Primavera Project WBS
7 - Adding Activities and Organizing Under the Wbs
8 - Formatting the Activity Window and Views
9 - Adding Relationships
10 - Activity Network View
11 - Constraints
continued...

DAY 2
12 - Printing and Reports
13 - Scheduling Options and Setting a Baseline
14 - Updating an Unresourced Schedule
15 - Administer Menu
16 - Creating Roles and Resources
17 - Assigning Roles, Resources and Expenses
18 - Resource Optimization
19 - Updating a Resourced Schedule
20 - Other Methods of Organizing Project Data
21 - Index.
1 - INTRODUCTION

1.1 - Purpose
1.2 - Required Background Knowledge
1.3 - Purpose of Planning
1.4 - Project Planning Metrics
1.5 - Planning Cycle
1.6 - Levels of Planning
1.7 - Monitoring and Controlling a Project.

1.1 – Purpose of the course

- Provide a method for planning, scheduling and controlling projects using Primavera,
- Within an established Enterprise Project database or a blank database,
- Up to an intermediate level.

1.2 - Required Background Knowledge

- The ability to use a personal computer and understand the fundamentals of the operating system,
- Experience using application software such as Microsoft Office and
- An understanding of how projects are planned, scheduled and controlled, including understanding the project management processes applicable to your projects.

1.3 - Purpose of Planning

- The ultimate purpose of planning is to build a model that allows you to predict which activities and resources are critical to the timely completion of the project,
- Strategies may then be implemented to ensure that these activities and resources are managed properly, thus ensuring that the project will be delivered both On Time and Within Budget.

Planning aims to:

- Identify the total scope and stakeholders
- Plan to deliver the scope and understand the risks
- Evaluate different project delivery methods
- Identify the deliverables under a logical breakdown of the project, often called WBS or PBS
- Identifying activities required to produce the deliverables
- Identify and optimize the use of resources
- Evaluate if target dates may be met
- Identify risks and plan to minimize them
- Provide a baseline plan
- Assist in stakeholders’ communication
- Assist management to think ahead and make informed decisions.

Planning helps to avoid or assist in evaluating:

- Increased project costs or reduction in scope and/or quality,
- Additional change over and/or operation costs,
- Extensions of time claims,
- Loss of your client’s revenue,
- Contractual disputes and associated resolution costs,
- The loss of reputation of those involved in a project, and
- Loss of a facility or asset in the event of a total project failure.
Now lets get our hands dirty!

3.1 - Special Note Regarding Web Based Project Management Tools

- Web based technologies often require specialist knowledge to implement to ensure the software functions as designed. During the course of writing this book the author found that dependent on the configuration settings of the browser it was occasionally needed to allow pop ups to activate,
- The system configuration of both the hardware and software can also impact the speed of the system when implemented and due to the multitudinous number of different system combinations.

3.2 - Logging In

- The Administrator will provide you with:
  - A web "Address" to access the Primavera Web Access software Login screen, which may be different to the one below,
  - A Username and a Password,
  - Open the Advanced tab to select another database or to change the Language,
  - A database to log into that may be different to the one below,
  - Click onto the Login button:
5.8.2 - Remove a Base Calendar from a Calendar

- To remove a Base Calendar from an existing you will have to delete the text from the box.

5.10 - Adjusting Calendar Working Hours

- It is strongly recommended that the working hours per day are all the same and have the same start and finish time; otherwise, one-day activities may span two days and two-day activities may span three days, etc.
- The instructor will demonstrate how to adjust the calendar working hours.

5.11 - Calendars for Calculating Summary Durations

- The summary duration of bands are calculated by:
  - When all the activities in a band share the same calendar then the summary duration is calculated on the calendar of the activities in the band, and
  - When activity calendars for the are different the summary duration is calculated on the Project Default calendar.

5.12 - Tips for Mixed Calendar Schedules

- When a project has mixed calendars with different start and finish times then one day activities may span 2 days:
- Techniques that may be considered to prevent this:
  - Apply an appropriate lag to the relationship, or
  - Assign all the calendars the same Start and Finish time but adjust the duration of the lunch break so the days have the desired number of hours.

5.13 - Workshop 3 - Maintaining the Calendars

- The normal working week at OzBuild Pty Ltd is Monday through Friday, 8 hours per day excluding public holidays,
- The installation staff works Monday through Saturday, 8 hours per day and the some holidays,
- You will create two calendars, a 5 and a 6 day per week with some holidays.
6 - CREATING A PRIMAVERA PROJECT WBS

6.1 – Opening and Navigating the WBS
6.2 - Creating and Deleting a WBS Node
6.3 - WBS Node Separator
6.4 - Activity Window Work Breakdown Structure Lower Pane Details
6.5 - WBS Categories
6.6 - Why a Primavera WBS is Important
6.7 - Workshop 4 – Creating the Work Breakdown Structure.

The Project WBS function is designed to record a hierarchical WBS that has been developed on a traditional basis as outlined in many project management documents.

A well-structured WBS should:
- Include all the project deliverables and
- Be set at the appropriate level for summarizing project activities and reporting project progress.

The project should be granulated (broken down) into manageable areas by using a project breakdown structure based on attributes of the project such as the Phases or Stages, Systems and Subsystems, Processes, Disciplines or Trades, and Areas or Locations of work.

There are two types of Project Breakdown Structures that may be utilised to programme a project:
- Hierarchical and
- Matrix

Either or both may be used in the one programme,
- The predominant method in P3 and SureTrak is the matrix format using Activity Codes,
- The predominate method in Primavera Project Manager is the WBS function and this is a Hierarchical structure.

The WBS for three buildings on one site may look like the pictures below:

In which situations would each example be applicable?

The project must be open and the Activities window must be displayed,
- Ensure you have a view with a WBS icon beside it:

To create a new WBS Node select a WBS Code or Name and either:
- Right-click to display the menu and use the menu commands Add Child WBS or Add Sibling WBS, or
- Use the menu toolbar Add Child WBS icon,
- Then use the icons on the Move toolbar to put the WBS Nodes at the right level or to reorder them,
- The commands Add, Delete, Copy, Cut and Paste all work to create, delete, move, and copy WBS Nodes.
10 - ACTIVITY NETWORK VIEW

10.1 - Introduction to the Activity Network View

10.2 - Early Date, Late Date and Float Calculations

10.3 - Workshop B – Scheduling Calculations and Activity Network View.

10.1 - Introduction to the Activity Network View

The Activity Network, also known as the PERT View, displays activities as boxes connected by the relationship lines:

- This chapter will not cover this subject in detail but will introduce the main features,
- Many features available in the Gantt Chart View are also available in the Activity Network View,
- Some of the functions of the Activity Network View are shown in the book.

10.2 - Early Date, Late Date and Float Calculations

- To help understand the calculation of late and early dates, float and critical path, we will now manually work through an example,
- The boxes below represent activities.

Forward Pass

- The forward pass calculates the early dates:
  $$EF = ES + DUR - 1$$
- Start the calculation from the first activity and work forward in time.

<table>
<thead>
<tr>
<th>Start</th>
<th>Early Finish</th>
<th>Late Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>54</td>
<td>01-Sep-14</td>
<td>01-Sep-14</td>
</tr>
<tr>
<td>64</td>
<td>02-Sep-14</td>
<td>02-Sep-14</td>
</tr>
<tr>
<td>24</td>
<td>06-Sep-14</td>
<td>06-Sep-14</td>
</tr>
<tr>
<td>54</td>
<td>15-Sep-14</td>
<td>15-Sep-14</td>
</tr>
</tbody>
</table>

Backward Pass

- The backward pass calculates the late dates:
  $$LS = LF - DUR + 1$$
- Start the calculation at the last activity and work backwards in time.
13.3.8 - Displaying the Baseline Data

The Baseline Dates may be displayed by:

- Displaying the Baseline columns:
  - BL is the Project Baseline
  - BL1 is the Primary User Baseline

- Showing a baseline bar on the Bar Chart by selecting the appropriate bars in the Customize Gantt Chart Options form, Bars tab.

13.4 - Additional Baseline Fields

- P6 R8.3 has added extra baseline fields in the Customize Columns form.

13 - SCHEDULING OPTIONS AND SETTING A BASELINE - SUMMARY

- 13.1 - Understanding Date Fields
- 13.2 - Scheduling Options – General Tab
- 13.3 - Setting the Baseline
- 13.4 Additional Baseline Fields
- 13.5 - Workshop 11 – WBS, LOEs and Setting the Baseline.

14 - UPDATING AN UNRESOURCED SCHEDULE

- 14.1 - Practical Methods of Recording Progress
- 14.2 - Understanding the Concepts
- 14.3 - Updating the Schedule
- 14.4 - Progress Spotlight and Update Progress
- 14.5 - Suspend and Resume
- 14.6 - Scheduling the Project
- 14.7 - Comparing Progress with Baseline
- 14.8 - Progress Line Display on the Gantt Chart
- 14.9 - Corrective Action
- 14.10 - Check List for Updating a Schedule
- 14.11 - Workshop 12 – Progressing and Baseline Comparison

14.1 - Practical Methods of Recording Progress

- The following information is typically recorded for each activity when updating a project:
  - The activity start date and time if required,
  - The number of days or hours required to complete the activity or the date and time the activity is expected to finish,
  - The percentage complete, and
  - If complete, the activity finish date and time.

- A printout of the schedule may be used for recording the progress of the current schedule:
17.10 - Resource, Planning Window
- The Resource, Planning window is out of the scope of this book but it allows high level resource planning by allowing resources or roles to be assigned at WBS Node level:

17.11 - Expenses
- Expenses are intended to be used for one off non-resource type costs,
- Expenses may be created using the Expenses tab of an activity,
- They may have both a costs and quantities:

17.12 - Suggested Setup for Creating a Resourced Schedule
- This section of the book contains a check list you should consider when setting up a new project.

17 - ASSIGNING ROLES, RESOURCES AND EXPENSES - SUMMARY
- 17.10 - Resource, Planning Window
- 17.11 - Expenses
- 17.12 - Suggested Setup for Creating a Resourced Schedule.

17.13 - Workshop 14 – Assigning Resources and Expenses to Activities
- The Resources must now be assigned to their specific activities.
20.2 - Activity Codes
Activity Codes may be used to Group, Sort, and Filter activities from one or more open projects,
- **Activity Codes**, such as Phases, Trades, or Disciplines, are often defined in the **Activity Codes Definition** form,
- **Activity Code Values** are defined in the in the **Administer, Enterprise Data, Activities, Activity Codes** tabs, such as:
  - Phases of Design, Procure, Install and Test,
  - Trades of Brickwork, Plumbing and Electrical, and
  - Disciplines of Concrete, Mechanical, Pipework,
- **Activity Codes** are assigned from the **Activities Window** using the **Codes** tab in the lower pane or displaying the appropriate Activity Code column,
The instructor will demonstrate.

20.3 - User Defined Fields
- User Defined Fields are similar to Custom Data Items in P3 or Custom Fields in Microsoft Project and provide the ability to assign additional information to database records,
- They may be used for recording information about the data field as an alternative to Activity Codes and other predefined Primavera fields,
- The type of data that may be assigned to User Defined Fields would be equipment number, order number, variation or scope number; road, railway or pipeline changes; address and additional costs data,
  - continued...

User Defined Fields
- Activity data may be filtered, grouped, and sorted using these User Defined Fields in a similar way to Activity Codes,
- Data may be imported into the fields and, unlike Activity Codes, the data item does not have to exist in the database before importing,
- There are a number of predefined fields that may be renamed and new ones may be created,
- The instructor will demonstrate UDFs.

20 - OTHER METHODS OF ORGANIZING PROJECT DATA - SUMMARY
- 20.1 - Understanding Project Breakdown Structures
- 20.2 - Activity Codes
- 20.3 - User Defined Fields

20.4 - Workshop 17 – Activity Codes and User Defined Fields (UDF)
- This workshop will look at creating an Activity Code and some UDFs,
- We will create an activity code to represent the departments’ responsibilities for the Project.

Review Expectations
- Any questions,
- Complete Feedback Sheet,
- Have we met your expectations?
Database Cleanup at end of course, if required:
Please could you delete all:
- User Filters
- User Layouts
- The resources created but NOT your Resource node
- Your projects.

Thank you for attending