IDENTIFYING AND UNDERSTANDING THE REASONS FOR P6 ROUNDING ERRORS
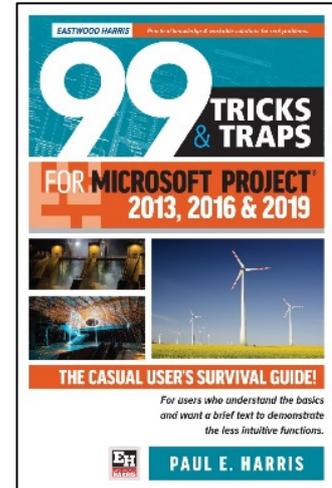
1   Introduction

Many companies like to keep their schedules on a daily basis so that all activities start at the start of the day, finish at the end of the day and all durations are in round days. P6 does not have functions like the Elecosoft (Asta) Powerproject "Snapping" function that keeps all task to a round day, so users have to be more careful with Primavera P6.

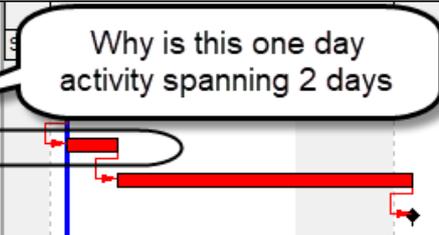There are two issues in P6 with rounding errors:

❖ Firstly, how do you identify that you have rounding errors and

❖ Secondly identifying what is causing rounding errors.

The picture below shows:

    ❖ A1010 is a one-day activity but spans two days and

    ❖ A1020 should finish on Friday but goes over the weekend:

This paper will look at both issues.

2   Identify Rounding Errors

To see rounding errors you need to:

❖ Set your **Date Format** in your **User Preferences** to show the time and

❖ Set your **Duration Format** in your **User Preferences** to show the hours or sub-units.

2.1   User Preferences

In P6 **User Preferences** are user centric. It would be better if many of the **User Preferences** were **Project Preferences**.

Also, the formatting set in the **User Preferences** apply to all views and for all projects in P6 and the user must continually change them, depending on what the user is doing. It would be better if the user could format dates and times for each Activity Layout, but this is not possible.
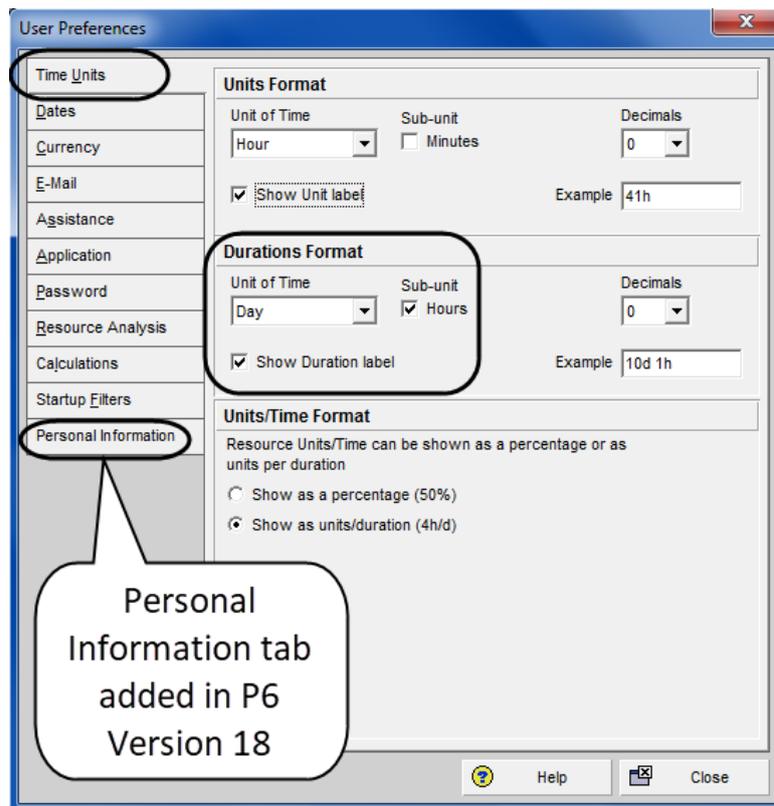
As a result, a user must be careful how they set their **User Preferences** and must continually change them depending on what they are doing.

2.2   Time Unit Formatting

It is recommended that users always display the **Sub-unit** in the **Duration** column to allow them to see if there are any non-round or whole days.

To adjust how the date and time are displayed:

❖ Select **Edit**, **User Preferences...**,

❖ Select the **Time Units** tab,

❖ The **Duration Format** section determines how the activity durations are displayed and should be set as per the picture below:

❖ The **Duration** format above is recommended by the author so any non round durations will be observed.

2.3   Date Formatting

Date Format:

It is recommended that users always display the **Month name** on all international projects so there is no confusion between the US mm/dd/yy format and the ROW (Rest of World) format of dd/mm/yy.
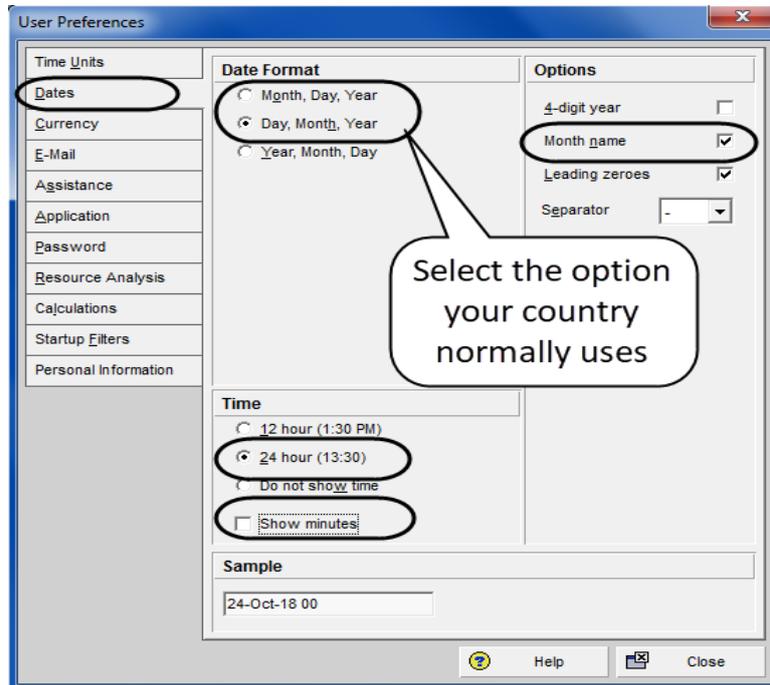
Time Units:

It is **STRONGLY** recommended that the time is **ALWAYS** displayed in 24-hour format so the user knows the time of any selected date. This is because the software will often select 00:00, (the first minute of a day) when assigning dates. The author does not display minutes to keep the date column widths slightly narrower.

To format these settings:

❖ Select **Edit**, **User Preferences...**,

❖ Select the **Dates** tab,

❖ The settings below are the recommended settings when creating a schedule, but the time should be hidden when printing reports:

Once the **User Preferences** are set then the cause of rounding errors are clear, Activity A1010 has a 1day and 1 hour duration that is pushing the other activities out:

#	Activity ID	Activity Type	Start	Original Duration	Finish									
						Sun	Mon	Tue	Wed	Thr	Fri	Sat	Sun	Mon
1	**Rounding Errors**													
2	A1000	Start Milestone	13-Jan-25 08	0d										
3	A1010	Task Dependent	13-Jan-25 08	1d 2h	14-Jan-25 10									
4	A1020	Task Dependent	14-Jan-25 10	4d	20-Jan-25 10									
5	A1030	Finish Milestone		0d	20-Jan-25 10									

3 Causes of Rounding Errors

You may find that your activities are not starting at the start of the day or ending at the end of a day, or a one-day activity is spanning two days etc.

Firstly, it is important to understand that P6 rounds down values of *.5, so 8.5 is rounded to 8 and 8.51 is rounded to 9.

The possible reasons for rounding errors or display issues are:

❖ The activity **Duration** is not a round figure and the display has been rounded down, but you are not showing decimal days or days and hours settings in the **User Preferences**.

❖ The **Remaining Duration** is not a round figure and the display has been rounded down. This is caused by using **Duration % Complete**.

❖ The calendars do not have the same number of hours per day for every day in a calendar.

❖ The calendar **Hours per Time Period** do not match the calendar hours per day.

❖ The activity is not starting at the start of the day. Check if there is a change of calendar from one activity to another. One way to stop this happening is to have all calendars in a multiple calendar schedule ending at the same time.

❖ The **Project Start Date** is not aligned with the calendars. For example, the project start is at 08:00hrs but the first activity calendar is set to start at 07:00hrs.

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