



Primavera 6.0

Hours, Days, Dates and Calendars

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- **D. R. McNatty & Associates**

- Primavera Authorized Representative
- Primavera Certified Trainer/Consultant
- Hard Dollar Authorized Representative
- Estimating/Scheduling support services

- **MLM Project Services**

- Primavera Certified Technology Partner
- Ecosys Certified Technology Partner
- Managed hosting services for Primavera & Ecosys tools
- Web based integration utilities



Hours, Days, Dates and Calendars

- All schedules are in hours (minutes actually)
- User Preferences, Defaults and Calculations
- Calendars and Admin Preferences
- Recommended Best Practices
- Questions

This presentation is primarily focused on using P6 to manage daily construction schedules but the content is applicable to all types of schedules.



All schedules are hourly

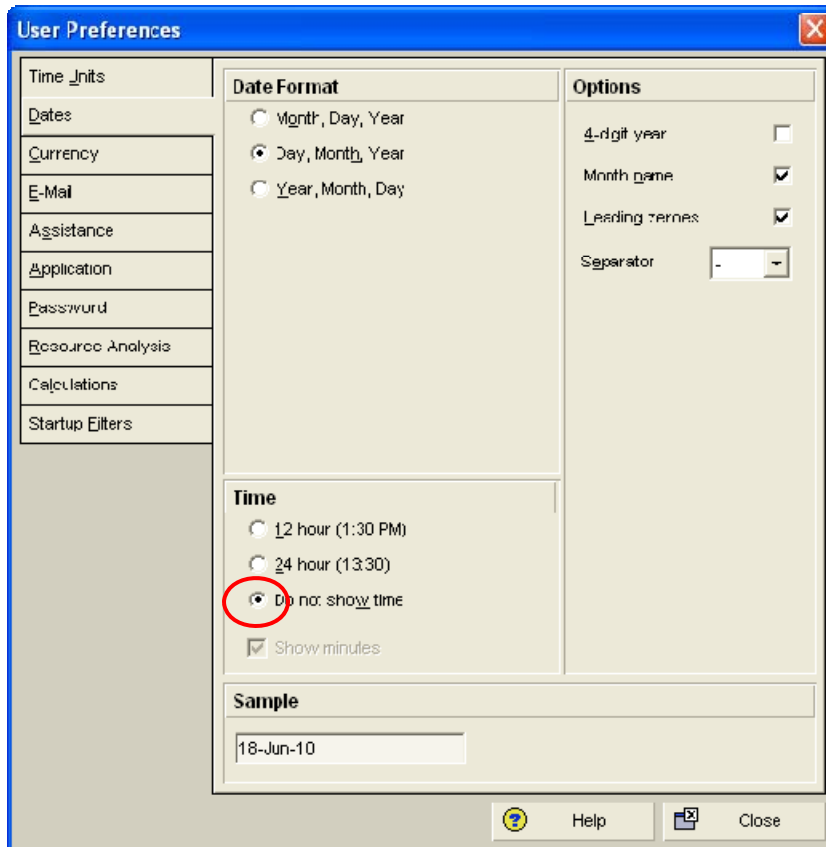
- Time based calculations in P6 are based on hours/minutes
- Depending on settings in User Preferences, values will display as days, hours, minutes or decimals of an hour
- You control how time is displayed
- Most construction schedules use daily planning units
 - Users set their preferences to display “days”
 - But calculations still occur at a lower level (hours/minutes)
- User Preferences, Activity Defaults and Calendars can all impact calculations

User preferences – Time Units

The screenshot shows the 'User Preferences' dialog box with the 'Time Units' section selected in the left-hand menu. The 'Units Format' section has 'Hour' selected for 'Unit of Time', 'Minutes' is unchecked for 'Sub-unit', and '0' is selected for 'Decimals'. The 'Show Unit label' checkbox is unchecked, and the 'Example' field shows '41'. The 'Durations Format' section has 'Day' selected for 'Unit of Time', 'Hours' is unchecked for 'Sub-unit', and '0' is selected for 'Decimals'. The 'Show Duration label' checkbox is checked and circled in red, and the 'Example' field shows '10'. The 'Units/Time Format' section has 'Show as units/duration (4h/d)' selected with a radio button.

- Set how Units and Durations display
- For “daily schedules” do not set decimals or sub-units
- Should always check the “Show Duration Label” box
- Show decimals to check for “fractured” durations

User preferences – Dates



- Turns Time Display on and off
- Sets date display format
- Preferences do not transfer with Layouts or Exports
- Show minutes to check for “fractured” days



Demo

User Preferences Settings

Defaults

- The Defaults Tab is on the Project screen
- The Duration Type, Percent Complete Type, Activity Type, and Calendar can all impact how the schedule calculates.

The screenshot shows the 'Defaults' tab in the P6 software interface. The 'Defaults for New Activities' section includes the following settings:

Duration Type	Fixed Duration & Units	Cost Account	[Folder icon]
Percent Complete Type	Duration	Calendar	Standard 5 Day Workweek
Activity Type	Task Dependent		

The 'Auto-numbering Defaults' section includes the following settings:

Activity ID Prefix	Activity ID Suffix	Increment
A	1000	10

Increment Activity ID based on selected activity



Demo

Default Settings – Percent Complete Type

Calendars

- A common source of pain
- Multiple calendars increase schedule complexity
- Most construction schedules use “Days”
- Adding “Hours” to calendars results in Hourly scheduling
- Do not add specific work hours to calendars unless you are resource loading **HOURLY** measured resources
- Hourly measured resources will force your schedule to be managed at the Hour level

Setting Hours on Calendars

Global Calendar: 37.5 Hour Workweek

Hours per Time Period

Hours/Day	Hours/Week	Hours/Month	Hours/Year
7.5	37.5	162.5	1950.0

8:30a to 4:00p

Global Calendar: 4 - 10hr Days Workweek

Hours per Time Period

Hours/Day	Hours/Week	Hours/Month	Hours/Year
10.0	40.0	173.3	2800.0

7:00a to 5:00p

Global Calendar: Standard 5 Day Workweek

Hours per Time Period

Hours/Day	Hours/Week	Hours/Month	Hours/Year
8.0	40.0	172.0	2000.0

8:00a to 5:00p



Demo

Calendars with varying hours

Hourly Calendar conclusions

- If you define a calendar with work hours, you force yourself to schedule by the hour
- Depending on how you define the display of durations and dates, you may not notice the variances
- Calendars are the primary cause of variances on imported schedules
- This applies to XER files as well as P3 imports
- Even setting Admin Preferences to not display the calendars hours, will not prevent the schedule from using hours/minutes when it calculates

How to deal with varying calendars

- If the schedule is not resource loaded, ignore hours
- Just set the work days (4 day, 5 day, 6 day...)
- If you must resource load, measure resources by the day (Crew days, Man days, Equipment Days...)
- If you must have resource hours – then you will have to manage schedules hourly



Demo

Work Day Calendars

Conclusions – Work Day Calendars

- Use whole days to define durations and resources
- Keep it simple – the objective is to finish the project on or before it's deadline
- Keep it simple – the objective is to identify overloaded resources
- Keep it simple – every constraint requires additional work to create, document and update

Observations on Hourly Calendars

- You may have to use a constraint to force a successor to start at the beginning of the following work day
- Your durations are always calculated in hours/minutes
- If you display Days, be on the look out for partial day durations (fractured durations)
 - Check all imported schedules for “fractured durations”
- Managing hourly schedules requires more time



Recommended best practices

- Level of schedule detail should reflect the project risk
- Do not schedule by the hour unless you really need to control a project by the hour (short duration – high intensity work requiring a large amount of coordination)
- Measure Durations and Resources by the day
- Be aware of the Admin Preferences Setting for Time Periods (Use assigned calendar to specify work hours...)
- Be aware of User Preference settings
 - Always display the Duration Label



Include in your Specifications

- The intent of the specifications is for the contractor to provide a daily construction schedule.
- It is the contractors responsibility to insure that imported schedule calculations are consistent with the reports produced from the contractors environment.
- All calendars shall observe a standard 8 to 5 (one hour lunch) time frame regardless of “hours per day worked”.
- All calendars must be defined as “Project Calendars”.
- Schedule Durations must be defined in full day units.
- No fractional or hourly durations will be allowed.
- Resource loading, if any, will be measured in Daily units.
- Resource Dependant Activity Type is not allowed.



Partnering with DRMcNatty & MLM Project Services

- 25 years experience implementing Primavera software
- 40 years experience in project controls best practices
- We host thousands of users in over 80 deployments of Primavera and Ecosys software from our global datacenters
- We can deploy your infrastructure in weeks, not months
- We provide API based integration, reports and utilities
- We are your project controls technology partner

Our goal is to remove the mystery from the software and help you to be self sufficient

Questions?

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