



Retained Logic and Progress Override in Primavera P6

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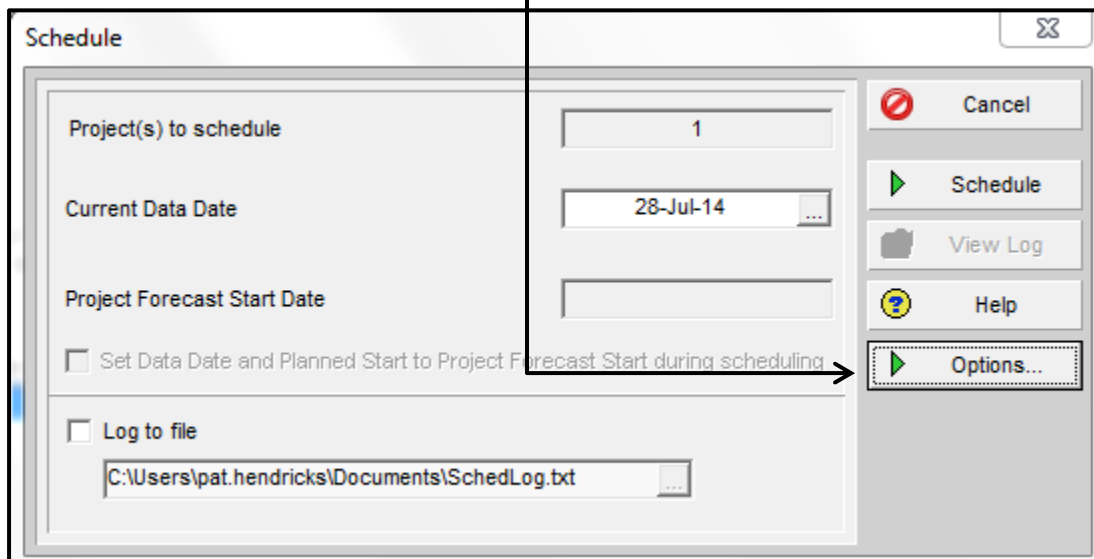
Retained Logic and Progress Override

The retained logic and progress override setting can drastically affect a schedule depending on which is used, so understanding the details of each is key.

In the *Schedule Options* window, P6 gives us three options to determine how it will schedule activities when out-of-sequence progress occurs.

An example of out-of-sequence progress is when a successor task is able to start prior to the finish of its predecessor, assuming a Finish-To-Start relationship is assigned between the two.

By pressing **F9** on your keyboard and selecting **Options**, the **Schedule Options** screen will be available for you to choose Retained Logic, Progress Override or Actual Dates.



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Schedule Options

General | **Advanced**

Ignore relationships to and from other projects

Make open-ended activities critical

Use Expected Finish Dates

Schedule automatically when a change affects dates

Level resources during scheduling

Recalculate assignment costs after scheduling

When scheduling progressed activities use

Retained Logic Progress Override Actual Dates

Calculate start-to-start lag from

Early Start Actual Start

Define critical activities as

Total Float less than or equal to

Longest Path

Calculate float based on finish date of

Each project Opened projects

Compute Total Float as

Calendar for scheduling Relationship Lag

Close

Cancel

Default

Help

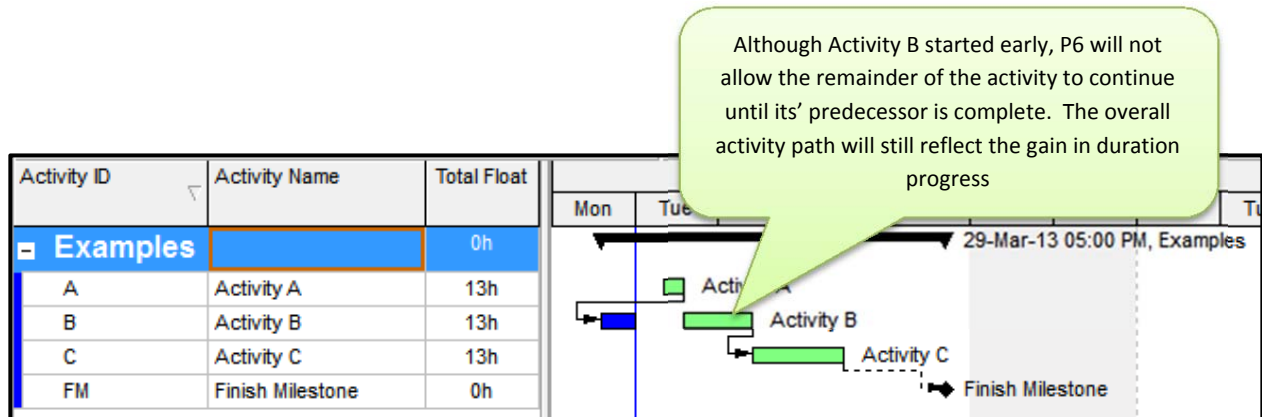
These three options determine how P6 treats out-of-sequence progress



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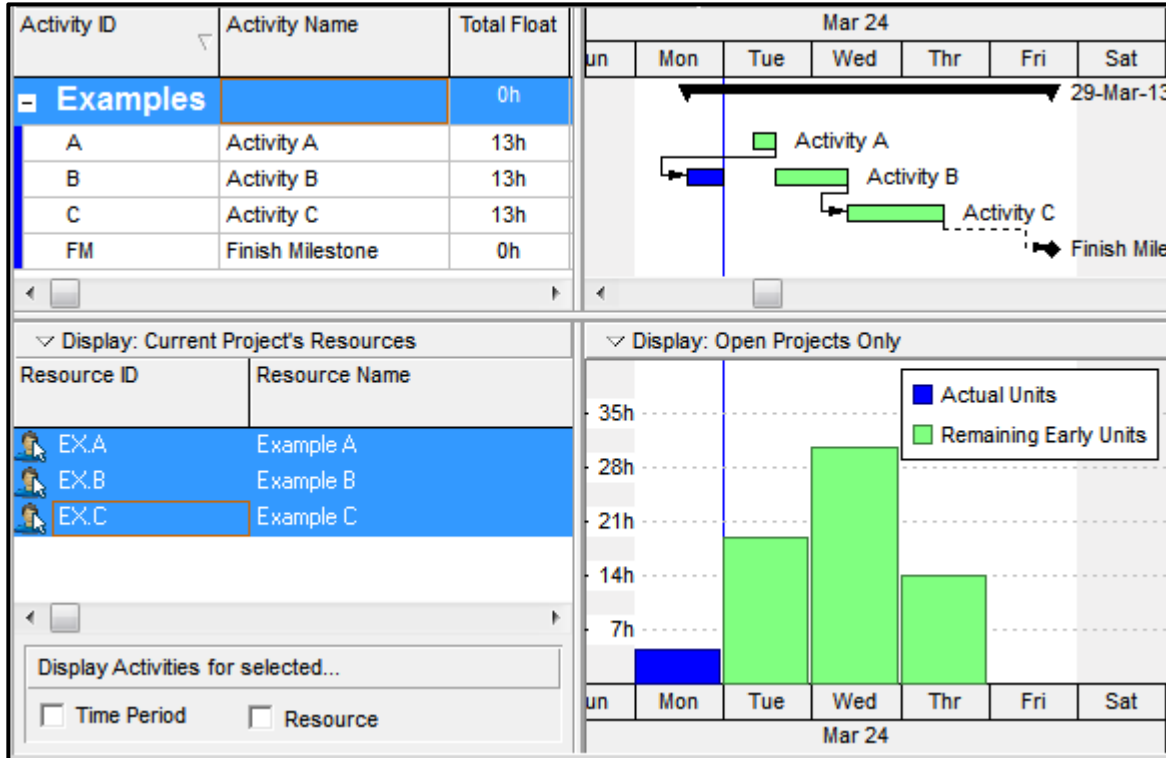
There are three ways P6 can react when activities are conducted out-of-sequence.

Retained Logic: The remaining duration of a progressed activity is not scheduled until all predecessors are complete. It also prevents tasks from “front-loading” since the remainder of the work is held out.



As you can see, even though Activity B started early, P6 will not allow the remainder of the activity to continue until its predecessor Activity A is complete.

The staffing plan below shows how Retained Logic prevents “front end- loading”.

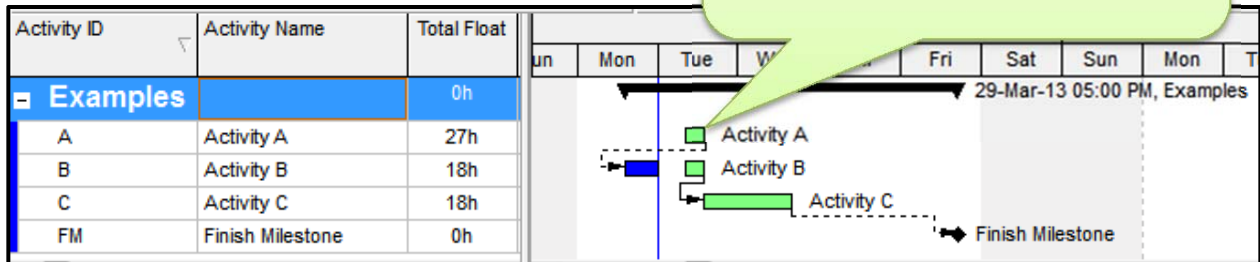




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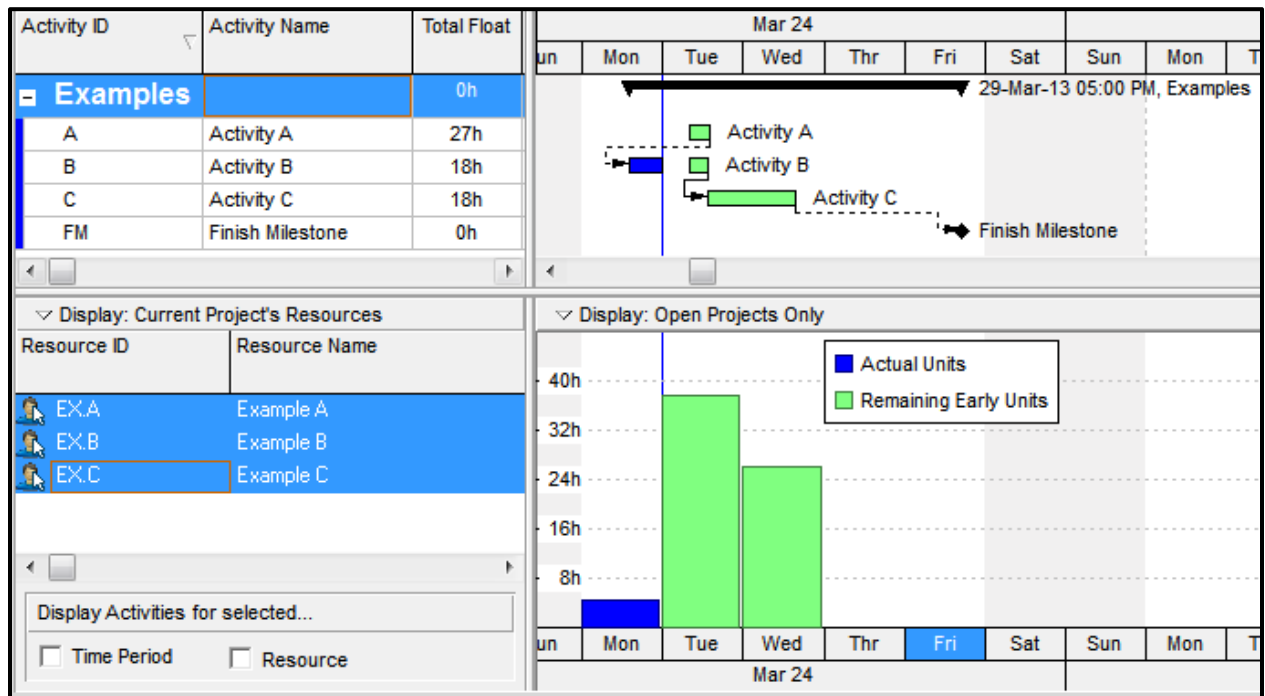
Progress Override: Network logic is ignored and Activity B can progress without delay. Although the predecessor logic remains intact, **the relationship is ignored and the predecessor is treated as if it has an open end, resulting in unrealistic positive float.** It also shows the task now capable of running in parallel, but resource availability may not allow this.

Although it's not apparent, Activity A is treated as open-ended, resulting in an unrealistic increase of float. (This example increased float from 13 to 27 hours.) Activity A and B are also now running in parallel.



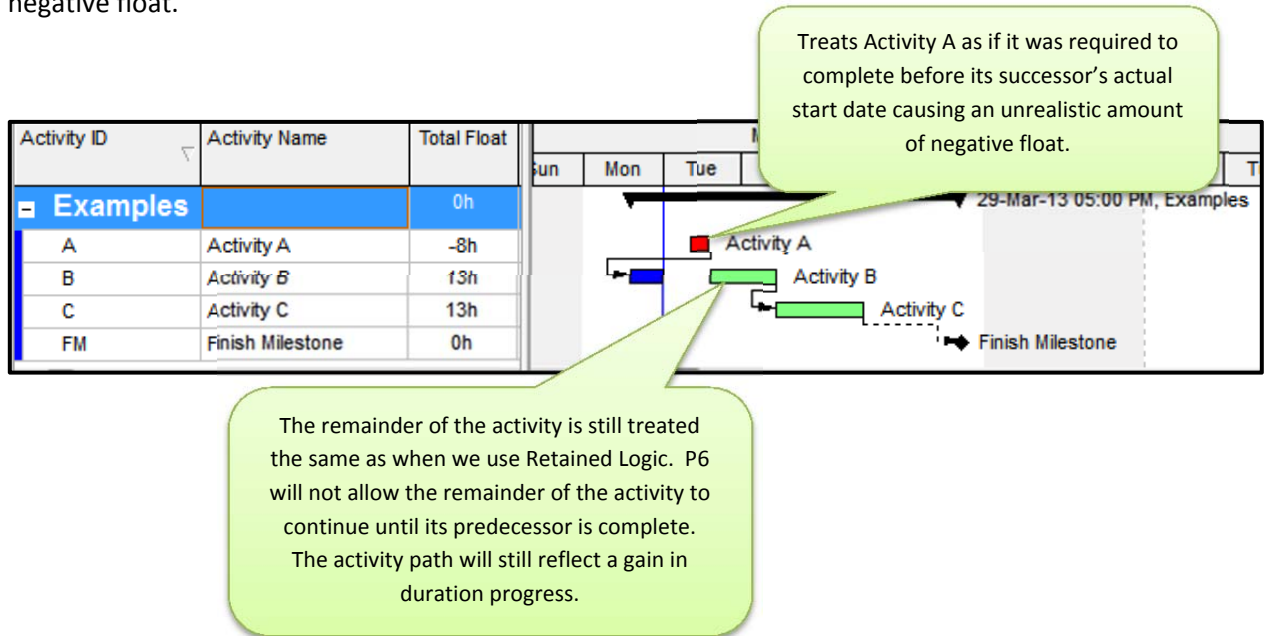
This type of scheduling does not prevent “front end-loading” which could lead to an increased staffing plan or improper staffing of the work.

As you can see, Activity B is now running in parallel with Activity A. Activity C was originally scheduled to Finish on March 28th, but is now scheduled to Finish on March 27th; doing so has pulled all scheduled work back and increased the staffing.



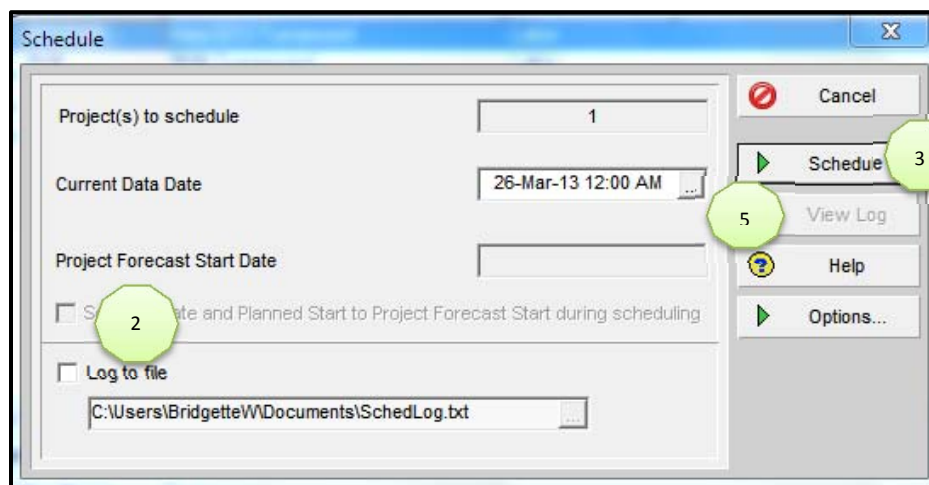
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Actual Dates: Similar to Retained Logic, but the actual dates are used to calculate the forward and backward pass and treats the actual dates similar to constraints. The result can be an unrealistic amount of negative float.



Viewing the Schedule Log will provide details about your project and its settings. Out-of-sequence activities are one of these items that can be viewed by running the log.

To view the Schedule Log for your project follow the steps below:



1. Click F9 on your Keyboard
2. Check the Log to file box
3. Click Schedule
4. Click F9 on your Keyboard again
5. Now that Log to file location has been selected you can select View Log



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Viewing the Schedule Log

The Schedule Log records scheduling results, including:

- Scheduling / leveling settings
- Statistics
- Critical activities
- Errors, warnings (Out-of-sequence activities)
- Scheduling / leveling results
- Exceptions

```
SchedLog - Notepad
File Edit Format View Help
# Activities with Constraint.....1
Project:      NEWPROJ-2      Activity:      FM      Finish Milestone

Errors:
-----
Warnings:
-----
Activities without predecessors.....1
Project:      NEWPROJ-2      Activity:      A      Activity A

Activities without successors.....1
Project:      NEWPROJ-2      Activity:      FM      Finish Milestone

out-of-sequence activities.....1
Project:      NEWPROJ-2      Activity:      B      Activity B

Activities with Actual Dates > Data Date.....0

Milestone Activities with invalid relationships.....0

Finish milestone and predecessors have different calendars.....0
```

For additional information on Retained Logic and Progress Override view this tutorial:

<http://bit.ly/1rwEwsO>.