

An Approach to Milestone Buffering in Sciforma PS8

The intent of this document is to describe an approach used for inserting a buffer on a milestone task (a milestone is simply defined as a task with zero duration within PS8) to protect its commitment date.

In order to insert the milestone buffer within the schedule, one pre-requisite exists: you must be in *Planning Mode* within your Critical Chain schedule. The rest of this document will provide you step-by-step instructions for setting up the PS8 Gantt Chart view to display the buffer, and calculating and inserting the buffer within the schedule.

Setting Up the PS8 Gantt Chart View for Displaying the Milestone Buffer

These following steps will be required for you to perform only once within PS8, assuming that you save your *Configuration (.PSC)* file upon exiting PS8. The steps below outline how to customize a *Gantt Chart Preference*. While it is likely that you will have more than one, there are two *Gantt Chart Preferences* that are suggested to be edited:

- *Critical Chain*
- *Critical Chain – All Projects*

- This document will outline the steps to customize the *Critical Chain Gantt Chart Preference*. In order to modify the *Critical Chain – All Projects Gantt Chart Preference*, simply follow these again for that specific preference.
 1. With a project open in memory, select **Format, Preference Gallery...**
 2. Within the **Category** dropdown list, select *Gantt Preferences*.
 3. Within the list of Available Gantt preference choices, select *Critical Chain* and click the **Edit...** button.
 4. Click the *Styles* tab.

5. Within the *Filters having associated styles* section, scroll to the bottom of the list and insert the *Milestones* filter by selecting from the dropdown list.

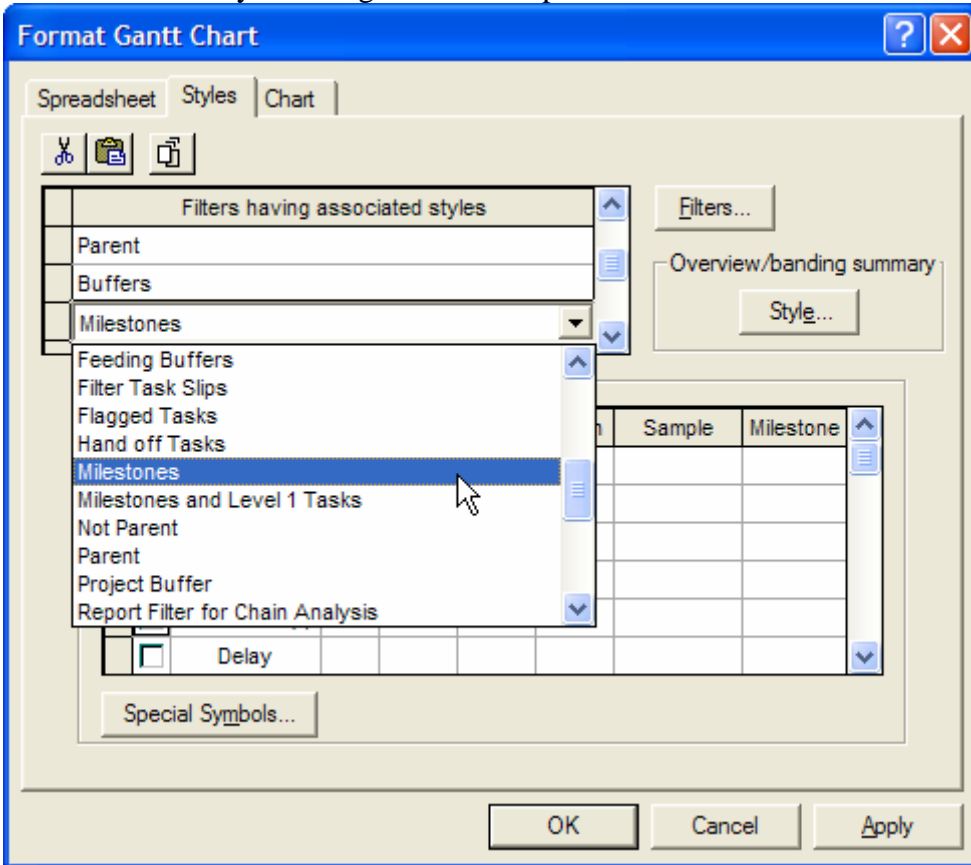


Figure 1. Applying the Milestones filter to a Gantt Chart Preference

- Ensuring that you have the *Milestones* filter selected, click the *On* checkbox for *Total Float (+)* and *Total Float (-)*.

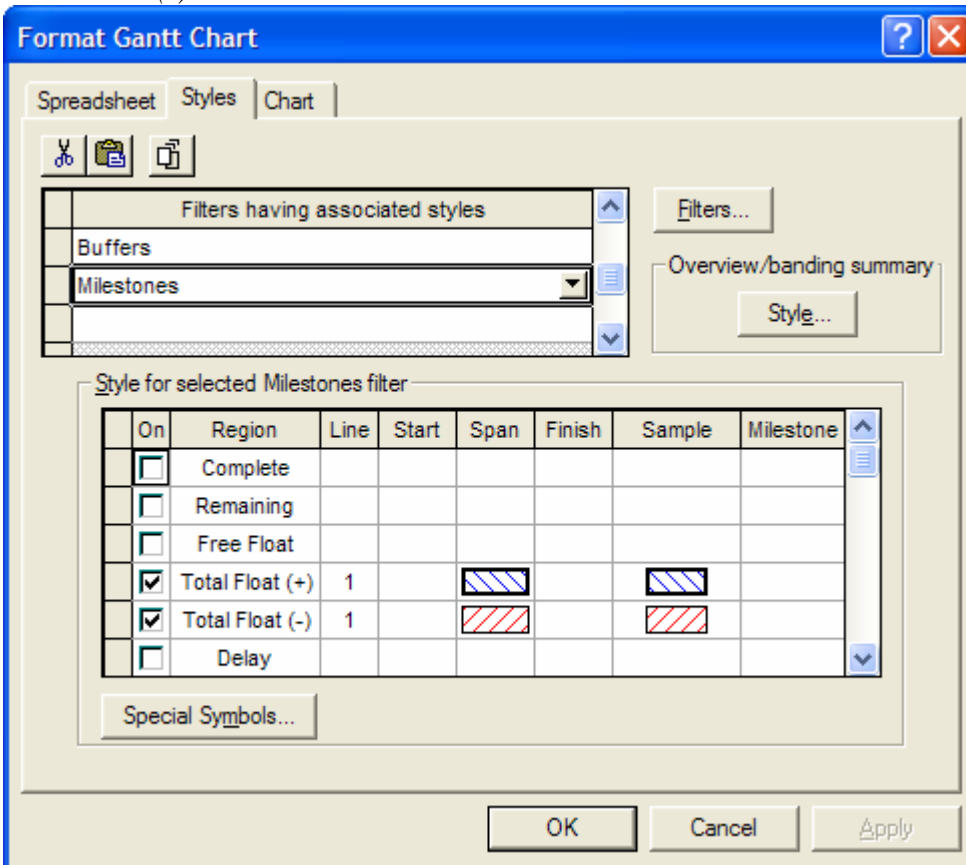


Figure 2. Applying the display of float to the Milestones filter

- Within the *Span* cell for *Total Float (+)*, click the *Pattern* button.

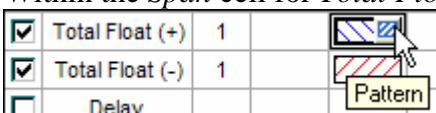


Figure 3. Span cell for Total Float (+)

- Within the *Gantt Span Attributes* dialog box, change the *Pattern* and *Pattern Color* to resemble the coloring of a PS8 Project or Feeding Buffer.

These are the settings for PS8 Buffers:

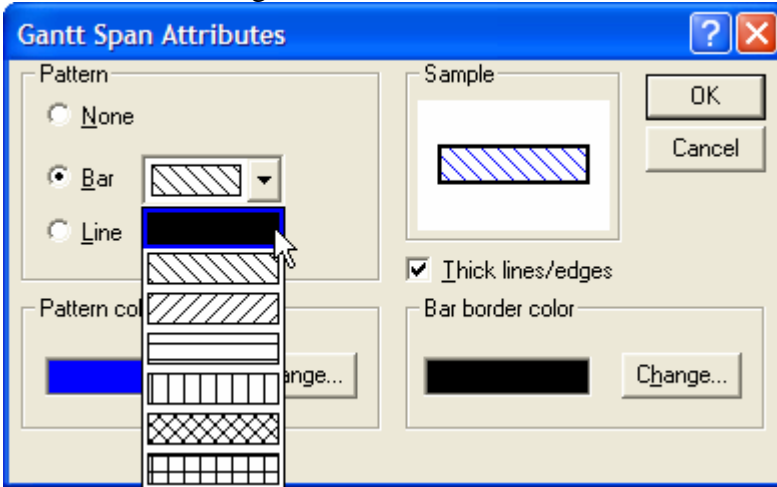


Figure 4. Pattern attribute for PS8 Buffers



Figure 5. Color attribute for PS8 buffers

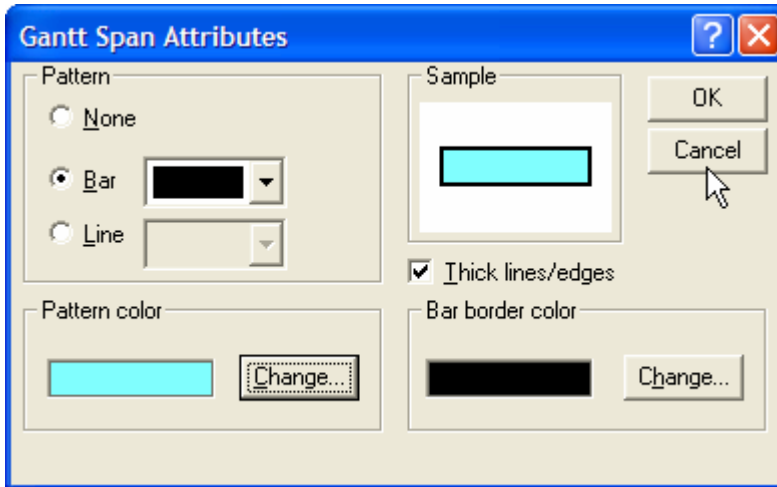


Figure 6. Complete Gantt Span Attributes for PS8 buffers

9. Click *OK*.
10. Click the *Special Symbols...* button.
11. Within the *Task Field* dropdown list, select *Required Date*.
12. Within the *Gantt Symbol* field for *Required Date*, click the *Symbol* button.


Task Field	Line	Gantt Symbol
Required Date	1	

Figure 7. Symbol button for selected special symbol

13. Select your desired *Gantt Symbol Attributes* and click *OK* two times.

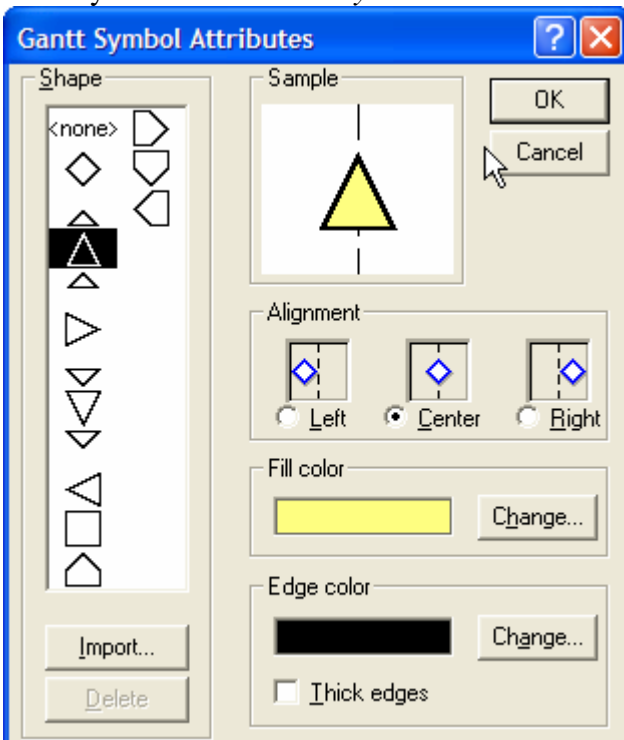


Figure 8. Gantt Symbol Attributes

14. Click the *Chart* tab.
15. Within the *Display* section, select the Show float on milestones option.

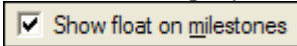


Figure 9. Show float on milestones option

16. Click *OK*.

Calculating & Inserting the Milestones Buffer Within the Schedule

This section describes how to go about calculating and inserting the milestones buffer within your PS8 Critical Chain schedule. These succeeding steps should be performed for each “linked” milestone in your schedule which requires the use of a buffer. In addition, these steps will only be available if your schedule is currently in *Critical Chain Planning Mode*.

1. Within the schedule, select the milestone task.
2. Select **Tools**, **Task Functions**, **Flag All Predecessors**.
This step informs PS8 to note which tasks in the schedule feed down to the milestone.
3. Select **Define**, **Filters...**
4. Within the *Filters* dialog box, select *Task* from the **Field category** dropdown list.
5. Within the **Available filter choices**, select the *See All Predecessors* filter

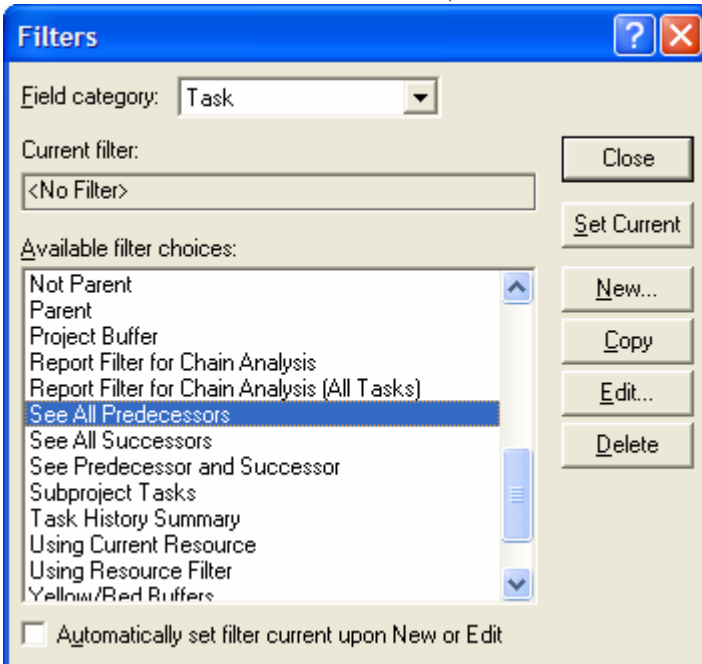


Figure 10. See All Predecessors task filter

6. Click the **Set Current** button, then *Close*.
Your schedule will now be filtered to display only those tasks that either directly or indirectly (due to task relationships) that feed into the milestone.

- Manually select all tasks (Ctrl + mouse click) that are not either a Parent Task or a Feeding Buffer.

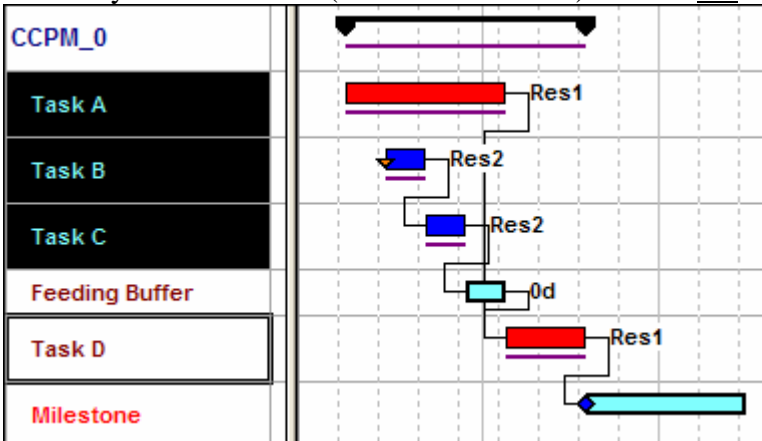


Figure 11. Tasks selected that feed into milestone

- With the tasks still selected, select **Tools, Critical Chain, Command Center...**
- Within the *Utilities* section, click the *Buffer Calculator* button.

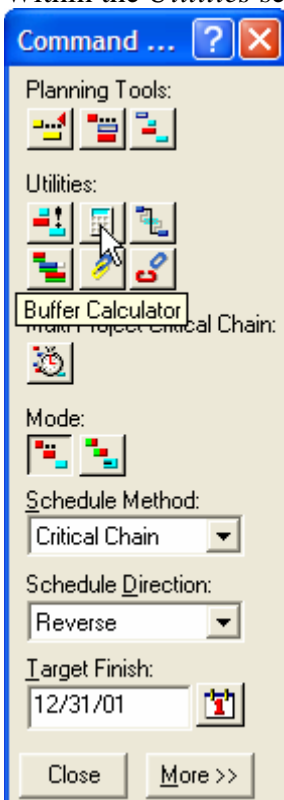


Figure 12. Buffer Calculator Utility

- Specify the same parameters used to calculate your other buffers within the schedule.

11. Click the Calculate button.

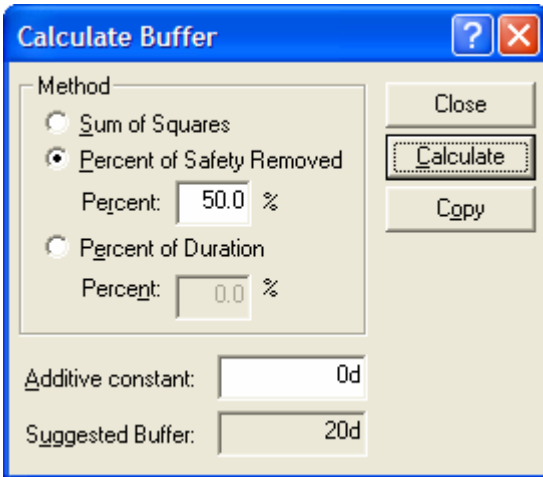


Figure 13. Calculate Buffer dialog box

PS8 will generate a Suggested Buffer for you. This *Suggested Buffer* becomes the core ingredient now. You will use this suggested buffer by adding it to the *Schedule Finish* date of the milestone to come up with the *Required Date* that needs to be specified on the milestone.

12. Click *Close*.

13. Select the milestone task to make it your active task.

14. Open the *Task Template* by clicking the *Show Task Template* button on the left side of your screen.



Figure 14. Show Task Template button

15. Click the *Scheduling* tab and note the *Schedule Finish* date of the milestone.

16. Select **Tools, Date Calculator...**

17. Within the **Reference date** field, enter the *Schedule Finish* date of the milestone you noted in step 15.

18. Within the **Time Interval** field, enter the *Suggested Buffer* you calculated in step 11.

19. Within the **Calendar** dropdown list, select the calendar assigned to your project.

20. Click **Calculate**.

PS8 will generate a **Result date** based on your inputs. Note the calculated **Result date**.

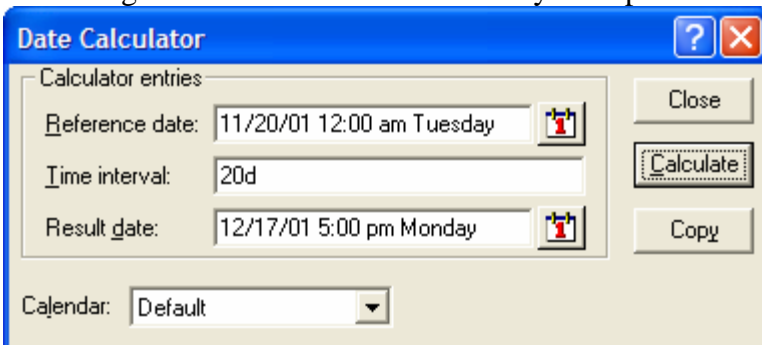


Figure 15. Date Calculator dialog box

21. Click *Close*.

22. Within the *Scheduling* tab of the *Task Template*, enter the Result **date** calculated in step 20 into the *Required Date* field for the milestone.
Based on the changes you made to the Gantt Chart preference, you should now see a *Special Symbol* denoting the *Required Date* for the milestone directly on your Gantt Chart.

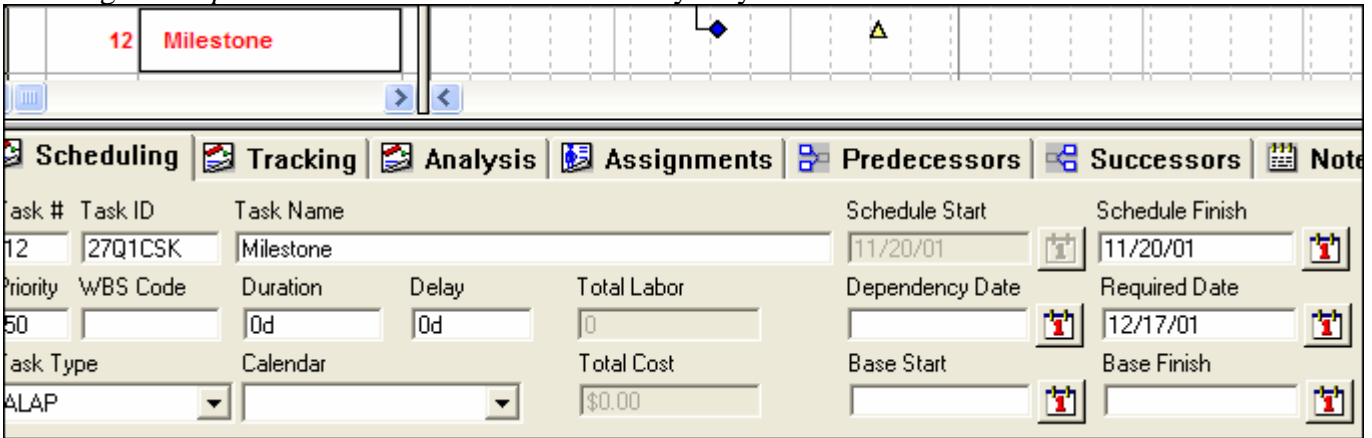


Figure 16. Milestone showing entered Required Date

23. Select **Define, Filters...**
24. Within the *Filters* dialog box, select *Task* from the **Field** category dropdown list.
25. Within the **Available** filter choices, select the *<No Filter>* filter.
26. Click the **Set Current** button, then *Close*.

Now, when your schedule is placed into *Tracking Mode*, a buffer will be placed between the end of your milestone’s *Schedule Finish* date and the *Required Date*. If your schedule slips beyond the end of the buffer, *negative float* is displayed denoting how much time needs to be made up in order to meet your “buffered” finish date of the milestone.



Figure 17. Milestone task with associated buffer in Tracking Mode

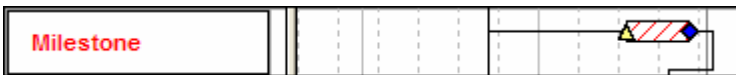


Figure 18. Milestone task with fully consumed buffer displaying negative float