



HOW TO CREATE AN APPROVE BASELINE IN 9 STEPS

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**GOOD SCHEDULES ARE LIKE A
GOOD MOTOR OIL.**

Effective project scheduling and time management are critical factors in the success or failure of a particular project. And, increasingly project management professionals are responsible for managing a variety of project schedules and timelines.

Scheduling describes guidance and pathway for a project to run. It defines certain milestones and deliverables which need to be achieved on a timely basis for successful completion of a project. Monitoring the schedule provides an idea of the impact the current problems are having on the project, and provides opportunities to enhance or reduce the scope of a milestone/phase in the project.

It also provides a medium for continuous feedback on how the project is progressing and if there are issues that need to be dealt with or if the client needs to be told about a delay in delivery.

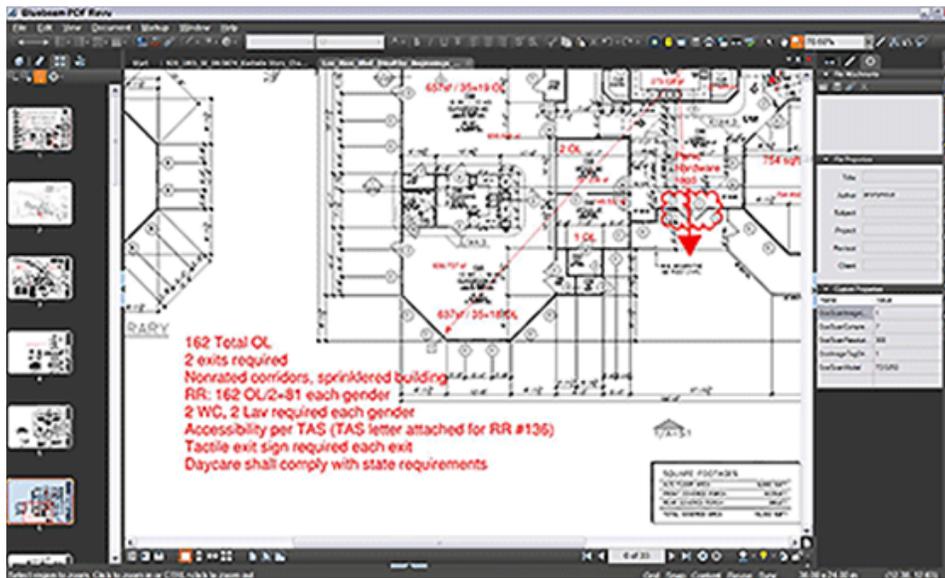
Develop a Baseline Schedule

The development of a good schedule model is achieved through the consistent application of sound general practices. Experience gained over time will assist in selecting appropriate responses to the design requirements for schedule model. The key steps include:



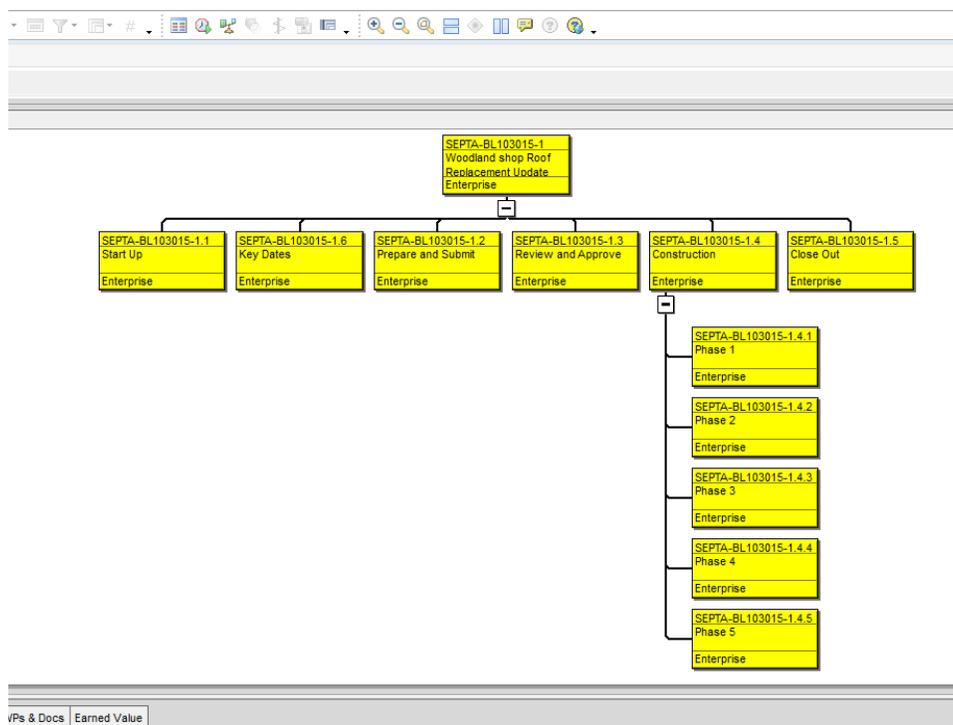
1. Review the Drawings and the Specifications

The drawings and the specifications as well as the scheduling specifications to have a full understanding of the project's contractual mile stone as well as permits needed and phasing plan if applicable. Once there is an understanding of the contract and the drawings, begin to lay out the projects milestones. The project will contain a list of milestones initially developed as the schedule model is created. These might have originated from the customer, team members or other stakeholders.



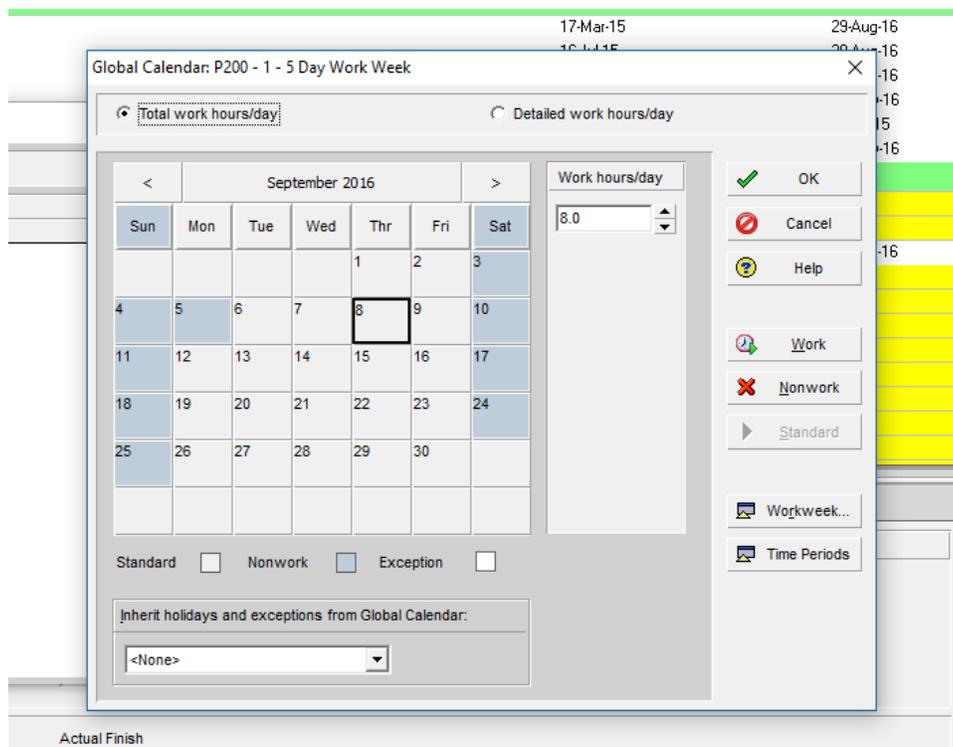
2. Create the Work Breakdown Structure

Then a WBS or Work Breakdown Structure will be created to set up multiple activity codes in accordance of the scope of work in the project, allowing many options to filter and sort activities in a variety of ways such as filtering the schedule to show a list of activities specifically for the structural steel subcontractor.



3. Create the Project Calendar

According to the scheduling specifications, multiple calendars will be created to cover for weather sensitive and non-weather sensitive activities. Non-working days will be marked on the weather sensitive calendar based on the previous 10 year's history of rainfall or snow in the project location using reliable information from NOAA. Take into consideration public and private holidays as well as the working hours.



4. Define Project's Activities

Begin to create the list of activities that will need to be cover all of the scope of works in the project, based on the WBS and elaborated on by the team that will be responsible for the execution of the work. The characteristics of the activity include:

- The activity is a measurable.
- A single person is responsible for the performance of the activity. That person should be the same one who will report progress on the activity.
- Activities description must describe type of the work that needs to be accomplished.
- Each activity description should be unique
- It is preferable to the activity to be split into two or more activities at natural break points.

Activity ID	Activity Name
MS1000	NOTICE to PROCEED
P10000	Start Submittal Process
P10005	Buy-Out Subcontracts
EA1000	Submit Site Specific Safety Plan / Program
EA1100	Submit Environmental Plan
EA1110	Submit CNMP (Noise Plan)
MOB1100	Submit for Demolition Permit
P10130	P&S Concrete Reinforcement
P10350	P&S Steel Doors and Frames
P10360	P&S Access Doors and Frames
P10370	P&S Removable Flood Barriers
P10420	P&S Door Hardware Samples/Data Sheets
P10820	P&S Fire Pumps
P10830	P&S Ductile Iron Pipe
P10840	P&S Steel & Stainless Steel Pipe
P10850	P&S Hose Reel Assemblies
P10880	P&S Piping Insulation
P10890	P&S Plumbing Valves - Product Data
P10920	P&S Domestic & Service Water Ppg - Product Data
P10930	P&S Sant Waste / Industrial Waste / Vent Piping



5. Determine the Duration for Each Activity

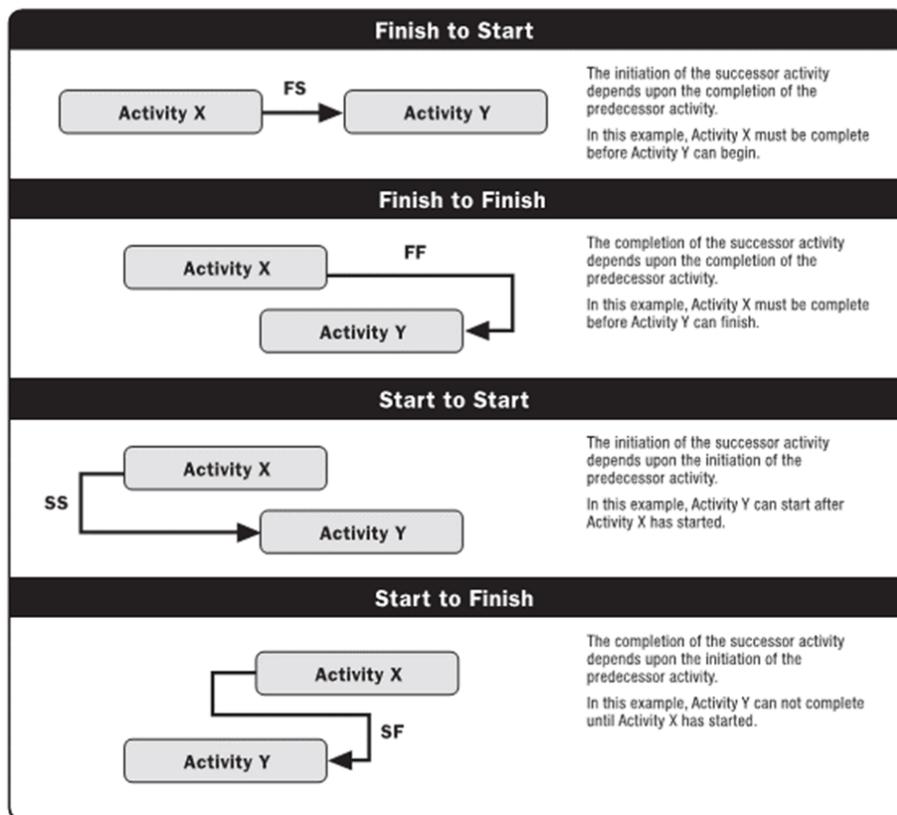
The duration is an estimate of how long it will take to accomplish the work involved in the activity. In many cases, the number of resources that are expected to be available to accomplish an activity, together with the productivity of those resources, may determine the activity's duration. But most likely durations assigned based on the database of previous production rates.

6. Sequence Activities

Sequencing activities and milestones together with logic is the foundation of any schedule model. The method of connection is defined as a relationship. Every activity and milestone except the first (with no predecessor) and the last (with no successor) shall be connected to at least one predecessor and one successor. With the exception of the start milestone, something needs to occur prior to any activity starting, and in turn, that activity has to be totally or partially completed to allow another activity to start. Ensuring compliance with this practice will prevent the schedule from containing open ends (activities or milestones are missing predecessors or successors).

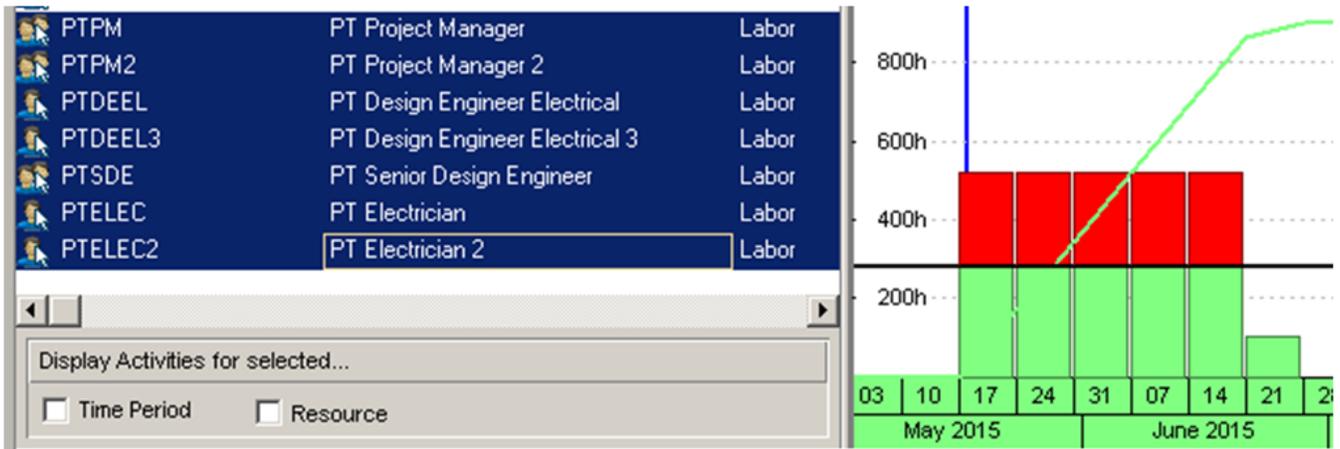


Typically, each predecessor activity would finish prior to the start of its successor activity (or activities) (known as a finish-to-start (FS) relationship). Sometimes it is necessary to overlap activities; an option may be selected to use start-to-start (SS), finish-to-finish (FF) or start-to-finish (SF) relationships. Next Figure provides examples of the four relationship types in PDM (the most commonly used CPM methodology). Whenever possible, the FS logical relationship should be used. Ideally, the sequence of all activities will be defined in such a way that the start of every activity has a logical relationship from a predecessor and the finish of every activity has a logical relationship to a successor.



7. Determine Resources for Each Activity

According to the scheduling specifications, multiple calendars will be created to cover for weather sensitive and non-weather sensitive activities. Non-working days will be marked on the weather sensitive calendar based on the previous 10 year's history of rainfall or snow in the project location using reliable information from NOAA. Take into consideration public and private holidays as well as the working hours.



8. Explain the Schedule Output

Once completed, the schedule model will contain a set of unique activities, having varying durations, connected by defined logical relationships. The scheduling team will meet with the project team to discuss the sequence or plan of executing the work in site.

9. Approve the Schedule

Once the schedule is fully adjusted in accordance to the project management team's needs. The scheduling team will prepare a comprehensive submittal package in accordance with the specifications requirements including a narrative report with a table of contents that includes but is not limited to: assumptions made when creating the sequence of operations, potential delays, high risk areas and explanation of the primary, secondary and tertiary critical path of the project.



References

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