Work Plan—Schedule Development—Activity Definition

Purpose:
The objective of this activity is to identify dependencies between tasks, assign resources for each task, look at overall dates, and identify start and end dates for the tasks. The Project Manager can use the schedule to plan, and implement project tasks and monitor the progress of the project.

Participants:
The Project Manager develops the Work Plan/schedule with assistance from the core project team, customer representation, and experts within and outside the organization.

Inputs:
Project Overview Statement [1], Work Breakdown structure [1], Time and cost estimates[1], Project Approach[2], Business Case[4], Governance Document[4]

Process:
1. Identify outputs of which tasks are required in order to perform a certain task. This identifies dependencies between tasks.
2. Sequence the tasks.
3. For each task, identify resources that are required. You may not know the name of the person who will be assigned to your project at this stage.
4. Conduct an informal review with key resources to see if all elements of the Project Approach have been incorporated into the Work Plan.
5. Check if testing and training are accounted for.
6. Check if implementation activities are accounted for.
7. Identify the critical path.
8. Once an overall schedule is set, the Project Manager is responsible for monitoring the progress of the project and revising the schedule if needed. This must be done in consultation with the task owners.
9. Once the Project Manager knows who will be working in the project team, s/he can identify the resource by name. Identify resource availability.
10. Once the schedule is developed, check to see if resources are over-allocated. If they are, figure out ways to level resources so that they are allocated with the right amount of work.
11. For Class 1 and 2 projects, the Work Plan needs to be approved by the project sponsor, and the appropriate managers. For Class 3,4, 5 projects, the Work Plan is part of the Integrated Project Plan, which needs to be approved.

Outputs:
Work Plan

Work Plan—Schedule Development—Guidelines

1. The WBS should be used as a guide while preparing the schedule.
2. Determine if any code or elements from any other project can be reused.
3. All the tasks associated with the project deliverables need to be identified. Define the activities that must occur to produce each deliverable.
4. The task names should adequately describe the task to be completed.
5. Check to see if any code/element from any other project can be reused.
6. Identify dependencies. Dependencies can be FS (Finish-to-start), SF (start –to-finish), SS (start-to-start) or FF (finish-to-finish).

- FS dependency for Task 44 means that the predecessor tasks need to finish before task 44 can start.
- SF dependency for task 44 means that the predecessor tasks need to start before task 44 can finish.
- SS dependency for task 44 means that the predecessor tasks need to start before task 44 can start.
- FF dependency for task 44 means that the predecessor tasks need to finish before task 44 can finish.

Determine the sequence of the tasks. Ensure that all preceding tasks have been identified for each task. A Program Evaluation and Review Technique (PERT) chart or a network diagram could be used to identify dependencies.

7. Identify resources required for the project.
8. Allocate tasks to resources. Once you know exactly who will be assigned to the project, ensure that personnel calendars containing scheduled vacations and time off are taken into account. Ensure that you have taken into account any vacation time that the customer has planned. In some cases a task might be a resource-constrained. e.g. a review can begin only after the customer is back from his/her vacation.
9. The Schedule needs to be in sufficient detail to enable one to manage the project.

10.The Project Manager should spend an appropriate amount of time on planning activities. e.g. as a rule of thumb the following table could be used for experienced Project Managers with subject matter expertise.

Class	Minimal Time spent on Planning activities
Class 1	4 hours
Class 2	8-10 hours
Class 3	40 hours
Class 4	60 hours
Class 5	80-100 hours

Project management effort (including defining, planning, launching, managing, and closing activities), as a thumbrule, is estimated to be about 20% of the production effort.

11. Identify the critical path. The critical path is the path where any slippage in any task will cause a delay in the end date of the project.

12. After developing the Work Plan, check if any resources have been over-allocated. If they are, figure out ways to level resources so that they are allocated with the right amount of work. If a task is not meeting planned limits, you can add more resources to the task so that the task can be performed faster. This is called crashing the task.