

Guidelines for Effective Schedule Development & Management

These guidelines assume the reader is proficient in the use of Microsoft Project and are provided to facilitate dynamic scheduling methods and techniques¹, which align with principles and best-practices set forth by the Project Management Institute (PMI®)².

Project Setup

1. Enable the Project Summary Task (Microsoft Project places this at Line 0, Work Breakdown Structure (WBS) Level 0).
2. Ensure the Master Project Schedule includes all tasks required to complete the entire scope of work.
3. Ensure state holidays are identified in the Standard Calendar.

WBS Levels

WBS Level	Number	Description
0	0	Project Level. The Project Summary Task representing 100% of the work of the project.
1	1	Phase Level. Separates work into individual phases, e.g., Planning, DDI, Phase 1, Phase 2.
2	1.x	Workstream Level. Separates each phase into individual workstreams, e.g., OCM, Development, Business Process Analysis, PMO.
3	1.x.x	Workstream Track Level. Further organizes work of individual workstreams into tracks.
4	1.x.x.x	Deliverable Level. Identifies the discrete deliverables associated with each Workstream Stage.
5+	1.x.x.x.x. +	Activity / Task Levels. All of the activities and tasks required to plan and develop each deliverable.

See also: Attachment A – Work Breakdown Structure (WBS)

Schedule Activities

1. Manual Tasks and Auto-Scheduled Tasks
 - a. Set the default for new tasks to Auto-Scheduled. Limit the use of Manual Tasks, as these are not driven by the scheduling engine.
2. Summary Tasks
 - a. No resources are assigned to summary tasks.
 - b. No costs are assigned to summary tasks.

- c. No predecessors or successors are assigned to summary tasks.
- d. No date constraints are applied to summary tasks (keep the default “As Soon As Possible”).

3. Subtasks (i.e., tasks, detailed tasks, activities)
 - a. Subtasks should start with an action verb (e.g., prepare, review, configure, test).
 - b. Subtasks are not flagged (checked) as milestones unless they are converted to a project milestone with zero duration.

4. Milestones
 - a. All milestones are zero duration and clearly identified as a milestone task type.
 - b. No resources are assigned to milestones.
 - c. No costs are assigned to milestones.
 - d. All milestones have at least one predecessor.
 - e. All milestones have at least one successor (unless it is the last line of the schedule).
 - f. No date constraints on milestones (keep the default “As Soon As Possible”).
 - g. The Milestone tag is always checked for milestones.

5. Recurring Tasks
 - a. Use Recurring Tasks for routine project support and administration activities, such as status reports, team status meetings, invoice processing, etc. Avoid using normal (non-recurring) subtasks and milestones for these types of activities.

Task Durations

1. Ensure that the duration time unit is set to “days.” Do not use partial day durations (e.g., 0.5 days).
2. Do not manually enter start and finish dates; doing so places constraints on subtasks. Start and finish dates should be determined by the schedule’s network logic and task durations.
3. Subtask durations shall be applied using the 8/80 rule: Detailed planning subtasks shall not have durations less than 1 day (8 hours work) or greater than 10 days (80 hours work).

¹ Ambriz, R., & Landa, M. (2014). *Dynamic Scheduling® With Microsoft® Project 2013: The Book By and For Professionals*. J. Ross Publishing.

² Project Management Institute. (2013). *A Guide to the Project Management Body of Knowledge: 5th edition (PMBOK® guide)*. Newtown Square, PA: Project management institute.

Guidelines for Effective Schedule Development & Management

4. Estimated durations (e.g., “10 days?”) shall only be used in the Rolling Wave section of the schedule. Do not use estimated durations in the Detailed Planning section of the schedule.

Network Logic & Constraints

1. All subtasks (except the first one) have at least one predecessor.
2. All subtasks have at least one successor (unless it is the last subtask in the schedule).
3. Network logic is continuous and unbroken end-to-end. e.g., Subtask A is the predecessor to Subtask B, an administrative task that does not have a successor. Subtask A must therefore have a second successor link to a logical, downstream, substantive subtask in order to preserve the continuity of the schedule’s overall network logic.
4. Avoid date constraints on subtasks (keep the default “As Soon As Possible”). If necessary, use MS Project’s “Deadline” field to tag tasks with specific target dates.

Resources

1. In the Resource sheet, Maximum Units should not exceed 90% for each full-time equivalent (FTE) resource.
2. For group resources (e.g., “Quality Assurance Team,” “PMO,” “Procurement Office,” etc.), set Maximum Units at 90% for each member of the group. For example, if the group has 3 members, set Maximum Units at 3 x 90% = 270%.
3. Do not overstate resource availability (e.g., setting Maximum Units at 1,000% for an individual or for a small team of 2 or 3 people); doing so bypasses MS Project’s ability to detect and display over-allocated resources, thus leaving that risk undetected.
4. Either assign standard and overtime rates for all resources, or use a proxy value to enable MS Project to calculate Earned Value. A recommended proxy value for resources is \$1.00/hr. Do not use the default \$0.00/hour rate.
5. Assign resources to subtasks only. Ensure that all subtasks are assigned at least 1 resource. Do not assign resources to summary tasks or milestones.
6. Ensure that resources appear only once in the Resource Sheet. This includes making sure that individually-listed resources are also not included as a member of a resource group.
7. Individual resource calendars should reflect when a team member is out for 3 days or more.

Rolling Wave and Detailed Planning

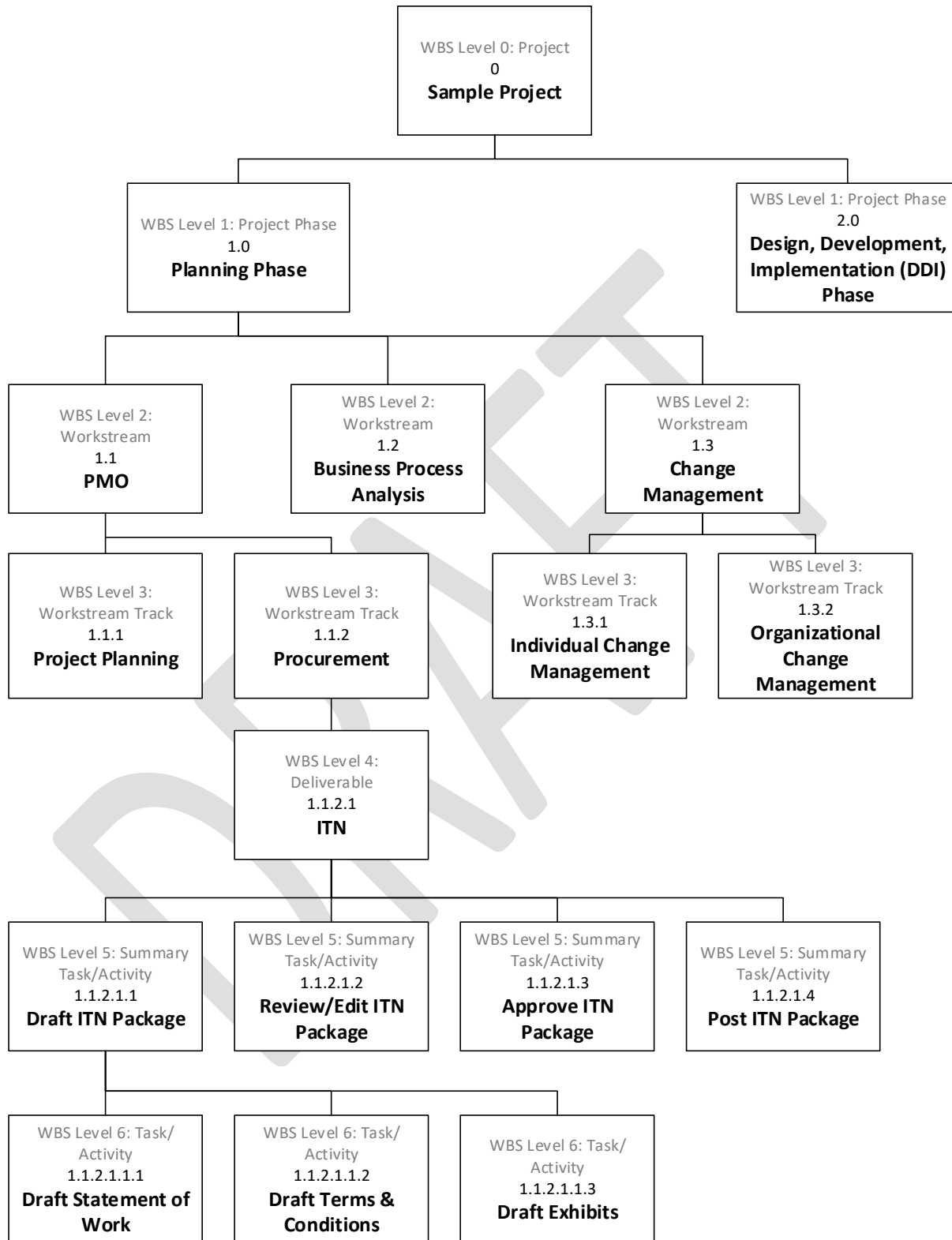
1. The schedule is detailed for all activities that fall within 6 months of the current status date in a continuous rolling wave. For example, at the start of January, tasks for the months of January through June shall be detailed; at the start of February, tasks for the months of February through July shall be detailed, and so forth.
2. Use a custom text field entitled “Detail Level” to distinguish Rolling Wave activities from the detailed part of the schedule. Use the following labels: *Detailed*, *Inside Rolling Wave*, *Outside Rolling Wave*.
 - a. **Detailed Level:** Within the 6-month, detailed planning window, subtask durations should follow the 8/80 rule (see above).
 - b. **Inside Rolling Wave Level:** Within the 6-month to 12-month Rolling Wave planning window, subtask durations should not exceed 20 days.
 - c. **Outside Rolling Wave Level:** Beyond 12 months (including future fiscal years), subtask durations should not exceed 60 days.

Baselining the Schedule

1. Baseline the schedule **before** applying any status values (e.g., % Complete) to any activities.
2. Before creating the initial baseline, ensure:
 - a. The schedule is at a detail level at least 6 months out from the status date.
 - b. All subtasks and milestones have predecessor and successor logic, and the schedule logic is continuous with no interruption to the logical sequence of activities, including the activities in the Rolling Wave section of the schedule.
 - c. All subtasks have resource assignments, and all resources have unit costs ≥ \$1/hour.
3. The initial baseline is set when the project team (with its vendor, if applicable) agrees to the work to be performed, and the resourcing and timing of the work.
4. The current baseline is always “Baseline.” When rebaselining, the current baseline is first saved to Baseline 1 – 10, accordingly.
5. Do not rebaseline simply because initial estimates were off. Rebasing only if parameters of the project have changed, such as when the addition or removal of scope or resources impacts the work to be done, and then only when project governance agrees to record a new baseline.
 - a. Baseline changes should only be performed through approved Change Requests (or similar mechanism), which include documentation of the reason(s) for rebaselining the schedule and the associated impacts.

Guidelines for Effective Schedule Development & Management

Attachment A – Sample Work Breakdown Structure (WBS) ³



³ This WBS is provided for illustrative and guidance purposes and does not represent any specific project. WBS level titles are provided as examples only.