

Work Breakdown Structure

Determining the work required is one of the key elements in the success of the project.

The Project Manager works with the project team to understand the work that will be included in the project. Work that is included is said to be “in scope”. Work that is not included is said to be “out of scope”.

The Work Breakdown Structure is an important technique used to decompose the higher level scope into manageable elements of work.

Work Breakdown Structure

PMI defines the Work Breakdown Structure (WBS) as follows:

The Work Breakdown Structure (WBS) is a deliverable-oriented, hierarchical decomposition of the work to be executed by the project team, to accomplish the project objectives and create the required deliverables. It organizes and defines the total scope of the project.

A WBS progressively subdivides project work into smaller, more manageable pieces of work. Each descending level of the WBS represents a more detailed definition of the project work.

You can think of the WBS as a map or outline of the project. Major project deliverables are identified first. Each major deliverable is broken into the sub-deliverables necessary to accomplish that larger deliverable. This process is repeated until the sub-deliverable detail is small enough to be manageable.

Work Breakdown Structure

A WBS contains two kinds of tasks: **summary tasks** and **work packages**.

Summary tasks are the higher-level tasks that summarize project work in some way. The number of levels of summary tasks depends on the size of the project. A few levels are probably enough for a small project. With a large or complex project you could have many levels of summary tasks.

Work packages are items that represent the work that will be done. They can be scheduled, cost estimated, monitored, assigned and controlled throughout the project life cycle.

A good rule to remember is that if a work package is in the WBS it gets done. If it's not in the WBS it doesn't get done.

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Normally the WBS is produced through a group effort. You start by using the scope statement and deliverables to identify the top level summary tasks. You then break down the work that makes up each of the summary tasks into smaller chunks.

For a small project the entire project team may be involved in breaking down the project into its components.

For large complex projects, the people responsible for the major deliverables are likely to meet to establish the highest levels of deliverables. Then further details would be delegated to the people responsible for the specific work.

In the final analysis it is up to the project manager and the project team to decide the level of detail that is required to manage the project work.

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The WBS will commonly be presented as:

- A tree diagram that shows the relationships between the various summary tasks and the work packages.
- An indented table. asks that are listed and each level of indentation takes you further and further into the sub-deliverables of the project. Work packages are represented by those items that are not further subdivided.
- A diagram or 'mind-map' technique.

Whatever type of work breakdown structure you use, the project definition you come up with must be adequate to allow for good control while the project is being executed

Defining the project is the first and most important step in the planning process. The absence of a clearly defined project plan consistently is a major reason for projects failing.

Work Breakdown Structure

The **WBS Dictionary** helps make sure the WBS can be understood. A short description in a WBS typically is not enough to tell people exactly what they are supposed to do.

The WBS Dictionary is a companion document to the WBS. It further expands on details of each element in the WBS. The level of detail you include in the dictionary depends on things like how familiar the work is and perhaps the experience of the person assigned to the task.

A WBS dictionary does more than describe the work; it also identifies how you know the task is complete and whether it was completed correctly. You can include the corresponding deliverables and success criteria, information about cost, dependencies, resource required and any other information that you may have uncovered as you and the team created the WBS.