

MANAGING PROJECTS

Project Scope – Work Breakdown Structure and the Procurement Plan

by George Suffidy

Procurement professionals can support a project well when they have a sound understanding of the work it contains. They must clearly identify what has to be procured and when, and how each procurement will relate to the project objectives of time, cost and product. This understanding permits them to plan their project procurement activities in the most effective way possible. Conversely, the wise project manager will ensure that the project procurement staff fully understands the project and that they are fully engaged in the planning of each phase.

The document used to define the scope of a project is the Work Breakdown Structure (WBS). A WBS is a product-oriented grouping of project elements that organizes and defines the total scope of the project. Each descending level of the WBS represents an increasingly detailed description. The “decomposition” of project work continues until each project element is defined in packages of work suitable to be assigned for accomplishment. A caution here is not to decompose the work too far. Each package of work must be individually planned, executed and reported upon, and this can entail a heavy administrative burden if taken to extremes.

Visualize the WBS in terms of a typical organization chart – the single block at the top is the project itself, the next layer of blocks are the major work elements of the project, and so on. Each block is uniquely numbered and contains a title for that element of the project work. The completeness of the WBS is the key to developing project budgets and schedules that truly reflect the realities that will be encountered during project execution. It is vital to understand that work not in the WBS is outside the scope of the project.

The brief titles entered in each WBS block cannot adequately communicate the full extent of the work the block represents. A WBS dictionary is prepared to provide necessary, additional information. This document describes the work contained in each block of the WBS, and an entry is prepared for each WBS block as soon as a level of work decomposition is completed. In blocks where the work of the project is actually being accomplished, the products (deliverables) of each block are defined, as are the inputs required from other blocks to create those products. The relationships between the inputs and outputs of the block and other WBS blocks are also described.

In theory, you now have a fully satisfactory basis for planning the procurement activities that must be undertaken during project execution. What has to be procured will have been defined.

The relationship of project products will have been made evident in the context of the work to be performed. These definitions and relationships provide a basis for the development of cost estimates and project schedules.

In reality, the degree to which this information is developed, *in procurement terms*, will govern how effectively the project procurements are planned. It is essential for project procurement staff to be involved in developing the WBS and the WBS dictionary, and to be fully conversant with its procurement implications.

However, things are not quite that simple. Remember, a project is “a temporary endeavor undertaken to produce a unique product or service.” The life cycle of a project consists of everything that occurs between its start and its end. Project life cycles typically are divided into phases, where the major deliverable of one phase is a prime input to the subsequent phase.

Different types of projects have different types of life cycles. For example, the developers of information systems employ system development life cycle models, which are generally comparable. From a generic perspective, the project technical development process can be described to sequentially entail concept formulation, development, implementation and termination. These can be subsumed in a project life cycle consisting of the following phases: feasibility, planning and design, mobilization, build, test, completion and post evaluation.

The phase of the project about to commence is always the one best described in the WBS – subsequent phases are described in a more and more summary manner, the further they are removed from the present phase. This means that the procurement plan prepared for a project must be an evolving document. Like the project charter (discussed in *Summit*, September 1999), it must be updated at the commencement of each project phase.

My next column will address the creation of the project plan and the further development of procurement planning.

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