

**Project Management Institute**

*Practice Standard*  
*for Work*  
*Breakdown Structures*  
**Second Edition**

*Practice Standard for Work Breakdown Structures—Second Edition*

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## Preface to the Second Edition

When the Work Breakdown Structure (WBS) Practice Standard Update Team gathered in April of 2003, the progression of this standard to its current level of advancement could not have been anticipated. To begin the work, the team received the charter for the update process, the original chapters and appendices from the first edition, as well as approximately 450 comments about the content of the document that had been received from readers and project management practitioners since the time of its publication.

While the challenge to update the *Practice Standard for Work Breakdown Structures* initially did not appear particularly difficult, the project team spent a great deal of time planning and developing an appropriate approach. At the time the update was being initiated, the *Practice Standard for Work Breakdown Structures* had achieved widespread popularity across the project management community, and had taken its place beside the *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)*—Third Edition as a frequently requested publication available from PMI. Any modifications to this document, therefore, had to be weighed carefully.

With this in mind, the Update Team set in motion a series of discussions, presentations, and interviews designed to surface and accurately illuminate how the WBS is put into play across a broad array of industries today. The resulting conclusions regarding WBS application and practice have now been incorporated into this standard and have been brought together as a “white paper” that accompanies the publication on the *Practice Standard for Work Breakdown Structures*—Second Edition CD-ROM.

From the time the first edition of the *Practice Standard for Work Breakdown Structures* was being developed a little more than five years ago, there has been a vast expansion in rapid electronic access to information through the Internet, CD-ROMS, DVDs, instant messaging, and wireless technology. Knowing that the *WBS Practice Standard* will be delivered into this rapidly evolving communications environment, the Update Team was compelled to consider how this standard would be viewed and used by current and future project management practitioners.

Considering these factors, the Update Team came to understand that what had at first seemed readily achievable was, in fact, considerably more complex and difficult. Team leaders and members alike were convinced the design for the *WBS Practice Standard* would need to reflect not only the progressive application of the WBS in practice today, but must include and incorporate an awareness of the new environment in which it will be used. To ensure this edition met those requirements, the *Practice Standard for Work Breakdown Structures*—Second Edition will now be delivered as a hard copy document as well as a CD-ROM.

Specifically relating to the content of the standard, many of the comments received since the first publication focused on the need for more detail and a broader overall perspective. Many comments included detailed requests for more and varied examples, checklists, job aids, and reference material. The Update Team has taken particular

care to address these comments, while ensuring that material accurately reflects the application of standard practice in the industry. Throughout the standard, the reader will find additional guidance regarding the characteristics that make up a high-quality WBS, as well as considerably more discussion about the use of the WBS in real-life practical situations. Additionally, many of the checklists, sets of questions, and sectional examples have been extracted, reformatted, and placed in the appendices as individual elements that can be used as job aids and guides for developing a WBS.

The *Practice Standard for Work Breakdown Structures—Second Edition* provides guidance in the initial generation, subsequent development, and application of the WBS. The *Practice Standard for Work Breakdown Structures—Second Edition* is not, however, a textbook, and it does not provide specific “how-to” instructions. The target audience for this standard includes project managers, project team members, contract personnel, and others who participate or have an interest in any aspect of the management of projects or programs. In using this practice standard, it must be recognized that as projects vary, so can the resulting WBSs. There are, however, certain universal principles that this practice standard addresses.

The *Practice Standard for Work Breakdown Structures—Second Edition* is consistent with the *PMBOK® Guide—Third Edition*. The *Practice Standard for Work Breakdown Structures—Second Edition* also includes information derived from accepted project management industry sources. The Project Management Institute’s standards program will periodically update the *Practice Standard for Work Breakdown Structures* as part of the planned evolution of its standards. Your comments are invited.

The *Practice Standard for Work Breakdown Structures—Second Edition* is organized as follows:

Chapter 1	Introduction to the Work Breakdown Structure	Introduces the WBS concept.
Chapter 2	Defining the WBS	Defines the WBS and its characteristics. Defines the benefits derived from using a WBS.
Chapter 3	Importance of the WBS	How the WBS fits with other project management practices.
Chapter 4	Defining WBS Quality	Documents the characteristics of a high-quality WBS. Presents guidelines for determining if the WBS is sufficient for subsequent planning and control.
Chapter 5	Considerations while Creating a WBS	Provides guidance and presents questions that can be asked during the development of a WBS to help ensure that the finished product meets all the needs of the project it will serve.
Appendices A–D		Provides background information on the PMI Standards Program and the <i>Practice Standard for Work Breakdown Structures—Second Edition</i> project.

Appendices  
E–P

Provides documented industry examples to aid the reader in further understanding, creating, and using WBSs. Each appendix represents an approach tailored to a specific purpose, application, or industry. Examples are in different stages of completion and represent the evolutionary development of a WBS. None of the examples should be taken as the *only* suitable WBS for that type of project.

Notes  
Glossary

Provides clarification of key terms that exist in the project management profession, including those that have subtle or variable meanings depending on the organization and industry.

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## Chapter 1

# Introduction to the *Practice Standard for Work Breakdown Structures—Second Edition*

### 1.1 Overview

Successful project management relies on thorough planning. This begins by defining the project objectives with sufficiently detailed information. The Work Breakdown Structure (WBS) provides the foundation for defining work as it relates to project objectives. The WBS also establishes the framework for managing the work to its completion. The remaining sections of this chapter are as follows:

#### 1.2 Concept

#### 1.3 Objectives

### 1.2 Concept

The WBS is used in projects as follows:

- To define the project's scope of work in terms of deliverables and to further decompose these deliverables into components. Depending upon the decomposition method used, the WBS can also define the project's life cycle as well as the deliverables appropriate to the project, program, or portfolio. This project scope decomposition balances management's need for control with representation of an appropriate level of detail in the WBS.
- To provide the project management team with a framework on which to base project status and progress reports.
- To facilitate communication between the project manager and stakeholders throughout the life of the project. The WBS can be used to communicate information regarding the project scope. In combination with additional data, the WBS is the framework for communicating information that includes, but is not limited to, schedule, risk, performance, dependencies, and budget.
- As a key input to other project management processes and deliverables.

The WBS articulates the project scope. It is considered as critical input to other project management processes and deliverables such as activity definitions, project