Advanced Project Management Training Course
Advanced Project Management

Creating the Scope Baseline
Module Objectives

- Develop a detailed description of the project scope
- Create a comprehensive work breakdown structure (WBS)
- Verify the integrity of the scope statement
- Establish the technical performance baseline for the project
Project Scope Management

“Project Scope Management includes the processes required to ensure that the project includes all the work required, and only the work required, to complete the project successfully.”

Define Scope

“The process of developing a detailed description of the project and product.”


**INPUTS**
- Project Charter
- Requirements

**TOOLS & TECHNIQUES**
- Expert judgment
- Product analysis
- Facilitated workshops

**OUTPUTS**
- Scope Statement
Project Scope Statement

- **Deliverables**
  - Major project outputs

- **Exclusions**
  - What is out of scope

- **Quality**
  - Assurance of ‘fit for purpose’

- **Acceptance Criteria**
  - What “done” means

- **Constraints**
  - Cost and/or date constraints

“The scope statement provides a common understanding of the project scope among project stakeholders”

Identify Deliverables

• Consider:
  – Product/service realisation outputs
  – Supporting documentation
  – Project management outputs

• Typically 4-9 major deliverables per project

• Deliverable definitions establish the project boundaries
Exercise – Scope (1)

1. Identify the major deliverables for your group project
Describe Deliverables

- What will be included?
- What will not be included?
- Are there any constraints (e.g. dates, budget, ...)?

<table>
<thead>
<tr>
<th>Deliverable Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is</td>
</tr>
<tr>
<td>---</td>
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<tr>
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</tbody>
</table>
Quality of Outputs

• For each deliverable, consider:
  – What features/attributes are important?
  – How will quality be controlled?
  – Who will be involved?
Acceptance Criteria

For each deliverable, define completion criteria

- What does “done” mean?
- Who validates?

<table>
<thead>
<tr>
<th>Acceptance Criteria</th>
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</table>
Exercise – Scope (2)

1. Describe clearly the major deliverables for your group project
2. Specify quality metrics and acceptance criteria
Validate Scope

- Review scope statement with Sponsor
- Ensure alignment of key stakeholders
- Gain buy-in and approval

<table>
<thead>
<tr>
<th>Deliverable 1</th>
<th>Deliverable 2</th>
<th>Deliverable 3</th>
<th>Deliverable 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is</td>
<td>Is Not</td>
<td>Is</td>
<td>Is Not</td>
</tr>
</tbody>
</table>

Acceptance Criteria

- [ ]
- [ ]
- [ ]
- [ ]
- [ ]
- [ ]
- [ ]
- [ ]
Create WBS

Work Breakdown Structure

“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”

* Often best done as a facilitated workshop

INPUTS
- Scope Statement
- Requirements

TOOLS & TECHNIQUES
- Decomposition*

OUTPUTS
- WBS
- WBS Dictionary
- Scope Baseline

Work Breakdown Structure

- A task-oriented grouping of the project elements that organises and defines the total work scope of the project
- Systematic and comprehensive

*The heart of a complete and accurate plan!*
WBS - Purpose

- Ensure all of the work required to meet objectives and realise deliverables is identified and defined.
- Align stakeholders with a common understanding of project work.
- Ensure tasks are accurately identified to assist estimating time, cost and resources.
- Establish agreement on accountability for project activities.
- Provide the foundation for effective scheduling and project control.
WBS Grouping Methods

**Deliverable**
- Software
- Hardware
- Documentation
- Trained Users

**Lifecycle**
- Design
- Build
- Test
- Deploy

**Geography**
- Australia
- Brazil
- South Africa
- China

**Function**
- Marketing
- Engineering
- Quality
- HR
Developing the WBS

• Review deliverable descriptions
• Use a top-down approach
• Decide on method of grouping level 1 components
• Focus on completeness, not sequence
Exercise – WBS (1)

1. Identify level 1 tasks for your group project
A Team Process

• Build ownership and commitment
• Provide the detailed knowledge necessary
• Establish cross-functional relationships
WBS Coding

1.0 Define Project

2.0 Conduct Analysis
   2.1 Review Process
   2.2 Interview Personnel
      2.2.1 Schedule Interviews
      2.2.2 Conduct Interviews
   2.3 Analyse Findings

3.0 Write Report
### Example WBS

<table>
<thead>
<tr>
<th>ID</th>
<th>Task Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>New Expense Claim Procedure</td>
</tr>
<tr>
<td>1.1</td>
<td>Analyze Existing Procedures</td>
</tr>
<tr>
<td>1.1.1</td>
<td>Obtain existing expense claim procedures document</td>
</tr>
<tr>
<td>1.1.2</td>
<td>Review existing expense claim procedures</td>
</tr>
<tr>
<td>1.1.3</td>
<td>Observe current procedures in practice</td>
</tr>
<tr>
<td>1.1.4</td>
<td>Identify inefficiencies in current practices</td>
</tr>
<tr>
<td>1.1.5</td>
<td>Create report on existing claim procedures</td>
</tr>
<tr>
<td>1.2</td>
<td>Redesign Procedures</td>
</tr>
<tr>
<td>1.2.1</td>
<td>Redesign existing procedures</td>
</tr>
<tr>
<td>1.2.2</td>
<td>Review draft of redesigned procedures</td>
</tr>
<tr>
<td>1.2.3</td>
<td>Finalise new procedures</td>
</tr>
<tr>
<td>1.3</td>
<td>Approve New Procedures</td>
</tr>
<tr>
<td>2.0</td>
<td>Develop New Expense Claim System</td>
</tr>
<tr>
<td>3.0</td>
<td>Train Employees</td>
</tr>
<tr>
<td>4.0</td>
<td>Manage Transition to New Claim Process</td>
</tr>
</tbody>
</table>

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**Decide what level of detail is appropriate for your project**

**Which is the most accurate?**

**… the most reliable for tracking progress?**

**… takes the most time to develop?**

www.qvcsolutions.com
WBS - Level of Detail

Guidelines

Break the work down until:

1. One single owner can be assigned to each of the lowest level tasks
2. Clearly defined outputs are evident for each task
3. Tasks unambiguously communicate the work to be accomplished to the person who is accountable
4. Likelihood that a task is omitted or work flow forgotten is minimised
5. Each task is well enough defined and small enough so that estimates are realistic and credible
6. The project is broken down to the level at which you want to track

Lowest level tasks should generally have durations between one and twenty days and effort that equates to not more than 1 person week
WBS - Task Completion Criteria

- Clear and binary
- Specified by task owner
- Output defined in an unambiguous, measurable way

<table>
<thead>
<tr>
<th>WBS</th>
<th>Task</th>
<th>Completion Criteria</th>
</tr>
</thead>
</table>
| 5.7 | Present 1\textsuperscript{st} Draft of Report | • Gap analysis of policies and procedures documented in two Word files:
  – “file 1” comprising the full analysis, findings and recommendations
  – “file 2” comprising the Working Group’s comments from Review session #3
  • Key findings presented in PowerPoint format to Sponsor in a 1 hour briefing
  • 6 copies of draft report in spiral-bound hardcopy format provided to Steering Committee for review |
# WBS Dictionary

<table>
<thead>
<tr>
<th>WBS Code</th>
<th>Task Name</th>
<th>Estimates (Time, Cost)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Input (Dependencies)</th>
<th>Task Description</th>
<th>Output (Deliverable &amp; Completion criteria)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Owner</th>
<th>Assumptions &amp; Constraints</th>
<th>Resource needs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**QVC Solutions**
Quality • Value • Commitment

[www.qvcsolutions.com](http://www.qvcsolutions.com)
## Example WBS Dictionary

<table>
<thead>
<tr>
<th>Code</th>
<th>Test Prototype</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2.1</td>
<td>Build 1</td>
<td>10 days</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Input</th>
<th>Test Prototype</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Build 1” test must conform to Alpha test plan</td>
<td>Includes testing of all “Build 1” prototype components</td>
<td>Test report signed off by program manager</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Owner</th>
<th>Test Prototype</th>
<th>Resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bob Dylan</td>
<td>Assumes final design freeze will be no later than 1 Jan</td>
<td>2 senior QA/test engineers required</td>
</tr>
</tbody>
</table>
Reporting Milestones

• Identify major events that will aid tracking
• Consider management level milestones
  – Start and end of phases
  – Deliverable completion
  – Major reviews and gates
  – Sign-offs and approvals
• Assign WBS code and ownership to each milestone
Exercise – WBS (2)

1. Develop the WBS to 25-35 lowest level tasks
2. Add tracking milestones
3. Assign task owners
4. Complete WBS dictionary entries for 1 task
WBS Checklist

• Verify WBS integrity
  – All deliverables fully reflected in tasks
  – Verb/noun for all task names
  – All tasks are coded
  – Lower level tasks aggregate to next highest level
  – Tangible outputs evident for each task
  – One single owner for each task
  – Lowest level tasks have appropriate duration
  – Clear, agreed upon completion criteria
The Scope Baseline

• The baseline is
  – Set at the end of the planning phase
  – The original approved plan (and any approved scope changes)
  – The basis against which all progress will be measured

• The scope baseline includes all approved plan elements that define scope
Performance Measurement Baseline

- Technical (scope) baseline
- Schedule baseline
- Cost performance baseline

The WBS represents the “Technical Baseline”

Integrated performance measurement

Time

Scope

Cost

Time

$
Review

• Questions?

• Key learnings
  – Which concepts were the most valuable?
  – How / when can you put them into practice?
  – What support will you need?
End of Module

Creating the Scope Baseline