Six Steps to a Better WBS

Presented by

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Scope vs. work:
- What’s the difference?
- How does this affect planning?

Work breakdown structures:
- Basic concepts
- Six steps
- Lessons learned
Scope vs. Work

Hard work never killed anybody, but why take a chance?

Edgar Bergen
Scope vs. Work

- **Scope** — the characteristics of the product of the project.
- **Work** — the actions that must be taken in order to deliver a product with the characteristics.
Project Life-Cycles Define Scope-Oriented Processes
PM Methodologies Define Work-Oriented Processes

Approve -> Plan
Plan -> Control
Control -> Accomplish
Accomplish -> Close
Work-Oriented Processes
Repeat in Each Phase
Methodologies Are Complementary
Methodologies Are Complementary

<table>
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<th>Requirements Phase</th>
<th>Design Phase</th>
<th>Next Phase</th>
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<td>Start</td>
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<td>Start</td>
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<td>Scope</td>
<td>Business Need</td>
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Key Work Planning Outputs

- Project Definition Document
- Project Success Criteria
- Work Breakdown Structure
- Network Logic
- Cost and Effort Estimates
- Project Budget
- Project Schedule

*Repeat or update in each project life-cycle phase*
Abram's Advice

When eating an elephant, take one bite at a time.
Work Breakdown Structure (WBS)

- A *structured* definition of the *work*:
  - The things we have to do to produce the product of the project.
  - The things we have to do to manage the project.
  - *All* the work, and *only* the work.
The Elements of a WBS
Developing a WBS: Six Simple Steps

1. Get the appropriate stakeholders together.
2. Organize the first level according to how the work will be done or managed.
3. Add a branch for project management deliverables and activities.
4. Generate additional detail for all branches.
5. Arrange related items into a hierarchy.
6. Edit and revise as needed.
Developing a WBS: Six Simple Steps

1. Get the *appropriate* stakeholders in a room together; for example:
   - Team members
   - Subject matter experts
   - Contractors
   - Customer representative
2. Organize the first level according to how the work will be done or managed:

- **By project life-cycle phase** — if multiple phases are being planned.
- **By key deliverable** — for a single phase project or when the phases are not the same for all key deliverables.
- **By some other logical grouping** — if phase or key deliverable is not appropriate.
3. Add a branch for project management deliverables and activities.

4. Generate additional detail for all branches by asking:
   - What are the things we have to do?
   - What are the documents we have to produce?
   - What are the other tangible items we have to create?
5. Arrange related items into a hierarchy:
   - A “child” has only one “parent.”
   - Lower level items in each branch are necessary and sufficient to complete the deliverable on the upper level.
6. Edit and revise as needed so that:

- Deliverables are nouns (e.g., “requirements document”).
- Activities have a verb and a noun (e.g., “write requirements”).
- You have enough detail to estimate.
Top Levels, WBS with Phases

System Development

Project Mgmt.

Requirements Document
- Business
- Technical
- Operational

Design Document
- Functional
- System
- Technical
- Program

Detailed Specifications
- Functional
- Program
- Performance

Unit Test Results
- Programs
- Unit tests

Other Test Results
- Integration
- Regression
- Acceptance

Installed System
- Plans
- Documentation
- Training Mat'ls
- Training Delivery
- Handover

Post-project Review Report
Top Levels, Deliverable-oriented WBS

- **New Bank Logo**
  - **Project Mgmt.**
    - Kick-off meeting
    - Status review meetings
    - Team member evals
  - **Print and electronic material**
    - Internal forms
    - Customer forms
    - Supplier forms
    - Advertising materials
  - **Fleet**
    - Corporate jets
    - Managers’ vehicles
    - Security vans
  - **Signage**
    - Billboards
    - Branches, exterior
    - Branches, interior
    - ATMs
Top Levels, Procurement-oriented WBS

Office Remodeling

- Project Mgmt.
  - Kick-off meeting
  - Status review meetings

- Vendor Selection
  - Issue RFP
  - Review proposals
  - Award contract

- Vendor Supervision
  - Review plans
  - Monitor activity

- Final Inspection
  - Prepare punch list
  - Supervise repairs
  - Document approvals
Using the WBS

- Activities *will* be used as inputs to:
  - Effort and cost estimating
  - Sequencing and scheduling

- Deliverables *may* be used as:
  - Scheduling milestones
  - Progress measurement check points
Heterodoxy
(non-standard views)

- Levels do not have standard names.
- Each branch can have a different number of levels.
- Activities and deliverables can be mixed at the same level.
- It may not be possible to develop a complete WBS at the start of the project.
WBS Checklist

- Is management work included?
- Do the detail work-items within each branch fully describe the upper level work-item?
- Are completion criteria evident?
- Is each activity small enough for one person to be held accountable for its delivery?
- Are the activities small enough to ensure accurate estimates?
There is no “one right way” to organize a work breakdown structure.

Go top-down when you have done something similar before; go bottom-up when you haven’t

AWOW — all the work and only the work.

Post-Its can help!
Thanks for listening!

Any questions?

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