

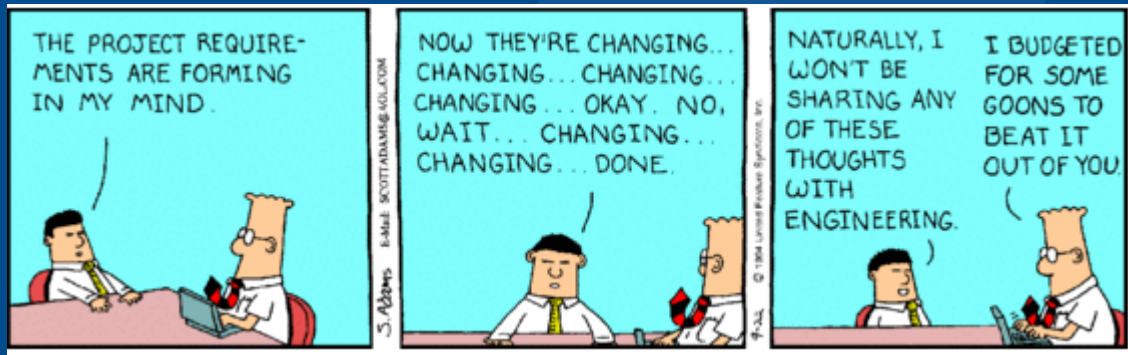
Project Scope & Scope Management

Week 3

Project Scope

Project scope is everything about a project – work content as well as expected outcomes.

Project scope should define the results to be achieved in specific, tangible, and measureable terms.



Project Scope

1/ Project objectives	Overall goal → what, when, how much
2/ Deliverables	Major expected outputs
3/ Milestones	Natural and significant events → time, cost, resources
4/ Technical requirements	To assure performance
5/ Limits and exclusion	Avoid false expectations
6/ Reviews with costumers	Understanding and agreement of expectations

Project Scope

REQUIREMENTS TRANSLATED INTO SPECIFICATIONS

REQUIREMENTS

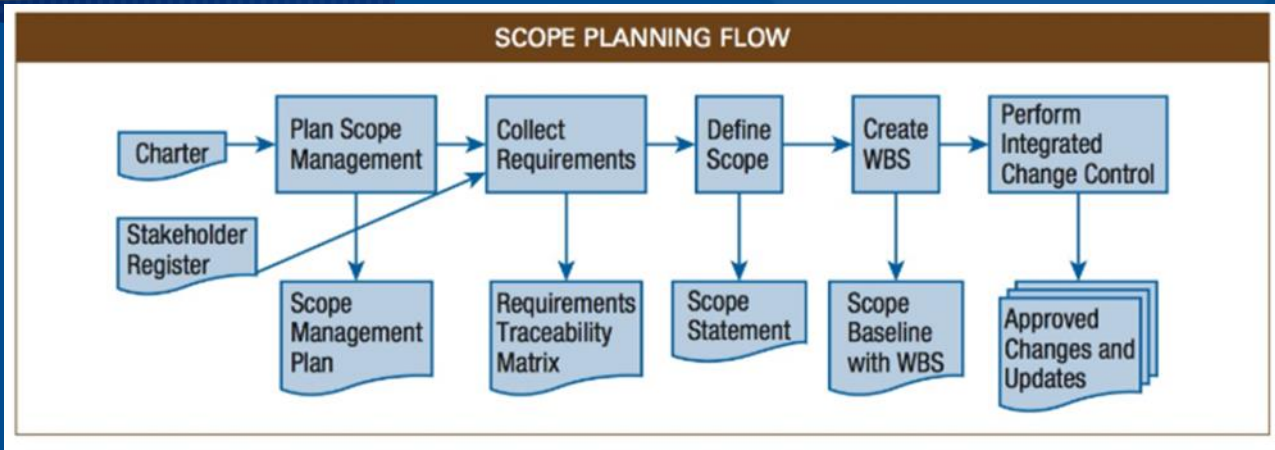
- Unambiguous—not subject to interpretation
- Complete—nothing left out
- Consistent—no conflicts, which also means no duplication
- Modifiable—amenable to change
- Traceable—to a customer need
- Verifiable—means provided to verify the requirement

SPECIFICATIONS

- Unique set—each stated only once
- Normalized—should not overlap
- Linked set—shows relationships
- Complete—nothing left out
- Consistent—no conflicts
- Bounded—specifies nonnegotiable constraints
- Modifiable—amenable to change
- Configurable—traceable changes
- Granular—right level of abstraction

Adopted from: IEEE 1233

Scope Management



Scope management is the function of controlling a project in terms of its goals and objectives and consists of:

- 1) Conceptual development
- 2) Scope statement
- 3) Work authorisation
- 4) Scope reporting
- 5) Control systems
- 6) Project closeout

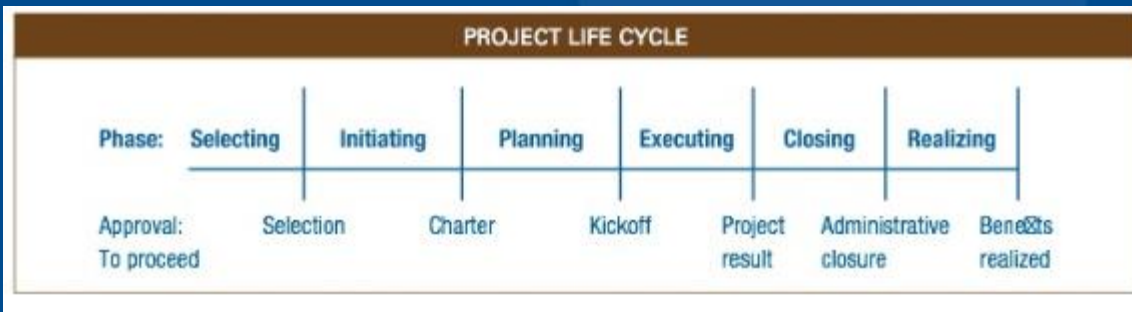
Scope Management: Scope Analysis

Why would you want to develop a comprehensive project scope analysis?

- Transforming the idea of the project into a working concept
- Once the concept is developed, project details can be mapped out
- Scope analysis outlines each step of the project in a detailed manner
- The primary benefit is that it aligns the project so the final product will be consistent with the original goals/objectives.

*By outlining each step, **scope analysis** increases the likelihood that the project will stay within budget and time constraints, and meet predetermined specifications and quality parameters.*

Scope Management: From an idea to a formal “go-ahead”



Conceptual Development

*The **process** that addresses **project objectives** by finding the best ways to meet them*

Key steps in information development:

- Problem or need statement
- Requirements gathering
- Information gathering
- Constraints
- Alternative analysis
- Project objectives
- Business case
- Statement of work
- Project charter

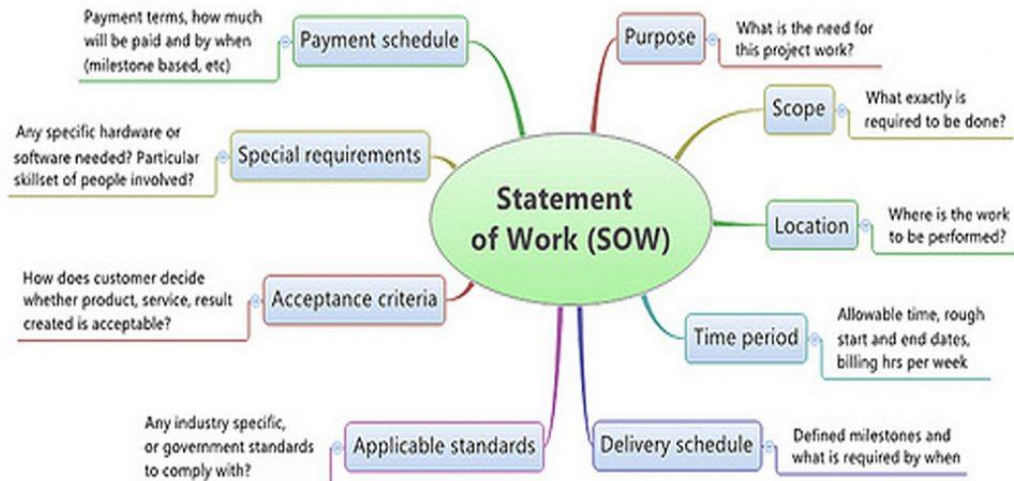


Statement of Work

A SOW is a **detailed narrative description** of the work required for a project.

Effective SOWs contain:

Introduction and background, Technical description of the project, Timeline and milestones



Project Charter

A **document** issued by the project initiator or sponsor formally sanctioning existence of project and authorizes project manager to begin applying organizational resources to project activities

Is created once project sponsors have done their “homework” to verify that there is:

- a business case for the project
- elements of project are understood
- company-specific information for the project has been applied

Demonstrates formal company approval of the project

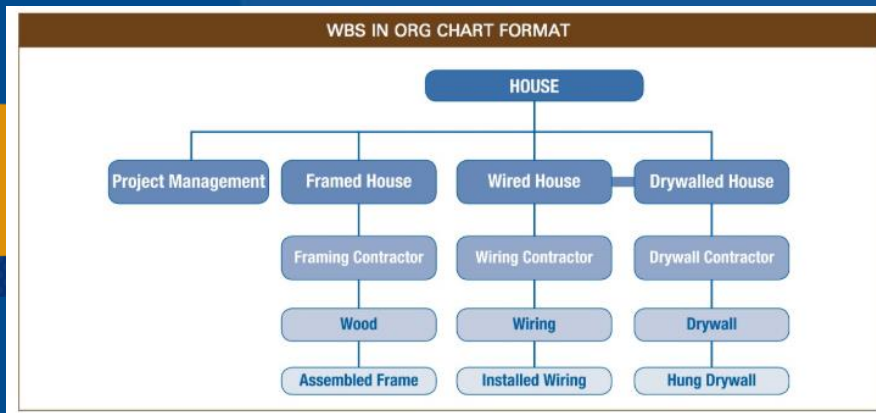
Scope Statement – Scope Baseline

1. Establish project *goal criteria* to include:
 - a) cost
 - b) schedule
 - c) performance
 - d) deliverables
 - e) review and approval “gates” with important project stakeholders (e.g., clients)
2. Develop *management plan* for project
3. Establish a *Work Breakdown Structure*
4. Create a *scope baseline*

Scope Statement: WBS

- Echoes project objectives
- Organization chart for the project
- Creates logic for tracking costs, schedule, and performance specifications
- Communicates project status
- Improves project communication
- Demonstrates control structure

A **deliverable-oriented** grouping of project elements which organizes and defines the total scope of the project. Each descending level represents an increasingly detailed definition of a project component. Project component may be products or services.

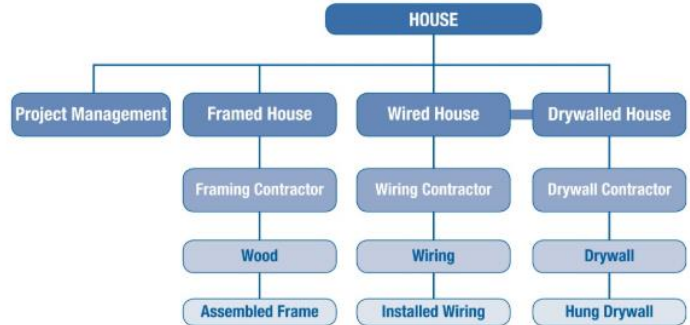


HOUSE

- Project Management
- Framed House
 - Framing Contractor
 - Wood
 - Assembled Frame
- Wired House
 - Wiring Contractor
 - Wiring
 - Installed Wiring
- Drywalled House
 - Drywall Contractor
 - Drywall
 - Hung Drywall

Scope Statement: WBS

WBS IN ORG CHART FORMAT



1.0

1.2

1.3

1.4

1.5

1.2.1

1.2.2

1.2.3

1.4.1

1.4.2

1.4.3

Work Packages
are individual
project
activities
(lowest level in
WBS)

Deliverables are major
project components

Organisational Breakdown Structure

Organizational Breakdown Structure
allows:

- Work definition
- Owner assignment of work packages
- Budget assignment to departments

OBS links cost, activity, & responsibility

Responsibility Matrix

Deliverable	Task & Code	Lead Project Personnel					
		Bob IT	David IT	Susan HR	Beth Procurement	James Engineering	Terry Legal
Match IT to Org. Tasks—1.1	Problem Analysis—1.1.1	○	■			☆	□
	Develop info on IT technology—1.1.2	☆	○	■			
Identify IT user needs—1.2	Interview potential users—1.2.1	□		○	☆		
	Develop presentation—1.2.2	○	☆			■	
	Gain user "buy-in"—1.2.3			☆	■	○	
Prepare proposal—1.3	Develop cost/benefit info—1.3.1	□			○		☆
		○ Responsible	☆ Support	■ Notification	□ Approval		

Work Authorisation

The formal *“go ahead”* to begin work.

Contractual documentation possesses some key identifiable features:

- Contractual requirements
- Valid consideration
- Contracted terms

Scope Management

Reporting, control, & closeout

Scope Reporting

Determines what types of information reported, who receives copies, and when and how information is acquired and disseminated.

Typical project reports contain:

1. Cost status
2. Schedule status
3. Technical performance status

Scope Management: Control Systems

- Configuration control
- Design control
- Trend monitoring
- Document control
- Acquisition control
- Specification control

Project Changes

Occur for one of several reasons:

- Initial planning errors, either technological or human
- Additional knowledge of project or environmental conditions
- Uncontrollable mandates
- Client requests

Configuration Management

Configuration Management is defined as:

A system of procedures that monitors emerging project scope against the baseline. It requires documentation and management approval on any change to the baseline.

Baseline is defined as:

The project's scope fixed at a specific point in time – for example, the project's scheduled start date.

Project Closeout

The job is not over until the paperwork is done...

Closeout documentation is **used to**:

- ❖ Resolve disputes
- ❖ Train project managers
- ❖ Facilitate auditing

Closeout documentation **includes**:

- ❖ Historical records
- ❖ Post project analysis
- ❖ Financial closeout