

# Scope management

Chapter 5

# Project Scope

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

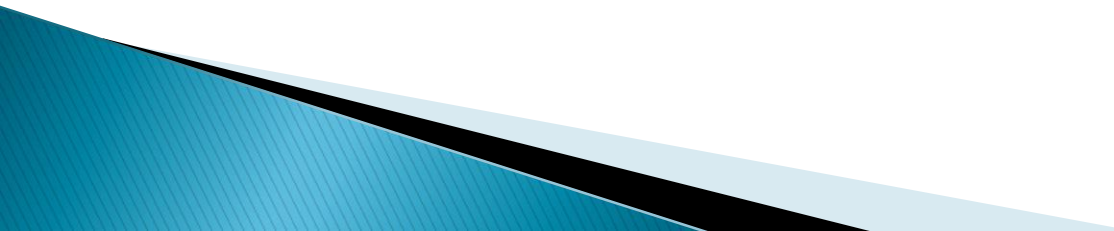
*Scope management is the function of controlling a project in terms of its goals and objectives and consists of:*

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

# 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
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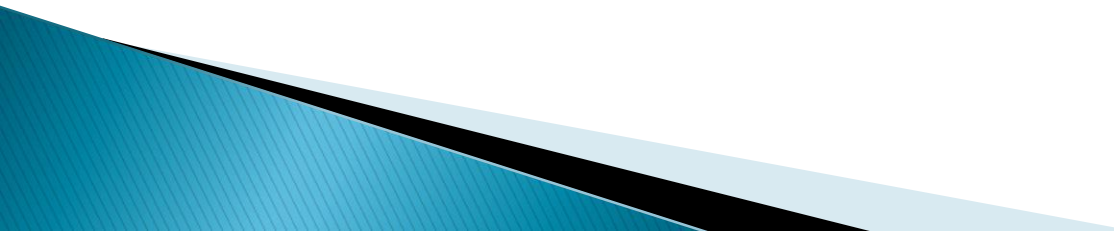
# Statement of Work (SOW)

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

Effective SOWs contain:

1. Introduction and background
2. Technical description of the project
3. Timeline and milestones

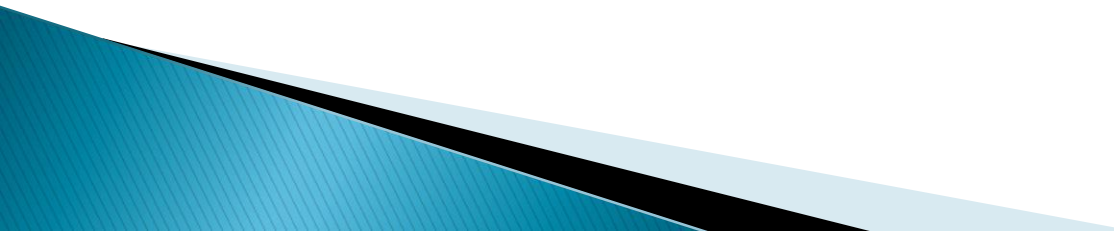
# Statement of Work Components

- ▶ Background
  - ▶ Objectives
  - ▶ Scope
  - ▶ Task or Requirements
  - ▶ Selection Criteria
  - ▶ Deliverables or Delivery Schedule
  - ▶ Security
  - ▶ Place of Performance
  - ▶ Period of Performance
- 

# Project charter

- ▶ Many organizations establish after the SOW
- ▶ 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

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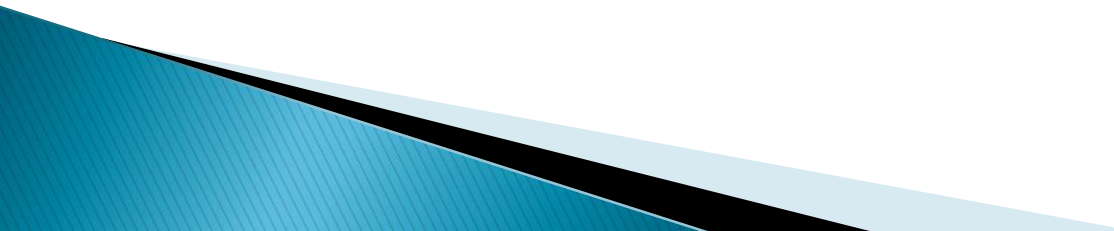
# Work Breakdown Structure (WBS)

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.



# Work Breakdown Structure purpose

WBS serves six main purposes:

1. Echoes project objectives
  2. Organization chart for the project
  3. Creates logic for tracking costs, schedule, and performance specifications
  4. Communicates project status
  5. Improves project communication
  6. Demonstrates control structure
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# Defining a Work Package

*Lowest level in WBS*

*Deliverable result*

*One owner*

*Miniature projects*

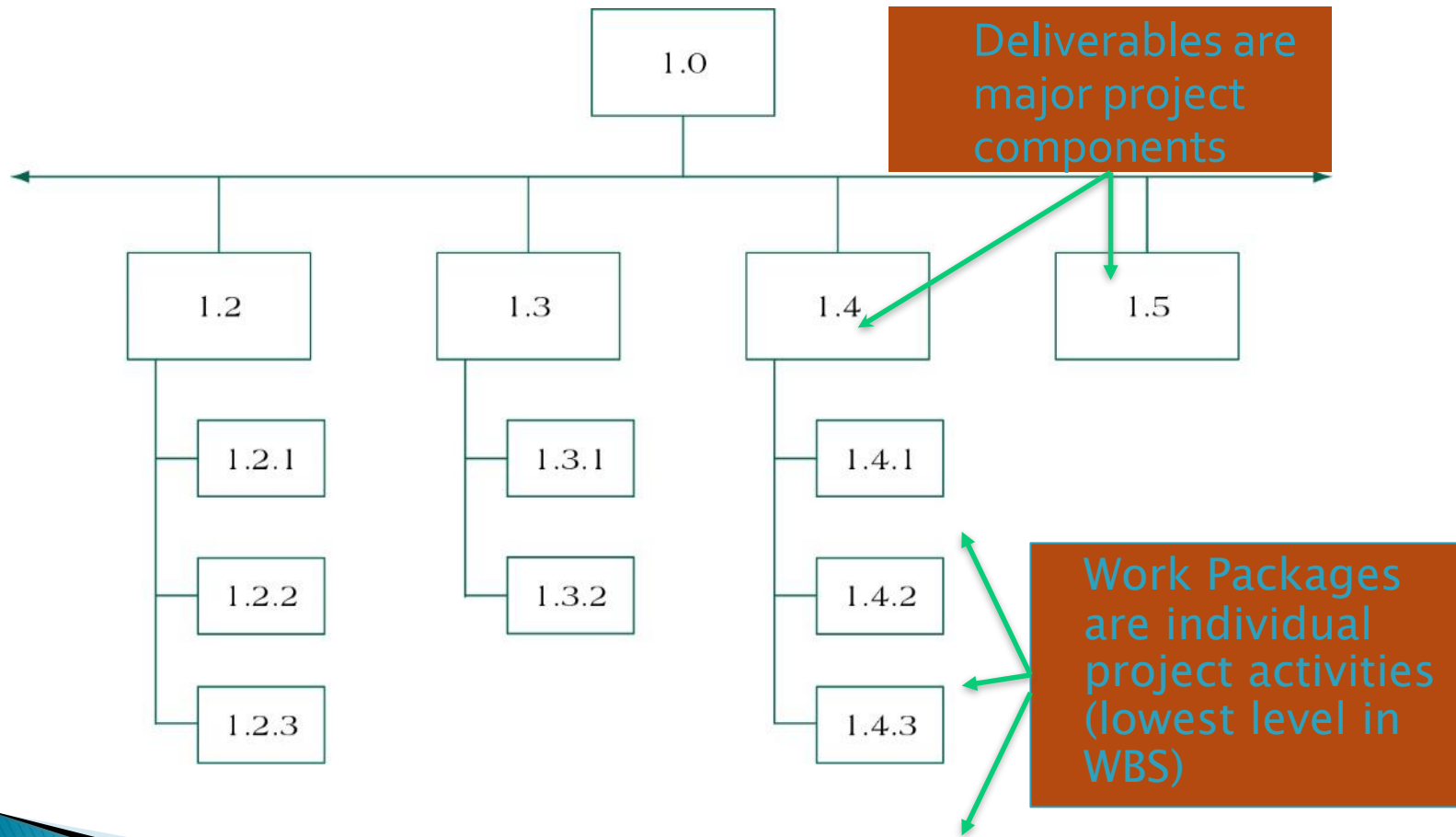
*Milestones*

*Fits organization*

*Trackable*



# Partial WBS



# Sample WBS in MS Project 2013

	i	Task Mode ▾	Task Name ▾	Jun 15, '14				Jun 22, '14				Jun 29, '14								
				W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F
1		☰	1. IT Installation																	
2		☰	1.1 Match IT to org. tasks																	
3		✱?	1.1.1 Conduct problem analysis																	
4		✱?	1.1.2 Identify info on IT technology																	
5		☰	1.2 Identify IT user needs																	
6		✱?	1.2.1 Interview potential users																	
7		✱?	1.2.2 Develop presentation of IT benefits																	
8		✱?	1.2.3 Gain user "buy-in" to the system																	
9		☰	1.3 Prepare Informal Proposal																	
10		✱?	1.3.1 Develop cost/benefit info																	
11		✱?	1.3.2 Gain top management support																	

# Organizational Breakdown Structure

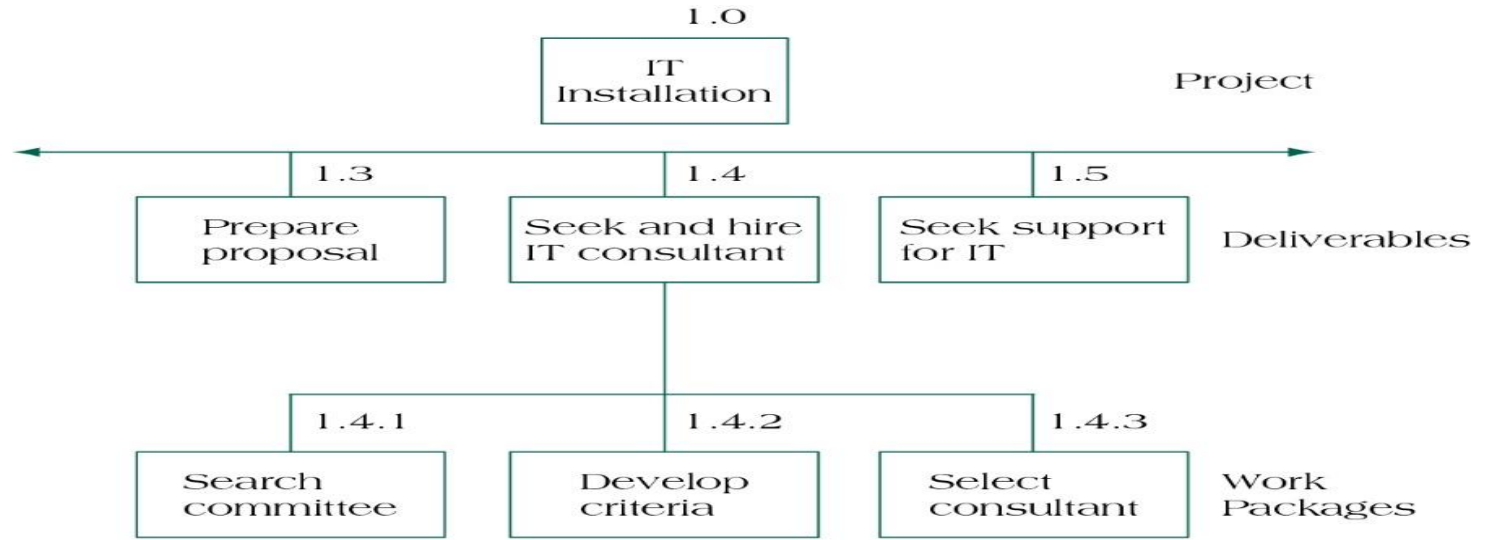
Organizational Breakdown Structure (OBS) allows

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

*OBS links cost, activity & responsibility*



# Intersection of the WBS and OBS

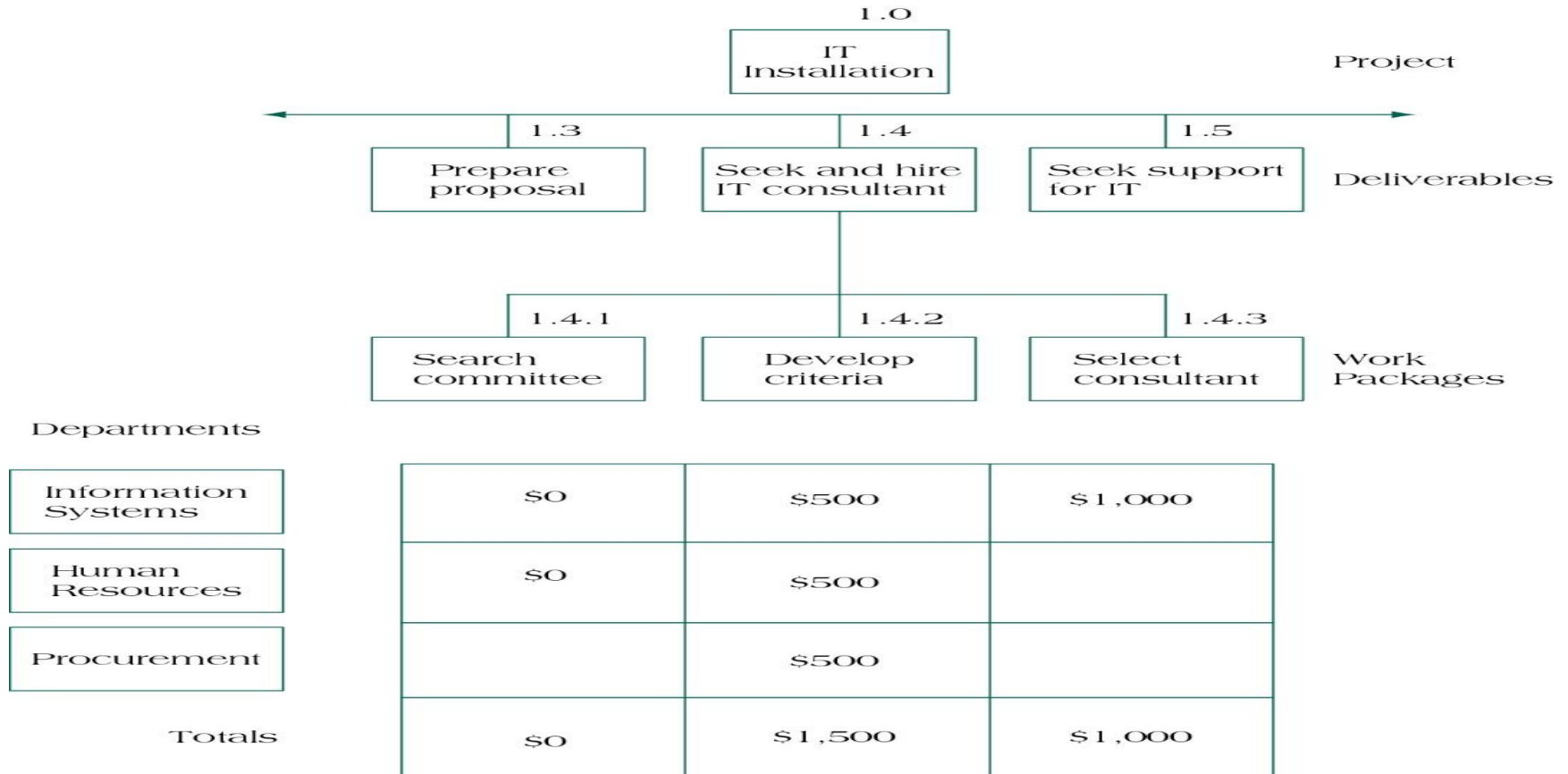


## Departments

Information Systems
Human Resources
Procurement

Cost Account	Cost Account	Cost Account
Cost Account	Cost Account	
	Cost Account	

# Cost Account Rollup Using OBS



# Responsibility Assignment 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

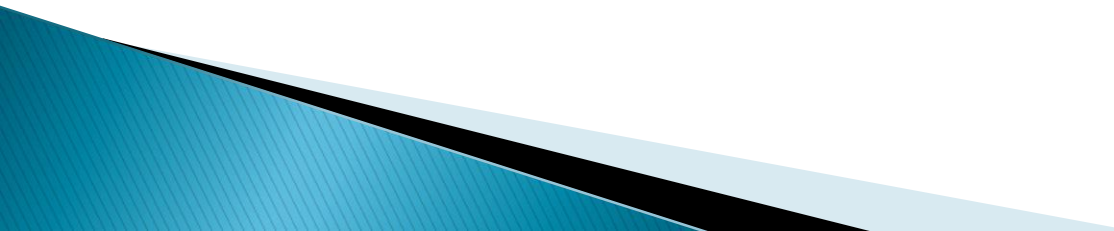
■ Notification

☆ Support

□ Approval



# Defining a Project Work Package

1. Work package forms lowest level in WBS.
  2. Work package has a deliverable result.
  3. Work package has one owner.
  4. Work package may be considered by its owner as a project in itself.
  5. Work package may include several milestones.
  6. Work package should fit organizational procedures and culture.
  7. The optimal size of a work package may be expressed in terms on labor hours, calendar time, cost, reporting period, and risks.
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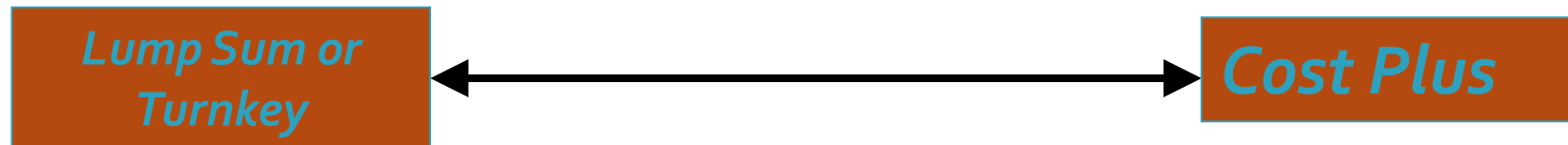
# Work Authorization

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

Contractual documentation possesses some key identifiable features:

- Contractual requirements
- Valid consideration
- Contracted terms

Contracts range from:




# Scope Reporting

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

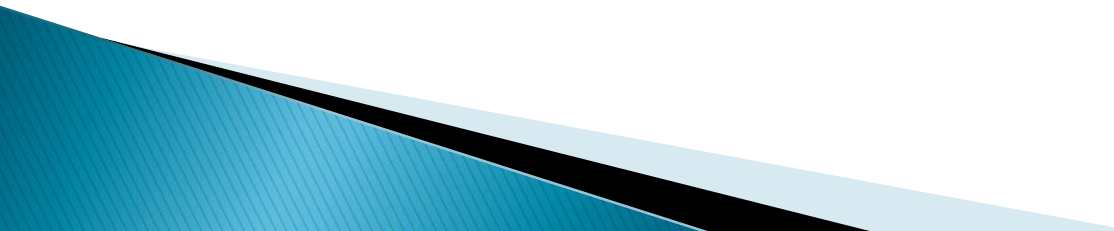
Typical project reports contain:

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

# Reasons Why Projects Fail

- Politics
  - Naïve promises
  - Naïve optimism of youth
  - Startup mentality of fledgling entrepreneurial companies
  - “Marine Corps” mentality
  - Intense competition caused by globalization
  - Intense competition caused by appearance of new technologies
  - Intense pressure caused by unexpected government regulations
  - Unexpected and/or unplanned crises
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# Types of Control Systems

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

Configuration Management is defined as:

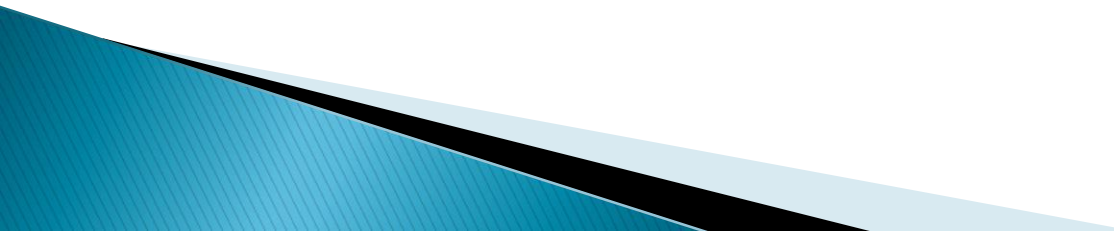
*A system of procedures that monitors emerging project scope against the baseline. It requires documentation and management approval on any change to the baseline.*

Baseline is defined as:

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

# Project 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
- 

# 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
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