



## PROJECT SCOPE MANAGEMENT

Instructor: Dr. Ali Rammal

□ Project Scope Management: Project Scope management: It is the process of defining, developing and controlling how the work will be done what work is required and ensure that this work and only this work is completed.

## □ Project Scope

The work performed and activities required to deliver a product, service, or result with the specified features and functions. Such coordination, management activities ect..

## □ Product scope

The features and functions that characterize a product, service, or result.

## **□** SCOPE BASELINE

Baselines are simply the final and approved versions of certain pieces of the project management plan. For scope, the baseline is made up of the final versions of the WBS, the WBS dictionary, and the project scope statement that are approved at the end of planning, before the project work begins. As the work on the project is being done, the project manager reviews how the project:

- is progressing and compares that data to the baseline by answering the following questions:
- How is my project going, and how does that compare to the baseline?
- What scope has been completed on the project?
- Does it match what is defined in the WBS, WBS dictionary, and project scope statement?

# PROJECT SCOPE MANAGEMENT

Knowledge Area	INTIATING	PLANNING	EXECTUING	MONITORING & CONTROLING	CLOSE OUT
Project Scope Management		<ul><li>Plan scope Management</li><li>Collect requirements</li><li>Define Scope</li><li>Create WBS</li></ul>		- Validate scope - Control Scope	

## **1** 4.1 PLAN SCOPE MANAGEMENT

• All knowledge area have a management plan, only the scope has 2 which are the scope management plan and requirement management plan.

## Scope Management Plan:

- The scope management plan, which is the primary output of the Plan Scope Management process, is part of the project management plan, and the project manager uses it to guide the project until closing. It defines the following:
  - How to achieve the scope
  - What tools to use to plan how the project will accomplish the scope
  - How to create the WBS
  - How scope will be managed and controlled to the project management plan
  - How to obtain acceptance of deliverables

## **Requirement Management Plan:**

• The requirement management plan, which is the second output of the plan scope Management process, it describe the method that project manager intend to use to identify requirement.

## **4.2 COLLECT REQUIREMENT**

Requirements are what stakeholders need from a project or product. PM needs to know what is the exact requirement of the project so he can plan how to execute, manage and monitor the scope. (ERP example, SR, MR, INV).



## **4.3 DEFINE SCOPE**

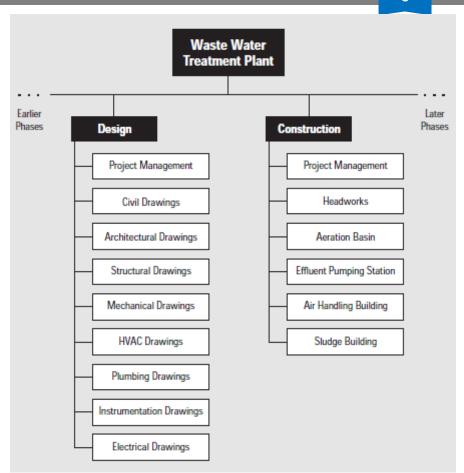
It is the process of developing a detailed description of the project and product. This process uses information from the project charter, scope management plan, the requirements documentation created in the Collect Requirements process, the assumption log, and the risk register to define the project and product scope.



### □ CREATE WBS

## **\*** WBS (Work Breakdown Structure)

- WBS It is the process of decomposing the project and activities into smaller components.
- A WBS should be created by the project manager using input from the team and other stakeholders
- Each level of a WBS is a breakdown of the previous level
- The WBS can be used as a communications tool when discussing the project with the team or the customer.
- The WBS can be used to help new team members see their roles on the project.
- Project managers can control scope creep by using the WBS to reinforce what work is to be done.



## **WBS DICTIONNARY**

This document provides a description of the work to be done for each WBS work package, and it lists the acceptance criteria for each deliverable, which ensures the resulting work matches what is needed. Therefore, a project manager can use a WBS dictionary to prevent scope creep before work even starts, rather than dealing with scope creep while the work is being done.

## **SCOPE CREEP**

Scope creep is an change made to the project scope without any control procedure like change requests. Those changes also affect the project schedule, budget, costs, resource allocation and might compromise the completion of milestones and goals

WBS Dictionary			
Control Account	Work Package Name/Number	Date of Update	Responsible Organization/ Individual
Work Package Delive	rable Description	200	100
Work Involved to Pro	oduce Deliverable		
Acceptance Criteria (	How to know if the deliver	rable/work is acceptable)	
Assumptions and Co	nstraints		
Quality Metrics			
Technical Source Doc	rument		
Risks			
Resources Assigned			
Duration			
Schedule Milestones			
Cost			
Due Date			
Interdependencies			
Before this work pack After this work packa			

## **□** VALIDATE SCOPE

It is the process of formalizing acceptance of the completed project.( from customer).

- The Validate Scope process differs from the Control Quality process in that the former is primarily concerned with acceptance of the deliverables, while quality control is primarily concerned with correctness of the deliverables and meeting the quality requirements specified for the deliverables.
- Control Quality is generally performed before Validate Scope, although the two processes may be performed in parallel.

## ☐ CONTROL SCOPE

It is the process of measuring the work performance data to the scope baseline and managing the baseline changes. At any phase of the project, the project manager must ensure that the work is done according to the scope management plan.

## PROJECT SCOPE MANAGEMENT (TOOLS & TECHNIQUES)

#### Project Scope Management Overview

#### 5.1 Plan Scope Management

- .1 Inputs
  - .1 Project charter
  - .2 Project management plan .3 Enterprise environmental

  - 4 Organizational process assets
- 2 Tools & Techniques
  - .1 Expert judgment
  - .2 Data analysis
  - .3 Meetings
- .3 Outputs
  - .1 Scope management plan
  - 2 Requirements management plan

#### 5.4 Create WBS

- .1 Inputs
  - .1 Project management plan
  - .2 Project documents
  - .3 Enterprise environmental factors
- .4 Organizational process assets
- .2 Tools & Techniques
- .1 Expert judgment
- .2 Decomposition
- 3 Outputs
  - .1 Scope baseline
  - 2 Project documents updates

#### 5.2 Collect Requirements

- .1 Inputs
  - .1 Project charter
  - .2 Project management plan
  - 3 Project documents 4 Business documents
  - .5 Agreements
  - .6 Enterprise environmental
  - .7 Organizational process assets
- 2 Tools & Techniques
- .1 Expert judgment
- .2 Data gathering
- .3 Data analysis .4 Decision making
- 5 Data representation
- .6 Interpersonal and team skills
- .7 Context diagram .8 Prototypes
- .3 Outputs
  - .1 Requirements documentation
  - 2 Requirements traceability matrix

#### 5.5 Validate Scope

- .1 Inputs
  - .1 Project management plan
  - .2 Project documents 3 Verified deliverables
  - .4 Work performance data
- .2 Tools & Techniques
- .1 Inspection
- 2 Decision making
- .3 Outputs
  - .1 Accepted deliverables
- 2 Work performance information .3 Change requests

#### 5.3 Define Scope

- .1 Inputs
- .1 Project charter
- .2 Project management plan
- .3 Project documents
- 4 Enterprise environmental factors
- .5 Organizational process assets
- .2 Tools & Techniques
  - .1 Expert judgment
- .2 Data analysis 3 Decision making
- 4 Interpersonal and team skills
- .5 Product analysis
- .3 Outputs
  - .1 Project scope statement
  - 2 Project documents updates

#### 5.6 Control Scope

- .1 Inputs
  - .1 Project management plan
  - .2 Project documents
  - .3 Work performance data
  - 4 Organizational process assets
- .2 Tools & Techniques
- .1 Data analysis .3 Outputs
- .1 Work performance information
- 2 Change requests
- .3 Project management plan updates
- 4 Project documents updates

## **\*** Expert judgment

It is obtained through individual consultations, such as one-on-one meetings and interviews. Expert judgment could also be obtained through a panel format, such as focus groups and surveys.

## **COLLECT REQUIREMENT**

## **\*** BRAINSTORMING

It is a technique used to generate and collect multiple ideas related to project and product requirements.

## \* INTERVIEWS

Is a formal or informal approach to discover information from stakeholders by talking to them directly. It is typically performed by asking prepared questions and recording the responses. Interviews are often conducted one —on —one, but may involve multiple interviewers and/or interviewees.



## **\*** FOCUS GROUP:

- Focus groups bring together prequalified stakeholders and the subject matter experts to learn about their expectations and attitudes about a proposed product, service, or result.
- A trained moderator guides the group through an interactive conversational discussion, designed to be more one-on-one interview.

## **\*** FACILITATED WORKSHOP:

 Workshops are focused sessions that bring key cross functional stakeholders together



# PROJECT SCOPE MANAGEMENT



## **❖ NOMINAL GROUP TECHNIQUE:**

A question or problem is posed to the group. Each person silently generates and writes down their ideas. The moderator writes down the ideas on a flip chart until all ideas are recorded. Each recorded idea is discussed until all group members have a clear understanding. Individuals vote privately to prioritize the ideas, Voting may take place in many rounds to reduce and focus in on ideas. After each round, the votes are tallied and the highest scoring ideas are selected

### OBSERVATIONS

- It is provide a direct way of viewing individuals in their environment and how they perform their jobs or tasks and carry out processes.
- Observation is usually done externally by the observer viewing the user performing his or her job.

## **❖** BENCHMARKING

- It compares actual or planned project practices to those projects to generate ideas for improvement and to provide a basis by which to measure performance.
- These other projects can be within the performing organization or outside of it, and can be within the same or in another application area.

### **PROTOTYPE**

- It is a method of obtaining early feedback on requirements by providing a working model of the expected product before actually building it
- Supporting the concept of progressive elaboration because they are used in iterative cycles of mock up creation, user experimentation, feedback generation, and prototype revision.



## **\*** GROUP DECISION MAKING TECHNIQUES

Methods of reaching a group decision:

- Unanimity: everyone agrees on a single course of action.
- Majority: support from more than 50% of the members of the group.
- Plurality: the largest block in a group decides even if a majority is not achieved.
- **Dictatorship:** one individual makes the decision for the group.

## □ Requirements Traceability Matrix

• Information such as requirement identification numbers, the source of each requirement, who is assigned to manage the requirement, and the status of the requirement should be documented in the requirements traceability matrix.

Matrix helps to ensure that requirements approved in requirements documentation are delivered at the end of the project.

Requirements traceability matrix									
Project Nam	e:								
Cost Center:									
Project Desc	ription:								
ID	Associate ID	Requirements Description	Business Needs, Opportunities, Goals, Objectives	Project Objectives	WBS Deliverables	Product Design	Product Development	Test Cases	
	1.0								
001	1.1								
	1.2								
	1.2.1								
002	2.0								
	2.1								
	2.1.1								
003	3.0								
	3.1								
	3.2								
004	4.0								
005	5.0								

## **□** PROJECT SCOPE STATEMENT

The primary result, or output, of the Define Scope process is the project scope statement. This document in effect says, "Here is what we will do on this project." Or it could say, "Here is the approved project and product or service scope for this project.

**Inspection** (reviews, audits or walkthrough): measuring, examining, verifying to determine whether work and deliverables meet requirements and product acceptance criteria.