



PMP Exam Tips on Scope Management, PMBOK Fourth Edition
Jim Owens PMP Aug, 2009.

What is Project Scope management?

PMBOK tells us, “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.”

It goes on to say,

“Managing the project scope is primarily concerned with defining and controlling what is and is not included in the project.”

But before we get to Scope Management

Prior to initiating a project, feasibility studies can help determine if a project should be selected for authorization. Projects are initiated based on business and customer needs, as well as opportunities.

Projects should be strategic, but what does strategic mean?

Organisation should have a Mission Statement and a Vision Statement. The mission statement is a declaration of where your organisation is at present, and the vision statement says where your organisation intends to be at some stated time in the future.



For example your mission statement might include:

“We are a software house that provides Finance and HR software for the leading banks in Perth, Western Australia...”

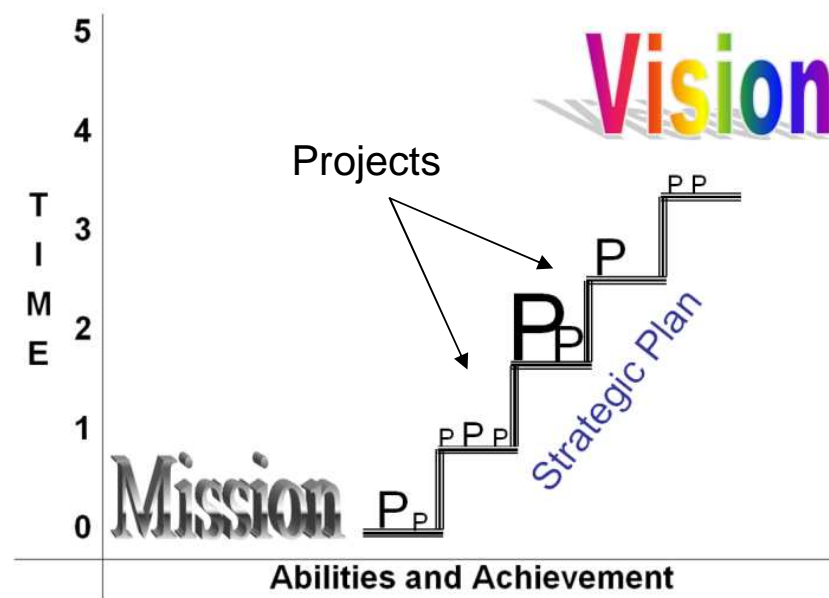
And your vision statement could include:

“Within three to five years we will be the complete software provider of choice to 75% of the leading banks in the southern hemisphere...”

In order to move from where you are now (your mission) to where you hope to be (your vision) your organisation must develop and execute a strategic plan, a coordinated series of steps, to achieve the vision, and each one of those steps will be one or more projects. The everyday operation of your

organisation cannot achieve your vision; only projects can do that. Why is that? It is because your operations just maintain “business as usual”, i.e. your mission.

Projects and Strategic Planning



The project Charter

During Integration management, the project charter should be created by the project manager in conjunction with senior management. But the charter must be authorized (signed) by someone **external** to the project and with authority to sign, i.e. a project initiator, such as a sponsor.

The project charter should be broadly based with just sufficient detail to initiate the project. Extra detail wastes time prior to initiation and as you don't know a great deal at this stage then it is just a pointless exercise. If a project charter should be broadly based, it will also reduce the need to change it during the project. The real detail will be progressively elaborated in Scope Management. For more information on the charter, please see my exam tips on Integration management.

Scope Management

This knowledge area is concerned with defining and controlling exactly what the project will and won't deliver. If you don't get this right, then your project will probably fail.

Collect Requirements

PMBOK third edition introduced a process called Scope planning. This has disappeared again with the release of PMBOK Forth Edition, so if you see reference to it in study materials or questions, then they are out of date.

In it's place we have a new process "Collect Requirements", which is "The process of defining and documenting stakeholders' needs to meet the project objectives." The success of your project is directly influenced by the care taken at this stage. This process begins by analysing the project charter and the stakeholder register.

As with the other knowledge areas, Scope Management is recursive (looped-through throughout the project) and progressively elaborated (during the recursions, details are finalised and fed back into the Scope Baseline, so that a clearer and clearer picture of the project scope emerges)

Customers always believe they know "exactly" what they what until it comes to the stage of defining it. And if you don't put the effort into this critical stage, then you will reap the wrath of the customer at project delivery time.

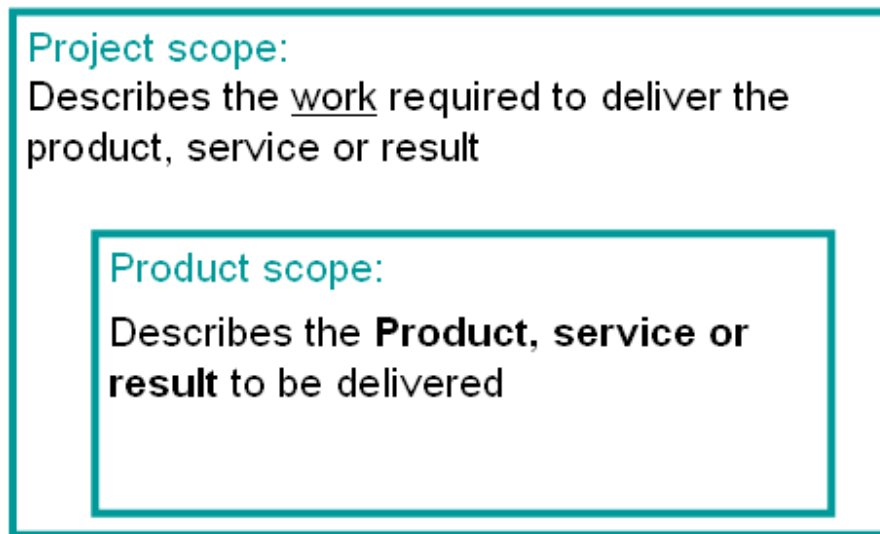
One of the biggest problems with defining the scope of a project is an assumption by the customer that so-and-so is "obvious" and the project manager "should have known"; thus often a "failure" in a project is simply that the product of the project did not satisfy the customer's undocumented assumptions. And this is why it is vital to strive to unearth the stakeholders true expectations, and then to manage those expectations throughout the life of the project.

Two Scopes

There are two types of scope, project scope, and product scope, and the project manager must manager both.

Tip: Most times the question will be about project scope. Project scope questions focus on the activities that have to be done in order to create the product, service or result (the project scope is concerned with the work required, and only the work required, to complete the project). But if it refers to features and characteristics of the project deliverables (dimensions, colour, weight, quantities etc) then it is talking about product scope.

Two Different Scopes To Manage



The Work Breakdown Structure (WBS) and the Scope Baseline

Newly added in PMBOK Fourth edition is the explicit definition of the “Scope Baseline”, which is the approved detailed project scope statement and its associated WBS and WBS dictionary.

Scope baseline = Scope Statement + WBS + WBS Dictionary

Remember this, it is important for the exam!

Importance of the Scope Baseline

The Scope Baseline is the single most important project management input. It is an output of the Create WBS process (although it includes the scope statement, which is an output of the Define Scope process).

The Scope Baseline is an input to seven processes:

- Control Scope
- Define Activities
- Estimate Costs
- Determine Budget
- Plan Quality
- Identify Risks
- Plan Procurements

The scope baseline is a component of the project management plan, and during project execution, the baseline is what the scope will be measured against.

Control Scope is the process of monitoring the status of the project and product scope, and managing changes to the scope baseline.

WBS Templates

WBS templates usually come from historical information from previous projects (and/or the project management office if you have one), but in some areas (e.g. construction), some templates may be purchased.

You can find industry-specific examples of WBS templates in the “PMI Practice Standard for Work Breakdown Structures - Second Edition”, downloadable from PMI.org

WBS work packages (these are NOT activities, they are deliverables at the lowest level of WBS) are defined in detail in the WBS dictionary. Know this for the exam

See Figure 1

The WBS is;

- A graphical representation of the entire project
- An output of the Define WBS process
- A component of the Scope Baseline
- Further elaborated in the WBS dictionary
- used to define activities (in the Activity list)
- used to estimate costs
- Used to estimate the budget
- Used to plan quality
- Used to estimate risks
- Used to plan procurements
- Is the foundation for building the project
- The basis of all project planning and control
- Anything not on the WBS is out of scope
- Focuses the team on the whole project
- Created by the Project manager and project team
- A team-building tool (team help to build it, and so feel some ownership. It also helps them to see where they fit in).
- A communication tool
- Should be stored with historical records at end of project of major phase

- Can be retrieved from historical records and used as a template
- in some industries (e.g. construction) some common templates can be purchased
- IT IS VERY, VERY IMPORTANT
- The WBS is deliverable-based, not activity based
- "Work packages" are *deliverables* (not activities) and are at the lowest level of the WBS.
- Activities to perform the work packages are shown in an extension to the WBS, called the "activity list" (see PMBOK section on Time Management).
- The WBS helps reduce omitted deliverables and activities

Other Exam Tips

IF YOU'VE NEVER BUILT A WBS BEFORE, BUILD AT LEAST ONE BEFORE THE EXAM, EVEN A SIMPLE ONE, YOU *NEED* THE EXPERIENCE.

You must know the PMBOK definitions, including the definition for 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.”

Q: How does PMI test you on definitions in a multiple-choice exam?

A: By presenting you with four very similar definitions and you have to pick the right one.

Note well:

- The Work Breakdown Structure breaks down deliverables, NOT work.
- Work Packages are deliverables, NOT activities.
- Scope Management is a continuous process right throughout the project.
- PMBOK is dead against “gold plating”, i.e. adding extras to the deliverables without going through integrated change control. If a project scope has been completed and verified, the project is complete. Don't be tempted do any additional work (i.e. not in the project scope) once the project scope has been fulfilled – don't add extra features or “finishing touches” not in the scope statement. You won't get paid extra for them, you have allowed no resources for them, yet you will be held accountable for them, and they just could be the last straw that breaks the project's back.
- Focus on protecting the project scope. You must know the real purpose of the project, so the scope is in alignment with identified needs and expectations.

- Once the scope has been created, no-one (not even the project manager) should change it — unless there are overwhelming reasons (with overwhelming evidence) of why the scope needs to be changed. Document the request and then channel it through the change management process.
- In the exam, for a particular question you may be presented with four “right” answers – in this case go for the one that seems best under the stated circumstances (sorry, but I don’t create the exam).

Enterprise Environmental Factors are those influences that surround a company, such as:

- Policies and Standards
- Systems, Tools, and Data
- Marketplace Position and Competition

Organizational Process Assets reflect more the way a company chooses to organize and structure its work, including:

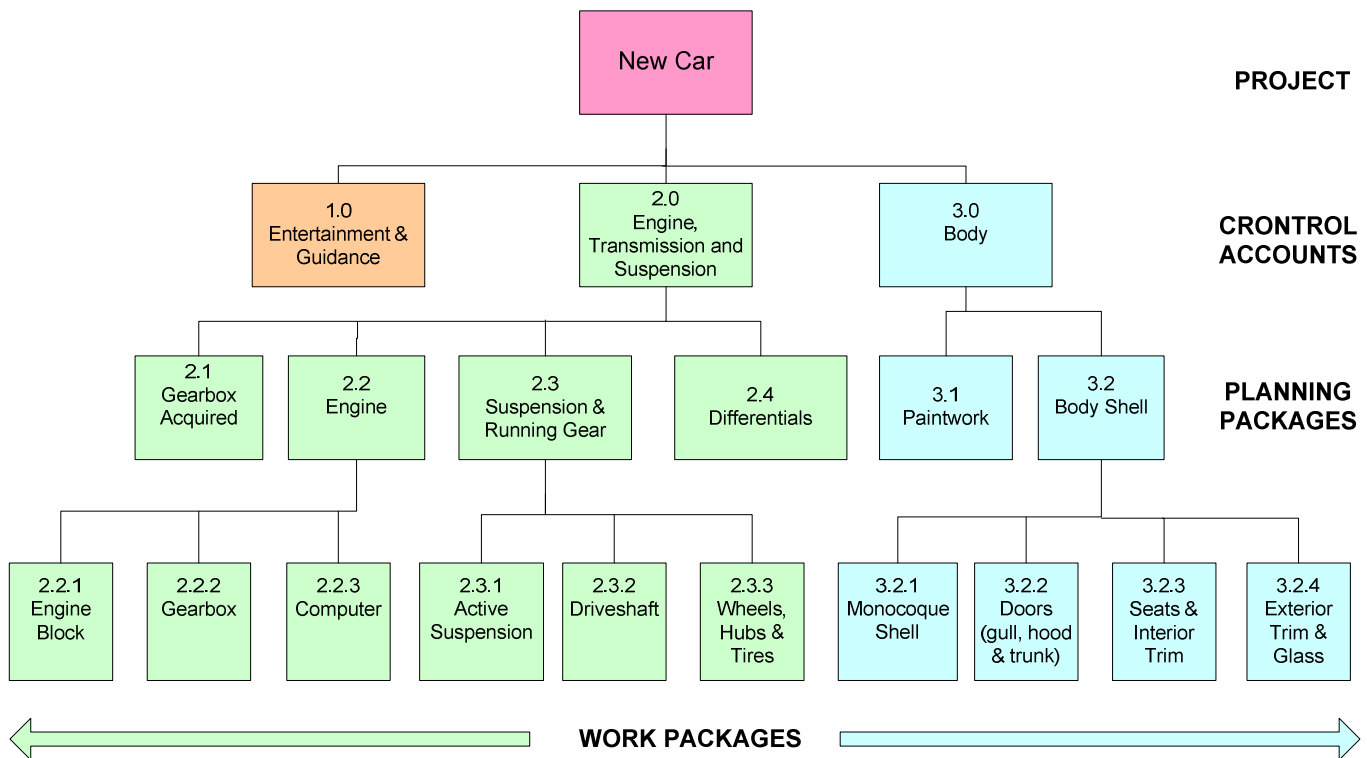
- Project Methodologies and Guidelines
- Quality Policies
- Work Authorization Systems

A **Project Management Plan** (previously called a Project Plan), is NOT a Gantt chart. It is a collection of all the plans used to manage the project including the project schedule, scope plan, risk plan, and so on.

Note that PMBOK now differentiates between the Project Management Plan and project documents – work out the differences!

- Templates are parts of WBS’s, scope plans etc upon which you can base yours. They may come from previous projects, or in industries such as construction you can purchase templates.
- **Change Requests** are to deal with omissions from the project scope, or defect repairs – in PMBOK Third edition, these two were separate.
- Performance Reports, are documents, diagrams, presentations that indicate the performance of the project, e.g. deliverables completed, value of work, forecasts etc.
- **Work Performance Measurements** are the data input to Performance Reports.

Figure 1: WBS



In the above WBS, please note:

There are NO activities in a WBS, just deliverables (verbs)

- The WBS is NOT time ordered – e.g. when building a house, the WBS could show the roof completed before the foundation is complete. The project uses the SCHEDULE for time ordering, not the WBS, but often the WBS is shown in a logical sequence to aid communication to management etc.
- The deliverables at the top level are called “Control Accounts”
- Deliverables at the bottom level are called “Work Packages”
- Deliverables in between are called “Planning Packages”
- Activities (as defined in Time Management) are usually carried out at the Work Package level – but it is POSSIBLE to begin activities at Planning Package level, if breaking down further is too difficult.
- In my example WBS, “1.0 Entertainment and Guidance” and “2.4 Differentials” have not been decomposed into work packages yet – these will be decomposed at a later stage (after the project is under way) when more information is known. This type of staggered development is known as “Rolling Wave”.

- “3.1 Paintwork” does not need to be decomposed further (i.e. not all deliverables need to be decomposed to lower levels in order to be completed).

N.B. Some project managers may have different viewpoints or opinions to those expressed here – but PMI are marking your exam, so the PMBOK is *always* right and if I say anything that appears to contradict the PMBOK, then believe the PMBOK.

PS I’ve made every effort to get this right to help you in your exam – but if I’ve missed something please let me know.

Regards, Jim Owens PMP

Columnist with www.PMHub.net