CHAPTER 6

Project Overall Planning

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The Project Charter

The charter is the official go-ahead document for the project and indicates that funding and resources have been, or will shortly be, made available. The charter typically contains the following:

- Project title and description
- Project manager assigned and his or her authority level set (i.e., authority to set budget, schedule, staffing, procurement)
- Goals and objectives (what the project is to accomplish)
- Product (or service) description
- Applicable standards
- Assumptions and constraints

– The charter should be signed by someone high enough in the organization so that everyone on the team will eventually report directly or indirectly to that person.

Project Charter

Project Code: _____ **Date:** _____

Project Name:

Befitting Organization: _____

Performing Organization: _____

Project Manager: _____

Business Justification: _____

_____

_____

Relation to Organization Mission and Goals: _____

_____

_____

Product Description: _____

_____

_____

Target Platform(s) and interfaces: _____

_____

_____

Applicable Methodology, Architecture, Frameworks, and Standards:

_____

_____

_____

Assumptions, constraints, notes: _____

_____

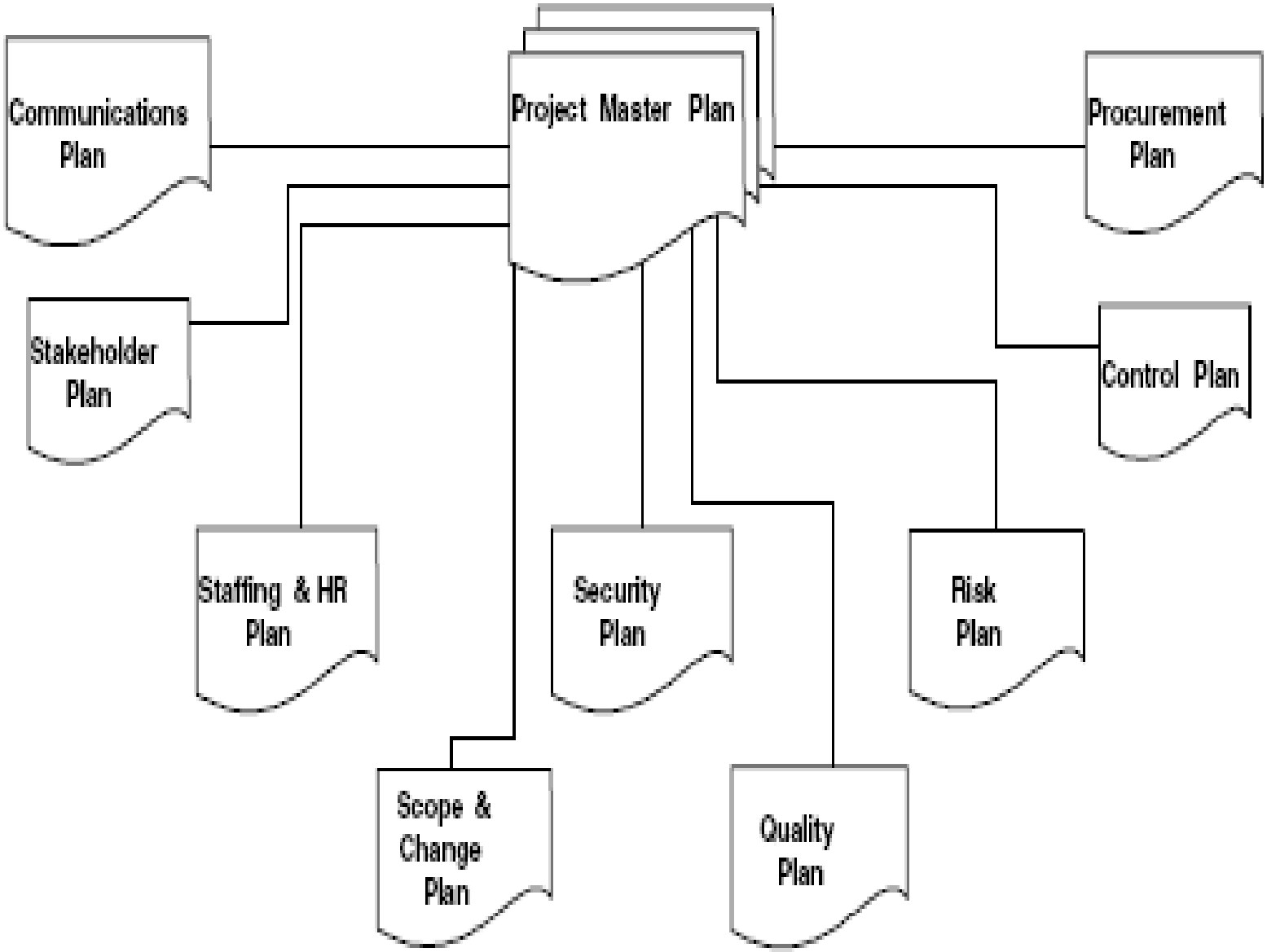
_____

Approvals

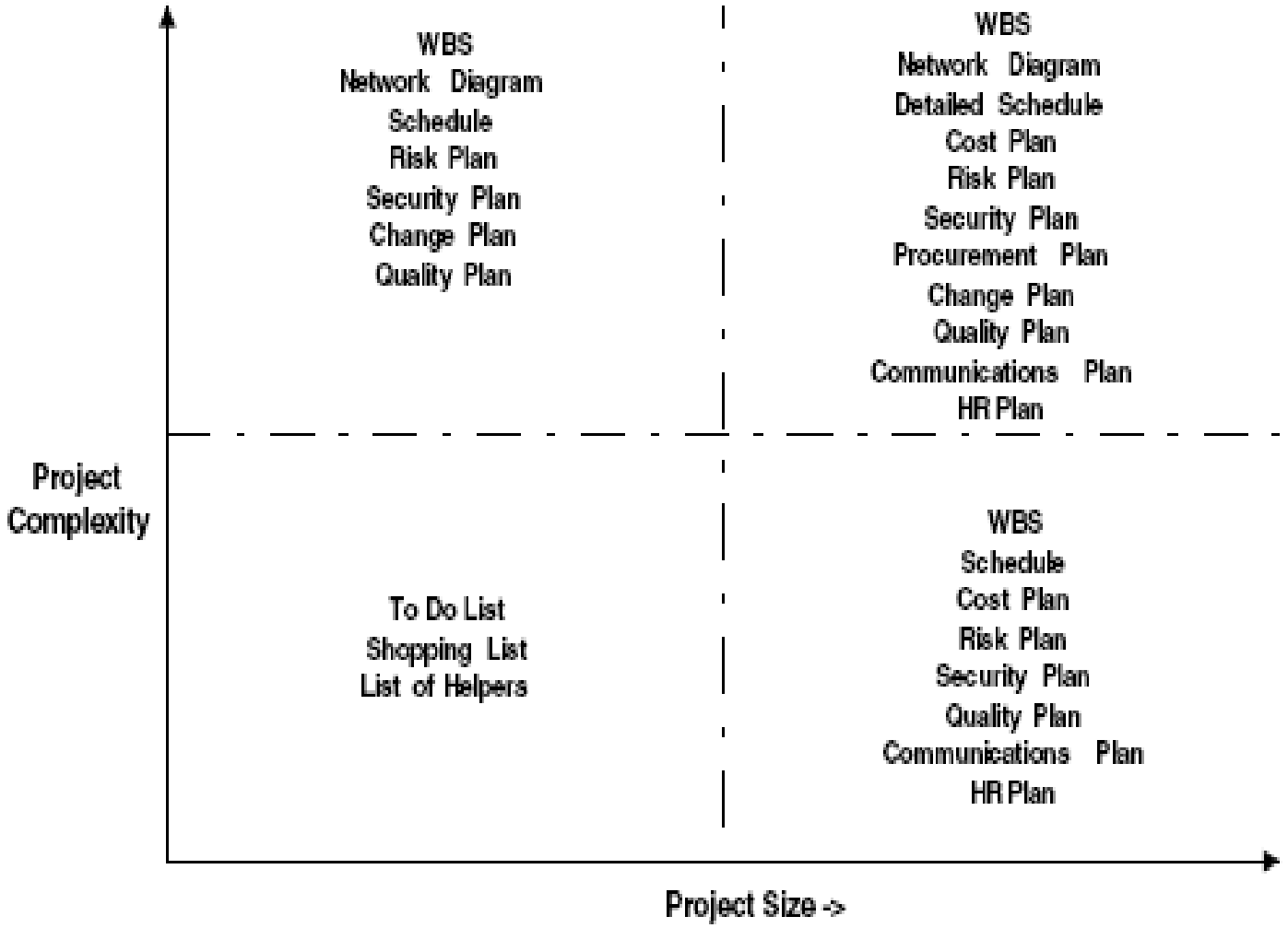
Benefiting Organization	**Performing Organization**
By: _____	**By:** _____
Date: _____	**Date:** _____

The Project Master Plan

- Once the project charter has been signed off and a PM has been assigned to the project, an overall project master plan is assembled by the PM and his or her staff.
- The formality and detail of this master plan should be based on the size and complexity of the project, as is illustrated in the Figure . The content and nature of each of these subplans is described and illustrated in later chapters.



Master plan formality



Project Overall Plan

Project Code:_____ Date:_____

Project Name:_____

Befitting Organization:_____

Performing Organization:_____

Project Manager:_____

Rough Estimates: Start Date:_____ End date:_____ Cost:_____

Overall Product Deliverables – In Scope:

1. _____
2. _____
N. _____

Product Features – Out of Scope:_____

1._____
2._____
N._____

Key Milestones:

1. _____
2. _____
N. _____

Key Risks, Procurement, Security, and Quality Issues:_____

_____

_____

Key Stakeholders and Human Resources:

	Person	Role/Responsibility	Contact Info
1.			
2.			
N.			

Communications and Reporting:_____

_____

Notes: _____

_____

Approvals

Benefiting Organization
By:_____
Date:_____

Performing Organization
By:_____
Date:_____

Project Calendars and Fiscal Periods

- Some practitioners use scheduling systems whereby arbitrary time units can be used for task start and end dates. Also, some practitioners try to schedule IT resources down to the day or even hour. *For IT projects (and other types of professional work) this is inappropriate and ineffective; and as a result one may spend more time managing the schedule than managing the work.*
- *IT human resources are largely professional types,* they may work varying numbers of hours per day, they may be called upon to help another person or another project from time to time, and they may take off a day or two for whatever reason whenever they so chose. IT effort, time, and cost estimates involve considerable uncertainty, thus for all these reasons it is more effective to chose the project time quantum at a larger interval than 1 day;, periods of 1 week, 2 weeks, or a month are more appropriate.

Project Calendars and Fiscal Periods

- In addition, the time quantum should match both the fiscal calendar of the organization and the accounting periods of the organization. This facilitates cost and completion reporting because such reporting can be incorporated into an existing payroll and/or timekeeping process. The time period of 1 week is the commonly used quantum for professional projects. This is discussed in more detail in later chapters of this book.

Fiscal Year - 2004

Fiscal Month	Fiscal Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
01	01	5	6	7	8	9	10	11
	02	12	13	14	15	16	17	18
	03	19	20	21	22	23	24	25
	04	26	27	28	29	30	31	1
02	05	2	3	4	5	6	7	8
	06	9	10	11	12	13	14	15
	07	16	17	18	19	20	21	22
	08	23	24	25	26	27	28	29
03	09	1	2	3	4	5	6	7
	10	8	9	10	11	12	13	14
	11	15	16	17	18	19	20	21
	12	22	23	24	25	26	27	28
	13	29	30	31	1	2	3	4
04	14	5	6	7	8	9	10	11
	15	12	13	14	15	16	17	18
	16	19	20	21	22	23	24	25
	17	26	27	28	29	30	1	2
05	18	3	4	5	6	7	8	9
	19	10	11	12	13	14	15	16
	20	17	18	19	20	21	22	23
	21	24	25	26	27	28	29	30
06	22	31	1	2	3	4	5	6
	23	7	8	9	10	11	12	13
	24	14	15	16	17	18	19	20
	25	21	22	23	24	25	26	27
	26	28	29	30	1	2	3	4

Kickoff Meeting

- This meeting has many benefits including finding out early if there are any major problems that have not surfaced already in the initial planning. Problems may include forgotten stakeholders or key team members, organizational issues, interpersonal issues, technical issues, environmental or regulation issues, or other constraints. Other alternative methods, plans, or approaches may also be discovered at this meeting

First Kickoff Meeting

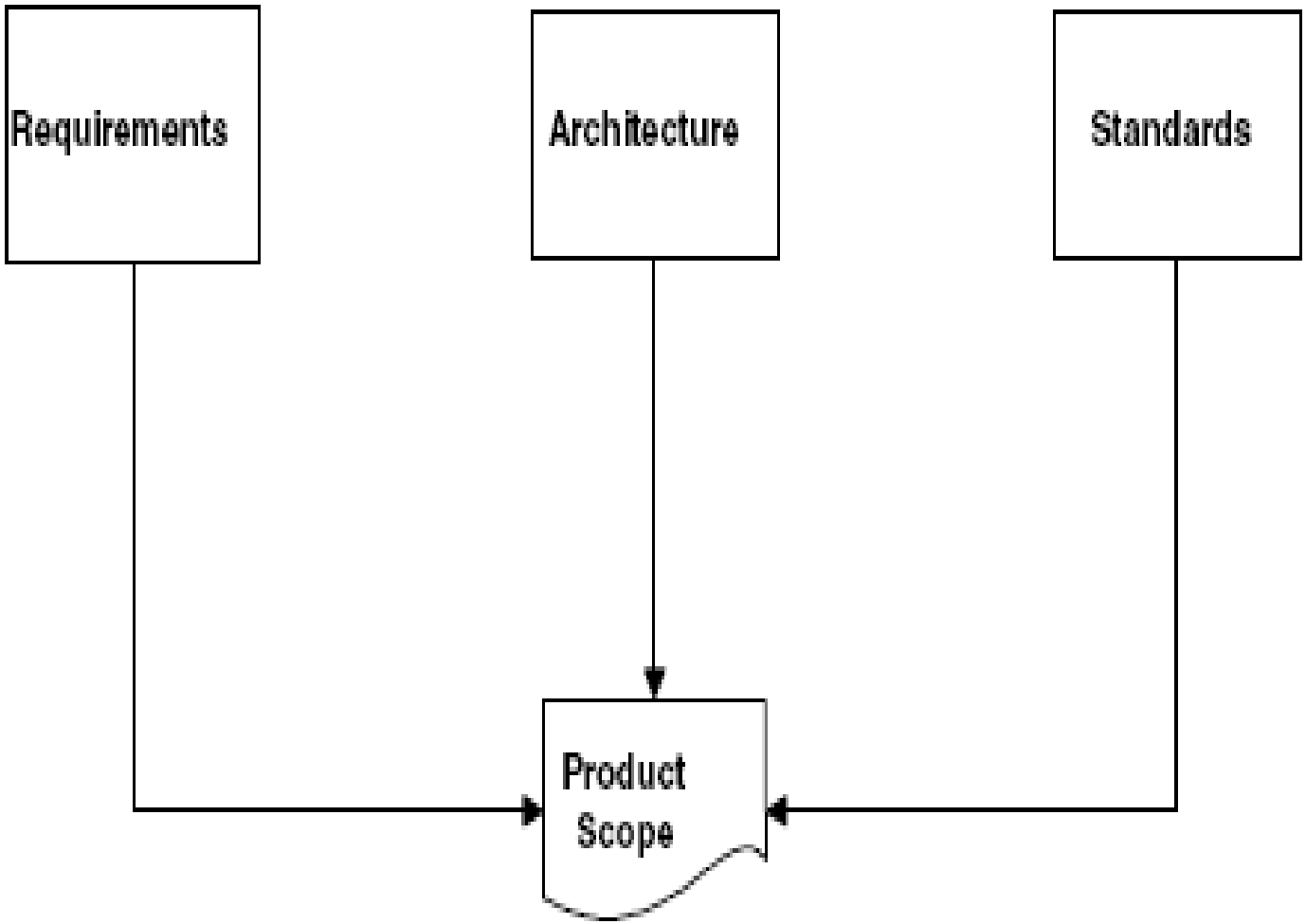
- Introduce the project sponsor or champion
- Establish clear leadership on the project
- Share then vision of the champion and other leaders
- Clarify and communicate goals and objectives to team and stakeholders
- Discuss overall project plan
- Review major milestones and deliverables
- Establish working relationships and lines of communications
- Explain relevant policies and procedures
- Get teams members to know one another
- Review status to date
- Review standards that will apply
- Establish responsibilities (individual and group)
- Make sure everyone understands his or her role and tasks
- Solicit questions and comments
- Document and follow up on questions that cannot be answered at this time
- Identify potential problems and risks
- Handle any other issues that may interfere with starting work
- Give team formal go-ahead to start work

Scope Management

- A project's scope is the work to be done and the things to work on. This scope is enclosed within a multidimensional boundary line that separates those things that are part of the project from other things that are not part of the project.
- According to PMI's PMBOK (PMI, 2000), scope management involves the following processes:
  - Scope Initiation
  - Scope Planning
  - Scope Definition
  - Scope Verification
  - Scope Change Control

Scope Initiation and planning

- Scope initiation, as discussed earlier, involves making sure that the project charter is approved and that the necessary financial and other resources are available to move forward with the project.
- Scope planning involves developing a written scope statement that is more specific than that included in the project charter. The scope statement usually further itemizes and defines the project objectives and includes the major features of the IT product(s) and other major deliverables.
- The *project scope includes not only the product(s) but also all of the associated activities* and deliverables.



deliverable definition document (DDD)

- deliverable definition document (DDD) lists every deliverable, the form of the deliverable (document, software, hardware, etc.), applicable standards, and approval levels. Items typically found in the DDD include:
  - Requirements document
  - Overall design document
  - Paper prototype (storyboards)
  - Detail design document
  - Product prototype
  - Users' manual (external specifications document)
  - Internal specifications document
  - Test plan and scripts
  - The product itself
  - Installation and operation document

Scope definition

- The scope definition process involves determining the all the details embodied within the scope statement and DDD and then subdividing those details into smaller, more manageable components.
- The further definition (or breakdown) of scope is manifested in a work breakdown structure (WBS), which is defined by PMI as "a *deliverable oriented grouping of project components which organizes and defines the* total scope of the project" (PMI, 2000).
- The WBS is typically arranged in a multilevel hierarchical manner, and the first level (Level zero) often corresponds to the project life cycle (phases: requirements, design, construction, etc.) and is fully specified before the project is further broken down; each level of the WBS is a further breakdown of the higher level. The lowest level defines the individual tasks, work packets, or activities.

Scope verification

- Scope verification is the process of formalizing the acceptance of the project by the stakeholders, particularly the benefiting organization (customer). It involves review of the work results (the final product or service) versus the scope definition (requirements).

Scope verification

Scope verification is typically done at the end of each project phase or, as suggested in this book, at quality stage gates; it involves requirements traceability, verification, and validation. Verification is a process related notion and is one of our critical completion success factors. It answers the general question, Have we done this process correctly? or, more specifically, Have we built the product correctly? Validation is a product-related notion and is one of our satisfaction critical success factors. It answers the general question, Have we done the correct process? or, more specifically, Have we built the correct product (the product the customer wanted)? Traceability of requirements means that every requirement is properly included in every preliminary product manifestation as well as in the final product; traceability is actually a part of validation.

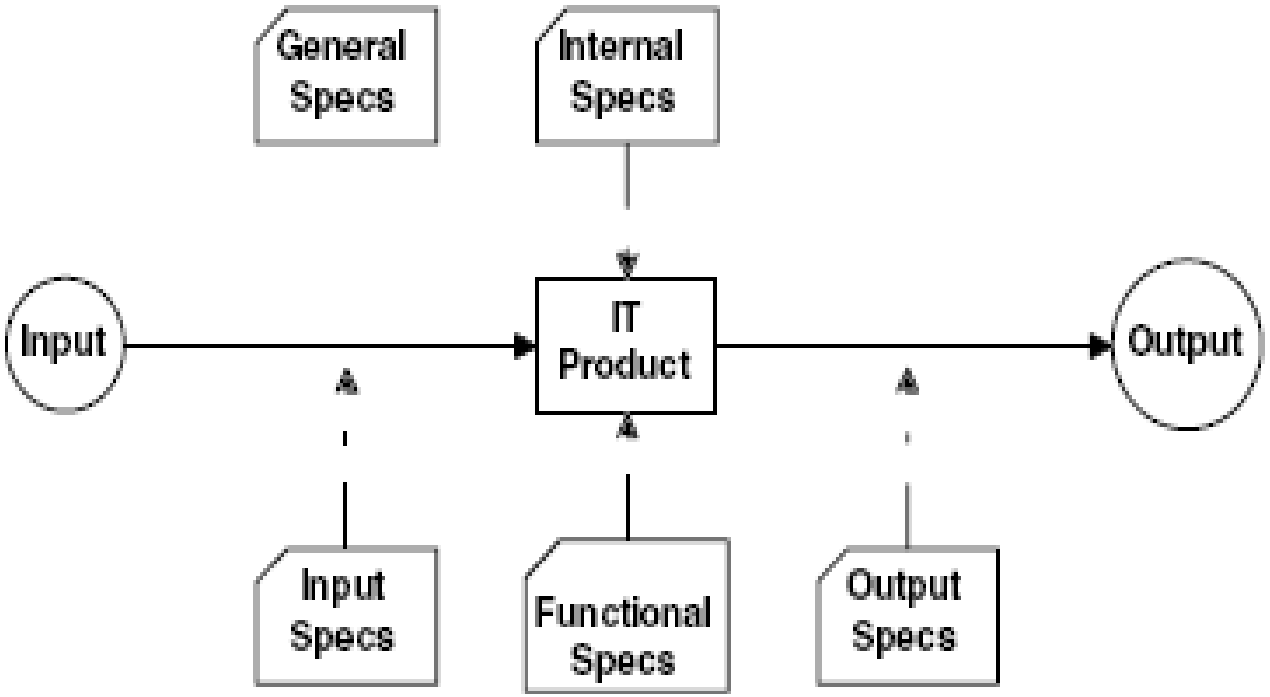
Scope change control

- Scope change control is concerned with influencing the factors that cause change and controlling them to ensure that changes are beneficial. Change control also happens in retrospect to determining that a scope change has actually occurred and then handling the change in an appropriate manner.
- A scope change control process and system may be implemented that defines the procedures by which the project scope may be changed and often includes:
  - Forms and other paperwork
  - Tracking systems
  - Approval levels
  - Billing and or contract change procedures

Requirements Analysis

- The requirements analysis process involves several sub processes, including:
  - Requirement discovery
  - Requirement organization and documentation
  - Requirement prioritization and project phasing
  - Requirement change management

Types of requirements



techniques of requirement discovery for IT projects

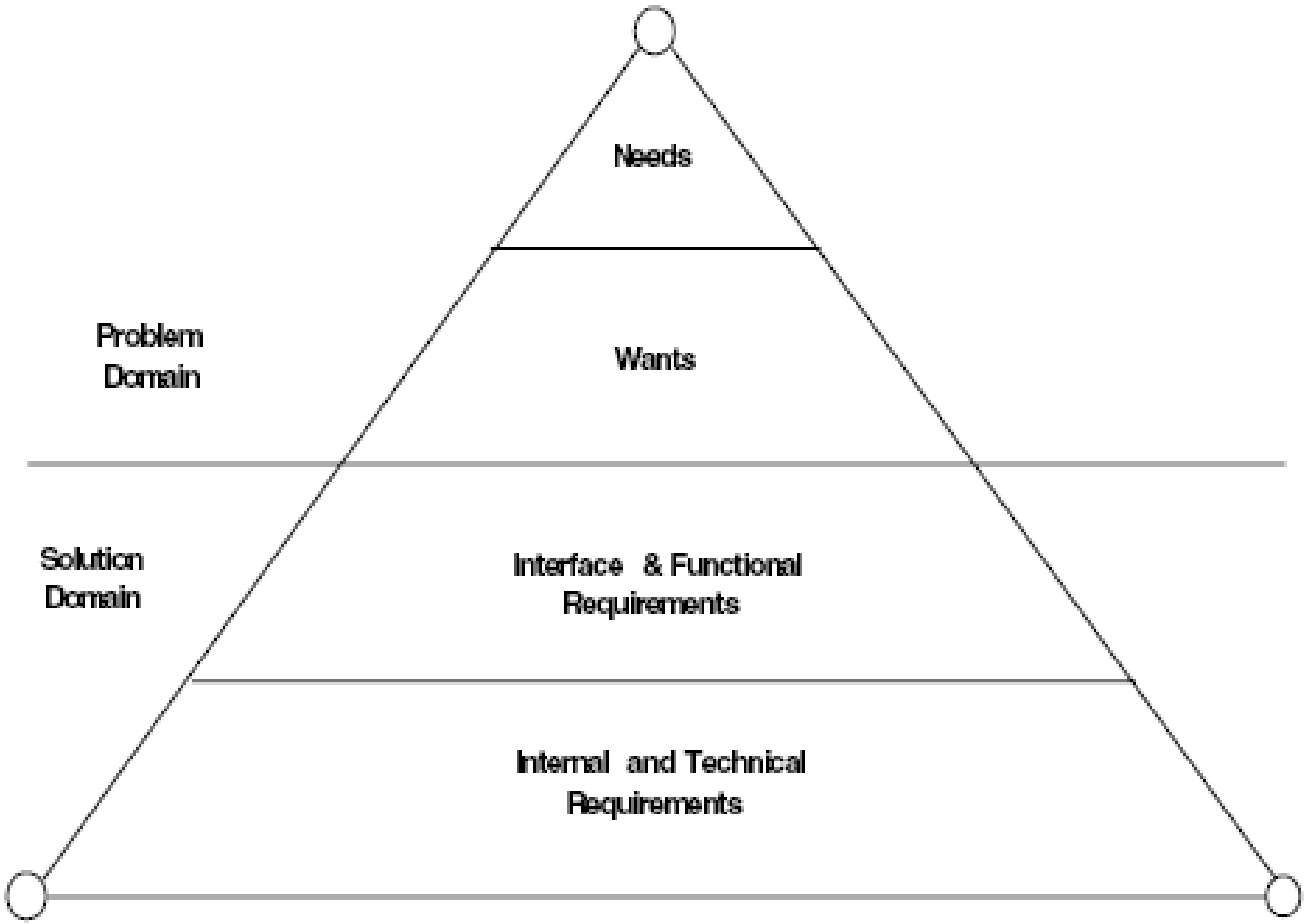
- Informal conversations with end users and/or their management
- Structured interviews with end users and/or their management
- Collaborative working sessions between the benefiting and performing organizations
- Review of existing work flow and work processes
- Review of existing IT systems
- Review of existing external or internal documentation of processes and/or systems

Requirements evolution

- A benefiting organization's requirements usually evolve during the planning and execution phases of a project. Requirements usually evolve from descriptions of the problem to descriptions of the solution.

- "The phenomenon is likened to a continuous application of Maslow's hierarchy of needs. Every time any need is satisfied, more needs appear" (Davis, Hickey, & Zweig, 2004). Often, end users cannot express in words what they want, but they may know what they want once they see it, or, conversely, they may know what they *do not what when* they see it. Showing the end users preliminary product manifestations is the best way to flush out all the real requirements, to further define the requirements, and to expedite this overall requirement evolution process.

Requirements evolution



Requirement representing tool

- Often, requirements are represented with high-level design documents. UML “use cases” are used more because their visual format facilitates communication with end users. A use case clearly shows the external aspects of a system. In the use case diagram, “actors,” which may be humans or other IT systems, are shown as stick figures. The actors make requests of the system, provide information to the system, and receive information from the system. A rectangle, which represents the system’s boundary, is drawn, and processes are shown as ovals within the rectangle. The processes respond to the actor’s requests by either providing information back to the actor and/or changing the state of the system (information content of the system).

Use case analysis