Get Your Project Off to a Good Start

Solicit, record, monitor and control requirements

The Project Management Institute

- **International Organization**

  - Over 300,000 members world-wide
  - Presence in 69 countries
  - Over 75 Communities of Interest
  - Offer several recognized credentials

- **The Long Island Chapter**

  - Initiated in1999
  - Chartered in 2000
  - Over 850 members
  - Mission:
    - To advance our Long Island area project management practitioners' skills, by providing a forum for networking, mentoring, training and lessons learned in day-to-day project management activities.

The Foundation

- **Definitions**
  - Requirement
  - Requirements Management
  - Stakeholders

- **Tools and Techniques**
  - Roles & Responsibilities
    - Understanding Stakeholders
  - Requirements Collection
    - JAD, QFD

- **Outputs**
  - Requirements Traceability Matrix

What is a Requirement

▸ A documented "need" of what a particular product or service should be or perform.
The features and functions.

- Identifies necessary attributes, capabilities, characteristics or qualities of a product needed for it to have value and utility for a user
- Sets of requirements are used as inputs for the design stages of product development

What is Requirements Management?

▸ The process of documenting, analyzing, tracing, prioritizing and agreeing on requirements and then, controlling change and communicating to relevant stakeholders.

▪ A continuous process throughout a project.

Who are Stakeholders?

▶ Project stakeholders are those entities within or outside an organization which:

◦ Have a vested interest in the successful completion of a project.
◦ May have a positive or negative influence in the project completion.

Tools to Manage & Gather Requirements

▶ Stakeholder Register

▶ Responsibility Assignment Matrix (RAM)

▶ Requirements Collection

  ◦ Interviews

  ◦ Focus Groups

  ◦ Facilitated Workshops

  ◦ Creativity Techniques

▶ Managing Requirements

  ◦ Requirements Management Plan

  ◦ Requirements Traceability Matrix

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Stakeholder Analysis

▸ The process of systematically gathering and analyzing quantitative and qualitative information to determine interests, influence, and expectations of stakeholders, such as:
  ◦ Relevance to their functional area of responsibility
  ◦ Value rating of relative importance related to cost vs. schedule
  ◦ Tolerance for Risk
  ◦ Explicit Acceptance Criteria

▸ A Stakeholder register is used
  ◦ As a guide to understands how to interact
  ◦ To "Balance" conflicting needs
  ◦ To identify what to communicate to each individual stakeholder

Roles and Responsibilities

Responsibility **A**ssignment **M**atrix (RAM)
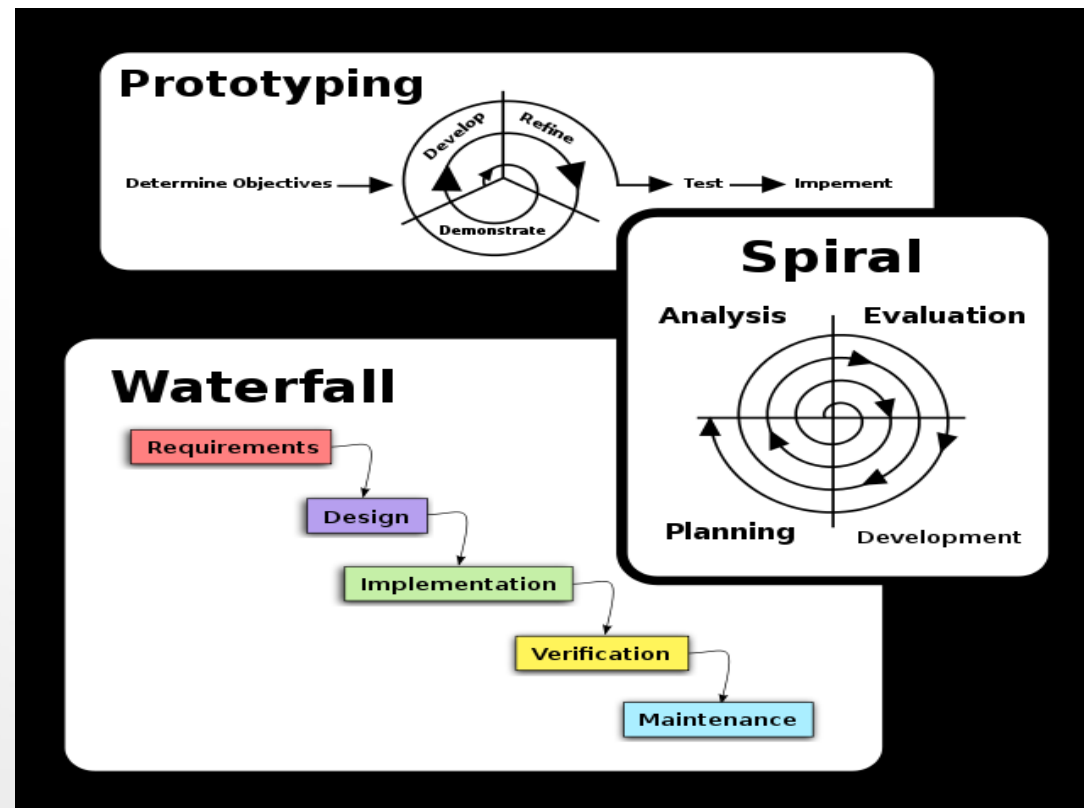
- Shows type of responsibility for groups and/or individuals.

- Graphically links the work to be done to those doing it.

Person Activity	X	Y	Z
Plan & Control	A		R
Requirements	R	A	
Specifications	R	A	
Design			A
Fabrication		S	P
Validation	S		R

P = Participant
A = Accountable
R = Review
S = Sign-Off

Requirements Collection Methods

- Cyclical:

  ◦ Proto-Typing
 ◦ Spiral

- Waterfall
- Agile

Soliciting Requirements

▶ Interviews

▶ Focus groups

▶ Facilitated workshops where Stakeholders attend sessions to identify cross-functional requirements

◦ Joint Development Sessions (JAD)
◦ Quality Function Deployment – aka The Voice of the Customer

Joint Application Development

- JAD methodology involves the client or end user in the design and development of an application

- Employs a succession of collaborative workshops called JAD sessions

Quality Function Deployment

▸ Quality must be "designed into" the product, not "inspected in"

▸ Quality is defined as meeting customer needs and providing superior value
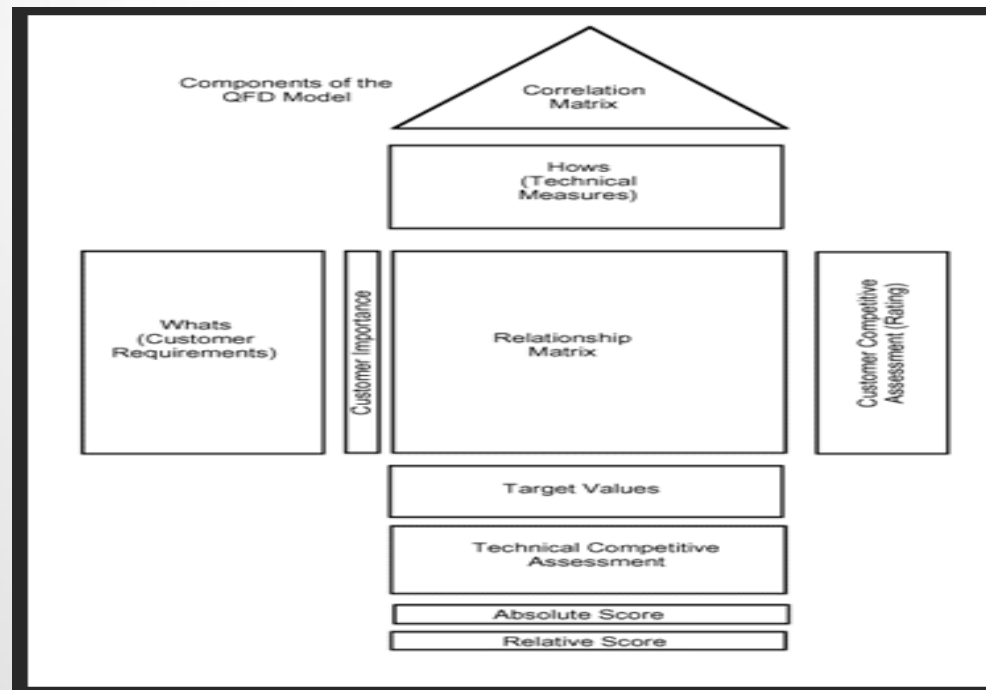
Other Requirements Solicitation Techniques (Elicitation)

▸ Group creativity techniques
▸ Questionnaires and Surveys
▸ Observations
▸ Prototypes

Requirements Control

▶ The Requirements Plan

 ◦ Documents the process of how requirements will be analyzed, documented and managed throughout the project:

 ◦ How requirements will be planned, tracked and reported
 ◦ How requirements will be initiated
 ◦ How requirements will be authorized
 ◦ Serves as a guide through the project
 ◦ Serves as a historical record for leverage-ability / reuse

The Agile Approach

▸ Phases of an Agile Methodology

◦ Envision – Collaborates to outline the overall vision for the project
◦ Speculate – Conjectures on possible methods of creating the product that was envisioned
◦ Explore – Builds the first iteration of the product
◦ Adapt – Walk through the outcome of the iteration to determine changes – incorporate lessons learned
◦ Close – Delivers the first product and reviews the overall product

Agile Development Requirements Collection

▸ Tools used to harvest and record stakeholder needs:

- ◦ User Story
  - • Card – Feature Statement
  - • Conversation – Elaboration of needs
  - • Confirmation – Test cases
- ◦ Task List – Backlog of User Stories
- ◦ Story points
- ◦ Velocity
- ◦ Burn-down

Skills You'll Need

▸ Progressive elaboration

  ◦ The continuous addition of extra material, illustration or clarifying detail that refines and makes initial scope statements more granular

▸ Active Listening

  ◦ Requires the listener to understand, interpret and evaluate what is heard

Requirements Traceability Matrix

▸ The Requirements Matrix brings it all together. It:

- ◦ Sevres as a means to track requirements from inception, creation and through customer acceptance
- ◦ Links requirements to their origin and traces them throughout the project life cycle
- ◦ Helps ensure that each requirement adds business value
- ◦ Used to craft Test Scripts as validation of requirement satisfaction

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Acceptance

▶ Formalized acceptance of the project scope by the stakeholders is key

▶ Facilitated by clear and concise identification of the project's success factors. The project is over when:

◦ External customer takes procession
◦ Owner takes occupancy
◦ Process turned over to operations / maintenance

Panel Discussion

- Ms. Gerri Stepanek – VP Professional Development – Government
- Mr. Jeffrey Stern – Director of Communications - IT
- Mr. Tom Caprariello – Director Special Events - Finance

- Ms. Carol Reynolds – Panel Moderator

Additional Information

For additional information visit:

www.pmi.org or

for the Long Island Chapter, visit:

www.pmilic.org