Requirements Screen Tips

Determine Customer Expectations

Involve customers early to provide visibility into the project. Typically, customers cannot initially describe all aspects that they want and need. Work with them to identify their needs, expectations, constraints, limitations, terminology, and interfaces.

Agency Requirements: SW Security; Safety-Critical

NASA has some special areas that must be considered for requirements. Software security and safety-critical are central and critical aspects. Reference these Agency Requirements hyperlinks for the expected requirements per NPR7150.2.

Define and Prioritize Requirements

Consolidate and prioritize various inputs from stakeholders, obtain missing information, and resolve conflicts to define the prioritized requirements. Reference Project SW Requirements (Template) to document the priority (required for all CMMI projects).

Peer Review Requirements & Fix Issues

Ensure team members who implement and test against the requirements analyze them to reach a shared understanding of the requirements’ meanings. It is important to identify and eliminate as much ambiguity as possible.

Approve Requirements

Obtain approval from the major stakeholders in order to establish an agreed-to baseline that can be managed. The approvers will vary by project, but typically include the customer, project manager, software lead, and lead systems engineer.

Update Plans (as needed)

As the requirements are approved, review the plans and activities to ensure they are still consistent with level of effort expected to implement the requirements and documented assumptions and constraints.

Obtain SW Team Commitment

As requirements are developed, ensure software team members commit to the approved requirements and resulting plans. This may be documented as meeting minutes, signature pages, and/or email acknowledgements.

Establish Requirements Traceability

Trace requirements from their source through intervening work products to the deliverable(s). FSSB requires the minimum of tracing the requirements to the tested product to ensure the tested solution completely addresses the requirements.

**Identify Change Request (Requirements)**

Control changes to approved requirements by documenting requested changes. The FSSB SCM Plan Appendix has a recommended change request template.

Analyze Change Request Impacts (such as: schedule, cost, performance, risk )

Review related documentation and determine the impacts to the software, hardware, and project resources (software size, cost, schedule, staffing,) from making the proposed changes to the requirements.

**Approve or Disapprove Change Request**

An internal Configuration Control Board (CCB) board normally reviews the change Requests and approves/disapproves them. The CCB may be held at the software level (SW CCB) or project level (Project CCB) depending on project size and items being impacted.

**Update Requirements (for approved CRs)**

It is the responsibility of the software team to make and implement the requirement changes for approved change requests. This update may be as simple as the updated requirements document being signed by the CCB members during the approval.

**Update Plans (as needed)**

As the requirements are updated, review the plans and activities to ensure they are still consistent with level of effort expected to implement the requirements and documented assumptions and constraints.