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Product Requirements

For: Company, Full Name, Title

Date: January 18, 2020

Born from a systems engineering management system developed by Ryan's mentor Bill Brooks, the Director of NASA in the 80s and 90s. Every RFQ response started with this outline, documenting spec's, reviewing it with the customer and then flow into the development cycle. It was used for winning large scale bids of wafer probe/test interfaces for customers such as Intel, LAM and Agilent Technologies. As projects progressed, it was the communication tool for both the customer and engineering/manufacturing; effectively eliminating perceived risks.

Requirements Outline

1. Introduction and Product Requirements Overview
 - 1.1. Identity location of Customer
 - 1.2. Top Level Product Scope Description
 - 1.2.1. New, modified, or existing product
 - 1.3. Context Diagram
 - 1.3.1. Product External Interfaces
 - 1.3.2. Top level functions
 - 1.3.3. Top level implementation constraints
2. Product External Interfaces Details
 - 2.1. External Physical interfaces (compatibility with mounting and manipulator structure, cable connectors, layout drawings showing positioning, handles positioning, etc.)
 - 2.2. External Functional interfaces (signals types [analog, digital], signal bandwidths, etc.)
 - 2.3. External Logical interfaces (sequences of operations)
 - 2.4. External Human [Man-Machine Interfaces] interfaces (handles, access paths, connector spacings, etc.)
3. Product Implementation Constraints
 - 3.1. Size, weight, power, volume, dimensions constraints
 - 3.2. Reliability, availability, maintainability constraints
 - 3.3. EMI/EMC constraints or requirements
 - 3.4. Weight and balance constraints
 - 3.5. ISO requirements applicability
 - 3.6. Environmental constraints (e.g. Class 10 environment)
 - 3.7. Schedule constraints (desired delivery due dates)
 - 3.8. Price constraints (not cost ceiling)
 - 3.9. Transportability, Packaging, Handling, Storage Constraints
 - 3.10. QA/QC constraints
4. Product Design Status
 - 4.1. New, modified, or existing design
 - 4.2. Risks Assessments
 - 4.2.1. Technical risks assessment
 - 4.2.1.1. technical BOE uncertainty
 - 4.2.1.2. consequences of technical uncertainty
 - 4.2.2. Cost risks assessment
 - 4.2.2.1. costs BOE uncertainty
 - 4.2.2.2. consequences of costs uncertainty
 - 4.2.3. Schedule risks assessment
 - 4.2.3.1. Schedule BOE uncertainty
 - 4.2.3.2. consequences of schedule uncertainty
 - 4.2.4. Contractual or marketplace risks assessment
 - 4.2.4.1. contractual uncertainty
 - 4.2.4.2. consequences of uncertainty
 - 4.2.5. Organizational risks assessment
 - 4.2.5.1. organizational uncertainty
 - 4.2.5.2. consequences of uncertainty
5. Product Documentation Requirements
 - 5.1. Deliverable drawings packages
 - 5.2. Deliverable Electrical Test results
 - 5.3. Internal retained documentation requirements
6. Summary