

# **TMA & TDA Tailoring List**

RCCAC-ENG-T-003

Rev. 1.0

**Rockwell Collins CETC Avionics Co., Ltd.**

## Approval

	Name	Title	Approval	Date
Prepared by:	Di Zhang	Quality Engineer	On File	08/23/2017
Review by:	James Zhang	Quality Manager	On File	08/24/2017
Review by:	Yang Luo	Product Line Manager	On File	08/24/2017
Approved by:	Richard Hackett	CTO	On File	08/24/2017

## Revision History

Revision	Originator	Description	Date
1.0	Di Zhang	New Release	08/23/2017

**Project Name:**

**Primary Product:**

**Program Manager Name:**

**Product Line Manager Name:**

**Technical Project Manager Name:**

**Primary Project Engineer Name:**

**RCCAC Part Number(s) (RCCACPN):**

**Contract Numbers:**

**Project Repository:**

**Project Description:**

**TCP Tailoring TCP Version:**

**Filter Applied:** ALL

## Technical Management Activities

### 1. Set Direction

#### 1.1. Define project objectives (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Project objective

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

#### 1.2. Create work breakdown structure (WBS) (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Work Breakdown Structure (WBS)

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

1.3. Define funding strategy (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Funding strategy

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Simulation Project

**Milestone Name:** Not Available

1.4. Define resource strategy (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Resource strategy

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

1.5. Define project performance measures (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Project performance measures

**Deliverable Comments:** Not Available

**Artifact:** Not Available  
**Deliverable Date:** Not Available  
**Responsible:** Not Available  
**Approve:** Not Available  
**Support:** Not Available  
**Inform:** Not Available  
**Risk:** None  
**Comments:** Not Available  
**Milestone Name:** Not Available

## **2. Assess Risks & Opportunities**

### 2.1. Identify risks and opportunities (REQUIRED)

**Customer Required Task:** NO  
**Deliverable:** risks & opportunities  
**Deliverable Comments:** Not Available  
**Artifact:** Not Available  
**Deliverable Date:** Not Available  
**Responsible:** Not Available  
**Approve:** Not Available  
**Support:** Not Available  
**Inform:** Not Available  
**Risk:** None  
**Comments:** Not Available  
**Milestone Name:** Not Available

### 2.2. Characterize risks and opportunities (REQUIRED)

**Customer Required Task:** NO  
**Deliverable:** Not Available  
**Deliverable Comments:** Not Available  
**Artifact:** Not Available  
**Deliverable Date:** Not Available  
**Responsible:** Not Available  
**Approve:** Not Available  
**Support:** Not Available  
**Inform:** Not Available  
**Risk:** None  
**Comments:** Not Available  
**Milestone Name:** Not Available

2.3. Develop risk mitigation/opportunity realization strategy (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** risk mitigation strategy

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

**3. Plan Project**

3.1. Plan engineering development (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Development strategy

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.2. Plan integration / installation (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Integration strategy

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.3. Plan verification and validation (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** verification and validation strategy

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.4. Plan safety certification (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Certification strategy

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.5. Plan security certification (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Certification strategy

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.6. Plan component, material, and subcontract procurement (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Program procurement strategy for material and subcontracted services

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.7. Plan design to cost (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** DTC Strategy

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.8. Plan manufacturing transition (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Manufacturing transition strategy



**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.9. Plan build through delivery (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Build plan

Distribution plan

Delivery plan

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.10. Plan services & support (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Support strategy

Publications plan

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.11. Plan strategy for communication, collaboration and colocation (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Communication, Collaboration, Colocation strategies

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.12. Plan quality assessment (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Quality strategy

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.13. Plan intellectual property management (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Intellectual property management strategy

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.14. Plan security access and assign export classification (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Security strategy

Export Plan

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Simulation Project

**Milestone Name:** Not Available

3.15. Plan project repository (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.16. Plan configuration control (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Configuration management strategy

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.17. Plan change control (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Change control strategy

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.18. Plan peer reviews (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Peer Review Strategy

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.19. Plan project reviews (REQUIRED)

**Customer Required Task:** NO  
**Deliverable:** Project review strategy  
**Deliverable Comments:** Not Available  
**Artifact:** Not Available  
**Deliverable Date:** Not Available  
**Responsible:** Not Available  
**Approve:** Not Available  
**Support:** Not Available  
**Inform:** Not Available  
**Risk:** None  
**Comments:** Not Available  
**Milestone Name:** Not Available

3.20. Plan organization structure (REQUIRED)

**Customer Required Task:** NO  
**Deliverable:** Organization chart  
**Deliverable Comments:** Not Available  
**Artifact:** Not Available  
**Deliverable Date:** Not Available  
**Responsible:** Not Available  
**Approve:** Not Available  
**Support:** Not Available  
**Inform:** Not Available  
**Risk:** None  
**Comments:** Not Available  
**Milestone Name:** Not Available

3.21. Estimate costs (REQUIRED)

**Customer Required Task:** NO  
**Deliverable:** Bid Package  
Budget  
DTC target  
**Deliverable Comments:** Not Available  
**Artifact:** Not Available  
**Deliverable Date:** Not Available  
**Responsible:** Not Available  
**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.22. Plan resource requirements (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Resource strategy

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.23. Develop detailed schedule (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Project schedule

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.24. Plan financial tracking (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Milestones & dollar spread

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

3.25. Establish plan baseline (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Plan baseline

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

**4. Execute Project**

4.1. Establish project team (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

4.2. Initiate work (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

#### 4.3. Manage risks and opportunities (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

#### 4.4. Validate & control project scope (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None



**Comments:** Not Available

**Milestone Name:** Not Available

4.5. Manage resource utilization (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** EARS/EPM

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

4.6. Track & manage financial/project/ technical performance measures(REQUIRED)

**Customer Required Task:** NO

**Deliverable:** EPM/TAD/SAP

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

4.7. Perform configuration control (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

4.8. Conduct peer reviews and capture minutes (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

4.9. Perform change control (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

## 5. Evaluate Project

5.1. Generate status reports (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Earned value reports

Risk report

Resource allocation

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

5.2. Analyze project/ technical performance (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Performance reports

Design to cost report

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

5.3. Conduct project reviews (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Accomplishment summary

Consider:

Hardware Accomplishment Summary (HAS)

Software Accomplishment Summary (SAS)

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

5.4. Determine corrective action (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

**6. Complete Project**

6.1. Prepare project accomplishment summary/ report (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Accomplishment summary

Consider:

Hardware Accomplishment Summary (HAS)

Software Accomplishment Summary (SAS)

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

6.2. Conduct technology transition to design & development (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

6.3. Conduct transition to production & support (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** DP-E

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

6.4. Prepare & submit certification artifacts (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Compliance report

Certification data

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

6.5. Capture project metrics (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Project metrics

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

6.6. Close-out project (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

## Technical Development Activities

### 7. Capture Originating Requirements

7.1. Capture stakeholder needs (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Stakeholder needs:

Needs, wants, desires, expectations, and perceived constraints of identified stakeholders. ISO 15288

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

#### 7.2. Capture source requirements(RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Source requirements:

Requirements that form the basis for project execution, usually originating from external sources.

Consider:

Contractual specifications Industry standards

Or other form of written requirements.

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

#### 7.3. Capture architectural context(RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Architectural context(s):

An architectural definition of the context system into which the product or system will be integrated. Illustrates how the product or system fits into the greater whole.

A kind of context diagram or entity relationship diagram.

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

#### 7.4. Define most important requirements (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Most important requirements:

The subset of requirements that provide the foundation and definition for project success.

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

#### 7.5. Define technical performance measures (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Technical Performance Measures:

Technique of predicting the future value of a key technical parameter of the higher-level end product under development, based on current assessments of products lower in the system structure EIA-632

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available



**Milestone Name:** Not Available

## 8. Define Operational Concepts

### 8.1. Define operational concepts (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Operational Concept:

Use scenario description capturing a definition of expected interaction or dialogue with a system.

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

### 8.2. Perform operational analysis (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Operational analysis:

An assessment of system operability, identifying areas of acceptable use as well as areas of use that require further attention or reconsideration due to operational limitations.

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

## 9. Define Requirements

### 9.1. Perform requirements trade studies (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Requirements Trade Study:

Decision making actions that select from various options to arrive at a solution on the basis of net benefit to stakeholders. INCOSE SE Handbook/ ISO 15288

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

#### 9.2. Define requirements (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Statements that identify a system, product, or process characteristics or constraints, which are unambiguous, can be verified, and deemed necessary for stakeholder acceptability.

INCOSE SE Handbook

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

#### 9.3. Conduct requirements traceability analysis (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Requirements trace/ analysis:

A trace relationship may be:

A database link or electronic thread (explicit)

Table showing association (associative)

Requirements placed in context to the source material (implicit)

A trace analysis demonstrates coverage or completeness, and reveals unspecified content.

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

#### 9.4. Perform functional hazard assessment (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Functional hazard assessment:

A functional hazard assessment is a systematic, comprehensive examination of functions to identify and classify failure conditions of those functions according to their severity

SAE ARP 4754/4761

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

#### 9.5. Perform preliminary system safety assessment or preliminary safety analysis (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Preliminary system safety assessment or preliminary safety analysis:

A systematic evaluation of a proposed architecture and its implementation, based on the functional hazard assessment and failure condition classification, to determine safety requirements for all items in the architecture.

SAE ARP4754A

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

9.6. Perform human factors functional analysis (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Human factors functional analysis:

An assessment of human performance to respond to or interact with systems within given accuracy, response time, and physical limits of the human body.

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

9.7. Perform logistic/ maintenance support analysis (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Logistic/ maintenance support analysis:

An assessment of the support infrastructure that will be necessary to support the product.

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

## 10. Design Solution

10.1. Define logical solution architecture (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Logical architecture:

An abstract definition of the solution that provides a logical understanding of the product structure and interrelationships without presuming the physical or implementation solution.

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

#### 10.2. Define physical solution architecture (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Physical architecture:

A physical definition of the solution that provides a physical understanding of the product structure and interrelationships, including allocation from the logical architecture to the intended physical definition.

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

#### 10.3. Perform design trade studies to select solution (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Design Trade Study

An analytical evaluation of design options/ alternatives against performance, objectives, and quality factors.

IEEE Std 1220

An evaluation of alternatives based on criteria and systematic analysis, to select the best alternative for attaining determined objectives.

CMMI

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

#### 10.4. Perform performance, sensitivity, and tolerance analysis (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Performance analysis:

An analytical evaluation of the capability of the solution to meet requirements.

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

#### 10.5. Perform EMI/EMC analysis (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** EMI/EMC analysis:

An evaluation of the electromagnetic properties of the solution.

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

10.6. Perform environmental impact analysis (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Environmental impact analysis

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

10.7. Perform environmental survivability analysis (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Environmental survivability analysis

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

10.8. Perform nuclear/neutron survivability analysis (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Nuclear survivability analysis

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

10.9. Perform information assurance/ security analysis (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Information assurance (security) analysis

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

10.10. Perform producibility analysis (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Producibility analysis aka design for manufacturing

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

10.11. Perform design to cost analysis (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** design to cost analysis

**Deliverable Comments:** Not Available



**Artifact:** Not Available  
**Deliverable Date:** Not Available  
**Responsible:** Not Available  
**Approve:** Not Available  
**Support:** Not Available  
**Inform:** Not Available  
**Risk:** None  
**Comments:** Not Available  
**Milestone Name:** Not Available

10.12. Perform design for test analysis (NOT RECOMMENDED)

**Customer Required Task:** NO  
**Deliverable:** Design for test analysis  
**Deliverable Comments:** Not Available  
**Artifact:** Not Available  
**Deliverable Date:** Not Available  
**Responsible:** Not Available  
**Approve:** Not Available  
**Support:** Not Available  
**Inform:** Not Available  
**Risk:** None  
**Comments:** Not Available  
**Milestone Name:** Not Available

10.13. Perform reliability and maintainability analysis (NOT RECOMMENDED)

**Customer Required Task:** NO  
**Deliverable:** Reliability and maintainability analysis  
**Deliverable Comments:** Not Available  
**Artifact:** Not Available  
**Deliverable Date:** Not Available  
**Responsible:** Not Available  
**Approve:** Not Available  
**Support:** Not Available  
**Inform:** Not Available  
**Risk:** None  
**Comments:** Not Available  
**Milestone Name:** Not Available

10.14. Perform system safety assessment or safety analysis (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** System safety assessment or safety analysis

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

10.15. Perform failure modes and effects analysis (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Failure modes and effects analysis

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

10.16. Perform segregation analysis (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Segregation analysis

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

10.17. Perform supportability analysis (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Supportability analysis

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

10.18. Perform operational safety analysis (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Operational safety analysis

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

10.19. Perform human factors design analysis (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Human factors assessment

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

10.20. Allocate requirements to the solution components or enabling products (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Requirements allocation,  
solution architecture:

Allocation:

The decision to assign a function or decision to hardware, software, or humans.

IEEE STD 1220-199

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

10.21. Select parts (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Parts order

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

10.22. Obtain approvals for use of third-party components (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

10.23. Define product external interfaces (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** External interface definition

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

10.24. Define product internal interfaces (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Internal interface definition

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

- 10.25. Develop functional solution, model and/or simulation (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** FUNCTIONAL:

Describes logical behavior - an abstract representation that illustrates concepts without providing specific realization and typically lacks detailed logic/ mathematics

SOLUTION:

A representation of the product using drawings or files

MODEL:

A representation of the model illustrating relationships and interactions

SIMULATION:

A representation of the product using notional, interactive components

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

- 10.26. Create hardware/complex electronic hardware net-list model (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Structural, solution, model, simulation:

Structural:

Describes logical/mathematical behavior

Solution with logic structure (code) - taking the abstract representation and adding comprehensive, detailed logic/ mathematics.

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

10.27. Develop physical solution, model and/or simulation (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Physical, solution, model, simulation:

Physical:

a representation of the product using realizable objects or components -something that can be created or fabricated.

Functional abstractions are allocated into the physically realizable components.

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

10.28. Analyze traceability from the solution components to requirements(REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Requirements trace/ analysis

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

## 11. Implement Solution

11.1. Procure components, material, and subcontract items for build (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

11.2. Create software code (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Source code

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

11.3. Create assembly drawing (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Assembly drawing

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None



**Comments:** Not Available

**Milestone Name:** Not Available

11.4. Create build instructions(RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Build instructions

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

11.5. Build software executable (compile & link) (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Software executable

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

11.6. Build hardware components (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Hardware component

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

11.7. Fabricate complex microcoded device (ASIC) (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** ASIC

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

11.8. Program complex microcoded device (FPGA) (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** FPGA

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

11.9. Analyze traceability from solution implementation to requirements (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Requirements trace/ analysis

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

11.10. Conduct informal test of basic functionality of individual components (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Informal test results

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

## 12. Integrate Solution

12.1. Define integration/ installation procedure (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Integration procedure, installation procedure, build procedure

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

12.2. Assemble solution from components (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Solution

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

12.3. Conduct informal test of functionality of solution (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Informal test results

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

12.4. Perform product performance analysis/ characterization (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Performance analysis

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

### 13. Verify Solution

#### 13.1. Conduct informal test/ verification (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Informal test results

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

#### 13.2. Perform product verification (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Verified solution and verification results

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

#### 13.3. Perform structural coverage analysis (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Structural coverage analysis

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

13.4. Perform object coverage analysis (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Object coverage analysis

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

13.5. Perform manufacturing test grade analysis (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

13.6. Develop verification summary (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Verification summary

**Deliverable Comments:** Not Available

**Artifact:** Not Available  
**Deliverable Date:** Not Available  
**Responsible:** Not Available  
**Approve:** Not Available  
**Support:** Not Available  
**Inform:** Not Available  
**Risk:** None  
**Comments:** Not Available  
**Milestone Name:** Not Available

#### 14. **Validate Solution**

##### 14.1. Perform product validation (NOT RECOMMENDED)

**Customer Required Task:** NO  
**Deliverable:** Validated solution  
**Deliverable Comments:** Not Available  
**Artifact:** Not Available  
**Deliverable Date:** Not Available  
**Responsible:** Not Available  
**Approve:** Not Available  
**Support:** Not Available  
**Inform:** Not Available  
**Risk:** None  
**Comments:** Not Available  
**Milestone Name:** Not Available

##### 14.2. Prepare validation summary (NOT RECOMMENDED)

**Customer Required Task:** NO  
**Deliverable:** Validation summary  
**Deliverable Comments:** Not Available  
**Artifact:** Not Available  
**Deliverable Date:** Not Available  
**Responsible:** Not Available  
**Approve:** Not Available  
**Support:** Not Available  
**Inform:** Not Available  
**Risk:** None  
**Comments:** Not Available  
**Milestone Name:** Not Available

**15. Support Solution**

15.1. Develop as-built product specification (RECOMMENDED)

**Customer Required Task:** NO  
**Deliverable:** As-built specification  
**Deliverable Comments:** Not Available  
**Artifact:** Not Available  
**Deliverable Date:** Not Available  
**Responsible:** Not Available  
**Approve:** Not Available  
**Support:** Not Available  
**Inform:** Not Available  
**Risk:** None  
**Comments:** Not Available  
**Milestone Name:** Not Available

15.2. Provide / Support logistic support analysis (NOT RECOMMENDED)

**Customer Required Task:** NO  
**Deliverable:** Logistic support analysis  
**Deliverable Comments:** Not Available  
**Artifact:** Not Available  
**Deliverable Date:** Not Available  
**Responsible:** Not Available  
**Approve:** Not Available  
**Support:** Not Available  
**Inform:** Not Available  
**Risk:** None  
**Comments:** Not Available  
**Milestone Name:** Not Available

15.3. Support product manufacture and build (NOT RECOMMENDED)

**Customer Required Task:** NO  
**Deliverable:** Not Available  
**Deliverable Comments:** Not Available  
**Artifact:** Not Available  
**Deliverable Date:** Not Available  
**Responsible:** Not Available  
**Approve:** Not Available  
**Support:** Not Available



**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

15.4. Support failure analysis (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

15.5. Support project issue resolution (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

15.6. Support development of technical manuals (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Technical manuals

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

15.7. Support customer integration/ installation (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

15.8. Support service bulletin/ service information letter development (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

**16. Develop Acceptance Procedures**

16.1. Develop acceptance procedures (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Acceptance procedures

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

#### 16.2. Conduct/ Support product acceptance test (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

### 17. Develop Verification Cases and Procedures

#### 17.1. Develop verification cases (RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Verification cases

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

17.2. Develop verification procedures (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Verification procedures

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

17.3. Conduct verification traceability analysis (REQUIRED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

**18. Develop Validation Cases and Procedures**

18.1. Develop validation cases (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Validation cases

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

18.2. Develop validation procedures (NOT RECOMMENDED)

**Customer Required Task:** NO

**Deliverable:** Not Available

**Deliverable Comments:** Not Available

**Artifact:** Not Available

**Deliverable Date:** Not Available

**Responsible:** Not Available

**Approve:** Not Available

**Support:** Not Available

**Inform:** Not Available

**Risk:** None

**Comments:** Not Available

**Milestone Name:** Not Available

## Questions & Answers

### Product Classification

- Please select the expected end state of the development effort from the following list:

Prototype demonstration: TRL 6-7

Answer Note: This project is to create a simulation for use in demonstrating compliance to RCCAC Policies and Procedures for AS9100 certification.

- Please indicate the type of product being developed [More Info]

System (includes Subsystem/LRU/LRM)

- What is the intended end usage for this product?

Internal customers - test equipment, support equipment, software tools, etc.

### Product and Project Levels

- To which tier in the project hierarchy does this TCP tailoring instance apply?

This is a product configuration item definition - a hardware assembly or software application/ executable.

- Is this instance of the TCP tailoring for the top tier of a project?

Yes, this is the TCP tailoring for the highest tier in the project hierarchy.

### **Safety Considerations**

- Select the level of this development effort:

Value Engineering

- Please indicate the current known (or best judgment) most severe failure condition classification associated with the product:

No safety effect or mishap risk less than Negligible

- Does the Customer expect one or more FMEAs or FMEAs (i.e., DFMEAs, PFMEAs, Functional FMEAs, or Piece-Part FMEAs) to be completed?

No - further analysis is not necessary

- Does the project leadership team have previous PSSA or SSA experience/knowledge with this type or a similar type of equipment?

No

- Does your Business Unit or Customer expect you to perform bidirectional traceability of requirements to each level of product decomposition?

Yes, bidirectional traceability is planned at all levels

### **Product Complexity**

- Based on the results of the Complexity Scorecard for Design & Development evaluation (RC-ENG-T-000), does the evaluation indicate this is a Complex Project?

No

- Please indicate the complexity of product behavior.

Simple algorithms or logic structures

- Please indicate the level of complexity of your product architecture:

Composite and more than 2 interacting components

### **Alternative Solutions**

- Please indicate the current understanding of the alternative product solution(s):

Straightforward solution (no or very few alternative options)

### **Design Analysis**

- Please indicate current need for human machine interface analysis:

No analysis needed because product has no human machine interface or no modification is being made to the existing human machine interface.

- Is the technology susceptible to and must withstand any of following environments (select worst case)?

None of the above

- Does the development team have a need to quantify the product fault detection coverage for contractual or in-service maintainability purposes?

No

### **Production**

- Please indicate highest hardware production potential for this project.

Prototype or Proof of Concept build only

- Please indicate expected sources of material for the product.

Non-preferred parts or Regional Legacy Parts included - product will be using some unique parts in addition to Preferred Parts

- Do you intend to use and deliver third-party intellectual property (TPIP), either through direct use/incorporation into your product or generated through tool usage?

Yes

- Will your project distribute (or sell) software as a separate deliverable with a Rockwell Collins part number?

No - all software components are embedded within deliverable products or no software is provided as part of this project

### **Sources**

- As part of this product solution, will Rockwell Collins place a nameplate and re-sell products manufactured by third-party companies - or - will Rockwell Collins include third-party produced commercial off-the-shelf hardware subassemblies within any portion of the product solution?

Not Applicable - Software products should pick this answer

- Will any of the developmental or verification/validation labor (engineering) be subcontracted to a third-party?

No

### **Validation**

- For this level of the project hierarchy and the corresponding piece of the product solution, what type of validation will be performed to assure the delivered solution meets the needs of your immediate stakeholders?

None - product is delivered as is with little or no validation to demonstrate that the product meets the customer's need

- Is your project team responsible for applying for the system-level civil certification (e.g., STC) or expected to author the System Safety Assessment documentation to be applied to an aircraft certification?

No

- Will the project team be required to support Department of Defense Operational Test & Evaluation (OT&E) and/or Developmental Test & Evaluation (DT&E)?

No - this product is not subject to DoD evaluation

### **Certification**

- Will this (or a higher-level parent) project be pursuing (now, or in the future) any civil aviation safety certification or military airworthiness certifiability?

No - certification or certifiability is not required.

- Will this product be subject to Federal Communications Commission ( FCC ) certification?

No

- Do any of the following apply from a cybersecurity perspective [More Info]?

No - No IA requirements or cybersecurity certification is required

- Will this product be subject to Underwriter's Lab ( UL ) evaluation or European Conformity ( CE - Conformance Européenne ) provisions?

No

### **Product Support**

- Will Rockwell Collins be providing services and support for products delivered to the customer?

No

- Will the project team be supporting the customer with logistic support analysis - spares, consumables, preventative care & maintenance schedules?

No

- Will the development team support the creation and maintenance of technical manuals?

No

- Will the development team be involved in customer installation and/or integration?

No

- Will the development team be providing continued support for service bulletins and/or service information letters?

No

### **Business Administration**

- Which organization is developing the product associated with this TCP Tailoring?



Commercial Systems