Interface Requirements Specification (IRS)

Development Team

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# Interface Requirements Specification (IRS)

## 1. Scope

### 1.1 Identification

**IRS-001: Interface Identification** - The interface **shall** be identified by the following information: - **Interface Name**: [Interface Name] - **Interface Identifier**: [IF-001] - **Version**: 1.0 - **Classification**: [Unclassified/Classified Level]

### 1.2 Interface Overview

**IRS-002: Interface Purpose** - The interface **shall** provide [primary interface purpose and functionality] - The interface **shall** support [key operational capabilities] - The interface **shall** integrate with [specified systems/components]

## 2. Referenced Documents

**IRS-003: Referenced Standards** - MIL-STD-498: Software Development and Documentation - [Other applicable standards]

## 3. Interface Requirements

### 3.1 Interface Description

**IRS-004: Interface Entities** - The interface **shall** connect the following entities: - [System/Component A] - [System/Component B]

**IRS-005: Interface Type** - The interface **shall** be of type [hardware/software/network/user] - The interface **shall** use [protocol/format/standard]

### 3.2 Functional Requirements

**IRS-006: Data Exchange** - The interface **shall** support data exchange in [format] - The interface **shall** validate all incoming and outgoing data - The interface **shall** log all data transactions

**IRS-007: Timing and Performance** - The interface **shall** respond within [X] milliseconds - The interface **shall** support [Y] transactions per second - The interface **shall** handle [Z] concurrent connections

### 3.3 Security and Safety Requirements

**IRS-008: Security** - The interface **shall** implement authentication and authorization - The interface **shall** encrypt sensitive data in transit - The interface **shall** log security events

**IRS-009: Safety** - The interface **shall** prevent unsafe operations - The interface **shall** provide error handling and recovery

## 4. Qualification Provisions

**IRS-010: Testing Methods** - The interface **shall** be tested using simulation and integration tests - The interface **shall** pass all performance and security tests

## 5. Traceability

| Requirement ID | Parent Requirement | Child Requirements | Status |
| --- | --- | --- | --- |
| IRS-001 | - | IRS-002, IRS-003 | Approved |
| IRS-004 | IRS-002 | IRS-005, IRS-006 | In Progress |
| IRS-008 | IRS-002 | IRS-009 | Approved |

## 6. Notes

* **IRS**: Interface Requirements Specification
* **API**: Application Programming Interface
* **Protocol**: Set of rules for data exchange