

Interface Requirements Specification (IRS)

Development Team

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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