

## 1 Scope

The following paragraphs identify the interfaces, provide a system overview, and describe the purpose and contents of this document.

### 1.1 Identification

This Interface Requirements Specification (IRS) establishes the requirements for the interface for the CSCI identified as DIS Library (DL), CSCI 2 of the Ada Distributed Interactive Simulation (ADIS) Support system. Table 1.1-1 identifies the DL interface and the associated project-unique identifier.

**Table 1.1-1**  
**DL Interfaces**

Project Unique Identifier	Interface Name
DL-EI-1	DIS Library Interface

## 1.2. System Overviewtc "1.2 System Overview"\l§

The purpose of the ADIS system is to provide the Ada community access to DIS technology. DIS, or Distributed Interactive Simulation, is a standard which enables communication among distributed simulation facilities. The inter-site communication packets consist of Protocol Data Units (PDUs), which define the characteristics of the simulation entities. Distributed simulation exercises require the transmission of PDUs under specific conditions in order to maintain the fidelity of the simulation.

The following paragraphs identify and describe the role within the system for each interface to which this IRS applies.

### 1.2.1 DIS Library Interface (DL-EI-1)tc "1.2.1 DIS Library Interface (DL-EI-1)"\l§

The DIS Library Interface (DL-EI-1) is the interface from the DIS Library (DL), CSCI 2 to the other CSCIs within the ADIS system. These other CSCIs are the DIS Gateway (DG), CSCI 1 and the Ordnance Server (OS), CSCI 3. Additionally, this interface may also be used by simulation models which require operations on raw (i.e., DIS-formatted) data. The role of this interface within the ADIS system is to facilitate the use of generic, re-usable software filters by all CSCIs within the system.

## 1.3 Document Overviewtc "1.3 Document Overview"\l§

The purpose of this IRS is to specify the interface requirements for the DL CSCI interface identified in section 1.1. This specification identifies the interface and defines the purpose, requirements, and data transmitted across it.

## 2 Applicable Documentstc "2.0 Applicable Documents"\l§

The following paragraphs specify government and non-government documents which apply to this specification.

### 2.1 Government Documentstc "2.1 Government Documents"\l§

The following documents (see Table 2.1-1) of the exact issue shown form a part of this specification to the extent specified herein. In the event of conflict between the documents referenced herein and the contents of this specification, the contents of this specification shall be considered a superseding requirement.

**Table 2.1-1**  
**Government Documentstc "2.1-1 Government Documents"\lf t§**

Document Number	Title
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DOD-STD-2167A     Defense System Software Development

DI-MCCR-80026A     Interface Requirements Specification

Statement of Work - Ada Distributed Interactive Simulation  
Support

Copies of specifications, standards, drawings, and publications required by suppliers in connection with specified procurement functions should be obtained from the contracting agency or as directed by the contracting officer.

## 2.2 Non-Government Documents

The following documents (see Table 2.2-1) of the exact issue shown form a part of this specification to the extent specified herein. In the event of conflict between the documents referenced herein and the contents of this specification, the contents of this specification shall be considered a superseding requirement.

**Table 2.2-1**  
**Non-Government Documents**

Document Number	Title	Source
DMA TR 8350.2	Department of Defense World Geodetic System 1984 (WGS 84) Its Definition and Relationships with Local Geodetic Systems Defense Mapping Agency Technical Report 8350.2	National Technical Information Service
IEEE 1278.1	IEEE Standard P1278.1 Standard for Information Technology - Protocols for Distributed Interactive Simulation Applications Version 2.0, Third Draft	Institute for Simulation and Training
IST-CR-93-19	Enumeration and Bit Encoded Values for Use with Protocols for Distributed Interactive Simulation Applications	Institute for Simulation and Training
JFT-149-DL.SRM	Software Reference Manual for the DIS Library (DL) CSCI 2 of the Ada Distributed Interactive Simulation Support (ADIS) Project	J. F .Taylor, Inc.

Technical society and technical associations specifications and standards are generally available for reference from libraries. They are also distributed among technical groups and using Federal Agencies.

### 3 Interface Specificationtc "3

Interface Specif

This section specifies the requirements for the DL CSCI interface.

#### 3.1 Interface Diagramtc "3.1 Interface Diagram"\l§

Figure 3.1-1 depicts the interface between the DL CSCI defined in this IRS and the other CSCIs in the system. The interface depicted in this figure is identified by name and project unique identifier.

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**Figure 3.1-1**

**DL CSCI Interface Diagramtc "3.1-1 DL CSCI Interface Diagram"\lf f§**

#### 3.2 DIS Library Interface (DL-EI-1) tc "3.2 DIS Library Interface (DL-EI-1)"\l§

The purpose for the DIS Library interface (DL-EI-1) is to provide access to the software routines in the DIS library.

##### 3.2.1 DL Interface Requirementstc "3.2.1 Interface Requirements"\l§

There are no interface requirements associated with the DL CSCI.

##### 3.2.2 Data Requirementstc "3.2.2 Data Requirements"\l§

The data requirements for the DL interface are documented in the DL Software Reference Manual in Chapter 3.

### 4 Quality Assurancetc "4 Quality Assurance"\l§

This paragraph is not applicable to the DL CSCI.

### 5 Preparation for Deliverytc "5 Preparation for Delivery"\l§

This paragraph is not applicable to the DL CSCI.

## 6 Notes

The following subparagraphs contain general information to assist in understanding this specification, such as word usage, meanings of acronyms and abbreviations, and project unique identifiers.

### 6.1 Word Usage

This System Requirements Specification adheres to the following word usage for paragraphs 1 through 6:

*Shall* has been used only where a particular feature, capability, or method of operation is mandatory.

*Should* has been used only where a particular feature, capability, or method of operation is recommended.

*May* has been used only where a particular feature, capability, or method of operation is optimal or to suggest a possible design approach to a requirement.

*Will* has been used to indicate futurity, never to indicate any degree of requirement.

### 6.2 Acronyms and Abbreviations

Table 6.2-1 contains a list of all acronyms and abbreviations used in this IRS and their meanings as used in this document.

**Table 6.2-1**  
**Meanings of Acronyms and Abbreviations**

Acronym/ Abbreviation	Meaning
ADIS	Ada Distributed Interactive Simulation
CDRL	Contract Data Requirements List
CSCI	Computer Software Configuration Item
DG	DIS Gateway

DIS	Distributed Interactive Simulation
DOD	Department of Defense
IEEE	Institute of Electrical and Electronics Engineers
IRS	Interface Requirements Specification
N/A	Not Applicable
NAWCAD	Naval Air Warfare Center, Aircraft Division
OS	Ordnance Server
PDU	Protocol Data Unit
SETD	Systems Engineering Test Directorate

### 6.3 Project Unique Identifier

Table 6.3-1 contains a list of all project unique identifiers used in the ADIS system and their associated meanings.

**Table 6.3-1**  
**Project Unique Identifier**

Project Unique Identifier	Meaning
csci-C-nn	Capability nn of the specified CSCI
csci-D-nn	Data element nn of the specified CSCI

<i>csci-II-nn</i>	Internal Interface nn of the specified CSCI
<i>csci-EI-nn</i>	External Interface nn of the specified CSCI
<i>csci-R-nn</i>	Requirement nn of the specified CSCI



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INTERFACE REQUIREMENTS SPECIFICATION  
FOR THE  
DIS LIBRARY (DL) CSCI 2  
OF THE  
ADA DISTRIBUTED INTERACTIVE SIMULATION (ADIS) PROJECT  
CONTRACT NO. N00421-92-D-0028  
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