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EOSDIS Core System Project

Release B SDPS/CSMS Design Specification Overview for the ECS Project

March 1996

Hughes Information Technology Systems
Upper Marlboro, Maryland

Release B SDPS/CSMS Design Specification Overview for the ECS Project

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Preface

This document is one of eighteen comprising the detailed design specifications of the SDPS and CSMS subsystem for Release B of the ECS project. A complete list of the design specification documents is given below. Of particular interest are documents number 305-CD-020, which provides an overview of the subsystems and 305-CD-039, the Data Dictionary, for those reviewing the object models in detail.

The SDPS and CSMS subsystem design specification documents for Release B of the ECS Project include:

- 305-CD-020 Release B Overview of the SDPS and CSMS Segment System Design Specification
- 305-CD-021 Release B SDPS Client Subsystem Design Specification
- 305-CD-022 Release B SDPS Interoperability Subsystem Design Specification
- 305-CD-023 Release B SDPS Data Management Subsystem Design Specification
- 305-CD-024 Release B SDPS Data Server Subsystem Design Specification
- 305-CD-025 Release B SDPS Ingest Subsystem Design Specification
- 305-CD-026 Release B SDPS Planning Subsystem Design Specification
- 305-CD-027 Release B SDPS Data Processing Subsystem Design Specification
- 305-CD-028 Release B CSMS Segment Communications Subsystem Design Specification
- 305-CD-029 Release B CSMS Segment Systems Management Subsystem Design Specification
- 305-CD-030 Release B GSFC Distributed Active Archive Center Design Specification
- 305-CD-031 Release B LaRC Distributed Active Archive Center Design Specification
- 305-CD-033 Release B EDC Distributed Active Archive Center Design Specification
- 305-CD-034 Release B ASF Data Center Distributed Active Archive Center Design Specification
- 305-CD-035 Release B NSIDC Distributed Active Archive Center Design Specification
- 305-CD-036 Release B JPL Distributed Active Archive Center Design Specification
- 305-CD-037 Release B ORNL Distributed Active Archive Center Design Specification
- 305-CD-038 Release B System Monitoring and Coordination Center Design Specification
- 305-CD-039 Release B Data Dictionary for Subsystem Design Specification

Object models presented in this document have been exported directly from CASE or DBMS tools and in some cases contain too much detail to be easily readable within hard copy page constraints. The reader is encouraged to view these drawings on line using the Portable Document Format (PDF) electronic copy available via the ECS Data Handling System (EDHS) at: URL <http://edhs1.gsfc.nasa.gov>.

This document is a formal contract deliverable with an approval code of 2; as such it requires Government review and approval prior to acceptance and use. This document is under ECS contractor configuration control. Once this document is approved, Contractor approved changes are handled in accordance with Class I and Class II change control requirements described in the EOS Configuration Management Plan, and changes to this document shall be made by document change notice (DCN) or by complete revision.

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Abstract

This subdocument, Release B Overview of the SDPS and CSMS Segment System Design Specification for the ECS Project, supplies a basic overview for both the SDPS and CSMS segments of the ECS project. It details the Release B components and the interactions of those components with each other and with other EOSDIS components and discusses their relationship with external entities. It describes basic factors in development of these components and prepares the user for the more detailed analyses of subsystem designs in the in-depth series of subdocuments that follow. This document is intended to be read by all parties interested in the Release B design. For the casual reviewer this document provides a solid understanding of the ECS and Release B design. For those interested in an in-depth understanding of the design, this subdocument provides an integrated view of the subsystems as well as certain design concepts that span subsystems. It provides the context necessary for understanding the subsequent subdocuments.

Keywords:

Release B, Overview, SDPS, CSMS, Design, Critical Design, Subsystem, Architecture, Software, Hardware, Object Oriented, Security, Gateway, System Management, Reports, User Interface, Client, GUI, Key Mechanisms

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Appendix A. Summary of ECS Data Flows and DAAC System Interfaces

Appendix B. Subsystem Context Diagrams

Abbreviations and Acronyms