

609-CD-600-001

EOSDIS Core System Project

**Release 6A
Operations Tools Manual
for the ECS Project**

Final

March 2001

**Raytheon Company
Upper Marlboro, Maryland**

Release 6A Operations Tools Manual for the ECS Project

Final

March 2001

Prepared Under Contract NAS5-60000
CDRL Item #116

RESPONSIBLE ENGINEER

Philip Miller, Systems Engineer Date
EOSDIS Core System Project

SUBMITTED BY

Will Knauss, Development Engineering Manager Date
EOSDIS Core System Project

Raytheon Company
Upper Marlboro, Maryland

This page intentionally left blank.

Preface

This document is a formal contract deliverable with an approval code 1. 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 ECS Project Configuration Management Plan, and changes to this document shall be made by document change notice (DCN) or by complete revision.

This document is under the control of the EDF Configuration Control Board (CCB).

Any questions should be addressed to:

Data Management Office
The ECS Project Office
Raytheon Systems Company
1616 McCormick Dr.
Upper Marlboro, MD 20774-5301

This page intentionally left blank.

Abstract

This document describes the human-machine interface (HMI) characteristics of the tools (computer software configuration items) used by the ECS operations staff and external users of ECS both registered and non-registered.

Keywords: Computer Software Configuration Items (CSCIs), GUI, Interface, Operations, Release 6A, Screens, Software, Tools

This page intentionally left blank.

Change Information Page

List of Effective Pages	
Page Number	Issue
Title	Final
iii through iii	Final
1-1 and 1-2	Final
2-1 through 2-8	Final
3-1 and 3-2	Final
4-1 and 4-2	Final
4.1-1 and 4.1-2	Final
4.1.1-1 through 4.1.1-6	Final
4.1.2-1 and 4.1.2-2	Final
4.1.3-1 through 4.1.3-12	Final
4.1.4-1 through 4.1.4-6	Final
4.1.5-1 and 4.1.5-2	Final
4.1.6-1 and 4.1.6-2	Final
4.1.7-1 and 4.1.7-2	Final
4.1.8-1 and 4.1.8-2	Final
4.1.9-1 through 4.1.9-28	Final
4.1.10-1 through 4.1.10-40	Final
4.1.11-1 through 4.1.11-18	Final
4.2-1 and 4.2-2	Final
4.2.1-1 through 4.2.1-8	Final
4.2.2-1 through 4.2.2-14	Final
4.2.3-1 through 4.2.3-50	Final
4.3-1 and 4.3-2	Final
4.3.1-1 through 4.3.1-12	Final
4.3.2-1 through 4.3.2-30	Final
4.3.3-1 through 4.3.3-128	Final
4.3.4-1 through 4.3.4-202	Final
4.3.5-1 through 4.3.5-32	Final
4.3.6-1 through 4.3.6-12	Final
4.4-1 and 4.4-2	Final

Page Number	Issue
4.4.1-1 through 4.4.1-4	Final
4.4.2-1 through 4.4.2-4	Final
4.4.3-1 through 4.4.3-4	Final
4.4.4-1 through 4.4.4-4	Final
4.4.5-1 through 4.4.5-6	Final
4.4.6-1 through 4.4.6-4	Final
4.4.7-1 through 4.4.7-4	Final
4.5-1 and 4.5-2	Final
4.5.1-1 through 4.5.1-86	Final
4.6-1 and 4.6-2	Final
4.6.1-1 through 4.6.1-26	Final
4.6.2-1 and 4.6.2-2	Final
4.7-1 and 4.7-2	Final
4.7.1-1 through 4.7.1-18	Final
4.8-1 and 4.8-2	Final
4.8.1-1 through 4.8.1-28	Final
4.8.2-1 through 4.8.2-8	Final
4.8.3-1 through 4.8.3-8	Final
4.9-1 and 4.9-2	Final
4.9.1-1 through 4.9.1-14	Final
4.9.2-1 through 4.9.2-12	Final
4.10-1 and 4.10-2	Final
4.10.1-1 through 4.10.1-12	Final
4.10.2-1 through 4.10.2-60	Final
4.10.3-1 through 4.10.3-16	Final
4.10.4-1 through 4.10.4-38	Final
4.10.5-1 through 4.10.5-10	Final
4.11-1 and 4.11-2	Final
4.11.1-1 through 4.11.1-18	Final
4.11.2-1 through 4.11.2-10	Final
4.11.3-1 through 4.11.3-18	Final
4.11.4-1 through 4.11.4-4	Final
4.11.5-1 through 4.11.5-4	Final
4.11.6-1 through 4.11.6-4	Final
4.11.9-1 through 4.11.9-4	Final
4.11.7-1 through 4.11.7-6	Final

Page Number	Issue		
4.11.8-1 through 4.11.8-4	Final		
4.12-1 and 4.12-2	Final		
4.12.1-1 through 4.12.1-4	Final		
4.12.2-1 and 4.12.2-2	Final		
4.12.3-1 through 4.12.3-6	Final		
4.12.4-1 through 14.12.4-10	Final		
4.12.5-1 through 4.12.5-56	Final		
4.12.6-1 through 4.12.6-26	Final		
4.12.7-1 through 4.12.7-16	Final		
4.12.8-1 through 4.12.8-46	Final		
4.12.9-1 through 4.12.9-12	Final		
A-1 through A-60	Final		
GL-1 through GL-6	Final		
AB-1 through AB-8	Final		
Document History			
Document Number	Status/Issue	Publication Date	CCR Number
609-CD-600-001	Final	March 2001	01-0165

This page intentionally left blank.

Contents

Preface

Abstract

1. Introduction

1.1 Identification.....	1-1
1.2 Purpose.....	1-1
1.3 Scope	1-1
1.4 Status and Schedule.....	1-2
1.5 Organization	1-2

2. Related Documentation

2.1 Parent Documents.....	2-1
2.2 Applicable Documents.....	2-1
2.3 Information Documents	2-3

3. Release 6A Overview

3.1 Version 2.0 Objectives	3-1
3.1.1 ECS Mission Support Baseline	3-1

4. Description of the ECS Operational Tools

4.1 Computer Systems Administration.....	4.1-1
4.1.1 Legatto NetWorker	4.1.1-1
4.1.2 DBVision (Future Release).....	4.1.2-1
4.1.3 AMASS.....	4.1.3-1

4.1.4 ISQL	4.1.4-1
4.1.5 SQR Report Writer (Future Release).....	4.1.5-1
4.1.6 Intelligent Query and IQ Access (IQ) (Future Release).....	4.1.6-1
4.1.7 Sybase Replication Server (Future Release).....	4.1.7-1
4.1.8 Global Change Master Directory (GCMD) (Future Release).....	4.1.8-1
4.1.9 ECSAssist.....	4.1.9-1
4.1.10 ECS Registry GUI.....	4.1.10-1
4.1.11 Wazzup GUI.....	4.1.11-1
4.2 System Monitoring.....	4.2-1
4.2.1 HP OpenView.....	4.2.1-1
4.2.2 Tivoli.....	4.2.2-1
4.2.3 Remedy's Action Request System.....	4.2.3-1
4.3 Configuration Management	4.3-1
4.3.1 ClearCase.....	4.3.1-1
4.3.2 Clear Distributed Defect Tracking System (CDDTS).....	4.3.2-1
4.3.3 XRP-II (Baseline Manager)	4.3.3-1
4.3.4 XRP-II (Inventory, Logistics and Maintenance {ILM}Manager)	4.3.4-1
4.3.5 Tivoli/Courier	4.3.5-1
4.3.6 FLEXlm	4.3.6-1
4.4 Security and Accountability	4.4-1
4.4.1 DCE Cell Manager.....	4.4.1-1
4.4.2 TCP Wrappers	4.4.2-1
4.4.3 Crack.....	4.4.3-1
4.4.4 SATAN	4.4.4-1
4.4.5 Tripwire.....	4.4.5-1
4.4.6 Tivoli Enterprise Console and Administration	4.4.6-1
4.4.7 Cryptographic Management Interface (CMI).....	4.4.7-1
4.5 Science Software Integration and Test (SSI&T)	4.5-1
4.5.1 SSIT Manager.....	4.5.1-1
4.6 Data Ingest	4.6-1
4.6.1 Data Ingest GUI	4.6.1-1
4.6.2 Regenerate Failed PDR Tool	4.6.2-1

4.7 Resource Planning	4.7-1
4.7.1 Resource Planning.....	4.7.1-1
4.8 Production Planning	4.8-1
4.8.1 Production Request Editor.....	4.8.1-1
4.8.2 Production Planning Workbench	4.8.2-1
4.8.3 Production Strategies User Interface	4.8.3-1
4.9 Production Processing.....	4.9-1
4.9.1 AutoSys/AutoXpert	4.9.1-1
4.9.2 ECS Quality Assurance (QA) Monitor	4.9.2-1
4.10 Science Data Archive and Distribution	4.10-1
4.10.1 Science Data Server GUI.....	4.10.1-1
4.10.2 Storage Management Control GUI.....	4.10.2-1
4.10.3 Data Distribution Requests GUI.....	4.10.3-1
4.10.4 Granule Deletion Administration Tool.....	4.10.4-1
4.10.5 Product Distribution System (PDS) Stand Alone (PDSSA) User Interface ...	4.10.5-1
4.11 User Services Tools.....	4.11-1
4.11.1 User Account Management GUI	4.11.1-1
4.11.2 Order Tracking	4.11.2-1
4.11.3 Data Dictionary Maintenance.....	4.11.3-1
4.11.4 Subscription Editor	4.11.4-1
4.11.5 Database Installation and Maintenance Scripts.....	4.11.5-1
4.11.6 Replication Installation and Maintenance Scripts.....	4.11.6-1
4.11.7 Landsat 7 Error Handling Tool.....	4.11.7-1
4.11.8 Restricting Access to ESDTs and Granules Scripts.....	4.11.8-1
4.11.9 Science Data server Command Line Interface (SCLI)	4.11.9-1
4.12 Common Services Tools.....	4.12-1
4.12.1 Common Desktop Environment.....	4.12.1-1
4.12.2 Microsoft Office	4.12.2-1
4.12.3 Netscape Communicator.....	4.12.3-1
4.12.4 Netscape Enterprise Server.....	4.12.4-1
4.12.5 EOSView.....	4.12.5-1
4.12.6 ASTER On-demand Product Request Form (ODFRM)	4.12.6-1
4.12.7 Subscription Server.....	4.12.7-1
4.12.8 The Java Data Acquisition Request (DAR) Tool (JDT).....	4.12.8-1

4.12.9 Earth Science Online Directory (ESOD) Advertising Tool	4.12.9-1
---	----------

Figures

Figure 4.1.1-1. NetWorker Administrator's Screen.....	4.1.1-3
Figure 4.1.1-2. NetWorker Backup Screen	4.1.1-4
Figure 4.1.1-3. NetWorker Recover Window	4.1.1-5
Figure 4.1.3-1. Control Path	4.1.3-2
Figure 4.1.3-2. AMASS Main Screen (AAWIN).....	4.1.3-6
Figure 4.1.3-3. AMASS Main Screen showing selected volumes in the Workroom	4.1.3-8
Figure 4.1.3-4. Amassreport example showing Volume Group 20	4.1.3-11
Figure 4.1.9-1. ECS Assist Main Screen.	4.1.9-2
Figure 4.1.9-2. Subsystem Manager Screen	4.1.9-4
Figure 4.1.9-3. File Selection Popup Window.....	4.1.9-7
Figure 4.1.9-4. Subsystem Manager “database” Screen	4.1.9-8
Figure 4.1.9-5. Subsystem Manager “database script parameters” Screen	4.1.9-9
Figure 4.1.9-6. Subsystem Manager Install Screen	4.1.9-10
Figure 4.1.9-8. Configuration File Selection Window.....	4.1.9-12
Figure 4.1.9-9. Subsystem Manager “Configuration” Screen.....	4.1.9-13
Figure 4.1.9-10. Subsystem Manager “Registry Patch” Screen	4.1.9-14
Figure 4.1.9-11. Subsystem Manager “stageinstall” Screen.....	4.1.9-15
Figure 4.1.9-12. Subsystem Manager “viewlog” Screen	4.1.9-16
Figure 4.1.9-20. ESDT Manager main window	4.1.9-18
Figure 4.1.9-13. E.A.S.I. Installation Source Window	4.1.9-20
Figure 4.1.9-14. E.A.S.I. Phase Selection Window.....	4.1.9-21
Figure 4.1.9-15. E.A.S.I. Installation Parameters Window.....	4.1.9-22
Figure 4.1.9-17. E.A.S.I. Database Operations Window	4.1.9-24
Figure 4.1.9-18. E.A.S.I Installation Confirmation Window.....	4.1.9-25
Figure 4.1.9-19. E.A.S.I. STATUS Window	4.1.9-26
Figure 4.1.10-1. Registry GUI Database Login Window.....	4.1.10-2

Figure 4.1.10-2. ECS Registry Main Window.....	4.1.10-3
Figure 4.1.10-3. Adding a New Node Window	4.1.10-5
Figure 4.1.10-4. Adding a New Node Dialog Window.....	4.1.10-6
Figure 4.1.10-5. Results of Adding a New Node	4.1.10-7
Figure 4.1.10-6. Mode Mapper Window	4.1.10-8
Figure 4.1.10-7. Results of Mode Mapping.....	4.1.10-9
Figure 4.1.10-8. Final Result of Mode Mapping Transaction.....	4.1.10-10
Figure 4.1.10-9. Creating a New Attribute Tree Using the Copy Button.....	4.1.10-11
Figure 4.1.10-10. Creating a New Attribute Tree Window.....	4.1.10-12
Figure 4.1.10-11. Attribute Tree Field Combo Box List.....	4.1.10-13
Figure 4.1.10-12. Display of the New Attribute Tree	4.1.10-14
Figure 4.1.10-13. Move Nodes Option	4.1.10-15
Figure 4.1.10-14. Cut Button is Pressed	4.1.10-16
Figure 4.1.10-15. Result of Pressing the Cut Icon in the Move Subtree Operation	4.1.10-17
Figure 4.1.10-16. Final Confirmation for the Move Operation	4.1.10-18
Figure 4.1.10-17. Selecting the Target of the Move.....	4.1.10-19
Figure 4.1.10-18. Result of the Paste in the Move Operation	4.1.10-20
Figure 4.1.10-19. Rename Operation	4.1.10-21
Figure 4.1.10-20. Rename Dialog Box	4.1.10-22
Figure 4.1.10-21. Result of the Rename Attribute Tree Operation.....	4.1.10-23
Figure 4.1.10-22. Rename Dialog Box for Changing the “CFG” Node	4.1.10-24
Figure 4.1.10-23. Results of Renaming the “CFG” Node to “Example_Node”	4.1.10-25
Figure 4.1.10-24. Delete Node Confirmation Dialog Box.....	4.1.10-26
Figure 4.1.10-25. Result of a Confirmed Delete on the Attribute Tree.....	4.1.10-27
Figure 4.1.10-26. Deleting an Attribute Operation.....	4.1.10-28
Figure 4.1.10-27. Attribute Information Window	4.1.10-29
Figure 4.1.10-28. Delete Attribute Confirmation Dialog Box	4.1.10-31
Figure 4.1.10-29. Final Result of the Delete “HWCI” Attribute Operation.....	4.1.10-32
Figure 4.1.10-30. Creating a New Attribute Tree.....	4.1.10-33

Figure 4.1.10-31. "Creating a new attribute tree" Dialog Box.....	4.1.10-34
Figure 4.1.10-32. Final Result of Adding a New Attribute Tree.....	4.1.10-35
Figure 4.1.10-33. Attribute Historical Data View 1	4.1.10-36
Figure 4.1.10-34. Attribute Historical Data View 2	4.1.10-37
Figure 4.1.10-35. Reason for change dialog	4.1.10-38
Figure 4.1.11-1. Whazzup Main Screen	4.1.11-2
Figure 4.1.11-2. ECS Host Performance Statistics Summary Screen.....	4.1.11-3
Figure 4.1.11-3. Host Performance Detail Report.....	4.1.11-5
Figure 4.1.11-4. Host Status Screen.....	4.1.11-6
Figure 4.1.11-5. Mode Status Screen.....	4.1.11-7
Figure 4.1.11-6. Verify Mode Screen.....	4.1.11-8
Figure 4.1.11-7. Memory Growth Screen.....	4.1.11-9
Figure 4.1.11-8. Management Screen.....	4.1.11-10
Figure 4.1.11-9. Manage Hosts Interface Screen.....	4.1.11-11
Figure 4.1.11-10. Manage Modes Interface Screen	4.1.11-13
Figure 4.1.11-11. Hosts Associated with Mode Screen.....	4.1.11-14
Figure 4.2.1-1. HP OpenView Main Screen -- Network Nodes.....	4.2.1-3
Figure 4.2.1-2. HP OpenView Main Screen -- OV map	4.2.1-4
Figure 4.2.1-3. HP OpenView Event Categories Pop-up.....	4.2.1-5
Figure 4.2.1-4. HP OpenView Graph Screen.....	4.2.1-6
Figure 4.2.2-1. TME Desktop for Administrator GUI.....	4.2.2-4
Figure 4.2.2-2. Administrators Window.....	4.2.2-5
Figure 4.2.2-3. Read Notices Window	4.2.2-6
Figure 4.2.2-4. TEC Event Groups Window	4.2.2-7
Figure 4.2.2-5. TEC Event Sources Window.....	4.2.2-8
Figure 4.2.2-6. Event Server Window.....	4.2.2-9
Figure 4.2.2-7. Policy Region: "Server"-Region Window	4.2.2-10
Figure 4.2.2-8. Endpoint Manager Window	4.2.2-11
Figure 4.2.2-9. Scheduler Window	4.2.2-12

Figure 4.2.3-1. RelB-Trouble Tickets Schema GUI	4.2.3-7
Figure 4.2.3-2. User Schema GUI	4.2.3-11
Figure 4.2.3-3. Contact Log Schema GUI	4.2.3-13
Figure 4.2.3-4. Hardware Information Schema GUI	4.2.3-15
Figure 4.2.3-5. RelB-Menu-Closing Codes Schema GUI.....	4.2.3-19
Figure 4.2.3-6. Tool RelB-Menu-Hardware Resources Schema GUI	4.2.3-21
Figure 4.2.3-7. RelB-Menu-Key Words Schema GUI	4.2.3-23
Figure 4.2.3-8. RelB-Menu-Problem Type Schema GUI	4.2.3-24
Figure 4.2.3-9. RelB-Menu-Software Resources Schema GUI	4.2.3-25
Figure 4.2.3-10. RelB-TT-Sites Schema GUI	4.2.3-27
Figure 4.2.3-11. RelB-TT-Times Schema GUI.....	4.2.3-29
Figure 4.2.3-12. Admin Tool GUI	4.2.3-30
Figure 4.2.3-13. Notification Tool GUI	4.2.3-32
Figure 4.2.3-14. Import Tool GUI	4.2.3-33
Figure 4.2.3-15. ECS Trouble Ticketing: (Netscape) Menu GUI	4.2.3-35
Figure 4.2.3-16. Trouble Ticket HTML Submit GUI.....	4.2.3-36
Figure 4.2.3-17. Trouble Ticket HTML Success GUI.....	4.2.3-38
Figure 4.2.3-18. Trouble Ticket HTML List GUI.....	4.2.3-39
Figure 4.2.3-19. Trouble Ticket HTML Detailed GUI.....	4.2.3-41
Figure 4.2.3-20. Trouble Ticket Status Report.....	4.2.3-46
Figure 4.2.3-21. Hardware Resource Report	4.2.3-47
Figure 4.2.3-22. Number of Tickets by Submitter Report.....	4.2.3-48
Figure 4.2.3-23. Average Time to Close Report.....	4.2.3-48
Figure 4.2.3-24. Number of Tickets by Assigned Status Report	4.2.3-49
Figure 4.2.3-25. Number of Tickets by Assigned Priority Report	4.2.3-49
Figure 4.2.3-26. Summary Report	4.2.3-50
Figure 4.3.1-1. ClearCase Transcript Screen.....	4.3.1-2
Figure 4.3.1-2. View Tag Browser Screen.....	4.3.1-3
Figure 4.3.1-3. ClearCase File Browser Screen (Main Screen).....	4.3.1-4

Figure 4.3.1-4. ClearCase File Browser Screen (Checkout Software).....	4.3.1-5
Figure 4.3.1-5. ClearCase Prompt Screen (Checkout Comment).....	4.3.1-6
Figure 4.3.1-6. File Browser Screen (File Version Checked-Out)	4.3.1-7
Figure 4.3.1-7. ClearCase Version Tree Screen	4.3.1-8
Figure 4.3.1-8. ClearCase Prompt Screen (Checkin Comment)	4.3.1-9
Figure 4.3.1-9. ClearCase File Browser Screen (File Checked-In)	4.3.1-9
Figure 4.3.1-10. File Browser Screen (Build Menu).....	4.3.1-10
Figure 4.3.2-1. CDDTS Main Screen	4.3.2-3
Figure 4.3.2-2. Initial Submit Record Screen	4.3.2-4
Figure 4.3.2-3. Submit Record Data Fields Screen.....	4.3.2-5
Figure 4.3.2-4. Proposed Change Enclosure Screen.....	4.3.2-7
Figure 4.3.2-5. Main Screen (Change_State)	4.3.2-8
Figure 4.3.2-6. Change_State Menu Screen.....	4.3.2-9
Figure 4.3.2-7. New State (Assign/Eval) Fields Screen	4.3.2-10
Figure 4.3.2-8. Impact Summary Enclosure Screen.....	4.3.2-12
Figure 4.3.2-9. Assign-Implement State Screen	4.3.2-13
Figure 4.3.2-10. Resolution Enclosure Screen.....	4.3.2-15
Figure 4.3.2-11. Assign-Verify State Screen.....	4.3.2-16
Figure 4.3.2-12. CDDTS Verify State Screen.....	4.3.2-17
Figure 4.3.2-13. CDDTS Close State Screen	4.3.2-18
Figure 4.3.2-14. CDDTS Main Screen (Modify)	4.3.2-19
Figure 4.3.2-15. CDDTS Modify Menu Screen	4.3.2-20
Figure 4.3.2-16. CDDTS Fields To Be Modified Screen.....	4.3.2-21
Figure 4.3.2-17. CDDTS Main Screen (Print).....	4.3.2-22
Figure 4.3.2-18. CDDTS Printing Option Screen	4.3.2-23
Figure 4.3.2-19. CDDTS CCR Report (1 of 4).....	4.3.2-25
Figure 4.3.2-20. CDDTS CCR Report: Three Line Format	4.3.2-29
Figure 4.3.2-21. CDDTS CCR Report: Index Format	4.3.2-29
Figure 4.3.2-22. CDDTS CCR Report: One Line Format	4.3.2-30

Figure 4.3.3-1. ECS Baseline Management System Menu Structure.....	4.3.3-7
Figure 4.3.3-2. ECS Management System Main Menu	4.3.3-8
Figure 4.3.3-3. Baseline Management Menu.....	4.3.3-9
Figure 4.3.3-4. Control Item Master Menu.....	4.3.3-10
Figure 4.3.3-5. All Control Items CHUI	4.3.3-11
Figure 4.3.3-6. Hardware Items Only CHUI	4.3.3-15
Figure 4.3.3-7. Software Items Only CHUI	4.3.3-16
Figure 4.3.3-8. Host Control Items Only CHUI.....	4.3.3-18
Figure 4.3.3-9. Document Items Only CHUI	4.3.3-19
Figure 4.3.3-10. Partition Items Only CHUI.....	4.3.3-21
Figure 4.3.3-11. Bill of Material Menu	4.3.3-23
Figure 4.3.3-12. Engineering Change Entry CHUI	4.3.3-24
Figure 4.3.3-13. Engineering Change Entry's Items CHUI.....	4.3.3-27
Figure 4.3.3-14. Engineering Change Approval CHUI.....	4.3.3-27
Figure 4.3.3-15. Replace Component in Selected Bills CHUI (1 of 3).....	4.3.3-30
Figure 4.3.3-16. Replace Component in Selected Bills CHUI (2 of 3).....	4.3.3-31
Figure 4.3.3-17. Replace Component in Selected Bills CHUI (3 of 3).....	4.3.3-31
Figure 4.3.3-18. Query Menu.....	4.3.3-33
Figure 4.3.3-19. Reports Menu.....	4.3.3-34
Figure 4.3.3-20. Configuration Items List - Level One CHUI.....	4.3.3-35
Figure 4.3.3-21. Configuration Items List - Level Two CHUI	4.3.3-36
Figure 4.3.3-22. Configured Articles Reports CHUI	4.3.3-37
Figure 4.3.3-23. Version Description Reports CHUI.....	4.3.3-38
Figure 4.3.3-24. Site Baseline Reports CHUI	4.3.3-39
Figure 4.3.3-25. Change History Reports CHUI.....	4.3.3-40
Figure 4.3.3-26. BOM Comparison Reports CHUI.....	4.3.3-41
Figure 4.3.3-27. Hardware/Software/Patch Map Reports CHUI.....	4.3.3-43
Figure 4.3.3-28. Software Baseline Reports CHUI.....	4.3.3-44
Figure 4.3.3-29. Site - Host Maps CHUI	4.3.3-46

Figure 4.3.3-30. Baseline Documents Reports CHUI.....	4.3.3-48
Figure 4.3.3-31. Utilities Menu CHUI.....	4.3.3-49
Figure 4.3.3-32. Vendor Master Manager CHUI.....	4.3.3-50
Figure 4.3.3-33. Vendor Address Maintenance CHUI.....	4.3.3-51
Figure 4.3.3-34. Control Item Interdependency Maintenance CHUI.....	4.3.3-53
Figure 4.3.3-35. Implementation Status CHUI	4.3.3-55
Figure 4.3.3-36. Low Level Code Manager CHUI.....	4.3.3-57
Figure 4.3.3-37. Responsible Organization CHUI	4.3.3-58
Figure 4.3.3-38. Item Class Manager CHUI.....	4.3.3-59
Figure 4.3.3-39. Function Manager CHUI.....	4.3.3-60
Figure 4.3.3-40. Clone Manager CHUI (1 of 3).....	4.3.3-61
Figure 4.3.3-41. Clone Manager CHUI (2 of 3).....	4.3.3-62
Figure 4.3.3-42. Clone Manager CHUI (3 of 3).....	4.3.3-63
Figure 4.3.3-43. System Utilities Menu CHUI	4.3.3-65
Figure 4.3.3-44. System Parameters Manager CHUI.....	4.3.3-66
Figure 4.3.3-45. Transaction Log CHUI	4.3.3-68
Figure 4.3.3-46. Transaction Archive CHUI.....	4.3.3-70
Figure 4.3.3-47. Site Master Manager CHUI.....	4.3.3-71
Figure 4.3.3-48. Machine Network Maintenance CHUI.....	4.3.3-72
Figure 4.3.3-49. Commodity Code Maintenance CHUI.....	4.3.3-73
Figure 4.3.3-50. Import BLM Records CHUI.....	4.3.3-74
Figure 4.3.3-51. Export Release Records CHUI	4.3.3-75
Figure 4.3.3-52. Export Site-Unique Change Records CHUI.....	4.3.3-77
Figure 4.3.3-53. Export SMC Change Records CHUI	4.3.3-79
Figure 4.3.3-54. System Tools CHUI	4.3.3-81
Figure 4.3.3-55. Screen Manager CHUI	4.3.3-83
Figure 4.3.3-56. User Manager CHUI.....	4.3.3-84
Figure 4.3.3-57. Groups Manager CHUI	4.3.3-86
Figure 4.3.3-58. Screen Permission Control CHUI.....	4.3.3-88

Figure 4.3.3-59. Menu Manager CHUI.....	4.3.3-90
Figure 4.3.3-60. Printer Manager CHUI	4.3.3-91
Figure 4.3.3-61. Data Dump Utility CHUI.....	4.3.3-92
Figure 4.3.3-62. Data Load Utility CHUI	4.3.3-93
Figure 4.3.3-63. Call Accell System CHUI	4.3.3-94
Figure 4.3.3-64. Bill of Materials Report.....	4.3.3-104
Figure 4.3.3-65. Indented Bill of Materials Report.....	4.3.3-105
Figure 4.3.3-66. Summarized Bill Report	4.3.3-106
Figure 4.3.3-67. Where-Used Display.....	4.3.3-107
Figure 4.3.3-68. Multilevel Where-Used Report	4.3.3-108
Figure 4.3.3-69. Configuration Items List - Level One	4.3.3-109
Figure 4.3.3-70. Configuration Items List - Level Two	4.3.3-110
Figure 4.3.3-71. Configured Articles List	4.3.3-111
Figure 4.3.3-72. Version Description Report	4.3.3-112
Figure 4.3.3-73. Site Baseline Report.....	4.3.3-113
Figure 4.3.3-74. Change History Report	4.3.3-114
Figure 4.3.3-75. BOM Comparison Report	4.3.3-115
Figure 4.3.3-76. Hardware-Software Map Report (sw bundles only)	4.3.3-116
Figure 4.3.3-77. Hardware Map Report	4.3.3-117
Figure 4.3.3-78. Hardware-Patch Map	4.3.3-118
Figure 4.3.3-79. Hardware-Software Map Report (hw & sw bundles).....	4.3.3-119
Figure 4.3.3-80. Hardware-Software Data List Report.....	4.3.3-120
Figure 4.3.3-81. COTS Software Version Baseline Report	4.3.3-121
Figure 4.3.3-82. Patch Baseline Report.....	4.3.3-122
Figure 4.3.3-83. Site-Host Map Report.....	4.3.3-123
Figure 4.3.3-84. Site-Host Map (+ EDF) Report.....	4.3.3-124
Figure 4.3.3-85. Baseline Documents (Title Order) Report.....	4.3.3-125
Figure 4.3.3-86. Baseline Documents (Number Order) Report	4.3.3-126
Figure 4.3.3-87. List by Old Numbers Report.....	4.3.3-127

Figure 4.3.3-88. List by Name Report.....	4.3.3-128
Figure 4.3.3-89. List by New Numbers Report	4.3.3-129
Figure 4.3.4-1. ECS ILM Management System Menu Structure	4.3.4-5
Figure 4.3.4-2. ECS Management System Main Menu	4.3.4-11
Figure 4.3.4-3. ILM Main Menu.....	4.3.4-12
Figure 4.3.4-4. EIN Menu.....	4.3.4-13
Figure 4.3.4-5. EIN Entry CHUI.....	4.3.4-14
Figure 4.3.4-6. EIN Manager (EDF) CHUI.....	4.3.4-18
Figure 4.3.4-7. EIN Structure Manager (EDF) CHUI.....	4.3.4-22
Figure 4.3.4-8. Items Page for EIN Structure Manager (EDF) CHUI.....	4.3.4-24
Figure 4.3.4-9. EIN Inventory Query CHUI.....	4.3.4-25
Figure 4.3.4-10. EIN Transactions Menu	4.3.4-27
Figure 4.3.4-11. EIN Installation CHUI.....	4.3.4-28
Figure 4.3.4-12. EIN Installation Items Page CHUI.....	4.3.4-30
Figure 4.3.4-13. EIN Shipment CHUI	4.3.4-31
Figure 4.3.4-14. Carton Size Page for EIN Shipment	4.3.4-34
Figure 4.3.4-15. Items Page for EIN Shipment.....	4.3.4-35
Figure 4.3.4-16. Items Structure Page for EIN Shipment.....	4.3.4-36
Figure 4.3.4-17. EIN Transfer CHUI.....	4.3.4-37
Figure 4.3.4-18. EIN Archive CHUI	4.3.4-39
Figure 4.3.4-19. Items Page for EIN Archive CHUI	4.3.4-40
Figure 4.3.4-20. EIN Relocation CHUI	4.3.4-41
Figure 4.3.4-21. Items Page for EIN Relocation CHUI	4.3.4-43
Figure 4.3.4-22. Inventory Transaction Query Screen.....	4.3.4-44
Figure 4.3.4-23. Report Menu	4.3.4-47
Figure 4.3.4-24. ILM Inventory Reports (EDF) CHUI.....	4.3.4-48
Figure 4.3.4-25. EIN Structure Reports CHUI.....	4.3.4-49
Figure 4.3.4-26. Install/Receipt Report CHUI.....	4.3.4-50
Figure 4.3.4-27. EIN Shipment Reports CHUI	4.3.4-52

Figure 4.3.4-28. Transaction History Reports CHUI.....	4.3.4-53
Figure 4.3.4-29. PO Receipt Reports CHUI.....	4.3.4-54
Figure 4.3.4-30. Installation Summary Reports CHUI.....	4.3.4-55
Figure 4.3.4-31. Inventory Ordering Menu	4.3.4-56
Figure 4.3.4-32. Order Point Parameters Manager CHUI.....	4.3.4-57
Figure 4.3.4-33. Generate Order Point Recommendations CHUI.....	4.3.4-58
Figure 4.3.4-34. Recommended Orders Manager CHUI	4.3.4-59
Figure 4.3.4-35. Transfer Order Point Orders CHUI	4.3.4-60
Figure 4.3.4-36. Consumable Inventory Query CHUI	4.3.4-61
Figure 4.3.4-37. Spares Inventory Query CHUI	4.3.4-62
Figure 4.3.4-38. Transfer Consumable & Spare Mat'l CHUI	4.3.4-64
Figure 4.3.4-39. PO/Receiving Menu.....	4.3.4-66
Figure 4.3.4-40. Material Requisition Manager CHUI.....	4.3.4-67
Figure 4.3.4-41. Material Requisition Master CHUI.....	4.3.4-69
Figure 4.3.4-42. Purchase Order Entry CHUI.....	4.3.4-71
Figure 4.3.4-43. Items Page for Purchase Order Entry CHUI.....	4.3.4-73
Figure 4.3.4-44. Material Requisition Query CHUI.....	4.3.4-75
Figure 4.3.4-45. Purchase Order Modification CHUI	4.3.4-77
Figure 4.3.4-46. Items Page for Purchase Order Modification CHUI	4.3.4-79
Figure 4.3.4-47. Purchase Order Print CHUI.....	4.3.4-81
Figure 4.3.4-48. Purchase Order Status CHUI	4.3.4-83
Figure 4.3.4-49. Receipt Confirmation CHUI	4.3.4-85
Figure 4.3.4-50. Items Page for Receipt Confirmation CHUI.....	4.3.4-86
Figure 4.3.4-51. Print Receipt Reports CHUI	4.3.4-87
Figure 4.3.4-52. Purchase Order Processing CHUI	4.3.4-89
Figure 4.3.4-53. Vendor Master Manager CHUI.....	4.3.4-90
Figure 4.3.4-54. Address Page for Vendor Master Manager CHUI.....	4.3.4-91
Figure 4.3.4-55. Maintenance Menu	4.3.4-93
Figure 4.3.4-56. Work Order Entry CHUI.....	4.3.4-94

Figure 4.3.4-57. Work Order Modification (EDF) Screen.....	4.3.4-97
Figure 4.3.4-58. Chargeable Hours Page for Work Order Modification (EDF) CHUI.....	4.3.4-100
Figure 4.3.4-59. Items Page (Left) for Work Order Modification (EDF) CHUI (1 of 2)	4.3.4-101
Figure 4.3.4-60. Items Page (Right) for Work Order Modification (EDF) CHUI (2 of 2)	4.3.4-104
Figure 4.3.4-61. Preventative Maintenance Items CHUI	4.3.4-114
Figure 4.3.4-62. Generate PM Orders CHUI	4.3.4-115
Figure 4.3.4-63. Work Order Parts Replacement History CHUI.....	4.3.4-116
Figure 4.3.4-64. Maintenance Work Order Reports CHUI.....	4.3.4-117
Figure 4.3.4-65. Work Order Status Reports CHUI	4.3.4-118
Figure 4.3.4-66. Maintenance Codes CHUI	4.3.4-120
Figure 4.3.4-67. Maintenance Contracts CHUI.....	4.3.4-121
Figure 4.3.4-68. Authorized Employees CHUI.....	4.3.4-122
Figure 4.3.4-69. Work Order Line Item Query (Left page) CHUI	4.3.4-123
Figure 4.3.4-70. Work Order Line Item Query (Right Page) CHUI	4.3.4-124
Figure 4.3.4-71. License Menu	4.3.4-126
Figure 4.3.4-72. License Entitlement Manager (EDF) CHUI	4.3.4-127
Figure 4.3.4-73. Entitlement – Licenses Page CHUI	4.3.4-130
Figure 4.3.4-74. License Manager CHUI	4.3.4-132
Figure 4.3.4-75. License – Entitlements Page CHUI	4.3.4-135
Figure 4.3.4-76. License Allocations Page CHUI.....	4.3.4-137
Figure 4.3.4-77. License Allocation Additional Hosts CHUI.....	4.3.4-139
Figure 4.3.4-78. License Allocation Manager CHUI.....	4.3.4-141
Figure 4.3.4-79. Adjust License Quantities CHUI	4.3.4-142
Figure 4.3.4-80. ILM Master Menu	4.3.4-143
Figure 4.3.4-81. Employee Manager CHUI.....	4.3.4-144
Figure 4.3.4-82. Assembly Manager CHUI.....	4.3.4-146
Figure 4.3.4-83. System Parameters Manager CHUI.....	4.3.4-147

Figure 4.3.4-84. Inventory Location Manager CHUI.....	4.3.4-149
Figure 4.3.4-85. Buyer Manager CHUI	4.3.4-150
Figure 4.3.4-86. Hardware/Software Codes CHUI.....	4.3.4-151
Figure 4.3.4-87. Status Code Manager CHUI	4.3.4-152
Figure 4.3.4-88. Report Number CHUI.....	4.3.4-153
Figure 4.3.4-89. Export Inventory Data CHUI	4.3.4-154
Figure 4.3.4-90. DAAC Export Inventory CHUI	4.3.4-156
Figure 4.3.4-91. OEM Part Numbers Screen	4.3.4-157
Figure 4.3.4-92. Shipment Number Manager CHUI.....	4.3.4-159
Figure 4.3.4-93. Carriers CHUI.....	4.3.4-160
Figure 4.3.4-94. ILM Import Records CHUI.....	4.3.4-162
Figure 4.3.4-95. Sales/Purchase Terms Maintenance CHUI.....	4.3.4-163
Figure 4.3.4-96. Reason Code Maintenance CHUI	4.3.4-164
Figure 4.3.4-97. Site Codes for Scanned Data CHUI.....	4.3.4-165
Figure 4.3.4-98. Scanned Data CHUI	4.3.4-166
Figure 4.3.4-99. Process Scanned Data CHUI	4.3.4-167
Figure 4.3.4-100. Open Purchase Orders by PO Report.....	4.3.4-173
Figure 4.3.4-101. Open Purchase Orders by Part Report.....	4.3.4-174
Figure 4.3.4-102. Open Purchase Orders by Date Due Report.....	4.3.4-175
Figure 4.3.4-103. Open Purchase Orders by Vendor and Due Date Report	4.3.4-176
Figure 4.3.4-104. Purchase Order.....	4.3.4-177
Figure 4.3.4-105. Receiving Report.....	4.3.4-178
Figure 4.3.4-106. Receipts by Part Report	4.3.4-179
Figure 4.3.4-107. Receipts by Vendor Report.....	4.3.4-180
Figure 4.3.4-108. Receipt List by Part Report	4.3.4-181
Figure 4.3.4-109. ILM Inventory Report – by Location	4.3.4-182
Figure 4.3.4-110. ILM Costed Inventory Report – by Location.....	4.3.4-183
Figure 4.3.4-111. EIN Structure Report.....	4.3.4-184
Figure 4.3.4-112. Equipment Installation/Receipt Report by EIN Number	4.3.4-185

Figure 4.3.4-113. Equipment Installation Report by EIN Number.....	4.3.4-186
Figure 4.3.4-114. Installation Summary Report	4.3.4-187
Figure 4.3.4-115. EOSDIS Equipment Relocation Report	4.3.4-188
Figure 4.3.4-116. ECS Shipping Report	4.3.4-189
Figure 4.3.4-117. EOSDIS Equipment Transfer/Receipt Report	4.3.4-190
Figure 4.3.4-118. Receipts by Receipt Number Report.....	4.3.4-191
Figure 4.3.4-119. Receipts by EIN / Part Report.....	4.3.4-192
Figure 4.3.4-120. Transaction History by EIN Report	4.3.4-193
Figure 4.3.4-121. Transaction History for Spares Report.....	4.3.4-194
Figure 4.3.4-122. Transaction History for Consumables Report.....	4.3.4-195
Figure 4.3.4-123. Maintenance Work Order Report.....	4.3.4-196
Figure 4.3.4-124. Work Order History Report	4.3.4-197
Figure 4.3.4-125. Work Order Status Report	4.3.4-198
Figure 4.3.4-126. License Entitlements Status Report	4.3.4-199
Figure 4.3.4-127. License Allocations by Product Report.....	4.3.4-200
Figure 4.3.4-128. License Allocations by Host Report	4.3.4-201
Figure 4.3.5-1. T/Courier Main Screen	4.3.5-3
Figure 4.3.5-2. T/Courier Create Events Pop-up	4.3.5-4
Figure 4.3.5-3. T/Courier Create Policy Region Pop-up	4.3.5-5
Figure 4.3.5-4. T/Courier Operation Status display, Main Screen.....	4.3.5-6
Figure 4.3.5-5. T/Courier Properties Menu of Policy Region Pop-up	4.3.5-7
Figure 4.3.5-6. T/Courier Set Managed Resources Pop-up	4.3.5-8
Figure 4.3.5-7. T/Courier Create Menu of Policy Region Pop-up.....	4.3.5-9
Figure 4.3.5-8. T/Courier Create Profile Manager Pop-up	4.3.5-10
Figure 4.3.5-9. T/Courier Create Profile Manager Pop-up (showing new icon).....	4.3.5-10
Figure 4.3.5-10. T/Courier Create Menu of Profile Manager Pop-up.....	4.3.5-11
Figure 4.3.5-11. T/Courier Create Profile Pop-up.....	4.3.5-12
Figure 4.3.5-12. T/Courier Profile display of Profile Manager Pop-up.....	4.3.5-13
Figure 4.3.5-13. T/Courier File Package Properties Pop-up	4.3.5-14

Figure 4.3.5-14. T/Courier Edit Menu of File Package Properties Pop-up.....	4.3.5-16
Figure 4.3.5-15. T/Courier File Package UNIX Options Pop-up	4.3.5-17
Figure 4.3.5-16. T/Courier Profile Manager Menu of Profile Manager Pop-up	4.3.5-19
Figure 4.3.5-17. T/Courier Set Subscribers Pop-up	4.3.5-20
Figure 4.3.5-18. T/Courier Complete Profile Manager Pop-up.....	4.3.5-21
Figure 4.3.5-19. T/Courier Distribution Option of Profile Manager Pop-up.....	4.3.5-22
Figure 4.3.5-20. T/Courier Distribution Profiles Pop-up.....	4.3.5-23
Figure 4.3.5-21. T/Courier's Add Scheduled Job Screen	4.3.5-24
Figure 4.3.5-22. T/Courier Distribution Status of Main Screen.....	4.3.5-25
Figure 4.3.5-23. Contents of the logfile, Rel_B0_Tst_Log	4.3.5-26
Figure 4.3.5-24. T/Courier Clone Option of Profile Manager Pop-up.....	4.3.5-27
Figure 4.3.5-25. T/Courier Clone Profile Pop-up	4.3.5-28
Figure 4.3.5-26. T/Courier Profile Clone display of the Main Screen	4.3.5-29
Figure 4.3.5-27. Profile Manager (Remove from Hosts option) Screen.....	4.3.5-30
Figure 4.3.5-28. Remove File Package Screen	4.3.5-31
Figure 4.3.6-1. All Clients (lmstat -s) Report	4.3.6-7
Figure 4.3.6-2. License Information (lmstat -i) Report	4.3.6-8
Figure 4.3.6-3. All Activities (lmstat -a) Report	4.3.6-9
Figure 4.3.6-4. All Active Licenses (lmstat -A) Report	4.3.6-10
Figure 4.3.6-5. Users of Named Feature (lmstat -f) Report.....	4.3.6-11
Figure 4.3.6-6. Users of Named Vendor's Features (lmstat-S) Report.....	4.3.6-11
Figure 4.4.1-1. DCE Login Dialog	4.4.1-2
Figure 4.4.1-2. DCE Cell Manager Launcher	4.4.1-2
Figure 4.4.2-1. Example of TCP Wrappers Log.....	4.4.2-4
Figure 4.4.3-1. Xterm window of Crack startup message and initialization.....	4.4.3-3
Figure 4.4.4-1. Xterm window of SATAN showing startup message.....	4.4.4-2
Figure 4.4.4-2. SATAN web home page	4.4.4-3
Figure 4.4.5-1. Xterm Window with Tripwire Showing Tripwire Startup Message.....	4.4.5-4
Figure 4.4.5-2. Tripwire Report	4.4.5-6

Figure 4.4.6-1. Tivoli Main Screen.....	4.4.6-3
Figure 4.4.7-1. CMI Main Screen	4.4.7-2
Figure 4.5.1-1. SSI&T Manager Main Screen	4.5.1-8
Figure 4.5.1-2. SSI&T Manager Main Screen - Tools Menu	4.5.1-10
Figure 4.5.1-3. Xterm Unix Terminal Window.....	4.5.1-16
Figure 4.5.1-4. SSI&T Manager Main Screen with Code Analysis Tool Menu Displayed.....	4.5.1-17
Figure 4.5.1-5. SSI&T Manager Main Screen with Office Automation tool menu displayed	4.5.1-18
Figure 4.5.1-6. GhostView Main Screen	4.5.1-20
Figure 4.5.1-7. Acrobat Main Screen	4.5.1-21
Figure 4.5.1-8. SSI&T Manager, Tools Menu, Standards Checker Submenu Choices	4.5.1-22
Figure 4.5.1-9. FORCHECK Program Running in an Xterm Window	4.5.1-23
Figure 4.5.1-10. Prohibited Function Checker Pop-up	4.5.1-25
Figure 4.5.1-11. File Selector Pop-up	4.5.1-27
Figure 4.5.1-12. Source Code Pop-up.....	4.5.1-29
Figure 4.5.1-13. Report Pop-up	4.5.1-30
Figure 4.5.1-14. PCF Checker Pop-up	4.5.1-31
Figure 4.5.1-15. PCF Checker Results Pop-up.....	4.5.1-33
Figure 4.5.1-16. The PCF Checker Save Pop-up	4.5.1-34
Figure 4.5.1-17. The Pop-up Display for Filtering Files from the Save Pop-up.....	4.5.1-35
Figure 4.5.1-18. The Help on PCF Checker Results Pop-up.....	4.5.1-36
Figure 4.5.1-19. SSI&T Manager Main Screen with Product Examination Tools Displayed	4.5.1-38
Figure 4.5.1-20. Binary File Comparison Pop-up.....	4.5.1-40
Figure 4.5.1-21. HDF Pop-up	4.5.1-42
Figure 4.5.1-22. File Selection Dialogue Pop-up.....	4.5.1-43
Figure 4.5.1-23. Tolerance Editor Pop-up.....	4.5.1-44
Figure 4.5.1-24. HDF (hdif) options	4.5.1-45
Figure 4.5.1-25. SSI&T Manager Main Screen with Text Editors tool menu displayed....	4.5.1-46

Figure 4.5.1-26. Emacs Pop-up	4.5.1-47
Figure 4.5.1-27. Xedit Pop-up.....	4.5.1-48
Figure 4.5.1-28. SSI&T Manager with PDPS Database Tool Menu Displayed.....	4.5.1-49
Figure 4.5.1-29. PDPS/SSI&T Database Operational Metadata Update Pop-up – Showing the SELECT Tab	4.5.1-54
Figure 4.5.1-30. PDPS/SSI&T Database Operational Metadata Update Pop-up - showing the PROFILE Tab.....	4.5.1-56
Figure 4.5.1-31. PDPS/SSI&T Database Operational Metadata Update Pop-up Showing the Runtime Tab	4.5.1-59
Figure 4.5.1-32. PDPS/SSI&T Database Operational Metadata Update Pop-up - showing the ESDT Tab	4.5.1-61
Figure 4.5.1-33. PDPS/SSI&T Database Operational Metadata Update Pop-up - Display Screen	4.5.1-62
Figure 4.5.1-34. SSI&T Manager, Tools Menu, Data Server Submenu Choices.....	4.5.1-63
Figure 4.5.1-35. SSAP Editor Main Pop-up	4.5.1-71
Figure 4.5.1-36. Input File Selection Pop-up	4.5.1-72
Figure 4.5.1-37. New SSAP Window.....	4.5.1-73
Figure 4.5.1-38. File List Pop-up	4.5.1-75
Figure 4.5.1-39. Metadata Pop-up.....	4.5.1-77
Figure 4.5.1-40. Associated Collections Pop-up	4.5.1-79
Figure 4.5.1-41. SSI&T Manager Help Index	4.5.1-81
Figure 4.6.1-1. Ingest Main Screen Shown in the Ingest Intro Tab	4.6.1-3
Figure 4.6.1-2. Ingest History Log Tab	4.6.1-5
Figure 4.6.1-3. Ingest Monitor/Control Tab (Graphical View)	4.6.1-7
Figure 4.6.1-4. Ingest Monitor/Control Tab (Text View).....	4.6.1-8
Figure 4.6.1-5. Operator Tools - External Data Provider/User Information Subtab.....	4.6.1-11
Figure 4.6.1-6. Update Notify Parameters Pop-up.....	4.6.1-13
Figure 4.6.1-7. Operator Tools - Modify System Parameters Subtab.....	4.6.1-15
Figure 4.6.1-8. Operator Tools - File Transfer Subtab.....	4.6.1-17
Figure 4.6.1-9. Ingest Media Tab (Without Stacker ID)	4.6.1-19

Figure 4.6.1-10. Ingest Media Tab Requiring Stackers.....	4.6.1-20
Figure 4.6.1-11. Sample Ingest Request History Report	4.6.1-24
Figure 4.6.1-12. Sample Ingest Request Performance Report	4.6.1-24
Figure 4.6.1-13. Sample Ingest Granule Performance Report	4.6.1-25
Figure 4.7.1-1. Resource Scheduler GUI	4.7.1-3
Figure 4.7.1-2. Resource Reservation Request Edit/Definition GUI.....	4.7.1-5
Figure 4.7.1-3. Resources Selection GUI	4.7.1-7
Figure 4.7.1-4. Intervals Selection GUI	4.7.1-8
Figure 4.7.1-5. Resource Reservation Planning Master Timeline GUI	4.7.1-9
Figure 4.7.1-6. Report Generator GUI (Future Release)	4.7.1-10
Figure 4.7.1-7. Resource Editor GUI.....	4.7.1-11
Figure 4.7.1-8. Hardware Details GUI	4.7.1-12
Figure 4.7.1-9. Disk Details GUIs	4.7.1-13
Figure 4.7.1-10. Virtual Computer Details GUIs.....	4.7.1-14
Figure 4.7.1-11. String Details GUIs	4.7.1-15
Figure 4.7.1-12. Real Computer Details GUIs.....	4.7.1-16
Figure 4.7.1-13. Autosys Details GUIs.....	4.7.1-17
Figure 4.8.1-1. Production Request Editor GUI Showing the Planning Tab.....	4.8.1-2
Figure 4.8.1-2. PR List Tab.....	4.8.1-4
Figure 4.8.1-3. PR Edit Tab.....	4.8.1-6
Figure 4.8.1-4. File Selection Pop-up.....	4.8.1-8
Figure 4.8.1-5. PGE Selection Pop-up	4.8.1-12
Figure 4.8.1-6. PGE Parameter Mappings Pop-up.....	4.8.1-14
Figure 4.8.1-7. MetaData Checks Pop-up	4.8.1-16
Figure 4.8.1-8. AlternateInputValues Pop-up.....	4.8.1-18
Figure 4.8.1-9. DPR List Tab.....	4.8.1-20
Figure 4.8.1-10. DPR View Tab.....	4.8.1-22
Figure 4.8.1-11. File Mappings Pop-up	4.8.1-25
Figure 4.8.2-1. Production Planning Workbench GUI.....	4.8.2-3

Figure 4.8.2-2. Planning Master Timeline GUI.....	4.8.2-6
Figure 4.8.3-1. Production Strategies Main Screen	4.8.3-2
Figure 4.8.3-2. Open Production Strategies Pop-up	4.8.3-5
Figure 4.8.3-3. Active Production Strategy Screen.....	4.8.3-6
Figure 4.9.1-1. AutoSys GUI Control Panel.....	4.9.1-5
Figure 4.9.1-2. AutoSys autorep job report	4.9.1-12
Figure 4.9.1-3. AutoSys autorep job report - all.....	4.9.1-13
Figure 4.9.2-1. QA Monitor Tool Main Screen	4.9.2-3
Figure 4.9.2-2. Granule Parameters Dialog	4.9.2-6
Figure 4.9.2-3. Update Metadata Dialog.....	4.9.2-7
Figure 4.9.2-4. Visualize Data Tab Stack.....	4.9.2-9
Figure 4.9.2-5. Print Options Dialog.....	4.9.2-10
Figure 4.10.1-1. Science Data Server GUI Shown with Default Data Types Tab	4.10.1-2
Figure 4.10.1-2. Science Data Server - Server Polling Options.....	4.10.1-3
Figure 4.10.1-3. Science Data Server - Descriptor Information Dialog	4.10.1-5
Figure 4.10.1-4. Science Data Server - Add Data Type Dialog	4.10.1-6
Figure 4.10.1-5. Science Data Server - Update Data Type Dialog.....	4.10.1-6
Figure 4.10.1-6. System Management Requests Window.....	4.10.1-8
Figure 4.10.1-7. System Management Filter Requests Dialog	4.10.1-10
Figure 4.10.2-1. Storage Management Server Main Screen with the Default Storage Configuration Tab Displayed.....	4.10.2-3
Figure 4.10.2-2. Service Thread Configuration Window.....	4.10.2-5
Figure 4.10.2-3. Request Manager Configuration Window.....	4.10.2-6
Figure 4.10.2-4. Staging Disk Server Configuration Window	4.10.2-8
Figure 4.10.2-5. Cache Manager Server Configuration Window.....	4.10.2-10
Figure 4.10.2-6. FTP Server Configuration Window.....	4.10.2-14
Figure 4.10.2-7. Media Server Configuration Window (Stacker-based)	4.10.2-16
Figure 4.10.2-8. Stacker Configuration Window.....	4.10.2-20
Figure 4.10.2-9. Stacker Device Configuration Window	4.10.2-22

Figure 4.10.2-10. Media Server Configuration Window (Standalone-based).....	4.10.2-24
Figure 4.10.2-11. Standalone Device Configuration Window	4.10.2-27
Figure 4.10.2-12. Archive Server Configuration Window	4.10.2-28
Figure 4.10.2-13. Volume Group Configuration Tab.....	4.10.2-31
Figure 4.10.2-14. Add Volume Group Pop-up	4.10.2-33
Figure 4.10.2-15. Modify Volume Group Pop-up	4.10.2-35
Figure 4.10.2-16. Volume Group History Pop-up	4.10.2-38
Figure 4.10.2-17. Volume Group Compression Factor Statistics Pop-up.....	4.10.2-40
Figure 4.10.2-18. Resource Management Tab	4.10.2-42
Figure 4.10.2-19. Manage Stackers Pop-up.....	4.10.2-44
Figure 4.10.2-20. Load Media Set Pop-up	4.10.2-46
Figure 4.10.2-21. Manage Media Sets Pop-up.....	4.10.2-47
Figure 4.10.2-22. Add/Modify Media Set Pop-up.....	4.10.2-48
Figure 4.10.2-23. Cache Stats. Tab	4.10.2-50
Figure 4.10.2-24. Storage Events Tab	4.10.2-52
Figure 4.10.2-25. Request Status Tab	4.10.2-54
Figure 4.10.2-26. Restart Backup Pop-up.....	4.10.2-56
Figure 4.10.2-27. Change Priority Pop-up.....	4.10.2-57
Figure 4.10.2-28. Polling Rate Selection Pop-up.....	4.10.2-58
Figure 4.10.3-1. Data Distribution Main Screen showing Data Distribution Request Tab... .	4.10.3-2
Figure 4.10.3-2. Refresh Options Window	4.10.3-6
Figure 4.10.3-3. Data Distribution - Filter Requests Dialog.....	4.10.3-8
Figure 4.10.3-4. System Requests Tab	4.10.3-10
Figure 4.10.3-5. Tape Id Tab	4.10.3-11
Figure 4.10.3-6. Preamble Editor Tab	4.10.3-13
Figure 4.10.3-7. Event Logging Tab.....	4.10.3-15
Figure 4.10.5-1. PDS Main Screen at Startup.....	4.10.5-2
Figure 4.10.5-2. Selection Criteria Screen.....	4.10.5-3
Figure 4.10.5-3. Querying Database Screen.....	4.10.5-4

Figure 4.10.5-4. PDSMI Maintenance Main Screen.....	4.10.5-6
Figure 4.10.5-5. Job Monitor Main Screen.....	4.10.5-9
Figure 4.11.1-1. User Account Manager Main Screen.....	4.11.1-3
Figure 4.11.1-2. Request Account Tab with Edited Areas Highlighted.....	4.11.1-4
Figure 4.11.1-3. Mailing Address Subtab	4.11.1-6
Figure 4.11.1-4. Account Information Subtab	4.11.1-8
Figure 4.11.1-5. Print Dialog Popup When Account Created.....	4.11.1-9
Figure 4.11.1-6. Profile Account Tab.....	4.11.1-11
Figure 4.11.1-7. Apply Edit Dialogue Popup	4.11.1-12
Figure 4.11.1-8. View Entire Profile Screen	4.11.1-13
Figure 4.11.1-9. Profile Account with Edited Areas Highlighted.....	4.11.1-14
Figure 4.11.1-10. DAR Information Subtab	4.11.1-16
Figure 4.11.2-1. ECS Data Order Tracking	4.11.2-3
Figure 4.11.2-2. Verify User Selection GUI.....	4.11.2-6
Figure 4.11.2-3. Shipping Information GUI.....	4.11.2-7
Figure 4.11.3-1. Data Dictionary Maintenance Main Screen Showing the Modify Data Tab.....	4.11.3-2
Figure 4.11.3-2. Database List (Attributes) Screen.....	4.11.3-4
Figure 4.11.3-3. Modify Data Tab with Attribute List	4.11.3-5
Figure 4.11.3-4. Attribute Editor Screen.....	4.11.3-6
Figure 4.11.3-5. Import Valid File Tab.....	4.11.3-7
Figure 4.11.3-6. File Select Pop-up.....	4.11.3-10
Figure 4.11.3.7. Map Attributes/Keywords Tab.....	4.11.3-11
Figure 4.11.3-8. Export Valid File Tab.....	4.11.3-14
Figure 4.12.1-1. Example of CDE Window Manager Support Features.....	4.12.1-2
Figure 4.12.3-1. Netscape Communicator: Browser with Display Field	4.12.3-3
Figure 4.12.3-2. Netscape Communicator: EDHS Home Page.....	4.12.3-4
Figure 4.12.4-1. Netscape Server Selector Screen	4.12.4-7
Figure 4.12.4-2. Netscape Server Admin Help.....	4.12.4-8

Figure 4.12.5-1. EOSView Main Screen	4.12.5-3
Figure 4.12.5-2. File Selection Dialog	4.12.5-4
Figure 4.12.5-3. EOSView File Contents Pop-up.....	4.12.5-6
Figure 4.12.5-4. Multi-Dimension SDS Pop-up.....	4.12.5-7
Figure 4.12.5-5. Dimension Information Pop-up.....	4.12.5-9
Figure 4.12.5-6. EOSView “sol_azimuth” Table Pop-up.....	4.12.5-11
Figure 4.12.5-7. EOSView Contour Plot Pop-up	4.12.5-12
Figure 4.12.5-8. Contour/Surface Data Range Pop-up	4.12.5-13
Figure 4.12.5-9. Contour/Surface Data Value Pop-up	4.12.5-14
Figure 4.12.5-10. Contour/Surface Min/Max Range Pop-up	4.12.5-15
Figure 4.12.5-11. EOSView Stats Pop-up	4.12.5-16
Figure 4.12.5-12. Jump To Dialog	4.12.5-17
Figure 4.12.5-13. File Save Dialog.....	4.12.5-18
Figure 4.12.5-14. Min/Max Values Pop-up	4.12.5-19
Figure 4.12.5-15. “sol_azimuth” Image Display Pop-up	4.12.5-21
Figure 4.12.5-16. Lat/Lon Symbol Pop-up	4.12.5-23
Figure 4.12.5-17. X-Y Cursor Pop-up	4.12.5-24
Figure 4.12.5-18. Scanline Cursor Pop-up.....	4.12.5-25
Figure 4.12.5-19. File Contents Pop-up Containing Vdata.....	4.12.5-26
Figure 4.12.5-20. EOSView - Vdata Field Select Pop-up	4.12.5-26
Figure 4.12.5-21. Table containing Vdata field Pop-up.....	4.12.5-27
Figure 4.12.5-22. Plot Pop-up.....	4.12.5-28
Figure 4.12.5-23. File Contents Pop-up containing Vgroups.....	4.12.5-29
Figure 4.12.5-24. File Contents Pop-up containing Raster Images	4.12.5-30
Figure 4.12.5-25. Raster Image Pop-up	4.12.5-31
Figure 4.12.5-26. Grid File Contents Display Pop-up.....	4.12.5-32
Figure 4.12.5-27. Grid Select Pop-up	4.12.5-32
Figure 4.12.5-28. Grid Information Dialog Pop-up.....	4.12.5-33
Figure 4.12.5-29. Projection Information Pop-up.....	4.12.5-34

Figure 4.12.5-30. Grid Dimensions Pop-up	4.12.5-35
Figure 4.12.5-31. Grid Data Fields Pop-up.....	4.12.5-36
Figure 4.12.5-32. Start/Stride/Edge Pop-up.....	4.12.5-36
Figure 4.12.5-33. Warning Dialog	4.12.5-37
Figure 4.12.5-34. Attributes Text Display Pop-up	4.12.5-38
Figure 4.12.5-35. SwathFile File Select Pop-up.....	4.12.5-38
Figure 4.12.5-36. Swath Selection Pop-up.....	4.12.5-39
Figure 4.12.5-37. Swath Geolocation Mappings Pop-up.....	4.12.5-40
Figure 4.12.5-38. Swath Indexed Mappings Pop-up	4.12.5-40
Figure 4.12.5-39. Index Mapping Sizes Pop-up.....	4.12.5-41
Figure 4.12.5-40. Swath Geolocation Fields Pop-up	4.12.5-42
Figure 4.12.5-41. PointFile File Contents Pop-up	4.12.5-43
Figure 4.12.5-42. Point Select Pop-up.....	4.12.5-43
Figure 4.12.5-43. Point File Level Information Pop-up	4.12.5-44
Figure 4.12.5-44. Vdata Table Pop-up.....	4.12.5-45
Figure 4.12.5-45. File Information Dialog	4.12.5-46
Figure 4.12.5-46. Animation Window Pop-up	4.12.5-47
Figure 4.12.5-47. EOSView Main Screen Showing Window Pulldown Menu.....	4.12.5-48
Figure 4.12.5-48. Text Display Pop-up.....	4.12.5-49
Figure 4.12.5-49. EOSView On Help Pop-up	4.12.5-50
Figure 4.12.5-50. Help On Contents Pop-up	4.12.5-52
Figure 4.12.5-51. Help On Index Pop-up	4.12.5-53
Figure 4.12.5-52. Help On Version Dialog.....	4.12.5-53
Figure 4.12.6-1. ODFRM Home Page.....	4.12.6-2
Figure 4.12.6-2. ASTER Product Request Selection Page	4.12.6-3
Figure 4.12.6-3. ASTER Product Request Selection Page Using Attached DPR.....	4.12.6-4
Figure 4.12.6-4. AST_L1B (non-standard) Product Request Page	4.12.6-5
Figure 4.12.6-5. AST_05 Product Request Page.....	4.12.6-7
Figure 4.12.6-6. AST_08 Product Request Page.....	4.12.6-9

Figure 4.12.6-7. AST_06V Product Request Page.....	4.12.6-10
Figure 4.12.6-8. AST_06S Product Request Page	4.12.6-11
Figure 4.12.6-9. AST_06T Product Request Page	4.12.6-12
Figure 4.12.6-10. AST_07 Product Request Page	4.12.6-13
Figure 4.12.6-11. AST_09 Product Request Page	4.12.6-14
Figure 4.12.6-12. AST_09T Product Request Page.....	4.12.6-16
Figure 4.12.6-13. AST14DEM Product Request Page.....	4.12.6-18
Figure 4.12.6-14. GCP for Absolute DEM (Coordinates Lat/Long- Deg, Min, Sec)	4.12.6-19
Figure 4.12.6-15. GCP for Absolute DEM (Coordinates UTM Zone-Row, Northing-Easting).....	4.12.6-20
Figure 4.12.6-16. Media Options.....	4.12.6-21
Figure 4.12.6-17. FtpPush Information	4.12.6-22
Figure 4.12.6-18. Shipping Information.....	4.12.6-23
Figure 4.12.6-19. Example: Product Request Confirmation Page.....	4.12.6-24
Figure 4.12.7-1. Subscription Server GUI – subscriptions Tab.....	4.12.7-3
Figure 4.12.7-2. Subscription Server GUI Main Screen – events Tab.....	4.12.7-5
Figure 4.12.7-3. Add/Edit Subscription Screen.....	4.12.7-6
Figure 4.12.7-4. Browse Event Screen	4.12.7-7
Figure 4.12.7-5. Actions Screen.....	4.12.7-9
Figure 4.12.7-6. Qualifiers Screen	4.12.7-11
Figure 4.12.7-7. Filter Subscription Screen.....	4.12.7-12
Figure 4.12.7-8. Delete Subscriptions Dialog.....	4.12.7-13
Figure 4.12.8-1. Java DAR Tool Login screen.....	4.12.8-5
Figure 4.12.8-2. JDT Splashscreen.....	4.12.8-5
Figure 4.12.8-3. JDT Main Screen with Default Organizer Tab Selected.....	4.12.8-6
Figure 4.12.8-4. Create/Edit DAR Tab of JDT Main Screen.....	4.12.8-8
Figure 4.12.8-5. General Subtab within Create/Edit DAR Tab	4.12.8-10
Figure 4.12.8-6. Spatial Subtab within the Create/Edit DAR Tab	4.12.8-12
Figure 4.12.8-7. Temporal Subtab within the Create/Edit DAR Tab.....	4.12.8-13

Figure 4.12.8-8. Coverage Subtab within the Create/Edit DAR Tab	4.12.8-15
Figure 4.12.8-9. Geometry Subtab of the Create/Edit DAR Tab.....	4.12.8-17
Figure 4.12.8-10. Look Angle and Sun Angle Range Components on the Geometry Subtab	4.12.8-18
Figure 4.12.8-11. Specific Look Angle Component on the Geometry Subtab.....	4.12.8-19
Figure 4.12.8-12. Preset Look Angle Component on the Geometry Subtab	4.12.8-20
Figure 4.12.8-13. Priority Subtab Within the Create/Edit DAR Tab	4.12.8-22
Figure 4.12.8-14. Search by xAR ID Subtab	4.12.8-23
Figure 4.12.8-15. Search By Attributes Subtab.....	4.12.8-25
Figure 4.12.8-16. General Subtab.....	4.12.8-26
Figure 4.12.8-17. Spatial Subtab	4.12.8-28
Figure 4.12.8-18. Temporal Subtab.....	4.12.8-29
Figure 4.12.8-19. Coverage Subtab.....	4.12.8-30
Figure 4.12.8-20. Geometry Subtab	4.12.8-32
Figure 4.12.8-21. Priority Subtab	4.12.8-34
Figure 4.12.8-22. Inspect Results Tab.....	4.12.8-35
Figure 4.12.8-23. Acquired Scenes Textual Dialog	4.12.8-36
Figure 4.12.8-24. Acquired Scenes Graphical Dialog.....	4.12.8-42
Figure 4.12.8-25. AOI/AOS Dialog	4.12.8-44
Figure 4.12.9-1. ESOD Advertising Home Page	4.12.9-2
Figure 4.12.9-2. ESOD New Advertisement Page	4.12.9-4
Figure 4.12.9-3. ESOD Search All Page.....	4.12.9-5
Figure 4.12.9-4. Data Entries Only Page	4.12.9-7
Figure 4.12.9-5. Examples Screen	4.12.9-9
Figure 4.12.9-6. Help Screen	4.12.9-10

Tables

Table 4.1.1-1. Common ECS Operator Functions Performed with NetWorker	4.1.1-1
Table 4.1.3-1. Common ECS Operator Functions Performed with AMASS	4.1.3-3

Table 4.1.3-2. Amassreport Column Headings	4.1.3-10
Table 4.1.3-3. Amassreport Report Types.....	4.1.3-10
Table 4.1.4-1. Common ECS Operator Functions Performed with ISQL	4.1.4-1
Table 4.1.9-1. Common Tasks Performed with ECS Assist.....	4.1.9-1
Table 4.1.9-2. ECS Assist Options and Field Descriptions	4.1.9-3
Table 4.1.9-3. ECSAssist Subsystem Manager Toolbar	4.1.9-5
Table 4.1.9-4. Database Parameter File Selection Field Descriptions	4.1.9-7
Table 4.1.9-5. ECS Assist Subsystem Manager’s “database” Field Descriptions	4.1.9-8
Table 4.1.9-6. ECS Assist Subsystem Manager’s “database script parameters” Screen Field Descriptions.....	4.1.9-9
Table 4.1.9-7. ECS Assist Subsystem Manager Install Field Descriptions	4.1.9-11
Table 4.1.9-8. Configuration File Selection Window Field Description	4.1.9-12
Table 4.1.9-9. ECS Assist Subsystem Manager “Configuration” Field Descriptions	4.1.9-13
Table 4.1.9-10. ECS Assist Subsystem Manager’s monitor Field Descriptions.....	4.1.9-14
Table 4.1.9-11. ECS Assist Subsystem Manager stageinstall Field Descriptions.....	4.1.9-15
Table 4.1.9-12. ECS Assist Subsystem Manager’s task output Field Descriptions	4.1.9-17
Table 4.1.9-13. ESDT Manager Window Field Descriptions	4.1.9-19
Table 4.1.9-14. ECS Assist E.A.S.I Installation Source Field Descriptions	4.1.9-21
Table 4.1.9-15. ECS Assist E.A.S.I Phase Selection Window Field Descriptions.....	4.1.9-22
Table 4.1.9-16. ECS Assist E.A.S.I Installation Parameters Window Field Descriptions.....	4.1.9-23
Table 4.1.9-17. ECS Assist E.A.S.I Database Operations Window Field Descriptions	4.1.9-24
Table 4.1.9-18. ECS Assist E.A.S.I Installation Confirmation Window Field Descriptions.....	4.1.9-26
Table 4.1.9-19. ECS Assist E.A.S.I. STATUS Window Field Descriptions.....	4.1.9-27
Table 4.1.10-1. Common ECS Operator Functions Done Using the Registry GUI.....	4.1.10-1
Table 4.1.10-2. Registry GUI Database Login Fields.....	4.1.10-2
Table 4.1.10-3. Information, Control, and Data Entry Fields on the ECS Registry GUI Main Window.....	4.1.10-4

Table 4.1.10-4. Adding a New Node Field Descriptions	4.1.10-6
Table 4.1.10-5. Map a Mode to an Attribute Tree.....	4.1.10-8
Table 4.1.10-6. Creating a New Attribute Tree by Copy	4.1.10-12
Table 4.1.10-7. Move Preparation Field Definitions	4.1.10-17
Table 4.1.10-8. Move Confirmation Window Fields.....	4.1.10-18
Table 4.1.10-9. Rename Attribute Tree	4.1.10-22
Table 4.1.10-10. Delete Node.....	4.1.10-26
Table 4.1.10-11. Fields in the Delete Attribute Dialog	4.1.10-28
Table 4.1.10-12. Attribute Information Window Fields	4.1.10-29
Table 4.1.10-13. Fields in the “Create a new attribute tree” Dialog Box	4.1.10-34
Table 4.1.10-14. Attribute Historical Data Fields for Views 1 and 2	4.1.10-37
Table 4.1.10-15. Reason for change	4.1.10-39
Table 4.2.1-1. Common ECS Operator Functions Performed with HP OpenView	4.2.1-1
Table 4.2.1-2. Event Categories Selection Fields Description.....	4.2.1-5
Table 4.2.1-3. HP OpenView Grapher Field Description.....	4.2.1-6
Table 4.2.2-1. Common ECS Operating Functions Performed with Tivoli	4.2.2-1
Table 4.2.2-2. Interface Protocols	4.2.2-13
Table 4.2.3-1. Common ECS Operating Functions Performed with Remedy’s Action Request System	4.2.3-2
Table 4.2.3-2. RelB-Trouble Tickets Field Descriptions	4.2.3-8
Table 4.2.3-3. User Schema Field Descriptions	4.2.3-12
Table 4.2.3-4. Contact Log Schema Field Descriptions.....	4.2.3-14
Table 4.2.3-5. Hardware Information Schema Field Descriptions	4.2.3-16
Table 4.2.3-6. RelB-Menu-Closing Codes Field Descriptions.....	4.2.3-20
Table 4.2.3-7. RelB-Menu-Hardware Resources Schema Field Descriptions	4.2.3-21
Table 4.2.3-8. RelB-Menu-Key Words Schema Field Descriptions.....	4.2.3-23
Table 4.2.3-9. RelB-Menu-Problem Type Schema Field Descriptions.....	4.2.3-25
Table 4.2.3-10. RelB-Menu-Software Resources Schema Field Descriptions	4.2.3-26
Table 4.2.3-11. RelB-TT-Sites Schema Field Descriptions	4.2.3-28

Table 4.2.3-12. RelB-TT-Times Schema Field Descriptions	4.2.3-29
Table 4.2.3-13. Admin Tool GUI, Category Menu Options Descriptions.....	4.2.3-31
Table 4.2.3-14. Notification Field Descriptions.....	4.2.3-32
Table 4.2.3-15. Import Field Descriptions.....	4.2.3-34
Table 4.2.3-16. Trouble Ticket HTML Submit Screen Field Descriptions	4.2.3-37
Table 4.2.3-17. Trouble Ticket HTML List Field Descriptions	4.2.3-40
Table 4.2.3-18. Trouble Ticket HTML Detailed Field Descriptions	4.2.3-42
Table 4.2.3-19. External Interface Protocols	4.2.3-42
Table 4.2.3-20. Remedy Log File Messages Example	4.2.3-43
Table 4.2.3-21. Non-Failure Related Error Messages.....	4.2.3-44
Table 4.2.3-22. Reports.....	4.2.3-45
Table 4.3.1-1. Common Operator Functions Performed with ClearCase	4.3.1-1
Table 4.3.2-1. Common ECS Operator Functions Performed with CDDTS	4.3.2-1
Table 4.3.2-2. Submit Record Fields Descriptions	4.3.2-5
Table 4.3.2-3. Assign-Eval Fields Descriptions	4.3.2-11
Table 4.3.2-4. Assign-Implement Fields Descriptions	4.3.2-14
Table 4.3.2-5. Assign-Verify Fields Descriptions	4.3.2-16
Table 4.3.2-6. Verify State Fields Descriptions.....	4.3.2-17
Table 4.3.2-7. Close State Fields Descriptions.....	4.3.2-18
Table 4.3.3-1. Common ECS Operator Functions Performed with XRP-II	4.3.3-2
Table 4.3.3-2. All Control Items Field Description	4.3.3-12
Table 4.3.3-3. Hardware Items Only Field Description.....	4.3.3-15
Table 4.3.3-4. Software Items Only Field Description.....	4.3.3-17
Table 4.3.3-5. Host Items Only Field Description	4.3.3-18
Table 4.3.3-6. Document Items Only Field Descriptions	4.3.3-20
Table 4.3.3-7. Partition Items Only Field Descriptions	4.3.3-21
Table 4.3.3-8. Engineering Change Entry Field Descriptions	4.3.3-25
Table 4.3.3-9. Engineering Change Approval Field Descriptions	4.3.3-28
Table 4.3.3-10. Replace Component in Selected Bills	4.3.3-32

Table 4.3.3-11. Configuration Items List - Level One Field Descriptions	4.3.3-36
Table 4.3.3-12. Site Baseline Reports Field Descriptions	4.3.3-39
Table 4.3.3-13. Change History Reports Field Descriptions.....	4.3.3-41
Table 4.3.3-14. BOM Comparison Reports Field Descriptions.....	4.3.3-42
Table 4.3.3-15. Hardware/Software/Patch Map Reports Field Descriptions	4.3.3-43
Table 4.3.3-16. Software Baseline Reports Field Descriptions	4.3.3-45
Table 4.3.3-17. Site - Host Maps Field Descriptions.....	4.3.3-47
Table 4.3.3-18. Baselined Documents Reports Field Descriptions	4.3.3-48
Table 4.3.3-19. Vendor Master Manager Field Descriptions	4.3.3-51
Table 4.3.3-20. Vendor Address Maintenance Field Description	4.3.3-52
Table 4.3.3-21. Control Item Interdependency Maintenance Field Descriptions.....	4.3.3-53
Table 4.3.3-22. Implementation Status Field Descriptions	4.3.3-55
Table 4.3.3-23. Responsible Organization Field Descriptions	4.3.3-58
Table 4.3.3-24. Item Class Manager Field Descriptions	4.3.3-59
Table 4.3.3-25. Function Manager Field Descriptions	4.3.3-60
Table 4.3.3-26. Clone Manager	4.3.3-63
Table 4.3.3-27. System Parameters Manager Field Descriptions	4.3.3-67
Table 4.3.3-28. Transaction Log Field Descriptions	4.3.3-69
Table 4.3.3-29. Transaction Archive CHUI Field Descriptions.....	4.3.3-70
Table 4.3.3-30. Site Master Manager Field Descriptions	4.3.3-71
Table 4.3.3-31. Machine Network Maintenance Field Descriptions.....	4.3.3-72
Table 4.3.3-32. Commodity Code Maintenance Field Descriptions	4.3.3-73
Table 4.3.3-33. Export Release Records Field Descriptions	4.3.3-76
Table 4.3.3-34. Export Site-Unique Change Records Field Descriptions	4.3.3-78
Table 4.3.3-35. Export SMC Change Records Field Descriptions	4.3.3-80
Table 4.3.3-36. Index of System/Database Administration Functions	4.3.3-82
Table 4.3.3-37. Screen Manager Field Descriptions.....	4.3.3-83
Table 4.3.3-38. User Manager Field Descriptions.....	4.3.3-85
Table 4.3.3-39. Groups Manager Field Descriptions.....	4.3.3-87

Table 4.3.3-40. Screen Permission Control Field Descriptions.....	4.3.3-89
Table 4.3.3-41. Menu Manager Field Descriptions.....	4.3.3-90
Table 4.3.3-42. Data Dump Utility Field Descriptions	4.3.3-92
Table 4.3.3-43. Data Load Utility Field Descriptions	4.3.3-94
Table 4.3.3-44. Outputs.....	4.3.3-100
Table 4.3.3-45. Reports	4.3.3-102
Table 4.3.4-1. Common ECS Operator Functions Performed with ILM	4.3.4-3
Table 4.3.4-2. XRP-II's Bottom Line Commands for ILM	4.3.4-6
Table 4.3.4-3. EIN Entry Field Descriptions	4.3.4-15
Table 4.3.4-4. EIN Manager (EDF) Field Description	4.3.4-19
Table 4.3.4-5. EIN Structure Manager (EDF) Field Descriptions	4.3.4-22
Table 4.3.4-6. Items Page for EIN Structure Manager (EDF) Field Descriptions	4.3.4-24
Table 4.3.4-7. EIN Inventory Query Field Descriptions.....	4.3.4-26
Table 4.3.4-8. EIN Installation Field Descriptions	4.3.4-29
Table 4.3.4-9. EIN Installation Items Page Field Descriptions.....	4.3.4-30
Table 4.3.4-10. EIN Shipment Field Descriptions	4.3.4-32
Table 4.3.4-11. Carton Size Page for EIN Shipment Field Descriptions	4.3.4-34
Table 4.3.4-12. Items Page for EIN Shipment Field Descriptions.....	4.3.4-35
Table 4.3.4-13. Items Structure Page for EIN Shipment Field Descriptions	4.3.4-36
Table 4.3.4-14. EIN Transfer Field Descriptions.....	4.3.4-38
Table 4.3.4-15. EIN Archive Field Descriptions	4.3.4-39
Table 4.3.4-16. Items Page for EIN Archive Field Descriptions.....	4.3.4-41
Table 4.3.4-17. EIN Relocation Field Descriptions	4.3.4-42
Table 4.3.4-18. Items Page for EIN Relocation Field Descriptions	4.3.4-44
Table 4.3.4-19. Inventory Transactions Query Field Descriptions	4.3.4-45
Table 4.3.4-20. ILM Inventory Reports (EDF) Field Descriptions.....	4.3.4-48
Table 4.3.4-21. EIN Structure Reports Field Descriptions	4.3.4-50
Table 4.3.4-22. Install/Receipt Report Field Descriptions	4.3.4-51
Table 4.3.4-23. EIN Shipment Reports Field Descriptions.....	4.3.4-52

Table 4.3.4-24. Transaction History Reports Field Descriptions	4.3.4-53
Table 4.3.4-25. PO Receipt Reports Field Descriptions	4.3.4-54
Table 4.3.4-26. Installation Summary Reports Field Descriptions	4.3.4-55
Table 4.3.4-27. Order Point Parameters Manager Field Descriptions	4.3.4-57
Table 4.3.4-28. Recommended Orders Manager Field Descriptions	4.3.4-59
Table 4.3.4-29. Consumable Inventory Query Field Descriptions	4.3.4-61
Table 4.3.4-30. Spares Inventory Query Field Description.....	4.3.4-63
Table 4.3.4-31. Transfer Consumable & Spare Material Field Descriptions	4.3.4-64
Table 4.3.4-32. Material Requisition Manager Field Descriptions	4.3.4-67
Table 4.3.4-33. Material Requisition Master Field Descriptions	4.3.4-69
Table 4.3.4-34. Purchase Order Entry Field Descriptions	4.3.4-71
Table 4.3.4-35. Items Page for Purchase Order Entry Field Descriptions	4.3.4-73
Table 4.3.4-36. Material Requisition Query Field Descriptions	4.3.4-75
Table 4.3.4-37. Purchase Order Modification Field Descriptions	4.3.4-78
Table 4.3.4-38. Items Page for Purchase Order Modification Field Descriptions.....	4.3.4-80
Table 4.3.4-39. Purchase Order Print Field Descriptions	4.3.4-81
Table 4.3.4-40. Purchase Order Status Field Descriptions	4.3.4-83
Table 4.3.4-41. Receipt Confirmation Field Descriptions	4.3.4-85
Table 4.3.4-42. Items Page for Receipt Confirmation Field Descriptions	4.3.4-86
Table 4.3.4-43. Print Receipt Reports Field Descriptions	4.3.4-88
Table 4.3.4-44. Vendor Master Manager Field Descriptions	4.3.4-90
Table 4.3.4-45. Address Page for Vendor Master Manager Field Descriptions.....	4.3.4-91
Table 4.3.4-46. Work Order Entry Field Descriptions	4.3.4-94
Table 4.3.4-47. Work Order Modification (EDF) Field Descriptions	4.3.4-97
Table 4.3.4-48. Chargeable Hours Page for Work Order Modification (EDF) Field Descriptions.....	4.3.4-100
Table 4.3.4-49. Items Page (Left) for Work Order Modification (EDF) Field Descriptions	4.3.4-101
Table 4.3.4-50. Items Page (Right) for Work Order Modification (EDF) Field Descriptions	4.3.4-104

Table 4.3.4-51. Effects on Property Records by MWO Line Item Processing	4.3.4-106
Table 4.3.4-52. Preventative Maintenance Items Field Descriptions	4.3.4-114
Table 4.3.4-53. Generate PM Orders Field Descriptions	4.3.4-116
Table 4.3.4-54. Work Order Parts Replacement History Field Descriptions	4.3.4-117
Table 4.3.4-55. Maintenance Work Order Reports Field Descriptions.....	4.3.4-118
Table 4.3.4-56. Work Order Status Reports Field Descriptions	4.3.4-119
Table 4.3.4-57. Maintenance Codes Field Descriptions.....	4.3.4-120
Table 4.3.4-58. Maintenance Contracts Field Descriptions.....	4.3.4-121
Table 4.3.4-59. Authorized Employees Field Descriptions	4.3.4-122
Table 4.3.4-60. License Entitlement Manager (EDF) Field Descriptions	4.3.4-128
Table 4.3.4-61. Entitlement – Licenses Page Field Descriptions	4.3.4-130
Table 4.3.4-62. License Manager Field Descriptions	4.3.4-133
Table 4.3.4-63. License – Entitlements Page Field Descriptions.....	4.3.4-136
Table 4.3.4-64. License Allocations Page Field Descriptions	4.3.4-138
Table 4.3.4-65. License Allocation Additional Hosts Field Descriptions	4.3.4-140
Table 4.3.4-66. Adjust License Quantities Field Descriptions.....	4.3.4-142
Table 4.3.4-67. Employee Manager Field Descriptions.....	4.3.4-145
Table 4.3.4-68. Assembly Manager Field Descriptions.....	4.3.4-146
Table 4.3.4-69. System Parameters Manager Field Descriptions	4.3.4-148
Table 4.3.4-70. Inventory Location Manager Field Descriptions	4.3.4-149
Table 4.3.4-71. Buyer Manager Field Descriptions	4.3.4-151
Table 4.3.4-72. Hardware/Software Codes Field Descriptions	4.3.4-152
Table 4.3.4-73. Status Code Manager Field Descriptions	4.3.4-152
Table 4.3.4-74. Report Number Field Descriptions	4.3.4-153
Table 4.3.4-75. Export Inventory Data Field Descriptions	4.3.4-155
Table 4.3.4-76. DAAC Export Inventory Data Field Descriptions.....	4.3.4-156
Table 4.3.4-77. OEM Part Numbers (EDF) Field Descriptions	4.3.4-157
Table 4.3.4-78. Shipment Number Manager Field Descriptions.....	4.3.4-159
Table 4.3.4-79. Carriers Field Descriptions	4.3.4-161

Table 4.3.4-80. Sales/Purchase Terms Maintenance Field Descriptions	4.3.4-163
Table 4.3.4-81. Reason Code Maintenance Field Descriptions	4.3.4-164
Table 4.3.4-82. Site Codes for Scanned Data Field Descriptions	4.3.4-165
Table 4.3.4-83. Scanned Data Field Descriptions.....	4.3.4-166
Table 4.3.4-84. Process Scanned Data Field Descriptions	4.3.4-167
Table 4.3.4-85. Outputs.....	4.3.4-169
Table 4.3.4-86. Reports	4.3.4-170
Table 4.3.5-1. Common ECS Operator Functions Performed with T/Courier	4.3.5-2
Table 4.3.6-1. Common ECS Operating Functions Performed with FLEXIm	4.3.6-1
Table 4.3.6-2. Command Line Interfaces	4.3.6-3
Table 4.3.6-3. Interface Protocols	4.3.6-5
Table 4.3.6-4. Reports	4.3.6-7
Table 4.4.1-1. Common ECS Operator Functions Performed with DCE Cell Manager.....	4.4.1-1
Table 4.4.2-1. Common ECS Operator Functions Performed with TCP Wrappers	4.4.2-1
Table 4.4.2-2. Outputs	4.4.2-3
Table 4.4.3-1. Common ECS Operator Functions Performed with Crack.....	4.4.3-1
Table 4.4.3-2. Outputs	4.4.3-4
Table 4.4.4-1. Common ECS Operator Functions Performed with SATAN.....	4.4.4-1
Table 4.4.5-1. Common ECS Operator Functions Performed with SATAN.....	4.4.5-2
Table 4.4.5-2. Tripwire Outputs	4.4.5-5
Table 4.4.6-1. Common ECS Operator Functions Performed with Tivoli Admin and TEC	4.4.6-1
Table 4.4.7-1. Common ECS Operator Functions Performed with CMI.....	4.4.7-1
Table 4.4.7-2. CMI Field Descriptions.....	4.4.7-2
Table 4.5.1-1. Common ECS Operator Functions Performed through the SSI&T Manager GUI	4.5.1-1
Table 4.5.1-2. Command Line Interfaces (Sun)	4.5.1-4
Table 4.5.1-3. Command Line Interfaces (SGI)	4.5.1-6

Table 4.5.1-4. SGI Tools Description.....	4.5.1-7
Table 4.5.1-5. SSI&T Manager Tools Description	4.5.1-11
Table 4.5.1-6. File Name Extensions	4.5.1-24
Table 4.5.1-7 Prohibited Function Checker Pop-up Field Descriptions	4.5.1-25
Table 4.5.1-8. File Selector Pop-up Field Descriptions.....	4.5.1-28
Table 4.5.1-9. PCF Checker Field Description	4.5.1-32
Table 4.5.1-10. Prolog Extractor standard delimiters	4.5.1-37
Table 4.5.1-11. Prolog Extractor file extensions.....	4.5.1-37
Table 4.5.1-12. PDPS/SSI&T Database Operational Update Profile Field Descriptions	4.5.1-57
Table 4.5.1-13. PDPS/SSI&T Database Operational Metadata Update Runtime View Field Description.....	4.5.1-60
Table 4.5.1-14. SSAP Editor - Metadata Tab Field Descriptions	4.5.1-78
Table 4.5.1-15. SSAP Editor - Association Collection Field Description.....	4.5.1-80
Table 4.5.1-16. SSI&T Manager Interface Protocols	4.5.1-82
Table 4.5.1-17. SSI&T Files	4.5.1-83
Table 4.5.1-18. Reports	4.5.1-85
Table 4.6.1-1. Operator Ingest Functions.....	4.6.1-1
Table 4.6.1-2. History Log Field Descriptions.....	4.6.1-6
Table 4.6.1-3. Ingest Monitor/Control Tab Field Descriptions.....	4.6.1-9
Table 4.6.1-4. Operator Tools - External Data/ User information Tab Field Descriptions.....	4.6.1-12
Table 4.6.1-5. Update Notify Parameters Field Descriptions	4.6.1-14
Table 4.6.1-6. Operator Tools Modify System Parameters Field Descriptions.....	4.6.1-16
Table 4.6.1-7. Operator Tools - File Transfer Field Descriptions.....	4.6.1-18
Table 4.6.1-8. Ingest Media Field Descriptions.....	4.6.1-21
Table 4.6.1-9. ECS Data Ingest Product Dependency.....	4.6.1-21
Table 4.6.1-10. Outputs.....	4.6.1-22
Table 4.6.1-11. Standard Ingest Production Reports.....	4.6.1-23

Table 4.7.1-1. Common ECS Operator Functions Performed with Resource Planning GUIs	4.7.1-1
Table 4.7.1-2. Resource Reservation Request Edit/Definition GUI Field Description.....	4.7.1-6
Table 4.7.1-3. Frequency Qualifiers for Resource Reservation Request Edit/Definition GUI	4.7.1-7
Table 4.7.1-4. Hardware Details GUI Field Description.....	4.7.1-12
Table 4.7.1-5. Disk Resource Details GUI Field Description	4.7.1-13
Table 4.7.1-6. Virtual Computer Details GUI Field Description.....	4.7.1-15
Table 4.7.1-7. String GUI Field Description.....	4.7.1-16
Table 4.8.1-1. Common ECS Operator Functions Performed with Production Request Editor.....	4.8.1-1
Table 4.8.1-2. PR Edit Field Description	4.8.1-9
Table 4.8.1-3. PR Edit-MetaData Checks Field Description.....	4.8.1-17
Table 4.8.1-4. PR Edit- AlternateInputValues Field Description.....	4.8.1-19
Table 4.8.1-5. DPR View Field Description.....	4.8.1-23
Table 4.8.1-6. File Mappings Field Description	4.8.1-26
Table 4.8.1-7. Support products for Production Request Editor.....	4.8.1-26
Table 4.8.2-1. Common ECS Operator Functions Performed with the Production Planning Workbench	4.8.2-1
Table 4.8.2-2. Production Planning Workbench Field Description.....	4.8.2-5
Table 4.8.2-3. Support Products for Production Planning Workbench.....	4.8.2-7
Table 4.8.3-1. Common ECS Operator Functions Performed with Production Planning GUIs	4.8.3-1
Table 4.8.3-2. Production Strategies Field Descriptions	4.8.3-3
Table 4.8.3-3. Support products for Production Strategies User Interface	4.8.3-7
Table 4.9.1-1. ECS Operator Functions Performed using AutoSys/AutoXpert	4.9.1-2
Table 4.9.1-2. Interfaces Between AutoSys and other ECS PDPS Components	4.9.1-10
Table 4.9.1-3. Outputs	4.9.1-11
Table 4.9.1-4. Reports	4.9.1-11
Table 4.9.2-1. Common ECS Operator Functions Performed with QA Monitor	4.9.2-1

Table 4.9.2-2. QA Monitor Field Descriptions	4.9.2-5
Table 4.9.2-3. Update Metadata Field Descriptions	4.9.2-7
Table 4.9.2-4. Visualize Data Field Descriptions	4.9.2-9
Table 4.9.2-5. QA Monitor Tool Field Descriptions.....	4.9.2-10
Table 4.10.1-1. Common ECS Operator Functions Performed with the Science Data Server GUI	4.10.1-1
Table 4.10.1-2. Science Data Server - Server Polling Field Description.....	4.10.1-4
Table 4.10.1-3. Science Data Server - Data Types Field Description.....	4.10.1-4
Table 4.10.1-4. Science Data Server - Add Data Type Field Description	4.10.1-6
Table 4.10.1-5. Science Data Server - Update Data Type Field Description.....	4.10.1-7
Table 4.10.1-6. System Management Requests Field Description.....	4.10.1-9
Table 4.10.1-7. System Management Filter Requests Field Description.....	4.10.1-10
Table 4.10.1-8. Interface Protocols.....	4.10.1-11
Table 4.10.2-1. Common ECS Operator Functions Performed with STMGT Control	4.10.2-1
Table 4.10.2-2. Storage Management Server Field Description.....	4.10.2-4
Table 4.10.2-3. Request Manager Configuration Field Description	4.10.2-7
Table 4.10.2-4. Staging Disk Server Configuration Field Description	4.10.2-8
Table 4.10.2-5. Cache Manager Server Configuration Field Description	4.10.2-11
Table 4.10.2-6. FTP Server Configuration Field Description	4.10.2-14
Table 4.10.2-7. Media Server Configuration Field Description (Stacker-based)	4.10.2-17
Table 4.10.2-8. Stacker Configuration Field Description.....	4.10.2-21
Table 4.10.2-9. Stacker Device Configuration Field Description	4.10.2-22
Table 4.10.2-10. Media Server Configuration Field Description (Standalone-based)	4.10.2-25
Table 4.10.2-11. Standalone Device Configuration Field Description	4.10.2-28
Table 4.10.2-12. Archive Server Configuration Field Description	4.10.2-29
Table 4.10.2-13. Volume Group Information Field Description.....	4.10.2-32
Table 4.10.2-14. Add Volume Group Field Description	4.10.2-34
Table 4.10.2-15. Modify Volume Group Field Description	4.10.2-36

Table 4.10.2-16. Volume Group History Field Description.....	4.10.2-39
Table 4.10.2-17. Volume Group Compression Factor Statistics Field Description.....	4.10.2-41
Table 4.10.2-18. Resource Management Tab Field Description	4.10.2-43
Table 4.10.2-19. Manage Stackers Field Description	4.10.2-45
Table 4.10.2-20. Load Media Set Field Description.....	4.10.2-46
Table 4.10.2-21. Manage Media Sets Field Description	4.10.2-47
Table 4.10.2-22. Add/Modify Media Set Field Description	4.10.2-48
Table 4.10.2-23. Cache Stats. Field Description.....	4.10.2-51
Table 4.10.2-24. Event Log Field Description	4.10.2-53
Table 4.10.2-25. Server Activity Column Description	4.10.2-55
Table 4.10.2-26. Restart Backup Field Description	4.10.2-56
Table 4.10.2-27. Change Priority Field Description.....	4.10.2-57
Table 4.10.2-28. Polling Rate Field Description.....	4.10.2-58
Table 4.10.2-29. Support Products for Storage Management Control	4.10.2-59
Table 4.10.3-1. Common ECS Operator Functions Performed with the Data Distribution GUI.....	4.10.3-1
Table 4.10.3-2. Data Distribution - Track Activity Panel Field Description	4.10.3-4
Table 4.10.3-3. Refresh Options Field Description.....	4.10.3-6
Table 4.10.3-4. Data Distribution - Filter Requests Field Description.....	4.10.3-9
Table 4.10.3-5. Distribution Hard Media Requests Items Field Description	4.10.3-12
Table 4.10.3-6. Media ID's Field Description	4.10.3-12
Table 4.10.3-7. External Interface Protocols.....	4.10.3-16
Table 4.10.4-1. Command Line Parameters of the Granule Deletion Administration Tool	4.10.4-1
Table 4.10.4-2. Interface Protocols.....	4.10.4-37
Table 4.11.1-1. ECS Operator Functions Performed with the User Account Management GUI	4.11.1-1
Table 4.11.1-2. Personal Information Subtab Field Description.....	4.11.1-5
Table 4.11.1-3. Mailing, Shipping, and Billing Address Tab Field Description.....	4.11.1-7
Table 4.11.1-4. Account Information Subtab Field Descriptions	4.11.1-9

Table 4.11.1-5. Account Information Field Description	4.11.1-17
Table 4.11.2-1. Common ECS Operator Functions Performed with the Order Tracking Tool	4.11.2-1
Table 4.11.2-2. Order Tracking Main Screen Field Descriptions	4.11.2-4
Table 4.11.2-3. Shipping Information GUI Field Description	4.11.2-8
Table 4.11.3-1. Common ECS Operator Functions Performed with DDMT.....	4.11.3-1
Table 4.11.3-2. The Import Valid File Field Description	4.11.3-9
Table 4.11.3-3. The File Selection Field Descriptions	4.11.3-11
Table 4.11.3-4. The Map Attributes/Keywords Field Description.....	4.11.3-13
Table 4.11.3-5. The Export Valid File Field Descriptions	4.11.3-16
Table 4.11.4-1. Common ECS Operator Functions Performed with PDPS Subscription Editor	4.11.4-2
Table 4.11.4-2. Support products for PDPS Subscription Editor	4.11.4-3
Table 4.11.4-3. PDPS Subscription Editor Interfaces.....	4.11.4-3
Table 4.11.5-1. Common ECS Operator Functions Performed with Database Installation and Maintenance Scripts	4.11.5-1
Table 4.11.5-2. Support products for Database Installation and Maintenance Scripts	4.11.5-3
Table 4.11.6-1. Common ECS Operator Functions Performed with Database Installation and Maintenance Scripts	4.11.6-1
Table 4.11.6-2. Support products for Database Installation and Maintenance Scripts	4.11.6-2
Table 4.11.7-1. Command Line Parameters of the Landsat 7 Error Handling Tool.....	4.11.7-1
Table 4.11.7-2. Interface Protocols.....	4.11.7-5
Table 4.11.8-1. Environment Variables for Restricted Granule Access Commands.....	4.11.8-1
Table 4.11.9-1. Command Line Parameters of the SCLI tool.....	4.11.9-1
Table 4.11.9-2. Interface Protocols.....	4.11.9-3
Table 4.12.1-1. Common ECS Operator Functions Performed with CDE	4.12.1-1
Table 4.12.2-1. Common ECS Operator Functions Performed with Microsoft Office.....	4.12.2-1

Table 4.12.3-1. Common ECS Operator Functions Performed with Netscape Communicator	4.12.3-1
Table 4.12.3-2. Outputs.....	4.12.3-6
Table 4.12.4-1. Common ECS Operator Functions Performed with the Netscape Enterprise Server	4.12.4-2
Table 4.12.5-1. Common ECS Operator Functions Performed with EOSView	4.12.5-1
Table 4.12.5-2. EOSView File Selection Field Description	4.12.5-5
Table 4.12.5-3. Multi Dimension SDS Field Description.....	4.12.5-8
Table 4.12.5-4. EOSView File Save Field Description	4.12.5-19
Table 4.12.5-5. Min/Max Values Window Field Description	4.12.5-20
Table 4.12.5-6. Lat/Lon Symbol Window Field Description.....	4.12.5-24
Table 4.12.5-7. X-Y Cursor Window Field Description.....	4.12.5-25
Table 4.12.5-8. Start/Stride/Edge Pop-up Field Description	4.12.5-37
Table 4.12.5-9. Operating Systems.....	4.12.5-54
Table 4.12.5-10. Environment Variables Used by EOSView	4.12.5-54
Table 4.12.6-1. Common ECS Operator Functions Performed with ODFRM.....	4.12.6-1
Table 4.12.7-1. ECS Subscription Server Functions	4.12.7-1
Table 4.12.7-2. subscriptions Tab Field Descriptions.....	4.12.7-4
Table 4.12.7-3. events Tab Field Descriptions.....	4.12.7-5
Table 4.12.7-4. Add/Edit Subscription Field Descriptions	4.12.7-7
Table 4.12.7-5. Browse Event Field Descriptions.....	4.12.7-8
Table 4.12.7-6. Actions Field Descriptions.....	4.12.7-10
Table 4.12.7-7. Qualifiers Field Descriptions	4.12.7-12
Table 4.12.7-8. Filter Subscription Field Descriptions.....	4.12.7-13
Table 4.12.7-9. Delete Subscriptions Field Descriptions	4.12.7-14
Table 4.12.7-10. Interfaces Protocols.....	4.12.7-15
Table 4.12.7-11. Subscription Server Database References.....	4.12.7-15
Table 4.12.8-1. Functions Performed with the Java Data Acquisition Requests Tool	4.12.8-1
Table 4.12.8-2. General Subtab Field Definitions	4.12.8-11

Table 4.12.8-3. Control and Information Fields on the Temporal Subtab	4.12.8-14
Table 4.12.8-4. Control and Information Fields on the Coverage Subtab	4.12.8-16
Table 4.12.8-5. Control and Information Fields on Geometry Subtab	4.12.8-20
Table 4.12.8-6. Control and Information Fields on the Priority Subtab	4.12.8-23
Table 4.12.8-7. Control and Information Fields on the General Subtab	4.12.8-27
Table 4.12.8-8. Control and Information Fields on the Temporal Subtab	4.12.8-30
Table 4.12.8-9. Control and Information Fields on the Coverage Subtab	4.12.8-31
Table 4.12.8-10. Control and Information Fields on the Geometry Subtab	4.12.8-33
Table 4.12.8-11. Control and Information Fields on the Priority Subtab	4.12.8-34
Table 4.12.8-12. Fields Displayed on the Inspect Results Tab	4.12.8-38
Table 4.12.9-1. Common ECS Operator Functions Performed with the Custom Advertising Tool	4.12.9-1

Appendix A. User Interface Messages

Glossary

Abbreviations and Acronyms

1. Introduction

1.1 Identification

The Release 6A Operations Tools Manual, Contract Data Requirements List (CDRL) item 116, whose requirements are specified in the revised Data Item Description (DID) 609/OP1, is a required deliverable under contract NAS5-60000.

1.2 Purpose

This document describes the human-machine interface (HMI) characteristics of the tools (configuration items) that will be used by the ECS operations staff when performing the following:

- computer systems administration
- system monitoring
- configuration management
- security and accountability
- science software integration and testing
- resource planning
- production planning and processing
- science data ingest, archive and distribution
- user services
- common services

This document provides background information that is the basis for the *Release 6A Operations Procedures for the ECS Project* (DID 611/OP3). The 609 document is intended to (1) familiarize the ECS operators with their tools, (2) be used as a reference for all ECS operational tasks, and (3) be used as an aid during training of ECS operations staff.

1.3 Scope

This document applies to *Release 6A*, and not to any subsequent releases of the ECS. This document is limited to (1) a detailed description of customized operator tools, (2) a brief description of Commercial Off-the-Shelf (COTS) software used by operations and references to the applicable vendor manuals, and (3) a detailed description of customized COTS software. This document will point to DID 611 for all operational procedures or to individual COTS manuals for detailed COTS instructions. It is intended for use by operators, maintainers, and external users of the ECS system during the period in which *Release 6A* is operational.

1.4 Status and Schedule

This submittal of DID 609/OP1 meets the milestone specified in the Contract Data Requirements List (CDRL) of NASA contract NAS5-60000.

This document reflects the February 14, 1996 Technical Baseline (210-TP-001-006) submitted via contract correspondence No. ECS 194-00343.

1.5 Organization

This document is organized to describe the tools used by ECS operations staff and external users during *Release 6A*.

Section 1.0 provides information regarding the identification, scope, purpose, status, and organization of this document.

Section 2.0 provides a listing of related documents, which were used as source information for this document. The section also identifies the documentation provided for each *Release 6A* software component.

Section 3.0 provides a brief overview of the *Release 6A ECS*.

Section 4.0 provides a detailed description of *Release 6A* operations tools. It is organized by operation function and provides the following types of information: tools overview, required operating environment, CSCI function, operator commands, system messages, reports, and outputs.

Appendix A provides a description of *Release 6A* system status and error messages, including probable causes, impacts, and proposed actions.

The Abbreviations and Acronyms section contains an alphabetical list of the abbreviations and acronyms used in *Release 6A*.

The Glossary section contains terms used in this document.

2. Related Documentation

2.1 Parent Documents

The parent document is the document from which the scope and content of this Release 6A Operations Tools Manual has been derived.

423-41-02	Goddard Space Flight Center, Functional and Performance Requirements Specification for the Earth Observing System Data and Information System (EOSDIS) Core System (ECS)
423-41-03	EOSDIS Core System Contract Data Requirements Document

2.2 Applicable Documents

The following documents, referenced within this Release 6A Operations Tools Manual, are directly applicable or contain policies or other directive matters that are binding upon the content of this volume.

102-CD-002	Maintenance and Operations Configuration Management Plan for the ECS Project
205-CD-002	Science User's Guide and Operations Procedure Handbook, Volume 4: Software Developer's Guide to Preparation, Delivery, Integration and Test with ECS
205-CD-004	Science User's Guide and Operations Procedures Handbook (Release B.0) for the ECS Project
194-207-SE1	System Design Specification for the ECS Project
304-CD-003	Communications and System Management Segment (CSMS) Requirements Specification for the ECS Project
305/DV2	Segment/Design Specification for the ECS Project
307-CD-002	Science Data Processing Segment Release and Development Plan for the ECS Project
311-CD-600	Release 6A Data Management Database Design and Schema Specifications for the ECS Project
311-CD-601	Release 6A INGEST Subsystem Database Design and Schema Specifications for the ECS Project
311-CD-602	Release 6A Interoperability Subsystem (IOS) Database Design and Schema Specifications for the ECS Project

311-CD-603	Release 6A Planning and Data Processing Subsystem Database Design and Database Schema Specifications for the ECS Project
311-CD-604	Release 6A Science Data Server Database Design and Schema Specifications for the ECS Project
311-CD-605	Release 6A Storage Management Database Design and Schema Specifications for the ECS Project
311-CD-606	Release 6A Subscription Server Database Design and Schema Specifications for the ECS Project
601-CD-001	Maintenance and Operations Management Plan for the ECS Project
604-CD-002	ECS Operations Concept for the ECS Project: Part 2B - ECS Release B
605-CD-002	Release-B SDPS/CSMS Operations Scenarios for the ECS Project
609-CD-001	Interim Release One (Ir1) Maintenance and Operator's Procedures for the ECS Project
611-CD-004	Mission Operation Procedures - Ver. 2, Rel. 2.0, Drop 4.0 for the ECS Project
613-CD-003	Release B COTS Maintenance Plan for the ECS Project
625-CD-601	Release 6A ECS Project Training Material Volume 1: Course Outline
625-CD-602	Release 6A ECS Project Training Material Volume 2: Introduction and System Overview
625-CD-603	Release 6A ECS Project Training Material Volume 3: Problem Management
625-CD-604	Release 6A ECS Project Training Material Volume 4: System Administration
625-CD-605	Release 6A ECS Training Material Volume 5: Network Administration
625-CD-606	Release 6A ECS Project Training Material Volume 6: Production Planning and Processing
625-CD-607	Release 6A ECS Project Training Material Volume 7: Resource Planning
625-CD-608	Release 6A ECS Project Training Material Volume 8: Ingest
625-CD-009	Release 6A ECS Project Training Material Volume 9: Data Distribution
625-CD-010	Release 6A ECS Project Training Material Volume 10: Archive Processing
625-CD-011	Release 6A ECS Project Training Material Volume 11: Database Administration

625-CD-612	Release 6A ECS Project Training Material Volume 12: Configuration Management
625-CD-613	Release 6A ECS Project Training Material Volume 13: User Services
625-CD-616	Release 6A ECS Project Training Material Volume 16: Science Software Integration and Test
625-CD-617	Release 6A ECS Training Material Volume 17: System Troubleshooting
420-TP-007	Planning Workbench Detailed Design for the ECS Project
910-TDA-022	Custom Code Configuration Parameters-Rev01, November 2000
IMSV0-OP-GD-001	EOSDIS Information Management System, Users Manual for Release 6.0 of the V0 IMS (April 1996), Hughes STX Corp., Upper Marlboro, MD
IMSV0-PD-SD-002	EOSDIS Information Management System, Messages and Development Data Dictionary, V0 and Release A Message Passing Protocol (1995), Hughes STX Corp. Upper Marlboro, MD

2.3 Information Documents

The following documents are referenced herein, and amplify or clarify the information presented in this document. These documents are not binding on the content of the Release 5B Operations Tools Manual.

Action Request System 2.0, Troubleshooting and Error Messages Guide (1995), Remedy Corporation, Mountain View, CA

Action Request System 2.0, User's Guide for OSF/Motif (1995), Remedy Corporation, Mountain View, CA

Accell Publication Package, Unify Corporation, Sacramento, CA

Accell Release Notes, Unify Corporation, Sacramento, CA

AIX Version 4.1 iFOR/LS System Management Guide First Edition (1994), Gradient Technology Inc, 11400 Burnet Rd., Austin Tx 78758-3493

AIX Version 4.1 iFOR/LS Tips and Techniques First Edition (1994), Gradient Technology Inc, 11400 Burnet Rd., Austin Tx 78758-3493

AMASS Overview Version 4.9(1997), EMASS Inc, 10949 East Peakview Ave., Englewood, CO 80111

AutoSys User Manual, Version 3.2, August 1995, AutoSystems Development Lab, PLATINUM Technology, Inc., Boulder, CO

AutoXpert User Guide, Unix BETA Version 1.0, July 1995, AutoSystems Development Lab, PLATINUM Technology, Inc., Boulder, CO

C Language Reference Manual (1995), Silicon Graphics, Inc., Mountain View, CA

ClearCase Administrator's Manual, Unix Edition Release 2.0 and later (1995), 4000-013-B, Atria Software Inc., Natick, MA

ClearCase Quick Reference Manual, Unix Edition Release 2.0 and later (1995), 4000-013-B, Atria Software Inc., Natick, MA

ClearCase User's Manual, Unix Edition Release 2.0.2 and later (1995), 4000-011-B, Atria Software Inc., Natick, MA

Data Production Software and Science Computing Facility (SCF) Standards and Guidelines, Rev A, October 1996, 423-16-01, GSFC, Greenbelt, MD.

DCE Cell Manager 1.6.2 Overview and User's Guide (1997), Chisholm Technologies Inc, 6805 Capital of Texas Hwy, Austin Tx 78731

Displaying Information and Generating Reports (iFOR/LS) (1994), Gradient Technology Inc, 11400 Burnet Rd., Austin Tx 78758-3493

Errors and Corrective Action (AMASS) Version 4.9 (1997), EMASS Inc, 10949 East Peakview Ave., Englewood, CO 80111

Enterprise SQL Server Manager User's Guide, Release 10.0.2 (1995), Sybase, Inc. Emeryville, CA

Expert Analyzer Output File Format (1995), Network General Corporation, Menlo Park, CA

Expert Sniffer Network Analyzer Operations (1995), Network General Corporation, Menlo Park, CA

FDDI Overview and Guide to Troubleshooting (1995), Network General Corporation, Menlo Park, CA

Fortran 77, Language Reference Manual (1991), Silicon Graphics, Inc., Mountain View, CA

HP OpenView Using Network Node Manager, 1995, 3404 E. Harmony Rd., Ft. Collins CO 80525

HP OpenView, Network Node Manager Products, Installation Guide, 1995, 3404 E. Harmony Rd., Ft. Collins CO 80525

IDL Reference Guide, Interactive Data Language (1991), Volumes 1 and 2, Version 4.0, Research Systems, Inc., Boulder CO

IDL User's Guide, Interactive Data Language (1995), Version 4.0, Research Systems, Inc., Boulder CO

iFOR/LS Administrator's Guide (1994), Gradient Technology Inc, 11400 Burnet Rd., Austin Tx 78758-3493

iFOR/LS Installation Notes (1994), Gradient Technology Inc, 11400 Burnet Rd., Austin Tx 78758-3493

iFOR/LS Quick Start Guide (1994), Gradient Technology Inc, 11400 Burnet Rd., Austin Tx 78758-3493

iFOR/LS Quick Start Guide, Hewlett-Packard Version (1994), Gradient Technology Inc, 11400 Burnet Rd., Austin Tx 78758-3493

Illustra Installation and System Administration Guide (1995), Illustra Server Rel. 3.2, Illustra Information Technologies, Inc., Oakland, CA

Illustra User's Guide (1995), Illustra Server Rel. 3.2, Illustra Information Technologies, Inc., Oakland, CA

Intelligent Query and IQ Access User's Guide for Windows and Motif, Version 5 (1996), IQ Software Corporation, Norcross, Georgia

Introduction to SPARCworks, SunPro (1992), Sun Microsystems, Inc. Mountain View, CA

Installing and Configuring Amass Version 4.9 (1997), EMASS Inc, 10949 East Peakview Ave., Englewood, CO 80111

IQ Installation Guide for Unix Motif (1995), IQ Software Corporation, Norcross, Georgia

IQ System Manager's Guide, Versions 3, 4, & 5 (1995), IQ Software Corporation, Norcross, Georgia

IRIX Networker Administrator's Guide, Silicon Graphics Computer Systems (1995), 007-1458-030, Mountain View, CA

IRIX Networker User's Guide, Silicon Graphics Computer Systems (1995), 007-1458-030, Mountain View, CA

Managing the AMASS File System Version 4.9 (1997), EMASS Inc, 10949 East Peakview Ave., Englewood, CO 80111

Microsoft Excel User's Guide, Version 5 (1993-94), Microsoft Corporation

Microsoft PowerPoint User's Guide, Version 4.0 (1994), Microsoft Corporation

Microsoft Word, Version 6.0 (1993-94), Microsoft Corporation

MIPSpro Fortran 77 Language Reference Manual (1994), Silicon Graphics, Inc. Mountain View, CA

Netscape Navigator Handbook (Version 3.0), S. Kronick, Netscape Communications Corporation, Mountain View, CA

NetWorker Administrator's Guide (1996), Legatto Systems, Inc., 3145 Porter Dr., Palo Alto CA 94304

NetWorker User's Guide (1996), Legatto Systems, Inc., 3145 Porter Dr., Palo Alto CA 94304

Network/Communications Management, Volume 1, MT923 Physical Network Management (1995), Accugraph Corporation, El Paso, TX

NASA/ESDIS Standards

Netscape Enterprise Server – Administrator's Guide for UNIX, AOL/ Netscape, Mountain View, CA

Netscape Enterprise Server – Programmer's Guide for UNIX, AOL/ Netscape, Mountain View, CA

Netscape Livewire – Developer's Guide for UNIX, AOL/ Netscape, Mountain View, CA

Open Client DB-Library/C Reference Manual (1993) , Sybase Inc., 6475 Christie Avenue, Emeryville, CA 94608

Open Client and Open Server Common Libraries Reference Manual (1993), Sybase Inc., 6475 Christie Avenue, Emeryville, CA 94608

ProDev Workshop Environment Guide (1994), Silicon Graphics, Inc., Mountain View, CA

ProDev Workshop User's Guide Volume I: The Debugger, Build Manager, and Static Analyzer (1994), Silicon Graphics, Inc., Mountain View, CA

ProDev Workshop WorkShop User's Guide Volume II: The Performance Analyzer and Tester (1994), Silicon Graphics, Inc., Mountain View, CA

PureDDTS Administrator's Manual, version 3.2, Pure Software Inc., Sunnyvale, CA

PureDDTS Manual Pages Reference Guide, version 3.2, Pure Software Inc., Sunnyvale, CA

PureDDTS User's Manual, version 3.2, Pure Software Inc., Sunnyvale, CA

Replication Server Administration Guide (1995), Sybase, Inc., Emeryville, CA

Replication Server Commands Reference (1995), Sybase, Inc., Emeryville, CA

Replication Server Installation Guide (1995), Sybase, Inc., Emeryville, CA

Replication Server Troubleshooting Guide (1995), Sybase, Inc., Emeryville, CA

Sniffer Network Analyzer: Ethernet Monitor Operations (1995), Network General Corporation, Menlo Park, CA

Sniffer Network Analyzer: FDDI Monitor Operations (1995), Network General Corporation, Menlo Park, CA

SQL Server Error Message, (1995), Sybase, Inc., Emeryville, CA

SQL Server Troubleshooting Guide, (1994), Sybase, Inc., Emeryville, CA

SQL Server Utility Programs for UNIX, (1994), Sybase, Inc., Emeryville, CA

SQR3 Workbench, SQR User's Guide (1995), version 3, MITI, Long Beach CA

The SQL Server Installation Guide, (1994), Sybase, Inc., Emeryville, CA

StdRef Chapter 12: Object Description Language (ODL) Specification and Usage,
<http://pds.jpl.nasa.gov/stdref/chap12.htm>

SYBASE SQL Server Error Messages, Releases 4.2-10.0.2, (1995), Sybase, Inc., Emeryville, CA

SYBASE SQL Server System Administration Guide (1994), Sybase, Inc, Emeryville, CA

SYBASE SQL Server Troubleshooting Guide (1994), Sybase, Inc, Emeryville, CA

Sybase SQL Server Reference Manual Vol. 1 and Vol. , (1994), Sybase, Inc., Emeryville, CA

System Administration Guide for SQL Server (1994), Sybase, Inc, Emeryville, CA

System Administration Guide Supplement (operating-system specific system administration tasks) (1994), Sybase, Inc, Emeryville, CA

Tivoli Courier Users Manual, Tivoli Systems Inc., Austin, TX

Tivoli Enterprise Console Event Adapter Guide, (1995), Tivoli Systems Inc., Austin, TX

Tivoli Enterprise Console User's Guide, (1995), Tivoli Systems Inc., Austin, TX

Tivoli Host Management Guide, (1995), Tivoli Systems Inc., Austin, TX

Tivoli Management Platform User's Guide (Release 2.5) , (1995), Tivoli Systems Inc., Austin, TX

Tivoli/Sentry Monitoring Collection Reference Manuals, (1995), Tivoli Systems Inc., Austin, TX

Tivoli/Sentry User's Guide, (1995), Tivoli Systems Inc., Austin, TX

Tivoli User and Group Management Guide, (1995), Tivoli Systems Inc., Austin, TX

UNIX Developer's Tutorial, UNIFY Corporation, Sacramento, CA

UNIFY Developer's Reference (1989), UNIFY Corporation, Sacramento, CA

UNIFY Direct HLI Programmer's Manual (1989), UNIFY Corporation, Sacramento, CA

UNIX in a Nutshell, A Desktop Quick Reference, System V Edition (1994). Gilly, D. and staff of O'Reilly & Associates, Inc., O'Reilly & Associates, Inc., Sebastopol, CA

Using the AMASS GUI Version 4.9 (1997), EMASS Inc, 10949 East Peakview Ave., Englewood, CO 80111

XRP-II Datalook/Datarite Reference Manual (1995), HTG, Ft. Worth TX

XRP-II Product Information Manual (1995), HTG, Ft. Worth TX

XRP-II System Reference Manual (1995), HTG, Ft. Worth TX

XRP-II Tools, Techniques, and Conventions Manual (1995), HTG, Ft. Worth TX

VolServ Graphical User Interface Guide (1995), VolServ, version 2.3, EMASS, Englewood, CO

Wabi User's Guide (1993), Sun Microsystems, Inc., Mountain View, CA

Z-Mail for Motif Installation Guide, Version 3.2 (1994), Z-Code Software/NCD Software Corporation, Novato, CA

Z-Mail for Motif Reference Manual, Version 3.2 (1994), Z-Code Software/NCD Software Corporation, Novato, CA

Z-Mail for Motif User's Guide, Version 3.2 (1994), Z-Code Software/NCD Software Corporation, Novato, CA

Z-Mail Network License Server Installation and Maintenance Guide (1994), Version 1.8, Z-Code Software/NCE Corporation, Novato, CA

3. Release 6A Overview

3.1 Release 6A Objectives

3.1.1 Release 6A Capabilities

The Earth Observing System (EOS) Data and Information System (EOSDIS) Core System (ECS) capabilities are developed in terms of formal releases. Release 6A, which is controlled by Configuration Management, provides capabilities to support the ingest and archive of raw data obtained from the EOS AM 1 mission spacecraft, morning equator crossing spacecraft series (Terra (AM-1)), EOS PM 1 mission spacecraft, afternoon equator crossing spacecraft series (Aqua (PM-1)) and the Land Remote-Sensing Satellite (Landsat 7). Other capabilities provided by Release 6A include processing the data obtained, distributing raw or processed data as requested, quality assurance of processed data, supporting communication networks, and systems monitoring via interfaces with the ECS operations staff.

Release 6A unique capabilities include:

- D3 Ingest – Provides the capability to ingest data from a D3 tape
- Ingest ICESAT – Provides the ability to ingest ICESAT data via the INGEST SIPS interface
- SBSRV FtpPull Acquires – Allows subscriptions to be submitted that specify an FTP Pull Acquire as an action.
- V0GW Access to Non-Science Collections – Enables searches to be conducted against non-science collections and against granules without spatial and/or temporal metadata.
- DDIST Data/Staging Logging – Provides Data Access and Staging Activity logs that record the activities associated with archive processing.
- Attached DPRs/JDT ODForms – Provides the capability to construct a standing Product Processing Order associated with a Data Acquisition Request.
- 4000 DPR – Incorporates performance enhancement to facilitate the processing of 4000 DPRs/day.
- Reprocessing – Capability incorporated to reprocess data products from any original or updated single data input or combination of inputs.
- Science Data Server Performance Improvements
 - Batch Insert/Update – Optimizes SQL calls from the SDSRV to Sybase by grouping multiple statements into a single batch and sending them to Sybase together.

- Malloc Reduction – Reduces the number of malloc operations on search, insert validation, and event notification to SBSRV
- Dirty Reads – Allows dirty reads when receiving a large number of insert and search requests at the same time
- Autoinspect – Stores meadata information in the SDSRV client so that some request from the client to the SDSRV can be eliminated.
- Request Manager – Allos the STMGT client code to checkpoint requests directly to a database and permits servers to handle requests within a fixed number of threads.
- V0 Gateway Enhancements – Ability to use EDG Client to perform searches on specified attributes.

A more detailed overview of the Release 6A ECS may be found in the Release 6A Segment/Design Specifications for the ECS Project, 305-CD-600-001.

4. Description of the ECS Operational Tools

The human-machine interface (HMI) characteristics description of the software tools that the ECS operator uses to perform routine ECS operations is listed by the following major functional areas:

- 4.1 Computer Systems Administration
- 4.2 System Monitoring (Problem, Fault, and Performance Management)
- 4.3 Configuration Management
- 4.4 Security and Accountability
- 4.5 Science Software Integration and Test
- 4.6 ECS Data Ingest
- 4.7 Resource Planning
- 4.8 Production Planning
- 4.9 Production Processing
- 4.10 Science Data Archive and Distribution
- 4.11 User Services Tools
- 4.12 Common Services Tools

When using this document, the reader should note the following:

- The screens/GUIs presented in this section are samples and often do not reflect the actual window contents seen by the DAAC operator because they depend on hardware configuration, actual server names, directories, etc.
- Basic Unix, Network and application configuration and utilities are not explicitly addressed in this document.
- Launching tools from the command line is avoided as much as possible to give operations management the ability to control (a) access to the Unix command line and shell; and (b) reduce the use of the xterm except for programs other than Motif programs.
- Release 6A directory structure is discussed in DID 612, which is the Programmer's Manual for each of the Release 6A DAACs and the SMC.
- This document references the ECS Baseline Information System web page, URL <http://cmdm.east.hitc.com/>, in several places for information on the Required Operating Environment. This web page is currently being constructed for the desired information in the ECS Baseline. Until it is put in place, the reader is referred to the DAAC library for hard copies of the desired COTS documents.

Note:

The sample GUI screen images provided in the tool description in this document are best viewed on a computer terminal. The terminal provides the color and resolution needed to convey the screen design and usage. A hard copy printout of a screen image can lose all of its color and a great deal of its resolution in going from a computer terminal to a printer to a xerox machine. The transition from terminal to printer to xerox machine can cause the quality to degenerate to the point the images are totally unreadable.

4.1 Computer Systems Administration

This section describes the computer system administration tools used by DAAC operators:

1. Legatto's Networker
2. DBVision
3. AMASS
4. ISQL
5. SQR Report Writer
6. Intelligent Query and IQ Access
7. Sybase Replication Server
8. Global Change Master Directory (GCMD)
9. ECS Assist
10. ECS Registry GUI
11. Whazzup GUI

This page intentionally left blank.

4.1.1 Legatto NetWorker

The Legatto Networker COTS Version 5.5 installed in ECS Release 5A has been verified to be “Y2K” compliant.

Legatto’s NetWorker is a set of three components -Administration, Backup, and Recovery - used by system administrators to back up the entire system, with the exception of DBMS files (see Section 4.1.5, “ISQL”, for details on backup of DBMS files). The basic configuration is to have a NetWorker Server with a backup device (i.e., Jukeboxes or 8mm tapes) networked to a number of clients that represent the subsystem hosts.

Site-wide system backup is performed by NetWorker. It provides a suite of integrated tools for backup and recovery, archive and retrieval, and hierarchical storage management. The product supports multi-platform networks, contains a motif-based GUI with on-line help, and supports concurrent device support for parallel backup and recovery using up to 16 storage devices. Both scheduled and ad-hoc backups, recoveries and other data management services can be performed by authorized users. NetWorker software consists of two components: a client portion, which runs on the systems to be backed up, and a server portion, which is the system to which the backup devices are connected. The client portion sends the data to be backed up to the server portion which then writes the data out to disk.

NetWorker is used to perform the operator functions listed in Table 4.1.1-1.

Table 4.1.1-1. Common ECS Operator Functions Performed with NetWorker

Operating Function	GUI	Description	When and Why to Use
Manage, configure, and monitor NetWorker	<ul style="list-style-type: none">• NetWorker Administrator GUI	Allows monitoring of server status, devices, sessions, messages, and pending displays	To start NetWorker (NW) tasks and monitor server activity
Monitor and schedule backup	<ul style="list-style-type: none">• NW Backup GUI	<ul style="list-style-type: none">• Group backup• Scheduled backup• Incremental backup	To back up client files
Recovering backed up files	<ul style="list-style-type: none">• NW Recover GUI	Retrieves files that have been backed up	To recover backed up client files

4.1.1.1 Quick Start Using NetWorker

This section presents an orientation of NetWorker. For more information, see the *NetWorker User’s Guide*, and the *NetWorker Administrator’s Guide*, Using NetWorker Windows and Menus.

The documentation used is for version 5.5 of NetWorker.

4.1.1.1.1 Invoking NetWorker From the Command Line Interface

The NetWorker Administrator tool is used to manage and configure the NetWorker environment. To execute NetWorker Administrator from the command line prompt use:

```
nwadmin <-s server_name> &
```

The NetWorker Backup tool is used to backup files on client machines. To execute NetWorker Backup from the command line prompt use:

```
nwbackup <-s server_name> &
```

The NetWorker Recover tool is used to recover files on client machines. To execute NetWorker Recover from the command line prompt use:

```
nwrecover <-s server_name> &
```

Note: The optional <-s server_name> is used only in NetWorker environments that have multiple NetWorker servers.

4.1.1.2 NetWorker Main Screen

Figure 4.1.1-1 shows the nwadmin screen. For more information on the NetWorker Administrator, see the *NetWorker Administrator's Guide*.

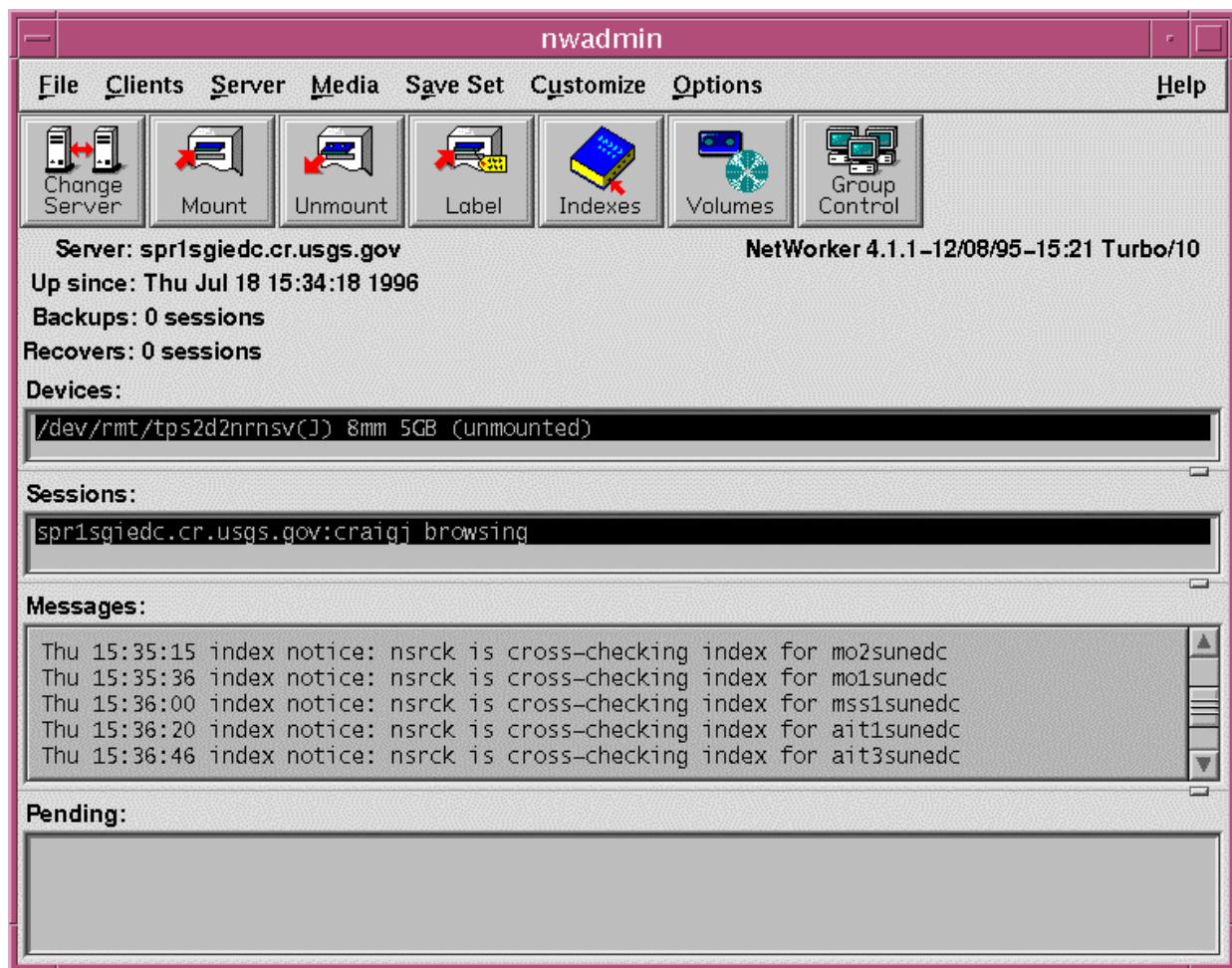


Figure 4.1.1-1. NetWorker Administrator's Screen

Figure 4.1.1-2 shows the nwbackup screen. For more information on NetWorker Backup, see the *NetWorker User's Guide*.

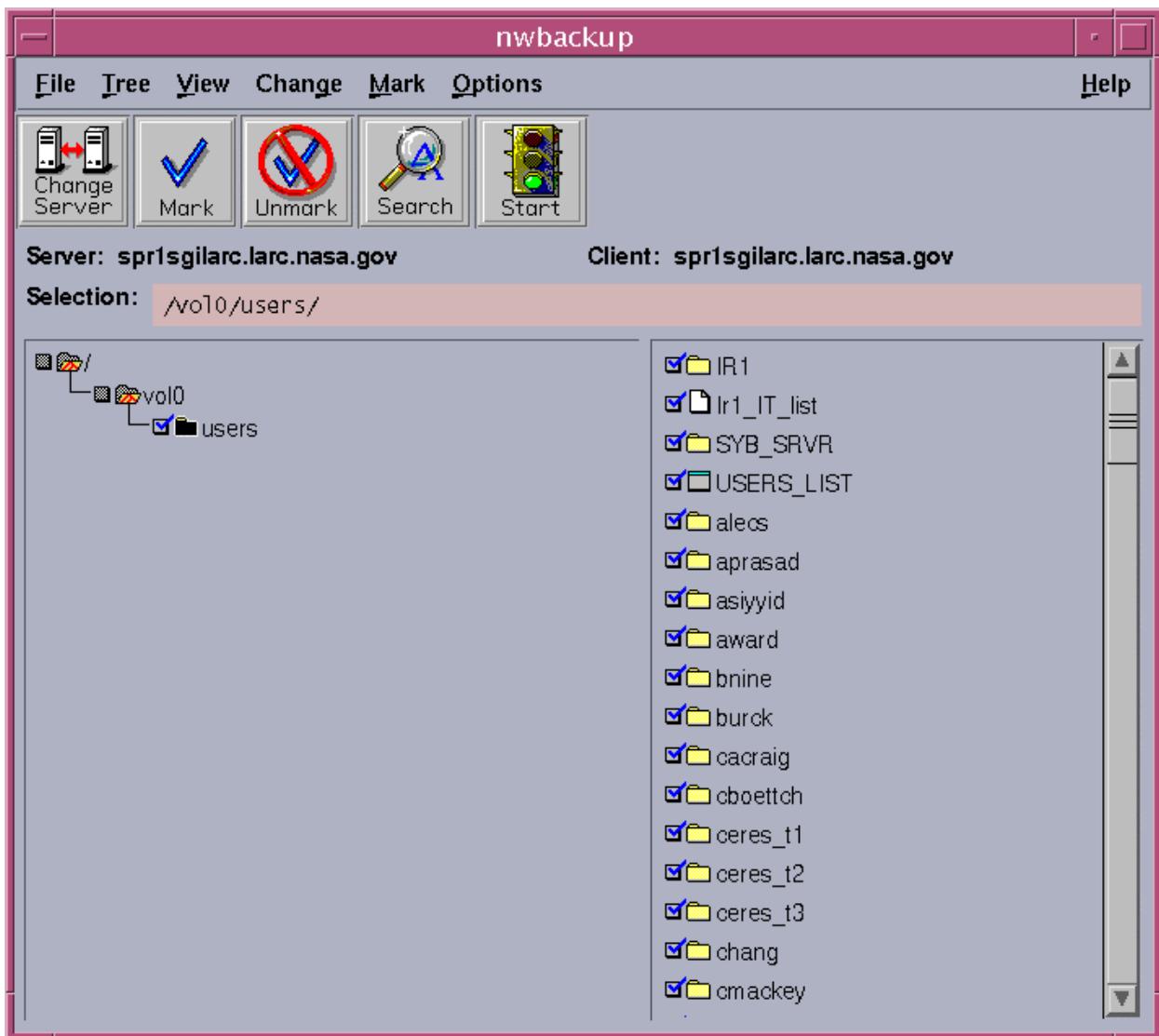


Figure 4.1.1-2. NetWorker Backup Screen

Figure 4.1.1-3 shows the nwrecover screen. For more information on NetWorker Recover, see the *NetWorker User's Guide*.

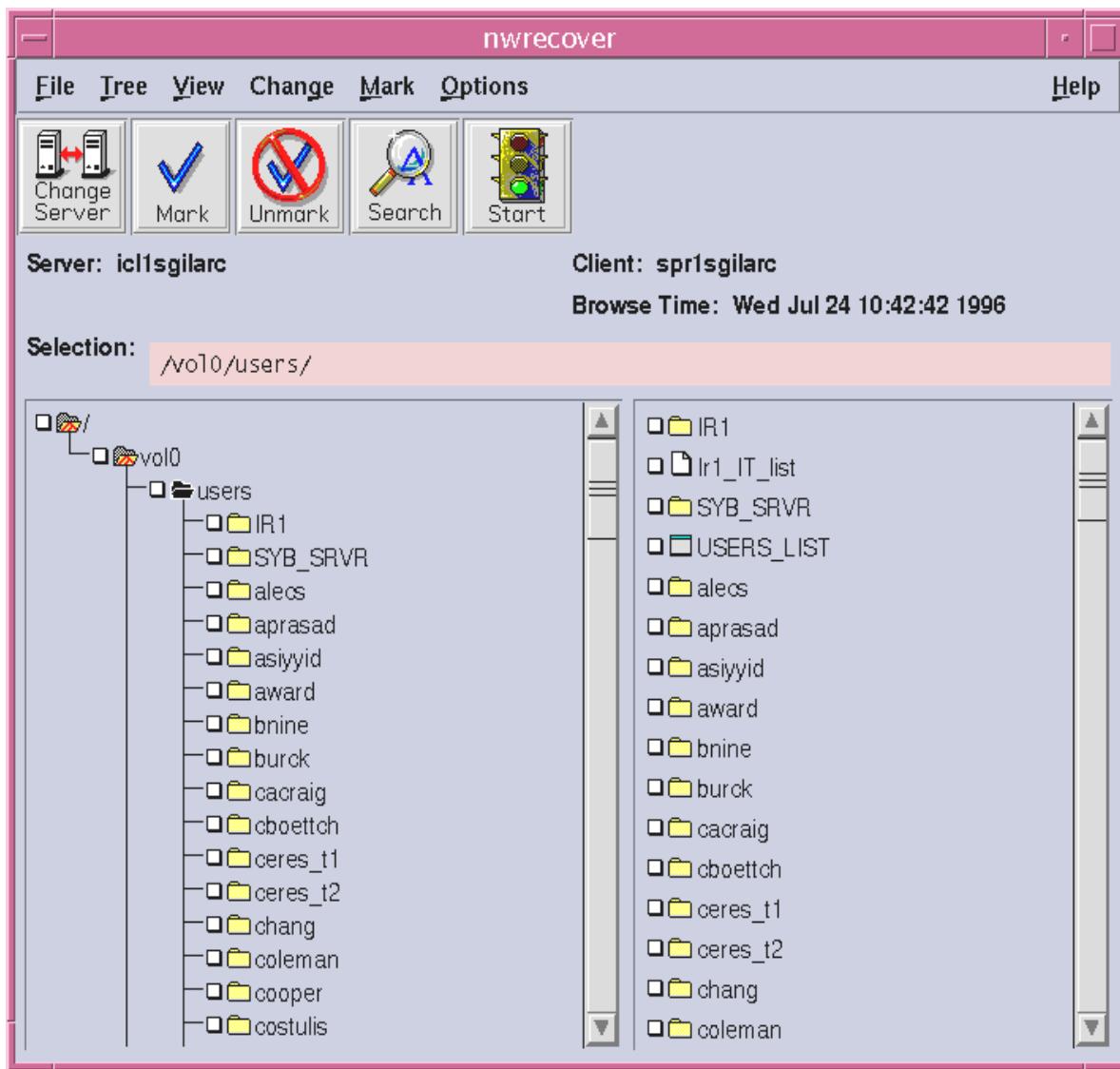


Figure 4.1.1-3. NetWorker Recover Window

4.1.1.3 Required Operating Environment

For all COTS packages, appropriate information on operating environments, tunable parameters, environment variables, and a list of vendor documentation can be found in a CM controlled document for each product. To find the documentation for Legatto Networker, refer to the ECS Baseline Information System web page, URL <http://cmdm.east.hitc.com/>.

4.1.1.4 Databases

The \$Installed_dir/nsr/index directory maintains a database of files that have been backed up and the availability of the backup such as tape number and whether it is online or on a volume of tapes

that has been migrated. This information is in a proprietary format that can only be read using the nwrecover tool.

4.1.1.5 Special Constraints

None.

4.1.1.6 Outputs

NetWorker provides the capability to print and save contents of a window as a way to maintain records of NetWorker activities and configurations. For more information, see Chapter 3, Using NetWorker Windows and Menus, *NetWorker Administrator's Guide*.

4.1.1.7 Event and Error Messages

See Appendix A: Error Messages, *NetWorker's User's Guide*, and Appendix A: Troubleshooting, *NetWorker Administrator's Guide*.

4.1.1.8 Reports

None.

4.1.2 DBVision (Future Release)

TBS

Note, this is a placeholder for the above tool that will be included in future releases. This tool will also accommodate minor functions of SQL Monitor.

This page intentionally left blank.

4.1.3 AMASS

AMASS is a file storage management system (FSMS) for the UNIX operating system. The purpose of AMASS in the EOSDIS Core System (ECS) is to provide an easy-to-use interface to large media archives. Media is defined as tape and or optical drives. In terms of hardware, the FSMS host in the ECS architecture is a Silicon Graphics Inc. (SGI) Challenge XL. There are two main types of media libraries in ECS:

StorageTek (STK) Powderhorn using Redwood D3 50GB tapes

EMASS AML using IBM 3590 10GB tapes and/or HP 2600 2.6GB optical drives

STK Powderhorns are used at GSFC, LaRC, NSIDC and EDC. Powderhorns support only tape media. Powderhorns consist of 6 major parts, the Automated Console System for Library Services (ACSLS) which is a Sun Sparc 5 front end controller, the Automated Cartridge System (ACS), Cartridge Access Port (CAP) where tape media are inserted and ejected, the Library Management Unit (LMU) interface unit, Library Control Unit (LCU) to control the robot, Controller/Transport Unit (CTU) racks which hold up to 4 D-3 tape drives and the Library Storage Module (LSM) which includes the robot arms and the tape silo itself. The LSM includes a camera to display operation to the operator and the tape drives. Note that ACSLS is connected to the network via Ethernet.

EMASS Automated Media Libraries (AMLs) are used at the GSFC and EDC DAACs. AMLs support tape and optical media simultaneously. The AML consists of four major parts, the Automated Management Unit (AMU) which is an IBM OS/2 microcomputer controller for the AML, the Entry Interface Facility (EIF) where media can be inserted or ejected from the AML, the tower which is a multilevel turntable that stores the media, the tape and/or optical drives and the robot(s) which take the media from the tower to a tape drive (which is called a mount) and from the tape drive to the tower (which is called a keep). Note that the AMU is connected to the network via FDDI.

Many ECS AMLs will be running two ‘logical’ jukeboxes because both tape and optical drives will be included. This does not change the operation of the system but the operator must be aware to use commands going to the correct jukebox. By convention, juke 1 has the tape drives and juke 2 has the optical drives.

The software components are more complicated. AMASS itself is the part that the user-of-the-system actually uses. AMASS appears to the user as just another UNIX mount point and to and from which one copies, moves or deletes files using standard POSIX dd, mv or rm commands. An operator may view the contents of the archive, monitor the system, or setup new tapes for use through standard commands found in the *Managing the AMASS File System* (Version 4.9). As of AMASS Version 4.7.1 the volserv program has been replaced by a client/server system called Distributed Archive Server (DAS) 1.3 on the AMLs and ACSLS on the STKs. DAS is the ‘glueware’ program that acts as a network transport for AMASS to communicate directly with the AMU controller software and is loaded on the AMU. Once DAS has been configured correctly, it should only need to be monitored unless there is a change to the hardware or for a software upgrade. ACSLS combines the functionality of DAS and the AMU software in a single package.

Once it has been configured correctly it should only need to be monitored unless there is a change to the hardware or for a software upgrade. Telnet is configured on both AMUs and ACSLSs. Lastly, there is a component that also runs on the SGI but it has no user configurable parts.

AMASS is installed on an SGI platform. Control information is communicated from the SGI to the AMU using TCP/IP protocols via FDDI. Figure 4.1.3-1 shows the basic route that *control* information takes in sending a file to AMMASS to an AML or Powderhorn:

1. User/application initiates file transfer to AMMASS
2. AMMASS receives the file over the network via ftp, dd or cp or locally via dd or cp to amass cache
3. AMMASS sends information over the network to the AMU/ACSLS about what tape to load and where to load it.
4. On an EMASS silo, the AMU rotates the tower to the correct position, sends the robot to retrieve the tape, robot grips and retrieves the media and inserts it into the tape/optical drive to complete the mount.
5. On an STK silo, ACSLS moves the arm to the media; the hand grips and retrieves the tape and inserts it into the tape drive to complete the mount.
6. The data is finally written to tape.

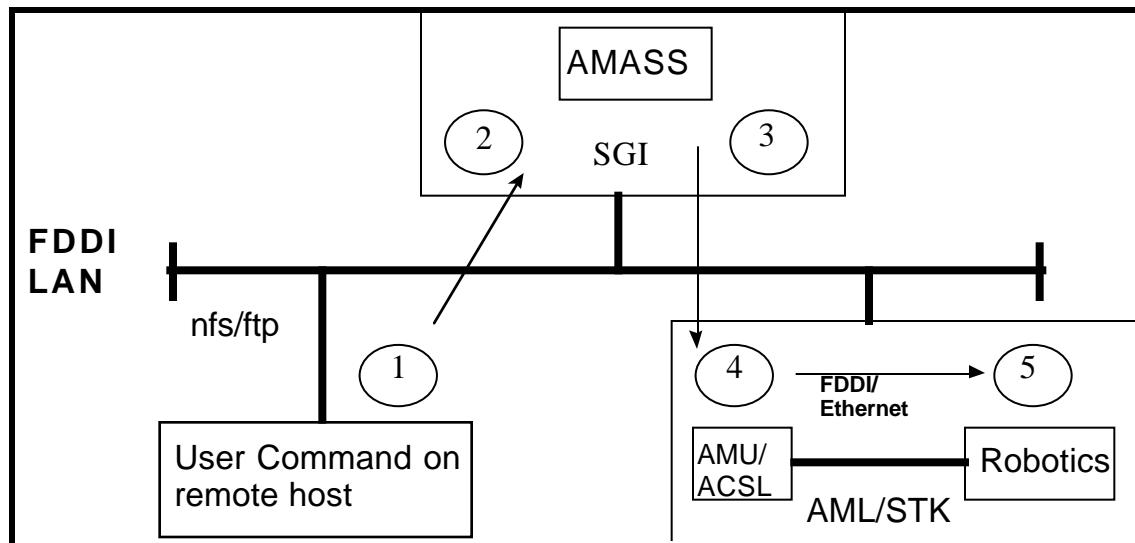


Figure 4.1.3-1. Control Path

The data path is much simpler. A SCSI controller on the SGI is directly connected to the SCSI port on the tape drive. Ideally, each drive gets its own controller. After the above process takes place, AMMASS writes the file to the tape in a very simple block by block method. Note that the format of the tape is proprietary and NOT compatible with CPIO or TAR.

AMASS uses both a command line and a GUI program called aawin to perform the system administration/operator functions listed in Table 4.1.3-1.

**Table 4.1.3-1. Common ECS Operator Functions Performed with AMASS
(1 of 3)**

Operating Function	Command or GUI	Description	When and Why to Use
Boot AMASS	amass_boot	Reboot AMASS	Reboot AMASS
Start AMASS	amass_start	Starts AMASS	Initial startup.
Activate or deactivate the AMASS file system	amassstat aawin GUI	Displays or toggles the status of AMASS (ACTIVE/INACTIVE).	Used to inactivate the file-system for maintenance and/or to reactivate it.
Add a volume	volnew aawin GUI	Introduces a new volume to AMASS and assigns a volume number.	To add storage space for data.
Add space to a volume group	volnew volgroup aawin GUI	Adds additional volumes to an existing volume group.	When more space is required in an existing volume group.
Create a space pool	volnew aawin GUI	One or more volumes assigned to a special volume group of the Space Pool (SP).	To allow AMASS to automatically add space (volumes) to a volume group that has run out of space.
Create a volume group	volgroup setvolgrp aawin GUI	Partitions the volumes in AMASS.	To assign volumes for specific purposes within AMASS .
Delete a volume	volstat voldelete aawin GUI	Removes a volume and its files from the archive.	To delete a volume and any files it contains.
Generate a report	amassreport	Generates <u>standard or user defined report and/or raw output.</u>	To extract information about files and directories from the AMASS index.
Back up the AMASS index	amassbackup	Performs full or partial back up of the AMASS index.	Any time that the system needs to be backed up other than what AMASS's automatic backup provides.
Put a drive into service	drivelist drivestat aawin GUI	Displays the current status of the drives and to change the status.	When an INACTIVE drive is ready to return to service.
Recover dead space	volspace volcomp volformat aawin GUI	Compresses a selected volume.	To recover dead space on volumes.

**Table 4.1.3-1. Common ECS Operator Functions Performed with AMASS
(2 of 3)**

Operating Function	Command or GUI	Description	When and Why to Use
Reinitialize the AMASS index	Refer to the vendor documentation for the command and procedure	Clears out the existing index and reinitializes it to an empty index.	Only when AMASS is not running.
Reintroduce an offline volume	vollist volslot bulkinlet volloc	Reintroduces an offline volume to a jukebox.	If data from an offline volume needs to be referenced for read access.
Remove a volume or volume group	vollist, voloutlet, volloc aawin GUI	Removes a volume or an entire volume group from the jukebox.	To make room for new volumes or because data not being used needs to be retained.
Remove space from a volume group	vgroot #VG setvolgrp /path #VG volgroup	Removes space from one volume group to add it to another.	When space is needed in another volume group.
Replace a full backup volume	voloutlet 1, bulkinlet 0, vollabel {to rename} tapedlength 1 2 volformat -b 256k 1 amassbackup -fv	Initializes a new backup volume and performs a full backup.	When the backup volume is 95% full.
Restore the AMASS database	amassrestore	Restores the index either completely or to the point of the last full or partial backup.	When the index is corrupt on the magnetic disk do not use the amassrestore command when AMASS is running.
Retrieve system usage by user	amassreport	Displays the number of files and directories owned by a user and the amount of space they take up.	To get statistical information on the amount of space used by an individual(s).
Retrieve system usage by volume	adf	Displays volume group, jukebox reference number, position of volume, amount of used space, number of directories and files on volume, amount of free and dead space.	To get statistical information about the usage of a particular volume.

**Table 4.1.3-1. Common ECS Operator Functions Performed with AMASS
(3 of 3)**

Operating Function	Command or GUI	Description	When and Why to Use
Reuse a volume	(volcomp, volstat, volclean, volformat aawin GUI	Compresses and moves existing data to another volume, then reformats the volume.	When a volume contains data no longer needed or contains mostly dead space.
Take a drive out of service	drivelist, drivestat aawin GUI	Displays and changes the status of the drive.	When a drive has excessive failures or for maintenance.
Kill AMASS	killdaemons	Kills AMASS execution.	When system downtime planned.

4.1.3.1 Quick Start Using AMASS

For more information about AMASS, refer to the *Managing the AMASS File System* and *Using The AMASS GUI* guides.

The documentation of AMASS used as a basis and referenced in this section is for AMASS 4.9.1.1

4.1.3.1.1 Invoking AMASS From the Command Line Interface

AMASS is normally started at boot and shutdown when the system is shutdown using scripts in the /etc/rc2.d and /etc/rc0.d directories that are linked to the actual scripts in /etc/init.d. AMASS can also be started and stopped from the command line.

To execute AMASS from the command line prompt use:

```
/usr/amass/tools/amass_start
```

To stop AMASS, type:

```
t1drg01 100> /usr/amass/tools/killdaemons
```

AMASS startup at boot can be enabled or disabled using the amass_atboot command. For more information on accessing AMASS via the command line, refer to Chapter 3, Command Reference, *Managing the AMASS File System*.

The AMASSADMIN GUI can be started from the command line by typing

```
/usr/amass/bin/aawin
```

For more information on running the AMASS, refer to *Using The AMASS GUI* guide.

For a description of AMASS commands and the functions they perform, see Chapter 2, Operational Tasks, and Chapter 3 , Commands of the *Managing the AMASS File System*.

4.1.3.2 AMASS Main Screen

AMASS allows the operator to perform a subset of the command line functions, as well as query online index and output results to a file for further processing. For more information on the AMASS, refer to *Using the AMASS GUI* guide.

The window area of the AMASS Main Screen shown in Figure 4.1.3-2 is referred to as 'The Workroom'.

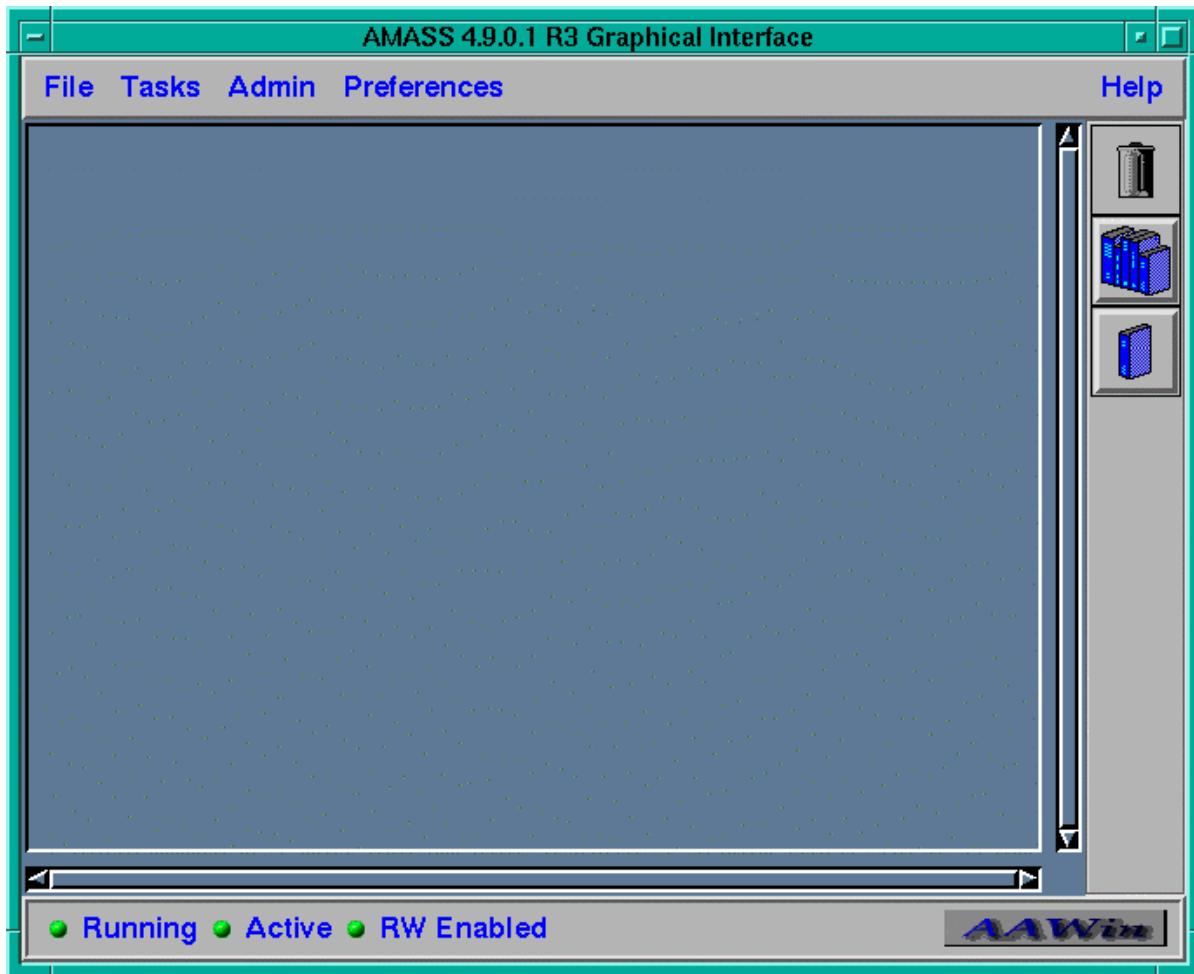


Figure 4.1.3-2. AMASS Main Screen (AAWIN)

AAWIN Pulldown Menu options:

File

Exit: Exits AMASS.

Clear Workroom: Clears the Workroom of all icons.

Tasks

Modify a Volume Group: Change configuration of Volume Group

Modify a Volume: Change parameters associated with a Volume

Admin

Scheduler: Opens the Scheduler Status window.

Sysperf: Opens the sysperf window displaying the status of the AMASS activity.

Preferences

Show/Hide Detail Windows: These windows give a brief description of the items the mouse pointer is touching.

Help: Opens the Help Window.

AMASS Utility Bar options (the Utility Bar is a vertical toolbar on the right side of the Main Screen)

Trash Can icon

Volume Group icon displays the volume group icons in the Workroom as shown in Figure 4.1.3-3.

Volume icon displays volume icons in the Workroom.

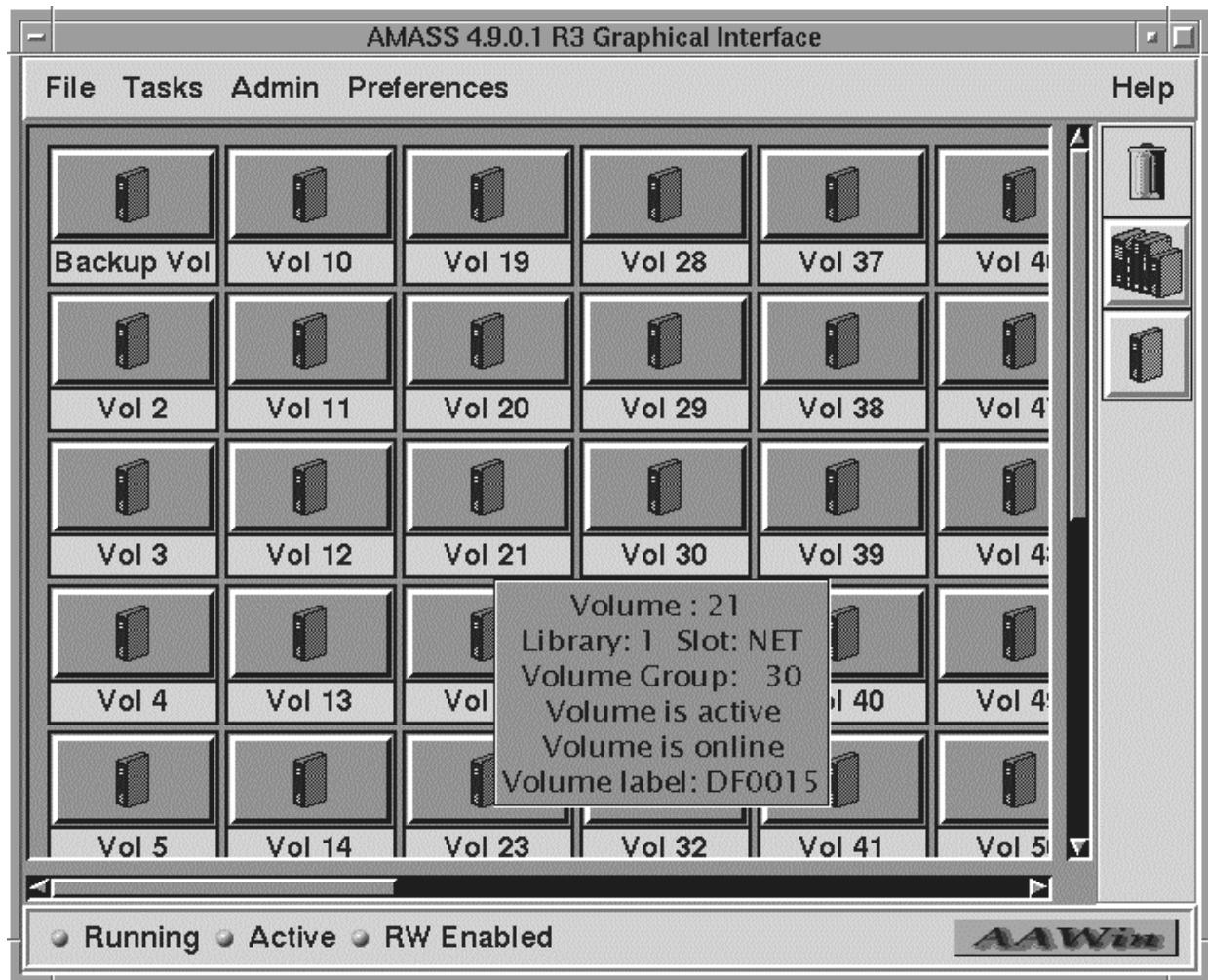


Figure 4.1.3-3. AMASS Main Screen showing selected volumes in the Workroom

4.1.3.3 Required Operating Environment

AMASS requires a UNIX environment. AAWIN requires an X-window server.

For all COTS packages, appropriate information on operating environments, tunable parameters, environment variables, and a list of vendor documentation can be found in a CM controlled document for each product. To find the installation and release notes for AMASS and ACLS, refer to the ECS Baseline Information System web page, URL.

<http://cmdm.east.hitc.com/>.

4.1.3.3.1 Interfaces and Data Types

The commands and the AMASS GUI that operations staff use to interface with AMASS are described in the *Managing the AMASS File System* and *Using The AMASS GUI*.

4.1.3.4 Databases

The File Storage Management System provided by EMASS Company includes the RAIMA database product. AMASS utilization of the database is transparent to the operator.

4.1.3.5 Special Constraints

None.

4.1.3.6 Outputs

Output from the AMASS consists of the data displayed on the GUI described in Section 4.1.3.2, database updates or additions to the database referenced in Section 4.1.3.4, error and event messages described in Section 4.1.3.7, and reports described in Section 4.1.3.8 which may produce file outputs in response to user actions or are printed.

4.1.3.7 Event and Error Messages

AMASS generates the following types of messages:

- **Informational (AMASS_I):** Informational messages inform you about a process or situation. The status of AMASS is not changed when you receive an informational message.
- **Warning (AMASS_W):** Warning messages inform you of situations that require attention but do not inhibit the functioning of AMASS.
- **Error (AMASS_E):** Error messages require the immediate attention of the System Administrator to insure the proper functioning of AMASS.
- **System (AMASS_S):** System messages indicate internal errors and should be reported to the EMASS Technical Assistance Center (ETAC).

AMASS uses the standard syslogd function of the operating system for all of its warning, error and system messages. This facility allows the system administrator to control the output destination(s) of these messages.

With the /etc/syslog.conf file, the operator can control the destination of each of the message types. The syslog.conf file is typically set up to log all levels of AMASS messages to var/adm/messages. The console is typically set up to see all AMASS levels generated by the kernel facility and the system and error level generated by the daemon facility.

For a description of AMASS event and error messages, refer to *Errors and Corrective Action* (AMASS) manual.

4.1.3.8 Reports

AMASS reports provide information of the AMASS holdings using the **amassreport** report generator. Specific reports may be tailored for specific information on the basis of selections by

date, file, directory, errors, length, size, or IDs. All reports have the column heading listed in Table 4.1.3-2.

Table 4.1.3-2. Amassreport Column Headings

Heading	Description
Name	Name of file
Parent	Record ID of Parent.
Last Accessed	Last Accessed date on timestamp.
Mode	Permission IDs.
Size	File size in megabytes
File ID	File Number.
UID	User ID
GID	Group ID
Last Modified	Date and time showing date the file was last modified.
Vol	File is located on this volume number.

Table 4.1.3.-3 below lists two types of AMASS reports using the **amassreport** command.

Table 4.1.3-3. Amassreport Report Types

Output	Description and Format
formatted report	prints a column header at the top of each page
raw output	prints data without a column header can be used with other utilities to generate custom reports

The content of both types of tables is the same. The raw output type is meant to be used to provide input for further processing to a more complete reporting system.

For information on using **amassreport** see Chapter 3, Command Reference, *Managing the AMASS File System*.

4.1.3.8.1 Sample Report

Figure 4.1.3-4 is an example of a formatted amassreport showing volume group 20.

NAME VOL	SIZE	FILEID	PARENT	UID	GID	LAST MODIFIED	LAST ACCESSED	MODE
file_create 20 0		23	2	3137	20	Oct 21 10:06	Nov 06 18:17	drwxrwxr-x
testfiles1 20 0		171147	23	435	20	Oct 22 08:57	Nov 04 06:32	drwxr-xr-x
random_files 20 0		333451	23	435	20	Sep 11 1996	Nov 04 08:04	drwxr-xr-x
portioned_random_files 20 0		1751199	23	3137	20	Sep 25 1996	Nov 04 08:04	drwxr-xr-x
logs_tape 20 0		2975809	2	435	20	Oct 22 1996	Nov 03 23:01	drwxrwxr-x

Figure 4.1.3-4. Amassreport example showing Volume Group 20

This page intentionally left blank.

4.1.4 ISQL

Interactive SQL (ISQL) is a stand-alone SQL command parser utility provided with the Sybase SQL Server and is available on all platforms that Sybase is available. ISQL is executed directly from the operating system level, and is used to interact with a SQL server and the databases on a SQL server. It allows for the interactive issuance and execution of Sybase Transact-SQL statements and sends the Transact-SQL commands to the SQL Server, formatting the results and printing them on the standard output. ISQL is used to perform the operator functions listed in Table 4.1.4-1.

**Table 4.1.4-1. Common ECS Operator Functions Performed with ISQL
(1 of 3)**

Operating Function	Command/Script	Description	When and Why to Use
Monitor database and user activity	See Chapter 1 - Overview of System Administration in the <i>System Administration Guide for SQL Server</i>	There are various database management activities performed in Sybase SQL Server to keep the databases running for day-to-day operations	Database and user activity is monitored to manage and control various day to-day operations of the DAAC and to prevent or resolve any unforeseen problems
Provide and control users' database access	<ul style="list-style-type: none"> • See Chapter 4 - Managing SQL Server Logins and Database Users in the <i>System Administration Guide for SQL Server</i> • See Chapter 5 - Managing User Permissions in the <i>System Administration Guide for SQL Server</i> 	<ul style="list-style-type: none"> • Create user accounts, set account default databases and other account configurable items • Grant proper permissions to user accounts 	<ul style="list-style-type: none"> • It may be necessary to provide access to individual users or groups of users on a temporary, permanent, or on-demand basis • Access to data at the DAAC should be controlled so it is not accidentally deleted, modified, or obtained without permission

**Table 4.1.4-1. Common ECS Operator Functions Performed with ISQL
(2 of 3)**

Operating Function	Command/Script	Description	When and Why to Use
Grant roles and assign various privileges on database objects	See Chapter 2 - Roles in SQL Server in the <i>System Administration Guide for SQL Server</i> Chapter 5 - Managing User Permissions in the <i>System Administration Guide for SQL Server</i>	Roles and user accounts are necessary to provide access and security to databases under Sybase SQL Server	<ul style="list-style-type: none"> • Proper database management roles such as SSO (System Security Officer), SA (System Administrator), OPER (Operator) are essential to the proper management of the databases at DAACs • Providing the proper level of privileges to each user of the databases prevents any accidental or unforeseen mishaps with the data (data integrity is also maintained)
Monitor, control, and manage the use of disk space, memory and connections	See Chapter 3 - Managing Physical Resources in the <i>System Administration Guide for SQL Server</i> Chapter 6 - Checking Database Consistency in the <i>System Administration Guide for SQL Server</i>	<ul style="list-style-type: none"> • All databases running under Sybase SQL Server are physically stored on various devices and require various amounts of memory based on the usage of data • These resources have to be properly monitored 	<ul style="list-style-type: none"> • Resources for storage and manipulation of data are always at a premium • Proper management of these resources is essential in reducing errors, database crashes and unwanted downtime
Backup and restore databases	<ul style="list-style-type: none"> • See Chapter 7 - Developing a Backup and Recovery Plan in the <i>System Administration Guide for SQL Server</i> • Chapter 8 - Backing up and Restoring user databases, in the <i>System Administration Guide for SQL Server</i> • Chapter 9 - Backing up and Restoring the system databases in the <i>System Administration Guide for SQL Server</i> 	Backup of databases provides for quick recovery and maintenance of data integrity	<ul style="list-style-type: none"> • Most Database Administrators perform a daily backup of all their databases and perform recovery operations when a database crashes and is unrecoverable by other recovery methods • Proper backup and recovery plans allow for full, quick recovery and zero loss of data • Regular backup of data, is essential in reducing downtime in case of a database crash

**Table 4.1.4-1. Common ECS Operator Functions Performed with ISQL
(3 of 3)**

Operating Function	Command/Script	Description	When and Why to Use
Diagnose system problems	<ul style="list-style-type: none"> • See Chapter 11 - Diagnosing System Problems in the <i>System Administration Guide for SQL Server</i> • Also see the <i>SYBASE SQL Server Troubleshooting Guide</i> 	<ul style="list-style-type: none"> • Diagnosing problems with the operation of SQL Server is a regular part of database administration tasks • ISQL is used as a command line tool for interfacing with the SQL Server 	<ul style="list-style-type: none"> • Anytime the SQL server is not performing according to expectation or any database on SQL Server has crashed, the problem(s) must be diagnosed by checking current SQL Server status information • All problems must be properly resolved for successful operation of SQL Server
Fine-tune SQL server performance	See Chapter 12 - Fine tuning Performance and Operations in the <i>System Administration Guide for SQL Server</i>	A continuous operations and administration activity that may involve any of the above listed operating functions to make sure SQL Server makes best use of its resources and to gain maximum performance from SQL Server	The SQL Server is fine tuned whenever storage or data requirements have changed, number of users have changed, new databases are added or existing databases are deleted, any SQL Server settings are modified, or any external environment changes have occurred which may impact the SQL Server

In addition, the DAAC user community may use ISQL to:

- request data from various databases by issuing Transact-SQL statements
- insert, update, or delete data from various databases by issuing Transact-SQL statements
- change their passwords

4.1.4.1 Quick Start Using ISQL

This section presents an orientation of ISQL. For more information on ISQL, refer to the *SQL Server Utility Programs for UNIX*.

Other manuals that the operator may find useful are:

- *System Administration Guide for SQL Server* (SQL Server administration issues)
- *System Administration Guide Supplement* (operating-system specific system administration tasks)
- *Open Client DB-Library/C Reference Manual* (man pages and code samples for the SQL Server interface library, Open Client DB-Library)

- *The SQL Server Installation Guide* (installation procedures for SQL Server)
- *SQL Server Reference Manual Vol. 1 and Vol. 2* (commands and system procedures)

Further documentation support for Sybase's ISQL can be found at the Sybase home page at:

<http://www.sybase.com/>

4.1.4.1.1 Invoking ISQL From the Command Line Interface

To execute ISQL from the command line prompt use:

isql

For detailed instructions on how to invoke ISQL see Chapter 3 - Using ISQL in the *SQL Server Utility Programs for UNIX* guide.

4.1.4.2 ISQL Main Screen

There is no ISQL GUI. The ISQL uses a command line interface for operator communications.

4.1.4.3 Required Operating Environment

The utility program ISQL is invoked directly from the UNIX operating system via the command line.

For all COTS packages, appropriate information on operating environments, tunable parameters, environment variables, and a list of vendor documentation can be found in a CM controlled document for each product. To find the documentation for ISQL, refer to the ECS Baseline Information System web page, URL <http://cmdm.east.hitc.com/>.

4.1.4.3.1 Interfaces and Data Types

SQL Server requires an interfaces file to map logical server names to physical network information about those servers. The interfaces file includes server name, network address, and the port number on which the server listens on for queries. For detailed information on the interfaces files, refer to the *Open Client/Server Supplement* for your operating system.

4.1.4.4 Databases

For more information on Sybase SQL Server databases, refer to the *SYBASE SQL Server System Administration Guide*.

4.1.4.5 Special Constraints

None.

4.1.4.6 Outputs

Output from the ISQL consists of database updates or additions to the databases referenced in Section 4.1.4.4, and error and event messages referenced in Section 4.1.4.7.

ISQL does not provide formatting options for the output, but the **-n** option eliminates ISQL prompts, while **-e** will include each command issued to ISQL in the output. Other tools can then be used to reformat the output. For further information on formatting ISQL output, refer to the *SQL Server Utility Programs for UNIX* manual.

4.1.4.7 Event and Error Messages

Sybase SQL Server issues both status and error messages from the SQL Server and ISQL formats them to the designated output. For details on setting output options for ISQL the *SQL Server Utility Programs for UNIX* manual.

For more information on error messages, their cause and corrective actions, refer to the *SYBASE SQL Server Error Messages* manual.

4.1.4.8 Reports

None.

This page intentionally left blank

4.1.5 SQR Report Writer (Future Release)

TBS

Note, this is a placeholder for the above tool that will be included in future releases.

This page intentionally left blank.

4.1.6 Intelligent Query and IQ Access (IQ) (Future Release)

TBS

Note, this is a placeholder for the above tool that will be included in future releases.

This page intentionally left blank

4.1.7 Sybase Replication Server (Future Release)

TBS

Note, this is a placeholder for the above tool that will be included in future releases.

This page intentionally left blank.

4.1.8 Global Change Master Directory (GCMD) (Future Release)

TBS

Note, this is a placeholder for the above tool that will be included in future releases.

This page intentionally left blank.

4.1.9 ECSAssist

The ECS Assistant (ECS Assist) is a custom program that simplifies the process of installation, testing and management of ECS. This utility is basically an installation tool that has practical application in the operations environment. The tool is for use in installing software and maintaining the information related to that software. Only the Subsystem Manager function of ECS Assist should be used in the ECS operational environment.

Table 4.1.9-1 summarizes the functions that ECSAssist provides.

Table 4.1.9-1. Common Tasks Performed with ECS Assist

Task	Description	When and Why to Use
Subsystem Manager actions	Selections on the Subsystem Manager's screen, see section 4.1.9.2.1.	Installing software and performing maintenance on software parameters.
Database	Used to install, drop, patch, and update subsystem specific databases.	When database updates or upgrades are implemented. See sections 4.1.9.2.1.1.
Install	Used to install ECS custom software into the selected mode.	As necessary to install software. See section 4.1.9.2.1.2.
Shutdown Servers	Shutdown server(s) for a selected component, application or executable.	When restart of server is necessary or server use has completed.
Configuration	Creates Configuration File (CFG), Management Agent Configuration File (ACFG) and Parameter Configuration (PCFG) files for selected components.	When installing or updating software components. See section 4.1.9.2.1.4.
Registry Data Patch	Used to update registry database	As desired for registry database updates. See section 4.1.9.2.1.6.
Stage Area Installation	Used to capture the location of the delivered software staging area.	As desired to identify a staging area. See section 4.1.9.2.1.7.
Start Servers	Used to start servers within the selected component, application or executable.	Each DAAC has unique start scripts that start one or all applicable servers. This task is generally used during test periods.
ESDT Manager	Supports configuring of ESDTs at the DAAC.	As needed to configure new ESDTs at DAAC.
View Task Output	Used to view task log files.	As desired to view log files. See section 4.1.9.2.1.8.

4.1.9.1 Quick Start Using ECSAssist

To execute ECSAssist from the command line prompt use the following procedure:

>/EcCoAssist source_file location [ssh]

where **source_file location** can be:

/tools/common/ea – or –

/ecs/formal/COMMON/scripts – or –

any directory where Ecs Assist resides.

Type **ssh**, as an argument, if you want EASI to use Secure Shell to connect to hosts.

The default is to use Remote Shell.

>setenv DISPLAY <current_host>

>setenv ECS_HOME /usr/ecs

>setenv DEBUG 1 (Set only to capture any errors generated by Ecs Assist)

The **/tools** mount point must be mounted.

File **/tools/common/ea** must exist in the path. (This can be set in the **.cshrc** or **.kshrc** file)

>EA

...or, if this alias is not available, use the following:

>/tools/common/ea/EcCoAssist /tools/common/ea [ssh] &

A screen labeled "Thanks for choosing ECS Assistant" will appear for 5 seconds.

The following text will be displayed:

"debug is [enabled | disabled]" *depending if DEBUG is set.*

EASI will use [Secure Shell | Remote Shell] to connect to hosts...

4.1.9.2 ECSAssistant Main Screen

The ECS Assistant main screen shown in Figure 4.1.9-1 identifies the user, host machine, ECS site and ClearCase view in effect. From the main screen, the user may invoke ECSAssist functions as described in Table 4.1.9-2.



Figure 4.1.9-1. ECS Assist Main Screen.

Table 4.1.9-2 summarizes the information and capabilities presented on the ECS Assist Main Screen.

Table 4.1.9-2. ECS Assist Options and Field Descriptions

Option/Field	Action	Description
User:	Display only	User's logon ID.
Host:	Display only	Host on which executing.
Site:	Display only	ECS site ID.
View	Display only	Clearcase view in effect.
Toolbar menus		
File	Click on File on the toolbar of the ECS Assistant screen.	Pull down menu showing the following options.
Clear Debug File	In the File menu, click Clear Debug File.	Clear contents of debug log file.
Preferences	In the File menu, click Preferences.	Allows user to select preferences.
Exit	Click Exit	Terminates ECSAssist execution.
Help	Click on Help on the ECS Assistant screen Toolbar.	Pulls down menu showing "Contents", "Read Me" and "About" selections.
Function buttons:		
Subsystem Manager	Perform software installation and maintenance functions.	See Section 4.1.9.2.1.
ESDT Manager	Clicking this button invokes the Earth Science Data Type (ESDT) Manager	
E.A.S.I.	Clicking this button invokes the ECS Assist Simple Installation (EASI) option.	Allows one user to facilitate a complete (FULL) or custom installation of ECS software.
Help	Click on Help	Brings up Help on use of ECSAssist.
Exit	Click on Exit	Terminates ECSAssist execution.

4.1.9.2.1 The ECSAssist Subsystem Manager

In the ECSAssist Main Screen, click on the **Subsystem Manager** button. Figure 4.1.9-2 below presents the ECSAssist Subsystem Manager screen.

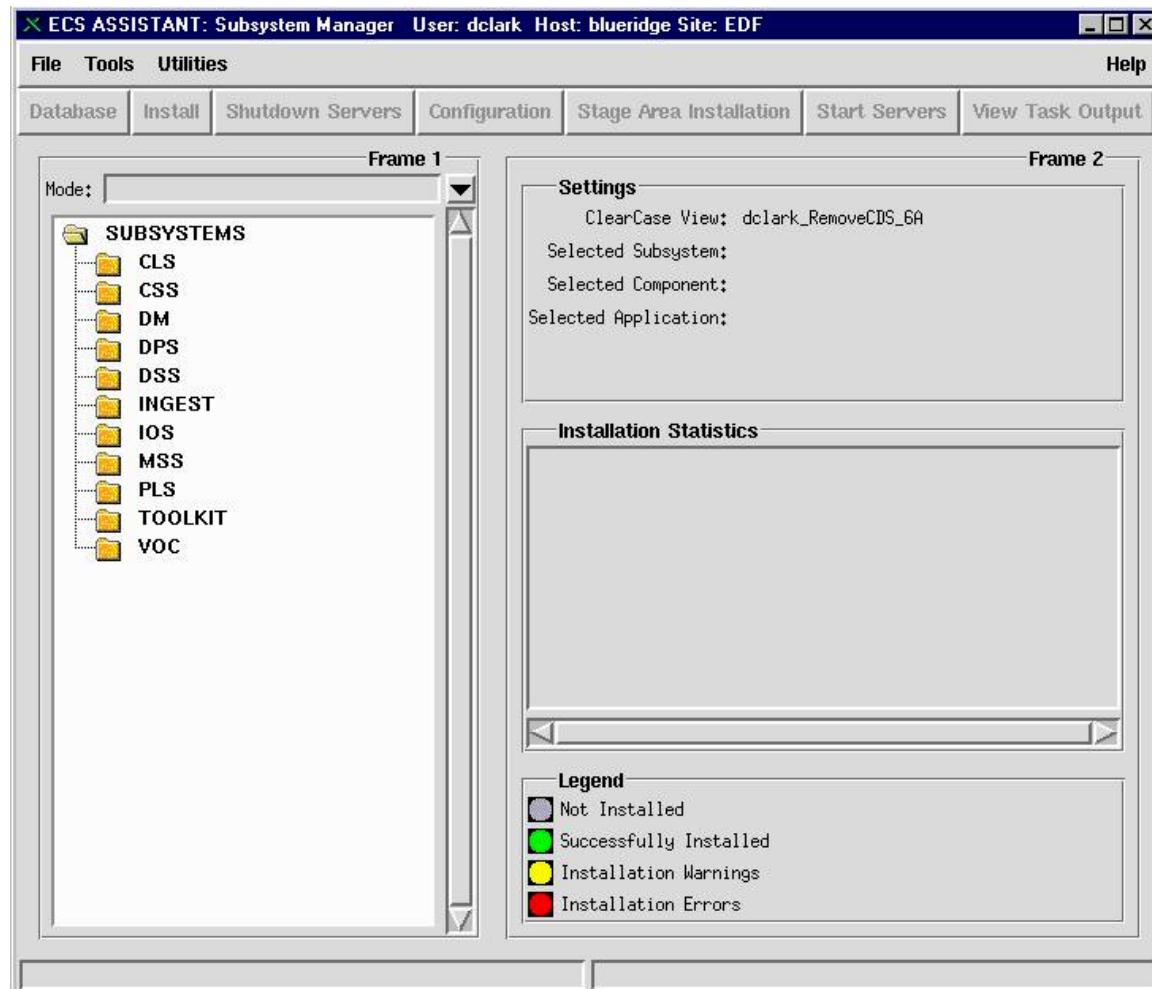


Figure 4.1.9-2. Subsystem Manager Screen

The Subsystem Manager toolbar and **Common Tasks** options are described in Table 4.1.9-3.

Table 4.1.9-3. ECSAssist Subsystem Manager Toolbar (1 of 2)

Option/Field	Action	Description
Toolbar options:		
File	Click on File on the Subsystem Manager screen Toolbar.	Pull down menu showing Save As and Close selections.
ESDT Manager	In the File menu, click ESDT Manager.	Used to configure (copy) descriptor files and associated shared objects to the proper location.
Clear Debug File	In the File menu, click Clear Debug File.	Allows user to clear current contents from debug file /[HOME_DIR]/.EA_DebugLog.
ClearTask Output File	In the File menu, click Clear Task output File.	Allows users to clear the file containing installation specific results.
Preferences	In the file menu, click Preferences.	Allows users to select preferences.
Exit	In the file menu, click Exit.	Exits Subsystem Manager.
Tools		
Clean Logs	In the Tools menu, click Clean logs.	Allows users to remove outdated log files.
System Messages	In the Tools menu, click on "System Messages".	Displays system messages from /var/adm.
Re-Read .sitemap file	In the Tools menu, click on "Re-read .sitemap file".	If there is a change to the .sitemap file, this function re-reads to obtain the latest information.
Override .sitemap file (EDF Only)	In the Tools menu, click "Override .sitemap file".	Only available to EDF sites. Used for custom sitemap files.
Registry Data Patch	In the Tools menu, click "Registry Data Patch"...	Allows user to update registry database..
Utilities		
DB Viewer	In the Utilities menu, click "DB Viewer".	Requires Database login to view inserted granules.
Extensions	In the Utilities menu, click "Extensions".	Pulls down menu showing a list of subsystem specific executables used for supporting tasks.
Help	Click on Help on the Subsystem Manager Screen Toolbar.	Displays latest information about Ecs Assist.

Table 4.1.9-3. ECSAssist Subsystem Manager Toolbar (2 of 2)

Option/Field	Action	Description
Common Tasks	-	Area of the screen below toolbar containing the following specialized task buttons.
database	Click on database button	Used to install, drop, patch, and update subsystem specific databases.
install	Click on install button	Used to install ECS custom software into the selected mode.
Shutdown Servers	Click on Shutdown Servers button	When restart of server is necessary or server use has completed.
Configuration	Click on Configuration button	Creates CFG, ACFG and PCFG files for selected components.
Stage Area Installation	Click on Stage Area Installationbutton	Used to capture the location of the staging area.
start Servers	Click on Start Servers button	Each DAAC has unique start scripts that start one or all applicable servers. This task is generally used during test periods.
View Task Output	Used to view task log files.	As desired to view log files. See section 4.1.9.2.1.8.
Frame 1	Display Only	
Mode	Listbox Click	Click to display a list of available modes.
Subsystems Hierarchical Listing	Double Click	Double click to display associated components, applications and executables.
Frame 2	Display Only	
Settings	Display only	Lists user's current selections.
Installation Statistics	Display only	List installation specific statistics.
Legend	Display Only	When an install task has completed, a color of Yellow, Red or Green highlights the selected subsystem to denote the severity of the install as follows: Green - Perfect installation Yellow - Install warnings Red - Install errors

4.1.9.2.1.1 ECSAssist Subsystem Manager’s “*database*” Screen

The Database Configuration Screen is used to install, drop, patch, and update subsystem specific databases. From the ECSAssist Subsystem Manager screen click the *database* button to initiate the database process. If there is more than one database parameter file (.dbparms) detected when the *database* button is pressed, ECSAssist will ask which one to use with the Select a File popup window shown in Figure 4.1.9-3. The listbox in the lower half of this popup above the “Ok” button contains the name of the database parameter files that were detected.

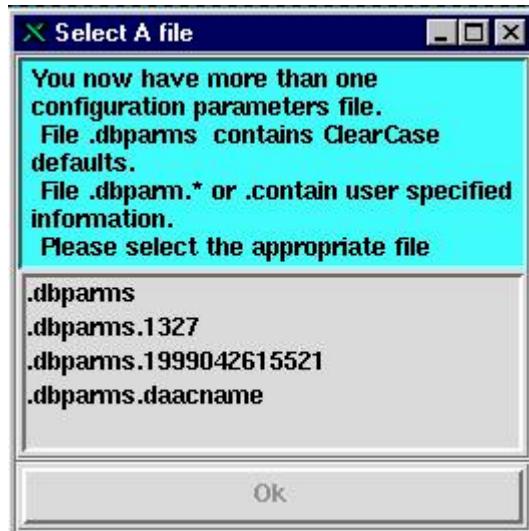


Figure 4.1.9-3. File Selection Popup Window

Select one of the .dbparms files to use and then clicks on the **Ok** button. The fields for this screen are described in Table 4.1.9-4.

Table 4.1.9-4. Database Parameter File Selection Field Descriptions

Option/Field	Action	Description
listbox	Click on desired parameter file	Contains list of .dbparms type files discovered. Click on the one to use and then the Ok button.
Ok	Click this after selecting a .dbparms type file in the listbox.	Launches database script screen associated with the selected parameter file in the listbox

On selection of a .dbparms file, ECSAssist brings up the Database Configuration Screen shown in Figure 4.1.9-4.



Figure 4.1.9-4. Subsystem Manager “database” Screen

Table 4.1.9-5 describes the fields displayed on the "database" screen.

Table 4.1.9-5. ECS Assist Subsystem Manager’s “database” Field Descriptions

Option/Field	Action	Description
Database Config Screen	Display only	Window title
EcDsSrDbBuild	Display only	Component passed from the Subsystem Manager screen
SQSSERVER	Entry	Configurable item for the displayed Component
GROUPNAME	Entry	Configurable item for the displayed Component
ENVIRONMENT	Entry	Configurable item for the displayed Component
OK	Click	Displays the database script screen
Cancel	Click	Aborts process

4.1.9.2.1.2 ECSAssist Subsystem Manager’s “database script parameters” Screen

This screen is triggered from the ECSAssist Subsystem Manager’s “database” screen, section 4.1.9.2.1.1 above. The screen is used to input the parameters to set up the database. In the ECSAssist Subsystem Manager’s “database script parameters” screen, shown in Figure 4.1.9-5, the user must enter all parameters to initiate the respective database script.

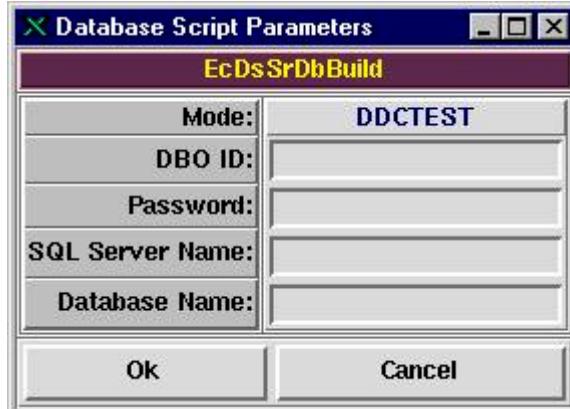


Figure 4.1.9-5. Subsystem Manager “database script parameters” Screen

Table 4.1.9-6 describes the control and information fields on the "database script parameters" screen.

Table 4.1.9-6. ECS Assist Subsystem Manager’s “database script parameters” Screen Field Descriptions

Option/Field	Action	Description
Database Script Parameters	Display only	Window title
EcDsSrDbBuild	Display only	Title
Mode	Display only	Displays selected mode.
DBO ID	Entry	Enter dbo id
Password	Entry	Enter password
SQL Server Name	Entry	Enter sql server name
Database Name	Entry	Enter database name
OK	Click	Initiates process
Cancel	Click	Aborts process

4.1.9.2.1.3 ECSAssist Subsystem Manager’s Install Screen

This screen is used to install ECS custom software into the selected mode. From the ECSAssist Subsystem Manager screen click the install button to initiate the installation process.

Figure 4.1.9-6 presents the Install screen.

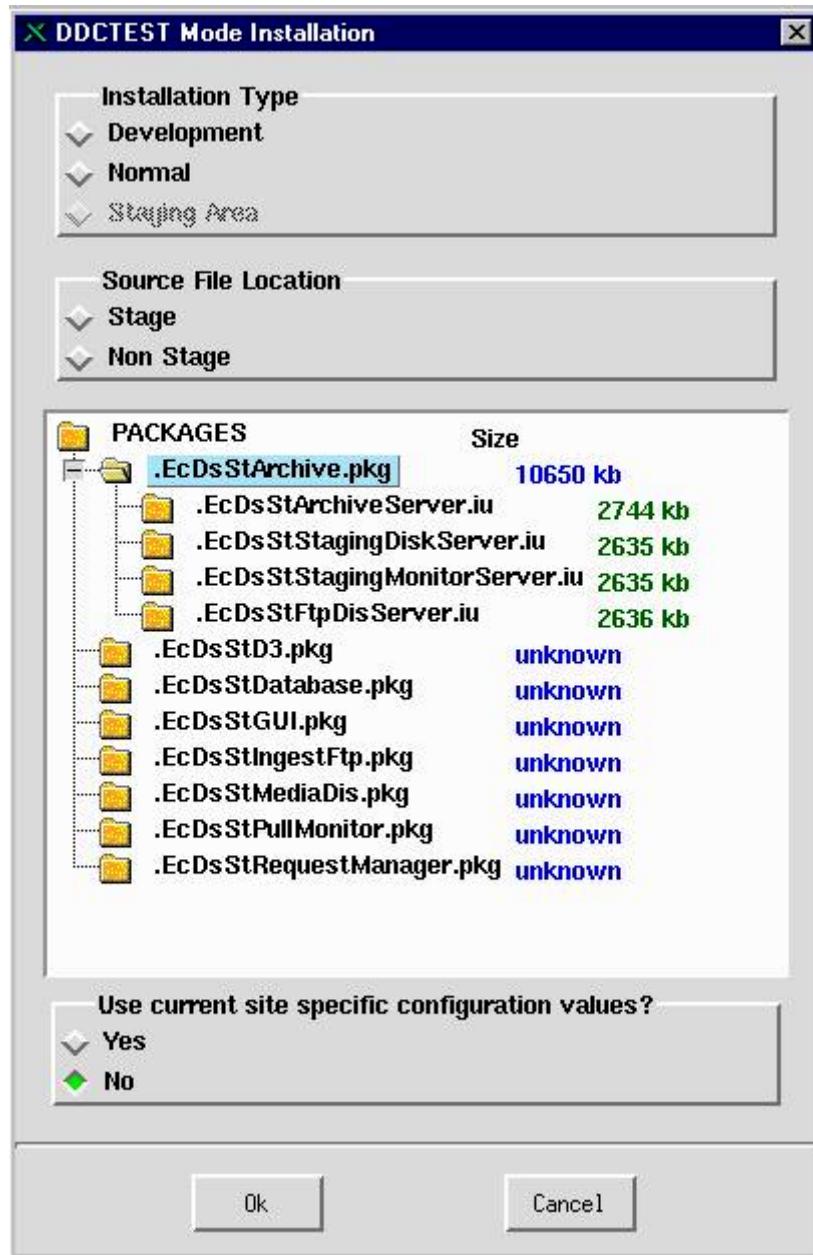


Figure 4.1.9-6. Subsystem Manager Install Screen

Table 4.1.9-7 describes the control and information fields on the install screen.

Table 4.1.9-7. ECS Assist Subsystem Manager Install Field Descriptions

Option/Field	Action	Description
Installation Type	Display only	Heading.
Development	Click	Creates symbolic links to ClearCase.
Normal	Click	Copys binaries and libraries to selected mode.
Staging Area	Click	Installs Mode from staging area.
Source File Location	Display only	Heading.
Stage	Click	To obtain files from the nightly build.
Non Stage	Click	Allows testing of changes before a merge to branch is performed.
Standard	Click	Default setting. Used to list available packages.
Custom	Click	Not available in Release 4.
Packages	Display only	Heading.
Package Hierarchical Listings	Click	To select one or more packages
	Double Click	To display associated installable unit(IU) files
Installable unit list	Click	To select on or more installable unit(IU) file(s)
Overwrite site specific configuration values	Display only	Heading
Yes	Click	Use site specific .cfgparms and .dbparms file.
No	Click	Do not use site specific .cfgparms and .dbparms file. Allow user to make selection of choice.
Ok	Click	Executes installation process.
Cancel	Click	Aborts Installation process.

4.1.9.2.1.4 ECSAssist Subsystem Manager’s “Configuration File Selection” Screen

The configuration file selection window shown in Figure 4.1.9-8 allows a user to select a .cfgparms file with configuration values that were entered by the user or should be used when starting servers.

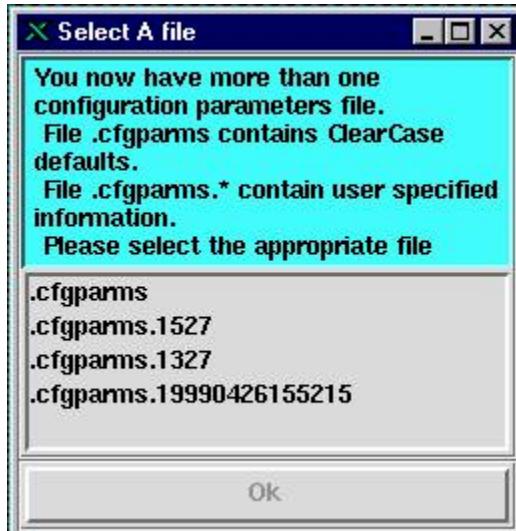


Figure 4.1.9-8. Configuration File Selection Window

Table 4.1.9-8 describes the control and information fields on the configuration selection window.

Table 4.1.9-8. Configuration File Selection Window Field Description

Option/Field	Action	Description
listbox	Click on entry in list	Select file of choice; enables Ok button.
Ok	Click	Launches configurable parameters screen.

4.1.9.2.1.5 ECSAssist Subsystem Manager’s “Configuration” screen

Clicking the “Configuration” button on the ECSAssist Subsystem Manager screen brings up the “mkcfg” window shown in Figure 4.1.9-9. Through this screen, ECSAssist creates CFG, ACFG and PCFG files for selected components.

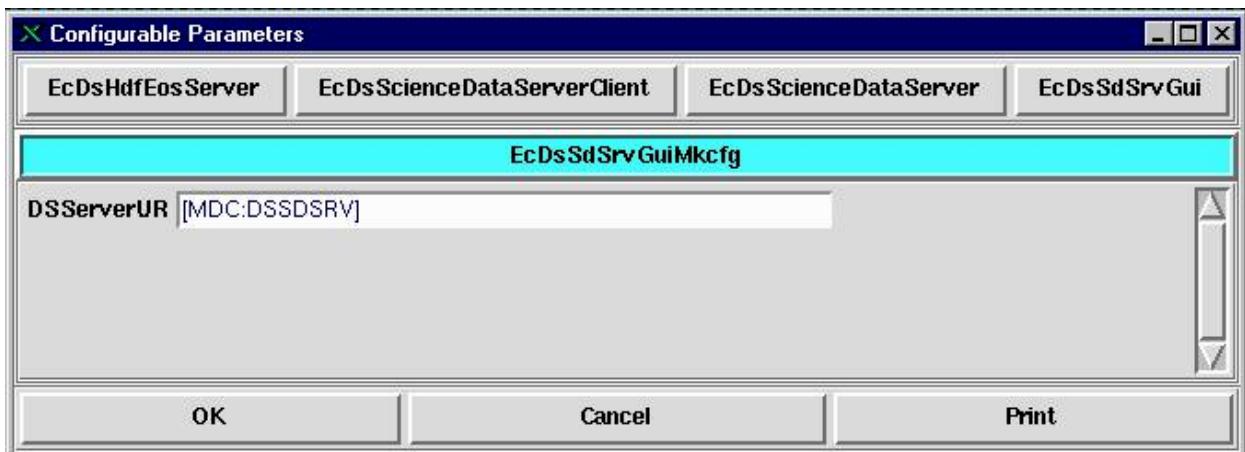


Figure 4.1.9-9. Subsystem Manager “Configuration” Screen

Table 4.1.9-9 describes the control and information fields on the "mkcfg" screen.

Table 4.1.9-9. ECS Assist Subsystem Manager “Configuration” Field Descriptions

Option/Field	Action	Description
EcDsHdfEosServer	Click	Allows user to configure EcDsHdfEosServer .
EcDsScienceDataServerClient	Click	Allows user to configure EcDsScienceDataServerClient .
EcDsScienceDataServer	Click	Allows user to configure EcDsScienceDataServer .
EcDsSdSrvGui	Click	Allows user to configure EcDsSdSrvGui .
EcDsSdSrvGuiMkcfg	Display only	
DSServerUR	Enter	User enters specific data to DSServerUR.
Ok	Click	Executes configuration process.
Cancel	Click	Aborts configuration process.
Print	Click	Prints configuration parameters.

4.1.9.2.1.6 ECSAssist Subsystem Manager’s “Registry Patch” Screen

Clicking “Apply Registry Data Patch Under the Tools menu option is the registry The registry patch screen, shown in figure 4.1.9-10, allows users to apply updates to the registry database.

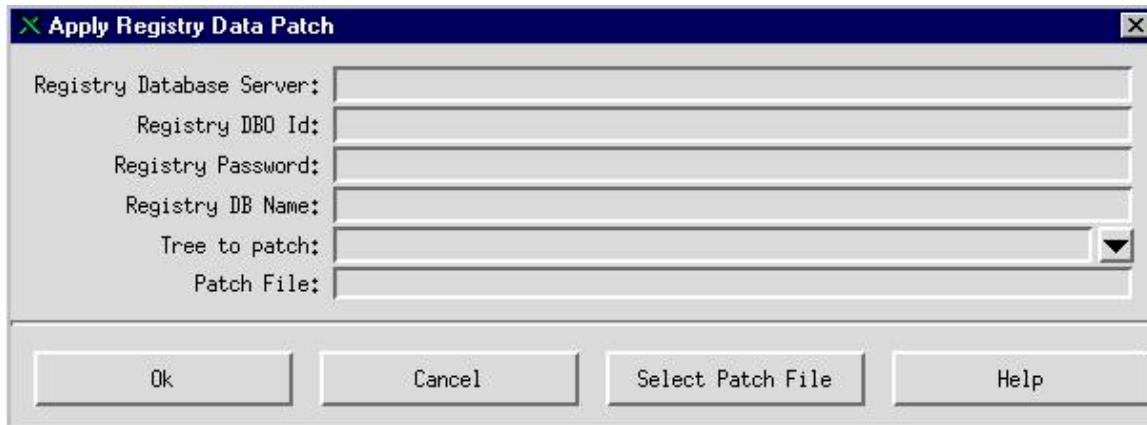


Figure 4.1.9-10. Subsystem Manager “Registry Patch” Screen

Table 4.1.9-10 describes the control and information fields on the "Registry Patch" screen.

Table 4.1.9-10. ECS Assist Subsystem Manager’s monitor Field Descriptions

Option/Field	Action	Description
Apply Registry Data Patch	Display Only	Window title
“Registry Data Server”	Entry	Database Server. e.g. t1icg01_svr
“Registry DBO Id”	Entry	Database Owner ID. e.g. css_role
“Registry Password”	Entry	Database Password.
“Registry DB Name”	Entry	Database Name e.g. EcCsRegistry. After enter press enter to fill available “Attribute Trees” into “Tree To Patch” Combo box.
“Tree To Patch”	Entry/Combo box	Enter Attribute Tree name or click the arrow to select Attribute Tree of choice from list.
“Patch File”	Entry	Enter registry patch file which is to be used to apply updates to registry database.
OK	Button	To apply updates.
Cancel	Button	Abort process.
“Select Patch File”	Button	Use to locate registry patch file.
Help	Button	Displays extra information related to application of patch files.

4.1.9.2.1.7 ECSAssist Subsystem Manager’s “stage install” Screen

The stage install screen is used to input the staging location where the delivered software is stored. From the ECSAssist Subsystem Manager screen click the *stageinstall* button to initiate the viewlog process

Figure 4.1.9-11 below presents the stage install screen.



Figure 4.1.9-11. Subsystem Manager “stageinstall” Screen

Table 4.1.9-11 describes the control and information fields on the stageinstall window.

Table 4.1.9-11. ECS Assist Subsystem Manager stageinstall Field Descriptions

Option/Field	Action	Description
Provide staging area source location	Display only	Label for input field immediately below.
Input field	Input	Type in the staging area filename.
Ok	Click	Accepts the user’s entry.
Cancel	Click	Aborts the process.

4.1.9.2.1.8 ECSAssist Subsystem Manager’s “Task Output” Screen

The task output screen allows users to view results as the specified task is executing. This window is automatically displayed, if not currently displayed.

Figure 4.1.9-12 presents the “Task Output” screen.

The screenshot shows a window titled "Task Execution Feedback" with the following log output:

```
Awaiting your command, your excellence.  
01/14/01-17:13:45 CMD /ecs/formal/COMMON/scripts/EcCoInstall -custom .EcDsStA  
Installing package .EcDsStArchive.pkg in mode debtest on machine dss3.hitc.co  
Started at Sun Jan 14 17:13:46 EST 2001  
/ecs/formal/COMMON/scripts/EcCoScriptlib install -custom .EcDsStArchive.pkg d  
Installing -custom .EcDsStArchive.pkg debtest STAGE DEV DSS EcDsSt  
Copying /ecs/formal/COMMON/.installtypes to /usr/ecs/debtest/C  
Copying /ecs/formal/COMMON/.subsystems to /usr/ecs/debtest/C  
Copying /ecs/formal/COMMON/.hostmap to /usr/ecs/debtest/C  
Copying /ecs/formal/COMMON/.sitemap to /usr/ecs/debtest/C  
Copying /ecs/formal/COMMON/.applications to /usr/ecs/debtest/C  
Copying /ecs/formal/COMMON/.executables to /usr/ecs/debtest/C  
Copying /ecs/formal/COMMON/.envvars to /usr/ecs/debtest/C  
Expanding /ecs/formal/COMMON/.envvars to /usr/ecs/debtest/C  
Copying /ecs/formal/DSS/.components to /usr/ecs/debtest/C  
Copying /ecs/formal/DSS/stmgt/.EcDsStArchive.pkg to /usr/ecs/debtest/C  
Copying /ecs/formal/DSS/stmgt/.cfgpatch to /usr/ecs/debtest/C  
Copying /ecs/formal/DSS/stmgt/.rgypatch to /usr/ecs/debtest/C  
Generating /usr/ecs/debtest/C  
Copying /ecs/formal/DSS/stmgt/.cfgparms to /usr/ecs/debtest/C  
Saving existing copy of /usr/ecs/debtest/CUSTOM/.installed/DSS/stmgt/.cfgparm to /usr/ecs/debtest/C  
Copying /ecs/formal/DSS/stmgt/.dbparms to /usr/ecs/debtest/C  
Saving existing copy of /usr/ecs/debtest/CUSTOM/.installed/DSS/stmgt/.dbparms to /usr/ecs/debtest/C  
Copying /ecs/formal/DSS/stmgt/.envvars to /usr/ecs/debtest/C
```

Below the log, there is a search bar labeled "Press to search text" and a "Cancel Installation" button. At the bottom, there are "Print", "Foreground color", and "Background color" buttons, followed by a "Dismiss" button.

Figure 4.1.9-12. Subsystem Manager “viewlog” Screen

Table 4.1.9-12 describes the control and information fields on the viewlog screen.

Table 4.1.9-12. ECS Assist Subsystem Manager's task output Field Descriptions

Option/Field	Action	Description
Task Execution Feedback	Display only	Window Title
“Awaiting your command, your excellence.”	Display Variation	Label displaying command that is currently executing. When command has completed, the text “Awaiting your command, your excellence” is displayed.
Text Box	Display	Displays output generated by executing command.
Press to search text	Button	Used to search contents within textbox.
Cancel Installation	Button	Used to search contents within text box
“Print”	Click	Used to print contents of text box.
“Foreground color”	Click	Used to change foreground color within textbox.
“Background color”	Click	Used to change background color within textbox.
Dismiss	Click	Closes Task output window

4.1.9.2.2 ECSAssist ESDT Manager

The ESDT Manager facilitates the configuration of ESDTs into a mode.

Figure 4.1.9-20 shows the main window of the ESDT Manager.

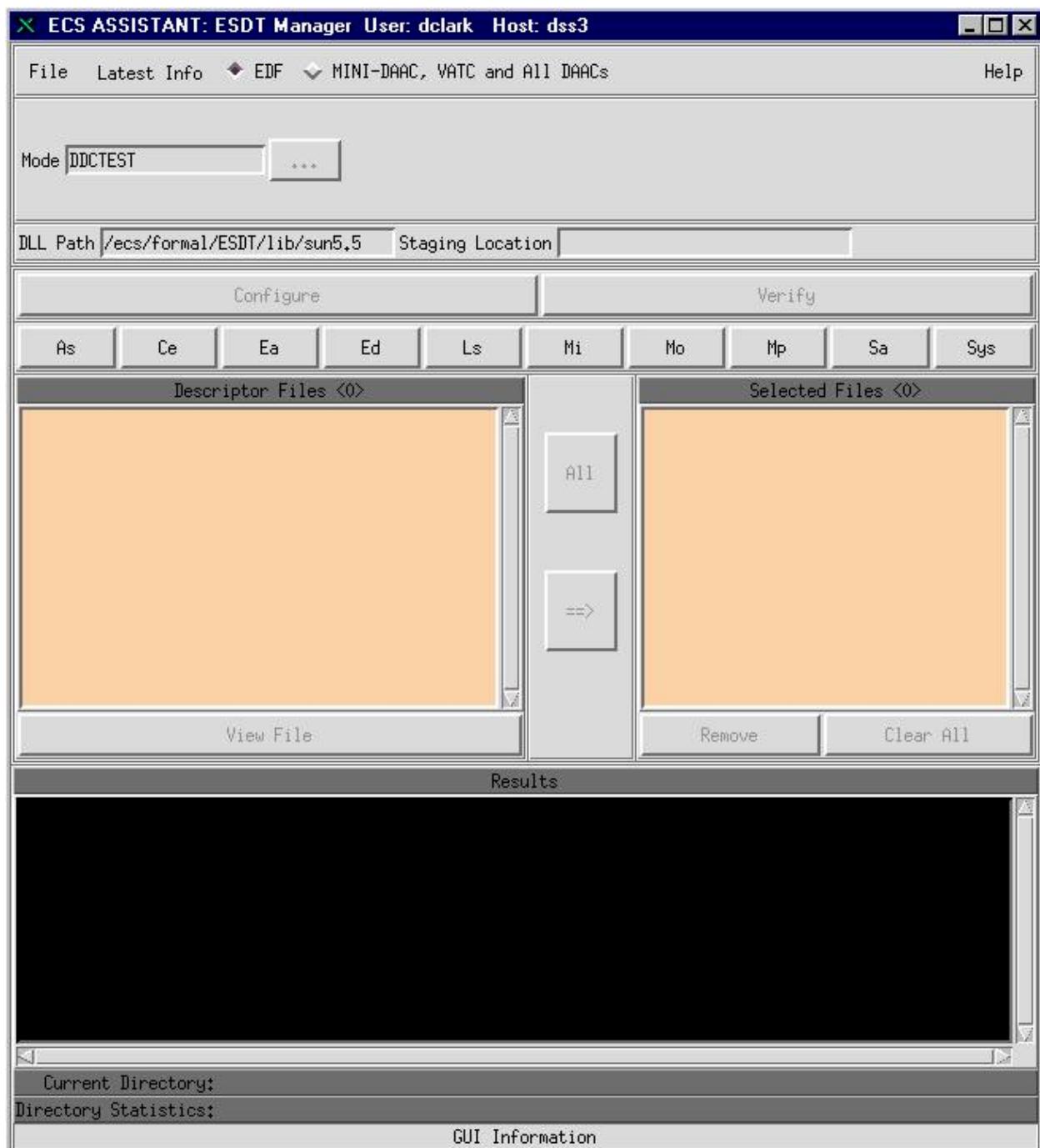


Figure 4.1.9-20. ESDT Manager main window

Table 4.1.9-13 describes information and control fields on this window.

Table 4.1.9-13. ESDT Manager Window Field Descriptions

Option/Field	Action	Description
File		
Exit	In the file menu, click Exit.	Exits ESDT Manager.
Latest Info	Click on Latest Info button	Pulls down menu showing a list of subsystem specific executables used for supporting tasks.
Radio Buttons		
EDF	Click radio button	To set ESDT destination location for EDF sites.
MINI-DAAC, VATC and all DAACs		To set ESDT destination location for NON-EDF sites.
MODE	list box	Allows operator to designate which mode to configure ESDTs.
DLL PATH	entry	Allows operators to designate the source location for Dynamically Linked Libraries (DLL).
Staging Location	entry	Used to determine location of ESDTs and DLLs at DAACS.
Configure	button	Initiates configuration of ESDTs.
Verify	button	Verifys selected ESDT.
Instrument List	button(s) Aster(As), Ceres(Ce), External Ancillary(Ea), Edos(Ed), Landsat(Ls), Miser(Mi), Modis(Mo), Moppit(Mp), Sage III(Sa) and System related instruments(Sys)	Each button generates a list of instrument specific ESDTs into "Descriptor Files" list box. Operator then can select one or all into "Selected Files" list box.
Descriptor Files	List Box (Gives number of instruments in list.)	Contains a list instrument specific ESDTs.
View File	button	Displays the contents of the selected ESDT.
Selected Files	List Box (Gives number of instruments in list.)	Contains a list of selected instrument specific ESDTs.
Remove	button	Remove selected ESDT from "Selected Files" list box.
Clear All	button	Removes all ESDTs from the "Selected Files" ;list box.
Results	text box	Displays results of the configuration process.
Current Directory	status bar	Displays the directory of the currently selected instrument.
Directory Statistics	status bar	Displays directory statistics of the currently selected instrument.

4.1.9.2.3 ECSAssist System Installer (E.A.S.I.)

E.A.S.I facilitates a complete or partial installation of ECS software, creation of configuration and keytab files (CDS entries), and execution of database operations by a single user who is familiar with the proper installation instructions.

Figure 4.1.9-13 shows the E.A.S.I. Installation Source window which comes up as a result of hitting the “E.A.S.I.” button on the ECSAssist main window.

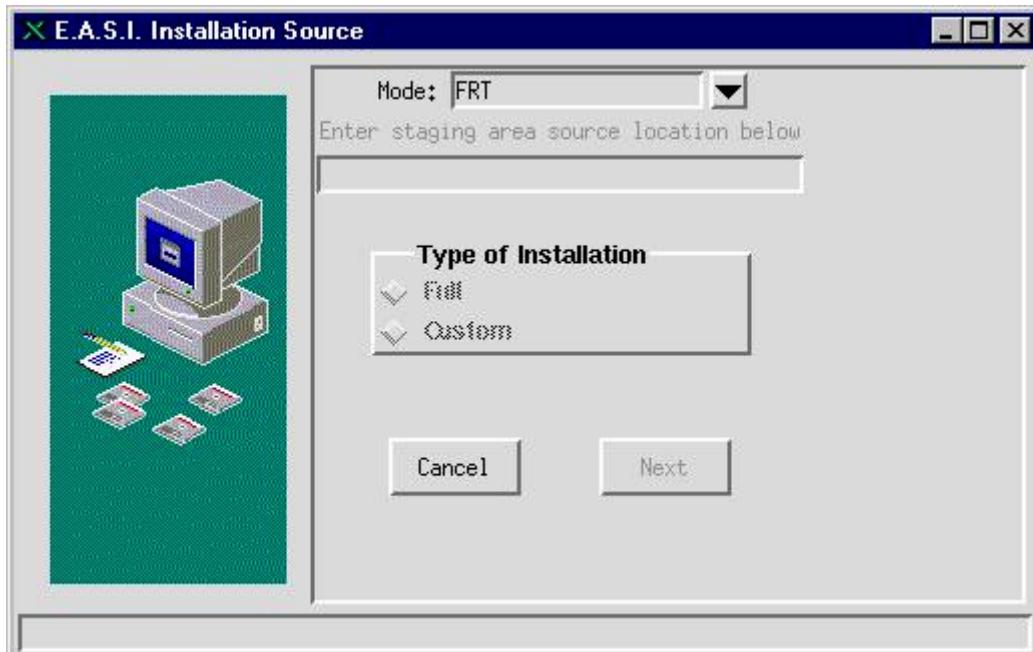


Figure 4.1.9-13. E.A.S.I. Installation Source Window

Table 4.1.9-14 describes information and control fields on this window.

Table 4.1.9-14. ECS Assist E.A.S.I Installation Source Field Descriptions

Option/Field	Action	Description
Mode (combo box)	Click	To view a list of available modes. User can select one mode.
Enter staging area source location below	Display only	Staging area source location field identifier.
Staging area source location entry	Enter if available	Staging area source location entry becomes available when a ClearCase view is not available. Enter the staging area source location without the architecture and with the word "TOOLKIT". e.g. /net/tacoma/dist/DROP50
Type of installation	Display only	Identifies the installation options.
Full	Click	Facilitates a complete installation of ECS custom software.
Custom	Click	Allows the user to facilitate a customized installation. e.g. The user may only want to install on three hosts or may only want to install Subsystem DSS on all hosts.
Cancel	Click	Returns user to ECS Assist main menu.
Next	Click	When enabled, allows user to proceed to next window.

Figure 4.1.9-14 is the E.A.S.I. Phase Selection window. The user can select any phase to execute. Associated phase windows are displayed depending on what phases are selected .

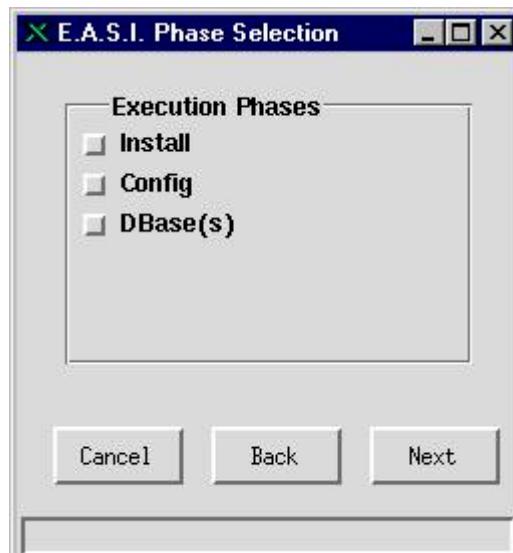


Figure 4.1.9-14. E.A.S.I. Phase Selection Window

Table 4.1.9-15 describes the control and information fields on the E.A.S.I. Phase Selection window.

Table 4.1.9-15. ECS Assist E.A.S.I Phase Selection Window Field Descriptions

Option/Field	Action	Description
Execution Phases	Display Only	Identifies the option buttons for selecting phase of installation.
Install	Click on/off	Selects installation of ECS custom software.
Config	Click on/off	Selects the creation CFG, ACFG and PCFG files.
Dbase(s)	Click on/off	Selects the execution of selected database operations.
Cancel	Click	Returns user to ECS Assist main menu.
Back	Click	Returns user to previously selected window.
Next	Click	Allows user to proceed to next window.

Figure 4.1.9-15 is the E.A.S.I. Installation Parameters window. It allows the user to select Installation criteria. If a ClearCase task is not set or not available, the Installation Type will default to Staging Area option .

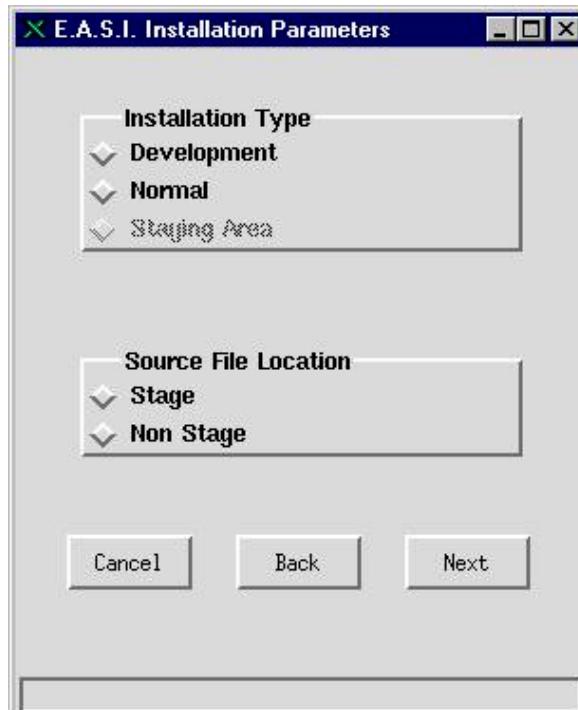


Figure 4.1.9-15. E.A.S.I. Installation Parameters Window

Table 4.1.9-16 describes the control and information fields in the E.A.S.I. Installation Parameters window.

Table 4.1.9-16. ECS Assist E.A.S.I Installation Parameters Window Field Descriptions

Option/Field	Action	Description
Installation Type	Display Only	Identifies the three installation type options.
Development	Click	Creates symbolic links to ClearCase
Normal	Click	Copy binaries and libraries to selected mode.
Staging Area	Click	Installs mode from staging location.
Source File Location	Display only	Identifies the two options for selecting source file.
Stage	Click	To obtain files from the nightly build
Non Stage	Click	Allows testing of changes before merge to branch
Cancel	Click	Returns user to ECS Assist main menu.
Back	Click	Returns user to previously selected window.
Next	Click	Allows user to proceed to next window.

Figure 4.1.9-17 is the E.A.S.I. Database Operations window. Select an operation other than “Clear” and the subsystem specific script parameters will be displayed. Enter the correct information for selected subsystem. You will notice that there is a tab for only subsystems that require database operations.

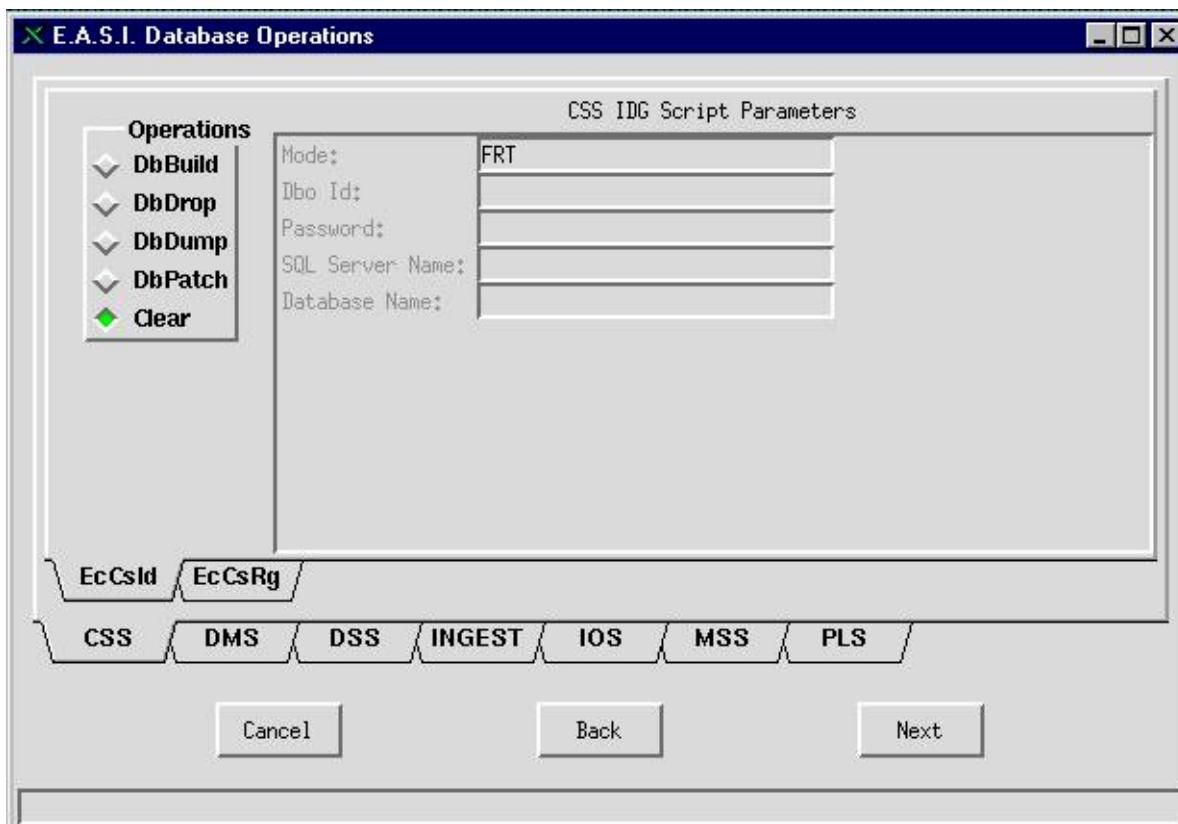


Figure 4.1.9-17. E.A.S.I. Database Operations Window

Table 4.1.9-17 describes the E.A.S.I. Database Operations window control and information fields.

Table 4.1.9-17. ECS Assist E.A.S.I Database Operations Window Field Descriptions (1 of 2)

Option/Field	Action	Description
Operations	Display Only	Identifies the button selectable Dbase options.
DbBuild	Click	Facilitates execution of database build operation.
DbDrop	Click	Facilitates execution of database drop operation
DbDump	Click	Facilitates execution of a database drop operation.
Dbpatch	Click	Facilitates execution of a database patch operation.
DbLoad	Click	Facilitates execution of a database load operation.
DbValids	Click	DSS Science Data Server only. Facilitates execution of Valids script for use with ESDTs.

**Table 4.1.9-17. ECS Assist E.A.S.I Database Operations Window
Field Descriptions (2 of 2)**

Option/Field	Action	Description
Subsystems specific script parameters	Display Only	Heading. By selecting a tab, the heading will change according to selection.
Mode	Display only	Displays selected mode.
Dbo Id	Entry	Enter Dbo Id.
Password	Entry	Enter password.
SQL Server Name	Entry	Enter SQL server name.
Database Name	Entry	Enter database name.
Cancel	Click	Returns user to ECS Assist main menu.
Back	Click	Returns user to previously selected window.
Next	Click	Allows user to proceed to next window.

Figure 4.1.9-18 is the E.A.S.I Installation Confirmation window. If there is an incorrectly selected item, click the “Back” button until you have reached the window that requires the change and make the change. When change is made click the “Next” button until you have reached the “Installation Confirmation” window.

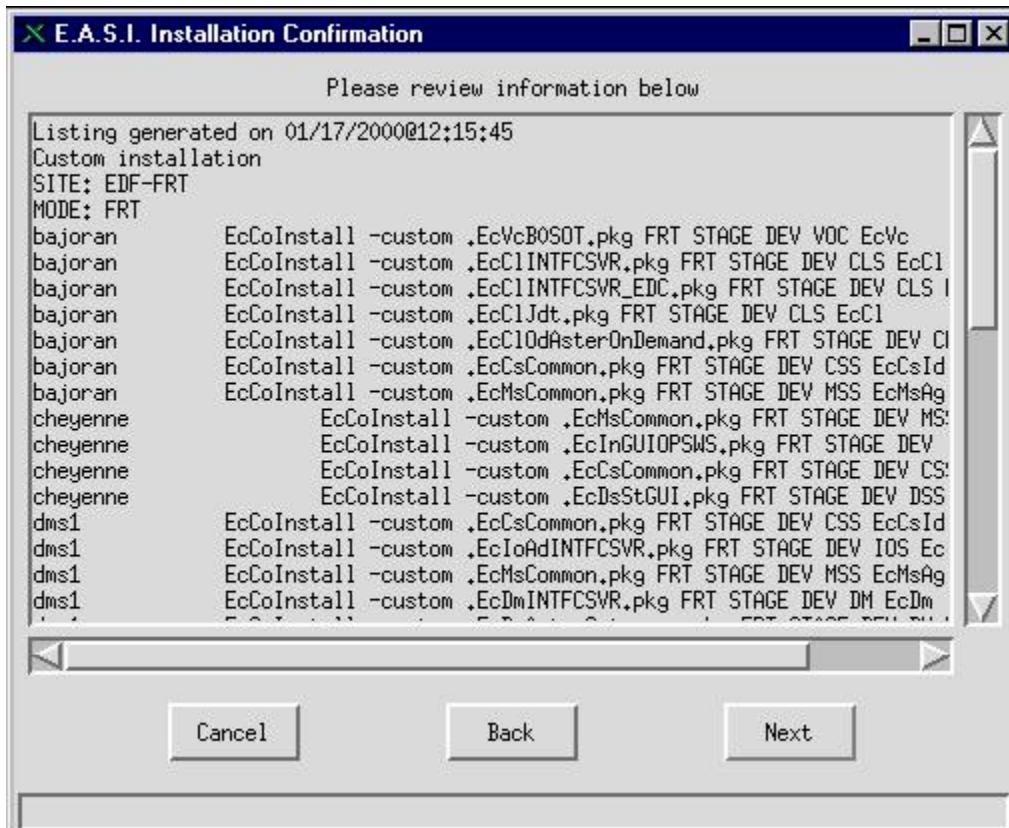


Figure 4.1.9-18. E.A.S.I Installation Confirmation Window

Table 4.1.9-18 describes the control and information fields in the E.A.S.I. Installation Confirmation window.

Table 4.1.9-18. ECS Assist E.A.S.I Installation Confirmation Window Field Descriptions

Option/Field	Action	Description
Please review information below	Display Only	Requests user to review the information immediately below in a scrollable text box.
Information in Text Box	Read only	Contains log of installation.
Cancel	Click	Returns user to ECS Assist main menu.
Back	Click	Returns user to previously selected window.
Next	Click	Allows user to proceed to next window.

Figure 4.1.9-19 is the E.A.S.I STATUS window.

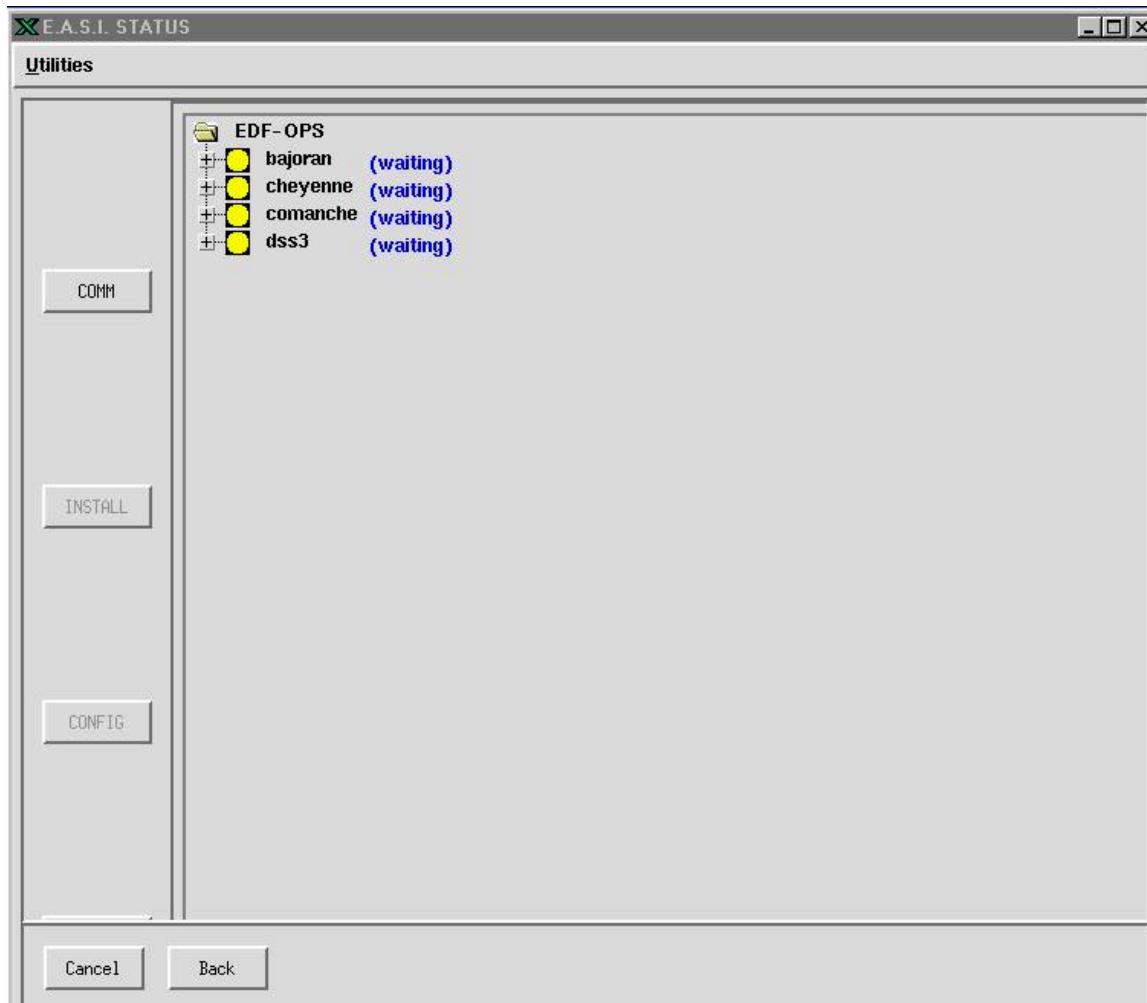


Figure 4.1.9-19. E.A.S.I. STATUS Window

Table 4.1.9-19 describes the control and information fields in the E.A.S.I. STATUS window.

**Table 4.1.9-19. ECS Assist E.A.S.I. STATUS Window
Field Descriptions**

Option/Field	Action	Description
Utilities	Menu	
Close all open sockets	Click	Closes all opened connections. Waits for 4 minutes and resets communication and selected phases to “waiting”. This allows users to re-run selected phases.
Max Requests	Click	Controls the number of server calls over the network.
COMM (Button)	Click	Initiates the communication phase. Starts servers on selected hosts.
INSTALL (Button)	Click	Initiates installation of ECS custom software.
CONFIG (Button)	Click	Initiates the creation of CFG, ACFG and PCFG files.
CDS (Button)	Click	Initiates creation of keytab files.
Status Bar (Status Indicator)	Not available	
Cancel	Click	Returns user to ECS Assist main menu. All connections to the server are terminated.
Back	Click	Returns user to previously selected window.
Next	Click	To be used in later releases.

4.1.9.3 Required Operating Environment

For information on the operating environment, tunable parameters and environment variables of ECSAssist refer to the 920-TDx-013 “Custom Code Configuration Parameters” documentation series . The “x” refers to the installed location, e.g. 920-TDG-013 is for GSFC DAAC.

4.1.9.3.1 Interfaces and Data Types

None

4.1.9.4 Databases

No database is associated with or used by ECSAssist. ECSAssist may create entries in the CDS catalog, create configuration files for software components, remove outdated log files, or update other files related to the functions performed.

4.1.9.5 Special Constraints

None

4.1.9.6 Outputs

Output from the ECSAssist tool consists of the data displayed on the GUIs described in Section 4.1.9.2.1 and error and event messages described in Section 4.1.9.7

4.1.9.7 Event and Error Messages

Event and Error Messages for ECSAssist are listed in Appendix A in Section 2.7.5. All outputs associated with ECS Assistant are captured in a file called “/tmp/<userid>.ecs_session.log”.

4.1.9.8 Reports

None