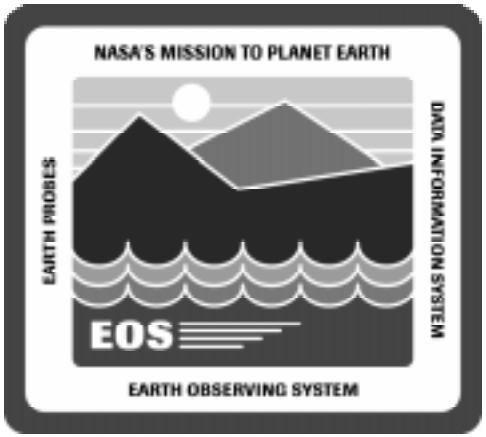


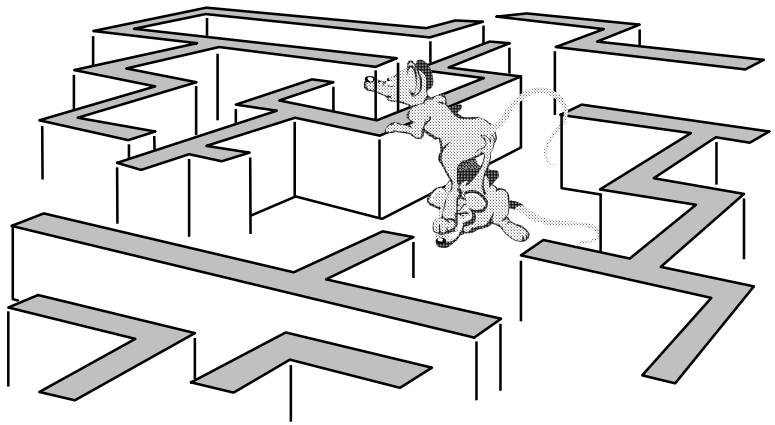
INGEST

ECS Release 4 Training

625-CD-008-002

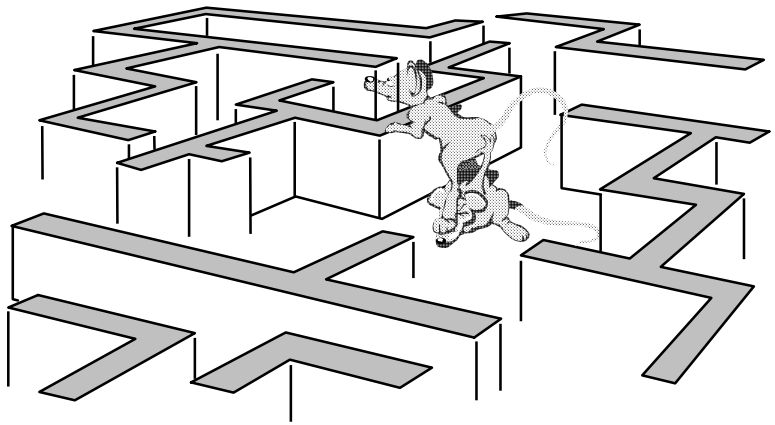
Overview of Lesson

- **Introduction**
- **Ingest Topics**
  - **Ingest Concepts**
  - **Launching the Ingest GUI**
  - **Monitoring Ingest Status**
  - **Performing Hard Media Ingest**
  - **Performing Interactive Ingest**



Overview of Lesson (Cont.)

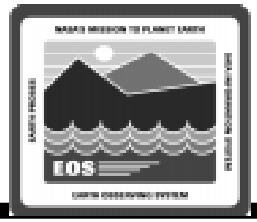
- **Ingest Topics (Cont.)**
  - **Scanning Documents**
  - **Modifying Ingest Tunable Parameters and Performing File Transfers**
  - **Troubleshooting Ingest Problems**
- **Practical Exercise**



Objectives

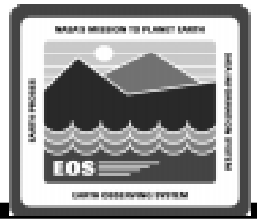
- **OVERALL:**
  - **Develop proficiency in the procedures that apply to ingest operations**
- **SPECIFIC:**
  - **Describe the ingest function, including a general statement of the ingest responsibility in ECS and an overview of the ingest process**
  - **Perform the steps involved in...**
    - » **launching the Ingest GUI**
    - » **monitoring/controlling ingest requests**
    - » **viewing the Ingest History Log**
    - » **verifying the archiving of ingested data**
    - » **cleaning the polling directories**
    - » **performing hard media ingest from 8mm or D3 tape**

Objectives (Cont.)



- **SPECIFIC (Cont.):**
  - **Perform the steps involved in...**
    - » **scanning documents and gaining access to scanned documents**
    - » **modifying external data provider/interactive user information**
    - » **modifying Ingest Subsystem parameters**
    - » **transferring files using the Ingest GUI File Transfer screen**
    - » **troubleshooting and recovering from ingest problems**
- **STANDARD:**
  - **Mission Operation Procedures for the ECS Project (611-CD-004-003)**

Ingest Concepts

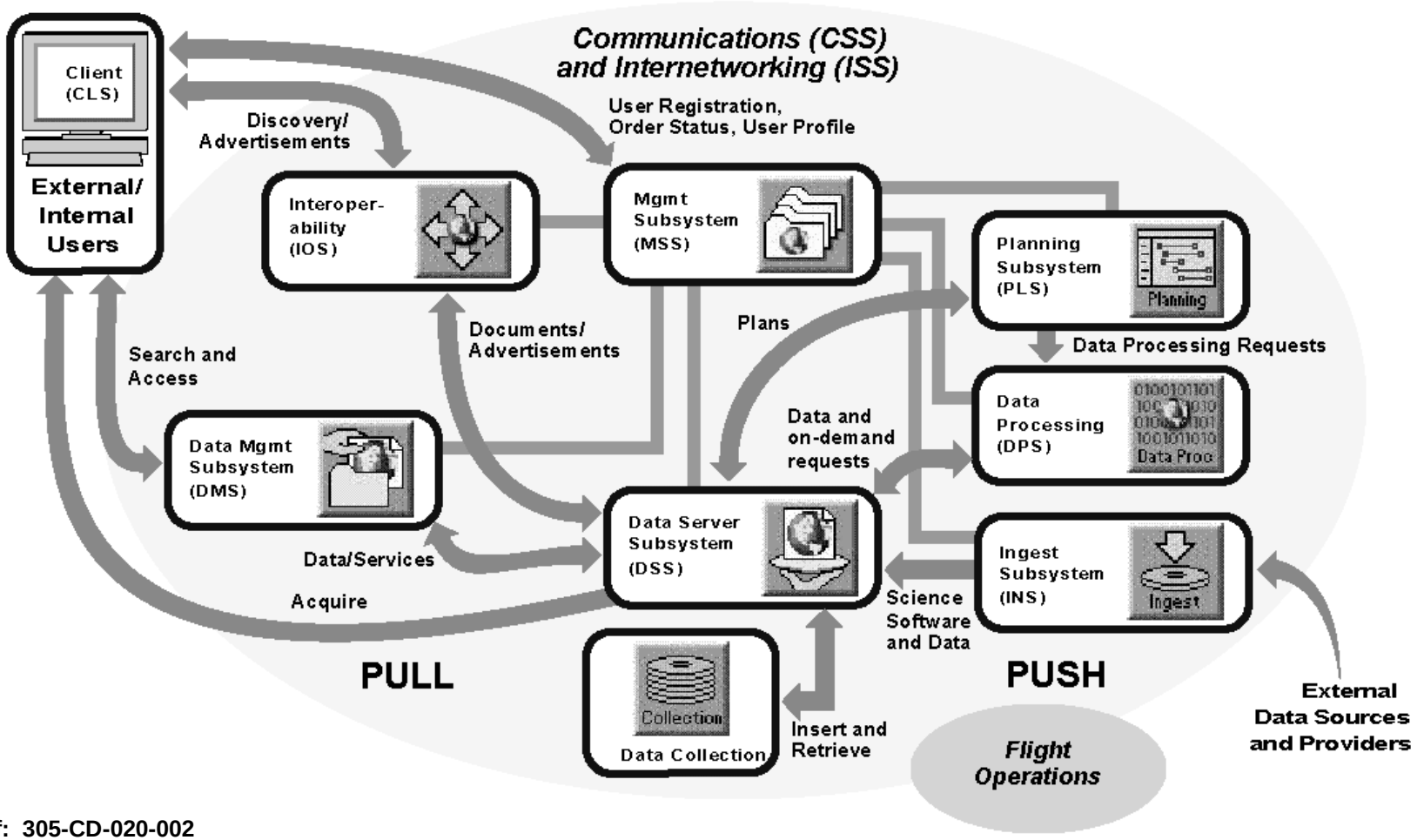


- **ECS Context**
  - **Data distribution for ECS is accomplished at the Distributed Active Archive Centers (DAACs)**
  - **People involved in Ingest activities are Ingest/Distribution Technicians**
  - **Ingest Subsystem (INS) is point of entry to ECS for data from external data providers**
  - **Data Server Subsystem (DSS) manages access to the data repositories, where ingested data are stored**

Ingest Concepts (Cont.)

- **ECS Context (Cont.)**
  - **Ingest transfers data into ECS, performs preprocessing, and forwards the data to DSS for archiving**
  - **STMGT CSCI in DSS stores, manages, and retrieves data files on behalf of other Science Data Processing components**
  - **SDSRV CSCI in DSS manages and provides user access to collections of non-document Earth Science data**

ECS Context Diagram



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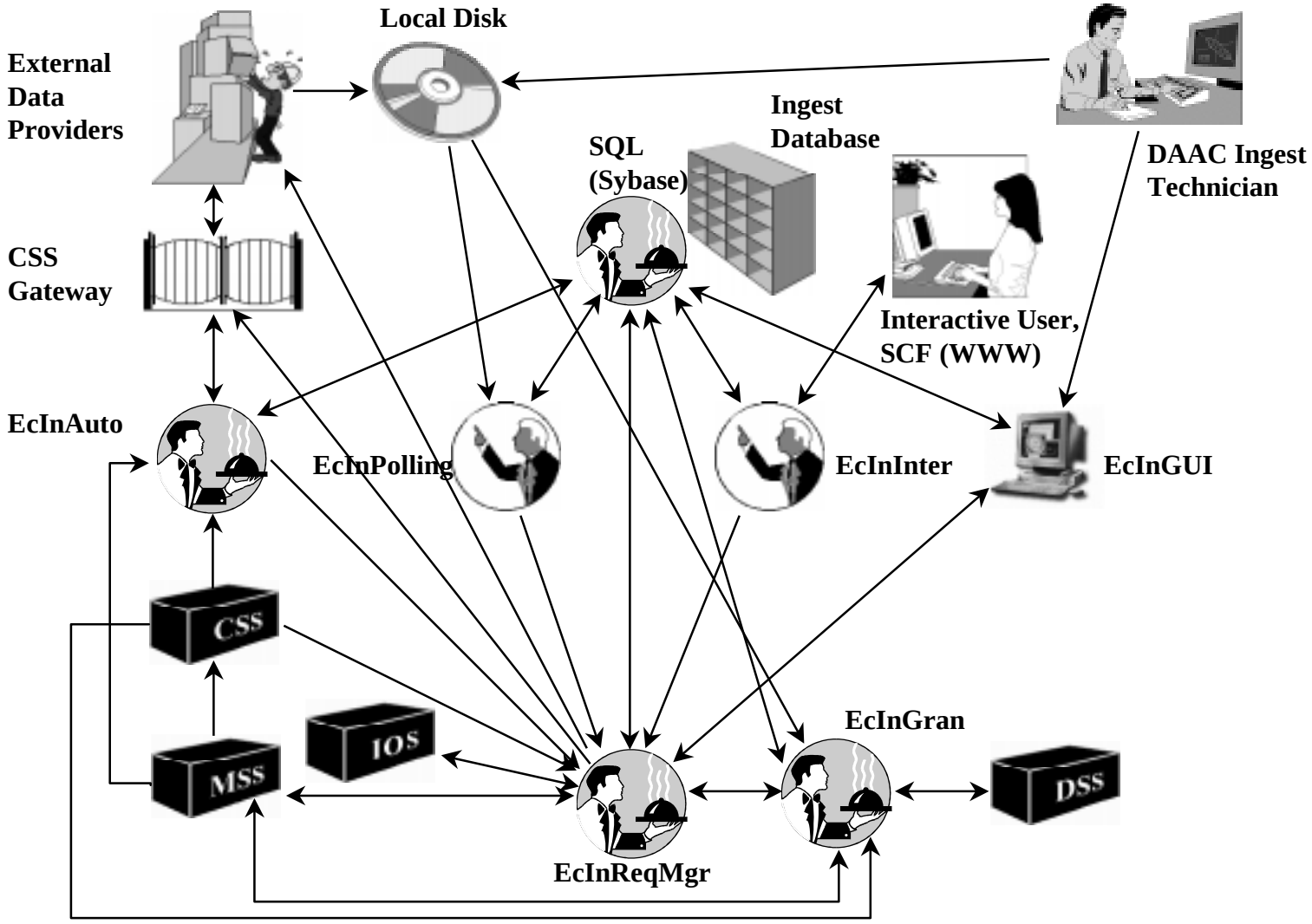
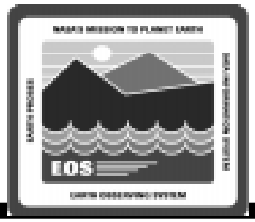
Ingest Concepts (Cont.)

- **Ingest Subsystem: INS CSCI**
  - **Automated Network Ingest Interface (EcInAuto)**
  - **Polling Ingest Client Interface (EcInPolling)**
  - **Interactive Ingest Interface (EcInInter)**
  - **Ingest Request Manager (EcInReqMgr)**
  - **Ingest Granule Server (EcInGran)**
  - **ECS Ingest GUI (EcInGUI)**
  - **Sybase Structured Query Language (SQL) Server**

Ingest Subsystem Architecture and Interfaces



Ingest Concepts (Cont.)

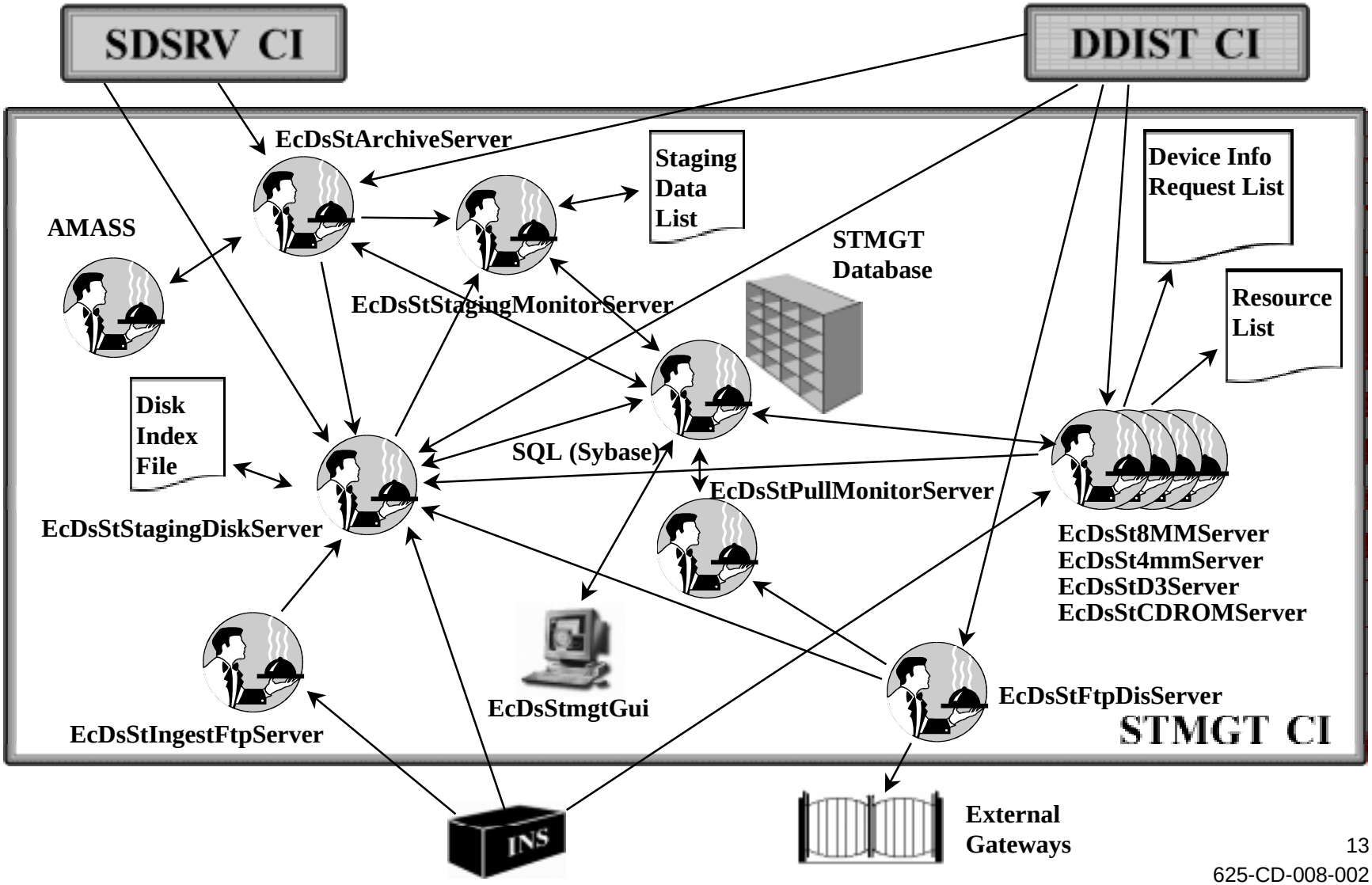


- **Storage Management (STMGT)**
  - **Archive Server (EcDsStArchiveServer)**
  - **Staging Servers**
    - » **Staging Monitor Server (EcDsStStagingMonitorServer)**
    - » **Staging Disk Server (EcDsStStagingDiskServer)**
  - **Resource Managers**
    - » **8mm Server (EcDsSt8MMServer)**
    - » **D3 Server (EcDsStD3Server)**
    - » **Ingest FTP Server (EcDsStIngestFtpServer)**
    - » **FTP Distribution Server (EcDsStFtpDisServer)**

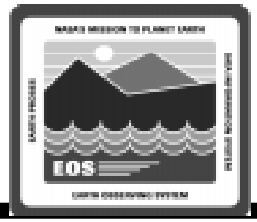
Ingest Concepts (Cont.)

- **STMGT (Cont.)**
  - **Pull Monitor Server (EcDsStPullMonitorServer)**
  - **Storage Management GUI (EcDsStmgtGui)**
  - **Sybase SQL Server**
  - **Archival Management and Storage System (AMASS)**

Data Server Subsystem: STMGT Architecture and Interfaces

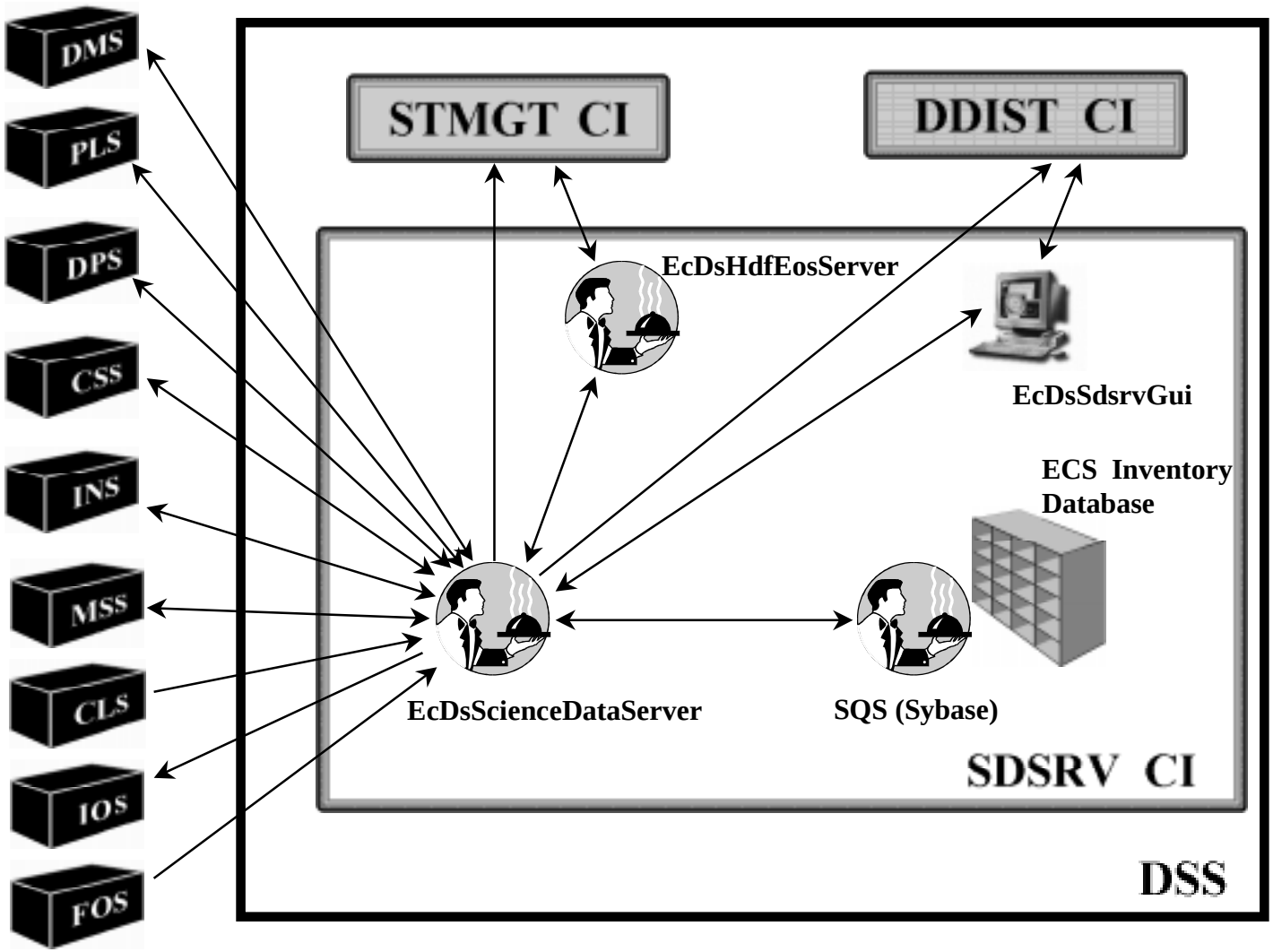


Ingest Concepts (Cont.)



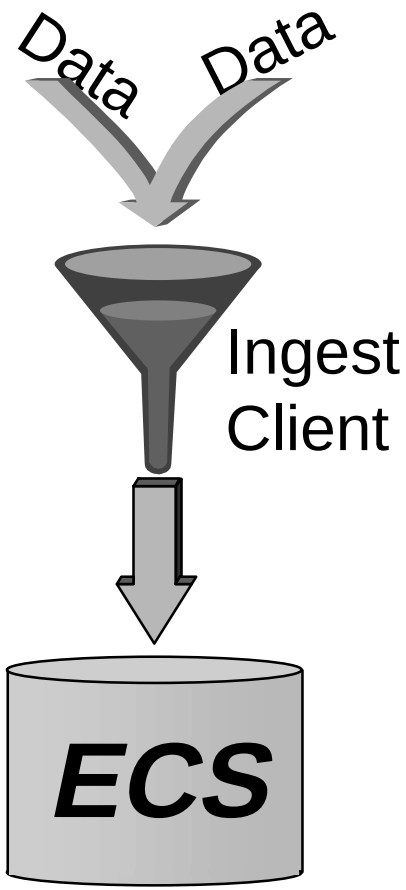
- **SDSRV**
  - **Science Data Server (EcDsScienceDataServer)**
  - **Hierarchical Data Format (HDF) EOS Server (EcDsHdfEosServer)**
  - **Science Data Server GUI (EcDsSdSrvGui)**
  - **Sybase Spatial Query Server (SQS)**

Data Server Subsystem: SDSRV Architecture and Interfaces

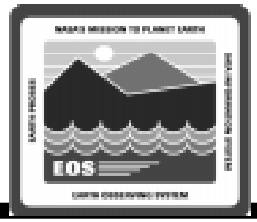


Ingest Process

- **Hardware and software for Ingest**
  - **Receipt and storage of data from multiple sources into ECS**
  - **Sets stage for archiving and/or processing of the data**
- **Provides tools**
  - **Selected configuration: *Ingest client***
    - » **Single virtual interface point for receipt of all external data to be archived**
    - » **Performs ingest data preprocessing, metadata extraction, and metadata validation**



Ingest Activities



- **Ingest function brings data into ECS from external data providers**
- **Representative data providers**
  - **Landsat Processing System (LPS)**
  - **Landsat 7 Image Assessment System (IAS)**
  - **EOS Data and Operations System (EDOS)**
  - **Science Computing Facilities (SCFs)**
  - **National Oceanic and Atmospheric Administration (NOAA) National Environmental Satellite, Data, and Information Service (NESDIS)**
  - **NOAA National Centers for Environmental Prediction (NCEP)**

Ingest Activities (Cont.)

- **Ingest activities include…**
  - **Data transfer and transmission checking**
  - **Data preprocessing (including data conversions if required)**
  - **Metadata extraction (as required)**
  - **Metadata validation (as required)**
  - **Transferring ingested data to the Data Server Subsystem for long-term storage**

Ingest Activities (Cont.)

- **Ingest provides a single point for monitoring and control of data ingested from external data providers**
- **Nominal ingest process is fully automated with minimal operator intervention**

Ingest Categories

- **Automated network ingest**
  - **Used at Earth Resources Observation Systems (EROS) Data Center (EDC) only**
  - **Data provider is the Landsat Processing System (LPS)**
  - **Data Availability Notice (DAN) from LPS initiates ingest**
  - **ECS “gets” data from an LPS processor staging area via file transfer protocol (ftp) within a specified time window**

Ingest Categories (Cont.)

- **Polling Ingest**
  - **with delivery record**
    - » **ECS periodically checks a network location for a delivery record file, which indicates the availability of data for ingest**
    - » **ECS "gets" data from the applicable directory on an ECS staging server, where the data provider will have put the data**
    - » **Data providers include EDOS, IAS, SCFs, and NOAA NCEP**

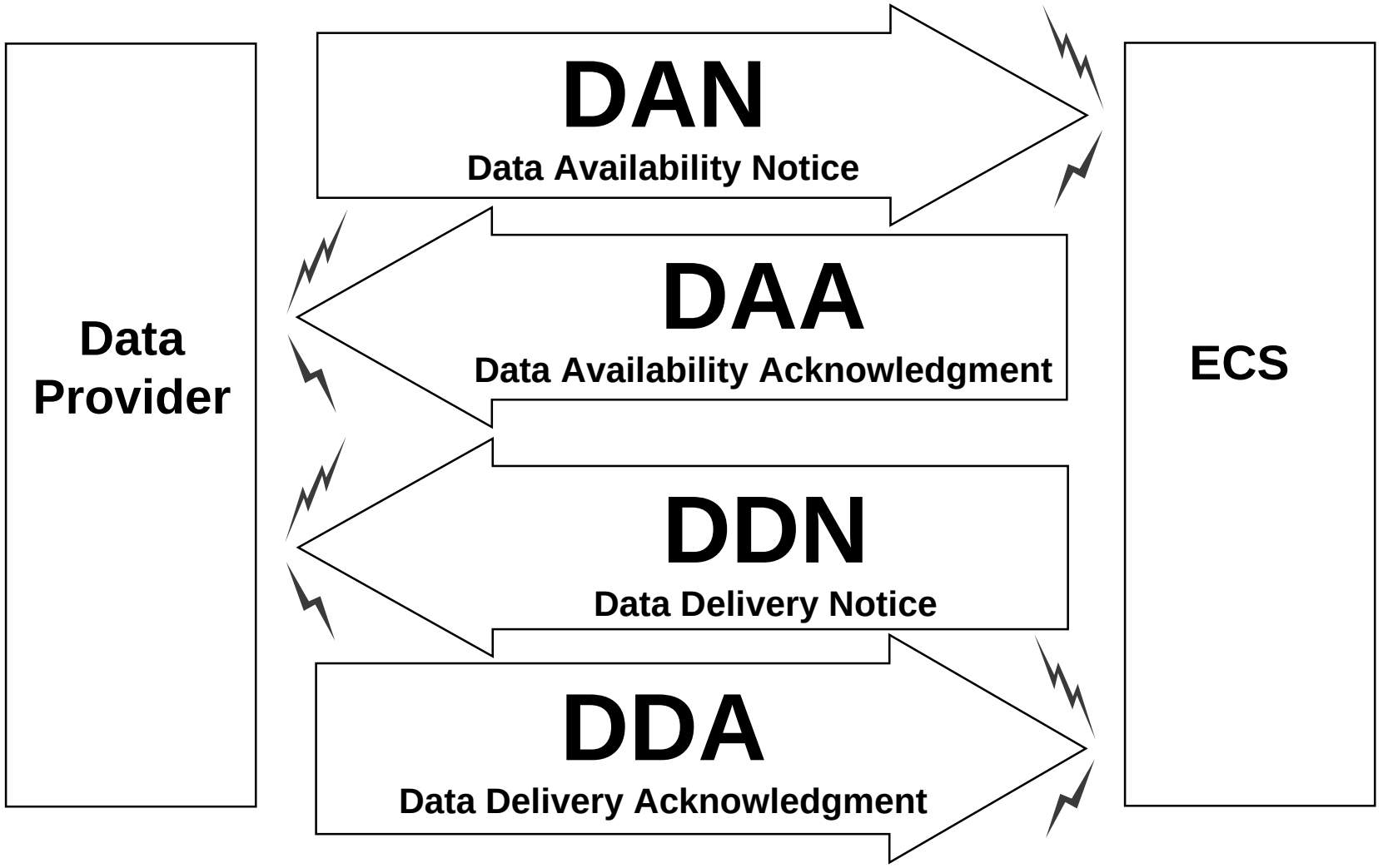
Ingest Categories (Cont.)

- **Polling Ingest**
  - **without delivery record**
    - » **ECS periodically checks a network location for available data**
    - » **All data at the location are treated as one specific data type, one file per granule**
    - » **ECS "gets" data from the network location**
    - » **Once retrieved, the file is compared with the last version that was ingested**
    - » **If the new file is different from the previous one, it is ingested as a new file**
    - » **If it is identical to the previous one, it is not ingested**
    - » **Data providers include NOAA NESDIS CEMSCS**

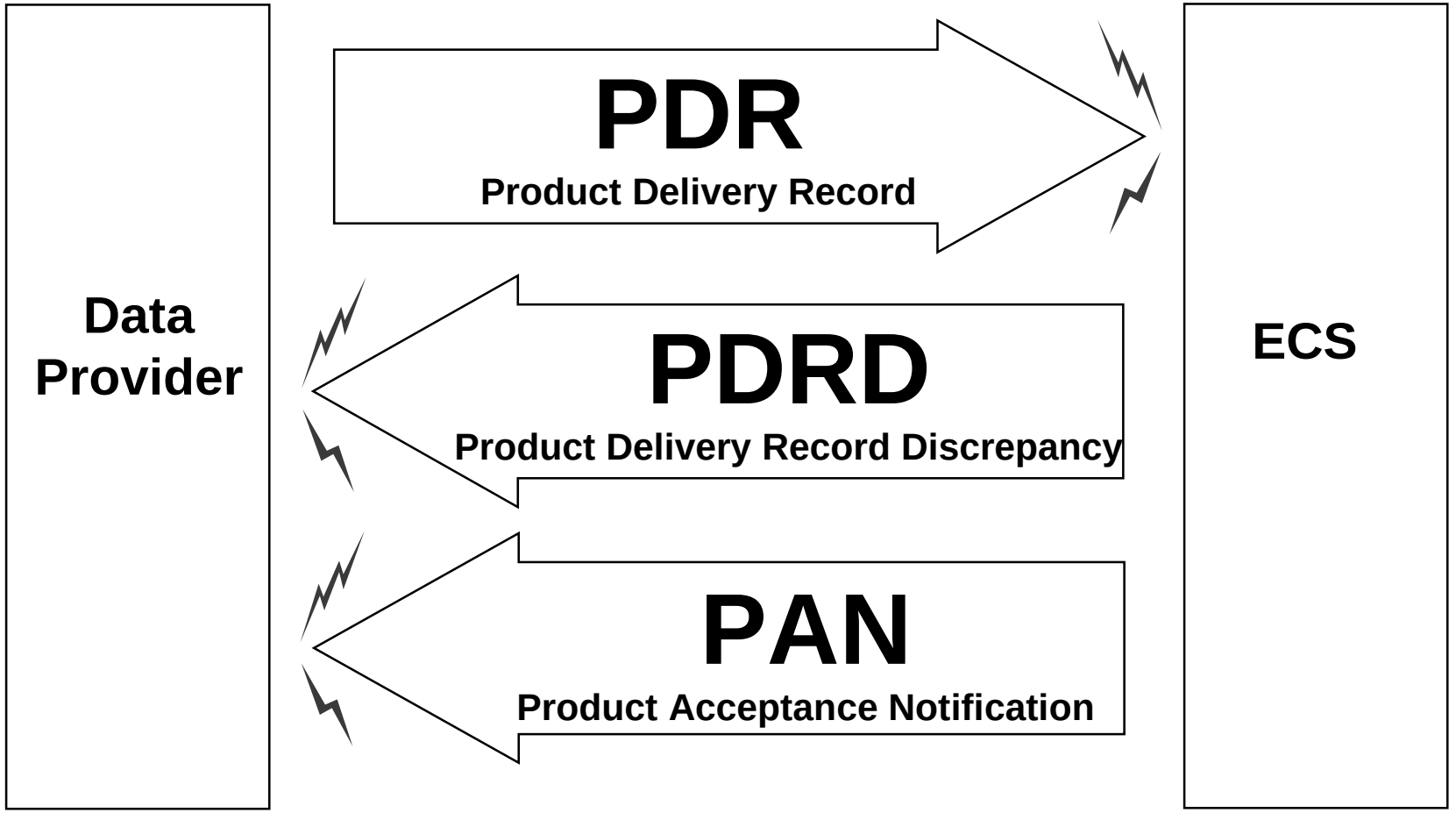
Ingest Categories (Cont.)

- **Hard media ingest by the Ingest/Distribution Technician**
  - **Ingest from hard media (e.g., tape cartridges); from authorized institutions or other providers, or as backup**
  - **Requires file/record information equivalent to DAN/PDR**
  - **Data providers include SCFs and the Ground Data System (GDS) for the ASTER instrument**
- **Interactive ingest**
  - **Manual data transfer by authorized science data providers using an HTML form**
  - **Data provider must furnish a DAN**
  - **Not a feature of Drop 4**
    - » **Will be included in Drop 5**

Ingest Automated Messages



Ingest Polling Messages



Data Transfer and Staging

- **Data transfer from external data providers uses one of three methods:**
  - **Kerberized file transfer protocol (kftp) "get" by ECS**
  - **Kerberized ftp (kftp) "put" by external source**
  - **Hard media transfer**
- **Data staging**
  - **Level 0 (L0) data from ongoing missions staged to Ingest working storage area**
  - **Non-L0 data (e.g., ancillary data, L1 - L4 data from external data providers) staged directly to the working storage area in Data Server**

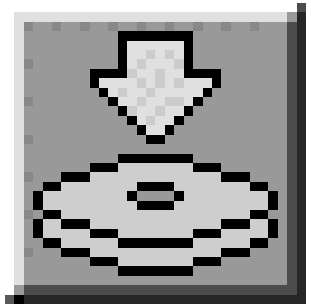
ECS Ingest GUI Intro Screen

Launching the Ingest GUI

- **Software applications associated with Ingest:**
  - **Auto Front End (EcInAuto)**
  - **Polling (EcInPolling)**
  - **Request Manager (EcInReqMgr)**
  - **Granule Server (EcInGran)**
  - **ECS Ingest GUI (EcInGUI)**
  - **Interactive HTML Web Server Interface (EcInInter)**
  - **Sybase SQL Server**
- **Normally multiple instances of some Ingest servers**
- **Ingest depends on other servers, especially Storage Management and Science Data Server**

Launching the Ingest GUI (Cont.)

- **Use UNIX command line to gain access to graphical user interface (GUI)**
- **Eventually icon on the ECS desktop will allow access to ingest applications**



Ingest GUI Icon

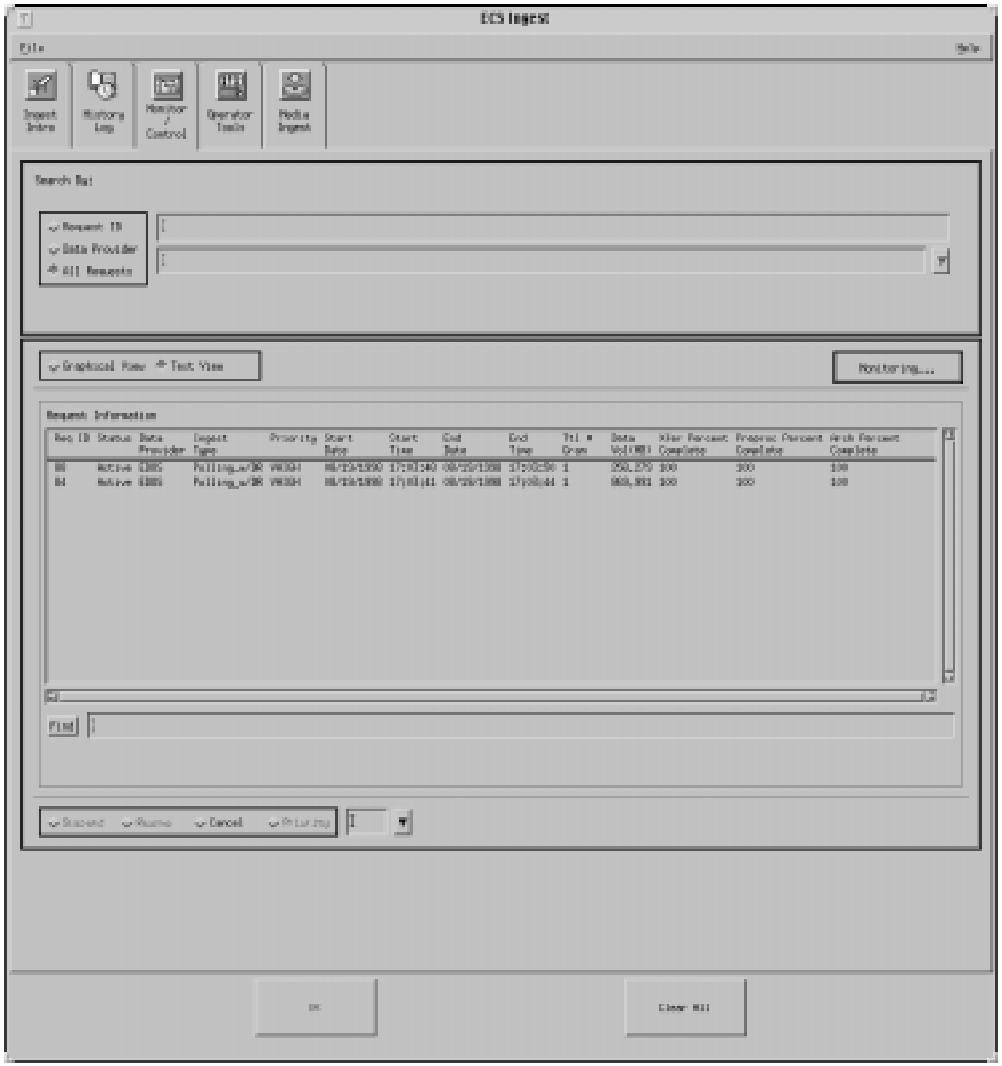
Launching Ingest Applications (Cont.)

- **Procedure**
  - **Log in to the ingest client host using secure shell**
  - **Set the necessary environmental variables**
  - **Type command to start Ingest GUI**

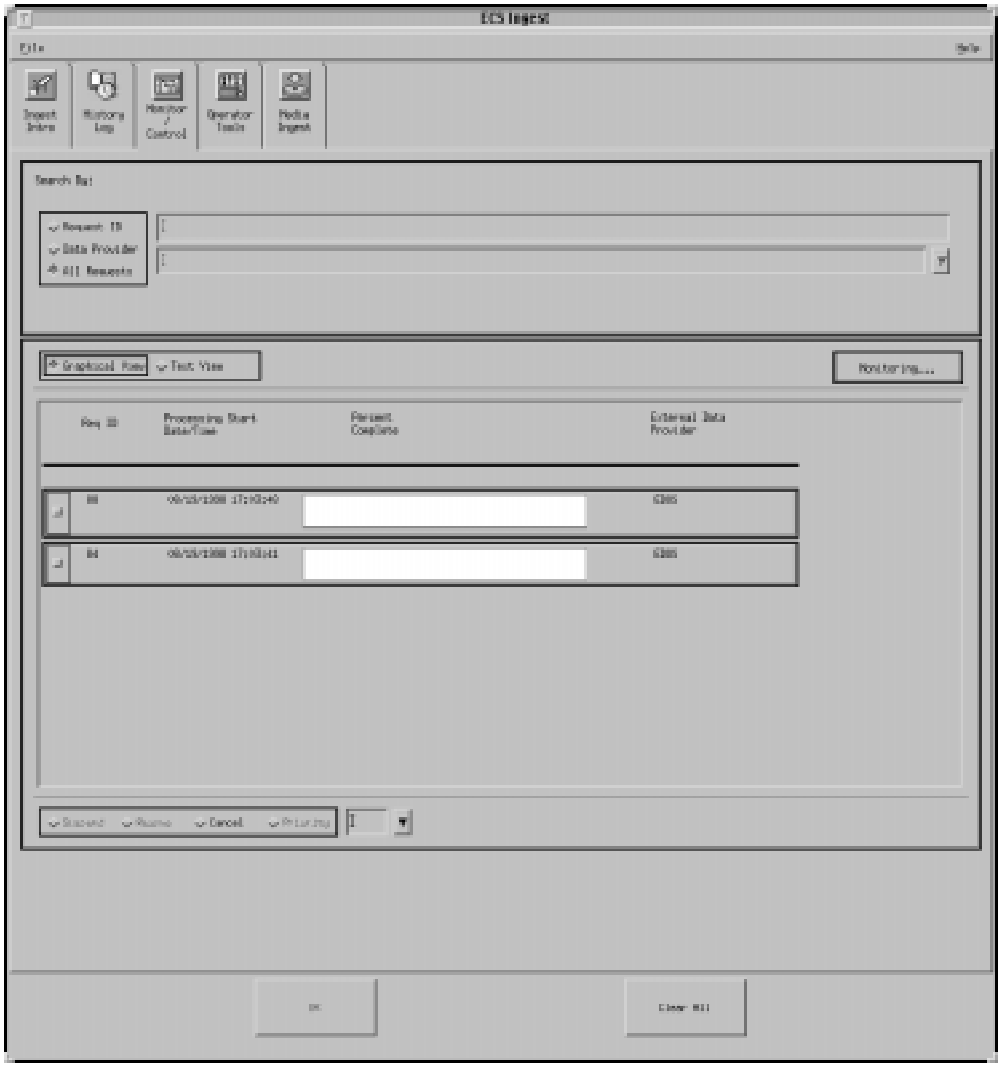
Monitoring Ingest Status

- **Assumptions:**
  - **Ingest processes have been started**
  - **System is operating normally**
  - **Data are ready for ingest**
  - **Several DAN/PDR files have been received and logged by the system; the specific ingest processes have been assigned request IDs**
- **Invoke monitoring display with Ingest Request Monitor/Control procedure**

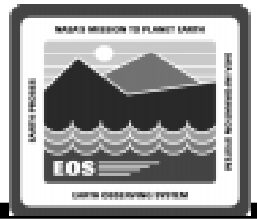
Monitor/Control Tab: Text View



Monitor/Control Tab: Graphical View



Monitoring Ingest Requests



- **Procedure**
  - **Select the Ingest GUI Monitor/Control tab**
  - **Select the appropriate set of ingest requests**
  - **Select the type of view (i.e., graphical or text)**
  - **Observe ingest request processing**
  - **Change the status of ingest requests (subordinate procedures)**
    - » **Suspend requests**
    - » **Resume processing of suspended requests**
    - » **Cancel requests**

Suspending/Resuming Ingest Requests

- **Procedure**

  NOTE: In some variants of Drop 4 it is not possible to suspend/resume or change the priority of ingest requests

  – **Select the request to be suspended**

  – **Click on the Suspend button**

  – **Click on the OK button**

  – **Select the suspended request to be resumed**

  – **Click on the Resume button**

  – **Click on the OK button**

Canceling Ingest Requests

- **Procedure**
  - **Select the request to be canceled**
  - **Click on the Cancel button**
  - **Click on the OK button at the bottom of the GUI**
  - **Click on the OK button in the confirmation dialog box**

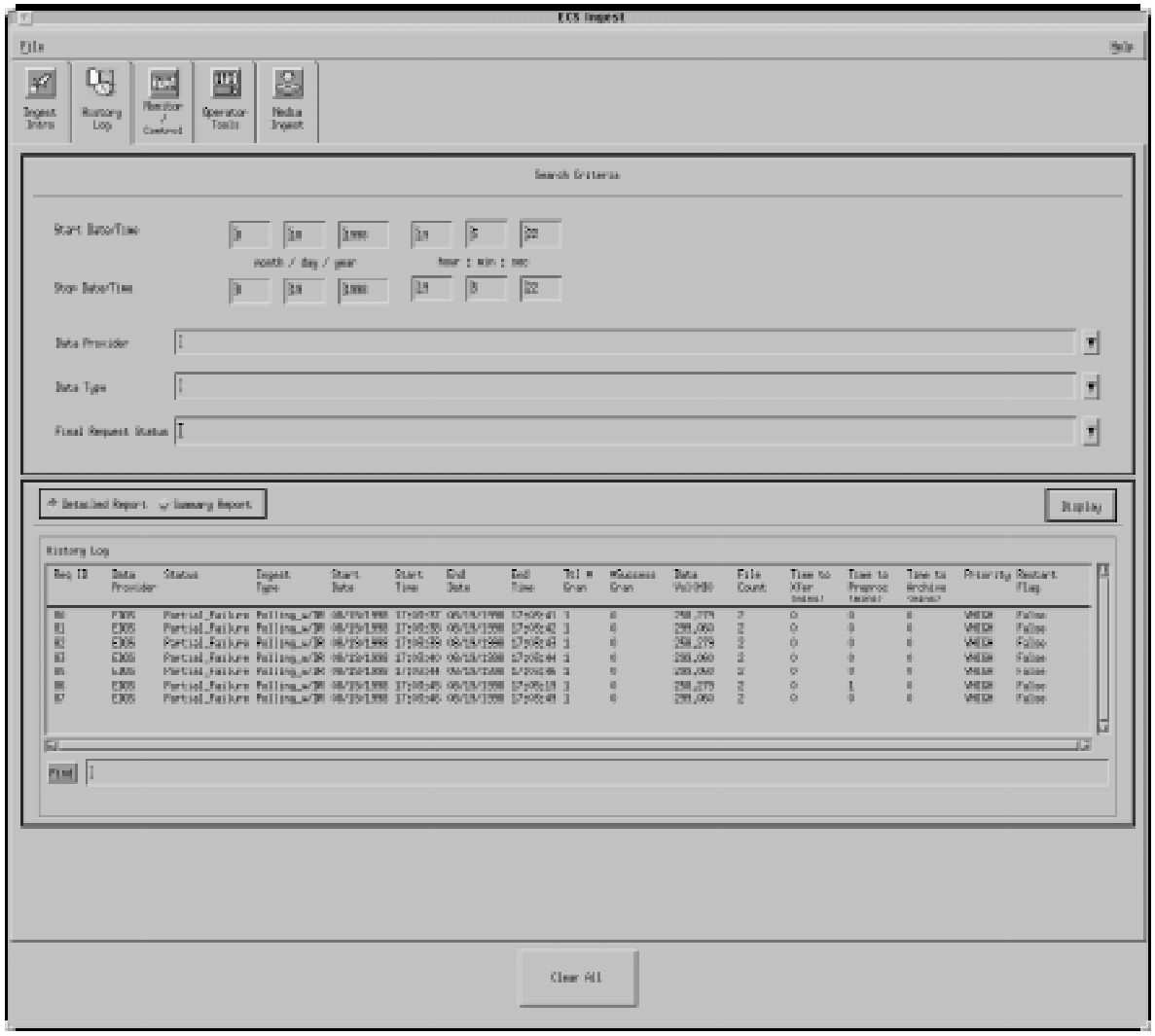
Ingest History Log

- **Upon Ingest completion...**
  - **Notice automatically sent to data provider indicating the status of the ingested data**
  - **Data provider sends an acknowledgment of notice**
  - **Receipt of the acknowledgment logged by ECS**
  - **Request ID removed from the list of active requests**
  - **History log receives statistics on the completed transaction**
- **History Log search criteria**
  - **time period**
  - **data provider ID**
  - **data type**
  - **final request status**

Ingest History Log (Cont.)

- **Ingest History Log formats**
  - **Detailed Report - detailed information about each completed ingest request**
  - **Summary Report - summary of ingest processing statistics, including the average and maximum time taken to perform each step in the ingest process**
    - » **Request-level Summary Report - ingest request processing statistics**
    - » **Granule-level Summary Report - ingest granule processing statistics organized by data provider and Earth Science Data Type (ESDT)**

Ingest History Log Screen



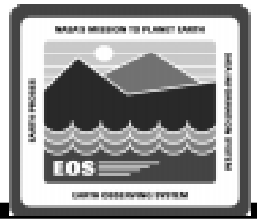
Viewing Ingest History Log

- **Procedure**
  - **Select the Ingest GUI History Log tab**
  - **Select the search criteria**
    - » **time period**
    - » **data provider**
    - » **data type**
    - » **final request status**
  - **Select Detailed Report or Summary Report**
  - **If Summary Report, select either Request Level report or Granule Level report**
  - **Click on the Display button**

Verifying the Archiving of Ingested Data

- **Check the appropriate directory on the File and Storage Management System (FSMS) host (e.g., g0drg01)**
  - **Directories are identified by the type of data (e.g., aster, ceres, l7, modis) in them and correspond directly to tape volumes in the system**
  - **Just a matter of checking the relevant FSMS directory to determine whether the applicable files/granules have been transferred**
  - **Procedure does not involve the use of any archive software**
  - **Before starting it is essential to know what data to look for**
    - » **End Date(s)/Time(s) and Data Volume(s) for ingest requests shown on the ECS Ingest GUI**

Verifying the Archiving of Ingested Data (Cont.)



- **Procedure**
  - **Log in to the FSMS host**
  - **Change directory to the directory containing the archive data**
  - **Perform a long listing of directory contents**
  - **Compare End Date(s)/Time(s) and Data Volume(s) for the applicable ingest request(s) shown on the Ingest GUI with the dates/times and file sizes listed for the files in the directory**

Cleaning Polling Directories

- **Polling directories should be cleaned up after successful archiving to avoid running out of disk space**
- **Automatic clean-up is not scheduled to be implemented before Drop 5B**
- **Until that time polling directory clean-up must be done manually**
- **Procedure**
  - **Log in to the ingest client host using secure shell**
  - **Type command to start clean-up script**
  - **Type appropriate responses to clean-up script prompts**

Ingest Processing: Hard Media

- **ECS supports hard media ingest from either of the following media (both types may not be supported at all sites):**
  - **8mm tape cartridges**
  - **D3 tape cartridges**
- **Performed by the DAAC Ingest/Distribution Technician using the Media Ingest tool on the Ingest GUI**
  - **Delivery Record file required; one of two options**
    - » **Embedded in the hard media**
    - » **Made available electronically (e.g., on the network)**

Media Ingest Tab

Performing Media Ingest from 8mm Tape

- **Procedure**
  - **Select the Ingest GUI Media Ingest tab**
  - **Identify the type of medium**
  - **Enter the stacker ID**
  - **Place the tape cartridge in a stacker slot**
  - **Enter the stacker slot ID**
  - **Select the data provider**
  - **Enter the media volume ID**
  - **Identify the delivery record file location**
  - **Initiate and monitor the data transfer**

NOTE: During data transfer from tape, the Ingest GUI prevents any other function from being selected until the transfer has been completed

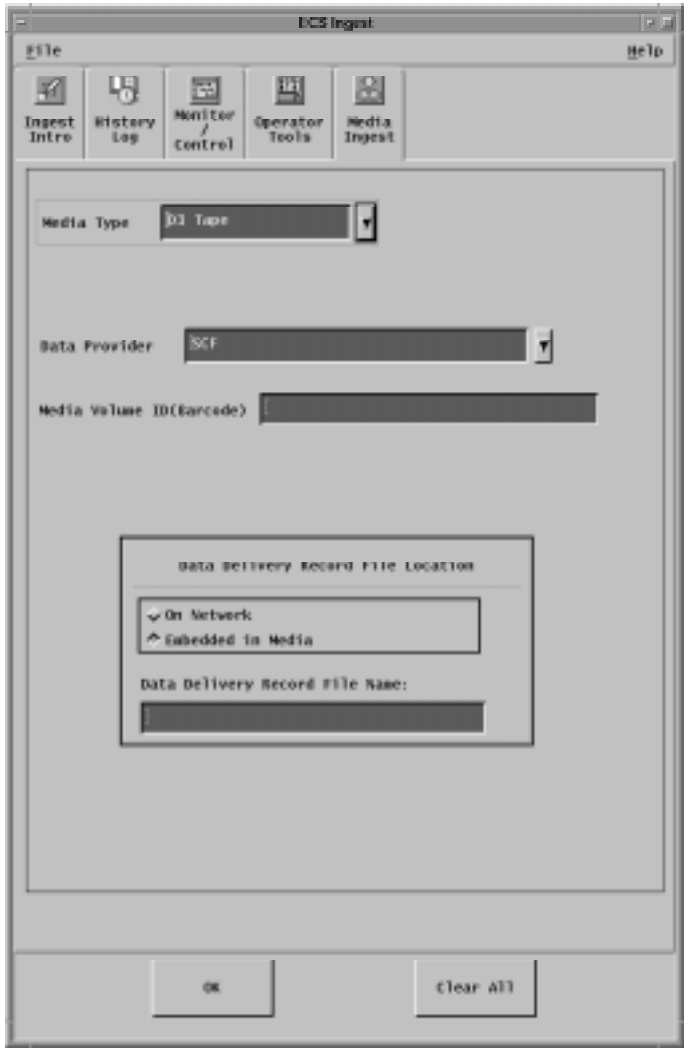
Media Ingest Screen: 8mm Tape

Performing Media Ingest from D3 Tape

- **Procedure**
  - **Select the Ingest GUI Media Ingest tab**
  - **Identify the type of medium**
  - **Select the data provider**
  - **Enter the media volume ID**
  - **Identify the delivery record file location**
  - **Place the tape cartridge in the tape unit**
  - **Initiate and monitor the data transfer**

  NOTE: During data transfer from tape, the Ingest GUI prevents any other function from being selected until the transfer has been completed

Media Ingest Screen: D3 Tape



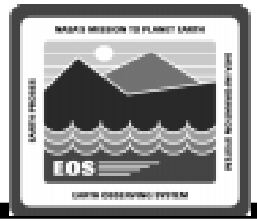
Interactive Ingest

- **General Description of Interactive Ingest Functions**
  - **Interactive Ingest is not a feature of Drop 4**
    - » **It may not be fully functional until Drop 5**
  - **Data provider will be able to have data ingested over a network without direct Ingest/Distribution Technician action**
  - **HTML web server (Netscape) interface**
    - » **will be available to DAAC Ingest/Distribution Technicians as well as external data providers**
  - **HTML interface will allow the data provider to perform the following functions:**
    - **Create a Data Availability Notice (DAN)**
    - **Submit an ingest request**
    - **Monitor the status of the on-going request(s)**

Interactive Ingest (Cont.)

- **Creating a DAN**
  - **Data provider will be able to use the HTML interface Create DAN Form screen to generate a DAN**
- **Submitting an Ingest Request**
  - **The data provider will select the DAN identifying the files to be ingested from a list displayed on the Submit Ingest Request screen**
  - **Monitoring On-Going Request Status**
  - **Ingest Request On-Going Status screen will display all the active requests for the data provider**

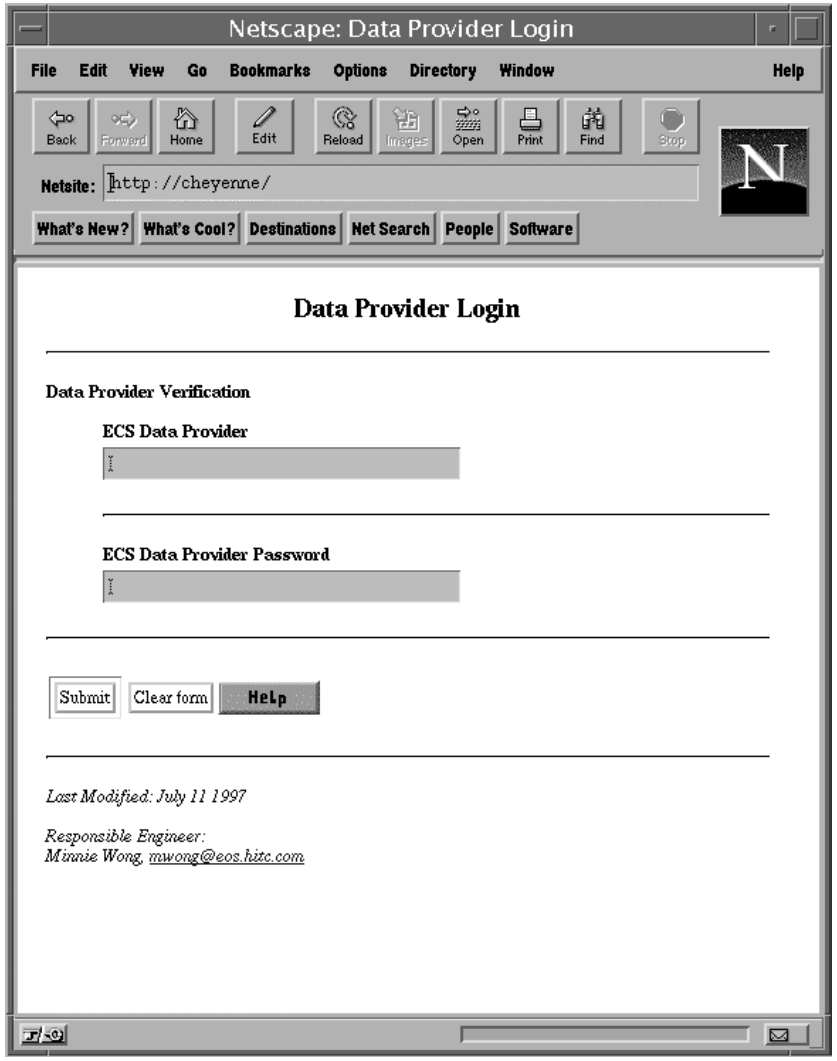
Interactive Ingest: Launching Interactive Ingest



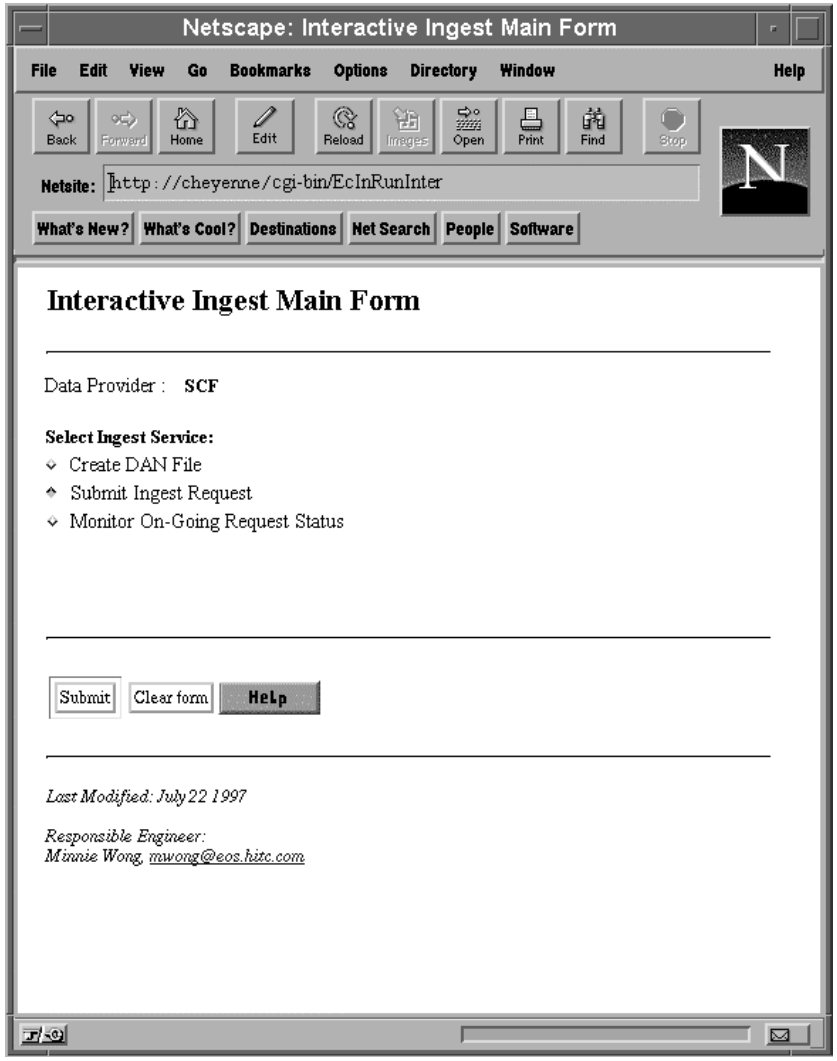
- **Procedure**
  - **Launch Netscape Navigator**
  - **Type the URL of the Ingest Home Page**
  - **Type the name of the data provider in the ECS Data Provider field**
  - **Type the data provider's password in the ECS Data Provider Password field**
  - **Click on the Submit button**
  - **Click on the Continue Submission button**

Netscape Navigator

Interactive Ingest: Login



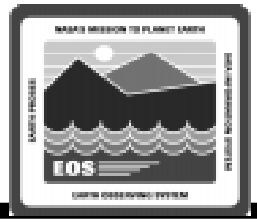
Interactive Ingest: Main Form



Document Scanning

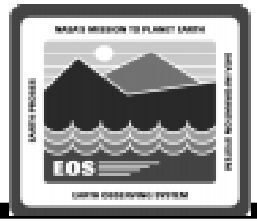
- **Procedure**
  - **Start the scanning program**
  - **Select the Save Image Defer OCR option**
  - **Load documents into the HP ScanJet feeder**
  - **Start the scanning process**
  - **Save the document**

Document Scanning: Access to Scanned Documents



- **Procedure**
  - **Start Windows Explorer**
  - **Open the scanned document**
  - **Review the document to verify that it has been properly scanned**

Ingest Tunable Parameters and File Transfers



- **Operator Tools Tab**
  - **Two GUI screens to view and set ingest thresholds**
    - » **Modify External Data Provider/User Information**
    - » **Modify System Parameters**
  - **One GUI screen for transferring files**
    - » **File Transfer**

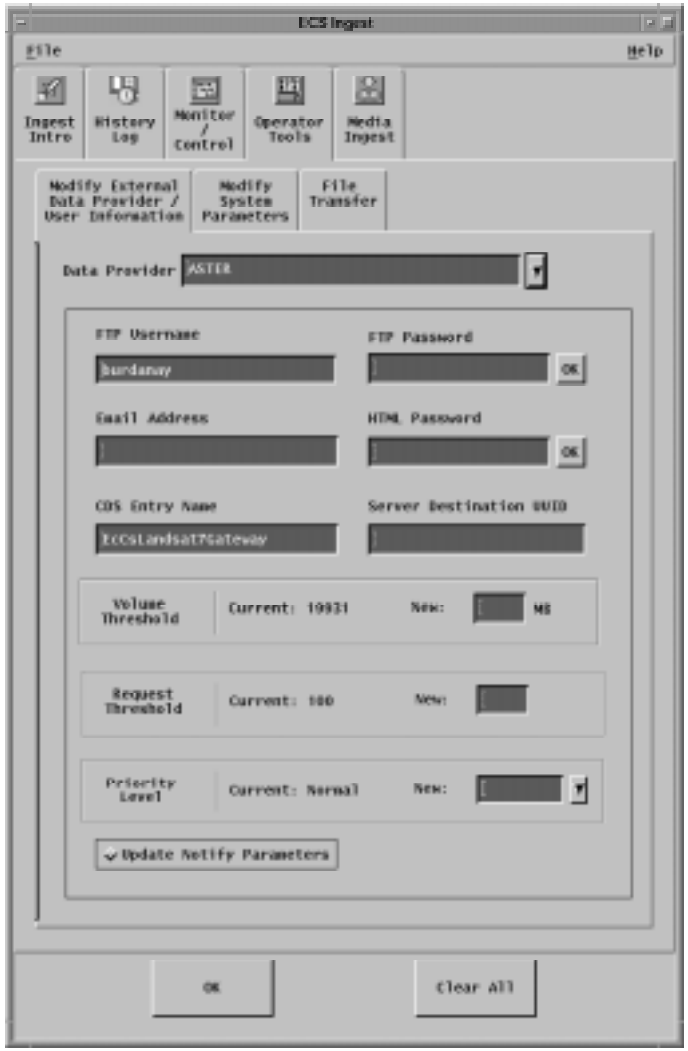
Ingest Tools: Tunable Parameters

- **Data provider data/thresholds**
  - **FTP user name/password**
  - **E-mail address**
  - **HTML password (for interactive ingest)**
  - **Cell Directory Service (CDS) entry name**
  - **Server destination Universal Unique Identifier (UUID)**
  - **Maximum data volume**
  - **Maximum number of concurrent ingest requests**
  - **Priority for ingest processing**
  - **“Notify” parameters**
    - » **ftp directory**
    - » **ftp username/password**

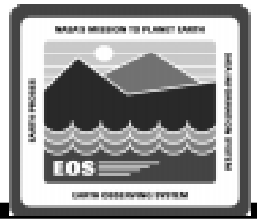
Ingest Tools: Tunable Parameters

- **System thresholds**
  - **Maximum data volume to be ingested concurrently**
  - **Maximum number of concurrent ingest requests**
  - **Communication retry count**
  - **Communication retry interval**
  - **Monitor time**
  - **Screen update time**

Modify Data Provider Parameters

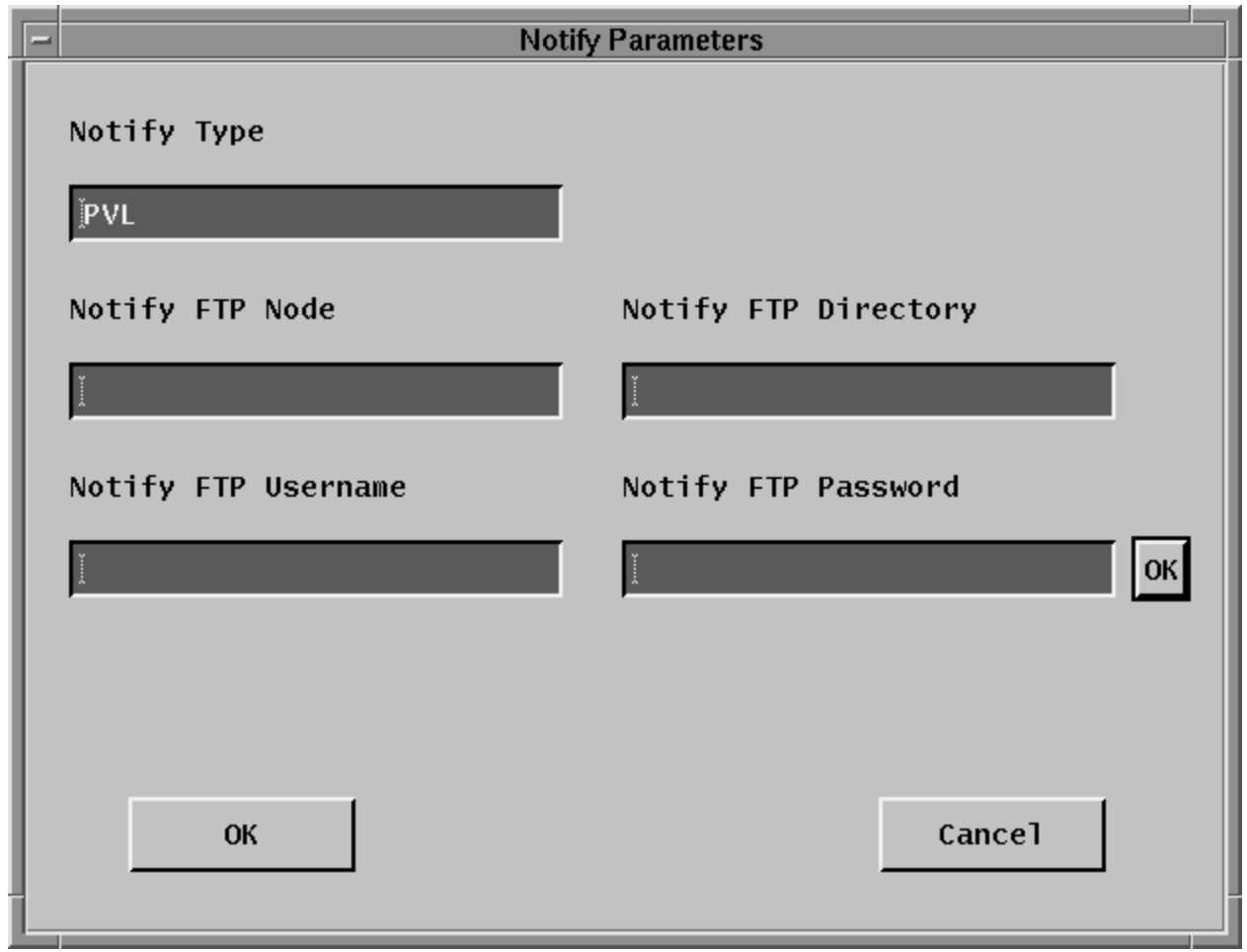


Modifying External Data Provider Information

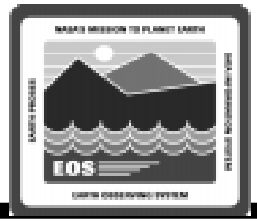


- **Procedure**
  - **Select the Ingest GUI Operator Tools: Modify External Data Provider/User Information tab**
  - **Select the data provider whose information is to be changed**
  - **Modify the data provider information as necessary**
  - **Save the changes to data provider information**

Modify Data Provider Parameters (Cont.)

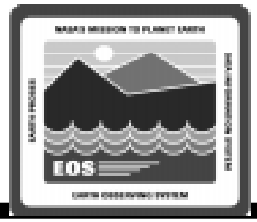


System Thresholds



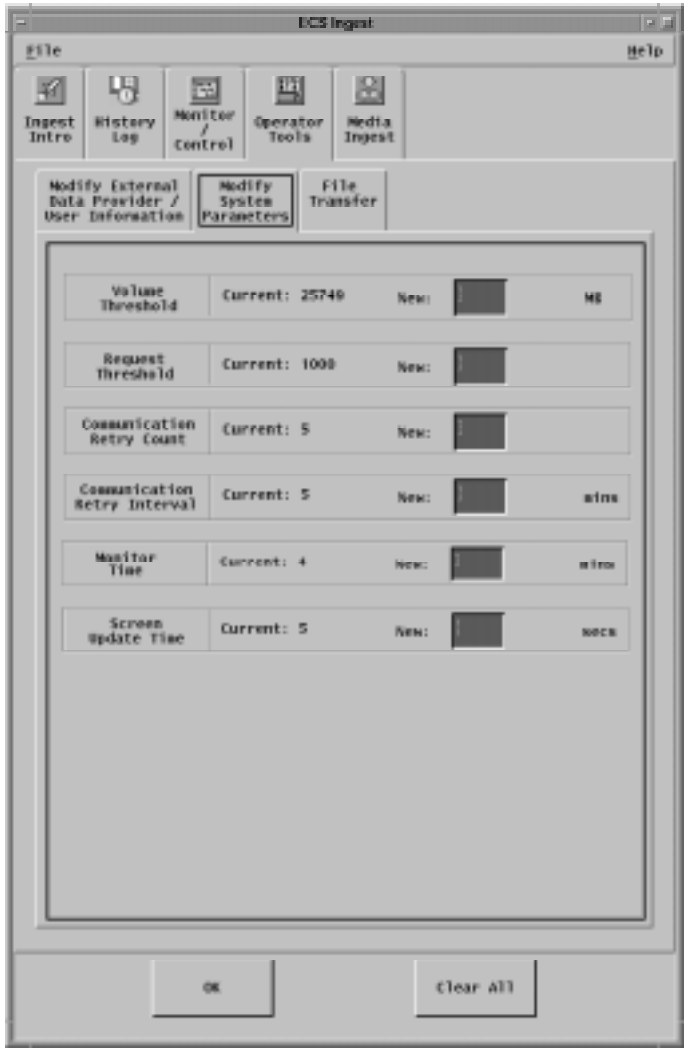
- **Two system parameters affect communications between external data providers and ECS**
  - **Communication retry count**
    - » **The number of successive times the system tries to establish ingest communications with a data provider before registering a communications failure and moving on to the next ingest request**
  - **Communication retry interval**
    - » **The time between successive attempts to establish communication**

System Thresholds (Cont.)



- **Two system parameters may be used to set the behavior of the system according to operator preference**
  - **Monitor time**
    - » **The amount of time that information about a completed ingest transaction remains available on the Monitor/Control screen after its completion**
  - **Screen Update Time**
    - » **The amount of time between automatic data updates on the Monitor/Control screen**

Modify System Parameters



Modifying System Parameters

- **Procedure**
  - **Select the Ingest GUI Operator Tools: Modify System Parameters tab**
  - **Modify Ingest operating parameters as necessary**
  - **Save the changes to Ingest operating parameters**

File Transfer

- **File Transfer tab**
  - **allows the Ingest/Distribution Technician to transfer files**
  - **allows the Ingest/Distribution Technician to build a System Monitoring and Coordination Center (SMC) History File**

Transfer Files

Transferring Files

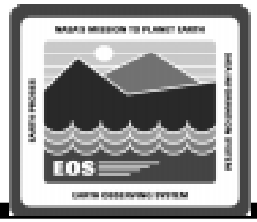
- **Procedure**
  - **Select the Ingest GUI Operator Tools: File Transfer tab**
  - **Select either Build SMC History Files or Generic File Transfer as appropriate**
  - **Select the file to be transferred**
  - **Enter the destination of the file to be transferred**
  - **Initiate and monitor the file transfer**

Troubleshooting Ingest Problems

- **Troubleshooting:**

  process of identifying the source of problems on the basis of observed trouble symptoms

Troubleshooting Ingest Problems (Cont.)



- **Problems with ingest can usually be traced to…**
  - **some part of the Ingest Subsystem**
  - **problems in other ECS subsystems, including (but not necessarily limited to):**
    - » **Data Server Subsystem (DSS)**
    - » **Interoperability Subsystem (IOS)**
    - » **Communications Subsystem (CSS)**
    - » **System Management Subsystem (MSS)**
  - **mistakes in the delivery records furnished by external data providers**
  - **errors in transmission of the data from external data providers**

Troubleshooting Ingest Problems (Cont.)

- **Troubleshooting table**
  - **describes actions to be taken in response to some common ingest problems**
  - **if the problem cannot be identified and fixed without help within a reasonable period of time, call the help desk or submit a trouble ticket in accordance with site Problem Management policy**

Troubleshooting Ingest Problems (Cont.)

Symptom	Response
Unable to log in to any host (e.g., Operations Workstation, g0acs02).	Check with the Operations Controller/System Administrator to ensure that the host is "up."
GUI not displayed when the start-up script has been properly invoked.	1. Ensure that the DISPLAY variable was set properly. 2. Ensure that the xhost command was given on the initial login host. [For detailed instructions refer to the procedure for **Launching the Ingest GUI** (previous section of this lesson).]
Message received indicating a data ingest failure.	1. Ensure (e.g., using ECS Assistant) that the necessary hosts and servers (listed in Table 2) are "up." 2. If hosts/servers have gone down, notify the Operations Controller/System Administrator to have servers brought back up using HP OpenView. 3. If hosts/servers are all "up," refer to the procedure for **Recovering from a Data Ingest Failure** (subsequent section of this lesson).
Other problems.	Check the log files (e.g., EcInReqMgr.ALOG, EcInAuto.ALOG, EcInPolling.ALOG, EcInGran.ALOG, EcInGUI.ALOG) in the /usr/ecs/*MODE*/CUSTOM/logs directory of the relevant host(s) for error messages. [For detailed instructions refer to the procedure for **Checking Log Files** (subsequent section of this lesson).]

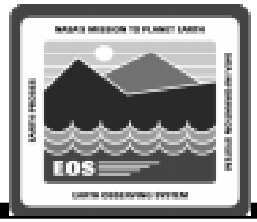
Hosts, Servers, Clients and Other Software Relevant to Ingest

HOST	SERVER/CLIENT/OTHER SOFTWARE
Ingest Server (e.g., x0icg01)	Automated Network Ingest Interface (EcInAuto) Polling Ingest Client Interface (EcInPolling) Interactive Ingest Interface (EcInInter) Ingest Request Manager (EcInReqMgr) Ingest Granule Server (EcInGran) Ingest FTP Server (EcDsStIngestFtpServer) Staging Disk Server (EcDsStStagingDiskServer)
Distribution Server (e.g., x0dis02)	8mm Server (EcDsSt8MMServer) D3 Server (EcDsStD3Server)
Working Storage (e.g., x0wkg01)	Archive Server (EcDsStArchiveServer) Staging Monitor Server (EcDsStStagingMonitorServer) Staging Disk Server (EcDsStStagingDiskServer) Ingest FTP Server (EcDsStIngestFtpServer)
SDSRV Server (e.g., x0acs03)	Science Data Server (EcDsScienceDataServer) HDF EOS Server (EcDsHdfEosServer)
Access/Process Coordinators (APC) Server (e.g., x0acg01)	Archive Server (EcDsStArchiveServer) FTP Distribution Server (EcDsStFtpDisServer) Staging Monitor Server (EcDsStStagingMonitorServer) Staging Disk Server (EcDsStStagingDiskServer) Ingest FTP Server (EcDsStIngestFtpServer) Pull Monitor Server (EcDsStPullMonitorServer)
FSMS Server (e.g., x0drg01)	Archive Server (EcDsStArchiveServer) Staging Monitor Server (EcDsStStagingMonitorServer) Staging Disk Server (EcDsStStagingDiskServer)
Interface Server 01 (e.g., x0ins02)	Advertising Server (EcIoAdServer)
Interface Server 02 (e.g., x0ins01)	Subscription Server (EcSbSubServer) Event Server (EcSbEventServer) Data Dictionary (EcDmDictServer)

Recovery from Data Ingest Failure

- **Recovery from a data ingest failure**
  - **Operator intervention required when there is an ingest fault, or error (e.g., invalid DAN/PDR)**
  - **System responses to Ingest fault (error)**
    - » **processing of the ingest request stops**
    - » **message is sent to the Ingest/Distribution Technician and the data provider with a brief description of the problem**
  - **Ingest/Distribution Technician may use several sources for troubleshooting information**
    - » **Ingest GUI Monitor/Control screen**
    - » **Ingest History Log**
    - » **Ingest log files**

Troubleshooting a Data Ingest Failure

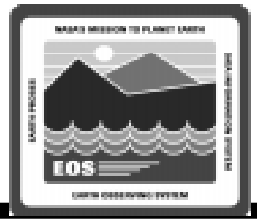


- **Procedure**
  - **Identify the faulty ingest request**
  - **Review the information concerning the faulty ingest request**
  - **Perform the appropriate recovery procedure depending on the nature of the problem**

Recovering from a Faulty DAN/PDR

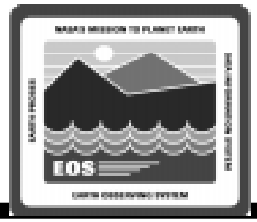
- **Procedure**
  - **Contact the data provider**
    - » **Report the ingest failure**
    - » **Discuss what has been discovered from reviewing the failure event data**
    - » **Determine whether the data provider will re-initiate the data ingest request with a new DAN/PDR**
  - **If the data ingest request is to be re-initiated, monitor the subsequent ingest**

Ingest Processing: Other Failures



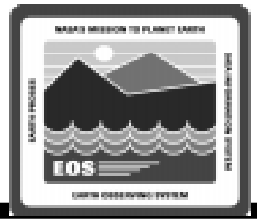
- **Other ingest failures likely to involve operator intervention**
  - **Volume threshold exceeded**
  - **Maximum number of concurrent requests exceeded**
  - **Insufficient disk space**
  - **Expiration date/time period exceeded**
  - **ftp error**
  - **Processing error**
    - » **Missing Required Metadata**
    - » **Unknown Data Type**
    - » **Template Out of Synchronization (Sync)**
    - » **Unavailable File Type**
    - » **Metadata Validation Error**
    - » **Missing Optional Data Files**

Checking Log Files



- **Log files can provide indications of the following types of problems:**
  - **DCE problems**
  - **Database problems**
  - **Lack of disk space**

Checking Log Files (Cont.)



- **Procedure**
  - **Access a terminal window logged in to the appropriate host**
  - **Change directory to the directory containing the ingest log files**
    - » **/usr/ecs/*MODE*/CUSTOM/logs**
  - **Review log file to identify problems**
    - » **EcInGUI.ALOG**
    - » **EcInReqMgr.ALOG**
    - » **EcInAuto.ALOG**
    - » **EcInPolling.ALOG**
    - » **EcInGran.ALOG**
  - **Respond to problems**