625-EMD-013

## EOSDIS Maintenance and Development Project

# Training Material for the EMD Project
# Volume 13: User Services

Revision 02

July 2006

Raytheon Company
Upper Marlboro, Maryland

# Training Material for the EMD Project
# Volume 13: User Services

**Revision 02**

**July 2006**

Prepared Under Contract NAS5-03098
CDRL Item 23

**RESPONSIBLE AUTHOR**

July 28 2006

Lay'wan Gamble and Debra Stepp Date
EOSDIS Maintenance and Development Project

**RESPONSIBLE OFFICE**

7/28/06

Mary Armstrong, Program Manager Date
EOSDIS Maintenance and Development Project

**Raytheon Company**
Upper Marlboro, Maryland

This page intentionally left blank.

# Preface

This document is a formal contract deliverable. It requires Government review and approval within 45 business days. Changes to this document will be made by document change notice (DCN) or by complete revision.

Any questions should be addressed to:

Data Management Office
The EMD Project Office
Raytheon Company
1616 McCormick Drive
Upper Marlboro, Maryland 20774-5301

## Revision History

| Document Number | Status/Issue | Publication Date | CCR Number |
|---|---|---|---|
| 625-EMD-013 | Original | April 2004 | 04-0384 |
| 625-EMD-013 | Revision 01 | July 2005 | 05-0320 |
| 625-EMD-013 | Revision 02 | July 2006 | 06-0377 |

This page intentionally left blank.

# Abstract

This is Volume 13 of a series of lessons containing the training material for the Earth Observing System Data and Information System (EOSDIS) Maintenance and Development (EMD) Project. This lesson provides a detailed description of the different tasks that relate to providing support to the user community. The type of services reviewed in this lesson include user account management, processing an order, canceling an order, fulfilling subscriptions, cross-DAAC referral process, and cross-DAAC order tracking.

***Keywords***: training, instructional design, course objective, user services, subscription, Spatial Subscription Server, Data Pool, order processing, order tracking, Data Dictionary Maintenance Tool, Data Acquisition Request (DAR), ASTER DAR Tool, V0, Browse ,

This page intentionally left blank.

# Contents

## Preface

## Abstract

## Contents

## Introduction



## Related Documentation



## User Services Overview

## The User Services Role



## ECS User Account Management



## Troubleshooting Account Management Problems



## Processing an Order



## Canceling/Tracking an Order



## Troubleshooting Order Tracking Problems

## Subscriptions and Data Pool Management



## Data Pool User Access



## Data Dictionary Maintenance

## Troubleshooting DDMT Problems



## Cross-DAAC Referral Processing



## Cross-DAAC Order Tracking



## (LP DAAC ONLY) ASTER Data Acquisition Request (DAR) Tool



## On-Demand Product Requests



## Practical Exercise

## Slide Presentation

This page intentionally blank.

# Introduction

## Identification

Training Material Volume 13 is part of Contract Data Requirements List (CDRL) Item 23, which is a required deliverable under the Earth Observing System Data and Information System (EOSDIS) Maintenance and Development (EMD) Contract (NAS5-03098).

## Scope

Training Material Volume 13 describes the processes and procedures to accomplish User Services functions. This lesson is designed to provide the operations staff with sufficient knowledge and information to satisfy all lesson objectives.

## Purpose

The purpose of this Student Guide is to provide a detailed course of instruction that forms the basis for understanding User Services. Lesson objectives are developed and will be used to guide the flow of instruction for this lesson. The lesson objectives will serve as the basis for verifying that all lesson topics are contained within this Student Guide and slide presentation material.

## Status and Schedule

This lesson module provides detailed information about training for the current baseline of the system. Revisions are submitted as needed.

## Organization

This document is organized as follows:

| | |
|---|---|
| Introduction: | The Introduction presents the document identification, scope, purpose, and organization. |
| Related Documentation: | Related Documentation identifies parent, applicable and information documents associated with this document. |
| Student Guide: | The Student Guide identifies the core elements of this lesson. All Lesson Objectives and associated topics are included. |
| Slide Presentation: | Slide Presentation is reserved for all slides used by the instructor during the presentation of this lesson. |

This page intentionally left blank.

# Related Documentation

## Parent Documents

The parent documents are the documents from which the EMD Training Material's scope and content are derived.

| | |
|---|---|
| 423-41-01 | Goddard Space Flight Center, EOSDIS Core System (ECS) Statement of Work |
| 423-46-03 | EMD Task 101 Statement of Work For ECS SDPS Maintenance |
| 423-46-02 | Contract Data Requirements Document for EMD Task 101 ECS SDPS Maintenance |

## Applicable Documents

The following documents are referenced within this EMD Training Material, or are directly applicable, or contain policies or other directive matters that are binding upon the content of this document:

| | |
|---|---|
| 420-05-03 | Goddard Space Flight Center, Earth Observing System (EOS) Performance Assurance Requirements for the EOSDIS Core System (ECS) |
| 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) (ECS F&PRS) |
| 423-46-01 | Goddard Space Flight Center, Functional and Performance Requirements Specification for the Earth Observing System Data and Information System (EOSDIS) Core System (ECS) Science Data Processing System (EMD F&PRS) |

## Information Documents

### Information Documents Referenced

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 EMD Training Material.

| | |
|---|---|
| 609-EMD-001 | Release 7.11 Operations Tools Manual for the EMD Project |
| 611-EMD-001 | Release 7.11 Mission Operation Procedures for the EMD Project |

### Information Documents Not Referenced

The following documents, although not referenced herein and/or not directly applicable, do amplify or clarify the information presented in this document. These documents are not binding on the content of the EMD Training Material.

| | |
|---|---|
| 305-EMD-001 | Release 7.11 Segment/Design Specification for the EMD Project |
| 311-EMD-001 | Data Management Subsystem (DMS) Database Design and Database Schema Specifications for the EMD Project |
| 311-EMD-002 | INGEST (INS) Database Design and Schema Specifications for the EMD Project |
| 311-EMD-003 | Planning and Data Processing Subsystem Database Design and Schema Specifications for the EMD Project |
| 311-EMD-004 | Science Data Server Database Design and Schema Specifications for the EMD Project |
| 311-EMD-005 | Storage Management and Data Distribution Subsystems Database Design and Database Schema Specifications for the EMD Project |
| 311-EMD-006 | Subscription Server Database Design and Schema Specifications for the EMD Project |
| 311-EMD-007 | Systems Management Subsystem Database Design and Schema Specifications for the EMD Project |
| 311-EMD-008 | Registry Database Design and Schema Specifications for the EMD Project |
| 311-EMD-009 | Product Distribution Subsystem (PDS) Database Design and Database Schema Specifications for the EMD Project |
| 311-EMD-010 | NameServer Database Design and Schema Specifications for the EMD Project |
| 311-EMD-011 | Order Manager Database Design and Database Schema Specifications for the EMD Project |
| 311-EMD-012 | Spatial Subscription Server (SSS) Database Design and Schema Specifications for the EMD Project |
| 311-EMD-013 | Data Pool Database Design and Schema Specifications for the EMD Project |
| 313-EMD-001 | Release 7.11 Internal Interface Control Document for the EMD Project |
| 508-EMD-001 | ACRONYMS for the EOSDIS Maintenance and Development (EMD) Project |
| 910-TDA-022 | Custom Code Configuration Parameters for ECS |
| 152-TP-003 | Glossary of Terms for the EOSDIS Core System (ECS) Project |

# User Services Overview

## Lesson Overview

This lesson will provide you with the process for user account management, processing an order, canceling an order, fulfilling a subscription, data dictionary maintenance, cross-DAAC referral processing, and cross-DAAC order tracking. It provides practical experience in using the tools you will need for creating and managing user accounts, processing, tracking, and canceling orders, managing subscriptions, and cross-DAAC referrals and order tracking to support system users.

## Lesson Objectives

**Overall Objective** - The overall objective of this lesson is proficiency in the methodology and procedures for providing support to the users of the Earth Observing System Data and Information System (EOSDIS) Core System (ECS).

**Condition** - The student will be given a workstation console with access to system software tools including trouble ticket/contact log, fault/performance management, order tracking, and user profile graphical user interface (GUI) tools, a copy of 609-EMD-001, *Release 7.11 Operations Tools Manual for the EMD Project*, and a copy of 611-EMD-001, *Release 7.11 Mission Operation Procedures for the EMD Project*.

**Standard** - The student will use the tools in accordance with prescribed methods and complete required procedures without error.

**Specific Objective 1** - The student will describe the User Services role, identifying the major responsibilities of User Services.

**Condition** - The student will be given a copy of 611-EMD-001, *Release 7.11 Mission Operation Procedures for the EMD Project*.

**Standard** - The student will correctly state the User Services role, correctly identifying five major responsibilities of User Services Personnel.

**Specific Objective 2** - The student will perform user account management, including retrieving a user account, creating a user account, editing/modifying an existing account, deleting an ECS account, canceling an ECS account, and changing an ECS user's password.

**Condition** - The student will be given a workstation console with access to ECS user profile graphical user interface (GUI) tools, a copy of 609-EMD-001, *Release 7.11 Operations Tools Manual for the EMD Project*, and a copy of 611-EMD-001, *Release 7.11 Mission Operation Procedures for the EMD Project*.

**Standard** - The student will use the GUI tools without error in accordance with applicable procedures to perform the required user account management functions.

**Specific Objective 3** - The student will perform the functions required to cancel/track an order.

**Condition** - The student will be given a workstation console with access to the system trouble ticket/contact log and search and order tool graphical user interface (GUI) tools, a copy of 609-EMD-001, *Release 7.11 Operations Tools Manual for the EMD Project*, a copy of 611-EMD-001, *Release 7.11 Mission Operation Procedures for the EMD Project*, and a user request to cancel a data order.

**Standard** - The student will use the GUI tools without error in accordance with applicable procedures to perform the required order cancellation functions.

**Specific Objective 4** - The student will perform the functions required to support fulfilling subscriptions, including fulfilling a one-time subscription, fulfilling an open-ended subscription, returning a list of subscriptions, and canceling a subscription.

**Condition** - The student will be given a workstation console with access to the system trouble ticket/contact log, user profile, and subscription editor graphical user interface (GUI) tools, a copy of 609-EMD-001, *Release 7.11 Operations Tools Manual for the EMD Project*, a copy of 611-EMD-001, *Release 7.11 Mission Operation Procedures for the EMD Project*, and user requests for subscription actions.

**Standard** - The student will use the GUI tools without error in accordance with applicable procedures to perform the required subscription support functions.

**Specific Objective 5** - The student will perform the functions required to manage the Data Pool, including using the Spatial Subscription Server GUI (Spatial Subscription Server GUI) to add Data Pool qualification and retention criteria, using the Spatial Subscription Server GUI to extend the period of retention in a Data Pool insert subscription, using the Spatial Subscription Server GUI to update a subscription in the NBSRV database, using the Spatial Subscription Server GUI to delete (cancel) a subscription in the NBSRV database, using the Spatial Subscription Server GUI to manage bundling orders, using the Spatial Subscription Server GUI to view the Acquire and Notification actions currently being processed by the Spatial Subscription Server, and using the Spatial Subscription Server GUI to view statistics on processing of events and actions by the Spatial Subscription Server.

**Condition** - The student will be given a workstation console with access to Spatial Subscription Server GUI tools, a copy of 609-EMD-001, *Release 7.11 Operations Tools Manual for the EMD Project*, a copy of 611-EMD-001, *Release 7.11 Mission Operation Procedures for the EMD Project*, and requirements for Data Pool management actions.

**Standard** - The student will use the GUI tools without error in accordance with applicable procedures to perform the required Data Pool management functions.

**Specific Objective 6** - The student will perform the functions required to use the Data Pool web interface to select and download data from the Data Pool.

**Condition** - The student will be given a workstation console with access to a web browser and the Data Pool web interface, a copy of 609-EMD-001, *Release 7.11 Operations Tools Manual for the EMD Project*, a copy of 611-EMD-001, *Release 7.11 Mission Operation Procedures for the EMD Project*, and requirements for locating and downloading data from the Data Pool.

**Standard** - The student will use the GUI tools without error in accordance with applicable procedures to perform the required location and download functions.

**Specific Objective 7** - The student will perform functions required for data dictionary maintenance, importing valids, and exporting valids.

**Condition** - The student will be given a workstation console with access to the system trouble ticket/contact log, user profile, and search and order tool graphical user interface (GUI) tools, a copy of 609-EMD-001, *Release 7.11 Operations Tools Manual for the EMD Project*, a copy of 611-EMD-001, *Release 7.11 Mission Operation Procedures for the EMD Project*, and a user request for data not available at the home DAAC.

**Standard** - The student will use the GUI tools without error in accordance with applicable procedures to perform the required data dictionary maintenance functions.

**Specific Objective 8** - The student will perform a cross-DAAC referral.

**Condition** - The student will be given a workstation console with access to the system trouble ticket/contact log, user profile, and search and order tool graphical user interface (GUI) tools, a copy of 609-EMD-001, *Release 7.11 Operations Tools Manual for the EMD Project*, a copy of 611-EMD-001, *Release 7.11 Mission Operation Procedures for the EMD Project*, and a user request for data not available at the home DAAC.

**Standard** - The student will use the GUI tools without error in accordance with applicable procedures to perform the required cross-DAAC referral.

**Specific Objective 9** - The student will perform cross-DAAC order tracking.

**Condition** - The student will be given a workstation console with access to the system trouble ticket/contact log, user profile, and search and order tool graphical user interface (GUI) tools, a copy of 609-EMD-001, *Release 7.11 Operations Tools Manual for the EMD Project*, a copy of 611-EMD-001, *Release 7.11 Mission Operation Procedures for the EMD Project*, and a user request for status information concerning an order that requires cross-DAAC tracking.

**Standard** - The student will use the GUI tools without error in accordance with applicable procedures to perform the required cross-DAAC order tracking.

**Specific Objective 10 (for LP DAAC only)** - The student will perform operations related to creation and modification of a Data Acquisition Request (DAR), including preparing and submitting a DAR and modifying an existing DAR.

**Condition** - The student will be given a workstation console with access to the Netscape web browser, a copy of 609-EMD-001, *Release 7.11 Operations Tools Manual for the EMD Project*, a copy of 611-EMD-001, *Release 7.11 Mission Operation Procedures for the EMD Project*, and a scientist's request for preparation of a DAR.

**Standard** - The student will use the DAR GUI tools without error in accordance with applicable procedures to perform the required DAR submission and modification.

**Specific Objective 11 (for LP DAAC only)** - The student will perform operations using the HTML interface to the ASTER On-Demand Form Request Manager (ODFRM) to create an ASTER Production Request.

**Condition** - The student will be given a workstation console with access to the Netscape web browser, a copy of 609-EMD-001, *Release 7.11 Operations Tools Manual for the EMD Project*, a copy of 611-EMD-001, *Release 7.11 Mission Operation Procedures for the EMD Project*, and a scientist's request for creation of an ASTER Production Request.

**Standard** - The student will use the ODFRM GUI tools without error in accordance with applicable procedures to perform the required ASTER Production Request.

## Importance

This lesson provides students who will be User Services Representatives at the DAACs with the knowledge and skills needed for effective user assistance in order tracking, creation/management of user accounts, resolving user requests/problems, initiating and tracking system problem reports, obtaining user comments/feedback, and coordination with external/internal sources to resolve user problems. It is also useful to those who will be System Engineers, System Test Engineers, and Maintenance Engineers, to prepare them for supporting user problem resolution.

# The User Services Role

The entire potential user population includes scientists, graduate and undergraduate students, and students in grades K-12, as well as teachers, who may use the system to pull data from the DAACs for a range of studies in basic and applied research and for educational programs. User Services is the arm of each DAAC providing extensive support services to these “pull users” for each product archived at the DAAC. In this role, User Services exercises five major responsibilities (including two additional roles of the LP DAAC):

1. help create new users – creating new accounts and performing other account management activities.
2. support order tracking – keeping logs of user contacts, retrieving user information, and helping trace and report the status of order processing.
3. resolve user requests/problems – respond to user requests and act on behalf of users to provide ECS services and products.
4. initiate/track problem reports – initiate an ECS problem report based on a user called-in (or e-mailed) advice of a system problem (i.e., an instance in which the system does not conform to specified or advertised performance).
5. coordinate external and internal sources to resolve user issues/problems – respond to user issues and resolve problems by identifying and energizing the necessary resources, both internal (e.g., DAAC operations personnel) and external (e.g., engineering from the Sustaining Engineering Organization, resources from the System Monitoring and Control Center, personnel from other DAACs).
6. (LP DAAC Only) support users of the ASTER Data Acquisition Request (DAR) tool - used to prepare and submit *requests for acquisition* of data by the ASTER instrument.
7. (LP DAAC Only) support users of the EOS Data Gateway (EDG) Search and Order tool – used to prepare and submit *requests for production* of ASTER on-demand products.

To fulfill their responsibilities, User Services personnel may use custom software tools, including ECS account management tools, an order tracking tool, subscription tools, the Data Dictionary Maintenance Tool, the ASTER DAR tool, and the ODFRM tool. They may also use a customized commercial software, Remedy, to create and maintain user contact records, to include the use of the EOS Data Gateway tool for creating data searches and orders.

## User Services Relationships in ECS

Figure 1 shows User Services relationships in ECS, illustrating the importance of User Services as an optional way to access ECS services. User Services is a "super user" that can provide users with assistance in all aspect of accessing ECS services or even act as a surrogate for the user. As a surrogate, User Services may respond to a telephone request or e-mail request and perform all functions required to obtain ECS services on the user's behalf. As indicated in the figure, these responsibilities may entail a wide range of activities, including:

- User transaction activities.
- Statistical activities.
- Data set histories.
- Library and advertising activities.

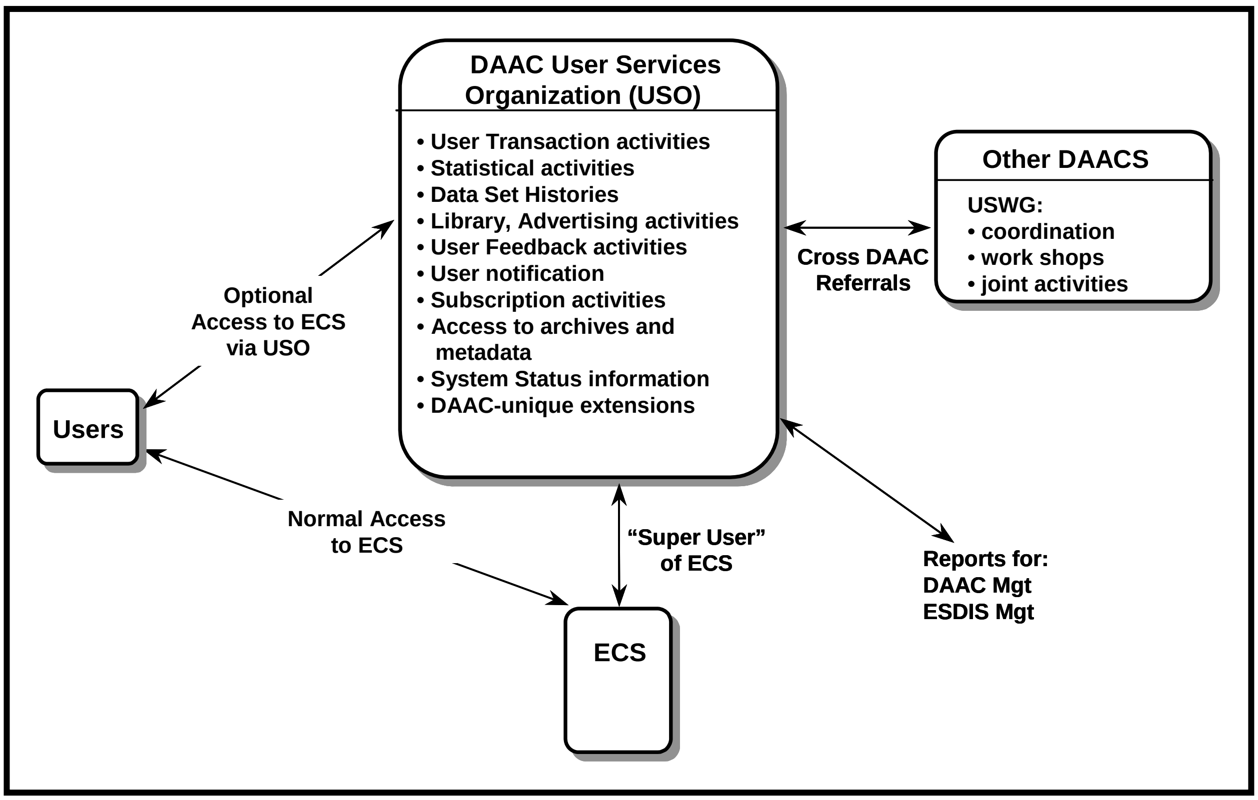



***Figure 1. User Services and Relationships in ECS***

- User feedback activities.
- User notification.

- Subscription activities.
- Access to archives and metadata.
- System status information.
- DAAC-unique extensions.

# ECS User Account Management

User Services representatives have primary responsibility for ECS user account management. There are several procedures needed for managing ECS accounts:

- Retrieving a user account.
- Creating a user account.
- Editing/modifying an existing account.
- Deleting an ECS account.
- Canceling an ECS account.
- Changing an ECS user's password.

You can retrieve a user account using Account Management Graphical User Interfaces (GUIs) local to your site. Creating or modifying a user account, however, requires remote access to Account Management GUIs at the System Monitoring and Coordination Center (SMC).

## Retrieving a User Account

One of the first things a User Services Representative may want to do when contacted by a user for any request is to search to determine if that user has an account and to retrieve it (if the user is a new user, the representative may guide that user to register so that an account may be created; these processes are addressed later in this lesson). The information in the account serves at least two purposes:

- Validates user.
- Provides information that may be needed to respond.

There is a separate procedure in 611-EMD-001, *Release 7.11 Mission Operation Procedures for the EMD Project* for retrieving a user account. However, as we will see, retrieving an account is part of other procedures as well, such as:

- Processing an order.
- Canceling an order.
- Order tracking.

Retrieval of a user account is accomplished by accessing the **Profile Account** screen of the **ECS User Account Management** Application tool, a graphical user interface (GUI). Figure 2 and Figure 3 illustrate the Personal Information and Account Information sub-tabs of this screen. At the DAAC, the Profile Account screen is the only top-level tab available. The tool at the SMC has a second major tab, **Request Account**, as illustrated in Figure 4 and Figure 5. Note that the SMC tool has buttons at the bottom of the screen permitting the operator to modify account data.

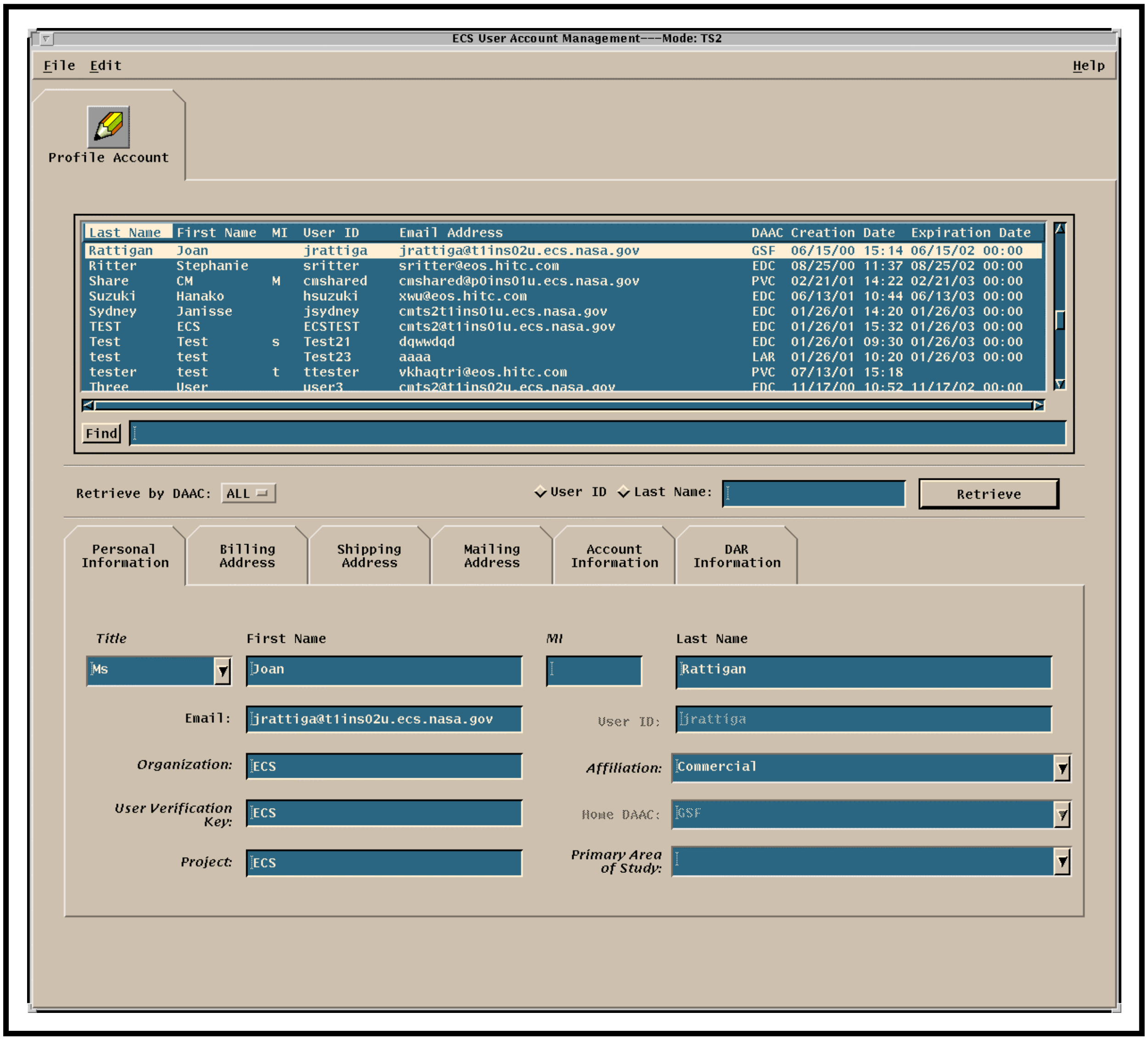



***Figure 2. DAAC Account Management Tool: Profile Account Screen, Personal Information***

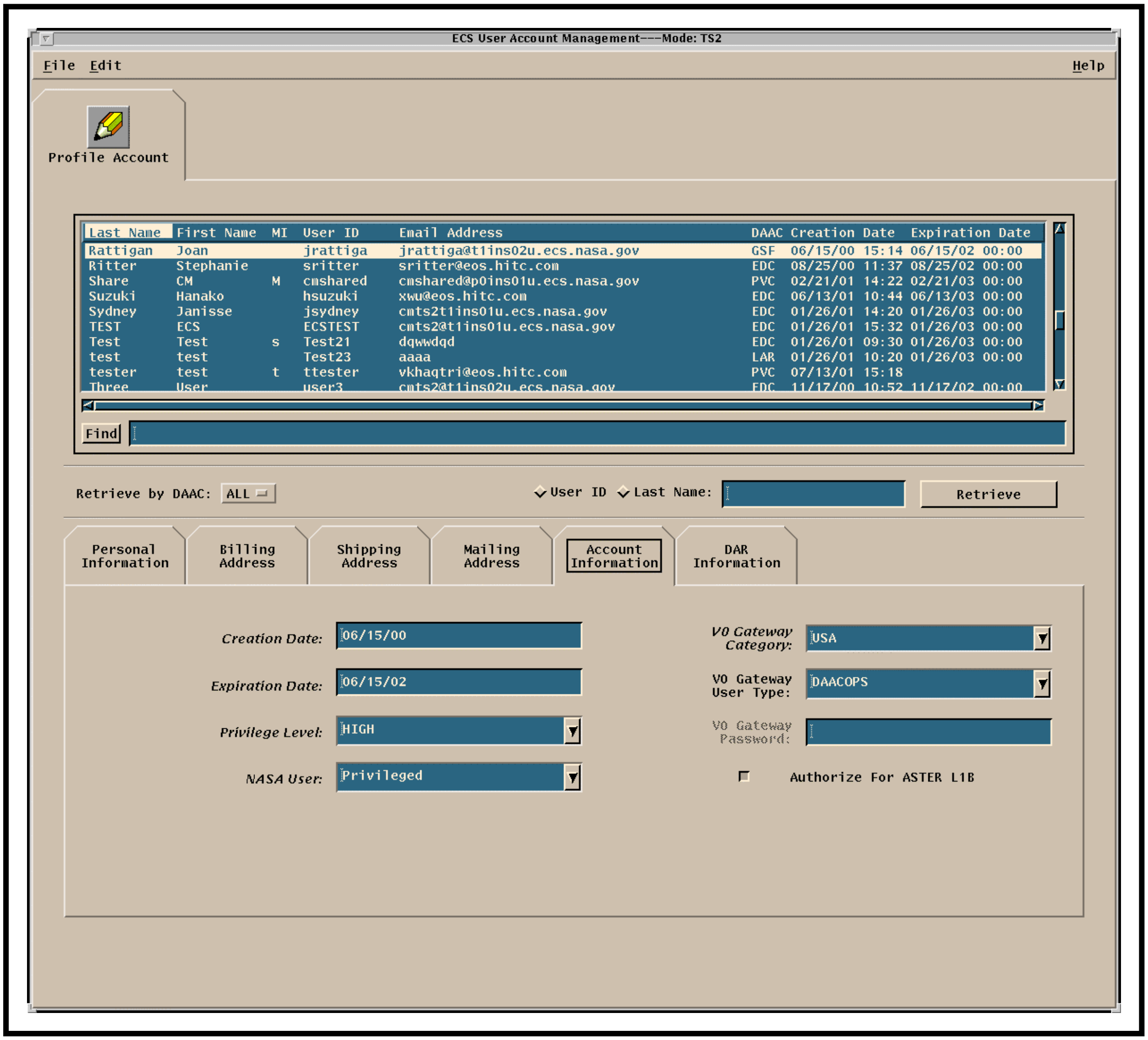



***Figure 3. DAAC Account Management Tool: Profile Account Screen, Account Information***

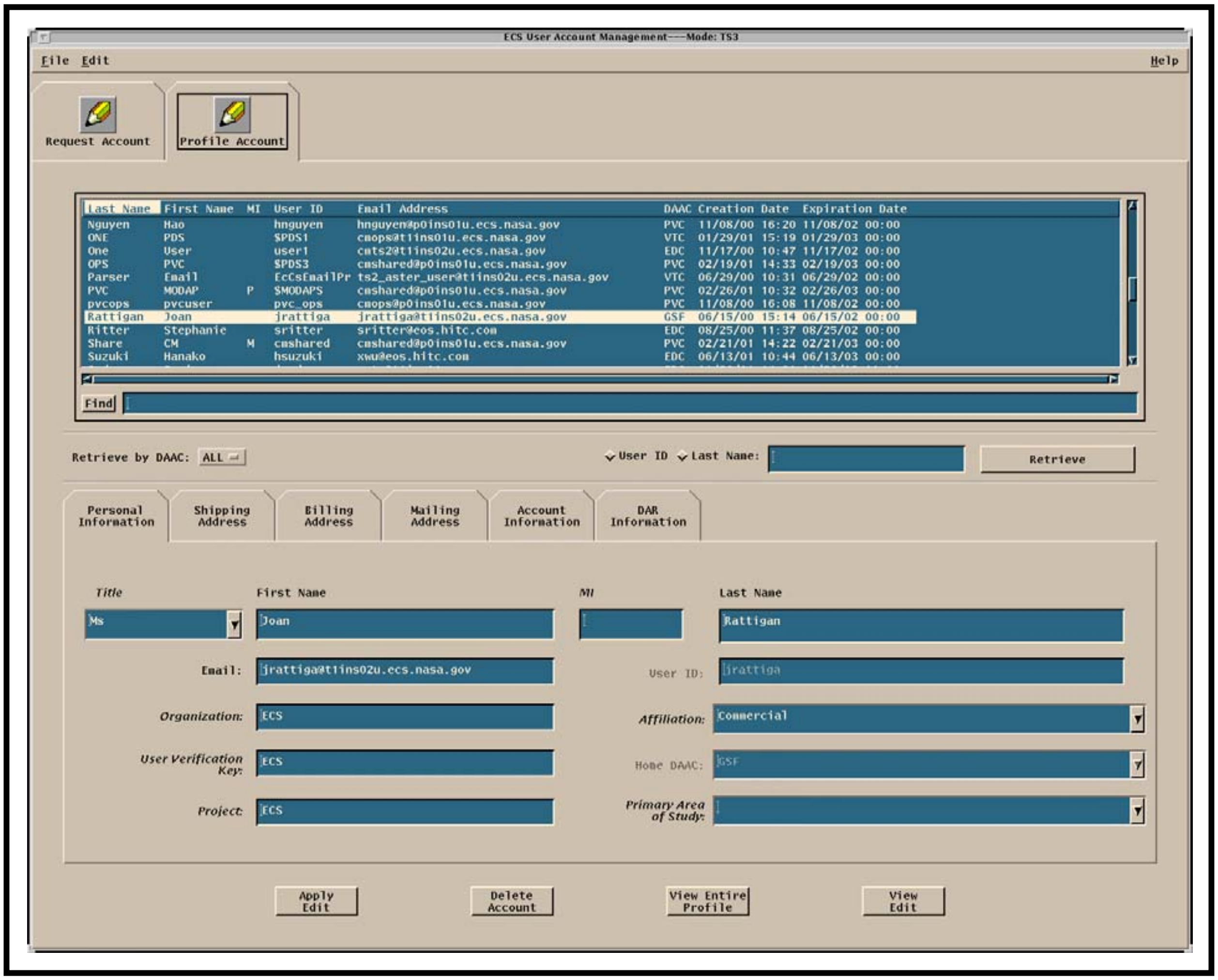


***Figure 4. SMC Account Management Tool: Profile Account Screen, Personal Information***

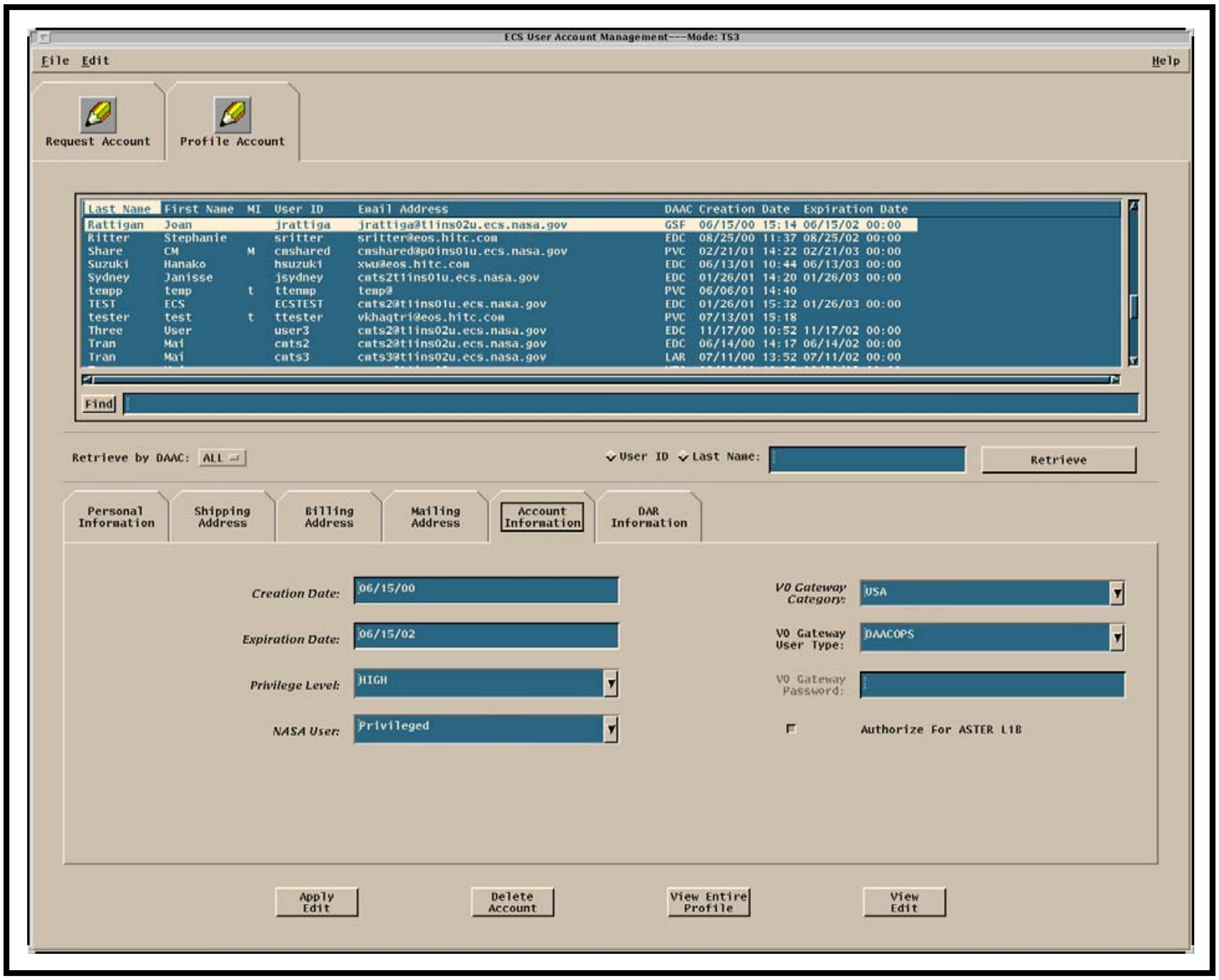


*Figure 5. SMC User Account Management Tool: Profile Account Screen, Account information*

Access to the Account Management functions at the DAAC or at the SMC is gained through the use of UNIX commands. Launching the Account Management Application tool, starts with the assumption that the applicable servers are running and the operator has logged in to the system or has logged in remotely to the SMC. To launch Account Management GUIs, use the following procedure.

**Launch Account Management Applications Using UNIX Commands**

**1** Access the command shell.

- The command shell prompt is displayed.

**2** At the UNIX command shell prompt, type **setenv DISPLAY *clientname*:0.0** and then press the **Return/Enter** key.

- For ***clientname***, use either the local terminal/workstation IP address or its machine name.

**3** Start the log-in to the host by typing **/tools/bin/ssh *hostname*** at the UNIX command shell prompt, and then press the **Return/Enter** key.

- For example:

  **/tools/bin/ssh m0mss16.ecs.nasa.gov**

- To launch account management tools, log in to the appropriate local or remote MSS client host; for example, MSS client hosts include the Sun Consolidation External Server (e.g., e0ins01, g0ins01, l0ins01 and n0ins02) at the DAACs and the Applications Server (i.e., m0mss16) at the SMC.

- If you receive the message, **Host key not found from the list of known hosts. Are you sure you want to continue connecting (yes/no)?** type **yes** ("**y**" alone does not work).

- If you have previously set up a secure shell passphrase and executed **sshremote**, a prompt to **Enter passphrase for RSA key '<*user@localhost*>'** appears; continue with Step 4.

- If you have not previously set up a secure shell passphrase, go to Step 5.

**4** If a prompt to **Enter passphrase for RSA key '<*user@localhost*>'** appears, type your ***Passphrase*** and then press the **Return/Enter** key. Go to Step 6.

**5** At the **<*user@remotehost*>'s password:** prompt, type your ***Password*** and then press the **Return/Enter** key.

**6** To change to the directory containing the utility scripts to start Account Management GUIs, type **cd /*path*** and then press the **Return/Enter** key.

- For ***path***, use **/usr/ecs/*mode*/CUSTOM/utilities**, where ***mode*** will likely be **TS1**, **TS2**, or **OPS**.

**7** Type **EcMsAcDAACRegUserGUIStart *mode*** (to launch the GUI at your local site) or **EcMsAcSMCRegUserGUIStart *mode*** (to launch the GUI at the SMC), where ***mode*** is **TS1**, **TS2**, or **OPS** (or other) as selected in Step 6.

- The ECS User Account Management window is displayed.

- On the SMC tool, the window shows two folders: "Request Account," and "Profile Account;" on the DAAC tool, only the "Profile Account" folder appears.

Suppose you want to retrieve the account of a user named Robert Goddard.  Use the following procedure.

**Retrieve User Account/Validate a User**

---

**1** Launch the **ECS User Account Management** application GUIs.

- The **ECS User Account Management** window is displayed.

**2** If necessary, click the “**Profile Account**” folder tab to display it.

- Folders and fields applicable to existing accounts are displayed.

**3** Click on the **Retrieve by DAAC** option button and select your DAAC from the displayed list, or select **All**.

- The selected choice is displayed on the option button.

**4** Click on the **Retrieve** button.

- The Account List field displays the list of accounts for the option selected in Step 3.

**5** Retrieve the user’s profile information by entering a search criterion (in this case, enter **Goddard**) in the “**Find**” field and then pressing **Return**.

- The “**Find**” field is located to the right of the **Find** button.
- The scroll box displays a list of accounts that match the search criteria.
- You can create a search by entering the user’s **Last Name**, **E-mail address**, or **user ID**.

**6** Scroll through the accounts listed until the desired account (for example, **Robert Goddard**)is highlighted, then **double-click** or click the **Retrieve** button.

- Six folders are displayed that contain detailed information about the selected account: **Account Information**, **Personal Information**, **Shipping Address**, **Billing Address**, **Mailing Address**, and **DAR Information**.

**7** Click **on each folder you desire** to display.  The user account information that you need in order to validate the user is displayed.

---

## Creating a User Account

User registration begins when a user requests ECS data services. Requests for data may come in by mail, telephone, e-mail, fax, or in person. The User Services representative assists the user in one of two ways:

- Refer the user to the following Universal Reference Locator (URL) for the EOS Data Gateway (EDG) tool, where there are links for access to data as well as a link permitting a user to register:

  **http://redhook.gsfc.nasa.gov/~imswww/pub/imswelcome/**

- **Enter the registration data** on behalf of the user.

If the request is by mail, fax, or e-mail from the user, some of the information needed for registration may be missing, in which case it is necessary to call the user directly to obtain the needed data. Registration involves entry of data in five categories:

- Personal Information.
- Mailing Address.
- Shipping Address.
- Billing Address.
- Account Information.

If the user registers through **Become a registered user** link on the EDG, that link is found on the welcome page as illustrated in Figure 6. A click on the link provides access to a User Registration data entry page similar to that shown in Figure 2. As noted in the paragraph at the top of the form shown in Figure 7, filling in and submitting this form registers the user for access to all NASA data that may be ordered through the EDG, including ECS data. In this “seamless” user registration, the registration information is used to create a basic ECS account in a database at a central location (at the System Monitoring and Control Center), and then it is replicated to the User Profile databases at all DAACs. If a user needs special privileges (e.g., submit an ASTER Data Acquisition Request, On-Demand Requests for certain ASTER products, access restricted data granules), the user requests the needed authorization from User Services at their home DAAC. The User Services representative logs in remotely to the SMC and changes the basic User Profile to include the special privilege(s), which are then replicated to the databases at the DAACs.

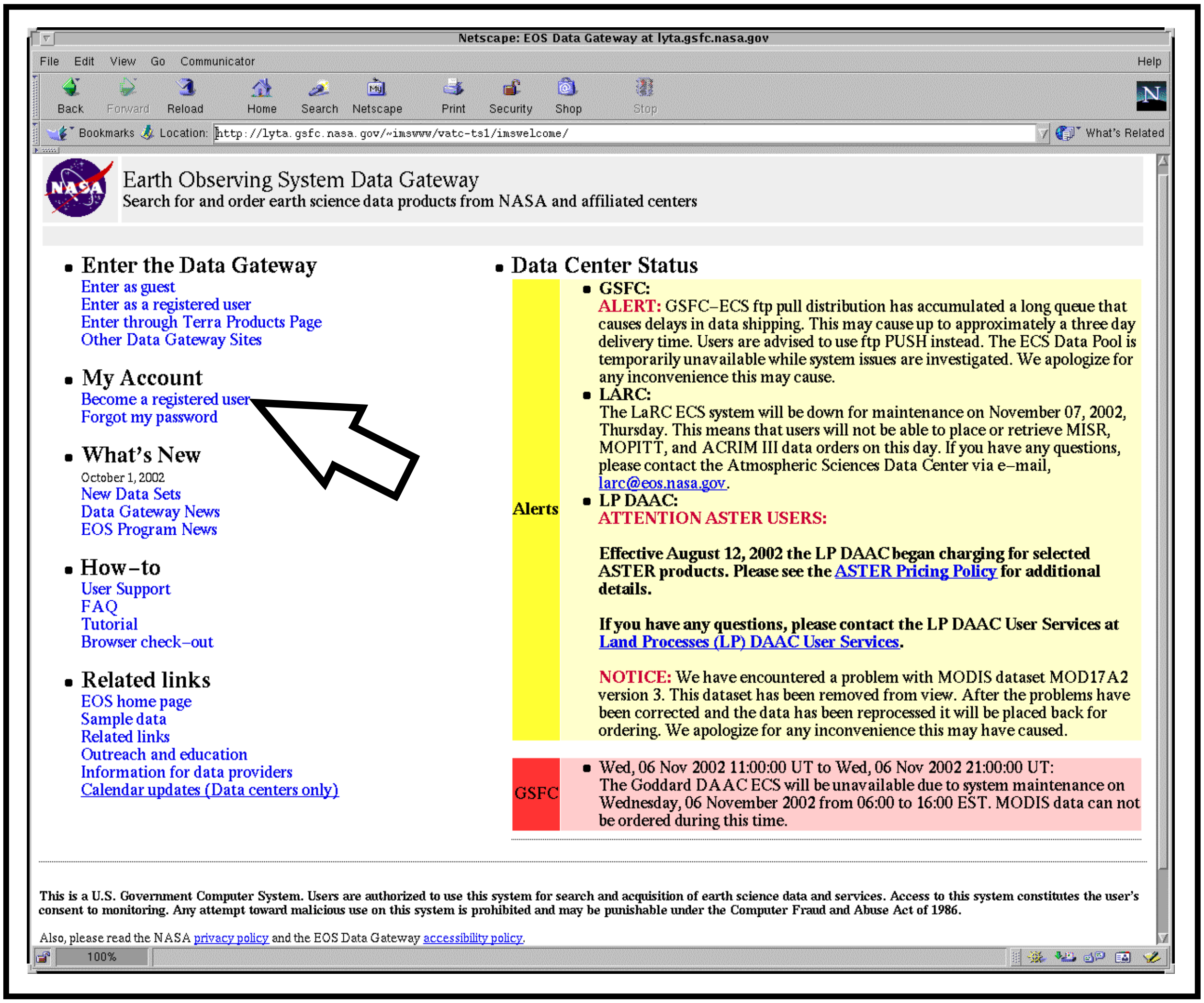



***Figure 6. EOS Data Gateway Welcome Page Showing Registration Link***

The data entry form shown in Figure 7 is the form used to register seamlessly for access to ECS and V0 data and services. A click on the **Continue** button at the bottom provides access to the **Username/Password** form (see Figure 8). On this form, the user enters and confirms the password to be used with the account, and may change or simply accept the system generated user name before activating the **Submit Registration** button.

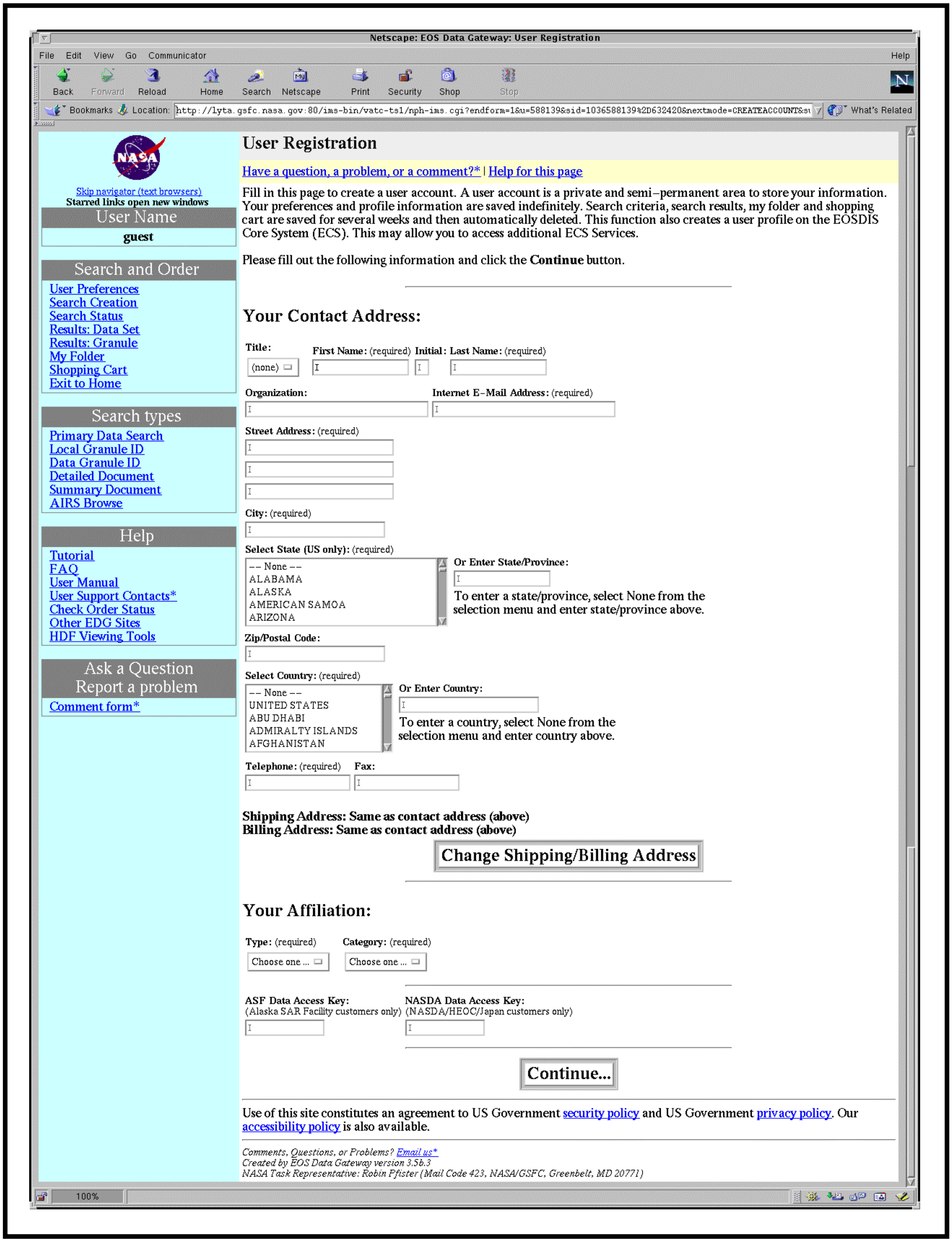



*Figure 7. User Registration Data Entry Page*

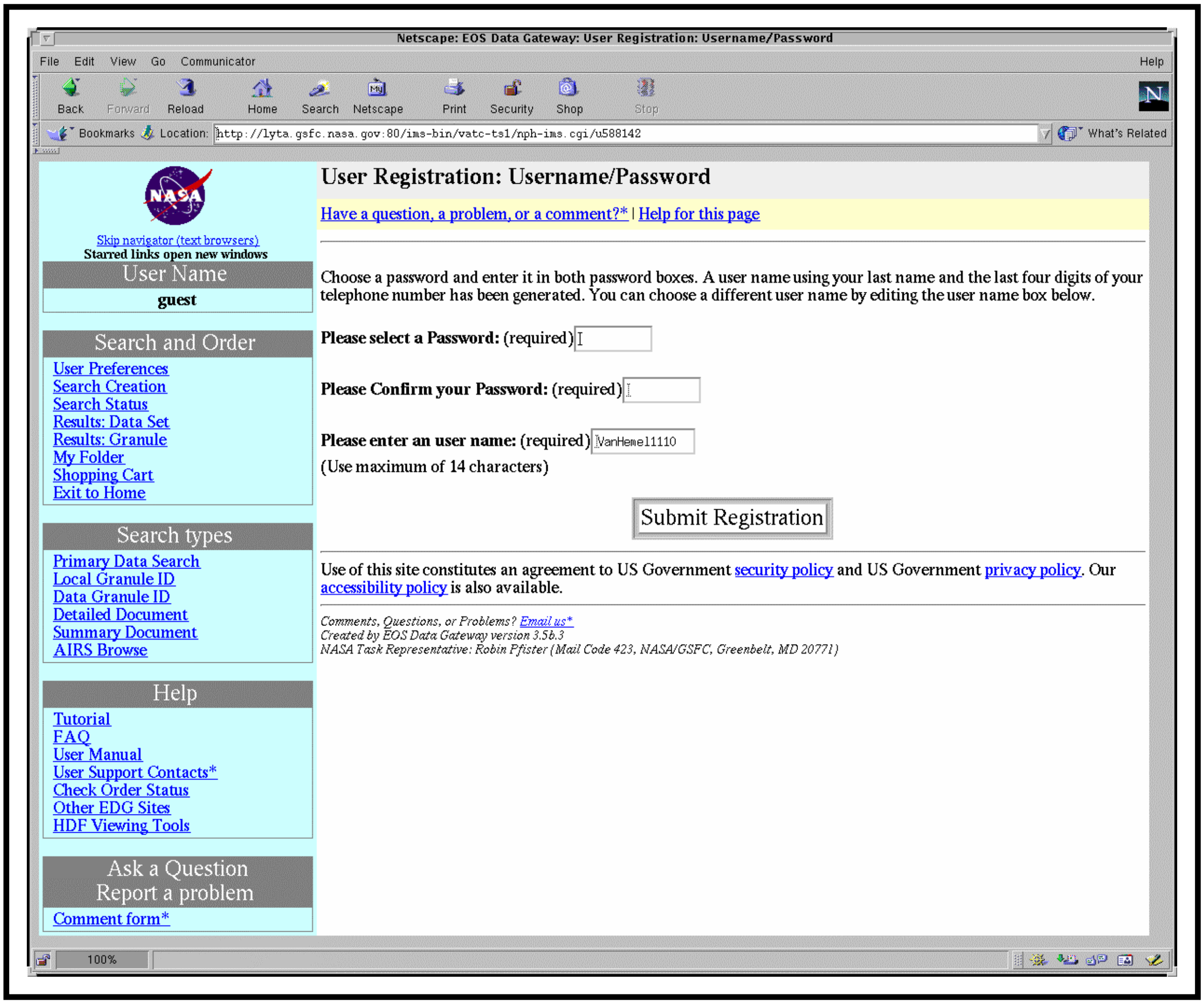



***Figure 8.  User Registration: Username/Password Form***

User registration may be accomplished from the Request Account screen of the ECS User Account Management tool, accessed remotely at the SMC. Figure 9 shows the Account Information tab of this screen.

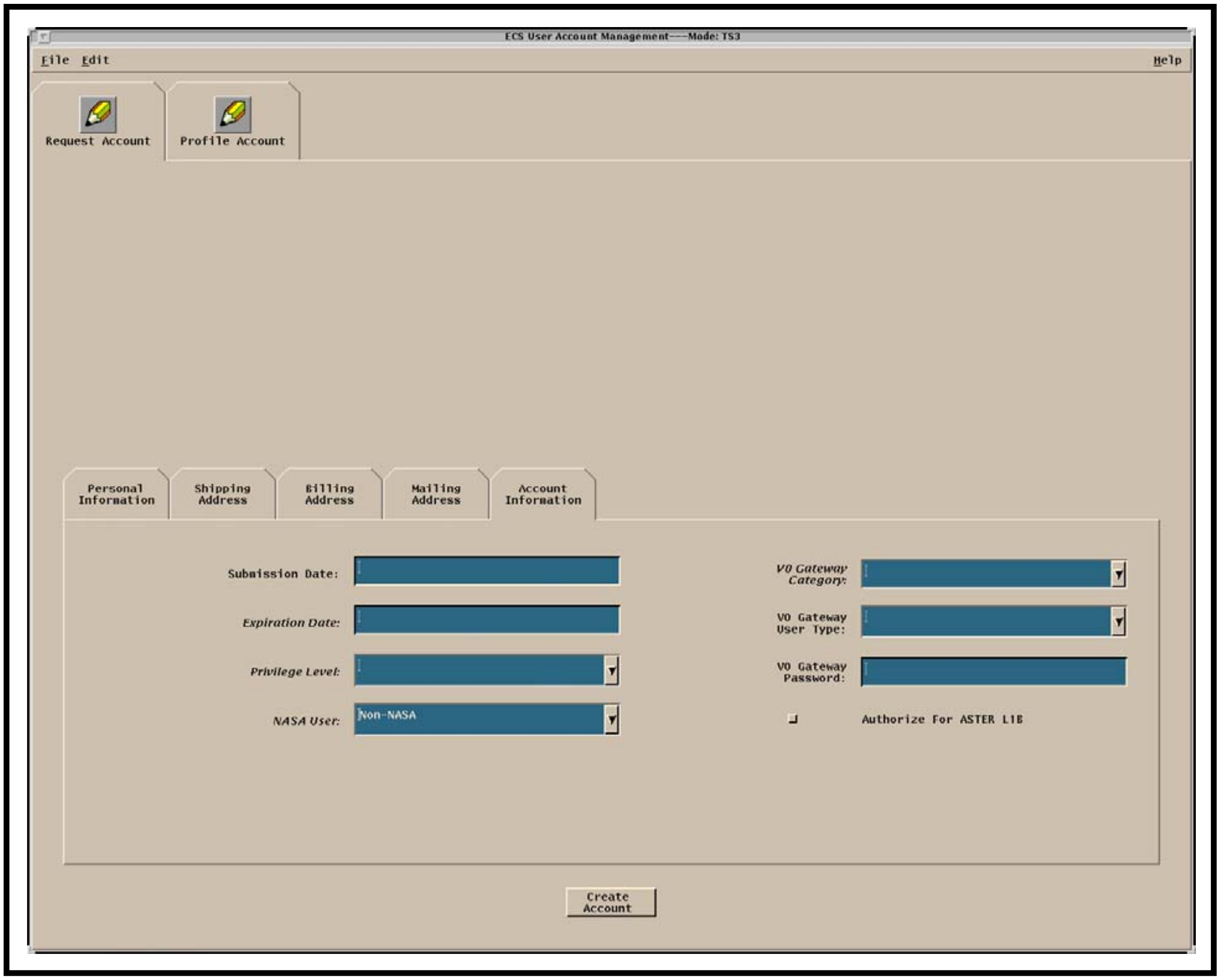



***Figure 9. SMC Account Management Tool: Request Account Screen, Account Information Tab***

Suppose you receive a fax with a request for data from Dr. Phyllis A. Scientist, a chemical engineer at Hampton University, working on the Stratospheric Aerosol and Gas Experiment (SAGE III) project. Data needed to register Dr. Scientist as an ECS user are:

| | |
|---|---|
| Title and Name: | Dr. Phyllis A. Scientist |
| E-mail address: | pascient@engr.1.engr.hamptonu.edu |
| User ID: | pascient |
| Organization: | Hampton University |
| Telephone: | 804-727-5532 |
| User Verification Key: | Madre |

| | |
|---|---|
| Affiliation: | University |
| Project: | SAGE III |
| Home DAAC: | LaRC DAAC (LAR) |
| Primary Area of Study: | Atmospheric Aerosols LaRC |
| Shipping Address: | Department of Chemical Engineering<br>Hampton University<br>Hampton, VA  23668<br>(Phone:  804-727-5532    Fax:  804-727-4033) |
| Billing Address: | Accounts Payable<br>Hampton University<br>Hampton, VA  23668<br>(Phone:  804-727-4066    Fax:  804-727-4004) |
| Mailing Address: | Department of Chemical Engineering<br>Hampton University<br>Hampton, VA  23668<br>(Phone:  804-727-5532    Fax:  804-727-4033) |

Let's examine how to enter the needed data to register a user.  The first block of information to enter is the account information.  Assume your DAAC requires that an expiration date for new accounts be set for one year from initial registration, so that accounts will be automatically deleted at that time unless reconfirmed by the user.  Use the following procedure.

**Create a User Account: Account Information**

**1** Use **secure shell to** perform a **remote log in to the Account Management host** at SMC.

**2** Launch the **ECS User Account Management** application GUIs.

- The **ECS User Account Management** window is displayed.
- The window shows two folders: "**Request Account**," and "**Profile Account**."

**3** Click the "**Request Account**" folder tab.

- The window displays five folders.

**4** Click the "**Account Information**" folder.

- The "**Account Information**" folder opens.

**5** Click on the "**Expiration Date**" field.

- The cursor moves to the "**Expiration Date**" field.

**6** Enter the **Expiration Date** only if required by the DAAC for new accounts, then press **Tab**.

- The cursor moves to the "**Privilege Level**" field.

**7** Click on the pull-down arrow next to the "**Privilege Level**" field.

- A pull-down menu appears with choices of **XPRESS**, **VHigh**, **HIGH**, **NORMAL**, and **LOW**.

**8** Click on the choice **NORMAL**.

- **NORMAL** appears in the "**Privilege Level**" field.

**9** Click on the pull-down arrow next to the "**NASA User**" field.

- A pull-down menu appears with choices of **Privileged**, **Regular**, and **Non-NASA**.

**10** Click on the choice **Non-NASA**.

- **Non-NASA** appears in the "**NASA User**" field.

**11** Click on the pull-down arrow next to the "**V0 Gateway Category**" field.

- A pull-down menu appears with the choices of **USA** and **Non-USA**.

**12** Click on the choice **USA**.

- **USA** appears in the "**V0 Gateway Category**" field.

**13** If the user is to be authorized for ASTER L1B requests, click on the check box next to **Authorize for ASTER L1B**.

- A check marked button is displayed
- The Account Information folder is complete; go to next folder.

---

The next block of data to be entered is user's personal information. If you have just entered the account information, the "**Request Account**" folder is still open. To add the user's personal information, you will need the "**Personal Information**" tab of this folder (Figure 10).

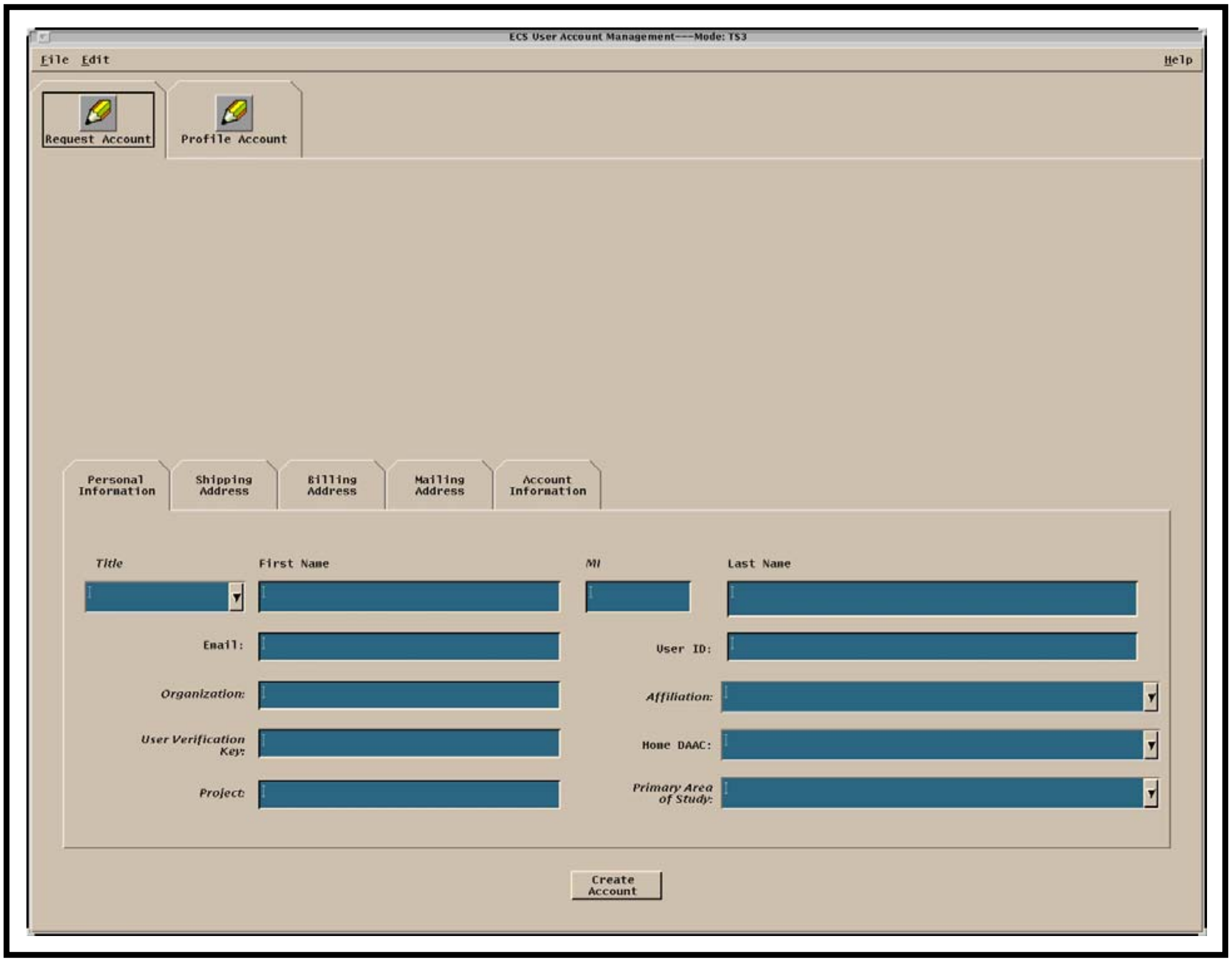



***Figure 10. SMC Account Management Tool: Request Account Screen, Personal Information Tab***

Use the following procedure.

**Create a User Account: Personal Information**

---

**1** Click the "**Personal Information**" folder.

- The "Personal Information" folder opens.

**2** Click on the "**Title**" field.

- The cursor moves to the "**Title**" field.

**3** Enter the user's **Title**, then press **Tab**.

- A pull-down menu is available and may be used instead of typing the **Title**:

  a Point the mouse on the arrow to the right of the "**Title**" field.

  b While holding the mouse pointer button down, **highlight** the **Title** you require (in this case, "**Dr**").

  c **Release** the mouse button.

  - The title you have chosen appears in the "**Title**" field.
  - The Titles in the drop-down box are **Dr**, **Mr**, **Ms**, and **Miss**.

- The cursor moves to the "**First Name**" field.

**4** Enter the user's **first name**, then press **Tab**.

- The cursor moves to the "**MI**" field.

**5** Enter the user's **middle initial**, then press **Tab**.

- The cursor moves to the "**Last Name**" field.

**6** Enter the user's **last name**, then press **Tab**.

- The cursor moves to the "**Email:**" field.

**7** Enter the user's **Email:** address, then press **Tab**.

- The cursor moves to the "**User ID:**" field.

**8** Enter the **User ID:** (in this case, **pascient**), and then press **Tab**.

- The cursor moves to the "**Organization:**" field.

**9** Enter the user's **organization**, and then press **Tab**.

- The cursor moves to pull-down arrow next to the "**Affiliation:**" field.

**10** Click on the pull-down arrow next to the “**Affiliation:**” field.

- A pull-down menu appears with choices of **K-12**, **Commercial**, **Government**, **University**, and **Other**.

**11** Click on the choice **University**.

- University appears in the “**Affiliation:**” field.

**12** Click on the "**User Verification Key:**" field.

- The cursor moves to the “**User Verification Key:**” field.

**13** Enter the user’s **User Verification Key**, then press **Tab**.

- The cursor moves to the pull-down arrow next to the “**Home DAAC:**” field.

**14** Click on the pull-down arrow next to the “**Home DAAC:**” field.

- A pull-down menu appears with choices of **ASF**, **CSN**, **EDC**, **GSF**, **JPL**, **LAR**, **MDC**, **MSF**, **NSC**, **ORN**, **RBD**, **SMC**, and **VTC**.

**15** Click on the choice **LAR**.

- **LAR** appears in the “**Home DAAC:**” field.

**16** Click on the “**Project:**” field.

- The cursor moves to the “**Project:**” field.

**17** Enter the **Project:** and then press **Tab**.

- The cursor moves to the pull-down arrow next to the “**Primary Area of Study:**” field.

**18** Click on the pull-down arrow next to the “**Primary Area of Study**” field.

- A pull-down menu appears with a number of choices.

**19** Click on the choice **Atmospheric Aerosols LaRC**.

- The **Personal Information** folder is complete.

---

The next block of data to be entered is the shipping address. The shipping address is not necessarily the same as the mailing or billing addresses. Later, when shipping data, even though there is a shipping address registered, the User Services representative will need to confirm the shipping address with the user before shipment. If you have just entered the personal information, the “**Request Account**” folder is still open. To add the user’s shipping address, use the following procedure.

**1** Click the "**Shipping Address**" folder tab.

- The "**Shipping Address**" folder opens.

**2** Click on the first "**Address:**" field.

**3** Enter the user's **Shipping Address**, then press **Tab**.

- The cursor moves to the second "**Address:**" field.

**4** If a second address field is needed to complete the user's **Shipping Address**, enter the **Shipping Address**, then press **Tab**.

- If a second address field is not needed, press **Tab** to bypass the field.
- The cursor moves to the third "**Address:**" field.

**5** If a third address field is needed to complete the user's **Shipping Address**, enter the **Shipping Address**, then press **Tab**.

- If a third address field is not needed, press **Tab** to bypass the field.
- The cursor moves to the "**City:**" field.

**6** Enter the **City:** to which the data will be shipped, then press **Tab**.

- The cursor moves to the pull-down arrow next to the "**State/Province:**" field.

**7** Click on the pull-down arrow next to the "**State/Province:**" field.

- A pull-down menu appears permitting choice among a list of states.

**8** Click on the choice for the user's **State** or **Province** for the shipping address, then press **Tab**.

- The cursor moves to the "**Zip/Postal Code:**" field.

**9** Enter the **Zip/Postal Code:** for the shipping address, then press **Tab**.

- The cursor moves to the pull-down arrow next to the "**Country:**" field.

**10** Click on the pull-down arrow next to the "**Country:**" field.

- A pull-down menu appears permitting choice among a list of countries.

**11** Click on the choice for the **Country:** to which the data will be shipped, then press **Tab**.

- The cursor moves to the "**Telephone:**" field.

**12** Enter the **Telephone number** used at the shipping address, then press **Tab**.

- The cursor moves to the "**Fax:**" field.

**13** Enter the **Fax number** used at the shipping address, then press **Tab**.

- The “**Shipping Address**” folder is now complete.

---

The next block of data to be entered is the billing address. The billing address is not necessarily the same as the mailing or shipping addresses. The User Services representative is responsible for maintaining up-to-date billing addresses. If you have just entered the shipping address, the “**Request Account**” folder is still open. To add the user’s billing address, use the following procedure.

**Create a User Account: Billing Address**

---

**1** Click the “**Billing Address**” folder tab.

- The “**Billing Address**” folder opens.

**2** Click on the first “**Address:**” field.

**3** Enter the user’s **Billing Address**, then press **Tab**.

- The cursor moves to the second “**Address:**” field.

**4** If a second address field is needed to complete the user’s **Billing Address**, enter the **Billing Address**, then press **Tab**.

- If a second address field is not needed, press **Tab** to bypass the field.
- The cursor moves to the third "**Address:**" field.

**5** If a third address field is needed to complete the user’s **Billing Address**, enter the **Billing Address**, then press **Tab**.

- If a third address field is not needed, press **Tab** to bypass the field.
- The cursor moves to the “**City:**” field.

**6** Enter the **City:** to which the payment due billings will be sent, then press **Tab**.

- The cursor moves to the pull-down arrow next to the “**State/Province:**” field.

**7** Click on the pull-down arrow next to the “**State/Province:**” field.

- A pull-down menu appears permitting choice among a list of states.

**8** Click on the choice for the user’s **State** or **Province** for the billing address, then press **Tab**.

- The cursor moves to the “**Zip/Postal Code:**” field.

**9** Enter the **Zip/Postal Code:** for the billing address, then press **Tab**.

- The cursor moves to the pull-down arrow next to the “**Country:**” field.

**10** Click on the pull-down arrow next to the "**Country:**" field.

- A pull-down menu appears permitting choice among a list of countries.

**11** Click on the choice for the **Country:** to which the payment due billings will be sent, then press **Tab**.

- The cursor moves to the "**Telephone:**" field.

**12** Enter the **Telephone number** used at the billing address, then press **Tab**.

- The cursor moves to the "**Fax:**" field.

**13** Enter the **Fax number** used at the billing address, then press **Tab**.

- The "**Billing Address**" folder is now complete.

---

The next block of data to be entered is the mailing address. The mailing address is not necessarily the same as the billing or shipping addresses. The User Services representative is responsible for maintaining up-to-date mailing addresses. If you have just entered the billing address, the "**Request Account**" folder is still open. To add the user's mailing address, use the following procedure.

**Create a User Account: Mailing Address**

---

**1** Click the "**Mailing Address**" folder tab.

- The "**Mailing Address**" folder opens.

**2** Click on the first "**Address:**" field.

**3** Enter the user's **mailing address**, then press **Tab**.

- The cursor moves to the second "**Address:**" field.

**4** If a second address field is needed to complete the user's **mailing address**, enter the **mailing address**, then press **Tab**.

- If a second address field is not needed, press **Tab** to bypass the field.
- The cursor moves to the third "**Address:**" field.

**5** If a third address field is needed to complete the user's **Mailing Address**, enter the **Mailing Address**, then press **Tab**.

- If a third address field is not needed, press **Tab** to bypass the field.
- The cursor moves to the "**City:**" field.

**6** Enter the **City:** to which regular correspondence is sent, then press **Tab**.

- The cursor moves to the pull-down arrow next to the "**State/Province:**" field.

**7** Click on the pull-down arrow next to the "**State/Province:**" field.

- A pull-down menu appears permitting choice among a list of states.

**8** Click on the choice for the user's **State** or **Province** for the **mailing address**, then press **Tab**.

- The cursor moves to the "**Zip/Postal Code:**" field.

**9** Enter the **Zip/Postal Code:** for the mailing address, then press **Tab**.

- The cursor moves to the pull-down arrow next to the "**Country:**" field.

**10** Click on the pull-down arrow next to the "**Country:**" field.

- A pull-down menu appears permitting choice among a list of countries.

**11** Click on the choice for the **Country:** for the **mailing address**, then press **Tab**.

- The cursor moves to the "**Telephone:**" field.

**12** Enter the **Telephone number** used at the mailing address, then press **Tab**.

- The cursor moves to the "**Fax:**" field.

**13** Enter the **Fax number** used at the mailing address, then press **Tab**.

- The "**Mailing Address**" folder is now complete.

---

Once the five folders are complete, the next step is to return to the **Account Information** tab and assign a **V0 Gateway (V0GW) User Type** and **Password**. The new folder will contain the date the account was created, expiration date, account number, privilege level, NASA User designation, V0 Gateway User Category, V0 Gateway User Type, V0 Gateway Password, and indication whether the user is authorized to order ASTER L1B data. The creation of the new account is achieved with a click on the **Create Account** button located at the bottom of the Request Account screen. This action logs the account into the database as a new account. It also results in automatic dispatch of an e-mail message to the user's e-mail address with notification that the account has been created. The User Services representative will complete the account registration process by providing the user with the initial ECS account password. The password dissemination is done in accordance with local DAAC policy. To create an account using the data registered for Dr. Phyllis Scientist, use the following procedure.

**Create a User Account**

---

**1** Click the "**Account Information**" folder.

- The "**Account Information**" folder opens.

**2** Click on the pull-down arrow next to the "**V0 Gateway User Type**" field.

- A pull-down menu appears with choices of **DAACOPS**, **ECSDEV**, **V0CERES**, and **GUEST**.

**3** Click on the choice **GUEST**.

- **GUEST** appears in the "**V0 Gateway User Type**" field.

**4** Click on the "**V0 Gateway Password**" field.

- The cursor moves to the "**V0 Gateway Password**" field.

**5** Enter ***V0Passwd***.

- The Account Information is complete.

**6** If the user is to be authorized for ASTER L1B requests, click the check button to **Authorize for ASTER L1B**.

- The check button appears to be depressed.
- The Account Information folder is now complete.

**7** When the information is complete, click the "**Create Account**" button.

- The account is created; the account and its information are now available in the approved list on the **Profile Account** folder.

---

## Adding Privileges to an Account Created from Universal Resource Locator (URL) Registration

As described previously, users may enter registration data using a registration page accessed through the EOS Data Gateway on the WWW. When a user enters registration data this way, it creates a basic ECS account for that user in the system database. If the user needs special privileges (e.g., access to restricted granules, permission to submit an ASTER Data Acquisition Request, permission to use the On-Demand Form Request Manager to order certain ASTER data), the User Services representative uses ECS User Account Management tool at the SMC to grant the needed authorization. Figure 11 shows the **DAR Information** folder on the **Profile Account** tab, illustrating the **Aster Category** pull-down list used to select privileges for submitting ASTER Data Acquisition Requests.

Let's examine how you can use the ECS Account Management tool to search the database for a specific account and authorize special privileges. Suppose a scientist named Dr. Paul W. Fingerman has registered through the EDG web site registration and has requested authorization as an ASTER Science Team member to submit Data Acquisition Requests using the ASTER DAR Tool. Use the following procedure.

### Adding Privileges to an Account Created from URL Registration

**1** Use secure shell to perform a remote log in to the Account Management host at the SMC.

**2** Launch the **ECS User Account Management** application GUIs.

- The **ECS User Account Management** window is displayed.
- The window shows two folders: "**Request Account**," and "**Profile Account**."

**3** Click the "**Profile Account**" folder tab.

- Folders and fields applicable to existing accounts are displayed.

**4** Click on the **Retrieve by DAAC:** option button and select **ALL**.

- The button displays the word **ALL**.

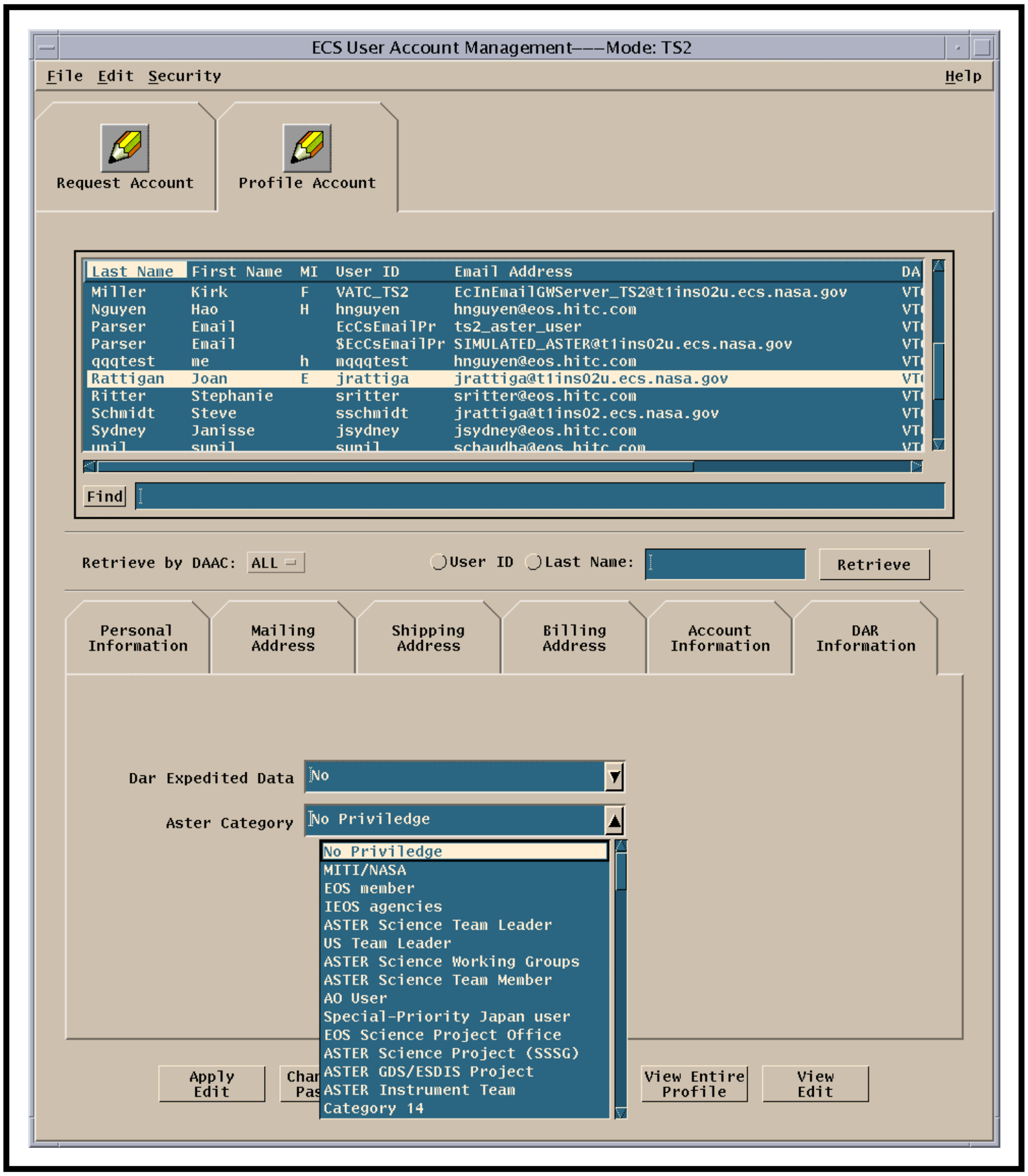



***Figure 11. DAR Information Folder, with Aster Category List***

**5** Click on the **Last Name** radio button and type the user's last name (in this case, **Fingerman**) in the text entry field.

- The button indicates its selection and the typed entry is displayed in the text entry field.

**6** Click on the **Retrieve** button.

- The account list displays information for users whose last name is the same as that entered in the previous step.

**7** Scroll through the accounts listed until the desired account (for **Paul Fingerman**) is **highlighted**, then double-click.

- Six folders are displayed that contain detailed information about the selected account: **Account Information**, **Personal Information**, **Shipping Address**, **Billing Address**, **Mailing Address**, and **DAR Information**.

**8** Click the "**DAR Information**" folder.

- The "DAR Information" folder opens.
- The displayed fields indicate no Aster privileges.

**9** Click on the pull-down arrow to the right of the **Aster Category** field and select **ASTER Science Team Member** from the displayed pull-down list.

- The **Aster Category** field displays **ASTER Science Team Member**.

**10** Click the "**Apply Edit**" button to implement the change to the "**DAR Information**" folder.

---

## Editing/Modifying an Existing Account

User Services representatives are responsible for maintaining ECS User Accounts. This means keeping in close contact with the user to ensure the continued accuracy of account information in the database. If an address change notice is received, unless it is very specific, it is necessary to contact the user to verify its applicability. Remember, there are three addresses in the user account information, and they need not be the same. If they are the same and you receive an address change notification, you cannot assume it applies to all three addresses. Verify changes in address, account information, or personal information by contacting the user. Make verified changes using the Profile Account folder of the ECS User Account Management tool.

The procedures for editing account information are similar for any of the address or other information folders. Let's examine how it works for a couple of changes. Assume you have received a request from Dr. Phyllis A. Scientist to change her shipping address. Because her university has instituted a requirement for all shipped materials to go through a central receiving point, ECS should no longer send data to the Department of Chemical Engineering. She requests a change in shipping address from the old one:

Department of Chemical Engineering

Hampton University

Hampton, VA 23668

to a new one:

Receiving (Code CE)

Hampton University

Hampton, VA  23668

To make the change, use the following procedure.

**Edit/Modify an Existing Account:  Shipping Address**

---

**1** Use secure shell to perform a remote log in to the Account Management host at the SMC.

**2** Launch the **ECS User Account Management** application GUIs.

- The **ECS User Account Management** window is displayed.
- The window shows two folders:  "**Request Account**," and "**Profile Account**."

**3** Click the "**Profile Account**" folder tab.

- Folders and fields applicable to existing accounts are displayed.

**4** Retrieve the user's profile information by entering the search criteria (in this case, **Scientist**) in the "**Find**" field and then pressing **Return**.

- The "**Find**" field is located to the right of the **Find** button.
- Enter the user's **Last Name**, **E-mail address**, or **User ID** to create the search.
- The scroll box displays a list of accounts that match the search criteria.

**5** Scroll through the accounts listed until the desired account (for **Phyllis Scientist**) is **highlighted**, then double-click.

- Six folders are displayed that contain detailed information about the selected account: **Account Information**, **Personal Information**, **Shipping Address**, **Billing Address**, **Mailing Address**, and **DAR Information**.

**6** Click the "**Shipping Address**" folder.

- The "Shipping Address" folder opens.
- The cursor moves to the first "**Address**" field.

**7** Enter the user's new **Shipping Address** (in this case **Receiving (Code CE)**, then press **Tab**.

- The cursor moves to the second "**Address**" field.
- Because this completes the edit for the only part of the address that changed, there is no need to make any additional changes in this folder.

**8** Click the "**Apply Edit**" button to implement the change to the "**Shipping Address**" folder.

---

Other changes to the shipping address, or changes to the billing address or mailing address are made in the same way. The process is similar for changes to account information or personal information. For example, suppose Dr. Scientist sends you an e-mail noting that an office change has resulted in a change to her telephone number; the new number is 804-727-5541. To make the change, use the following procedure.

**Edit/Modify an Existing Account: Account Information**

---

**1** Use secure shell to perform a remote log in to the Account Management host at the SMC.

**2** Launch the **ECS User Account Management** application GUIs.

- The **ECS User Account Management** window is displayed.
- The window shows two folders: "**Request Account**," and "**Profile Account**."

**3** Click the "**Profile Account**" folder tab.

- Folders and fields applicable to existing accounts are displayed.

**4** Retrieve the user's profile information by entering the search criteria (in this case, **Scientist**) in the "**Find**" field and then pressing **Return**.

- The "**Find**" field is located to the right of the **Find** button.
- Enter the user's **Last Name**, **E-mail address**, or **User ID** to create the search.
- The scroll box displays a list of accounts that match the search criteria.

**5** Scroll through the accounts listed until the desired account (for **Phyllis Scientist**) is **highlighted**, then double-click.

- Six folders are displayed that contain detailed information about the selected account: **Account** Information, **Personal Information**, **Shipping Address**, **Billing Address**, **Mailing Address**, and **DAR Information**.

**6** Click the "**Personal Information**" folder.

- The "**Personal Information**" folder is displayed.

**7** Click the "**Telephone**" field.

- The cursor moves to the "**Telephone**" field.

**8** Enter the new **telephone number**, then press **Tab**.

- All changes for this folder have been completed.

**9** Click the "**Apply Edits**" button to implement the change to the "**Personal Information**" folder.

---

## Deleting an ECS Account

The User Services representative may be instructed by management, or may be requested by the user, to delete an ECS user account from the database. If you are requested to delete an account, you use the ECS User Account Management tool to retrieve and verify the account, and then proceed to remove it from the database. As an example to see how this is accomplished, suppose you receive a request from Dr. Phyllis A. Scientist, who is leaving Hampton University to take a new job as a research chemist for a private company, to delete her account. Use the following procedure to remove the account from the database.

**Delete an ECS Account**

---

**1** Use secure shell to perform a remote log in to the Account Management host at the SMC.

**2** Launch the **ECS User Account Management** application GUIs.

- The **ECS User Account Management** window is displayed.
- The window shows two folders: "**Request Account**," and "**Profile Account**."

**3** Click the "**Profile Account**" folder tab.

- Folders and fields applicable to existing accounts are displayed.

**4** Retrieve the user's profile information by entering the search criteria (in this case, **Scientist**) in the "**Find**" field and then pressing **Return**.

- The "**Find**" field is located to the right of the **Find** button.
- Enter the user's **Last Name**, **E-mail address**, or **User ID** to create the search.
- The scroll box displays a list of accounts that match the search criteria.

**5** Scroll through the accounts listed until the desired account (for **Phyllis Scientist**) is **highlighted**, then double-click.

- Six folders are displayed that contain detailed information about the selected account: **Account Information**, **Personal Information**, **Shipping Address**, **Billing Address**, **Mailing Address**, and **DAR Information**.

**6** Click the "**Personal Information**" folder.

- The "Personal Information" folder opens.
- View the folder to validate the account scheduled for deletion.

**7** Click the "**Delete Account**" button.

- The account is deleted.

---

## Canceling an ECS Account (Temporary Probation Period)

The User Services representative may cancel an ECS user account, which differs from deleting the account because it does not immediately remove the account from the database. It merely *imposes a temporary probation period for the user's privileges*, for an appropriate cause, such as failure to satisfy a payment due for services previously provided or some other abuse of privileges. The process involves establishing an expiration date, upon which the account will be deleted from the database unless the cause of sanction is removed. If it becomes necessary to cancel an account, you use the ECS User Account Management tool to retrieve and verify the account, and then proceed with the cancellation/sanction. As an example, suppose you need to cancel the account for Dr. Paul W. Fingerman; give him one month to remove the cause of the sanction. Use the following procedure.

**Cancel an ECS Account**

---

**1** Use secure shell to perform a remote log in to the Account Management host at the SMC.

**2** Launch the **ECS User Account Management** application GUIs.

- The **ECS User Account Management** window is displayed.
- The window shows two folders: "**Request Account**," and "**Profile Account**."

**3** Click the "**Profile Account**" folder tab.

- Folders and fields applicable to existing accounts are displayed.

**4** Retrieve the user's profile information by entering the search criteria (in this case, **Fingerman**) in the "**Find**" field and then pressing **Return**.

- The "**Find**" field is located to the right of the **Find** button.
- Enter the user's **Last Name**, **E-mail address**, or **User ID** to create the search.
- The scroll box displays a list of accounts that match the search criteria.

**5** Scroll through the accounts listed until the desired account (for **Paul Fingerman**) is **highlighted**, then **double-click**.

- Six folders are displayed that contain detailed information about the selected account: **Account Information**, **Personal Information**, **Shipping Address**, **Billing Address**, **Mailing Address**, and **DAR Information**.

**6** Click the "**Personal Information**" folder tab.

- The "**Personal Information**" folder opens.
- View the folder to validate the account scheduled for cancellation.

**7** Click the "**Account Information**" folder tab.

- The "**Account Information**" folder opens.

**8** Click the “**Expiration Date**” field.

- The cursor moves to the “**Expiration Date**” field.

**9** Enter the **Expiration Date** (in this case, one month from the current date), then press **Tab**.

- When the expiration date is reached, the system automatically deletes the account from the system.

**10** Click the **Apply Edit** button.

- An expiration date is established for the privileges on this account.
- The sanction on the account privileges can be rescinded at any time up until the expiration date has been reached.
- The sanction can be rescinded by removing the expiration date.

---

To complete the cancellation action, send the errant user an e-mail or letter with notification of the temporary sanction and the fact that the account will be deleted if the issue is not resolved by the specified date (the expiration date you established in canceling the account). Assume that Dr. Fingerman takes action to resolve the issue. To reinstate his account, use the following procedure.

**Cancel an ECS Account: Reinstatement**

---

**1** Click the **Expiration Date** field.

- The cursor moves to the **Expiration Date** field.

**2** Enter the **Expiration Date** (in this case, press the **Delete** key to remove the date, or use the mouse to **highlight** the date and press the **delete** key), then press **Tab**.

- The expiration date is removed.

**3** Click the **Apply Edits** button to implement the change to the **Account Information** folder.

---

This page intentionally left blank.

# Troubleshooting Account Management Problems

## User Account Management Tool User Messages

Troubleshooting is a process of identifying the source of problems on the basis of observed trouble symptoms. The User Account Management tool is part of the System Management Support Subsystem (MSS), and uses database functions in that subsystem. If the tool cannot be launched, or does not function (e.g., cannot retrieve accounts), you will need to ask the System Administrator to ensure that the User Registration/User Profile Server is functioning properly. It may be necessary to have the Database Administrator check to ensure that there are no problems with the database.

It is also possible to receive error messages when using the GUI while it is apparently functioning normally. Error messages associated with the User Account Management tool are listed in Appendix A of the *Release 7.11 Operations Tools Manual for the EMD Project* (Document 609-EMD-001). Table 1 is adapted from the corresponding table in Document 609. If a problem cannot be identified and fixed without help within a reasonable period of time, the appropriate response is to call the help desk or submit a trouble ticket in accordance with site Problem Management policy.

***Table 1. User Account Management Tool User Messages (1 of 2)***

| Message Text | Impact | Cause/Corrective Action |
|---|---|---|
| Can Not Connect To The Server. Try again later. | Unable to retrieve a user request or user profile. | Notify the System Administrator that the User Profile Server needs to be started. |
| No data found in the database. | No user requests or registered users are entered in the database for the selected home DAAC. | None. |
| The V0GW password and Gate Way User Type can not be Empty. | Cannot complete action to create a user profile. | Ensure that all required fields have data entered. |
| Create Register User Failed Please check log file for error. | Cannot complete action to create a user profile. | Check User Profile Server log files for possible Sybase errors; notify Database Administrator of problem. |
| Delete request user failed. | Unable to delete a user request. | Check User Profile Server log files for possible Sybase errors; notify Database Administrator of problem. |

*Table 1. User Account Management Tool User Messages (2 of 2)*

| Message Text | Impact | Cause/Corrective Action |
|---|---|---|
| Update Failed for Register User Please try again. | Unable to update a user request. | Check User Profile Server log files for possible Sybase errors; notify Database Administrator of problem. |
| The First Name, Last Name, Telephone number and Email Address can not be Empty. | Cannot complete action to create a user profile. | Ensure that all required fields have data entered. |
| Insert has failed for Regist User, Please try again. | Cannot complete action to create a user profile. | Check User Profile Server log files for possible Sybase errors; notify Database Administrator of problem. |
| Delete failed for Register User Please try again. | Unable to delete a user request. | Check User Profile Server log files for possible Sybase errors; notify Database Administrator of problem. |
| Update failed for profile database Please try again. | Unable to update a user profile. | Check User Profile Server log files for possible Sybase errors; notify Database Administrator of problem. |
| V0 GateWay password is empty. The password is not updated. | Unable to update V0 Gateway password. | Add entry in the appropriate field. |
| V0 GateWay password Failed. Please try again. | Unable to change V0 Gateway password. | Check User Profile Server log files for possible Sybase errors; notify Database Administrator of problem. |
| Delete failed for profile database Please try again. | Unable to delete user profile. | Check User Profile Server log files for possible Sybase errors; notify Database Administrator of problem. |
| No e-mail address. | Unable to change Aster category or delete a DAR privilege. | Add e-mail address in the configuration file. |

## Checking Account Management Server Log Files

Log files can often provide information that will identify possible sources of disruption in Account Management server function or communications, suggesting additional checks or actions that may help resolve the problem. The procedure for checking a log file starts with the assumption that the operator has logged in to the system.

**1** To log in to the host for the server and log(s) to be examined, type **/tools/bin/ssh <*hostname*>** and then press the **Return/Enter** key.

- **<*hostname*>** refers to the Sun Consolidation External Server (e.g., e0ins01, g0ins01, l0ins01, or n0ins02).
- If you receive the message, **Host key not found from the list of known hosts. Are you sure you want to continue connecting (yes/no)?** type **yes** ("**y**" alone does not work).
- If you have previously set up a secure shell passphrase and executed **sshremote**, a prompt to **Enter passphrase for RSA key '<*user@localhost*>'** appears; continue with Step 2.
- If you have not previously set up a secure shell passphrase, go to Step 3.

**2** If a prompt to **Enter passphrase for RSA key '<*user@localhost*>'** appears, type your ***Passphrase*** and then press the **Return/Enter** key. Go to Step 4.

- The prompt reflects the login to the selected host.

**3** At the **<*user@remotehost*>'s password:** prompt, type your ***Password*** and then press the **Return/Enter** key.

- The prompt reflects the login to the selected host.

**4** Type **cd /usr/ecs/<*MODE*>/CUSTOM/logs** and then press the **Return/Enter** key.

- The prompt reflects the change to directory **/usr/ecs/<*MODE*>/CUSTOM/logs**.

**5** To view a server log, type **pg *filename*** and then press the **Return/Enter** key.

- ***filename*** refers to the account management log file to be reviewed (e.g., **EcMsAcRegUserSrvr.ALOG**, **EcMsAcRegUserSrvrDebug.log**).
- The first page of the log file is displayed; additional sequential pages can be displayed by pressing the **Return/Enter** key at the **:** prompt.
- Although this procedure has been written for the **pg** command, any UNIX editor or visualizing command (e.g., **vi**, **more**, **tail**) can be used to review the log file.
- Typically, the **<*server*>Debug.log** captures more detailed information than the **<*server*>.ALOG**. However, for some servers (e.g., **SDSRV**), there may be significant detail in the **<*server*>.ALOG**. It is also important to note that the **DebugLevel** setting in the **<*server*>.CFG** file determines the level of detail captured in the **<*server*>Debug.log** (**0** is off, a setting of **1** captures status and errors, a setting of **2** captures major events, and a setting of **3** is a full trace recording of all activity).

If the **DebugLevel** has been set to one of the lower levels during operations, the System Administrator may set it to **3** during troubleshooting.

**6** Review the log file(s) to determine if there are any indications of connection problems or errors at start up.

- The **EcMsAcRegUserSrvrDebug.log** file for the User Profile/User Registration server may contain an error message concerning **PF Init** or some connection error or problem (notify the System Administrator).
- The **EcMsAcRegUserSrvr.ALOG** file may contain evidence of a Sybase error (e.g., **SybaseErrorCode1 =92014;SybaseErrorMesage1 ="*x*0mss21_srvr"** or **SybaseErrorCode2 =16;SybaseErrorMesage2 =""**) (notify the Database Administrator).

**7** To exit the **pg** review of the log file, type **q** at the **:** prompt and then press the **Return/Enter** key.

# Processing an Order

Some users may prefer not to use the Search and Order tool directly. It has been estimated that there may be several orders placed by telephone every day. In those instances, the User Services representative enters the order data for the user. As part of the process, the representative uses several tools:

- User Contact Log tool (Remedy, the Trouble Ticket tool).
  - Create and update a user contact log record.
- ECS User Account Management tool.
  - Retrieve and verify user account.
- Search and Order tool.
  - Locate and order the data requested by the user.

**NOTE:** An **EDG user** can request browse products for immediate display on the EDG GUI by initiating an Integrated Browse Request to retrieve science data granule. As a general rule, users trying to locate and obtain data from ECS probably should be directed to the EOS Data Gateway (EDG) web site to conduct their own searches. However, User Services can provide assistance or conduct the search for the user if needed.

## Create a User Contact Log Record

Any User Services event (user contact for any reason) is a cue for the User Services representative to create a record in the User Contact Log. Each record is assigned a unique Log ID, which can be used later to retrieve the record for review or updating with new information. The record contains other information about the user, referred to as the "contact," such as name, telephone number, e-mail address, home DAAC, and organization. It also documents the means of contact, the name of the person who received the contact, and the time of the contact, as well as descriptions of the reason for it.

The User Contact Log is a customized application of the Remedy commercial software package. The application is launched from the Remedy initial screen with a menu or button action. The contact log entries may then be saved, searched, retrieved, and modified. The capability to modify existing records permits tracking and updating information related to a user contact that has follow-up actions until it is closed.

Figure 12 shows the User Contact Log Entry screen.

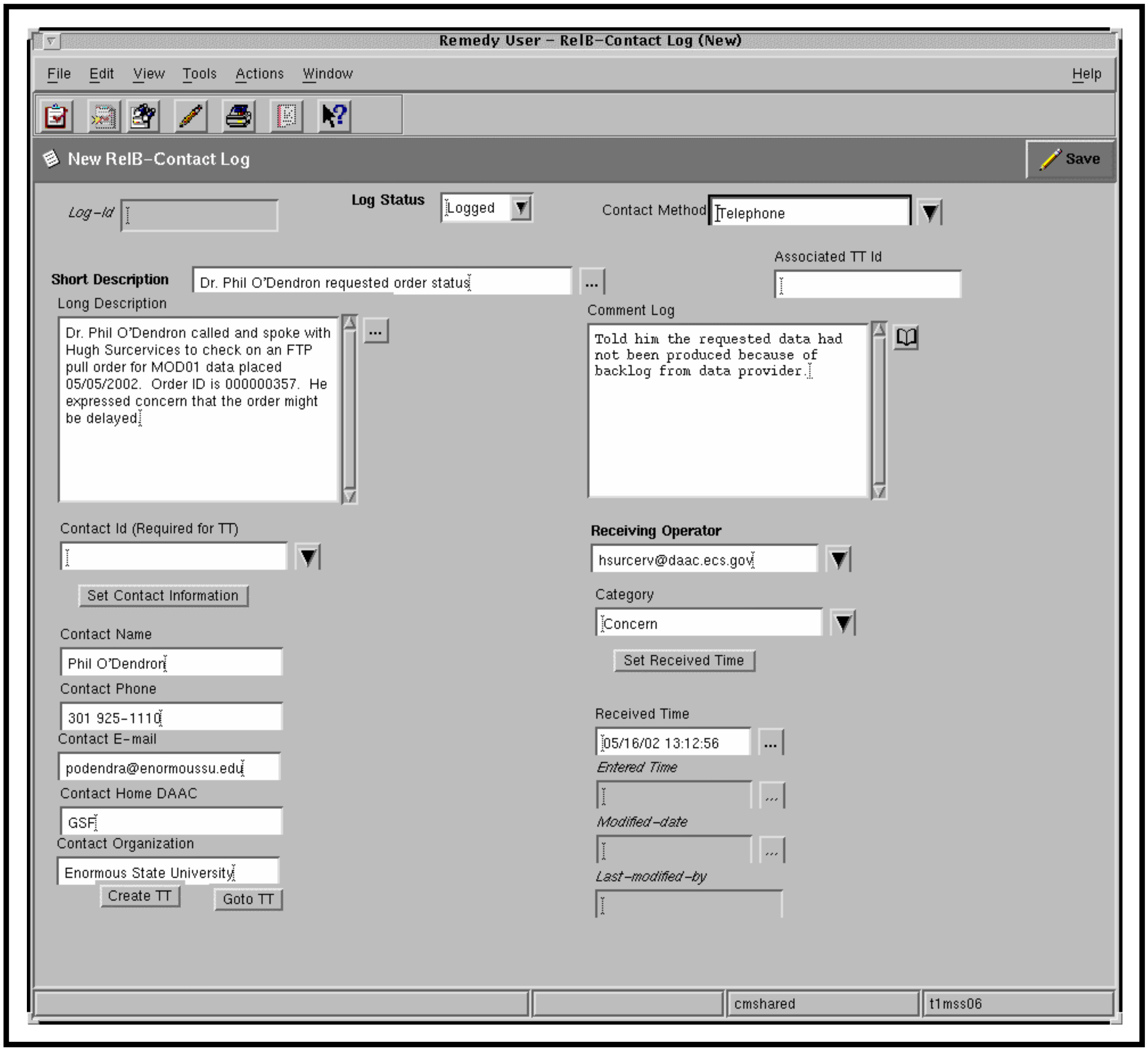



***Figure 12. User Contact Log Entry Screen***

Suppose you receive a request for data from Dr. Paul W. Fingerman, who prefers to have you locate and order it for him. The data you will need to create a User Contact Log record are:

Contact Method: Fax.

Short Description: Search/order MODIS Surface Temperature/Emissivity Data.

Long Description: Search/order data: Parameter Land Surface Temperature, Platform Terra, Sensor MODIS, Data Set MODIS/TERRA Land Surface Temperature/Emissivity 5 min L2 Swath 1km V001, Data Center GSFC, Start/Stop 06 Jun 2000/31 Aug 2000, Search Region 40 DEG to 70 DEG LATITUDE, -100 DEG to -65 DEG LONGITUDE.

Contact Name: Paul W. Fingerman.

Contact Phone: 301-925-0502.

Contact E-Mail: pfingerm@eos.hitc.com.

Contact Home DAAC: GSFC.

Contact Organization: ECS.

Category: Data Request.

Use the following procedure to create a User Contact Log record for the data request.

**Create a User Contact Log Record**

---

**1** Access the command shell

- The command shell prompt is displayed.

**2** At the UNIX command shell prompt, type **setenv DISPLAY *clientname*:0.0** and then press the **Return/Enter** key.

- For ***clientname***, use either the local terminal/workstation IP address or its machine name.

**3** Start the log-in to the Sun Consolidation External Server by typing **/tools/bin/ssh *hostname*** (e.g., e0ins01, g0ins01, l0ins01, or n0ins02) at the UNIX command shell prompt, and then press the **Return/Enter** key.

- If you receive the message, **Host key not found from the list of known hosts. Are you sure you want to continue connecting (yes/no)?** type **yes** ("**y**" alone does not work).
- If you have previously set up a secure shell passphrase and executed **sshremote**, a prompt to **Enter passphrase for RSA key '<*user@localhost*>'** appears; continue with Step 4.
- If you have not previously set up a secure shell passphrase, go to Step 5.

**4** If a prompt to **Enter passphrase for RSA key '<*user@localhost*>'** appears, type your ***Passphrase*** and then press the **Return/Enter** key. Go to Step 6.

**5** At the **<*user@remotehost*>'s password:** prompt, type your ***Password*** and then press the **Return/Enter** key.

**6** To change to the directory containing the Remedy application, type **cd /*path*** and then press the **Return/Enter** key.

- For ***path***, use **/usr/ecs/OPS/COTS/remedy/bin**.

**7** Type **aruser &** to launch Remedy.

- A Remedy Action Request System logo window is displayed briefly, followed by a Remedy initial screen from which a number of ECS application forms, including the User Contact Log, may be launched.

**8** Follow menu path **File→Open** or click on the leftmost button near the top of the window.

- The **Open** dialog box is displayed, showing choices including: **RelB-Contact Log**, **RelB-TT-ForwardToSite**, **RelB-TroubleTickets**, and **TroubleTicket-Xfer**.

**9** Click on **RelB-Contact Log** to highlight it and then click on the **New** button.

- The **New RelB Contact Log** window is displayed.

**10** Click on the "**Contact Method**" field.

**11** Enter the **Contact Method** (optional).

- A drop-down menu may also be used:

  a Point the mouse on the arrow to the right of the **Contact Method** field.

  b While holding the mouse pointer button down, **highlight** the **Contact Method** you require (in this case, "**Fax**").

  c **Release** the mouse button.

  - The highlighted affiliation appears in the " **Contact Method**" field.
  - The Titles in the drop-down box are "**Phone**," "**E-mail**," "**Fax**," "**US Mail**," and "**Walk-in**."

**12** Click on the **Short Description** field.

- The **Short Description** field is 128 characters long.
- Queries that may later be used to locate existing User Contact Log records will search information in the **Short Description** field. Therefore, when you enter a short description, enter it with "search criteria" in mind.

**13** Enter the **Short Description** (required).

**14** Click on the **Set Received Time** button (optional).

- The current time is displayed in the **Received Time** field.

**15** Click on the **Long Description** field.

- The **Long Description** field is used when the description requires more detail than the **Short Description** field will allow.
- The **Long Description** field is often used when a problem exists: it can help with the resolution of Trouble Tickets.

16 Enter a **Long Description** if needed (optional).

17 Click on the **Contact Id** field.

18 Enter the **Id** (User ID) of the person who contacted User Services.

- The **Contact Id** is not required unless a Trouble Ticket is being created from the User Contact Log.

19 If a **Contact Id** was entered at **Step 18**, click the **Set Contact Information** button and then go to **Step 30**; otherwise, move to **Step 20**.

- The system will automatically complete the **Contact Name**, **Contact Phone**, **Contact E-mail**, **Contact Home DAAC**, and **Contact Organization** fields, if the **Contact Id** has been entered.
- If the contact is not a registered Remedy user, the contact fields must be manually completed.

20 If the contact information was not automatically entered at **Step 19**, click on **Contact Name**.

21 Enter the **Contact's Name** (optional).

22 Click on the **Contact Phone** field.

23 Enter the **Contact's Phone** number (optional).

24 Click on the **Contact E-mail** field.

25 Enter the **Contact's E-mail address** (optional).

26 Click on the **Contact Home DAAC** field.

27 Enter the **Contact's Home DAAC** (optional).

28 Click on the **Contact Organization** field.

29 Enter the **Contact's Organization** (optional).

30 When all contact information has been entered, click on the **Receiving Operator** field.

31 In the **Receiving Operator** field, enter the name of the operator (User Services Representative) who is creating the User Contact Log record.

32 Click on the **Category** field.

33 Enter the **Category**.

- A drop-down menu may also be used:

  a Point the mouse on the arrow to the right of the **Category** field.

  b While holding the mouse pointer button down, **highlight** the **Category** you require (in this case, **Order**).

c **Release** the mouse button.

- The highlighted category appears in the **Category** field.

- The Titles in the drop-down box are **Suggestion**, **Complaint**, **Concern**, **Order**, and **Subscription**.

**34** Click the **Save** button near the upper right corner of the window (or follow menu path **Actions→Save**).

- The User Contact Log record is created and submitted to the database.
- A unique Id is generated for the record and entered into the **Log Id** field.
- A message **Submit successful: ID=<*site*><*nnn* . . .>** to indicate the submission and provide the record ID number.

---

## Verifying an Account with the User Profile Screen

As you have seen, part of responding to a user request for assistance in ordering data is creation of a User Contact Log record. You also remember from our discussion of account management that verifying the user's account is part of responding to user's requests.

- Display or edit a user's account and personal information: ECS User Account Management Tool, Profile Account.
- Quick Summary: ECS User Account Management Tool, User Profile (display only).

Figure 13 shows the User Profile Screen.

The User Profile screen is accessible only through the SMC Account Management Tool, because the button that launches the display is not available on the DAAC Account Management Tool.

To verify the user profile for Paul Fingerman, use the following procedure.

**Retrieve User Account/Validate a User**

---

**1** Use secure shell to perform a remote log in to the Account Management host at the SMC.

**2** Launch the **ECS User Account Management** application GUIs.

- The **ECS User Account Management** window is displayed.
- The window shows two folders: "**Request Account**," and "**Profile Account**."

**3** Click the **Profile Account** folder tab.

- Folders and fields applicable to existing accounts are displayed.

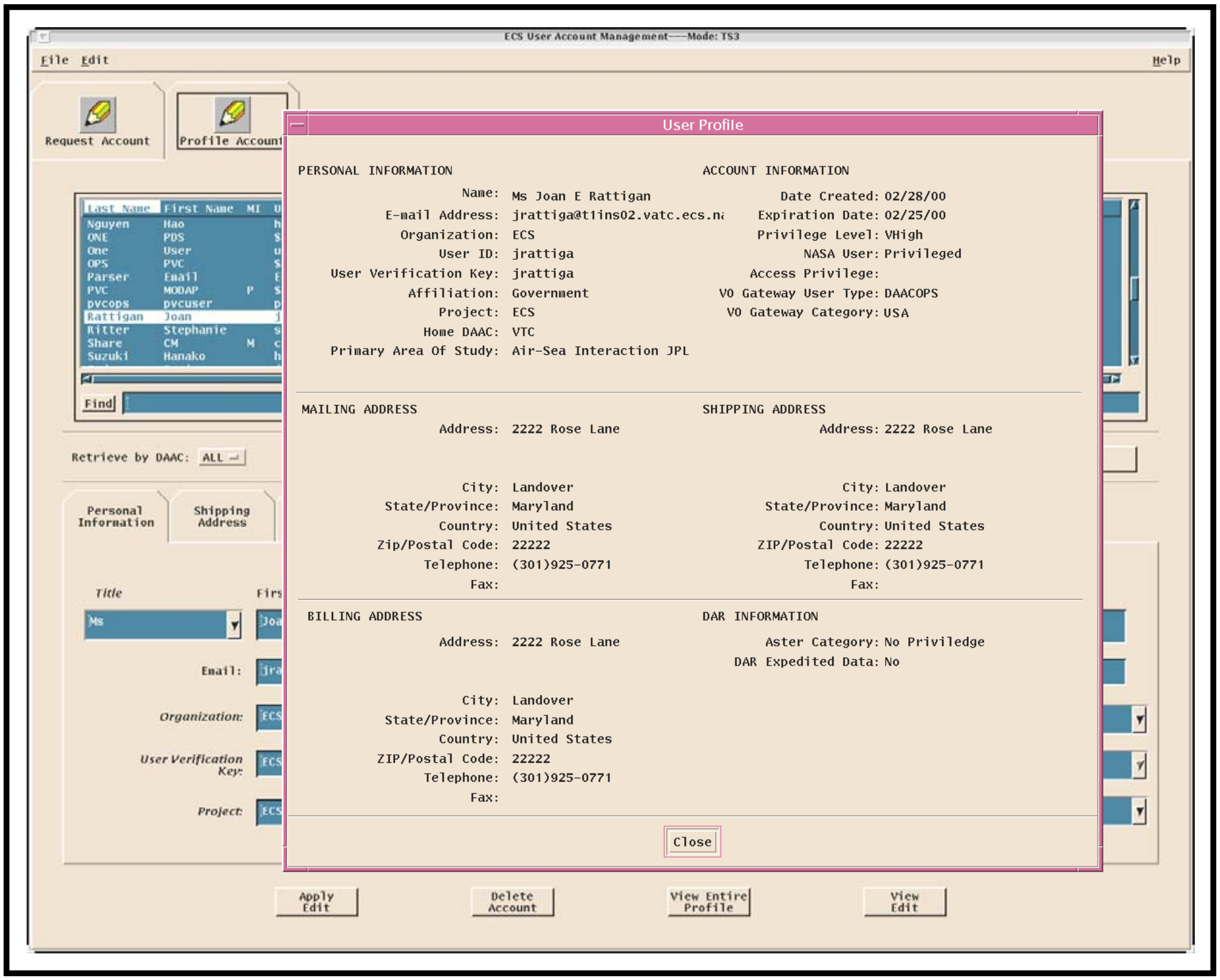



*Figure 13. User Profile Screen*

**4** Retrieve the user's profile information by entering a search criterion (in this case, enter **Fingerman**) in the **Find** field and then pressing **Return**.

- The **Find** field is located to the right of the **Find** button.
- The scroll box displays a list of accounts that match the search criteria.
- You can create a search by entering the user's **Last Name**, **E-mail address**, or **user ID**.

**5** Scroll through the accounts listed until the desired account (for **Paul Fingerman**) is **highlighted**, then **double-click**.

- Six folders are displayed that contain detailed information about the selected account: **Account Information**, **Personal Information**, **Shipping Address**, **Billing Address**, **Mailing Address**, and **DAR Information**.

**6** Click on the "**View Entire Profile**" option button at the bottom of the screen.

- The User Profile screen is displayed.
- This is a read only screen; no changes can be made without going to each individual folder.
- The User Profile screen displays the information contained in the Personal Information folder, Account Information folder, Shipping Address folder, Billing Address folder, Mailing Address folder, and the DAR Information folder.

**7** After examining the displayed information to verify the user's account, **click** the **Close** button to exit from the User Profile screen.

---

## Data Search and Order

Having created a User Contact Log record documenting receipt of a data request and verified the user account, the User Services representative can proceed to searching for the requested data and placing the order. As an added option, the EDG user can request browse products for immediate display by submitting an Integrated Browse Request. Using the Integrated Browse Request will return immediate results to the requesting user. These Search and Order Tool is the EOS Data Gateway (EDG) Web Client available on the WWW at the following URL**:**

**http://redhook.gsfc.nasa.gov/~imswww/pub/imswelcome/.** The following is available at this public site:

- Guidance for user (User Manual for EOS Data Gateway)
  - User Support links and News: technical information.
  - Frequently Asked Questions (FAQ): captures commonly sought information on terminology, search, data, and ordering with the EOS Data Gateway.
  - Tutorial: introduction to the tool and how to find and order data.
- Several approaches are available to the user.

The Web-based Search and Order tool, for quick data access using simple search criteria, also allows easy downloading of pre-selected popular data and ima0ges which provides:

- Data center-specific searches; if user knows where the desired data are stored, the specific center may have a specialized tool for ordering data.
- User Services Representative assistance; the user may elect to have you do the search instead of personally accessing one of the available tools; you will use the EDG Web Client Search and Order Tool.
- EDG Users can independly initiate an Integrated Browse Request to return immediate browse data results to the user's GUI.

Figure 14 shows the initial screen from the Search and Order Tool.

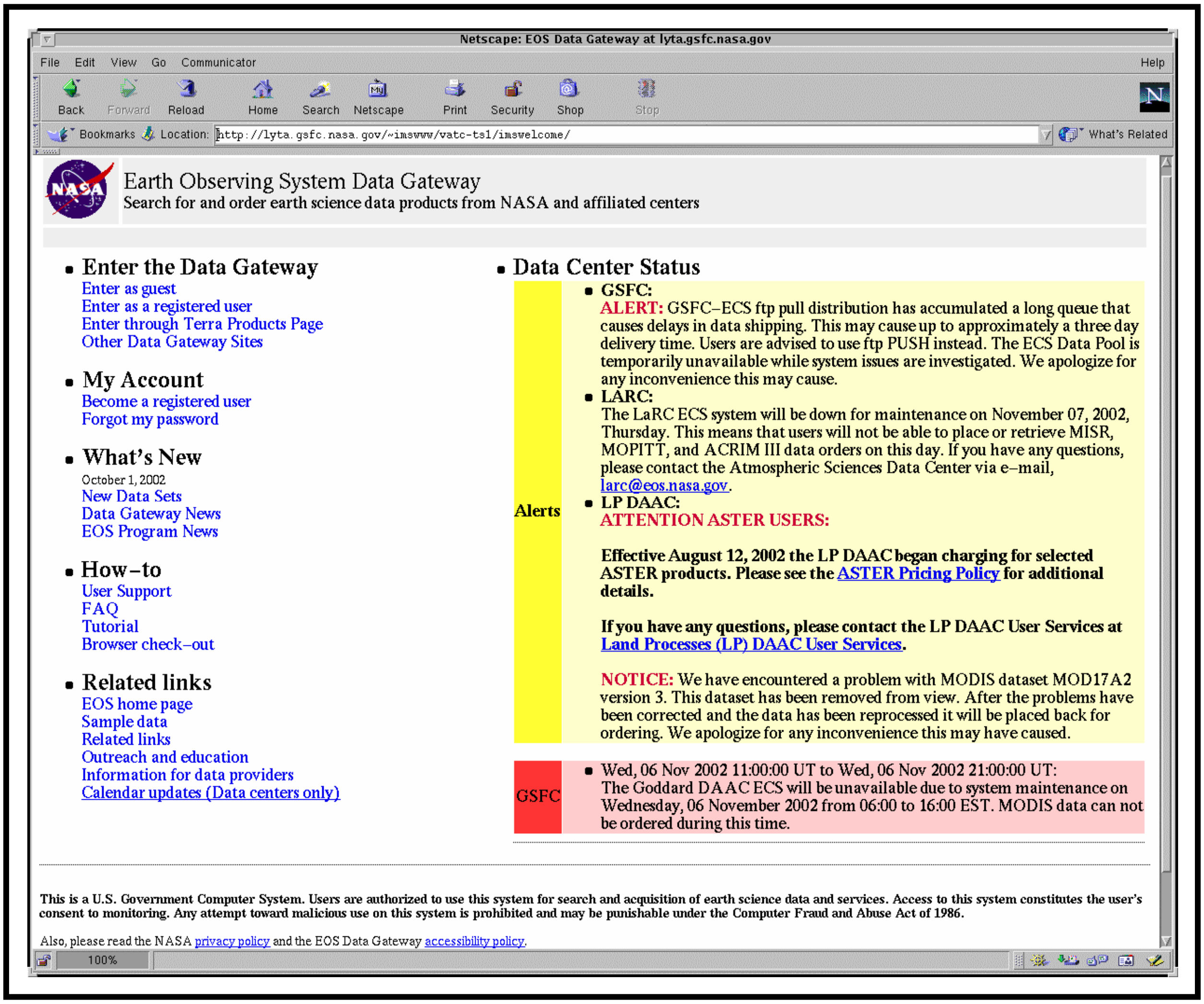



***Figure 14. Welcome Screen for Search and Order Tool***

The page illustrated in Figure 14 permits the user to enter a search as a guest, or, if registered, to enter as a registered user. The page also permits an unregistered user to gain access to the web-based user registration capability, and to access other information about the EDG tool and EOS programs.

From the initial screen, entry as a guest or entry and login as a registered user provides access to search pages. Figure 15 shows the primary data search page. This page permits a user to identify data sets available at EOS data centers as a first step in the data search and order process. Additional areas on the screen permit the user to add more details to narrow the search (e.g., specify a parameter for search, define a geographic area, define a date and time range).

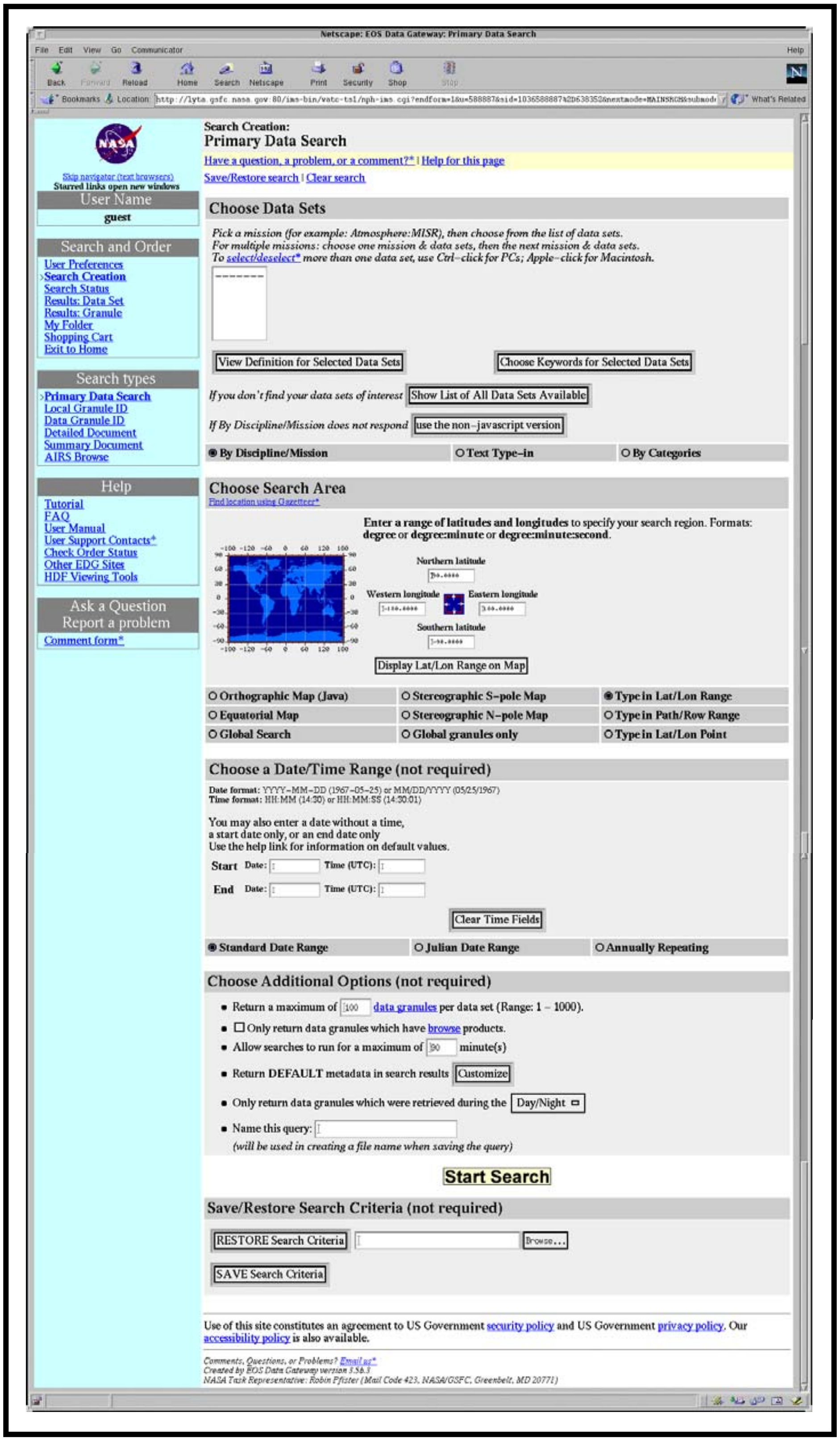



***Figure 15. Search and Order Tool, Primary Data Search Page***

The page illustrated in Figure 15 reflects the basic layout of Search and Order Tool screens:

- NASA logo in upper-left corner.
- Navigation links on the left, below the NASA logo.
- Page title at top of right-hand frame.
- Message area immediately below the page title.
- Page body displaying the main contents of the page.
- Signature and contact data at the bottom of the page.

From the search form shown in Figure 15, the user may be transferred to additional pages to specify various parameters or search constraints. For example, to specify a data set, the user can begin by selecting an option to choose keywords for selected data sets, which accesses additional pages. As another example, in specifying geographic location, the user may select an option to type in a range of latitude and longitude, but if the user prefers to select an area using a map, selection of that option will access a page to specify the geographic region on a map display. After using one of the additional pages for further defining the search, the user is returned to the form showing the search refinements selected.

After completing the search specifications, the user submits the search. The search may take several minutes, during which the user is provided feedback showing that the search is in progress, as illustrated in Figure 16. In fact, if the search takes too long, some data centers have established a "wall," or maximum estimated time, beyond which the search will not run. In this case, the user is provided a message requesting that the search criteria be narrowed, until the search is broken down into parts of manageable sizes.

The system design incorporates *results set chunking*, a capability to provide search results in parts (chunks) to a client. When there is a large volume of search results, the chunking reduces the response time by allowing partial results to be quickly returned to the client, thus reducing the overall response time for a science user to receive the partial search results. The user can take advantage of this capability by clicking on the **VIEW PARTIAL SEARCH RESULTS NOW** link illustrated in Figure 16.

When the search is complete, the Search and Order Tool provides information on the results to the user. Figure 17 illustrates the initial results page with the Data Granule List.

The user may click on the **Granule Attributes** link to display more detailed information on a granule, as illustrated in Figure 18. Having reviewed the results as much as desired, the user then may return to the results screen, click in the selection box at the left of any desired granules, and then click on the **Add selections to cart** button. This action launches the window permitting the user to choose ordering options. Figure 19 shows ordering options screens. From the screen on the left side of the figure, the user clicks on the **Order Options** button to launch the display shown on the right side of the figure, which permits specification of data formats and media types and formats. When the desired order options are specified, the user clicks on the **Ok! Accept my choice & return to the shopping cart!** button.

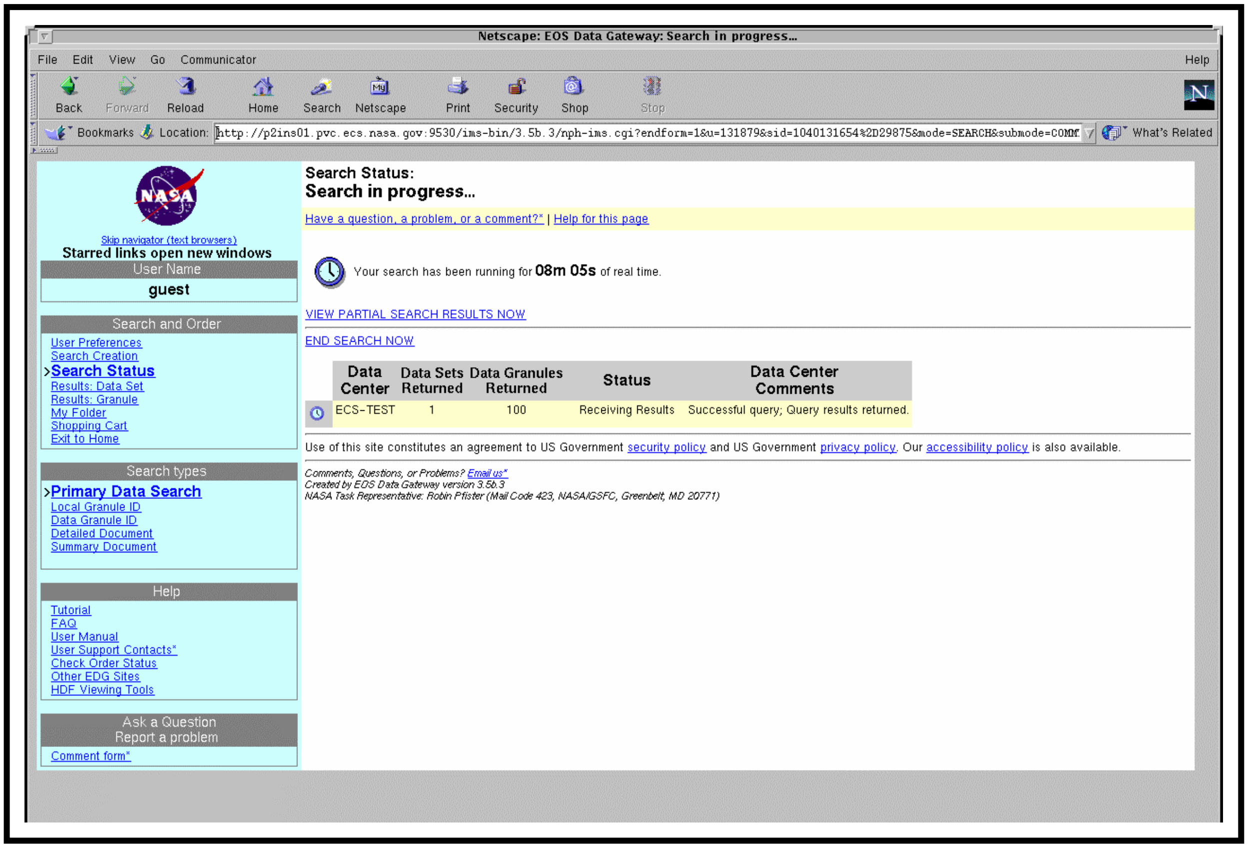



*Figure 16. Search and Order Tool, Search in Progress Screen*

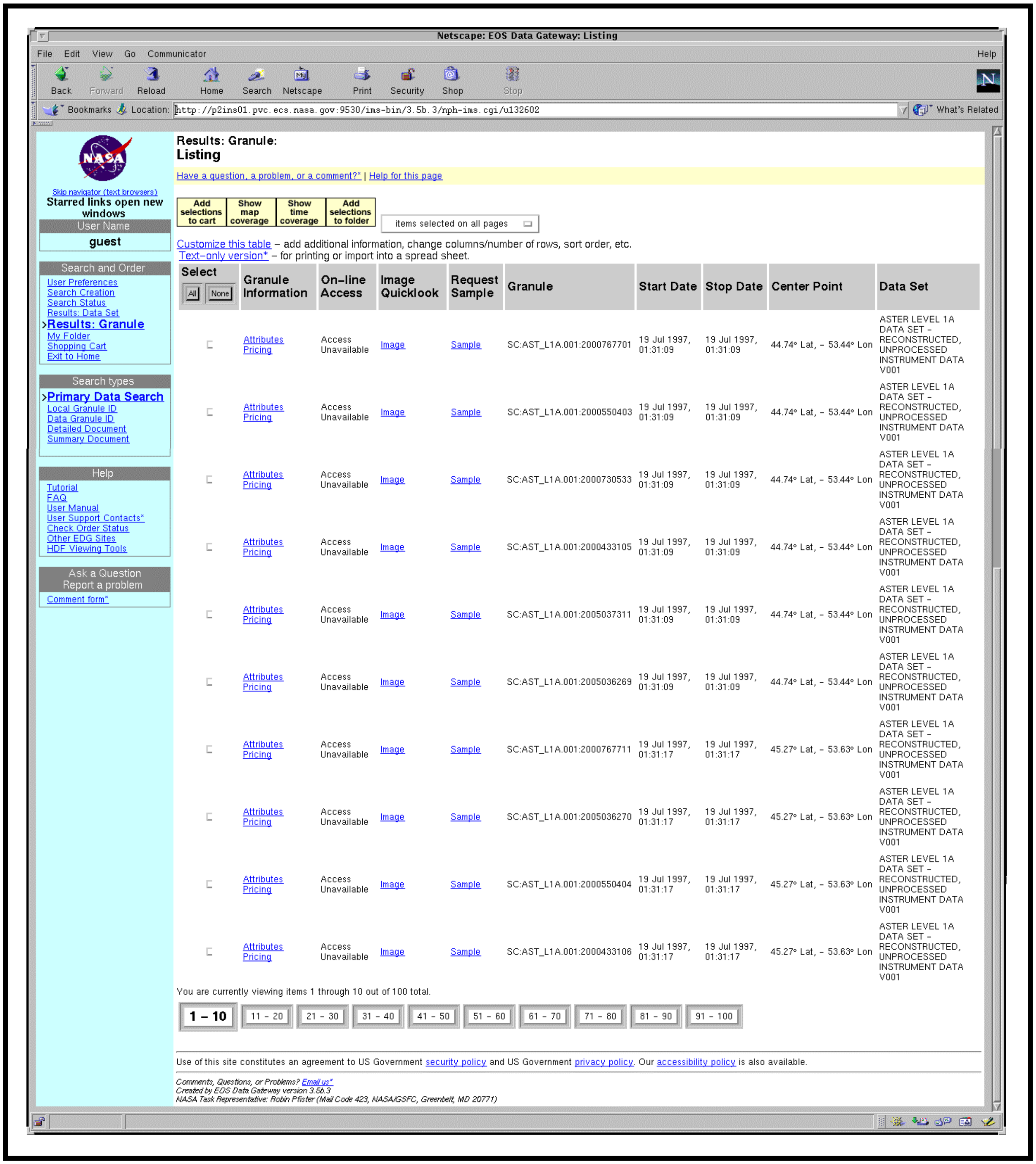



***Figure 17. Search and Order Tool, Results Listing Data Granules***

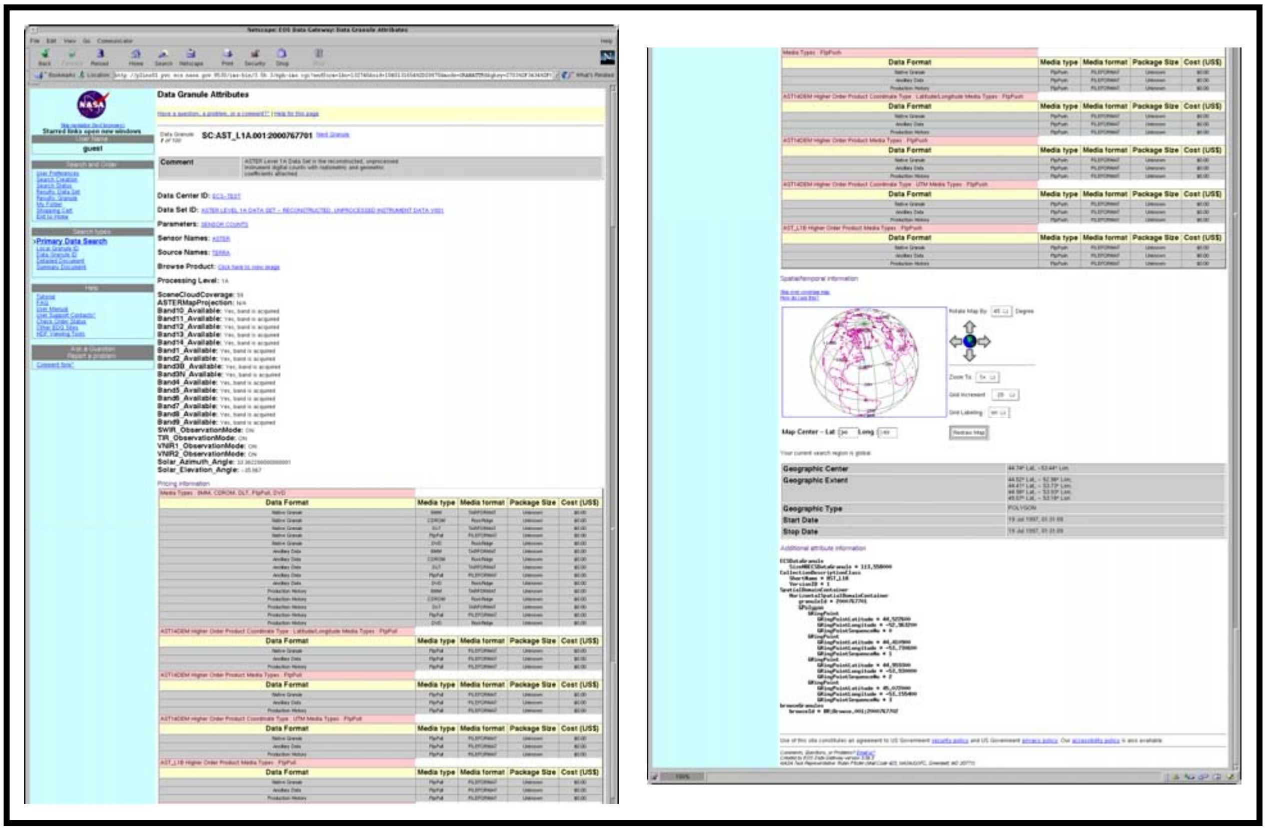


***Figure 18. Search & Order Tool, Granule Attributes***

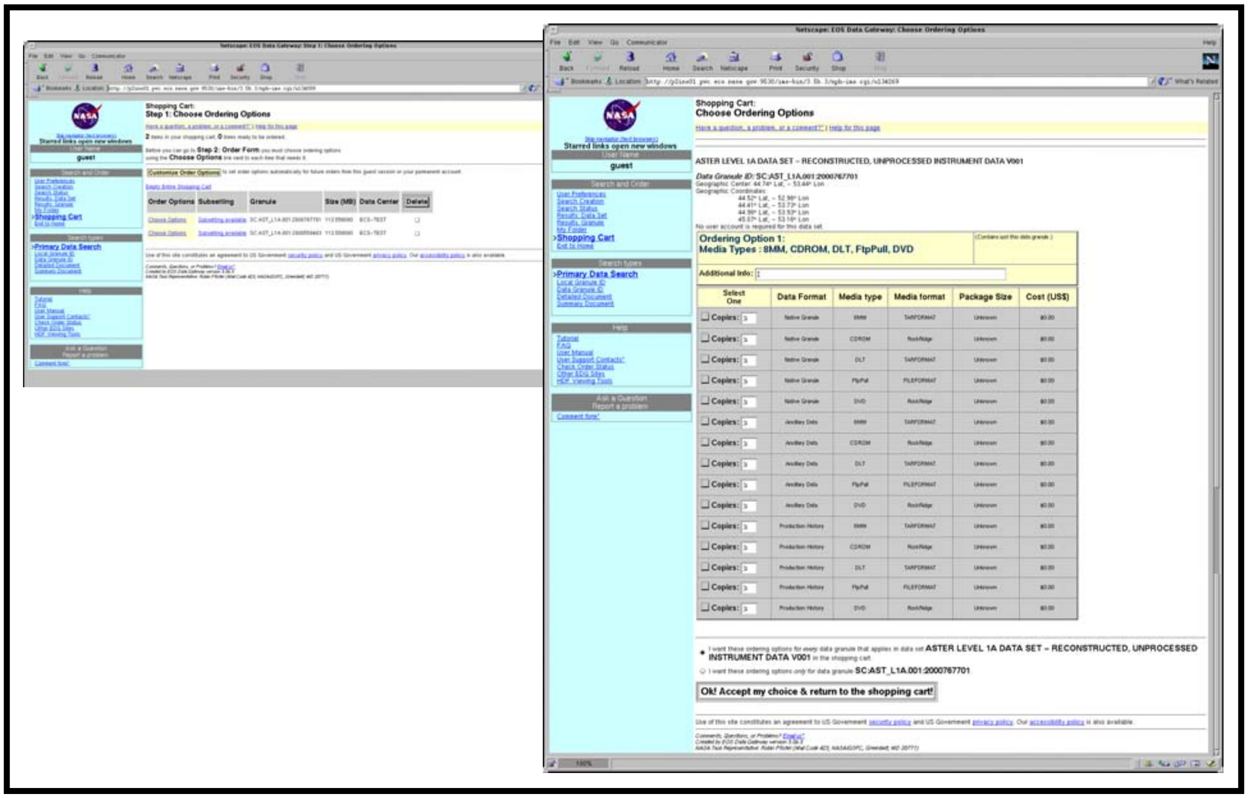


***Figure 19. Search and Order Tool, Ordering Options Screens***

Back at the shopping cart display, with ordering options specified, the user now clicks on the **Go to Step 2: Order Form** button. This action launches the order form, as illustrated in Figure 20. Here the user provides ordering information (e.g., name, address, telephone, e-mail address). Red field labels indicate required fields.

After entering the necessary ordering information on the Order Form, the user may click on the **Submit Order Now!** button or click on the **Go to Step 3: Review Order Summary** button and then, when satisfied that the information is correct, click on the **Go to Step 4: Submit Order** button. When the order is submitted, the Search and Order Tool displays an order confirmation screen, as illustrated in Figure 21,providing the user with tracking and contact information to use if it later becomes necessary to inquire about the status of the order.

Let's examine how you can conduct a data search. You recall, or can check in the User Contact Log record Long Description, that Dr. Fingerman asked for the following data:

Long Description: Search/order data: Parameter Land Surface Temperature, Platform Terra, Sensor MODIS, Data Set MODIS/TERRA Land Surface Temperature/Emissivity 5 min L2 Swath 1km V001, Data Center GSFC, Start/Stop 06 Jun 2000/31 Aug 2000, Search Region 40 DEG to 70 DEG LATITUDE, -100 DEG to -65 DEG LONGITUDE.

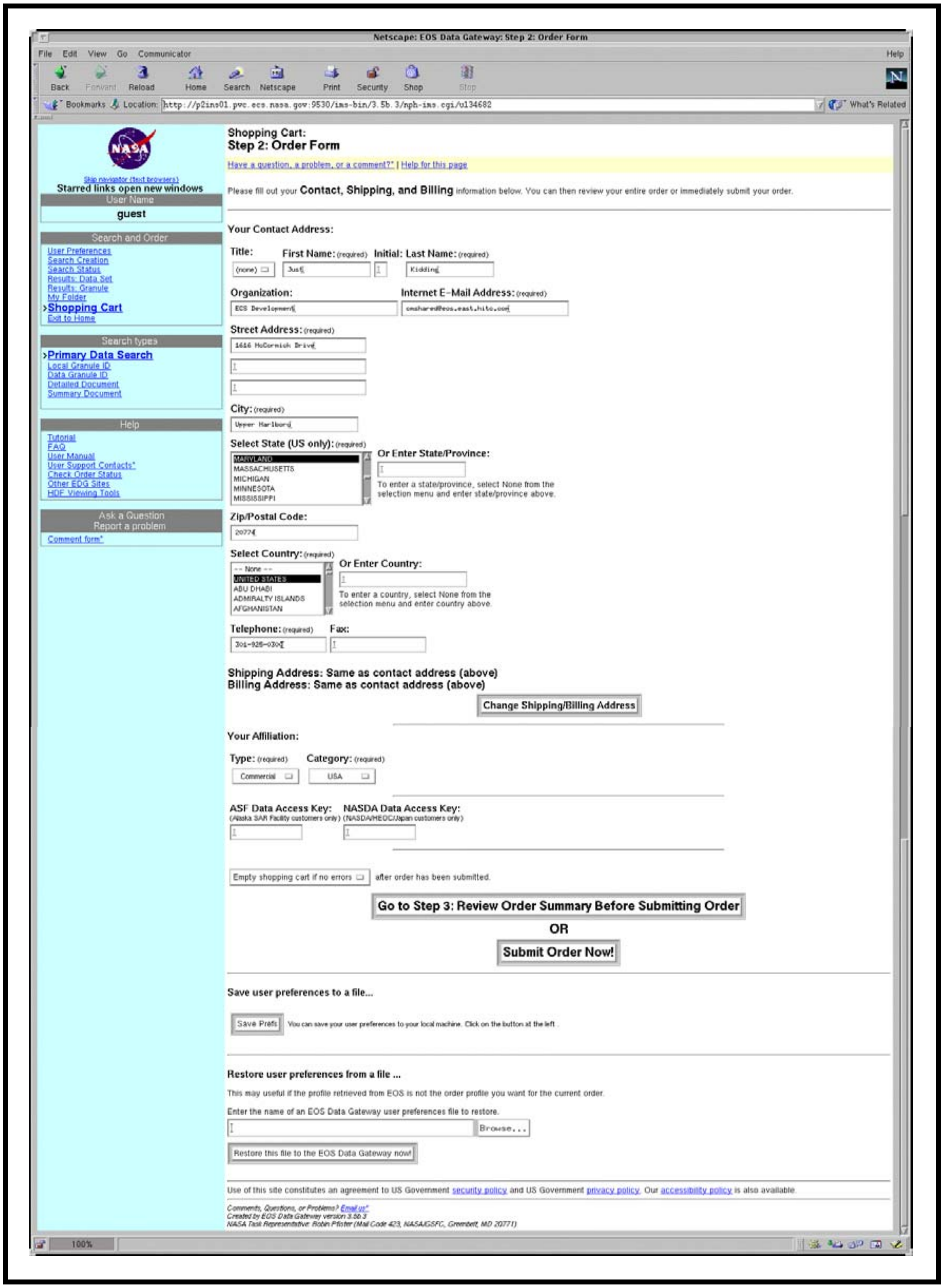


*Figure 20. Search and Order Tool, Order Form*

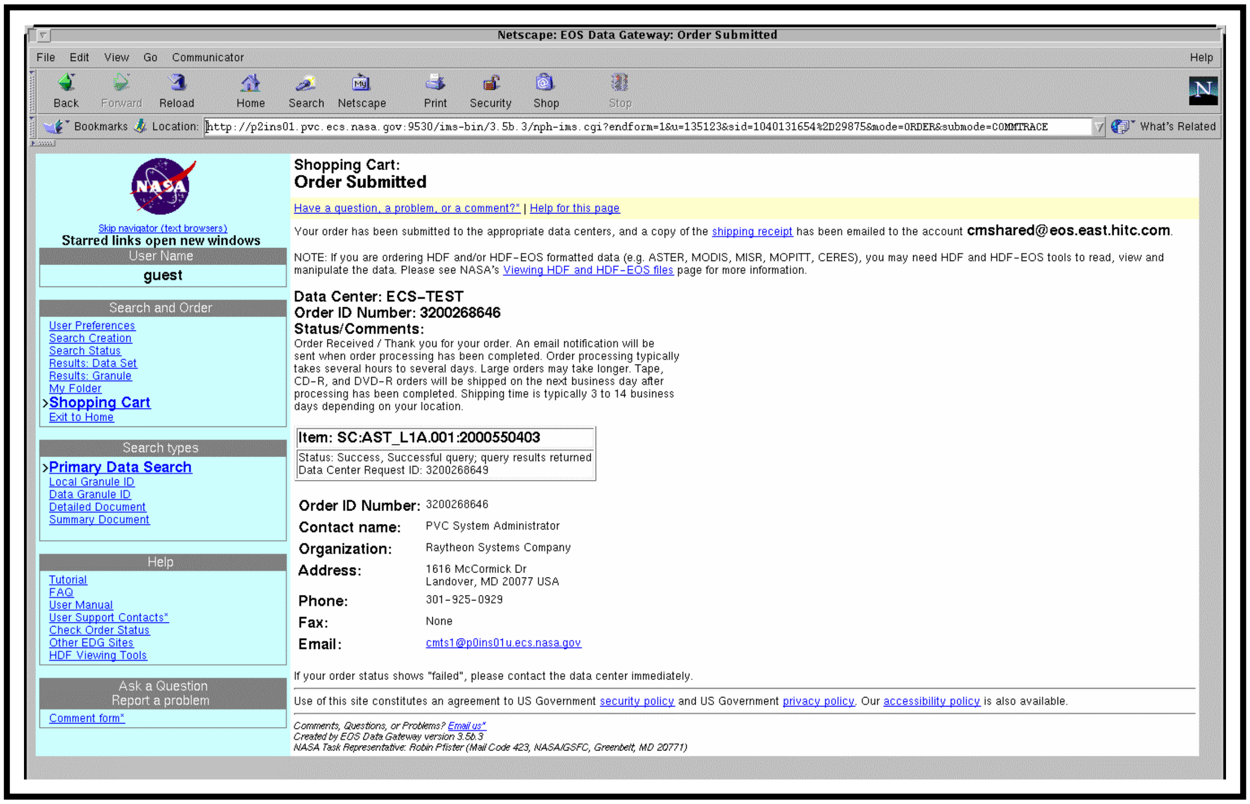



*Figure 21. Search and Order Tool, Order Confirmation*

Use the following procedure.

**Locate and Order Data Using the EOS Data Gateway Search and Order Tool**

**1** Access the command shell.

- The command shell prompt is displayed.

**2** At the UNIX command shell prompt, type **setenv DISPLAY *clientname*:0.0** and then press the **Return/Enter** key.

- For ***clientname***, use either the local terminal/workstation IP address or its machine name.

**3** Start the log-in to a Netscape host by typing **/tools/bin/ssh *hostname*** (e.g., g0css02, e0css02, l0css02, or n0css02) at the UNIX command shell prompt, and press the **Return/Enter** key.

- If you receive the message, **Host key not found from the list of known hosts. Are you sure you want to continue connecting (yes/no)?** type **yes** ("**y**" alone does not work).

- If you have previously set up a secure shell passphrase and executed **sshremote**, a prompt to **Enter passphrase for RSA key '<*user@localhost*>'** appears; continue with Step 4.

- If you have not previously set up a secure shell passphrase, go to Step 5.

**4** If a prompt to **Enter passphrase for RSA key '<*user@localhost*>'** appears, type your ***Passphrase*** and then press the **Return/Enter** key. Go to Step 6.

**5** At the **<*user@remotehost*>'s password:** prompt, type your ***Password*** and then press the **Return/Enter** key.

- You are logged in and a UNIX command shell prompt is displayed.

**6** Type **netscape** and then press the **Return/Enter** key.

- The Netscape web browser is displayed.

**7** Click in the **Netsite:** field.

- The field is highlighted.

**8** Type **http://redhook.gsfc.nasa.gov/~imswww/pub/imswelcome/** then press the Return**/Enter** key.

- The EOS Data Gateway welcome screen is displayed, offering choices for types of entry, registration, news, user manual, sample data, and other information.

**9** Click on the link for "Enter as Guest."

- The EOS Data Gateway Web Search and Order Tool initial **Search Creation: Primary Data Search** screen is displayed.

- ***Note***: At various points in this procedure, you may encounter a security information warning. Unless you know of a specific potential danger that you must avoid, click on the **Continue submission** button when this warning is displayed.

**10** Click on the **Choose Keywords for Selected Data Sets** button.

- The search screen displays an option to **Choose Keywords for One or More Categories**.

**11** In the **Choose Keywords for One or More Categories** field, click on **DATA SET** and then click on the **Choose Keywords for >>** button.

- The Keyword **Selection: Data Set** screen is displayed.

**12** On the **Keyword Selection: Data Set** screen, in the **Data Set List 1:** field, scroll down the list and select **ASTER LEVEL 1B DATA SET REGISTERED RADIANCE AT THE SENSOR V002**, and then click on the **OK!** button.

- The primary search screen is displayed, indicating **ASTER LEVEL 1B DATA SET REGISTERED RADIANCE AT THE SENSOR V002** as the selected data set.

**13** In the **Choose Keywords for One or More Categories** field, click on **PARAMETER** and then click on the **Choose Keywords for >>** button.

- The **Keyword** Selection**: Parameter** screen is displayed.
- ***Note*****:** The Primary Data Search screen provides a user with a button to **Show List of All Data Sets Available** as a first step in data search and order. The user may filter the list by site, or enter patterns and look for matching data sets.

**14** On the **Keyword Selection: Parameter** screen, in the **Parameters:** field, select **BRIGHTNESS TEMPERATURE**, and then click on the **OK!** button.

- The **primary** search screen is displayed, indicating **BRIGHTNESS TEMPERATURE** as the selected parameter.

**NOTE**: The **Filters for Parameter:** field permits a reduction in the number of parameters from which to **choose** (although in the list for this step, **BRIGHTNESS TEMPERATURE** is the only one listed). For example, if you are searching for **OZONE** and know that it is an **ATMOSPHERIC CHEMISTRY** parameter, you can select **ATMOSPHERIC CHEMISTRY** in the **Filters for Parameter:** field and then click the **Apply** button so that only those parameters are displayed. You can even reduce the choice to one by using a wild card filter, i.e., **OZ***.

**15** In the **Choose Search Area** section of the primary data search screen, click on the radio button at the left of **Type in Lat/Lon Range** field.

- The **radio** button is filled in to indicate selection.
- If you select a radio button for one of the map entries, a map window is displayed; to use the map, follow instructions on the screen to create a rectangle over the area of interest on the map (the **corresponding** lat/lon values will be displayed in the appropriate fields when you return to the primary search screen).

**16** In the **Latitude** and **Longitude** fields, enter values to define a rectangle corresponding to the requested area (70 degrees Northern, -60 degrees Eastern, 30 degrees Southern, -170 degrees Western).

- The entered values appear in the fields.
- If desired, a click on the **<-Display lat/lon range on map** button will result in a rectangle corresponding to the selected area on the map on the left side of the **Choose Search Area** section.

**17** Click in the **Start Date:** field, and then type **2001-03-01**.

- The typed entry is displayed in the field.

**18** Click in the **End Date:** field, and then type **2001-03-31**.

- The typed entry is displayed in the field.

**19** Click on the **Start Search!** Button.

- The search status screen is displayed, indicating **Search in progress . . . .**
- **After** a few moments, the **Results: Granule: Listing** screen is displayed.
- The system offers *Integrated Browse Request, using any web browser, to request browse granules and other granules type*; if a browse image is available for a listed granule, an **Image** link is available in the **Image Quicklook** column of the listing for that granule. A click on the **Image** link displays the available browse image.

**20** If desired, click on the **Granule Attributes** link next to one of the listed granules.

- A **Data Granule Attributes** screen is displayed.
- Attributes for additional granules may be reviewed by clicking on one of the **Next/Previous Granule** links at the top of the **Data Granule Attributes** screen, or by clicking the browser **Back** button and clicking on the **Granule Attributes** link next to other listed items.

**21** At the **Results: Granule: Listing** screen, click in the **Select** box(es) to select one or more granules to be ordered, and then click on the **Add selections to cart** button near the top of the screen to add the *selected* data granules to the shopping cart.

- A **Data Quality Summary** screen may be displayed describing the quality status of any selected granule(s) and requiring a click on an **Accept** button at the bottom to proceed with the order.
- The **Step 1: Choose Ordering Options** screen is displayed with the list of items to be ordered (i.e., in the shopping cart).

**22** Click on the **Choose Options** link next to one of the data granules selected for order.

- The **Choose Ordering Options** screen is displayed.

**23** Click on the **Select** button for the desired option (e.g., **FtpPull FILEFORMAT**).

- The **Select** button is filled to indicate selection of the option.

**24** Below the list of options, make a selection to indicate whether the selected packaging option is to apply to all items in the data set in the shopping cart, or just to the single granule (for this exercise, leave the default selection indicating that the selected packaging option is to apply to all items in the shopping cart).

**25** Click on the **Ok! Accept my choice & return to the shopping cart!** button.

- The **Step 1: Choose Ordering Options** screen is displayed with indications that the selected granules are ready to order.

**26** Click on the **Go to Step 2: Order Form** button.

- **The Step 2: Order Form** screen is displayed.

**27** Click in the **First name:** field and type **Just**.

- The typed **entry** appears in the field.

**NOTE**: **Normally**, the user's first name is entered in this field. For this exercise, it is important that the user's name be entered as **Just Kidding**, so that the DAAC will not attempt to fill the order.

**28** Click in the **Last name:** field and type **Kidding**.

- The **typed** entry appears in the field.

**NOTE**: Normally, the user's last name is entered in this field. For this exercise, it is important that **the** user's name be entered as **Just Kidding**, so that the DAAC will not attempt to fill the order.

**29** Fill in the other required fields (**Internet email address: Street Address: City: State/Province: Country:** and **Telephone:**) by clicking in each field and typing an appropriate entry.

- **The** typed entries are displayed in the fields.

**NOTE**: The user can save the entered information in a profile, and provide information about ECS access. This is accomplished by clicking on the **User Preferences** link in the "navigator" area on the left side of the screen, and making appropriate entries on the resulting **User Preferences** screen. At the bottom of this screen, a user who is registered as an ECS user can enter a user name and password for ECS access.

**30** Click on the option button to the right of the **Type:** field and select **Commercial** from the displayed list.

- The **selected** option is displayed in the field.

**31** Click on the option button to the right of the **Category:** field and select **USA** from the displayed list.

- The **selected** option is displayed in the field.

**32** Click on the **Go to Step 3: Review Order Summary** button.

- The **Step 3: Order Summary** screen is displayed.

**33** When satisfied that the order information is correct, click on the **Go to Step 4: Submit Order!** button.

- The **order** is submitted and an **Order Submitted!** confirmation screen is displayed.

## Update User Contact Log

You recall that upon receipt of the data request, you created a User Contact Log record documenting that request. After completing the submission of the order, it is necessary to update the User Contact Log.

- Show the progress or resolution of the contact that started the process.
- User Contact Log remains open until the request is completed.
- User Contact Log record can be modified several times.
- For each modification, the log displays the operator that made the modification along with the date and time of the modification.

Perform a User Contact Log update for the completed order now using the following procedure.

**Update User Contact Log**

---

**1** Launch the **User Contact Log/Trouble Ticket** application (Remedy Action Request System) as described in the procedure **Create a User Contact Log Record** (previous section of this lesson).

- A Remedy Action Request System logo window is displayed briefly, followed by a Remedy initial screen from which a number of ECS application forms, including the User Contact Log, may be launched.

**2** Follow menu path **File→Open** or click on the leftmost button near the top of the window.

- The **Open** dialog box is displayed, showing choices including: **RelB-Contact Log**, **RelB-TT-ForwardToSite**, **RelB-TroubleTickets**, and **RelB-TT-ForwardToSMC**.

**3** Click on **RelB-Contact Log** to highlight it and then click on the **Search** button.

- The **Search RelB Contact Log** window is displayed.

**4** Click on the field to be used for finding the User Contact Log record to be updated (i.e., **Log Id** field. **Contact Name** field, **E-mail Address** field, or the **Short Description** field).

- The cursor is displayed in the selected field.

**5** Enter the information appropriate for the selected field (i.e., **Log Id**, **Contact Name**, **E-mail Address**, or something remembered from the **Short Description**).

- The typed entry is displayed in the field.

**6** Follow menu path **Actions→Search**.

- The User Contact Log record for the data request is displayed.

**7** Click on the **Comment Log** field.

**8** Enter a **Comment** describing the update.

- The comment should indicate the action(s) taken (e.g., **Order for data completed; 10 granules ordered.**).

**9** Click the **Save** button near the upper right corner of the window (or follow menu path **Actions→Save**).

- The User Contact Log record update is submitted to the database.
- The **Modified-date** field will display the date and time of the modification.
- The **Last-Modified-by** field will display the name of the User Services Representative under whose log-in the edit is made.

**10** To close a User Contact Log record, select the **Log Status** button, while holding the mouse button down, drag it to **Close**, then release the mouse button. Then save as in Step 9.

- The User Contact Log record is now closed.

# Canceling/Tracking an Order

A user may choose to cancel a data order for any of a number of reasons. User Services may be called upon to assist by performing the cancellation on behalf of the user. Cancellation requires some associated procedures that are familiar to you by now. The procedures for cancellation of an order are:

- Create a User Contact Log record.
- Validate the user.
- ECS Order Tracking tool.
- Cancel Order.
- Update the User Contact Log.

Assume Dr. Fingerman calls to cancel his order for Antarctic Ozone data. As we have seen, this requires the creation of a User Contact Log record, and necessitates using the ECS User Account Management tool, Profile Account, to verify that the user is registered. Only then can you proceed to the next step.

## ECS Order Tracking GUI

To locate an order, either because a user wants to cancel it or for some other reason (e.g., a user wants to check on an order that has not been received), use the Order Tracking tool. Figure 22 shows the Order Tracking tool main screen and the **Update** dialog box that permits cancellation of the order.

To assist you in finding an existing order, the ECS Order Tracking Tool has several **Query by:** options

- User Name – If there is more than one order under the same first and last name, the system offers a Verify User Selection screen to display additional data about each order, including the date it was placed, to help in the verification. For a given user, the system also permits filtering to display ASTER On-Demand orders only.
- Order ID – The Order ID is the unique identification number generated when the order was placed.
- Request ID – For large orders, the Data Server may partition the order and assign more than one Request ID. If you use this query option, the unique Order ID will also be displayed to assist in tracking all parts of the order.

- MTMGW by External Order ID or user ID -- To facilitate access by Science Investigator-led Processing Systems (SIPS) for searching and ordering input data for reprocessing, ECS provides Machine-to-Machine Gateway (MTMGW) interfaces.
- This query option retrieves information on orders through MTMGW access.

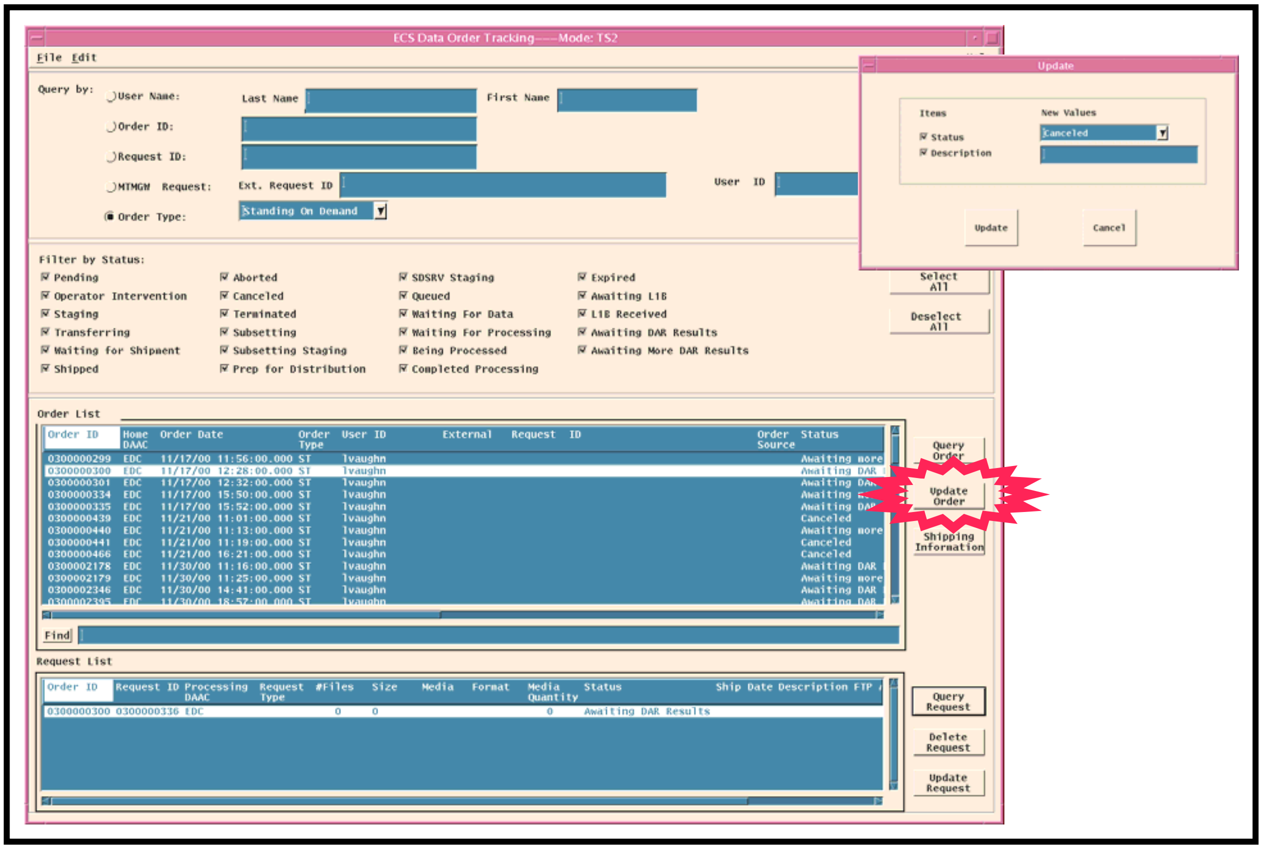



*Figure 22. ECS Order Tracking Tool Main Screen, with Update Dialog*

- Order Type -- The order list may be filtered by order type (e.g., All, Standard, On Demand, Standing On Demand, MTMGW).

When you click the **Query Order** button to display the list of orders, a **Verify User Selection** dialog box, illustrated in Figure 23, may be displayed requesting a user ID, name, or e-mail address. Requiring input to this dialog provides a means to limit access to the database. To display the orders, it is necessary to click on the **OK** button.

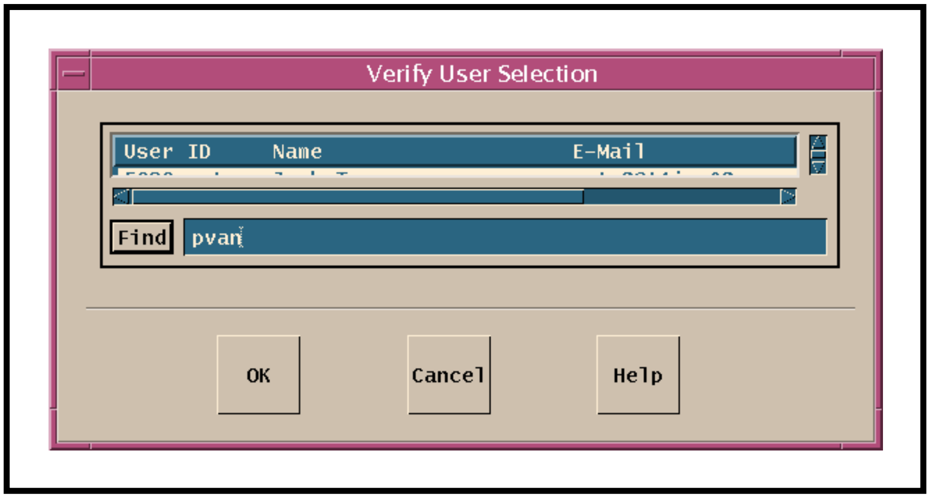



*Figure 23. Order Tracking Tool, User Selection Verification*

The number of orders displayed can be reduced by use of the Filter by Status option. You may select from several status filters:

- Pending.
- Operator Intervention.
- Staging.
- Transferring.
- Waiting for Shipment.
- Shipped.
- Aborted.
- Canceled.
- Terminated.
- Subsetting.
- Subsetting Staging.
- Prep for Distribution.
- SDSRV Staging.
- Queued.
- Waiting for Data.
- Waiting for Processing.
- Being Processed.
- Completed Processing.
- Expired.
- Awaiting L1B.
- L1B Received.
- Awaiting DAR Results.
- Awaiting More DAR Results.
- Partitioned.

Use the following procedure to find and cancel Dr. Fingerman's order for Land Surface Temperature data, beginning with a search using the **User Name** query option.

**ECS Order Tracking and Cancellation**

---

**1** Access the command shell

- The command shell prompt is displayed.

**2** At the UNIX command shell prompt, type **setenv DISPLAY *clientname*:0.0** and then press the **Return/Enter** key.

- For ***clientname***, use either the local terminal/workstation IP address or its machine name.

**3** Start the log-in to the Sun Consolidation External Server by typing **/tools/bin/ssh *hostname*** (e.g., g0ins01) at the UNIX command shell prompt, and then press the **Return/Enter** key.

- If you receive the message, **Host key not found from the list of known hosts. Are you sure you want to continue connecting (yes/no)?** type **yes** ("**y**" alone does not work).
- If you have previously set up a secure shell passphrase and executed **sshremote**, a prompt to **Enter passphrase for RSA key '<*user@localhost*>'** appears; continue with Step 4.
- If you have not previously set up a secure shell passphrase, go to Step 5.

**4** If a prompt to **Enter passphrase for RSA key '<*user@localhost*>'** appears, type your ***Passphrase*** and then press the **Return/Enter** key. Go to Step 6.

**5** At the **<*user@remotehost*>'s password:** prompt, type your ***Password*** and then press the **Return/Enter** key.

**6** To change to the directory containing the utility scripts to start MSS accountability GUIs, type **cd /*path*** and then press the **Return/Enter** key.

- For ***path***, use **/usr/ecs/<*MODE*>/CUSTOM/utilities**, where ***mode*** will likely be **TS1**, **TS2**, or **OPS**.

**7** Type **EcMsAcOrderGUIStart <*MODE*>**, where **<*MODE*>** is **TS1**, **TS2**, or **OPS** (or other) as selected in Step 6.

- The **ECS Order Tracking** window is displayed.

**8** Click the **Radio Box** to the left of the **User Name**.

- The cursor moves to the **Last Name** field.

**9** Enter the **Last Name**, then press **Tab**.

- The cursor moves to the **First Name** field.

**10** Enter the **First Name**, then press **Tab**.

**11** Click on the **Select All** button.

- All of the status filters are selected.

**12** Press the **Return/Enter** key or click on the **Query Order** button.

- The order is displayed in the **Order List** box in the **ECS Data Order Tracking** screen.
- The **Order ID**, **Home DAAC**, **Order Date**, **Order Type**, **Order Source**, **Status**, **Description**, and **Start Date** are displayed.

**13** If there are multiple requests, click on the order to highlight it in the **Order List** box, then click on the **Query Request** button.

- Every request number relating to the highlighted Order is displayed.
- The **Order ID**, **Request ID**, **Processing DAAC**, **Request Type**, **# Files**, **Size**, **Media**, **Format**, **Status**, **Ship Date**, and **Description** are displayed.

**14** Click on the order or the specific request to be canceled to highlight it.

**15** To cancel a highlighted request, click on the **Delete Request** button.

- The request is deleted from the system.

**16** To cancel a highlighted order, first click on the **Update Order** button.

- The Update dialog box is displayed.

**17** In the **Update** dialog box, make sure the **Status** checkbox has a check in it (click in the checkbox if necessary).

- The Status checkbox displays a check mark.

**18** Click on the pull-down arrow to the right of the **Status New Values** text field, hold the left mouse button and dragging to select the value "Canceled."

- The Status **New Values** text field displays **Canceled**.

**19** Click on the **Update** button.

- The order status is changed to **Canceled**.

This page intentionally left blank.

# Troubleshooting Order Tracking Problems

## ECS Order Tracking Tool User Messages

The ECS Order Tracking tool is part of the System Management Support Subsystem (MSS), and uses database functions in that subsystem. If the tool cannot be launched, or does not function (e.g., cannot retrieve orders), you will need to ask the System Administrator to ensure that the Order Tracking Server is functioning properly. It may be necessary to have the Database Administrator check to ensure that there are no problems with the database.

It is also possible to receive error messages when using the GUI while it is apparently functioning normally. Error messages associated with the ECS Order Tracking tool are listed in Appendix A of the *Release 7.11 Operations Tools Manual for the EMD Project* (Document 609-EMD-001). Table 2 is adapted from the corresponding table in Document 609. If a problem cannot be identified and fixed without help within a reasonable period of time, the appropriate response is to call the help desk or submit a trouble ticket in accordance with site Problem Management policy.

***Table 2. ECS Order Tracking Tool User Messages (1 of 2)***

| Message Text | Impact | Cause/Corrective Action |
|---|---|---|
| No requests found for the order. | A retrieved order has no specific requests. | None. |
| Unable to read from the Request Database. Try again later. | Unable to retrieve a specified request. | Check Order Tracking Server log files for possible network or server errors; notify System/Network Administrator and/or Database Administrator of problem. |
| Unable to read from the Order Database. Try again later. | Unable to retrieve a specified order. | Check Order Tracking Server log files for possible network or server errors; notify System/Network Administrator and/or Database Administrator of problem. |
| No orders were found. | A specified order number is not found in the database. | None. |
| Please select a request first. | Clicking on Update Request button or Delete Request button does not update or delete request. | Click on a request to select it before clicking on Update Request button or Delete Request button. |
| No orders match the request ID. | A specified request number is not found in the database. | None. |

*Table 2.  ECS Order Tracking Tool User Messages (2 of 2)*

| Message Text | Impact | Cause/Corrective Action |
|---|---|---|
| The order is no longer in the database. | A specified order number cannot retrieve an order. | None. |
| Please select an order first. | Clicking on Update Order button or Delete Order button does not update or delete order. | Click on an order to select it before clicking on Update Request button or Delete Request button. |
| Please delete the corresponding requests first! | Unable to delete a specified order. | The order to be deleted has some requests associated with it.  Delete the requests first, and then delete the order. |
| Unable to delete order in the Order Database.  Try again later. | A specified order cannot be deleted. | Check Order Tracking Server log files for possible network or server errors; notify System/Network Administrator and/or Database Administrator of problem. |
| Unable to delete request in the Order Database. Try again later. | A specified request cannot be deleted. | Check Order Tracking Server log files for possible network or server errors; notify System/Network Administrator and/or Database Administrator of problem. |
| Server error, can not update order. | A specified order cannot be updated. | Check Order Tracking Server log files for possible network or server errors; notify System/Network Administrator and/or Database Administrator of problem. |

## Checking Order Tracking Server Log Files

Log files can often provide information that will identify possible sources of disruption in Order Tracking server function or communications, suggesting additional checks or actions that may help resolve the problem. The procedure for checking a log file starts with the assumption that the operator has logged in to the system.

**Checking Order Tracking Server Log Files**

---

**1** Log in to the host for MSS applications as in Steps 1 through 4 of the procedure for **Checking Account Management Server Log Files** (previous section of this lesson).

**2** To view a server log, type **pg** ***filename*** and then press the **Return/Enter** key.

- ***filename*** refers to the account management log file to be reviewed (e.g., **EcMsAcOrderSrvr.ALOG**, **EcMsAcOrderSrvrDebug.log**).
- The first page of the log file is displayed; additional sequential pages can be displayed by pressing the **Return/Enter** key at the **:** prompt.

- Although this procedure has been written for the **pg** command, any UNIX editor or visualizing command (e.g., **vi**, **more**, **tail**) can be used to review the log file.
- Typically, the **<*server*>Debug.log** captures more detailed information than the **<*server*>.ALOG**. However, for some servers (e.g., **SDSRV**), there may be significant detail in the **<*server*>.ALOG**. It is also important to note that the **DebugLevel** setting in the **<*server*>.CFG** file determines the level of detail captured in the **<*server*>Debug.log** (**0** is off, a setting of **1** captures status and errors, a setting of **2** captures major events, and a setting of **3** is a full trace recording of all activity). If the **DebugLevel** has been set to one of the lower levels during operations, the System Administrator may set it to **3** during troubleshooting.

**3** Review the log file(s) to determine if there are any indications of connection problems or errors at start up.

- The **EcMsAcOrderSrvrDebug.log** file for the User Profile/User Registration server may contain an error message concerning **PF Init** error or problem (notify the System Administrator).
- The **EcMsAcOrderSrvr.ALOG** file may contain evidence of a Sybase error (e.g., **SybaseErrorCode1 =92014;SybaseErrorMesage1 ="*x*0mss21_srvr"** or **SybaseErrorCode2 =16;SybaseErrorMesage2 =""**) (notify the Database Administrator).

**4** To exit the **pg** review of the log file, type **q** at the **:** prompt and then press the **Return/Enter** key.

---

This page intentionally left blank.

# Subscriptions and Data Pool Management

## Using the Spatial Subscription Server GUI

The **Spatial Subscription Server GUI** permits an operator to view subscribable events and review existing subscriptions in the NBSRV database. It allows an operator to add a subscription specifying Data Pool qualification and retention criteria, thus adding a subscription for Data Pool insert to the database. The operator may also create a standard subscription for notification and/or distribution of ECS data products and designate a subscription for secure distribution.

For an existing subscription, there may occur circumstances that make it desirable to retain certain data in the Data Pool for a longer period of time than originally specified (e.g., an unusual ground event, such as a volcanic eruption or flood, causes granules for that geographic area to be of more than usual interest). Data Pool maintenance personnel can run a script to update the expiration date for selected science granules. The **Spatial Subscription Server GUI** can be used to extend the period of retention in a Data Pool insert subscription for new granules from that area.

The **Spatial Subscription Server GUI** is also used to view, update, or delete (cancel) subscriptions in the NBSRV database. Finally, it permits an operator to view the acquire and notification actions currently being processed by the Spatial Subscription Server, and to view statistics on the processing of events and actions by the Spatial Subscription Server.

New operator GUI security standards require the following two levels of permissions for the **Spatial Subscription Server GUI**:

- Full Capability.
- Limited Capability.

Full-capability operators have the ability to configure parameters and perform all other actions that can be accomplished with the **Spatial Subscription Server GUI**. Limited-capability operators are able to view a lot of information; however, on the limited-capability GUI some buttons and links have been disabled so it is not possible to perform certain actions or access certain pages.

This lesson provides instruction in the full-capability version of the **Spatial Subscription Server GUI**. In general, both full-capability operators and limited-capability operators can **view** the following items:

- Subscribable events.
- Subscriptions.
- Bundling orders.
- Action queue.

- Statistics relating to Spatial Subscription Server performance.

Full-capability operators only may perform the actions:

- Add, update, or delete (cancel) a subscription.
- Configure defaults for a bundling order.
- Add, update, or cancel a bundling order.

The **Spatial Subscription Server GUI** is a web application; Figure 24 illustrates the **Spatial Subscription Server GUI Home Page**, from which the operator can navigate to other pages to begin specific tasks. As the figure shows, besides the **Home Page** link, it provides four links for access to pages supporting various tasks:

- **List Events**: access to pages for listing subscribable events.
- **Manage Subscriptions**: access to pages for managing subscriptions.
- **Manage Bundling Orders**: access to pages for managing bundling orders.
- **Monitor Queues**: access to pages for monitoring the action queue and listing statistics.

There is also a **Help** link providing descriptions of the NBSRV functions to provide the operator with assistance in navigating through the GUI.

Figure 25 illustrates the **List Events** page. It allows the operator to view all events for which a subscription can be created. The column headers are links permitting the operator to sort the list by collection, version, or event type. There are also three option buttons and a **Filter** button, permitting the operator to filter the list by collection, version, and event type.

Figure 26 shows the **Manage Subscriptions** page. This page lists subscriptions existing in the NBSRV database, with columns for **Subscription Id**, **User** for whom the subscription was created, **Collection**, **Version**, **Event Type**, **Status**, **Data Pool, Start Date, Expiration Date, Time Last Updated and Choose Subscription Action**. These column headers, except for **Version** and **Event Type**, are links on which the list can be sorted. There are also three option buttons and a **Filter** button, permitting the operator to filter the list by user, collection, and status. Finally, at the right side of the page, there is a **Choose Subscription Action** column permitting operators an option, for each listed subscription, to **View**, **Update**, or **Delete** the subscription, with an **Apply** button to implement a selected option. Note that when the **Manage Subscriptions** page appears, the GUI displays a new link, **List Themes**, as shown in the figure.

When the **Manage Subscriptions** page is displayed, the GUI also offers a link for access to a page permitting the operator to **Add Subscriptions**. Figures 27 and 28 show the **Add Subscriptions** page as it appears after an operator has entered a **User Id** and **Expiration Date**, and selected an **ESDT** [Earth Science Data Type] **Short Name/Version/Event Type**. If the subscription is to specify an **Acquire** or **Notify** action, it is necessary to enter information in the **Acquire Information** or **E-Mail Notification Information** portion of the **Actions** block of the

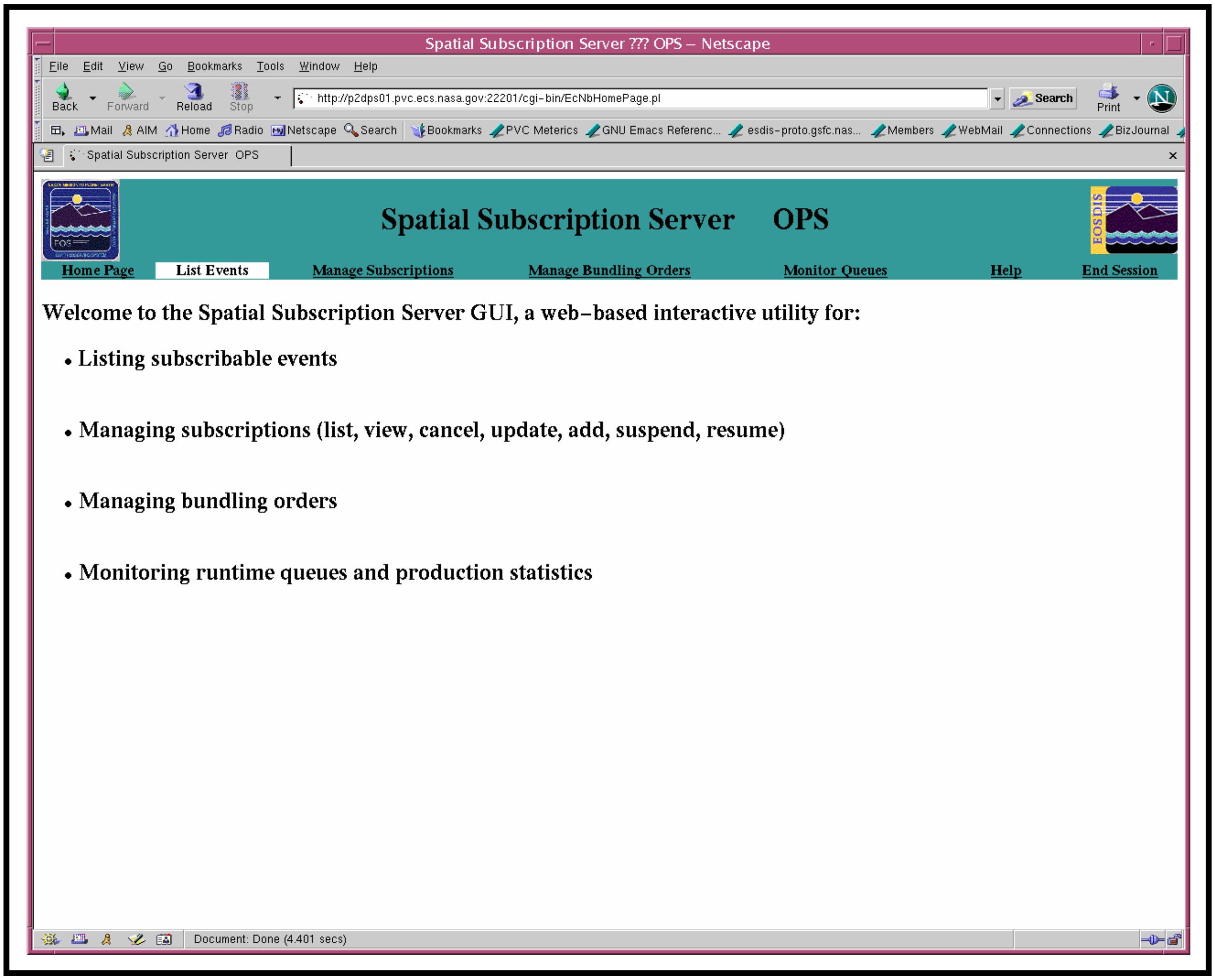



***Figure 24. Spatial Subscription Server GUI Home Page***

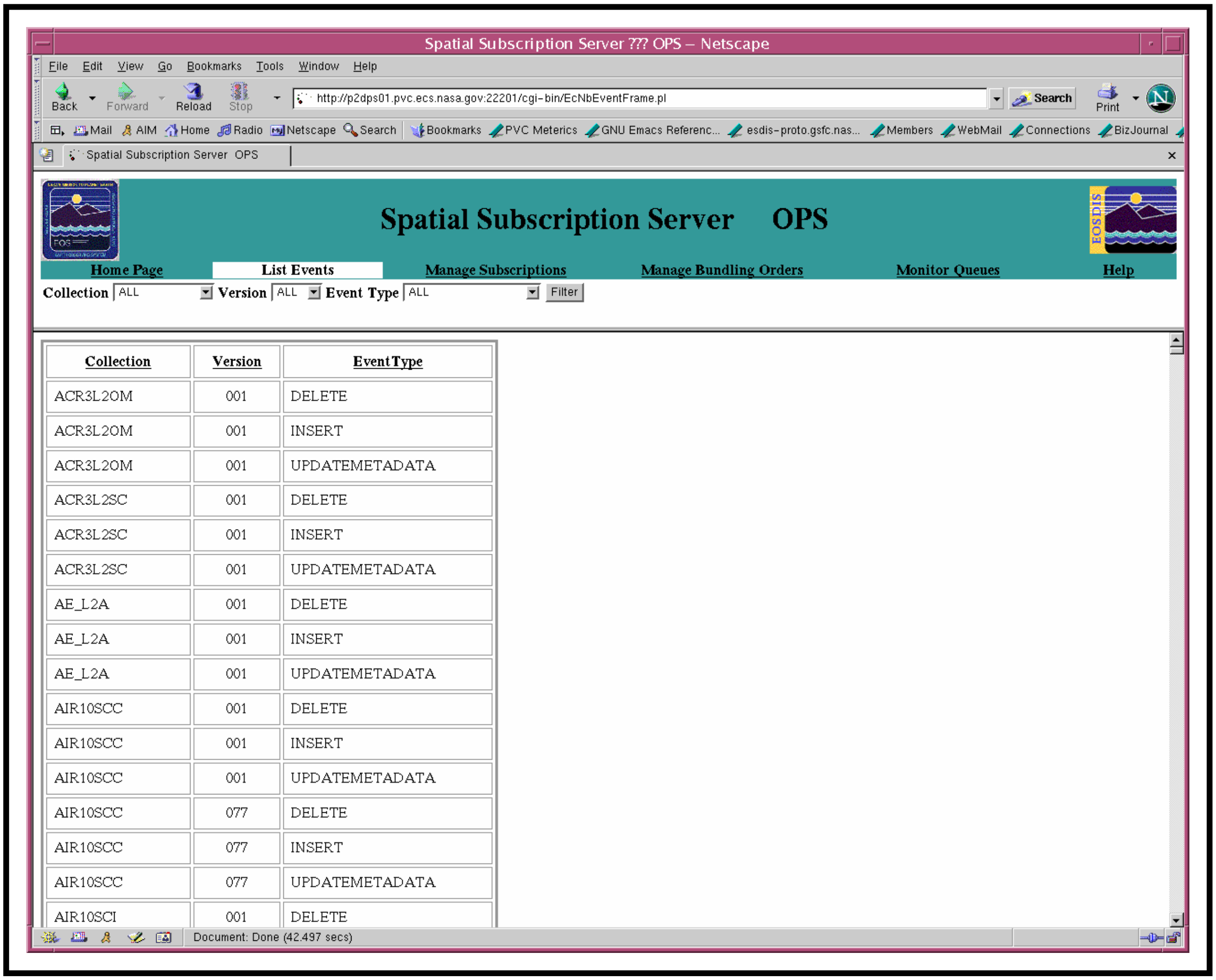



***Figure 25. Spatial Subscription Server GUI List Events Page***

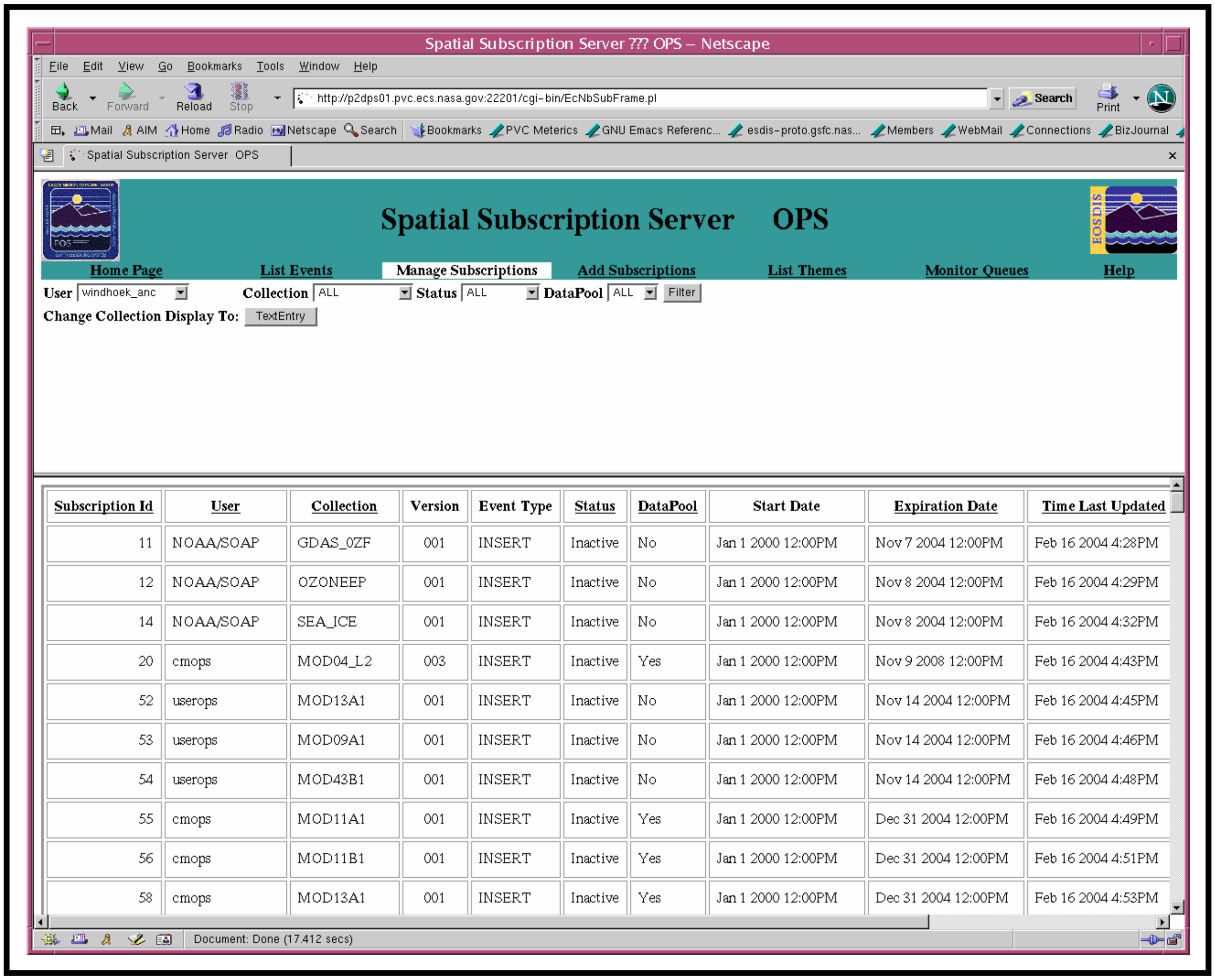



***Figure 26. Spatial Subscription Server GUI Manage Subscriptions Page***

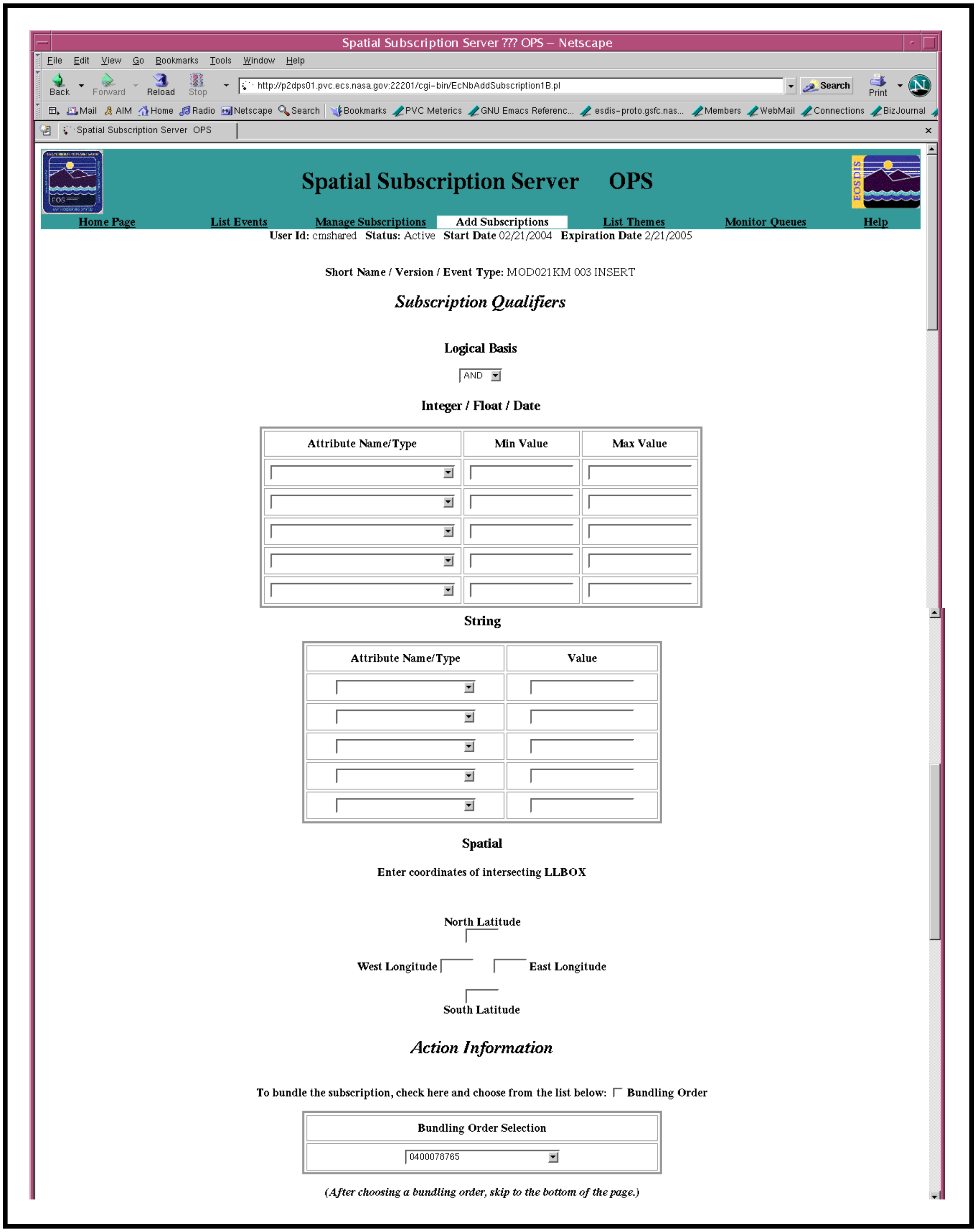



***Figure 27. Spatial Subscription Server GUI Add Subscriptions Page (Top)***

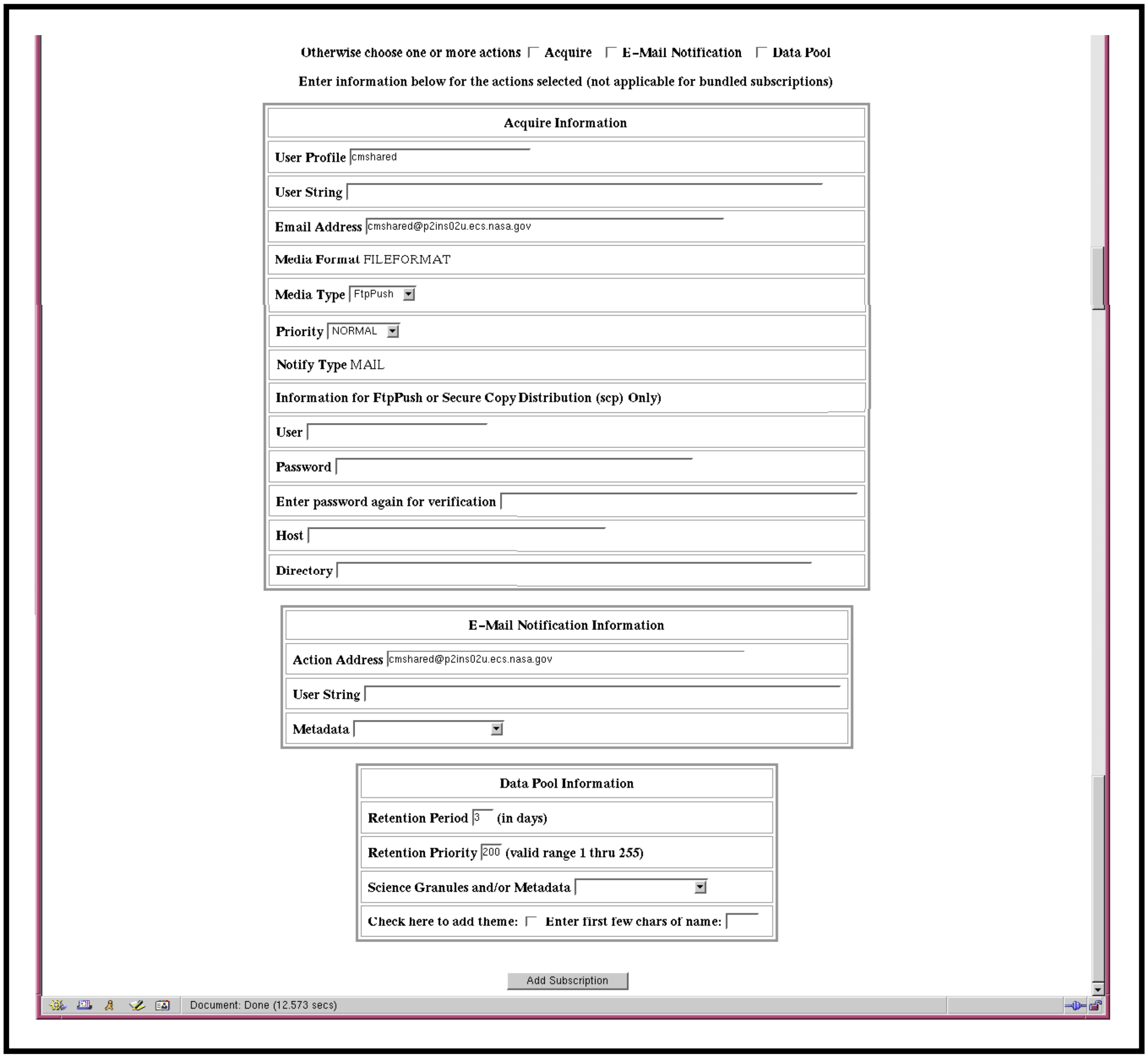



***Figure 28. Spatial Subscription Server GUI Add Subscriptions Page (Bottom)***

form. It is also possible to specify a bundling order associated with acquire actions, to accumulate granules until the achievement of some criterion for completion of a bundle before the data are actually distributed. The entered information is necessary to support notification and distribution for ECS standard products. Additionally, a subscription can be designated for secure distribution by selecting the scp **Media Type** and entering the required FTP information.

If an operator selects and implements the **View** option for a subscription (listed on the **Manage Subscriptions** page), the GUI provides a display similar to that illustrated in Figure 29. The page lists detailed information about the selected subscription, including information concerning any associated theme and any associated bundling order.

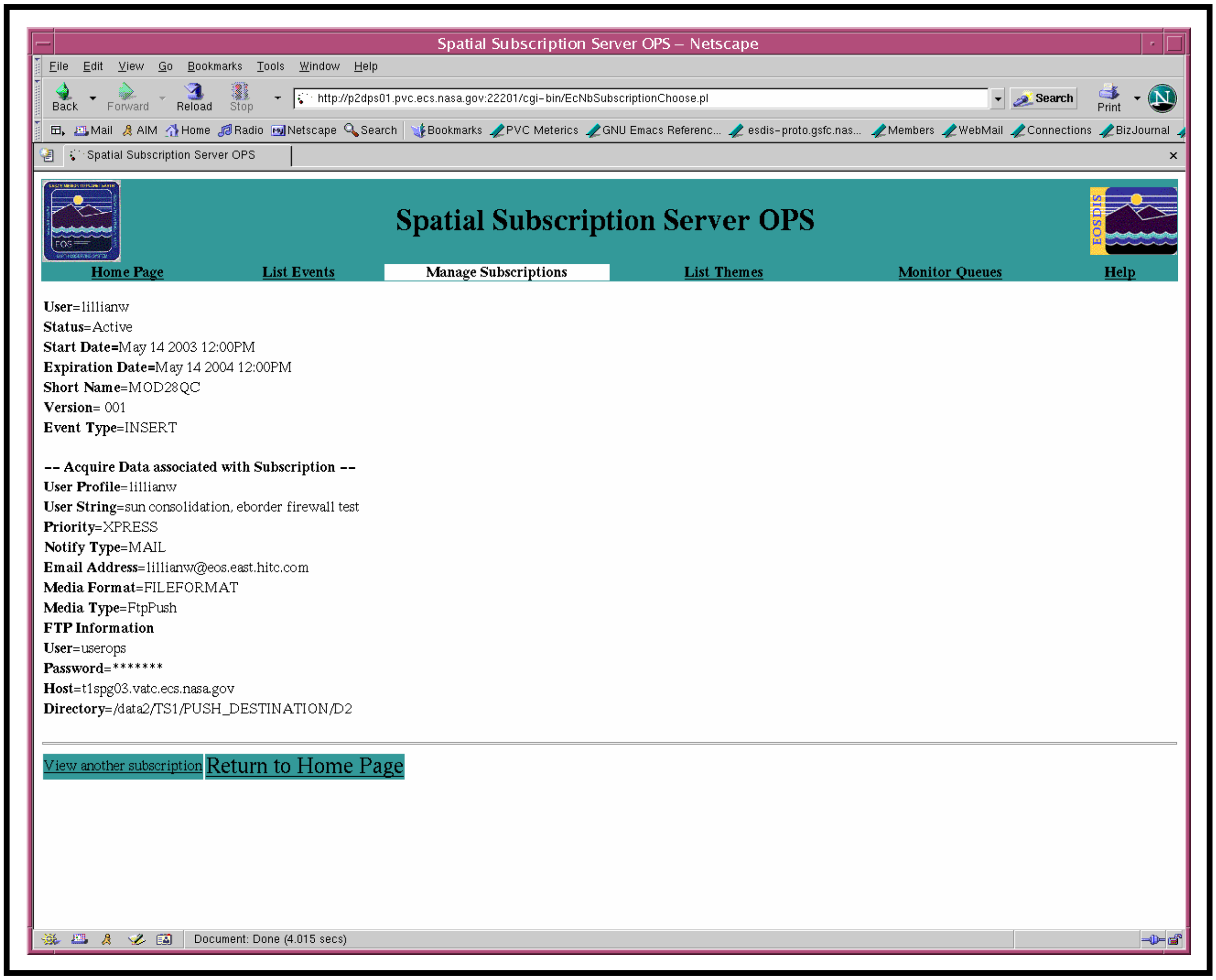



***Figure 29. Spatial Subscription Server GUI View Subscriptions Page***

If an operator selects and implements the **Update** option for a subscription (listed on the **Manage Subscriptions** page), the GUI provides a display similar to that illustrated in Figures 30 and 31. This page is structured very similarly to the **Add Subscription** page, permitting the operator to add or change qualifiers and change the action selection for the subscription. It also permits the operator to specify a bundling order for the subscription as well as providing the fields required to designate secure distribution subscriptions (**Media Type**, **FTP User**, **FTP Password**, **FTP Password Verification**, **FTP Host**, and **FTP Directory**). Changes are submitted by clicking on the **Update Subscription** button at the bottom of the page.

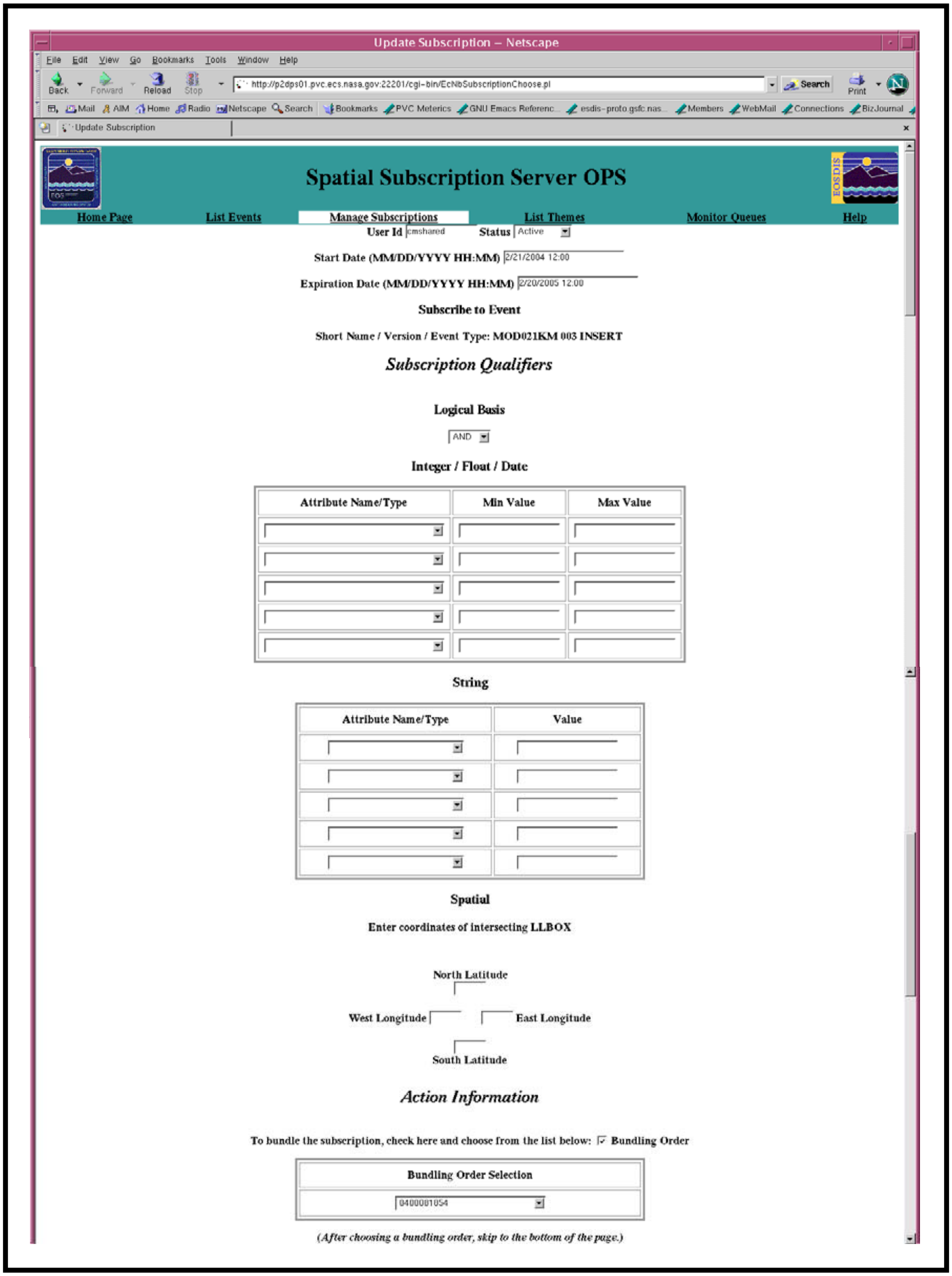



***Figure 30. Spatial Subscription Server GUI Update Subscriptions Page (Top)***

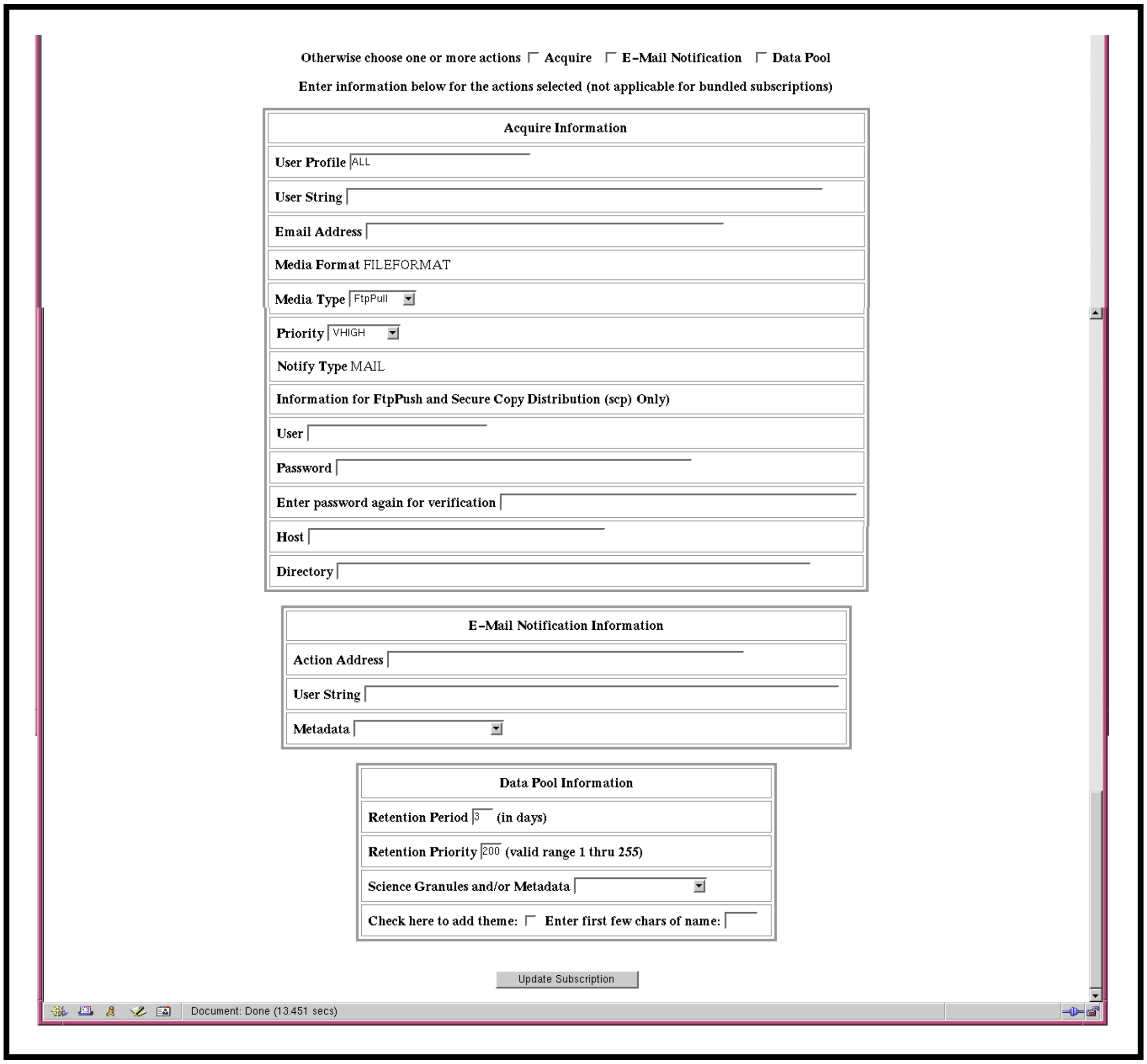



***Figure 31.  Spatial Subscription Server GUI Update Subscriptions Page (Bottom)***

If the operator clicks on the **List Themes** link while managing subscriptions, the GUI displays the **List Themes Request** page illustrated in Figure 32.  By clicking on the **Apply** button the operator obtains a **Theme List** page, as shown in Figure 33.  The list may be filtered (to select a particular theme) by entering the first few characters of the theme name in the text box on the **List Themes Request** page (Figure 32) before clicking on the **Apply** button.

By clicking on a check box on the **Theme List** page (to specify a theme for which subscriptions should be listed) and then clicking on the **Apply** button the operator obtains a **List Subscriptions for Theme** page, as shown in Figure 34.

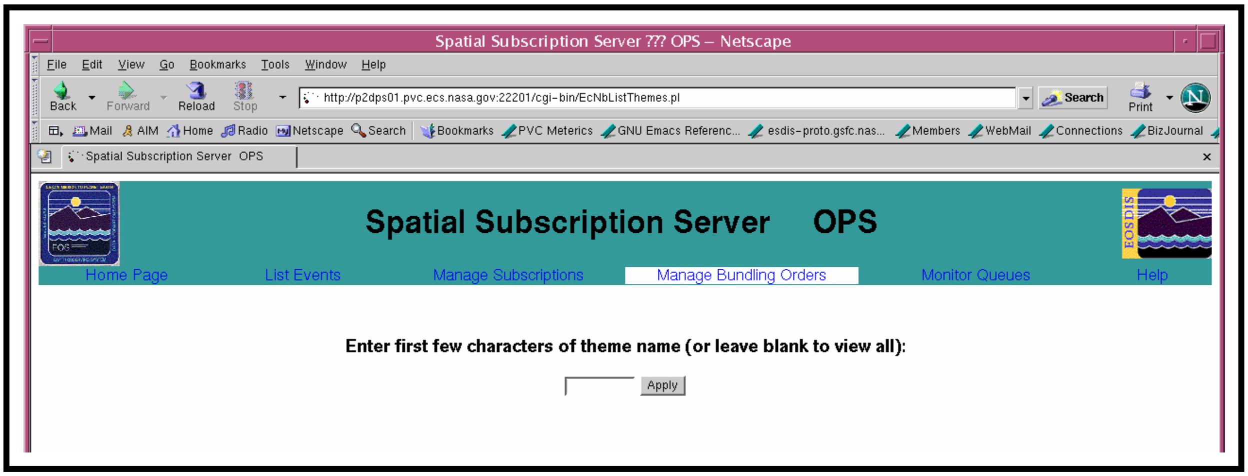



***Figure 32. Spatial Subscription Server GUI List Themes Request Page***

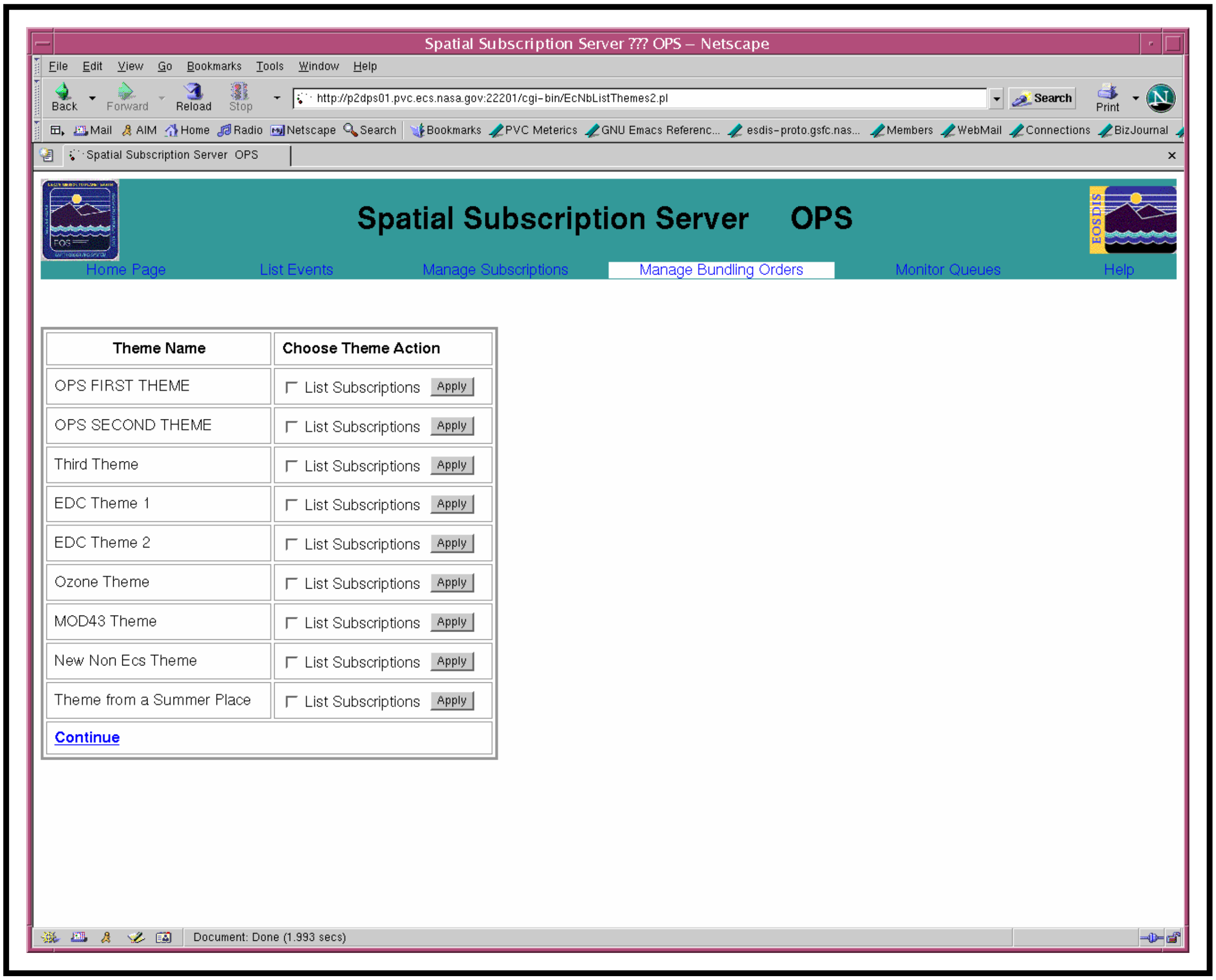



*Figure 33.  Spatial Subscription Server GUI Theme List Page*

If the operator clicks on the **Manage Bundling Orders** link on the **Home Page** or other page where the link is available, the GUI displays the page illustrated in Figure 35, listing bundling orders.  The list includes a **Bundling Order** identifying number for each bundling order, the **User** for whom the bundling order was created, the **Creation Date** and **Expiration Date**, the **Media Type**, and **Status**.  There is an **Add Bundling Order** link to a page where the operator can add a bundling order and a **Configure Defaults** link to a page where the operator can set default parameters for configuring bundling orders.  There are also three option buttons and a **Filter** button, permitting the operator to filter the list by user, media type, and status.  Finally, at the right side of the page, there is a **Choose Bundling Order Action** column permitting operators an option, for each listed bundling order, to **View**, **Update**, **Cancel**, or **List Subs** (list the subscriptions) associated with the bundling order, with an **Apply** button to implement a selected option.  The figure shows the window that is obtained by selecting and implementing the **View** option.

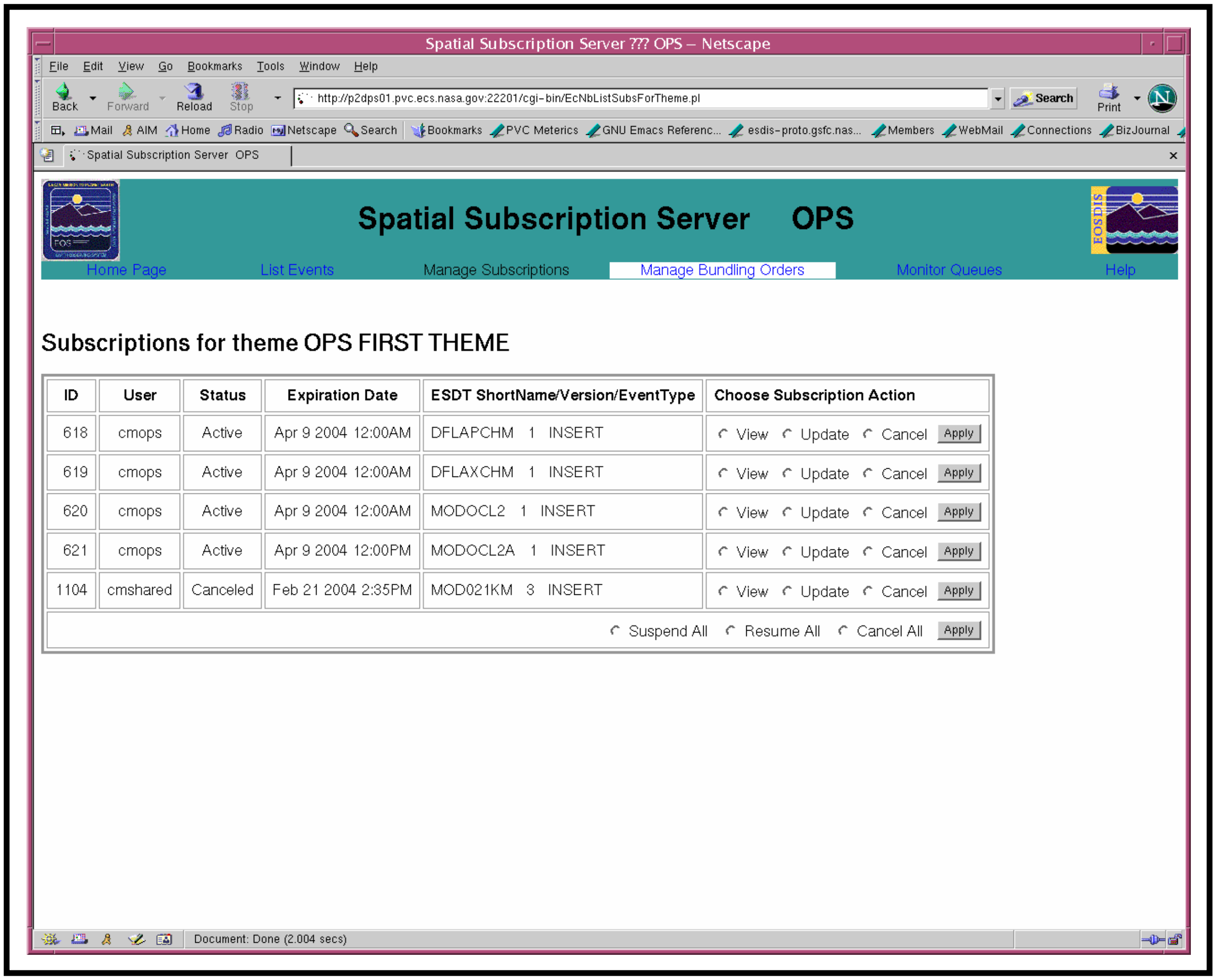



***Figure 34. Spatial Subscription Server GUI List Subscriptions for Theme Page***

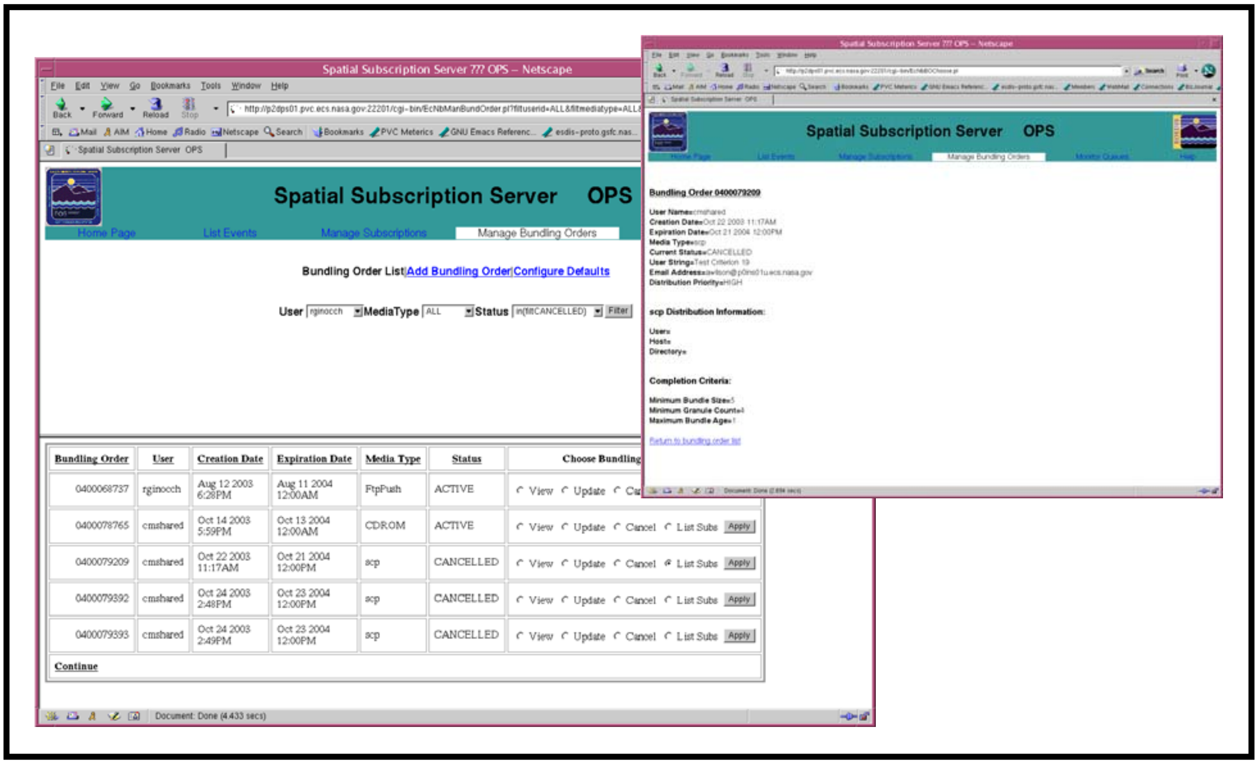



*Figure 35.  Spatial Subscription Server GUI Manage Bundling Orders Page*

If the operator clicks on the **Add Bundling Order** link, the GUI displays the page illustrated in Figure 36.  This page contains a field for entry of the **UserID**, a field for specification of an **Expiration Date** for the bundling order (with a default entry), and an option button for selection of a media type (CD ROM, 8 mm tape, DVD, DLT, FtpPush, FtpPull, or scp).  There is a **continue** button at the bottom to continue to a page for further specification of data related to the bundling order; the data to be entered on the resulting page varies with the media type selection. There is also a **clear** button that can be used to clear the **UserID** field and restore the default **Expiration Date** and **Media Type**.

Figures 37 and 38 show the data pages that result from clicking on the **continue** button at the **Add Bundling Order** page when the **Media Type** chosen is a hard media type, an FTP Push, an FTP Pull or a scp (Secure Copy).  These pages permit entry of information necessary for full specification of the selected **Media Type**.  Each one also requires specification of three criteria for completion of a bundle, whereby fulfillment of any one of the three criteria will trigger distribution of the bundle.  The criteria include:

- Minimum bundle size (GB).
- Minimum Granule Count.
- Maximum Bundle Age (days).

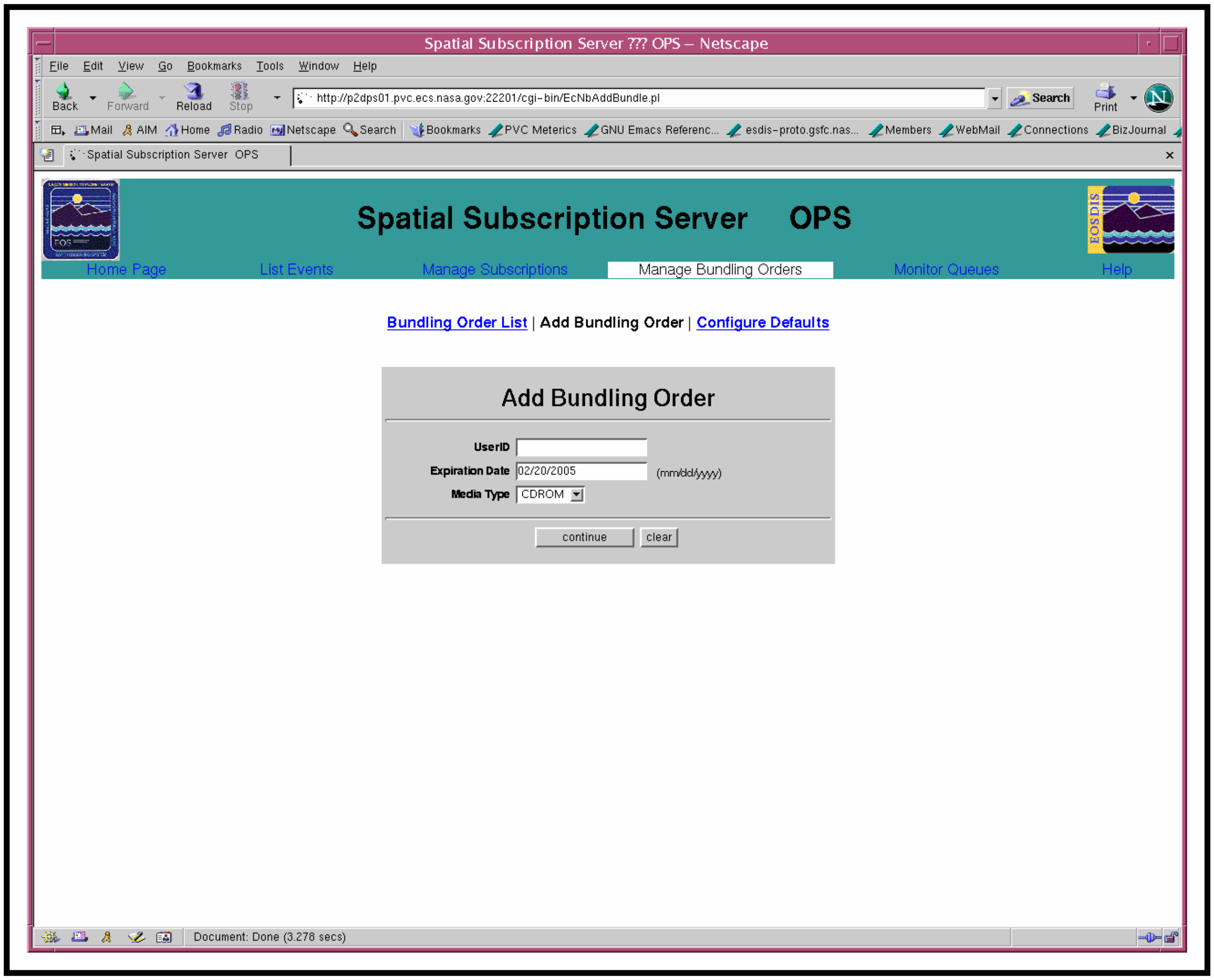



***Figure 36. Spatial Subscription Server GUI Add Bundling Order Page***

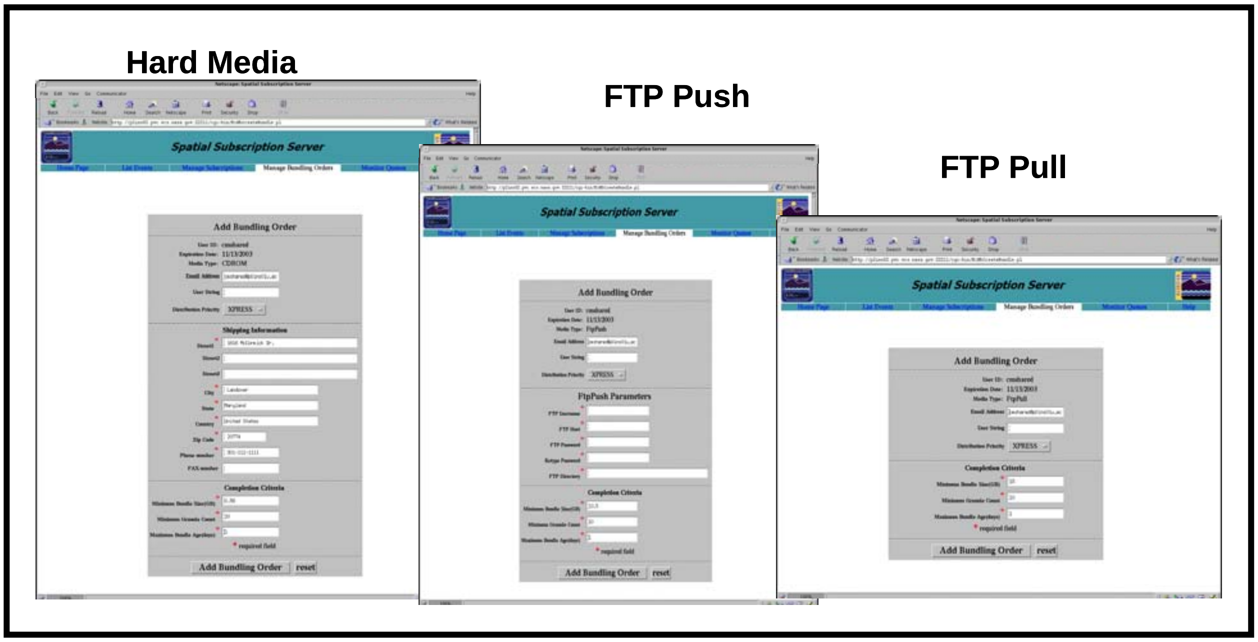



***Figure 37. Spatial Subscription Server GUI Data Pages for Adding Bundling Orders (Hard Media, FTP Push, or FTP Pull)***

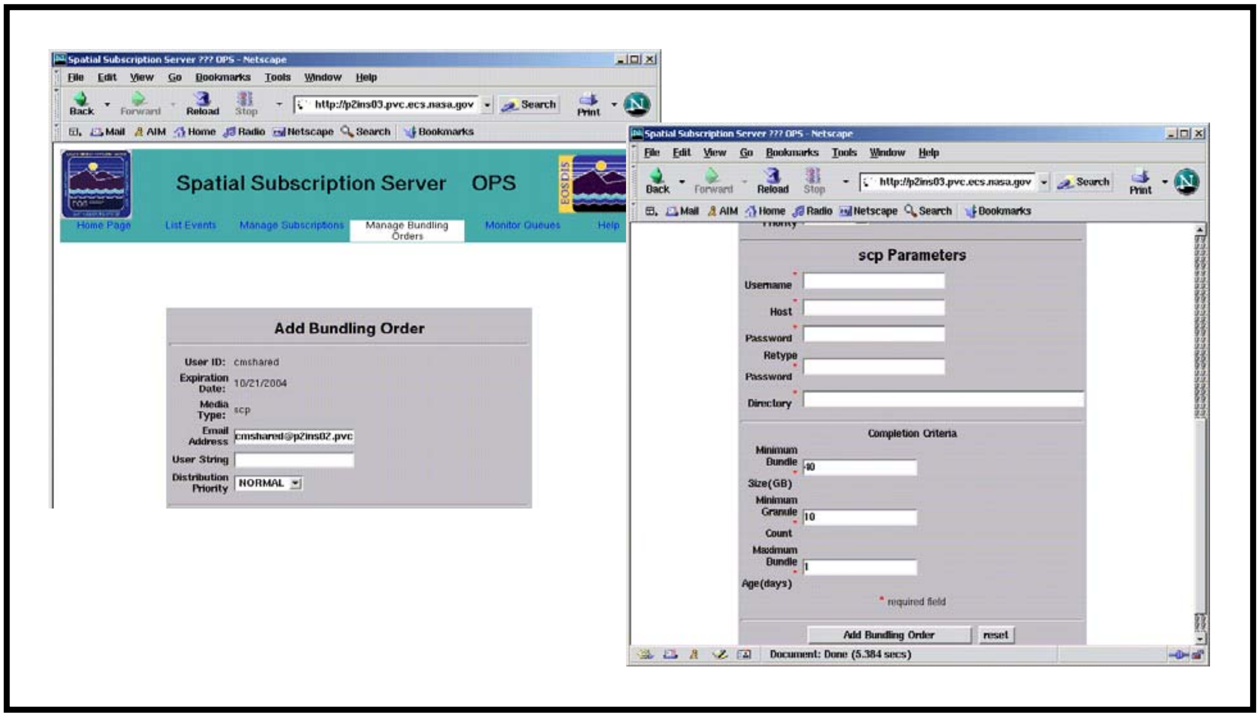



***Figure 38. Spatial Subscription Server GUI Data Pages for Adding Bundling Orders (Secure Distribution)***

When adding a secure distribution bundling order, scp must be selected as the Media Type and **FTP User, FTP Host** and **FTP Password** must be completed.

If the operator clicks on the **Update Bundling Order** link on the **Manage Bundling Orders** page, the GUI displays the **Update Bundling Order** page (Figure 39), which allows the updating of an existing bundling order. The page contains a field for entry of the **UserID**, a field for specification of an **Expiration Date** for the bundling order (with a default entry), and an option button for selection of a type of distribution medium (e.g., CD ROM, 8 mm tape, DVD, DLT, FtpPush, FtpPull, or scp). There is an **Update Bundling Order** button at the bottom to continue to a data page for specification of additional data related to the bundling order. There is a **reset** button on the **Update Bundling Order** page that can be used to clear the **UserID** field and restore the default **Expiration Date** and **Media Type**.

The fields displayed on the data pages (Figure 40) vary with the medium selected. The data pages permit entry of information necessary for full specification of the selected **Media Type**. Each one also requires specification of three criteria for completion of a bundle, whereby fulfillment of any one of the three criteria will trigger distribution of the bundle. The criteria include:

- Minimum bundle size (GB).
- Minimum Granule Count.
- Maximum Bundle Age (days).

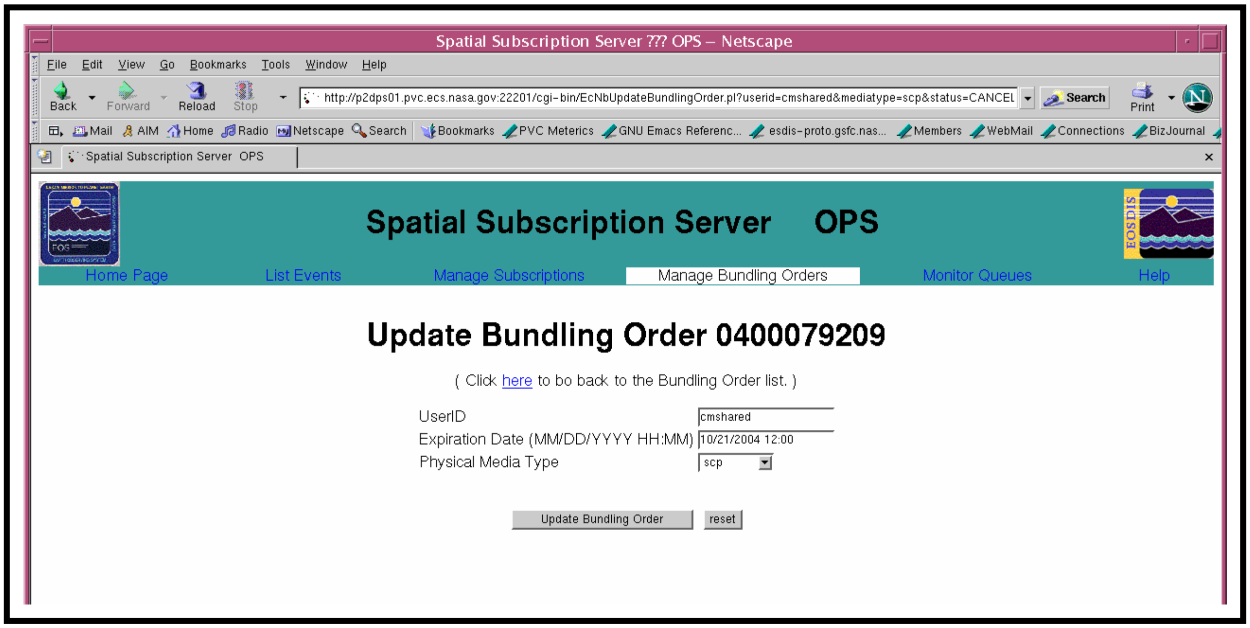



***Figure 39. Spatial Subscription Server GUI Update Bundling Order Page***

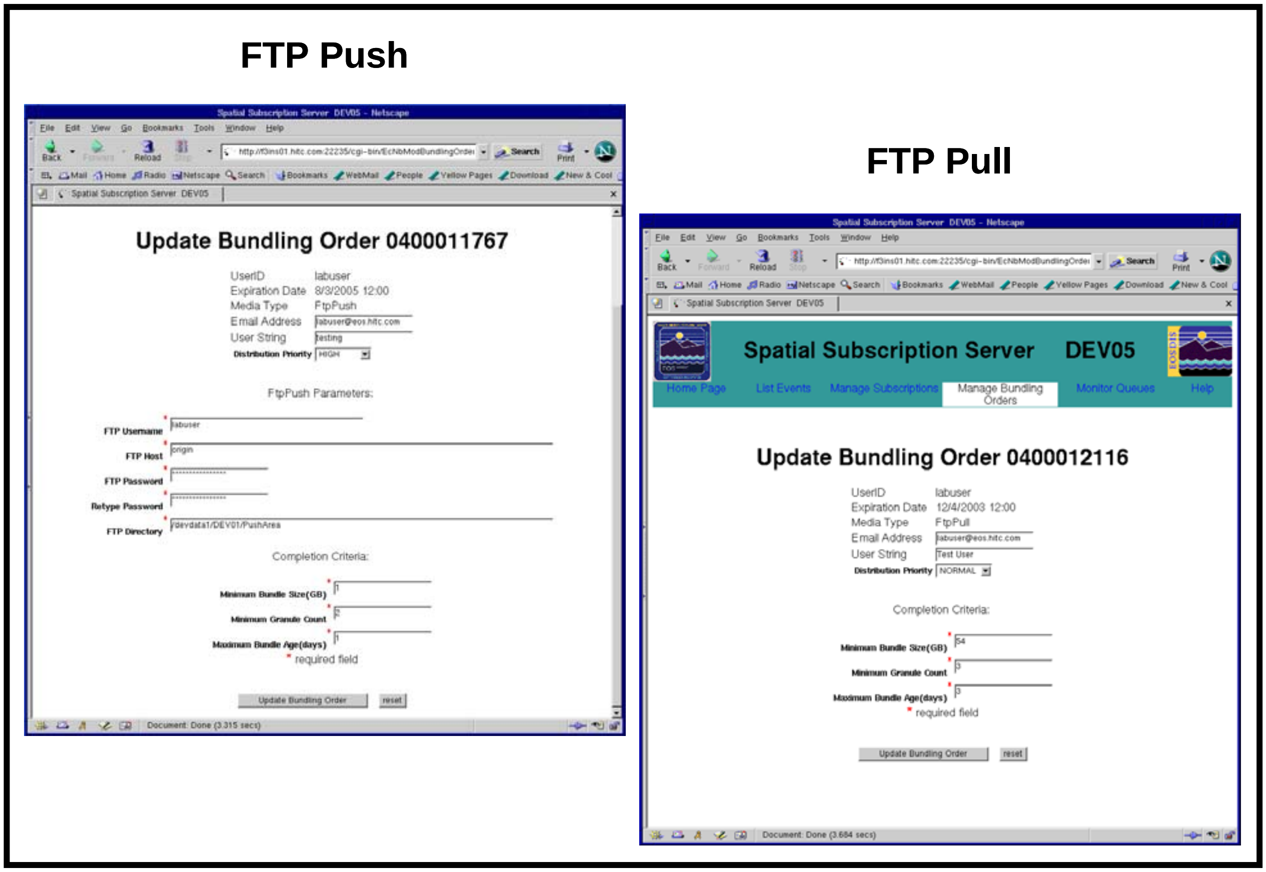



***Figure 40. Spatial Subscription Server GUI Data Pages for Updating Bundling Order***

In addition to the links for listing and adding bundling orders, there is a link on the **Manage Bundling Orders** link to Configure Defaults. This link provides access to the page illustrated in Figure 41, permitting the operator to set default values for bundle completion criteria. These defaults set the values that appear at the bottom of the data page for each media type. As shown in Figure 41, the GUI displays the current values for the minimum granule count and maximum bundle age (days). It also shows the current value for minimum bundle size (GB) for each media and FTP type. The other parameter shown, Bundle Expiration Period (days), refers to the expiration period for the bundling order. There is a **Change to . . .** data entry field for each parameter. The figure also shows an example of the confirmation dialog box that appears when an operator makes an entry in one or more of the data entry fields and then clicks on the **Change Bundling Criteria** button at the bottom. There is also a **Reset** button to clear the data entry fields.

There are two other major pages of the **Spatial Subscription Server GUI** accessible from the **Monitor Queues** link on the **Home Page**. The **List Action Queue** page, illustrated in Figure 42,

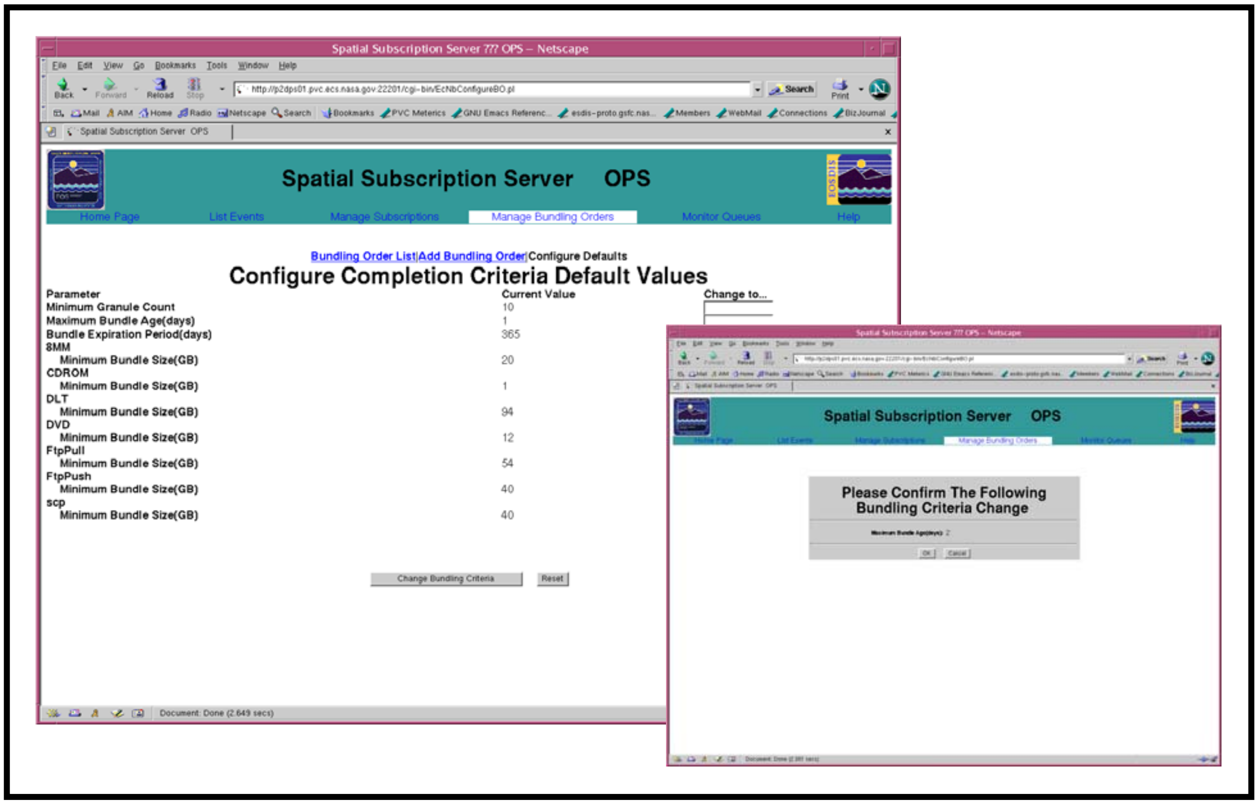



*Figure 41. Spatial Subscription Server GUI Page for Configuring Bundling Order Completion Criteria Default Values*

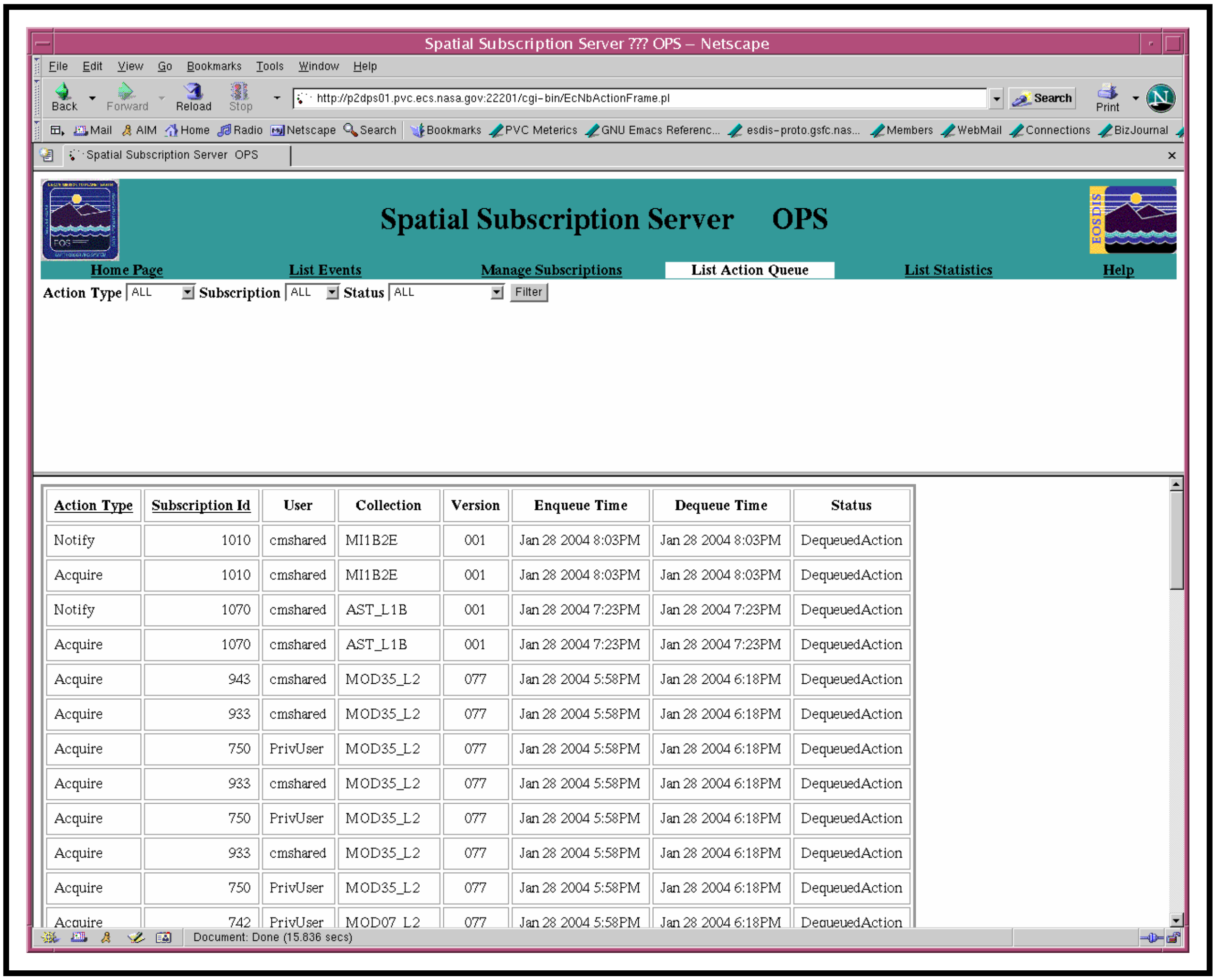



***Figure 42.  Spatial Subscription Server GUI List Action Queue page***

provides a table listing acquire and notification actions that are being processed. On this page, the **Action Type** and **Subscription Id** column headers are links for sorting the list, and there are also **Action Type**, **Subscription**, and **Status** option buttons and a filter button for filtering the list.

The **List Statistics** page, shown in Figure 43, provides summary information concerning the processing of events and actions related to subscriptions. Using this page, the operator can monitor subscription processing activity, such as numbers of notifications and actions, total and average times for notifications and acquires, and other information.

The **List Failed Action** page (Figure 44) provides information concerning failed actions. The page has buttons that the operator can use to remove failed actions.

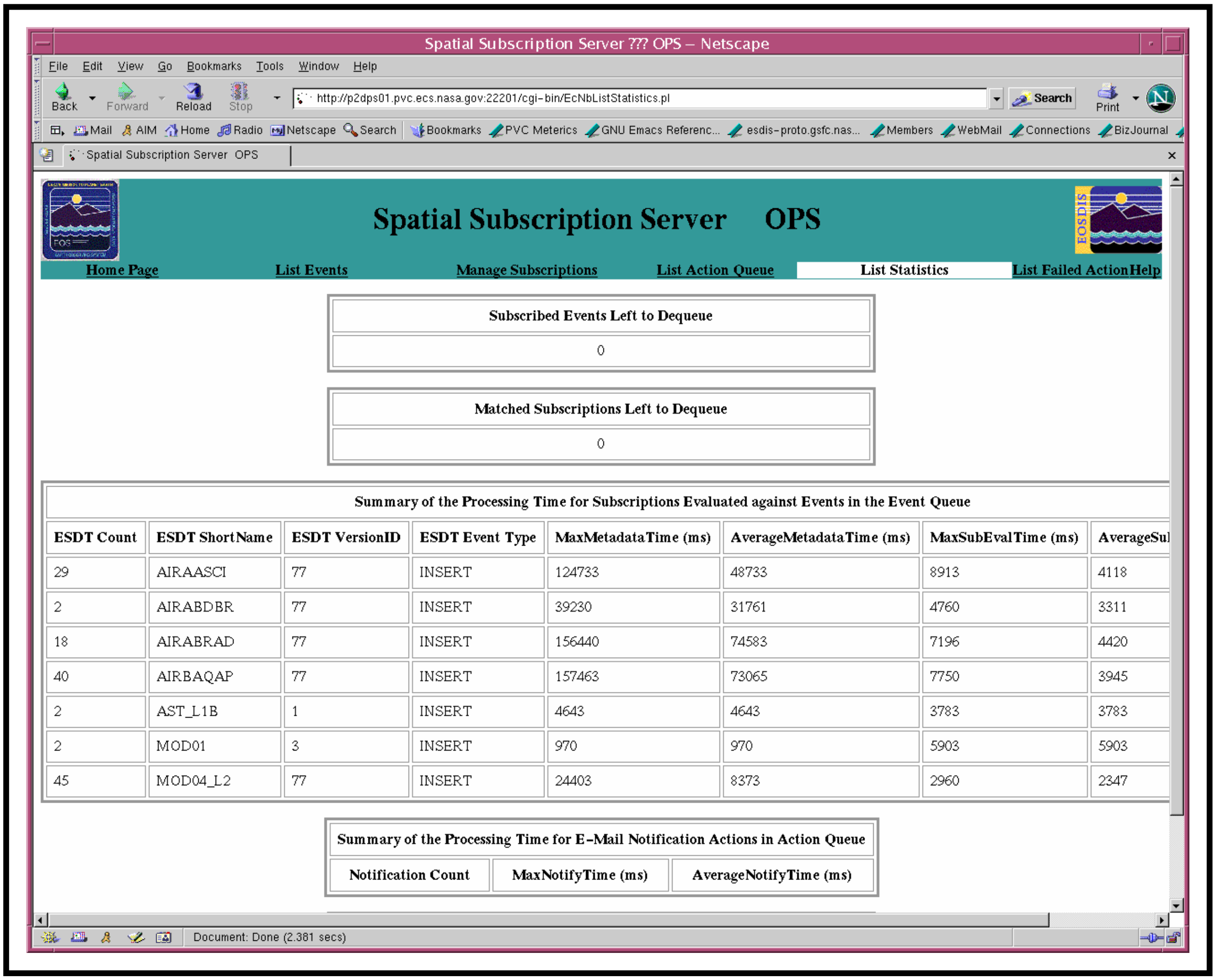



***Figure 43. Spatial Subscription Server GUI List Statistics Page***

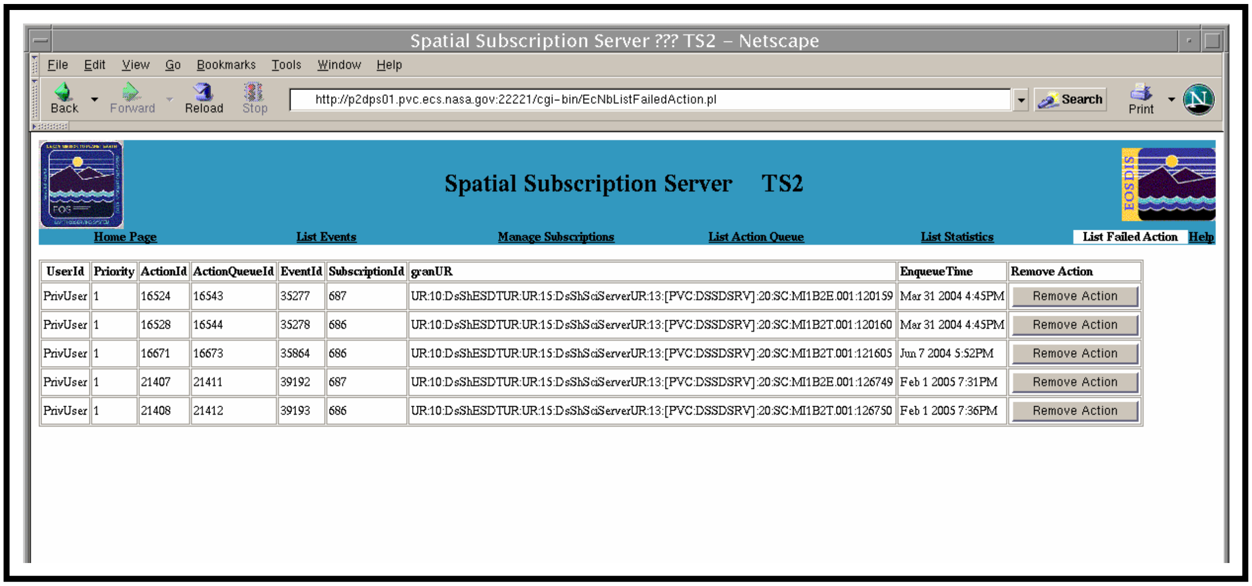



***Figure 44. Spatial Subscription Server GUI List Failed Action Page***

## Procedures for Using the Spatial Subscription Server GUI

### Launching and Shutting Down the Spatial Subscription Server GUI

Let's examine how the **Spatial Subscription Server GUI** is used for managing subscriptions. Of course, the first thing to do is launch the GUI. The procedure for launching the GUI is provided separately here and is referenced in other procedures. It applies to both full-capability and limited-capability operators.

**Launch the Spatial Subscription Server GUI**

---

**1** At the UNIX command shell prompt, type **setenv DISPLAY *clientname*:0.0** and then press the **Return/Enter** key.

- For ***clientname***, use either the local terminal/workstation IP address or its machine name.

**2** Start the log-in to a Netscape host by typing **/tools/bin/ssh *hostname*** (e.g., g0ins02, e0ins02, l0ins02, n0ins02) at the UNIX command shell prompt, and press the **Return/Enter** key.

- If you receive the message, **Host key not found from the list of known hosts. Are you sure you want to continue connecting (yes/no)?** type **yes** ("**y**" alone does not work).

- If you have previously set up a secure shell passphrase and executed **sshremote**, a prompt to **Enter passphrase for RSA key '<*user@localhost*>'** appears; continue with Step 3.
- If you have not previously set up a secure shell passphrase, go to Step 4.

**3** If a prompt to **Enter passphrase for RSA key '<*user@localhost*>'** appears, type your ***Passphrase*** and then press the **Return/Enter** key. Go to Step 5.

**4** At the **<*user@remotehost*>'s password:** prompt, type your ***Password*** and then press the **Return/Enter** key.

- You are logged in and a UNIX command shell prompt is displayed.

**5** Type **netscape &** then press **Return/Enter**.

- It may be necessary to type the path as well as the netscape command (e.g., **/tools/bin/netscape &**).
- It may be necessary to respond to dialogue boxes, especially if the browser is already being used by someone else who has logged in with the same user ID.
- The Netscape web browser (Figure 45) is displayed.

**6** If a bookmark has been created for the **Spatial Subscription Server GUI**, select the appropriate bookmark from those listed on the browser's **Bookmarks** button (or the **Communicator** → **Bookmarks** pull-down menu).

- The security login **Prompt** (Figure 46) is displayed.

**7** If no bookmark has been created for the **Spatial Subscription Server GUI**, type **http://*host*:*port*/*path*** in the browser's **Location (Go To)** field then press **Return/Enter**.

- For example:

  **http://x0dps01.daac.ecs.nasa.gov:54321/cgi-bin/EcNbHomePage.pl**

- The security login **Prompt** (Figure 46) is displayed.

**8** Type the appropriate user name in the **User Name** box of the security login **Prompt**.

**9** Type the appropriate password in the **Password** box of the security login **Prompt**.

**NOTE:** If the security login prompt reappears after the first time the user name and password have been entered (and the **OK** button has been clicked), it may not be due to a data entry problem. Try again to log in using the same user name and password. Sometimes it is necessary to enter the user name and password for the GUI more than once.

**10** Click on the appropriate button from the following selections:

- **OK** - to complete the log-in and dismiss the dialogue box.
  - The dialogue box is dismissed.

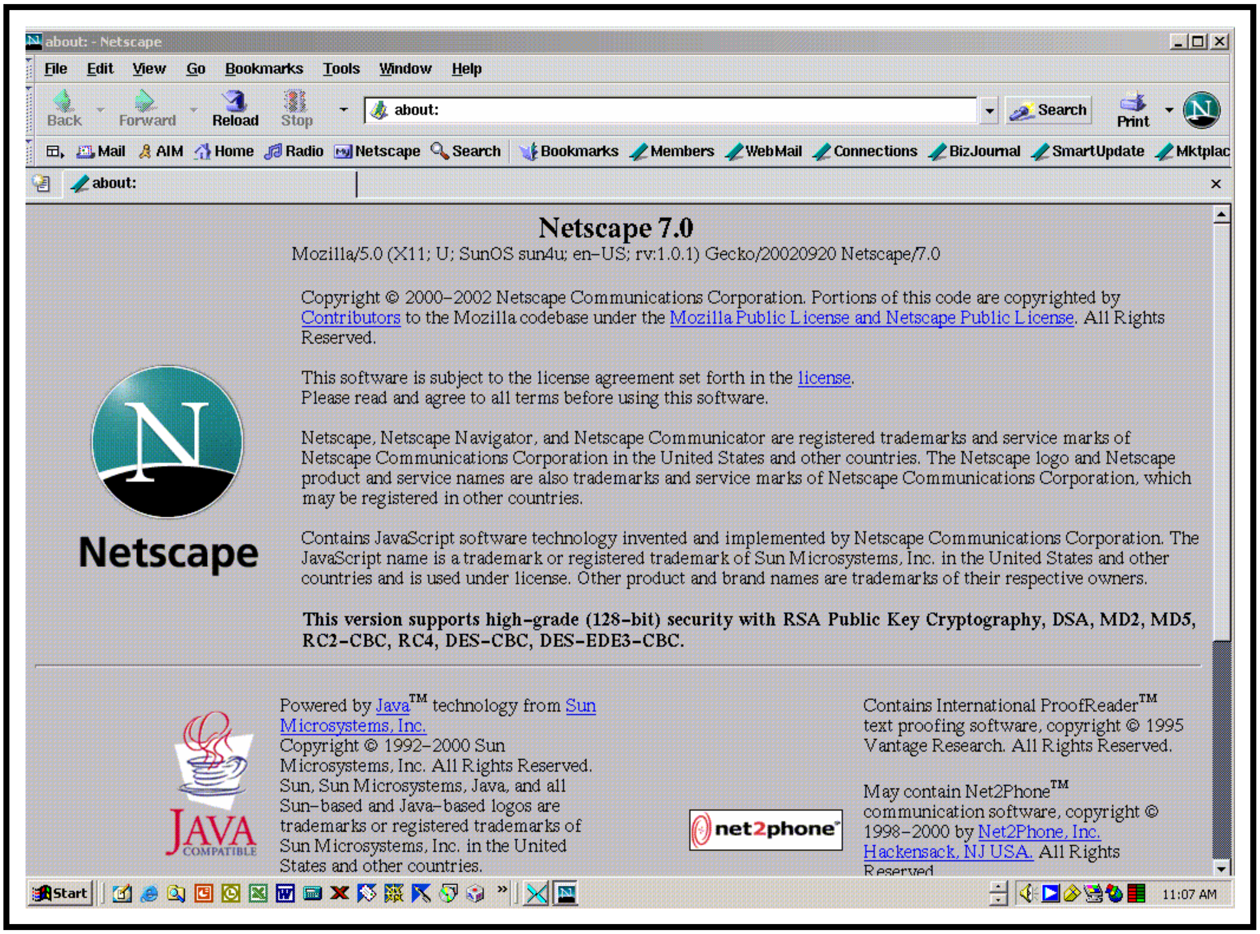



***Figure 45. Netscape Web Browser***

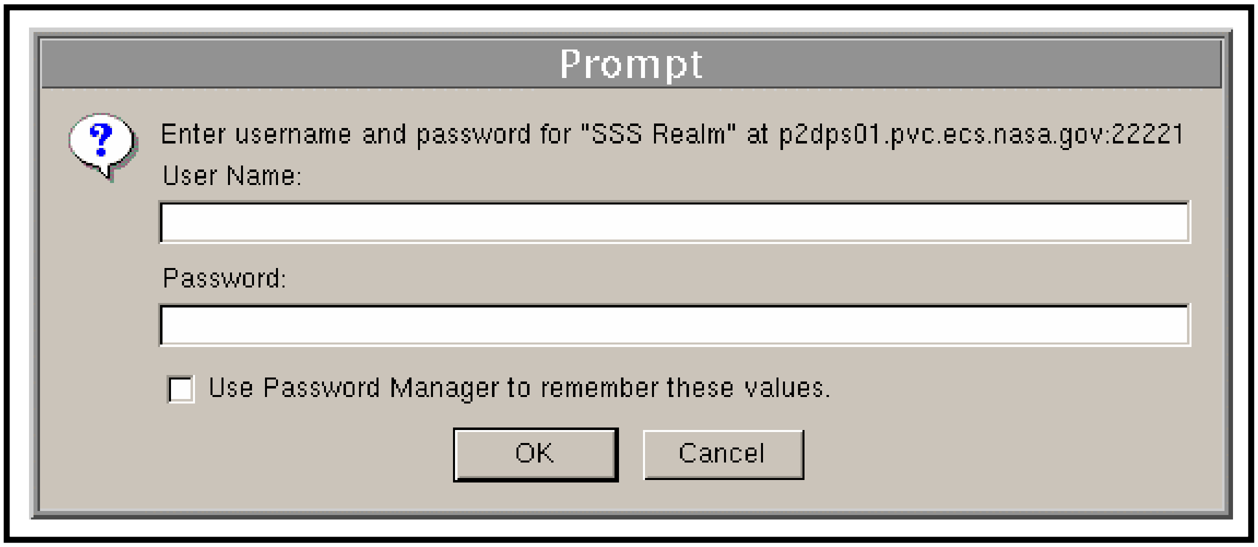



***Figure 46. Security Login Prompt***

  - The **NBSRV Home Page** (Figure 24) is displayed.
- **Cancel** - to dismiss the dialogue box without logging in.
  - The dialogue box is dismissed.
  - The Netscape web browser (Figure 45) is displayed.

---

At some point it becomes necessary to shut down the **Spatial Subscription Server GUI** (end a **Spatial Subscription Server GUI** session). The procedure that follows is recommended and is applicable to both full-capability and limited-capability operators.

**Shut Down the Spatial Subscription Server GUI (End a Spatial Subscription Server GUI Session)**

---

**1** Click on the **Home Page** link at the top of the **Spatial Subscription Server GUI**.

- The **Home Page** is displayed.

**2** Click on the **End Session** link at the top of the **Spatial Subscription Server GUI**.

- A log-out page containing the message "Click on Button Below to End Session: NOTE: THIS WOULD ALSO SHUT DOWN THE BROWSER :" is displayed.

**NOTE:** To abort the log-out and return to the **Home Page**, click on the browser **Back** button.

**3** Click on the **ShutDown** button.

- The Netscape browser is dismissed.

---

## Listing Subscribable Events and Subscriptions

Suppose you want to obtain and examine a list of events for which subscriptions may be established, and to find insert events for MOD01 data. Use the following procedure, which is applicable to both full-capability and limited-capability operators.

**Use the Spatial Subscription Server GUI to List Subscribable Events**

---

**1** Launch the **Spatial Subscription Server GUI** (refer to procedure **Launch the Spatial Subscription Server GUI**, previous section of this lesson).

- The **Home Page** is the default display, offering links for access to Spatial Subscription Server function pages (i.e., **List Events**, **Manage Subscriptions**, **Manage Bundling Orders**, **Monitor Queues**, **Help**, and **End Session**).

**2** Click on the **List Events** link.

- The **List Events** page is displayed with a table of all events for which a subscription can be created.

**3** Observe information displayed on the **Manage Subscriptions** page.

- The table on the **List Events** page has columns containing the following types of subscription information:
  - **Collection.**
  - **Version.**
  - **Event Type.**
- The column headers in the table are links for sorting the list. There are also buttons for filtering the list.
- There are option lists for filtering the table data by **Collection**, **Version**, and/or **Event Type**.
  - Event Type options include **ALL, DELETE, INSERT, UNDELETE, DELETEPHYSICAL,** and **UPDATEMETADATA**.

**4** To **sort** the list click on the appropriate column header link (i.e., **Collection**, **Version**, or **Event Type**).

- If the list were sorted by **Event Type**, it would display events grouped by type: **DELETE** events would be listed first, followed by **INSERT** events, etc.

**5** To **filter** the list to display certain types of information only, click on the appropriate option button (i.e., **Collection**, **Version**, or **Event Type**) and then click to select the desired option from the option list.

- The selected choice is displayed in the option field.

**6** Repeat Step 5 to select an additional filter, if applicable.

**7** Click on the **Filter** button to implement the selected filter.

- A list is displayed showing MOD01 events only.

**8** Return to Step 3.

---

Suppose that you now want to view subscriptions related to MOD01 data, and then to review detailed information about a particular subscription. To obtain the list you will need to use the **Manage Subscriptions** link, filter on **Collection**, and then select and apply an option to **View** the particular subscription. Use the following procedure, which is applicable to both full-capability and limited-capability operators.

**Use the Spatial Subscription Server GUI to List and View Subscriptions in the NBSRV Database**

---

**1** Launch the **Spatial Subscription Server GUI** (refer to procedure **Launch the Spatial Subscription Server GUI**, previous section of this lesson).

- The **Home Page** is the default display, offering links for access to Spatial Subscription Server function pages (i.e., **List Events**, **Manage Subscriptions**, **Manage Bundling Orders**, **Monitor Queues**, **Help**, and **End Session**).

**2** Click on the **Manage Subscriptions** link.

- The **Manage Subscriptions** page is displayed with a table listing all subscriptions in the NBSRV database.

**3** Observe information displayed on the **Manage Subscriptions** page.

- The table on the **Manage Subscriptions** page has columns containing the following types of subscription information:
  - **Subscription Id.**
  - **User.**
  - **Collection.**
  - **Version.**
  - **Event Type.**

- **Status.**
- **Data Pool.**
- **Start Date.**
- **Expiration Date.**
- **Time Last Updated.**
- **Choose Subscription Action.**

- The column headers in the table, except for **Version**, **Event Type**, **Start Date**, and **Choose Subscription Action** are links for sorting the list.
- The **Choose Subscription Action** column has radio buttons for taking the following actions with respect to the corresponding subscription:
  - **View.**
  - **Update.**
  - **Cancel.**
- There are option lists for filtering the table data by **User**, **Collection**, **Status**, and/or **Data Pool**.
- There is a "**Change Collection Display to**" option button for switching the display between **TextEntry** and **SelectableList**.

**4** To filter the list to display certain types of subscriptions only, click on the appropriate option button (i.e., **User**, **Collection**, **Status**, or **Data Pool**) and then click to select the desired option from the option list.

- The selected choice is displayed in the option field.

**5** Repeat Step 4 to select an additional filter, if applicable.

**6** Click on the **Filter** button to implement the selected filter.

- A list is displayed showing subscriptions that meet the filter criteria only.

**7** To view a particular subscription first click on the **View** radio button in the **Choose Subscription Action** column for the subscription.

- The button is filled to indicate selection of the option.

**8** To implement the selected action with respect to the particular subscription click on the **Apply** button in the **Choose Subscription Action** column for the subscription.

- A **View Subscriptions** page is displayed.

**9** Observe information displayed on the **View Subscriptions** page.

- The table on the **Manage Subscriptions** page has columns containing the following types of subscription information:
  - **User.**
  - **Status.**
  - **Start Date.**
  - **Expiration Date.**
  - **Short Name.**
  - **Version.**
  - **Event Type.**
  - **Retention Period** (if applicable).
  - **Retention Priority** (if applicable).
  - **Science Granules and/or Metadata** (if applicable).
  - **Data Pool Action is associated with theme *x*** (if applicable).
  - etc.
- There are **View another subscription** and **Return to Home Page** links on the page.

**10** Click on the **View another subscription** link or the **Return to Home Page** link (as appropriate) when finished viewing the subscription data on the **View Subscriptions** page.

**11** Repeat Steps 3 through 10 as necessary to view additional subscriptions.

---

## Adding a Subscription

A user who wants to have data made available for downloading through the Data Pool must contact the DAAC to request that a subscription be placed so that when data of the specified type are inserted in ECS, a copy is inserted in the Data Pool. User Services or Science Data Specialists then create the subscription, adding Data Pool qualification and retention criteria to meet the user's requirement within any constraints imposed for the Data Pool at the DAAC.

Suppose that a registered user requests Data Pool insert for MOD04_L2 003 data, specifying that the data granules inserted during the next two years be kept in the Data Pool for a period of 30 days. The user requests granules from daytime collection, in a geographic area bounded by 0 degrees North Latitude, -50 degrees East Longitude, -20 degrees South Latitude, and -70 degrees West Longitude. The user also requests notification as well as the Data Pool insert. Full-capability operators (only) can use the following procedure to create the necessary subscription.

**Use the Spatial Subscription Server GUI to Add a Subscription to the NBSRV Database**

**1** Launch the **Spatial Subscription Server GUI** (refer to procedure **Launch the Spatial Subscription Server GUI**, previous section of this lesson).

- The **Home Page** is the default display, offering links for access to Spatial Subscription Server function pages (i.e., **List Events**, **Manage Subscriptions**, **Manage Bundling Orders**, **Monitor Queues**, **Help**, and **End Session**).

**NOTE**: At various points in this procedure, you may encounter a security information warning. Unless you know of a specific potential danger that you must avoid, click on the **Continue submission** button when the warning is displayed.

**2** Click on the **Manage Subscriptions** link.

- The **Manage Subscriptions** page is displayed, providing a table of subscription information showing 11 columns: **Subscription Id**, **User**, **Collection**, **Version**, **Event Type**, **Status**, **Data Pool**, **Start Date**, **Expiration Date**, **Time Last Updated**, and **Choose Subscription Action** (containing radio buttons for selecting an action to take and **Apply** buttons for implementing the selected actions).

**3** Click on the **Add Subscriptions** link.

- The **Add Subscriptions** page is displayed.

**4** Type the User Id for the requesting user in the **User Id** text entry field.

- The entered User Id must be a valid registered user (i.e., must be listed in the User Profile database).
- The typed entry is displayed in the **User Id** field.

**5** To select a **Status** option click on the appropriate choice from the option list.

- **Active**.
- **Inactive**.

**6** If the start date for the subscription is different from the default (current date and time) type the appropriate date and time in the **Start Date (mm/dd/yyyy hh:mm)** text entry box.

- The date and time should be entered in ***mm/dd/yyyy hh:mm*** format

**7** If the expiration date for the subscription is different from the default (one year from the current date and time) type the appropriate date and time in the **Expiration Date (mm/dd/yyyy hh:mm)** text entry box.

- The date and time should be entered in ***mm/dd/yyyy hh:mm*** format

**8** Type the first few characters of the name of the collection for which the subscription is to be created (e.g., **MOD04**) in the **Collection Short Name** text entry box.

**9** Click on the **Apply** button.

- A **SELECT Short Name/Version/Event Type** option button and a **Numbers of String Qualifiers** button are displayed, along with an **Apply** button.

**10** To select a **Short Name/Version/Event Type** option click on the appropriate choice (e.g., **MOD04_L2 003 INSERT**) from the option list.

**11** To select a **Numbers of String Qualifiers** option click on the appropriate choice (e.g., **1**) from the option list.

**12** Click on the **Apply** button.

- Option buttons and fields are displayed to permit the entry of data in two general categories; i.e., **Subscription Qualifiers** and **Action Information**.
- In the **Subscription Qualifiers** section it is possible to select **Attribute Name/Type** and enter **Min Value** and **Max Value** for any valid **Integer/Float/Date** qualifiers, string **Value** qualifiers, and **Latitude** and **Longitude** coordinates to define a bounding rectangle spatial qualifier for the subscription to be created.
- In the **Action Information** section there is a button to specify that the subscription is to be associated with a bundling order; if that button is not selected, one has the choice of one or more of three actions (i.e., **Acquire**, **E-Mail Notification**, or **Data Pool**). There are blocks with option lists and text entry fields for defining the selected action(s) to be taken upon occurrence of the event for which the subscription is to be created.
- At the bottom of the page is an **Add Subscription** button for submitting the subscription.

**13** To select a different **Logical Basis** option (if applicable) click on the appropriate choice (e.g., **AND**) from the option list.

**14** To select an integer, float, or date **Attribute Name/Type** option (if applicable) click on the appropriate choice from the **Integer/Float/Date Attribute Name/Type** option list.

**15** To specify a minimum value for an integer, float, or date attribute (if applicable) type the appropriate value in the **Integer/Float/Date Min Value** text entry box.

**16** To specify a maximum value for an integer, float, or date attribute (if applicable) type the appropriate value in the **Integer/Float/Date Max Value** text entry box.

**17** Repeat Steps 14 through 16 as necessary to specify additional integer, float, or date attributes.

**18** To select a string **Attribute Name/Type** option (if applicable) click on the appropriate choice from the **String Attribute Name/Type** option list.

**19** To specify a value for a string attribute (if applicable) type the appropriate value in the **String Value** text entry box.

**20** Repeat Steps 18 and 19 as necessary to specify additional string attributes.

**21** To specify spatial coordinates of intersecting LLBox (if applicable) type the appropriate values in the following text entry boxes.

- **North Latitude.**
- **West Longitude.**
- **East Longitude.**
- **South Latitude.**
- For example:

  **North Latitude 0**

  **West Longitude -70**

  **East Longitude -50**

  **South Latitude -20**

**NOTE**: Every subscription must have at least one action specified and may have more than one.

**22** To associate the subscription with a bundling order (if applicable) first click in the **Bundling Order** box.

**23** To continue the process of associating a subscription with a bundling order (if applicable) click on the appropriate choice from the **Bundling Order Selection** option list.

- If a subscription is associated with a bundling order, skip Steps 24 through 27 and go to Step 28.

**24** To select subscription action(s) click in the following boxes as applicable (a check mark in a box indicates that the action has been selected):

- **Acquire –** to request shipment of the data specified in the subscription.
- **E-Mail Notification** - to request e-mail notification of the event specified in the subscription.
- **Data Pool** - to request insertion of data specified in the subscription into the Data Pool.

**NOTE:** Multiple actions can be selected.

**25** If **Acquire** was selected in Step 24, either type the appropriate data or click on the appropriate choice from the option list in the relevant fields of the **Acquire Information** block:

- **User Profile.**
- **User String** [if applicable (to distinguish the subscription from others)].

- **Email Address**.
- **Media Type**.
- **Priority**.
- **User** [applicable to ftp push or secure copy distributions only].
- **Password** [applicable to ftp push or secure copy distributions only].
- **Enter password again for verification** [applicable to ftp push or secure copy distributions only].
- **Host** [applicable to ftp push or secure copy distributions only].
- **Directory** [applicable to ftp push or secure copy distributions only].

**26** If **E-Mail Notification** was selected in Step 24, either type the appropriate data or click on the appropriate choice from the option list in the relevant fields of the **E-Mail Notification Information** block:

- **Action Address.**
- **User String** [if applicable (to distinguish the subscription from others)].
- **Metadata.**

**27** If **Data Pool** was selected in Step 24, either type the appropriate data or click on the appropriate choice from the option list in the relevant fields of the **Data Pool Information** block:

- **Retention Period (in days)** [e.g., **30**].
- **Retention Priority (valid range 1 thru 255)** [e.g., **200**].
- **Science Granules and/or Metadata** [e.g., **science and metadata**].
- **Click here to add theme:** [click in the box if the granules to be added to the Data Pool as a result of the subscription are to be associated with a theme].
- **Enter first few characters of name** [optional - if associating the granules from the subscription with a theme].

**28** Click on the **Add Subscription** button.

- If the **Click here to add theme:** box was checked, a **Select Theme for Data Pool Action** page is displayed.
- If the **Click here to add theme:** box was not checked, a message is displayed confirming that “Subscription *x* was added” to the database and buttons permit **Add another subscription** or **Return to Home Page**.

**29** To select a theme for Data Pool action (if applicable) first click on the appropriate choice from the **Select Theme for Data Pool Action** option list.

**30** To make the theme association retroactive (if applicable) first click in the **To make theme association retroactive check here:** box.

**31** To implement the theme association (if applicable) click on the **Apply** button on the **Select Theme for Data Pool Action** page.

- A message is displayed confirming that "Subscription *x* was updated/added" to the database and buttons permit **Add another subscription** or **Return to Home Page**.

**32** Click on the appropriate link from the following selections:

- **Add… another subscription**.
  - The **Manage Subscriptions** page is displayed.
- **Update another subscription**.
  - The **Manage Subscriptions** page is displayed.
- **Return to Home Page**.
  - The **Home Page** is displayed.

---

## Working with Existing Subscriptions

On occasion, it may be necessary to modify or delete existing subscriptions in the NBSRV database. The **Spatial Subscription Server GUI** web access supports these requirements. However, only full-capability operators can modify or delete existing subscriptions using the **Spatial Subscription Server GUI**. Limited-capability operators can view subscriptions but may not modify or delete them.

It may become desirable to extend the period of retention in a Data Pool insert subscription. For example, if conditions arise that increase user interest in the data that will be inserted as a result of the subscription, keeping the data in the Data Pool longer is a way to be responsive to that user interest. Such conditions might be unusual weather activity, flooding, volcanic activity, or other events in the area covered by the subscription.

The update procedure for extending the period of retention in a Data Pool insert overlaps extensively with procedures for updating other information in an existing subscription, either for Data Pool insert (for example, to change qualifiers or to associate the subscription with a theme) or for notification/distribution of standard ECS products (for example, to change the distribution media type or other information defining the distribution). The operator accesses the subscription in the same way, makes the necessary inputs to specify the changes, and uses the **Update Subscription** button to submit the changes.

### Use the Spatial Subscription Server GUI to Update a Subscription in the NBSRV Database

**1** Launch the **Spatial Subscription Server GUI** (refer to procedure **Launch the Spatial Subscription Server GUI**, previous section of this lesson).

- The **Home Page** is the default display, offering links for access to Spatial Subscription Server function pages (i.e., **List Events**, **Manage Subscriptions**, **Manage Bundling Orders**, **Monitor Queues**, **Help**, and **End Session**).

**NOTE:** At various points in this procedure, you may encounter a security information warning. Unless you know of a specific potential danger that you must avoid, click on the **Continue submission** button when the warning is displayed.

**2** Click on the **Manage Subscriptions** link.

- The **Manage Subscriptions** page is displayed, providing a table of subscription information showing 11 columns: **Subscription Id**, **User**, **Collection**, **Version**, **Event Type**, **Status**, **Data Pool**, **Start Date**, **Expiration Date**, **Time Last Updated**, and **Choose Subscription Action** (containing radio buttons for selecting an action to take and **Apply** buttons for implementing the selected actions).

**3** Find the subscription to be updated in the list of subscriptions on the **Manage Subscriptions** page.

- Scroll, sort, and/or filter the list as necessary.
  - For detailed instructions refer to the **Use the Spatial Subscription Server GUI to List and View Subscriptions in the NBSRV Database** procedure (preceding section of this lesson).

**4** Click on the **Update** radio button in the **Choose Subscription Action** column for the subscription to be updated.

- The button is filled to indicate selection of the option.

**5** To implement the "update" action with respect to the subscription click on the **Apply** button in the **Choose Subscription Action** column for the subscription.

- An **Update Subscriptions** page is displayed.

**6** To change the User Id (if applicable) type the User Id for the requesting user in the **User Id** text entry field.

- The entered User Id must be a valid registered user (i.e., must be listed in the User Profile database).
- The typed entry is displayed in the **User Id** field.

**7** To change the status (if applicable) click on the appropriate choice from the **Status** option list.

- **Active**.
- **Inactive**.

**8** To change the start date for the subscription (if applicable) type the appropriate date and time in the **Start Date (mm/dd/yyyy hh:mm)** text entry box.

- The date and time should be entered in ***mm/dd/yyyy hh:mm*** format

**9** To change the expiration date for the subscription (if applicable) type the appropriate date and time in the **Expiration Date (mm/dd/yyyy hh:mm)** text entry box.

- The date and time should be entered in ***mm/dd/yyyy hh:mm*** format

**NOTE:** It is not possible to update the subscription event [**Short Name/Version/Event Type** (e.g., **MOD04_L2 003 INSERT**)].

**NOTE:** Option buttons and fields are displayed to permit the entry of data in two general categories; i.e., **Subscription Qualifiers** and **Action Information**. In the **Subscription Qualifiers** section it is possible to select **Attribute Name/Type** and enter **Min Value** and **Max Value** for any valid **Integer/Float/Date** qualifiers, string **Value** qualifiers, and **Latitude** and **Longitude** coordinates to define a bounding rectangle spatial qualifier for the subscription to be created. In the **Action Information** section there is a button to specify that the subscription is to be associated with a bundling order; if that button is not selected, one has the choice of one or more of three actions (i.e., **Acquire**, **E-Mail Notification**, or **Data Pool**). There are blocks with option lists and text entry fields for defining the selected action(s) to be taken upon occurrence of the event for which the subscription was created.

**10** To select a different **Logical Basis** option (if applicable) click on the appropriate choice (e.g., **AND**) from the option list.

**11** To change, add, or delete an integer, float, or date **Attribute Name/Type** option (if applicable) click on the appropriate choice from the **Integer/Float/Date Attribute Name/Type** option list.

**12** To change, add, or delete a minimum value for an integer, float, or date attribute (if applicable) type (or delete, if necessary) the appropriate value in the **Integer/Float/Date Min Value** text entry box.

**13** To change, add, or delete a maximum value for an integer, float, or date attribute (if applicable) type (or delete, if necessary) the appropriate value in the **Integer/Float/Date Max Value** text entry box.

**14** Repeat Steps 11 through 13 as necessary to change, add, or delete integer, float, or date attributes.

**15** To change, add, or delete a string **Attribute Name/Type** option (if applicable) click on the appropriate choice from the **String Attribute Name/Type** option list.

**16** To change, add, or delete a value for a string attribute (if applicable) type (or delete, if necessary) the appropriate value in the **String Value** text entry box.

**17** Repeat Steps 15 and 16 as necessary to change or specify additional string attributes.

**18** To change, add, or delete spatial coordinates of intersecting LLBox (if applicable) type (or delete, if necessary) the appropriate values in the following text entry boxes (as necessary).

- **North Latitude.**
- **West Longitude.**
- **East Longitude.**
- **South Latitude.**

**NOTE**: Every subscription must have at least one action specified and may have more than one.

**19** To associate the subscription with a bundling order (if applicable) first click in the **Bundling Order** box.

**20** To continue the process of associating a subscription with a bundling order (if applicable) click on the appropriate choice from the **Bundling Order Selection** option list.

- If a subscription is associated with a bundling order, skip Steps 21 through 24 and go to Step 25.

**21** To select or deselect subscription action(s) click in the following boxes as applicable (a check mark in a box indicates that the action has been selected):

- **Acquire –** to request shipment of the data specified in the subscription.
- **E-Mail Notification -** to request e-mail notification of the event specified in the subscription.
- **Data Pool** - to request insertion of data specified in the subscription into the Data Pool.

**NOTE:** Multiple actions can be selected.

**22** If **Acquire** was selected in Step 21, change or add shipment data (if applicable) by either typing the appropriate data or clicking on the appropriate choice from the option list in the relevant fields of the **Acquire Information** block:

- **User Profile.**
- **User String** [if applicable (to distinguish the subscription from others)].
- **Email Address**.

- **Media Type**.
- **Priority**.
- **User** [applicable to ftp push or secure copy distributions only].
- **Password** [applicable to ftp push or secure copy distributions only].
- **Enter password again for verification** [applicable to ftp push or secure copy distributions only].
- **Host** [applicable to ftp push or secure copy distributions only].
- **Directory** [applicable to ftp push or secure copy distributions only].

**23** If **E-Mail Notification** was selected in Step 21, change or add e-mail notification data by either typing the appropriate data or clicking on the appropriate choice from the option list in the relevant fields of the **E-Mail Notification Information** block:

- **Action Address.**
- **User String** [if applicable (to distinguish the subscription from others)].
- **Metadata.**

**24** If **Data Pool** was selected in Step 21, change or add Data Pool insertion data either by typing the appropriate data or clicking on the appropriate choice from the option list in the relevant fields of the **Data Pool Information** block:

- **Retention Period (in days)**.
- **Retention Priority (valid range 1 thru 255)**.
- **Science Granules and/or Metadata**.
- **Click here to add theme:** [click in the box if the granules to be added to the Data Pool as a result of the subscription are to be associated with a theme].
- **Enter first few characters of name** [optional - if associating the granules from the subscription with a theme].

**25** Click on the **Update Subscription** button.

- If the **Click here to add theme:** box was checked, a **Select Theme for Data Pool Action** page is displayed.
- If the **Click here to add theme:** box was not checked, a message is displayed confirming that "Subscription *x* was updated" to the database and buttons permit **Update another subscription** or **Return to Home Page**.

**26** To select a theme for Data Pool action (if applicable) first click on the appropriate choice from the **Select Theme for Data Pool Action** option list.

**27** To make the theme association retroactive (if applicable) first click in the **To make theme association retroactive check here:** box.

**28** To implement the theme association (if applicable) click on the **Apply** button on the **Select Theme for Data Pool Action** page.

- A message is displayed confirming that "Subscription *x* was updated/added" to the database and buttons permit **Add another subscription** or **Return to Home Page**.

**29** Click on the appropriate link from the following selections:

- **Add… another subscription**.
  - The **Manage Subscriptions** page is displayed.
- **Update another subscription**.
  - The **Manage Subscriptions** page is displayed.
- **Return to Home Page**.
  - The **Home Page** is displayed.

---

If it is necessary to delete (cancel) a subscription, the **Spatial Subscription Server GUI** provides the means. Suppose Dr. L. Abuser contacts User Services with a request to cancel the subscription for ASTER expedited data. A full-capability operator (only) can use the following procedure to respond to such a request.

**Use the Spatial Subscription Server GUI to Delete (Cancel) a Subscription in the NBSRV Database**

---

**1** Launch the **Spatial Subscription Server GUI** (refer to procedure **Launch the Spatial Subscription Server GUI**, previous section of this lesson).

- The **Home Page** is the default display, offering links for access to Spatial Subscription Server function pages (i.e., **List Events**, **Manage Subscriptions**, **Manage Bundling Orders**, **Monitor Queues**, **Help**, and **End Session**).

**2** Click on the **Manage Subscriptions** link.

- The **Manage Subscriptions** page is displayed, providing a table of subscription information showing 11 columns: **Subscription Id**, **User**, **Collection**, **Version**, **Event Type**, **Status**, **Data Pool**, **Start Date**, **Expiration Date**, **Time Last Updated**, and **Choose Subscription Action** (containing radio buttons for selecting an action to take and **Apply** buttons for implementing the selected actions).

**3** Observe information displayed on the **Manage Subscriptions** page.

- The table on the **Manage Subscriptions** page has columns containing the following types of subscription information:
  - **Subscription Id.**
  - **User.**
  - **Collection.**
  - **Version.**
  - **Event Type.**
  - **Status.**
  - **Data Pool.**
  - **Start Date.**
  - **Expiration Date.**
  - **Time Last Updated.**
  - **Choose Subscription Action.**
- The column headers in the table, except for **Version**, **Event Type**, **Start Date**, and **Choose Subscription Action** are links for sorting the list.
- The **Choose Subscription Action** column has radio buttons for taking the following actions with respect to the corresponding subscription:
  - **View.**
  - **Update.**
  - **Cancel.**
- There are option lists for filtering the table data by **User**, **Collection**, **Status**, and/or **Data Pool**.
- There is a "**Change Collection Display to**" option button for switching the display between **TextEntry** and **SelectableList**.

**4** To filter the list to display certain types of subscriptions only, click on the appropriate option button and then click to select the desired option from the option list.

- The selected choice is displayed in the option field.

**5** Repeat Step 4 to select an additional filter, if applicable.

**6** Click on the **Filter** button to implement the selected filter.

- A list is displayed showing subscriptions that meet the filter criteria only.

**7** Click on the **Cancel** radio button in the **Choose Subscription Action** column for the subscription to be canceled (deleted).

- The button is filled to indicate selection of the option.

**8** Click on the **Apply** button in the **Choose Subscription Action** column for the subscription to be canceled (deleted).

- A confirmation page is displayed with the message “Are you sure that you want to cancel subscription *x*?”

**9** Click on the appropriate link from the following selections:

- **Yes**- to confirm the deletion.
  - A “Subscription x was canceled” message is displayed.
- **No**- to abort the deletion.

**10** Click on the appropriate link from the following selections:

- **Cancel another subscription**.
  - The **Manage Subscriptions** page is displayed.
- **Return to Home Page**.
  - The **Home Page** is displayed.

---

Both full-capability and limited-capability operators can use the following procedure to list subscriptions associated with a theme.

**Use the Spatial Subscription Server GUI to List Subscriptions Associated with a Theme**

---

**1** Launch the **Spatial Subscription Server GUI** (refer to procedure **Launch the Spatial Subscription Server GUI**, previous section of this lesson).

- The **Home Page** is the default display, offering links for access to Spatial Subscription Server function pages (i.e., **List Events**, **Manage Subscriptions**, **Manage Bundling Orders**, **Monitor Queues**, **Help**, and **End Session**).

**2** Click on the **Manage Subscriptions** link.

- The **Manage Subscriptions** page is displayed with a table listing all subscriptions in the NBSRV database.

**3** Click on the **List Themes** link.

- The **List Themes Request** page is displayed.

- An “Enter first few characters of theme name (or leave blank to view all):” message is displayed on the **List Themes Request** page.

**4** To display all themes, click on the **Apply** button (without entering anything in the text box).

- The **Theme List** page is displayed with columns containing the following types of theme information:
  - **Theme Name.**
  - **Choose Theme Action.**
- All themes are displayed on the **Theme List** page.
- Go to Step 7.

**5** To begin the process of displaying a particular theme, type the first few letters of the theme name in the text box on the **List Themes Request** page.

**6** To continue the process of displaying a particular theme, click on the **Apply** button on the **List Themes Request** page.

- The **Theme List** page is displayed with columns containing the following types of theme information:
  - **Theme Name.**
  - **Choose Theme Action.**
- The relevant theme(s) is (are) displayed on the **Theme List** page.

**7** To begin the process of viewing the list of subscriptions associated with a particular theme, click in the corresponding check box (in the **Choose Theme Action** column) on the **Theme List** page.

**8** To view a list of the subscriptions associated with the specified theme, click on the corresponding **Apply** button (in the **Choose Theme Action** column) on the **Theme List** page.

- The **List Subscriptions for Theme** page is displayed.
  - The subscription(s) associated with the specified theme is (are) displayed.
  - Buttons are available for viewing, updating, or canceling each subscription being displayed or suspending, resuming, or canceling all subscriptions. (Refer to the applicable procedure for instructions on performing any of those actions.)

**9** Observe information displayed on the **List Subscriptions for Theme** page.

- The table on the **List Subscriptions for Theme** page has columns containing the following types of subscription information:
  - **ID.**

- **User.**
- **Status.**
- **Expiration Date.**
- **ESDT ShortName/Version/EventType.**
- **Choose Subscription Action.**

- The **Choose Subscription Action** column has radio buttons for taking the following actions with respect to the corresponding subscription:
  - **View.**
  - **Update.**
  - **Cancel.**
- At the bottom of the table there are radio buttons for selecting the following actions with respect to all listed subscriptions:
  - **Suspend All.**
  - **Resume All.**
  - **Cancel All.**

**10** To take action with respect to a particular subscription first click on the appropriate radio button (i.e., **View**, **Update**, or **Cancel**) in the **Choose Subscription Action** column for the subscription.

- The button is filled to indicate selection of the option.

**11** To implement a selected action with respect to a particular subscription click on the **Apply** button in the **Choose Subscription Action** column for the subscription.

- If **View** was the selected action, a **View Subscriptions** page is displayed.
  - Click on the **View another subscription** link or the **Return to Home Page** link (as appropriate) when finished viewing the subscription data on the **View Subscriptions** page.
- If **Update** was the selected action, an **Update Subscriptions** page is displayed.
  - Go to the **Use the Spatial Subscription Server GUI to Update a Subscription for Secure Distribution** procedure (subsequent section of this lesson).
- If **Cancel** was the selected action, a confirmation page is displayed with the message "Are you sure that you want to cancel subscription *x*?"
  - Click on the **Yes** link to confirm the deletion.
  - Click on the **No** link to abort the deletion.

**12** To take action with respect to all subscriptions associated with the theme first click on the appropriate radio button (i.e., **Suspend All**, **Resume All**, or **Cancel All**) at the bottom of the table on the **List Subscriptions for Theme** page.

- The button is filled to indicate selection of the option.

**13** To implement a selected action with respect to all subscriptions associated with the theme click on the **Apply** button at the bottom of the table on the **List Subscriptions for Theme** page.

- If **Suspend All** was the selected action, an "All associated subscriptions have been suspended" message is displayed.
- If **Resume All** was the selected action, an "All associated subscriptions have been resumed" message is displayed.
- If **Cancel All** was the selected action, a confirmation page is displayed with the message "Are you sure that you want to cancel subscription *x*?"
  - Click on the **Yes** link to confirm the deletion.
  - Click on the **No** link to abort the deletion.

**14** Click on the **View refreshed subscription list** link (if applicable).

- The **List Subscriptions for Theme** page is displayed.

---

### Using the Spatial Subscription Server GUI to Manage Bundling Orders

The **Spatial Subscription Server GUI** is used to list, view, create, update, cancel, and list associated subscriptions for bundling orders. These functions are accessible through the **Manage Bundling Orders** link. The limited-capability operator may view bundling orders and the subscriptions associated with them. The full-capability operator can perform those same functions and create, update, or cancel bundling orders as well.

**Use the Spatial Subscription Server GUI to Obtain a List of Bundling Orders and View a Bundling Order**

---

**1** Launch the **Spatial Subscription Server GUI** (refer to procedure **Launch the Spatial Subscription Server GUI**, previous section of this lesson).

- The **Home Page** is the default display, offering links for access to Spatial Subscription Server function pages (i.e., **List Events**, **Manage Subscriptions**, **Manage Bundling Orders**, **Monitor Queues**, **Help**, and **End Session**).

**NOTE**: At various points in this procedure, you may encounter a security information warning. Unless you know of a specific potential danger that you must avoid, click on the **Continue submission** button when the warning is displayed.

**2** Click on the **Manage Bundling Orders** link.

- The **Manage Bundling Orders** page is displayed.

**3** Observe information displayed on the **Manage Bundling Orders** page.

- The table on the **Manage Bundling Orders** page has columns containing the following types of bundling order information:
  - **Bundling Order.**
  - **User.**
  - **Creation Date.**
  - **Expiration Date.**
  - **Media Type.**
  - **Status.**
  - **Choose Bundling Order Action.**
- The column headers in the table, except for **Choose Bundling Order Action** are links for sorting the list.
- The **Choose Bundling Order Action** column has radio buttons for taking the following actions with respect to the corresponding bundling order:
  - **View.**
  - **Update.**
  - **Cancel.**
  - **List Subs** [list associated subscriptions].
- There are option lists for filtering the table data by **User**, **Media Type**, and/or **Status**.
- There are links on the page to **Add Bundling Order** and **Configure Defaults**.

**4** To filter the list to display certain types of bundling orders only, click on the appropriate option button (i.e., **User**, **Media Type**, or **Status**) and then click to select the desired option from the option list.

- The selected choice is displayed in the option field.

**5** Repeat Step 4 to select an additional filter, if applicable.

**6** Click on the **Filter** button to implement the selected filter.

- A list is displayed showing subscriptions that meet the filter criteria only.

**7** To view a particular bundling order first click on the **View** radio button in the **Choose Bundling Order Action** column for the bundling order.

- The button is filled to indicate selection of the option.

**8** To implement the selected action click on the **Apply** button in the **Choose Bundling Order Action** column for the bundling order.

- A **View Bundling Order** page is displayed.

**9** Observe information displayed on the **View Bundling Order** page.

- The **View Bundling Order** page displays the following types of bundling order information:
  - **Bundling Order ID.**
  - **User Name.**
  - **Creation Date.**
  - **Expiration Date.**
  - **Media Type.**
  - **Current Status.**
  - **User String.**
  - **Email Address.**
  - **Distribution Priority.**
  - **scp distribution information: User** (if applicable).
  - **scp distribution information: Host** (if applicable).
  - **scp distribution information: Directory** (if applicable).
  - **Completion criteria: Minimum Bundle Size.**
  - **Completion criteria: Minimum Granule Count.**
  - **Completion criteria: Maximum Bundle Age.**
- There is a **Return to bundling order list** link.

**10** Click on the **Return to bundling order list** link when finished viewing the bundling order data on the **View Bundling Order** page.

**11** To view subscriptions associated with a particular bundling order first click on the **List Subs** radio button in the **Choose Bundling Order Action** column for the bundling order.

- The button is filled to indicate selection of the option.

**12** To implement the selected action click on the **Apply** button in the **Choose Bundling Order Action** column for the subscription.

- A **Bundling Order Subscriptions (Subscriptions for bundling order *x*)** page is displayed.

**13** Observe information displayed on the **Bundling Order Subscriptions (Subscriptions for bundling order *x*)** page.

- The **Bundling Order Subscriptions (Subscriptions for bundling order *x*)** page displays the following types of subscription information:
  - **ID.**
  - **User.**
  - **Status.**
  - **Expiration Date.**
  - **ESDT ShortName/Version/EventType.**
  - **Choose Subscription Action.**
- The **Choose Subscription Action** column has radio buttons for taking the following actions with respect to the corresponding subscription:
  - **View.**
  - **Update.**
  - **Cancel.**

**14** To take action with respect to a particular subscription first click on the appropriate radio button (i.e., **View**, **Update**, or **Cancel**) in the **Choose Subscription Action** column for the subscription.

- The button is filled to indicate selection of the option.

**15** To implement a selected action with respect to a particular subscription click on the **Apply** button in the **Choose Subscription Action** column for the subscription.

- If **View** was the selected action, a **View Subscriptions** page is displayed.
  - Click on the **View another subscription** link or the **Return to Home Page** link (as appropriate) when finished viewing the subscription data on the **View Subscriptions** page.
- If **Update** was the selected action, an **Update Subscriptions** page is displayed.
  - Go to the **Use the Spatial Subscription Server GUI to Update a Subscription for Secure Distribution** procedure (subsequent section of this lesson).

- If **Cancel** was the selected action, a confirmation page is displayed with the message "Are you sure that you want to cancel subscription *x*?"
  - Click on the **Yes** link to confirm the deletion.
  - Click on the **No** link to abort the deletion.

**16** To return to the **View Bundling Order** page from the **Bundling Order Subscriptions (Subscriptions for bundling order *x*)** page click on the browser **Back** button.

**17** Repeat Steps 3 through 16 as necessary to view additional bundling orders.

---

To cancel a bundling order and its associated subscriptions a full-capability operator (only) can use the following procedure:

**Use the Spatial Subscription Server GUI to Cancel a Bundling Order and Its Associated Subscriptions**

---

**1** Launch the **Spatial Subscription Server GUI** (refer to procedure **Launch the Spatial Subscription Server GUI**, previous section of this lesson).

- The **Home Page** is the default display, offering links for access to Spatial Subscription Server function pages (i.e., **List Events**, **Manage Subscriptions**, **Manage Bundling Orders**, **Monitor Queues**, **Help**, and **End Session**).

**NOTE**: At various points in this procedure, you may encounter a security information warning. Unless you know of a specific potential danger that you must avoid, click on the **Continue submission** button when the warning is displayed.

**2** Click on the **Manage Bundling Orders** link.

- The **Manage Bundling Orders** page is displayed.

**3** Observe information displayed on the **Manage Bundling Orders** page.

- The **Manage Bundling Orders** page is displayed, providing a table of bundling order information showing seven columns: **Bundling Order**, **User**, **Creation Date**, **Expiration Date**, **Media Type**, **Status**, and **Choose Bundling Order Action** (containing radio buttons for selecting an action to take and **Apply** buttons for implementing the selected actions).

**4** To filter the list to display certain types of bundling orders only, click on the appropriate option button (i.e., **User**, **Media Type**, or **Status**) and then click to select the desired option from the option list.

- The selected choice is displayed in the option field.

**5** Repeat Step 4 to select an additional filter, if applicable.

**6** Click on the **Filter** button to implement the selected filter.

- A list is displayed showing subscriptions that meet the filter criteria only.

**7** To cancel a particular bundling order first click on the **Cancel** radio button in the **Choose Bundling Order Action** column at the end of the row for the bundling order.

- The button is filled to indicate selection of the option.

**8** To implement the selected action click on the **Apply** button in the **Choose Bundling Order Action** column for the bundling order.

- A confirmation message displays: ***Note: Any associated subscriptions will also be cancelled.*** **Are you sure you wish to cancel bundling order <*nnnnnn*>?**

**9** Click on the appropriate button from the following selections:

- **Yes** - to confirm cancellation of the bundling order and associated subscriptions.
  - A confirmation message displays: **Bundling order *x* has been cancelled.**
- **No** - to abort cancellation of the bundling order.
  - The **Manage Bundling Orders** page is displayed.

**10** Click on the **Return to bundling order list** link (if applicable).

- The **Manage Bundling Orders** page is displayed.

**11** Repeat Steps 3 through 10 as necessary to cancel additional bundling orders.

---

To add a bundling order, a full-capability operator (only) can use the following procedure:

**Use the Spatial Subscription Server GUI to Add a Bundling Order**

---

**1** Launch the **Spatial Subscription Server GUI** (refer to procedure **Launch the Spatial Subscription Server GUI**, previous section of this lesson).

- The **Home Page** is the default display, offering links for access to Spatial Subscription Server function pages (i.e., **List Events**, **Manage Subscriptions**, **Manage Bundling Orders**, **Monitor Queues**, **Help**, and **End Session**).

**NOTE**: At various points in this procedure, you may encounter a security information warning. Unless you know of a specific potential danger that you must avoid, click on the **Continue submission** button when the warning is displayed.

**2** Click on the **Manage Bundling Orders** link.

- The **Manage Bundling Orders** page is displayed, providing a table of bundling order information showing seven columns: **Bundling Order**, **User**, **Creation Date**, **Expiration Date**, **Media Type**, **Status**, and **Choose Bundling Order Action** (containing radio buttons for selecting an action to take and **Apply** buttons for implementing the selected actions).
- There are links on the page to **Add Bundling Order** and **Configure Defaults**.

**3** Click on the **Add Bundling Order** link.

- The **Add Bundling Order** page is displayed.

**4** Type the appropriate user ID in the **User ID** text entry box.

- The typed entry is displayed in the **User ID** field.

**5** If the expiration date for the bundling order is different from the default (one year from the current date) type the appropriate date in the **Expiration Date** text entry box.

- The date should be entered in ***mm/dd/yyyy*** format

**6** To select a **Media Type** option click on the appropriate choice (e.g., **scp**) from the option list.

**7** Click on the **continue** button.

- A confirmation dialog box asks **Your present values have been entered. Continue?**

**8** Click on the appropriate button from the following selections:

- **OK** - to confirm that the bundling order is to be added.
  - The GUI displays an **Add Bundling Order Detail** page that is appropriate for the selected **Media Type**.
- **Cancel**- to abort the process of adding a bundling order.
  - The **Add Bundling Order** page is displayed.
  - Return to Step 4.

**9** Either type the appropriate data or click on the appropriate choice from the option list in the relevant fields (depending on the distribution medium selected) of the **Add Bundling Order Detail** page:

- **Email Address.**
- **User String.**
- **Distribution Priority.**
- **Shipping Information: Street1.**

- **Shipping Information: Street2.**
- **Shipping Information: Street3.**
- **Shipping Information: City.**
- **Shipping Information: State.**
- **Shipping Information: Country.**
- **Shipping Information: Zip Code.**
- **Shipping Information: Phone Number.**
- **Shipping Information: FAX Number.**
- **FTP Push Parameters: FTP Node.**
- **FTP Push Parameters: FTP Address.**
- **FTP Push Parameters: Password.**
- **FTP Push Parameters: Confirm Password.**
- **FTP Push Parameters: User String.**
- **FTP Push Parameters: Destination Directory.**
- **scp Distribution Information: User.**
- **scp Distribution Information: Host.**
- **scp Distribution Information: Password.**
- **scp Distribution Information: Retype Password.**
- **scp Distribution Information: Directory.**
- **Completion Criteria: Minimum Bundle Size.**
- **Completion Criteria: Minimum Granule Count.**
- **Completion Criteria: Maximum Bundle Age.**

**NOTE:** Required fields are identified by an asterisk on the **Add Bundling Order Detail** page.

**10** Click on the **Add Bundling Order** button.

- A "Remember Values" Confirmation dialogue box is displayed.

**11** If a **"Remember Values" Confirmation** dialogue box is displayed, click on the appropriate button from the following selections:

- **Yes**.
- **Never for this site**.

- **No**.

**12** On the add bundling order confirmation page click on the appropriate button from the following selections:

- **OK -** to confirm that the bundling order is to be added.
  - A message is displayed confirming that "Bundling Order *x* was created" and there are links to **Create another Bundling Order** or **Return to Home Page**.
- **Cancel**- to abort the process of adding a bundling order.
  - The **Add Bundling Order** page is displayed.
  - Return to Step 4.

**13** Click on the **Create another Bundling Order** link (if applicable).

- The **Add Bundling Order** page is displayed.

**14** Repeat Steps 4 through 13 as necessary to add another bundling order.

---

A full-capability operator (only) can use the following procedure to update a bundling order:

**Use the Spatial Subscription Server GUI to Update a Bundling Order**

---

**1** Launch the **Spatial Subscription Server GUI** (refer to procedure **Launch the Spatial Subscription Server GUI**, previous section of this lesson).

- The **Home Page** is the default display, offering links for access to Spatial Subscription Server function pages (i.e., **List Events**, **Manage Subscriptions**, **Manage Bundling Orders**, **Monitor Queues**, **Help**, and **End Session**).

**NOTE**: At various points in this procedure, you may encounter a security information warning. Unless you know of a specific potential danger that you must avoid, click on the **Continue submission** button when the warning is displayed.

**2** Click on the **Manage Bundling Orders** link.

- The **Manage Bundling Orders** page is displayed.

**3** Observe information displayed on the **Manage Bundling Orders** page.

- The **Manage Bundling Orders** page is displayed, providing a table of bundling order information showing seven columns: **Bundling Order**, **User**, **Creation Date**, **Expiration Date**, **Media Type**, **Status**, and **Choose Bundling Order Action** (containing radio buttons for selecting an action to take and **Apply** buttons for implementing the selected actions).

4 To filter the list to display certain types of bundling orders only, click on the appropriate option button (i.e., **User**, **Media Type**, or **Status**) and then click to select the desired option from the option list.

- The selected choice is displayed in the option field.

5 Repeat Step 4 to select an additional filter, if applicable.

6 Click on the **Filter** button to implement the selected filter.

- A list is displayed showing subscriptions that meet the filter criteria only.

7 To update a particular bundling order first click on the **Update** radio button in the **Choose Bundling Order Action** column at the end of the row for the bundling order.

- The button is filled to indicate selection of the option.

8 To implement the selected action click on the **Apply** button in the **Choose Bundling Order Action** column for the bundling order.

- An **Update Bundling Order *x*** page is displayed.

9 To change the User ID (if applicable) type the User ID for the requesting user in the **User ID** text entry field.

- The typed entry is displayed in the **User Id** field.

10 To change the expiration date for the bundling order (if applicable) type the appropriate date in the **Expiration Date** text entry box.

- The date should be entered in ***mm/dd/yyyy*** format

11 To select a different **Media Type** option click on the appropriate choice (e.g., **CDROM**) from the option list.

12 Click on the **Update Bundling Order** button.

- A confirmation dialog box asks **Your present values have been entered. Continue?**

13 Click on the appropriate button from the following selections:

- **OK -** to confirm that the bundling order is to be updated.
  - The GUI displays an **Update Bundling Order *x* Detail** page that is appropriate for the selected **Media Type**.
- **Cancel**- to abort the process of updating the bundling order.
  - The **Update Bundling Order *x*** page is displayed.
  - Return to Step 9.

**14** To change, add or delete bundling order data either type the appropriate data or click on the appropriate choice from the option list in the relevant fields (depending on the distribution medium selected) of the **Update Bundling Order *x* Detail** page:

- **Email Address.**
- **User String.**
- **Distribution Priority.**
- **Shipping Information: Street1.**
- **Shipping Information: Street2.**
- **Shipping Information: Street3.**
- **Shipping Information: City.**
- **Shipping Information: State.**
- **Shipping Information: Country.**
- **Shipping Information: Zip Code.**
- **Shipping Information: Phone Number.**
- **Shipping Information: FAX Number.**
- **FTP Push Parameters: FTP Node.**
- **FTP Push Parameters: FTP Address.**
- **FTP Push Parameters: Password.**
- **FTP Push Parameters: Confirm Password.**
- **FTP Push Parameters: User String.**
- **FTP Push Parameters: Destination Directory.**
- **scp Distribution Information: User.**
- **scp Distribution Information: Host.**
- **scp Distribution Information: Password.**
- **scp Distribution Information: Retype Password.**
- **scp Distribution Information: Directory.**
- **Completion Criteria: Minimum Bundle Size.**
- **Completion Criteria: Minimum Granule Count.**
- **Completion Criteria: Maximum Bundle Age.**

**NOTE:** Required fields are identified by an asterisk on the **Update Bundling Order *x* Detail** page.

**15** Click on the **Update Bundling Order** button.

- A confirmation page is displayed.

**16** On the update bundling order confirmation page click on the appropriate button from the following selections:

- **OK** - to confirm that the bundling order is to be updated.
  - A message is displayed confirming that "Bundling Order *x* was updated" and there are links to **Update another Bundling Order** or **Return to Home Page**.
- **Cancel**- to abort the process of adding a bundling order.
  - The **Manage Bundling Orders** page is displayed.
  - Return to Step 3.

**17** Click on the **Update another Bundling Order** link (if applicable).

- The **Manage Bundling Orders** page is displayed.

**18** Repeat Steps 3 through 17 as necessary to update another bundling order.

---

The **Configure Completion Criteria Default Values** page on the **Spatial Subscription Server GUI** allows a full-capability operator to set or change values assigned to bundling order completion criteria. Limited-capability operators have read-only access to the page.

The following parameters are examples of the types of bundling order completion criteria parameters that the full-capability operator can modify:

- **Minimum Granule Count**.
- **Maximum Bundle Age (days)**.
- **Bundle Expiration Period (days)**.
- **Minimum Bundle Size (GB)** [for each type of distribution medium].

**Use the Spatial Subscription Server GUI to Configure Bundling Order Completion Criteria Default Values**

---

**1** Launch the **Spatial Subscription Server GUI** (refer to procedure **Launch the Spatial Subscription Server GUI**, previous section of this lesson).

- The **Home Page** is the default display, offering links for access to Spatial Subscription Server function pages (i.e., **List Events**, **Manage Subscriptions**, **Manage Bundling Orders**, **Monitor Queues**, **Help**, and **End Session**).

**NOTE**: At various points in this procedure, you may encounter a security information warning. Unless you know of a specific potential danger that you must avoid, click on the **Continue submission** button when the warning is displayed.

**2** Click on the **Manage Bundling Orders** link.

- The **Manage Bundling Orders** page is displayed, providing a table of bundling order information showing seven columns: **Bundling Order**, **User**, **Creation Date**, **Expiration Date**, **Media Type**, **Status**, and **Choose Bundling Order Action** (containing radio buttons for selecting an action to take and **Apply** buttons for implementing the selected actions).
- There are links on the page to **Add Bundling Order** and **Configure Defaults**.

**3** Click on the **Configure Defaults** link.

- The **Configure Completion Criteria Default Values** page is displayed.

**4** Observe information displayed on the **Configure Completion Criteria Default Values** page.

- The **Configure Completion Criteria Default Values** page has columns containing the following types of information:
  - **Parameter.**
  - **Current Value.**
  - **Change to…** (containing text entry boxes for entering new values).
- The rows on the page indicate the current values of the following types of parameters:
  - **Minimum Granule Count.**
  - **Maximum Bundle Age (days).**
  - **Bundle Expiration Period (days).**
  - **8MM Minimum Bundle Size (GB).**
  - **CDROM Minimum Bundle Size (GB).**
  - **DLT Minimum Bundle Size (GB).**
  - **DVD Minimum Bundle Size (GB).**
  - **FtpPull Minimum Bundle Size (GB).**
  - **FtpPush Minimum Bundle Size (GB).**
  - **scp Minimum Bundle Size (GB).**

**5** To change the value assigned to a parameter first type the new value in the **Change to…** text entry box at the end of the line for the appropriate parameter.

- The typed entry is displayed in the field.

**6** Repeat Step 5 as necessary to change any additional parameters.

**7** Click on the **Change Bundling Criteria** button.

- A confirmation page is displayed with the message “Please Confirm The Following Bundling Criteria Change” and the parameter(s) for which changes were entered with the entered value(s).

**8** On the change bundling criteria confirmation page click on the appropriate button from the following selections:

- **OK -** to confirm that the bundling criteria are to be changed.
  - The confirmation page is closed and the **Current Value** column on the **Configure Completion Criteria Default Values** page reflects the change(s).
- **Cancel**- to abort the process of changing bundling criteria.
  - The confirmation page is closed and the entries in the **Current Value** column on the **Configure Completion Criteria Default Values** page are restored to their original values.

---

## Using the Spatial Subscription Server GUI for Monitoring the Spatial Subscription Server

The **Spatial Subscription Server GUI** provides pages that can be used to keep track of current actions as the NBSRV processes Acquires and Notifications, and to track NBSRV performance. These capabilities are accessible through links on the **Spatial Subscription Server GUI Home Page**.

The **List Action Queue** link is used to view Acquire and Notification actions being processed by the NBSRV. The procedure that follows is applicable to both full-capability and limited-capability operators.

**Use the Spatial Subscription Server GUI to View the Acquire and Notification Actions Being Processed**

---

**1** Launch the **Spatial Subscription Server GUI** (refer to procedure **Launch the Spatial Subscription Server GUI**, previous section of this lesson).

- The **Home Page** is the default display, offering links for access to Spatial Subscription Server function pages (i.e., **List Events**, **Manage Subscriptions**, **Manage Bundling Orders**, **Monitor Queues**, **Help**, and **End Session**).

**2** Click on the **Monitor Queues** link.

**3** Click on the **List Action Queue** link.

- The **List Action Queue** page is displayed with a table listing acquire and notification actions that are being processed.

**4** Observe information displayed on the **List Action Queue** page.

- The table on the **List Action Queue** page has columns containing the following types of information:
  - **Action Type.**
  - **Subscription Id.**
  - **User.**
  - **Collection.**
  - **Version.**
  - **Enqueue Time.**
  - **Dequeue Time.**
  - **Status.**
- The **Action Type** and **Subscription Id** column headers are links for sorting the list.

- There are option lists for filtering the table data by **Action Type**, **Subscription**, and/or **Status**.

**5** To filter the list to display certain types of actions only, click on the appropriate option button and then click to select the desired option from the option list.

- The selected choice is displayed in the option field.

**6** Repeat Step 5 to select an additional filter, if applicable.

**7** Click on the **Filter** button to implement the selected filter.

- A list is displayed showing items that meet the filter criteria only.

**8** Return to Step 4.

---

The **List Failed Action** link is used to view and remove failed actions processed by the NBSRV. The full-capability operator can both view and remove failed actions. The limited-capability operator has read-only access to the **List Failed Action** page.

## Use the Spatial Subscription Server GUI to View and Remove Failed Actions

**1** Launch the **Spatial Subscription Server GUI** (refer to procedure **Launch the Spatial Subscription Server GUI**, previous section of this lesson).

- The **Home Page** is the default display, offering links for access to Spatial Subscription Server function pages (i.e., **List Events**, **Manage Subscriptions**, **Manage Bundling Orders**, **Monitor Queues**, **Help**, and **End Session**).

**2** Click on the **Monitor Queues** link.

**3** Click on the **List Failed Action** link.

- The **List Failed Action** page is displayed with a table listing acquire and notification actions that are being processed.

**4** Observe information displayed on the **List Failed Action** page.

- The table on the **List Failed Action** page has columns containing the following types of information:
  - **Priority.**
  - **ActionId.**
  - **ActionQueueId.**
  - **SubscriptionId.**
  - **granUR.**
  - **Enqueue Time.**
  - **Remove Action.**
- The **Remove Action** column contains **Remove Action** buttons for removing failed actions.

**5** To remove a failed action click on the **Remove Action** button at the end of the row for the action.

- A confirmation page is displayed.

**6** Click on the appropriate link from the following choices:

- **Remove Action for another Action ID –** to return to the **List Failed Action** page.
- **Return to Home Page –** to return to the Home page without taking action on any other failed actions.

**7** If **Remove Action for another Action ID** was selected in the previous step, return to Step 4.

---

The **List Statistics** link is used to review summary information concerning the processing of events and subscriptions. The procedure that follows is applicable to both full-capability and limited-capability operators.

**Use the Spatial Subscription Server GUI to View Statistics on Processing of Events and Actions by the NBSRV**

---

**1** Launch the **Spatial Subscription Server GUI** (refer to procedure **Launch the Spatial Subscription Server GUI**, previous section of this lesson).

- The **Home Page** is the default display, offering links for access to Spatial Subscription Server function pages (i.e., **List Events**, **Manage Subscriptions**, **Manage Bundling Orders**, **Monitor Queues**, **Help**, and **End Session**).

**2** Click on the **Monitor Queues** link.

**3** Click on the **List Statistics** link.

- The **List Statistics** page is displayed.

**4** Observe information displayed on the **List Statistics** page.

- The **List Statistics** page has a summary showing the number of **Subscribed Events Left to Dequeue**.
- The **List Statistics** page has a summary showing the number of **Matched Subscriptions Left to Dequeue**.
- The **List Statistics** page has a **Summary of the Processing Time for Subscriptions Evaluated against Events in the Event Queue** table that has columns containing the following types of information:
  - **ESDT Count.**
  - **ESDT Short Name.**
  - **ESDT VersionID.**
  - **ESDT Event Type.**
  - **MaxMetadataTime (ms).**
  - **AverageMetadataTime (ms).**
  - **MaxSubEvalTime (ms).**
  - **AverageSubEvalTime (ms).**

- The **List Statistics** page has a **Summary of the Processing Time for E-Mail Notification Actions in Action Queue** table that has columns containing the following types of information:
  - **Notification Count.**
  - **MaxNotifyTime (ms).**
  - **AverageNotifyTime (ms).**
- The **List Statistics** page has a **Summary of the Processing Time for Distribution Actions in Action Queue** table that has columns containing the following types of information:
  - **Acquire Count.**
  - **MaxAcquireTime (ms).**
  - **AverageAcquireTime (ms).**

---

## Using the Spatial Subscription Server Command Line Interface

The **Spatial Subscription Server (SSS) Command Line Interface (CLI)** utility is intended for full-capability operators only. Because it is a UNIX utility, the **SSS CLI** depends on standard UNIX permissions to restrict execution of the script to authorized users.

The full-capability operator can perform the following tasks using the **Spatial Subscription Server (SSS) Command Line Interface (CLI)**:

- Viewing a subscription**.**
- Adding a new subscription.
- Updating a subscription.
- Deleting a subscription.

However, before updating a subscription or adding a new subscription, it is necessary to prepare an input file that is specified as an argument when using the **SSS CLI**.

When the operator uses the **SSS CLI** to view a subscription, the CLI creates a text file that the operator subsequently opens to view the subscription information. It is recommended that before updating a subscription using the **SSS CLI** the operator view the subscription first, which results in the creation of a text file that can be edited for use as input to the command for updating the subscription using the **SSS CLI**. In the same vein, before adding a new subscription, it would be useful to view a subscription that is similar to the one to be added, edit the resulting text file, and specify the edited file as an input to the command for adding the subscription.

## Preparing Input Files for Use with the SSS CLI

As previously mentioned, before updating a subscription or adding a new subscription, it is necessary to prepare an input file that is specified as an argument when using the **SSS CLI**. Although it is possible to create the needed file from scratch, it is generally much easier to use the **SSS CLI** to view a similar subscription, edit the resulting text file, and specify the edited file as an input to either the Add or Update command (as applicable).

Physical media distributions for subscriptions are supported through the use of bundling orders. The simplest way to do this is to create a bundling order via the GUI and then "bundle" the subscription by specifying the bundling order ID. Alternatively, if a bundling order ID is not specified for a physical media distribution, a bundling order will automatically be created for the subscription; however, in this case, all of the required information for the bundling order (such as shipping information) must be specified in the input file for the subscription.

If an operator updates a bundled subscription without altering the bundling order ID, the bundling order will be updated along with the subscription.

**Preparing Input Files for Use with the SSS CLI**

---

**1** Access a terminal window logged in to the APC Server host.

- Examples of APC Server host names include **e0acg11**, **g0acg01**, **l0acg02,** and **n0acg01**.
- For detailed instructions refer to Steps 1 through 5 of the **Launch Account Management Applications Using UNIX Commands** procedure (preceding section of this lesson).

**2** Type **cd** ***path*** then press **Return/Enter**.

- ***path*** is the directory path for the file to be created or edited (e.g., /home/cmops/subscriptions).
- The ***MODE*** will most likely be one of the following operating modes:
  - OPS (for normal operation).
  - TS1 (for SSI&T).
  - TS2 (new version checkout).
- Note that the separate subdirectories under /usr/ecs apply to different operating modes.

**3** Type **vi** ***filename*** then press **Return/Enter**.

- ***filename*** is the name of a file to be opened.
  - It may be either the name of an existing file (e.g., a subscription file ordered using the **SSS CLI** View command) or the name of a new file.

- For example:

  **x0pls01{cmops}[10]->vi  sub.109.txt**

  **SUBSCRIPTION=109**
  **USERNAME=mauser**
  **STATUS=Active**

  **[…]**

  **"sub.109.txt" [New file]**

  – Many lines have been deleted from the example.

- The file will specify the subscription information to be sent to the NBSRV database.

- Although this procedure has been written for the **vi** editor, any UNIX editor can be used to create the file.

**4** Using vi editor commands create a file that specifies the relevant values to be sent to the NBSRV database.

- The text file consists of several lines of attribute-value pairs, with one attribute-value pair per line.

- Comments can be included in the file as long as each comment line starts with the **#** character.

- When preparing a file for updating a subscription, the number of the subscription to be updated must appear in the file [e.g., on the SUBSCRIPTION line of the file, as shown in the previous example].

  – The number of the subscription is irrelevant when adding a subscription.  (The CLI ignores any subscription number in the file and assigns a new subscription number.)

- The following vi editor commands are useful:

  – **h** (move cursor left).

  – **j** (move cursor down).

  – **k** (move cursor up).

  – **l** (move cursor right).

  – **a** (append text).

  – **i** (insert text).

  – **r** (replace single character).

  – **x** (delete a character).

- **dw** (delete a word).
- **dd** (delete a line).
- ***n*dd** (delete *n* lines).
- **u** (undo previous change).
- **Esc** (switch to command mode).

**5** Press the **Esc** key.

**6** Type **ZZ**.

- **vi** exits and the new or edited file is saved.
  - To exit **vi** without saving the new entries in the file type **:q!** then press **Return/Enter**.
- UNIX prompt is displayed.

---

### Viewing a Subscription Using the SSS CLI

When the operator uses the **SSS CLI** to view a subscription, the CLI creates a text file that the operator subsequently opens (typically using a UNIX text editor or viewer) to view the subscription information. The file created using the **SSS CLI** View command can be used as a template for preparing an input file to be used with either the **SSS CLI** Update command or Add command.

**Viewing a Subscription Using the SSS CLI**

---

**1** Access a terminal window logged in to the APC Server host.

- Examples of APC Server host names include **e0acg11**, **g0acg01**, **l0acg02,** and **n0acg01**.
- For detailed instructions refer to Steps 1 through 5 of the **Launch Account Management Applications Using UNIX Commands** procedure (preceding section of this lesson).

**2** Type **cd /usr/ecs/*MODE*/CUSTOM/utilities** then press **Return/Enter**.

- Change directory to the directory containing the **SSS CLI** start-up script (i.e., EcNbSubscriptionCLIStart).
- The ***MODE*** will most likely be one of the following operating modes:
  - OPS (for normal operation).
  - TS1 (for SSI&T).

– TS2 (new version checkout).

- Note that the separate subdirectories under /usr/ecs apply to different operating modes.

**3** Type **EcNbSubscriptionCLIStart** ***MODE*** **View** ***number*** then press **Return/Enter**.

- ***number*** is the subscription number to be viewed.
- For example:

  **EcNbSubscriptionCLIStart OPS View 115**

- The CLI creates an output file named sub.*number*.txt (where *number* is the subscription number) in the current directory.
  - For example:

    **sub.115.txt**

  - If the command did not appear to succeed (e.g., a message is displayed indicating that there is no subscription with the specified number), check the log file (i.e., EcNbSubscriptionCLI.log in the logs directory for the mode) to determine what went wrong.

**4** Type **vi** ***filename*** then press **Return/Enter**.

- ***filename*** is the name of a file to be viewed.
- For example:

  **x0pls01{cmops}[10]->vi sub.115.txt**

  **SUBSCRIPTION=115**
  **USERNAME=resuam**
  **STATUS=Active**

  **[…]**

  **"sub.115.txt"**

  - Many lines have been deleted from the example.

- Although this procedure has been written for the **vi** editor, any UNIX editor can be used to create the file.

**5** Using vi editor commands observe the contents of the file.

- The file consists of several lines of attribute-value pairs, with one attribute-value pair per line.
- Comments in the file are identified by the **#** character at the beginning of each comment line.

- The following vi editor commands are useful:
  - **h** (move cursor left).
  - **j** (move cursor down).
  - **k** (move cursor up).
  - **l** (move cursor right).
  - **a** (append text).
  - **i** (insert text).
  - **r** (replace single character).
  - **x** (delete a character).
  - **dw** (delete a word).
  - **dd** (delete a line).
  - ***n*dd** (delete *n* lines).
  - **u** (undo previous change).
  - **Esc** (switch to command mode).

**6** Press the **Esc** key.

**7** Type **:q!** then press **Return/Enter**

- **vi** exits without saving any changes to the file.
- UNIX prompt is displayed.

---

### Adding a New Subscription Using the SSS CLI

If a new subscription is to be added using the **SSS CLI**, the appropriate input file must have been prepared first so the file can be included in arguments that are specified when the **SSS CLI** is started. The **SSS CLI** script takes a file name as one of the arguments specified when entering the command to add or update a subscription.

If the operator were to view a similar subscription (using the **SSS CLI** View command), the CLI would create a text file to be viewed. That file could be edited to adapt it to the requirements of the new subscription. Then the operator could specify the edited file as an input to the **SSS CLI** Add command.

**Adding a New Subscription Using the SSS CLI**

**1** Access a terminal window logged in to the APC Server host.

- Examples of APC Server host names include **e0acg11**, **g0acg01**, **l0acg02,** and **n0acg01**.
- For detailed instructions refer to Steps 1 through 5 of the **Launch Account Management Applications Using UNIX Commands** procedure (preceding section of this lesson).

**2** Type **cd /usr/ecs/*MODE*/CUSTOM/utilities** then press **Return/Enter**.

- Change directory to the directory containing the **SSS CLI** start-up script (i.e., EcNbSubscriptionCLIStart).
- The ***MODE*** will most likely be one of the following operating modes:
  - OPS (for normal operation).
  - TS1 (for SSI&T).
  - TS2 (new version checkout).
- Note that the separate subdirectories under /usr/ecs apply to different operating modes.

**3** Type **EcNbSubscriptionCLIStart** ***MODE*** **Add** ***path/filename*** then press **Return/Enter**.

- ***path/filename*** is the name of a file containing data describing the new subscription.
- For example:

  **EcNbSubscriptionCLIStart OPS Add /home/cmops/subscriptions/sub.109.txt**
- The subscription number for the new subscription is displayed.
  - If the command did not appear to succeed, check the log file (i.e., EcNbSubscriptionCLI.log in the logs directory for the mode) to determine what went wrong.

### Updating a Subscription Using the SSS CLI

If a subscription is to be updated using the **SSS CLI**, the appropriate input file must have been prepared first so the file can be included in arguments that are specified when the **SSS CLI** is started. The **SSS CLI** script takes a file name as one of the arguments specified when entering the command to update a subscription.

It is recommended that before updating a subscription using the **SSS CLI** the operator view the subscription (using the **SSS CLI** View command), which results in the creation of a text file that can be edited for use as input to the command for updating the subscription using the **SSS CLI**. Then the operator would edit the text file to include the desired updates. The operator would specify the edited file as an input to the **SSS CLI** Update command.

**Updating a Subscription Using the SSS CLI**

---

**1** Access a terminal window logged in to the APC Server host.

- Examples of APC Server host names include **e0acg11**, **g0acg01**, **l0acg02,** and **n0acg01**.
- For detailed instructions refer to Steps 1 through 5 of the **Launch Account Management Applications Using UNIX Commands** procedure (preceding section of this lesson).

**2** Type **cd /usr/ecs/*MODE*/CUSTOM/utilities** then press **Return/Enter**.

- Change directory to the directory containing the **SSS CLI** start-up script (i.e., EcNbSubscriptionCLIStart).
- The ***MODE*** will most likely be one of the following operating modes:
  - OPS (for normal operation).
  - TS1 (for SSI&T).
  - TS2 (new version checkout).
- Note that the separate subdirectories under /usr/ecs apply to different operating modes.

**3** Type **EcNbSubscriptionCLIStart *MODE* Update *path/filename*** then press **Return/Enter**.

- ***path/filename*** is the name of a file containing data describing the updated subscription.
- For example:

  **EcNbSubscriptionCLIStart OPS Update /home/cmops/subscriptions/sub.109.txt**
- The subscription is updated.
  - If the command did not appear to succeed, check the log file (i.e., EcNbSubscriptionCLI.log in the logs directory for the mode) to determine what went wrong.

---

## Deleting a Subscription Using the SSS CLI

When using the **SSS CLI** to delete a subscription, the operator must specify which subscription (number) is to be deleted.

**Deleting a Subscription Using the SSS CLI**

---

**1** Access a terminal window logged in to the APC Server host.

- Examples of APC Server host names include **e0acg11**, **g0acg01**, **l0acg02,** and **n0acg01**.
- For detailed instructions refer to Steps 1 through 5 of the **Launch Account Management Applications Using UNIX Commands** procedure (preceding section of this lesson).

**2** Type **cd /usr/ecs/*MODE*/CUSTOM/utilities** then press **Return/Enter**.

- Change directory to the directory containing the **SSS CLI** start-up script (i.e., EcNbSubscriptionCLIStart).
- The ***MODE*** will most likely be one of the following operating modes:
  - OPS (for normal operation).
  - TS1 (for SSI&T).
  - TS2 (new version checkout).
- Note that the separate subdirectories under /usr/ecs apply to different operating modes.

**3** Type **EcNbSubscriptionCLIStart *MODE* Delete *number*** then press **Return/Enter**.

- ***number*** is the subscription number to be deleted.
- For example:

  **EcNbSubscriptionCLIStart OPS Delete 325**
- The CLI requests confirmation of the deletion.
  - If the command did not appear to succeed (e.g., no confirmation is requested), check the log file (i.e., EcNbSubscriptionCLI.log in the logs directory for the mode) to determine what went wrong.

**4** Respond to the deletion confirmation message.

---

## Troubleshooting Spatial Subscription Server Problems

The Spatial Subscription Server is implemented through Perl scripts, and uses Sybase database functions. If the tool cannot be launched, or does not function (e.g., cannot accept subscriptions), you will need to ask the System Administrator to ensure that the appropriate scripts are functioning properly. It may be necessary to have the Database Administrator check to ensure that there are no problems with the database.

It is also possible to receive error messages when using the tool while it is apparently functioning normally. Error messages associated with the Spatial Subscription Server tool are listed in Appendix A of the *Release 7.11 Operations Tools Manual for the EMD Project* (Document 609-EMD-001). Table 3 is taken from the corresponding table in Document 609. If a problem cannot be identified and fixed without help within a reasonable period of time, the appropriate response is to call the help desk or submit a trouble ticket in accordance with site Problem Management policy.

***Table 3. Spatial Subscription Server GUI User Messages (1 of 3)***

| Message Text | Impact | Cause and Corrective Action |
|---|---|---|
| No subscription choice was selected, click on View, Update, or Delete. | No action taken on the subscription. | The user clicked ‘Apply’ for a subscription without specifying an action (view, update or delete). Return to previous page and select an action. |
| User Profile Validation Failure. User “” is unknown. | Subscription not added/updated. | The user attempted to add/update a subscription without specifying a userId. Return to previous page and enter a valid userId. |
| Datetime String Validation Failure | Subscription not added/updated. | The user entered an invalid datetime string. Return to previous page and enter a valid datetime string. |

***Table 3.  Spatial Subscription Server GUI User Messages (2 of 3)***

| Message Text | Impact | Cause and Corrective Action |
|---|---|---|
| ESDT Pattern Error | Subscription not added. | The user entered an invalid pattern for an ESDT short name.  Return to previous page and enter a valid pattern (or leave blank to see all possible ESDTs). |
| Subscription NOT added. The following input errors were detected:<br><br><description of the error> | Subscription not added/updated. | Invalid data was entered for a subscription and detected by Sybase when an insert into the database was attempted.  (For example, alpha data entered for a numeric field).  Return to previous page and correct the data entry described in the detailed error message. |
| No actions were entered for the subscription. | Subscription not added/updated. | A subscription must have at least one associated action.  Return to previous page and select at least one action by checking the checkbox for that action and entering the required data. |
| Cannot mix bundling with other types of actions | Subscription not added/updated. | If a subscription is bundled, it cannot have any other associated actions.  Return to previous page and either unbundle the subscription or uncheck any other checked actions. |
| All the mandatory acquire data for FtpPush (Pull) was not entered | Subscription not added/updated. | Required information was not entered for an acquire action (e.g., FTP password for a push operation).  Return to previous page and enter all requested information. |
| All the mandatory E-Mail Notification data was not entered | Subscription not added/updated. | Required information was not entered for an email notification action.  Return to previous page and enter all requested information. |
| All the mandatory Data Pool data was not entered | Subscription not added/updated. | Required information was not entered for a data pool action.  Return to previous page and enter all requested information. |
| No option was selected, click on Suspend All, Resume All or Cancel All | No action taken on subscriptions. | No action was specified to apply to the subscriptions associated with a theme. Return to the previous page and select an option. |
| “userId” must have a value | Bundling order not added/updated. | UserId was not specified for a bundling order.  Return to the previous page and enter a valid userId. |
| User Profile Validation Failure:  User <> is Unknown. | Bundling order not added/updated. | An invalid userId has been specified for a bundling order.  Return to the previous page and enter a valid userId. |

***Table 3. Spatial Subscription Server GUI User Messages (3 of 3)***

| Message Text | Impact | Cause and Corrective Action |
|---|---|---|
| Date format invalid. Please enter MM/DD/YYYY. | Bundling order not added/updated. | An invalid datetime has been entered for the bundling order expiration date. Return to the previous page and enter a valid datetime string. |
| <> must have a value | Bundling order not added/updated. | A required field has not been entered for a bundling order. (For example, street address for a physical media distribution.) Return to the previous page and enter the required information. |
| <> must be an integer | Bundling order not added/updated or completion criteria defaults not configured. | A non-numeric value was entered for one or more completion criteria. Return to the previous page and enter only numeric values for completion criteria. |

## Guidelines for Selecting Data for Data Pool Insertion

Because the intended use of the Data Pool is to facilitate access to current data or frequently used data, criteria must be established (and refined with experience) for inclusion. In addition, although large, the Data Pool storage capacity is finite. As the Data Pool volume approaches capacity, it is likely to be necessary to impose selection criteria for guidance in populating the Data Pool. Factors governing selection and retention of data for the Data Pool include:

- Serving user needs: It is intended that requests for Data Pool insert subscriptions to meet diverse needs of science and applications users will be a major factor in the selection of data for Data Pool insertion.
  - Federal, State, and Regional Government (e.g., inventorying, mapping, resource management, environmental monitoring).
  - Earth and social science research.
  - Education (e.g., earth and social sciences instruction and outreach by universities, schools, industry, and community agencies).
  - Intermediaries (e.g., provision of value-added services, hardware, and software by libraries, information centers, and data and information service companies).
  - Commercial (e.g., energy exploration and production, utilities, agriculture/agribusiness, forest management, manufacturing and processing, environmental management and restoration, media, shipping, weather information, and other business planning and operations).

- Balancing variety in data offered vs. persistence of need: It may be generally desirable to have the Data Pool populated with a variety of data to serve a broad interest, but it may be necessary to match retention periods for specific data sets to anticipated usage patterns.
  - Data variety ensures ready availability of useful data to serve diverse interests.
  - Optimal window of retention for a data set should reflect its use (e.g., data of interest primarily to the applications community may have its utility age more slowly than will data of interest primarily to the science community). Accordingly, for many data products, the science community may be able to tolerate a shorter window of retention, such as 30 days, whereas the applications community may benefit from having data products available for 3 months or more. This may vary by DAAC, depending on anticipated demand for different data sets by the science and applications communities.
- Data Type exclusion: A DAAC may elect to exclude certain data types from the Data Pool.
  - Products of known limited interest (e.g., on-demand products).
  - Products requiring billing and accounting; to facilitate user search, these products may be represented in the Data Pool with metadata only.
- Data quality selectivity: A DAAC may elect to use QA Flag qualifiers to permit Data Pool insertion only for granules that meet certain quality standards.
- Reducing demand on Data Distribution: It may be desirable for DAAC operators to establish a Data Pool insert subscription for data predicted or observed to be of high interest, thereby reducing the load on Data Distribution.
- In any event, DAACs should consider setting up initial criteria, monitoring data pool usage, and refining the criteria over time. The refinement process should be iterative in nature, allow for a phased expansion of input information on user needs, and include indicators for tracking level and nature of use.

# Data Pool User Access

## User Access to the Data Pool

User access to the Data Pool is through a web browser and download by FTP. There are two ways the user may access the Data Pool using a web browser: (1) access by a drill-down tool called the Data Pool Web Access GUI, and (2) through the EDG during a data search. The Data Pool Web Access GUI provides users with a rapid means of obtaining granules with associated metadata and any available browse granules. The interface allows a user to select a Data Group and successively select constraining criteria in a progressive narrowing of the search to drill down to desired granules. User Services must be familiar with the tool and be able to provide user assistance and support.

Figure 47 shows the welcome screen of the Data Pool Web Access GUI Home Page. The page briefly describes the Data Pool and provides various links for access to further information (e.g., **About Data Pool**, **About the DAAC**, **Release Notes**). It also provides options for a user to start searching the Data Pool by **Data Group**, **Data Set** (ESDT), or **Theme**. In addition, there is a link to a page (Figure 48) that allows the user to **set the order** in which the following parameters are presented during drill-down:

- **Data_Group.**
- **Data_Set.**
- **Date.**
- **Time_of_Day.**
- **Spatial.**
- **Cloud_Cover.**
- **Day/Night_Flag.**
- **Science_QA.**

During a search, a user may elect to use the bookmark function of Netscape (or other browser) to mark a point in the search so it will be possible to return to that page at a later time. It should be noted that the bookmark saves search criteria, and when the bookmark is used to resume searching, a new search is done with those criteria. Therefore, a user may note slightly different results in the second search (e.g., if new granules were added to the Data Pool after the first search).

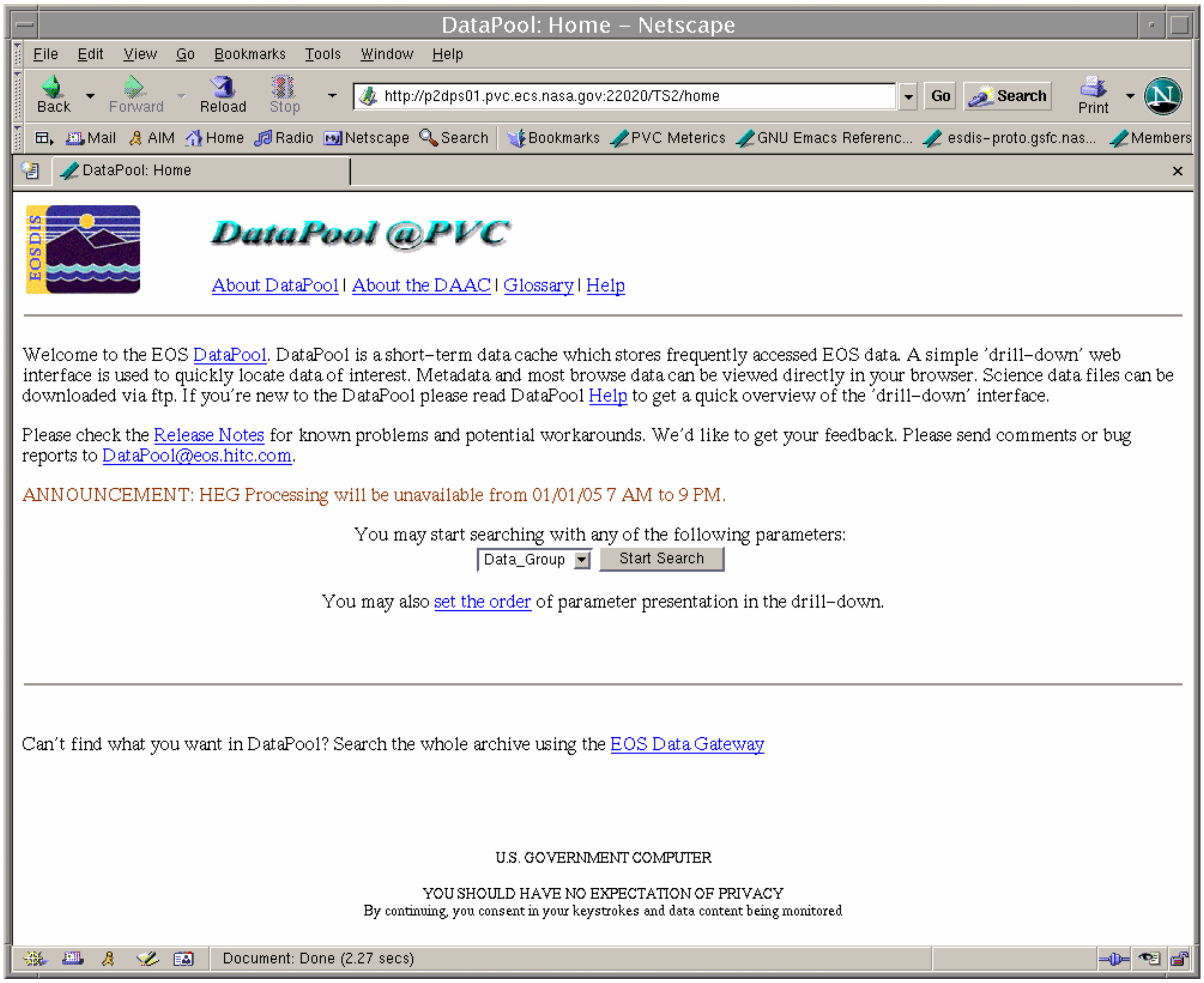



***Figure 47. Data Pool Web Access: Home Page (Welcome Screen)***

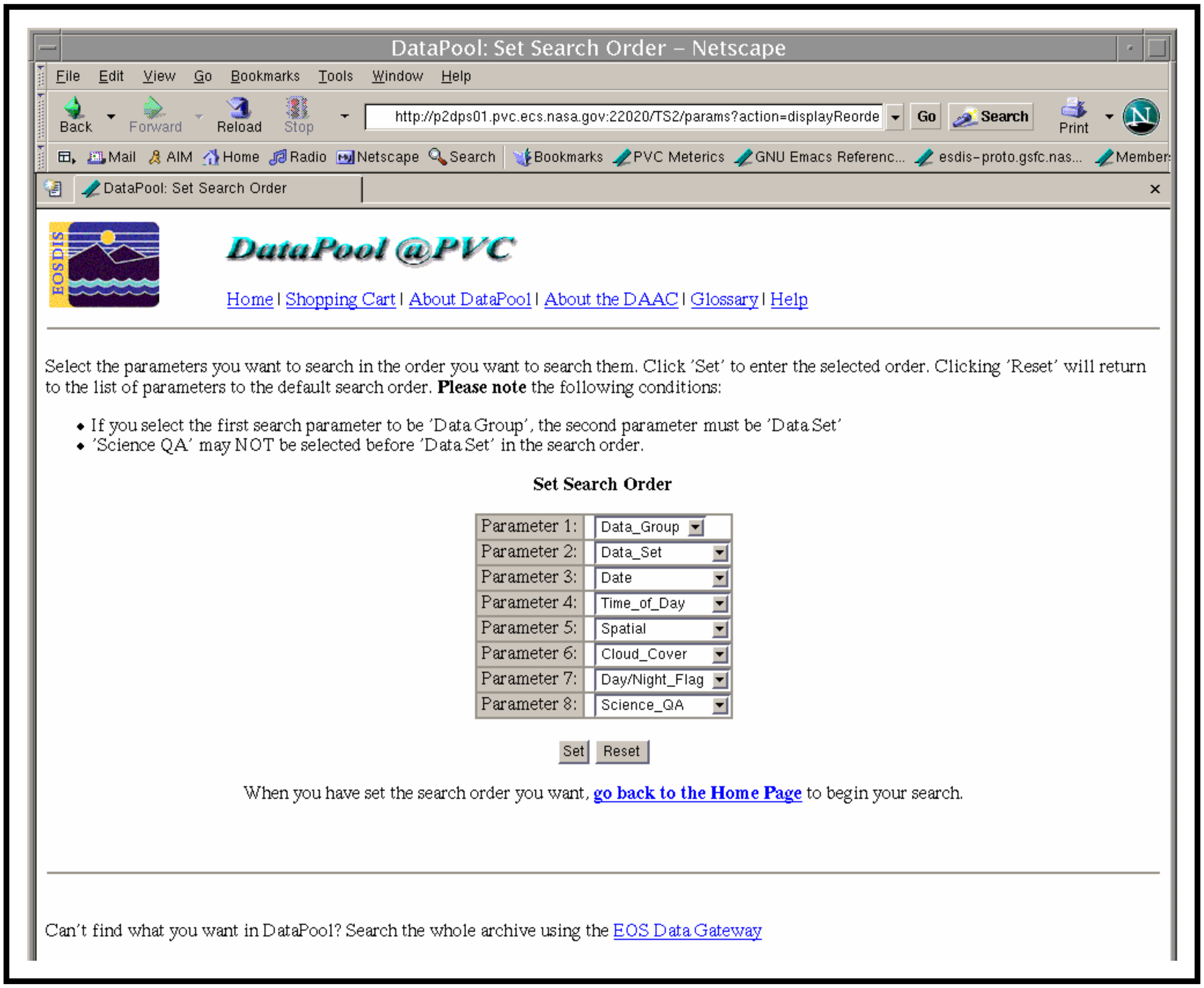



***Figure 48. Data Pool Web Access: Set Search Order Page***

Figure 49 shows one of the first selection screens of the Data Pool Web Access GUI, obtained if the user elects to start searching the Data Pool by **Theme** (selecting that option from the Home Page shown in Figure 47). This page permits selection of a theme of interest. It lists the available themes with a brief description of each and the number of granules related to that theme in the Data Pool. There are also options on the Home Page permitting the user to begin searching by **Data Group** or **Data Set** (ESDT) instead of by theme.

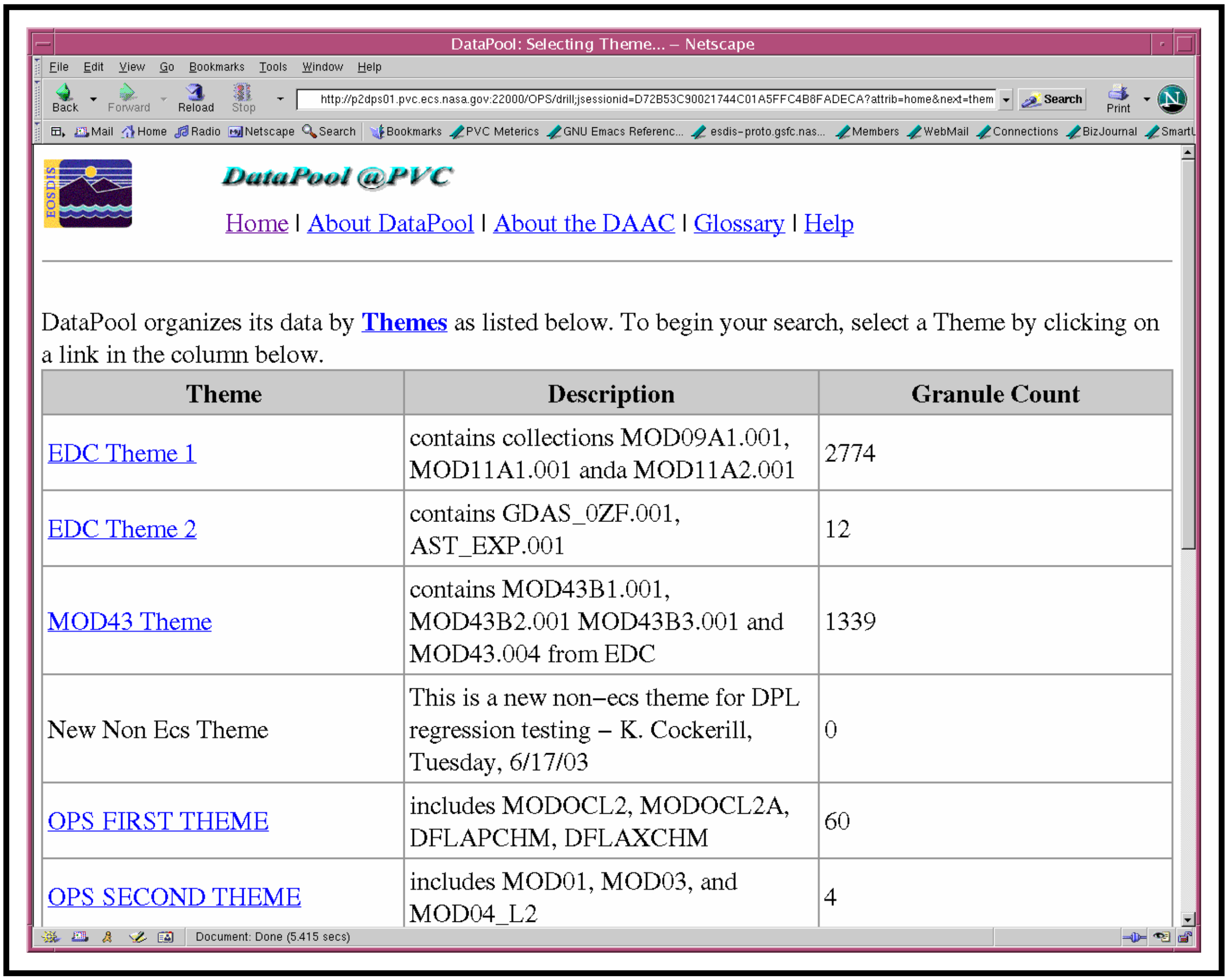
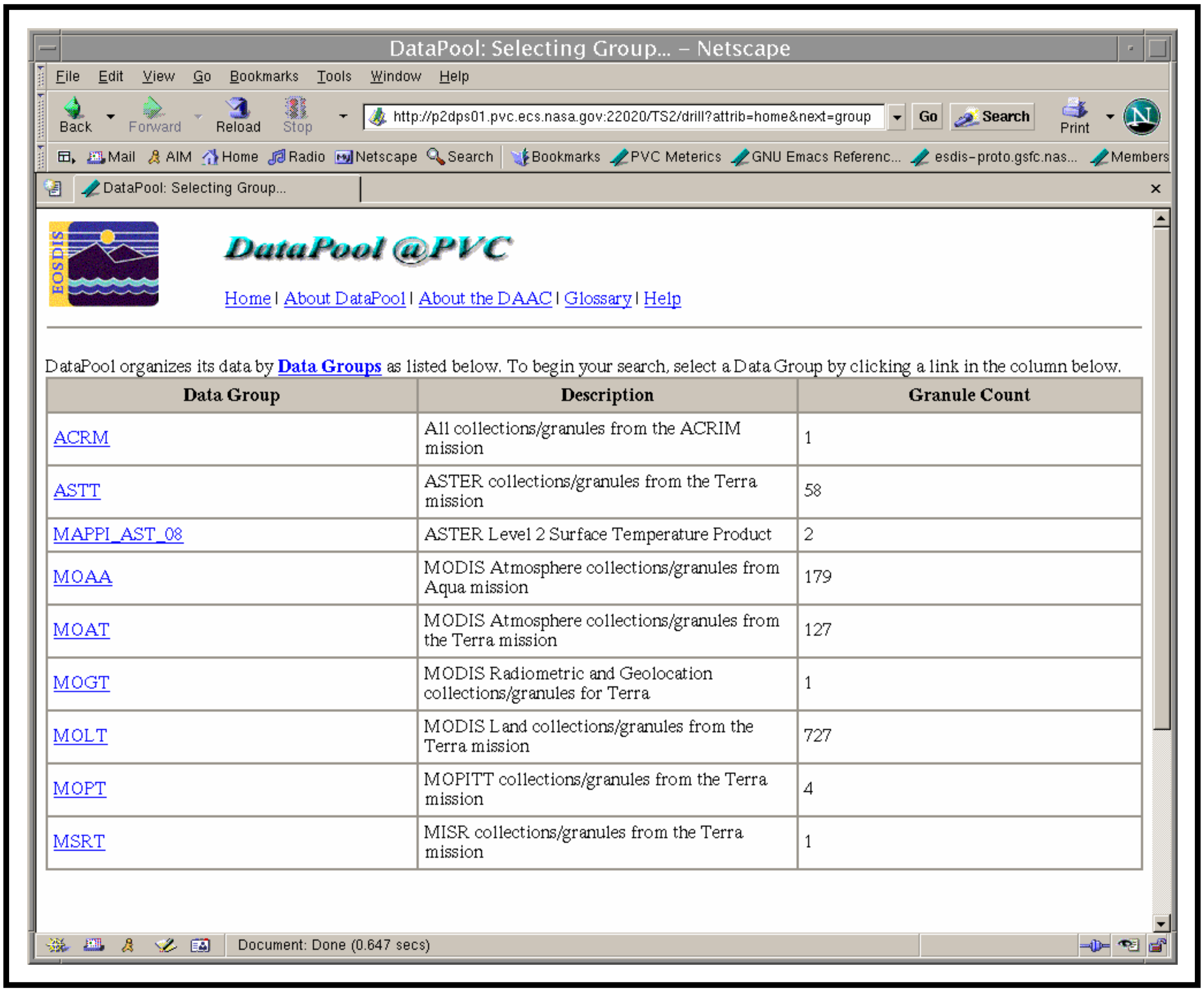



***Figure 49. Data Pool Web Access: Selecting Theme Page***

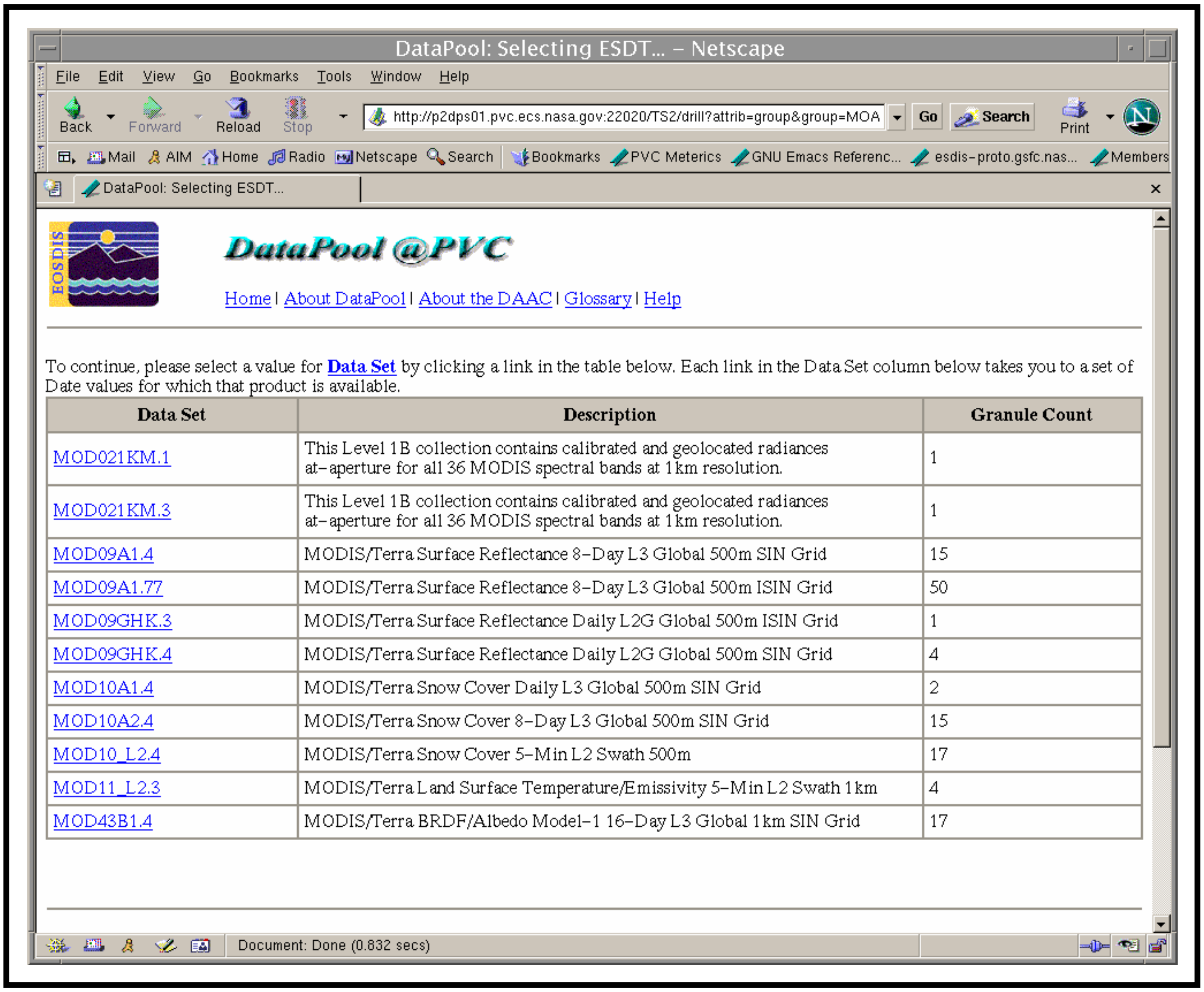
If the user elects to begin searching the Data Pool by **Data Group** (selecting that option from the Home Page screen shown in Figure 47), the interface displays the page illustrated in Figure 50 as the first selection screen. This page permits selection of a data group of interest. It lists data holdings with a brief description of each, granule count for each group, and a list of links to data groups for selection to start the search. Additionally, selection of a Data Group provides access to a **Data Set** (ESDT) selection page (Figure 51).

However, if the user initially starts to search by **Data Set** (having selected that option from the Home Page), a list of all data sets in the Data Pool is displayed, as shown in Figure 52. The **Selecting ESDT** (Data Set) page (Figure 51 or Figure 52) has a list of links to Earth Science Data Types (ESDTs) for narrowing the search, along with information about the number of granules and volume of data available in each data set.




| Data Group | Description | Granule Count |
|---|---|---|
| ACRM | All collections/granules from the ACRIM mission | 1 |
| ASTT | ASTER collections/granules from the Terra mission | 58 |
| MAPPI_AST_08 | ASTER Level 2 Surface Temperature Product | 2 |
| MOAA | MODIS Atmosphere collections/granules from Aqua mission | 179 |
| MOAT | MODIS Atmosphere collections/granules from the Terra mission | 127 |
| MOGT | MODIS Radiometric and Geolocation collections/granules for Terra | 1 |
| MOLT | MODIS Land collections/granules from the Terra mission | 727 |
| MOPT | MOPITT collections/granules from the Terra mission | 4 |
| MSRT | MISR collections/granules from the Terra mission | 1 |

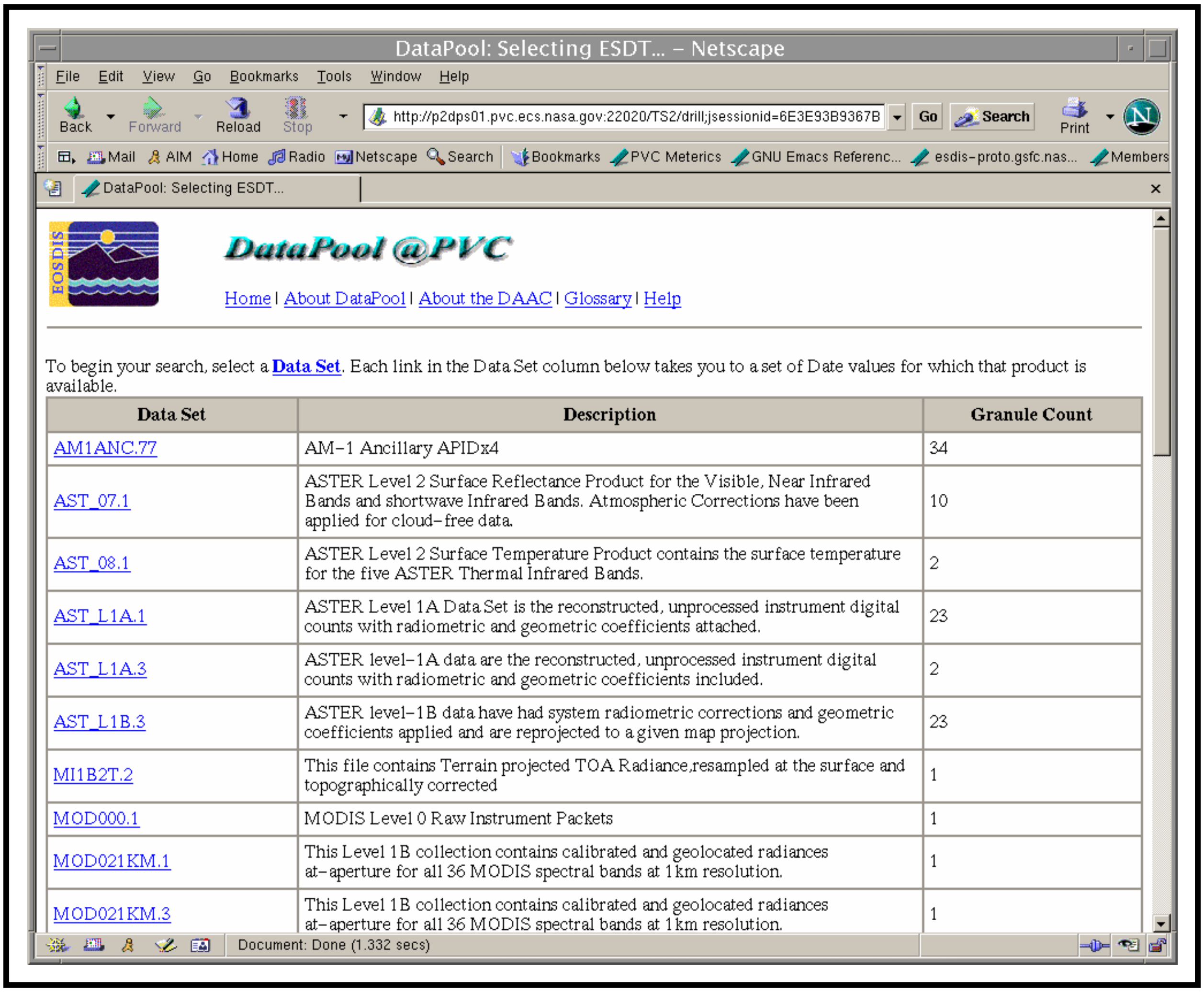
***Figure 50.  Data Pool Web Access:  Selecting (Data) Group Page***




To continue, please select a value for **Data Set** by clicking a link in the table below. Each link in the Data Set column below takes you to a set of Date values for which that product is available.

| Data Set | Description | Granule Count |
|---|---|---|
| MOD021KM.1 | This Level 1B collection contains calibrated and geolocated radiances at-aperture for all 36 MODIS spectral bands at 1km resolution. | 1 |
| MOD021KM.3 | This Level 1B collection contains calibrated and geolocated radiances at-aperture for all 36 MODIS spectral bands at 1km resolution. | 1 |
| MOD09A1.4 | MODIS/Terra Surface Reflectance 8-Day L3 Global 500m SIN Grid | 15 |
| MOD09A1.77 | MODIS/Terra Surface Reflectance 8-Day L3 Global 500m ISIN Grid | 50 |
| MOD09GHK.3 | MODIS/Terra Surface Reflectance Daily L2G Global 500m ISIN Grid | 1 |
| MOD09GHK.4 | MODIS/Terra Surface Reflectance Daily L2G Global 500m SIN Grid | 4 |
| MOD10A1.4 | MODIS/Terra Snow Cover Daily L3 Global 500m SIN Grid | 2 |
| MOD10A2.4 | MODIS/Terra Snow Cover 8-Day L3 Global 500m SIN Grid | 15 |
| MOD10_L2.4 | MODIS/Terra Snow Cover 5-Min L2 Swath 500m | 17 |
| MOD11_L2.3 | MODIS/Terra Land Surface Temperature/Emissivity 5-Min L2 Swath 1km | 4 |
| MOD43B1.4 | MODIS/Terra BRDF/Albedo Model-1 16-Day L3 Global 1km SIN Grid | 17 |

***Figure 51. Data Pool Web Access: Selecting ESDT (Data Set) Page (from Group Page)***




| Data Set | Description | Granule Count |
|---|---|---|
| AM1ANC.77 | AM-1 Ancillary APIDx4 | 34 |
| AST_07.1 | ASTER Level 2 Surface Reflectance Product for the Visible, Near Infrared Bands and shortwave Infrared Bands. Atmospheric Corrections have been applied for cloud-free data. | 10 |
| AST_08.1 | ASTER Level 2 Surface Temperature Product contains the surface temperature for the five ASTER Thermal Infrared Bands. | 2 |
| AST_L1A.1 | ASTER Level 1A Data Set is the reconstructed, unprocessed instrument digital counts with radiometric and geometric coefficients attached. | 23 |
| AST_L1A.3 | ASTER level-1A data are the reconstructed, unprocessed instrument digital counts with radiometric and geometric coefficients included. | 2 |
| AST_L1B.3 | ASTER level-1B data have had system radiometric corrections and geometric coefficients applied and are reprojected to a given map projection. | 23 |
| MI1B2T.2 | This file contains Terrain projected TOA Radiance,resampled at the surface and topographically corrected | 1 |
| MOD000.1 | MODIS Level 0 Raw Instrument Packets | 1 |
| MOD021KM.1 | This Level 1B collection contains calibrated and geolocated radiances at-aperture for all 36 MODIS spectral bands at 1km resolution. | 1 |
| MOD021KM.3 | This Level 1B collection contains calibrated and geolocated radiances at-aperture for all 36 MODIS spectral bands at 1km resolution. | 1 |

***Figure 52. Data Pool Web Access: Selecting ESDT (Data Set) Page (from Home Page)***

Figure 53 shows the **Selecting Date** page of the Data Pool Web Access GUI. The page has a calendar tool (**Select a Day, Week or Month**) on which active links indicate which days have available data. Alternatively, there is a **Date Range** feature with option buttons for selecting a **Start Date** (year/month/day) and an **End Date** (year/month/day) for the date range.

None of the following criteria are mandatory for drill-down:

- Date.
- Time_of_Day.
- Spatial.
- Cloud_Cover.

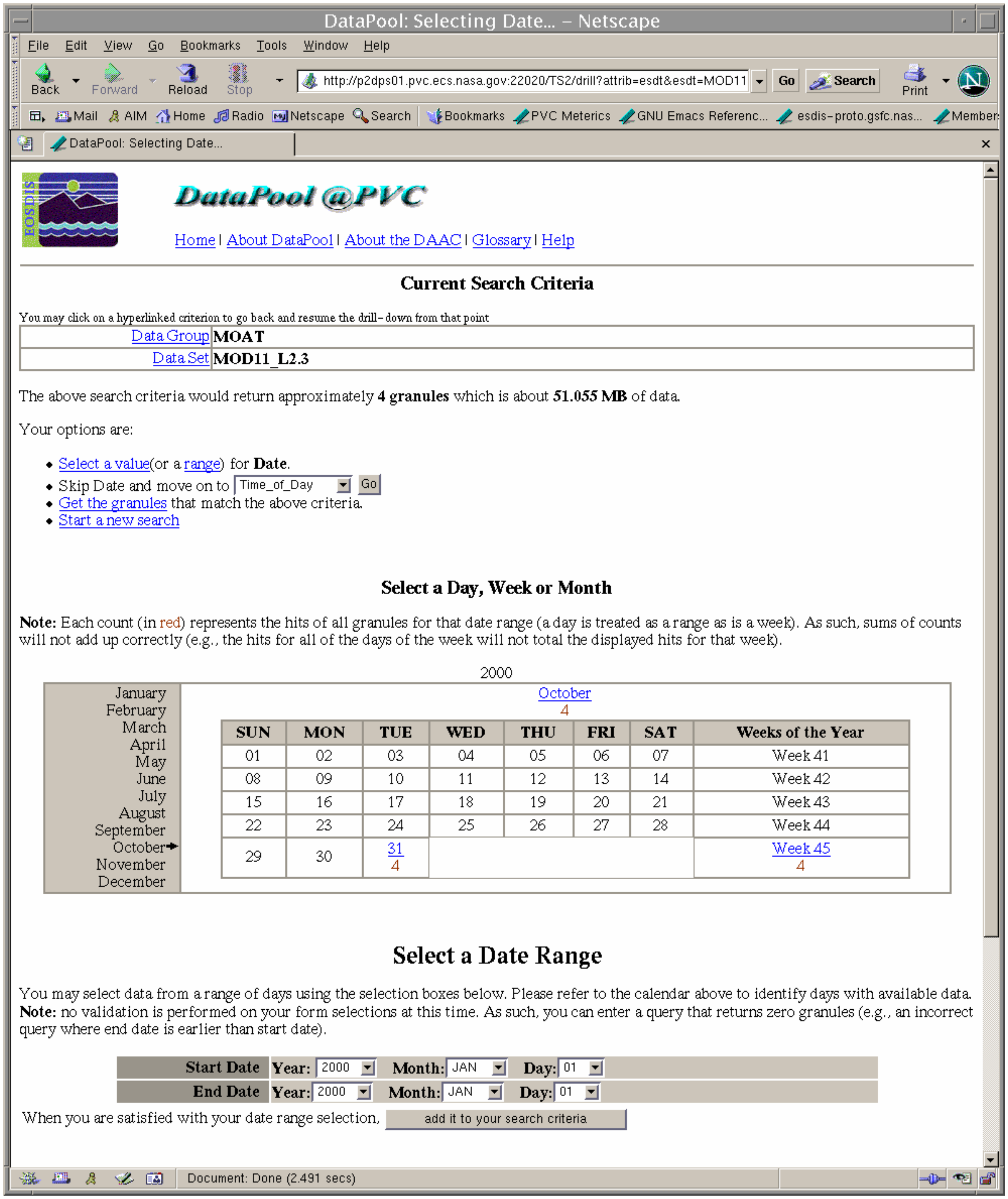



*Figure 53. Data Pool Web Access: Selecting Date Page*

- Day/Night_Flag.
- Science_QA.

In fact, some of the criteria are irrelevant to some types of data and are not included in the drill-down process when searching for granules of those types.

The corresponding pages (e.g., the **Selecting Date** screen) display the **Current Search Criteria** (e.g., **Theme**, **Data Group**, and/or **Data Set**) with links to revisit to any of the previous selection criteria. They list the number of granules and volume of data available if the search were to be conducted using the previously selected criteria. And they have a **Get the granules** link permitting an immediate search for granules based on the previously selected criteria (without specifying values for the criterion on the current page). In addition, they offer an option button for skipping the criterion on the current page and going to one of the other search criteria. Plus they each have a **Start a new search** link for restarting the drill-down from the beginning.

Figure 54 is an example of the **Selecting Time** page of the Data Pool Web Access GUI. The page has a **Select a Time of Day** matrix on which active links indicate which time periods have available data. Alternatively, there is a **Time Range** feature with option buttons for selecting a **Start Time** (hour/minute) and an **End Time** (hour/minute) that define a time range for the granule search.

Figure 55 illustrates the **Selecting Spatial Area of Interest** page of the Data Pool Web Access GUI. The page has a **Select from Map** section that features a density map from which the user (using a Java-enabled browser) can use the mouse to outline a spatial search region in which granules of interest would be located. Alternatively, there is a **Select Bounding Rectangle** feature with text boxes for typing the coordinates (latitude and longitude) of an area of interest. If a spatial area of interest is relevant to the granules being sought, it may be possible specify spatial subsetting from the **Shopping Cart** page.

Figure 56 shows an example of a **Selecting Cloud Cover** page of the Data Pool Web Access GUI. The page provides a description of the Source Parameter and Source Description for cloud cover and a choice of two methods for specifying acceptable cloud cover values. The **Select an Upper Limit** table has links for selecting a value that is less than or equal to one of nine maximum percentage values that are 10% apart from 10% to 90%. The number of granules that meets each percentage level is listed. The **Select a Range** feature has text boxes for typing two values (i.e., less than X% and greater than Y%) that define a range. If cloud cover is relevant to the granules being sought, it may be possible to select granules with appropriate cloud cover values from the **Viewing Search Results** page.

Figure 57 shows an example of a **Selecting Day/Night Flag** page of the Data Pool Web Access GUI. The page displays a **Select a value for Day/Night Flag** table on which active links indicate what selections [i.e., D (Day), N (Night), or B (Both)] are available and the number of granules available for each choice.

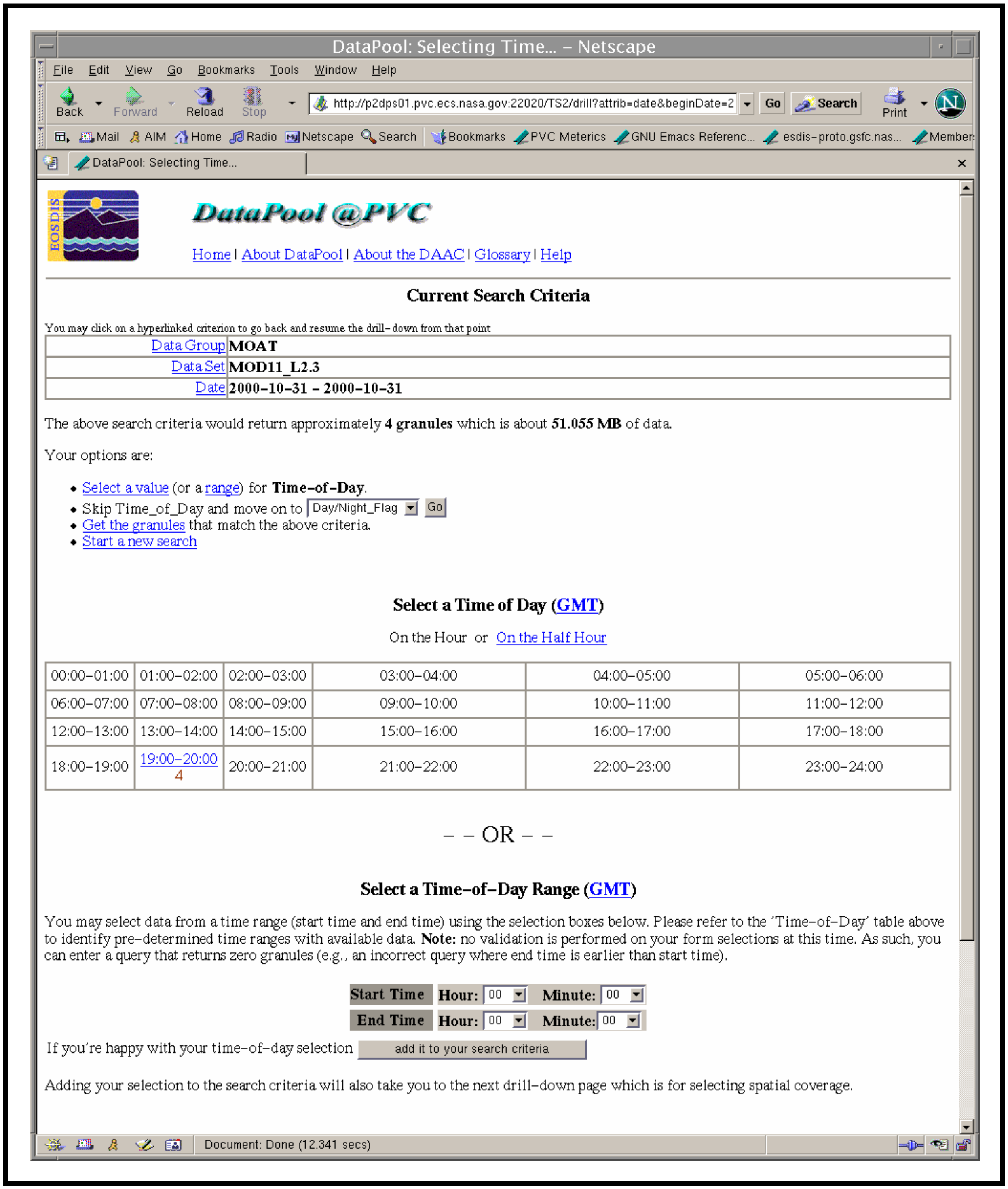



*Figure 54. Data Pool Web Access: Selecting Time Page*

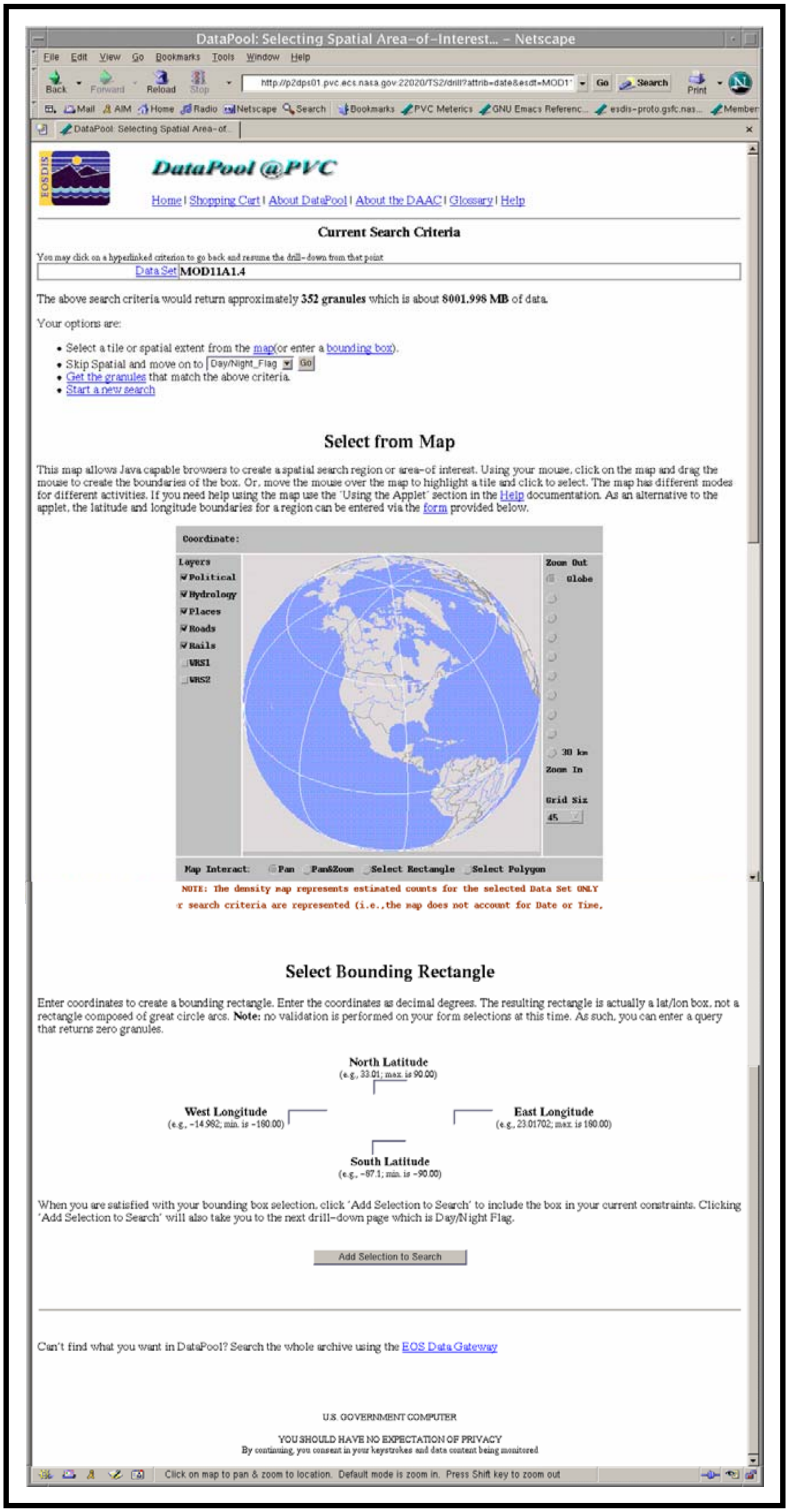



***Figure 55. Data Pool Web Access: Selecting Spatial Area of Interest Page***

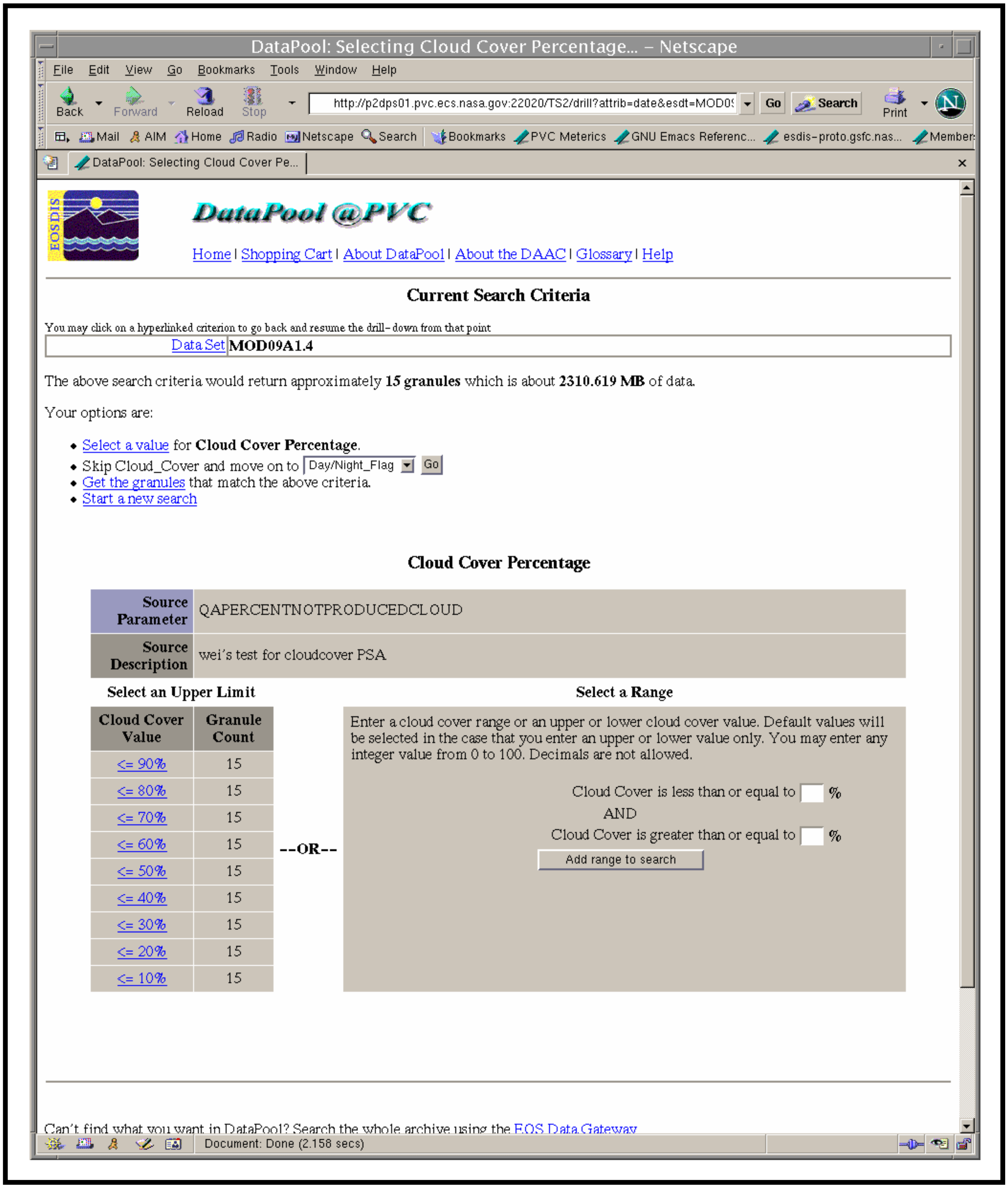



*Figure 56. Selecting Cloud Cover Percentage Page*

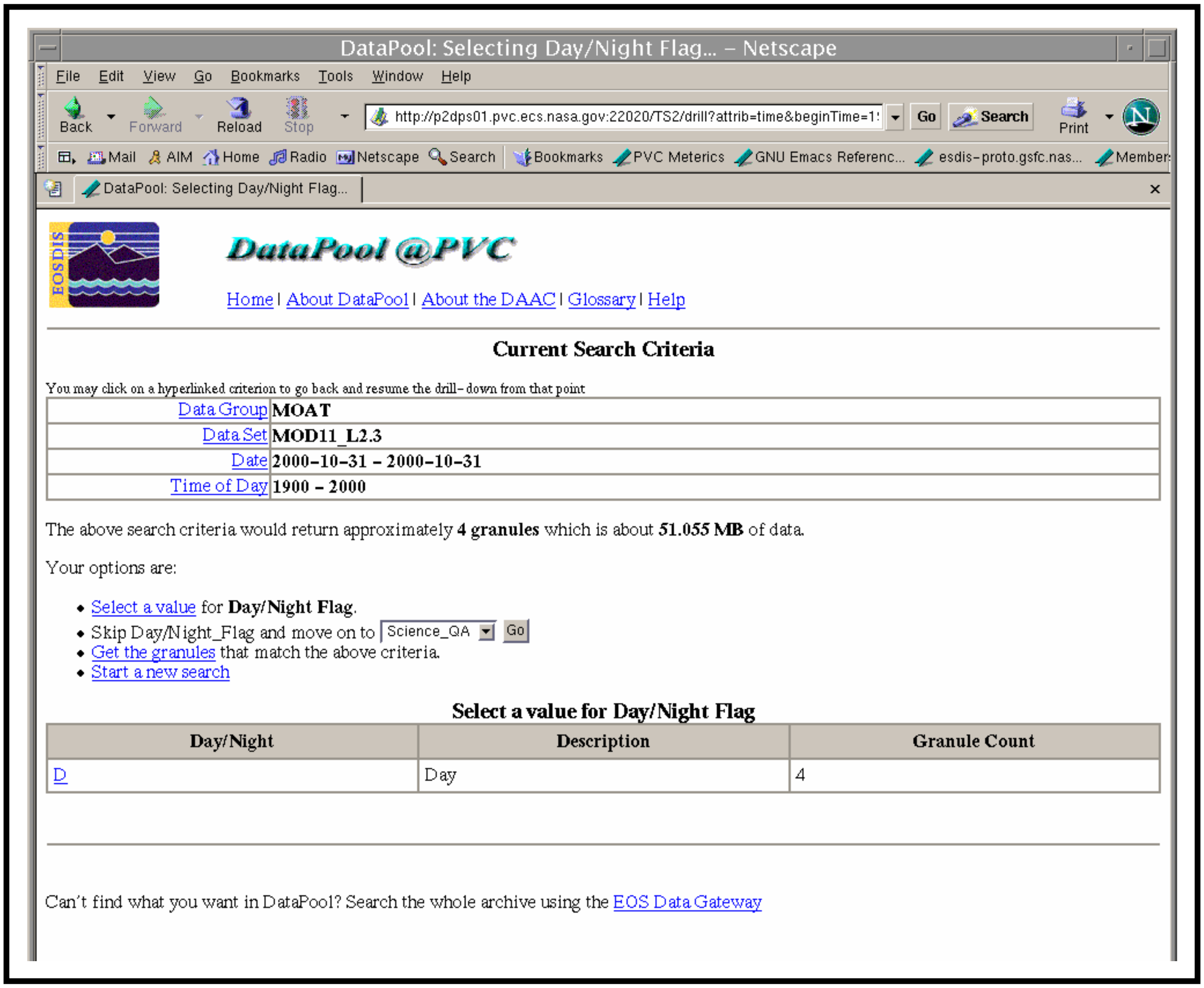



*Figure 57.  Data Pool Web Access:  Selecting Day/Night Flag Page*

Figure 58 is an example of the **Selecting Measured Parameter Science QA Flag** page of the Data Pool Web Access GUI.  The page has a **Select Measured Parameter** option button for selecting a parameter relevant to the granules being sought.  In addition, it has a **Select Science QA Flag** table on which active links indicate what science QA selections (e.g., Passed or Being Investigated) are available for the selected parameter and the number of granules available for each choice.

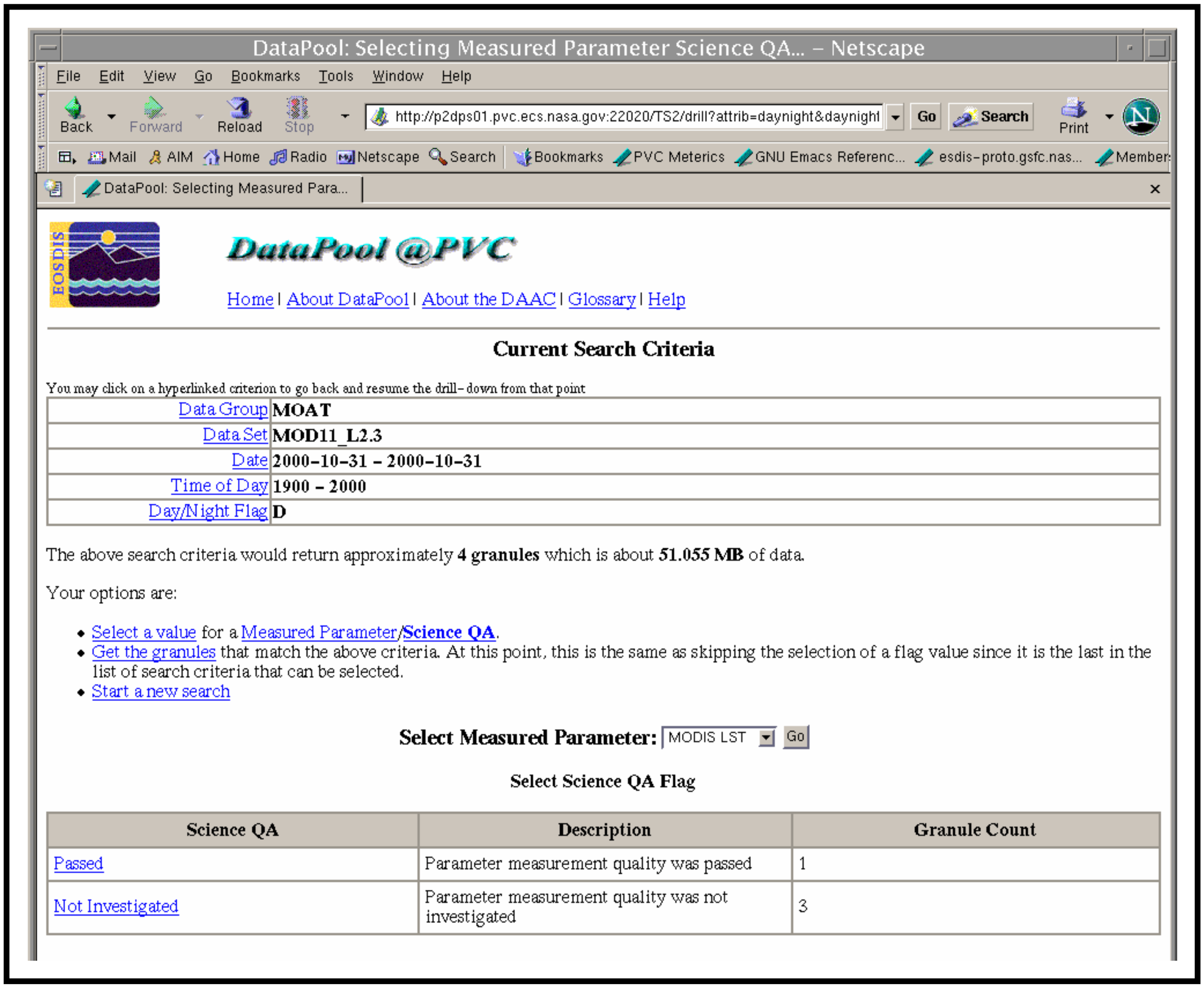



***Figure 58. Data Pool Web Access: Selecting Measured Parameter Science QA Flag Page***

Figure 59 shows an example of a **Viewing Search Results** page from the Data Pool Web Access GUI. A typical results page displays the relevant search criteria along with the results of the search. The **Search Criteria** section of the page has links for revisiting any of the selection criteria in order to refine the search. The number of granules and volume of data found during the search are listed. If case it is needed, there is a **Start a new search** link for restarting the drill-down from the beginning.

In the **Results** section of the page the granules located through the search are listed in a table that has the following columns:

- **Granule.**
- **Size (MB).**

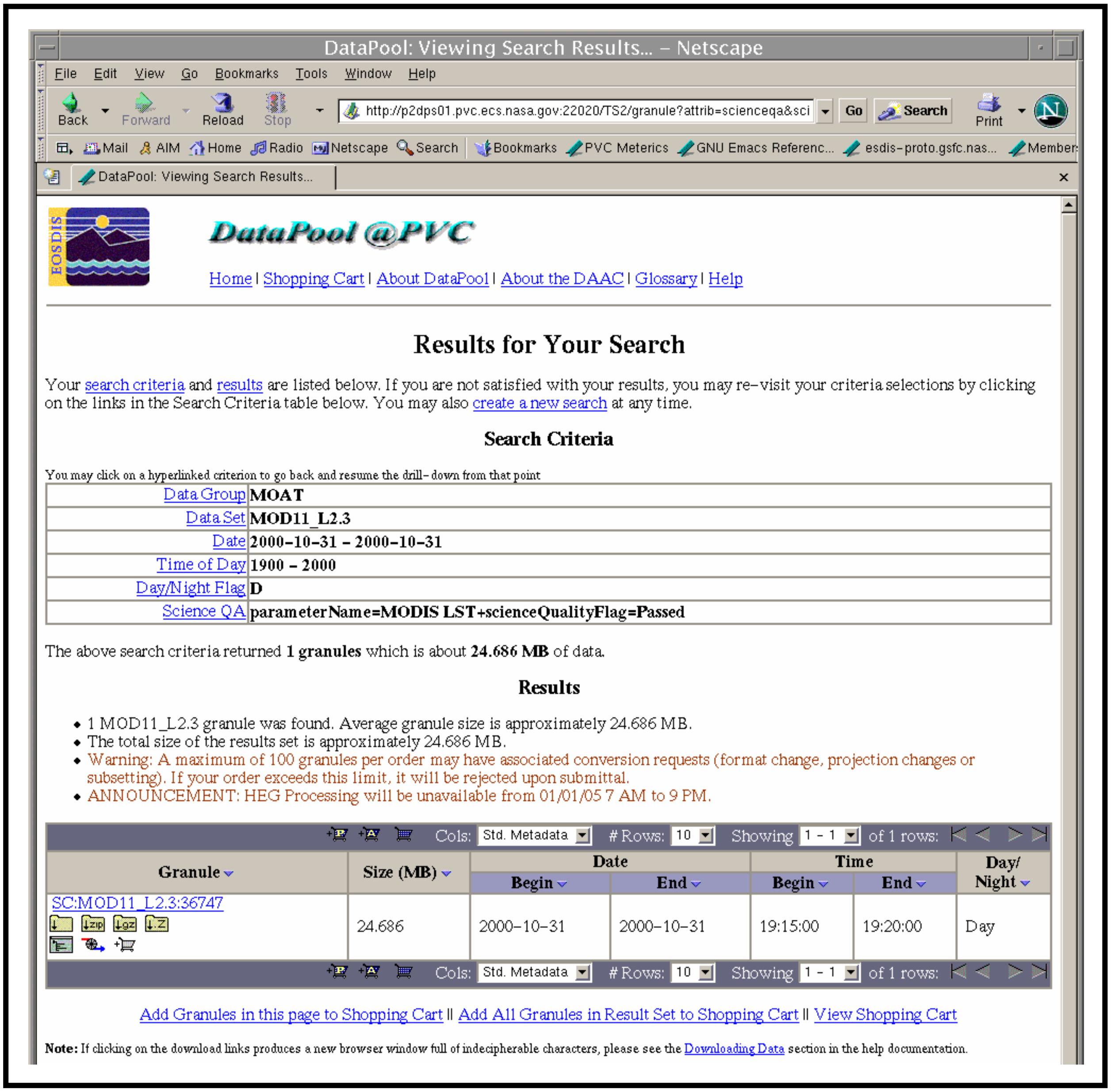



***Figure 59. Data Pool Web Access: Viewing Search Results Page***

- **Date (Begin and End).**
- **Time (Begin and End).**
- **Day/Night (Flag).**

There is an option button for displaying either of the following columns (rather than the **Std. Metadata**):

- **Science QA** (Figure 60).

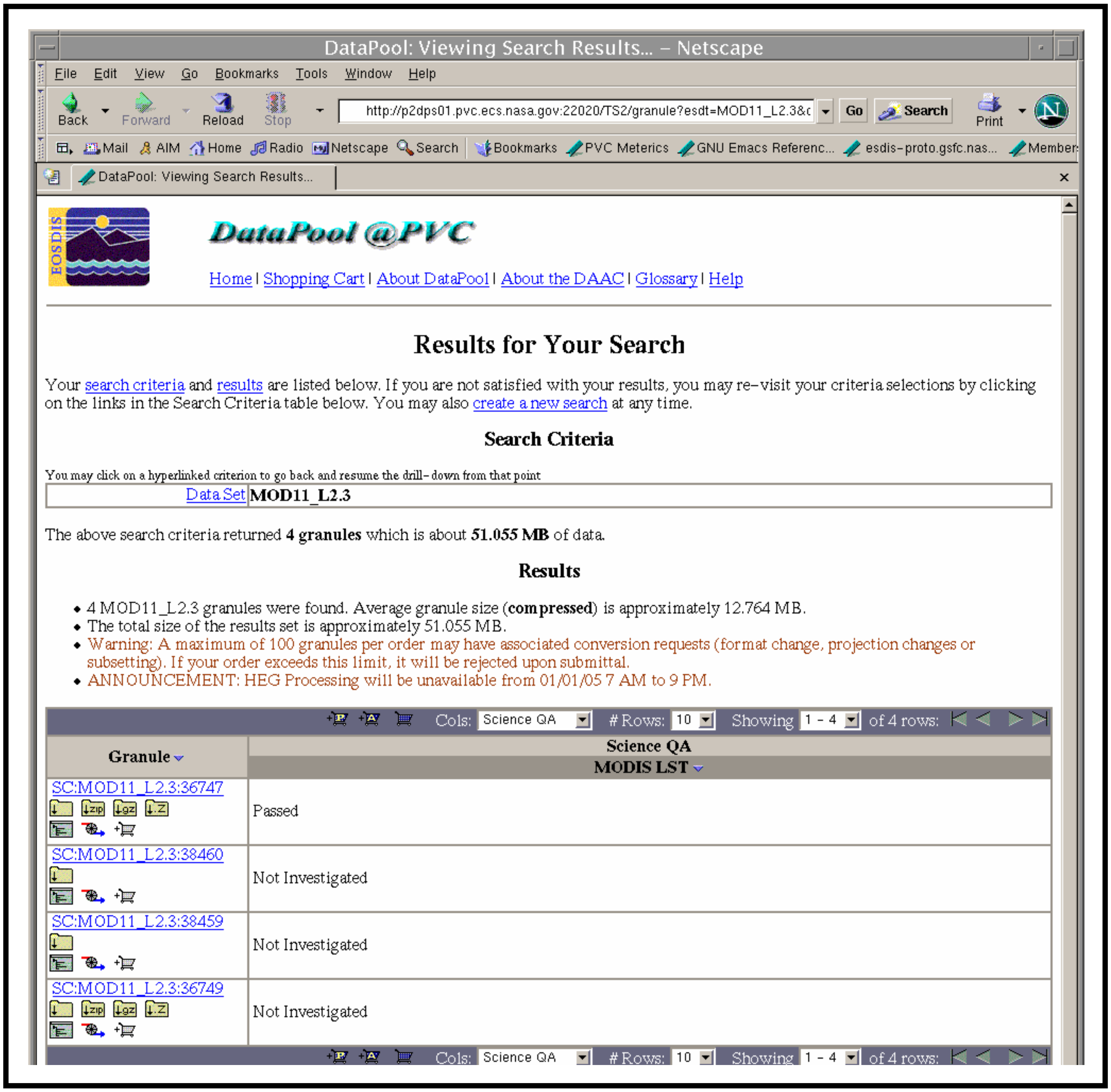



***Figure 60. Data Pool Web Access: Viewing Search Results Page – Science QA***

- **Cloud Cover** (Figure 61).

The **Granule** column in the **Results** table displays multiple icons for each listed granule (although not all icons are relevant to all granules):

- Download granule.
- Download granule using zip compression (*.zip).
- Download granule using gnu zip compression (*.gz).

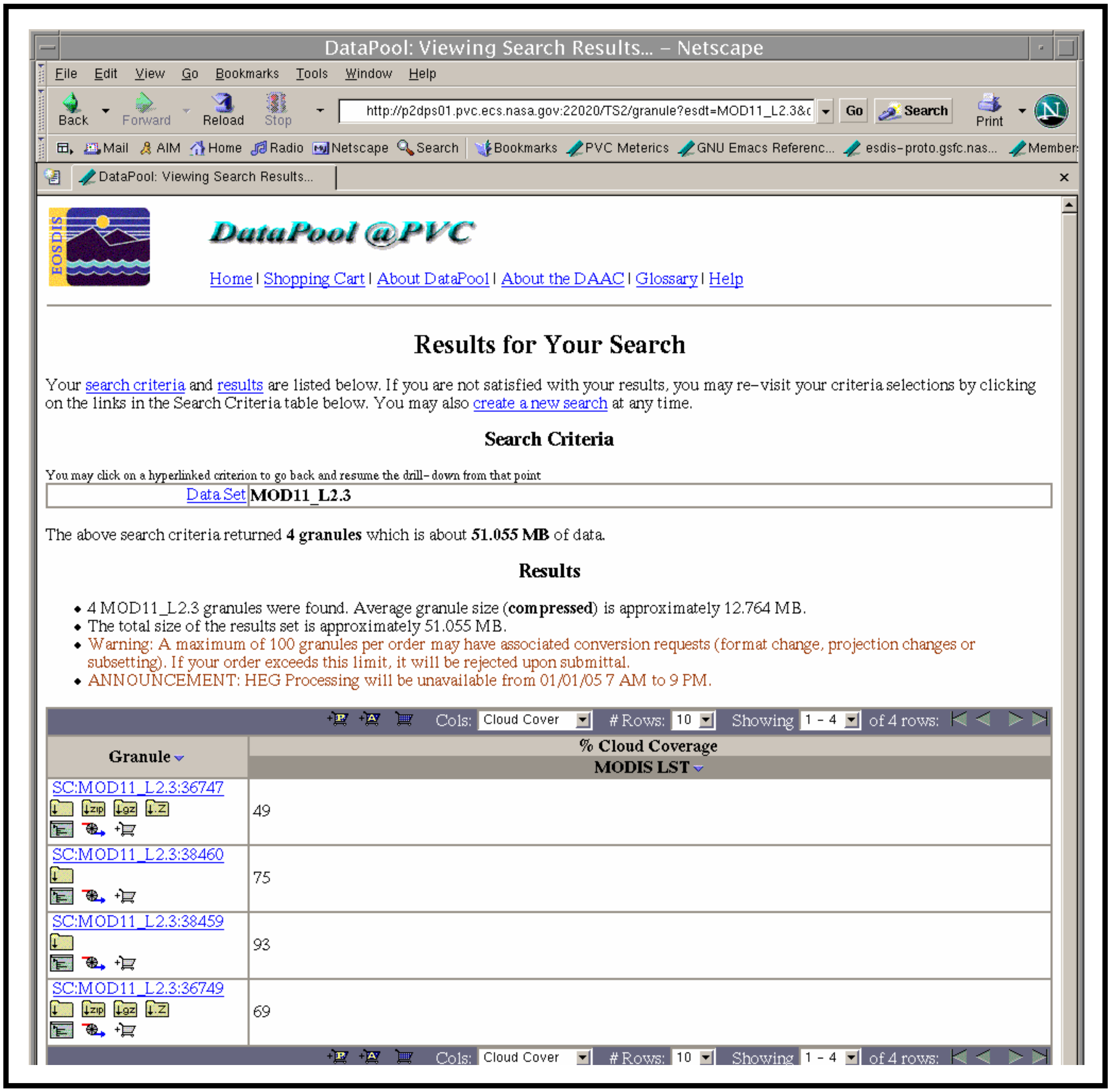



*Figure 61. Data Pool Web Access: Viewing Search Results Page – Cloud Cover*

- Download granule using UNIX compression (*.Z).
- View complete metadata for [granule].
- View browse for [granule].
- View metadata and browse images.
- Supports HEG operations.

- Add to shopping cart.

In general clicking on one of the icons in the preceding list (except “Supports HEG operations”) initiates the specified action. [HDF-EOS to GeoTIFF (HEG) format conversions are handled through the “Format” options on the **Your Shopping Cart** page.] For example, clicking on the **View complete metadata for …** icon launches a separate **Granule Metadata Viewer** window (Figure 62) for displaying the granule’s metadata. The viewer shows XML metadata for the selected granule. A scroll bar permits scrolling through the displayed metadata. In addition, there are links for displaying metadata for other granules in the results list, and an icon for saving the metadata file.

Clicking on the **View browse for …** icon launches a separate **Browser Viewer** window (Figure 63) for displaying the browse for the granule. The viewer shows any available browse image for the selected granule. A scroll bar permits scrolling of the image. And there are also links for displaying browse images for other granules in the results list.

Clicking on the **Supports HEG operations** icon brings up a separate **HEG Processing Information** window (Figure 64) that describes the HEG processing options for the granule.

Clicking on the **Add to shopping cart** icon puts the granule in the shopping cart and causes a red checkmark to be superimposed over that icon.

Below the **Results** table are the following three links:

- Add Granules in this page to Shopping Cart.
- Add All Granules in Result Set to Shopping Cart.
- View Shopping Cart.

Clicking on the **View Shopping Cart** link near the bottom of the **Viewing Search Results** page brings up the **Your Shopping Cart** window (Figure 65). The page has links for returning to the **Viewing Search Results** page or starting a new search. The total number of granules and volume of data added to the shopping cart are listed.

In the **Cart Contents** section of the page the granules added to the cart are listed in a table that has the following columns:

- **Granule.**
- **Size (MB).**
- **Format.**
- **Projection.**
- **Subsetting.**

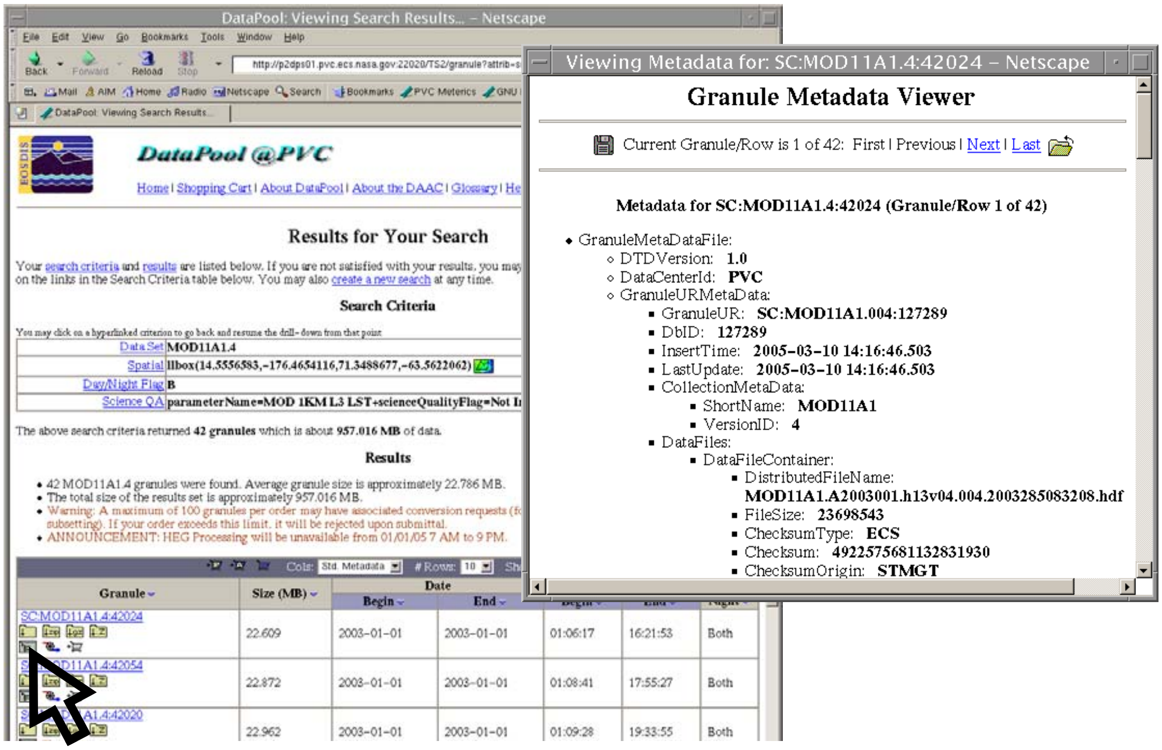



***Figure 62. Data Pool Web Access: Granule Metadata Viewer***

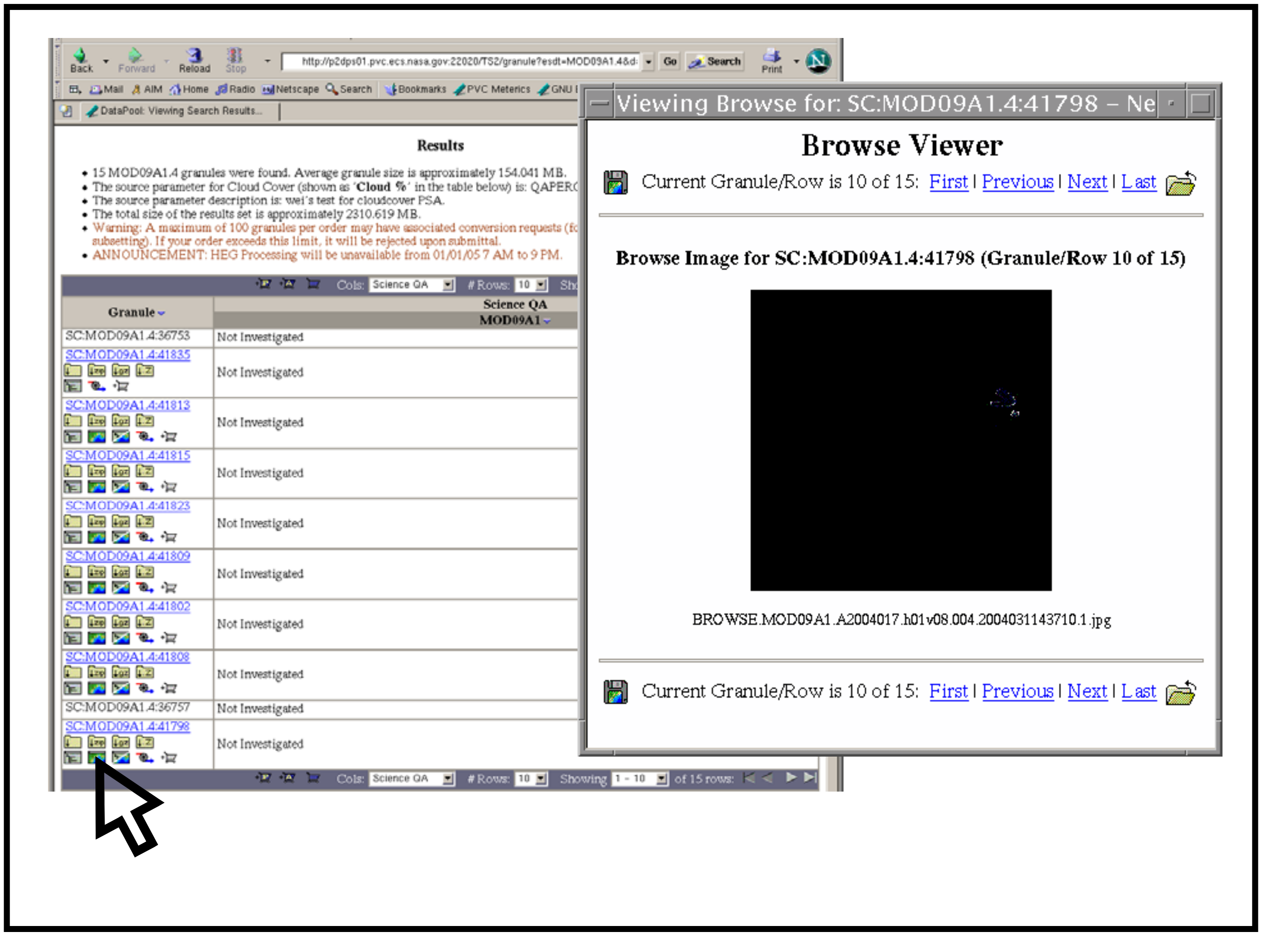



*Figure 63. Data Pool Web Access: Browse Viewer*

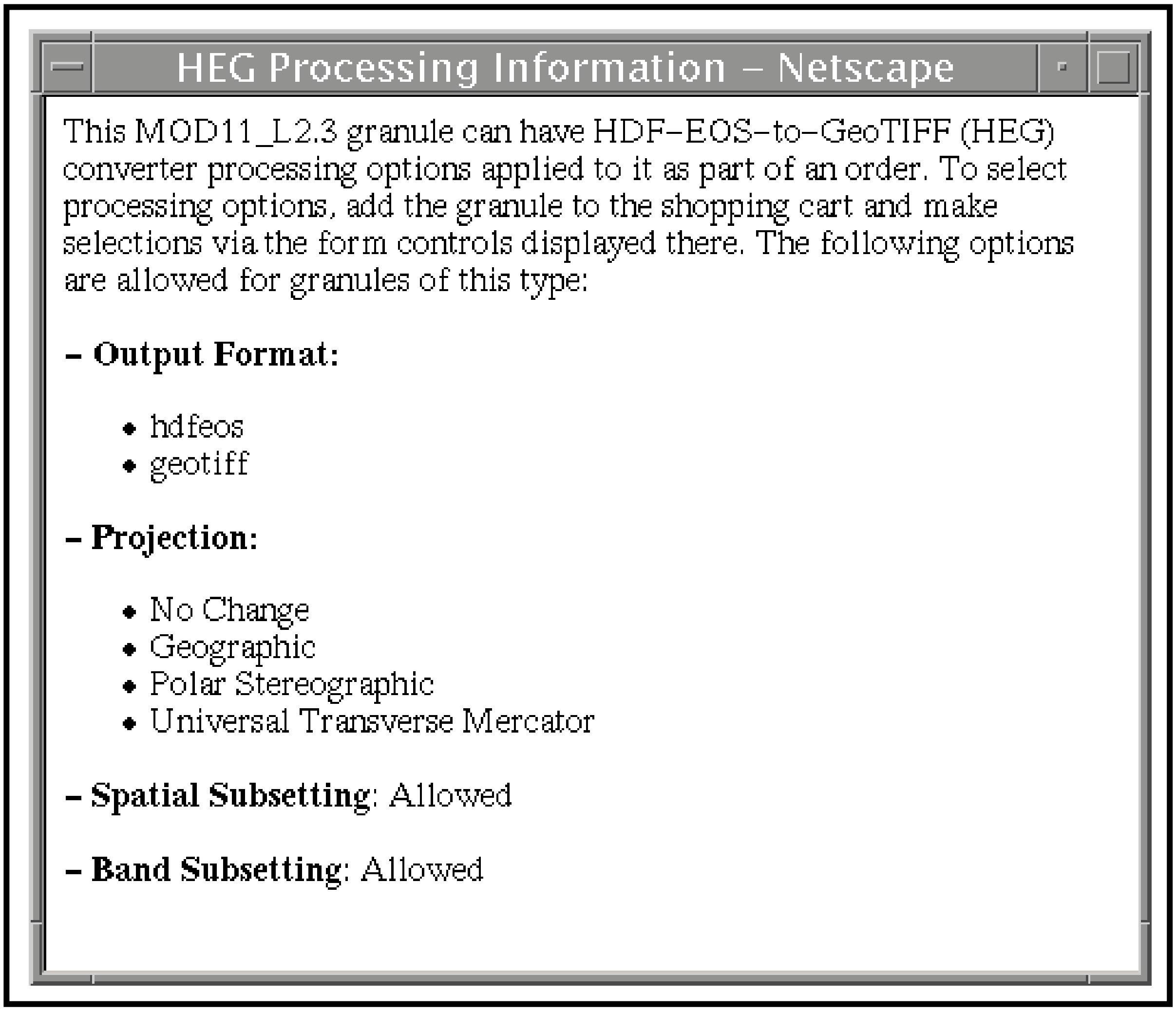



***Figure 64. HEG Processing Information Window***

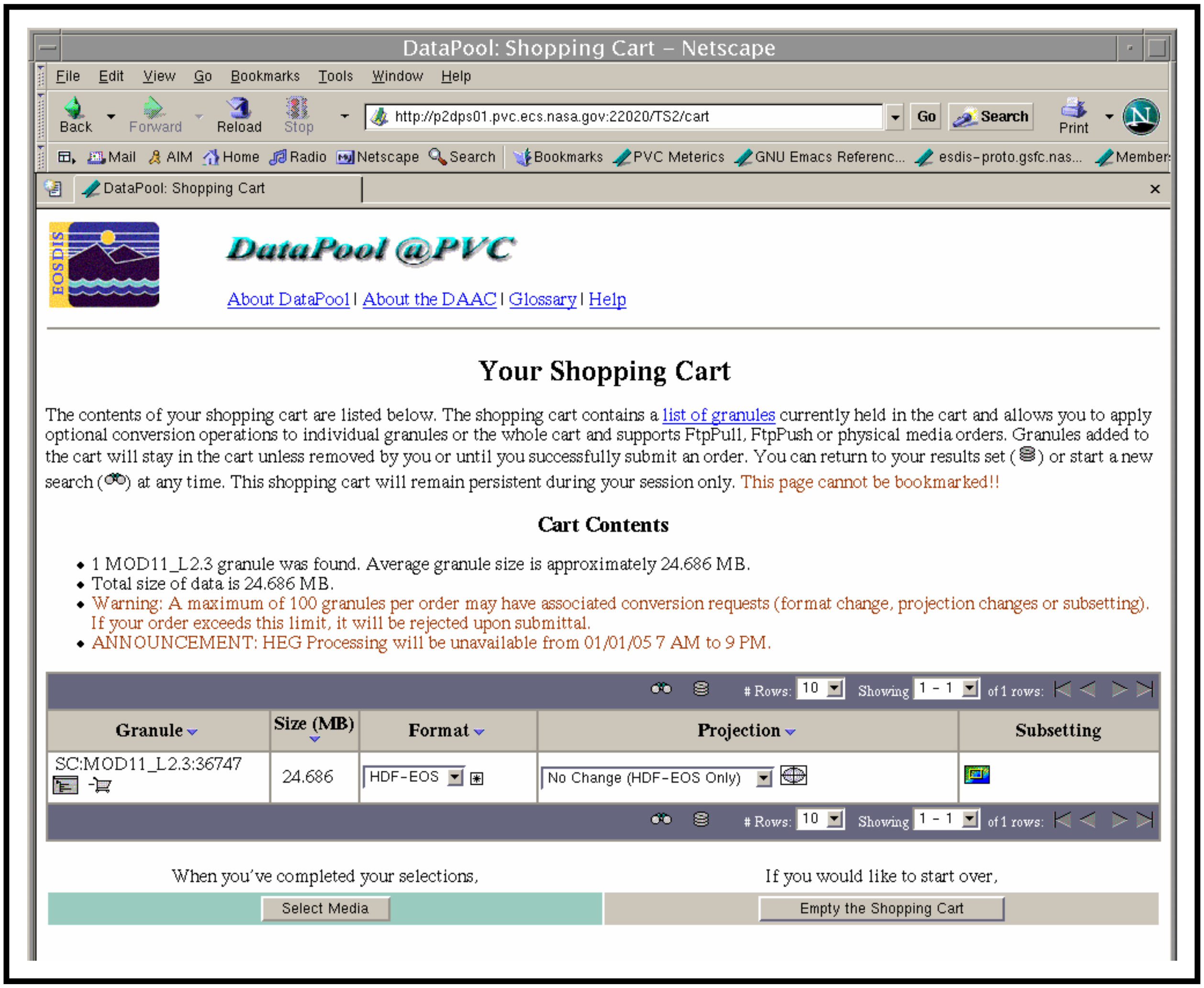



*Figure 65. Data Pool Web Access: Your Shopping Cart Window*

The **Granule** column in the **Cart Contents** table lists the granules that were added to the shopping cart from the **Viewing Search Results** page. In addition, it displays icons for viewing the metadata associated with each granule, viewing the browse image associated with the granule (if available), or removing the granule from the shopping cart. The **Format** column has an option button for selecting HDF-EOS to GeoTIFF (HEG) format conversion (if available for the granule). Adjacent to the option button is an icon to **Apply the selection for [granule] to all granules in the Shopping Cart**.

The **Projection** column in the **Cart Contents** table has an option button for selecting a projection option such as those in the following list:

- **No Change** [default].
- **Geographic.**

- **Lambert's Azimuthal Equal Area.**
- **Lambert's Conformal Conic.**
- **Polar Stereographic.**
- **Sinusoidal.**
- **State Plane Coordinate System.**
- **Transverse Mercator.**
- **Universal Transverse Mercator.**

Adjacent to the **Projection** option button is an icon to **Enter projection input parameters for [granule]**. Clicking on the icon launches a **Projection Input Parameters** dialogue box (Figure 66), which has text boxes for entering degrees longitude and latitude in the desired UTM zone.

The **Subsetting** column in the **Cart Contents** table has an **Enter spatial subsetting parameters for [granule]** icon. Clicking on the icon brings up a **Spatial Subsetting** dialogue box (Figure 67), which has text boxes for entering coordinates (latitude and longitude) for granule subsetting.

Clicking on the **Select Media** button on the **Your Shopping Cart** window (Figure 65) displays the **Media Selection** (**Media Options**) page (Figure 68). In addition, it is possible to gain access to the **Media Options** page from the **Viewing Search Results** page by clicking on the **Download granule** icon (or the granule identification link) or b clicking on one of the compression option icons.

The **Media Options** page makes it possible to order data on hard media (e.g., CD, DVD, or DLT tape) as an alternative to downloading the data. The **Media Options** page lists the types of media available for the granules in the shopping cart and (if applicable) explains why certain media cannot be selected. Clicking on the **OK** button after selecting a distribution medium brings up the **Checkout** page.

If the download option is selected, the **Checkout** page has a **Download Profile** (Figure 69) with text boxes for entering user name and e-mail address and a check box for requesting order notification by e-mail. The checkout page for downloads has a button for ordering the data and buttons for returning to either the shopping cart or the media selection page. Clicking on the **Order the data** button on the **Checkout** page brings up a dialogue box to confirm the intention to order the data. Confirmation leads to a **Download Ordered Data** page (Figure 70), which provides an order ID and compression options (including "no compression").

If one of the physical media options is selected on the **Media Options** page, the **Checkout** page (Figure 71) provides packaging options and text boxes for entering shipping/contact addresses. The packaging options indicate whether or not the input granule metadata file should be included [and if applicable, whether or not the output granule metadata file(s) should be included] and any user comments (if desired). The checkout page for physical media has a button for confirming

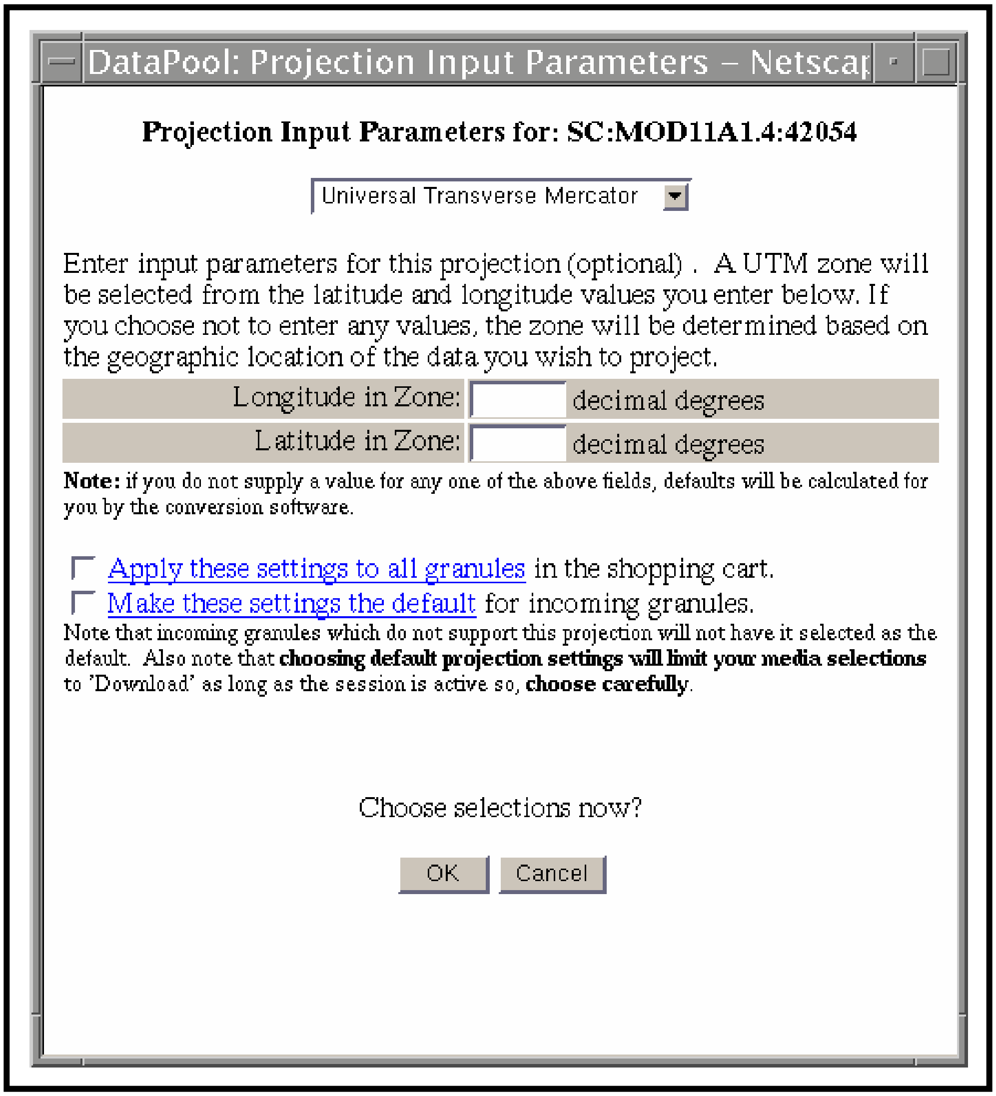



***Figure 66. Data Pool Web Access: Projection Input Parameters Dialogue Box***

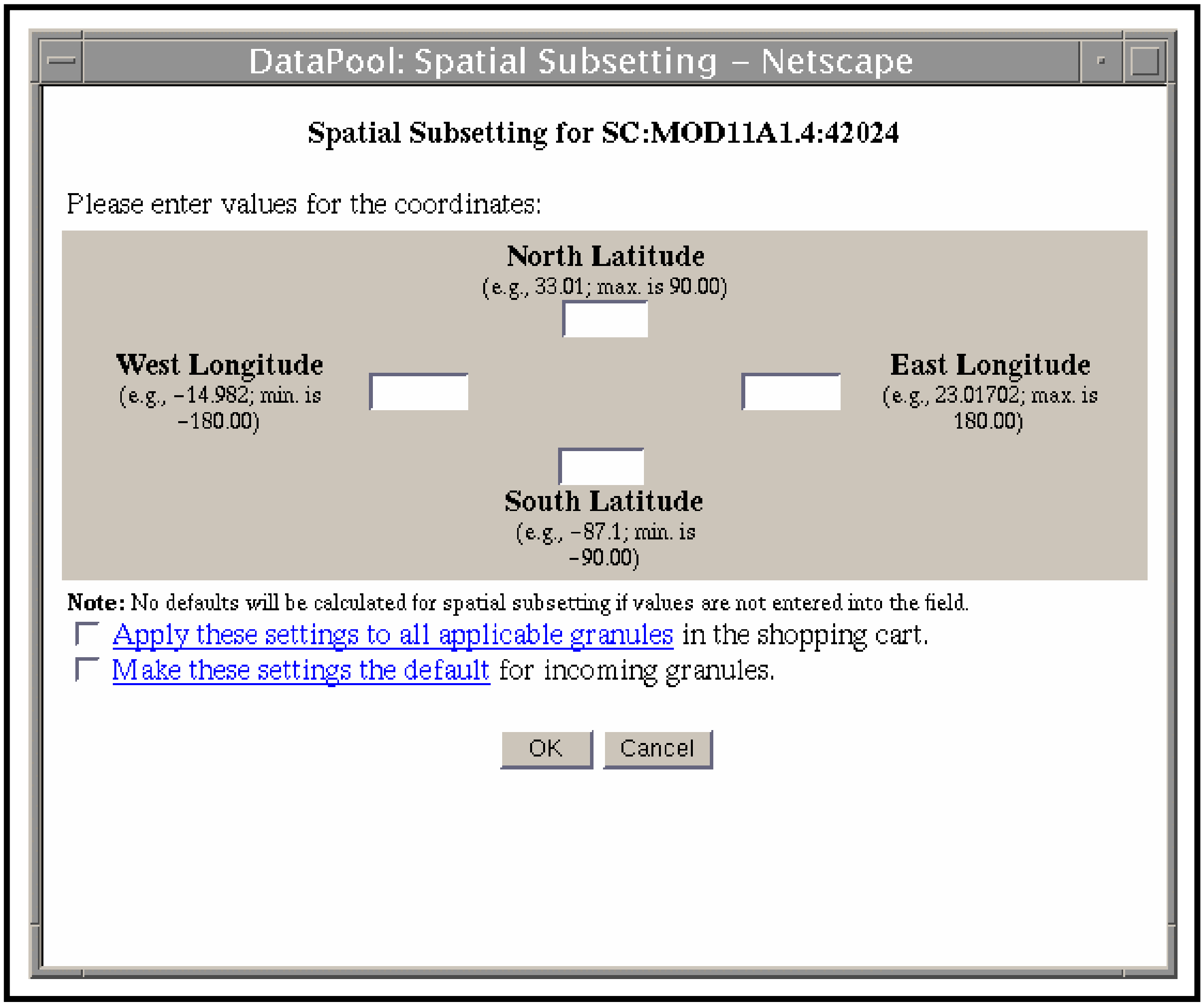



***Figure 67. Data Pool Web Access: Spatial Subsetting Dialogue Box***

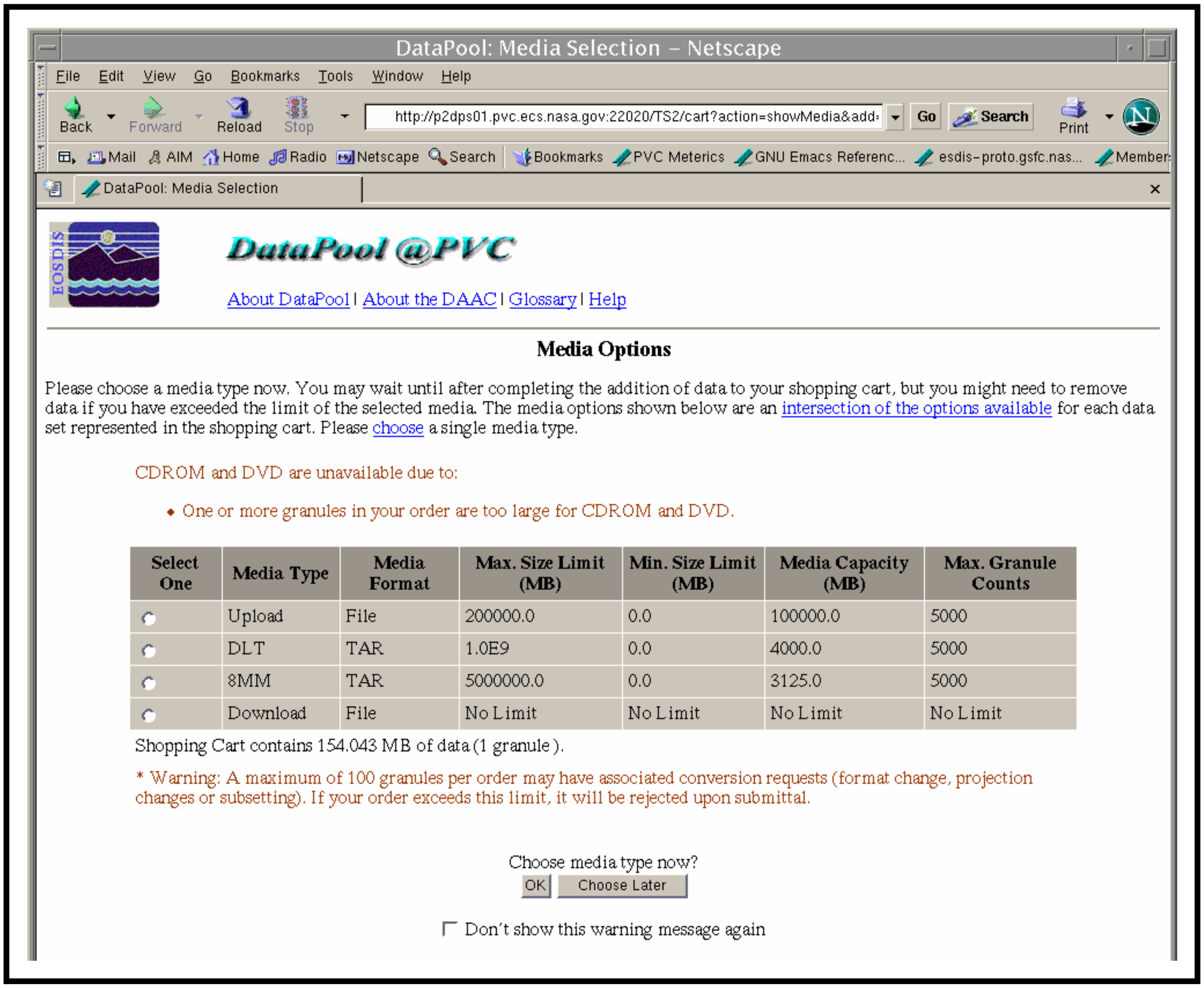



***Figure 68. Data Pool Web Access: Media Options Page***

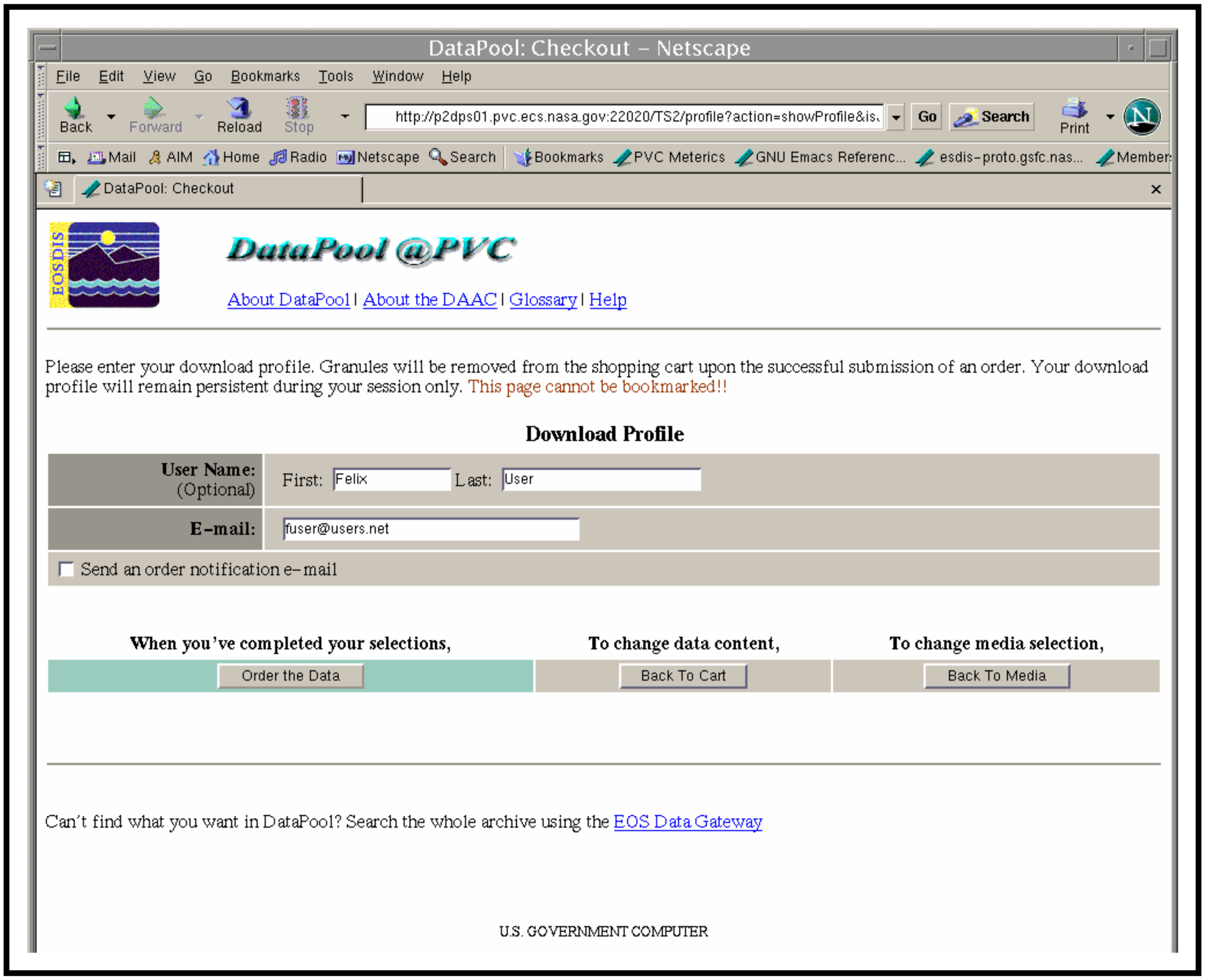



*Figure 69.  Data Pool Web Access:  Checkout Page – Download Profile*

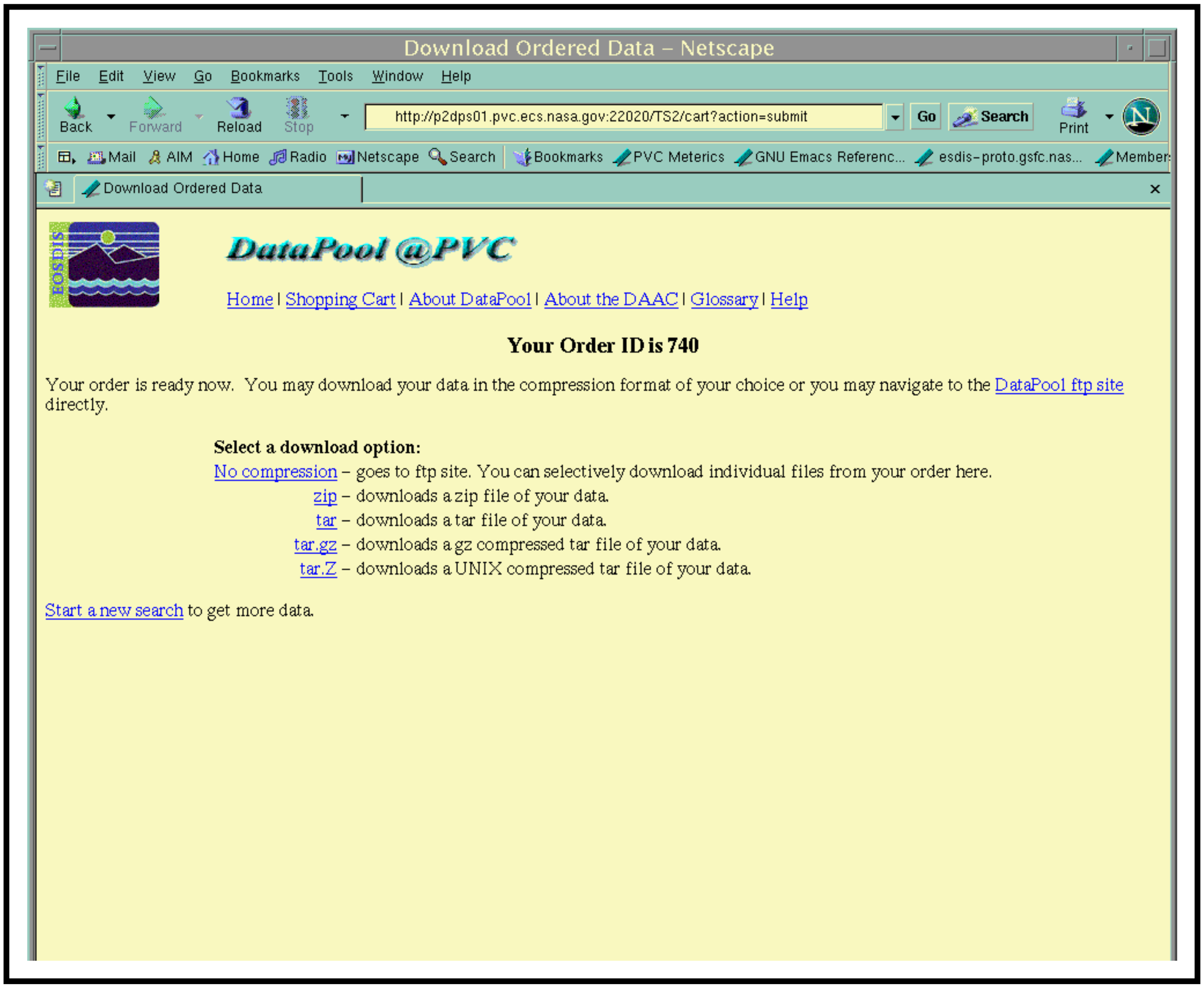



***Figure 70. Data Pool Web Access: Download Ordered Data Page***

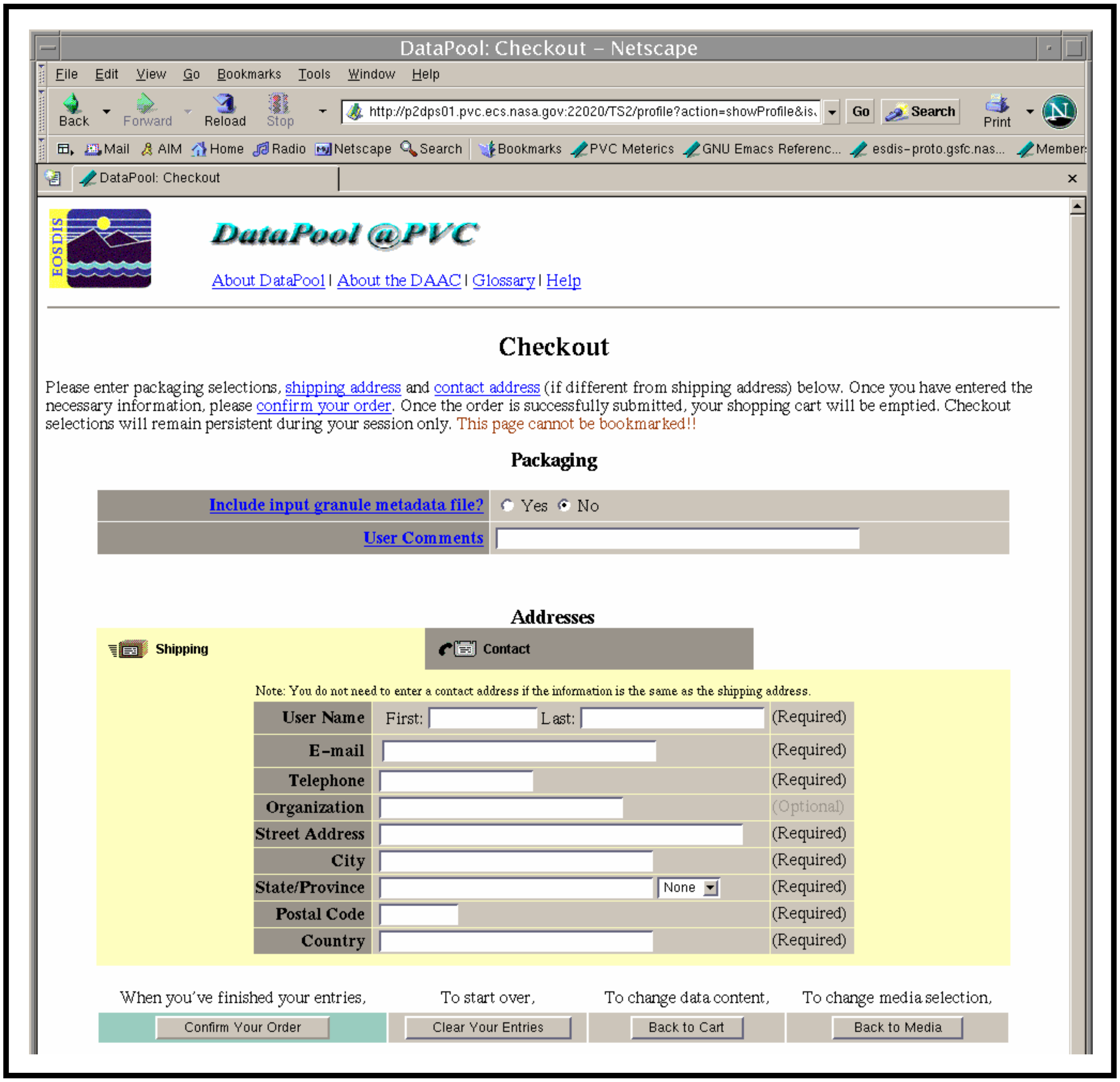



*Figure 71. Data Pool Web Access: Checkout Page – Physical Media*

the order and buttons for returning to either the shopping cart or the media selection page. Clicking on the **Confirm Your Order** button on the **Checkout** page brings up a **Confirm Order** page (Figure 72).

If the order is submitted from the **Confirm Order** page, an **Order Acknowledgement** page (Figure 73) is displayed. It shows the Order ID and the current status of the order. It has a link to the EOS Data Gateway to help find data that could not be located in the Data Pool.


***Figure 72. Data Pool Web Access: Confirm Order Page***

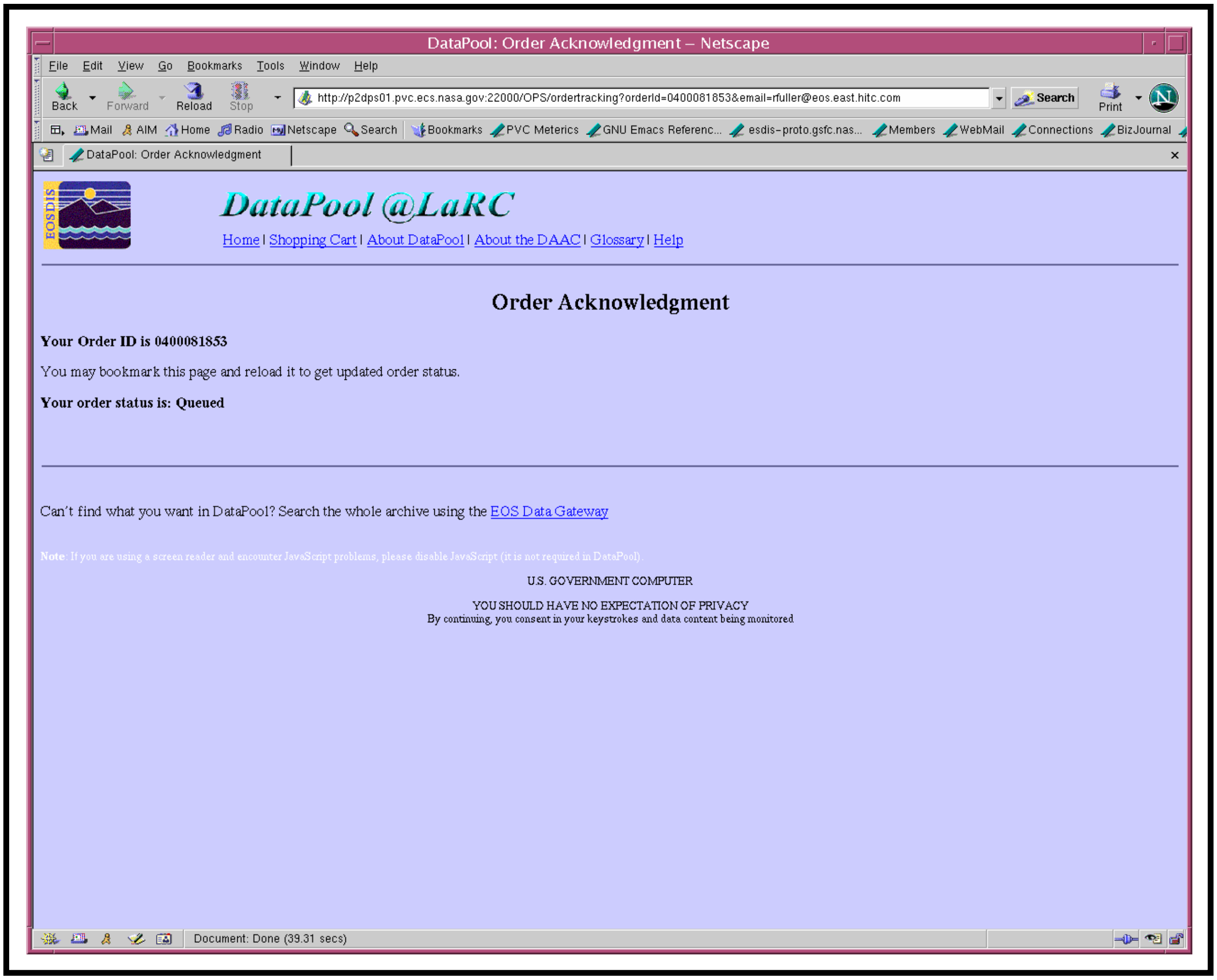



*Figure 73. Data Pool Web Access: Order Acknowledgement Page*

## Procedure for Using the Data Pool Web Access GUI

The process for locating and downloading data from the Data Pool using the Data Pool Web Access GUI entails a progressive narrowing of granule selection followed by specification of the path for saving the data to be downloaded. The following procedure is applicable.

**Locate and Download Data from the Data Pool using the Data Pool Web Access GUI**

**1** Access a terminal window logged in to a host (e.g., the Operations Workstation or Sun external server) that has access to the Netscape web browser.

- Examples of Operations Workstation host names include **e0acs03**, **g0acs02**, **l0acs01,** and **n0acs03**.

- Examples of Sun external server host names include **e0ins01**, **g0ins01**, **l0ins01,** and **n0ins01**.

**2** Type **netscape &** then press **Return/Enter**.

- It may be necessary to type the path as well as the netscape command (e.g., **/tools/bin/netscape &**).
- It may be necessary to respond to dialogue boxes, especially if the browser is already being used by someone else who has logged in with the same user ID.
- The Netscape web browser is displayed.

**3** If a bookmark has been created for the **Data Pool Web Access GUI**, select the appropriate bookmark from those listed on the browser's **Bookmarks** button (or the **Communicator → Bookmarks** pull-down menu).

- The **Data Pool Web Access GUI Home Page** is displayed.

**4** If no bookmark has been created for the **Data Pool Web Access GUI**, type **http://*host*:*port*/*path*/** in the browser's **Location (Go To)** field then press **Return/Enter**.

- For example:

  **http://x0dps01.daac.ecs.nasa.gov:54321/OPS/home**

- The **Data Pool Web Access GUI Home Page** is displayed.

**5** To view or modify the order in which parameters are presented during drill-down first click on the **set the order** link on the **Data Pool Web Access GUI Home Page**.

**6** To modify the order in which parameters are presented during drill-down click on the relevant **Parameter** option button to display a menu of parameters then click on the desired selection.

- The following choices are available:
  - **Data_Group.**
  - **Data_Set.**
  - **Date.**
  - **Time_of_Day.**
  - **Spatial.**
  - **Cloud_Cover.**
  - **Day/Night_Flag.**
  - **Science_QA.**

**NOTE:** The order in which the steps that follow are performed varies according to the order established in Steps 6 through 9 and the relevance of individual parameters to the search. In fact, none of the following criteria are mandatory for drill-down:

- Date.
- Time_of_Day.
- Spatial.
- Cloud_Cover.
- Day/Night_Flag.
- Science_QA.

Some of the criteria are irrelevant to some types of data and are not included in the drill-down process when searching for granules of those types.

**7** To continue the process of modifying the order in which parameters are presented during drill-down repeat Step 6 as necessary until all parameters have been assigned appropriately.

**8** To continue the process of modifying the order in which parameters are presented during drill-down click on the appropriate button from the following selections:

- **Set** - to confirm the new order in which parameters are presented during drill-down.
- **Reset** - to reset the order in which parameters are presented during drill-down to the original order.

**9** To complete the process of modifying the order in which parameters are presented during drill-down and return to the **Data Pool Web Access GUI Home Page** click on the Netscape browser **Back** button.

- The **Data Pool Web Access GUI Home Page** is displayed.

**10** To select a search parameter for starting the drill-down click on the appropriate choice from the option list on the **Data Pool Web Access GUI Home Page**.

- The following choices are available:
  - **Data_Group.**
  - **Theme.**
  - **Data_Set.**
- The first selection screen is displayed.
  - If the search was started by clicking on **Data Group**, the page lists data holdings by data group with a brief description of each group, granule count for each group, and a list of links to data groups for selection to start the search.

- If the search was started by clicking on **Theme**, the page lists themes with a brief description and granule count for each, with the theme names functioning as links for selection to start the search.
- If the search was started by clicking on **Data_Set**, the page lists data sets with a brief description and granule count for each, with the data set names functioning as links for selection to start the search.

**11** If **Theme** was selected as the first search parameter, click on the name of the theme for which the Data Pool is to be searched.

- The **Selecting [Data] Group** page is displayed.
  - The **Selecting [Data] Group** page lists data holdings by group with a brief description of each, granule count for each group, and a list of links to data groups for selection to continue the search.

**12** If either **Theme** or **Data_Group** was selected as the first search parameter, click on the link for the **Data Group** to be searched for appropriate or desired data.

- The **Selecting ESDT** (Data Set) page is displayed.
  - The **Selecting ESDT** (Data Set) page has a list of links to Earth Science Data Types (ESDTs) for narrowing the search, along with information about the number of granules and volume of data available in the selected data group.

**13** Click on the link for the **Data Set** (ESDT) to be searched for appropriate or desired data.

- The **Selecting Date** page is displayed (if the default drill-down sequence is being followed).
  - The **Selecting Date** page provides the following alternatives for selecting date criteria:
    - Calendar tool (**Select a Day, Week or Month**) on which active links indicate which days have available data
    - **Date Range** feature with option buttons for selecting a **Start Date** (year/month/day) and an **End Date** (year/month/day) for the date range.
  - The **Selecting Date** screen provides the following alternatives for exiting the page without selecting date criteria:
    - Links to revisit to any of the previous selection criteria (e.g., **Theme**, **Data Group**, or **Data Set**) displayed under **Current Search Criteria**.
    - **Get the granules** link permitting an immediate search for granules based on the previously selected criteria (without specifying values for the criterion on the current page). (The number of granules and volume of data available if the search were to be conducted using the previously selected criteria are listed.)

- Option button for skipping the criterion on the current page and selecting one of the other search criteria to be visited.

- **Start a new search** link for restarting the drill-down from the beginning.

**14** If the **Selecting Date** page is being displayed, either click on the appropriate link for day, week, or month on the **Select a Day, Week or Month** calendar tool or click on the option buttons in the **Select a Date Range** table to select a **Start Date** (year/month/day) and an **End Date** (year/month/day) for the date range then click on the **add it to your search criteria** button.

- The **Selecting Time** page is displayed (if the default drill-down sequence is being followed).

  – The **Selecting Time** page provides the following alternatives for selecting time criteria:

    - **Select a Time of Day** matrix on which active links indicate which time periods have available data.

    - **Time Range** feature with option buttons for selecting a **Start Time** (hour/minute) and an **End Time** (hour/minute) that define a time range for the granule search

  – The **Selecting Time** screen provides the following alternatives for exiting the page without selecting time criteria:

    - Links to revisit to any of the previous selection criteria (e.g., **Theme**, **Data Group**, or **Data Set**) displayed under **Current Search Criteria**.

    - **Get the granules** link permitting an immediate search for granules based on the previously selected criteria (without specifying values for the criterion on the current page). (The number of granules and volume of data available if the search were to be conducted using the previously selected criteria are listed.)

    - Option button for skipping the criterion on the current page and selecting one of the other search criteria to be visited.

    - **Start a new search** link for restarting the drill-down from the beginning.

**15** If the **Selecting Time** page is being displayed, either click on the appropriate link for the time of day on the **Select a Time of Day (GMT)** tool or click on the option buttons in the **Select a Time-of-Day Range (GMT)** table to select a **Start Time** (hour/minute) and an **End Time** (hour/minute) for the time range then click on the **add it to your search criteria** button.

- The **Selecting Spatial Area-of-Interest** page is displayed (if the default drill-down sequence is being followed).
  - The **Selecting Spatial Area-of-Interest** page provides the following alternatives for selecting spatial criteria:
    - **Select from Map** section that features a density map from which the user (using a Java-enabled browser) can use the mouse to outline a spatial search region in which granules of interest would be located.
    - **Select Bounding Rectangle** feature with text boxes for typing the coordinates (latitude and longitude) of an area of interest.
  - The **Selecting Spatial Area-of-Interest** page provides the following alternatives for exiting the page without selecting spatial criteria:
    - Links to revisit to any of the previous selection criteria (e.g., **Theme**, **Data Group**, or **Data Set**) displayed under **Current Search Criteria**.
    - **Get the granules** link permitting an immediate search for granules based on the previously selected criteria (without specifying values for the criterion on the current page). (The number of granules and volume of data available if the search were to be conducted using the previously selected criteria are listed.)
    - Option button for skipping the criterion on the current page and selecting one of the other search criteria to be visited.
    - **Start a new search** link for restarting the drill-down from the beginning.

**16** If the **Selecting Spatial Area-of-Interest** page is being displayed, either click/drag to designate an area on the density map on the **Select from Map** section or type the appropriate coordinates in the **Select Bounding Rectangle** text boxes then click on the **Add Selection to Search** button.

- The **Selecting Cloud Cover Percentage** page is displayed (if the default drill-down sequence is being followed).
  - The **Selecting Cloud Cover Percentage** page provides the following alternatives for selecting cloud cover criteria:
    - **Select an Upper Limit** table has links for selecting a value that is less than or equal to one of nine maximum percentage values that are 10%

apart from 10% to 90%.  The number of granules that meets each percentage level is listed.

  - **Select a Range** feature has text boxes for typing two values (i.e., less than X% and greater than Y%) that define a range.

- The **Selecting Cloud Cover Percentage** page provides the following alternatives for exiting the page without selecting cloud cover criteria:

  - Links to revisit to any of the previous selection criteria (e.g., **Theme**, **Data Group**, or **Data Set**) displayed under **Current Search Criteria**.

  - **Get the granules** link permitting an immediate search for granules based on the previously selected criteria (without specifying values for the criterion on the current page).  (The number of granules and volume of data available if the search were to be conducted using the previously selected criteria are listed.)

  - Option button for skipping the criterion on the current page and selecting one of the other search criteria to be visited.

  - **Start a new search** link for restarting the drill-down from the beginning.

**17** If the **Selecting Cloud Cover Percentage** page is being displayed, click on the appropriate link for the cloud cover value in the **Select an Upper Limit** table or type values in the **Cloud Cover is less than or equal to … %** and **Cloud Cover is greater than or equal to …%** text boxes then click on the **Add range to search** button.

- The **Selecting Day/Night Flag** page is displayed (if the default drill-down sequence is being followed).

  - The **Selecting Day/Night Flag** page displays a **Select a value for Day/Night Flag** table on which active links indicate what selections [i.e., D (Day), N (Night), or B (Both)] are available and the number of granules available for each choice.

  - The **Selecting Day/Night Flag** page provides the following alternatives for exiting the page without selecting day/night flag criteria:

    - Links to revisit to any of the previous selection criteria (e.g., **Theme**, **Data Group**, or **Data Set**) displayed under **Current Search Criteria**.

    - **Get the granules** link permitting an immediate search for granules based on the previously selected criteria (without specifying values for the criterion on the current page).  (The number of granules and volume of data available if the search were to be conducted using the previously selected criteria are listed.)

    - Option button for skipping the criterion on the current page and selecting one of the other search criteria to be visited.

- **Start a new search** link for restarting the drill-down from the beginning.

**18** If the **Selecting Day/Night Flag** page is being displayed, click on the appropriate link [i.e., D (Day), N (Night), or B (Both)] for the day/night flag value in the **Select a value for Day/Night Flag** table.

- The **Selecting Measured Parameter Science QA Flag** page is displayed (if the default drill-down sequence is being followed).
  - The **Selecting Measured Parameter Science QA Flag** page displays a **Select Measured Parameter** option button for selecting a parameter relevant to the granules being sought and a **Select Science QA Flag** table on which active links indicate what science QA selections (e.g., Passed or Being Investigated) are available for the selected parameter and the number of granules available for each choice.
  - The **Selecting Measured Parameter Science QA Flag** page provides the following alternatives for exiting the page without selecting QA flag criteria:
    - Links to revisit to any of the previous selection criteria (e.g., **Theme**, **Data Group**, or **Data Set**) displayed under **Current Search Criteria**.
    - **Get the granules** link permitting an immediate search for granules based on the previously selected criteria (without specifying values for the criterion on the current page). (The number of granules and volume of data available if the search were to be conducted using the previously selected criteria are listed.)
    - Option button for skipping the criterion on the current page and selecting one of the other search criteria to be visited.
    - **Start a new search** link for restarting the drill-down from the beginning.

**19** If the **Selecting Measured Parameter Science QA Flag** page is being displayed, first click on the **Select Measured Parameter** option button to display a menu of parameters then click on the desired selection.

- The **Selecting Measured Parameter Science QA Flag** page is displayed (if the default drill-down sequence is being followed).

**20** If the **Selecting Measured Parameter Science QA Flag** page is being displayed, click on the appropriate link for the QA flag value in the **Select Science QA Flag** table.

- The **Viewing Search Results** page is displayed (if the default drill-down sequence is being followed).
  - In the **Results** section of the page the granules located through the search are listed in a table that has the following columns:
    - **Granule.**

- **Size (MB).**
- **Date (Begin and End).**
- **Time (Begin and End).**
- **Day/Night (Flag).**

– There is an option button for displaying either of the following columns (rather than the Std. Metadata):

- **Science QA.**
- **Cloud Cover.**

– The **Granule** column in the **Results** table displays multiple icons for each listed granule (although not all icons are relevant to all granules):

- Download granule.
- Download granule using zip compression (*.zip).
- Download granule using gnu zip compression (*.gz).
- Download granule using UNIX compression (*.Z).
- View complete metadata for [granule].
- View browse for [granule].
- View metadata and browse images.
- Supports HEG operations.
- Add to shopping cart.

– The **Viewing Search Results** page provides the following alternatives for exiting the page without selecting granules to download or order:

- Links to revisit to any of the previous selection criteria (e.g., **Theme**, **Data Group**, or **Data Set**) displayed under **Current Search Criteria**.
- **Create a new search** link for restarting the drill-down from the beginning.

**21** To view the metadata for a particular granule click on the **View complete metadata for …** icon for the granule in the **Granule** column of the **Results** table on the **Viewing Search Results** page.

- A separate **Granule Metadata Viewer** window containing the granule's metadata is displayed.
  – The viewer shows XML metadata for the selected granule.
  – A scroll bar permits scrolling through the displayed metadata.

- There is a link for displaying metadata for other granules in the results list.
- There is an icon for saving the metadata file.

**22** To view the browse image(s) for a particular granule click on the **View browse for …** icon for the granule in the **Granule** column of the **Results** table on the **Viewing Search Results** page.

- A separate **Browser Viewer** window containing the granule's browse image(s) is displayed.
  - A scroll bar permits scrolling of the image(s).
  - There are links for displaying browse images for other granules in the results list.

**23** To view both the metadata and the browse image(s) for a particular granule click on the **View metadata and browse images** icon for the granule in the **Granule** column of the **Results** table on the **Viewing Search Results** page.

- A separate **Metadata and Browser Viewer** window containing the granule's browse image(s) and metadata is displayed.
  - A scroll bar permits scrolling of the image(s)/metadata.
  - There are links for displaying browse images/metadata for other granules in the results list.

**24** To view the HEG processing information for a particular granule click on the **Supports HEG operations** icon for the granule in the **Granule** column of the **Results** table on the **Viewing Search Results** page.

- A separate **HEG Processing Information** window describing the HEG processing options for the granule is displayed.

**25** To add an individual granule to the shopping cart click on the **Add to shopping cart** icon for the granule in the **Granule** column of the **Results** table on the **Viewing Search Results** page.

- A red checkmark is superimposed over the **Add to shopping cart** icon for the granule.

**26** To add all granules displayed on the current page (there may be multiple pages of granules in the result set) to the shopping cart click on the **Add Granules in this page to Shopping Cart** link below the **Results** table on the **Viewing Search Results** page.

**27** To add all granules in the **Results** table (including granules on all pages of the result set) to the shopping cart click on the **Add All Granules in Result Set to Shopping Cart** link below the **Results** table on the **Viewing Search Results** page.

**28** To select the distribution medium for a granule in the **Granule** column of the **Results** table on the **Viewing Search Results** page first click on the **Download granule** icon or the granule identification link or one of the compression option icons.

- The **Media Selection** (**Media Options**) page is displayed.
- Go to Step 43.

**29** To view the current contents of the shopping cart click on the **View Shopping Cart** link below the **Results** table on the **Viewing Search Results** page.

- The **Your Shopping Cart** page is displayed.
  - The total number of granules and volume of data currently in the shopping cart are listed.
  - The page has links for returning to the **Viewing Search Results** page or starting a new search.
- In the **Cart Contents** section of the **Your Shopping Cart** page the granules added to the cart are listed in a table that has the following columns:
  - **Granule.**
  - **Size (MB).**
  - **Format.**
  - **Projection.**
  - **Subsetting.**

**30** To view the metadata associated with a granule listed on the **Your Shopping Cart** page click on the **View complete metadata for …** icon for the granule in the **Granule** column.

- A separate **Granule Metadata Viewer** window containing the granule's metadata is displayed.

**31** To view the browse image(s) for a particular granule listed on the **Your Shopping Cart** page click on the **View browse for …** icon for the granule in the **Granule** column.

- A separate **Browser Viewer** window containing the granule's browse image(s) is displayed.

**32** To remove a granule from the shopping cart page click on the **Remove from Shopping Cart** icon for the granule in the **Granule** column.

**33** To designate HDF-EOS to GeoTIFF (HEG) conversion click on the option button in the **Format** column of the **Your Shopping Cart** page to display a menu of formats then click on the desired selection.

- The selected option (e.g., HDF-EOS or GeoTIFF) is displayed in the **Format** column of the **Your Shopping Cart** page.

**34** To designate selected HDF-EOS to GeoTIFF (HEG) conversion to all granules in the shopping cart click on the **Apply the selection for [granule] to all granules in the Shopping Cart** icon adjacent to the option button in the **Format** column of the **Your Shopping Cart** page.

- The selected option (e.g., HDF-EOS or GeoTIFF) is displayed in the **Format** column for all granules on the **Your Shopping Cart** page.

**35** To specify the application of a particular projection to a granule in the shopping cart first click on the option button in the **Projection** column of the **Your Shopping Cart** page to display a menu of projections then click on the desired selection.

- The following types of projections may be available:
  - **No Change** [default].
  - **Geographic.**
  - **Lambert's Azimuthal Equal Area.**
  - **Lambert's Conformal Conic.**
  - **Polar Stereographic.**
  - **Sinusoidal.**
  - **State Plane Coordinate System.**
  - **Transverse Mercator.**
  - **Universal Transverse Mercator.**
- A **Projection Input Parameters** dialogue box is displayed.

**36** To continue the process of specifying the application of a particular projection to a granule in the shopping cart type appropriate values (in decimal degrees) in the **Longitude in zone** and **Latitude in zone** text boxes in the **Projection Input Parameters** dialogue box.

- To apply the specified projection input parameters to all granules in the shopping cart click in the **Apply these settings to all granules in the shopping cart** check box in the **Projection Input Parameters** dialogue box.
- To make the specified projection input parameters the default for all incoming granules in the shopping cart click in the **Make these settings the default for incoming granules** check box in the **Projection Input Parameters** dialogue box.

**37** To complete the process of specifying the application of a particular projection to a granule in the shopping cart click on the appropriate button from the following selections:

- **OK** - to apply the specified projection and dismiss the **Projection Input Parameters** dialogue box.
  - The **Projection Input Parameters** dialogue box is dismissed.
  - The **Your Shopping Cart** page is displayed.
- **Cancel** - to dismiss the **Projection Input Parameters** dialogue box without applying the specified projection.
  - The **Projection Input Parameters** dialogue box is dismissed.
  - The **Your Shopping Cart** page is displayed.

**38** To specify spatial subsetting of a granule in the shopping cart first click on the **Enter spatial subsetting parameters for [granule]** icon in the **Subsetting** column of the **Your Shopping Cart** page.

- A **Spatial Subsetting** dialogue box is displayed.

**39** To continue the process of specifying spatial subsetting of a granule in the shopping cart type appropriate values in the **West Longitude, East Longitude**, **North Latitude**, and **South Latitude** text boxes in the **Spatial Subsetting** dialogue box.

- To apply the specified spatial subsetting parameters to all granules in the shopping cart click in the **Apply these settings to all applicable granules in the shopping cart** check box in the **Spatial Subsetting** dialogue box.
- To make the specified spatial subsetting parameters the default for all incoming granules in the shopping cart click in the **Make these settings the default for incoming granules** check box in the **Spatial Subsetting** dialogue box.

**40** To complete the process of specifying spatial subsetting parameters for a granule in the shopping cart click on the appropriate button from the following selections:

- **OK** - to apply the specified spatial subsetting parameters and dismiss the **Spatial Subsetting** dialogue box.
  - The **Spatial Subsetting** dialogue box is dismissed.
  - The **Your Shopping Cart** page is displayed.
- **Cancel** - to dismiss the **Spatial Subsetting** dialogue box without applying the specified spatial subsetting parameters.
  - The **Spatial Subsetting** dialogue box is dismissed.
  - The **Your Shopping Cart** page is displayed.

**41** To select the distribution media for granules in the shopping cart first click on the **Select Media** button on the **Your Shopping Cart** page.

- The **Media Selection** (**Media Options**) page is displayed.
  - The **Media Options** page makes it possible to order data on physical media (e.g., CD, DVD, or DLT tape) as an alternative to downloading the data.
  - The **Media Options** page lists the types of media available for the granules in the shopping cart and (if applicable) explains why certain media cannot be selected.
  - The table on the **Media Options** page has the following columns:
    - **Select One.**
    - **Media Type.**
    - **Media Format.**
    - **Max. Size Limit (MB).**
    - **Min. Size Limit (MB).**
    - **Media Capacity (MB).**
    - **Max. Granule Counts.**

**42** To continue the process of selecting the distribution media for granules click in the button (in the **Select One** column) corresponding to the appropriate distribution medium on the **Media Selection** (**Media Options**) page.

**43** To complete the process of selecting the distribution media for granules click on the appropriate button from the following selections:

- **OK -** to apply the specified distribution media and dismiss the **Media Selection** (**Media Options**) page.
  - The **Media Selection** (**Media Options**) page is dismissed.
  - The **Checkout** page is displayed.
- **Choose Later -** to dismiss the **Media Selection** (**Media Options**) page without specifying a distribution medium.
  - The **Media Selection** (**Media Options**) page is dismissed.
  - The previous page is displayed.

**44** To check out if the download option was selected first type the appropriate text in the **User Name** and **E-mail** text boxes on the **Checkout** page.

- Entering a **User Name** is optional (not required).

- To get e-mail notification of the order click in the **Send an order notification e-mail** check box on the **Checkout** page.

**45** To continue the process of checking out if the download option was selected click on the appropriate button from the following selections:

- **Order the data** - to order the data and dismiss the **Checkout** page.
  - The **Checkout** page is dismissed.
  - A “Your order cannot be changed once you have submitted it. Are you ready to submit this order?” dialogue box is displayed.
- **Back to Cart**- to dismiss the **Checkout** page without ordering the data and return to the **Your Shopping Cart** page.
  - The **Checkout** page is dismissed.
  - The **Your Shopping Cart** page is displayed.
- **Back to Media**- to dismiss the **Checkout** page without ordering the data and return to the **Media Selection** (**Media Options**) page.
  - The **Checkout** page is dismissed.
  - The **Media Selection** (**Media Options**) page is displayed.

**46** To complete the process of checking out if the download option was selected click on the appropriate button from the following selections:

- **OK** - to order the data and dismiss the dialogue box.
  - The “Your order cannot be changed once you have submitted it. Are you ready to submit this order?” dialogue box is dismissed.
  - A **“Remember Values” Confirmation** dialogue box is displayed.
- **Cancel -** to dismiss the dialogue box without ordering the data.
  - The “Your order cannot be changed once you have submitted it. Are you ready to submit this order?” dialogue box is dismissed.
  - The previous page is displayed.

**47** If the download option was selected and a **“Remember Values” Confirmation** dialogue box is displayed, click on the appropriate button from the following selections:

- **Yes**.
- **Never for this site**.
- **No**.
  - A **Download Ordered Data** page is displayed.

- The **Download Ordered Data** page lists an order number and a set of links for compression options (including "no compression") for downloading the data.

**48** To download the data if the download option was selected first click on the appropriate link from the **Download Ordered Data** page.

- The following links may be available:
  - **No compression**
  - **zip**
  - **tar**
  - **tar.gz**
  - **tar.Z**

**49** To continue the process of downloading the data if the download option was selected verify (type as necessary) the appropriate directory path/file name in the **Save As** dialogue box.

**50** To complete the process of downloading the data if the download option was selected click on the **OK** button in the **Save As** dialogue box.

- The data are saved in the specified directory:
- The **Save As** dialogue box is dismissed.

**51** To check out if a physical medium option was selected from the **Media Selection** (**Media Options**) page first click on the appropriate radio button (i.e., **Yes** or **No**) for each of the following questions (as applicable) on the **Checkout** page:

- **Include input granule metadata file?**
- **Include output granule metadata file(s)?**

**52** To continue the process of checking out if a physical medium option was selected from the **Media Selection** (**Media Options**) page type relevant comments (if any) in the **User Comments** text box on the **Checkout** page.

- Entering user comments is optional (not required).

**53** To continue the process of checking out if a physical medium option was selected from the **Media Selection** (**Media Options**) page either type the appropriate data or click on the appropriate choice from the option list in the relevant fields of the **Shipping Address** block on the **Checkout** page:

- **User Name.**
- **E-mail.**
- **Telephone.**

- **Organization.**
- **Street Address.**
- **City.**
- **State/Province.**
- **Postal Code.**
- **Country.**

**54** To continue the process of checking out if a physical medium option was selected from the **Media Selection** (**Media Options**) page and if the contact address is different from the shipping address, click on **Contact Address** on the **Checkout** page.

- **Contact Address** fields do not have to be filled out if the Contact Address is the same as the Shipping Address.

**55** To continue the process of checking out if a physical medium option was selected from the **Media Selection** (**Media Options**) page and if the contact address is different from the shipping address, either type the appropriate data or click on the appropriate choice from the option list in the relevant fields of the **Contact Address** block on the **Checkout** page:

- **Contact Address** fields do not have to be filled out if the Contact Address is the same as the Shipping Address.

**56** To continue the process of checking out if a physical medium option was selected from the **Media Selection** (**Media Options**) page click on the appropriate button from the following selections on the **Checkout** page:

- **Confirm Your Order** - to go to the **Confirm Order** page and dismiss the **Checkout** page.
  - The **Checkout** page is dismissed.
  - A **Confirm Order** page is displayed.
- **Clear Your Entries**- to clear the entries on the **Checkout** page.
  - The entries on the **Checkout** page are cleared.
- **Back to Cart**- to dismiss the **Checkout** page without ordering the data and return to the **Your Shopping Cart** page.
  - The **Checkout** page is dismissed.
  - The **Your Shopping Cart** page is displayed.
- **Back to Media**- to dismiss the **Checkout** page without ordering the data and return to the **Media Selection** (**Media Options**) page.
  - The **Checkout** page is dismissed.

– The **Media Selection** (**Media Options**) page is displayed.

**57** To continue the process of checking out if a physical medium option was selected from the **Media Selection** (**Media Options**) page observe the information displayed on the **Confirm Order** page.

- The following types of information are displayed on the **Confirm Order** page:
  – Data contents of the order [granules].
  – Media selection.
  – Packaging selections.
  – Shipping address.
  – Contact address.

**58** To complete the process of checking out if a physical medium option was selected from the **Media Selection** (**Media Options**) page click on the appropriate button from the following selections on the **Confirm Order** page:

- **Please Submit Your Order -** to submit the order and dismiss the **Confirm Order** page.
  – The **Confirm Order** page is dismissed.
  – An **Order Acknowledgement** page is displayed.
- **Back to Cart**- to dismiss the **Confirm Order** page without ordering the data and return to the **Your Shopping Cart** page.
  – The **Confirm Order** page is dismissed.
  – The **Your Shopping Cart** page is displayed.
- **Back to Media**- to dismiss the **Confirm Order** page without ordering the data and return to the **Media Selection** (**Media Options**) page.
  – The **Confirm Order** page is dismissed.
  – The **Media Selection** (**Media Options**) page is displayed.
- **Back to Checkout**- to dismiss the **Confirm Order** page without ordering the data and return to the **Checkout** page.
  – The **Confirm Order** page is dismissed.
  – The **Checkout** page is displayed.

**59** Observe the information displayed on the **Order Acknowledgement** page.

- The following types of information are displayed on the **Order Acknowledgement** page:
  - Order ID.
  - Order Status.
- The **Order Acknowledgement** page has a link to the E**OS Data Gateway** to help find data that could not be located in the Data Pool.

**60** Repeat Steps 3 through 59 as necessary to locate and download additional data from the Data Pool using the **Data Pool Web Access GUI**.

**61** To shut down the Netscape browser (when applicable) select **File → Exit** from the pull-down menu.

- The Netscape browser is dismissed.

---

## Using the Data Pool FTP Service

A user may choose to use the Data Pool FTP service instead of the Data Pool Web Access GUI to download data from the Data Pool. The data in the Data Pool are stored in a predefined directory structure of the following form:

***./<DataPool Home Directory>/<Data Pool Collection Group>/<shortname.versionid>/<acquisition date>***

where:

- ***<DataPool Home Directory>*** is the top-level home directory for the Data Pool.
- ***<DataPool Collection Group>*** is one of a predefined set of data groupings.
- ***<shortname.versionid>*** indicates the ESDT short name and version ID.
- ***<acquisition date>*** indicates the data acquisition date.

Data Pool provides anonymous FTP service supporting data access through interactive FTP sessions as well as through customized scripts to search and download data. User Services must be prepared to assist users who may be using this service. In a common FTP scenario, a user may be expected to initiate an interactive FTP session from a remote host, or from a web browser. The user then executes typical FTP session activities, such as:

**1** User logs in to the Data Pool FTP service as an anonymous user, providing a user e-mail address as the password.

**2** The user is connected and placed by the Data Pool FTP service in a default directory configured for the service.

**3** The user navigates the directory structure to search for the data file(s) of interest, using UNIX commands such as **cd** and **ls**.

**4** The user downloads a single data file or multiple data files of interest to a local area on the remote disk.

- The user may repeat Steps 3 and 4 until all files of interest have been downloaded.

**5** The user logs out of the Data Pool FTP service.

Most Recent Data Pool Inserts is a command line utility that will be invoked from a cron. Files listing daily additions to the Data Pool will be created within the top-level Data Pool directory as well as under each of the collection level directories. This information will be available to users via the Data Pool FTP service.

## Data Pool Access Using the EDG

The EDG indicates to a user any granules among the search results that are accessible on line – i.e., in the Data Pool – and provides links to the data, metadata, and browse data to allow download from the Data Pool. When a user searches ECS data holdings and obtains a list of granules, if the Data Pool contains a copy of any of the granules and associated metadata or browse data, there will be links in the **On-line Access** column of the listing, as illustrated in Figure 74. A click on a link for data or metadata results in display of a **Save As . . .** dialog to specify a location for download of the information from the Data Pool. A click on a link for browse data launches the browse image in a browse viewer.

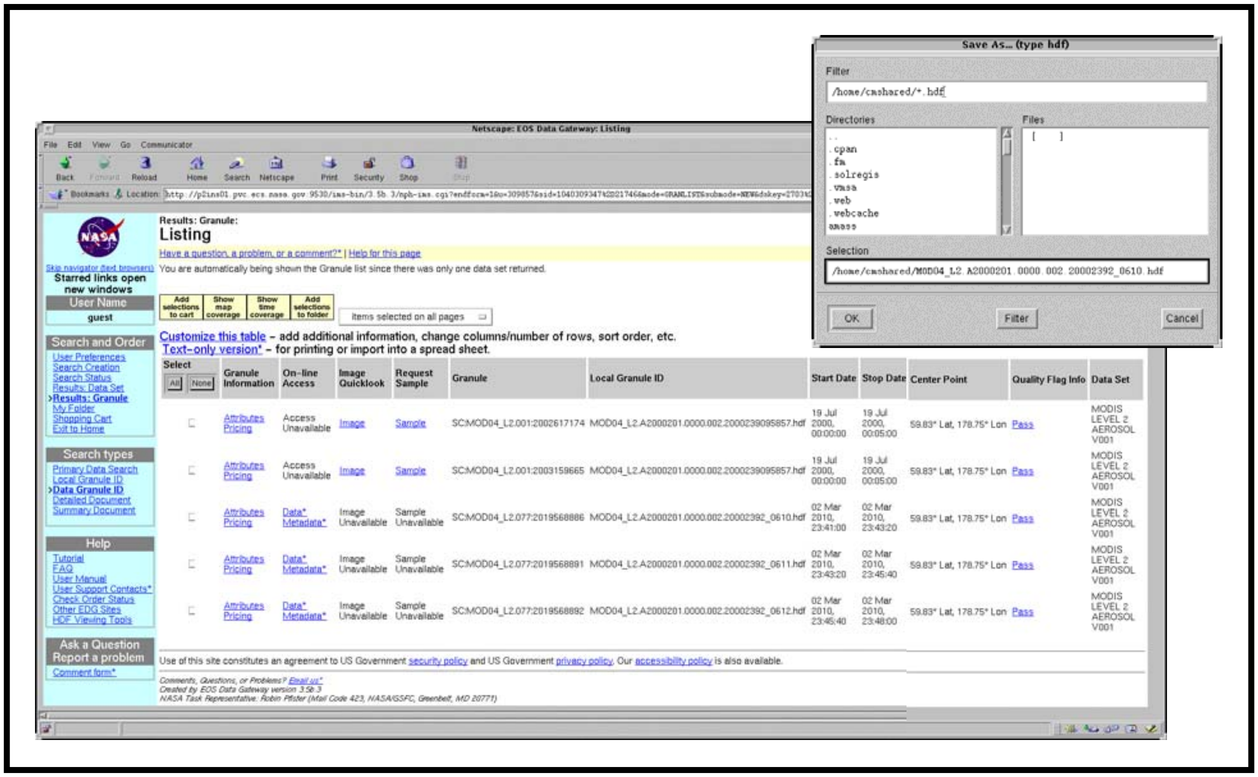



*Figure 74. EDG Access to Data Pool (On-line Access)*

This page intentionally left blank.

# Data Dictionary Maintenance

## Using the Data Dictionary Maintenance Tool

Requests for ECS services may come from the EOS Data Gateway (EDG) Web Client of Version 0 (V0). For example, users, including those from the ASTER Ground Data System (GDS), will submit requests for data searches and product orders using the EDG Search and Order Tool. Requests for ECS products or services (e.g., Directory Search requests, Inventory Search requests, Browse requests, Product requests) are sent to the ECS V0 Gateway, which in turn submits an integrated browse request to the SDSRV. The SDSRV stages the products and return the product file back to the ECS V0 Gateway, which in returns it to the user. To accommodate mapping of terminology between the ECS and the V0 system, the ECS V0 Gateway reads the ECS Data Dictionary containing the terminology mapping information, ensuring that the request can be directed to the appropriate science data server (SDSRV). A Data Dictionary Administrator builds the ECS Data Dictionary V0 System search parameters, ECS schema, and metadata. The V0 client must have ECS Valid terminology for searchable attributes (e.g., source, sensor, geophysical parameter, data set name, data center ID, campaign, processing level, geographical coordinates, and temporal intervals) in order to search ECS holdings.

Accordingly, upon establishment of a new ECS data set, valids for the data set must be made available to V0. EOSDIS V0 IMS has a two-week valids update cycle:

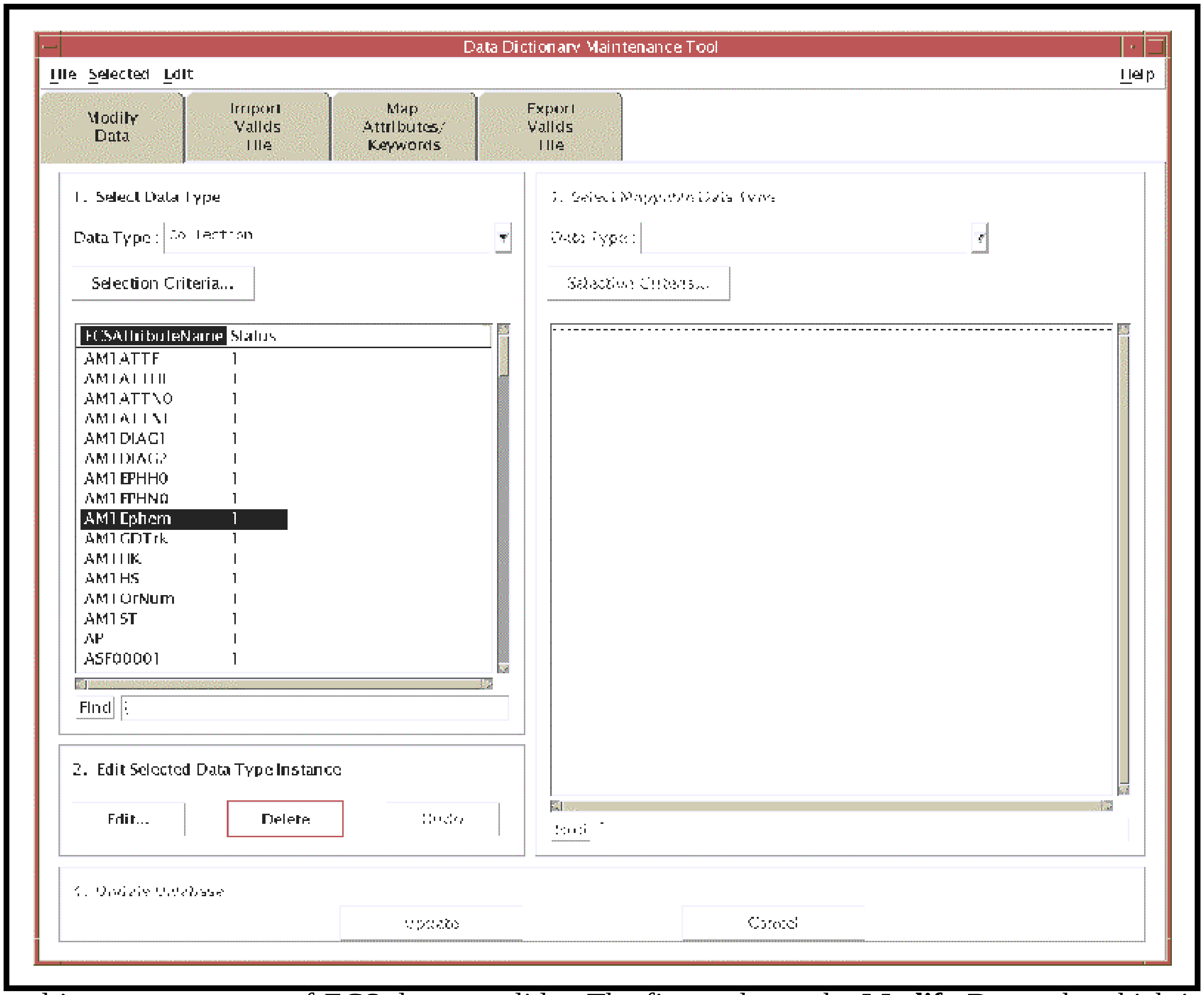
- Data centers (sites) submit their new valids, definitions, and/or package Object Description Language (ODL) file(s). An ODL file is a formatted ASCII text file that contains the keyword descriptions for the data sets.
- Valids ODL files are transferred to the V0 IMS using anonymous FTP.
- The IMS team acknowledges receipt of the new valids submission and runs a syntax checker on the files.
- The files are processed and the valids are tested.

More detailed information on the cycle and the update process may be obtained at the following URL:

**http://www-v0ims.gsfc.nasa.gov/v0ims/DOCUMENTATION/GUIDE-VALID/VALIDS/valids_gensubpro.html**

There is two-way interoperability with the ASTER GDS for product search and orders. This means that ASTER GDS users can search, browse, and order ECS products, and ECS users can search, browse, and order products available at GDS. Information is also exchanged concerning price estimates and order status. ASTER GDS access to ECS products and services is through the LP DAAC. Therefore, all ECS collection information must be available at the LP DAAC. Furthermore, ECS must be able to use ASTER GDS dataset valids.

The Data Dictionary Maintenance Tool (DDMT), illustrated in Figure 75, is an ECS tool to support management of ECS valids and mapping of ECS metadata to V0 attributes and values, as well as to ASTER GDS attributes and values. It supports import of ASTER GDS dataset valids,




and it supports export of ECS dataset valids. The figure shows the **Modify Data** tab, which is the initial screen displayed when the tool is launched.

***Figure 75. Data Dictionary Maintenance Tool, Modify Data Tab***

Use the following procedure to launch the Data Dictionary Maintenance Tool.

**Launch Data Dictionary Maintenance Tool**

---

**1** Access the command shell

- The command shell prompt is displayed.

**2** At the UNIX command shell prompt, type **setenv DISPLAY *clientname*:0.0** and then press the **Return/Enter** key.

- For ***clientname***, use either the local terminal/workstation IP address or its machine name.

**3** Start the log-in to the Sun Consolidation External Server by typing **/tools/bin/ssh *hostname*** (e.g., e0ins01, g0ins01, l0ins01, or n0ins02) at the UNIX command shell prompt, and then press the **Return/Enter** key.

- If you receive the message, **Host key not found from the list of known hosts. Are you sure you want to continue connecting (yes/no)?** type **yes** ("**y**" alone does not work).
- If you have previously set up a secure shell passphrase and executed **sshremote**, a prompt to **Enter passphrase for RSA key '<*user@localhost*>'** appears; continue with Step 4.
- If you have not previously set up a secure shell passphrase, go to Step 5.

**4** If a prompt to **Enter passphrase for RSA key '<*user@localhost*>'** appears, type your ***Passphrase*** and then press the **Return/Enter** key. Go to Step 6.

**5** At the **<*user@remotehost*>'s password:** prompt, type your ***Password*** and then press the **Return/Enter** key.

**6** To change to the directory containing the utility scripts to start the Data Dictionary Maintenance Tool GUI, type **cd /*path*** and then press the **Return/Enter** key.

- For ***path***, use **/usr/ecs/<*mode*>/CUSTOM/utilities**, where **<*mode*>** will likely be **TS1**, **TS2**, or **OPS**.

7 Type **EcDmDdMaintenanceToolStart <*mode*>**, where **<*mode*>** is that selected in Step 6, and then press the **Return/Enter** key.

- The initial screen of the **Data Dictionary Maintenance Tool** is displayed.

---

The Data Dictionary Maintenance Tool **Map Attributes/Keywords** tab, illustrated in Figure 76, allows the operator to set up an association between ECS and non-ECS attributes and keywords. An operator can choose a non-ECS term from a list, and map that term to the correct corresponding ECS term. Once satisfied with the mapping, the user clicks on the **Update All Collections** button at the bottom of the screen. This initiates an update process, which may take several minutes to complete.

**NOTE:** There may be no indication, such as the appearance of an hourglass graphic, that the system is processing the request.

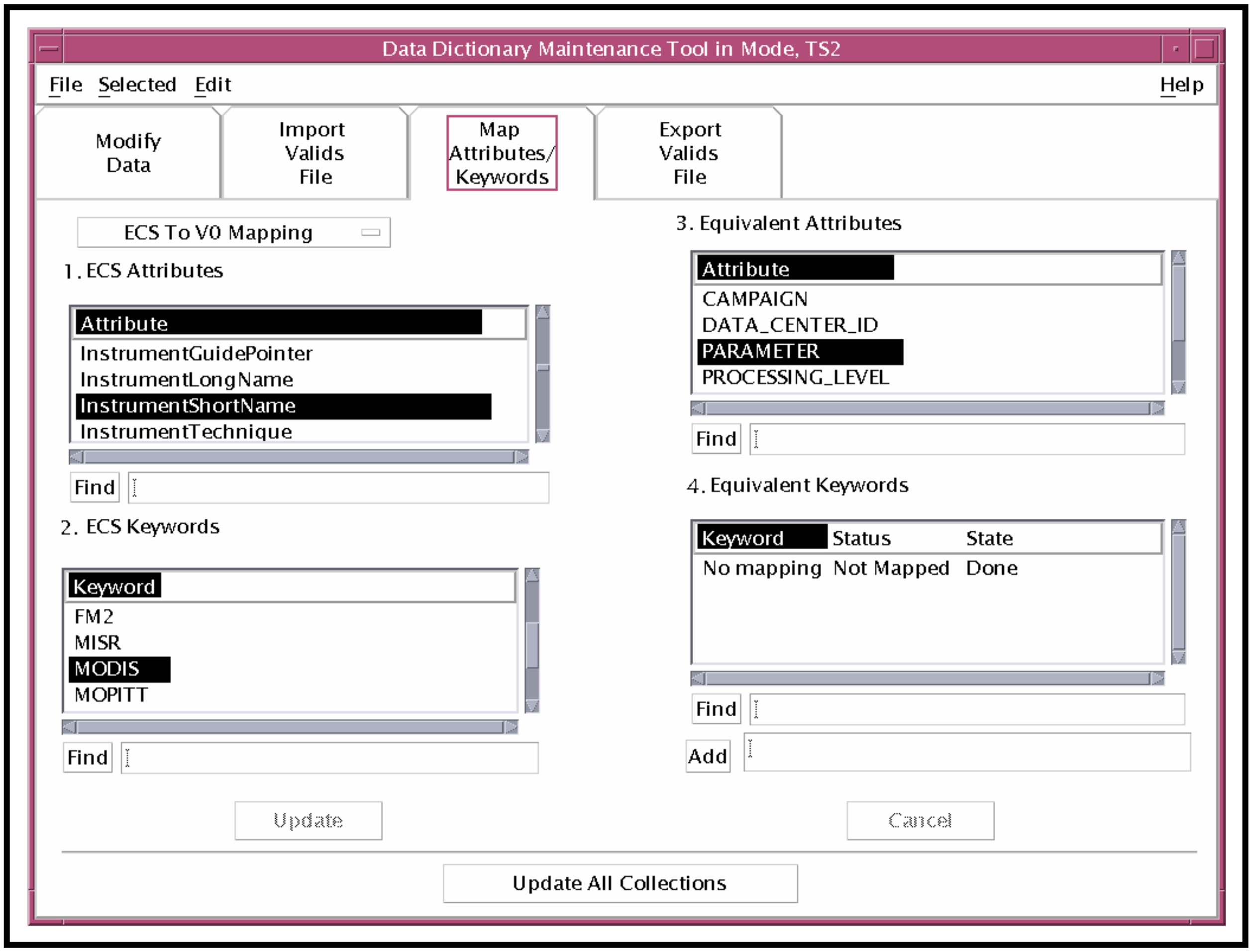



*Figure 76. Data Dictionary Maintenance Tool, Map Attributes/Keywords Tab*

The **Update All Collections** button on the **Map Attributes/Keywords** tab is now used only when importing valids. The software includes an automatic refresh of the mapping for all collections when an ESDT is added or reloaded. Therefore, it is not necessary to use this button to perform the refresh manually when ESDTs are loaded.

## Exporting Valids

Periodically, and as new products/ESDTs are added to ECS, information about the valid attributes and values for them must be made available to the V0 IMS and to ASTER GDS, so that the information can be used to search and order ECS data, including those new products/ESDTs. This is accomplished by using the Data Dictionary Maintenance Tool to export valids, at the tab illustrated in Figure 77.

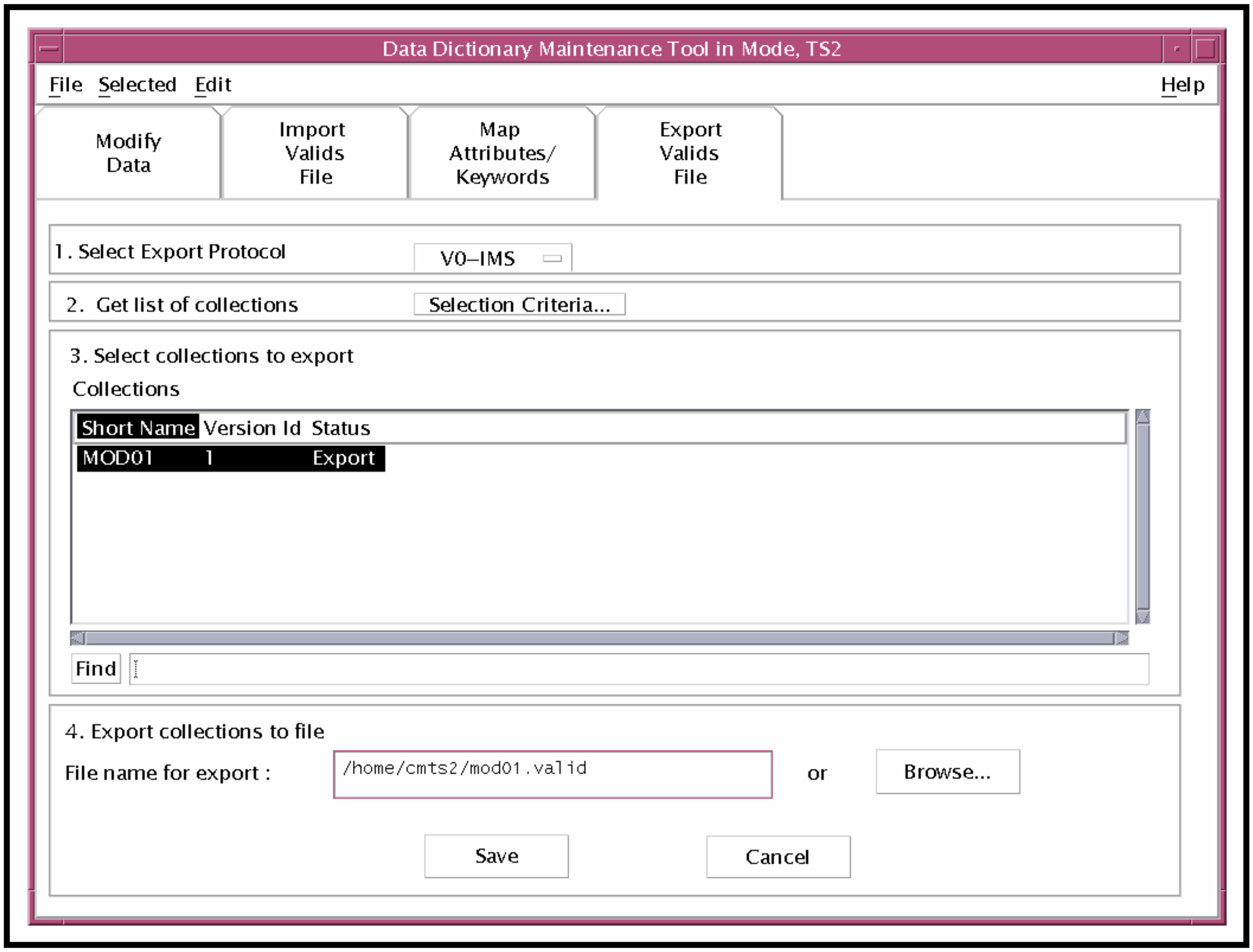



***Figure 77. Data Dictionary Maintenance Tool, Export Valids File Tab***

Use the following procedure to select a collection for export of valids and to specify the name and location for a file to be written.

**Export Valids**

---

**1** Launch the Data Dictionary Maintenance Tool.

**2** Click on the **Export Valids File** tab.

- The Export **Valids File** screen is displayed.

**3** Click on the **Selection Criteria . . .** button in the **1. Get list of collections** area.

- A **Database List (Export Collections)** dialog box is displayed

4 In the **Database List (Export Collections)** dialog box click on the pull-down arrow to the right of the **Characteristic Type:** field.

- Criteria displayed in a drop-down list include: **Export Collection**, **Attribute**, **Instrument**, **Keyword**, **Platform**, **Sensor**, and **Information Manager**.

5 Click on **Export Collection** in the drop-down list.

- The selected item appears in the **Characteristic Type:** field.

6 In the **Database List (Export Collections)** dialog box click on the pull-down arrow to the right of the **Characteristic Name:** field.

- A drop-down list of names is displayed.

7 Click on **Archive Center** in the drop-down list.

- The selected item appears in the **Characteristic Name:** field.

8 Click on the **Predicate:** option button and select **Is Equal To**.

- The selected option is displayed on the button.

9 Click in the **Value:** field and type **<*Center*>**, where **<*Center*>** is the designation for your DAAC (e.g., **GSFC**, **EDC**, **LARC**, **NSIDC**).

- The typed entry appears in the field.

10 Click on the **OK** button.

- The **Database List (Export Collections)** dialog box is closed and a list of **Collections** is displayed in the **2. Select collections to export** area of the **Export Valids File** screen.

11 Double-click on one of the collections for which valids are to be exported.

- The selected collection is highlighted and **Export** is displayed in the **Status** column next to the highlighted selection.

**NOTE:** Multiple collections may be selected by use of the **Shift** and/or **Control** keys. Contiguous items in the list may be selected by holding down the **Shift** key while double-clicking on additional items. Non-contiguous items in the list may be selected by holding down the **Control** key while double-clicking on an additional item.

12 Click in the **File name for export:** field in the **3. Export collections to file** area.

- The cursor moves to the **File name for export:** field.

13 Type the path to specify a directory and name for the export file to be saved.

- The typed entry is displayed in the **File name for export:** field.

**14** Click on the **Save** button.

- An "error" dialog box is displayed with the message **The Query Succeeded for all the collections**, indicating that the export file was saved.

The other active tab in the current version of the Data Dictionary Maintenance Tool is the **Import Valids File** screen, illustrated in Figure 78. This tab is used for import of ASTER dataset valids.

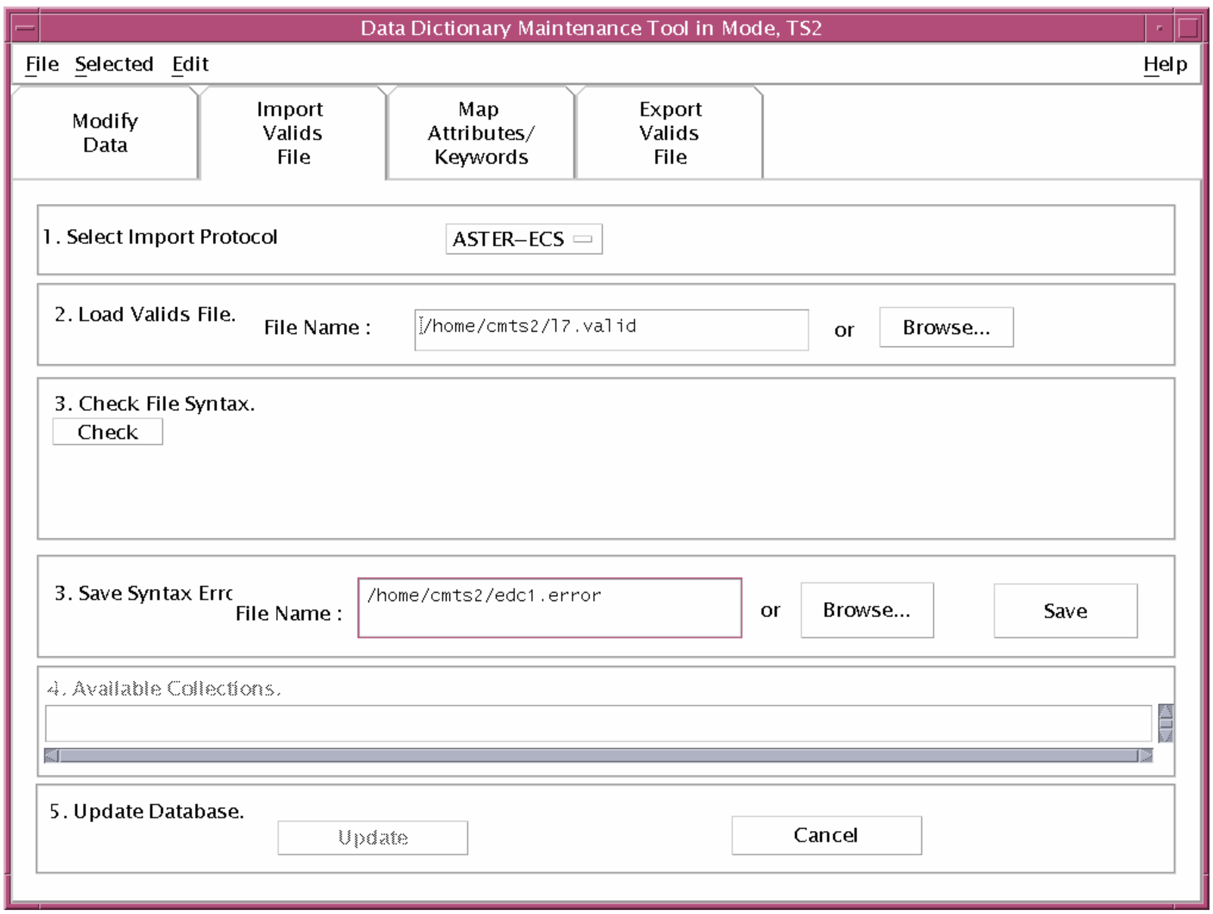



***Figure 78. Data Dictionary Maintenance Tool, Import Valids File Tab***

Use the following procedure for import of ASTER dataset valids.

**Import Valids**

**1** Launch the Data Dictionary Maintenance Tool.

2 Click on the **Import Valids File** tab.

- The Import **Valids File** screen is displayed.

3 Under **Load Valids File** click in the **File Name:** field and type **<*validsfilename*>**.

- **<*validsfilename*>** is the full path for the file to be imported. It is possible to click on the **Browse . . .** button and click to select the file.
- The typed or selected entry is displayed in the **File Name:** field.

4 Click on the **Check** button.

- The system checks the syntax of the valids file and generates any collection messages.

5 Under **Save Syntax Error File** click in the **File Name:** field and type **<*errorfilename*>**.

- **<*errorfilename*>** is the full path for the file to be saved. It is possible to click on the **Browse . . .** button and click to select a file.

6 To save the statistics or warnings to the named statistics/warning file, click on the **Save** button.

- The file is saved.

7 To submit the collection to the Data Dictionary, click on the **Update** button.

- The collection is inserted.

8 Click on the **Map Attributes/Keywords** tab.

- The **Map Attributes/Keywords** screen is displayed.

9 Click on the **Update All Collections** button.

- The ECS collections are updated with the new mappings.

**NOTE:** This update may take several minutes.

# Troubleshooting DDMT Problems

## ECS Data Dictionary Maintenance Tool (DDMT) User Messages

The Data Dictionary Maintenance Tool (DDMT) is part of the Data Management Subsystem (DMS), and uses database functions in that subsystem. If the tool cannot be launched, or does not function (e.g., cannot retrieve orders), you will need to ask the System Administrator to ensure that the Data Dictionary (DDICT) Server is functioning properly. It may be necessary to have the Database Administrator check to ensure that there are no problems with the database.

It is also possible to receive error messages when using the GUI while it is apparently functioning normally. Error messages associated with the DDMT are listed in Appendix A of the *Release 7.11 Operations Tools Manual for the EMD Project (*Document 609-EMD-001). Table 4 is adapted from the corresponding table in Document 609. If a problem cannot be identified and fixed without help within a reasonable period of time, the appropriate response is to call the help desk or submit a trouble ticket in accordance with site Problem Management policy.

***Table 4. ECS DDMT User Messages (1 of 3)***

| Message Text | Impact | Cause/Corrective Action |
|---|---|---|
| Failed. | Cannot proceed with the subsequent and corresponding actions. | Operator action did not result in the desired program function. Check prior entries before action entries. |
| Can't undo. | Cannot cancel previous action. | Cancellation is not possible. No corrective action available. |
| The Query failed for all the collections. | Query cannot be performed. | Could not perform the query for all the collections. Check the DDICT server log files for possible connectivity or Sybase errors and, if indicated, contact the System Administrator or Database Administrator to correct identified problems. Then try again. |
| The Query failed for some of the collections. | Query cannot be completely performed. | Could not perform the query for some of the collections. Check the DDICT server log files for possible connectivity or Sybase errors and, if indicated, contact the System Administrator or Database Administrator to correct identified problems. Then try again. |
| The Query succeeded for all the collections. | N/A. | Informational message. |
| The Query succeeded for some collections. | N/A. | Informational message. |

### *Table 4. ECS DDMT User Messages (2 of 3)*

| Message Text | Impact | Cause/Corrective Action |
|---|---|---|
| Error connecting to Data Dictionary Server. | Data Dictionary Server not connected. | Contact System Administrator/Operations Supervisor to ensure that the server is running and to check for connectivity problems. |
| Querying database. | N/A. | Informational message. |
| Updating database. | N/A. | Informational message. |
| The update was successful. | N/A. | Informational message. |
| The update failed. | Database cannot be updated. | Updating the database did not work. Check the DDICT server log files for possible connectivity or Sybase errors and, if indicated, contact the System Administrator or Database Administrator to correct identified problems. Then try again. |
| No attribute has been specified. | No further action on attributes will occur. | Attributes are not specified. Specify the attributes and try again. |
| A valid value has not been specified. | No further action will occur. | A value was not specified. Specify a value and try again. |
| Unable to connect to Data Dictionary Server. Please try later. | Data Dictionary Server not connected. | Contact System Administrator/Operations Supervisor to ensure that the server is running and to check for connectivity problems. |
| The query matched no items in database. | N/A. | Informational message. |
| The query failed. | Query cannot be performed. | Could not perform the query. Check the DDICT server log files for possible connectivity or Sybase errors and, if indicated, contact the System Administrator or Database Administrator to correct identified problems. Then try again. |
| Unknown internal error. | The connection to the server is not available. | Contact System Administrator/Operations Supervisor to ensure that the server is running and to check for connectivity problems. |
| Cannot open valids file <valids filename>. | Valids file will not be available. | The valids file specified does not exist. Specify the correct valids file and try again. |
| Saved file <filename>. | N/A. | Informational message. |
| Data Dictionary updated. | N/A. | Informational message. |
| You have pending actions, which will be lost if you exit. Do you really want to exit? | Loss of pending actions. | Operator trying to exit before confirmation of database changes. Confirm before exiting. |

### *Table 4.  ECS DDMT User Messages (3 of 3)*

| Message Text | Impact | Cause/Corrective Action |
|---|---|---|
| Do you really want to exit? | Seeks confirmation. | Operator confirmation required before exiting.  Confirm before exiting. |
| Unable to open specified file.  Try another filename. | File specified will not be available. | The file specified by the operator cannot be opened.  Specify correct file name and try again. |
| You have made changes to <item name>, which will be lost if you proceed.  Do you want to continue? | Loss of current changes. | Operator confirmation required before exiting the current action.  Confirm before exiting. |
| Query failed. | N/A. | Database search resulted in no selections. |
| The query failed, possibly due to a server problem. | Connection to DDICT server not available. | Contact System Administrator/Operations Supervisor to ensure that the server is running and to check for connectivity problems. |
| Unable to open output file <filename>. | Output file not available. | Specified output file does not exist.  Check for its presence.  Create file if necessary and try again. |
| Not available <List of items not available>. | File is not available. | Configuration File Error.  Contact System Administrator to ensure use of the correct Configuration File with all the entries required. |
| No file specified.  Please select or type a file name. | File not available. | A filename has not been specified.  Select the proper filename and try again. |
| <filename> does not exist.  Please try again. | File not available. | File selected does not exist.  Select a file that is present and try again. |
| Unable to access <filename>.  Please try again. | File not available. | Cannot access the specified file.  Check for the presence of the specified file. |
| <filename> is a directory.  Please also specify a file. | File not available. | File selected does not exist.  Specify a filename instead of the directory. |
| <filename> is not a proper file.  Please try again. | File not available. | File selected is not proper.  Specify a proper filename. |
| <filename> already exists and will be overwritten.  Do you want to continue? | A file is overwritten. | Operator has used an existing filename.  Use a different filename to avoid overwriting and existing file. |
| Value missing for required field.  Please specify a value. | Cannot proceed with the action. | Improper entry in the desired field.  Make a proper entry and try again. |
| Elements in valids section of data file not understood. | The data file is not usable. | The valids file is not correct.  Use the proper valids file and try again. |

## Checking Data Dictionary Server Log Files

Log files can often provide information that will identify possible sources of disruption in Data Dictionary server function or communications, suggesting additional checks or actions that may help resolve the problem. The procedure for checking a log file starts with the assumption that the operator has logged in to the system.

**Checking Data Dictionary Server Log Files**

---

**1** To log in to the host for the server and log(s) to be examined, type **/tools/bin/ssh <*hostname*>** and then press the **Return/Enter** key.

- **<*hostname*>** refers to the Sun Consolidation External Server (e.g., e0ins01, g0ins01, l0ins01, or n0ins02).
- If you receive the message, **Host key not found from the list of known hosts. Are you sure you want to continue connecting (yes/no)?** type **yes** ("**y**" alone does not work).
- If you have previously set up a secure shell passphrase and executed **sshremote**, a prompt to **Enter passphrase for RSA key '<*user@localhost*>'** appears; continue with Step 2.
- If you have not previously set up a secure shell passphrase, go to Step 3.

**2** If a prompt to **Enter passphrase for RSA key '<*user@localhost*>'** appears, type your ***Passphrase*** and then press the **Return/Enter** key. Go to Step 4.

- The prompt reflects the login to the selected host.

**3** At the **<*user@remotehost*>'s password:** prompt, type your ***Password*** and then press the **Return/Enter** key.

- The prompt reflects the login to the selected host.

**4** Type **cd /usr/ecs/<*MODE*>/CUSTOM/logs** and then press the **Return/Enter** key.

- The prompt reflects the change to directory **/usr/ecs/<*MODE*>/CUSTOM/logs**.

**5** To view a server log, type **pg *filename*** and then press the **Return/Enter** key.

- ***filename*** refers to the account management log file to be reviewed (e.g., **EcDmDictServer.ALOG**, **EcDmDictServerDebug.log**).
- The first page of the log file is displayed; additional sequential pages can be displayed by pressing the **Return/Enter** key at the **:** prompt.
- Although this procedure has been written for the **pg** command, any UNIX editor or visualizing command (e.g., **vi**, **more**, **tail**) can be used to review the log file.

- Typically, the **<*server*>Debug.log** captures more detailed information than the **<*server*>.ALOG**. However, for some servers (e.g., **SDSRV**), there may be significant detail in the **<*server*>.ALOG**. It is also important to note that the **DebugLevel** setting in the **<*server*>.CFG** file determines the level of detail captured in the **<*server*>Debug.log** (**0** is off, a setting of **1** captures status and errors, a setting of **2** captures major events, and a setting of **3** is a full trace recording of all activity). If the **DebugLevel** has been set to one of the lower levels during operations, the System Administrator may set it to **3** during troubleshooting.

**6** Review the log file(s) to determine if there are any indications of connection problems or errors at start up.

- The **EcDmDictServerDebug.log** file for the User Profile/User Registration server may contain an error message concerning **PF Init** error or problem (notify the System Administrator).
- The **EcDmDictServer.ALOG** file may contain evidence of a Sybase error (e.g., **SybaseErrorCode1 =92014;SybaseErrorMesage1 ="*x*0ins01_srvr"** or **SybaseErrorCode2 =16;SybaseErrorMesage2 =""**) (notify the Database Administrator).

**7** To exit the **pg** review of the log file, type **q** at the **:** prompt and then press the **Return/Enter** key.

This page intentionally left blank.

# Cross-DAAC Referral Processing

Sometimes a user may request your help in placing an order for data that are not available at your DAAC. Similarly, a User Services representative at another DAAC may receive a request for help in placing an order for data that are held at your DAAC, with the result that you receive a referred request.

## Referral to Another DAAC

Suppose, for example, that User Services receives an E-mail request from Dr. Ima D. Geologist for help in finding ASTER images of an area in Africa. The User Services representative follows an established approach in response:

- User Contact Log record – document the request.
- User Profile – verify that the requester is a registered user.
- Data Search and Order tool – locate the requested data.

When the search results indicate that the data are held at the LP DAAC, the User Services representative refers the request to that site. The referral is accomplished by

- Forwarding the original E-mail request to User Services at the LP DAAC.
- Adding some forwarding information to explain the origin of the request.
- Including the preliminary search as a desktop object attached to the E-mail.
- Including the original Contact Log Id record as an attachment to assist in any backtracking that may be necessary.
- Sending the requester an E-mail message explaining that the request for help has been forwarded to the LP DAAC and providing a contact name and phone number at the LP DAAC.

The action is completed by updating the User Contact Log record to document the referral, and, because there should be no requirement for further interaction between the home DAAC and the requester, closing the User Contact Log.

## Receiving a Referral from Another DAAC

You may receive a cross-DAAC referral from a User Services representative at another DAAC who has received a request for help in locating and ordering data that is stored at your DAAC. In that case, you follow an established procedure that should seem familiar by now:

- User Contact Log record – document receipt of the referral.
- User Profile – verify for yourself that the requester is a registered user.
- Data Search and Order tool – locate the requested data.
- Review the E-mail – verify that the search is complete or add search parameters, contacting the user if more information is necessary.
- Submit the order.
- Update User Contact Log record – indicate completion of order; close the record.

# Cross-DAAC Order Tracking

If a user has placed an order that required a cross-DAAC referral, there may arise a requirement for order tracking that involves more than one DAAC. For example, you may have referred an order to another DAAC, and if you receive a request for help from the user in tracking the status of the order, you may have to contact the other DAAC to provide the needed help. Similarly, you may be requested by another DAAC to provide the status of an order that has been referred.

## Tracking to Another DAAC

Suppose you receive a request from Dr. Ima D. Geologist to provide the status of her order for ASTER Images. You may recall having referred the order to the LP DAAC, but you may not, or, if another User Services representative handled the initial request and referral, you may not know about it. Just as with any user contact, you follow established steps in providing the requested assistance:

- User Contact Log record – document the request.
- User Profile – verify that the requester is a registered user.

Now, however, if you do not recall or know about the referral, you may try to trace the order using the ECS Order Tracking Tool, without success because it is not pending in the system at your DAAC. The user has assured you that an order was placed. As a resourceful User Services representative, your next thought could be that the order has been fulfilled by your DAAC, and therefore has a status of completed. A reasonable check, then, is to examine the User Contact log records for a closed action related to the user's request. Use the following procedure.

**Query User Contact Log**

**1** Launch the **User Contact Log** application GUI.

- The **User Contact Log** defaults to the **Entry** screen.

**2** Click on the **Query** field.

**3** Click on the **Fields** button, highlight **Contact Name**, and release the mouse button.

- The **Query** field shows **'Contact Name'**.

**4** Click the **=** button.

- The **Query** field shows **'Contact Name' =**.

**5** Enter the **Contact Name**, using quotation marks (in this case, **"Geologist"**).

- The **Query** field shows **'Contact Name' = "Geologist"**.

**6** Click the **AND** button.

- The **Query** field shows **’Contact Name’ = “Geologist” AND**.

**7** Click on the **Fields** button, highlight “**Log Status**,” and release the mouse button.

- The **Query** field shows **’Contact Name’ = “Geologist” AND ‘Log Status’**.

**8** Click the **=** button.

- The **Query** field shows **’Contact Name’ = “Geologist” AND ‘Log Status’ =**.

**9** Enter “**”Closed”**” (using quotation marks).

- The **Query** field shows **’Contact Name’ = “Geologist” AND ‘Log Status’ = “Closed”**.

**10** Choose **List** from the **Query** menu (follow menu path **Query→List**).

- A list box is displayed showing the User Contact Log records that match the Query conditions.

**11** Highlight the desired record and follow menu path **Query→Display . . .** .

- The **Entry** screen fields display the data for the selected record.
- The **Comment Log** field displays the comment that the request was forwarded to another DAAC (in this case, LP DAAC).

---

## Responding to a Tracking Request from Another DAAC

Given that the Comment Log in the User Contact Log record indicates that the request was forwarded, the next step is to use the telephone or E-mail to contact the DAAC to which the request was forwarded to check on the status of the request. That DAAC will then proceed with established steps to determine the status of the order:

- User Contact Log record – update the record to document the current status check.
- User Profile – verify that the requester is still a registered user.
- ECS Order Tracking tool – check on the status of the user’s data request.
- Telephone or E-mail to the user – provide the status of the data request.
- Telephone or E-mail to the original DAAC – permit closing of the User Contact Log record there.
- User Contact Log record – update the record to document that the status was provided.

# (LP DAAC ONLY) ASTER Data Acquisition Request (DAR) Tool

At the LP DAAC, User Services may receive requests from users for assistance with the ASTER Data Acquisition Request (DAR) tool or the On-Demand Form Request Manager, ECS client tools used in reference to ASTER data products and services. It is essential, therefore, that LP DAAC User Services representatives be familiar with the tools, and be able to perform the functions necessary to create and submit a DAR, to create and submit a query to the XAR database, and to create requests for on-demand production of ASTER products.

## Purpose of the ASTER DAR Tool

The ASTER DAR tool permits authorized users to submit DARs, or requests for scheduling data acquisitions by the Advanced Spaceborne Thermal Emissions and Reflection (ASTER) Radiometer. The requests are submitted through the ECS client to the ASTER Ground Data System (GDS), located in Japan. The ASTER GDS controls scheduling of the ASTER instrument and provides the collected data as level 1A and level 1B data to the LP DAAC.

## The ASTER DAR Tool User Interface

The ASTER DAR tool is a web application with four tabs, accessible through a web browser, as illustrated in Figure 79. When the ASTER DAR Tool is initially launched, a welcome dialog box for authorized users provides a short introduction concerning constraints on the request and the use of the ASTER instrument. A notice for unauthorized users, who may use the tool but not submit DARs, provides information about applying for authorization. When the user acknowledges the information, the tool opens with the first tab, called **Organizer**, selected. The **Organizer** tab contains a list of folders with the names of any DARs previously saved or submitted by the user, along with the date and time of submission.

The Project Folders area is intended to function as a file manager. In this area, DAR work that is stored locally (a hard drive or LAN) is displayed. This includes DAR requests upon which a user is still working, the parameters of DARs that have been sent, and the header data for DARs that have been returned from previous requests or DAR Database searches. It is intended that when a user selects a particular DAR, the **Parameters** field becomes populated with data entries that are relevant to the highlighted request.

If the user wishes to edit the contents of a DAR stored locally (i.e., finish an incomplete DAR that was saved or edit a previous DAR for which the parameters had been saved), the user can select the desired item from the Project Folders list by clicking on it. The action will cause all parameters stored for the highlighted item to populate the appropriate fields in the **Create/Edit Request** tab where the user can inspect and/or edit them.

The **Organizer** tab includes buttons for several functions related to managing folders, DARs, and searches. The last button is for attaching a data processing request to a selected DAR. This button is not used.

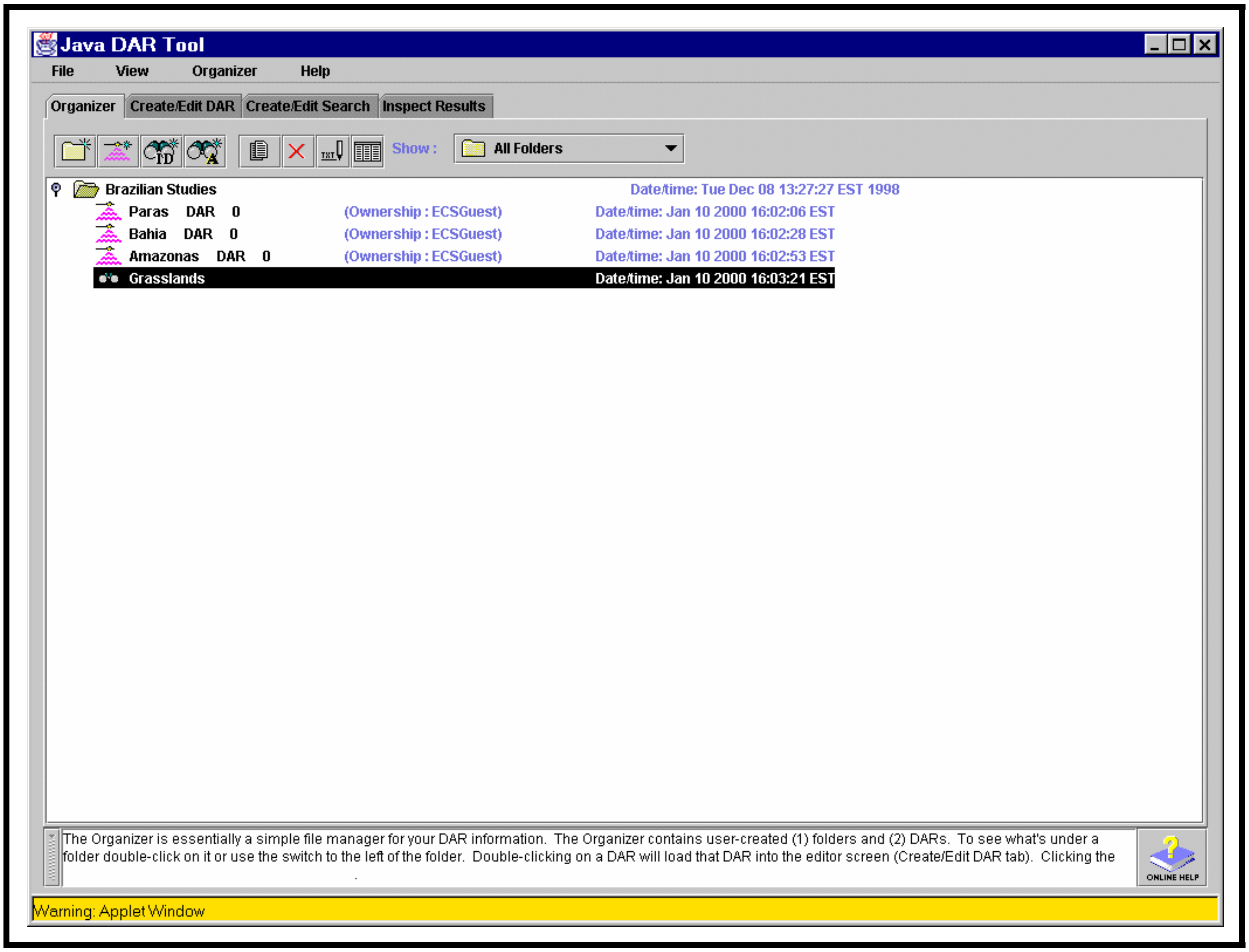



***Figure 79. ASTER Data Acquisition Request (DAR) Tool Organizer Screen***

### Create/Edit DAR

To edit the parameters, or to create a new DAR, the user clicks on the **Create/Edit DAR** tab, bringing up the screen shown in Figure 80. This screen provides access through nested tabs to all the functions necessary to create a new DAR or to edit existing DAR parameters (i.e., **General**, **Spatial**, **Temporal**, **Coverage**, **Geometry**, and **Priority**. General, Spatial, and Temporal requirements must be entered to complete a DAR. Other options are not required. A user visits one of these screens, makes entries or edits, and accepts the changes in that screen by clicking on the **Update DAR** >>> button. This makes the information available for display in the DAR Summary window at the right side of the form; to display the information, the user clicks on the toggle icon for the relevant category.

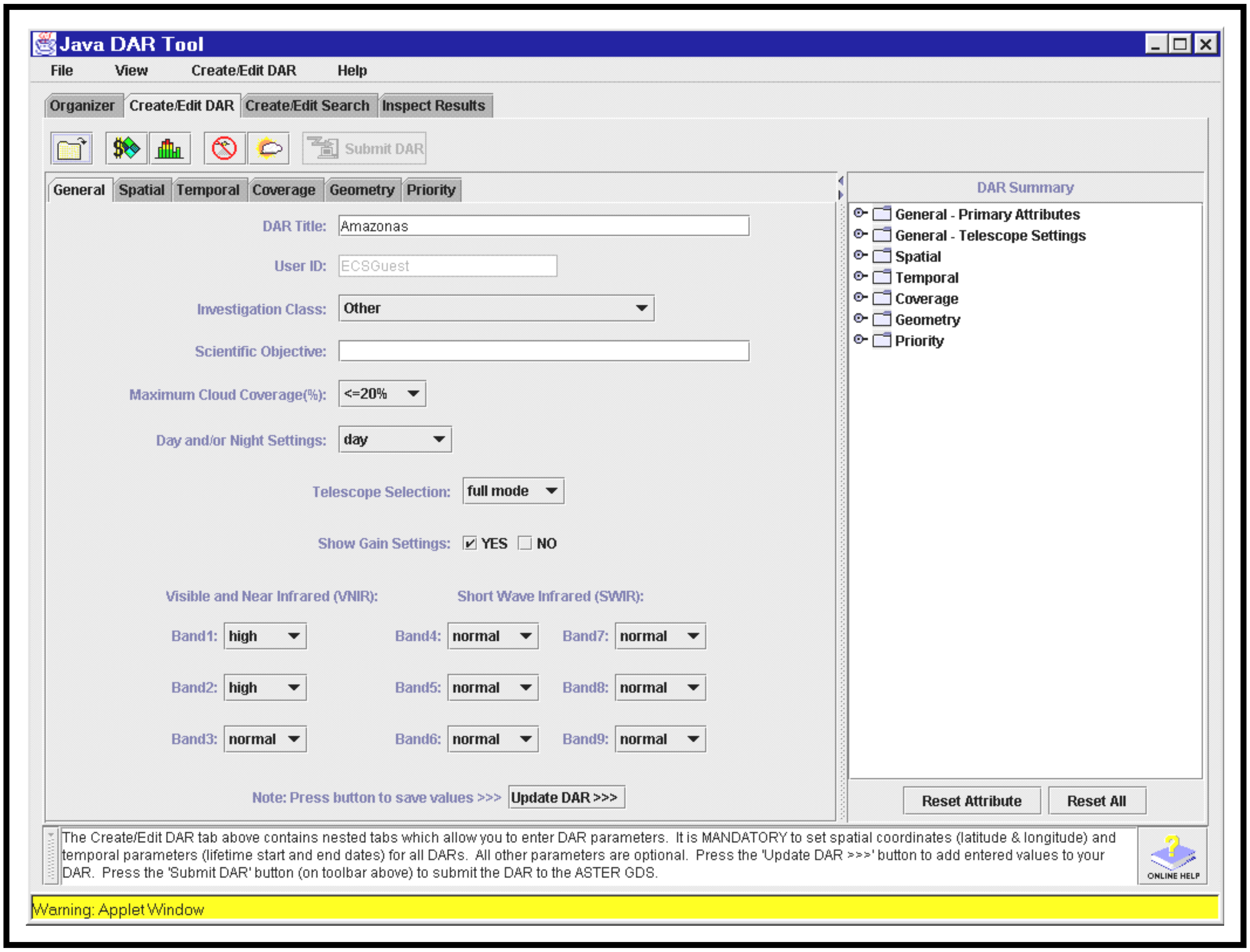



***Figure 80. ASTER DAR Tool Create/Edit DAR General Tab***

The **Create/Edit DAR** screen **General** tab permits naming the DAR and providing other information to characterize the request. It also permits selection of one or a combination of the telescopes that are part of the ASTER instrument. The three telescopes are:

- VNIR (Visible and Near-Infrared spectrum).
- SWIR (Short-wave and Infrared spectrum).
- TIR (Thermal Infrared spectrum).

Five possible selections are available through activation of an option button:

- Full Mode -- The full activation of the all bands of the VNIR, SWIR, and TIR telescopes together.
- VNIR -- The activation of all bands of the VNIR telescope only.
- VNIR Stereo -- The activation of the V3N & V3B bands (a stereo pair) of the VNIR telescope. In this mode, V1 and V2 are not activated.
- SWIR and TIR -- The activation of all bands of the SWIR and TIR telescopes. In this mode, no bands of the VNIR telescope are activated.
- TIR -- The activation of the TIR telescope only. In this mode, no bands of the VNIR and SWIR telescopes are activated.

The user may click to choose to display or not to display **Gain Settings** for the available bands of each telescope. For each band of the VNIR telescope, the user can use the option button to select high, normal, or low gain settings. For each band of the SWIR telescope, the user can use the option button to select high, normal, low, or very low gain settings. These option buttons are desensitized when the telescope to which the affected bands belong is not selected. Selections on the tab are recorded by clicking on the **Update DAR >>>** button.

### Spatial Requirements

Clicking on the **Spatial** nested tab on the **Create/Edit DAR** tab displays the screen shown in Figure 81. The **Spatial** nested tab allows the user to define an Area of Interest (AOI) on the displayed map and specify coverage criteria such as sampling, cross track fragmentation and area of interest duration for the query. The user can click to select zoom levels from a global view down to a view displaying less than one scene on the map. A panning function allows re-centering the map to any selected point on the display.

The user can click on an icon to enable selection of an **Area of Interest Polygon**. This allows the user to click on four geographic points in sequence to define a polygon on the map. The user may also elect to display a dialog box for display/entry of the Area of Interest Lat/Long Coordinates, as illustrated on the right side of Figure 82. This dialog displays the coordinates as they are selected on the map, or may be used to enter precise coordinates. Clicking on the **Update DAR >>>** button on the **Create/Edit DAR** tab completes entry of the spatial requirements.

Just above the right top corner of the map appears a display providing a resource estimate. Each ASTER user is allocated a set amount of ASTER resources. Before submitting a new DAR, a user should check to see that this new DAR does not consume more resources than might be desirable. The resource total used by a new DAR is calculated by multiplying the area of the AOI (or 3600 $km^2$, whichever is larger) by the number of repeat observations requested. The resource estimate display is provided as a convenience to the user.

### Temporal Requirements

Clicking on the **Temporal** nested tab displays the screen shown in Figure 82. The **Temporal** tab allows the user to select the times at which observations for a specific DAR are to occur. First, the user must enter the begin and end dates for the DAR Lifetime (the time over which all observations for the DAR are taken). The next two parameters, "repeat interval" and "acquisition window" are somewhat interdependent. If the user decides that it is not necessary to have a steady stream of data about a particular AOI, but wants image data from the same AOI at regular time intervals, then the user must use the repeat interval and acquisition window controls to

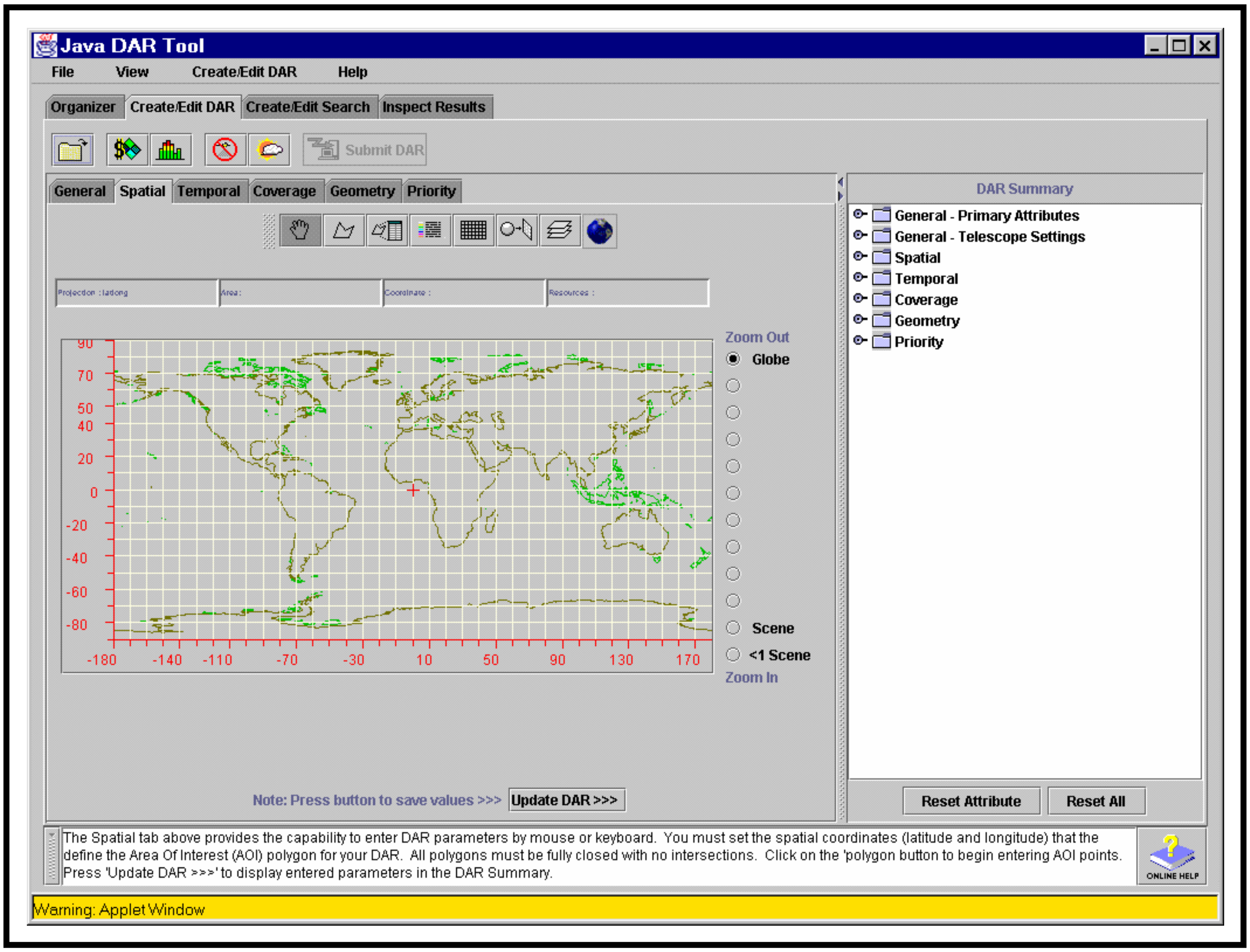



*__Figure 81. ASTER DAR Tool Create/Edit DAR Spatial Tab__*

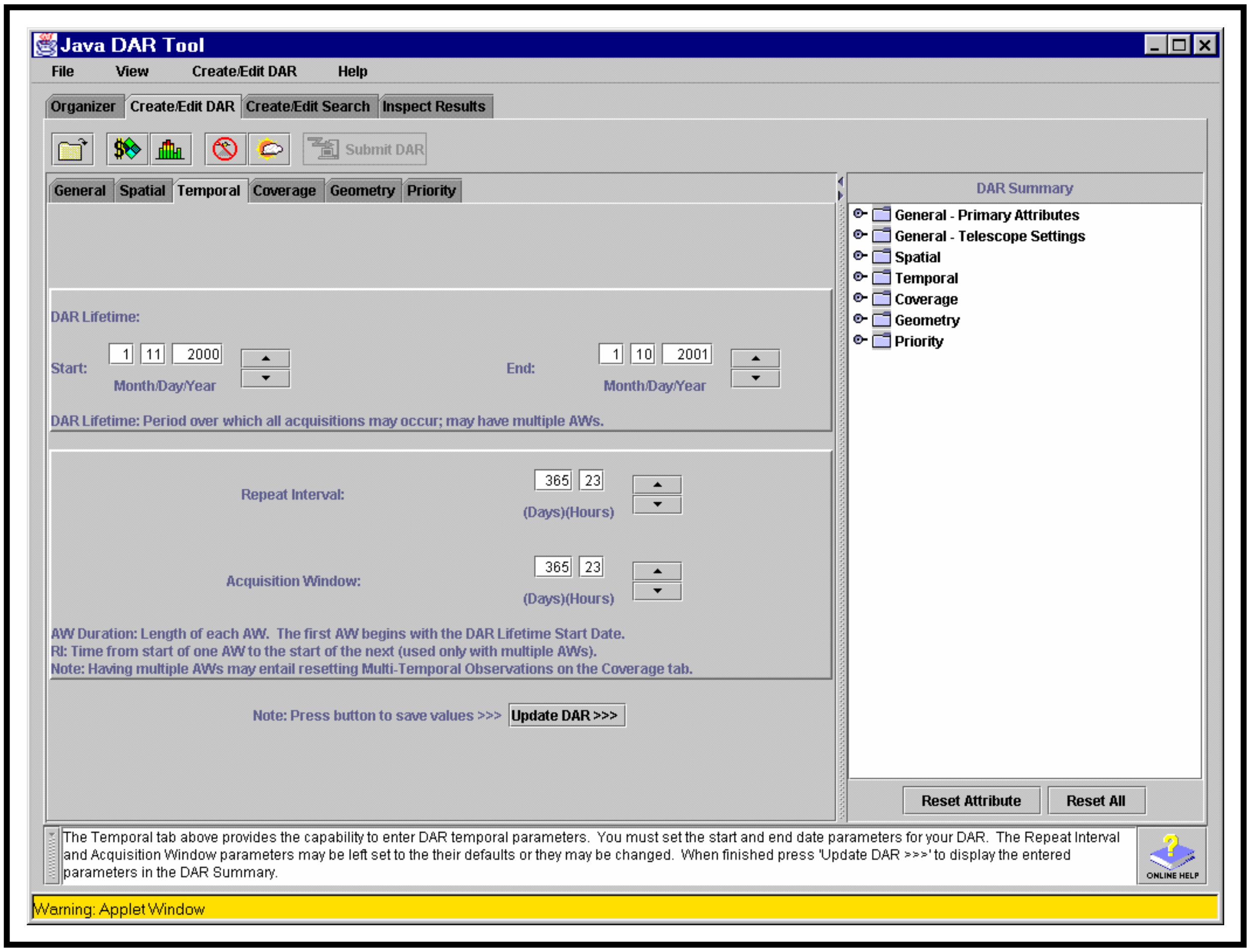



***Figure 82. ASTER DAR Tool Create/Edit DAR Temporal Tab***

specify the number of evenly spaced intervals or the duration of time between the starts of evenly spaced intervals and the duration of those intervals. Clicking on the **Update DAR >>>** button on the **Create/Edit DAR** tab completes entry of the temporal requirements.

## Optional Screens

Two other screens of the ASTER DAR Tool provide capability for the user to specify additional requirements for the ASTER data acquisition request. Clicking on the **Geometry** nested tab displays the screen shown in Figure 83. The **Geometry** tab allows the user to specify an Acceptable Sun Angle Range and either the Look Angle or View Swath (at a preset look angle) for the query. The user may specify an instrument Look Angle in degrees relative to nadir or select a View Swath from up to seven possible choices, or alternatively, specify an Acceptable Look Angle Range. For the Sun Angle and Look Angle, minimum and maximum degree angles can be specified. This is done by either numeric text entry or by using the arrow buttons to the right of the text field to set numeric values within the field. Clicking on the **Update DAR >>>** button on the **Create/Edit DAR** tab completes entry of the geometry requirements.

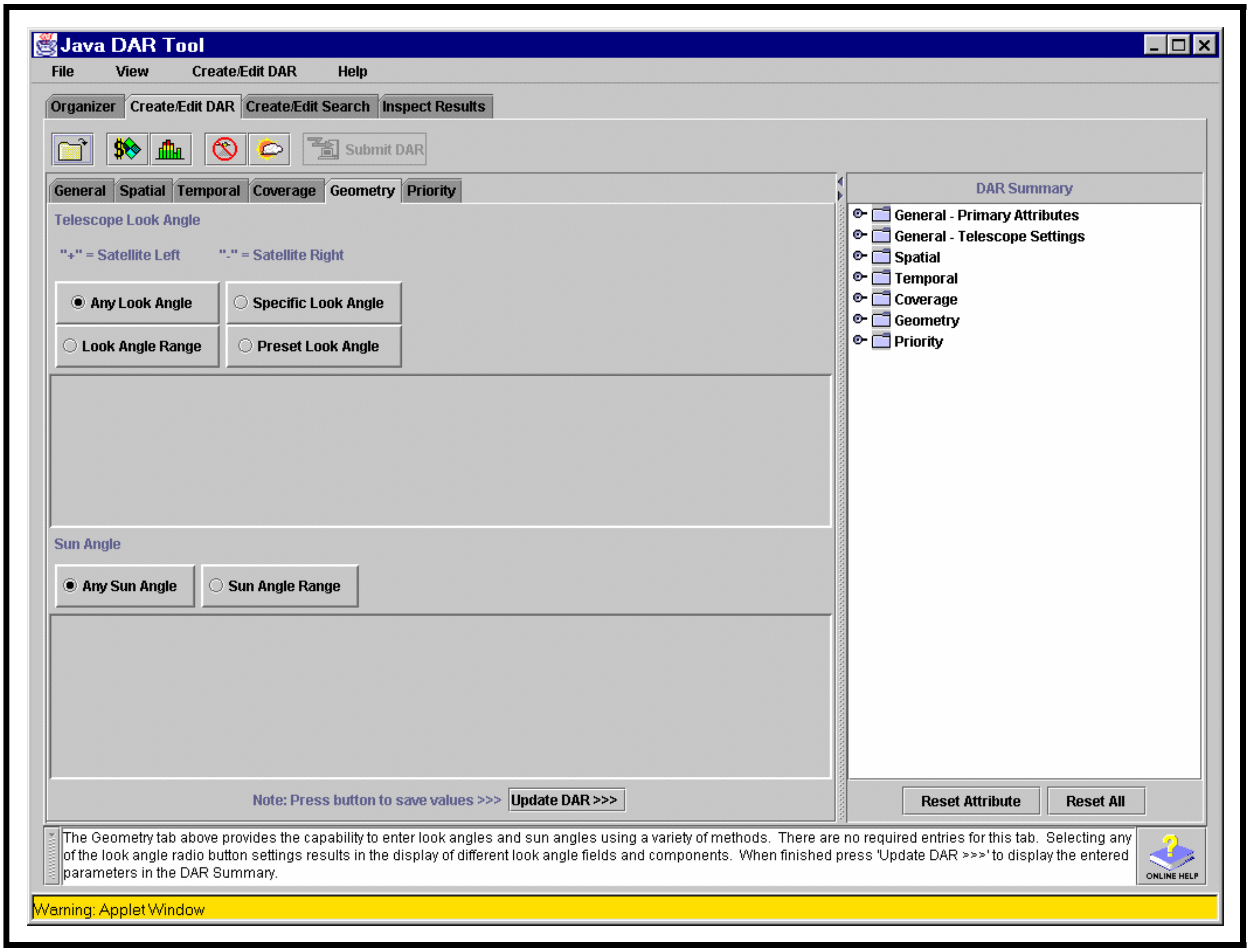



***Figure 83. ASTER DAR Create/Edit DAR Geometry Tab***

Clicking on the **Priority** tab displays the screen shown in Figure 84. The **Priority** tab allows the user to identify any need and justification for special treatment of the request being prepared. Here the user can note any planned Ground Campaign (signifying a need to assign priority to the request to assure collection of data by satellite concurrent with data collection by scientists on the ground), identify any implementation urgency for the request, or request that the delivery of data be expedited. Text areas are provided to permit entry of appropriate justification for these special requests. Clicking on the **Update DAR >>>** button on the **Create/Edit DAR** tab completes entry of the priority requirements.

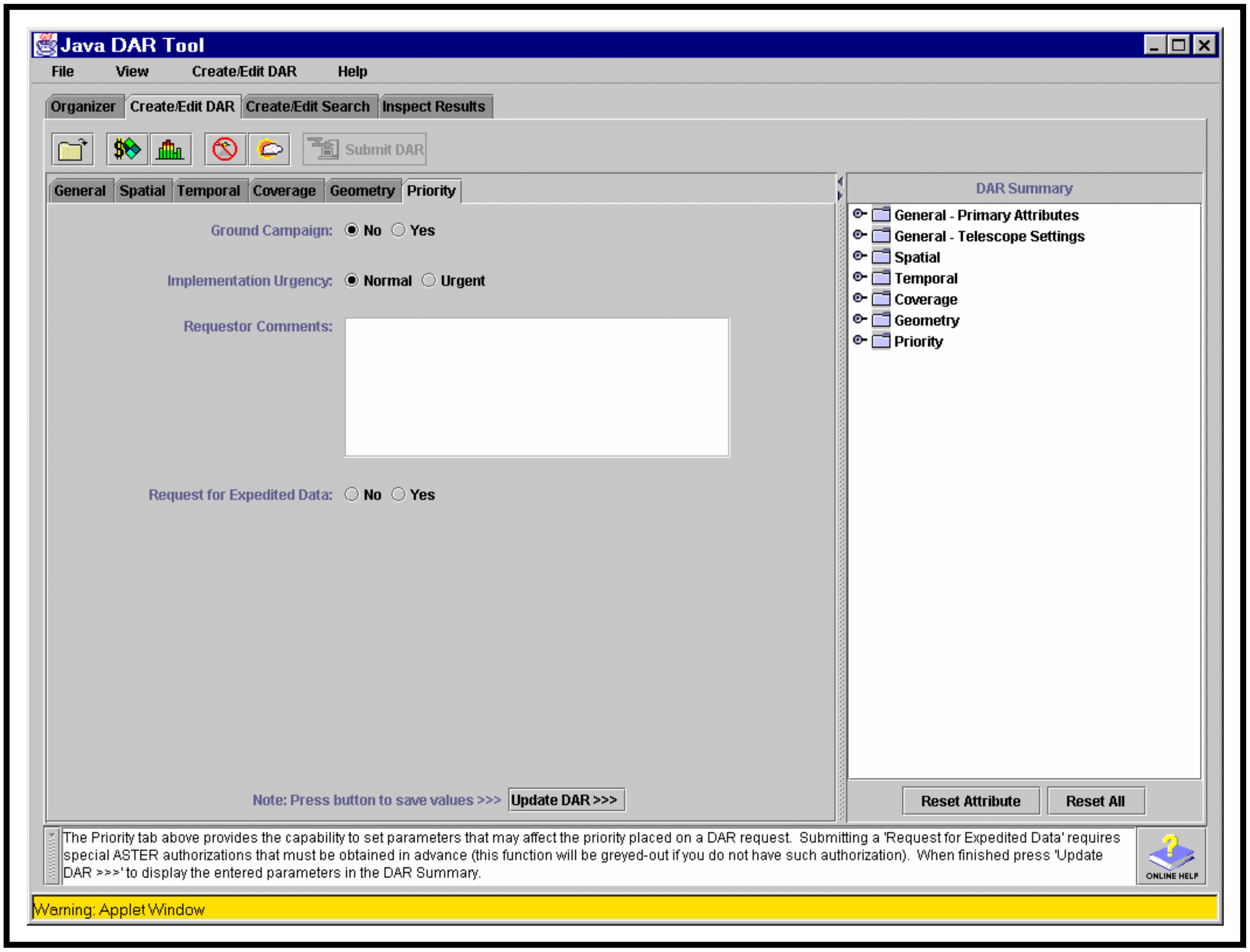



***Figure 84. ASTER DAR Tool Create/Edit DAR Priority Tab***

Clicking on the **Submit DAR** button on the **Create/Edit DAR** screen initiates the submission of the request.  However, if the user has not made entries for all of the mandatory requirements of the ASTER DAR Tool, a warning dialog informs the user of the items for which parameters or data have not been entered and asks whether to submit the request anyway. If the user elects to continue the submit operation and the mandatory DAR request parameters have been supplied, a DAR ID is returned from Ground Data System several seconds later, in a dialog like that shown in Figure 85.

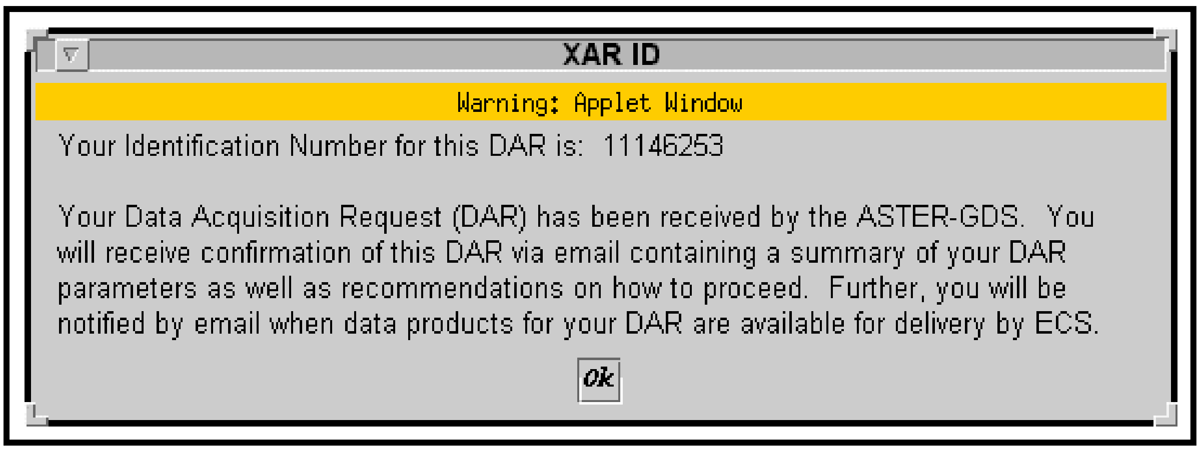



***Figure 85.  DAR Identification Dialog***

The following procedure illustrates an example DAR preparation and submission for collection of thermal infrared imagery in a selected geographic area.

**NOTE**: An ECS DAAC account username and password allowing submission of a DAR must be created prior to performing this procedure.  As an alternative, it is possible to access the ASTER DAR tool as "ECSGuest" to explore how most of the screens work, but it will not be possible to submit a DAR or receive a DAR ID.

**Prepare and Submit a Data Acquisition Request (DAR)**

**1** Access the command shell

- The command shell prompt is displayed.

**2** At the UNIX command shell prompt, type **setenv DISPLAY *clientname*:0.0** and then press the **Return/Enter** key.

- For ***clientname***, use either the local terminal/workstation IP address or its machine name.

**3** Start the log-in to a Netscape host by typing **/tools/bin/ssh *hostname*** (e.g., g0css02, e0css02, l0css02, or n0css02) at the UNIX command shell prompt, and press the **Return/Enter** key.

- If you receive the message, **Host key not found from the list of known hosts. Are you sure you want to continue connecting (yes/no)?** type **yes** (“**y**” alone does not work).
- If you have previously set up a secure shell passphrase and executed **sshremote**, a prompt to **Enter passphrase for RSA key '<*user@localhost*>'** appears; continue with Step 4.
- If you have not previously set up a secure shell passphrase, go to Step 5.

**4** If a prompt to **Enter passphrase for RSA key '<*user@localhost*>'** appears, type your ***Passphrase*** and then press the **Return/Enter** key. Go to Step 6.

**5** At the **<*user@remotehost*>'s password:** prompt, type your ***Password*** and then press the **Return/Enter** key.

**6** Type **netscape** and then press the **Return/Enter** key.

- The **Netscape** browser window is displayed.

**7** Type the entry for the ASTER DAR Tool (ADT) Uniform Resource Locator (URL) (**http://dartool.ecs.nasa.gov/jdt_applet.html**) directly into the **Location:** field, and then press the **Return/Enter** key.

- A Netscape: The ASTER DAR Tool window is displayed.
- A Java Console dialog box with scrolling information is displayed.
- A dialog box is displayed with **Username:** and **Password:** fields.

**NOTE**: If you have not loaded the latest Java plugin for your browser, you will be prompted to do so. Download the plugin and follow the instructions. On UNIX, run <(sh plugin_file_name.sh) on the plugin file and answer the questions. Once the plugin is installed, restart the browser.

**8** Click on the **Username:** field and type ***<DAAC_login_name>***, click on the **Password:** field and type ***<DAAC_password>***, and then click the **OK** button or press the **Return/Enter** key.

- An ASTER DAR tool "Welcome to the Data Acquisition Tool" dialog is displayed, with introductory information to the user. If the login is as "ECSGuest," the information indicates that submission of a DAR is not authorized, and information is given on how to apply for authorization.

**9** Click on the **OK** button in the "Welcome" dialog box.

- The dialog box is removed.
- A large new window, **The ASTER DAR Tool** window, is displayed, with the **Organizer** tab as the default, showing a list of folders and the names of any previously saved or submitted DARs.

**10** Click on the **Create/Edit DAR** tab.

- The **Create/Edit DAR** functions are displayed, with the **General** nested tab displayed as default and **Untitled xAR** showing as the default in the **XAR Title:** field.

**11** Highlight the title **Untitled xAR** in the **XAR Title:** field and type **JDARC/O_<*date*>**.

- The typed title appears in the **XAR Title:** field.

**12** Click on the arrow to the right of the **Investigation Class:** field.

- A pop-up window displays valid classes.

**13** Click on **Soils** in the pop-up window.

- The pop-up window disappears and the selection (**Soils**) is displayed in the **Investigation Class:** field.

**14** Click in the **Scientific Objective:** field and type a scientific objective.

**NOTE**: Information to be entered in this field should be obtained from the scientist for whom the DAR is being created.

**15** Verify that the **Maximum Cloud Coverage** is **<20%** (if necessary, click on the option button to display a pop-up window and, holding down the left mouse button, drag the cursor to select **<20%**).

- The selected value is displayed on the option button.

**16** Click on the option button for **Telescope Selection** and, holding down the left mouse button, drag the cursor to select **TIR Only**.

- The selection is displayed on the option button.

**17** Click on the **Update DAR >>>** button at the bottom of the window.

- A dialog box is displayed with a field for naming the new DAR, and showing **Copy of JDARC/O_<*date*>** as the default name.

**18** Highlight the words **Copy of** in the **New Name:** text entry field and press the **Delete** key.

- The name **JDARC/O_<*date*>** is displayed in the field.

**19** Click on the **OK** button of the **New Name** dialog box.

- The **New Name** window is removed and the parameters are saved.

**NOTE**: The new values of parameters may be observed by clicking on the **Primary Attribute** toggle icon in the **DAR Summary** window on the right side of the form.

**20** Click on the **Spatial** nested tab.

- The **Spatial** nested tab is displayed with a map showing no designated areas of interest (AOIs).

**21** Click on the **AOI Mode** button.

**NOTE**: A button name is displayed when the cursor is moved over the button. The **AOI Mode** button is the one with the irregularly-shaped polygon icon.

- The button is displayed in the depressed position.

**22** Move the cursor into the map area.

- The cursor changes to the crosshairs shape when moved into the map area.

**23** Click on the **View Coordinates** button (just to the right of the **AOI Mode** button).

- A **View Coordinates** dialog box is displayed with no lat/long coordinates entered.
- Add four points to the map by clicking on the map four times to form a small, four-sided polygon.
- Four points are displayed on the map, connected with red lines.
- Lat/long coordinates for the selected points are displayed in the **View Coordinates** box.

**NOTE**: An AOI may be created with precise coordinates by entering the coordinates in the **View Coordinates** box instead of clicking the points on the map.

**24** Click on the **Update DAR >>>** button.

- The changed spatial parameters are updated in the DAR Summary display area under the **Spatial** heading.

**25** Click on the **Temporal** nested tab.

- The **Temporal** nested tab is displayed.

**26** In the **XAR Lifetime:** area, highlight one of the numbers in the **Begin** field and use the arrow keys or type an entry to specify a desired number; then do the same for other numbers in the **Begin** field until the desired beginning date is identified.

**NOTE**: The fields represent **Month**, **Day**, and **Year**. For this exercise, change the date to the **current date plus one day**.

- The Begin date is displayed as the current date plus one day.

**27** In the **XAR Lifetime:** area, highlight one of the numbers in the **End** field and use the arrow keys or type an entry to specify a desired number; then do the same for other numbers in the **End** field until the desired ending date is identified.

**NOTE**: The fields represent **Month**, **Day**, and **Year**. For this exercise, change the date to the **current date plus ten days**.

- The **End** date is displayed as the current date plus ten days.

**28** Click on the **Repeat Interval (Days)** field and use the arrow keys or type an entry to change the number to the desired number of days for the repeat interval.

- For this exercise, change the number to **2** days.
- The numeral **2** is displayed in the **Repeat Interval (Days)** field.

**29** Click on the **Update DAR >>>** button.

- The changed spatial parameters are updated in the DAR Summary display area under the **Temporal** heading.

**NOTE:** ***Important***: If you are logged in with authorization to submit a DAR, for this training exercise you must check with the System Administrator to ensure that this JDAR will be sent to the local simulator unless prior coordination has been made with ASTER. The IP address and port are set in the EcGwDARServer.CFG file on the CSS primary server (e0ins01).

**30** (See preceding important note!) On the **Create/Edit DAR** tab, click on the **Submit DAR** >>> button.

- A confirmation dialog box is displayed with the information that "The DAR is about to be submitted to GDS."

**31** To confirm the DAR submit action, click on the **Yes** button in the warning box.

- The confirmation dialog box is removed.
- The ASTER reply **XAR ID** dialog box is displayed.

**32** Click on the **OK** button in the **XAR ID** dialog box.

- The **XAR ID** dialog box is removed and the **ASTER DAR Tool** window is displayed as the active window.

- The user receives email confirming that the DAR was received and containing a subscription ID.

**33** To exit from the **ASTER DAR Tool**, select the **Netscape** window; then follow menu path **File→Exit**.

- The **ASTER DAR Tool** windows and the browser window are removed.

## Modifying a DAR

After a DAR has been submitted and prior to its fulfillment, it is possible to submit a modification for limited changes to the request. The modification is accomplished by selecting a DAR on the **Organizer** tab and then selecting one of only two permitted modifications. One permitted modification is to specify a less restrictive maximum cloud cover that will be tolerated (it is not possible to specify a lower percentage for maximum cloud cover than submitted for the original request). This selection is accomplished by selecting the new percentage on an option button in a dialog box.

The second permitted modification is to change the status of the DAR. You may change the status of an active request from **Active** to **Suspended**, or change the status of a suspended request from **Suspended** to **Active**. That is, a DAR will not be removed from the system, but it may be suspended indefinitely if the data is no longer wanted, or a suspended DAR may be reactivated. The desired status is selected by clicking on a button in a dialog box. Modifications are acknowledged by the ASTER GDS.

## Search/Status a DAR

The ASTER DAR Tool permits a user to search for an existing DAR in the XAR database in Japan, using the **Create/Edit Search** tab illustrated in Figure 86. The screen permits search by DAR ID or by attribute. In a search by attribute, sub-tabs similar to those on the **Create/Edit DAR** tab permit specification by General, Spatial, Temporal, Geometry, Priority, or other attributes.

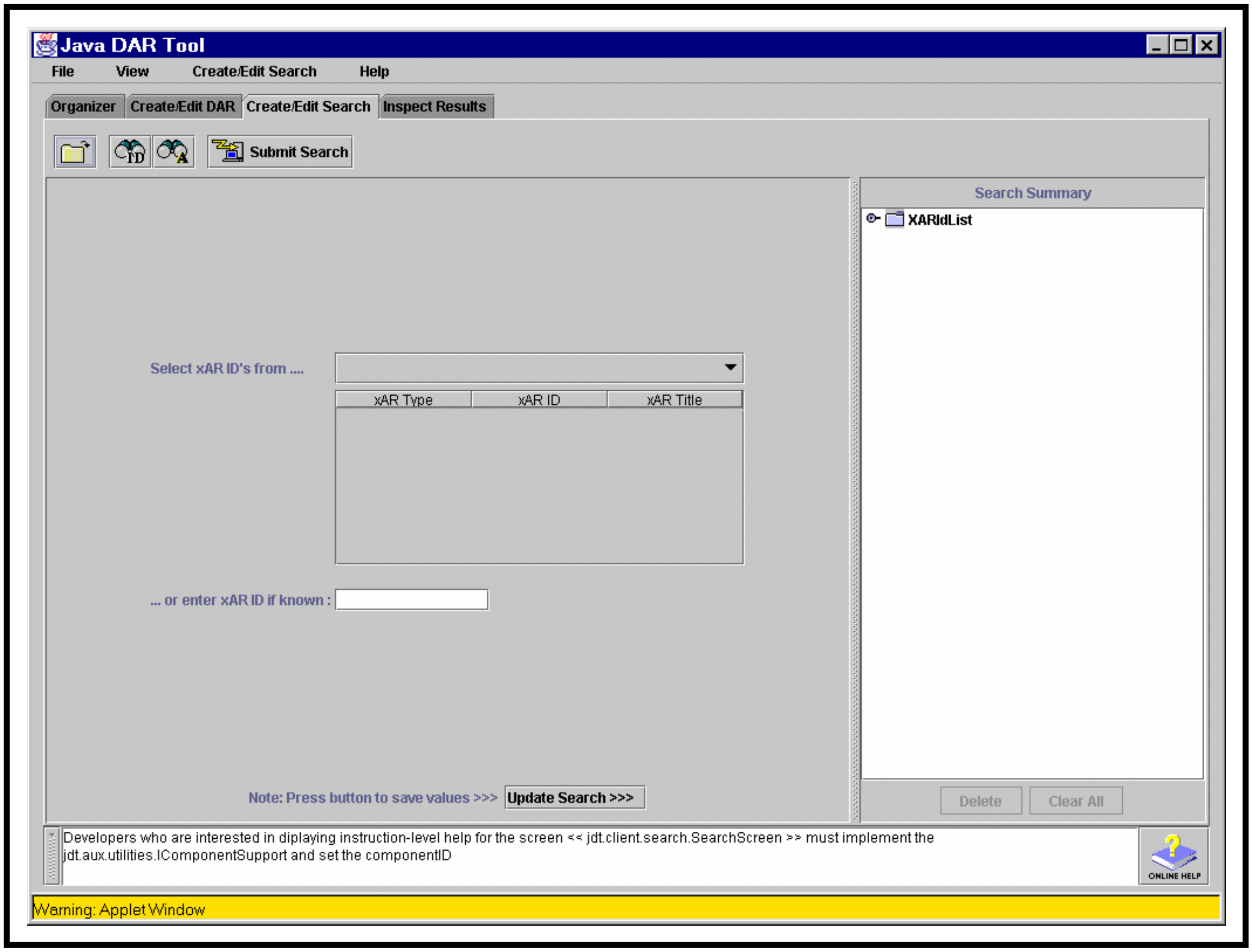



*Figure 86. ASTER DAR Tool Create/Edit Search Tab*

### Inspecting Search Results

The results of a search of the XAR database may be inspected using the **Inspect Results** tab illustrated in Figure 87. As the figure shows, the results are returned as a list of titles, DAR Ids, and a set of associated parameters.

The tool provides several ways of examining the results. User may select one or more DARs from the list and view them in different ways:

- Textually.
- Graphically.
- By Area of Interest (AOI) within the selected Area of Search (AOS).
- By the search parameters that produced the result.

The user may create a template DAR using the parameters from one of the results to submit a new DAR. The user may also view acquired scenes from a selected result, either graphically or by AOI within AOS.

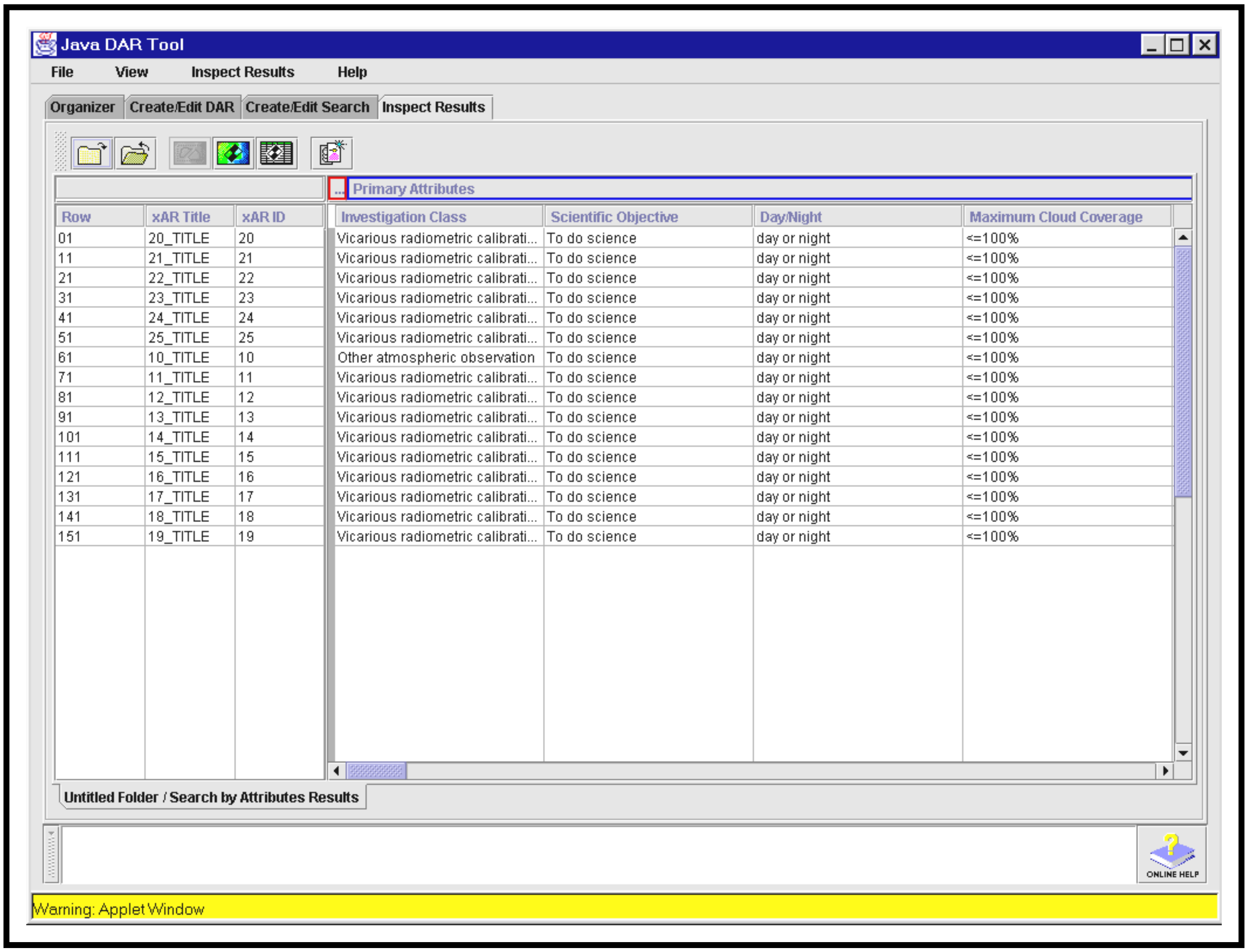



***Figure 87. ASTER DAR Tool Inspect Results Tab***

# On-Demand Product Requests

## Submitting an ASTER On-Demand Request

Users can use an HTML interface to submit requests for the creation of ASTER high-level products, including, if the user is authorized, Digital Elevation Models (DEMs), and non-standard Level 1B products. For those users who need the authorization, it is granted using the User Registration GUI as part of the user registration process. To provide these on-demand products, the EOS Data Gateway and the Planning, Data Processing, and System Management Subsystems of ECS at the LP DAAC include specific support capabilities.

- EOS Data Gateway (EDG), which is the data search and order tool, is configured to collect the user-specified parameters for the ASTER on-demand request.
- Planning (PLS) provides a server, the On-Demand Product Request Manager (ODPRM), for creating and queuing on-demand production requests.
- Data Processing (DPS) updates the status for high-level processing of on-demand requests.
- System Management Subsystem (MSS) includes on-demand requests in its Order Tracking Database and Data Order Tracking Tool.

User Services at the LP DAAC may be called upon to assist users in use of the EDG for submitting on-demand processing requests, and to use the Data Order Tracking Tool to provide the status of on-demand product requests or cancel them. A prior section of this lesson addressed the use of the EDG tool in searching and ordering data. To create an on-demand processing request, a user uses the EDG to conduct a search for appropriate input data (e.g., AST_L1B granules); any appropriate granules for which on-demand processing is available will show the higher-level data products among the ordering options. Figure 88 illustrates an example EDG results listing obtained in a search for AST_L1B data.

On the results listing illustrated in Figure 88, the user selects one or more granules for which on-demand processing is desired to obtain a higher-level data product and adds the granule(s) to the "shopping cart." This action displays the Data Quality Summary window illustrated in Figure 89. The Data Quality Summary window provides a description of the data type of the selected granule(s) and permits the user to proceed to the shopping cart.

The user continues to the Shopping Cart window, shown in Figure 90. This first Shopping Cart window is identified as **Step 1: Choose Ordering Options**.

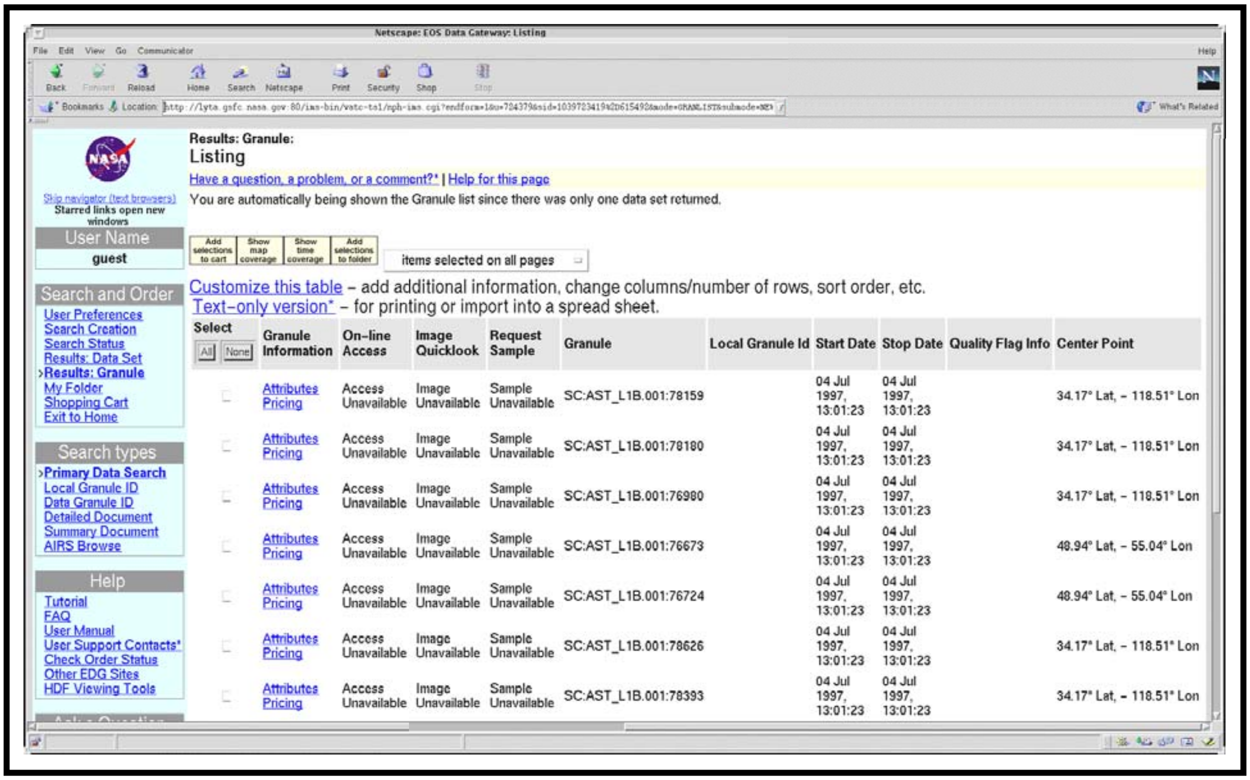



*Figure 88. Example EDG Results Listing of AST_L1B Granules*


*Figure 89. EDG Data Quality Summary Window*

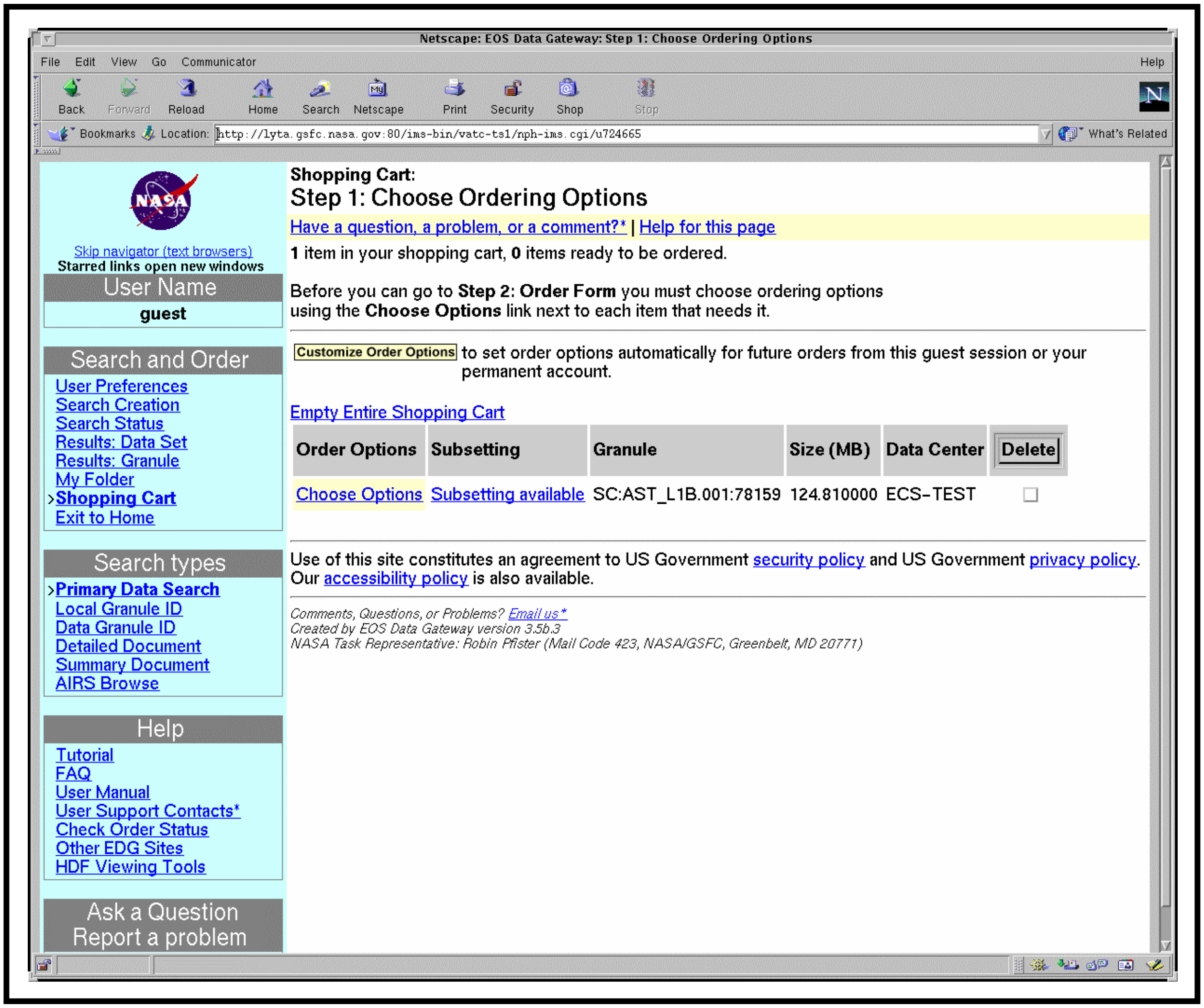



***Figure 90. EDG Shopping Cart: Go to Step 1: Choose Ordering Options***

At the **Step 1: Choose Ordering Options** window, the user clicks on the **Choose Options** link to proceed to the ordering options selection window illustrated in Figure 91. The Shipping Information window permits selection of the means by which the product will be transferred, using selection buttons to the left of the choices. A reset button is provided to restore the default selection.

**NOTE:** If the on-demand product is a Level 1B product from the ASTER GDS in Japan, there is no electronic distribution. The product is delivered on D3 tape to the LP DAAC.

When the user clicks on the selection button for one of the options, the EDG displays a window like those shown in Figure 92. This window permits the user to select specific media options for the selected higher-level product, and then to return to the shopping cart.

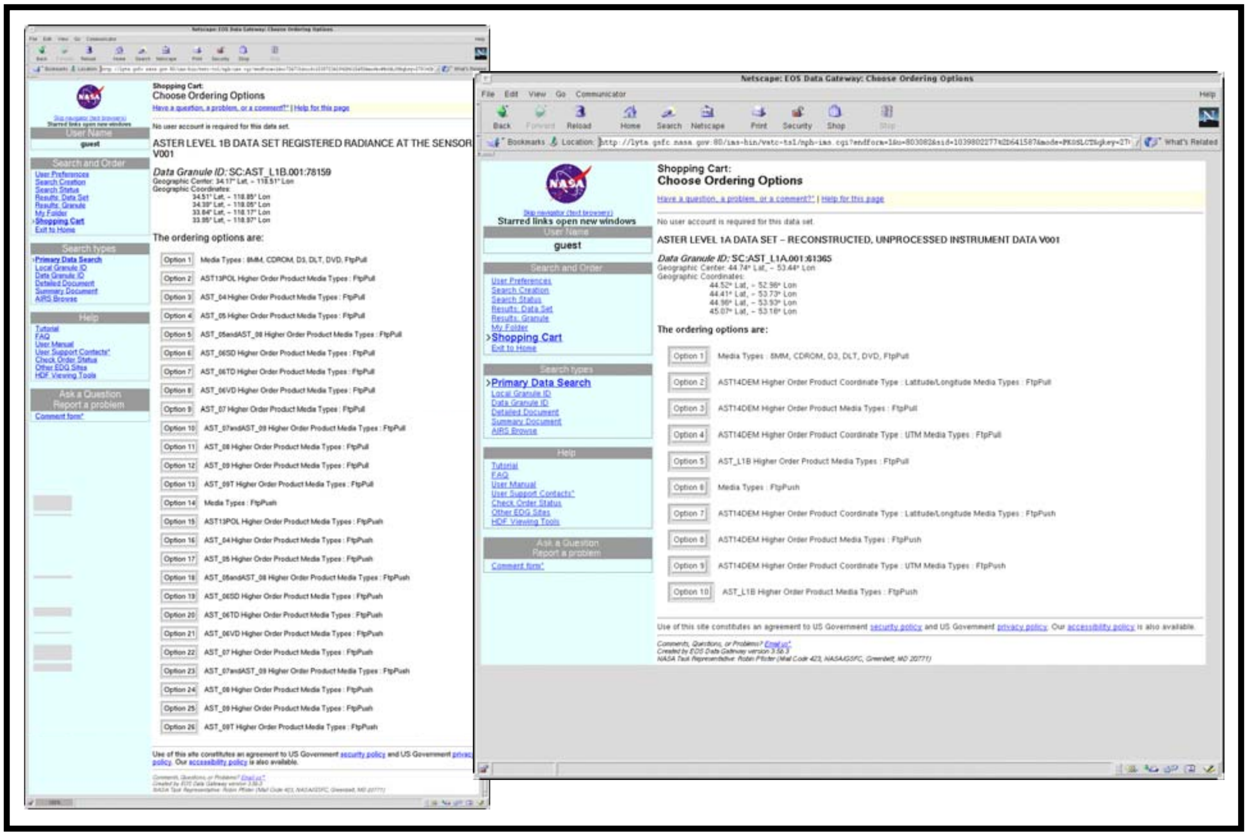


*Figure 91.  EDG:  Ordering Options Selection Screen*

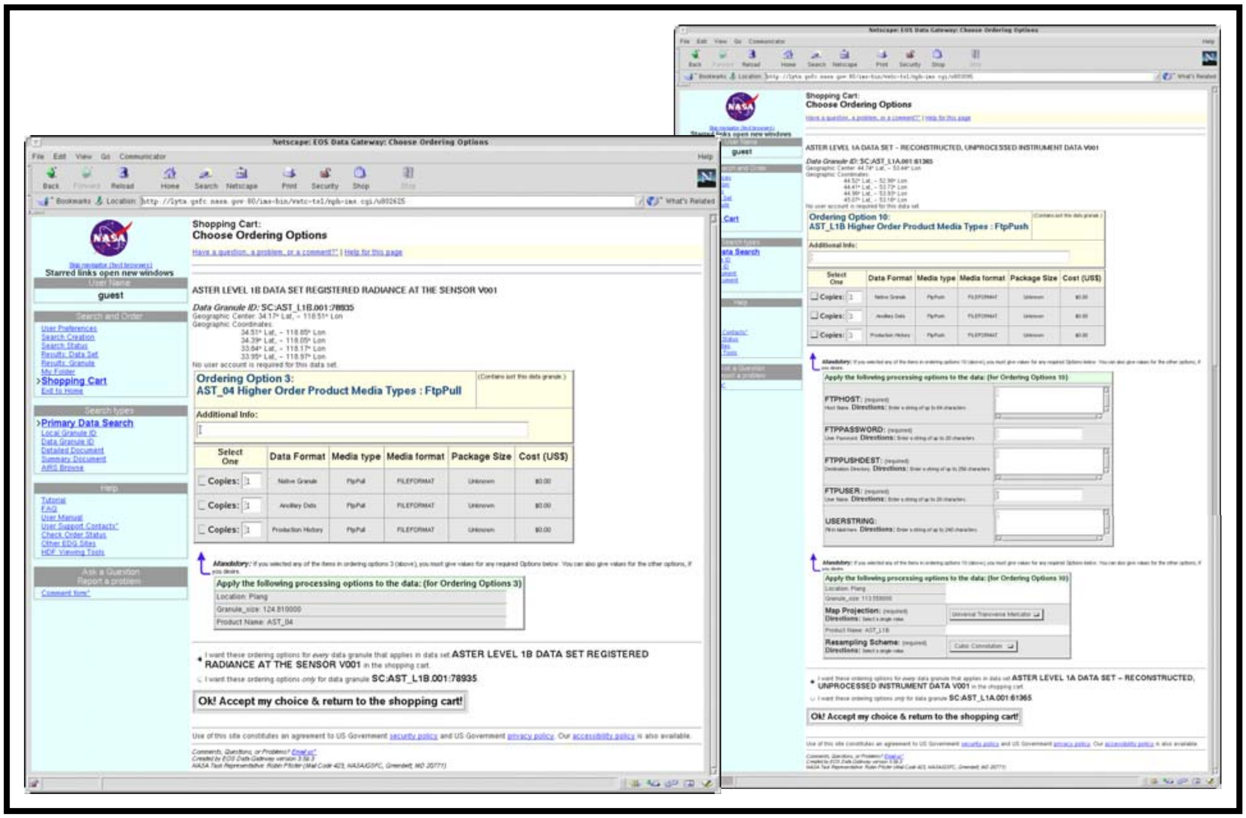


***Figure 92. EDG Media Selection Window Examples***

Back at the Shopping Cart window like that shown in Figure 93, the user can now go to the order form. From this point, completing the order information and submitting the order is similar to the procedure already presented in the section addressing use of the EDG for ordering data, using screens illustrated in Figures 20 and 21.

## Using the EDG for Submitting an ASTER On-Demand Request

The following procedure is applicable for using the EDG to prepare an On-Demand Product Request.

**Using the EDG for Submitting an ASTER On-Demand Request**

---

**1** Launch Netscape, access the EDG tool, and conduct a search for the desired input data to be processed to generate a higher-level data product (see procedure **Locate and Order Data Using the EOS Data Gateway Search and Order Tool**, previous section of this lesson.

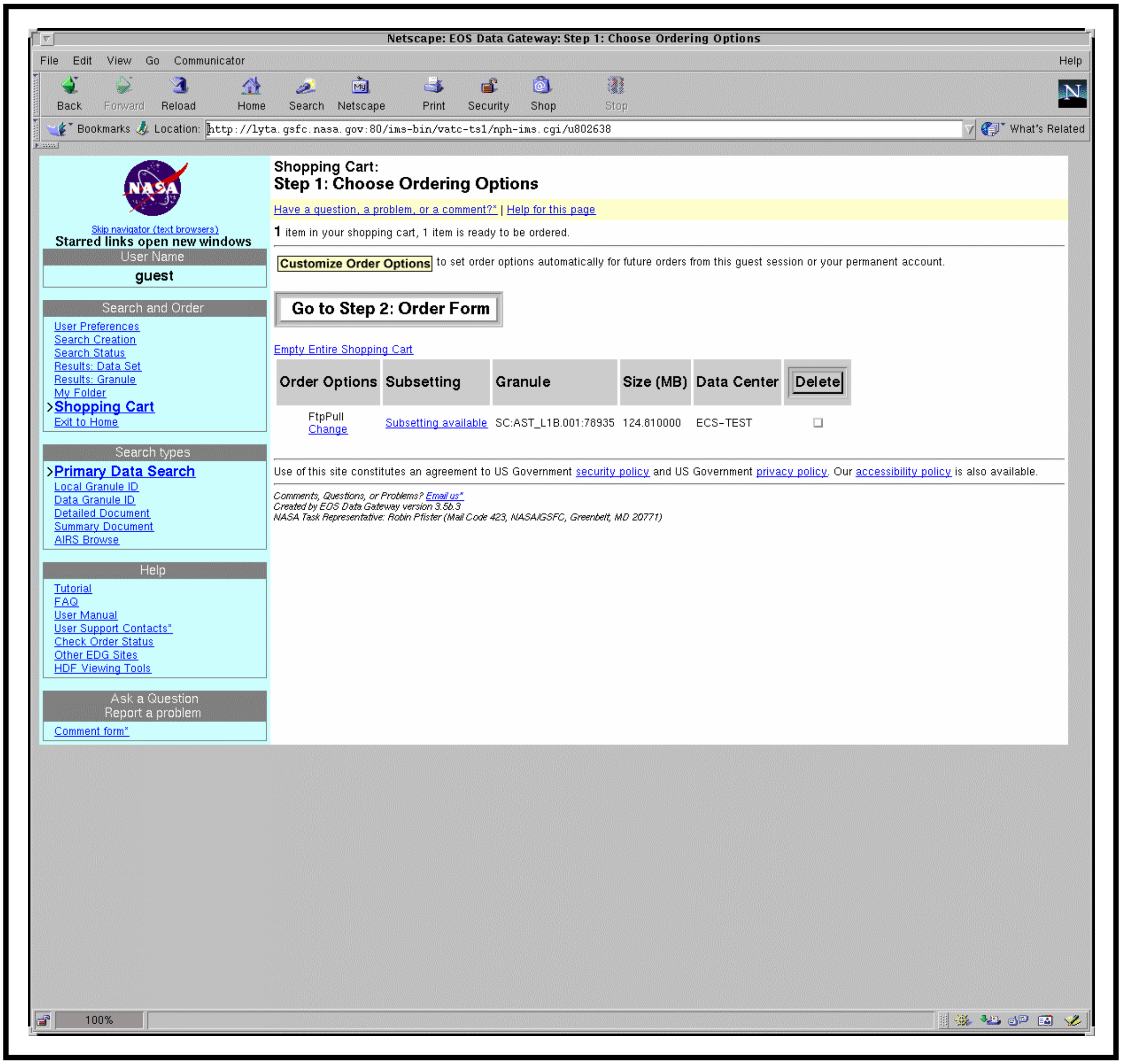



*Figure 93. EDG: Shopping Cart: Go to Step 2: Order Form*

**2** When the results of the search provide one or more appropriate granules, click in the selection checkbox to the left of any desired granule.

- The checkbox is filled to indicate its selection.

**3** Click on the **Add selections to cart** button.

- The **Data Quality Summary** window is displayed with a description of the data type for the selected granule.

**4** Click on the **Continue to Shopping Cart** button.

- The **Shopping Cart: Step 1: Choose Ordering Options** window is displayed.

**5** Click on the **Choose Options** link in the **Order Options** column next to the desired granule.

- A list of ordering options is displayed, including options for higher-level data products that may be produced from the selected granule.

**6** Click on the desired option specifying the product and distribution media type.

- The window displays a list of specific media for the higher-level data granule and related granules.

**7** Click on the selection box(es) for any desired media type(s)

- The checkbox is filled to indicate its selection.

**8** Enter any mandatory information to specify required processing/ordering options.

- The fields display entered information.

**9** Click on the **Ok! Accept my choice & return to the shopping cart!** button.

- The **Shopping Cart: Go to Step 2: Order Form** window is displayed.

**10** Complete and submit the order using standard procedures (see procedure **Locate and Order Data Using the EOS Data Gateway Search and Order Tool**, previous section of this lesson, Steps 27 through 33).

- The **order** is submitted and an **Order Submitted!** confirmation screen is displayed.

# Practical Exercise

### Introduction

This exercise is designed to practice key elements of the User Services procedures. Perform the tasks identified in the exercise.

### Equipment and Materials

One workstation.

*Release 7.11 Mission Operation Procedures for the EMD Project*, 611-EMD-001.

## Respond to User Services E-Mail Messages

This exercise requires you to respond to several E-mail messages of the type you might receive as a User Services representative at a DAAC. Each message is introduced with a specific statement of the task required.

1. Prepare a written response to the following E-mail message from your supervisor listing five major responsibilities of User Services representatives at the DAAC. If necessary, refer to Chapter 19 of 611-EMD-001, *Release 7.11 Mission Operation Procedures for the EMD Project*.

    To: URArep@daac.gov

    From: Tbosse@daac.gov

    Subject: Briefing Support

    In preparation for a briefing I am preparing for NASA Headquarters on our ECS Operations and staff, I am asking each of you to provide me with a list of your major responsibilities. As soon as you can, please submit a response, via E-mail or paper, listing at least five major requirements of your position. Thanks.

    T. Bosse

2. Use Section 19.1 of 611-EMD-001, *Release 7.11 Mission Operation Procedures for the EMD Project* and the information you can extract from the following E-mail message to create a user account, including account information, personal information, shipping address, billing address, and mailing address.

   To: URArep@daac.gov

   From: a.scientist@unh.edu

   Subject: User registration

   I would like to order Earth Science data from your archives periodically for my research at the University of New Hampshire on seasonal models of carbon dioxide fluxes. Please register me as a user in the EOS Core System. David S. Bartlett has agreed to sponsor me for this registration. I am a geochemist working under his direction on the project to study Changes in Biogeochemical Cycles (principal investigator is Berrien Moore).

   For data shipments, I would prefer to receive 8mm tape. The shipping address is:

   Dr. Aya C. Scientist

   Ocean Process Analysis Laboratory

   University of New Hampshire

   Durham, NH 03824

   (Phone: 603-862-1157; Fax: 603-862-1915)

   Other correspondence, including regular mail and any billing information, should be sent to:

   Dr. Aya C. Scientist

   Department of Earth Sciences, Morse Hall

   University of New Hampshire

   Durham, NH 03824

   (Phone: 603-862-5337; Fax: 603-862-1911)

   Thank you.

   Aya C. Scientist

3. Use Section 19.2 of 611-EMD-001, *Release 7.11 Mission Operation Procedures for the EMD Project* to process the order represented by the following E-mail message, creating a User Contact Log record, ensuring that the user has a valid account, conducting the data search and placing the order, and updating the User Contact Log record to reflect completion of the order.

   To: URArep@daac.gov

   From: a.scientist@unh.edu

   Subject: SeaWiFS data order

   For an ongoing research project at my university, it is desirable to review some recent images of the ocean off the East Coast of the U.S. during the winter months. Images of the sort generated by the Sea-viewing Wide Field-of-View Sensor (SeaWiFS) on the Seastar platform would be ideal. Please conduct a search of the data available through GSFC and, if possible, order for me up to 10 granules from the SeaWiFS Level 1a data set showing any area in the North latitudes (60 degrees to 30 degrees) and longitude -90 degrees to -50 degrees during the months Jan - March 1996. If you need further information, you can reach me by return E-mail, or telephone at 603-862-5337. Thank you.

   Aya C. Scientist

4. Use Section 19.5 of 611-EMD-001, *Release 7.11 Mission Operation Procedures for the EMD Project* and the ECS Data Order Tracking tool to find out the status of the user's order identified in the following E-mail message. Write a list of six things you should do in response to the following E-mail message. Then use system software tools to do those that you can perform without actual implementation of communications.

   To: URArep@daac.gov

   From: Imareptu@daac2.gov

   Subject: Ozone data order, P. Fingerman

   I'm forwarding this message I received concerning an ozone data order which I referred to you last week. Can you check into it for me. Fingerman's E-mail address is:

   Pfingerm@eos.hitc.com.

   Thanks!

   Ima Reptu

Ima,

Please check on the status of my Antarctic ozone data (TOMS) order, which I sent you 8 days ago. I received notice that it had been ordered a couple of days later, but it hasn't arrived yet. Thank you for your help.

Paul Fingerman

5. Use Chapter 19 of 611-EMD-001, *Release 7.11 Mission Operation Procedures for the EMD Project* and the tools available on the User Services desktop to do what is necessary to respond to the following E-mail message, including creation of a User Contact Log record, validating the user, tracking and canceling the order, and updating the User Contact Log record to document the cancellation.

   To: URArep@daac.gov

   From: a.scientist@unh.edu

   Subject: SeaWiFS data order cancellation

   I just placed an order for up to 10 granules from the SeaWiFS Level 1a data set showing any area in the North latitudes (60 degrees to 30 degrees) and longitude -90 degrees to -50 degrees during the months Jan - March 1996. A change in project priorities has made the data unnecessary. Please cancel the order for me. If you need further information, you can reach me by return E-mail, or telephone at 603-862-5337. Thank you.

   Aya C. Scientist

6. Use the Spatial Subscription Server web interface to set up a subscription to satisfy the request in the following E-mail message.

   To: URArep@daac.gov

   From: a.scientist@unh.edu

   Subject: Subscription for notice of archive insertion of AST_08

   Please register a subscription to notify me of any insertion into the ECS archive of the output of ASTER PGE ETS (the output product is AST_08). If you need further information, you can reach me by return E-mail, or telephone at 603-862-5337. Thank you.

   Aya C. Scientist

## Other Spatial Subscription Server Tasks

7. Launch the Spatial Subscription Server (NBSRV) GUI and display a list of events for which a subscription can be created.

8. Using the Spatial Subscription Server GUI, display subscriptions in the NBSRV database and filter the list to show only subscriptions for data with a selected short name. Filter the list again to display only subscriptions for data with a different short name.

9. Use the Spatial Subscription Server GUI to add a subscription that will trigger a Data Pool insert when appropriate data of the type stored at your site are inserted into the archive, specifying a 30-day retention period. Then use the Spatial Subscription Server GUI to extend the period of retention to 60 days and associate the subscription with a theme. Finally, use the GUI to delete the subscription from the NBSRV database.

10. Use the NBSRV Command Line Interface to view the contents of a subscription in the NBSRV database.

11. Use the Spatial Subscription Server GUI to add a bundling order.

12. Use the Spatial Subscription Server GUI to view any acquire and notification actions in the Action Queue.

13. Use the Spatial Subscription Server GUI to display statistics on NBSRV processing of events and actions.

14. Launch the Data Pool Web Access GUI and specify progressive refinements of search criteria to drill down to a small set of granules that a user might wish to download from the Data Pool.

## Data Dictionary Task

15. Use the Data Dictionary Maintenance Tool to produce a valids export file in response to the following message. For this exercise, the specific collection you select for valids export is arbitrary; select any appropriate collection for your DAAC.

    To: URArep@daac.gov

    From: s.pervisor@daac.gov

    Subject: ESDT addition

    We have completed installation of a new ESDT for <*any appropriate product*>. Please initiate the process of getting valids for it exported to the V0 IMS team. Thanks!

    Sue Pervisor

## ASTER Tasks Specific to the LP DAAC

**NOTE:** This exercise is specific to the LP DAAC only.

16. You receive a telephone call from Dr. S. I. Entist requesting that you create an ASTER Data Acquisition Request for thermal infrared imagery over Nigeria, with maximum cloud cover less than 20%. The desired temporal specifications are 10-day acquisition windows at 16-day intervals. The coordinates of a rectangle including the desired area are:

| | |
|---|---|
| 000:00:00 | 000:00:00 |
| 005:00:00 | 000:00:00 |
| 005:00:00 | 020:00:00 |
| 000:00:00 | 020:00:00 |

Prepare and submit a DAR to specify Dr. Entist's request.

**NOTE:** This exercise is specific to the LP DAAC only.

17. You receive a telephone call from Dr. S. I. Entist requesting that you create an production request for ASTER AST-08 Surface Kinetic Temperature product from a known archived AST_09T granule with the granule ID of ASTER GDS_L2.001:2000003276. Use the EOS Data Gateway (EDG) tool to create the necessary production request.

# Slide Presentation

## Slide Presentation Description

The following slide presentation represents the slides used by the instructor during the conduct of this lesson.

This page intentionally left blank.