IMS/WWW Developer's Handbook

June 25, 2004

Contents

Introduction

This is a living document which will attempt to capture some of the basic information needed by developers and maintainers of the *IMS/WWW* gateway softwares. It is a supplement to the **IMS/WWW Design Document**.

Chapter 1

Test Procedures

Below are the scripts for testing the Web Gateway:

1.1 Test Script for Security Functions

Purpose: Test security-related functions of the EDG.

Application: EDG 3.4 and up.

Key: * : Description of what should be displayed after step is performed

1. Go to the desired URL of the version to be tested. ie:
   `http://lyta.gsfc.nasa.gov/~imswww/beta/imswelcome/index.html`
2. Click on **Enter as Guest**.

   ** The search form is displayed. No debug log should be showing.*
3. Edit the URL to change the `mode=` tag to `DYINGGASP`.

   ** A dying gasp should be displayed. The last thing shown should be the **Virtual Query** section. The last line should read `EOS Data Gateway secured error trace`.*
4. Click on the back button.

   ** The main search form reappears.*
5. Alter the `SETUP` for this installation by setting the `ForceDebug` SETUP variable to `YES`.

   Run `./setup -apply`.

   Click the `reload` buttin on your browser.

   ** The search for will redisplay with a full debug log.*

6. Alter the `SETUP` for this installation by setting the `ForceDebug` SETUP variable to `NO`.

   Run `./setup -apply`.

   Click the `reload` buttin on your browser.

   ** The search for will redisplay with the short "secure" log again.*

7. In the navigator, click on the `User Preferences` link.

   ** The `User Preferences` page appears.*

8. Upload an `imsprefs.dat` containing the developer debug preferences.

   ** You will see a new popup allowing you to turn debugging ON or OFF, currently set to OFF.*

9. Change the Debugging setting to `ON` and click the `Ok! Accept display options only!` button.

   ** The EDG tells you your options were accepted.*

   ** The full debug log appears at the bottom of your screen.*

10. Change the following in `SETUP`:

    (a) Change `EmailGasp` to `YES`.

    (b) Change `SiteAdmin` to your preferred email address.

    Run `./setup -apply`.

11. Exit the current session by clicking the `Exit to home` button.

    ** The browser displays the EDG home page.*

12. Click on the `Enter as guset` link again.

    ** The browser displays the main search page again.*

13. Edit the URL again to set the mode to `DYINGGASP`.

    ** The browser displays the shortened debug trace*.

14. Check your mail.

    `* A copy of the dying gasp should be there, with all the debugging info.`

1.2 Test Script for Granule List and Folder Functions

Purpose: Test the granule list, map and time functions from the data set page and from the folder page. Also, test the interaction between the dataset granule listing, the folder, and shopping cart.

Application: Web Gateway version 2.1

1. Build the first search:

   (a) From the *Welcome page* hit **"Compose a Search"**.

      - *You should now see the "Simple Search Form: Data Search and Order (Inventory)" page.*

   (b) From the *Simple Search Form* hit the switch to **Advanced Form** button.

      - *You should now see the "Advanced Search Form: Data Search and Order (Inventory)" page.*

   (c) Select the **Geographic Region** icon or **Edit** button in section 2.

      - *You should now see the "Select: Geographic Region" page.*

   (d) On the region selection pull down menu (default says "Java enabled Map"), select `Type in Lat/Lon Range`.

   (e) Click the **OK** button.

      - *You will get type in boxes for latitudes and longitudes.*

   (f) Enter the following coordinates: `N: 70, W: -170, E: -130 , S: 50`. Then select the **OK!** button.

      - *You will get the main search form. Check that the geographic region is displayed with correct values.*

   (g) Select the **Data Center** icon or **Edit** button.

      - *You'll see the "Select: Data Center" page.*

   (h) Click on "Turn Java Off" if you have it as a default.

   (i) Scroll down and select `US Data Centers` from the *Filters* section.

   (j) Click the **Apply** button.

      - *You'll see the same page with a list of US data centers in Choices.*

   (k) Select `ASF` and `EDC` in the *Choices* section.

   (l) Scroll down to near the bottom. In the *Optional Go to* pull down menu, select `Data Set`.

   (m) Scroll back up and Click the **OK!** button under *Choices*.

      - *You'll see the "Select: Data Set" page.*

   (n) Select the following data sets in the *Choices* box:

      ```
      ERS-2 SAR IMAGES - LOW RES
      SPACEBORNE IMAGING RADAR-C PRECISION
      ```

   (o) Click the **OK!** button.

      - *You'll see the "Search Form" page. Make sure the Geographic, Data Center, and Data Set attributes are set correctly.*
      - *Verify that the navigator status message for "Select Criteria" updates to "Ready to search".*

(p) Scroll to the bottom of the main search form and hit the **Start Search!** button.

   - *If you get a Start Search: Password suggested Form, click on "Start Search" button.*
   - *You'll see the "Search in progress" page, verify that the navigator status message for "View search" displays the message "Search is running".*
   - *The "Search in progress" page is updated every 15 seconds, when the search is completed, in a few minutes, the page will change to "Results: Data Search and Order Results".*
   - *Verify in the navigator that the status message for "View search" displays the message "Search completed" and the status message for "View results" displays the number of data sets and granules returned.*

2. Display a granule listing from the dataset page and test the map and time functions.

   (a) Click the **Help** item on the navigator at the left side of the page.

   - *You'll see the Help page for the Data Set Listing.*

   (b) Click the **View results** item on the navigator at the left side of the page.

   - *You'll see the "Results: Data Search and Order Results" page, with data presented in the one-line-per-dataset format.*

   (c) Select the check box next to all datasets listed in the Data Set Listing and click the purple **List** button.

   - *You'll see the "Granule List: Listing" page.*

   (d) Click the **View results** item on the navigator at the left side of the page.

   - *You'll see the "Results: Data Search and Order Results" page.*

   (e) Click one of the "Data Granules" buttons in the "Primary Action" column.

   - *You'll see a list of the granules for just this data set.*

   (f) Click the **View results** item on the navigator.

   - *You'll see the "Results: Data Search and Order Results" page.*

   (g) Select all the data sets again, and then click the purple **Time** button.

   - *You'll see the "Granule List: Temporal Coverage" page with the red and white temporal graph.*

   (h) Click the **View results** item on the navigator.

   - *You'll see the "Results: Data Search and Order Results" page.*

   (i) Select all the data sets again, and then click the purple **Map** button.

   - *You'll see the "Granule List: Spatial Coverage" page with the globe.*

3. Test the different formats for the data set listing page:

   (a) Click the **User Preferences** item on the navigator on the left side of the page. You might need to scroll down the page to find the item.

      - *You'll see the "User Preferences" page.*

   (b) Scroll down to the "Interface Preferences" section, and change the "Show these data set attributes in lists of data sets..." radio buttons selections to "Data center" and "Number of granules". Then click the "Ok! Accept Display Options Only!" button.

      - *You should see the updated "User Preferences" page.*

   (c) Click the **View results** item on the navigator.

      - *You should see the "Results: Data Search and Order Results" only containing columns for attributes "Data Center" and "Number of granules" after the "Data Set" column.*

   (d) You should now repeat the previous steps to test for different attributes within data sets.

4. Test Polygon and Numeric Display on covermap:

   (a) Click the **View results** item on the navigator.

      - *You'll see the "Results: Data Search and Order Results" page.*

   (b) Select just `SPACEBORNE IMAGING RADAR-C PRECISION` and click the purple **Map** button.

      - *You'll see the "Granule List: Spatial Coverage" page with a big map and six little maps of the globe. The numbers 1 through 10 in different colors will be displayed on top of each other on the big map. (This doesn't work with the same granules from the EDC dev server, as they have larger foot prints and so will appear as very small coverage areas instead of numbers).*

   (c) Select a zoom factor of **8x** and click on one of the colored numbers on the big map (or it's center).

      - *You should now see the real coverage areas instead of the numbers.*

   (d) Click the **Help** item on the navigator.

      - *You'll see the Help page for Spatial coverage.*

5. Do a granule listing for a data set and test the map and time functions from the granule listing.

   (a) Click the **View results** item on the navigator.

      - *You'll see the "Results: Data Search and Order Results" page.*

(b) Click the **Data Granules** button next to the dataset `ERS-2 SAR IMAGES - LOW RES` to list the granules for the dataset.

- *You'll see the "Granule List: Listing" page.*

(c) Select all the granules.

(d) Click the purple **Map** button.

- *You'll see the "Granule List: Spatial Coverage" page.*

(e) Click the purple **Time** button.

- *You'll see the "Granule List: Temporal Coverage" page.*

(f) Click the little blue **Help** button just below the graph.

- *You'll see the Help page for Temporal coverage.*

(g) Click your browser's back button. (You may have to reload the page and repost form data.)

- *You'll see the Granule List: Temporal Coverage page.*

(h) Click the purple **List** button.

- *You'll see the "Granule List: Listing" page.*

(i) Change `Data Set ID` to `Start Date` in the pull down menu next to "Re-sort list by:" and click the purple **Re-sort** button.

- *You'll see the "Granule List: Listing" page. The granules should now be sorted by their start date.*

(j) Click the **List** button.

- *You'll see the "Granule List: Listing" page. The "Re-sort list by Start Date" should have remained.*

(k) Click the **Map** button.

- *You'll see the "Granule List: Spatial Coverage". The "Re-sort list by Start Date" should have remained.*

(l) Click the **Time** button.

- *You'll see the "Granule List: Temporal Coverage". The "Re-sort list by Start Date" should have remained.*

(m) Click the purple **None** button.

- *You'll see the "Granule List: Temporal Coverage". All the granules should be unselected.*

(n) Click the purple **All** button.

- *You'll see the "Granule List: Temporal Coverage". All the granules should be selected.*

(o) Click the purple **Add** the selected data granules to **My Folder** button.

- *You should now be in the "My Folder: Listing" page. All the granules which were selected in the granule listing should be shown.*
- *Verify that the "My Folder" icon appears on the Navigator with the red indicator pointing at it.*

6. Do another search

   (a) Click the navigator **Select criteria** item on the left side of the form.
   - *You'll see the "Search Form: Data Search and Order (Inventory)" page. The "My Folder" item should stay on the Navigator on the left side of the form, just below the main items.*

   (b) Scroll down and hit the **Erase query** button.
   - *You'll see the "Search Form: Data Search and Order (Inventory)" page. All your previous search attribute selections should be gone. The navigator status message for Select critea should change to "Not ready to search" yet.*

   (c) Select the **Geographic Region** icon or **Edit** button in section 2.
   - *You should now see the "Select: Geographic Region" page.*

   (d) On the region selection pull down menu (default says "Java enabled Map"), select `Type in Lat/Lon Range`.

   (e) Click the **OK** button.
   - *You will get type in boxes for latitudes and longitudes.*

   (f) Enter the following coordinates: `N: 80, W: -55, E: -20 , S: 60`.

   (g) Scroll down to near the bottom. In the *Optional Go to* pull down menu, select `Data Center`.

   (h) Scroll back up and Click the **OK!** button.
   - *You'll see the "Select: Data Center" page.*

   (i) Scroll down to the *Type-in* area. Enter: `nsidc` in the text box and click the **Apply** button.
   - *You'll see the same page with "NSIDC" in the Data Centers choices box.*

   (j) Select "NSIDC" from the Choices box.

   (k) Scroll down to near the bottom. In the *Optional Go to* pull down menu, select `Data Set`.

   (l) Scroll back up and Click the **OK!** button.
   - *You'll see the "Select: Data Set" page.*

   (m) Select the following dataset:

   ```
   AARI 10-DAY ARCTIC OCEAN EASE-GRID SEA ICE
   OBSERVATIONS
   ```

(n) Click the **OK!** button.

- *You'll see the "Search Form: Data Search and Order (Inventory)" page. Make sure the Geographic Region, Data Center, and Data Set attributes are set correctly and that the navigator status message for item "Select criteria" is updated to "Ready to search".*

(o) Scroll to the bottom of the main search form and hit the **Start Search!** button.

- *You'll see the "Search in progress" page. Verify that the navigator status message for item "View search" updates to "Search is running".*
- *After a few minutes, when the search is completed, it turns to the "Results: Data Search and Order Results" page. Verify that the navigator status message for item "View search" updates to "Search completed", and for item "View results" updates to the number of data sets and granules returned.*

7. Test Range display on Coverage Map:

(a) Click the **Data Granules** button next to the dataset

```
AARI 10-DAY ARCTIC OCEAN EASE-GRID SEA ICE
OBSERVATIONS
```

- *You'll see the "Granule List: Listing" page with all granules unselected.*

(b) Click the purple **All** button to select all the granules.

- *You'll see the "Granule List: Listing" page with all granules selected.*

(c) Click the purple **None** button to unselect all the granules.

- *You'll see the "Granule List: Listing" page with no granules selected.*

(d) Select the first granule in the list and hit the purple **Map** button.

- *You'll see the "Granule List: Spatial Coverage" page. You should see a light blue fan shape coverage area extending from the north pole down to the upper latitudes of Scandinavia and Russia.*

8. Test adding granules to the folder

(a) Click the purple **Add** the selected granules to **My Folder** button.

- *You'll see the "My Folder: Listing" page. You have just added 1 granule from the data set "AARI 10-DAY ARCTIC OCEAN EASE-GRID SEA ICE OBSERVATIONS" to the folder. There should be the granules you added from your first search plus the one just added. The new one should be the only one selected.*

(b) Click the **Help** item from the navigator on the left side of the page.

- *Help page for My Folder: Data Granule Listing.*

(c) Click the blue **My Folder** item on the Navigator.

- *You'll see the "My Folder: Listing" page.*

(d) Select several granules from the granule list in "My Folder".

(e) Click the purple **Map** button.

- *You'll see the "My Folder: Spatial Coverage" page.*

(f) Click the purple **Time** button.

- *You'll see the "My Folder: Temporal Coverage" page.*

(g) Click the purple **List** button.

- *You'll see the "My Folder: Listing" page.*

(h) Change the sort key to `Stop Date` in the pull down menu next to "Re-sort list by:" and hit the purple **Re-sort** button.

- *You'll see the "My Folder: Listing" page. The granules should now be sorted by their stop date.*

(i) Click the **List** button.

- *You'll see the "My Folder: Listing" page. The "Re-sort list by Stop Date" should have remained.*

(j) Click the **Map** button.

- *You'll see the "My Folder: Spatial Coverage". The "Re-sort list by Stop Date" should have remained.*

(k) Click the **Time** button.

- *You'll see the "My Folder: Temporal Coverage". The "Re-sort list by Stop Date" should have remained.*

(l) Click the purple **None** button.

- *You'll see the "My Folder: Temporal Coverage". All the granules should be unselected.*

(m) Click the purple **All** button.

- *You'll see the "My Folder: Temporal Coverage". All the granules should be selected.*

9. Test adding granules to the Shopping Cart:

(a) Click the purple **Add** selected data granules to **Shopping Cart** button.

- *You'll see the "Shopping Cart" page. The selected granules from the Folder should now be shown here and should have an "In Folder" symbol next to them..*

(b) Click the **My Folder** item on the navigator.

- *You'll see the "My Folder: Listing" page. The granules in the folder should have an "in cart" symbol next to them.*

10. Check the cart and folder status in the data set listing:

    (a) Click the **View Results** item on the navigator.

    - *You'll see the "Results: Data Search and Order Results" page.*

    (b) Click the **Data Granules** button next to the data set

    ```
    AARI 10-DAY ARCTIC OCEAN EASE-GRID SEA ICE
    OBSERVATIONS
    ```

    - *You'll see the "Granule List: Listing" page. The first granule should have both an "In Cart" and an "In Folder" symbol next to it.*
    - *Verify that the "Order data" item on the navigator gets updated with the status message indicating the number of datasets and granules in the shopping cart.*
    - *The "My Folder" and the "Order data" items should be active on the Navigator.*

End script

1.3 Test Script for Data Ordering.

Purpose: To test the process of obtaining data sets and granules, placing them in the shopping cart, choosing packaging and subsetting options, and submitting the order.

Application: Web Gateway 2.2

1. **Build Summary Document (Directory) Search:**

   Currently few data centers support data set ordering. To test data set based ordering you should do a search using the **STUB** server. To access the **STUB** server you must be using a web gateway installation configured to use the dev valids (current the web gateway dev and beta installations). If you are testing a version of the web gateway without dev valids skip to the "Build Inventory Search" section of this script.

   (a) From the welcome page choose **Enter as guest** or **Enter as registered user**.

   (b) Select the button to switch to the **Advanced Form**.

   (c) Build and execute a **Summary Document (Directory)** search using the following criteria:

   ```
   Data center: STUB
   ```

(d) On the **Results: Summary Document Search Results** page there should be the following two data sets listed.

```
MSFC SSM/I BRIGHTNESS TEMPERATURE GRIDS FROM DMSP F13
MSU CH 2/3 DAILY LOWER TROPOSPHERE TEMPS WITH LIMB93 CORRECTION
```

(e) Click on the **Add to cart** button in the **Place Entire Data Set in Cart** column next to the first data set.

(f) This will take you to the shopping cart. The summary near the top of the page should tell you that:

```
You chose to add 1 data set.
Your selection was added to
your shopping cart.
```

(g) The 1 data set

```
MSFC SSM/I BRIGHTNESS TEMPERATURE GRIDS FROM DMSP F13
```

should be listed in the shopping cart.

(h) We will come back to the shopping cart later to order these data sets, but first you need to do an inventory search to get some granules.

2. **Build Data Search & Order (Inventory) Search:**

(a) Click on the **Search Creation** link in the navigation sidebar at left.

(b) Click on the **Erase query** button near the bottom of the **Search Form**.

(c) Select search type of **Data Search & Order**.

(d) Build and execute an **Inventory** search using the following criteria:

```
Geographic Region:
   N: 60, W: -40, E: -20, S: 50.
Parameter:
   BRIGHTNESS TEMPERATURE; INFRARED IMAGERY; OZONE
Data Center:
   DLR-DFD; GSFC; LARC; STUB (If you
are using the development valids).
```

(e) Click on the box next to one of the AVHRR data sets from GSFC. Click on the **List data granules** button.You should see the granule listing page.

3. **Putting granules into the shopping cart:**

(a) Select four of the AVHRR granules using the select box next to each granule.

(b) Click on the **Add to cart** button. This will place the selected granules into the shopping cart and display the shopping cart screen with the four granules selected.

Near the top of the shopping cart page it should say:

```
You selected a total of 4 data granules.  Of them...
4 of your selections were added
to your shopping cart.
```

The shopping cart should contain the one data set which was added after the directory search and also the four granules which were just added.

4. **Verify cart icon and shopping cart button:**

   (a) Select the **Results: Data Set** link from the navigation sidebar.

   (b) Find the page in the results with the data set

   ```
   MSFC SSM/I BRIGHTNESS TEMPERATURE GRIDS FROM DMSP F13
   ```

   from the **STUB** server.

   The data set should be labeled with a button in the **Place Entire Data Set in Cart** column and have the shopping cart icon with the words "In Cart" in the **Notes** column.

   (c) Select **List data granules** button for the same AVHRR data set you chose before. Under the heading **Notes** you should see a shopping cart icon by the granules that are in the shopping cart.

5. **Removing items from the shopping cart:**

   (a) Select the **Shopping Cart** navigation link.

   (b) Click on the button in the **Remove** column next to data set

   ```
   MSFC SSM/I BRIGHTNESS TEMPERATURE GRIDS FROM DMSP F13.
   ```

   You should be returned to the shopping cart with the message:

   ```
   You selected a total of 1 item.
   Your selection was just removed from
   your shopping cart.
   ```

   (c) Click on the button in the **Remove** column next to one of the granules. You should be returned to the shopping cart with the message:

   ```
   You selected a total of 1 item.
   Your selection was just removed from
   your shopping cart.
   ```

6. **Add more granules to the cart:**

   You'll now add more granules. Your goal is to have some granules from 2 different data sets from the same data center, some granules from a data set from a different data center, and some "Orderable" data sets all in the shopping cart.

   (a) Click the **Results: Data Set** navigation link.

(b) Click on the **None** button at the top of the **Select** column. Make sure the drop down at the top of the page says *selected on all pages*.Click the **List data granules** button after selecting a data set from the SAME data center as your previous choice. For instance, choose TOMS from GSFC.

(c) Click on the **None** button. Make sure the drop down says *selected on all pages*. Select two granules. Click the **Add to cart** button. This will place the selected granules into the shopping cart and display the shopping cart screen.

Near the top of the shopping cart page it should say:

```
2 of your selections were just added to
your shopping cart.
```

(d) Select the **Results: Data Set** navigation link.

- If you got results from the STUB data center, then do the following steps, otherwise skip to the next item.
- Click on the **None** button at the top of the **Select** column. Make sure the drop down at the top of the page says *selected on all pages*. Click on the select box next to the data set

```
MSFC SSM/I BRIGHTNESS TEMPERATURE GRIDS FROM DMSP F13 from STUB.
```

- Click on the **List data granules** button.
- Click on the **None** button at the top of the **Select** column. Make sure the drop down at the top says *selected on all pages*. The granule "mib13G95.276_hdf.tar" should have a note indicating that it cannot be ordered. Select granules "mib13G95.275_hdf.tar" and "mib13G95.276_hdf.tar", and click on the **Add to cart** button.
This will place the first selected granule into the shopping cart and display the shopping cart screen. The second granule is unorderable because it has no packaging info and STUB should no longer be an e-mail ordering data center. The second granule should not be added to the cart. You should get the message:
"You selected a total of 2 data granules. Of them... 1 of your selections was just added to your shopping cart. 1 of your selections cannot be ordered so it was rejected."
The screen should have granules previously in the shopping cart plus the one new granule you just added.

(e) Select the **Results: Data Set** navigation link.

- Click on the **None** button at the top of the **Select** column. Make sure the drop down menu at the top of the page says *selected on all pages*. Select the box next to the IRS-P3 MOS data set from DLR-DFD.
- Click on the **List data granules** button.
- Click on the **None** button. Make sure the drop down menu at the top says *selected on all pages*. Select one IRS-P3 granule and click on the **Add to cart** button. This will place the selected granule into the

shopping cart and display the shopping cart screen. The screen should have granules previously in the shopping cart plus the one new granule you just added.
- Scroll down to the IRS-P3 granule in the shopping cart list.
The "Options" column should contain the remark "Ready".

(f) Select the **Results: Data Set** navigation link.

- Click on the **None** button at the top of the **Select** column. Make sure the drop down menu at the top says *selected on all pages*. Select the box next to the ARB_48_IN_LIDAR data set from STUB. Click on the **List data granules** button.
- Click on the **None** button at the top of the **Select** column.Select one of the granules and click on the **Add to cart** button. The **Data Quality Summary** page is shown. Click on the **Accept** button. This will place the selected granule into the shopping cart and display the shopping cart screen. The screen should have granules previously in the shopping cart plus the one new granule you just added.
- Even though this granule will be ordered by e-mail, the **Options** column should contain a **Order Options** button. Click that button.
- On the "Choose Ordering Options" page, select a package option for the granule and click the **Ok! Accept my choice and return to the shopping cart** button.

7. **Shopping Cart Help**:

(a) Select the **Help** link at the top of the page. This will bring up the help page for the shopping cart. Carefully read and review the help page.

8. **Package selection:**

(a) Select the **Shopping Cart** navigation link.

(b) Select the **Order Options** button next to the data set

```
MSFC SSM/I BRIGHTNESS TEMPERATURE GRIDS FROM DMSP F13.
```

This will bring up a table of the packages available for this data set.

(c) Select a package option using the select box.

(d) Next to **Copies:** change the "1" to "2". This will test the multiple copies option.

(e) There should be two options subsections:

- Apply the following processing options to the data:
- Subset the data according to the following restrictions:

(f) Don’t fill in any of the subsections at this time. Click on the **Ok! Accept my choice & return to the shopping cart!** button near the bottom of the page.
You should get an error message saying:

```
Problem:
Package 1, Subset the data according to
the following restrictions: options, criterion 'Geospatial':
required, but empty.
```

(g) Click back button on browser.

(h) Under the subsection titled **Subset the data according to the following restrictions:** fill in the mandatory Geospatial field:

```
Geospatial:

        Lat: 45 to 55
        Lon: 45 to 55
```

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

You should get an error message saying:

```
Package 1, Subset the data according to the following restrictions:
options, criterion 'Resolution': required, but no value given.
```

(i) Click back button on browser.

(j) Under the subsection titled **Subset the data according to the following restrictions:** fill in the entire section:

```
Resolution: 1
Channel:    19V
Confidence: 0.2 to 0.8
```

(k) Click on the **Ok! Accept my choice & return to the shopping cart!** This will return you to the shopping cart. The words "Ready to Order" should appear next to the Data Set.

(l) Select the **Order Options** button next to one of the AVHRR granules. This will bring up a table of the packages available for this granule.

(m) Click the **Help** link at the top of the page. You should see help for the choose package page. Click your browser's back button to get back to the choose package screen.

(n) In the **Choose Ordering Options** screen you are presented with a list of packages to choose from. For most data centers, this list is controlled by a radio button. That is, only one selection can be made. Verify now that only one package can be selected.

(o) Now, select one of the packages (It doesn't matter which one). You should see that by default, this packaging option will be used for all the granules in that data set in your shopping cart. Select the **Ok! Accept my choice & return to the shopping cart!**.

(p) Select the **Order Options** button next to one of the TOMS granules. Select one of the packages. You should see that by default, this packaging option will be used for all the granules in that data set in your shopping cart. INSTEAD, select the **I want these packaging options only for granule...** option. Select the **Ok! Accept my choice & return to the shopping cart!**. Verify that the package option was applied to only the TOMS granule you just chose.

(q) Choose order options for the remaining granules in the shopping cart. Package isn't needed for the granule from DLR-DFD which will be e-mail ordered.

(r) Once you have selected packages for all the items in your shopping cart the **Go to Step 2: Order Form** button will appear. Select it.

9. **Placing an Order**

(a) Once you've clicked the **Go to Step 2: Order Form** button, you should get a "Shopping Cart: Order Form" page indicating that you must fill your user, shipping and billing information.

(b) Fill it in, BUT MAKE SURE YOUR First Name is "JUST" and YOUR Last Name is "KIDDING". Fill in all the red required fields for contact address **EXCEPT FOR PHONE NUMBER**. For shipping and billing address, you can use the menu buttons to choose same as contact address.

(c) Click the **Help** link at the top of the page. You should get help on the order form page. Click your browser's back button to get back to the order form page.

(d) Click on the "Go to Step 3: Review Order Summary" button.

You should get an error message highlighted in red at the top of the page: "Error in Contact Address: Fields required but not entered: Telephone."

(e) Fill in the missing required field. Click on the "Go to Step 3: Review Order Summary" button.

(f) Review the order manifest making sure it has all your granules and packages listed.

The five granules with packages, two copies of the data set (with subset options) and the e-mail granules should be listed.

(g) Toggle the **Empty Shopping Cart** pull-down menu to show: **DO NOT empty shopping cart**. Click on the **Go to Step 4: Submit Order!** button.

Your order should get submitted and you should get an "Order Submitted..." page giving you the order tracking number used for the submission.

(h) Click the **Help** link at the top of the page. You should get help on the order submitted page.

(i) Click the back button on browser.

(j) Now check your e-mail. If you filled in your correct e-mail address you will be e-mailed a copy of the shipping manifest and a FOLLOWUP message giving the status of the order to each data center. Copies of the e-mail order messages sent to DLR-DFD and STUB are also sent to you.

10. **Test Get Order Status (Order Status Request):**

    (a) Click on the **Shopping Cart** navigation link.

    (b) Click on the **Check Order Status** button.

    (c) Click on the **Help** link at the top of the page. Verify that a Help page is shown and that it makes sense. Click on the back button of the browser.

    (d) Scroll down to the table in the lower half of the page. Click on the **Check Status** button next to the order from GSFC. You should see the Order Status Request page with the message: "The specified Data Center does not accept Order Status Requests. Please contact them directly to inquire about your order." Click on the **Here is their contact information.** link. Verify that a page is displayed with contact information for GSFC.

    (e) Click on the browser's back button until you return to the "Order Status Request" page.

    (f) Click on the **Check Status** button next to the order from STUB. A page requesting ECS user name and password is displayed. Click on the "Start Search" button.

    (g) You will see Order Status Request in progress... Within 2 minutes you should see Order Status Request Submitted! If you scroll down the page you will see the results of your Order Status Request.

11. **Test Get Account Status (Account Status Request):**

    (a) Click on the **Shopping Cart** navigation link.

    (b) Click on the **Change Options** button next to one of the STUB data sets.

    (c) Click on the **Get Account Status** button. You will get the Account Status Request page. Click on the **Edit** button and remove all data centers except STUB.

    (d) Click on the **Get Account Status** button. You will see the Account Status Request in progress page. Within 2 minutes you will be back at the Choose Order Options page with account information in the table.

End of Script.

1.4 Test Script for Guide Search

Purpose: Test building and submittal of guide searches from valids lists, DI (Detailed Info) buttons, and by choosing attributes or entering free text on the Guide search form.

Application: Web Gateway version 3.1b.2

First you will do an Inventory search to get some data sets and granules.

1. From the welcome page choose **Enter as guest** or **Enter as a registered user**. You will get the new search form page.

2. In the type in boxes for latitudes and longitudes, enter the following coordinates: **N: 24, W: 73, E: 84, S: 14**.

3. Select the *Parameter* button under **Choose Search Keywords**.

   - On the *Valids Selection: Parameter* page, scroll down to the *Filters* section. Select filters: `ATMOSPHERIC CHEMISTRY` and `INFRARED WAVELENGTHS` and click the **Apply** button. The list of parameters will be reduced. Select parameters: `BRIGHTNESS TEMPERATURE`, `INFRARED IMAGERY`, and `OZONE`. Select the **OK!** button and you'll get the main search form. Confirm the accuracy of your parameter and geographic area entries.

4. Select the *Data_Center_ID* in the scrolling list and hit the **Select** button.

5. Select a data center (like EDC). Select the **Detailed Document** button.

   - You see the *Detailed Document Retrieval* page with the document for that center. If there were no matches (because the data center was temporarily not reachable on the network) select your browser's back button and try another data center.

     Scroll down the page. Make sure that the document doesn't appear cut-off (truncated).

     When you are done viewing the document, hit your back button to return to the Data Center selection page.

6. Choose several US Data centers such as `EDC`, and `GSFC`. Select the **OK!** button. You will get the main search form. Check that the geographic coverage, parameters, and data centers match your previous selections.

7. In the *Choose Additional Options* section, select the **All Options** radio button. Set the maximum granules returned per data set to `3`. Set the maximum number of guide documents returned per data center to `4`.

8. Select **Start Search!** button. **DO NOT USE YOUR BROWSER'S STOP BUTTON**. You can stop the search after you get a few granules (for instance, some from EDC and GSFC), or if search runs too long (> 10 minutes). Stop the search using the provided **END SEARCH NOW** link. Wait for the search to come to a graceful end. If you didn't get any granules, try a search for some other parameters at some other data centers.

9. Once the search has stopped, assuming you got any granules, you'll get the *Results: Data Set: Data Search and Order Results* page. Scroll down to see the data sets.

10. Next to one of the data sets in the listing (an `AVHRR` for instance), click on the **Detailed Document** button. Guide search should be executed. If a document is found for that data set, it will be displayed on a *DETAILED DOCUMENT RETRIEVAL* page. If none found, use your browser's back button and try another data set's **Detailed Document** button.

11. Select the **Detailed Document** link under *Search Types* in the Navigation sidebar at left. The Detailed Document Search form is displayed.

12. Select the **Help** link at the top of the page. You should get a help page for the search form. Read it and see if it makes sense. Select the **Search Creation** navigation link to return to the Detailed Document Search form.

13. *Don't bother doing this instruction set if you are using a version of Internet Explorer prior to 4.0. unless you have file upload plug-in.* Scroll down and select the **SAVE search criteria** button near the bottom of the screen. In the popup "Selection" box, type a filename to save this search (eg. on Unix: `/usr/people/yourname/guidetest.query`, on Windows: `guidetest.query`) and select the **OK** button.

14. Select the **Erase query and start over** button.

15. Select *Sensor_Name* in the scrolling list and hit the **Select** button.

16. Choose the `AVHRR` sensor. Click the **Detailed Document** button and wait a few moments. This will perform a guide search for that sensor.

17. You'll get the *Detailed Document Search* page.

    The page should show the search string and any matches under the relevant data centers. If there was only one matching document, it should be retrieved and displayed. Select your browser's back button. If there were no matches (because the data centers were temporarily not reachable on the network) then:

    - Try another sensor. Select a document link and view the retrieved document. Use your browser's back button twice to return to the sensor/instrument selection page.

18. With the `AVHRR` sensor selected, click the **OK!** button. You'll get the detailed document search form.

19. Select **Start Search!** You should get matches at several data centers. If there was only one match, that document should be retrieved and displayed.

20. Select one of the documents. From the returned *Detailed Document Retrieval* page, check the bottom of the document just to make sure the document doesn't appear cut-off (truncated).

21. Select the **Search Creation** navigation link. You should be on the *Detailed Document Search* form with `AVHRR` selected.

22. In the *Type in text* section, in the text box type `EDC`. Select **Start Search!** Today (24 Oct. 1997) I get 1 hit at EDC and 1 hit at ORNL, and some catalog links. (If EDC is unavailable, try the Text String 'MSU'. You should get hits at NOAA-SAA).

23. Select the **Search Creation** link. You should see the *Detailed Document Search* form. Scroll down the page and select the **Erase query** button. Scroll down to the *Type in text* section. In the text box type `trichlorofluoromethane ozone`.

24. In the *Choose Additional Options* section the current limit for guide documents is 40. Change this number to a nonsense number such as a negative number, a number with decimal point(s), or some non-digits such as characters or even spaces. I tried "dog". Select **Start Search** button. You should get an error message at the top of the page. Hit the back button on your browser. Change the maximum number of guide documents to 8.

25. Select **Start Search!**. This search may take a bit longer than others because it checks all data centers. You should get many hits since the two parameters will have been searched as if there were an *or* between them. Today (24 Oct. 1997) I get 2 at EDC, "at least 8" at GSFC, 4 at JPL, "at least 8" at LARC, 6 at NOAA-SAA, and "at least 8" at ORNL. Go to one of the data centers that had "at least 8" hits. Select the link to *Additional Options*. You should get the *Detailed Document Search* page. Change the maximum number of guide documents to 20. Select **Start Search!**. This time I get 2 at EDC, 16 at GSFC, 4 at JPL, "at least 20" at LARC, 6 at NOAA-SAA, and 15 at ORNL. This demonstrates the correct usage of the document limit.

26. Select the **Search Creation** link in the navigation bar. Scroll down to the *Type in text* section. In the text box insert the word `and` between the other two words. Select **Start Search!** I now only get 4 hits at LARC. This demonstrates the correct usage of boolean logic by the servers.

27. Select the **Help** link at the top of the page. You should get help describing the page, on how to retrieve the documents.

28. Select the **Search Creation** navigation link. You should see the search form. Scroll down the page and select the **Erase query** button. Scroll down the page and select the **Initialize with values from last search** button. The guide search form should only have the text string filled in with `trichlorofluoromethane and ozone` and maximum guide documents should be 20.

29. Scroll down the page and select the **Erase query** button again. Scroll down and hit the **"Start Search"** button. You should get an error message at the top of the page.

30. Select *Parameter* in the scrolling list and hit the **Select** button. On the *Valids Selection: Parameter* page, select the `RADAR` filter. Select the **Apply** button. Select all of the parameters in the choices section (you can use the **All** button).

    - Scroll down to the *Optional* section at the bottom of the page (the "Jump Menu"). On the *Go to Main Search Form* pull-down menu, select `Sensor`. Scroll back up and hit the **OK!** button in the *Choices* section. You should get the *Valids Selection: Sensor page*.

31. Select `RADARS` in the filters section. Select the **Apply** button.

    Select all of the sensors in the choices section.

    Change the Jump Menu pull-down to be `Source` and hit the **OK!** button in the *Choices* section. You should get the *Valids Selection: Source* page.

32. In the filters section and select `SATELLITES`. Select the **Apply** button.

    Select all the sources in the choices section. Select the **OK!** button and you'll get back to the detailed document search form.

33. Select **Start Search!** You should get *Error 513: Bad query/request* because the search composed is too large. Select your browser's back button.

34. *Don't bother doing this instruction set if you are using a version of Internet Explorer prior to 4.0. unless you have file upload plug-in.*

    At the bottom of the screen, next to the **RESTORE search criteria** button and text box, select the **Browse...** button. If you have an old browser you might not have this button; in which case you can just type the name of the file you saved previously into the text box. If you selected **Browse**, find the `guidetest.query` file you saved previously. Select it and then the OK button. Now select the **RESTORE search criteria** button. You should get a *Detailed Document Search* form with `BRIGHTNESS TEMPERATURE`, `INFRARED IMAGERY`, and `OZONE` under the *Parameter* field, and `EDC` and `GSFC` under the *Data Centers* field.

35. Select **Start Search!** Hits at EDC and GSFC data centers should be returned as before.

36. Select a document link. You should get the expected document.

37. Select the **Exit to Home** navigation link. You'll be back at the Welcome page.

End of Script

1.5 Test Script for Data Search and Order (Inventory) Search, Data Granule ID Search and Simple Search.

Purpose: Test the usage of all components that are used to create a data search and order (inventory) and data granule ID search and Simple Search.

Application: Web Gateway 2.1 release

1.5.1 Check help features

1. Go to the desired URL of the version to be tested, e.g.: `http://harp.gsfc.nasa.gov/~imswww/beta/imswelcome/index.html`
2. Click on **Compose a Search** from the Welcome Page.
3. Click on the "Switch to ...**Advanced Form**" button (above *Select Terms:* header)
4. Click on the **Erase query and start over** button (Inside *Section 4 "Are you ready?"*)
5. Click on the **Help** link in the lower left hand corner (you may need to scroll down the page some)
6. Verify that the *Data Search And Order Form* help is displayed.
7. Scroll down to the bottom and verify that there are 9 icons and links to selection pages.
8. Click on the **Geographic Region Selection Page** link and verify that the Geographic Region Selection Page help is displayed.
9. Click the browser's **Back** button to return to the *Data Search And Order Form* help page.
10. Click on the **Help** button in the lower left hand corner. Verify that the Section: *Help* is displayed.
11. Click on the **Select criteria** button (Left hand side). The *Data Search And Order* form reappears.

1.5.2 Verify basic "insufficient information" error conditions

1. Scroll down to the bottom of the page. Section 4 should be a pleasant pale pink and contain the text *Not yet ready to start Data Search and Order (Inventory): You must supply at least one Parameter, Sensor, or Data Set, AND you must select a Geographic Region. Try to select as small a region as possible..*

2. Click on the icon next to *Parameter*. A *Java Valids Selection : Parameter* applet is displayed in a separate frame*

   * If you have a Java compatible browser (with Java enabled).

3. Click on `AEROSOL BACKSCATTER` in the selection list ,the screen blanks out and the "Current Search Criteria" list gets updated, then click on the applet's **OK!** button . The applet will disappear and load the *Data Search And Order* page with `AEROSOL BACKSCATTER` appearing on the right in the *Parameter* section.

4. Scroll down to the bottom of the page. Section 4 should contain a pleasant pink box containing the text *Not yet ready to start Data Search And Order Search: You need to select a Geographic Region...*

1.5.3 Test Data Search And Order for global search

1. Click on the **Erase query and start over** button.

2. Make global geographic selection.

   - Click on the **Geographic Region** icon.
   - Select **I want to do a GLOBAL SEARCH** in the right-hand pop-up menu.
   - Click the **OK!** button. The map in the *Geographic Region* section should show the whole map selected.

3. Set parameters.

   - Click on the **Parameter** icon. The Dependent Valids applets will be displayed. (Already set to Parameters)
   - Use the text box to enter (all on one line) then press the **RETURN/ENTER Key**:

     ```
     BRIGHTNESS TEMPERATURE;INFRARED IMAGERY;OZONE;
     PIGMENT CONCENTRATION;PLANT CHARACTERISTICS;
     RADAR BACKSCATTER;RADAR CROSS-SECTION;RADIANCE;
     SEA SURFACE TEMPERATURE;VISIBLE IMAGERY
     ```

   - Once the page updates itself, click the **All** button. All of the items in the scrolling list are selected.
   - Click **OK!**. You will be returned to the *Data Search And Order* screen. Verify that the parameters you selected appear in the *Parameter* section.

4. Click on the **Edit** button in the Search Options section in section 3. You'll get the *Select: Search Options* page. Change the maximum time for searches to run to `5` minutes. Click the **OK!** button. You'll get back to the *Data Search And Order* screen.

5. Click on the **Save Query** button. Save the file as `inventory.query`.

6. Click on **Start Search**. If you get a *Password Suggested* page, just scroll down and hit **Start Search**. You will now get a page headed with *Search in Progress...*. ***DO NOT CLICK ON ANY OF YOUR BROWSER BUTTONS!*** If the search is not completed within the 5 minute limit, the Web Gateway should start shutting down the search. If not, click on the **STOP** button below and to the right of the *Search in Progress...* message; you will see *Stopping search...*; and then *Search Aborted*. If you have any granules, you will see: **Data Set Listing: Data Search and Order Results**.

1.5.4 Verify query save/restore works

1. Click on the **Select Criteria** button (from the Navigator).

2. Scroll down and click on the **Erase query and start over** button.

3. Verify that the form has been cleared; specifically, that there is no region selected in the *Geographic Region* section of the form.

4. Under *Save/Restore query* click on the **Browse...** button and find the file: `inventory.query`.

5. Click on the **Restore query ...** button.

6. Note that the whole map is selected in the *Geographic Region* section. See if all values are restored, including maximum search time.

7. Click on **Start Search**. If you get a *Password Suggested* page, just scroll down and hit **Start Search**. This will display *Search in Progress...*. ***DO NOT CLICK ON ANY OF YOUR BROWSER BUTTONS!***

8. **While the search is running**, click on **Select criteria**. You will return to the Advanced Search Form. Notice that **View search** reads "Search is running" and **View results** displays the number of datasets/granules received.

9. While the search is running, click on **View Results**. The page's title will display *Partial Results: Data Search and Order Partial Results*. Underneath the title, the sentence "Here are the first xxx data set". This is only a "Partial" set of the search results. If you want to see how the search is doing , click on **View search** .

   Within 15 minutes you should see *Search Completed*. If not, click on the **STOP** button below and to the right of the *Search in Progress...* message; you will see *Stopping search...*, and then **Search Aborted**. The result's page title will now display *Results: Data Search and Order Results*. The sentence has also changed to "Here are the xxx data sets ...". When a search is completed the Navigator notifies the user by the following ways : Navigator's "View search updates to "Search completed" and the "View results" button comment adds "(finished)" to the display of datasets/granules.

1.5.5 Verify selected search sub-pages

Check the Java Mapplet selection.

1. Click on the **Select criteria** button.
2. Click on the **Erase query and start over** button (Inside *Section 4 "Are you ready?"*)
3. Click on the **Geographic Region** icon.
4. Select **Java enabled Map** on the pull-down menu. On the *Select: Geographic Region* page, click on **OK!**.
5. Verify that a globe is displayed in orthographic projection on the applet.
6. Use the scroll bars to pan to the desired latitude and longitude.
7. Use the pull-down menu under Zoom to zoom the map to the desired zoom factor.
8. Select the first point of your search rectangle, starting with the upper left corner. While holding down on the mouse button drag to the opposite corner of your search rectangle.
9. Verify the selected region is correct.
10. Click on the map in a different region to respecify the region. Select the first point of your search rectangle, starting with the upper left corner. While holding down on the mouse button drag to the opposite corner of your search rectangle.
11. Verify the new region is correct.
12. Click **OK** to return to the *Data Search And Order* form.
13. Verify that the geographic selection in the *Geographic Region* section of the page is correct.

Check parameter options

1. Click on the **Parameter** icon. A *Dependent Valids* applet is displayed in a separate frame with the title "Java Valids Selection : Parameter"*

   * If you have a Java compatible browser (with Java enabled).
2. Click the **Help** button in the applet's upper right. (If you don't have Java, use the Help link on the left). Help specific to *Parameter Selection Page* should come up (in a new browser window if you use Java).
3. If you use Java, close the new browser window.

   If not, use the BROWSER's **BACK** button to return to the Parameter Selection Page.

4. Use the Text Box to enter (all on one line) then hit the <RETURN/ENTER> Key:

```
BRIGHTNESS TEMPERATURE;INFRARED IMAGERY;OZONE;PIGMENT
CONCENTRATION; PLANT CHARACTERISTICS;RADAR BACKSCATTER;RADAR
CROSS-SECTION;RADIANCE;SEA SURFACE TEMPERATURE;VISIBLE IMAGERY
```

5. Click **All**. All of the items in the scrolling list are selected.

6. Click **OK!**. You will be returned to the *Data Search And Order* screen.

7. Verify that the parameters you selected appear in the *Parameter* section.

Check date-range options

1. Click on the **Help** button next to *Time Range*.

2. Verify that a help page for *Time Range* is shown.

3. Click on the **Back** button of the browser.

4. Click on the **Time Range** button. The *Select: Time Range* page should appear.

5. Click the **Help** link in the navigation bar. Help specific to *Select: Time Range* should come up.

6. Click on the **Back** button of the browser.

7. On the *Select: Time Range* page, enter the following:

```
Start Date 1990-03-31     Start Time 00:01:01
End Date   12/31/1996     End Time   23:50
Start Day of Year:  100
Stop Day of Year:   120
```

8. Click the **OK!** button. You should return to the *Data Search And Order* form.

9. Verify that the following appears in the *Time Range* area on the *Data Search And Order* page:

```
Start: 31 Mar 1990, 00:01:01
Stop: 31 Dec 1996, 23:50:00
Start day of year: 100
End day of year: 120
```

Check "Search Options"

1. Click on the **Help** button next to *Search Options*.
2. Verify that a help page for *Search Options* is returned.
3. Click on the **back** button of the browser.
4. Click on the **Edit** button next to *Search Options*.
5. Change the number of granules to be returned from **10** to **5**.
6. Change the number of guide documents per data center to be returned from **40** to **10**.
7. Check the **Only return granules...** check box.
8. Change **Allow searches to run for a maximum of** to 5 minutes.
9. Name the query `nameless`.
10. Click the **OK!** button. You should return to the *Data Search And Order* form.
11. Verify that the *Search Options* area now reads:

```
Max number of granules per data set: 5
Only return granules with browse products? YES
Query name: nameless
Max number of guide documents per data center: 10
Maximum search time: 5 minutes
```

Run the search.

1. Click on **Start Search**. This will display *Search in Progress....* ***DO NOT CLICK ON ANY OF YOUR BROWSER BUTTONS!*** Within 15 minutes you should see *Search Completed*. If not, click on the **STOP** button below and to the right of the *Search in Progress...* message; you will see *Stopping search...*, and then *Search Aborted*. If you have any granules, you will see: **Data Set Listing: Data Search and Order Results**.
2. Verify that there is a maximum of 5 granules per data set. Note: The STUB server always returns 10 granules.
3. Click on the **data granules** button for 2 or more datasets. Confirm that the granules returned all contain browse imagery.

1.5.6 Check search by Data Granule ID

Clear form and switch search type

1. Click on the **Search Creation** link. The *Data Search And Order* form appears.
2. Scroll down and click on the **Erase query and start over** button.
3. Verify that the form has been cleared.
4. Click on the **Data Granule ID** link under **Other Searches** in the navigator. The *Data Granule ID Search* form should be shown.

Set up search parameters

1. Click on the **Data Set** button.
2. *Search Form: Data Granule ID Search:Valids Selection:Data Set* page is displayed.
3. In the scrolling list, select the data set *AMPR BRIGHTNESS TEMPERATURE (TB) CAMEX-1*.
4. Click **OK!**. The *Data Granule ID Search* page comes back up.
5. Verify that the data set is correct in the *Data Granule ID Search* page.

Set up Data Granule ID

1. Under the instruction "Enter one Data Granule ID per line:" enter the following in the text box:

   ```
   mib13G95.274_hdf.tar
   ```

Do the granule-ID search.

1. Click on **Start Search**. This will display *Search in Progress....* ***DO NOT CLICK ON ANY OF YOUR BROWSER BUTTONS!*** Within 15 minutes you should see *Search Completed*. If not, click on the **STOP** button below and to the right of the *Search in Progress...* message; you will see *Stopping search...*, and then *Search Aborted*. If you have any granules, you will see: **Results: Data Granule ID Search Results**.

1.5.7 Test for error message if a Data Set is not selected for Data Granule ID search

1. Click on the **Search Creation** link.
2. Scroll down and click on the **Erase query and start over** button.
3. Verify that the form has been cleared.
4. Click on the **Initialize form with values from last search** button.
5. Click on the **Data Set's DELETE** button.
6. Verify that there are no data sets selected.
7. Scroll down to the bottom of the page. Hit the **Start Search** button. A message appears at the top of the page: *You must supply at least one Data Set.*

1.5.8 Test the error message if a Data Granule ID is not selected for Data Granule ID search

1. Select data sets.
   (a) Click on the **Data Set** button. The *Search Form: Data GranuleID Search: Valids Selection: Data Set* page is displayed.
   (b) Click on the **All** button. All of the data sets are selected.
   (c) Click on the **OK!** button. The *Data Granule ID Search* page comes up.
   (d) Verify that there are now data sets in the *Data Set* section of the *Data Granule ID Search* form.
2. Clear Data Granule ID.
   (a) Delete the data granule ID from the text box.
3. Scroll down to the bottom of the page. Click on the **Start Search** button. A message appears at the top of the page*: You must supply a Data Granule ID.*
4. Click the **Help** link at the top of the page. Specific help on how to use the *Data Granule ID Search Form* page should come up. Click the browser's **back** button to return.

1.5.9 Test "jumpstation" feature and contextual help on Data Search And Order Form

1. Click on the **Back to the Main Data Search Page** link at the top of the *Data Granule ID Search* form. The form should change to the *Data Search And Order* form.

Check contextual help on "Select: Parameter" page and verify that jumpstation works

1. Click on the **Parameter** icon. The *Dependent Valids (Selection: Parameter* applet comes up.
2. Click the **Help** link at the lower left of the page. Specific help on how to use the *Select: Parameter* page should come up (in a separate browser window if you use Java). If you have Java, close the new browser window. If not, click the browser's **back** button to return.
3. Click on the parameter in the scrolling list at the top of the *Select: Parameter* page (*BRIGHTNESS TEMPERATURE* as of 7/16/97).
4. Change the **Go to** pull-down menu to **Other Criteria...**.
5. Scroll back up and click **OK!**. The *Select: Other Criteria* page should be shown.

Verify contextual help for "Other Criteria" and make sure jumpstation works

1. Click the **Help** link at the lower left of the page. Specific help on how to use the *Select: Other Criteria* page should come up. Click the browser's **back** button to return.
2. Select **CLOUD COVER** and click **EDIT criteria for ...**. You should see the "Select: Cloud Cover" form.
3. Enter `100` in the text box.
4. Change the **Go to** pull-down menu to **Campaign** and click **OK!**. The *Select: Campaign* page should be shown.

Verify "Select: Campaign" contextual help and make sure jumpstation works

1. Click the **Help** link at the lower left of the page. Specific help on how to use the *Select: Campaign* page should come up (in a separate browser window if you use Java). If you have Java, close the new browser window. If not, click the browser's **back** button to return.
2. Click the **All** button. All the campaigns should be selected.
3. Change "Campaign" (upper left corner of applet) to **Processing Level**. The *Processing Level* valids should be shown.
4. Click **All**. All of the processing levels should be selected.

Return to main search screen and verify that selections worked; run search

1. Click **OK!**. You should be back at the *Data Search And Order Screen* with the following items defined:

   - Geographic Region: **RANGE: 90.00000 to -90.00000 Lat -180.00000 to 180.00000 Lon**.
   - Parameter: *BRIGHTNESS TEMPERATURE*
   - Data set: *AMPR BRIGHTNESS TEMPERATURE (TB) CAMEX*
   - Campaign: *CAMEX*
   - Processing level: *1*
   - Cloud cover: *Percent Cloud cover: 100.0*

2. Click **Start Search!**. The search should complete in less than a minute. If you have any granules, you will see: **Results: Data Search and Order Results**.

1.5.10 Test Simple Search Form.

1. Click on **Select criteria** and Click on the **Erase query and start over** button.
2. Click on Switch to **'Simple Form'** from the *Data Search and Order* screen. You should see the *Simple Search Form* screen with just the section labeled 'Search Data Set Catalog by Keyword' and the 'Optional Search Criteria' section.
3. Type in 'cheese' into the input text box, the first box on section 1, then click on the 'Find Matching Data Sets' button. You should get the message: 'No data sets were found that have terms matching your query'.
4. Type in 'infrared radiometer' and select 'Contains ANY of these words', then click on the 'Find Matching Data Sets' button.

   - You should get the message: 'Found 127 data sets ....'. The following keywords should appear selected in the keywords list:

     ```
     INFRARED FLUX; INFRARED IMAGERY; INFRARED RADIOMETER;
     INFRARED THERMOMETER; INFRARED WAVELENGTHS; REFLECTED INFRARED;
     THERMAL INFRARED
     ```

     ```
     BOLOMET RADIOMETER; GFC RADIOMETER; MICROWAVE RADIOMETER;
     MODULAR MULTIBAND RADIOMETER; MULTIBAND LEAF RADIOMETER;
     NET RADIOMETER; PARABOLA RADIOMETER; RADIOMETER;
     SPECTRORADIOMETER
     ```

   - The system does a mapping from the matching keywords to those data sets in the system described by any of the matching keywords. In this case there are 127 data sets described by any of the INFRARED or RADIOMETER keywords. The 127 data sets are listed the section '2. Choose Data Sets'.

5. Click the **Start Over** button.

6. Type in 'infrared radiometer' and select 'Contains ALL of these words', then click on the 'Find Matching Data Sets' button.

   - You should get the message: 'Found 19 data sets ....'. The same group of keywords should appear selected in the keywords list:

     ```
     INFRARED FLUX; INFRARED IMAGERY; INFRARED RADIOMETER;
     INFRARED THERMOMETER; INFRARED WAVELENGTHS; REFLECTED INFRARED;
     THERMAL INFRARED
     ```

     ```
     BOLOMET RADIOMETER; GFC RADIOMETER; MICROWAVE RADIOMETER;
     MODULAR MULTIBAND RADIOMETER; MULTIBAND LEAF RADIOMETER;
     NET RADIOMETER; PARABOLA RADIOMETER; RADIOMETER;
     SPECTRORADIOMETER
     ```

   - The system does a mapping mapping to those data sets in the system described by all of the matching groups of keywords, in this case there are 19 data sets that match both the INFRARED and RADIOMETER groups.

7. Click the **Start Over** button.

8. Type in 'infrared radiometer' and select 'Match phrase EXACTLY', then click on the 'Find Matching Data Sets' button.

   - You should get the message: 'Found 11 data sets ....'. Only one keyword appears selected in the keywords list:

     ```
     INFRARED RADIOMETER
     ```

   - The system does a mapping to those data sets in the system described by the exact keyword. In this case there are 11 data sets that match "INFRARED RADIOMETER".

9. Click the **Start Over** button.

10. Type in 'AIRCRAFT' and hit the **Find Matching Data Sets** button. You should get the message "Found 34 datasets corresponding to the terms matching your query."

11. With the keywords selected, click on the **Definition** button of section '1. Search Data Set Catalog by Keyword'. You should get the Definition for Keywords page.

12. Click on your browser's back button to get back to the Simple Search Form.

13. Click on the **All** button of section '2. Choose Data Sets'. All the data sets listed will be selected.

14. Scroll down to the 'Optional Search Criteria' section of the Simple Search Form and click on the **Edit** button under Geographic Region. Select new search region and hit **OK**.

15. Next click on the **Edit** button under 'Time Range'. You should see the 'Simple Search Form: Select: Time' page. Enter a start and end date and hit **OK**.
16. Under 'Search Options...' click on **Edit**. Change maximum number of granules to 20 and maximum search time to 5 minutes and hit **OK**.
17. Click on the **Start Search** button. After 5 minutes you should be taken to the Data Search and Order Results page.
18. Click on the **User Preferences** link from the Navigator. Under the section *Interface Preferences:* change 'Please set the interface feature level to...' to 'ADVANCED' and hit the **Ok! Accept Display Options Only!**.
19. Click on the **Select criteria** button from the Navigator. You should now be in the regular (Advanced) Data Search And Order form. Verify that all of your search criteria from the previous simple search have been preserved.

End of Script

1.6 Test Script for Data Search and Order (Improved) Search, Data Granule ID Search, Local Granule ID Search.

Purpose: Test the usage of all components that are used to create a data search and order (improved) search, data granule id search and local granule id search.

Application: Web Gateway 3.0 release

1.6.1 Check help features

1. Go to the desired URL of the version to be tested, e.g.:
`http://lyta.gsfc.nasa.gov/~imsdev/beta/imswelcome/index.html`
2. Click on the **Erase query and start over** button
3. Click on the **Help for this page** link at the top of the page.
4. Verify that the *Data Search And Order Form* help is displayed.
5. Click the browser's **Back** button to return to the *Data Search And Order Form* page.

1.6.2 Test Data Search And Order (Improved) for global search

1. Click on the **Erase query and start over** button.
2. Make global geographic selection.
   - Select **GLOBAL SEARCH** toggle button.
3. Set parameters.
   - Click on the **Parameter** button.
   - Use the text box to enter (all on one line) then press the **RETURN/ENTER Key**:

     ```
     BRIGHTNESS TEMPERATURE;INFRARED IMAGERY;OZONE;
     PIGMENT CONCENTRATION;PLANT CHARACTERISTICS;
     RADAR BACKSCATTER;RADAR CROSS-SECTION;RADIANCE;
     SEA SURFACE TEMPERATURE;VISIBLE IMAGERY
     ```

   - Once the page updates itself, click the **All** button. All of the items in the scrolling list are selected.
   - Click **OK!**. You will be returned to the *Data Search And Order* screen. Verify that the parameters you selected appear in the *Parameter* section.
4. In the Choose Additional Options section, change the maximum time for searches to run to `5` minutes.
5. Click on the **Save Search Criteria** button. Save the file as `inventory.query`.
6. Click on **Start Search**. If you get a *Password Suggested* page, just scroll down and hit **Start Search**. You will now get a page headed with *Search in Progress...*. ***DO NOT CLICK ON ANY OF YOUR BROWSER BUTTONS!*** If the search is not completed within the 5 minute limit, the Web Gateway should start shutting down the search. If not, click on the **END SEARCH NOW** link; you will see *Stopping search...*; and then *Search Aborted*. If you have any granules, you will see: **Data Set Listing: Data Search and Order**.

1.6.3 Verify query save/restore works

1. Click on the **Search Creation** link in the Navigator.
2. Scroll down and click on the **Erase query and start over** button.
3. Verify that the form has been reset to original defaults; specifically, that there is a global region selected in the *Geographic Region* section of the form.
4. Under *Save/Restore query* click on the **Browse...** button and find the file: `inventory.query`.

5. Click on the **Restore query ...** button.
6. See if all values are restored, including maximum search time.
7. Click on **Start Search**. If you get a *Password Suggested* page, just scroll down and hit **Start Search**. This will display *Search in Progress....* ***DO NOT CLICK ON ANY OF YOUR BROWSER BUTTONS!***
8. While the search is running, click on **Results:Data Set**. The page's title will display *Partial Results: Data Search and Order Partial Results*.

   Within 15 minutes you should see *Search Completed*. If not, click on the **END SEARCH NOW** link; you will see *Stopping search...*, and then **Search Aborted**. The result's page title will now display *Results: Data Search and Order*.

1.6.4 Verify selected search sub-pages

Check the Java Mapplet selection.

1. Click on the **Search Creation** link.
2. Click on the **Erase query and start over** button.
3. Select **Orthographic Map (Java)** toggle button.
4. Verify that a globe is displayed in orthographic projection on the applet.
5. Use the scroll bars to pan to the desired latitude and longitude.
6. Use the pull-down menu under Zoom to zoom the map to the desired zoom factor.
7. Select the first point of your search rectangle, starting with the upper left corner. While holding down on the mouse button drag to the opposite corner of your search rectangle.
8. Verify the selected region is correct.
9. Click on the map in a different region to respecify the region. Select the first point of your search rectangle, starting with the upper left corner. While holding down on the mouse button drag to the opposite corner of your search rectangle.
10. Verify the new region is correct.
11. Click **OK** to return to the *Data Search And Order* form.
12. Verify that the geographic selection in the *Geographic Region* section of the page is correct.

Check parameter options

1. Click on the **Parameter** button.
2. Click the Help link on the top of the page. Help specific to *Parameter Selection Page* should come up.
3. Use the BROWSER's **BACK** button to return to the Parameter Selection Page.
4. Use the Text Box to enter (all on one line) then hit the <RETURN/ENTER> Key:

```
BRIGHTNESS TEMPERATURE;INFRARED IMAGERY;OZONE;PIGMENT
CONCENTRATION; PLANT CHARACTERISTICS;RADAR BACKSCATTER;RADAR
CROSS-SECTION;RADIANCE;SEA SURFACE TEMPERATURE;VISIBLE IMAGERY
```

5. Click **All**. All of the items in the scrolling list are selected.
6. Click **OK!**. You will be returned to the *Data Search And Order* screen.
7. Verify that the parameters you selected appear in the *Parameter* section.

Check date-range options

1. In the *Choose a Date/Time Range* section, enter a valid month/day (Standard) date, such as 2000-02-29. Select Julian date and verify that the date is converted to the day of the year, which will be 60.
2. Change the date to 2000-61, select Standard and verify date as 2000-03-01.
3. Select the annually repeating toggle button and verify that the Standard date input format is shown at top of white area. The bottom part will explain how to enter a start and end day. Enter the following:

```
Start Date 1990-03-31     Start Time 00:01:01
End Date   12/31/1996     End Time   23:50
Start Day of Year:  100
Stop Day of Year:   120
```

Check "Search Options"

1. Click on the **All Options** toggle button in the *Choose Additional Options* section.
2. Change the number of granules to be returned from **10** to **5**.
3. Change the number of guide documents per data center to be returned from **40** to **10**.

4. Check the **Only return data granules which have browse products** check box.

5. Change **Allow searches to run for a maximum of** to 5 minutes.

6. Name the query `nameless`.

Run the search.

1. Click on **Start Search**. This will display *Search in Progress....* ***DO NOT CLICK ON ANY OF YOUR BROWSER BUTTONS!*** Within 15 minutes you should see *Search Completed*. If not, click on the **END SEARCH NOW** link; you will see *Stopping search...*, and then *Search Aborted*. If you have any granules, you will see: **Data Set Listing: Data Search and Order**.

2. Verify that there is a maximum of 5 granules per data set. Note: The STUB server always returns 10 granules.

3. Click on the **List data granules** button for 2 or more datasets. Confirm that the granules returned all contain browse imagery.

1.6.5 Test Improved Search Form.

Data Set Lookup

1. Click on **Search Creation** link then click on the **Erase query and start over** button.

2. Type in 'cheese' into the **Data Set Lookup** input text box, then click on the 'GO' button. You should get the message: 'No data sets were found that have terms matching your query'.

3. Type in 'infrared radiometer' and select 'Match ANY', then click on the 'GO' button.

   - You should get the message: 'Your search will return 144 data sets ....'.
   - The system does a mapping from the matching keywords to those data sets in the system described by any of the matching keywords. In this case there are 144 data sets described by any of the INFRARED or RADIOMETER keywords.

4. Type in 'infrared radiometer' and select 'Match ALL', then click on the 'GO' button.

   - You should get the message: 'Your search will return 24 data sets ....'.
   - The system does a mapping mapping to those data sets in the system described by all of the matching groups of keywords, in this case there are 24 data sets that match both the INFRARED and RADIOMETER groups.

5. Type in 'infrared radiometer' and select 'Match EXACTLY', then click on the 'GO' button.
   - You should get the message: 'Your search will return 12 data sets ....'.
   - The system does a mapping to those data sets in the system described by the exact keyword. In this case there are 12 data sets that match "INFRARED RADIOMETER".
6. Type in 'AIRCRAFT' and select 'Match ANY' and hit the **GO** button. You should get the message "Your search will return 20 datasets..."
7. Scroll down to the 'Choose Search area' section of the form and click on any toggle button under Geographic Region. Select new search region.
8. Scroll down to the 'Choose a Time Range' secton. Enter a start and end date.
9. Under 'Choose Additional Options...' change maximum number of granules to 20 and maximum search time to 5 minutes.
10. Click on the **Start Search** button. After 5 minutes you should be taken to the Data Search and Order Results page.

1.6.6 Check search by Data Granule ID

Clear form and switch search type

1. Click on the **Search Creation** link. The *Data Search And Order* form appears.
2. Scroll down and click on the **Erase query and start over** button.
3. Verify that the form has been cleared.
4. Click on the **Data Granule ID** link under **Other Searches** in the navigator. The *Data Granule ID Search* form should be shown.

Set up search parameters

1. Click on the **Data Set** button.
2. *Search Form: Data Granule ID Search:Valids Selection:Data Set* page is displayed.
3. In the scrolling list, select the data set *AMPR BRIGHTNESS TEMPERATURE (TB) CAMEX-1*.
4. Click **OK!**. The *Data Granule ID Search* page comes back up.
5. Verify that the data set is correct in the *Data Granule ID Search* page.

Set up Data Granule ID

1. Under the instruction "Enter one Data Granule ID per line:" enter the following in the text box:

```
mib13G95.274_hdf.tar
```

Do the granule-ID search.

1. Click on **Start Search**. This will display *Search in Progress....* ***DO NOT CLICK ON ANY OF YOUR BROWSER BUTTONS!*** Within 15 minutes you should see *Search Completed*. If not, click on the **END SEARCH NOW** link; you will see *Stopping search...*, and then *Search Aborted*. If you have any granules, you will see: **Results: Data Granule ID Search**.

1.6.7 Test for error message if a Data Set is not selected for Data Granule ID search

1. Click on the **Search Creation** link.
2. Scroll down and click on the **Erase query and start over** button.
3. Verify that the form has been cleared.
4. Click on the **Initialize form with values from last search** button.
5. Click on the **Data Set's DELETE** button.
6. Verify that there are no data sets selected.
7. Scroll down to the bottom of the page. Hit the **Start Search** button. A message appears at the top of the page: *You must supply at least one Data Set.*

1.6.8 Test the error message if a Data Granule ID is not selected for Data Granule ID search

1. Select data sets.
   (a) Click on the **Data Set** button. The *Search Form: Data GranuleID Search: Valids Selection: Data Set* page is displayed.
   (b) Click on the **All** button. All of the data sets are selected.
   (c) Click on the **OK!** button. The *Data Granule ID Search* page comes up.
   (d) Verify that there are now data sets in the *Data Set* section of the *Data Granule ID Search* form.

2. Clear Data Granule ID.

    (a) Delete the data granule ID from the text box.

3. Scroll down to the bottom of the page. Click on the **Start Search** button. A message appears at the top of the page*: You must supply a Data Granule ID.*

4. Click the **Help** link at the top of the page. Specific help on how to use the *Data Granule ID Search Form* page should come up. Click the browser's **back** button to return.

1.6.9 Check search by Local Granule ID

Clear form and switch search type

1. Scroll down and click on the **Erase query and start over** button.

2. Verify that the form has been cleared.

3. Click on the **Local Granule ID** link under **Other Searches** in the navigator. The *Local Granule ID Search* form should be shown.

Set up search parameters

1. Click on the **Data Set** button.

2. *Search Form: Local Granule ID Search:Valids Selection:Data Set* page is displayed.

3. In the scrolling list, select the data set *MODIS/TERRA CALIBRATED RADIANCES DAILY L1B SWATH 1KM V001*.

4. Click **OK!**. The *Local Granule ID Search* page comes back up.

5. Verify that the data set is correct in the *Local Granule ID Search* page.

Set up Local Granule ID

1. Under the instruction "Enter a single unique Local Granule ID:" enter the following in the text box:

```
MOD021KM.A2000078.0000.002.2000082071004.hdf
```

Do the local granule-ID search.

1. Click on **Start Search**. This will display *Search in Progress....* ***DO NOT CLICK ON ANY OF YOUR BROWSER BUTTONS!*** Within 15 minutes you should see *Search Completed*. If not, click on the **END SEARCH NOW** link; you will see *Stopping search...*, and then *Search Aborted*. If you have any granules, you will see: **Results: Local Granule ID Search**.

1.6.10 Test for error message if a Data Set is not selected for Local Granule ID search

1. Click on the **Search Creation** link.
2. Scroll down and click on the **Erase query and start over** button.
3. Verify that the form has been cleared.
4. Click on the **Initialize form with values from last search** button.
5. Click on the **Data Set's DELETE** button.
6. Verify that there are no data sets selected.
7. Scroll down to the bottom of the page. Hit the **Start Search** button. A message appears at the top of the page: *You must supply at least one Data Set.*

1.6.11 Test the error message if a Local Granule ID is not selected for Local Granule ID search

1. Select data sets.
   (a) Click on the **Data Set** button. The *Search Form: Local GranuleID Search: Valids Selection: Data Set* page is displayed.
   (b) Click on the **All** button. All of the data sets are selected.
   (c) Click on the **OK!** button. The *Local Granule ID Search* page comes up.
   (d) Verify that there are now data sets in the *Data Set* section of the *Local Granule ID Search* form.
2. Clear Local Granule ID.
   (a) Delete the local granule ID from the text box.
3. Scroll down to the bottom of the page. Click on the **Start Search** button. A message appears at the top of the page*: You must supply a Local Granule ID.*
4. Click the **Help** link at the top of the page. Specific help on how to use the *Local Granule ID Search Form* page should come up. Click the browser's **back** button to return.

End of Script

1.7 Test Script for Directory Searches

Purpose: Script to build a directory search and viewing the results from the search.

Application: Web Gateway version 2.1
The CINTEX-DEV Valids are also needed to use the STUB server.

Key: * : Description of what should be displayed after step is performed

1. Go to the desired URL of the version to be tested. ie:
   `http://harp.gsfc.nasa.gov/~imswww/beta/imswelcome/index.html`
2. Click on "Enter as Guest" or "Enter as Registered User".
3. Select the "Summary Document" option from the "Search Types" box in the navigator.
   ** Top of the page should say "Search Creation: Summary Document Search".*
4. Click on the "Help for this page" item under the title.
   ** Displays "Summary Document Search Form" from the User's Manual.*
5. Click on the "Search creation" item in the Navigator to return to the Search Form.
6. Select the Data Center ID attribute in the list of categories and click on the select button.
   ** The "Valids Selection: Data Center" page is shown.*
7. From the Data Center Page, in the Type-in section, enter the following into the textfield box :

   `GHRC;STUB;ASF;GSFC;EDC <ENTER>`

   Be sure to press Enter.

   ** The Data Center page will be returned with the selected DAACs listed in the 'Data Center' selection list.*
8. Click the "ALL" icon.
   ** All data centers are now selected.*
9. Click the "Ok!" button.
   ** Search Form page is redisplayed with the 5 DAACS listed under Data Center section.*
10. Click on "Start Search".
    ** If you get a "Start Search: Password suggested" form, click on "Start Search" button on that form to continue.*
    ** The "Search in progress" page appears.*

11. After about 2 minutes, you should have results. Not all DAACs may return results, depending on their availabilty.
** The Results: Data Set: Listing Page will automatically be displayed once the search is completed.*

12. Click on the "Customize this table" link.
** The "Customize Results: Data Set" page is shown.*

13. Click "Remove all".
** All items are removed from the "Current Columns" list.*

14. Click "Data Center" in the "Available Columns" list and then the "ADD »" button.
** "Data Center" appears in the "Current Columns" list.*

15. Scroll down to the bottom of the page and click the "OK, accept all my selections" button.
** The "Results: Data Set: Listing" page reappears, with the "Data Set" and "Data Center" columns showing.*

16. Select a dataset from each of the individual DAACS and click on the Summary Document and Detailed Document for those datasets.
** Summary Document will return a DIF from GCMD on the selected dataset.*
** Detailed Document will do a GUIDE search to all DAACS using the selected dataset name.*

17. Use the Browser’s Back button to return to the ’Directory Results’ page.
** When doing a Detailed Info, you can also use the "Results: Data Set" item from the Navigator to return to the ’Summary Document Search Results’ page.*

18. Click on the "Customize this table" link.
** The "Customize Results: Data Set" page is shown again.*

19. Use the pull down menus to re-sort the dataset list by "Data Set ID then : Data Center then: nothing".
** Nothing else happens.*

20. Scroll down to the bottom of the page and click the "OK, accept all my selection s" button.
** The "Results: Data Set: Listing" page reappears, with the dataset list re-ordered.*

21. Click on "All" button from Select data sets column.
** All of the Datasets selected (All buttons on the Select column are "pressed in")*

22. Click on "None" button from Select data sets column.
** All Datasets are no longer selected.*

23. From the DAAC "EDC", find the dataset "AVHRR 1-KM GLOBAL LAND 10-DAY COMPOSITES". Click on the dataset name to link to that dataset's homepage.
** Homepage information related to that dataset.*

24. Use the browser's back button to return to the data set results page.

25. Find the dataset "AVHRR_GLOBAL_10-DAY_COMPOSITES" again and click on the Other Links button .

    ** "Data Set Attributes" page, "Links to related data/information..." section for that dataset.*
    ** Observe any of the following links: "Data set home page", "Contact information", and/or any other link(s) based on what features are supported by the individual Daacs.*

26. You are presently at the bottom of the "Data Set Attributes" page, please scroll up to the top of the page. Click on the buttons (to the right of the displayed dataset name at the top of the Dataset Attribute page).
** Update page for the previous/next dataset.*

27. Click on "Results:Data Set" link from the navigator.
Return to the "Results: Data Set: Listing" page.

28. Select 3 or more datasets from more than one DAAC then click on "Create Inventory Search" button.

    ** Return to the Primary Data Search Form.*
    ** The Search form is changed from Directory to Primary Data Search*
    ** The selected datasets are listed on the Data Set attribute box.*
    ** Data centers for the selected datasets are listed under the Data Center attribute box.*

1.8 Dependent Valids test script.

Test Script for the V0 IMS World Wide Web Gateway (Dependent Valids) Version 2.3

Note this entire script should be run twice. One time to test the Java Dependent Valids and another time to test the CGI version. The "Click on **Apply**" instructions only apply to the CGI version.

1. Go to the desired URL of the version to be tested. ie:
`http://harp.gsfc.nasa.gov/~imswww/beta/imswelcome/index.html`

2. Click on the "Enter as guest" or "Enter as registered user" link from the Welcome Page.

    The following 4 steps checks an Inventory search for using the GLOBAL SEARCH selection:

3. Click on "Switch to... Advanced Form" button. This should switch you to the advanced search form with the Geographic Region selected for a Global search.

4. Click on the **Edit** button under "Parameter": If you are switching to CGI, click on the "Turn Java Off" link. If you are switching back to Java, click on the "Turn Java On" link.

   Use the Text Box near "Type-in:" to enter (all on one line):

   ```
   BRIGHTNESS TEMPERATURE;INFRARED IMAGERY;OZONE;PIGMENT CONCENTRATION;
   PLANT CHARACTERISTICS;RADAR BACKSCATTER;RADAR CROSS-SECTION;RADIANCE;
   SEA SURFACE TEMPERATURE;VISIBLE IMAGERY
   ```

   Click on **Apply**. Click on the **All** button. Click on **OK!**.

5. Click on **Start Search**. If you get the "Start Search: Password suggested" form, click on the "Start Search" button. The "Search in progress..." form will then be displayed. Within 5 minutes, the search should complete.

   If not, click on the **END SEARCH NOW** link below the "Search in Progress..." message; you will see "Stopping search..."; and then "Search Aborted".

   If you have any granules, you will see: **Data Search and Order Data Set Listing**.

6. Click on the **Search Creation** link on the left side of the page. Click on the "Erase query and start over." button.

7. Next to "Geographic Region" click on the **Edit** button. Use the "Orthographic Map (Java)" pull-down menu to select **I want to do a GLOBAL SEARCH**. Click on **OK!** button.

8.
   - Click on the **Help** button under "Parameter": Verify that you see the help document for "Parameter". Click on the back button of the browser.
   - Click on the **Edit** button below "Parameter":
   - Click on the **Help** link on the left side of the page. In the applet the help button is on the upper right hand corner of the page. Verify that you see the help document for "Parameter Selection Page". Click on the back button of the browser. In the applet, just refer back to the applet.
   - Click on ">All Compatible Parameters" filter. Click on **Apply**. Verify that a long list of attributes is displayed.
   - Select the first attribute. Click on **Apply**. Verify that the selected attribute is still selected.
   - Click on the "None" button. Verify that all of the items are now deselected.
   - Click on any filter and toggle off the ">All Compatible Parameters" filter. Click on **Apply**. Verify that a list of attributes is displayed.
   - Click on any attribute in the text box below the "Definition" button. Click on the "Definition" button. Verify that a definition is returned. Click on the back button of the browser. In the applet, just refer back to the applet.

- Click on the **All** button. Verify that all of the items are selected.

9. - Use the Go to "Main Search Form" pull down menu at the bottom of the page and select: Data Set. Click on the **OK!**. button above.
   - Select the first attribute. Click on **Apply**. Verify that the selected attribute is still selected.
   - Click on the "Detailed Document" button. Verify that a guide document is returned. Click on a link. Verify that a guide document is displayed. Click on the back button of the browser until you get back to the page: **Search Form: Data Search and Order: Valids Selection: Data Set**. In the applet, just refer back to the applet.
   - Click on the "None" button. Verify that all of the items are unselected.
   - Click on the **All** button. Verify that all of the items are selected.

10. - Use the Go to "Main Search Form" pull down menu at the bottom of the page and select: "Sensor". Click on the **OK!**. button above.
    - Type in the text box one of the valids from the list. Click on **Apply**. Verify that you see that valid in the choices box.
    - Delete the valid from the text box.
    - Select one of the filters in the filters list. Click on **Apply**. Verify that you see a list of valids.
    - Toggle off the selected filter and select ">All Compatible Sensors" filter. Click on **Apply**. Verify that you see a list of valids.
    - Select the first valid. Click on **Apply**. Verify that you see that valid selected.
    - Click on the "Definition" button. Verify that a definition is returned. Click on the back button of the browser. In the applet, just refer back to the applet.
    - Click on the "Detailed Document" button. Verify that a guide document is returned. Click on a link. Verify that a guide document is displayed. Click on the back button of the browser until you see the page: **Search Form: Data Search and Order: Valids Selection: Sensor**. In the applet, just refer back to the applet.
    - Click on the "None" button. Verify that you see a list of valids with none selected.
    - Click on the **All** button. Verify that all of the items are selected.

11. - Use the Go to "Main Search Form" pull down menu at the bottom of the page and select: "Data Center". Click on the **OK!** button above.
    - Type in the text box one of the valids from the list. (Note: Only the acronym should be typed.) Click on **Apply**. Verify that you see that valid in the choices box.

- Delete the valid from the text box.
- Select "INTERNATIONAL DATA CENTERS" next to filters. Click on **Apply**. Verify that you see a least one valid in the choices box.
- Select "US DATA CENTERS" and toggle off "INTERNATIONAL DATA CENTERS". Click on **Apply**. Verify that you see a list of valids.
- Toggle off "US DATA CENTERS". Select ">All Compatible Data Centers". Click on **Apply**. Verify that you see a list of valids.
- Select the first valid. Click on **Apply**. Verify that you see that valid selected.
- Click on the "Definition" button. Verify that a definition is returned. Click on the back button of the browser. In the applet, just refer back to the applet.
- Click on the "Detailed Document" button. Verify that a guide document is displayed. Click on the back button of the browser until you see the page: **Search Form: Data Search and Order: Valids Selection: Data Center**. In the applet, just refer back to the applet.
- Unselect the valid. Click on **Apply**. Verify that you see that valid unselected.
- Click on the **All** button. Verify that all of the items are selected.

12.
- Use the Go to "Main Search Form" pull down menu at the bottom of the page and select: "Source". Click on the **OK!**. button above.
- Type in the text box one of the valids from the list. Click on **Apply**. Verify that you see that valid in the choices box.
- Delete the valid from the text box.
- Select any filter. Click on **Apply**. Verify that you see a list of valids.
- Toggle off the selected filter. Select ">All Compatible Sources". Click on **Apply**. Verify that you see a list of valids.
- Select the first valid. Click on **Apply**. Verify that you see that valid selected.
- Click on the "Definition" button. Verify that a definition is returned. Click on the back button of the browser. In the applet, just refer back to the applet.
- Click on the "Detailed Document" button. Verify that a guide document is returned. Click on a link. Verify that a guide document is displayed. Click on the back button of the browser until you see the page: **Search Form: Data Search and Order: Valids Selection: Source**. In the applet, just refer back to the applet.
- Click on the "None" button. Verify that all of the choices are deselected.
- Click on the **All** button. Verify that all of the items are selected.

13. • Use the Go to "Main Search Form" pull down menu at the bottom of the page and select: "Campaign". Click on the **OK!**. button above.
   - Type in the text box one of the valids from the list. Click on **Apply**. Verify that you see that valid in the Choices box.
   - Delete the valid from the text box. Type in the text box "*". Click on **Apply**. Verify that you see a list of valids in the Choices box.
   - Select the first attribute. Click on **Apply**.
   - Verify that the selected attribute is still selected. Click on the "Definition" button. Verify that a definition is returned. Click on the back button of the browser. In the applet, just refer back to the applet.
   - Click on the "Detailed Document" button. Verify that a guide document is displayed. Click on the back button of the browser until you see the page: **Search Form: Data Search and Order: Valids Selection: Campaign**. In the applet, just refer back to the applet.
   - Click on the "None" button. Verify that all of the items are unselected.
   - Click on the **All** button. Verify that all of the items are selected.

14. • Use the Go to "Main Search Form" pull down menu at the bottom of the page and select: "Processing Level". Click on the **OK!**. button above.
   - Type in the text box one of the valids from the list. Click on **Apply**. Verify that you see that valid in the Choices box.
   - Delete the valid from the text box. Type in the text box "*". Click on **Apply**. Verify that you see a list of valids.
   - Select the first attribute. Click on **Apply**. Verify that the selected attribute is still selected.
   - Click on the "Definition" button. Verify that a definition is returned. Click on the back button of the browser. In the applet, just refer back to the applet. (Note that there are no guide documents for processing level.)
   - Click on the "None" button. Verify that all of the items are unselected.
   - Click on the **All** button. Verify that all of the items are selected.
   - Click on **OK!**.

15. • Click on the **Edit** button under "Parameter": Verify that there is a short list of selected items.
   - Toggle off any items that have a "*" as the leading character. Click on **Apply**. In the applet, click on **Validate Search Criteria**. Verify that only the compatible valids are selected.
   - Click on **OK!**.

16. • Click on the **Help** button under "Data Set". Verify that you see the help document for "Data Set". Click on the back button of the browser.

- Click on the **Edit** button under "Data Set". Click on the **Help** link on the left side of the page. In the applet the help button is on the upper right hand corner of the page. Verify that you see the help document for "Data Set Selection Page". Click on the back button of the browser. In the applet, just refer back to the applet.
- Toggle off any items that have a "*" as the leading character. Click on **Apply**. In the applet, click on **Validate Search Criteria**. Verify that the compatible data sets are now selected.
- Click on **OK!**.

17.
- Click on the **Help** button under "Sensor". Verify that you see the help document for "Sensor". Click on the back button of the browser.
- Click on the **Edit** button under "Sensor". Click on the **Help** link on the left side of the page. In the applet the help button is on the upper right hand corner of the page. Verify that you see the help document for "Sensor Selection Page". Click on the back button of the browser. In the applet, just refer back to the applet.
- Toggle off any items that have a "*" as the leading character. Click on **Apply**. In the applet, click on **Validate Search Criteria**. Verify that the compatible sensors are now selected.
- Click on **OK!**.

18.
- Click on the **Help** button under "Data Center...". Verify that you see the help document for "Data Center". Click on the back button of the browser.
- Click on the **Edit** button under "Data Center...". Click on the **Help** link on the left side of the page. In the applet the help button is on the upper right hand corner of the page. Verify that you see the help document for "Data Center Selection Page". Click on the back button of the browser. In the applet, just refer back to the applet.
- Toggle off any items that have a "*" as the leading character. Click on **Apply**. In the applet, click on **Validate Search Criteria**. Verify that the compatible data centers are now selected.
- Click on **OK!**.

19.
- Click on the **Help** button under "Source". Verify that you see the help document for "Source/Platform". Click on the back button of the browser.
- Click on the **Edit** button under "Source". Click on the **Help** link on the left side of the page. In the applet the help button is on the upper right hand corner of the page. Verify that you see the help document for "Source Selection Page". Click on the back button of the browser. In the applet, just refer back to the applet.
- Toggle off any items that have a "*" as the leading character. Click on **Apply**. In the applet, click on **Validate Search Criteria**. Verify that the compatible sources are now selected.

- Click on **OK!**.

20.
- Click on the **Help** button under "Campaign...". Verify that you see the help document for "Campaign". Click on the back button of the browser.
- Click on the **Edit** button under "Campaign...". Click on the **Help** link on the left side of the page. In the applet the help button is on the upper right hand corner of the page. Verify that you see the help document for "Campaign Selection Page". Click on the back button of the browser. In the applet, just refer back to the applet.
- Toggle off any items that have a "*" as the leading character. Click on **Apply**. In the applet, click on **Validate Search Criteria**.In the applet, click on **Validate Search Criteria**. Verify that the compatible campaigns are now selected.
- Click on **OK!**.

21.
- Click on the **Help** button under "Processing Level...". Verify that you see the help document for "Processing Level".
- Click on the back button of the browser. Click on the **Edit** button under "Processing Level...". Click on the **Help** link on the left side of the page. In the applet the help button is on the upper right hand corner of the page. Verify that you see the help document for "Processing Level Selection Page". Click on the back button of the browser. In the applet, just refer back to the applet.
- Toggle off any items that have a "*" as the leading character. Click on **Apply**. In the applet, click on **Validate Search Criteria**. Verify that the compatible processing levels are now selected.
- Click on **OK!**.

22.
- Click on **Start Search**. This will display "Search in Progress...". Within 5 minutes, the search should complete.
- If not, click on the **END SEARCH NOW** link below the "Search in Progress..." message; you will see "Stopping search..."; and then "Search Aborted".
- If you have any granules, you will see: **Data Search and Order Data Set Listing**.

23.
- Click on the **Search Creation** link.
- Click on the "Erase query and start over." button.

24.
- Next to "Geographic Region" click on the **Edit** button. Use the "Orthographic Map (Java)" pull-down menu to select "I want to do a GLOBAL SEARCH".
- Click on **OK!** button.

25.
- Click on the **Edit** button next to "Other search criteria...". Click on the **Help** link on the left side of the page. Verify that you see the help document for Other Criteria Selection. Click on the back button of the browser.
- Click on "Cloud Cover" and click on **Edit criteria for...** button.
- Click on the **Help** link on the left side of the page. Verify that you see the help document for Other Criteria Entry. Click on the back button of the browser.
- Next to "Percent Cloud Cover" enter a number between 0 and 100.
- Next to "Range of Cloud Cover" enter 2 numbers between 20 and 50.
- Click on **OK!**. On the "Select: Other Criteria" page, click on **Return**.

26.
- Click on the **Edit** button next to "Data Set".
- Verify that there are at least 2 data sets in the choices box.
- Click on the **All** button.
- Click on **OK!**.

27.
- Click on **Start Search**. If you get the "Start Search: Password suggested" form, click on the "Start Search" button. This will display "Search in Progress...". Within 5 minutes, the search should complete.
- If not, click on the **END SEARCH NOW** link below the "Search in Progress..." message; you will see "Stopping search..."; and then "Search Aborted".
- If you have any granules, you will see: **Data Search and Order Data Set Listing**.

  (Note: The STUB server always returns the same data sets.)

28.
- Click on the **Search Creation** link on the left side of the page.
- Below "Data Set" click on the **Delete** button.
- Below "Cloud Cover" click on the **Delete** button.

29.
- Click on the **Edit** button next to "Other search criteria...".
- Click on "Image Quality" and click on **Edit criteria for...** button.

30.
- Use the "(none)" pull down menu next to Image Quality Grade and select a grade.
- Click on **OK!**. On the "Select: Other Criteria" page, click on **Return**.

31.
- Click on the **Edit** button next to "Data Set". There should be at least 1 data set compatible. Select the data set and click on **OK!**.
- Click on **Start Search**. If you get the "Start Search: Password suggested" form, click on the "Start Search" button. This will display "Search in Progress...". Within 5 minutes, the search should complete.

- If not, click on the **END SEARCH NOW** link below the "Search in Progress..." message; you will see "Stopping search..."; and then "Search Aborted".
- If you have any granules, you will see: **Data Search and Order Data Set Listing**.

  (Note: The STUB server always returns the same data sets.)

32.
- Click on the **Search Creation** link on the left side of the page.
- Below "Data Set" click on the **Delete** button.
- Below "Image Quality" click on the **Delete** button.

33.
- Click on the **Edit** button next to "Other search criteria...".
- Click on "Image Resolution" and click on **Edit criteria for...** button.

34.
- Enter a number outside of the required range such as "0.0". Click on **OK!**.
- Verify that you see the error message:

```
Error 513:
        Bad query/request.

Problem:
Criterion 'Resolution in Meters': input '0.0' not in range of 10 to 100.
```

- Hit the back button of the browser. Enter a number within the required range. Click on **OK!**. On the "Select: Other Criteria" page, click on **Return**.

35.
- Click on the **Edit** button next to "Data Set". There should be at least 1 data set compatible. Select the data set and click on **OK!**.
- Click on **Start Search**. If you get the "Start Search: Password suggested" form, click on the "Start Search" button. This will display "Search in Progress...". Within 5 minutes, the search should complete.
- If not, click on the **END SEARCH NOW** link below the "Search in Progress..." message; you will see "Stopping search..."; and then "Search Aborted".
- If you have any granules, you will see: **Data Search and Order Data Set Listing**.

  (Note: The STUB server always returns the same data sets.)

36. Test for dynamic valids. This feature is currently not available in the Java applet. It works in the CGI form only.

- Click on the **User Preferences** link on the left side of the page. Next to **May I use Dynamic Valids in generating a query?** change the pull-down menu from **NO** to **YES**. Click on **Ok! Accept Display Options Only!**.

- Click on the **Search Creation** link on the left side of the page. Click on the "Erase query and start over." button.
- Next to "Geographic Region" click on the **Edit** button. Use the **Orthographic Map (Java)** pull-down menu to select "I want to do a GLOBAL SEARCH" Click on **OK!** button.
- Click on the **Edit** button next to **Data Center**. Select **STUB**. Click on **OK!**.
- Click on the **Edit** button next to **Data Set**. In the type-in box type: **TEST**. Click on **Apply**. Click on **ADD**. Select **TEST**. Click on **OK!**.
- Click on **Start Search**. If you get the "Start Search: Password suggested" form, click on the "Start Search" button. This will display "Search in Progress...". Within 5 minutes, the search should complete.
- If not, click on the **END SEARCH NOW** link below the "Search in Progress..." message; you will see "Stopping search..."; and then "Search Aborted".
- If you have any granules, you will see: **Data Search and Order Data Set Listing**.
- Click on the **List Data Granules** button after selecting data set "TEST".
- Click on the **View Image** button for the granule. The "Browse in progress" status form appears, then switches to the "Browse Product" form. Verify that a browse image is displayed. Click on the back button of the browser.
- Click on **Select** checkbox and click on **Add to Order** button.
- Click on **Order Options** button. Select an option. Click on **Ok! Accept my choice and return to the shopping cart!**. Click on **Go to Step 2: Order Form**. If necessary, fill out the form and click on **Go to Step 3: Review Order Summary**. Click on **Go to Step 4: Submit Order!**. Verify that the order is submitted successfully.

End Script.

1.9 Test Script for Browse Products

Purpose: Test integrated and FTP browse capability as executed from granule lists and folder.

Application: Web Gateway 2.1.

Key: * : Description of what should be displayed after step is performed

1. Go to the desired URL of the version to be tested. ie: `http://harp.gsfc.nasa.gov/~imswww/beta/imswelcome/index.html`
2. Click on Compose a Search.

3. Click on the Switch to... "Advanced Form" button.

   ** The "Advanced Search Form" should be displayed.*

4. Click on the box in front of Inventory from "Select your search type..."

   ** The top of the page should say "Search Form: Data Search and order (Inventory)".*

5. Click on Geographic Region button (either icon beside the name or 'Edit' button). The Select: Geographic Region page will be displayed. Change "Java enabled Map" to "I want to do a GLOBAL SEARCH". Click on the "OK" button. This will return you to the Search Screen with the coordinates of:

   ```
   90.0000ř to -90.0000ř Lat
   -180.0000ř to 180.0000ř Lon
   ```

6. Click on Data Center button (either icon beside the name or 'Edit' button). From the Data Center page, click on "Turn Java Off". From the Valid Selection Data Center page, go to the Type-in section and enter the following into the textfield box:

   ```
   DLR-DFD;GSFC;JPL;NSIDC;STUB (ENTER Key)
   ```

   ** The page will be reloaded, but the Choice section has been updated to display those entries that were entered. Click the "ALL" button to select all the Daacs then click on the "OK!" button. This will return you to the Search Screen with the selected DAACS listed in the Data Center box.*

7. Click on Parameter to list all compatible Parameters that are valid with the selected Data Centers. On the Type-in section enter the following:

   ```
   BRIGHTNESS TEMPERATURE;SEA SURFACE TEMPERATURE (ENTER Key)
   ```

   ** The page will be reloaded, but the Choices section has been updated to display those entries that were entered. Click on the two Parameters then click on the "OK!" button. This will return you to the Search Screen with the selected Parameters listed in the Paramter box.*

8. On the "Advanced Search Form: Data Search and Order (Inventory)" page, verify that the status message for the "Select criteria" item of the navigator on the left side of the form updates to "Ready to search".

9. Scroll down the Search page until you find "Search Options". Click on the 'Edit' button. When the page loads:

   - Change Maximum number of granules returned from 10 to 2. The idea is to test browsing of one granule in each mode (Granule Listing and Folder).

- Click on "Only return granules which have browse products" checkbox.
- Click on the "OK!" button which will return you to the Search Screen.

10. Click on "Start Search".

    ** "Search in Progress" page. Verify that the status message of the "View search" item on the navigator updates to "Search is running".*

    NOTE: After ~ 3 minutes, you should have results. Not all DAACs may return results because of their availability. As results come in, the status message of the "View results" item on the navigator updates to display the number of datasets and granules received, also displays the warning "(more to come)".

11. When the search is completed, you should see the Data Search and Order Results page. Note the information that is returned about a dataset when a Inventory Search is done is now listed in the one-line-per dataset format. You will need either to open your browser wider or scroll right to see what data center each dataset comes from.

12. Verify that the status message of the "View search" item on the navigator updates to "Search completed". Also, verify that the status message for navigator item "View results" updates to display the number of datasets and granules recieved and the status "(finished)".

13. Select one dataset from each of the DAACs then click on the "List" Icon to display the Granule List page.

    ** There should be 2 granules per Dataset selected.*

14. Select a granule from each of the DAACs then click on the "Add data granules to your Folder" button. Make sure to select at least one with a red "Other Links" button.

    ** You should see the "My Folder: Listing" page, with the selected granules listed. We'll test the Folder later.*

15. Click on the browser's "Back" button, then click on the Browser's "Reload" button to load the updated "Granule List: Listing" page. Note that the "My Folder" item will appear on the navigator on the left side of the form below the main navigation tabs.

    ** You should see the "In Folder" icon next to the granules you selected earlier.*

16. Select any first granule from any of the DAACs on this list. Click its "View Image" button.

    ** Browse in Progress Screen will update based on the progress of the search.*

    ** If there is a single browse product available, you will see the "Browse Product" screen. If there are multiple products available, you'll get the "Browse Options" screen (data from STUB will appear in this manner).*

17. If you get the "Browse Product" screen:

- Click on the the Help link from the navigator on the left side of the page to get information about the Browse page.
- Click on the browser's "Back" button to return to the Browse Product page.
- Scroll past the image, click on the button that looks like a clamp on a disk. In Netscape 2.0+ and Internet Explorer 4.0+, a window will pop up. Under the Selection area change the name from xxx.hdf to Test.hdf and click on the "OK" button. This file will be saved to your system.
- As of the release of 2.2, the Web Gateway converts all 8 bit images into Gifs and Jpegs, and 24 bit images are converted to Jpegs only. Both image types still display any metadata associated with the individual images.

  Based on the type (8/24 bit) of images being converted, will results in a different type of table being displayed. For instance, an 8 bit image will have the following columns : JPEG/GIF/METADATA(if available). Where as a 24 bit image would only display the JPEG/METADATA(if available) columns.

  Click on the button(s) that is labeled "JPEG". This button displays a JPEG image only ; no text displayed.
- Click on the browser's "Back" button to return to the "Browse Product" page.
- Click on the button(s) that is labeled "GIF". This button displays a GIF image only ; no text displayed.
- Click on the browser's "Back" button to return to the "Browse Product" page.
- Click on the button(s) that resemble a "Tape Reel". This button displays any Metadata information that is associated with that image.
- Click on the browser's "Back" button to return to the "Browse Product" page.

18. If you get the "Browse Options" screen:

- Click on the the Help link of the Navigation on the left side of the page to get information about the Browse Options page.
- Click on the browser's "Back" button to return to the Browse Options page.
- Click on the "View Image" button to see the browse product.

  ** Browse in Progress Screen will update based on the progress of the search, then switches to the "Browse Product" page.*
- Click on the browser's "Back" button to return to the Browse Options page.
- Click on the "Browse data" links to see the other data associated with the granule.

- Click on the browser's "Back" button after viewing the browse data to return to the "Browse Options" page.

19. Click on the browser's "Back" button to return to the "Granule List: Listing" page.

20. Click on "Request Sample" button for the same granule that you had selected for the "View Image". Note: DLR does NOT support FTP Browse.

    ** A page titled "FTP Browse: User information needed" will be displayed because your Contact address from User Preferencess isn't filled out.*

    - Click on the the Help link of the navigator on the left side of the form to get information about the User Information for FTP Browse page.
    - Click on the browser's "Back" button to return to the "User Information" page.
    - Use "Just" for firstname and "Kidding" for lastname and fill out ALL sections of the User Information page that have their name in RED.
    - Click on the "Start the FTP browse" button. If you've made any major mistakes, you can use the "Reset this form" to erase the page.

      ** The "FTP-browse in progress" page appears more-or-less briefly, then switches to the "FTP Browse: Browse Product Requested" page.*

      ** "Browse Product Requested" page displays information (Contact Name,Phone, etc...) about the DAAC the request was sent to. The DAAC will send email to your email account, notifying you how to obtain the hdf product(s).*
    - If there was a Status Code Comment from the DAAC, it will appear in a section titled "Initial Response. (Data from STUB should have this.)
    - If the DAAC supplied URLs pointing to data, they will be found in the "Links to actual data" section. Click on these links to verify that they work.
    - Scroll down the page to the sentence "To see the final communication status screen of the last search which was performed, go here" and click on the hyperlink "here".

      ** You should see the "FTP-browse Completed" page.*
    - Verify that any Status Code Comment also appears on this page as well. Click the "Back" button to return to the "Browse Product Requested" page.
    - Click on the the Help link of the navigator on the left side of the form to get information about the "Browse Product Requested" page.

      ** You should see the "Browse Product Requested" help page.*
    - Click the browser's "Back" button until you return to the "Granule List: Listing" page.

21. If there is a button "Other Links", click on it. This should take you to the "Links to related data/information" section of the "Granule attributes" page.

- Verify that each of the "Actual data" and "Browse data" links works.
- Examine the "Browse products I have fetched..." section and make sure that there are images there.
- Scroll past the image, click on the button that looks like a clamp on a disk. In Netscape 2.0+ and Internet Explorer 4.0+, a window will pop up. Under the Selection area change the name from xxx.hdf to Test.hdf, then click on the "OK" button. This file will be saved to your system.
- As of the release of 2.2, the Web Gateway converts all 8 bit images into Gifs and Jpegs, and 24 bit images are converted to Jpegs only. Both image types still display any metadata associated with the individual images.

  Based on the type (8/24 bit) of images being converted, will results in a different type of table being displayed. For instance, an 8 bit image will have the following columns : JPEG/GIF/METADATA(if available). Where as a 24 bit image would only display the JPEG/METADATA(if available) columns.

  Click on the button(s) that is labeled "JPEG". This button displays a JPEG image only ; no text displayed.
- Click on the browser's "Back" button to return to the "Data Granule Attributes" page.
- Click on the button(s) that is labeled "GIF". This button displays a GIF image only ; no text displayed.
- Click on the browser's "Back" button to return to the "Data Granule Attributes" page.
- Click on the button(s) that resemble a "Tape Reel". This button displays any Metadata information that is associated with that image.
- Click on the browser's "Back" button to return to the "Data Granule Attributes" page.

22. If you do try DLR-DFD's Request Sample:

    ** If you get the "User Information" page, use "Just" for firstname and "Kidding" for lastname and fill out ALL sections of User Information page that have their name in RED... Then click on the "Start the FTP browse" button.*

    ** After the Communication Screen finishes, (The STATUS message displays FAILED) the Data Center Comments should say:*

    ```
    "Unsupported function"
    ```

23. Click on the browser's "Back" button until you return to the "Granule List: Listing" page.
24. Repeat steps 13-20 until you've tested a browse image from each of the DAACs in the list.

    Test browse images from the Folder

25. Click on the "My Folder" item of the navigator. The Folder should contain one granule from each DAAC.

26. Click on any "View Image" button.

    ** Browse in Progress Screen will update based on the progress of the search.*

    ** If there is a single browse product available, you will see the "Browse Product" screen. If there are multiple products, you'll get the "Browse Options" screen (data from STUB will appear in this manner).*

27. If you get the "Browse Product" screen:

    ** The browse image is displayed and options to view the individual images are provided.*

    - Scroll past the image, click on the button that looks has a clamp on a disk. In Netscape 2.0+, a window will pop up. Under the Selection area change the name from xxx.hdf to Test.hdf. This file will be saved to your system.
    - Click on the button(s) that resemble a Lady's Eye. This button displays the image only; no text displayed.
    - Click on the browser's "Back" button to return to the "Browse Product" page.

28. If you get the "Browse Options" screen:

    - Click on the "View Image" button to see the browse product.

      ** Browse in Progress Screen will update based on the progress of the search, then switches to the "Browse Product" page.*
    - Click on the browser's "Back" button to return to the Browse Options page.
    - Click on the "Browse data" links to see the other data associated with the granule.
    - Click on the browser's "Back" button after viewing the browse data to return to the "Browse Options" page.

29. Click on the "My Folder" item of the navigator.

    ** Return to the "My Folder: Listing" page.*

30. Click on "Request Sample" button for the same granule that you had selected for the "View Browse". Note: DLR does NOT support FTP Browse.

    ** If you get the "User Information" page, use "Just" for firstname and "Kidding" for lastname and fill out ALL sections of User Information page that have their name in RED... Then click on the "Start the FTP browse" button.*

    ** FTP-Browse in Progress Screen will update based on the progress of the search.*

** The "FTP Browse: Browse Product Requested" page displays information (Contact Name,Phone, etc...) about the DAAC the request was sent too. The DAAC will send email to your email account, notifying you how to obtain the hdf product(s).*

31. If you do try DLR-DFD's Request Sample:

    ** If you get the "User Information" page, use "Just" for firstname and "Kidding" for lastname and fill out ALL sections of User Information page that have their name in RED... Then click on the "Start the FTP browse" button.*

    ** After the Communication Screen finishes,(The STATUS message displays FAILED) the Data Center Comments should say :*

    ```
    "Unsupported function"
    ```

32. Click on the browser's "Back" button until you return to the "My Folder: Listing" page.

33. If there is a button "Other Links", click on it. This should take you to the "Links to related data/information" section of the "Granule attributes" page.

    - Verify that each of the "Actual data" and "Browse data" links works.
    - Examine the "Browse products I have fetched..." section and make sure that there are images there.
    - Scroll past the image, click on the button that looks like a clamp on a disk. In Netscape 2.0+ and Internet Explorer 4.0+, a window will pop up. Under the Selection area change the name from xxx.hdf to Test.hdf. This file will be saved to your system.
    - Click on the button(s) that resemble a Lady's Eye. This button displays the image only ; no text displayed.
    - Click on the browser's "Back" button to return to the "Granule Attributes" page.
    - Click on the "Request Sample" button.

      ** If you get the "User Information" page, use "Just" for firstname and "Kidding" for lastname and fill out ALL sections of User Information page that have their name in RED... Then click on the "Start the FTP browse" button.*

      ** The "FTP Browse in Progress" page appears, then switches to the "Browse Product Requested" page.*
    - If there was a Status Code Comment from the DAAC, it will appear in a section titled "Initial Response". (Data from STUB should have this.)
    - If the DAAC supplied URLs pointing to data, they will be found in the "Links to actual data" section. Click on these links to verify that they work.

- Scroll down the page to the sentence "To see the final communication status screen of the last FTP_BROWSE which was performed, go here" and click on the hyperlink "here".

  ** You should see the "FTP-browse Completed" page.*
- Verify that any Status Code Comment also appears on this page as well. Click the "Back" button to return to the "Browse Product Requested" page.
- Click on the the Help link from the navigator to get information about the "Browse Product Requested" page.

  ** You should see the "Browse Product Requested" help page.*

34. Click the browser's "Back" button until you return to the "My Folder: Listing" page.
35. Repeat steps 23-31 until you've tested a browse image from each of the DAACs in the list.

1.10 Test script for Links

Purpose: Test links on the Welcome page and the User Support page.

Application: Web Gateway version 2.1

1. Go to the desired URL of the version to be tested. ie: `http://harp.gsfc.nasa.gov/~imswww/beta/imswelcome/index.html`
2. Test all of the links on the *Welcome Page*. Confirm that the correct page/information is displayed after clicking on the desired link. Once the link is tested, hit the **Back** button to test the next link.

   (a) **EOSDIS IMS Home Page** (from first paragraph).

   (b) **Account Sign-in** button and **Sign-in** text link.

   (c) **Create Account** button and **Create** text link.

   (d) **Compose a Search** button and text link.

   (e) **Alternate Site** button and text link.

   (f) **FAQ** button and text link.

   (g) **Sample Data Products** button and text link.

   (h) **Participating Data Archives** button and text link.

   (i) **Browser Test** button and text link.

   (j) **Glossary** button and text link.

   (k) **GCMD** button and text link.

   (l) **Related Sites** button and text link.

(m) **The User Manual** button, text link, and postscript download.
(n) **EOSDIS IMS** text link.
(o) **Send us your comments** text link.
(p) **Kenneth.R.McDonald.1@gsfc.nasa.gov** text link.
(q) **Full contact information** text link.

3. Click on **Compose a Search**. You'll get the default inventory search form.

4. Click on the Switch to... **Advanced Form** button. You'll get the "Advanced Search Form: Data Search and Order (Inventory)".

5. Test the **Help** item of the Navigator on the left side of the form. Confirm that the "Data Search and Order (Inventory) Form" help page is displayed. Once the link is tested, hit the **Back** button of the browser to test the next link. Test all of the small **help** buttons on the search form page. Confirm that the correct page/information is displayed after clicking on the desired button/link. Once the link is tested, hit the **Back** button of the browser to test the next link.

   (a) **Search Type**
   (b) **Geographic Region**
   (c) **Parameter**
   (d) **Data Set**
   (e) **Sensor**
   (f) **Data Center**
   (g) **Source**
   (h) **Campaign**
   (i) **Processing Level**
   (j) **Time Range**
   (k) **Search Options**

6. Click on the **Comments** item of the navigator on the left side of the page. Verify that a separate browser appears with the "User Comments" form. Submit a comment to our problem reporting system. Verify that the next page is: *Comment Sent*. Close the browser containing the "Comment Sent" form.

7. Click on the **User Support** item on the navigator. Check all of the links on the *User Support* Page. Confirm that the correct page/information is displayed after clicking on the desired link. Once the link is tested, hit the **Back** button to test the next link.

   (a) **User Support Contact Information**
   (b) **FAQ (Frequently Asked Questions)**
   (c) **The Glossary of Terms**

(d) **The User Manual**
(e) **The User Manual in Postscript format**
(f) **Statistics**
(g) **EOSDIS Home Page**
(h) **EOSDIS V0 GUI Client**
(i) **EOSDIS V0 Home Page**
(j) **GCMD Home Page**
(k) **MTPE Home Page**
(l) **EOSDIS V0**
(m) **Send us your comments**
(n) **Kenneth.R.McDonald.1@gsfc.nasa.gov**
(o) **Full contact information**

8. Click on the **Select criteria** item of the navigator on the left side of the form. On the *Advanced Search Form: Data Search and Order (Inventory)* form select the **Detailed Document Search (Guide)** type in section 1. You'll get the *Advanced Search Form: Detailed Document Search (Guide)* form. Test the **Help** item of the navigator on the left side of the form. Confirm that the correct page is displayed. Once the link is tested, hit the **Back** button. Test the small **Help** button in the *Guide Text* area on the search form page. Confirm that the correct page/information is displayed. Once the link is tested, hit the **Back** button.

9. Click on the **Summary Document Search (Directory)** in the search type in section 1. You'll get the *Advanced Search Form: Summary Document Search (Directory)* form. Test the **Help** item of the navigator on the left side of the form. Confirm that the correct page is displayed. Once the link is tested, hit the **Back** button.

10. Click on the **Data Granule ID** in the search type in section 1. You'll get the *Advanced Search Form: Data Granule ID Search* form. Test the **Help** item of the navigator on the left side of the form. Confirm that the correct page is displayed. Once the link is tested, hit the **Back** button. Test the small **Help** button in the *Granule ID* area on the search form page. Confirm that the correct page/information is displayed. Once the link is tested, hit the **Back** button.

1.11 Test ordering to all Data Centers script.

Purpose: To confirm that all DAACs are receiving and notifying users when an order is placed.

Application: Web Gateway version 2.1

Key: *: Description of what should be displayed after step is performed

1. Go to the desired URL of the version to be tested. ie:
   `http://harp.gsfc.nasa.gov/~imswww/beta/imswelcome/index.html`
2. Click on "Compose a Search".
3. From the list of links on the left side of the page, click on "User Preferences".
4. Fill in all the address fields (plus the Your affiliation) except the following:

   ```
   First and Last Name fields.
   ```

   If you do have an authenticator for ASF then:

   Please fill in the authenticator and the corresponding first and last name.

   Else:

   ```
   Please send email to imswww-dev@harp.gsfc.nasa.gov requesting our
   test ASF authenticator by providing your name and phone number
   where you can be reached. After receiving the name and
   authenticator, fill in those blank fields.
   ```

5. Next to "Please set the default for the search form to ..." change "SIMPLE" to "ADVANCED".
6. Now select the "OK! Accept All Options !" button to update your preferences.
7. From the navigator buttons on the left side of the page, click on "Select Criteria".
8. Build a search with the following criteria:
   - Type of Search: Inventory
   - Range:

     ```
       56.0000ř to 55.0000ř Lat
     -161.0000ř to -75.0000ř Lon
     ```

   - Data Center:

     ```
     ASF;
     BOM;
     CCRS;
     DLR-DFD;
     EDC;
     EURIMAGE;
     GHRC;
     GSFC;
     HEOC;
     JPL;
     LARC;
     NOAA-SAA;
     NSIDC;
     ORNL
     ```

- Parameters:

```
   AIR TEMPERATURE;
BRIGHTNESS TEMPERATURE;
INFRARED IMAGERY;
RADAR BACKSCATTER;
RADIANCE;
SEA SURFACE TEMPERATURE
```

- Change: Max number of granules per data set from 10 to 1.

9. Click on "Start Search".
   ** "Search in Progress" page.*
   NOTE: After ~ 20 minutes, you should have results or you may use the Web Gateway’s STOP button. Not all DAACs may return results because of their availability.

10. When the search is completed, the "Results: Data Search and Order Results" page will automatically be loaded for you.

11. Select 1 dataset from ASF.

12. Click on the "Put granules (returned from selected data sets) into shopping cart" button.

13. Click on the "Order Options" button.

    Choose a package info for the ASF granule. At the top of the package page, please select a user account to withdraw from and then click on "OK! Accept my choice & return..." button to return to the shopping cart.

    Note: The Web Gateway’s account(s) are bogus and are meant for test purposes only.

14. Click on "Go to Step 2: Order Form" at the top of the Page.

15. At the Order Form page, the page should already be filled out.

    ** Make sure the cart is emptied after the order has been placed.*

16. When the User information has been filled out, Click on "Go to Step 3: Review Manifest"

17. Review the Shipping Manifest.

18. "Go to Step 4: Submit Order!"

19. Order in progress... Page will be displayed. After the order has been placed then the "Order Submitted!" page will be displayed. You should also receive two emails messages. (The first one lists your granules you ordered; the second notifies you if the order was placed successfully.)

20. Wait. The DAACs will respond by email, notifying that they have received the order. Count this as a successful reply.

21. Return to the "Results: Data Search and Order Results" by clicking on the "View Results" button.

22. Select 1 dataset from each of the remaining DAACs (since we've already tested ASF).

23. Click on the "Put granules (returned from selected data sets) into shopping cart" button .

    ** Shopping Cart: Step 1: Choose Ordering Options.*

24. Click on the "Order Options" button for each granule listed that has such a button.

    ** The "Order Options" button denotes which granules you need to choose package info for.*
    ** Some CINTEX sites don't have package information, so the orders are sent via email (an email icon will denote an email order).*

25. Click on "Go to Step 2: Order Form" at the top of the Page.

26. At the Order Form page, the page should already be filled out. Please replace the First and Last name fields with your real name.

    ** Can't use "Just" and "Kidding" here.*

27. Click on "Go to Step 3: Review Manifest"

28. Review the Shipping Manifest.

29. Click on "Go to Step 4: Submit Order!"

30. Order in progress... Page will be displayed. After the order has been placed then the "Order Submitted!" page will be displayed. You should also receive two emails messages. (The first one lists your granules you ordered; the second notifies you if the order was placed successfully.)

31. Wait. The DAACs will respond by email notifying that they received the order. Count this as a successful reply. CINTEX sites have taken days to respond to a product request.

    *** NOAA's order will Fail because we don't have an authenticator for them.*

1.12 Test Script for Limit Size of Orders Based on Media Size

Purpose: Script to test functionality of Order Limits based on Media Size.

Application: Web Gateway version 3.5

1. Go to the desired URL of the version to be tested. ie:
   `http://harp.gsfc.nasa.gov/~imswww/beta/imswelcome/index.html`
2. Click on "Enter as Guest" or "Enter as Registered User".
3. Create an inventory search to data center "STUB".
4. When you get results, select data set "ASTER L1B REGISTERED RADIANCE AT THE SENSOR V002", then click on the "List granules" button.
5. From the Granules listing page, select a minimun of 4 granules with size 5.410110, then click on the "Add selections to Cart" button.
6. Press the "Choose Options" link, select "DLT" as the media type. Make sure the following radio button is selected: "I want these ordering options for every data granule that applies to this data set in the shopping cart."
7. Click on the "Ok! Accept my choice & return to the shopping cart!" button.
8. A warning message similar to this should appear on the shopping cart:

   Order options for granule SC:AST_L1BT.001:20988 were not saved because you would have exceeded the size limit of 20 MB per order imposed by data center STUB for media type DLT.

   You have two options:

   1) Submit a partial order for those granules in the cart which are ready to order and then submit a second order for the remaining granules or

   2) Select a different media type for the remaining data granules in the shopping cart.
9. The link "Submit a Partial Order" should appear on top of the cart listing. Only three of the granules should have ordering options set, the other granules should appear with no ordering options selected.
10. Click the "Submit a Partial Order" link. The order contact information page will be displayed. Press the "Submit Order now!" button.
11. The order will be submitted, review the receipt and make sure only the items with ordering options selected were submitted.
12. Click on the "Shopping Cart" navigator link.
13. The shopping cart form will be display, make sure that only the items previously in the cart with no ordering options are there.
14. Click on the "Empty Entire Shopping Cart" link.
15. The shopping cart form should be displayed with a message that it is empty.
16. Click on the " Results: Granule" navigator link.

17. From the Granules listing page, select a minimun of 3 granules with any size, then click on the "Add selections to Cart" button.
18. Press the "Choose Options" link, select "FtpPull" as the media type. Make sure the following radio button is selected: "I want these ordering options for every data granule that applies to this data set in the shopping cart."
19. Click on the "Ok! Accept my choice & return to the shopping cart!" button.
20. A warning message similar to this should appear on the shopping cart:

    Order options for granule SC:AST_L1BT.001:20988 were not saved because you would have exceeded the size limit of 2 granules per order imposed by data center STUB for media type FtpPull.

    You have two options:

    1) Submit a partial order for those granules in the cart which are ready to order and then submit a second order for the remaining granules or

    2) Select a different media type for the remaining data granules in the shopping cart.
21. The link "Submit a Partial Order" should appear on top of the cart listing. Only two of the granules should have ordering options set, the other granules should appear with no ordering options selected.
22. Repeat steps 10-13.

1.13 Test Script for Java Map Selection Applet (Mapplet)

Purpose: Test the applet itself and its integration with the rest of the IMS/WWW gateway.

Application: Web Gateway version 2.3

1. Make an initial selection and verify basic function:

    (a) From the *Welcome page* hit **"Compose a Search"**.

    - *You should now see the main "Simple Search Form: Data Search and Order (Inventory)" page.*

    (b) Click on **Switch to... Advanced Form** button.

    - *You should now see the main "Advanced Search Form: Data Search and Order (Inventory)" page.*

    (c) Select the **Geographic Region** icon or **Edit** button in section 2.

    - *You should now see the "Select: Geographic Region" page.*

(d) Select "Orthographic Map (Java)" in the region selection pull-down menu.

(e) Click the **OK!** button.

- *The "Select: Geographic Region" page appears. There should be a message beginning "Note: if you don't see "Java is enabled" below this message ..."*
- *After a few moments, the Applet should appear.*

(f) Examine the applet for the following items:

- A small **reference globe** in the upper left-hand corner. This should have only land-mass boundaries and latitude-longitude lines, and has no scroll bars associated with it.
- A larger **selection globe** on the right. This globe should have political boundaries, lakes, and rivers indicated as well as land-mass boundaries. The should be a scroll bar to the right of as well as below this globe, with the "thumbs" centered.
- A menu of Map Options above the reference globe in the upper left-hand corner.
- The Map Options menu contains five menu items: *Corner Points*, *Map Display Options*, *Clear All Fields*, *Revert to Last Stored Value*, and *Help*.
- On the left side of the display, there are two **type-in** boxes headed *Map Center:* and labeled *Lat* and *Lon*.
- Below the type-ins, there is a **pull-down menu** headed *Zoom:* and currently reading *1x*.
- Below this, there are two more **buttons** labeled *OK* and *Cancel*.
- At the very bottom is a pull-down menu for selecting where to go after finishing with this screen.

(g) Click to the left of Africa, hold the mouse button down, and drag down and right to select an area.

- *You will see a "rubber-band" rectangle showing the current extent of your selection.*

(h) Click the `OK` button.

- *You will see a small pop-up window that says "Please be patient while we update...".*
- *Depending on the speed of your connection, you may see a "Connected to server" line in the scrolling text area.*
- *The applet will close, and you will see the "Select: Geographic Region" page again.*
- *This will quickly change to the main search form. Check that the geographic region is displayed with correct values.*

2. Check the context-sensitive help for the applet, and automatic cleanup of the applet window.

(a) Select the **Geographic Region** icon or **Edit** button in section 2.

   - *You should now see the "Select: Geographic Region" page.*

(b) Verify that the region selection pull-down menu says "Orthographic Map(Java)" (this should be the default).

(c) Click the **OK!** button.

   - *The "Select: Geographic Region" page appears. There should be a message beginning "Note: if you don't see "Java is enabled" below this message ..."*
   - *After a few moments, the Applet should appear.*

(d) Bring the browser window to the front, and click the blue **Help** link on the left side of the page.

   - *You'll see the Help page for the Geographic Region Selection Page..*
   - *If the applet window had appeared, you should see it disappear again.*

(e) Click the browser's **Back** button.

   - *You should now see the "Select: Geographic Region" page again, and the applet should reapppear.*

(f) Click on the **Map Options** menu, then select the **Help** menu item.

   - *A new browser window will open with the Help page for the Geographic Region Selection Page..*

(g) Close the new browser window and return to the applet.

3. Verify reloading of parameters, basic scrolling, and test "Clear" and "Revert" menu items.

   (a) Select the **Corner Points** menu item in the **Map Options** menu.

   - A pop-up window should appear with a **table** containing columns labeled *Point*, *Latitude*, and *Longitude*, and four rows, and a "CLOSE" button.

   (b) Look at the table of points in the pop-up window, and verify that these match the previous selection.

   - *There should be four pairs of latitudes and longitudes.*

   (c) Hold down the left mouse button as you click on the top bar of the corner points pop-up window and move the pop-up window to the right.

   (d) Verify that the selection is shown on the selection map.

   - *There should be a rectangle equivalent to the points displayed in the table.*

   (e) Click a few times in the scroll bars to change the current center of the globe.

- *You should see a different view of the globe, with no change in the actual selection.*
- *The reference globe should change orientation to match the selection globe.*

(f) Click the `Clear All Fields` menu item.

- *The map center should return to 0.0, 0.0.*
- *The table of points in the corner points pop-up window should now be empty.*
- *Both the reference globe and the selection globe should return to the neutral position.*

(g) Click the `OK` button.

- *Another window should appear, titled "Warning!", and containing the message* ***"You have cleared your former geographic selection. Are you sure you want to do this?"***

(h) In the "Warning!" window, click "Cancel".

- *The "Warning!" window disappears.*
- *The main applet window remains.*
- *The Corner Points window remains.*

(i) Use the scroll bars to scroll away from the neutral position.

- *Both globes move to a different orientation.*

(j) Make a new selection in this orientation.

- *The table of points in the Corner Points window and the selection globe show the new selection.*

(k) Click "Revert to Last Stored Value" menu item in the Map Options menu.

- *The map returns to the position it was originally in when the applet window opened.*
- *The table and selection globe show the original selection again.*

(l) Click "Clear All Fields" again.

- *The selection is cleared again.*
- *The globes return to neutral position.*

(m) Click the "CLOSE" button in the corner points pop-up window.

- *The "Corner Points" pop-up window disappears.*

(n) Click `OK` again.

- *The "Warning!" window pops up again.*

(o) Click "OK" in the "Warning!" window.

- *Both windows disappear.*

(p) After a moment, the browser window switches to the main search form.

- *There is now no geographic selection.*

4. Test "Map Options", type-ins, and zoom.

   (a) Select the **Geographic Region** icon or **Edit** button in section 2.

   - *You should now see the "Select: Geographic Region" page.*

   (b) Verify that the region selection pull-down menu says "Orthographic Map(Java)" (this should be the default).

   (c) Click the **OK!** button.

   - *The "Select: Geographic Region" page appears. There should be a message beginning "Note: if you don't see "Java is enabled" below this message ..."*
   - *After a few moments, the Applet should appear.*

   (d) Click the "Map Display Options" menu item in the "Map Options" menu.

   - *You should see a new window containing the following:*
     - The **label** "Select any of these options:"
     - A **pull-down menu** labeled "Projection:" whose value is fixed at "ortho".
     - A **pull-down menu** labeled "Grid spacing:" whose default value is "20" and which contains the entries "None:, "1", "2", "5", "10", and "20".
     - A **checkbox**, currently checked, labeled "Rivers & Lakes Overlay".
     - A **checkbox**, currently checked, labeled "Political Boundaries Overlay".
     - A **button** labeled "CLOSE".

   (e) Click on "Projection", verifying that only the "ortho" choice is available.

   - *This pull-down menu should contain only one entry corresponding to the current value.*

   (f) Change the `grid spacing` popup to "None".

   - *The grid spacing on the selection globe should disappear.*
   - *Nothing else should change.*

   (g) Uncheck the "Rivers & Lakes" checkbox.

   - *The rivers and lakes should vanish from the selection globe.*

   (h) Recheck the "Rivers & Lakes" checkbox and uncheck the "Political boundaries" checkbox.

   - *The rivers and lakes should reappear, and the political boundaries should disappear.*

   (i) Click the "CLOSE" button.

- *The "Map Options" window disappears.*

(j) Click on the "Lon" type-in box in the main applet window, and change the current value to -160. Hit Return.

- *The globe centers up on the Pacific, with Hawaii almost in the middle.*

(k) Click on the "Lat" type-in box in the main applet window, and change the value to 20. Hit Return.

- *The map centers up just to the west of Hawaii.*

(l) Change the zoom pull-down menu to "2x".

- The selection globe zooms in closer.
- The reference globe stays the same.

(m) Change the zoom pull-down menu to "4x".

- The selection globe zooms in even closer.
- The reference globe stays the same.

(n) Change the zoom pull-down menu to "8x".

- The selection globe zooms in even closer.
- The reference globe stays the same.

(o) Change the zoom pull-down menu to "16x".

- The selection globe zooms in very close indeed.
- The reference globe stays the same.

End script

1.14 Test Script for Java Map Selection Applet (Mapplet)

Purpose: Test the applet itself and its integration with the rest of the IMS/WWW gateway.

Application: Web Gateway version 3.0

1. Make an initial selection and verify basic function:

   (a) Select "Orthographic Map (Java)" toggle button.

   - *The "Select: Geographic Region" page appears. There should be a message beginning "Note: if you don't see "Java is enabled" below this message ..."*
   - *After a few moments, the Applet should appear.*

   (b) Examine the applet for the following items:

- A small **reference globe** in the upper left-hand corner. This should have only land-mass boundaries and latitude-longitude lines, and has no scroll bars associated with it.
- A larger **selection globe** on the right. This globe should have political boundaries, lakes, and rivers indicated as well as land-mass boundaries. The should be a scroll bar to the right of as well as below this globe, with the "thumbs" centered.
- A menu of Map Options above the reference globe in the upper left-hand corner.
- The Map Options menu contains five menu items: *Corner Points*, *Map Display Options*, *Clear All Fields*, *Revert to Last Stored Value*, and *Help*.
- On the left side of the display, there are two **type-in** boxes headed *Map Center:* and labeled *Lat* and *Lon*.
- Below the type-ins, there is a **pull-down menu** headed *Zoom:* and currently reading *1x*.
- Below this, there are two more **buttons** labeled *OK* and *Cancel*.
- At the very bottom is a pull-down menu for selecting where to go after finishing with this screen.

(c) Click to the left of Africa, hold the mouse button down, and drag down and right to select an area.

- *You will see a "rubber-band" rectangle showing the current extent of your selection.*

(d) Click the `OK` button.

- *You will see a small pop-up window that says "Please be patient while we update...".*
- *Depending on the speed of your connection, you may see a "Connected to server" line in the scrolling text area.*
- *The applet will close, and you will see the "Select: Geographic Region" page again.*
- *This will quickly change to the main search form. Check that the geographic region is displayed with correct values.*

2. Check the context-sensitive help for the applet, and automatic cleanup of the applet window.

(a) Verify that the darkened toggle button says "Orthographic Map(Java)" (this should be the default). Click on that toggle button.

- *The "Select: Geographic Region" page appears. There should be a message beginning "Note: if you don't see "Java is enabled" below this message ..."*
- *After a few moments, the Applet should appear.*

(b) Bring the browser window to the front, and click the blue **Help** link on the top of the page.

- *You'll see the Help page for the Geographic Region Selection Page..*
- *If the applet window had appeared, you should see it disappear again.*

(c) Click the browser's **Back** button.

- *You should now see the "Select: Geographic Region" page again, and the applet should reapppear.*

(d) Click on the **Map Options** menu, then select the **Help** menu item.

- *A new browser window will open with the Help page for the Geographic Region Selection Page..*

(e) Close the new browser window and return to the applet.

3. Verify reloading of parameters, basic scrolling, and test "Clear" and "Revert" menu items.

(a) Select the **Corner Points** menu item in the **Map Options** menu.

- A pop-up window should appear with a **table** containing columns labeled *Point*, *Latitude*, and *Longitude*, and four rows, and a "CLOSE" button.

(b) Look at the table of points in the pop-up window, and verify that these match the previous selection.

- *There should be four pairs of latitudes and longitudes.*

(c) Hold down the left mouse button as you click on the top bar of the corner points pop-up window and move the pop-up window to the right.

(d) Verify that the selection is shown on the selection map.

- *There should be a rectangle equivalent to the points displayed in the table.*

(e) Click a few times in the scroll bars to change the current center of the globe.

- *You should see a different view of the globe, with no change in the actual selection.*
- *The reference globe should change orientation to match the selection globe.*

(f) Click the `Clear All Fields` menu item.

- *The map center should return to 0.0, 0.0.*
- *The table of points in the corner points pop-up window should now be empty.*
- *Both the reference globe and the selection globe should return to the neutral position.*

(g) Click the `OK` button.

   - *Another window should appear, titled "Warning!", and containing the message* ***"You have cleared your former geographic selection. Are you sure you want to do this?"***

(h) In the "Warning!" window, click "Cancel".

   - *The "Warning!" window disappears.*
   - *The main applet window remains.*
   - *The Corner Points window remains.*

(i) Use the scroll bars to scroll away from the neutral position.

   - *Both globes move to a different orientation.*

(j) Make a new selection in this orientation.

   - *The table of points in the Corner Points window and the selection globe show the new selection.*

(k) Click "Revert to Last Stored Value" menu item in the Map Options menu.

   - *The map returns to the position it was originally in when the applet window opened.*
   - *The table and selection globe show the original selection again.*

(l) Click "Clear All Fields" again.

   - *The selection is cleared again.*
   - *The globes return to neutral position.*

(m) Click the "CLOSE" button in the corner points pop-up window.

   - *The "Corner Points" pop-up window disappears.*

(n) Click `OK` again.

   - *The "Warning!" window pops up again.*

(o) Click "OK" in the "Warning!" window.

   - *Both windows disappear.*

(p) After a moment, the browser window switches to the main search form.

   - *There is now no geographic selection.*

4. Test "Map Options", type-ins, and zoom.

   (a) Verify that the darkened toggle button says "Orthographic Map(Java)" (this should be the default). Click on that toggle button.

   - *The "Select: Geographic Region" page appears. There should be a message beginning "Note: if you don't see "Java is enabled" below this message ..."*
   - *After a few moments, the Applet should appear.*

(b) Click the "Map Display Options" menu item in the "Map Options" menu.

- *You should see a new window containing the following:*
  - The **label** "Select any of these options:"
  - A **pull-down menu** labeled "Projection:" whose value is fixed at "ortho".
  - A **pull-down menu** labeled "Grid spacing:" whose default value is "20" and which contains the entries "None:, "1", "2", "5", "10", and "20".
  - A **checkbox**, currently checked, labeled "Rivers & Lakes Overlay".
  - A **checkbox**, currently checked, labeled "Political Boundaries Overlay".
  - A **button** labeled "CLOSE".

(c) Click on "Projection", verifying that only the "ortho" choice is available.

- *This pull-down menu should contain only one entry corresponding to the current value.*

(d) Change the `grid spacing` popup to "None".

- *The grid spacing on the selection globe should disappear.*
- *Nothing else should change.*

(e) Uncheck the "Rivers & Lakes" checkbox.

- *The rivers and lakes should vanish from the selection globe.*

(f) Recheck the "Rivers & Lakes" checkbox and uncheck the "Political boundaries" checkbox.

- *The rivers and lakes should reappear, and the political boundaries should disappear.*

(g) Click the "CLOSE" button.

- *The "Map Options" window disappears.*

(h) Click on the "Lon" type-in box in the main applet window, and change the current value to -160. Hit Return.

- *The globe centers up on the Pacific, with Hawaii almost in the middle.*

(i) Click on the "Lat" type-in box in the main applet window, and change the value to 20. Hit Return.

- *The map centers up just to the west of Hawaii.*

(j) Change the zoom pull-down menu to "2x".

- The selection globe zooms in closer.
- The reference globe stays the same.

(k) Change the zoom pull-down menu to "4x".

- The selection globe zooms in even closer.
- The reference globe stays the same.

(l) Change the zoom pull-down menu to "8x".

- The selection globe zooms in even closer.
- The reference globe stays the same.

(m) Change the zoom pull-down menu to "16x".

- The selection globe zooms in very close indeed.
- The reference globe stays the same.

End script

1.15 Test Script for Geographical Selection.

Purpose: Test the usage of all Geographical Selection components within the Web Gateway.

Application: Web Gateway 2.0 release

1.15.1 Test the Geographic Selection options.

1. Go to the desired URL of the version to be tested, e.g.:
   `http://harp.gsfc.nasa.gov/~imswww/beta/imswelcome/index.html`
2. From the *Welcome page* hit **"Compose a Search"**.
   - *You should now see the main "Simple Search Form: Data Search and Order (Inventory)" page.*
3. Click on **Switch to... Advanced Form** button.
   - *You should now see the main "Advanced Search Form: Data Search and Order (Inventory)" page.*

Check equatorial selection.

(a) Click on the **Geographic Region** icon.

(b) Click on the region selection pull-down menu and select: **Equatorial Map**. On the *Select: Geographic Region* page, click on **OK!**.

(c) Verify that the equatorial map is displayed.

(d) Select the first point of your search rectangle.

(e) Select the opposite corner of your search rectangle.

(f) Verify the selected region is correct.
(g) Click on the map in a different region to respecify the region.
(h) Click a second point to complete the respecification.
(i) Verify the new region is correct.
(j) Click **OK!** to return to the *Data Search And Order* form.
(k) Verify that the geographic selection in the *Geographic Region* section of the page is correct.

Check small equatorial map selection.

(a) Click on the **Geographic Region** icon.
(b) On the *Select: Geographic Region* page, click on the pull-down menu and change it to **Equatorial Map (small)**.
(c) Click the **OK!** button.
(d) Verify that the small equatorial map is displayed.
(e) Select the first point of your search rectangle.
(f) Select the opposite corner of your search rectangle.
(g) Verify the selected region is correct.
(h) Click on the map in a different region to respecify the region.
(i) Click a second point to complete the respecification.
(j) Verify the new region is correct.
(k) Click **OK!** to return to the *Data Search And Order* form.
(l) Verify that the geographic selection in the *Geographic Region* section of the page is correct.

Test north-pole map selection.

(a) Click on the **Geographic Region** icon.
(b) On the *Select: Geographic Region* page, click on the pull-down menu and change it to **Stereographic N-Pole**.
(c) Click the **OK!** button.
(d) Verify that the stereographic north-pole map is displayed.
(e) Select the first point of your search rectangle.
(f) Select the opposite corner of your search rectangle.
(g) Verify the selected region is correct.
(h) Click on the map in a different region to respecify the region.
(i) Click a second point to complete the respecification.
(j) Verify the new region is correct.
(k) Click **OK!** to return to the *Data Search And Order* form.
(l) Verify that the geographic selection in the *Geographic Region* section of the page is correct.

Test south-pole map selection.

(a) Click on the **Geographic Region** icon.
(b) On the *Select: Geographic Region* page, click on the pull-down menu and change it to **Stereographic S-Pole**.
(c) Click the **OK!** button.
(d) Verify that the stereographic south-pole map is displayed.
(e) Select the first point of your search rectangle.
(f) Select the opposite corner of your search rectangle.
(g) Verify the selected region is correct.
(h) Click on the map in a different region to respecify the region.
(i) Click a second point to complete the respecification.
(j) Verify the new region is correct.
(k) Click **OK!** to return to the *Data Search And Order* form.
(l) Verify that the geographic selection in the *Geographic Region* section of the page is correct.

Verify row/path data entry.

(a) Click on the **Geographic Region** icon.
(b) On the *Select: Geographic Region* page, click on the pull-down menu and change it to **Type in Path/Row**.
(c) Click the **OK!** button.
(d) Enter the following coordinates:

```
Start path      End path
    1               1

Start row       End row
    1               1

WRS scheme WRS-2 (WRS-2 is the default for the pull-down menu.)
```

(e) Click on **OK!**. You should return to the *Data Search And Order* form.
(f) Verify the following appears in the *Geographic Region* section of the search form:

```
Geographic Region:
   North latitude: 81.8449
   South latitude: 79.7141
   West longitude: -3.4826
   East longitude: 9.2829
Path-row range:
   Paths: 1 - 1
   Rows: 1 - 1
   WRS Scheme: WRS-2
```

Test GLOBAL GRANULES ONLY selection

(a) Click on the **Geographic Region** icon.

(b) Select **I want GLOBAL GRANULES ONLY** in the right-hand pop-up menu.

(c) Click **OK!** to return to the *Data Search And Order* form.

(d) Verify the text "Global granules only" appears under "Geographic Region" and "MAP NOT AVAILABLE" is displayed in the table box to the right.

Test latitude/longitude entry (decimal format).

(a) Click on the **Geographic Region** icon.

(b) On the *Select: Geographic Region* page, click on the pull-down menu and change it to **Type in Lat/Lon Range**.

(c) Click the **OK!** button.

(d) Enter the following coordinates:

```
                  Northern-most latitude
                          56.0
   Western longitude                     Eastern longitude
        -161.0                                -160.0
                  Southern-most latitude
                          55.0
```

(e) Click **OK!** to return to the *Data Search And Order* form.

(f) Verify that the geographic selection in the *Geographic Region* section of the page is correct.

Test latitude/longitude entry (degree:minute:second format)

(a) Click on the *Geographic Region* icon.

(b) Click the **OK!** button. The pull-down menu should already read **Type in Lat/Lon Range**.

(c) Enter the following coordinates:

```
                  Northern-most latitude
                          56:30:30
   Western longitude                     Eastern longitude
       -161:30:30                           -160:30:30
                  Southern-most latitude
                          55:30:30
```

(d) Click **OK!** to return to the *Data Search And Order* form.

(e) Verify that the geographic selection in the *Geographic Region* section of the page is correct.

```
Geographic Region:
   North latitude:   56.5083
   South latitude:   55.5083
   West longitude: -161.5083
   East longitude: -160.5083
```

Check the Java Mapplet selection.

4.

End script

1.16 Test Script for Geographical Selection from Improved Search Page.

Purpose: Test the usage of all Geographical Selection components within the Web Gateway.

Application: Web Gateway 3.0 release

1.16.1 Test the Geographic Selection options.

1. Go to the desired URL of the version to be tested, e.g.:
   `http://lyta.gsfc.nasa.gov/~imsdev/beta/imswelcome/index.html`
2. From the *Welcome page* hit **"Enter as guest"** or **"Enter as registered user"**.
   - *You should now see the main "Search Creation: Data Search and Order (Improved)" page.*

   Check equatorial selection.

   (a) Scroll down to the "Choose Search Area" section.
   (b) Click on the **Equatorial Map** toggle button.
   (c) Verify that the equatorial map is displayed.
   (d) Select the first point of your search rectangle.
   (e) Select the opposite corner of your search rectangle.
   (f) Verify the selected region is correct.
   (g) Click on the map in a different region to respecify the region.
   (h) Click a second point to complete the respecification.
   (i) Verify the new region is correct.

(j) Click on Start Search button.
(k) You should see an error message telling you to select Parameter, Sensor or Data Set.
(l) Scroll down to "Choose Search Area".
(m) Verify that the geographic region you selected is still there.

Test north-pole map selection.

(a) Click on the **Stereographic N-Pole** toggle button.
(b) Verify that the stereographic north-pole map is displayed.
(c) Select the first point of your search rectangle.
(d) Select the opposite corner of your search rectangle.
(e) Verify the selected region is correct.
(f) Click on the map in a different region to respecify the region.
(g) Click a second point to complete the respecification.
(h) Verify the new region is correct.
(i) Click on Start Search button.
(j) You should see an error message telling you to select Parameter, Sensor or Data Set.
(k) Scroll down to "Choose Search Area".
(l) Verify that the geographic region you selected is still there.

Test south-pole map selection.

(a) Click on the **Stereographic S-Pole** toggle button.
(b) Verify that the stereographic south-pole map is displayed.
(c) Select the first point of your search rectangle.
(d) Select the opposite corner of your search rectangle.
(e) Verify the selected region is correct.
(f) Click on the map in a different region to respecify the region.
(g) Click a second point to complete the respecification.
(h) Verify the new region is correct.
(i) Click on Start Search button.
(j) You should see an error message telling you to select Parameter, Sensor or Data Set.
(k) Scroll down to "Choose Search Area".
(l) Verify that the geographic region you selected is still there.

Verify row/path data entry.

(a) Click on the **Type in Path/Row Range** toggle button.

(b) Enter the following coordinates:

```
Start path      End path
    1               1

Start row       End row
    1               1
```

```
WRS scheme WRS-2 (WRS-2 is the default for the pull-down menu.)
```

(c) Click on Start Search button.

(d) You should see an error message telling you to select Parameter, Sensor or Data Set.

(e) Scroll down to "Choose Search Area".

(f) Verify that the path/row you selected is still there and that
Path-row range: Paths: 1 - 1 Rows: 1 - 1 WRS Scheme: WRS-2
is displayed.

Test GLOBAL GRANULES ONLY selection

(a) Select **GLOBAL GRANULES ONLY** toggle button.

(b) Verify the text "Global granules only" appears under "Choose Search Area" and "MAP NOT AVAILABLE" is displayed in the table box to the right.

(c) Click on Start Search button.

(d) You should see an error message telling you to select Parameter, Sensor or Data Set.

(e) Scroll down to "Choose Search Area".

(f) Verify the text "Global granules only" appears under "Choose Search Area" and "MAP NOT AVAILABLE" is displayed in the table box to the right.

Test latitude/longitude entry (decimal format).

(a) Click on the **Type in Lat/Lon Range** toggle button.

(b) Enter the following coordinates:

```
                 Northern-most latitude
                         56.0
Western longitude                        Eastern longitude
     -161.0                                   -160.0
                 Southern-most latitude
                         55.0
```

(c) Click on Start Search button.

(d) You should see an error message telling you to select Parameter, Sensor or Data Set.

(e) Scroll down to "Choose Search Area".

(f) Verify that the coordinates you entered are still there.

Test latitude/longitude entry (degree:minute:second format)

(a) The **Type in Lat/Lon Range** toggle button should be darkened.

(b) Enter the following coordinates:

```
                Northern-most latitude
                        56:30:30
Western longitude                         Eastern longitude
    -161:30:30                                -160:30:30
                Southern-most latitude
                        55:30:30
```

(c) Click on Start Search button.

(d) You should see an error message telling you to select Parameter, Sensor or Data Set.

(e) Scroll down to "Choose Search Area".

(f) Verify that the coordinates you entered are

```
North latitude:   56.5083
South latitude:   55.5083
West longitude: -161.5083
East longitude: -160.5083
```

is displayed.

Check the Java Mapplet selection.

3.

End script

1.17 Test Script for Persistency.

Purpose: To confirm that a user can create, rename, change password and sign-in into their persistent account.

Application: Web Gateway 2.2 or higher.

Go to the desired URL of the version to be tested. ie:

`http://harp.gsfc.nasa.gov/~imswww/beta/imswelcome/index.html`

1. **Create an Account while a Guest:**

    (a) Click on the **Create Account** button.

    ```
    * You will see the "Fill-in Profile for Your Account" screen:
    ```

    (b) Check the **"Help"** for "Fill-in Profile for Your Account" screen.

    (c) Try this screen several times leaving various required and unrequired fields blank. Click on the **"Continue..."** button.

    ```
    * You should get a warning about any blank required fields.
    ```

    (d) Fill-in all required fields and also fill in the "ECS User Name" only. Click on the **"Continue..."** button.

    ```
    * You should get a warning about the missing ECS password.
    ```

    (e) Fill in the "ECS User Name" and "ECS Password" fields, but this time make the "ECS User Name" contain illegal characters such as space or "!". Click on the **"Continue..."** button.

    ```
    * You should get a warning about an invalid ECS username.
    ```

    (f) Fill in the "ECS User Name" and "ECS Password" fields using valid characters. Click on the **"Continue..."** button.

    * You should see the "Create an Account" screen with the username and password initialized using the ECS username and password.

    (g) Go to **"User Preferences"** and upload a saved user profile. Click on the **"Create Account"** button at the top of the "User Preferences" Screen.

    ```
    * The "Fill-in Profile for Your Account" form should be initialized
      with your uploaded preferences.
    ```

    (h) Leave "ECS username" and "ECS password" blank and make sure all required fields are filled in. Click on the **"Continue..."** button.

    ```
    * You should see the "Create an Account" screen with the
      "Please enter an account name" field filled in with a suggested username
      created from the lastname field and last 4-digits of the telephone number.
    ```

    (i) Check the **"Help"** for the "Create an Account" screen.

    (j) Try this screen several times, leaving various fields on this page blank. Click on the **"Create Account"** button.

    ```
    * You should get a warning message about any missing fields.
    ```

    (k) Try typing two different passwords in the "Please select a Password" and "Please Confirm your Password" fields. Click on the **"Create Account"** button.

```
* You should get a warning message about the passwords being different.
```

(l) Try typing in "Please enter an account name " an account name which has illegal characters such as ! or # (Spaces, underscores, and dashes are okay). Click on the **"Create Account"** button.

```
* You should get a warning message about invalid characters in the username.
```

(m) Try typing in "Please enter an account name" an account which already exists. Click on the **"Create Account"** button.

```
* You should get a warning message about account already in use.
```

(n) Type in *Test1234* in "Please enter an account name" and correctly fill in the password fields. Click on the **"Create Account"** button.

```
* You should see the "User Account Created" screen.
  With message "User account Test1234 has been created for you"
```

(o) Check **Help** for the "User Account Created" screen.

(p) If you are currently signed-in as guest user you should see a **"Account sign-in"** button.

2. **Rename a user Account:**

(a) Go to **"User Preferences"** and click on the **"Rename Account"** button

```
* You should see the "Change Account Name" screen:
```

(b) Check the **"Help"** for the "Change Account Name" screen.

(c) Try this screen several times, leaving various fields blank. Click on the **"Change my account name"** button.

```
* You should get a warning message about the missing fields.
```

(d) Enter an account name which doesn't exist in the "Please enter your current account name account" field. Click on the **"Change my account name"** button.

```
* You should get an invalid account name or password warning.
```

(e) Enter *Test1234* in the "Please enter your current account name" field but type in a bad password in the "Please enter your Password" field. Click on the **"Change my account name"** button.

```
* You should get an invalid account name or password warning.
```

(f) Enter *Test1234* "Please enter your current account name" field and the correct password but type in an new account name with invalid characters. Click on the **"Change my account name"** button.

```
* You should get an illegal account name warning.
```

(g) Enter *Test1234* for current account name and the correct password but type in an new account name for an account which already exists. Click on the **"Change my account name"** button.

```
* You should get an account name exists warning.
```

(h) Enter *Test1234* for current account name, the correct password and a *Link1234* for new account name. Click on the **"Change my account name"** button.

```
* You should see the "User Account Renamed" screen.
With the message: "Account Test1234 has been changed to Link1234"
```

(i) Check **"Help"** for the "User Account Renamed" screen.

(j) If you are currently signed-in as guest user you should see a **"Account sign-in"** button.

3. **Change password for a user account:**

(a) Go to **"User Preferences"** and click on the **"Change Password"** button.

```
* You should see the "Change Password for a User Account" screen.
```

(b) Check the **"Help"** for the "Change Password for a User Account" screen.

(c) Try this screen several times, leaving various fields blank. Click on the **"Change my password"** button.

```
* You should get a warning message about the missing fields.
```

(d) Fill in all fields but type-in an invalid account name. Click on the **"Change my password"** button.

```
* You should get a warning message about incorrect name or password.
```

(e) Fill in all fields using *Link1234* for the account name, but type-in an invalid password for current password. Click on the **"Change my password"** button.
* You should get a warning message about incorrect name or password.

(f) Fill in the *Link1234* for account name and use the correct current password. Type-in different passwords in the new password and confirm new password fields. Click on the **"Change my password"** button.

```
* You should see a warning that the new password and confirm password
  do not match.
```

(g) Fill-in *Link1234* for account and the correct password for *Link1234* as mathcing new password and confirm password. Click on the **"Change my password"** button.

```
* You should see the "Password changed" screen.
```

(h) Check **"Help"** for the "Password changed" screen.

(i) If you are currently signed-in as guest user you should see a **"Account sign-in"** button.

4. **Sign-in to a User Account:**

(a) Click on the **Account Sign-in** button.

```
* A dialog box should appear with "Enter username for your
  Persistent Account"
```

(b) Enter account name *Link1234* and its NEW password and click on the **OK** button.

```
* A second sign-in page (CGI) will appear.
```

(c) Click on the **Cancel Sign-in** button.

```
* This should take you to the Search form, the status message
  for the "Sign in" item of the Navigator on the left side of
  the form should be "Logged in as guest".
```

(d) Go to **"User Preferences"** and click on the "Account Sign-in" button.

```
* the CGI sign-in page should reappear.
```

(e) Type in a bad password and click on the **"Submit"** button.

```
* You should see the "Sign-in to your User Account" with the warning
  The password you entered is invalid, please try again.
```

(f) Type in the correct password in the CGI sign-in page and click on "Submit".

```
* The "Search Form" will displayed.  The navigator should indicate
  you are signed-in to the account.
```

5. **Rename account that you are using:**

(a) Go to **User Preferences** and click on the **Rename account** button.

```
* "Change account name" should be displayed with the "current account"
  field filled-in with the name of the account you are signed-in as
  I<Link1234>.
```

(b) Fill in the correct password and a new account name *LinkLink1234*. Click on **Change my account name**.

```
* Should see the "User Account Renamed" screen.
```

(c) Click on **user Preferences**.

```
* You will get a "Authization Failed - Retry?" Popup dialog.
```

(d) Click on **OK** and enter the new account name and password.

```
* You should now be back in your account on the user Preferences page.
```

6. **Change password for account you are using:**

   (a) Click on the **Change password** button.

   ```
   * "Change password for user account" screen should be displayed.
     Account name should be set for the account you are signed-in as
     I<LinkLink1234>.
   ```

   (b) Enter current password and new password. Click on **Change my password**.

   ```
   * "Password Changed" screen displayed.
   ```

   (c) Go to "User Preferences".

   ```
   * You will get a "Authization Failed - Retry?" Popup dialog.
   ```

   (d) Click on **OK** and enter the account name and NEW password.

   ```
   * You should now be back in your account on the user Preferences page.
   ```

7. **Sign-in to account you are using:**

   (a) Click on the **Account sign-in** button.

   ```
   * "Sign-in to your User Account" screen is displayed with warning
     that you are signing into an account which is currently in use.
   ```

   (b) Enter your password and click on **Submit**.

   ```
   * This will sign you in and put you at the main serach form screen.
   ```

8. **Logout of an Account:**

   (a) Click on **Sign out**

   ```
   * The "Welcome" page should be displayed.
   ```

   (b) Back button to the search form and click on a link (such as Select Criteria).

   ```
   * The "Sign-in to your User Account " screen should be displayed with
     the warning:

     "Your account has been logged out. To continue you must sign-in
      again by entering your password and hitting Submit."
   ```

   (c) Click on the **Cancel Sign-in** button.

   ```
   * this will take you to the "Welcome" screen.
   ```

9. **Test account Admin functions:**

   (a) Restart your browser and sign-in to account other than *LinkLink1234*.
   (b) Log-in to admin mode.
   (c) Change password for the *LinkLink1234* account.
   (d) Delete the *LinkLink1234* account

End Test Script.

1.18 Test Script for Functionality in the year 2000 and beyond.

Purpose: To test the functionality of the Web Gateway in the year 2000 and beyond. This test script will be run at least 3 times for each platform to be tested (to test the three mandatory testing dates). The dates are: 1. December 31, 1999 to January 1, 2000 rollover, 2. February 28, 2000 to February 29, 2000 rollover, 3. A random date after January 1, 2000.

Application: Web Gateway 2.1

1. Create a guest session.

   - Verify that a session was created with a valid session ID.
   - Verify that a proper log file was created.
   - Verify that the contents of the event log file are correct.

2. Build and submit an inventory search to STUB using temporal selection where the range of time is before the year 2000.

   Outgoing message examination:

   - Check the Tx* ODL files to verify that the output time is correct.

   Data set and granule examination:

   - Check the Data Set list for valid times.
   - Check the Data Set Attributes page and verify that the times are being displayed correctly.
   - Do a sort of the Data Set list by time and verify that it is sorted correctly.
   - Check the granule list for valid times.
   - Do a sort of the granules by time and verify that it is sorted correctly.
   - Display all of the granules using the cover time function.

3. Build and submit an inventory search to STUB using temporal selection where the range of time is during the year 2000.

   Outgoing message examination:

   - Check the Tx* ODL files to verify that the output time is correct.

   Data set and granule examination:

   - Check the Data Set list for valid times.
   - Check the Data Set Attributes page and verify that the times are being displayed correctly.

- Do a sort of the Data Set list by time and verify that it is sorted correctly.
- Check the granule list for valid times.
- Do a sort of the granules by time and verify that it is sorted correctly.
- Display all of the granules using the cover time function.

4. Build and submit an inventory search to STUB using temporal selection where the range of time starts before the year 2000 and ends after the year 2000.

   Outgoing message examination:

   - Check the Tx* ODL files to verify that the output time is correct.

   Data set and granule examination:

   - Check the Data Set list for valid times.
   - Check the Data Set Attributes page and verify that the times are being displayed correctly.
   - Do a sort of the Data Set list by time and verify that it is sorted correctly.
   - Check the granule list for valid times.
   - Do a sort of the granules by time and verify that it is sorted correctly.
   - Display all of the granules using the cover time function.

5. Do a composed Guide search. Verify that the search is able to get some results.

6. Verify that the log files are recording the events correctly for this session.

7. Put the data set "MSFC SSM/I BRIGHTNESS TEMPERATURE GRIDS FROM DMSP F13" into the shopping cart. For the three time ranges a-c:

   ```
   a. Start and end before the year 2000.
   b. Start and end during the year 2000.
   c. Start before year 2000 and end during the year 2000.
   ```

   Perform the following:

   - Under ordering options enter a time range. When you get to step 2 of the Order Form be sure to toggle the pull-down menu to show "DO NOT empty shopping cart".
   - Verify that the ODL transmitted has a valid time range.

8. Create a persistent session.

   - Verify that a session was created with a valid session ID.
   - Verify that a proper log file was created.
   - Verify that the contents of the event log file are correct.

9. Repeat steps 2 through 7 using the persistent session.

10. Wait a day. Look at the cron jobs.

    - Verify that the cron jobs ran at the appropriate times.
    - Verify that the cron jobs ran correctly. Verify that the sessions were cleaned up appropriately.

11. Resume the persistent session. Verify that the appropriate results are still in the session. Repeat steps 2 through 7.

12. Run the stats jobs for post 2000 log files. Verify that the data is correct and is displayed correctly.

End of Script.

1.19 Test Script for ECS Profile Requests.

Purpose: To confirm that ECS registered users can retrieve and update their ECS user profile using the Web Client.

Application: Web Gateway 3.0 or higher.

Go to the desired URL of the version to be tested. ie:

```
http://lyta.gsfc.nasa.gov/~imsdev/beta/imswelcome/index.html
```

1. **Retrieve an ECS User Profile from User Preferences:**

   (a) From the Welcome page choose **Enter as guest**.

   ```
   * You will see the "Search Form: Data Search and Order
     (Inventory)" screen.
   ```

   (b) Click on the **User Preferences** link on the navigator.

   ```
   * You will see the "User Preferences" screen.
   ```

   (c) Check the **"Help"** for "User Preferences" screen near the top of the page.

   ```
   * Verify that the ECS Access fields description is on the
     help page.
   ```

   (d) Click on the **User Preferences** link on the navigator to go back to the "User Preferences" screen.

   (e) Verify that the "ECS User name" and "ECS Password" fields are empty. Click on the **"Retrieve ECS Profile"** button.

   ```
   * You should get a warning about supplying both ECS User Name
     and Password.
   ```

(f) Fill-in the "ECS User Name" only. Click on the **"Retrieve ECS Profile"** button.

```
* You should get a warning about supplying both ECS User Name
  and Password.
```

(g) This time fill-in the "ECS Password" only. Click on the **"Retrieve ECS Profile"** button.

```
* You should get a warning about supplying both ECS User Name
  and Password.
```

(h) Fill in the "ECS User Name" and "ECS Password" fields, but this time make the "ECS User Name" contain illegal characters such as space or "!". Click on the **"Retrieve ECS Profile"** button.

```
* You should get a warning about an invalid ECS username.
```

(i) Fill in the "ECS User Name" and "ECS Password" fields using valid values. Type in "test" on both fields. Click on the **"Retrieve ECS Profile"** button.

```
* You should see the "ECS Profile Retrieval Request in progress..."
  communication status screen.

* When the retrieve completes, the system should take you back to
  the "User Preferences" screen.

* Verify that the user preferences are filled with the ECS profile.
```

(j) If you have privileges, go to the session directory signed in as wwwuser.

```
* Guest sessions are in /imsdev/beta/tmp/imswww-usr/sessionID

* Persistent sessions are in /imsdev/persistentUsers-beta/imswww-usr/userID

* Using the "pico" editor, verify that the appropriate
  ODL request file "TxODLTmpFile" contains the correct ODL
  request message.

* Using the "pico" editor, verify that the appropriate
  ODL result file "RxODLTmpFile" contains the correct ODL
  results.  Verify that the same user information on this
  file is displayed on the User Preferences screen.
```

(k) Click on the **"Exit to Home"** button on the Navigator to end your session.

(l) From the Welcome page choose **Enter as guest**.

```
* You will see the "Search Form: Data Search and Order
  (Inventory)" screen.
```

(m) Click on the **User Preferences** link on the navigator.

```
* You will see the "User Preferences" screen.
```

(n) From the **"User Preferences"** upload a saved user profile. Make sure all required fields are filled in.

(o) Fill in the "ECS User Name" and "ECS Password" fields using valid values. Type in "test" on both fields. Click on the **"Retrieve ECS Profile"** button.

```
* You should see the "ECS Profile Retrieval Request in progress..."
  communication status screen.

* When the retrieve completes, the system should take you back to
  the "User Preferences" screen.

* Verify that the user preferences are updated with the new values
  coming from the ECS profile.
```

(p) If you have privileges, go to the session directory signed in as wwwuser.

```
* Guest sessions are in /imsdev/beta/tmp/imswww-usr/sessionID

* Persistent sessions are in /imsdev/persistentUsers-beta/imswww-usr/userID

* Using the "pico" editor, verify that the appropriate
  ODL request file "TxODLTmpFile" contains the correct ODL
  request message.

* Using the "pico" editor, verify that the appropriate
  ODL result file "RxODLTmpFile" contains the correct ODL
  results.  Verify that the same user information on this
  file is displayed on the User Preferences screen.
```

(q) Click on the **"Exit to Home"** button on the Navigator to end your session.

2. **Update ECS User Profile from User Preferences:**

(a) From the Welcome page choose **Enter as guest**.

```
* You will see the "Search Form: Data Search and Order
  (Inventory)" screen.
```

(b) Click on the **User Preferences** link on the navigator.

```
* You will see the "User Preferences" screen.
```

(c) Verify that the "ECS User name" and "ECS Password" fields are empty. Click on the **"Update ECS Profile"** button.

```
* You should get a warning about supplying both ECS User Name
  and Password.
```

(d) Fill-in the "ECS User Name" only. Click on the **"Update ECS Profile"** button.

```
* You should get a warning about supplying both ECS User Name
  and Password.
```

(e) This time fill-in the "ECS Password" only. Click on the **"Update ECS Profile"** button.

    * You should get a warning about supplying both ECS User
      Name and Password.

(f) Fill in the "ECS User Name" and "ECS Password" fields, but this time make the "ECS User Name" contain illegal characters such as space, "!", or "&". Click on the **"Update ECS Profile"** button.

    * You should get a warning about an invalid ECS username.

(g) Fill in the "ECS User Name" and "ECS Password" fields using valid values. Type in "test" on both fields. Verify that your user address fields are empty, if not clear them. Click on the **"Update ECS Profile"** button.

    * You should get a warning about Invalid address:
      bad/missing fields.

(h) From the **"User Preferences"** upload a saved user profile. Make sure all required fields are filled in.

(i) Fill in the "ECS User Name" and "ECS Password" fields using valid values. Type in "test" on both fields. Click on the **"Update ECS Profile"** button.

    * You should see the "ECS Profile Update Request in progress..."
      communication status screen.

    * When the update completes, the system should take you back to
      the "User Preferences" screen.

(j) If you have privileges, go to the session directory signed in as wwwuser.

    * Guest sessions are in /imsdev/beta/tmp/imswww-usr/sessionID

    * Persistent sessions are in /imsdev/persistentUsers-beta/imswww-usr/userID

    * Using the "pico" editor, verify that the appropriate
      ODL request file "TxODLTmpFile" contains the correct ODL
      request message. Verify that the user information on this
      file is the same information displayed on the User
      Preferences screen.

    * Using the "pico" editor, verify that the appropriate
      ODL result file "RxODLTmpFile" contains the correct ODL
      results.

(k) Click on the **"Exit to Home"** button on the Navigator to end your session.

3. **Retrieve an ECS User Profile from Order form:**

(a) From the Welcome page choose **Enter as guest**.

(b) Click on the **User Preferences** link on the navigator.

* You will see the "User Preferences" screen.

* Make sure the ECS Access fields are empty, if not, clear them out and click on the "Ok! Accept All Options!" button.

(c) Click on the **Search Creation** item on the navigator.

* You should see the "Search Form: Data Search and Order (Inventory)" screen.

* Build and execute an Inventory search using the following criteria: Data center STUB

(d) If you get the "Start Search: Password suggested" Form, click on the **"Start Search"** button.

* You should see the "Search in progress..." communication status screen.

* When the search completes, you should see the "Results: Data Search and Order Results" screen.

(e) From the "Results: Data Search and Order Results" screen select a data set with one granule returned.

* On 1/13/99 I selected data set DETAILED PRODUCT015 SUBSET - AVHRR MCSST

* Click on the "Put data granules" (returned from selected data sets) "into shopping cart" button to add the selected granule for order.

* You should see the "Shopping Cart: Step 1: Choose Ordering Options" form.

(f) From the "Shopping Cart: Step 1: Choose Ordering Options" screen, scroll down to the order table and click on the **"Order options"** button.

* You should see the "Shopping Cart: Choose Ordering Options" form.

(g) Scroll down to the "Ordering Option" table and select one option. Click on the **"Ok! Accept my choice & return to the shopping cart!"** button.

* You should see the "Shopping Cart: Step 1: Choose Ordering Options" form.

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

* You should see the "Shopping Cart: Step 2: Order Form" screen.

(h) From the "Shopping Cart: Step 2: Order Form" verify that the prompt for ECS User Name and ECS Password is displayed on the form as well as the buttons **"Retrieve ECS Profile"** and **"Update ECS Profile"**. Verify that the "ECS User name" and "ECS Password" fields are empty. Click on the **"Retrieve ECS Profile"** button.

```
* You should get a warning about supplying both ECS User
  Name and Password.
```

(i) Fill-in the "ECS User Name" only. Click on the **"Retrieve ECS Profile"** button.

```
* You should get a warning about supplying both ECS User
  Name and Password.
```

(j) This time fill-in the "ECS Password" only. Click on the **"Retrieve ECS Profile"** button.

```
* You should get a warning about supplying both ECS User
  Name and Password.
```

(k) Fill in the "ECS User Name" and "ECS Password" fields, but this time make the "ECS User Name" contain illegal characters such as space or "!". Click on the **"Retrieve ECS Profile"** button.

```
* You should get a warning about an invalid ECS username.
```

(l) Fill in the "ECS User Name" and "ECS Password" fields using valid values. Type in "test" on both fields. Click on the **"Retrieve ECS Profile"** button.

```
* You should see the "ECS Profile Retrieval Request in progress..."
  communication status screen.

* When the retrieve completes, the system should take you back
  to the "Shopping Cart: Step 2: Order Form" screen.

* Verify that the user information on the "Shopping Cart: Step 2:
  Order Form" is filled with the ECS profile.
```

(m) If you have privileges, go to the session directory signed in as wwwuser.

```
* Guest sessions are in /imsdev/beta/tmp/imswww-usr/sessionID

* Persistent sessions are in /imsdev/persistentUsers-beta/imswww-usr/userID

* Using the "pico" editor, verify that the appropriate
  ODL request file "TxODLTmpFile" contains the correct ODL
  request message.

* Using the "pico" editor, verify that the appropriate
  ODL result file "RxODLTmpFile" contains the correct ODL
  results.  Verify that the same user information on this
  file is displayed on the User Preferences screen.
```

(n) Click on the **User Preferences** link on the navigator.

```
* You will see the "User Preferences" screen.  Verify that
  the preferences screen contains the same user information
  retrieved from the ECS profile.
```

(o) From the **"User Preferences"** upload a saved user profile. Make sure all required fields are filled in.

(p) Select the "Shopping Cart" option from the navigator on the left side of the form.

```
* You should see the "Shopping Cart: Step 1: Choose Ordering
  Options" form.
```

(q) Click on the **"Go to Step 2: Order Form"** button.

```
* You should see the "Shopping Cart: Step 2: Order Form" screen.
```

(r) From the "Shopping Cart: Step 2: Order Form" do the following.

```
* Verify that the prompt for ECS User Name and
  ECS Password is displayed on the form.

* Verify that the buttons "Retrieve ECS Profile" and
  "Update ECS Profile" are displayed on the form.

* Verify that the uploaded user preferences are
  displayed on the form.
```

(s) Fill in the "ECS User Name" and "ECS Password" fields using valid values. Type in "test" on both fields. Click on the **"Retrieve ECS Profile"** button.

```
* You should see the "ECS Profile Retrieval Request in progress..."
  communication status screen.

* When the retrieve completes, the system should take you back to
  the "Shopping Cart: Step 2: Order Form" screen.

* Verify that the user preferences are updated with the new values
  coming from the ECS profile.
```

(t) If you have privileges, go to the session directory signed in as wwwuser.

```
* Guest sessions are in /imsdev/beta/tmp/imswww-usr/sessionID

* Persistent sessions are in /imsdev/persistentUsers-beta/imswww-usr/userID

* Using the "pico" editor, verify that the appropriate
  ODL request file "TxODLTmpFile" contains the correct ODL
  request message.

* Using the "pico" editor, verify that the appropriate
  ODL result file "RxODLTmpFile" contains the correct ODL
  results.  Verify that the same user information on this
  file is displayed on the User Preferences screen.
```

(u) Click on the **Help** link near the top of the page.

```
* The Order form Help page should be displayed.
```

```
* Verify that the "ECS Access" fields description
  is on the help page.

* Click on your browser's back button to go back to the
  "Shopping Cart: Step 2: Order Form" screen.
```

(v) From the "Shopping Cart: Step 2: Order Form" screen, click on the **"Go to Step 3: Review Order Summary"** button.

```
* You should see the "Shopping Cart: Step 3: Order Summary" screen.

* Verify that the user addresses on the Summary are the same as the
  ones retrieved from ECS.

* Click on the "Exit to Home" button on the Navigator
  to end your session.
```

4. **Update ECS User Profile from Order form:**

(a) From the Welcome page choose **Enter as guest**.

(b) Build and execute an Inventory search using the following criteria:

```
Data center: STUB
```

(c) If you get the "Start Search: Password suggested" Form, click on the **"Start Search"** button.

```
* You should see the "Search in progress..." communication
  status screen.

* When the search completes, you should see the "Results:
  Data Search and Order Results" screen.
```

(d) From the "Results: Data Search and Order Results" screen select a data set with one granule returned.

```
* On 1/13/99 I selected data set DETAILED PRODUCT015 SUBSET - AVHRR MCSST
```

(e) Click on the **Put data granules** (returned from selected data sets) **into shopping cart** button to add the selected granule for order.

```
* You should see the "Shopping Cart: Step 1: Choose Ordering
  Options" form.
```

(f) From the "Shopping Cart: Step 1: Choose Ordering Options" screen, scroll down to the order table and click on the **"Order options"** button.

```
* You should see the "Shopping Cart: Choose Ordering
  Options" form.
```

(g) Scroll down to the "Ordering Option" table and select one option. Click on the **"Ok! Accept my choice & return to the shopping cart!"** button.

* You should see the "Shopping Cart: Step 1: Choose Ordering Options" form.

(h) Click on the **"Go to Step 2: Order Form"** button.

* You should see the "Shopping Cart: Step 2: Order Form" screen.

(i) From the "Shopping Cart: Step 2: Order Form" verify that the prompt for ECS User Name and ECS Password is displayed on the form as well as the buttons **"Retrieve ECS Profile"** and **"Update ECS Profile"**. Verify that the "ECS User name" and "ECS Password" fields are empty. Click on the **"Update ECS Profile"** button.

* You should get a warning about supplying both ECS User Name and Password.

(j) Fill-in the "ECS User Name" only. Click on the **"Update ECS Profile"** button.

* You should get a warning about supplying both ECS User Name and Password.

(k) This time fill-in the "ECS Password" only. Click on the **"Update ECS Profile"** button.

* You should get a warning about supplying both ECS User Name and Password.

(l) Fill in the "ECS User Name" and "ECS Password" fields, but this time make the "ECS User Name" contain illegal characters such as space or "!". Click on the **"Update ECS Profile"** button.

* You should get a warning about an invalid ECS username.

(m) Fill in the "ECS User Name" and "ECS Password" fields using valid values. Type in "test" on both fields. Make sure the User Address fields are empty, if not clear them out. Click on the **"Update ECS Profile"** button.

* You should get a warning about Invalid address: bad/missing fields.

(n) Click on the **User Preferences** link on the navigator.

* You will see the "User Preferences" screen.

(o) From the **"User Preferences"** upload a saved user profile. Make sure all required fields are filled in.

(p) Select the "Shopping Cart" option from the navigator on the left side of the form.

* You should see the "Shopping Cart: Step 1: Choose Ordering Options" form.

(q) Click on the **"Go to Step 2: Order Form"** button.

```
* You should see the "Shopping Cart: Step 2: Order
  Form" screen.
```

(r) From the "Shopping Cart: Step 2: Order Form" do the following:

```
* Verify that the prompt for ECS User Name and ECS Password
  is displayed on the form.

* Verify that buttons "Retrieve ECS Profile" and
  "Update ECS Profile"> are displayed on the form.

* Verify that the uploaded user preferences are displayed
  on the form.
```

(s) Fill in the "ECS User Name" and "ECS Password" fields using valid values. Type in "test" on both fields. Click on the **"Update ECS Profile"** button.

```
* You should see the "ECS Profile Update Request in
  progress..." communication status screen.

* When the update completes, the system should take you
  back to the "Shopping Cart: Step 2: Order Form" screen.
```

(t) If you have privileges, go to the session directory signed in as wwwuser.

```
* Guest sessions are in /imsdev/beta/tmp/imswww-usr/sessionID

* Persistent sessions are in /imsdev/persistentUsers-beta/imswww-usr/userID

* Using the "pico" editor, verify that the appropriate
  ODL request file "TxODLTmpFile" contains the correct ODL
  request message. Verify that the user information on this
  file is the same information displayed on the User
  Preferences screen.

* Using the "pico" editor, verify that the appropriate
  ODL result file "RxODLTmpFile" contains the correct ODL
  results.
```

(u) Click on the **"Exit to Home"** button on the Navigator to end your session.

5. **Retrieve a partial ECS User Profile:**

(a) You'll need to have RCS privilege to imsdev on lyta, otherwise you won't be able to perform this last section of the test.

(b) Login to lyta, go to ~imsdev/Server_Stub/messages directory. co -l profile.odl and modify the file. Change LAST_NAME under CONTACT_ADDRESS group to blank, like this:

```
LAST_NAME            = ""
```

(c) On your browser, from the Welcome page choose **Enter as guest**.

* You will see the "Search Form: Data Search and Order (Inventory)" screen.

(d) Click on the **User Preferences** link on the navigator.

* You will see the "User Preferences" screen.

(e) Fill in the "ECS User Name" and "ECS Password" fields using valid values. Type in "test" on both fields. Click on the **"Retrieve ECS Profile"** button.

* You should see the "ECS Profile Retrieval Request in progress..." communication status screen.

* When the retrieve completes, the system should take you back to the "User Preferences" screen.

* Verify that the user preferences are filled with the ECS profile with the LAST_NAME field missing.

(f) Click on the **Search Creation** item on the navigator.

* You should see the "Search Form: Data Search and Order (Inventory)" screen.

* Build and execute an Inventory search using the following criteria: Data center STUB

(g) If you get the "Start Search: Password suggested" Form, click on the **"Start Search"** button.

* You should see the "Search in progress..." communication status screen.

* When the search completes, you should see the "Results: Data Search and Order Results" screen.

(h) From the "Results: Data Search and Order Results" screen select a data set with one granule returned.

* On 1/13/99 I selected data set DETAILED PRODUCT015 SUBSET - AVHRR MCSST

* Click on the "Put data granules" (returned from selected data sets) "into shopping cart" button to add the selected granule for order.

* You should see the "Shopping Cart: Step 1: Choose Ordering Options" form.

(i) From the "Shopping Cart: Step 1: Choose Ordering Options" screen, scroll down to the order table and click on the **"Order options"** button.

* You should see the "Shopping Cart: Choose Ordering Options" form.

(j) Scroll down to the "Ordering Option" table and select one option. Click on the **"Ok! Accept my choice & return to the shopping cart!"** button.

```
* You should see the "Shopping Cart: Step 1: Choose Ordering
  Options" form.

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

* You should see the "Shopping Cart: Step 2: Order Form" screen.
```

(k) From the "Shopping Cart: Step 2: Order Form", fill in the "ECS User Name" and "ECS Password" fields using valid values. Type in "test" on both fields. Click on the **"Retrieve ECS Profile"** button.

```
* You should see the "ECS Profile Retrieval Request in progress..."
  communication status screen.

* When the retrieve completes, the system should take you back
  to the "Shopping Cart: Step 2: Order Form" screen.

* Verify that the user information on the "Shopping Cart: Step 2:
  Order Form" is filled with the ECS profile with the LAST_NAME
  field missing.

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

* You will see the error:
  "Error in Contact Address: Fields required but not entered: Last Name."
```

(l) Click on the **"Exit to Home"** button on the Navigator to end your session.

(m) Go back to lyta, go to ~imsdev/Server_Stub/messages directory and restore file profile.odl to its original contents. The easiest way is to:

```
co -l profile.odl
```

again and then:

```
ci -u profile.odl
```

```
* You should see that the version of profile.odl has reverted to the
  previous version.
```

End Test Script.

1.20 Test Script for Results Customization Options

Purpose: Script to test functionality of the Customize Results page.

Application: Web Gateway version 3.0
Key: * : Description of what should be displayed after step is performed

1. Go to the desired URL of the version to be tested. ie:
   `http://harp.gsfc.nasa.gov/~imswww/beta/imswelcome/index.html`

2. Click on "Enter as Guest" or "Enter as Registered User".
3. Create an inventory search and stop at the Results: Data Sets page.
4. Click on the "Customize this table" item just above the results table on the left.
   ** Displays "Customize Results: Data Set" page.*
5. Test the columns customization by adding, then removing columns from the the results table. Verify table by toggling back to Results page, then toggle back and same columns should be in list on right.
6. Change "Date Type" to Julian and verify the date changed to that type in the results table.
   ** The format should be YYYY-DDD, HH:MM:SS*
7. Click on the "Show Empty Columns" radio button and change the "Number of items (rows) per page" and then toggle to Results page.
   ** The Results page should show empty columns (such as Path or Row if not showing Landsat results). Also, the number of rows should change.*
8. Reset the sort options and verify results. Then, hit "Reset Sort Defaults" button
   ** The table will be re-sorted according to the cuztomize page selections. Default options should be Data center, then Data Set Id, then nothing*
9. Click on "Results:Granule" on Navigator menu on the left and repeat steps 3-8.

1.21 Installation Verification Script

Purpose: Verify the correct installation of the Web Gateway. Does not test every page in the system, but rather tests selected functions to verify that base level routines and software has been installed and configured properly. For example, testing "Detailed Document" search verifies that the wais software is working properly.

Application: Web Gateway Version 3.4

1. Examine Welcome Page:
   - Check Web Gateway Version number at the bottom of the page.
   - Examine the header and footer customizations for errors.
   - If the site wants user accounts enabled, verify the links for Login and Create are displayed.
2. Map generation - Verify the CGI scripts used to generate the various maps are working and the WDBTILE database is accessible.
   - Java Map:
     Bring up the Java enabled Map. Verify the map GIFs are visible. Make a selection and hit OK. Verify that a summary of your selection is shown on the Search form.

- Equatorial Map:
  Select a region using the Equatorial Map.
- North Pole Stereo:
  Select a region using the North Polar Stereo map.

3. Valids - Verify the support files are installed properly and they are the correct type:

   - Go to the Data Center Dependent Valids page and verify that only "CINTEX OPS" centers are listed.

4. Detail Document (Guide) - Verify wais is working. Note that if wais is not working you do not get an error message, instead you will get zero hits. You must verify wais by retrieving at least one document.

   - Go to the Data Center Valids selection page and get a Detailed Document (guide) document for GHRC.

5. Definition - Verify "gethostbyname" function is available:

   - Go to the Sensor Valids selection page and get a Definition for sensor "ACCELEROMETER".

6. Upload Query:

   - Upload the "All Data Centers" query.

7. Inventory Search:

   - Send inventory search to all data centers.
   - To test partial results, start a search to multiple data centers. As soon as some granules come in, hit the View results button.

8. Browse - Verify hdf2gif is working.

   - Select View Browse for one of the Granules.

9. Coverage Map Graph - Verify it runs.

   - Select a granule with non-global coverage (such as AVHRR data from DLR).
   - Do a time graph for the same granules.

10. E-mail ordering - Verify wwwvalids.conf is accessible:

    - Put a granule from a CINTEX site (such as AVHRR data from DLR) into the shopping cart. Once in the shopping cart it should have a "e-mail" ordering icon next to it.

11. Upload PREFS:

    - Upload a user preferences file. Use one that includes the switches for Admin mode.

12. Admin Mode:

    - Verify that a password has been set for Admin Mode.
    - Examine the Crontab for the wwwuser account. Verify the imsstats, imscleanup and imscleanaccounts routines are running.
    - Check the StatsID by looking at the log files.
    - Verify that you can examine active sessions by clicking on the "User sessions, active..." button.
    - Verify that you can examine previous sessions by clicking on the "User sessions, stat logs..." button.

13. Comments (mail working):

    - Send a test comment to verify that mail is working.

14. User Accounts

    - If the site has enabled user accounts, create an account and then login to it.

Chapter 2

RCS Procedures

This is how RCS will be used to manage the IMS V0 WWW Gateway software.

2.1 Command Summary

1. **co -l filename**
2. **co -l -rimswww-1_3 filename**
3. **co filename**
4. **co -rimswww-1_3 filename**
5. **co -l -rREV filename**
6. **co -rimswww-1_4 RCS/***
7. **ci filename**
8. **ci -l filename**
9. **ci -fREV.1 filename**
10. **ci -l -fREV.1 filename**
11. **rlog filename**
12. **rcs -nNEWREV: RCS/***
13. **rcs -NNEWREV: RCS/***
14. **rcs -nNEWREV:OLDREV RCS/***
15. **rcs -NNEWREV:REVNUMB filename**

16. **rcs -aUSERLIST RCS/***
17. **Creating new Directories**
18. **rcs -u filename**
19. **ci -u filename**

2.2 Procedure Steps

2.2.1 Step 1: Go to your personal work area

- Login to harp using your own user id. The philosophy at work here is that as much work as practical should be done under a user's actual UID. This allows the identity of the person making any change to be tracked by RCS.
- Go to the appropriate subdirectory under:

```
~imswww/dev on harp
```

- Make sure there is a RCS link as a subdirectory under the current directory.

If not, do the following steps in the section: **Creating new Directories**.

2.2.2 Step 2: Check out the file

To check out a file with the intention of modifying it, use:

co -l filename

where filename is the name of the file to checkout. The default will be the most current version.

Note: If you change your mind and do not want to modify the file you can unlock the file using the following:
rcs -u filename
Be sure not to modify a file after it has been unlocked!

Note: If you want to checkout the baseline version use:
co -l -rimswww-1_3 filename
where imswww-1_3 is the build name and filename is the file to be checked out. This may be useful if a branch needs to be created from the baseline version. See discussion of branches below.

To check out a file *without* the intention of modifying it, use:

co filename

where filename is the name of the file to checkout. The default will be the most current version.

Note: If you want to checkout the baseline version use:
co -rimswww-1_3 filename
where imswww-1_3 is the build name and filename is the file to be checked out. This is useful when someone wants to build a baselined version by getting the source from RCS.

2.2.3 Step 3: Make the changes in the file

Do whatever editing you need to on your copy.

2.2.4 Step 4: Check the file back in

To check in the file to RCS leaving the file unlocked, use:

ci filename

Be sure to include within the RCS comments the specific change that was made for that particular update.

After you check in the file use:

co filename

as user imswww to check out the file in the appropriate directory.

Another way is to check in the file unlocked using:

ci -u filename

This will check in the file and check it back out again, unlocked.

If you are going to continue working on the file after it is checked in, check in the file using:

ci -l filename

If the directory or the file is new, use:

rcs -aUSERLIST RCS/*

to set the access list.

e.g.

```
rcs -aamrhein,seufert,solomon,joe,lorena,rrau RCS/*
```

2.2.5 Step 5: Creating new Directories

If a new directory needs to be created the following steps should be done:

1. su to imswww.
2. Go to the appropriate subdirectory; e.g. to create an RCS subdirectory for /src/imsclient...

   ```
   cd ~imswww
   cd rcs
   cd src
   (if src does not exist) mkdir src
   cd imsclient
   (if imsclient does not exist) mkdir imsclient
   ```

3. mkdir RCS
4. ```
   chmod 775 *
   ```

   to make the group eligible to write to the RCS directory
5. Go to the appropriate subdirectory; e.g. to go to an RCS subdirectory for /src/imsclient:

   ```
   cd ~imswww/dev/src/imsclient
   ```

6. Do a

   ```
   ln -s directory .
   ```

   where directory is the subdirectory that contains the RCS directory and "." indicates the current directory. e.g. from the example above directory would be:

   ```
   ln -s ~imswww/rcs/src/imsclient/RCS .
   ```

7. exit
8. Logon as your regular user id on harp.
9. If the directory or the file is new, use the following after the files are checked in:

   rcs -aUSERLIST RCS/*
   ```

2.3 Branches

Branches should only be used if an older version of software needs to be fixed while a newer version of that module already exists. An example might be a change is made to fix the 4.4.1 version of the IK_library, while work is already proceeding on the 6.0 version of the library. If a branch needs to be created off of a previous version:

1. **Check the file out**, using:

   co -l -rREV filename

   or:

   co -l -rimswww-1_3 filename

   where REV is the revision level such as: 1.3 and imswww-1_3 is the build name and filename is the file to be checked out.

2. **Make the changes** to the file

3. **Check the file back in**, using:

   ci -fREV.1 filename

   where REV.1 is the revision level such as: 1.3.1 and filename is the file to be checked in. This will create a branch such as: 1.3.1.1.

   If you are going to continue to work on the file, use the following command instead:

   ci -l -fREV.1 filename

   where REV.1 is the revision level such as: 1.3.1, filename is the file to be checked in, and -l means that the file is locked. This will create a branch such as: 1.3.1.1.

2.4 Checking on available versions

To check on the available versions for a particular file:

1. Go to the subdirectory where the file normally resides.

2. Do a

   rlog filename

   where filename is the file to be checked. Go to the top of this document.

2.5 Creating a new build or a new baseline

To create a new build for the system:

1. Enter

   rcs -nNEWREV: RCS/*

   where NEWREV is the name of the new build,

   and RCS/* means all of the files that are checked into RCS for that subdirectory.

   For example:

   rcs -nimswww-1_4: RCS/*

   This will assign the build name "imswww-1_4" to the most current version of each file within the directory.

2. To overwrite the build name for the most current version of each module in the directory use:

   rcs -NNEWREV: RCS/*

   where NEWREV is the name of the new build, and RCS/* means all of the files that are checked into RCS for that subdirectory.

   For example:

   rcs -Nimswww-1_4: RCS/*

   This will assign the build name "imswww-1_4" to the most current version of each file within the directory.

3. Enter

   co -rimswww-1_4 RCS/*

   to checkout the new baseline for every file in the subdirectory.

4. To create a new baseline for the system:

   Enter

   rcs -nNEWREV:OLDREV RCS/*

   in every directory that contains a link to RCS. Where NEWREV is the new build name such as "imswww-1_4" and OLDREV is the old build name such as "imswww-1_4". This will establish the new build name as the baseline name.

5. Enter

   rcs -NNEWREV:REVNUMB filename

   for each file that has a different revision than the most current revision within the directory where the file resides. Where NEWREV is the name build name such as "imswww-1_4" and REVNUMB is the new revision number such as "1.4".

   For example:

   rcs -Nimswww-1_4:1.4 imsclient.c

   This will assign the build name of "imswww-1_4" to version "1.4" of imsclient.c.

2.6 Author

Mark S. Solomon / Hughes STX Corporation **solomon@harp.gsfc.nasa.gov**

Chapter 3

Build Notes V0 IMS Web Gateway

The following Build Notes for the V0 IMS Web Gateway uses RCS to checkout the new modules instead of using the make distribution process:

Build Process List

1.

2. If there is an existing beta installation, bring beta down by setting a message under file ~imsdev/beta/lib/conf/down.txt explaining that the installation is down.

3. Assign the build name to the new build such as: imswww-2_4.

   Note that RCS does not allow a "." (period) in the build name.

4. NOTE: Only do this step if it is a new version or if it is a new release to pub. Skip it if this is another beta build during beta testing. Examples of the naming convention for version numbering for the first 2 modules are: imswww-2_4 or imswww-2_4_2. Examples for the last three modules are: 2.4 or 2.4.2.

   Set the version number in the following files and check them back into RCS:

   - src/IK_lib/IK_Ims.h
   - src/IK_lib/IK_SysConf.c
   - lib/perl/IU/Version.pm
   - READMES/INSTALL
   - READMES/PREFLIGHT

5. NOTE: If the patch is small, skip to step 6.

- Run the script as your own login name:

```
setname
```

6. where:

   NEWREV is the name of the new build, OLDREV is the name of the previous build, RCS/* means all of the files that are checked into RCS for that subdirectory.

   Before running the "rename" script, be sure that you check it out of RCS and edit the file to be sure that the version numbers are correct for the build.

   This is example of what the rename script does:

```
rcs -Nimswww-2_4b_2:imswww-2_4b_1 RCS/*
```

- Run the script as your own login name:

```
rename
```

- Cut from the latest "FixesPage" from the whiteboard the list of modules to be included in the build into a file. The file might be called "raw_VERSION". Here is an example filename: raw_2_4b_2. Be sure and include the line above the list that indicates the build name for this release.

  where: VERSION is the version number from the "FixesPage" from the whiteboard, and FILENAME is the filename of the module that has changed.

  Run this command as your own login name:

```
raw2set.pl raw_2_4b_2 setname_2_4b_2
```

  Then run this script as your own login name:

```
setname_2_4b_2
```

  This performs these commands:

```
cd /imsdev/dev/lib/perl/IW
rcs -Nimswww-2_4b_2:1.40 ModeASRCHFORM.pm
```

- Checkout into beta the modules that have changed.

  Run this command as your own login name:

```
set2update.pl setname_2_4b_2 update_2_4b_2
```

  Run this command as user "imsdev":

```
update_2_4b_2
```

  This performs these commands:

```
cd ~imsdev/beta/lib/perl/IW
co -rimswww-2_4b_2 ModeASRCHFORM.pm
```

- Skip to step 12. **Make the java classes.**

7. Login to imsdev or su imsdev.

8. Delete the beta session directories with the following steps:

```
login as wwwuser
cd ~imsdev
rm -rf beta
```

NOTE: If you want to build a new development area instead of beta, delete the "installation" of the area that you want to create, if it exists.

9. Delete the beta directory with the following steps:

```
login as imsdev
rm -rf beta
```

NOTE: If you want to build a new development area instead of beta, delete the "installation" of the area that you want to create, if it exists.

10. Create a new beta directory for the build under ~imsdev.

NOTE: If you want to build a new development area instead of beta, create a new "installation" directory for the build that you want.

11.
- Use mkdir to create the subdirectory for each subdirectory required.
- Use cd to change to the directory just created.
- ln -s directory .

  where directory is the subdirectory that contains the RCS directory and "." indicates the current directory.

  e.g. from the example above directory would be:

  ln -s ~imsdev/rcs/src/imsclient/RCS .
- Checkout all of the modules of that subdirectory using:

  co -rNEWREV RCS/*

  where:

  NEWREV is the name of the new build, and RCS/* means all of the files that are checked into RCS for that sub directory.

  for example: co -rimswww-2_4 RCS/*

  where:

  imswww-2_4 is the name of the new build.
- Use cd .. to change to the parent directory.

- Use chmod 775 * to change the permissions to owner rwx, group rwx, other rx.

If you want to build a new development area instead of beta, change the "installation" to the name of the area that you want to create.

12. Make the java classes.
    - setenv CLASSPATH "/imsdev/beta/src/java/"
    - cd /imsdev/beta/src/java/IMSWG
    - make all or gmake all
    - make install or gmake install
13. Continue with step 4 of the installation instructions
14. Step 4: “Configure” the system.

    You are now ready to give EOS Data Gateway the information it needs to *compile and link* the gateway programs.

    If you have previous version of the web gateway installed on your system you may want to look at the **myconfig** script used to build that version.

    Edit the script called `"myconfig"`, which should look like this:

```
#!/bin/sh
# myconfig -- invoke configure script

./configure \
    --with-debug \
    --verbose \
    --with-perl=/usr/local/bin/perl5.004 \
```

As a first cut supply just the perl path.

Change to the top-level directory of the distribution and invoke the `configure` utility, like so:

```
cd ~imsdev/beta
```

Now run the myconfig script:

```
./myconfig
```

This may take some time, as the `configure` script will try and determine certain characteristics of your system: what C compiler to use, what functions are available, etc. Once it is done, it will go through your distribution and generate certain files needed for the build (primarily Makefiles) from the corresponding `*.in` (configure INput) files.

If at any point you think that `configure` has made an undesirable choice, you should interrupt it and restart it, supplying the correct values in the `"myconfig"` script. Type:

```
configure --help
```

and look for the `–with-`*`package`* options at the end of the listing.

Warning: If you are re-running `configure` because it guessed wrong, make sure to delete the `"config.cache"` file... otherwise, it may use the same cached values.

15. Step 5: "Make" the system.

    From the top-level directory of the distribution, invoke your GNU `make` program, like so (for clarity, we will refer to it as `"make"`, but you should use whatever command is appropriate, like `"gmake"`):

    ```
    cd ~imsdev/beta
    make install >& make_install.log &
    ```

    This will compile the system, copy the binaries over to their appropriate locations, create necessary symbolic links, etc.

    When the make install is done, carefully read through the make_install.log file looking for `Error` messages. Numerous `Warnings` are common and can usually be ignored, if an error occurred then the problem must be fixed and make install rerun.

16. Step 7: Generate and apply the `SETUP` file.

    You are now ready to give EOS Data Gateway the information it needs to *install and run* the gateway. From the top-level directory of the distribution, check the `setup` utility. **Edit this file and make sure that the perl path on the second line is correct for your site.** Then, invoke the `setup` utility, like so:

    ```
    ./setup –makefrom SETUP-beta
    ```

    This will create a file called `SETUP` with default values. **Edit this file to make certain it contains the correct information for your site.**

17. Apply the SETUP file:

    When you are done editing the SETUP file, save it. Then, *apply* the contents of SETUP by running:

    ```
    ./setup –apply
    ```

18. Create the html documents from the ipod.

```
cd docs/ipod

make all or gmake all
```

19. Step 9: Make valids file for e-mail ordering.

    The wwwvalids.conf file is used by the system for e-mail ordering. Which data centers and data sets available of e-mail ordering along with the e-mail address to which send orders are stored here. The editable text version must be converted into a gdb file for use by the system. The gdb version of the file must be recreated on each system as gdb files have platform dependences in them.

    ```
    cd ~imsdev/beta/lib/conf

    ../../bin/mkvalids

    chgrp wwwuser wwwvalids.gdb
    chgrp wwwuser wwwvalids.gdb..LCK
    chmod 664 wwwvalids.gdb
    chmod 664 wwwvalids.gdb..LCK
    ```

20. Step 12 (Optional): Starting the custom httpd perl script server.

    If you did not set the variable **PerlHttpdPort** in the setup step and you wish to run the custom httpd go back to **Step 7: Generate and apply the SETUP file.** and do so. If you did not set the variable **PerlHttpdPort** and do not want to run the custom httpd you need not do anything.

    To reduce the time it takes to run cgi perl scripts, a custom httpd server `imshttpd` is run. The perl server has the the perl modules preloaded, so when a user requests a cgi generated page in the EOS Data Gateway the load time for the perl is reduced. Non-cgi pages are served via your systems standard httpd server.

    A `imshttpd` is run for each installation of the EOS Data Gateway on the system. Different versions of the EOS Data Gateway do not and can not use the same imshttpd server. Each server needs its own port number (which was set in the SETUP step).

    For example: We have several different versions of the EOS Data Gateway installed on our system 1.5-1.8 (older versions) , 1.9 (which is currently public), and 2.0 (a new version which we are testing before making it the publicly used version).

    Each version has its own imshttpd:

    ```
    imswww-1.9 on port 8126,
    imswww-2.0 on port 8127.
    ```

Warning: Port numbers are very site specific, we can not tell you what would be an appropriate port number to use. Port 8123 maybe used by other software on your system. Check with your system administrator to get an appropriate port number.

To start the imshttpd, login to the account `"wwwuser"`. and execute:

```
~imsdev/beta/lib/bin/imshttpd
```

A successfully started imshttpd will end with the message:

```
Bottom line: OPERATION SUCCEEDED!
```

You will want to have your system administrator add the starting of the imshttpd's to the system init file so that they will be automatically restarted when the system is rebooted.

21. Link the proper logs directory with the following steps:

```
cd ~imsdev/beta
mv log log~
ln -s ~imswww/logs/beta log
```

22. Step 13: Try out the installation

    Get into your favorite WWW browser, and open the URL:

```
http://<your_host_name_here>/~imsdev/beta/imswelcome
```

For example:

```
http://lyta.gsfc.nasa.gov/~imsdev/beta/imswelcome
```

You should see the "welcome" page.

23. Check the **RCS Procedures** for more information about rcs commands.