

**SOFTWARE VALIDATION TEST PLAN AND REPORT**  
**Olympus Data and Information**  
**Sharing System<sup>®</sup>, Version 1.00**  
**(Olympus DISS<sup>®</sup>)**

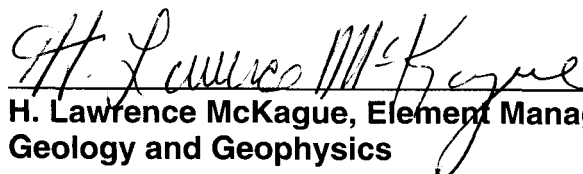
*Prepared by*

**D. Marius Necsoiu**  
**Brandi L. Winfrey**

**Center for Nuclear Waste Regulatory Analyses**  
**San Antonio, Texas**

**July 2004**

**Approved by:**

  
H. Lawrence McKague, Element Manager  
Geology and Geophysics

07/26/04  
Date

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## 1 SCOPE OF VALIDATION

Olympus was designed to systematically organize and search metadata files by geographic location, data type, or time period. It is an intranet web-based geographical Data and Information Sharing System (DISS) designed to search and retrieve geographic data at its source (Software Requirements Document, Feb 2002). Software validation of Olympus Data and Information Sharing System® (Olympus DISS®) should test the following capabilities commensurate with their use in regulatory review.

- a) The system shall have a user-friendly interface.
- b) The system shall incorporate different data formats (i.e., raster, vector shapefiles/coverages, and tabular data) into the database based on the Federal Geographic Data Committee (FGDC) standard.
- c) The system shall have the capability to access data over the intranet, and if necessary, internet.
- d) The system shall be able to handle large numbers of files.
- e) The system shall respond accurately to queries in a reasonable amount of time.

## 2 REFERENCES

- Software Requirements Description – Olympus Data and Information Sharing System, Version 1.00, February 2002.
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ESRI® and ArcINFO®, are registered trademarks of ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE, INC.

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## **3 ENVIRONMENT**

### **3.1 Software**

The following software must be installed on the computer(s) used to perform testing activities. Software listed below describes the environment Olympus DISS will be tested on as a minimum. Older versions may work but will not be tested. Newer versions may or may not work.

#### **SERVER**

Silicon Graphics/Irix version 6.5.14  
Apache HTTP Server version 1.3.22  
Java version 1.2.2  
Perl: perl5.00503-n32 (4.36 or newer)  
ArcGIS version 8.1  
Metadata Compiler (mp) version 2.7.6  
Isite version 1.04  
Harvester version 1.0  
LiveMap 3.0 Java Applet

#### **CLIENT**

Microsoft Internet Explorer version 5.50.4134.0600

### **3.2 Hardware**

There must be a server machine with the Olympus DISS software installed (refer to Section 3.1) and a client with a web browser (see Section 3.1) for remote searches. The server and client may reside on the same computer or on separate, networked computers. For clients on separate computers, there must be a network or internet connection.

## **4 PREREQUISITES**

The prerequisites necessary to perform testing activities are that the Apache HTTP Server be running on the Olympus DISS server.

## **5 ASSUMPTIONS AND CONSTRAINTS**

- Netscape Navigator will NOT work with Olympus DISS.
- The term “reasonable,” when referred to performance (i.e., time), is relative to the method with which the database is queried. For example, it will take a longer amount of time to query when using a Virtual Private Network (VPN) connection than it will take to query from the same machine that the database is located on. Also, for the purpose of testing, “reasonable” will be defined as a period of time that affords satisfaction to the user and is not extreme or excessive.

- Assume that testers have a general knowledge of spatial data.

## **6 TEST CASES**

### **6.1 10,000 Data Sets – Capability to Handle Large Numbers of Files**

#### **6.1.1 Objective**

Test system performance of the Olympus DISS client and server with large quantities of data files.

Requirements:

- System will respond accurately to queries in a reasonable amount of time.
- The system will be able to handle large numbers of files.

#### **6.1.2 Test Input**

Any search from the Olympus DISS Graphical User Interface on any client, that will query the database can be used as input for this test. For this test, the database will contain a minimum of 10,000 entries.

#### **6.1.3 Test Procedure**

##### **TEST A: Verify that the server can handle a large quantity of data sets**

1. The maintainer of the database system will insert a minimum of 10,000 data records into the database.
2. Does loading this quantity of data take an excessive amount of time? It should only take 1.3–2 hours.
3. Does the loading of this many records cause the system to halt? Or fail?

##### **TEST B: Verify that the client can successfully query the server when it contains a large quantity of data sets.**

1. Open Microsoft Internet Explorer on any client machine on the network
2. Go to the Olympus DISS Graphical User Interface main screen at “http://io/”
3. Select online or offline data
4. Select any method for querying the database
5. Click on the Search button
6. Wait for the results to return

7. Is the result accurate?
8. Was the result returned in a reasonable amount of time?

#### **6.1.4 Expected Test Results**

**TEST A: PASS/FAIL** The test will be successful if the system incorporates all of the data records with minimal impact on system load and without halting or failing.

**TEST B: PASS/FAIL** The test will be successful if the correct results for the query are returned.

### **6.2 Access System Over An Intranet**

#### **6.2.1 Objective**

Test system performance of the Olympus DISS client and server over a local network (*intranet*) and over a virtual private network (VPN) (A VPN requires *internet* access.)

Requirement:

- The system will have the capability to access data over an intranet, and if necessary, the internet.

#### **6.2.2 Test Input**

Any search from the Olympus DISS Graphical User Interface on a client machine that will query the database can be used as input for this test.

#### **6.2.3 Test Procedure**

1. Log on to any client computer that is not also the server, within the intranet
2. Open Microsoft Internet Explorer
3. Go to the Olympus DISS Graphical User Interface main screen via its URL "http://io/"
4. Select online or offline data
5. Select any method for querying the database
6. Click on the Search button
7. Wait for the results to return
8. Are the results accurate? Do the returned results match the parameters queried?
9. Repeat the above steps with a Virtual Private Network (VPN)

#### **6.2.4 Expected Test Results**

**PASS/FAIL.** The test will be successful if the client machine is able to remotely query the server successfully over a network or internet connection when it is on a machine separate from the server.

### **6.3 Incorporation of Different Data Formats**

#### **6.3.1 Objective**

Verify that the Olympus DISS server machine can load dissimilar data file formats into the database.

Requirement:

- The system will allow accurate incorporation of different data formats (i.e., raster, vector shapefiles and coverages, and tabular data) based on the FGDC standard.

#### **6.3.2 Test Input**

File formats: ERDAS IMAGINE, ERDAS 7.5 LAN, MrSID, TIFF, JPEG, ENVI BIL, ESRI GRID, ESRI Shapefile, ESRI ArcINFO Coverage

#### **6.3.3 Test Procedure**

1. The database maintainer creates metadata files with ArcCatalog using each of the aforementioned file formats.
2. The database maintainer runs the Harvester perl script to load the new .xml metadata files into the database.
3. Query the database through the Olympus DISS Graphical User Interface using search terms appropriate for searching the newly incorporated data.
4. Review returned results to see if the new metadata files have, in fact, been included in the database.

#### **6.3.4 Expected Test Results**

**PASS/FAIL.** The test will be successful if each of the above mentioned file formats has been, in a repeatable manner, incorporated into the database on the server.

### **6.4 Functional User Interface**

#### **6.4.1 Objective**

The web-based graphical user interface, consisting of a login page, search page, result page, and metadata pages, will be easy to navigate, functional, and appropriate.

Requirement:

- The system will have a user-friendly interface.

#### **6.4.2 Test Input**

There is no test input.

#### **6.4.3 Test Procedure**

1. Have an individual with no prior experience using Olympus DISS, but having general knowledge of spatial data, navigate through the Graphical User Interface to find the results they desire.
2. Survey response to the experience. Was it useful, easy, helpful? Did it enhance the quality of data search? Was it functional? Did all of the links work? Was data available? Were help topics appropriate?
3. Repeat steps one and two with another individual.

#### **6.4.4 Expected Test Results**

**PASS/FAIL.** The test will be successful if, based on email and/or in-person responses to the beta tests, individuals are reasonably satisfied that Olympus DISS is easy to navigate, simple to understand, and overall enhances their ability to find data.



# APPENDIX A

## SOFTWARE VALIDATION TEST REPORT (SVTR)

<b>SVTR#:</b> 1	<b>Project#:</b> 20.06002.01.061, 20.06002.01.051, and 20.06002.01.131
<b>Software Name:</b> Olympus Data Information Sharing System® (DISS®)	<b>Version:</b> 1.00
<b>Test ID:</b> 6.1	<b>Test Series Name:</b> 10,000 Data Sets
<b>Test Method</b>	
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> code inspection  <input checked="" type="checkbox"/> output inspection  <input type="checkbox"/> hand calculation         </div> <div style="width: 45%;"> <input type="checkbox"/> spreadsheet  <input type="checkbox"/> graphical  <input type="checkbox"/> comparison with external code results         </div> </div>	
<b>Test Objective:</b> Test system performance of the Olympus DISS® client and server with large quantities of data files. The system shall successfully ingest 10,000 data files and respond accurately to queries in a reasonable amount of time.	
<b>Test Environment Setup</b>	
<p><b>Hardware (platform, peripherals):</b> There must be a server machine with the Olympus DISS® software installed (refer to Attachment 1) and a client with a web browser (refer to Attachment 1) for remote searches. The server and client may reside on the same computer or on separate, networked computers. For clients on separate computers, there must be a network or internet connection.</p> <p><b>Software (OS, compiler, libraries, auxiliary codes or scripts):</b> See Attachment 1.</p> <p><b>Input Data (files, database, mode settings):</b> The /CDROM/test/Olympus directory contains 300 files in .html, .xml, and .bmp format. These files will correspond to 100 Olympus DISS® entries.</p> <p><b>Assumptions, constraints, and/or scope of test:</b> For TEST A, the “maintainer” must have root privileges on the server computer. For the purpose of testing, a “reasonable” amount of time will be defined as a period of time that affords satisfaction to the user and is not extreme or excessive.</p>	
<b>Test Procedure:</b> See Attachment 2.	
<b>Test Results</b>	
<p><b>Location:</b> All results are archived on a CD attached to this SVTR under directory /CDROM/Results/svtr_6.1.tar.gz. Tests were performed at location: Room A251.</p> <p><b>Test Criterion or Expected Results:</b>          TEST A: All data files were successfully ingested into the database.          TEST B: Newly ingested data files can be queried through the Olympus DISS® interface with the correct results returned.</p> <p><b>Test Evaluation (Pass/Fail):</b>          TEST A: PASS          TEST B: PASS</p>	
<b>Notes:</b>	
<b>Tester:</b> Marius Necsoiu	<b>Date:</b> November 5, 2003

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### Software Requirements

#### SERVER

Silicon Graphics<sup>®</sup>/IRIX<sup>®</sup> version 6.5.14  
Apache HTTP Server version 1.3.22  
Java<sup>™</sup> programming language version 1.2.2  
Perl: perl5.00503-n32 (4.36 or newer)  
ArcGIS<sup>®</sup> version 8.1  
Metadata Parser version 2.7.6  
Isite version 1.04  
Harvester version 1.0  
LiveMap 3.0 Java Applet

#### CLIENT

Microsoft<sup>®</sup> Internet Explorer version 5.50.4134.0600 (or newer)  
Microsoft<sup>®</sup> Windows NT<sup>®</sup>, Windows<sup>®</sup> 2000, or Windows<sup>®</sup> XP

## ATTACHMENT 2

### Test Procedure

#### TEST A: Verify that the server can handle a large quantity of data.

1. The maintainer of the database system will insert a minimum of 10,000 data records into the database.
  - a. The input files are located on the CD-ROM in the test directory.
  - b. On the UNIX machine verify that the /data/test directory exists. If not, create one using the command line: `mkdir /data/test` (you may need to have administrative privileges to create this directory).
  - c. From the CD-ROM copy the following directories to the test directory:
    - i) the olympus directory ( `cp -R /CDROM/test/olympus /data/test`) and
    - ii) the replicator program ( `cp -R /CDROM/test/replicator /data/test`)
  - d. The olympus directory contains 100 geographic data entries. Each entry consists of an .html, .bmp and .xml file. Create the 10,000 records by multiplying the olympus directory 99 times, using the following commands:  

```
cd /data/test/  
./replicator 99
```

Note: This process takes around 10 minutes on an SGI<sup>®</sup> Onyx2<sup>®</sup> machine.
  - e. Verify that the test files have been created. The /data/test directory should contain 100 directories, each occupying ~ 25MB.
  - f. With administrative privileges, ingest the newly created database by issuing the following commands:  

```
cd /diss/bin  
./harvester online
```

Note: This process takes between 1.30 - 2.00 hours on a SGI<sup>®</sup> Onyx2<sup>®</sup> machine.
  - g. Verify that:
    - i. files with the extension xml are the only files left in the /data/test/olympus\* directories;
    - ii. 10,000 files have been successfully ingested. If no other processes are running the ingestion time should be less than 2 hours.
2. Verify that loading the records does NOT cause the system to halt or fail.

**TEST B: Verify that the client can successfully query the server when the server contains a large quantity of data.**

1. Open Microsoft® Internet Explorer on any client machine on the network.
2. Go to the Olympus DISS® Graphical User Interface main screen at “http://io”
3. Select the database containing geographic data.
4. Query the database for the newly ingested data files using as keywords: “TEST DATA”
5. Click on the Search button.
6. Wait for the results to return.
7. Verify that the results returned are the results requested.
8. Verify that the results are in a readable format (HTML Java-enriched pages).
9. Verify that the summary results were returned within a reasonable amount of time (up to 8 seconds).
10. Verify that the detailed information (i.e., the metadata record) is easily retrieved within a couple of seconds.

**POST TESTS: Remove the newly created files and reset the database.**

Remove the test directory data and the new metadata files using the following commands:

- `rm -r /data/test`
- `rm /diss/metadata/olympus*`

Reset the Olympus DISS® database

- `cd /diss/bin`
- `./harvester online`

# APPENDIX B

## SOFTWARE VALIDATION TEST REPORT (SVTR)

<b>SVTR#:</b> 2	<b>Project#:</b> 20.06002.01.061, 20.06002.01.051, and 20.06002.01.131
<b>Software Name:</b> Olympus Data Information Sharing System® (DISS™)	<b>Version:</b> 1.00
<b>Test ID:</b> 6.2	<b>Test Series Name:</b> Access System Over the Intranet and Internet
<b>Test Method</b>	
<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> code inspection  <input checked="" type="checkbox"/> output inspection  <input type="checkbox"/> hand calculation         </div> <div> <input type="checkbox"/> spreadsheet  <input type="checkbox"/> graphical  <input type="checkbox"/> comparison with external code results         </div> </div>	
<b>Test Objective:</b> Test system performance of the Olympus DISS® client and server over a local network ( <i>intranet</i> ) and over a virtual private network (VPN). A VPN requires <i>internet</i> access.	
<b>Test Environment Setup</b>	
<p><b>Hardware (platform, peripherals):</b> There must be a server machine with the Olympus DISS® software installed (refer to Attachment 1) and a client with a web browser (refer to Attachment 1) for remote searches. For this test the server and client will reside on separate, networked computers. Part of this test will incorporate the use of a VPN.</p> <p><b>Software (OS, compiler, libraries, auxiliary codes or scripts):</b> See Attachment 1.</p> <p><b>Input Data (files, database, mode settings):</b> N/A</p>	
<b>Assumptions, constraints, and/or scope of test:</b> For the purpose of testing, a “reasonable” amount of time will be defined as a period of time that affords satisfaction and is not extreme or excessive. Testers must have a general knowledge of spatial data.	
<b>Test Procedure:</b> See Attachment 2.	
<b>Test Results</b>	
<p><b>Location:</b> Tests were performed at CNWRA offices: Intranet test was performed on the computer “<i>felix</i>” and internet test was performed on the DELL® Inspiron™ 8200 laptop.</p> <p><b>Test Criterion or Expected Results:</b> Olympus DISS® will return results for queries over an intranet and the internet (via a VPN).</p> <p><b>Test Evaluation (Pass/Fail):</b> PASS</p>	
<b>Notes:</b> Search was performed on keyword: “Texas”. Search returned 382 valid records for both intranet and internet (VPN) tests.	
<b>Tester:</b> Brandi Winfrey	<b>Date:</b> November 4, 2003

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### Software Requirements

#### SERVER

Silicon Graphics®/IRIX® version 6.5.14  
Apache HTTP Server version 1.3.22  
Java™ version 1.2.2  
Perl: perl5.00503-n32 (4.36 or newer)  
ArcGIS® version 8.1  
Metadata Parser version 2.7.6  
Isite version 1.04  
Harvester version 1.0  
LiveMap 3.0 Java Applet

#### CLIENT

Microsoft® Internet Explorer version 5.50.4134.0600  
Microsoft® Windows NT®, Windows® 2000, or Windows® XP

## **ATTACHMENT 2**

### **Test Procedure**

1. Logon to any client computer that is not also the server, within the intranet.
2. Open Microsoft® Internet Explorer.
3. Go to the Olympus DISS® Graphical User Interface main screen via its URL “http://io/.”
4. Select either geographic or public outreach data.
5. Select any method for querying the database (Spatial, Temporal, or Keyword).
6. Click on the Search button.
7. Wait for the results to return.
8. Verify that the results returned satisfy query parameters.
9. Repeat the above steps with a VPN and verify that the database can successfully be queried.

# APPENDIX C

## SOFTWARE VALIDATION TEST REPORT (SVTR)

<b>SVTR#:</b> 3	<b>Project#:</b> 20.06002.01.061, 20.06002.01.051, and 20.06002.01.131
<b>Software Name:</b> Olympus Data Information Sharing System® (DISS™)	<b>Version:</b> 1.00
<b>Test ID:</b> 6.3	<b>Test Series Name:</b> Allow Ingestion of Different Data Formats
<b>Test Method</b>	
<input type="checkbox"/> code inspection <input type="checkbox"/> spreadsheet <input checked="" type="checkbox"/> output inspection <input type="checkbox"/> graphical <input type="checkbox"/> hand calculation <input type="checkbox"/> comparison with external code results	
<b>Test Objective:</b> Verify that the Olympus DISS® server machine can ingest dissimilar data file formats.	
<b>Test Environment Setup</b>	
<p><b>Hardware (platform, peripherals):</b> There must be a server machine with the Olympus DISS® software installed (refer to Attachment 1) and a client with a web browser (refer to Attachment 1) for remote searches. For this test the server and client may reside on the same computer or on separate, networked computers.</p> <p><b>Software (OS, compiler, libraries, auxiliary codes or scripts):</b> See Attachment 1.</p> <p><b>Input Data (files, database, mode settings):</b> Input files include the following formats: ERDAS IMAGINE®, ERDAS® 7.5 LAN, MrSID®, TIFF, JPEG, BIL, ESRI® GRID, ESRI® shapefile, and ESRI® ArcInfo® coverage.</p>	
<p><b>Assumptions, constraints, and/or scope of test:</b> For the purpose of testing, a “reasonable” amount of time will be defined as a period of time that affords satisfaction to the user and is not extreme or excessive. Testers must have a general knowledge of spatial data formats and know how to use ArcGIS®/ArcCatalog™ software by ESRI®. The database maintainer will have administrative privileges on the server computer for this test.</p>	
<b>Test Procedure:</b> See Attachment 2.	
<b>Test Results</b>	
<p><b>Location:</b> All results are archived on a CD attached to this SVTR under directory /CDROM/Results/svtr_6.3.tar.gz. Tests were performed at location: Room A225.</p> <p><b>Test Criterion or Expected Results:</b> All of the formats listed in the Input Data section will successfully, and in a repeatable manner, be ingested into the Olympus DISS® database and returned as results when queried.</p> <p><b>Test Evaluation (Pass/Fail):</b> PASS</p>	
<b>Notes:</b>	
<b>Tester:</b> Marius Necsoiu	<b>Date:</b> November 5, 2003



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### Software Requirements

#### SERVER

Silicon Graphics<sup>®</sup>/IRIX<sup>®</sup> version 6.5.14  
Apache HTTP Server version 1.3.22  
Java<sup>™</sup> version 1.2.2  
Perl: perl5.00503-n32 (4.36 or newer)  
Metadata Parser version 2.7.6  
Isite version 1.04  
Harvester version 1.0  
LiveMap 3.0 Java Applet

#### CLIENT

Microsoft<sup>®</sup> Internet Explorer version 5.50.4134.0600 (or newer)  
Microsoft<sup>®</sup> Windows NT<sup>®</sup>, Windows<sup>®</sup> 2000, or Windows<sup>®</sup> XP  
ArcGIS<sup>®</sup> version 8.1

## ATTACHMENT 2

### Test Procedure

1. The database maintainer creates metadata files with ArcCatalog™ using each of the aforementioned file formats.
  - a. The input files are located on the CD-ROM in the test directory.
  - b. On the Unix machine verify that the /data/test directory exists. If not, create it using the following command line: `mkdir /data/test` (you may need to have administrative permissions to create this directory).
  - c. From the CD-ROM copy the olympus directory to the test directory with the command: `cp -R /CDROM/test/olympus_ext /data/test`.
  - d. Start ArcCatalog™. Select the CNWRA stylesheet and make the Olympus DISS® buttons visible (see the next figure).



If the CNWRA stylesheet is not available or the Olympus DISS® buttons are not present, use procedure (e) to customize ArcCatalog™. Otherwise, jump to (f).

- e. ArcCatalog™ customization:
  - i. From the CD-ROM, copy CNWRA.xml to the ArcGIS® arcexe83\Metadata\Stylesheets directory.
  - ii. Start ArcCatalog™. Perform the following sequence:
    - Tools - Customize. On the pop-up window set a New Toolbar with Toolbar Name: Olympus and Save to: Normal.gxt
    - Click the right tab “Commands” and select UIControl categories. Notice that this category is empty at the moment; the custom controls will be created here.
    - Click the new UIControl button. From the four available control types select UIButtonControl twice. You should create two new buttons named “Normal.UIButtonControl1” and “Normal.UIButtonControl2” which appear in the Commands list. Drag the new buttons onto the Selection Tools toolbar. Right click each of the new UIControls.
    - On the menu that appears, click the Change Button Image. Choose the icons as the ones highlighted in the previous figure.
    - Right click any of the new buttons. In the menu that appears, click View Source to open the Visual Basic™ Editor.
    - From the CD-ROM, copy the content of the Olympus\_VBA\_code.txt and paste in the Visual Basic™ Editor window.
    - Close the Visual Basic™ Editor by clicking on the X in the upper-right corner of the window.

- f. Using ArcCatalog™, navigate to where the new data files were downloaded (i.e., o:/data/test directory). Visualize each of the 10 data sets by clicking on their icons and setting the ArcCatalog™ tab to Metadata (see next figure).



- g. Prepare each record for ingestion by clicking (once) on the Olympus export button (for the GRID data set please use the Olympus GRID export button).
2. The database maintainer runs the Harvester Perl script to ingest the new geographic metadata files into the database using the following commands:

```
cd /diss/bin
```

```
./harvester online
```

Note: This process takes approximately 4 minutes on an SGI® Onyx2® machine.

3. Query the database through the Olympus DISS® Graphical User Interface using the “TEST DATA” terms for searching the newly ingested data. A number of 10 records should be displayed.
4. Verify that the new metadata files have, in fact, been ingested by reviewing the returned results.
5. Verify that the results are in a readable format (HTML Java-enriched pages).
6. Verify that the summary results were returned within a reasonable amount of time (up to 8 seconds).
7. Verify that the detailed information is easily retrieved within five seconds.
8. Clean the newly created files and reset the database.

Remove the test directory data and the new metadata files using the following commands:

- `rm -r /data/test`
- `rm /diss/metadata/olympus*`

Reset the Olympus DISS® database:

- `cd /diss/bin`
- `./harvester online`

# APPENDIX D

## SOFTWARE VALIDATION TEST REPORT (SVTR)

<b>SVTR#:</b> 4	<b>Project#:</b> 20.06002.01.061, 20.06002.01.051, and 20.06002.01.131
<b>Software Name:</b> Olympus Data Information Sharing System® (DISS™)	<b>Version:</b> 1.00
<b>Test ID:</b> 6.4	<b>Test Series Name:</b> User-Friendly Interface
<b>Test Method</b>	
<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> code inspection  <input checked="" type="checkbox"/> output inspection  <input type="checkbox"/> hand calculation         </div> <div> <input type="checkbox"/> spreadsheet  <input type="checkbox"/> graphical  <input type="checkbox"/> comparison with external code results         </div> </div>	
<b>Test Objective:</b> Verify that the web-based Graphical User Interface (GUI), consisting of a login page, search page, result page, and metadata pages, is easy to navigate and understand.	
<b>Test Environment Setup</b>	
<p><b>Hardware (platform, peripherals):</b> There must be a server machine with the Olympus DISS™ software installed (refer to Attachment 1) and a client with a web browser (refer to Attachment 1) for remote searches. For this test the server and client may reside on the same computer or on separate, networked computers.</p> <p><b>Software (OS, compiler, libraries, auxiliary codes or scripts):</b> See Attachment 1.</p> <p><b>Input Data (files, database, mode settings):</b> N/A</p>	
<b>Assumptions, constraints, and/or scope of test:</b> For the purpose of testing, a “reasonable” amount of time will be defined as a period of time that affords satisfaction to the user and is not extreme or excessive. Testers must have a general knowledge of spatial data.	
<b>Test Procedure:</b> See Attachment 2.	
<b>Test Results</b>	
<p><b>Location:</b> Tests were performed at the following locations:          TEST A: Room A136 on an IMS test computer;          TEST B: Room A249 on computer “felix.”</p> <p><b>Test Criterion or Expected Results:</b> The test will be successful if individuals are reasonably satisfied that Olympus DISS® is easy to navigate, simple to understand, and overall enhances their ability to find data.</p> <p><b>Test Evaluation (Pass/Fail):</b>          TEST A: PASS          TEST B: PASS</p>	

<b>Notes:</b> TEST A: See Attachment 3 TEST B: The NSDI Clearinghouse link did not work initially. The hyperlink to the NSDI Clearinghouse was initially set to an IP address. This was changed to the URL of the website and the problem was corrected.	
<b>Testers:</b> TEST A: Hollen Streit TEST B: Victor Gonzalez	<b>Dates:</b> TEST A: November 7, 2003 TEST B: November 5, 2003

## ATTACHMENT 1

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- Silicon Graphics® and IRIX® are registered trademarks of Silicon Graphics, Inc.
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### Software Requirements

#### SERVER

Silicon Graphics®/IRIX® version 6.5.14  
Apache HTTP Server version 1.3.22  
Java™ version 1.2.2  
Perl: perl5.00503-n32 (4.36 or newer)  
Metadata Parser version 2.7.6  
Isite version 1.04  
Harvester version 1.0  
LiveMap 3.0 Java Applet

#### CLIENT

Microsoft® Internet Explorer version 5.50.4134.0600 (or newer)  
Microsoft® Windows NT®, Windows® 2000, or Windows® XP

## **ATTACHMENT 2**

### **Test Procedure**

#### **TEST A: First Impartial User Evaluation (Hollen Streit)**

- 1) Have an individual with no prior experience using Olympus DISS®, but having general knowledge of spatial data, navigate through and use the Graphical User Interface to query the database.
- 2) Verify that the user was satisfied with the User Interface.
  - a) Verify that the interface is useful and helpful.
    - i) The help page has relevant and appropriate information.
    - ii) The search methods (Spatial, Temporal, and Keyword) are functional.
    - iii) Data that is supposed to be available for download is actually available.
  - b) Verify that the interface is easy to use/navigate
    - i) Layout of GUI is orderly and functional.
    - ii) Links are understandable and lead to the appropriate places.
    - iii) Buttons perform expected functions.
  - c) Verify that the interface enhances the quality of data search.

#### **TEST B: Second Impartial User Evaluation (Victor Gonzalez)**

- 1) Have an individual, other than the person who accomplished TEST A, with no prior experience using Olympus DISS®, but having general knowledge of spatial data, navigate through and use the Graphical User Interface to query the database.
- 2) Verify that the user was satisfied with the User Interface.
  - a) Verify that the interface is useful and helpful.
    - i) The help page has relevant and appropriate information.
    - ii) The search methods (Spatial, Temporal, and Keyword) are functional.
    - iii) Data that is supposed to be available for download is actually available.
  - b) Verify that the interface is easy to use/navigate
    - i) Layout of GUI is orderly and functional.
    - ii) Links are understandable and lead to the appropriate places.
    - iii) Buttons perform expected functions.
  - c) Verify that the interface enhances the quality of data search.

## **ATTACHMENT 3**

### **First Impartial User Evaluation (Test A) Notes by Hollen Streit**

Overall, the Olympus DISS<sup>®</sup> web-based user interface is well laid out and easy to negotiate. The Help system is designed with efficiency a priority. It remains simple to access from any point within the interface, and detailed at a level that allows precision access to requested information. A Multitude of search options are available directly from the Olympus DISS<sup>®</sup> Search Form, which further simplifies use. This primarily seems a result of keeping the overall theme of the web-based interface clean and free from frame-based menus.

The only issue with Olympus DISS<sup>®</sup> from a user standpoint would be the formatting of certain search results. Test-Data results have a field encapsulated with a “pre” tag, which results in the following text formatted as a single line. This usually leaves the User’s web-browser no choice but to format the page as wide as the line, which can be up to three times the width that the browser window is set at.

A suggestion from an Administrative standpoint; a looming issue may lie within the ever expanding database. Aside from the User-Interface, a monitor/administrative interface may need to be set up in a reliable and secure manner. Otherwise, integrating larger and larger amounts of data at a single time may become an issue.