

Integrating the Healthcare Enterprise

IHE/MESA XDS-I Imaging Document Consumer Tests

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1 XDS-I Imaging Document Consumer

1.1 Introduction

The test cases described in this document are used in order to test actors and transaction from the XDS-I profile. Only XDS-I specific issues are addressed. Tests related to the XDS profile are documented elsewhere.

All technical comments or problems like bugs or unsolvable problems may be reported to: Stephan Friese <sfriese@ele.etsmtl.ca>.

1.2 Installation

The following components mentioned in the installation guide are required:

- ‘XDS-I Test Distribution’,
- ‘Java SDK 1.4.2’,
- ‘Apache Jakarta Tomcat 5.0.28’,
- ‘DCMTK 3.5.3’,
- ‘XDS-I Test Command Line Applications’,
- ‘ebxmlrr Registry’,
- ‘XDS-I Test Web Application’.

1.3 Configuration Test Provider

For each tested application the test server has to know some parameters. Copy the file ‘XDSITEST_HOME/data/testserver/sample_user.conf’ to a file ‘<some user name>.conf’ in the same directory and adjust its content to the appropriate values. Each parameter is preceded by a comment that explains its purpose and enables the user to choose a value.

This manipulation does not require a restart of the test server. The parameters are read at the beginning of each test execution.

1.4 Configuration Test User

The tested application has to know the following parameters:

- URL of registry (for ‘Query Registry’ transaction (ITI-16)):
‘http://<test server host>:8080/xdsitest/registry/soap’.
- In case the tested application chooses to retrieve DICOM instances via C-MOVE it calls the application entity with configuration (XDSI_IMAGECTN, <test server host>, 10101).

1.5 Starting the Test Server

Refer to the installation guide ‘Starting the Web Container’.

1.6 *Testing the Installation*

Make sure the test server is started and get in your web browser
'http://<test server>:8080/xdsitest/control'.

You should get a page containing a drop down list 'User'. See if you find your test user configuration
'<some user name>'.

1.7 *Loading Test Data*

The test distribution includes a tool that enables one to share almost every DICOM instance for the tests. A set of prepared samples is packaged with the test distribution. Should you wish to work with alternative objects, send an e-mail to the contact mentioned in the introduction.

The samples can be found in 'XDSITEST_HOME/data/sample_submission'. Each subdirectory corresponds to one sample.

On the command line (use setenv before) issue the command (from the above mentioned directory)
java ca.etsmtl.ihe.xdsitest.docsource.SimplePublisher <subdirectory>.

The tool makes available an instance of a manifest along with the referenced DICOM instance.

Among the files created in the subdirectory there are 'document_entry.xml' and 'submission_set.xml'. These two files may be consulted in order to formulate a registry query using information from the submission.

At least one submission must be done following this procedure in order to perform the tests.

2 *Test Cases*

2.1 *Test Case 3201: Imaging Document Consumer – Retrieve shared DICOM instances*

The Imaging Document Consumer retrieves DICOM instances referenced in a DICOM manifest.

2.1.1 *References*

ITI TF-2: 3.16, 3.17; RAD TF-2: 4.16, 4.17, 4.27, 4.31, 4.45, 4.55

2.1.2 *Actors Tested*

Imaging Document Consumer

2.1.3 *Description*

The Document Consumer queries the Document Registry in order to obtain the URI of published DICOM manifests. It gets at least one of these manifests from the Document Repository and retrieves at least one referenced DICOM instance using the information in the manifest along with its configuration. The retrieval may be done by either C-MOVE or WADO.

In order to pass the test, the document consumer must retrieve at least one DICOM instance that is referenced in a retrieved manifest. The URL of the later one must be obtained from a registry query.

2.1.4 Instructions

- Make sure the test server is started and get in your web browser 'http://<test server>:8080/xdsitest/control'.
- Select test case 3201 and a test user configuration and start the test execution. Go through the different stages and perform the indicated actions.

General Note: All created files including the log files are located in 'XDSITEST_HOME/data/testserver/<test id>'.
After having advanced one stage look at the 'Stage' information on the status page.
Proceed only if there is no error indication after the stage number.

2.1.5 Evaluation

Evaluation is performed automatically at the end of the test execution. The result is displayed on the status page and contained in the logs.

In order to submit a result, archive the directory 'XDSITEST_HOME/data/testserver/<test id>' and send it in compressed form to your project manager.

This procedure may also be chosen if there are problems or unsolvable error situations during the test execution. In this case send the compressed archive directly to the contact mentioned in the introduction.