

Integrating the Healthcare Enterprise

IHE/MESA XDS-I Imaging Document Source Tests

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1 XDS-I Imaging Document Source

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 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 repository (for ‘Provide and Register Imaging Document Set’ transaction (RAD-54)): ‘http://<test server host>:8080/xdsitest/repository/soap’.
- In case the test requires the test server to retrieve DICOM instances via C-MOVE the later one will appear as application entity with configuration (XDSI_TESTSERVER, <test server host>, 10102).

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

2 Test Cases

2.1 Test Case 3202: Imaging Document Source – Share DICOM instances available via C-MOVE

The Imaging Document Source provides a DICOM manifest that contains references to DICOM instances available for retrieval via C-MOVE.

2.1.1 References

RAD TF-2: 4.16, 4.17, 4.27, 4.31, 4.45, 4.54

2.1.2 Actors Tested

Imaging Document Source

2.1.3 Description

The Imaging Document Source issues a 'Provide and Register Imaging Document Set' transaction (RAD-54) containing at least one DICOM manifest.

A basic check is performed for the sent metadata (validation against the ebXML schemas version 2.1 – the official version for XDS). The contained DICOM manifest is analyzed and the referenced DICOM instances are retrieved via C-MOVE by the test server.

In order to pass the test, the document source must provide at least one valid DICOM manifest to the repository. The test server must succeed in retrieving all DICOM instances referenced in a provided manifest.

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 3202 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.

2.2 Test Case 3203: Imaging Document Source – Share DICOM instances available via WADO

The Imaging Document Source provides a DICOM manifest that contains references to DICOM instances available for retrieval via WADO.

2.2.1 References

RAD TF-2: 4.54, 4.55

2.2.2 Actors Tested

Imaging Document Source

2.2.3 Description

The Imaging Document Source issues a ‘Provide and Register Imaging Document Set’ transaction (RAD-54) containing at least one DICOM manifest.

A basic check is performed for the sent metadata (validation against the ebXML schemas version 2.1 – the official version for XDS). The contained DICOM manifest is analyzed and the referenced DICOM instances are retrieved via WADO by the test server.

In order to pass the test, the document source must provide at least one valid DICOM manifest to the repository. The test server must succeed in retrieving all DICOM instances referenced in a provided manifest.

2.2.4 Instructions

- Make sure the test server is started and get in your web browser ‘http://<test server>:8080/xdsitest/control’.
- Select test case 3203 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.

2.2.5 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.