
HIMSS and RSNA
Integrating the Healthcare Enterprise

**IHE/MESA Patient ID Source
Tests**

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1 Patient ID Source Tests

1.1 Introduction

The MESA tests include a number of cases each of which rely on a sequence of messages between actors. These tests range across different integration profiles:

- Retrieve Information for Display
- Enterprise User Authentication
- Patient Identity Cross Reference for MPI
- Patient Synchronized Application
- Consistent Time

This document lists the transactions and messages for a number of cases. It may not describe the clinical scenario behind each case, but listing the transactions should clearly define what is expected of each actor. These are all of the transactions involving all of the actors. When you test with your particular actor, you may see only a subset of these messages.

1.2 Patient Identification

1.3 Configuration

The MESA scripts are run from the directory *\$MESA_TARGET/ mesa_tests/iti/id_src*. The ASCII configuration file *id_src.cfg* contains parameters that configure the MESA Cross Reference Manager. The default port number is 3600. You should only change this port number if there is a conflict with another service on the MESA test computer. There will be no conflicts with other MESA servers; the only conflict would occur with something from the operating system or other software package.

You should configure your Patient ID source to send ADT messages to the MESA Cross Reference Manager listening on port 3600. HL7 communication uses TCP sockets and the minimal lower level protocol.

1.4 Starting the MESA Servers

MESA servers are started from a DOS/CMD window or a terminal emulator. Follow these steps for Unix systems

1. `cd $MESA_TARGET/ mesa_tests/rid/actors/id_src`
2. `scripts/start_mesa_servers.csh`

To stop the servers:

```
scripts/stop_mesa_servers.csh
```

The start instructions for MESA tools on a Windows system are:

1. `cd %MESA_TARGET%\mesa_tests\rid\actors\id_src`
2. `scripts\start_mesa_servers.bat`

To stop the MESA servers:

Kill the server using ^C in the same DOS window where you started the server. When you started the server, it ran the server in the foreground.

1.5 Installation Test

1.6 Submission of Results

Test descriptions below inform the reader to “submit results to the Project Manager”. This is does not mean “email”. The current submission process should be documented by the Project Manager, but will not include emailing files directly to the Project Manager.

2 Test Cases: PIX and XDS

This section describes test cases that are generally associated with the PIX and XDS integration profiles. There may be some overlap with other profiles.

Each test case involves a series of transactions involving one test patient. Some patients may require that a single actor participate in multiple transactions. The tables in this section give the order of messages for an integrated system with all actors. This is provided as a centralized reference. To test an individual IHE actor, refer to the appropriate test document.

2.1 Test Case 10511: PIX Patient Feed: A01

Test case 10511 covers PIX Patient Feed and the ADT^A01 message. This test is not ready in this release of software.

2.1.1 References

ITI TF-2: 3.8.4

2.2 Test Case 10512: PIX Patient Feed: A04

Test case 10512 covers PIX Patient Feed and the ADT^A04 message. These behaviors are tested:

- Patient Identity Source formulates an A04 message with the proper content
- Patient Identify Source can send a patient ID (PID-3) in three different configurations. These may be runtime configurations required by a combination of actors. The assigning authority shall have these values listed below. Each value represents the same concept:
 - Test A: HIMS2005
 - Test B: HIMS2005&1.3.6.1.4.1.21367.2005.1.1&ISO
 - Test C: &1.3.6.1.4.1.21367.2005.1.1&ISO

The nominal patient name is EPSILON^ELLIE.

The evaluation script will expect specific values in an A04 message that you create. Look at the example HL7 message that is mentioned by the test script; then configure your Patient Identification Source to fill in the proper values. For some fields such as Patient ID List (PID-3), you will obviously fill in a value that is generated by your system. For other fields such as Patient Name (PID-5), the evaluation script will expect the exact value.

This test is constructed of two tests. In the first test (10512), the Patient ID Source sends the A04 message with an assigning authority of ADT1. In the second test, the Patient ID sends the A04 message with an assigning authority of &1.3.6.1.4.1.21367.2005.1.1&ISO.

2.2.1 References

ITI TF-2: 3.8.4

2.2.2 Instructions

To run this test, follow these steps using a DOS window or terminal emulator:

1. Set the current directory to \$MESA_TARGET/ mesa_tests/iti/actors/id_src.

2. The file `id_src.cfg` is used to configure MESA servers. It describes the host name and port number for the MESA Cross Reference Manager. You can be aware of this file, but you should not modify it.
3. Make sure the MESA servers have been started. See section 1.4 for details.
4. Run the test script as follows:

```
perl scripts/id_src_pix.pl 10512a <log level>
```

where `<log level>` is a value between 1 and 4.
5. The test script will prompt you to send an A04 message to the MESA Cross Reference Manager. Follow the instructions given by the test script.
6. Run the evaluation script below for test 10512.
7. Run the second test. In this test, use an assigning authority of `HIMSS2005&1.3.6.1.4.1.21367.2005.1.1&ISO`. The second test script is:

```
perl scripts/id_src_pix.pl 10512b <log level>
```
8. Run the evaluation script below for test 10512b.
9. Run the third test. In this test, use an assigning authority of `&1.3.6.1.4.1.21367.2005.1.1&ISO`. The second test script is:

```
perl scripts/id_src_pix.pl 10512c <log level>
```

2.2.3 Evaluation

1. Run the evaluation script:

```
perl 10512/eval_10512a.pl <log level>
```

where `<log level>` is a value between 1 and 4.
2. The evaluation output is found in `10512/grade_10512a.txt`. The final result should indicate 0 errors. Submit the result run at log level 4 to the Project Manager.
3. This evaluation script is for test 10512b. Run the evaluation script:

```
perl 10512/eval_10512b.pl <log level>
```
4. The evaluation output is found in `10512/grade_10512b.txt`. The final result should indicate 0 errors. Submit the result run at log level 4 to the Project Manager.
5. This evaluation script is for test 10512c. Run the evaluation script:

```
perl 10512/eval_10512c.pl <log level>
```
6. The evaluation output is found in `10512/grade_10512c.txt`. The final result should indicate 0 errors. Submit the result run at log level 4 to the Project Manager.

2.3 Test Case 10513: PIX Patient Feed: A05

Test case 10513 covers PIX Patient Feed and the ADT^A05 message.

2.4 Test Case 10514: PIX Patient Feed: A08

Test case 10514 covers PIX Patient Feed and the ADT^A08 message.

2.4.1 References

ITI TF-2: 3.8.4

2.5 Test Case 10515: PIX Patient Feed: A40

Test case 10515 covers PIX Patient Feed and the ADT^A40 message.

2.5.1 References

ITI TF-2: 3.8.4

2.6 Test Case 10541: PIX Integrated Test 1

Test case 10541 covers a use case with several PIX transactions integrated into a larger test.

2.6.1 References

ITI TF-2: 3.10

2.7 Test Case 10542: PIX Integrated Test 2

Test case 10542 covers a use case with several PIX transactions integrated into a larger test.

2.7.1 References

ITI TF-2: 3.10

2.8 Test Case 10543: PIX Integrated Test 3

Test case 10543 covers a use case with several PIX transactions integrated into a larger test.

2.8.1 References

ITI TF-2: 3.10