
Integrating the Healthcare Enterprise

**IHE/MESA XDS-MS Document
Source Tests**

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1 XDS-MS Document Source

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:

- XDS-MS

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.

Note that the XDS-MS tests are over and above the typical XDS tests. The tests described in this document concern the content described in the XDS-MS profile. The XDS tests concerned with delivery of data are documented elsewhere.

1.2 Patient Identification

1.3 Configuration

The MESA scripts are run from the directory *\$MESA_TARGET/ mesa_tests/iti/actors/doc_src*.

1.4 Starting the MESA Servers

There are no MESA servers to start for this test.

1.5 Installation Test

1.6 Loading Test Data

2 Test Cases: XDS-MS

This section describes test cases that are generally associated with the XDS-MS Integration Profile. There may be some overlap with other profiles.

2.1 Test Case 12501: XDS-MS: Submit CDA Sample

In test 12501, you submit a sample of a CDA document that your system will produce. The purpose of this test is to allow the Project Manager to post this sample to consumers so they can read/test/render the documents in advance of face to face testing.

2.1.1 References

2.1.2 Instructions

1. Create an XDS-MS document that would be submitted to a Document Repository. This should be an XML file as defined in the XDS-MS Integration Profile.
2. Name this file: SYSTEM_12501.xml

2.1.3 Evaluation

1. Submit the file created above to the Project Manager. The Project Manager will make this file available to Document Consumers.
2. Please submit this document 2 weeks in advance of the normal deadline if possible. This will give Document Consumers the opportunity to review the document.

2.2 Test Case 12502: XDS-MS: Valid CDA R2 Document

In test 12502, the Document Source determines that a document submitted consists of well formed XML and is valid according to the CDA R2 schema definition.

2.2.1 References

2.2.2 Instructions

This test requires you to use one of the available XML tools that can perform schema validation. We use XML Spy for this purpose, but do not take that as an endorsement of that product. We assume that different organizations will adopt different tools for visually examining and modifying documents for test purposes.

1. Obtain the CDA Schema definitions. These are available to HL7 members. Non members may have rights under IHE agreements. Look for a copy of these files in the MESA software release web page. From HL7, you are looking for “CDA Normative Edition zip package”.

The MESA release page will have that zip package and a separate zip file with just the schema definitions.

2. The CDA definition files that you will need are:
 - a. CDA.xsd
 - b. POCD_MT000040.xsd
 - c. datatypes-base.xsd
 - d. datatypes.xsd
 - e. NarrativeBlock.xsd
 - f. voc.xsd
3. Use the XML tool of your choice to open and validate your CDA document using the CDA.xsd schema definition. That definition will reference the other files listed above.
4. Capture the output of the schema definition. This may be a log file or screen capture, depending on the tool.
5. Name the file SYSTEM_NAME_12502.<extension> where <extension> is the appropriate file extension (txt, doc, jpg, bmp).
6. Submit that file to the Project Manager for evaluation.

2.2.3 Evaluation

1. Submit the schema validation file created above to the Project Manager. You will know from your tool if the CDA document you produced is valid.

2.2.4 Administrative Notes

The schema definitions distributed by HL7 in the CDA Normative Edition are found in different directories and have references that include that directory structure. If you use their files directly, you will need to maintain that directory structure. The xsd files found on the MESA distribution web page will have all of the files in a common directory and the internal references will reflect that structure.

2.3 Test Case 12503: XDS-MS: Coded Values

In test 12503, the CDA document is examined to determine if proper coded values are used according to the CDA, XDS-MS and other specifications.

2.3.1 References

2.3.2 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/doc_src*.
2. Create an XDS-MS document that would be submitted to a Document Repository. This should be an XML file as defined in the XDS-MS Integration Profile.
3. Evaluate the XML file to test coded values using the steps below.

2.3.3 Evaluation

1. Run the evaluation script on the file of your choice (FILE) as described below:

```
perl 12503/eval_12503.pl <log level> FILE
```
2. The result file is found in 12503/grade_12503.txt. Submit the grade to the Project Manager for evaluation.

2.4 Test Case 12504: XDS-MS: Document Display with XSLT

In test 12504, the CDA document is transformed using an XSLT stylesheet. The purpose of the resulting document is to allow a Project Manager to visually inspect the document. It is not necessarily intended to produce an output that is “appealing to the clinician.”

2.4.1 References

2.4.2 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/doc_src*.
2. Create an XDS-MS document that would be submitted to a Document Repository. This should be an XML file as defined in the XDS-MS Integration Profile.
3. Transform the document using an XSLT transform using this step:

```
perl 12504/doc_src_12504.pl FILE
```

2.4.3 Evaluation

1. The transform step above creates a file in the 12504 directory: 12504.html. View the HTML file to determine if it looks “reasonable”.
2. Rename the HTML file to SYSTEM_12504.html.
3. Submit the HTML file to the Project Manager for evaluation.

2.5 Test Case 12505: XDS-MS: Schematron Care Record Summary

In test 12505, a Schematron test is used to extract data from an XDS-MS document and examine those data for specific values. This is according to the Care Record Summary.

2.5.1 References

2.5.2 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/doc_src*.
2. Create an XDS-MS document that would be submitted to a Document Repository. This should be an XML file as defined in the XDS-MS Integration Profile.
3. Evaluate the XML file to make sure it passes the Schematron test using the steps below.

2.5.3 Evaluation

1. Run the evaluation script on the file of your choice (FILE) as described below:

```
perl 12505/eval_12505.pl <log level> FILE
```
2. The result file is found in 12505/grade_12505.txt. Submit the grade to the Project Manager for evaluation.

2.6 Test Case 12506: XDS-MS: Schematron XDS-MS Content

In test 12506, a Schematron test is used to extract data from an XDS-MS document and examine those data for specific values. This is according to the XDS-MS content as defined in the XDS-MS Integration Profile.

2.6.1 References

2.6.2 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/doc_src*.
2. Create an XDS-MS document that would be submitted to a Document Repository. This should be an XML file as defined in the XDS-MS Integration Profile.
3. Evaluate the XML file to make sure it passes the Schematron test using the steps below.

2.6.3 Evaluation

1. Run the evaluation script on the file of your choice (FILE) as described below:

```
perl 12506/eval_12506.pl <log level> FILE
```
2. The result file is found in 12506/grade_12506.txt. Submit the grade to the Project Manager for evaluation.