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**Integrating the Healthcare Enterprise**

**IHE/MESA Information Source  
Tests**

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## **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.

### **1.1 Patient Identification**

### **1.2 Submission of Results**

Test descriptions below inform the reader to “submit results to the Project Manager”. This 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: RID**

This section describes test cases that are generally associated with the RID Integration Profile. 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 10111: RID Retrieve Specific Info Request Keys 1

Test case 10111 covers RID Web Service Request Keys. The test uses a web browser to query the Information Source under test. The requestType is for SUMMARY, so the Information Source should respond with at least one report.

### 2.1.1 References

ITI TF-2: 3.11.4

### 2.1.2 Instructions

To run this test, follow these steps:

1. Enter a report in your system for a subject with patient ID RID10111^^^RID. If you need to use a different patientID, contact the Project Manager.
2. Edit the file *\$MESA\_TARGET/html/rid/rid\_101xx.html*. This HTML file has links for requests for specific information. In the row for test 10111, replace “info-src:8080 with the specification for your Information Source.
3. Leave the other request keys in the URL as the *rid\_101xx.html* file is shipped.
4. Use a web browser (Internet Explorer, Mozilla, Opera, ...) to open the modified *\$MESA\_TARGET/html/rid.html*. Select the link for test 10111. This will send an HTTP request to your Information Source.
5. The web browser should receive and display your report.

Notes:

1. If your system needs HL7 messages or other data to get demographics for this subject, contact the Project Manager.

### 2.1.3 Evaluation

1. Obtain a screen capture (software, digital camera) of the web browser screen showing the returned result. This should include the address window of the browser so we can see the URL that was used.
2. Name the output file *rid\_10111.xxx* where xxx is the appropriate extension.
3. Zip/tar the screen capture file with other results and submit to the Project Manager.

## 2.2 Test Case 10112: RID Retrieve Specific Info Request Keys 2

Test case 10112 covers RID Web Service Request Keys. These behaviors are tested:

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- A specific patient ID is defined.
- All request types other than SUMMARY are allowed. Only one is required to be tested.
- Display makes a request for specific information and displays response.
- Information Source receives a request for specific information and returns response.

### 2.2.1 References

ITI TF-2: 3.11.4

### 2.2.2 Instructions

To run this test, follow these steps:

1. Enter a report in your system for a subject with patient ID RID10112^^^RID. If you need to use a different patientID, contact the Project Manager.
2. Edit the file *\$MESA\_TARGET/html/rid/rid\_101xx.html*. This HTML file has links for requests for specific information. In the row for test 10112, replace “info-src:8080 with the specification for your Information Source.
3. Leave the other request keys in the URL as the *rid\_101xx.html* file is shipped.
4. Use a web browser (Internet Explorer, Mozilla, Opera, ...) to open the modified *\$MESA\_TARGET/html/rid.html*. Select the link for test 10112. This will send an HTTP request to your Information Source.
5. The web browser should receive and display your report.

Notes:

1. If your system needs HL7 messages or other data to get demographics for this subject, contact the Project Manager.

### 2.2.3 Evaluation

1. Obtain a screen capture (software, digital camera) of the web browser screen showing the returned result. This should include the address window of the browser so we can see the URL that was used.
2. Name the output file *rid\_10112.xxx* where *xxx* is the appropriate extension.
3. Zip/tar the screen capture file with other results and submit to the Project Manager.

## **2.3 Test Case 10113: RID Retrieve Specific Info Request Keys 3**

## **2.4 Test Case 10121: RID Summary of Reports**

## **2.5 Test Case 10122: RID List of Information Items**

## **2.6 Test Case 10131: RID Retrieve Specific Info Request Response Code 401**

Test case 10131 covers the RID queries and the HTTP response code 401.

## **2.7 Test Case 10132: RID Retrieve Specific Info Request Response Code 404**

Test case 10132 covers the RID queries and the HTTP response code 404. The Display actor makes a request to the MESA Information Source for a report that does not exist. The Information Source sends the HTTP response code 404.

### **2.7.1 References**

ITI TF-2: 3.11.4.1.3

### **2.7.2 Instructions**

To run this test, follow these steps:

1. This test requests a report for a subject with patient ID RID10132^^^RID. This subject should not exist in your system.
2. Edit the file *\$MESA\_TARGET/html/rid/rid\_101xx.html*. This HTML file has links for requests for specific information. In the row for test 10132, replace “info-src:8080 with the specification for your Information Source.
3. Leave the other request keys in the URL as the *rid\_101xx.html* file is shipped.
4. Use a web browser (Internet Explorer, Mozilla, Opera, ...) to open the modified *\$MESA\_TARGET/html/rid/rid\_101xx.html*. Select the link for test 10132. This will send an HTTP request to your Information Source.
5. The web browser should receive and display your report.

Notes:

1. If your system needs HL7 messages or other data to get demographics for this subject, contact the Project Manager.

### **2.7.3 Evaluation**

1. Obtain a screen capture (software, digital camera) of your screen showing the returned result.

2. Name the output file rid\_10132.xxx where xxx is the appropriate extension.
3. Zip/tar the screen capture file with other results and submit to the Project Manager.

## **2.8 Test Case 10133: RID Response Code 406**

Test case 10133 covers the RID queries and the HTTP response code 406.

### **2.8.1 References**

ITI TF-2: 3.11.4.1.3

### **2.8.2 Direct Actors**

Display

Information Source

### **2.8.3 Supporting Actors**

None

| <b>Identifier</b> | <b>Description</b> | <b>Source</b> | <b>Destination</b> |
|-------------------|--------------------|---------------|--------------------|
|                   |                    |               |                    |

## 2.9 Test Case 10141: RID Retrieve Document JPEG

Test case 10141 covers the RID transaction to retrieve a JPEG document. The information source is expected to have at least one document that can be retrieved in JPEG format.

### 2.9.1 References

ITI TF-2: 3.12.4

### 2.9.2 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/info\_src*.
2. Edit the text file *10141/10141.txt*. This file describes the information source under test and the specific document to retrieve. Several values are fixed and should not be changed. You should modify these values as appropriate for your system:
  - a. URLPrefix
  - b. documentUID
3. The tables below list the Query Keys and HTTP Request Fields the Information Source under test will receive.
4. Run the test script as follows:

```
perl scripts/info_src_wget.pl 10141 <log level>
```

where *<log level>* is a value between 1 and 4.
5. x

**Test 10141 Query Keys**

| Parameter            | REQ | Value   |
|----------------------|-----|---|
| requestType          | R   | DOCUMENT  |
| documentUID          | R   | Set by user; example is 1.2.840.113654.2.3.2003.100.101 |
| preferredContentType | R   | image/jpeg  |

**Test 10141 HTTP Request Fields**

| HTTP Field      | REQ | Value      |
|-----------------|-----|------------|
| Accept          | R   | image/jpeg |
| Accept-Language | O   |            |

Notes:

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1. If your system needs HL7 messages or other data to get demographics for this subject, contact the Project Manager.
2. Add a note about how to configure a web browser to see results.

### 2.9.3 Evaluation

1. Two files should be created in the directory 10141. These are 10141.out and 10141.jpg. The jpg file should contain a legal JPEG image.
2. Zip/tar the files in directory 10141 and submit to the Project Manager.

## 2.10 Test Case 10142: RID Retrieve Document PDF

Test case 10142 covers the RID transaction to retrieve a PDF document. The information source is expected to have at least one document that can be retrieved in PDF format.

### 2.10.1 References

ITI TF-2: 3.12.4

### 2.10.2 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/info\_src.
2. Edit the text file 10142/10142.txt. This file describes the information source under test and the specific document to retrieve. Several values are fixed and should not be changed. You should modify these values as appropriate for your system:
  - a. URLPrefix
  - b. documentUID
3. The tables below list the Query Keys and HTTP Request Fields the Information Source under test will receive.
4. Run the test script as follows:

```
perl scripts/info_src_wget.pl 10142 <log level>
```

where <log level> is a value between 1 and 4.

#### Test 10142 Query Keys

| Parameter            | REQ | Value   |
|----------------------|-----|---|
| requestType          | R   | DOCUMENT  |
| documentUID          | R   | Set by user; example is 1.2.840.113654.2.3.2003.100.102 |
| preferredContentType | R   | application/pdf   |

### Test 10141 HTTP Request Fields

| HTTP Field      | REQ | Value           |
|-----------------|-----|-----------------|
| Accept          | R   | application/pdf |
| Accept-Language | O   |                 |

Notes:

1. If your system needs HL7 messages or other data to get demographics for this subject, contact the Project Manager.
2. Add a note about how to configure a web browser to see results.

### 2.10.3 Evaluation

1. Two files should be created in the directory 10142. These are 10142.out and 10142.pdf. The jpg file should contain a legal PDF document.
2. Zip/tar the files in directory 10142 and submit to the Project Manager.

## 2.11 Test Case 10143: RID Retrieve Document CDA

Test case 10143 covers the RID transaction to retrieve a CDA document.

### 2.11.1 References

ITI TF-2: 3.12.4

### 2.11.2 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/info\_src.
2. Edit the text file 10143/10143.txt. This file describes the information source under test and the specific document to retrieve. Several values are fixed and should not be changed. You should modify these values as appropriate for your system:
  - a. URLPrefix
  - b. documentUID
3. The tables below list the Query Keys and HTTP Request Fields the Information Source under test will receive.
4. Run the test script as follows:

```
perl scripts/info_src_wget.pl 10143 <log level>
```

where <log level> is a value between 1 and 4.

**Test 10143 Query Keys**

| Parameter            | REQ | Value   |
|----------------------|-----|---|
| requestType          | R   | DOCUMENT  |
| documentUID          | R   | Set by user; example is 1.2.840.113654.2.3.2003.100.103 |
| preferredContentType | R   | application/hl7-cda-level-one+xml                       |

**Test 10141 HTTP Request Fields**

| HTTP Field      | REQ | Value                             |
|-----------------|-----|-----------------------------------|
| Accept          | R   | application/hl7-cda-level-one+xml |
| Accept-Language | O   |                                   |

Notes:

1. If your system needs HL7 messages or other data to get demographics for this subject, contact the Project Manager.
2. Add a note about how to configure a web browser to see results.

**2.11.3 Evaluation**

1. Two files should be created in the directory 10143. These are 10143.out and 10143.pdf. The jpg file should contain a legal PDF document.
2. Zip/tar the files in directory 10143 and submit to the Project Manager.

**2.12 Test Case 10144: RID Retrieve Document JPEG/PDF**

Test case 10144 covers the RID transaction to retrieve a JPEG or PDF document. In this test, the document can be returned by the Information Source as a JPEG image or PDF document. The Display requests the document (by UID) and can specify one or both formats in the HTTP Field "Accept".

**2.12.1 References**

ITI TF-2: 3.12.4

**2.12.2 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/info\_src.
2. Edit the text file 10144/10144.txt. This file describes the information source under test and the specific document to retrieve. Several values are fixed and should not be changed. You should modify these values as appropriate for your system:

- a. URLPrefix
  - b. documentUID
3. The tables below list the Query Keys and HTTP Request Fields the Information Source under test will receive.
  4. Run the test script as follows:
 

```
perl scripts/info_src_wget.pl 10144 <log level>
```

 where <log level> is a value between 1 and 4.

**Test 10144 Query Keys**

| Parameter            | REQ | Value   |
|----------------------|-----|---|
| requestType          | R   | DOCUMENT  |
| documentUID          | R   | Set by user; example is 1.2.840.113654.2.3.2003.100.103 |
| preferredContentType | R   | application/pdf   |

**Test 10144 HTTP Request Fields**

| HTTP Field      | REQ | Value           |
|-----------------|-----|-----------------|
| Accept          | R   | application/pdf |
| Accept-Language | O   |                 |

Notes:

1. If your system needs HL7 messages or other data to get demographics for this subject, contact the Project Manager.
2. Add a note about how to configure a web browser to see results.

**2.12.3 Evaluation**

1. Two files should be created in the directory 10144. These are 10144.out and 10144.pdf. The pdf file should contain a legal PDF document.
2. Zip/tar the files in directory 10144 and submit to the Project Manager.

**2.13 Test Case 10145: RID Retrieve Document Bad Request**

Test case 10145 covers the RID transaction to retrieve a JPEG. In this test, the value specified for preferredContentType is not one of the values in the HTTP Accept request field. The Information Source is expected to return a status value of 400 (Bad Request) in this case.

### 2.13.1 References

ITI TF-2: 3.12.4.1.3

### 2.13.2 Instructions

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

1. Set the current directory to `$MESA_TARGET/imesa_tests/iti/actors/info_src`.
2. Edit the text file 10145/10145.txt. This file describes the information source under test and the specific document to retrieve. Several values are fixed and should not be changed. You should modify these values as appropriate for your system:
  - a. URLPrefix
  - b. documentUID
3. The tables below list the Query Keys and HTTP Request Fields the Information Source under test will receive.
4. Run the test script as follows:

```
perl scripts/info_src_wget.pl 10145 <log level>
```

where <log level> is a value between 1 and 4.

#### Test 10145 Query Keys

| Parameter            | REQ | Value   |
|----------------------|-----|---|
| requestType          | R   | DOCUMENT  |
| documentUID          | R   | Set by user; example is 1.2.840.113654.2.3.2003.100.101 |
| preferredContentType | R   | application/pdf   |

#### Test 10146 HTTP Request Fields

| HTTP Field      | REQ | Value      |
|-----------------|-----|------------|
| Accept          | R   | image/jpeg |
| Accept-Language | O   |            |

Notes:

1. If your system needs HL7 messages or other data to get demographics for this subject, contact the Project Manager.
2. Add a note about how to configure a web browser to see results.

### 2.13.3 Evaluation

1. The directory 10145 should contain the file 10145.out and a zero length file 10145.pdf.

2. Zip/tar the files in directory 10145 and submit to the Project Manager.

## 2.14 Test Case 10146: RID Retrieve Document with Unsupported Document Type

Test case 10146 covers the RID transaction to retrieve a document that is stored in a format that is not supported by the Image Display. The example is a CDA document that is stored; the Image Display is configured to only support JPEG and PDF documents. This case tests one of the exception modes; the Information Source will not return a document to the Image Display but will return an error code.

If your Information Source supports all listed formats, this test is not to be used.

### 2.14.1 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/info_src`.
2. Edit the text file 10146/10146.txt. This file describes the information source under test and the specific document to retrieve. Several values are fixed and should not be changed. You should modify these values as appropriate for your system:
  - a. URL Prefix
  - b. document UID

For the requestType and Accept fields, you may have to change to values that indicate a format that is not supported by your system.

3. The tables below list the Query Keys and HTTP Request Fields the Information Source under test will receive.
4. Run the test script as follows:

```
perl scripts/info_src_wget.pl 10146 <log level>
```

where <log level> is a value between 1 and 4.

**Test 10146 Query Keys**

| Parameter            | REQ | Value   |
|----------------------|-----|---|
| requestType          | R   | DOCUMENT  |
| documentUID          | R   | Set by user; example is 1.2.840.113654.2.3.2003.100.101 |
| preferredContentType | R   | application/pdf   |

**Test 10146 HTTP Request Fields**

| HTTP Field      | REQ | Value           |
|-----------------|-----|-----------------|
| Accept          | R   | application/pdf |
| Accept-Language | O   |                 |

Notes:

1. If your system needs HL7 messages or other data to get demographics for this subject, contact the Project Manager.
2. Add a note about how to configure a web browser to see results.

**2.14.2 Evaluation**

1. The directory 10146 should contain the file 10146.out.
2. Zip/tar the files in directory 10146 and submit to the Project Manager.

**2.15 Test Case 10147: RID Retrieve Non-Existing Document**

Test case 10147 covers the RID transaction to retrieve a document that does not exist in the Information Source. This case tests one of the exception modes; the Information Source will not return a document to the Image Display but will return an error code.

The Information Source is expected to return the Error Code 404 – Not Found.

**2.15.1 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/info\_src*.
2. Edit the text file 10147/10147.txt. This file describes the information source under test and the specific document to retrieve. Several values are fixed and should not be changed. You should modify these values as appropriate for your system:
  - a. URL Prefix
  - b. document UID

For the requestType and Accept fields, you may have to change to values that indicate a format that is not supported by your system.

3. The tables below list the Query Keys and HTTP Request Fields the Information Source under test will receive.
4. Run the test script as follows:

```
perl scripts/info_src_wget.pl 10147 <log level>
```

where <log level> is a value between 1 and 4.

**Test 10147 Query Keys**

| Parameter            | REQ | Value   |
|----------------------|-----|---|
| requestType          | R   | DOCUMENT  |
| documentUID          | R   | Set by user; example is 1.2.840.113654.2.3.2003.100.100 |
| preferredContentType | R   | application/pdf   |

**Test 10146 HTTP Request Fields**

| HTTP Field      | REQ | Value           |
|-----------------|-----|-----------------|
| Accept          | R   | application/pdf |
| Accept-Language | O   |                 |

Notes:

1. If your system needs HL7 messages or other data to get demographics for this subject, contact the Project Manager.
2. Add a note about how to configure a web browser to see results.

**2.15.2 Evaluation**

3. The directory 10147 should contain the file 10147.out.
4. Zip/tar the files in directory 10147 and submit to the Project Manager.

### 3 Test Cases: Retrieve ECG for Display

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

#### 3.1 Test Case 20301: ECG D1: Simple Display of ECGs – Basic Query/HTML Response – Summary and Display

Test case 20301 covers ECG Web Service Request Keys. The MESA Display actor makes a request to the Information Source, retrieves a report and displays that report. The requestType is for SUMMARY, so the Information Source should respond with at least one report.

##### 3.1.1 References

CARD TF-1: 5.3.1

##### 3.1.2 Instructions

To run this test, follow these steps:

1. Enter a report in your system for a subject with patient ID ECG203011^^^RID. If you need to use a different patientID, contact the Project Manager.
2. Edit the file *\$MESA\_TARGET/html/ecg/ecg\_203xx.html*. This HTML file has links for requests for specific information. In the row for test 20301, replace “info-src:8080 with the specification for your Information Source.
3. Leave the other request keys in the URL as the *ecg\_203xx.html* file is shipped.
4. Use a web browser (Internet Explorer, Mozilla, Opera, ...) to open the modified *\$MESA\_TARGET/html/ecg.html*. Select the link for test 20301. This will send an HTTP request to your Information Source.
5. The web browser should receive and display your report. Perform a screen capture of this report.
6. Your report should contain links to one or more documents. Use the web browser to retrieve/display one of those documents. Perform a screen capture of this document.

Notes:

1. If your system needs HL7 messages or other data to get demographics for this subject, contact the Project Manager.

### 3.1.3 Evaluation

1. Obtain a screen capture (software, digital camera) of the web browser screen showing the returned two results (summary and specific report). This should include the address window of the browser so we can see the URL that was used. Name the screen captures *ecg\_20301a.xxx* and *ecg\_20301b.xxx* where xxx is the appropriate extension (JPG, etc.).
2. Zip/tar the screen capture file with other results and submit to the Project Manager.

### 3.2 Test Case 20302: ECG D1: Simple of ECGs – Query – Summary – No such Patient

Test case 20302 covers ECG Web Services Keys for a patient that does not exist. This is a duplicate of tests 10132. Run that test instead of this test.

### 3.3 Test Case 20303: ECG D1: Simple Display of ECGs – Basic Query – SUMMARY-CARDIOLOGY/HTML Response – Summary and Display

Test case 20303 covers ECG Web Service Request Keys. The MESA Display actor makes a request to the Information Source, retrieves a report and displays that report. The requestType is for SUMMARY-CARDIOLOGY, so the Information Source should respond with at least one report.

#### 3.3.1 References

CARD TF-1: 5.3.1

#### 3.3.2 Instructions

To run this test, follow these steps:

1. Enter a report in your system for a subject with patient ID *ECG203011^^^RID*. If you need to use a different patientID, contact the Project Manager.
2. Edit the file *\$MESA\_TARGET/html/ecg/ecg\_203xx.html*. This HTML file has links for requests for specific information. In the row for test 20303, replace “*info-src:8080* with the specification for your Information Source.
3. Leave the other request keys in the URL as the *ecg\_203xx.html* file is shipped.

4. Use a web browser (Internet Explorer, Mozilla, Opera, ...) to open the modified `$MESA_TARGET/html/ecg.html`. Select the link for test 20303. This will send an HTTP request to your Information Source.
5. The web browser should receive and display your report. Perform a screen capture of this report.
6. Your report should contain links to one or more documents. Use the web browser to retrieve/display one of those documents. Perform a screen capture of this document.

Notes:

1. If your system needs HL7 messages or other data to get demographics for this subject, contact the Project Manager.

### **3.3.3 Evaluation**

1. Obtain a screen capture (software, digital camera) of the web browser screen showing the returned two results (summary and specific report). This should include the address window of the browser so we can see the URL that was used. Name the screen captures `ecg_20303a.xxx` and `ecg_20303b.xxx` where xxx is the appropriate extension (JPG, etc.).
2. Zip/tar the screen capture file with other results and submit to the Project Manager.

## **3.4 Test Case 20304: ECG D1: Simple Display of ECGs –CARD5 Query – SUMMARY-CARDIOLOGY-ECG/XML Response**

Test case 20304 covers ECG Web Service Request Keys. The MESA Display actor makes a request to the Information Source, retrieves a report and displays that report. The requestType is for SUMMARY-CARDIOLOGY-ECG, so the Information Source should respond with an XML list of reports.

### **3.4.1 References**

CARD TF-1: 5.3.1

### **3.4.2 Instructions**

To run this test, follow these steps:

1. Enter a report in your system for a subject with patient ID `ECG203011^^^RID`. If you need to use a different patientID, contact the Project Manager.
2. Edit the file `$MESA_TARGET/html/ecg/ecg_203xx.html`. This HTML file has links for requests for specific information. In the row for test 20304, replace “`info-src:8080`” with the specification for your Information Source.

3. Leave the other request keys in the URL as the *ecg\_203xx.html* file is shipped.
4. Use a web browser (Internet Explorer, Mozilla, Opera, ...) to open the modified *\$MESA\_TARGET/html/ecg.html*. Select the link for test 20304. This will send an HTTP request to your Information Source.
5. The web browser should receive and display your XML list. Perform a screen capture of this report.

Notes:

1. If your system needs HL7 messages or other data to get demographics for this subject, contact the Project Manager.

### 3.4.3 Evaluation

1. Obtain a screen capture (software, digital camera) of the web browser screen showing the returned result. This should include the address window of the browser so we can see the URL that was used. Name the screen captures *ecg\_20304a.xxx* where xxx is the appropriate extension (JPG, etc.).
2. Capture the output XML from the web browser and store in a file: *ecg\_2034b.xml*.
3. Zip/tar the screen capture file with other results and submit to the Project Manager.

## 3.5 Test Case 20305: ECG D1: Simple Display of ECGs –CARD5 Query – SUMMARY-CARDIOLOGY-ECG – No such patient

Test case 20305 covers ECG Web Service Request Keys. The MESA Display actor makes a request to the Information Source for a patient that does not exist. The requestType is for SUMMARY-CARDIOLOGY-ECG.

### 3.5.1 References

CARD TF-1: 5.3.1

### 3.5.2 Instructions

To run this test, follow these steps:

1. This test requests a report for a subject with patient ID *ECG203019^^^RID*. This subject should not exist in your system.
2. Edit the file *\$MESA\_TARGET/html/ecg/ecg\_203xx.html*. This HTML file has links for requests for specific information. In the row for test 20305, replace “*info-src:8080*” with the specification for your Information Source.

3. Leave the other request keys in the URL as the *ecg\_203xx.html* file is shipped.
4. Use a web browser (Internet Explorer, Mozilla, Opera, ...) to open the modified `$MESA_TARGET/html/ecg.html`. Select the link for test 20305. This will send an HTTP request to your Information Source.
5. The web browser should receive an error response from you and display that response. Perform a screen capture of the web browser display.

Notes:

1. If your system needs HL7 messages or other data to get demographics for this subject, contact the Project Manager.

### 3.5.3 Evaluation

1. Obtain a screen capture (software, digital camera) of the web browser screen showing the returned result. This should include the address window of the browser so we can see the URL that was used. Name the screen captures *ecg\_20305.xxx* where xxx is the appropriate extension (JPG, etc.).
2. Zip/tar the screen capture file with other results and submit to the Project Manager.

## 3.6 Test Case 20307: ECG D1: Simply Display of ECGs – Retrieve document without query

Test case 20307 tests the Information Sources and covers the ECG transaction to retrieve an ECG document (either pdf or svg format). The information source is expected to have at least one document that can be retrieved in vector pdf format (the default format).

### 3.6.1 References

ITI TF-2: 3.12.4

### 3.6.2 Instructions

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

1. Set the current directory to `$MESA_TARGET/imesa_tests/iti/actors/info_src`.
2. Edit the text file `20307/20307.txt`. This file describes the information source under test and the specific document to retrieve. Several values are fixed and should not be changed. You should modify these values as appropriate for your system:
  - a. URLPrefix
  - b. documentUID

3. The tables below list the Query Keys and HTTP Request Fields the Information Source under test will receive.

4. Run the test script as follows:

```
perl scripts/info_src_wget.pl 20307 <log level>
```

where <log level> is a value between 1 and 4.

#### Test 20307 Query Keys

| Parameter            | REQ | Value   |
|----------------------|-----|---|
| requestType          | R   | DOCUMENT  |
| documentUID          | R   | Set by user; example is 1.2.840.113654.2.3.2003.100.101 |
| preferredContentType | R   | application/pdf   |

#### Test 20307 HTTP Request Fields

| HTTP Field      | REQ | Value           |
|-----------------|-----|-----------------|
| Accept          | R   | application/pdf |
| Accept-Language | O   |                 |

Notes:

1. If your system needs HL7 messages or other data to get demographics for this subject, contact the Project Manager.
2. Add a note about how to configure a web browser to see results.

### 3.6.3 Evaluation

1. Two files should be created in the directory 20307. The file 20307.out is a log file. The second file is 20307.pdf or 20307.svg and should contain a legal PDF or SVG file.
2. Zip/tar the files in directory 20307 and submit to the Project Manager.

## 3.7 Test Case 20308: ECG D1: Simply Display of ECGs – Retrieve vector pdf document

Test case 20308 covers the ECG transaction to retrieve a vector PDF document. The information source is expected to have at least one document that can be retrieved in vector PDF format.

### 3.7.1 References

ITI TF-2: 3.12.4

### 3.7.2 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/info\_src*.
2. Edit the text file *20308/20308.txt*. This file describes the information source under test and the specific document to retrieve. Several values are fixed and should not be changed. You should modify these values as appropriate for your system:
  - a. URLPrefix
  - b. documentUID
3. The tables below list the Query Keys and HTTP Request Fields the Information Source under test will receive.
4. Run the test script as follows:

```
perl scripts/info_src_wget.pl 20308 <log level>
```

where <log level> is a value between 1 and 4.

#### Test 20308 Query Keys

| Parameter            | REQ | Value   |
|----------------------|-----|---|
| requestType          | R   | DOCUMENT  |
| documentUID          | R   | Set by user; example is 1.2.840.113654.2.3.2003.100.101 |
| preferredContentType | R   | application/pdf   |

#### Test 20308 HTTP Request Fields

| HTTP Field      | REQ | Value           |
|-----------------|-----|-----------------|
| Accept          | R   | application/pdf |
| Accept-Language | O   |                 |

Notes:

1. If your system needs HL7 messages or other data to get demographics for this subject, contact the Project Manager.
2. Add a note about how to configure a web browser to see results.

### 3.7.3 Evaluation

1. Two files should be created in the directory 20308. These are 20308.out and 20307.PDF. The PDF file should contain a legal pdf image.
2. Zip/tar the files in directory 20307 and submit to the Project Manager.

### 3.8 Test Case 20309: ECG D1: Simply Display of ECGs – Retrieve svg document

Test case 20309 covers the ECG transaction to retrieve a vector PDF document. The information source is expected to have at least one document that can be retrieved in SVG format.

#### 3.8.1 References

ITI TF-2: 3.12.4

#### 3.8.2 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/info\_src*.
2. Edit the text file *20309/20309.txt*. This file describes the information source under test and the specific document to retrieve. Several values are fixed and should not be changed. You should modify these values as appropriate for your system:
  - a. URLPrefix
  - b. documentUID
3. The tables below list the Query Keys and HTTP Request Fields the Information Source under test will receive.
4. Run the test script as follows:

```
perl scripts/info_src_wget.pl 20309 <log level>
```

where <log level> is a value between 1 and 4.

#### Test 20309 Query Keys

| Parameter            | REQ | Value   |
|----------------------|-----|---|
| requestType          | R   | DOCUMENT  |
| documentUID          | R   | Set by user; example is 1.2.840.113654.2.3.2003.100.101 |
| preferredContentType | R   | image/svg+xml   |

#### Test 20309 HTTP Request Fields

| HTTP Field      | REQ | Value         |
|-----------------|-----|---------------|
| Accept          | R   | image/svg+xml |
| Accept-Language | O   |               |

Notes:

1. If your system needs HL7 messages or other data to get demographics for this subject, contact the Project Manager.

2. Add a note about how to configure a web browser to see results.

### **3.8.3 Evaluation**

1. Two files should be created in the directory 20309. These are 20309.out and 20309.SVG. The SVG file should contain a legal SVG document.
2. Zip/tar the files in directory 20308 and submit to the Project Manager.