



## 01 - Touchstone TestScript Execution - Basic Operations

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During this hands-on session we will explore TestScript Execution within the Touchstone FHIR Testing Platform. This exercise examines a series of basic FHIR operations (read, search, create, update and delete). Each operation's TestScript illustrates the use of different TestScript elements and as well as the basic mechanics of executing tests within Touchstone. The following generic steps will be used for each operation's TestScript, so you will need to perform them in sequence:

1. Create a Test Setup
2. Test Execution interface
3. TestScript Execution interface

*\*See page 2 for descriptions of each operation's TestScript*

### 1. Create a Test Setup

Please follow the online documentation; Section, *Creating Test Setup*:

- <https://touchstone.aegis.net/touchstone/userguide/html/executing-tests/test-setup.html>

Creating and executing a Test Setup first starts with selecting one or more Test Definitions (TestScripts).

- Navigate to and select the left menu bar item 'Test Definitions'. This will expand the top-level Test Definition Groups.
- Expand the Test Definition folder and navigate to the FHIR North **BasicOperations** folder:
  - FHIR STU3 – FHIRSandbox/AEGIS/FHIR3-0-1-North19/BasicOperations
  - FHIR R4 – FHIRSandbox/AEGIS/FHIR4-0-0-North19/BasicOperations
- Select an operation sub-folder; e.g. **01-Read**, and examine the Test Definitions workspace
- In the Test Definitions workspace select one or more TestScripts and then select the Create Test Setup button
- The Test Setup workspace will be displayed where you
  - May change the auto-generated Test Setup name
  - Must choose a Destination Test System as the target of the test execution
- After completing the Test Setup, select the Execute link
- The test execution will start, and you will be taken to the Test Execution screen (next step)

### 2. Test Execution Interface

Please follow the online documentation; Section 'Test Execution':

- <https://touchstone.aegis.net/touchstone/userguide/html/executing-tests/test-execs.html>

The Test Execution interface is where you monitor the high-level execution status of your Test Setup.

- Refresh the browser page using the green 'Refresh' button or by directly refreshing your browser
- Explore the dashboard information
- Details of each individual TestScript Execution are listed below (next step)

### 3. TestScript Execution Interface

Please follow the online documentation; Section 'Test Execution Results':

- <https://touchstone.aegis.net/touchstone/userguide/html/executing-tests/test-exec-results.html>

The TestScript Execution interface is where you monitor the specific execution status of a TestScript.

- Refresh the browser page using the green 'Refresh' button or by directly refreshing your browser
- Explore the dashboard information
- Details of each individual test operation and assert are available

Have fun and remember to ask questions if you need help!



## 01 - Touchstone TestScript Execution – TestScript Descriptions

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All TestScripts for this exercise use the Patient resource type. Each TestScript progressively illustrates the use of more TestScript features.

### 01-Read

Test the read operation for a Patient resource using a static resource id of 'example' or a variable resource id.

#### Features

- ❖ Asserts test for HTTP response code, Content-Type header and correct FHIR resource type payload
- ❖ Observe the use of a static vs. variable resource id; *how does the variable improve the TestScript?*

### 02-Search

Test the search operation for Patient resources matching a static family name search parameter of 'Chalmers' or a variable family name.

#### Features

- ❖ Asserts test for HTTP response code, Content-Type header and correct FHIR resource type payload
- ❖ Observe the use of a static vs. variable resource id; *how does the variable improve the TestScript?*

### 03-Create

There are two TestScripts:

- First - tests the create operation of a Patient resource only
- Second - tests the create operation with another test to search for the created Patient resource

#### Features

- ❖ Introduces the use of fixtures; *examine the fixture and note the static contents*
- ❖ Observe the asserts for the create operation; *why only test for HTTP response code and Location header?*
- ❖ Observe the 2<sup>nd</sup> TestScript use of the search operation; *why might this be useful/necessary?*

### 04-Update

Test the update operation of a Patient resource. A second test with a read operation is used to validate the update operation's success.

#### Features

- ❖ Introduces the use of variables; *examine the variable definitions and use in the asserts following the read operation*
- ❖ Introduces the use of the setup element prior to all tests; *examine the setup and note the use of the conditional delete and create operations; what is the benefit of using setup versus tests?*
- ❖ Introduces the use of profiles; *asserts invoke the FHIR Validation Engine using profiles*
- ❖ Note the use of a single test with multiple operations - update followed by read; *what is the benefit of this paradigm versus individual tests (one per operation)?*

### 05-Delete

Test the delete operation of a Patient resource. A second test with a read operation is used to validate the delete operation's success.

#### Features

- ❖ Continues the use of variables; *examine the variable definitions and their use*
- ❖ Continues the use of the setup element prior to all tests; *examine the setup and note the use of the conditional delete and create operations*
- ❖ Note the use of a single test with multiple operations - delete followed by read; *what is the benefit of this paradigm versus individual tests (one per operation)?*