GEICO Test Automation Framework v3

Test Engineer’s Guide

# Test Runner Features

## Test Case Repositories

The test runner is designed to be future-proofed with regard to test case repositories. Out of the box, the test runner supports retrieving test cases from a TFS work item store, but it can be extended to support other repositories as well.

The framework assumes the test case identifier (testCaseId) is numeric (an integer).

### Test Case Retrieval by ID

If the provided Id is found, and the user is authorized to access the repository, a test case object will be returned.

The runner will return an error under the following conditions:

* The provided ID cannot be found.
* The ID is found but is not assigned to a test case (for example, in the TFS work item store, an ID might belong to a bug and not a test case).
* The repository cannot be found.
* The user is not authorized to access the repository.

### Test Step Parsing

Once the test case runner retrieves the test case’s steps, it will attempt to parse each step and assign a command to handle it. Each test command implements the **ITestCommand**, and has one or more instances of the **CanParse** attribute, each attribute specifying the regular expression (RegEx) pattern that it recognized.

* All test steps must be parsed. If any test step cannot be parsed, the entire test will fail
* If a step can be parsed by more than one command, then it will be parsed by the first command that succeeds.
* A command may be capable of parsing multiple test step patterns. In this case the first pattern to successfully match a test step will be the one used to parse it.
* Each step will be parsed once.
* If a step is repeated (with the same or different parameters), then a corresponding number of command objects will be used, once for each step, each with its own parameters.

# Architecture

## Test Case Execution Use Case



## Test Case Execution Activity Diagram



## High Level Layer Diagram



## Framework Component Diagram



## Test Case Loading Sequence Diagram

