

CS631G Software Verification

QTEST TUTORIAL (W11)

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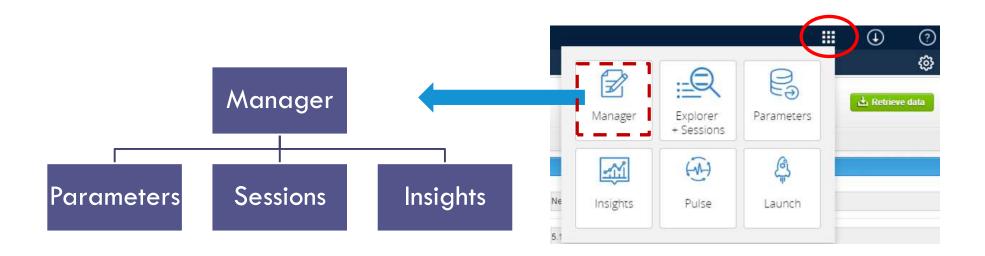
TOOL OVERVIEW PARAMETERS MODULE 05 **SESSIONS MODULE MANAGER MODULE** 06 **CLASS ASSIGNMENT PROJECT ADMINISTRATION** 03 **INSIGHTS MODULE APPENDIX: SUPPLEMENTARY RESOURCES**

PART 1: TOOL OVERVIEW



qTest Introduction

- qTest is a test management tool used for Project Management, Bug Tracking, and Test Management.
- It follows the centralized test management concept that helps to communicate easily and assists in rapid development of tasks across QA teams and other stakeholders.
- qTest is a platform that includes the following main modules:



Platform Main Modules

	qTest Module Module's Purpose	
Primary QA work space		This module allows QA teams to create, organize, and execute all testing activities through the effective GUI interface built for teams moving at an agile pace.
work space	Parameters	A parameterization feature allows testers to run the same test case multiple times with different data specified at the test step level.
	Explorer + Sessions	The Sessions module is the storage location for all planned and executed Explorer test sessions. This module provides the ability to plan session-based testing and collect all exploratory test session data in one central location.
	Insights	The Insights module gives the testing team a business intelligence tool to consolidate, manage, and analyze various test metrics and produce reports.

Other Modules

qTest Module	Module's Purpose
Launch	qTest Launch allows users to centrally manage automation host machines , as well as the automation agents running on each machine. Use qTest Launch to view jobs scheduled, job execution status or access the execution logs of a single agent on a specific host.
Pulse	qTest Pulse is a workflow engine for products in the qTest Platform and is currently optimized to integrate BDD workflows for qTest Scenario-BDD for Jira. It works behind the scenes to integrate Jira software with Jenkins, Slack, and many different plugins to increase productivity within your development process. Once you establish and set up your Pulse 'Rules', you will be integrated.

PART 2: QTEST MANAGER

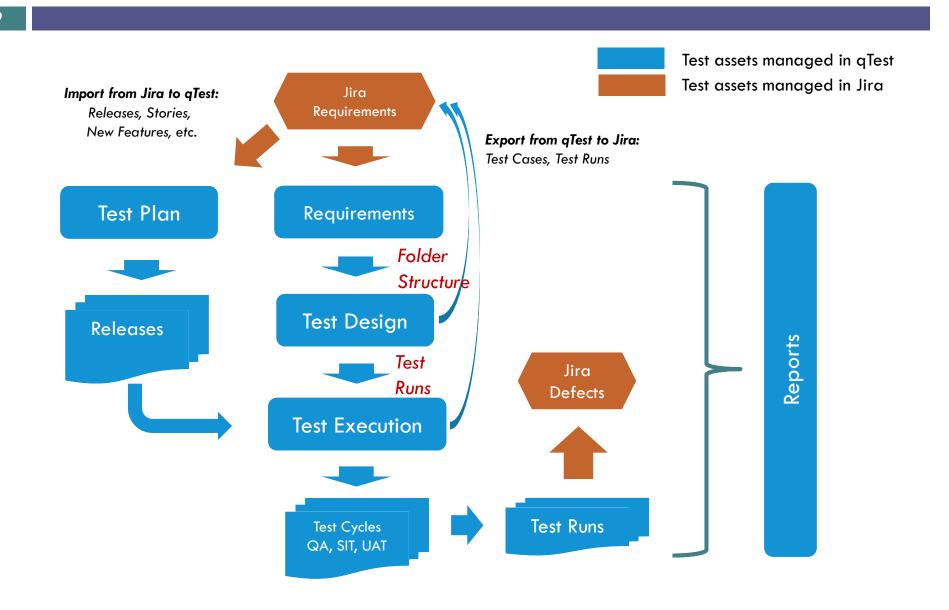
https://www.qasymphony.com/video-training/qtest/enduser/getting-started-with-qtest-test-manager-tool/

Manager Module Purpose

- The Manager module is the primary work-space of a QA Team where test assets of a given project are created and managed.
- The Manager module includes the following sub-modules:

Sub-Module	Purpose
Test Plan (releases)	Allows creating releases and allocating Jira or other requirements to a given release scope.
Requirements (test basis)	Stores requirements imported from Jira and/or created manually. Allows creating test cases for a given requirement.
Test Design (test suite)	Is a repository of test cases that has the same structure as requirements, basis for testing. Allows creating, completing, organizing test cases; approving test cases and creating test runs.
Test Execution (test evidence)	Allows capturing test execution results and reporting defects.
Reports	Provides a collection of pre-defined standard reports.

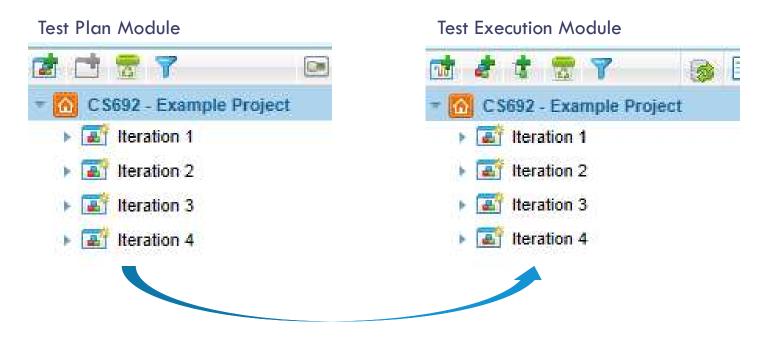
Manager Module Work-Flow with Jira



Manager: Test Plan

Module Purpose

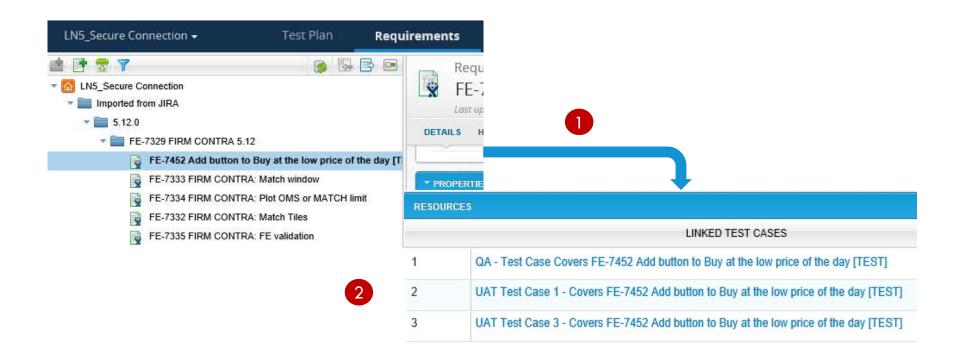
- create a list of releases (or iterations)
- allocate requirements to a given release (define a release scope)



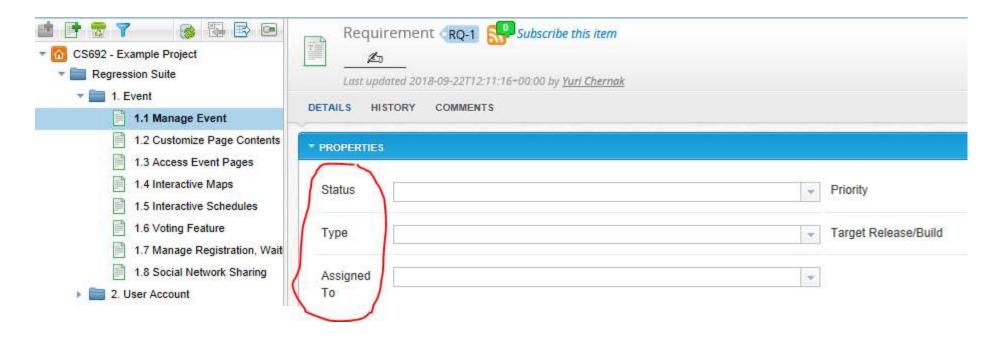
Releases created in the Test Plan module are automatically shown in the Test Execution module.



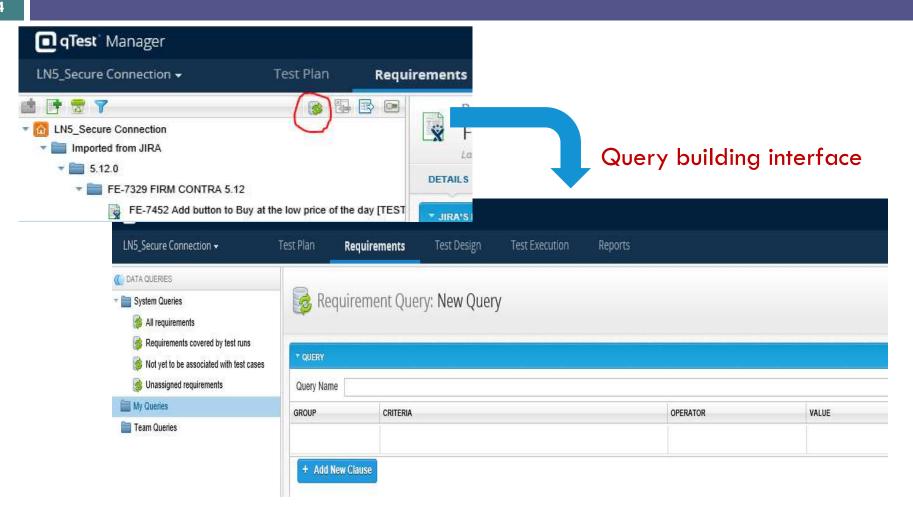
- Requirements repository structure is based on the Jira integration setup and stores requirements imported from Jira or created manually.
- You can also manually add other modules, e.g., Regression.
- The Requirements repository structure is automatically duplicated in the Test Design module. Hence, the test case repository structure is identical to the related requirements.



- 1 For a given requirement, we can create multiple test cases;
- Test cases can be created for different test types, e.g., QA, SIT, UAT and linked to the same Jira requirement;



- For each requirement, qTest shows some management fields that can be edited;
- In addition, we can create and add custom fields that can be used for building queries and generating reports.



• qTest has pre-defined queries and also allows creating custom queries.

Manager: Test Design





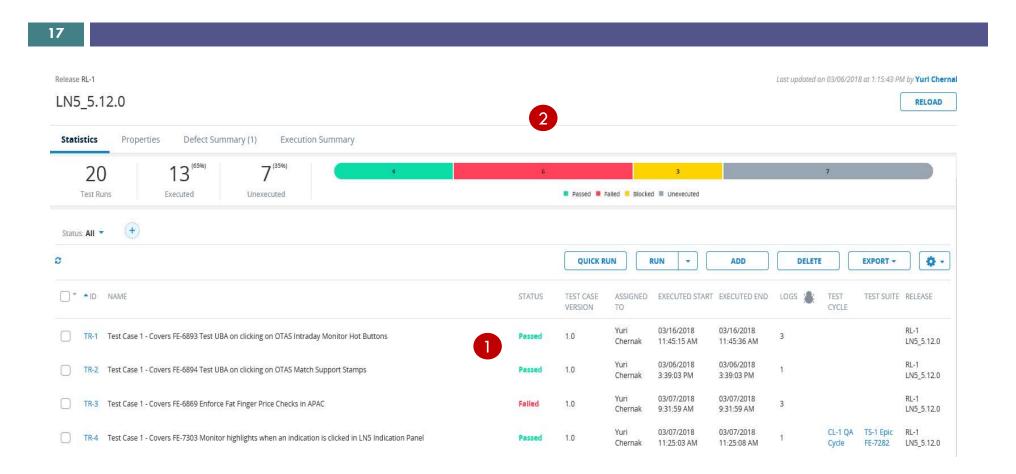
- Test Cases have a few management fields; qTest also allows adding custom fields that can be used for generating reports or creating queries;
- qTest maintains version control for test cases; once a given test case is approved, its version is changed to the whole number. If you continue editing the test case, its revision is incremented by a decimal number and you can see changes in the "History" tab;
- qTest allows creating comments for test cases.

Manager: Test Design



- A test case specification can be changed and saved at any time;
- 2 When a test case is complete and ready for execution, it needs to be approved first.
- For each approved test case we create a test run (i.e., test execution record) that will be included in the test execution log and managed in the Test Execution module.

Manager: Test Execution

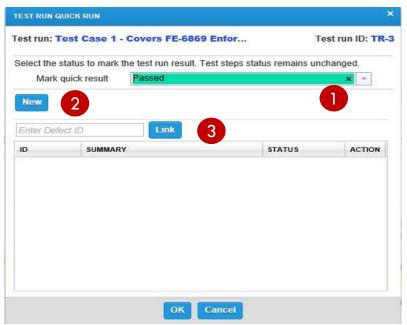


The Test Execution module is intended:

- to manage a test execution log (collection of test runs with execution status) for a given release;
- 2 to provide a quick summary of test execution results.

Manager: Test Execution

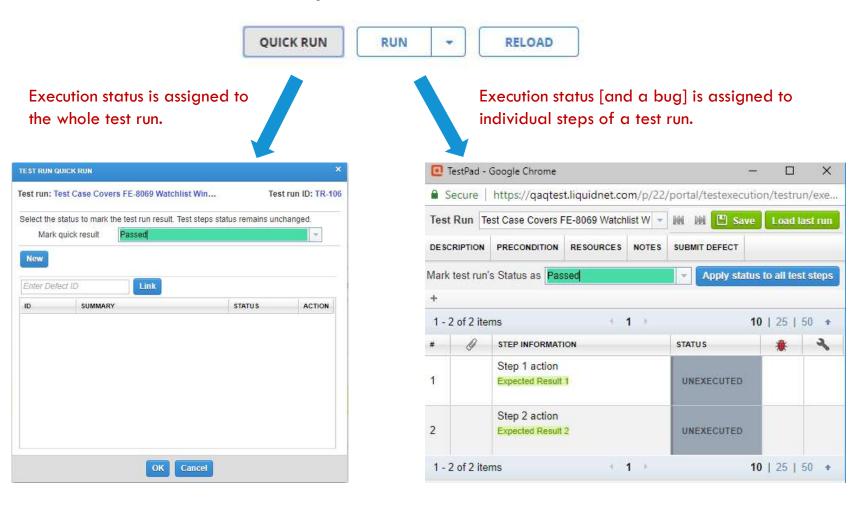




- 1) When a given test case is executed, it should be assigned a status of execution Pass, Failed, etc.
- If a test case status is Failed, a tester has an option to report a defect from qTest [New button] that will be linked to the test case.
- 3 Otherwise, a defect can be created in Jira and later linked to the related test case [Link button].

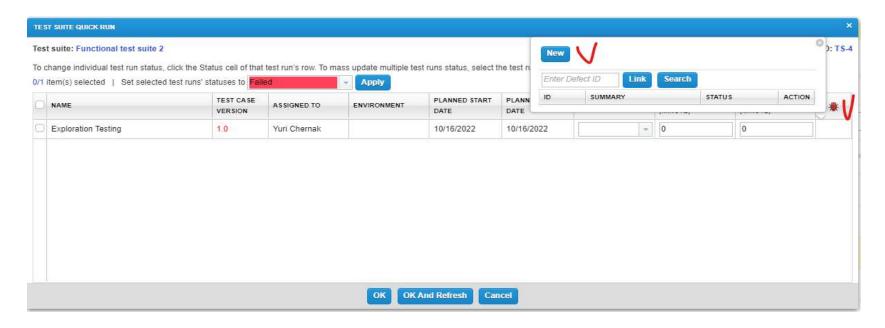
Manager: Test Execution

"Quick Run" vs "Run" Options



Manager: Test Execution, Reporting Defect

- 1. To report a defect, select a test run and click either Quick Run or Run button.
- 2. Below is a screen shot of the Quick Run window. Hover the mouse over the last column and a bug icon appears click it.
- 3. The defect reporting window is shown, click New button to report a defect.
- 4. When the defect is saved, the system brings you back to the Test Run status window, you need to save the run "failed" status.
- 5. In the test execution log this run is now shown with the Bug icon.



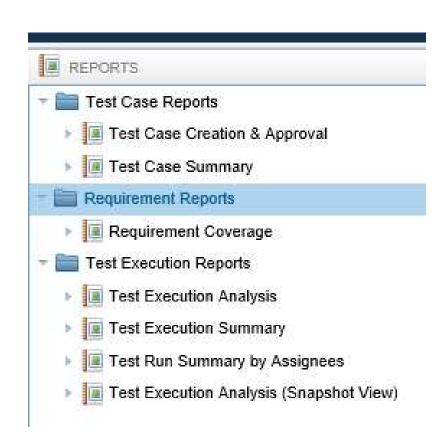
Manager: Reports

Module Purpose

Requirements module provides a set of predefined reports in the following categories:

- Test Cases
- Requirements
- Test Execution

Customized reports can be created using the **Insights** module (see Part 4).



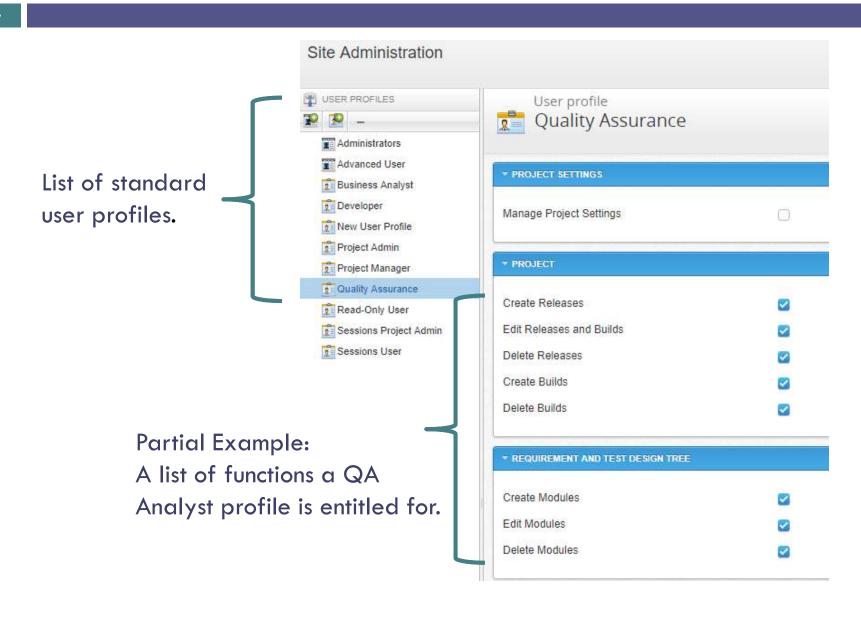
PART 3: PROJECT ADMINISTRATION

Administration Functions

A Project Admin role can perform the following functions:

Function	Description
User Management	Project Admin can change the role of a selected user, assigned to the project; also tailor tasks for managing requirements, test cases, test execution results, and sessions. See a list of roles on the next slide.
Integration Settings	Project Admin can create new or update the existing Jira integration with qTest. Jira import is based on the selected fields used in the integration setup (see next slide).
Field Settings	This function allows selecting/deselecting management fields (including custom fields) for requirements, test cases, and test runs.
Notification Settings	This function allows tailoring notifications based on events related to changes applied to requirements, test cases, test runs.
Test Case Settings	This function allows sharing test cases of a given project with other projects.

Standard User Profiles



PART 4: INSIGHTS

 $\underline{https://www.qasymphony.com/video-training/qtest-insights/insights-101/advanced-software-test-metrics/}$

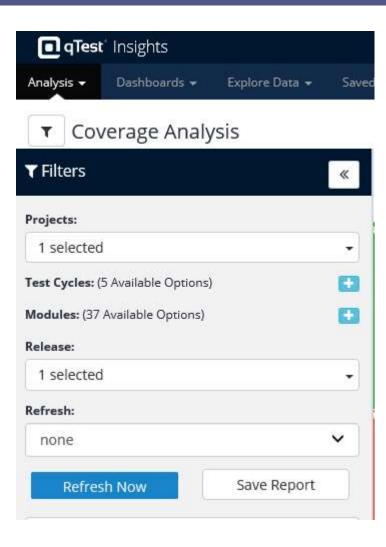
 $\underline{https://support.qasymphony.com/hc/en-us/articles/115003898206-How-Do-I-Create-Custom-Reports-in-qTest-Insights-in-qTest-In-qTest-In-qTest-In-qTest-In-qT$

Insight Module Functions

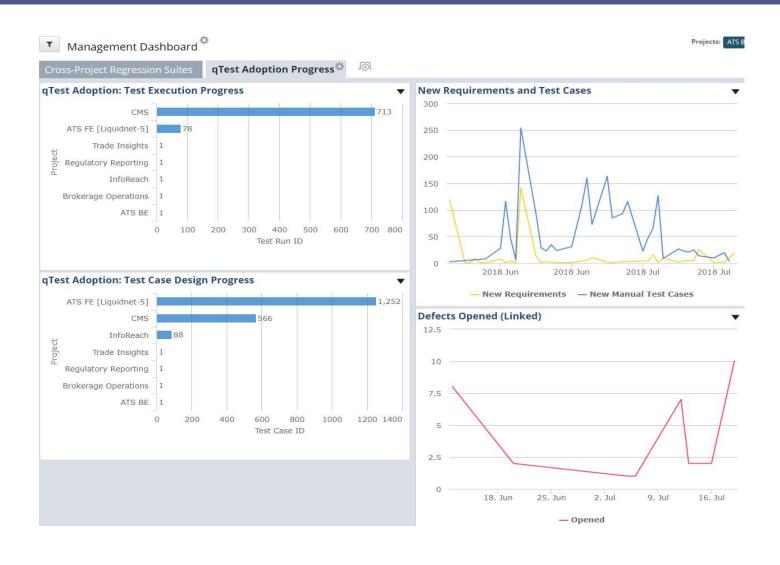
Insights module provides users with the following functions:

Function	Description
Analysis	This function shows various Quality or Coverage charts that include data according to a selected filter, shown on the next slide.
Dashboards	This function allows selecting various types of charts to represent test assets of a given project. The data can be also selected based on the filter.
Explore Data	This function allows generating reports or charts for individual types of assets (requirements, test cases, etc.) and based on the filter.
Saved Reports	This function allows managing any of the saved reports produced by the above functions.

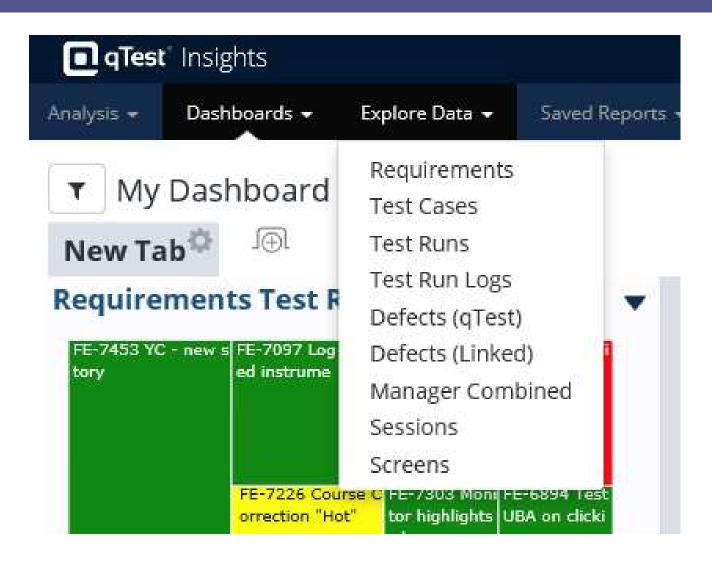
Insights Module Filter



Insights Module Dashboard



Insights: Explore Data



Insights: Saved Reports

Shared Reports

Report	Created	Schedule	Show In Menu
Kentucky Execution Status	6/15/2018	not scheduled	
Kentucky Req Coverage	6/15/2018	not scheduled	
Kentucky Test Cycles	6/15/2018	not scheduled	

You can create a personal report and then make it "shared".

Personal Reports

Report	Created	Schedule
Kentucky Execution Status	6/14/2018	not scheduled
Kentucky Req Coverage	6/14/2018	not scheduled
Kentucky Test Cycles	6/14/2018	not scheduled

PART 5: PARAMETERS

https://support.gasymphony.com/hc/en-us/articles/115003480703-Test-Cases-and-Test-Runs-with-Parameters

Parameters Module Overview

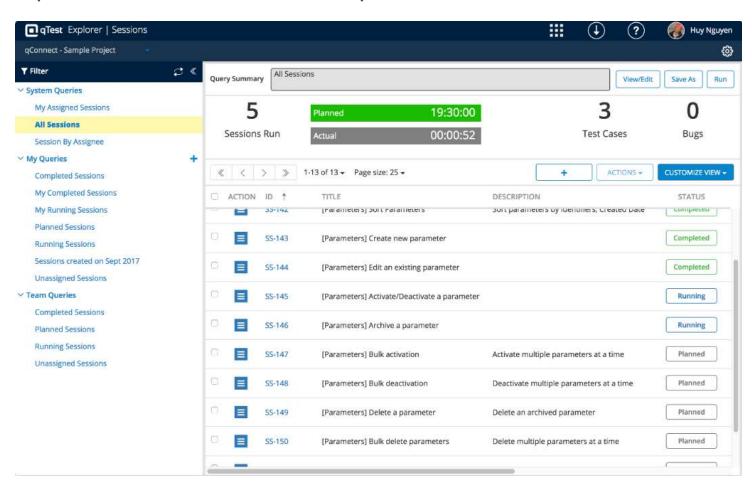
- qTest Manager's parameterization feature allows testers to run the same test case multiple times with different data specified at the test step level.
- This feature allows test teams to:
 - Store reusable test data in one centralized location;
 - Import existing parameters and data sets;
 - Share data across qTest projects;
- You can add parameters when designing test cases.
- A parameter is a variable which can be assigned an actual value when creating or executing test runs. It will allow you to execute the test case repeatedly with different data each time.
- To execute test runs with parameters:
 - Define your parameters in your qTest Manager Parameters.
 - Design your test cases and add parameters in Test Steps.
 - Create test runs from parameterized test cases. At this stage, you will need to assign parameter values which will be used during test execution.
 - When executing test runs in the TestPad or viewing existing test logs, you will see the actual executed parameter values in the test steps, not the parameters themselves.

PART 6: SESSIONS

https://support.qasymphony.com/hc/en-us/articles/115002947166-Sessions-Overview

Sessions Module Overview

qTest allows creating automated scripts by recording your test session that can be edited, shared with other team members, and executed later.



PART 7: CLASS ASSIGNMENT

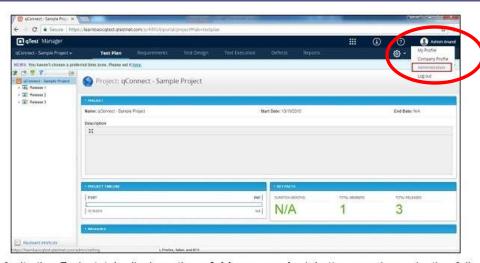
Create Team's Project

Step 1:

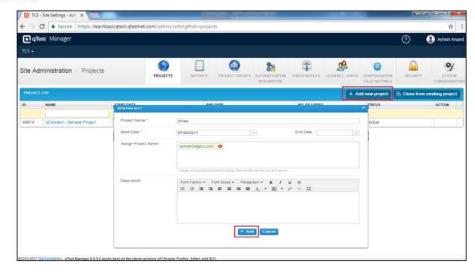
Go to the user profile section and click **Administration** as shown in the screenshot.

Step 2:

Enter Project Name=Team1, 2, etc. By clicking the +Add button, the project gets added successfully and a dialog box appears along with the OK button as shown in the screenshot.

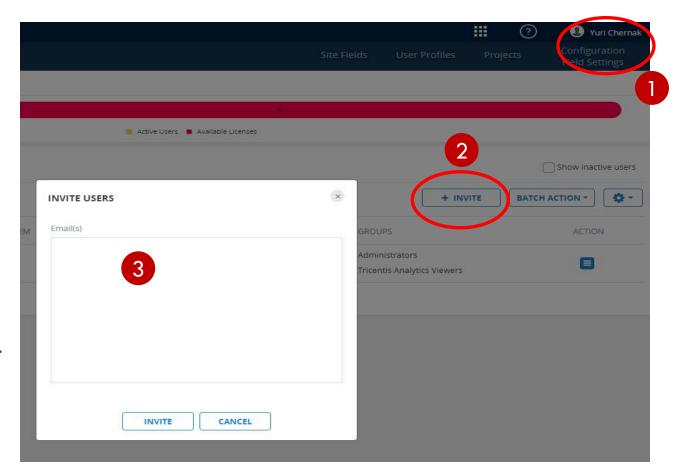


By default, the Project tab displays the **+Add new project** button as shown in the following screenshot.



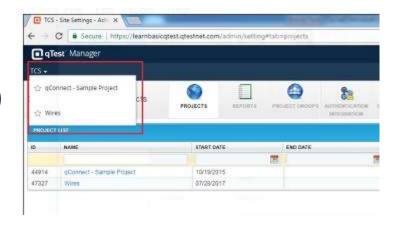
Invite Users and Assign User Roles

- 1. Click on your account and select "Administration"
- 2. Click "Invite" button
- 3. Type user's email and click "Invite"
- 4. When user accounts have been created, go to the Manager Module, select your project and add users to the project.
- Assign each user a Project Manager role, so the user could use all qTest features.



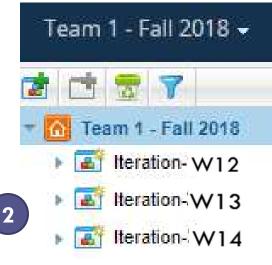
YouTube Tutorial: https://www.youtube.com/watch?v=1zCK5VXrytg

Test Plan Module



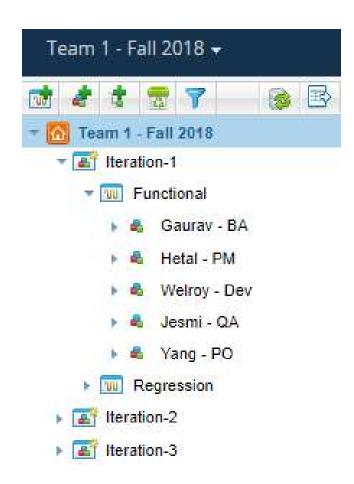
1. Select your project.

2.Create three iterations for your project – W12, W13, W14.



Test Execution Module

- For each Iteration, create a test cycle – Functional Test.
- For each Cycle create Test Suites and name them after the team members. This way each team member will have a "personal" Test Suite for test execution.



Requirements Module

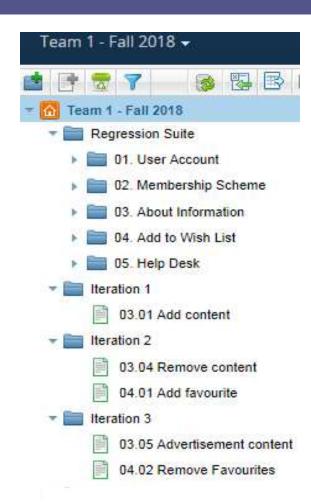
Create requirements folder structure as shown in the image.

Note:

 Requirements for the Regression folder are coming from the RCT and structured by functional areas.

Select each requirement in the iteration scope (See RoadMap) and create related test cases according to your Test Design in the Excel document, i.e., reproduce Excel test cases in qTest.

You can add more test cases later.



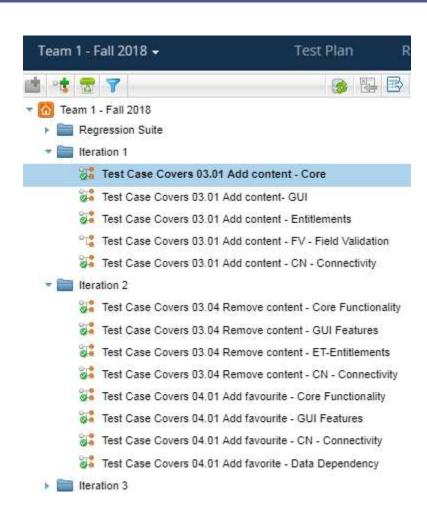
Test Design Module

- Assign test cases to different team members.
- Each team member completes details (steps, expected results) for each assigned test case;
- Approve one test case at a time;
- Create a Test Run for each test case placing test runs in related Test Cycles.



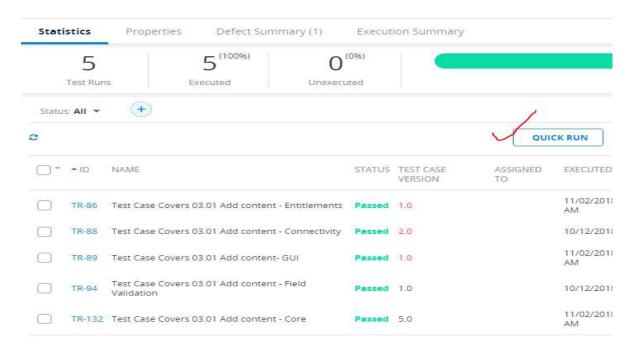
Test Design Module

Complete details for each created test case.



Test Execution Module

- Select one test run at a time, click **Quick Run** and execute test, i.e., assign Pass/Fail status.
- Fail a few test runs and report defects.
- After the whole team has completed test execution, export the test log to Excel and paste it to the Excel Test Design document.



Test Execution Module

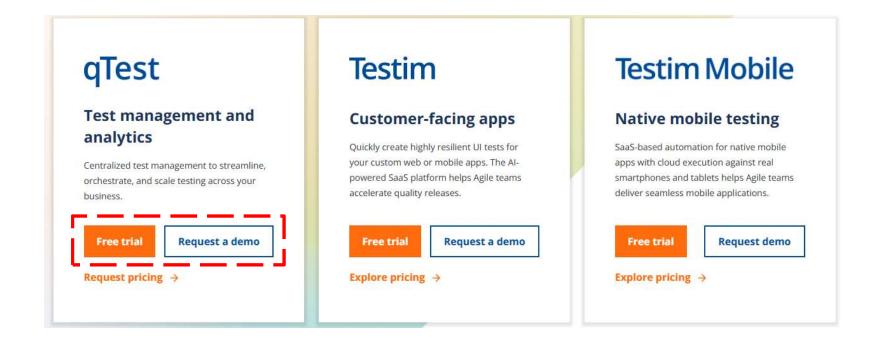
- Export Test Execution Log for each Iteration;
- Include in the export file the fields as shown below.

ld	Name	Target Release/Build	Status	Assigned To
TR-17	Test Case Covers 2.03 Book a service Core Functionality	Iteration-2		Jahid Hasan
			Passed	
TR-18	Test Case Covers 2.03 Book a service GUI Features	Iteration-2		Jahid Hasan
			Passed	
TR-19	Test Case Covers 2.03 Book a service EN- Entitlements	Iteration-2		Jahid Hasan
			Passed	
TR-20	Test Case Covers 2.03 Book a service DDV - Data-	Iteration-2		Jahid Hasan
	Dependency Validation		Passed	
TR-21	Test Case Covers 1.06 Track Loyalty GUI Features	Iteration-2		Jahid Hasan
			Passed	
TR-22	Test Case Covers 1.06 Track Loyalty EN- Entitlements	Iteration-2		Jahid Hasan
		1	Passed	

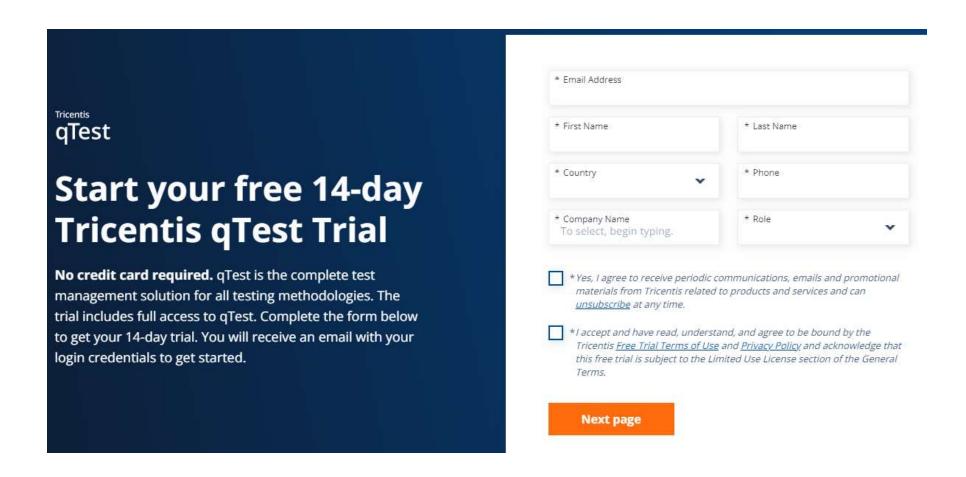
APPENDIX: SUPPLEMENTARY RESOURCES

qTest Free Trial Link

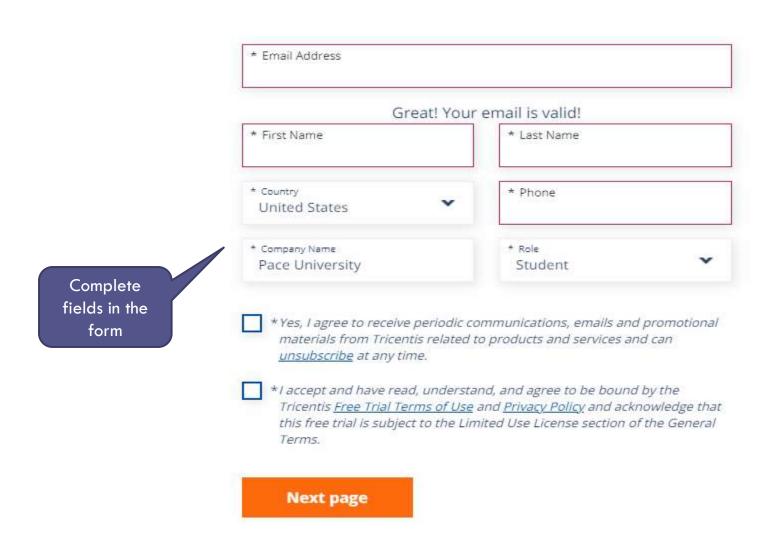
https://www.tricentis.com/software-testing-tool-trial-demo/



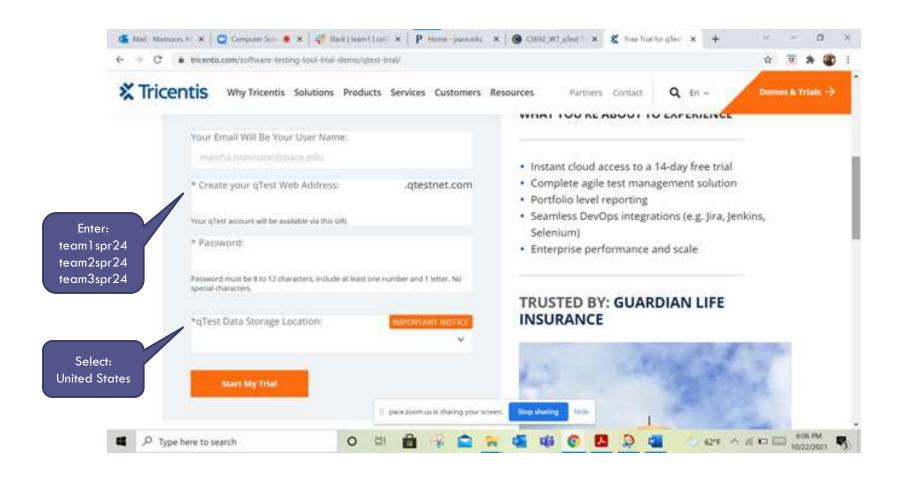
qTest Free Trial Form



qTest Free Trial - Screen 1



qTest Free Trial – Screen 2



qTest Supporting Materials

qTest quick start guide:

https://documentation.tricentis.com/qtest/od/en/content/manager/introduction/qtest manager quick start guides.htm

https://www.tutorialspoint.com/qtest/index.htm

qTest Tutorials on YouTube

Tutorial: Getting Started with qTest

https://www.youtube.com/watch?v=jmuR-8ZaLJc

qTest Overview Demo

https://www.youtube.com/watch?v=hxmBjDw7szw

qTest Scenario for JIRA by QASymphony

https://www.youtube.com/watch?v=fEOHIrcTJ k

Tutorial: How to Create Test Cases

https://www.youtube.com/watch?v=T1xpd1YUU2o