

QualiSystems

TestShell & IBM Quality Manager Integration guide

TestShell 5.1

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Working with IBM Rational Quality Manager

Preface

QualiSystems Studio and Runner are a part of an overall quality suite, named TestShell. The TestShell Studio allows easy-for-all authoring of testing procedures. TestShell Runner executes the tests and saves the results to a database.

IBM Rational Quality Manager is a web-based centralized test management environment. It is a business-driven environment for test planning, workflow control and metrics reporting.

This integration guide is intended for users who already have the IBM Rational Quality Manager, and wish to integrate TestShell tests and regressions into it.

Purpose

This Guide describes how to add and execute TestShell tests or regressions in IBM Rational Quality Manager.

Please supply the following information prior to integration:

- Username (For accessing IBM Rational Quality Manager)
- Password
- RQM Server address

All of the above should be provided by IBM Rational Quality Manager administrator.

Integrating Studio Runner

Defining Runner station as RQM client

Copy the `Integration\RQM\2.0.1` folder provided by QualiSystems with all content to the Studio client machine (to `My Documents/TestShell Files/RQM Integration`).

Note: On a Terminal-Server machine, each client should have its own copy of the adapter.

Set the following permissions to all the users for this folder:

- Read & execute
- List folder content
- Read
- Write

Install Java SE Runtime Environment 5.

Open the above folder and read carefully the **readme.txt** file, and make sure all prerequisites are installed.

Each user who logged in to Windows must start her own adapter:

Create a shortcut of **start.bat** file in `Integration\RQM\2.0.1` folder.

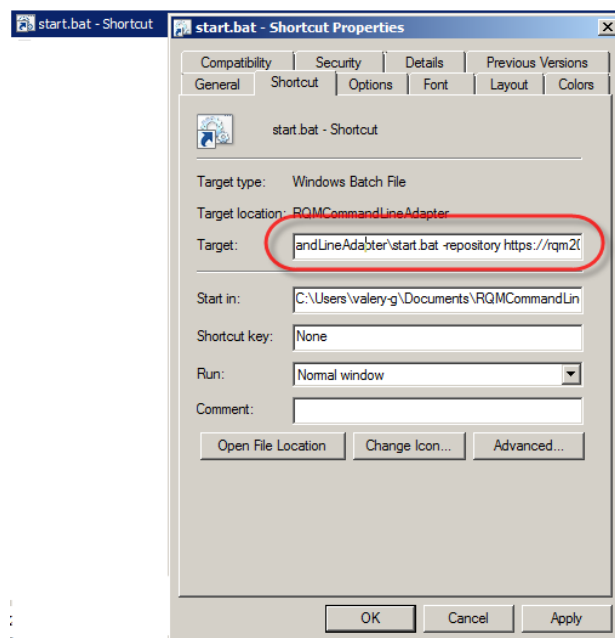
Open Properties of that shortcut and add to Target field following parameters while **adapterName** value is `%USERNAME%` (for additional information, see step 2 in the readme file):

`"<FullPathOfStart.bat>start.bat" -repository https://<rqmserver>:<port>/jazz -user <userid> -password <password> -adapterName <adapterName>`

For example:

`"...RQMCommandLineAdapter\start.bat" -repository https://rqm201:9443/jazz -user ADMIN -password ADMIN -adapterName %USERNAME%`

Full path of start.bat file **Add these parameters**



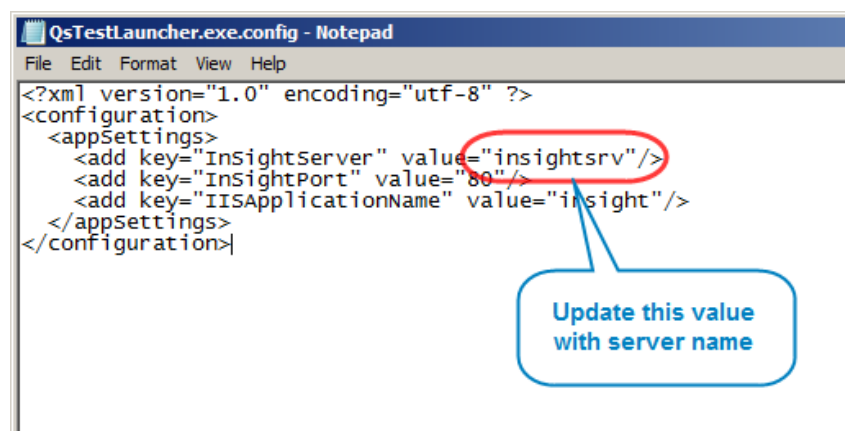
Shortcut properties

Copy this shortcut file to Desktop that accessible to all the machine users (i.e. Desktop that located in C:/Users/All Users folder)

Each specific user who's logged-in to Windows she will activate this shortcut and the adapter will be started with an appropriate **adapterName**, according to the %Username% environment variable.

Configure the Insight Server location in configuration file to see Insight report of the run. In order to do so, locate **QsTestLauncher.exe.config** file that located under Studio installation folder (i.e. C:\Program Files\QualiSystems\Studio) and open it in any text editor.

Update the **InSightServer** key value with required value:



Insight Server location

Save the file and close

If you are working with OS 64-bit, please perform the following:

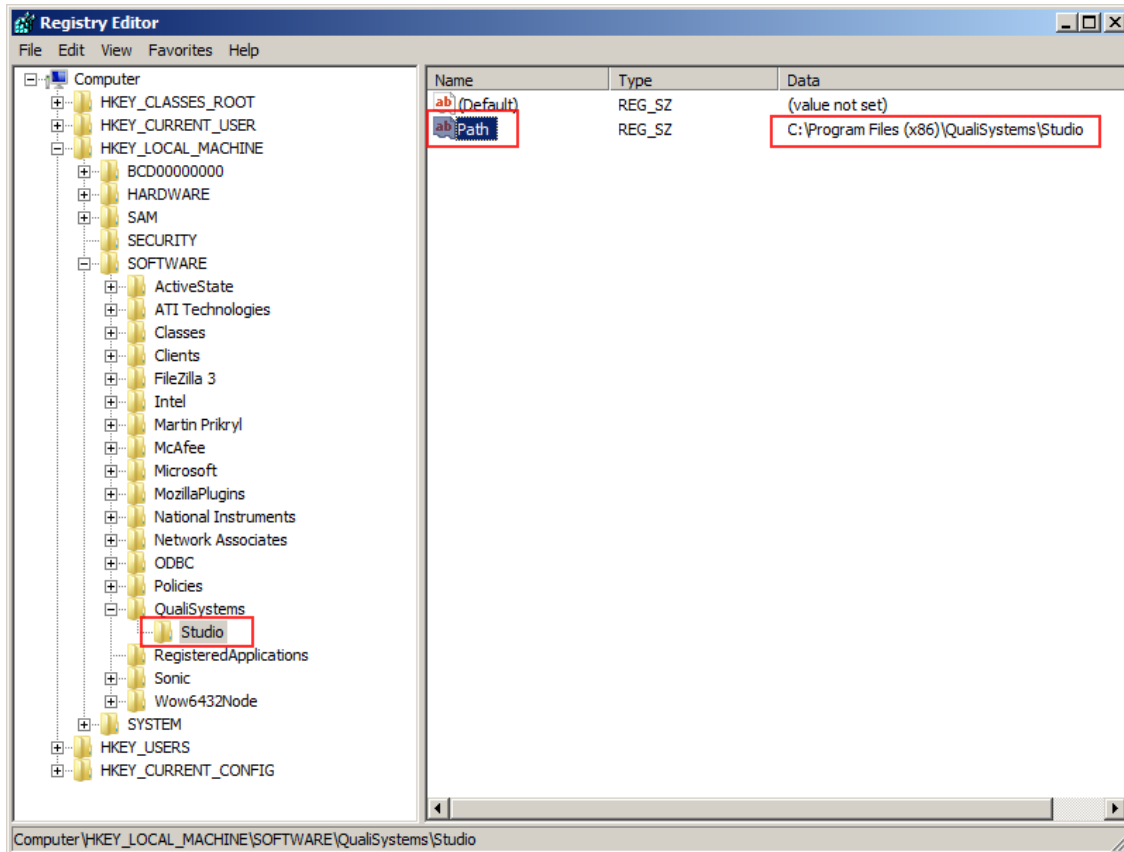
Open Registry Editor (Start→Run→regedit)

Locate the KEY: HKEY_LOCAL_MACHINE\SOFTWARE

Create new key under it: **QualiSystems**

Create new key inside QualiSystems: **Studio** and open it

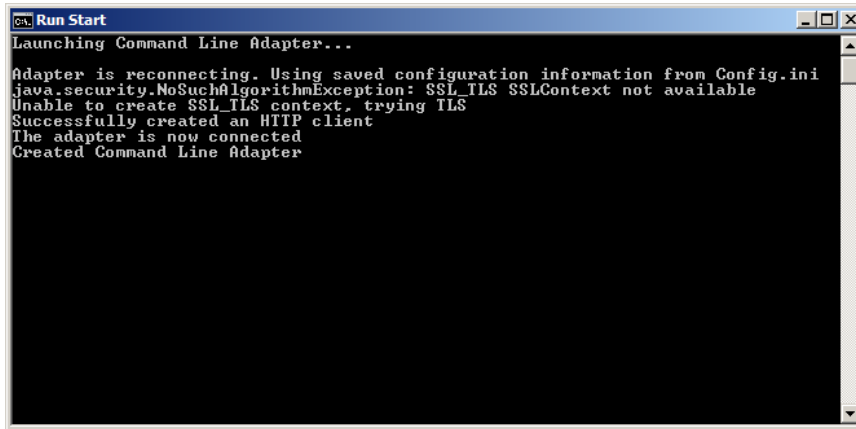
Add to this key a new String Value with name **Path** and value **installation folder of the Studio Client** (usually C:\Program Files (x86)\QualiSystems\Studio).



Add new key to registry

To test the adapter, run the newly created shortcut, verify that adapter has been started and do not close the **cmd** window, as it has to be running in order for the integration between TestShell and RQM will work.

See that you get the following window:



```
CA> Run Start
Launching Command Line Adapter...

Adapter is reconnecting. Using saved configuration information from Config.ini
java.security.NoSuchAlgorithmException: SSL TLS SSLContext not available
Unable to create SSL TLS context, trying TLS
Successfully created an HTTP client
The adapter is now connected
Created Command Line Adapter
```

Starting the Command Line adapter

Running tests and regressions in RQM

Running tests and regressions in RQM requires TestShell Runner installed on the client machine. If the Runner application is already open you should turn on External Control:



Turn on External Control

You do not have to start Runner application: RQM script will invoke the Runner automatically.

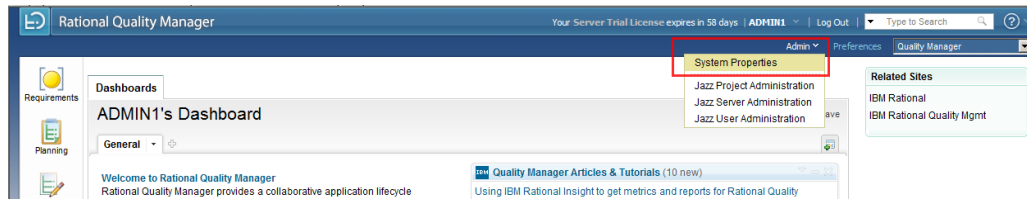
Copy the `RunQsTestLauncher.cmd` file that located at `Integration/RQM` folder on Installation Disk to some shared location in your network (make sure that 'Read & execute' permissions allowed to this folder for all users in network).

Open in web browser the RQM Server and login:



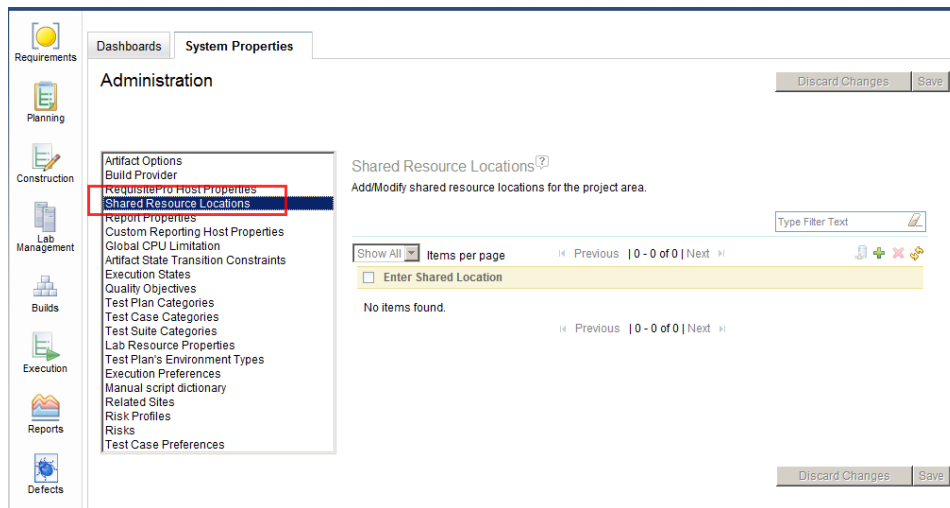
Login to RQM

Open System Properties through Administrator menu:



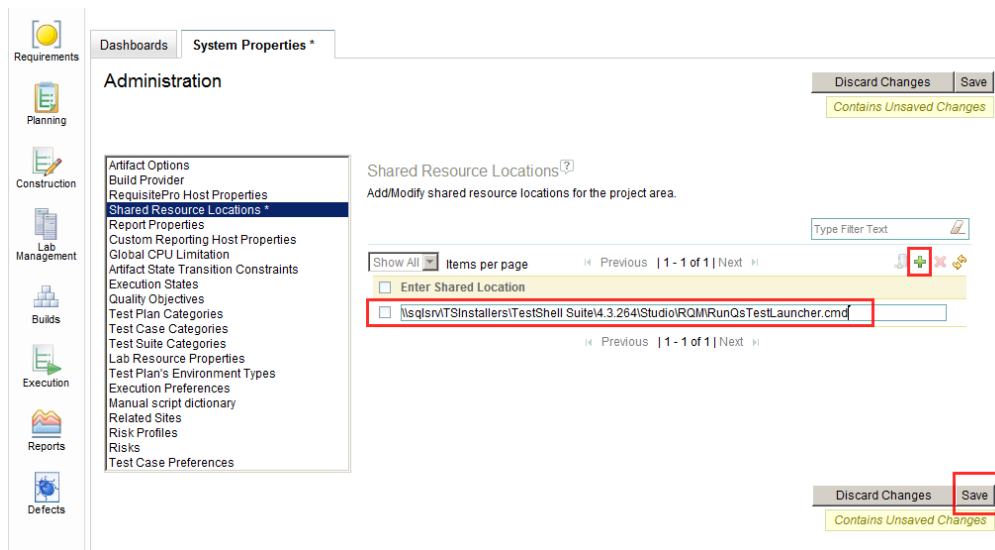
System properties

Select Shared Resource Locations from the list:



Shared resource locations

Click '+' to add new location, enter the shared location path and save the changes:



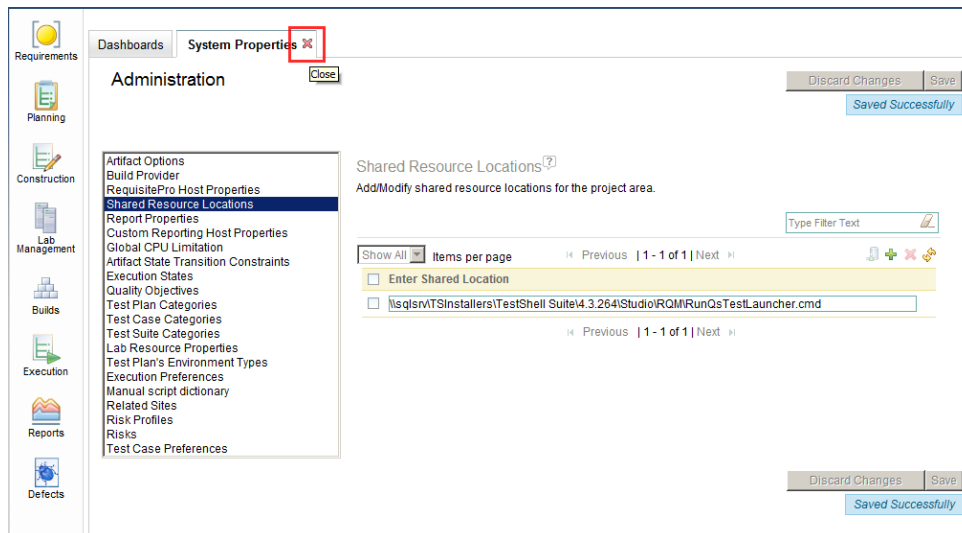
Add new Location

Notes:

The **Shared Location** path is not supporting spaces in the name – make sure to rename the required location folder accordingly.

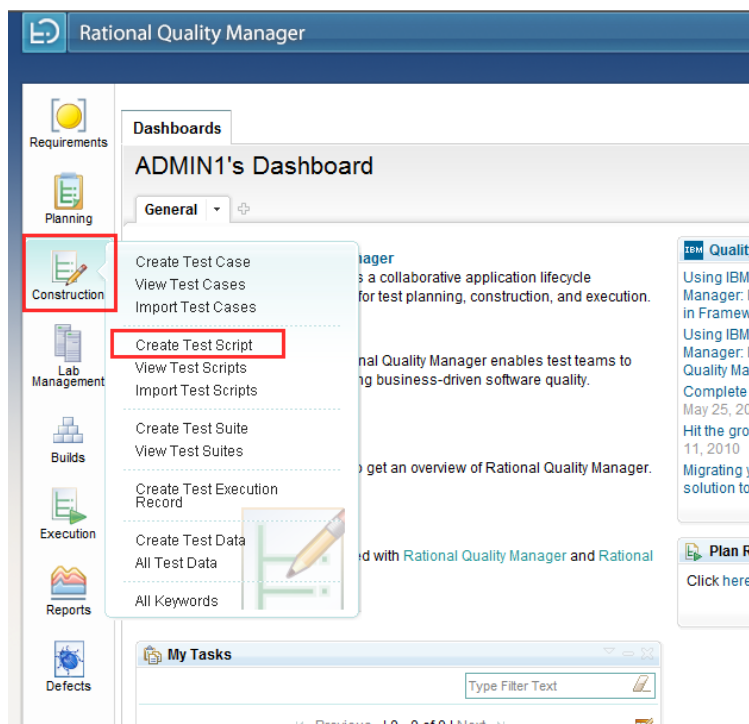
The **Shared Location** should contain the shared folder path without the file.

Close System Properties:



Close System properties

Go to **Construction** > **Create Test Script**:



Create Test Script

The **Create Test Script** tab opens.

Enter the name of the script:

The screenshot shows the 'Create Test Script' tab in the TestShell interface. The left sidebar contains icons for Requirements, Planning, Construction, Lab Management, and Builds. The main area has a 'Studio Test Script' title, which is highlighted with a red box. Below the title, there are fields for 'Originator: ADMIN1', 'Action: Select Action', 'State: Draft', 'Type: Manual', and 'Test Data: Unassigned'. A description field is also present with a link to enter a description. At the bottom, there is a 'Manual Steps' table with columns for 'Step', 'Description', and 'Expected Results'. A green plus icon is used to add a new step.

Script name

Select **Command Line** from the **Type** drop-down list:

The screenshot shows the 'Create Test Script' tab in the TestShell interface. The 'Type' dropdown menu is open, showing a list of options: 'Manual', 'Functional Tester', 'Manual', 'Performance Test', 'Rational AppScan Tester Edition', 'Rational TestRealTime', 'Robot', and 'Service Test'. The 'Command Line' option is highlighted with a red box. The other fields and the 'Manual Steps' table are visible in the background.

Script type

Make sure that **Use test resources from a shared location** radio button is selected and click **Browse** to select a resource:

Studio Test Script

Originator: ADMIN1 Action: Select Action State: Draft

Type: Command Line

Description: < Click here to enter a description >

Command Line Script Details

This will create a Test Script that references external test resources. Select the type of test resource to use:

☒ Use test resources from a shared location

☐ Use test resources that are local to a test machine

Command: [Empty] Browse

Arguments: [Empty]

Browse shared resource location

In the opened window select the shared resource that you defined previously and click **OK**:

Browse: Shared test resources

Test Plan: Unassigned Test Milestone: [Empty]

Shared Resource Location: \\sqlsrv\TSInstallers\TestShell Suite4.3

Relative Location: \\sqlsrv\TSInstallers\TestShell Suite4.3\264\Studio\RQM\RunQsTestLauncher.cmd

RunQsTestLauncher.cmd

Show all files

OK Cancel

Select shared resource

Populate the required command arguments according to the syntax rules in the table below, separated by spaces, and save the script:

Dashboards **Create Test Script** System Properties

Studio Test Script
Test Script

Originator: ADMIN1 Action: Select Action State: Draft Work Item: Create

Type: Command Line

Description: [Click here to enter a description](#)

Command Line Script Details

This will create a Test Script that references external test resources. Select the type of test resource to use:

- ☒ Use test resources from a shared location
Choose test resources from a shared location.
At execution time, the resources will be copied to the test machine.
- ☐ Use test resources that are local to a test machine
Choose test resources that are on a test machine already.
At execution time, the resources at the location you choose will be used.

Command Browse `%SystemRoot%\System32\cmd.exe`

Arguments My Test /local+ /username:admin /password:admin Save

Discard Changes Save Contains Unsavd Changes

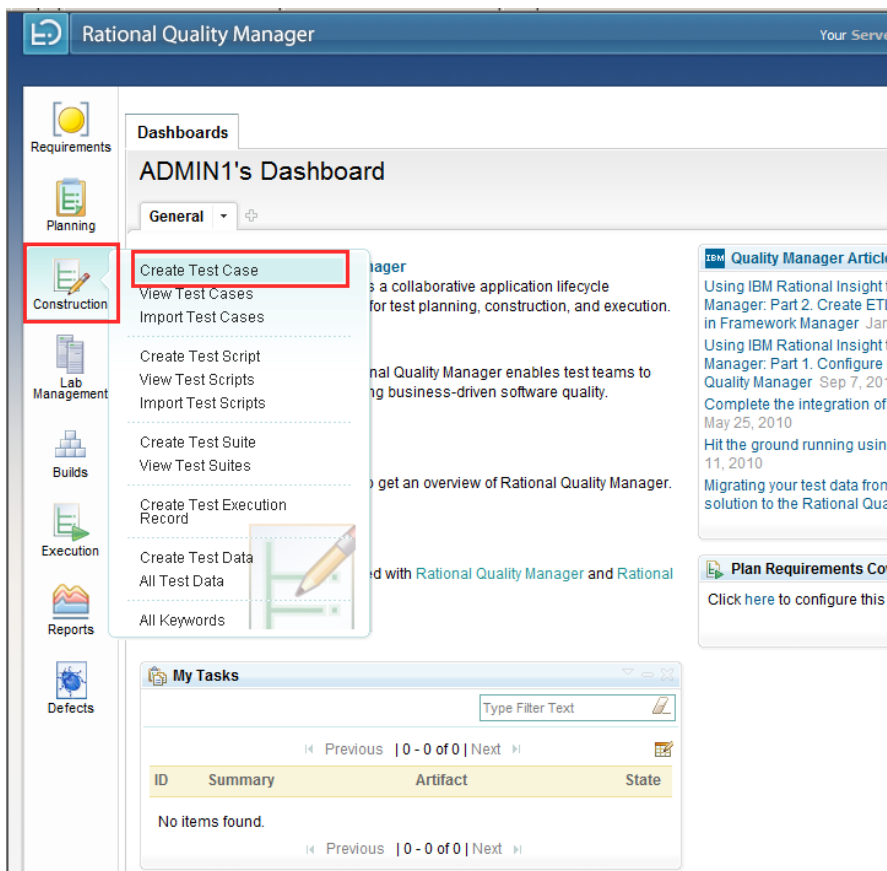
Populate arguments and save. Note that test names are case sensitive.

Argument	Syntax	Mandatory
Test Path	<Folder\Folder\...\Test Name> When full path contains spaces it must be in quotes, e.g. "My Tests\Test3"	Yes
Initialization Timeout – timeout of Runner start	/it:<value in milliseconds> The default value is 60000	No
Username	/username:<value>	Yes, if Runner is not started in External Control
Password	/password:<value>	Yes, if Runner is not started in External Control
UUT Path	/uut:<full path of UUT> E.g. "/uut:My UUT"	No

Argument	Syntax	Mandatory
Save Report	<p>/report<+ -></p> <p>Add '+' after the report to save the report and '-' for not to save.</p> <p>The default option (if not using the argument) is to save the report.</p>	No
Test Variables	<p>/testvars:<variable name1=value1;variable name2=value2;...></p> <p>E.g. "/testvars:My String='string value';My Number=1234"</p> <p>The variables must be defined as 'Shared In' in the test</p>	No
UUT Variables	<p>/uutvars:<variable name1=value1;variable name2=value2;...></p> <p>E.g. "/uutvars:My String='string value';My Number=1234"</p>	No
Run Timeout	<p>/rt:<value in milliseconds></p> <p>The default value (if not using the argument) is -1: no timeout.</p>	No
Local or Shared test	<p>/local<+ -></p> <p>Add '+' after the local for local test and '-' for shared test.</p> <p>The default option (if not using the argument) is local-: Shared test</p>	No
Is regression	<p>/regression<+ -></p> <p>Add '+' after regression to indicate that test in arguments is Regression or '-' for Test.</p> <p>The default option (if not using the argument) is regression- : Test</p>	No

Argument	Syntax	Mandatory
Synchronize	/sync<+ -> Add + after sync to indicate that TestShell runner should sync with TestShell Server every time before running a test (in order to retrieve the most up-to-date copy of the test from the server) The default option (if not using the argument) is sync- : Don't sync	NO

Go to **Construction > Create Test Case**:



Create Test Case

The Create Test Case tab opens.

Enter the name of the test case and click **Test Scripts** in **Table of Contents**:

Rational Quality Manager

Your Server Trial License expires in 58 days | ADMIN1 | Log Out

Dashboards | Create Test Case

Manage Sections

Table Of Contents

- Summary
- Test Case Design
- Formal Review
- Plan Items
- Requirements
- Requirement Links
- Risk Assessment
- Pre-Condition
- Post-Condition
- Expected Results
- Test Scripts**
- Test Execution
- Records
- Attachments

Test Case

Originator: ADMIN1 Action: Select Action State: Draft

Template: Default Test Case Template

Description: < Click here to enter a description >

Test Scripts

Automated or manual test scripts that are associated with this test case. Scripts can be reused.

Group by: Ungrouped

Show All Items per page Previous 0 - 0 of 0 Next

ID	Name	State	Script Type	Modified
No items found.				

Discard Changes Save

Contains Unsaved Changes

Test case

Click the '+' Test Scripts section and select script that you created.

Click **OK**:

Rational Quality Manager

Your Server Trial License expires in 58 days | ADMIN1 | Log Out

Dashboards | Create Test Case

Manage Sections

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Test Case

Originator: ADMIN1 Action: Select Action State: Draft

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Description: < Click here to enter a description >

Test Scripts

Automated or manual test scripts that are associated with this test case. Scripts can be reused.

Group by: Ungrouped

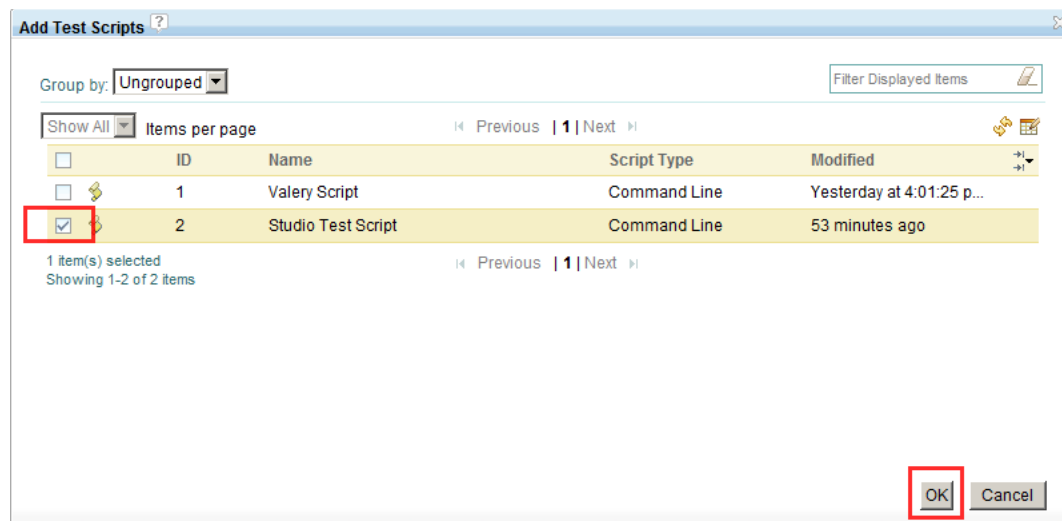
Show All Items per page Previous 0 - 0 of 0 Next

ID	Name	State	Script Type	Modified
No items found.				

Discard Changes Save

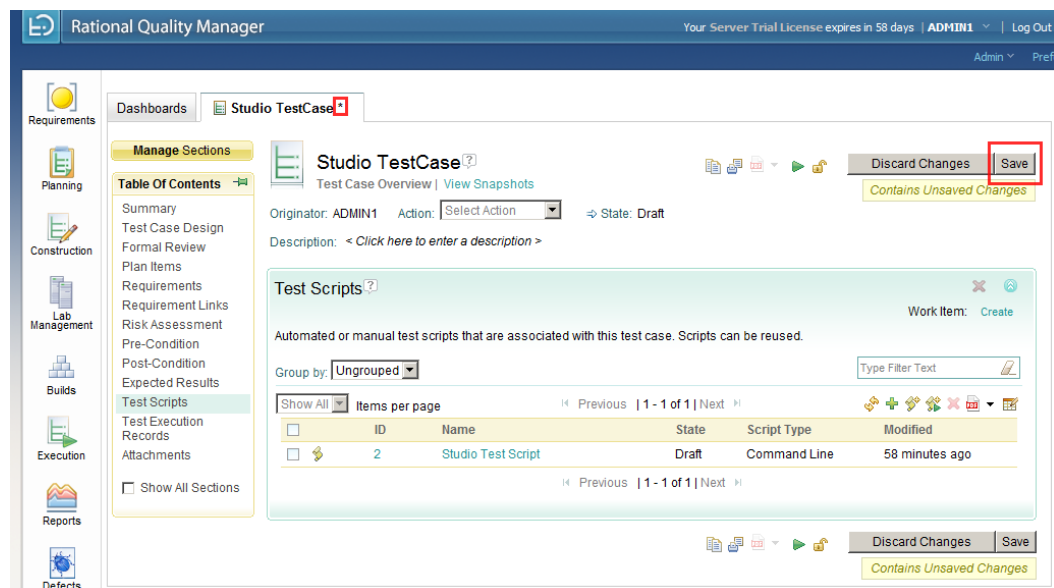
Contains Unsaved Changes

Add script



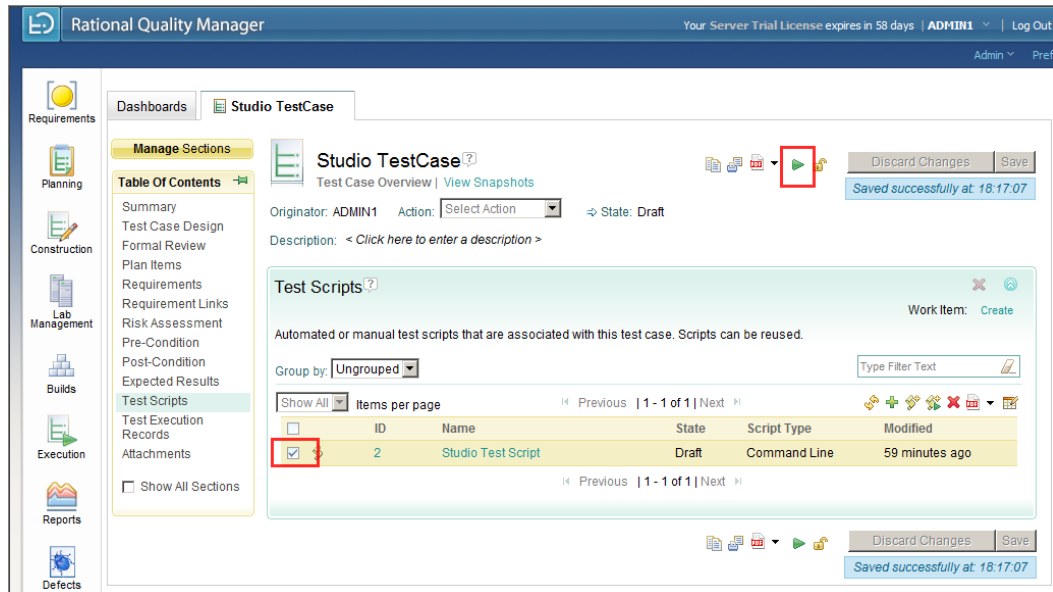
Select script in list

After the script was added to the list, save the changes:



Save test case

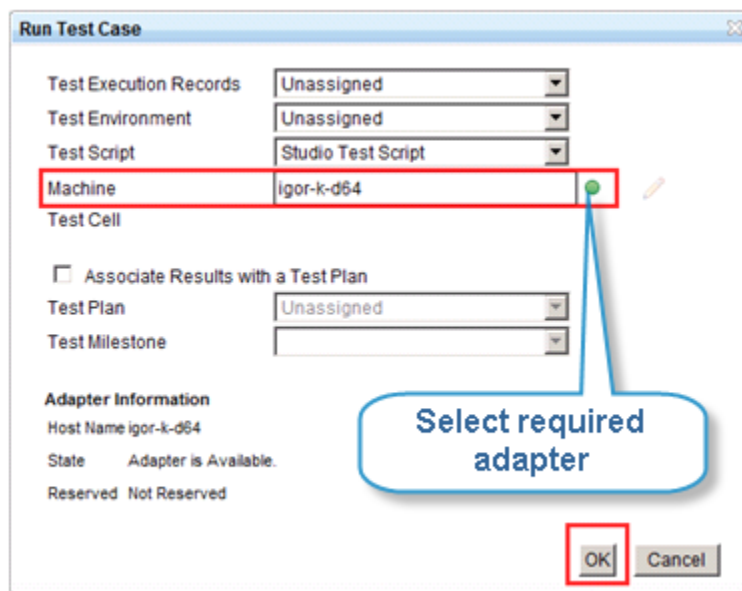
Select the script in the list and click **Run** button on top toolbar:



Run the Test Case

Run Test Case window opens with all details.

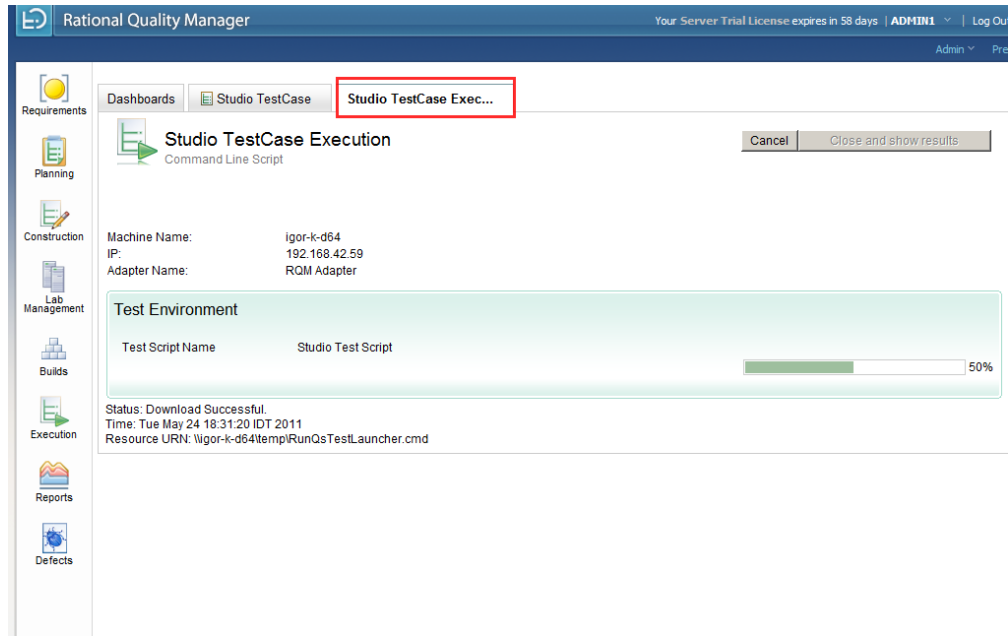
Click **OK** to proceed:



Select adapter

When there are several adapters connected to RQM, you must to select required one (according to username) in **Machine** filed.

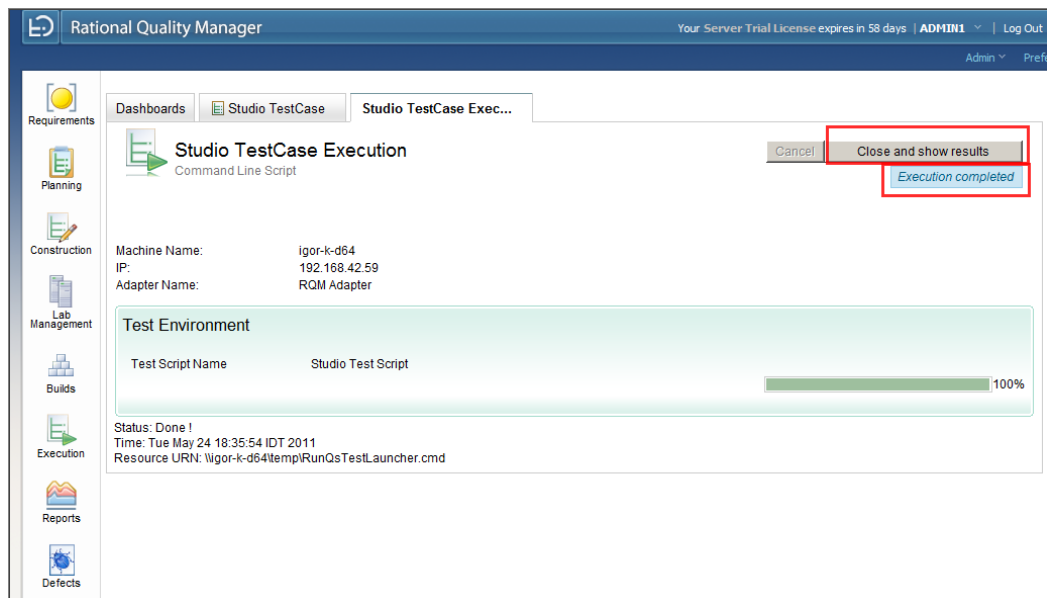
The new **Studio TestCase Execution** opens displaying progress of the run:



Test Case Execution

At the end of the Test Case execution the status of run is displayed and **Close and show results** button becomes enabled.

Click it:



Execution completed

The previous tab is replaced by the **Execution Results** tab where you can see all results of the run.

To see Studio reports details:
Scroll down the page.

Rational Quality Manager

Your Server Trial License expires in 58 days | ADMIN1 | Log Out

Admin | Profile

Dashboards | Studio Test Case | **Execution Result**

Execution Result ?
Command Line Result

Discard Changes | Save

ID: 12
Actual Result: ☒ Passed
Host Name: igor-k-d64
Owner: ADMIN1

Test Plan:
Test Milestone:
Test Case: Studio Test Case
Test Script: Studio Test Script
Test Data: Unassigned
Build: Unassigned
Weight: 100

Start Time: May 24, 2011 6:35:24 p.m.
End Time: May 24, 2011 6:35:50 p.m.
Total Run Time: 27 sec

Weight Distribution ?

Category	Count
Pass	100
Fail	0
Inconclusive	0
Blocked	0
Attempted	100

Test Environment ?

Defects ?

Type Filter Text

Execution Results tab

At the bottom of the page click on the link in **Result Details** section:

Notes ?

Add Content

Edit

Result Details ?

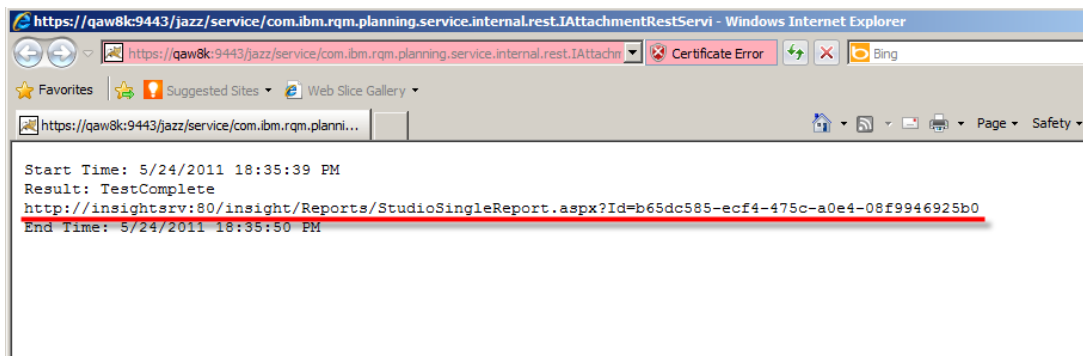
View Result History

QMAdapter2485057029677626841.out

Result Details

Note: When there are any attachments in test execution the links to these attachments will appear as well.

In opened window you can see Studio test execution results and also link to the Studio Report (if the argument of report was enabled) which can be reviewed using Insight:

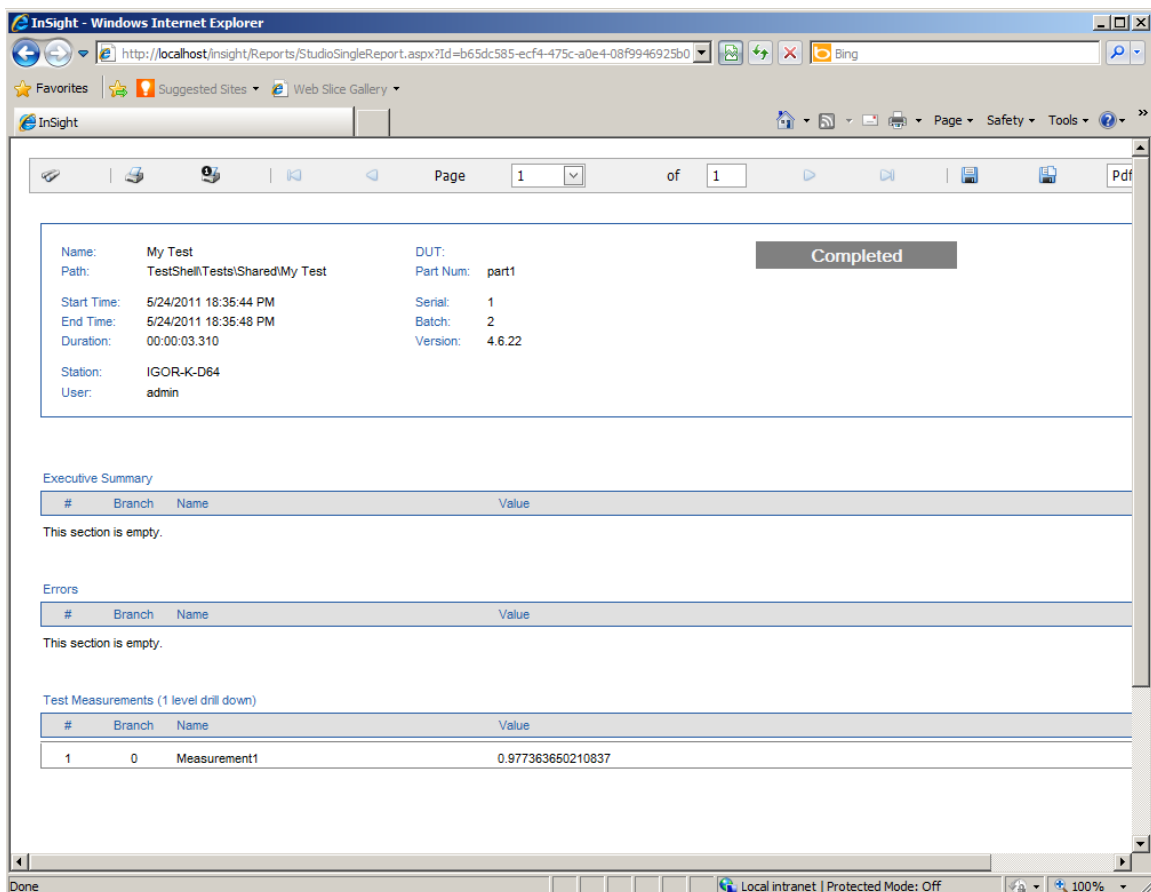


Studio execution details

To see the Studio report:

Copy the link from the above screen (Instead of [insightsrv](#) the server name that you configured previously into a web browser.

The report opens:



Studio report