



Multi-Channel Testing – from Web to Mobile with Rational Test Workbench and Rational Quality Manager

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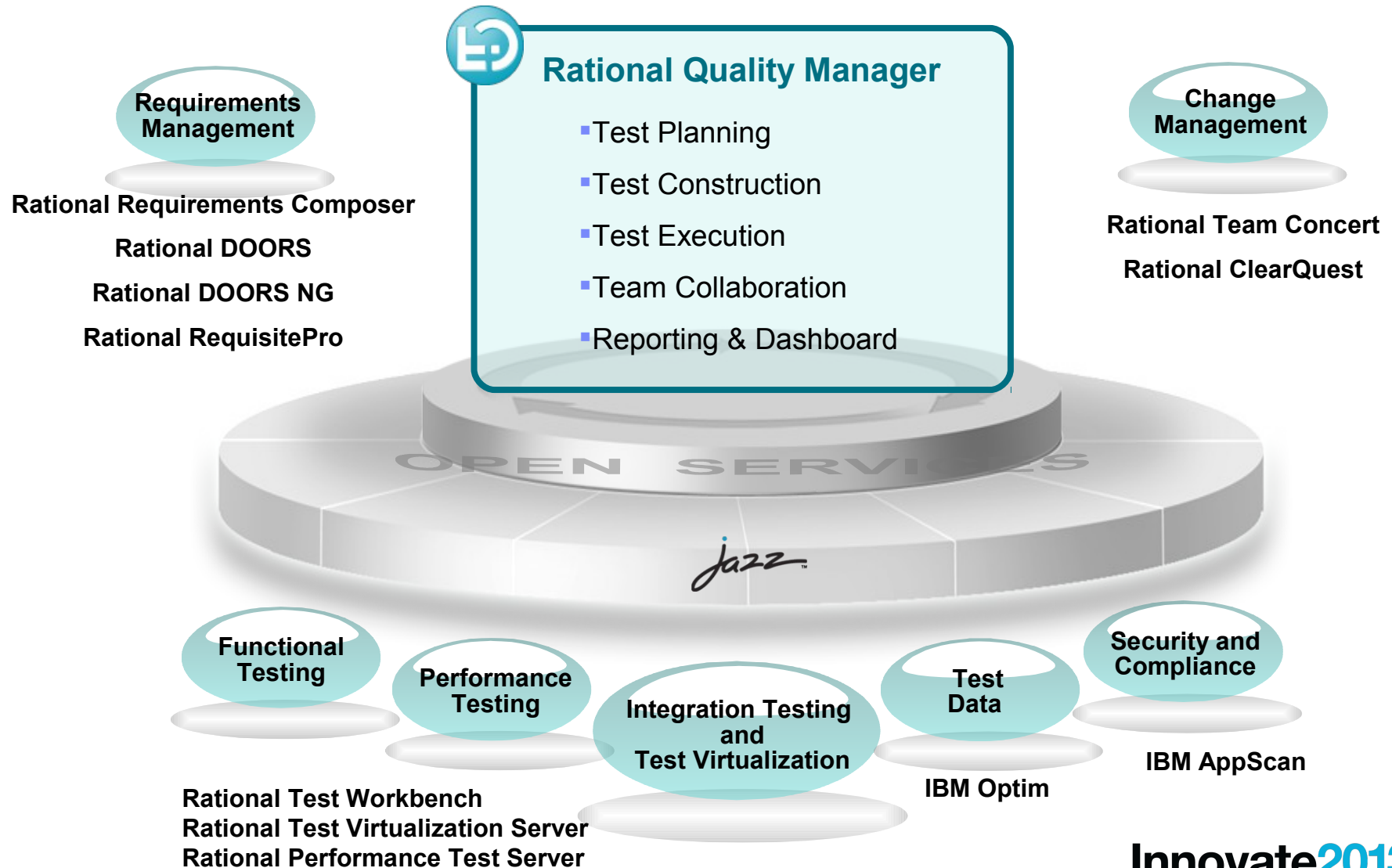
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IBM Rational Quality Manager: Central Hub for Quality Management





Terminology

- RQM – Rational Quality Manager
 - Test Case – executable entity in RQM
 - Test Suite - collection of test cases
 - Test Script – detailed manual steps or pointer to a automation tool
 - Test Environment – definition of the test setup
- RTW – Rational test Workbench
 - Mobile Test – automated script to test a mobile application
 - Selenium Test – manage selenium tests
 - Performance Test – multi protocol performance testing
 - Compound Test – a sequence/combination of multiple types of tests



Keywords

- Overview
 - Keywords allow you to modularize Test Scripts
 - Helps in maintaining reusable steps/scripts
 - Build “High level test flows” using Keywords
 - Build generic or domain specific framework of keywords
 - Script implementation for the keyword could be deferred to a later stage

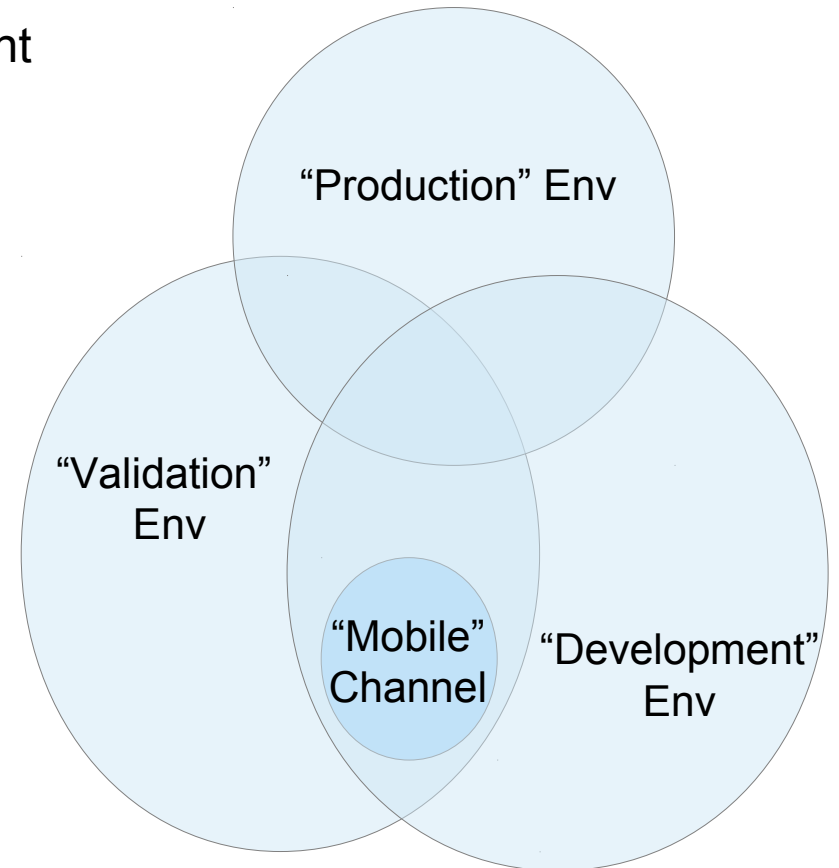


What is multi channel?

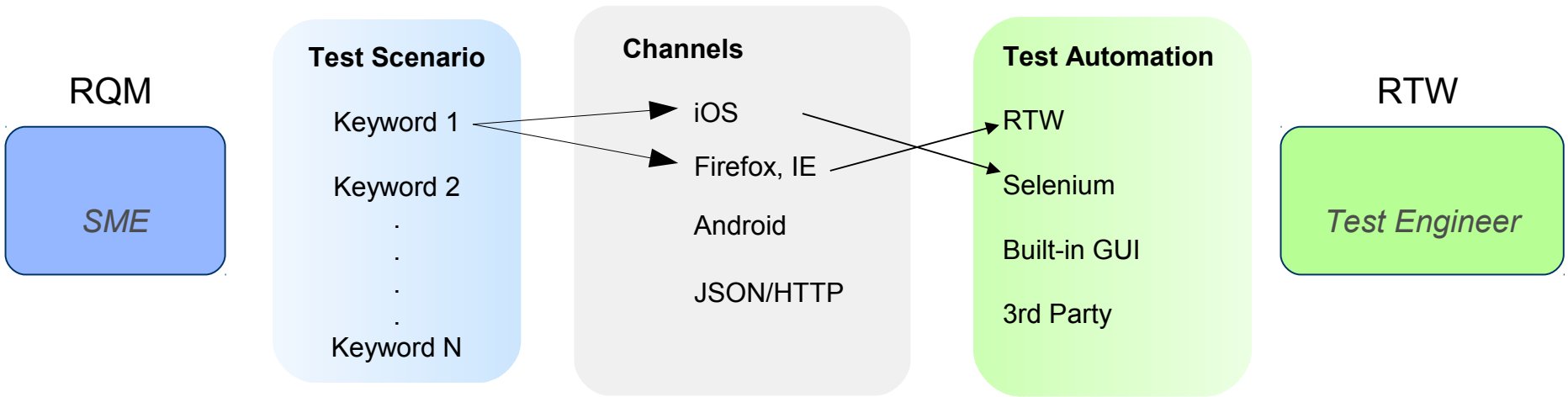
- Users utilize your services via various modes or channels
 - They walk in to the store, they use a browser at work, they use a mobile app from the train, they use a service provider that connects using web services
- The interaction can be via one channel
 - e.g: User pays the bill from the checking account using the bank website
- Or the interaction is via multiple channels in one business flow
 - e.g: User adds a new biller using the website and then completes the authorization via the mobile app

Channel – new facility in RQM

- Test Environments are defined using Lab Management Properties
- Channels can also defined using Lab Management Properties
- Channels are sub sets of a Test Environment
- Channel will define the script that will get picked for execution



Multi-channel Support



- Focus on Test Scenarios enables reuse across multiple “channels”
- SMEs can define which endpoints specific scenarios apply to each channel
- Each keyword can have individual implementations based on the endpoint type
- Test automation experts can leverage either built-in support for automating on specific channels

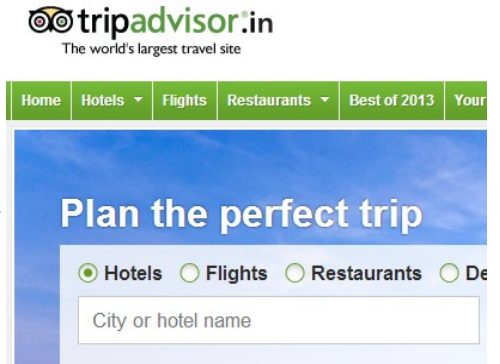
Multi-channel Support

Step	Description
1	Go to tripadvisor.com
2	Click on "Hotels" in the menu
3	Check the checkbox "Search by City"
4	Type "Bangalore" in city name
5	Click on "leave dates blank"



Step	Description
1	Search Hotel
2	Login to User account
3	Purchase using Credit card

Web



Mobile





Keywords and Automated testing

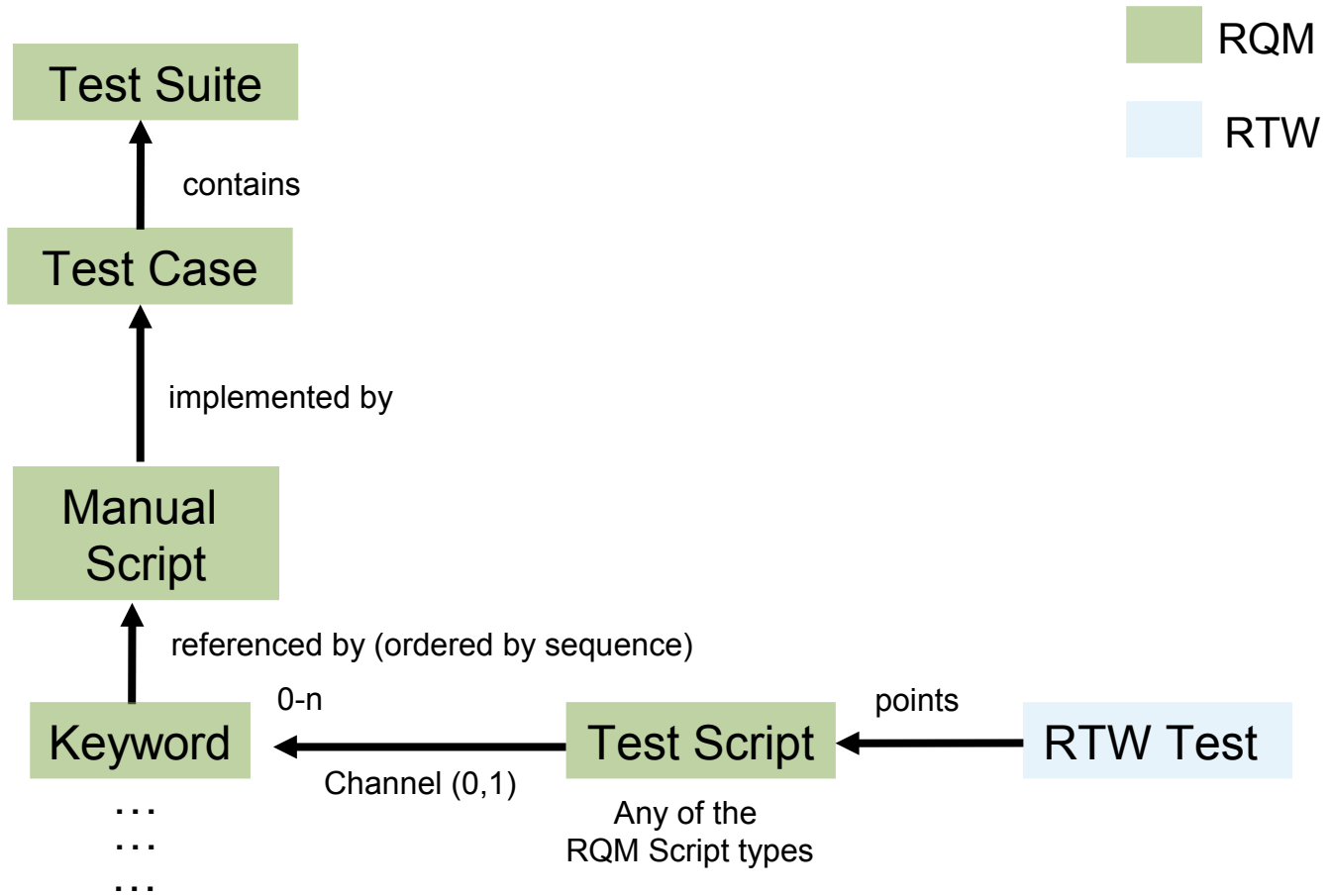
- Enhanced Keyword experience
 - Editor
 - Originator/Owner
 - Category
 - 0 – n scripts in the context of a channel
- Keywords can be added to Manual Tests in RQM (“parent” Script)



Keywords and Automated testing

- Keywords can be associated with a automated test (“child” Script)
- Keyword View in RTW
 - Show the keywords from RQM
 - Show the steps of the keyword
 - Record a Test for the keyword
 - Associate a Test with the keyword

Relationship Diagram



Multi Channel Testing

- In RQM
 - The ability to validate business scenarios across various Channels
 - Using Keyword and Manual Test Scripts as the vehicle
- In RTW
 - Ability to interweave multiple types of tests in one RTW compound test
 - Mobile tests, Selenium tests, Performance tests, Compound tests



Demo

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Create Keyword – No Script created yet

The screenshot displays the IBM TestJazz interface for creating a new keyword. The left-hand navigation pane shows a 'Create' menu with 'Keyword' selected. The main area shows the details for a keyword named '* AC - JKE Login *'. The 'Detailed Description' section is highlighted, and a blue arrow points to the 'Detailed Description Section' in the main content area.

Construction ▾ Lab Management ▾ Builds ▾ Execu

Browse

- Test Cases
- Test Scripts
- Test Suites
- Test Data
- Keywords

Create

- Test Case
- Test Script
- Keyword**
- Test Suite
- Test Case Execution Reco
- Test Suite Execution Reco
- Test Data

* AC - JKE Login *

Summary

Originator: TestJazzAdmin1

Owner: TestJazzAdmin1 ▾

Template: Default Keyword T ▾

Detailed Description

Test Scripts

Show All Sections

Manage Sections

Description: Description for Keyword1

Detailed Description Section

Detailed Description ?

Detailed Description.

Format ▾ Font Arial ▾ Size 10 ▾ | **B** *I* U

Detailed Design for Keyword1

Author Scenario using Keywords

Test Scripts >

* 10: AC View Balance & Pay Bill ?



Cancel Save

Test Script Overview | [Snapshots](#) | [History](#)

State: Draft Action: ▼

Originator: TestJazzAdmin1 Owner: ▼

Type: Manual Script

Test Data: [Unassigned](#)

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

Work Item: [Create](#)

Summary

Formal Review

List the people who will be reviewers and approvers of this content and define your approval process.

Business Script Details ?

Supported Channels: [Unassigned](#)

Script Steps

Step	Keyword
1	AC JKE LOGIN
2	AC Navigate to Saving Account
3	AC View Saving Balance
4	AC navigate to loan account
5	AC Pay the loan bill
6	AC JKE Logout

[Click to add Keyword](#)

Keyword View ?

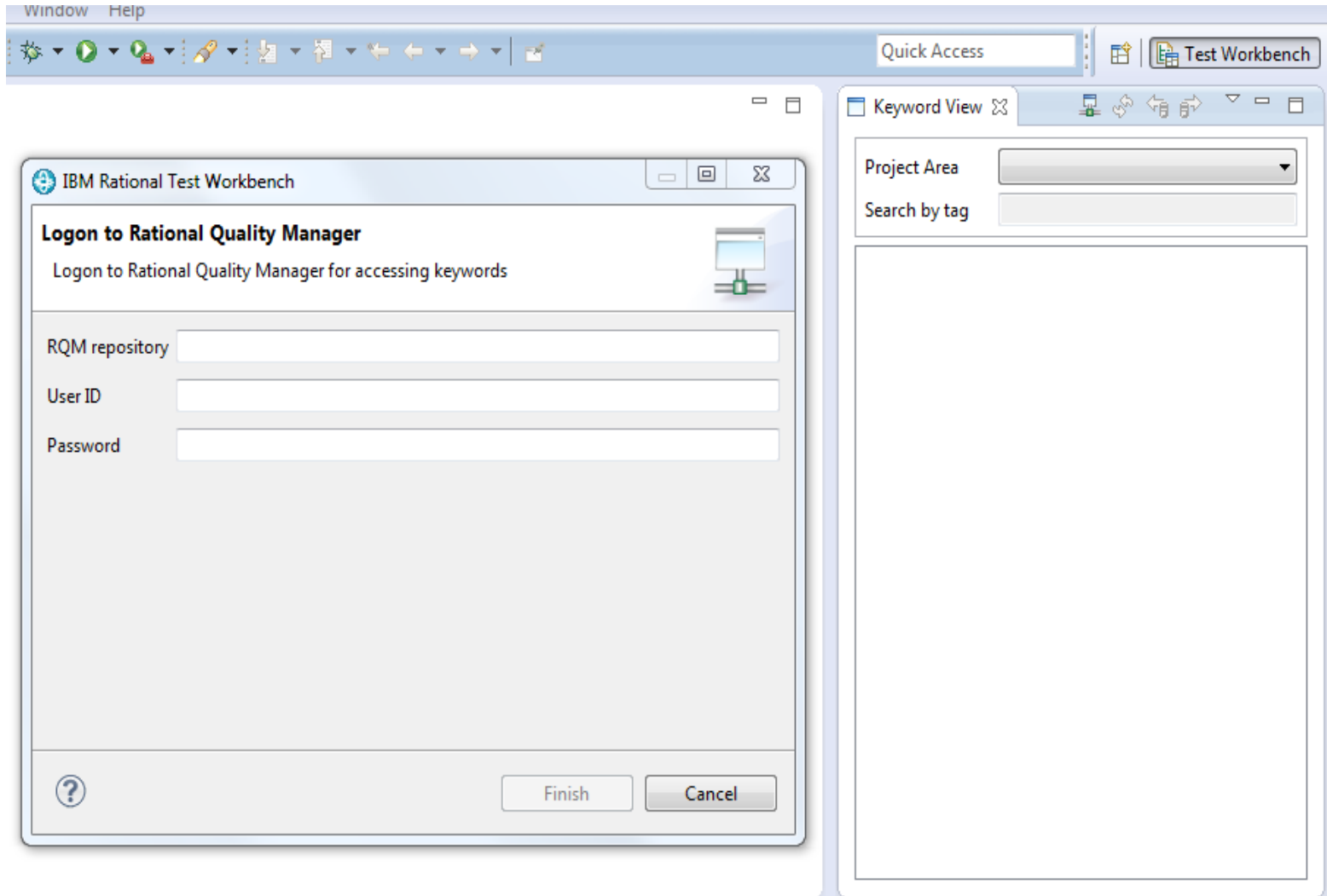
25: AC JKE LOGIN ?

Overview
Originator: Tanuj
Owner: Tammy

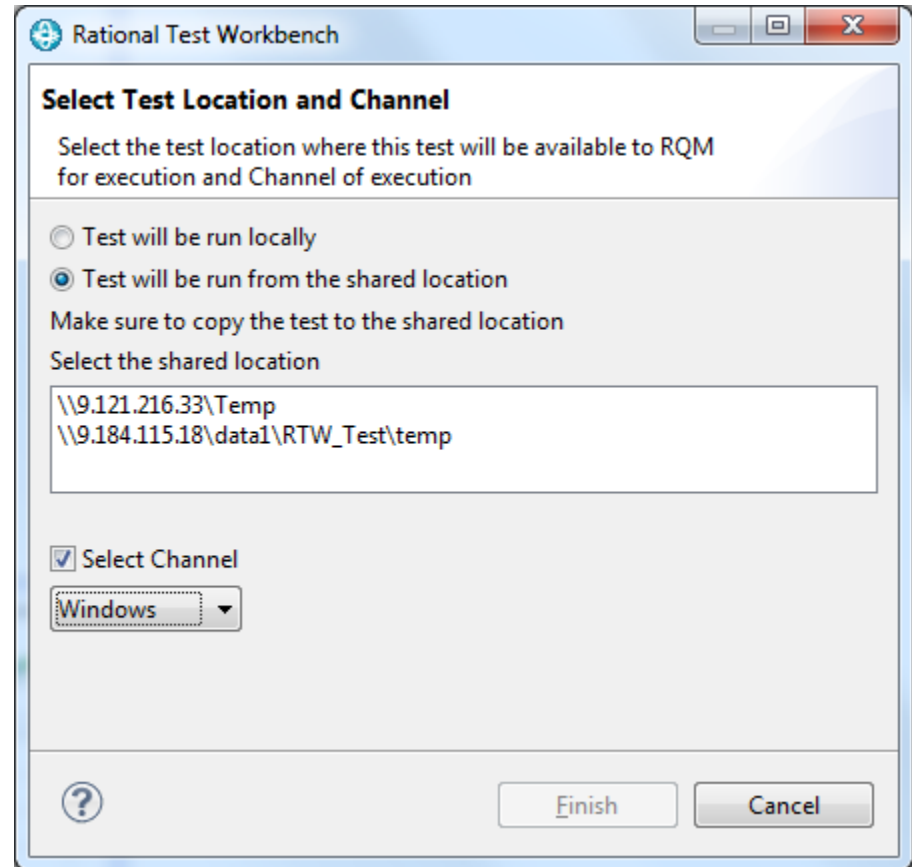
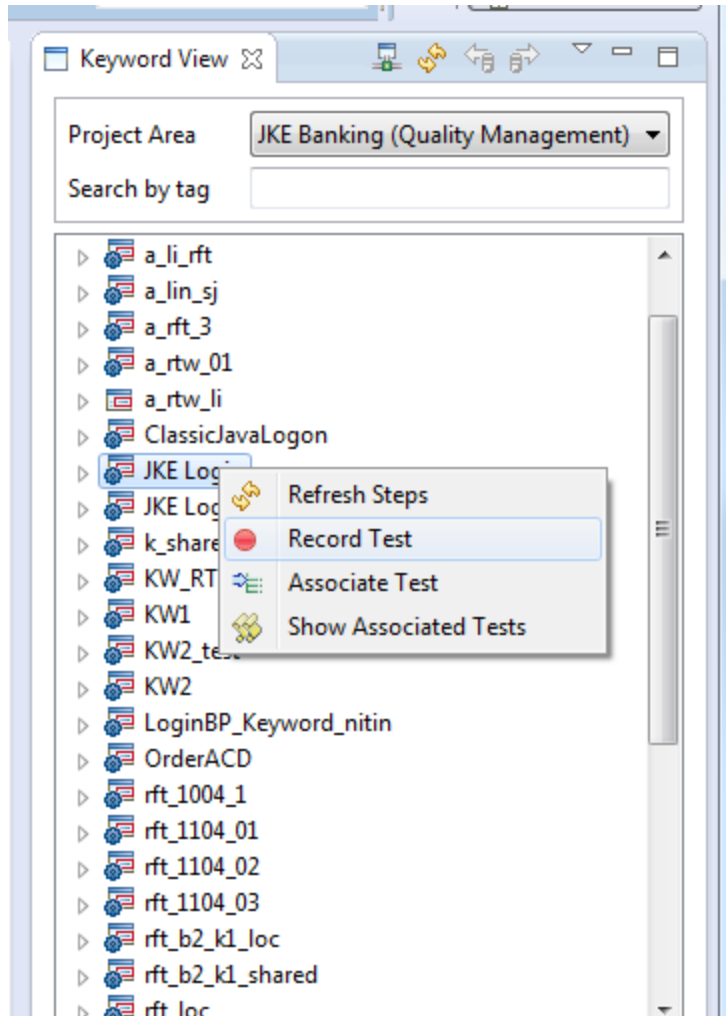
Description: This is the keyword to define the login sequence. after this the user will be on the home page

Details
Provide Username, password and check the "I agree to terms and conditions"

Connect to RQM from within RTW



Record the tests in RTW



View the RTW Test scripts associated to Keywords

The screenshot shows the 'JKE Banking (Quality Management)' application interface. The main content area displays the 'Test Scripts' dialog for the keyword '3: TestKwd'. The dialog title is 'Test Scripts' and the subtitle is 'Associate Test Script with the keyword'. The 'Group By' dropdown is set to 'Ungrouped'. The 'Type Filter Text' input field is empty. The table below shows the associated test scripts:

<input type="checkbox"/>		Id	Name	State	Script Type	Owner	Channels	Default
<input type="checkbox"/>		42	TestKwd		Rational Test Workbench		Unassign...	true
<input type="checkbox"/>		153	HttpTest1		Rational Test Workbench		Linux	true

The dialog also includes a 'Show All' dropdown, 'Items per page' controls, and navigation arrows. The 'Cancel' and 'Save' buttons are visible at the bottom right of the dialog.



Questions

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