What is Keyword Driven Methodology

All About?
What is Keyword Driven Methodology?

# It is a Test Creation Methodology

# Involves Selection of Keywords

# Keywords Indicate Operations to be Performed

# Meant for Structured Test Creation

# Structured Tests - Easy to Update & Maintain
Keyword Driven Methodology:

Suitable for Which Type of Companies?

# Having Technically Expert Users:
For Maintaining Resource Frameworks

# Having Less Technically Proficient Users:
For Design & Maintenance of Automated Test Steps

Objective: Clear Division of Automation Tasks

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Where do the Keywords Come From?

# First Source is:

Built-in Keywords from QuickTest Professional itself

# Second Source is:

Our Own User Defined Keywords
What All do We Need to Implement

Keyword Driven Methodology
Keyword Driven Methodology:

What all do we Need to Implement it?

Desired Resources Like:

# Shared Object Repositories

# Function Libraries

# Recovery Scenarios
Keyword Driven Methodology:

What all do we Need to Implement it?

Desired Infrastructure

# Persons with Thorough Knowledge of Application

# Expertise of QuickTest Professional Software
Seven Steps to Implement
Keyword Driven Methodology
In QuickTest Professional
Step 1:
Analyzing the Application to find out the Testing Needs:

# Find out the Application’s Development Environment: Like Web, Java or .NET

# Load the Desired QTP Add-ins

# Find out the Business Processes and Functionality we want to Test
Step 2:
Setting up the Object Repositories:

- Decide how to Divide our Actions
- Build Resources to be used by our Tests:

  The most widely used Resource is the Shared Object Repository

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Step 3:
Creation of Function Libraries:

# Creation of function libraries containing Functions which Extend QTP Functionality

# Use these keywords to Build Keyword-Driven Tests
Step 4:
Configuration of QTP according to the Testing Needs:

# Setting up of Preferences Like:

Global Testing Preferences
Run Session Preferences
Any Test-Specific Preferences

# Creation of Recovery Scenarios to Instruct QTP how to Proceed when a Step Fails

Contd....
Step 4:
Configuration of QTP according to the Testing Needs:

# Configuration of QTP window to Easily Access Panes like:

The Test Flow Pane

The Resources Pane

The Available Keywords Pane.

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Step 5: Building of the Tests:

# Construction of the Tests by Inserting Calls to the Relevant Actions from the Tests

# Creation of one or more Empty Tests and Addition of Actions to them

# Association of the Object Repositories with the Relevant Actions

Contd....
Step 5:
Building of the Tests:

# Association of the Function Libraries and Recovery Scenarios with the Relevant Tests, so that Steps can be Inserted Using Keywords

# Configuration of Test Preferences
Step 6:
Addition of Steps to the Test Actions:

# Addition of steps which use the Keywords Created in Previous Steps

# Enhancement of Tests by Inserting Checkpoints and Output Values:
Objective - To verify that the Application is Behaving According to Expectations

# Addition of Programmatic Statements to Enhance the Tests Further
Step 7:
Running, Analyzing and Troubleshooting the Tests:

# When the Tests are Ready:

- We run them
- View the Run Results
- Troubleshoot the tests, as needed
Advantages of Keyword Driven Testing In QuickTest Professional
Advantages of Keyword Driven Testing

Enables Test Design at a Business Level Rather than at Object Level; For Example QTP Recognizes a Single Option Selection in the application as many steps Like:

- Click on a Button Object
- Mouse Operation on a List Object
- Keyboard Operation on a list sub-item

Helps in Creating one Function to Represent All Such Lower-Level Operations in a Single, Business-Level Keyword

Contd....
Advantages of Keyword Driven Testing

- Tests are Easier to Read and Easier to Maintain due to use of Technical Operations, like Synchronization Statement which Waits for Client-Server Communications to Finish, into Higher Level Keywords

- Leads to a more Efficient Separation between Resource Maintenance and Test Maintenance

Contd....
Advantages of Keyword Driven Testing

# Enables Automation Experts to Focus on Maintaining Objects And Functions while Application Testers Focus on Maintaining The Test Structure and Design

# Avoids Local Object Repositories having Copies of the Same Objects in Many Cases

Contd....
Advantages of Keyword Driven Testing

# Creation of Test with Little Preparation or Planning

# Easier to Create Tests Quickly, since QTP enters the Correct Objects, Methods, and Argument values for us
Advantages of Keyword Driven Testing

# Results in well-planned and better-structured tests, which also results in easier long-term maintenance:

What is the Reason for this?

We select from Existing Objects and Operation Keywords needing Familiarity with Object Repositories and Available Function Libraries

We need to have a good idea of what we want our Test to look like before we begin inserting steps

Contd....

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Advantages of Keyword Driven Testing

# Enables Addition of Objects and Functions based on Detailed Product Specifications even before a Feature has been added to the Product

# Enables to Begin to Develop Tests for a New Product or Feature Earlier in the Development Cycle

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Multiple Answer Interview Questions / Quiz as used by Several MNC’s to Evaluate New Testers

and

Hundreds of Interview Preparation Questions on QuickTest Professional (QTP), LoadRunner, Software Testing & Quality Assurance
Thank You