

# Automation Life Cycle

## Implementation Using QTP

### Introduction to Automation Testing

- What is Automation Testing
- Benefits of Automation Testing
- Manual Testing Vs Automation Testing
- Tool selection criteria

### Introduction to QuickTest Pro

- Overview of Quick Test Pro
- Starting Quick Test
- Quick Test Window
- Quick Test Window Layout
- Using Quick Test Commands

### Record and Playback

- Creating and executing a Basic Test
  - ' Recording a test
  - ' Understanding your recorded test
  - ' Executing a test
- Different Recording Levels
  - ' Standard Recording
  - ' Analog Recording
  - ' Low Level Recording
- Analyzing the Quick Test Results

### Special focus on VB Script

- VB Script Language Overview
- VB Script Data Types
- VB Script Variables
- VB Script Constants
- Functions
  - ' Numeric Function
  - ' String Function
  - ' Date and Time Function
  - ' Conversion Function
- Control-of-Flow language
  - ' Conditional Statements
  - ' If... Else, Select case
- Iterative Statements
  - ' While
  - ' For
  - ' Do...While
  - ' Do...Until
- Sample scripts on
  - ' Creating Microsoft excel object
  - ' Creating file system object

### Working with Test Objects and Object Repositories

- How QuickTest identifies Objects
- Working with Test Objects
  - ' Object Repository Introduction
  - ' Identifying the Object
  - ' Viewing the Object's Properties
- Object Spy
- Configuring Object Identification
- Smart Identification
- Managing Object Repositories
- Merging Shared Object Repositories
- Associating Shared Object Repositories to a Test
  - ' Managing Shared Object Repository Association
  - ' Associating Object Repositories with Actions

### Synchronization

- Synchronizing your tests
- Options to synchronize your tests
  - ' Inserting Synchronization Point
  - ' Adding Exist Statement
  - ' Adding Wait Statement
  - ' Global Synchronization Settings
- Transactions
  - ' Inserting Transactions
  - ' Ending Transactions

### Checkpoints

- CheckPoint Introduction
- Adding Checkpoints to a Test
  - ' Adding Checkpoint while Recording
  - ' Adding Checkpoint while Editing
- Types of Checkpoints
  - ' Standard Checkpoint
  - ' Image Checkpoint
  - ' Bitmap Checkpoint
  - ' Table Checkpoint
  - ' Text Checkpoint
  - ' Text Area Checkpoint
  - ' Accessibility Checkpoint
  - ' Page Checkpoint
  - ' Database Checkpoint
  - ' XML Checkpoint
- Checkpoints Supported Environment

### Output Values

- Output values introduction

- Categories of Output Values
- Creating Output Values
- Storing Output Values
- Storing Output Values
- Viewing and Editing Output Values

## Working with Actions

- Introduction to Actions
- Benefits of Actions
- Creating Tests with Multiple Actions
  - Guidelines for Working with Actions
  - Creating a New Action
  - Inserting Actions
  - Inserting Copy of Action
  - Inserting Existing Action
  - Splitting Actions
  - Action Parameters
  - Test Modularity Implementation
- Creating an Action Template

## Parameterizing Tests and Data Driven Tests

- Introduction to Parameterizing Tests
- Parameterizing Tests
  - Parameterizing a Test using Data Table
  - Parameterizing a Test using Environment Variables
- Data Driven Test
  - Create Data Driven Tests
  - Local and Global Data Tables

## Working with Data Tables

- Introduction to Data Tables
- Working with Global and Action Sheets
- Editing and Saving Data Table
- Importing and Exporting Data
  - Importing Data from a Spread Sheet
  - Importing Data from a Text file
  - Importing Data from a Database
  - Exporting Data to a Spread Sheet
- Using Formulas in the Data Table
- Using Data Table Methods

## Regular Expressions

- Introduction to Regular Expressions
- Defining Regular Expressions
- Running and Analyzing a Test with Regular Expressions

## Functions

- Creating User Defined Functions

- Advantages of using functions
- Creating generic functions
- Preparing Regression Test Automation suites
- Function Decomposition Implementation

## Recovery Scenarios

- Introduction to Recovery Scenarios
- When to use Recovery Scenarios
- Defining Recovery Scenarios
- Recovery Scenario Manager
- Managing Recovery Scenarios
- Associating Recovery Scenarios to your Test
- Programmatically Controlling the Recovery Mechanism

## Quick Test Automation Object Model

- Automation QuickTest Operations
- When to use AOM scripts
- Basic Elements of AOM Script
- Generating your AOM Script

## Working with Quality Center

- Connecting to Quality Center
- Disconnecting from Quality Center
- Integrating QuickTest with Quality Center
- Saving Tests into Quality Center
- Opening Tests from Quality Center

## Scripting in Real-time Environment

- QuickTest Pro Coding Standards & Best Practices
- Naming Conventions
- Coding Rules

## Automation Frameworks

- Modularity Framework
- Library Architecture Framework
- Keyword-Driven Framework
- Data-Driven Framework
- Hybrid Framework