Programmable: You can program sophisticated tests that bring out hidden information. Comprehensive: You can build a suite of tests that covers every feature in your Web site or application.

Reusable: You can reuse tests on different versions of a Web site or application, even if the user interfaces changes

Important Features of QTP:

Plug-ins: Plug-ins are used to make recording more acceptable to a specific application, we use web plug-ins to automate test cases with respect to web applications. QTP has default plug-ins for ActiveX controls, web applications and VB objects. This means by default QTP supports recording Windows and web applications.

Object Spy: Using the Object Spy pointing hand mechanism, you can view the supported properties and methods of any object in an open application. As you move the pointing hand over the objects in the application, their details are displayed in the Object Spy.

Smart Identification: Selecting the Enable Smart Identification check box for a particular test object class instructs Quick Test to learn the property values of all properties specified as the object's base and/or optional filter properties in the Smart Identification Properties dialog box.

Virtual Objects: Complex objects may not be recognized properly by QTP. The Virtual Object concept was implemented to enable users to add some degree of support for these objects. If an object is not recorded out-of-the-box, an experienced user may be able to define that object as a personal virtual object and build a virtual object repository.

Object Repository: Object Repository Stores all the objects learnt by the QTP. The Object Repository window displays a tree of all objects in the current component or in the selected action.

Object Repository Manager: A shared object repository stores all of the test objects that may be used when creating scripts. The Object Repository Manager enables you to open multiple

shared object repositories and modify them as needed.

Object repository associations: You can manage the shared object repository associations of a selected test using the Associate Repositories dialog box. The Associate Repositories dialog box enables you to associate one or more shared object repositories with one or more actions in a test.

Record and Replay: Initial development of automated tests with QTP is usually done by record-and-playback. A user's actions are captured via Microsoft's Component Object Model (COM). These are recorded into Actions, a kind of subroutine, as VBScript commands

After clicking on the playback button all these actions will be played back. During playback, QTP attempts to identify and perform operations on the same objects, again using COM

Active Screen: QTP captures the screen of the application and saves along with the script. The active screen section highlights the objects in the active screen as the user navigates through the
script so the user knows what object he/she will be performing the action upon.

Check Points: Quick Test enables you to add checks to your test. A checkpoint is a verification point that compares a current value for a specified property with the expected value for that
property. This enables you to identify whether your Web site or application is functioning
correctly.

Quick Test Testing Process as a Whole:



 **Figure 40: Quick Test Testing Process**

Planning

Before beginning to create a test, you should plan it and prepare the required infrastructure. For example, determine the functionality you want to test, and decide which information you want to check during the test run. Before preparing the required infrastructure, you should spend time analyzing your application and determining which objects and operations are used by the set of business processes that need to be tested. You should also determine which operations require customized keywords to provide additional functionality.

Creating Tests

You create a test either by building an object repository and adding steps manually or by recording a session on your application. You can create steps using the table-like, graphical Keyword View using keyword-driven functionality—or you can use the Expert View, if you prefer programming steps directly in VBScript.

When you create your test, you Add steps to your test Build an object repository and use these objects to add keyword-driven steps manually in the Keyword View or Expert View.

The object repository should contain all the objects that you want to test in your application or Web site. For more information on building an Record a session on your application or Web site.

As you navigate through your application or site, Quick Test graphically displays each step you perform as a row in the Keyword View. A step is something that causes or makes a change in your site or application, such as clicking a link or image, or submitting a data form. In the Expert View, these steps are displayed as lines in a test script (VBScript). The Documentation column of the Keyword View also displays a description of each step in easy-to-understand sentences

Insert checkpoints into your test

A checkpoint checks specific values or characteristics of a page, object, or text string and enables you to identify whether or not your Web site or application is functioning correctly. Broaden the scope of your test by replacing fixed values with parameters. When you test your site or application, you can parameterize your test to check how your application performs the same operations with different data. You may supply data in the Data Table, define environment variables and values, define test or action parameters and values, or instruct Quick Test to generate random numbers for current user and test data. When you parameterize your test, Quick Test substitutes the fixed values in your test with parameters. When you use Data Table parameters, Quick Test uses the values from a different row in the Data Table for each iteration of the test or action. (Each run session that uses a different set of parameterized data is called iteration.)

Run your test to check your site or application