How to face Interview Questions in QTP

2009

Q. What are test objects?

Test objects are objects created and maintained by QTP in its object repository. Each test objecthas a name and a set of properties to uniquely identify the actual object in the application.

Q. how does QTP identifies the objects during the script run?

During script run QuickTest searches for a run-time object that has the similar description of thetest object in the object repository.

Q. How can i check the properties of an object in an application without using checkpoints? For Example how will you check whether a button is enabled?

Answer: GetROProperty method is used to retrieve the properties of the object in an application.It is very useful method and can be used to retrieve almost any of the property that can be seenwhile spying the object with object spy. For Example'To get whether button is enabled or not.

Val = Browser("QA Friends").Page("QA Friends"). WebButton("Login"). GetROProperty("disabled")

'To get whether a checkbox is on or off.

Val =Browser("QA Friends").Page("QA Friends").WebCheckBox("Test").GetROProperty("Value")

Q. How can I modify the properties values of test objects in Object Repository during runtime?

A. You can use SetTOProperty method of test object.Object(description).SetTOProperty Property, ValueThe values of test object properties are used to identify the objects. Sometimes the properties ofthe object in the application change dynamically. For example text of a link in a webpage is theusername used to login to that page.Text property is used by test object to identify the link. So in order to identify the actual object wecan manipulate the value of "text" property of link using SetTOProperty.

Q. How do you synchronize your scripts in QTP?

A. For waiting until navigation of web page completes we can use Sync method. For waiting until an object appears we can use Exist method. For waiting until a property of object changes we can use WaitProperty method. You can set browser navigation timeout in: Click Test > Settings menuSelect web tab in Test Settings window. Enter the timeout in Browser Navigation Timeout text box. You can set global object sychrozization timeout in: Click Test > Settings menu Select Run tab in Test Settings window. Enter the timeout in Object Synchronization Timeout text box.

Q Where can you write user defined functions that are accessible by all scripts?

A. We can write user defined function in .vbs file. This file can be loaded by adding the file asfollows: Click Test > Settings menuSelect Resources tab in Test Settings window and add the file. Alternatively you can also load the file through script usingExecuteFile "absolute or relative path of file" For Example: ExecuteFile "C:\Test.vbs"

Q What are regular expressions?

A. Regular expressions used for identifying objects and text strings with varying values. You can use regular expressions for defining the property values of an object, creating checkpoints with varying values etc. Example: For example if the caption on the button in an application changes dynamically and can be anything which starts with "Hello" (It can be Hello XYZ, Hello AB13 and so on) You can go object repository and change the value of name property of the button object to" Hello.*"Here "." means any single character and "*" means 0 or more occurrences of preceding character. So.* means 0 or more occurrences of any character. There are many other regular expression characters: For Example: Regular expression test[0-9] matches test0, test1, test2…… to test9.Regular expression abc[789] matches abc7, abc8, abc9Q. Different ways to parameterize tests? A. Test, action or component parameters – for using values from other action in your test. Data Table parameters – for creating data driven test based on values in data table. Environment variable parameters – For using values of environment variable. Random number parameters – For using random numbers as values in our test or component.

Q. What can you do if values of object properties in an application are changing constantly?

A. We can try using alternatives like regular expressions, Changing description of test objects in object repository during run time, using descriptive programming and so on.

Q. What can you do if objects are not identified by QTP?

A. 1) For standard windows environment you can try object mapping user defined classes to standard classes.2)You can find whether any addins are available for given environment.3) check if any other reliable alternatives are available like using keyboard shortcuts, using automation object model of application if available and so on.

Q. What is descriptive programming?

A. Descriptive programming allows you to work with objects that are not stored in objectrepository. two types of programmatic descriptions.1) listing the set of properties and values that describe the object directly in a teststatement.2) Add collection of properties and values to a Description object, and then enter the Description object name in the statement.

Q. How will you access database from QTP?

A. You can use ActiveX Data Object for accessing the content of database. You cancreate connection object, recordset object and then execute query. And access the valuesof query in recordset.

Example Set objConn= CreateObject("ADODB.connection")

      Set objRecSet = CreateObject("ADODB.recordset")objConn.open strConString

'strConString is database connection string.objRecSet.open strQuery,objConn 'strQuery is SQL query to execute.

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QTP: Regular expressions and Descriptive Programming

what is use of regular expression in qtp ?

The Use Of Regular Expressions In qtp Is

Regular expressions enable QuickTest to identify objects and text strings with varying values. You can use regular **expressions when:**

defining the property values of an object in dialog boxes or in programmatic descriptions

parameterizing a step

creating checkpoints with varying values

For example, you can use a regular expression if you want to create a text checkpoint on a date text string, but the displayed date changes according to the current date. If you define the date as a regular expression, the checkpoint checks that the captured text string matches the expected date format, rather than checking the exact date value. You can use regular expressions only for values of type string.

I am using some of the code I listed earlier in my blog to open and get the hwnd of some browser/page objects. However, one of the other automation engineers found an issue with my code. Apparently, the code had trouble opening a url like http://groups.google.com/grphp?. So, I began to work on it. QTP was returning the ever-useful "General Error" error, so I had to sleuth this out for myself. I am using this construct in my code to get at the handle:

If Browser("hwnd:=" & strBrowser).Page("url:=" & oIE.Document.url).Exist(0) then

strPage = Browser("hwnd:=" & strBrowser).Page("url:=" & oIE.Document.url).GetROProperty("hwnd")

End If

Now, the co-worker was getting the aforementioned General Error (i.e., I am broke and not smart enough to tell you why) on the line inside the If. So, descriptive programming worked fine to get in there. However, when it got to the line inside, it didn't. I added some code to place a "\" in front of the ? the co-worker passed (to indicate that the ? should be treated literally), and it works fine. I modified the code I now use to look for this issue and correct it without direction. My only issue is: why the heck did it work fine on the Exist line, but not the GetROProperty line?

Lesson learned: be mindful of regular expressions in your descriptive programming.

Quick Test Notes

There are 2 ways of testing   -   1. Manual testing 2. Automation testing

1. Manual testing

It is a process in which all the phases of software testing life cycle like test planning test development, test execution, result analysis, bug tracking and reporting are accomplished successfully manually with human efforts.

Drawbacks of manual testing

1. More no. of people are required
2. Time consuming
3. Human errors
4. Tired ness
5. Repeating the things is critical
6. simultaneous actions are not possible

2. Automation test

It is a process in which all the drawbacks of manual testing are addressed properly and provide speed and accurate to existing testing process.

Note: Automation testing is not a replacement of manual testing

"Automation tool is an assistant of an a test engineer"

Journal framework: – To learn any automated tool:

A test engineer should know the following things to work with any automated tool

1. How to give the instructions
2. How to give the information
3. How to use its recording facility
4. How to make the tool repeats the action
5. How to analyze the result

Types of automated tools: – There are 3 types of automated tools

1. Functional tool (qtp, Win runner)
2. Management Tool (Quality Center or Test Director)
3. performance Tool (Load Runner)

Quick Test Professional (QTP)

History of QTP

Type of the tool functional tool

Company: Mercury Interactive incorporation

Initial Versions: 5.5, 7.6, 8.0, 8.2, 9.0, and 9.1.

Operating systems for QTP: Win 2000 server, advanced server and 2000proressional

Ex:1   Vbwindow("Emp").vbedit("Emp name").set "prasanna"

Vbwindow("Emp").vbedit("Emp age").set "20"

```
        Vbwindow("Emp").vbedit("Emp sal").set"25000"
        Vbwindow("Emp").vbedit("Emp desg").set"Tester"
        Vbwindow ("Emp").vbbutton("submit"). Click
EX: 2
Vbwindow("form1").vbedit("val1").set"10"
Vbwindow("form1").vbedit("val2").set"20"
Vbwindow("form1").vbbutton("sub").click
Vbwindow("form1").vbbutton("mul").click
Vbwindow("form1").vbbutton("div").click
Vbwindow("form1").vbbutton("clear").click
```

Anatomy or QTP: –

Ad-inn Manager: – It is a feature provided by qtp used for making the qtp compatible with a specified environment by default the qtp provides 3 add-ins
1. Visual Basic
2. Activex
3. Web
Apart from these 3 add-ins qtp is always compatable with standard windows environment
QTP serene is divided in to 5 parts
1. Test pane area
2. Active Screen
3. Data table
4. Debug weaver pane
5. Tool option

1. Test pane:– It is an area provided by QTP used for viewing the text script. It also allows the user to do any kind of modifications on the text script.
Test pane represents the script in 2 ways.
² Expert View
² Keyword View

a. Expert View:–Expert view represents the script in vb script format.
b. Keyword View:–It is represents the script using a graphical user interface which is divided in to 4 Parts.
± Item
± Operation
± Value
± Documentation

2. Active screen:–It is a feature provided by QTP which holds the snap shots of application state of each and every script statement.
Features:–
It is used for understand the script easily.
It is used for enhancing the script easily.

3. Datatable:– It is also called as formula one sheet developed by the 3rd party and integrated with the QTP.

Features:–
- It is used for holding the test data.
- It provides a facility to import the test data from different data sources like database, excel sheet or flat file.
- It allows the user to enter the data and modify the data directly in it.
- It isolates the text script from the data source.

QTP maintain 2 copies of data tables
1. Design time datatable
2. Run time datatable

4. Debug Viewer pane:– It is used for viewing, modifying, or setting the current values of the variables and command tabs.
5. Too potion:– The option that are available in menu bars and tools are known as tool options.

Recording and running

Record and run settings:– It is a feature provided by QTP used for making the QTP aware on which applications a test

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engineer is about to perform record and run operations.

A test engineer has to compulsorily use this option for every new test. For doing the same this feature has provided 2 Options.

o Record and run on any open windows application
o Record and run on these applications

Navigations
ü Activate the menu item test
ü Select the option record and run settings
ü Select one of the following action
o Record and run on any open windows application
o Record and run on these applications
ü If at all the second option is selected click on add button
ü Browse the desire file to be added
ü Click on ok
ü Click on apply and ok.

Operational Overview of recording:
During recording the QTP will be doing the following things.
v Every user action is converted in to script statement
v The corresponding object information is stored in the object repository.

Operational Overview of running:
v QTP tries to understand the script statement
v After understanding what action to be performed or which object is realized that it needs to identify that object.
v In order to identify the object it needs the corresponding information.
v For that it will go to the object repository and search for the information.
v If at all the information is found using that information it will try to identify the object.
v If at all the object is identified then it will perform the action

Types of Recording Modes

1. Context sensitive recording mode:– It is used for recording the operations perform on the standard GUI objects.
2. Analog Recording:– It is a special recording mode provided by QTP to record the continuous actions performed on the application.
3. Low level recording:– It is used for recording at least minimum operations on the applications which are developed with known supported environment.

Navigation
ü Keep the tool under normal recording mode
ü Activate the menu item text
ü Select the option analog recording
ü Select one of the following actions.
o Record relative to the screen.
o Record relative to the following window.

If at all the second option is selected specify the window title using the hand icon C
Click on start analog record button.

OBJECT REPOSITORY

It is storage place where one can store the objects information and it also acts as a interface between the text script and the AUT in order to identify the object during execution.

Types Of Object Repository
There are 2 types of object repository.
1. per-action object repository:–
For each and every action in a test the QTP will create and manage the individual repository.
Dis Advantage: Difficult to maintenance
2. shared repository:–
It is a Common place where one can store the objects information and it can be associated to multiple tests.
Advantage: Easy to maintenance and can be used by multifull test case

Note: The shared repository has to be created manually and associated manually to the test.
Object Identification:-
It is a concept is based on four types of properties and ordinal identifier.
Type of properties:
1. Mandatory property
2. Assistive property
3. Base filter property
4. Optional filter property
A test engineer can specify list of Mandatory, Assistive, Base filter, and Optional filter properties.

QTP Learns The Properties In The Following Sequence

1 First of all QTP learns the complete list of mandatory properties and then it will check whether these properties are sufficient for identifying the objects uniquely.
2 If it sufficient it will stop learning otherwise it will learn the first assistive properties and then it will once again check whether these properties are sufficient are identifying the object uniquely.
3 If it feels not sufficient then it will learn the second assistive properties once again it will check whether these properties are sufficient if it feels not sufficient the above processor continue till the QTP feels satisfied or up to the end of the assistive properties list.
4 If it is still feels not sufficient then it will learn the ordinal identifier.

Note1
If at all the smart identification mechanism is invoked then the QTP will learn the information as same as above but with mandatory properties it will also learn base filer properties and optional filter properties even though it learn the BFP and OFP it will not consider them while learning, just it learns and store them secretly in the object repository.

Note2
Other then BFP and OFP all the remaining properties and ordinal identifier will be stored in the object repository.

QTP uses the information in order to identify the object during execution in the following way
First of all QTP will consider all the properties present in the object repository(i.e., Mandatory properties , optional, Assistive properties) and tries to identify the object if it fails then it will use the smart identification mechanism in the following way.

It will consider the complete list of base filter properties and prepares the list of objects which are matched with all these properties. If at all the list contains only one object then that is the object, otherwise it will take the help of first optional filter properties and prepares a new list of objects which are matched with this ofp (Optional Filter Properties), If at all the list contains more then one object it will consider the second optional filter properties and tries to match with all the objects present in the new list. The object that are not matched will be filtered and a new list objects is formed if at all the new list is containing more then one object then it will proceed with the above procedure till the list contains one object or up to the end of the ofp list. It still qtp is unable to identify the object, if at all the ordinal identifier is learned then it will use the ordinal identifier and identify the object.

Ordinal Identifier
There are 3 Types of Ordinal identifiers.
1. Location
2. Index
3. Creation time

1. Location
QTP will generate sequence of numbers from 1,2,3,4…based on the sequence of the object located in the AUT
2. Index
QTP will generate sequence number from 0,1,2,3.. based on the sequence of the program written for those objects.
3. Creation Time
QTP will generate the sequence of number from 0,1,2,3.. based on the loading time of the web pages.

Object Spy
It is a feature provided by QTP which shows the complete object information like list of properties, list of methods, syntax of methods and description of methods for both test objects as well as run time objects on the spot immediately.

QTP LIFE CYCLE

1. Test Planning

2. Generating basic test
3. Enhancing the test
4. Debugging the test
5. Executing the test
6. Analyzing the results

1. test planning
The automation test lead will do the following in this phase.
He will understand the requirements.
He will identify the areas to be automated.
He will analyze both the positive and negative flow of the application.
Based on all these analysis he will prepare the test plan.
He will prepare the tool ready with all pre configurationally settings for further operations.

2. generate the basic test
A test engineer will generate the basic test for both the positive and negative flow of the application.
3. Enhancing the test
One can enhance the test on the following ways.
ð Inserting the checkpoints.
ð Synchronizing the test
ð Parametarising the test (Data driven testing)
ð Inserting the output Values
ð Measuring transactions
ð Enhancing the test with programmatic statement
ð Adding comments
ð Inserting the script statements manually.

ð Inserting the checkpoints:-
"Checkpoint" is defined as validation point or test point which checks the object state or bit map state or data state during the execution phase at any point of time.
Operational overview of checkpoint
Check point works in 2 phases.
1. pre execution phase Capture the expected value, Generate the basic test
2. While execution phase Capture the actual value with the expected value displays the result.
types of checkpoints
· Standard checkpoints
· Bit map checkpoints
· Text checkpoints
· Text area checkpoints
· Database checkpoints
· XML checkpoints
· Page checkpoints
· Table checkpoints
· Image checkpoints
· Accessibility checkpoints

· Standard Checkpoints: – Standard checkpoint is used for checking the properties values of standard GUI objects.
Navigation through Application
ü Keep the tool under recording mode
ü Activate the menu item insert
ü Go to checkpoint
ü Select the option standard checkpoint
ü Click on the desired object
ü Ensure that the corresponding object is selected in the object hierarchy and click on ok.
ü Select the desired properties to be checked EX. Width and height..
ü Stop recording.

Navigation through Active Screen
ü Keep the curser on the desired statement so that the corresponding snap shot is available in the active screen.
ü Go to active screen
ü Right click on the desired object select the option insert standard checkpoint.
ü Ensure that the corresponding object is selected in the object hierarchy and click on ok.
ü Select the desired propertied to be checked ex: X,Y and width and height.
ü Select one of the following options.

à Before current step
à After current step
ü Click on ok

· Bit map checkpoint: –It is used for checking the complete bitmaps or part of the bit maps
· Text check point: – It is used for checking the text present on a specified object.
· Text area checkpoint: – It is used for checking the text present in a specified area
Note: Text area checkpoint cannot insert through active screen it can be inserted only through application.
· Database checkpoint: – It is used for checking the contains of a database.
· Xml Checkpoint: – xml is a universal understandable language used for data transformation.
Xml checkpoint is used for checking the contents of al xml file.
· Page checkpoint: – It is used for checking the properties of a page like load time number of images and number of links.
· Table checkpoint: – It is used for checking the contents of al web table
· Image checkpoint: – It is used for checking the properties of an image.
· Accessibility checkpoint: – It is used to checking the www.(world wide web) consortium standards.

ð Synchronizing the test
It is a process of matching the speeds of both the tool and application in order to keep them in sync with each other to obtain proper results.
Here the main concept is making the tool to wait till the application finishes the task.
This can do it 3 ways.
1. Inserting the synchronization point.
2. Inserting the wait statement.
3. Increasing the default time.

Navigation for inserting synchronization point
ü Keep the curser under desired location
ü Keep the tool under recording mode
ü Activate the menu item insert.
ü Go to step and select the option synchronization point.
ü Click on the desired object ensure that the corresponding object is selected in the object hierarchy and click on ok.
ü Specify the desired property name and value (true) specify the extra time in milliseconds.
ü Click on ok.
ü Stop recording.
In order to avoid the above navigation one can directly insert the following statement in the script in desired location.
Syntax –
object hierarchy. wait property "wait property name" "property value", extra time in milliseconds.
Ex–windows.("Flight reservation").winbutton ("delete order").wait property "enable" , true,10000.

Wait statement
It is used for making the tool to wait till the specified time is elapsed.
Syntax – wait (20) time in seconds.

Navigation for Increasing the Default Time
ü Activate the menu item test
ü Select the option settings and go to run tab
ü Specified the desired time in mille seconds in object synchronization time out field.
ü Click on apply and ok

Parameterising The Test Or Data Driven Testing:-
Data driven testing is a concept provided in QTP in order to implement retesting.
Navigation for data driven testing
ü Collect the required data into the data table
ü Generate the basic test
ü Parameterize the test
ü Analysis the result
Parameterization
It is a process of replacing the consistence values with parameters or variables in order to increase the scope of the test
Parameterization can be done in 3 ways
1. Data Driven wizard
2. Keyword view
3. Manual view

Navigation through data driven wizard
ü Activate the menu item tools
ü Select the option data driven
ü Select the desired consistent value to be parameterize
ü Click on parameterize button
ü Click on next
ü Click on parameter option button
ü Specify the desired column name
ü Click on ok and finish
Navigation through keyword view
ü Go to keyword view
ü Select the desired consistent value
ü Click on the configure value button
ü Select the option parameter
ü Specify the desired column name
ü Click on ok

In order to avoid the above navigation one can directly write the script in the following way.
Vbwindow("form1").vbedit("val1").setdatatable("v1",1")
Vbwindow("form1").vbedit("val2").setdatatable("v2",1")
Vbwindow("form1").vbbutton("add").click
Vbwindow("form1").vbedit("res").checkpoint("res")
Navigation For Parameterizing the Checkpoint
ü Right click on the checkpoint statement.
ü Select the option checkpoint properties
ü Select the desired property whose value to be parameterize
ü Select the option parameter
ü Click on parameter button
ü Specify the desired column name
ü Click on ok
Ex: Object hierarchy, setdatatable (ordno,"1")

Output Value
It is feature provide by QTP used for capturing a value from the application or from the database or from the xml file during execution and store in under a specified column in the run time data table.
Operational Overview Of Output Value
It is divided in to 2 phases.
1. pre-execution phase
2. while- execution phase
1. pre execution phase – Capture the field name whose value is to be captured
2. While execution phase – Capture the actual value from the field and stores the captures value under a specified column in the run time data table.
Types Of Output Values
1. Standard output value
2. Text output value
3. Text area output value
4. Data table output value
5. XML output value

Navigation for Output Value
ü Keep the tool under recording mode
ü Activate the menu item insert and go to output value and select standard output value
ü Click on the specified object or field
ü Click on ok
ü Select the desired property value whose value to be captured.
ü Click on modify button and specify the desired column name.
ü Click on ok, click on ok

Measuring Transactions
It is a concept provided by QTP in order to calculate the execution taken by a block of statement or the time taken by an application to accomplish a task.
To do the same QTP has provided 2 options
1. Start transaction

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2. End transaction

Navigation for Inserting the start transaction
ü Keep the curser in the desired location
ü Activate the menu item insert
ü Select the option start transaction
ü Specify the desired name (any thing)
ü Select one of the following option
à Before current step
à After current step
ü Click on ok

In order to avoid the above navigation one can insert the following statements directly in the script
EX: Services. Start transaction "trans"

Services.end transction "trans"
Inserting the Programmatic Statement
Programmatic statements are 5 types
1. Normal statement or object
2. Conditional state
3. Comments
4. Utility statements

Navigation
ü Go to keyword view
ü Activate the menu item insert go to step
ü Select the desired option

Repository Utility Object
It is used for reporting a user defined massage to the result window.
Syntax –
Reporter.reportevent mic(status), "reportname" "message"
Ex:– This program is demo for looping and constituent
For i=1 to 10
If (i=10) then
Message box "hai"
Reporter.reportevent micpass, "myrep","con is satisfied"
else
Msgbox "bye"
Reporter. Reportevent micfail, "myrep", "cond is not satisfied"
End if
Next
Quick Test Pro FAQ'S
If an application name is changes frequently i.e while recording it has name, in this case how does QTP handles?

IF we use batch testing. the result shown for last action only.in that how can i get result for every action.
You can click on the icon in the tree view to view the result of every action
WinRunner Compared to QuickTest Pro
Environment Coverage Comparison:
Common environments shared by both WinRunner and QuickTest Pro:
Web-Related Environments
IE, Netscape, AOL

JDK, Java Foundation Classes, AWT

Symantec Visual Café

ActiveX Controls
ERP/CRM
Oracle: Jinitiator, 11i, NCA
Custom Client Server
Windows

C++/C
Visual Basic
Operating Systems
Windows 98, 2000, NT, ME, XP
Legacy
3270, 5250 Emulators

VT100
WinRunner Only Environments:
Custom Client/Server
PowerBuilder

Forte

Delphi

Centura

Stingray

SmallTalk
ERP/CRM
Baan

PeopleSoft Windows

Siebel 5, 6 GUI Clients

Oracle GUI Forms

QuickTest Pro Only Environments:
ERP/CRM
SAP

Siebel 7.x

PeopleSoft 8.x
.Net
WinForms

WebForms

.Net controls
Web Services
XML, HTTP

WSDL, SOAP

J2EE, .Net
Multimedia
RealAudio/Video

Flash

Feature Comparison:
Common features found in both WinRunner and QuickTest Pro:
Record/Replay
ODBC & Excel Connectivity
Code Editor & Debugger
Recovery Manager
Shared Object Repository
Rapid Object Import
Numerous Checkpoints
Analog

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Script & Function Libraries

WinRunner Only Environments:
Function Generator
Database Integration
Run Wizard
TSL
MDI

QuickTest Pro Only Environments:
ActiveScreen, TestGuard Tree View ScriptFusion Data Table VBScript Function Generator* (coming in v7.0) Run Wizard* (coming in v7.0).

How to Import data from a ".xls" file to Data table during Runtime.
Datatable.Import "...XLS file name..."DataTable.ImportSheet(FileName, SheetSource, SheetDest)
DataTable.ImportSheet "C:\name.xls" ,1 ,"name"

How to export data present in Datatable to an ".xls" file?
DataTable.Export "....xls file name..."

Syntact for how to call one script from another? and Syntax to call one "Action" in another?
RunAction ActionName, [IterationMode , IterationRange , Parameters]Here the actions becomes reusable on making this call to any Action.IterationRange String Not always required. Indicates the rows for which action iterations will be performed. Valid only when the IterationMode is rngIterations. Enter the row range (i.e. "1-7"), or enter rngAll to run iterations on all rows.If the action called by the RunAction statement includes an ExitAction statement, the RunAction statement can return the value of the ExitAction's RetVal argument.

How to export QTP results to an ".xls" file?
By default it creates an "XML" file and displays the results

How the exception handling can be done using QTP
It can be done Using the Recovery Scenario Manager which provides a wizard that gudies you through the process of defining a recovery scenario. FYI.. The wizard could be accesed in QTP> Tools-> Recovery Scenario Manager ....

How many types of Actions are there in QTP?
There are three kinds of actions:non-reusable action—an action that can be called only in the test with which it is stored, and can be called only once. reusable action—an action that can be called multiple times by the test with which it is stored (the local test) as well as by other tests.external action—a reusable action stored with another test. External actions are read-only in the calling test, but you can choose to use a local, editable copy of the Data Table information for the external action.

Analyzing the Checpoint results
Standard Checpoint :By adding standard checkpoints to your tests or components, you can compare the expected values of object properties to the object's current values during a run session. If the results do not match, the checkpoint fails.

How to handle Run-time errors?
On Error Resume Next : causes execution to continue with the statement immediately following the statement that caused the run-time error, or with the statement immediately following the most recent call out of the procedure containing the On Error Resume Next statement. This allows execution to continue despite a run-time error. You can then build the error-handling routine inline within the procedure.Using "Err" object msgbox "Error no: " & " " & Err.Number & " " & Err.description & " " & Err.Source & Err.HelpContext

What are the different scripting languages you could use when working with QTP ?
Visual Basic (VB),XML,JavaScript,Java,HTML

How to handle dynamic objects in QTP?
QTP has a unique feature called Smart Object Identification/recognition. QTP generally identifies an object by matching its test object and run time object properties. QTP may fail to recognise the dynamic objects whose properties change during run time. Hence it has an option of enabling Smart Identification, wherein it can identify the objects even if their properties changes during run time. Check this out-If QuickTest is unable to find any object that matches the recorded object description, or if it finds more than one object that fits the description, then QuickTest ignores the recorded description, and uses the Smart Identification mechanism to try to identify the object. While the Smart Identification mechanism is more complex, it is more flexible, and thus, if configured logically, a Smart Identification definition can probably help QuickTest identify an object, if it is present, even when the recorded description fails.The Smart Identification mechanism uses two types of properties:Base filter properties—The most fundamental properties of a particular test object class; those whose values cannot be changed without changing the essence of the original object. For example, if a Web link's tag was changed from to any other value, you could no longer call it the same object. Optional filter properties—Other properties that can help identify objects of a particular class as they are unlikely to change on a regular basis, but which can be ignored if they are no longer applicable.

Explain the keyword createobject with an example.
Creates and returns a reference to an Automation objectsyntax: CreateObject(servername.typename [, location])Argumentsservername:Required. The name of the application providing the object.typename : Required. The type or class of the object to create.location : Optional. The name of the network server where the object is to be created.

What is a Run-Time Data Table? Where can I find and view this table?

-In QTP, there is data table used , which is used at runtime.-In QTP, select the option View->Data tabke.-This is basically an excel file, which is stored in the folder of the test created, its name is Default.xls by default.

How to do the scripting. Is there any inbuilt functions in QTP as in QTP-S. Whatz the difference between them? how to handle script issues?

Yes, there's an in-built functionality called "Step Generator" in Insert->Step->Step Generator -F7, which will generate the scripts as u enter the appropriate steps.

What is the difference between check point and output value.

An outPut value is a value captured during the test run and entered in the run-time but to a specified location. EX:- Location in Data Table[Global sheet / local sheet]

Types of properties that Quick Test learns while recording?

(a) Mandatory (b) Assistive . In addition to recording the mandatory and assistive properties specified in the Object Identification dialog box, QuickTest can also record a backup ordinal identifier for each test object. The ordinal identifier assigns the object a numerical value that indicates its order relative to other objects with an otherwise identical description (objects that have the same values for all properties specified in the mandatory and assistive property lists). This ordered value enables QuickTest to create a unique description when the mandatory and assistive properties are not sufficient to do so.

Differences between QTP & Winrunner?

(a) QTP is object bases Scripting (VBS) where Winrunner is TSL (C based) Scripting.(b) QTP supports ".NET" application Automation not available in Winrunner(c) QTP has "Active Screen" support which captures the application, not available in WR.(d) QTP has "Data Table" to store script values , variables which WR does not have.(e) Using a "point and click" capability you can easily interface with objects, their definitions and create checkpoints after having recorded a script – without having to navigate back to that location in your application like you have to with WinRunner. This greatly speeds up script development.

Few basic questions on commonly used Excel VBA functions.

common functions are:Coloring the cellAuto fit cellsetting navigation from link in one cell to other saving

How does Parameterization and Data-Driving relate to each other in QTP?

To datadrive we have to parameterize.i.e. we have to make the constant value as parameter, so that in each iterraration(cycle) it takes a value that is supplied in run-time datatable. Through parameterization only we can drive a transaction(action) with different sets of data. You know running the script with the same set of data several times is not suggestable, & it's also of no use.

What is the difference between Call to Action and Copy Action.?

Call to Action : The changes made in Call to Action , will be reflected in the orginal action(from where the script is called).But where as in Copy Action , the changes made in the script ,will not effect the original script(Action)

How to verify the Cursor focus of a certain field?

Use "focus" property of "GetRoProperty" method"

Any limitation to XML Checkpoints?

Mercury has determined that 1.4MB is the maximum size of a XML file that QTP 6.5 can handle

How to make arguments optional in a function?

this is not possible as default VBS doesn't support this. Instead you can pass a blank scring and have a default value if arguments r not required.

How to add a text checkpoint to your test to check whether 'welcome' is displayed in your welcome page.

1 Locate the page where you want to add a text checkpoint.2 Create a text checkpoint.In the Active Screen, under your page highlight the text welcome. Right-click the highlighted text and choose Insert Text Checkpoint. The Text Checkpoint Properties dialog box opens.When Checked Text appears in the list box, the Constant field displays the text string you highlighted. This is the text QuickTest looks for when running the test.Click OK to accept the default settings in this dialog box.QuickTest adds the text checkpoint to your test. It is displayed in the Keyword View as a checkpoint operation on your welcome page3 Save the test.

How to Running and Analyzing a Test with Checkpoints?

1 Expand the test and review your test.Choose View > Expand All or use the * shortcut key on your number keypad. 2 Start running your test.Click Run or choose Test > Run. The Run dialog box opens. Ensure that New run results folder is selected. Accept the default results folder name. Click OK. When the test run is completed, the Test Results window opens. 3 View the test results.When QuickTest finishes running the test, the Test Results window opens. The test result should be Passed, indicating that all checkpoints passed. If one or more checkpoints had failed, the test result would be Failed. 4 View the results of the page checkpoint.In the Details pane, you can review the details of the page checkpoint, which lists the items checked. 5 View the results of the table checkpoint.In the Details pane, you can review the details of the table checkpoint. You can also review the values of the table cells (cell values that were checked are displayed in black; cell values that were not checked are displayed in gray). 6 View the results of the standard checkpoint.In the Details pane, you can review the details of the standard checkpoint, which lists the properties that were checked and their values. The checkpoint passed because the actual values of the checked properties match the expected values. 7 View the results of the text checkpoint.In the Details pane, you can review the details of the text checkpoint. The checkpoint passed because the actual text matches the expected text. 8 Close the Test Results window. Choose File > Exit.

How to Defining a Data Table Parameter for QTP?

1 Start QuickTest and open the Checkpoint test.2 Save the test as Parameter.3 Confirm that the Active Screen option is enabled.4 Confirm that the Data Table option is enabled.5 Select the text to parameterize.6 Set the parameterization properties.

How to add a runtime parameter to a datasheet?

DataTable.LocalSheetThe following example uses the LocalSheet property to return the local sheet of the run-time Data Table in order to add a parameter (column) to it.MyParam=DataTable.LocalSheet.AddParameter("Time", "5:45")
How to change the run-time value of a property for an object?

SetTOProperty changes the property values used to identify an object during the test run. Only properties that are included in the test object description can be set

How to retrieve the property of an object?

using "GetRoProperty".

How to open any application during Scripting?

SystemUtil , object used to open and close applications and processes during a run session.(a) A SystemUtil.Run statement is automatically added to your test when you run an application from the Start menu or the Run dialog box while recording a testE.g : SystemUtil.Run "Notepad.exe" SystemUtil.CloseDescendentProcesses (Closes all the processes opened by QTP)

How to covert a String to an integer?

CInt()---> a conversion function available.

Inserting a Call to Action is not Importing all columns in Datatable of globalsheet. Why?

Inserting a call to action will only Import the columns of the Action called

Differentiate the two Object Repository Types of QTP.

Object repository is used to store all the objects in the application being tested.2 types of oject repositoy per action and shared. In shared repository only one centralised repository for all the tests. where as in per action.for each test a separate per action repostory is created.

What the differences are and best practical application of each.

Per Action: For Each Action, one Object Repository is created. Shared : One Object Repository is used by entire application

Explain what the difference between Shared Repository and Per_Action Repository

Shared Repository: Entire application uses one Object Repository , that similar to Global GUI Map file in WinRunner
Per Action: For each Action ,one Object Repository is created, like GUI map file per test in WinRunner

Have you ever written a compiled module? If yes tell me about some of the functions that you wrote.

I Used the functions for Capturing the dynamic data during runtime. Function used for Capturing Desktop, browser and pages.

What projects have you used WinRunner on? Tell me about some of the challenges that arose and how you handled them.

pbs :WR fails to identify the object in gui. If there is a non std window obk wr cannot recognize it ,we use GUI SPY for that to handle such situation.

Can you do more than just capture and playback?

I have done Dynamically capturing the objects during runtime in which no recording, no playback and no use of repository is done AT ALL. -It was done by the windows scripting using the DOM(Document Object Model) of the windows.

Summary: QuickTest Pro

Summary:QuickTest Professional provides an interactive, visual environment for test development.Here is the description from the Mercury Interactive "How it Works" section of the QuickTest Pro web page:Mercury QuickTest Professional™ allows even novice testers to be productive in minutes. You can create a test script by simply pressing a Record button and using an application to perform a typical business process. Each step in the business process is automated documented with a plain-English sentence and screen shot. Users can easily modify, remove, or rearrange test steps in the Keyword View.QuickTest Professional can automatically introduce checkpoints to verify application properties and functionality, for example to validate output or check link validity. For each step in the Keyword View, there is an ActiveScreen showing exactly how the application under test looked at that step. You can also add several types of checkpoints for any object to verify that components behave as expected, simply by clicking on that object in the ActiveScreen.You can then enter test data into the Data Table, an integrated spreadsheet with the full functionality of Excel, to manipulate data sets and create multiple test iterations, without programming, to expand test case coverage. Data can be typed in or imported from databases, spreadsheets, or text files.Advanced testers can view and edit their test scripts in the Expert View, which reveals the underlying industry-standard VBScript that QuickTest Professional automatically generates. Any changes made in the Expert View are automatically synchronized with the Keyword View.Once a tester has run a script, a TestFusion report displays all aspects of the test run: a high-level results overview, an expandable Tree View of the test script specifying exactly where application failures occurred, the test data used, application screen shots for every step that highlight any discrepancies, and detailed explanations of each checkpoint pass and failure. By combining TestFusion reports with Mercury Quality Management, you can share reports across an entire QA and development team.QuickTest Professional also facilitates the update process. As an application under test changes, such as when a "Login" button is renamed "Sign In," you can make one update to the Shared Object Repository, and the update will propagate to all scripts that reference this object. You can publish test scripts to Mercury Quality Management, enabling other QA team members to reuse your test scripts, eliminating

duplicative work.QuickTest Professional supports functional testing of all popular environments, including Windows, Web, .Net, Visual Basic, ActiveX, Java, SAP, Siebel, Oracle, PeopleSoft, terminal emulators, and Web services.- QuickTest Pro "How it Works" webpage from Mercury:http://www.mercury.com/us/products/quality-center/functional-testing/quicktest-professional/works.htmlWe like QuickTest Pro and now prefer implementing it over WinRunner. When you get into advance testing scenarios, QuickTest Pro has more options and they are easier to implement compared to WinRunner in our opinion.Do to the similarities in concept and features, an experienced WinRunner user can easily convert to QuickTest Pro and quickly become an efficient Test Automation Engineer!We recommend that existing customers begin all new development with QuickTest Pro and use the built-in feature of calling WinRunner scripts from QuickTest Pro for all existing WinRunner scripts that they already have. As older scripts require updates and time permits, we recommend replacing them with QuickTest Pro scripts.

Eventually you will be able to convert your test script library with all QuickTest Pro scripts.Pros:
* Will be getting the initial focus on development of all new features and supported technologies.
* Ease of use.
* Simple interface.
* Presents the test case as a business workflow to the tester (simpler to understand).
* Numerous features.
* Uses a real programming language (Microsoft's VBScript) with numerous resources available.
* QuickTest Pro is significantly easier for a non-technical person to adapt to and create working test cases, compared to WinRunner.
* Data table integration better and easier to use than WinRunner.
* Test Run Iterations/Data driving a test is easier and better implement with QuickTest.
* Parameterization easier than WinRunner.
* Can enhance existing QuickTest scripts without the "Application Under Test" being available; by using the ActiveScreen.
* Can create and implement the Microsoft Object Model (Outlook objects, ADO objects, FileSystem objects, supports DOM, WSH, etc.).
* Better object identification mechanism.
* Numerous existing functions available for implementation – both from within QuickTest Pro and VBScript.
* QTP supports .NET development environment (currently WinRunner 7.5 does not).
* XML support (currently WinRunner 7.5 does not).
* The Test Report is more robust in QuickTest compared to WinRunner.
* Integrates with TestDirector and WinRunner (can kick off WinRunner scripts from QuickTest).Cons:
* Currently there are fewer resources (consultants and expertise) available due to QTP being a newer product on the market and because there is a greater Demand than Supply, thus fewer employee/consulting resources.
* Must know VBScript in order to program at all.
* Must be able to program in VBScript in order to implement the real advance testing tasks and to handle very dynamic situations.
* Need training to implement properly.
* The Object Repository (OR) and "testing environment" (paths, folders, function libraries, OR) can be difficult to understand and implement initially.

QuickTest Pro Questions Only

1. how many maximum actions can be performed in a single test 2. How to create the dynamic object repository in QTP?
3. What is difference between global sheet anh action sheet?
4. How to pass parameters from one action to another action.
5. How to perform Cross platform testing and Cross browser testing using QTP?Can u explain giving some exampl
6. how to connect the database through QTP
7. How to open multiple instances of an application from QTP? 2. How to recognize each instance and setting
8. This is the chain of question#: 15434What conditions we go for Reusable Scripts and how we create and
9. Can we call QTP test from another test using scripting.Suppose there are 4 tests and i want to call these 10. Is it possible to test a web application(java) with winrunner?otherwise is it possible to check with
11. How can we insert Text check point and Bit map check point ? if provide example script, it is greatefu
12. Can we mask a Code In .vbs file so that it is not viewable to others?
13. Is there any function to double click a particular row in a webtable?
14. what is the use of command tab in Debug viewer ?can we execute any user defined queries
15. What is Analog recording,What is the difference between analog recording and low level recording
16. what is database check point.
17. What is the use of function and sub function in QTP?
18. What is the new Version of QTP which is recently released in the Market?
19. How to call a funtion present in dll file in QTP Script.
20. I have n iterations of test run in QTP. I want to see the results of not only the latest ('n'th) iteration
21. How to call from one action to another action in QTP?
22. What is the Difference Between Bit map Check point & Image Check pointPlease explain in detailText &
23. How can we do block commenting in QTP?

24. How to get the column count and column name from resultset in database connction program?

25. 1. How to write QTP scripts?2. Any related website resource to learn QTP?3. What steps the to be follwed

26. How to check an XML schema (XML Schema Validation--from XML file)? Ttell me about .XSD file format.

27. How to schedule tests in QTP?

28. Is Addins enough to work in Flex based applications? or do we have to get a licence for multimedia for

29. how to identify a 'web element' class object while recording and running in 'Event' mode of settings.

30. What are the new features available in QTP 8.2 compared with earlier versions?

31. Hi forum. Could any body tell me what is AMDOCS, and what are its models ? Best regrds.

32. What is difference between window(" ") and dialog(" ") in QTP while creating script?

33. How do you retrieve the Class name of a Test Object programmatically from within a script?

34. What is the best way to test UNIX (QTP, Winrunner or Xrunner)? If QTP supports let me know the brief

35. What is the Recovery Scenerio can apllied for any telephone line connection(Ex:BSNI,Airtel etc

36. what are advantages and disadvantages between internet explorer and netscape navigator (or) Internet 37. Anybody with an experience of testing Mainframe applications. I usually check the ActiveX and VB add-ins

38. Difference Between text and Text area checkpoints in QTP

39. How to Handle dynamic WebList in QTP...Values in Weblist are different

40. What is the Hotkey that can be used for Hitting spacebar?

41. We are trying to avoid that anybody see our script after we wrote it. Did anybody know how to do this?

42. how can i insert database checkpoint in qtp-6.5

43. What are different execution modes available in QTP & explain them.

44. How can we recognize objects in Flex application using QTP? When I record scripts, it takes all objects

45. For the AS/400 application that takes data only thru the keyboard input and not even single mouse click

46. How to write QTP test results to an Excel application

47. How to write recovery scenario for below questions and what are the steps we will follow?if i click

48. If winrunner and QTP both are functional testing tools from the same company.why a separate tool QTP

49. How do we test Links using Quick Test Professional and confirm that the page we are requesting is seen

50. How do you test DLL files using QTP?

51. After importing external .xls datasheet in to Datatable of QTP, How to set NO of iterations run for

52. How to test Dynamic web pages using QTP

53. How to record Flex (1.0) objects using QTP?Post the code which works for this.

54. Advantage of using Mercury Quality Center over Test Director

55. How do we connect to Oracle database from QTP ?

56. Can any one pls tell me about how to configure the environment variables in qtp and how to use the variables

57. What is the process for creating an automated test script using QTP assuming you have reviewed the manual

58. How to use a data driver in QTP?

59. What is the method used to focus on particuler field.I need the script.I will give example.I flights

60. 1)what is the advantage and disadvantage of using Virtual Object wizard?2) How efficiently we can use

61. Without recording objects in Object Repository are we able to run scripts?

62. Can we call a QTP script from a main script without making it reusable?

63. wat is xml schema validation and how to perform schema validation for a file.wat is *.XSD extention 64. Can any body expalin me the differences between a reusable and a external action with example?

65. I need information on using FSO(file system object) also its significance

66. How to Run a script recorded in English flavor of my application and re-run the same script on different 67. How to write QTP test results to an Excel application, Please provide the exact code if possible ASAPThanks

68. What are the limitations for XML Checkpoints in QTP 8.0?

69. how good is QTP for testing siebel applications?whether QTP recognizes siebel objects or something else

70. How do I use text checkpoint in QTP as everytime I use this checkpoint in the excel sheet and highlight

71. How is automation used in QTP for regreession testing. Please give me a sample script.

72. Anybody explain me, the concept of checkpoint declaration in the QTP mainly for the Objects, Pages, Text

73. How can we validate the PDF file recognization and its content with the help of Mercury product QTP(Quick

74. What is Expert view in QTP?Can you explain with example?

75. What is the best way to do regression testing using QTP.

76. what is the use functions in QTP. public, private

77. How can we return values from userdefined function? anybody provide code with small example its great

78. how to retrive/update database by writing code in expert viewIn my case database is Accessmy dsn name="try"database

79. How can I import and/or merge an existing repository into my current test?

81. Hi,I was set the repository as per test mode and recorded my script. Now I wana to change the repository

82. What are Limitation of QTP?

83. what is difference between stub and driver?

84. What is meant by Source Control?

85. What is descriptive programming?

86. how to automate editing an XML file .because when i record the editing on an XML file and run it,some

87. What are the disadvantages or drawbacks in QTP?

88. 1. Each test that you run is displayed into the screen ... I'm looking for a way to run a test in background
89. I have faced one question in interviewhe has given one screen with one bitmap and one edit box.The original
90. What qt plus ? How we merge the files in qtp?What is feasibility study in automation?
91. when a script is recorded in quick test for connecting 10 rows in the database, can we change script
92. How do you test siebel application using qtp?
93. How to get Traceability matrix from TD?
94. How to import a test case present in ".xls" file to TD under a Test set?
95. How to attach a file to TD?
96. What do you to script when objects are removed from application?
97. How do you data drive an external spreadsheet?
98. Give me an example where you have used a COM interface in your QTP project?
99. How long have you used the product?
100. How to get "FontSize" of a "WebEdit"?101. Is there anyway to automatically update the Datasource name in Database Checkpoints object when we migrate tests to a new release?
102. How to create a Runtime property for an object?