

QTP - DESCRIPTIVE PROGRAMMING

Descriptive Programming:

QTP scripts can execute only if the objects are present in the Object Repository. If the descriptions of the Objects are created using Descriptive programming when testers want to perform an operation on an object that is not present in the object repository.

- When objects in the application are very dynamic in nature.
- When the Object Repository grows big, it results in poor Performance as the size of the Object Repository increases.
- When the framework is built such that it has been decided not to use Object Repository at all.
- When testers want to perform an action on the application at run-time without having the knowledge of object's unique properties.

Syntax

There are two ways to script using Descriptive Programming technique. They are

- Description Objects
- Description Strings

Description Objects

Script is developed using description Objects that depends upon the properties used and their corresponding values. Then these descriptions are used to build the script.

```
'Creating a description object
Set btncalc = Description.Create()

'Add descriptions and properties
btncalc("type").value = "Button"
btncalc("name").value = "calculate"
btncalc("html tag").value = "INPUT"

' Use the same to script it
Browser("Math Calc").Page("Num Calculator").WebButton(btncalc).Click
```

Description Strings

The description of the objects are developed using the properties and values as strings as shown below.

```
Browser("Math Calc").Page("Num Calculator").WebButton("html
tag:=INPUT", "type:=Button", "name:=calculate").Click
```

Child Objects

QTP provides the ChildObjects method which enables us to create a collection of objects. The parent objects precedes ChildObjects.

```
Dim oDesc
Set oDesc = Description.Create
oDesc("micclass").value = "Link"

'Find all the Links
Set obj = Browser("Math Calc").Page("Math Calc").ChildObjects(oDesc)
```

```
Dim i
'obj.Count value has the number of links in the page
For i = 0 to obj.Count - 1
    'get the name of all the links in the page
    x = obj(i).GetROProperty("innerHTML")
    print x
Next
```

Ordinal Identifiers

Descriptive programming is used to script based on ordinal identifiers which will enable QTP to act on those objects when two or more objects have same properties.

```
' Using Location
Dim Obj
Set Obj = Browser("title:=.*google.*").Page("micclass:=Page")
Obj.WebEdit("name:=Test","location:=0").Set "ABC"
Obj.WebEdit("name:=Test","location:=1").Set "123"

' Index
Obj.WebEdit("name:=Test","index:=0").Set "1123"
Obj.WebEdit("name:=Test","index:=1").Set "2222"

' Creation Time
Browser("creationtime:=0").Sync
Browser("creationtime:=1").Sync
Browser("creationtime:=2").Sync
```