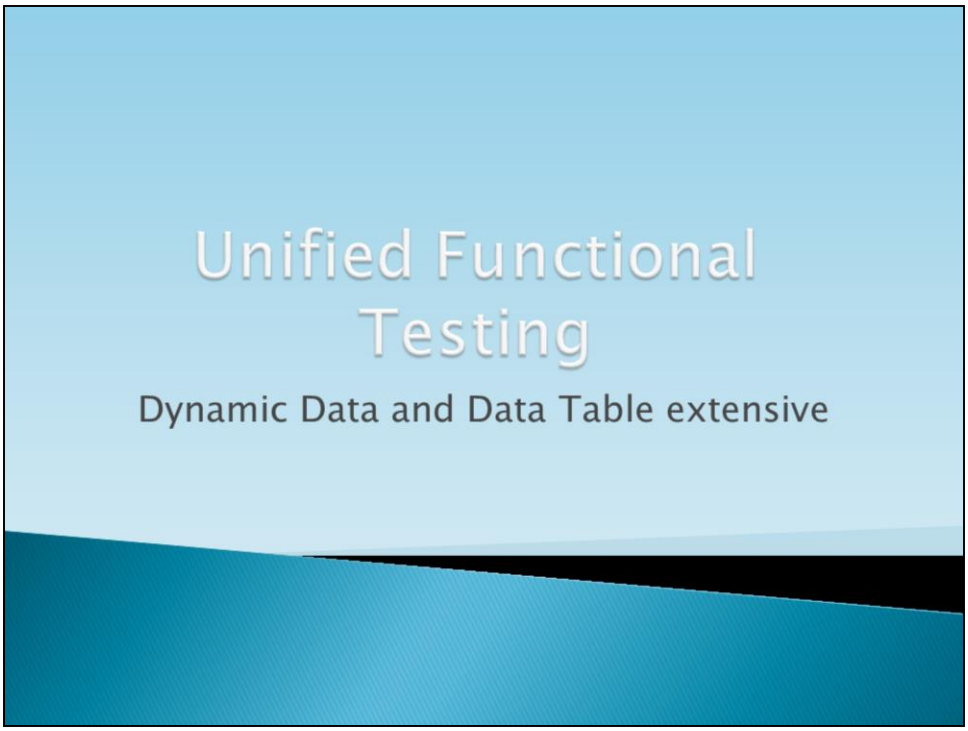

Unified Functional Testing
Dynamic Data and Data Table extensive

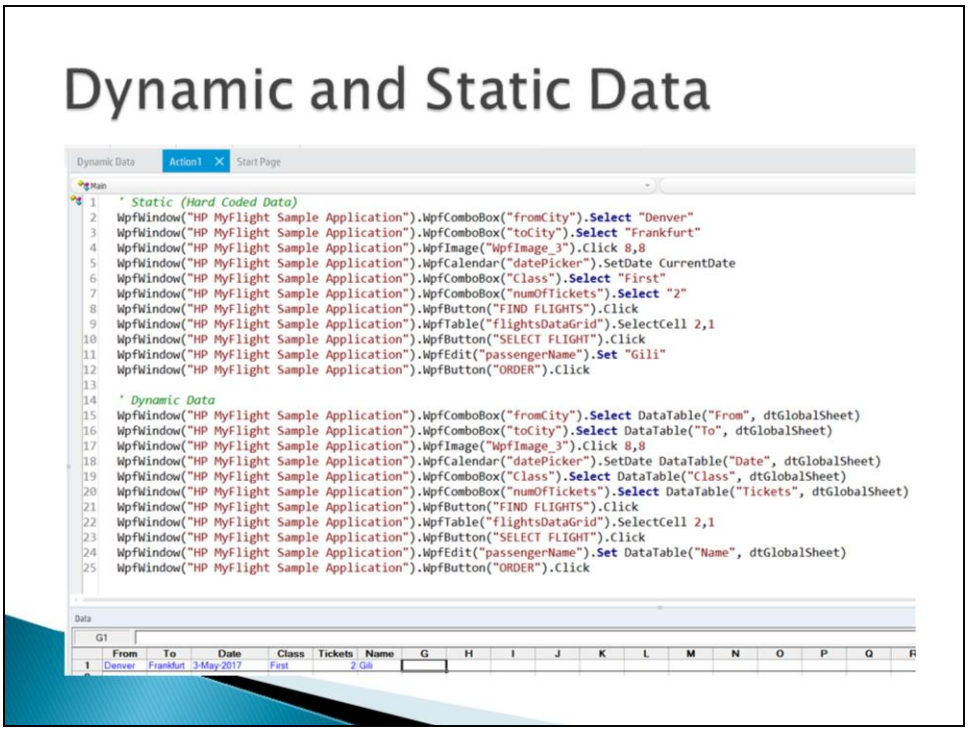
Lesson Objectives

By the end of this Lesson you will be able to:

- Retrieve data from application objects.
- Use the DATA TABLE object to store run-time data and drive actions.

Topics

1. Retrieving data from complicated objects
2. DataTable object
3. ChildItem method



UFT scripts can use data that is hard coded in the script or from external resource:

1. Dynamic Data- data from the run-time application or from an external source.
2. Static data - hard-code specific test values in script or in data sheets.

Retrieving Data from Objects

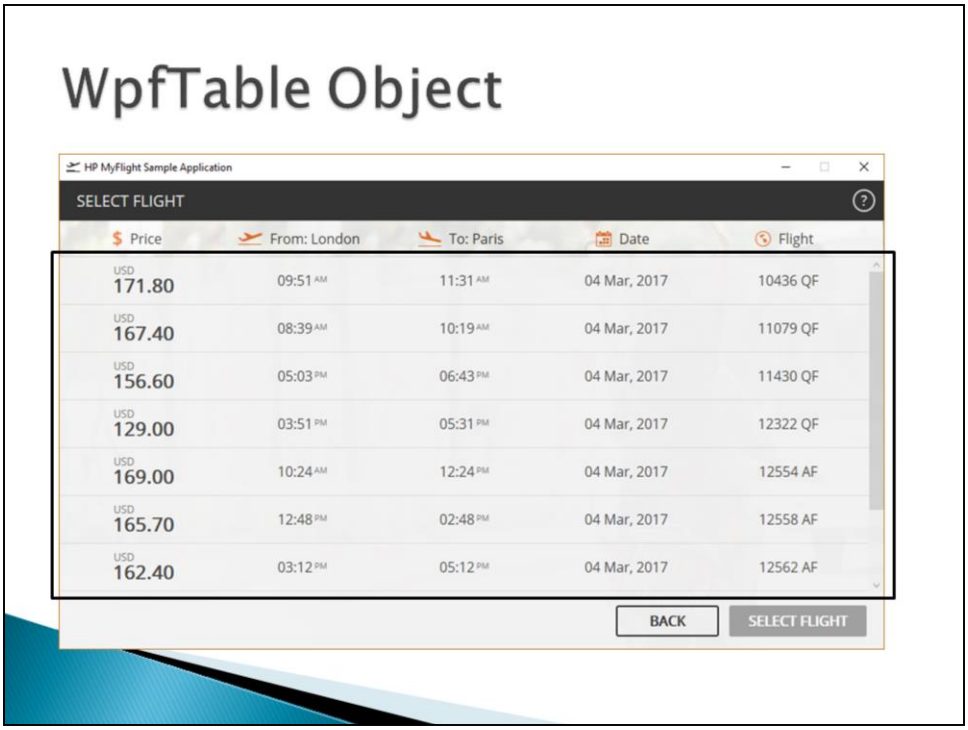
- You can retrieve data directly from the objects in the application under test.
- The following are common Windows and Web objects that contain the data that you retrieve from a run-time application and use in a script:
  - WINCOMBOBOX
  - WINLIST
  - WEBLIST
  - WEBTABLE

The **WPFCOMBOBOX** objects represent selection boxes in WPF Windows applications.

You retrieve data from the WPFCOMBOBOX object by using the GetItem, GetItemsCount and GetContent methods.

Example:

NumberOfItems=WpfWindow("HP MyFlight Sample Application").WpfComboBox("Class").GetItemsCount



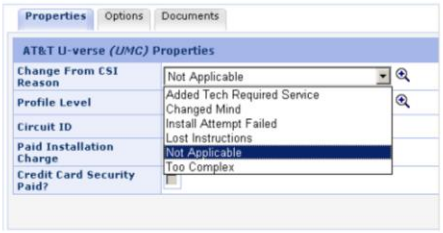
The **WPFTABLE** objects represent tables in WPF Windows applications.

You retrieve data from the WPFTABLE object by using the GetICellData, RowCount and ColumnCount methods.

Example:

```
CellValue = WpfWindow("HP MyFlight Sample Application").WpfTable("flightsDataGrid").GetCellData(1, 1)
```

WebList Object



The WEBLIST object represents lists in Web applications.

You retrieve data from a WEBLIST object very much the same way as a WINLIST object.The WEBLIST object uses the GetItem method to retrieve data.

The WEBLIST object uses the GETROPROPERTY method to retrieve the items count.

Example:

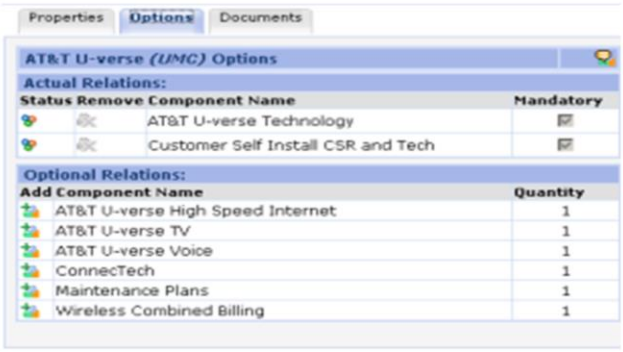
NumberOfReasons=Browser("My Browser").Page("My Page").WebList("My WebList").GetROProperty("Items Count")

RandomIndex=RandomNumber(0,NumberOfItems-1)

Reason = Browser("My Browser").Page("My Page").WebList("My WebList").GetItem(RandomIndex)

Browser("My Browser").Page("My Page").WebList("My WebList").Select Reason

WebTable Object



WEBTABLE objects represent information tables in Web applications.

You retrieve data from a WEBTABLE object by using the GetCellData, ColumnCount,and RowCount methods.

2 examples of pressing the “plus” image according to the component name:

ChildItem Example:

```
For i = 1 to Browser("My Browser").Page("My Page").WebTable("My WebTable").RowCount
        If instr(Browser("My Browser").Page("My Page").WebTable("My WebTable").GetCellData(i, 2), ComponentName) > 0 Then
                Browser("My Browser").Page("My Page").WebTable("My WebTable").ChildItem(i, 1, "Image", 0).Click
        End If
Next
```

SetTOProperty Example:

```
For i = 1 to Browser("My Browser").Page("My Page").WebTable("My WebTable").RowCount
        If instr(Browser("My Browser").Page("My Page").WebTable("My WebTable").GetCellData(i, 2), ComponentName) > 0 Then
                Browser("My Browser").Page("My Page").Image(“Plus”).SetTOProperty(“index”, i – 1)
                Browser("My Browser").Page("My Page").Image(“Plus”).Click
        End If
Next
```

Populating a Data Table Dynamically

- Instead of hard-coding data in a data sheet before a run session, you can retrieve the data from an application at run-time and store it in the DATATABLE.

```
NumberOfItems=Window("Flight Reservation").WinComboBox("Fly From:").GetItemsCount
RandomIndex=RandomNumber(0,NumberOfItems-1)
DataTable.Value("From") = Window("Flight Reservation").WinComboBox("Fly From:").GetItem(RandomIndex)
Window("Flight Reservation").WinComboBox("Fly From:").Select DataTable("From",dtGlobalSheet)
```

Commonly Data Table Methods

- **GetSheet** – Returns the specified sheet from the run-time Data Table.

- **GetSheetCount** – Returns the total number of sheets in the run-time Data Table.

```
'add a new column
DataTable.GetSheet("dtGlobalSheet").AddParameter "NewColumn","Row1Value"

'delete the old column
DataTable.GetSheet("dtGlobalSheet").DeleteParameter("OldColumn")

SheetCount = DataTable.GetSheetCount
Reporter.ReportEvent 0, "Sheet number", "There are " & SheetCount & " sheets in the Data Table."
```

Frequently Data Table Methods

- GetRowCount- Returns the specified sheet from the run-time Data Table.

```
RowCount = DataTable.GetSheet("MySheet").GetRowCount
Reporter.ReportEvent 2, "There are " &RowCount, "rows in the data sheet."
```

- Value - Retrieve or assign data to a cell in a Data Table object.

```
OldVal=DataTable.Value("OldColumn","dtGlobalSheet")
DataTable.Value("NewColumn","dtGlobalSheet")=OldVal
```

What's Next?

- Review Questions
- Next Lesson
  - The next lesson in the course is: **External Data**


End of Lesson