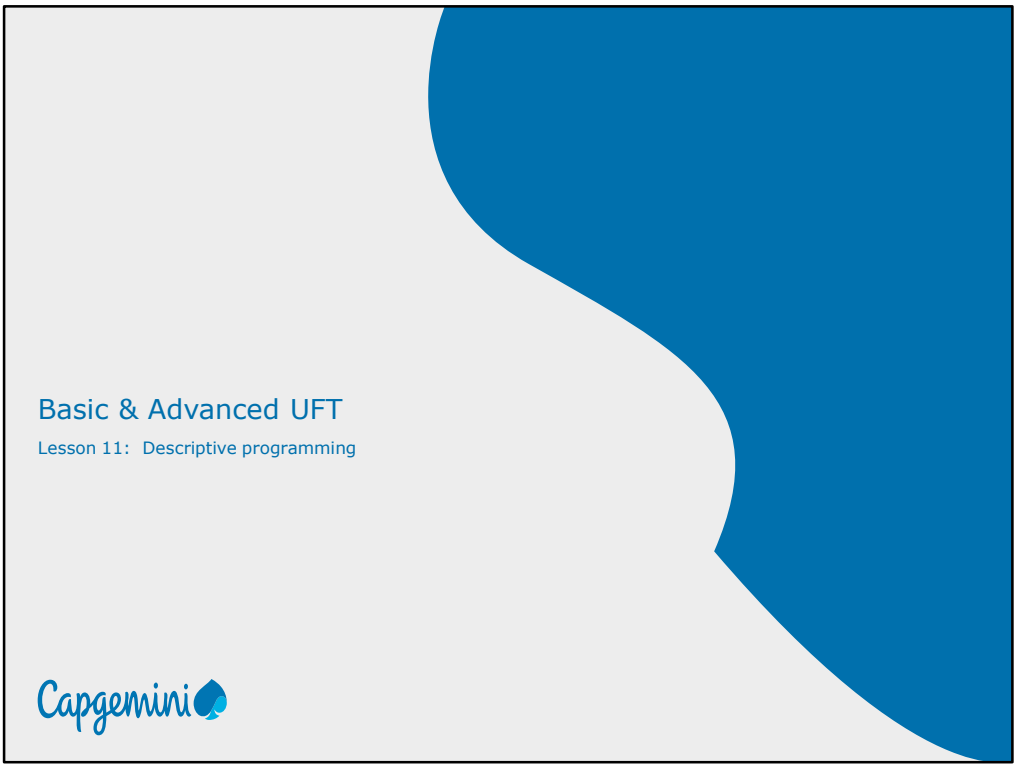

Basic & Advanced UFT
Lesson 11: Descriptive programming
Capgemini

Lesson Objectives

- What is Descriptive Programming
- Descriptive programming – when and why?
- How to use DP?
- Different ways to work with objects
- TO, RO and .Object
- OR Pros and Cons
- DP Pros and Cons

Descriptive Programming

What is Descriptive Programming?

- Programmatic description to instruct UFT to perform methods on objects without referring to the object repository.
- To do this, you provide UFT with a list of properties and values that UFT can use to identify the object or objects on which you want to perform a method.

Descriptive programming – when and why?

Consider using DP in following cases:

- Dynamic object properties
  Example: Link Logout <User Name>
- Same objects on every page
  Example: Buttons – Next, Back, Cancel, OK
- Lots of similar objects on one page
  Example: table with many First & Last name text boxes

How to use DP?

There are two ways to use DP:

I.Throw the properties and values straight into a command

II.Throw the properties & values into a description object, and use it into the syntax.

Descriptive Programming…

You can use DP with OR as shown below

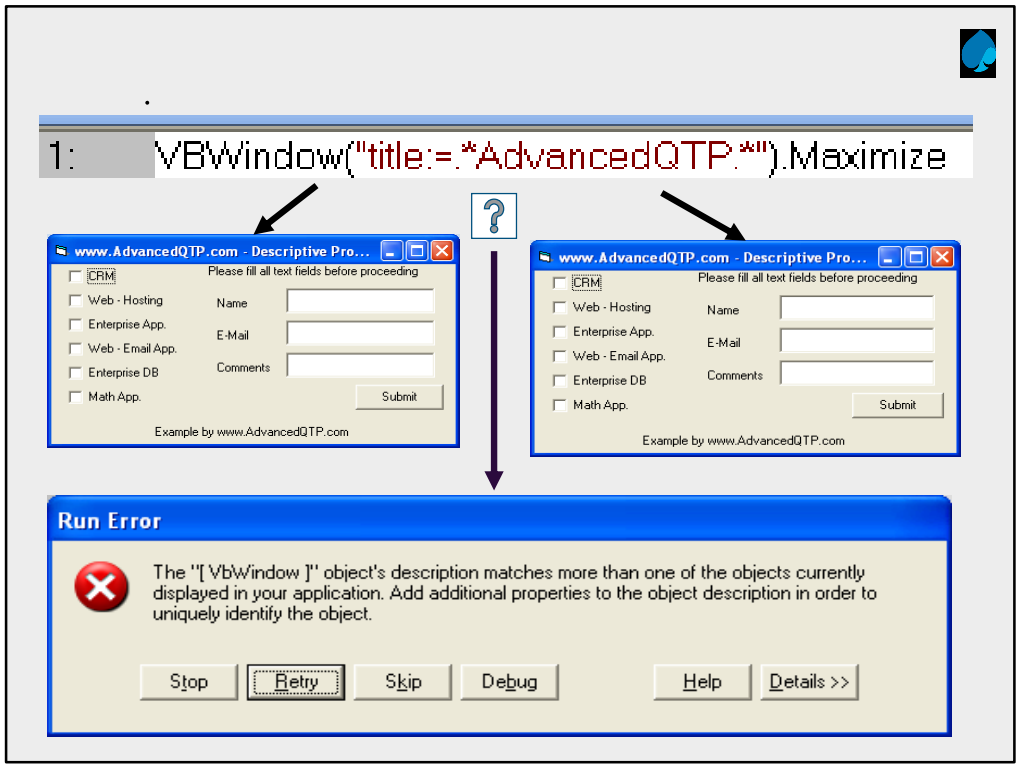
VBWindow("OR").VBButton("text:=OK").Click
Or (when oDesc is a description object):
VBWindow("OR").VBButton(oDesc).Click

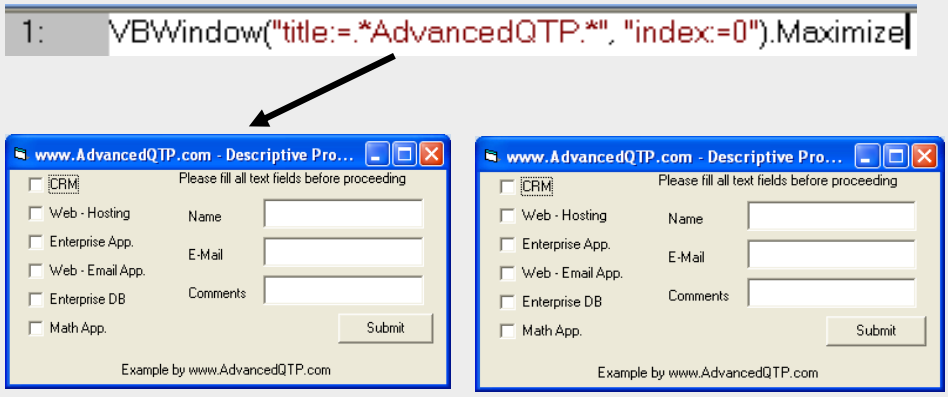
But, you can only start from OR, and move to DP
So this will not work:

VBWindow("title:=notgood").VBButton("clickme").Click

Descriptive Programming…

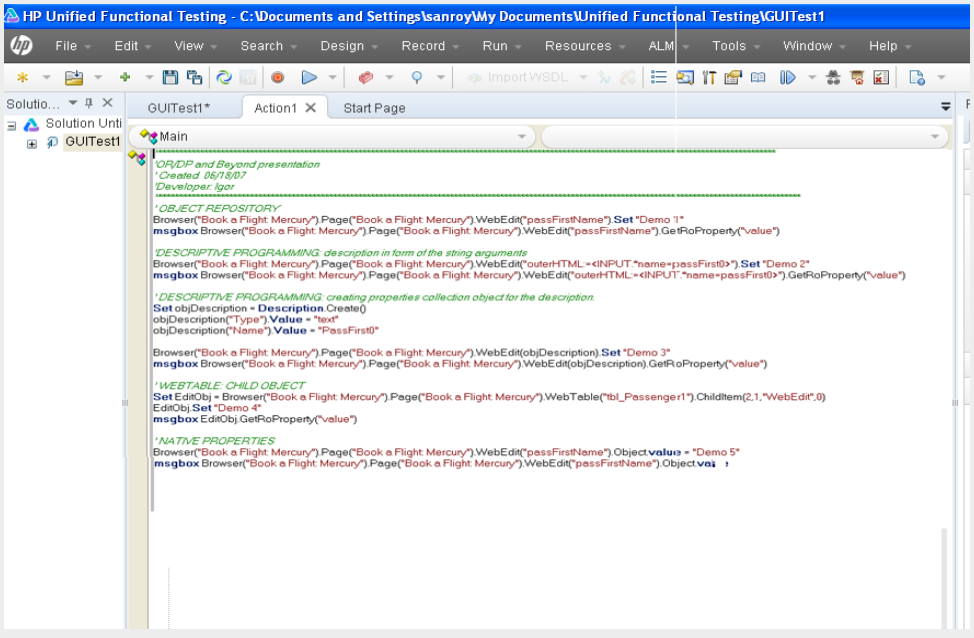
- You can store the objects in collections.
- When UFT finds two object which match the same description, it freezes ☹


1: VBWindow("title:=.*AdvancedQTP.*").Maximize
www.AdvancedQTP.com - Descriptive Pro...
Please fill all text fields before proceeding
CRM
Web - Hosting
Enterprise App.
Web - Email App.
Enterprise DB
Math App.
Name
E-Mail
Comments
Submit
Example by www.AdvancedQTP.com
Run Error
The "[VbWindow]" object's description matches more than one of the objects currently displayed in your application. Add additional properties to the object description in order to uniquely identify the object.
Stop
Retry
Skip
Debug
Help
Details >>

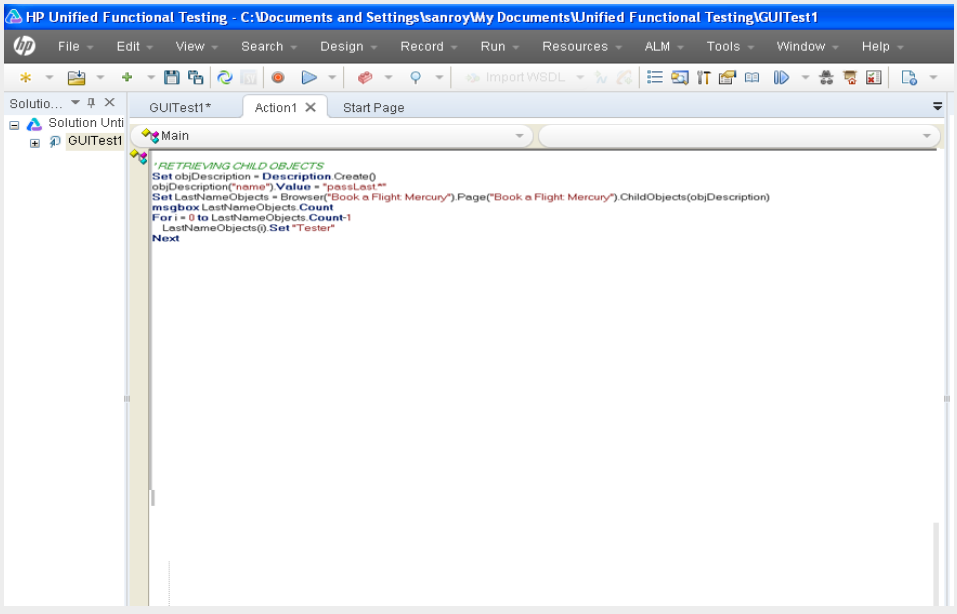


DP has a magic property: “index”, which allows us to tell the double objects apart
Index is a zero-based counter

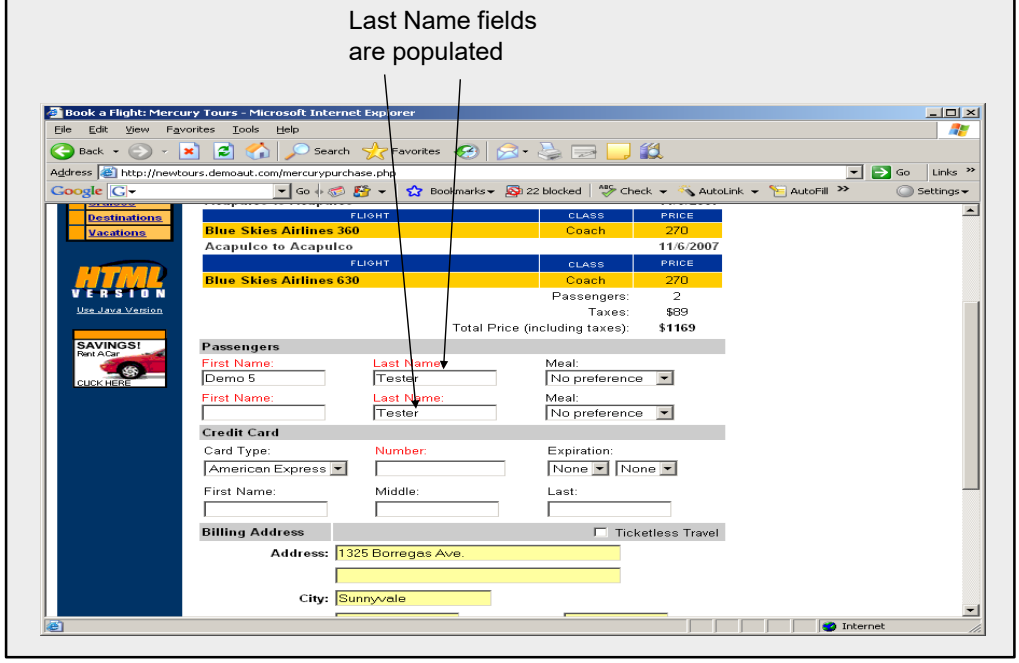
Different ways to work with objects



ChildObjects method – using Collection Object



ChildObjects method – using Collection Object



TO, RO and .Object

- .GetTOproperty/SetToProperty refers to the properties stored in OR
- .GetROProperty property refers to the AUT Object property (Run-time)
- .Object.<property/method> refers to the AUT Object NATIVE properties/methods

Object Repository vs. Descriptive Programming –what to use?

- There really is no "best way"
- Use the method that gives your company the best ROI, whether that be Object Repository (OR), Descriptive Programming (DP) or a mixture of both

OR Pros and Cons

PROS	CONS
GUI Front end to examine all the objects in the repository	Additional layer to maintain
Highlight in Application feature is great tool to walk the object tree	Unnecessary objects can be created
No need to modify the script when object properties changes	Multiple users cannot concurrently save/write to the shared OR
Easy to identify objects in AUT by Object Logical names	It won't eliminate the need for Descriptive Programming in most of cases
Can be created independently from scripts	

DP Pros and Cons

PROS	CONS
It's a white box	Lower Code Readability and requires more comments, like "what object is accessed"
Compatible with different QTP versions and UFT	Potentially slower to create
Code portability is high	To highlight an object in the application requires utilizing the "Highlight" method
Easy to mass update	

Demo

- Demo on Descriptive programming – Static DP
- Demo on Descriptive programming – Dynamic DP
- Demo on Descriptive programming – GetTOproperty/SetToProperty
- GetROproperty

Summary

In this lesson, you have learnt

- What is Descriptive Programming
  Programmatic description to instruct UFT to perform methods on objects without referring to the object repository
- Types of Descriptive Programming
  Static Descriptive Programming
  Dynamic Descriptive Programming
- Disadvantage of Object Repository.
- When and Why Descriptive Programming

Add the notes here.