



Test Automation Preparation

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Intentions...

- An overview of *some* key aspects of the preparation necessary when considering undertaking a Test Tool Automation effort.

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Common Myths

- **Will replace manual testers.**
- **Record and playback – “all done 😊”**
- **Automation will pay for itself in no time.**
- **Test automation is not software development.**
- **100% test automation.**

Common Mistakes

- **Not starting early enough.**
- **Little planning and preparation.**
- **Not treating test automation with respect.**
- **No buy-in from management.**
- **No relationship with development.**



Automation Benefits

- Repeatable tests.
- More complex in-depth testing.
- Configuration testing.
- Frees up manual testers to perform other priority tests.
- Quicker results.

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Automation Benefits Cont'd

- Stronger ties with development.
- Self documenting defects.
- Thorough, precise reports and deliverables.

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Pre-Automation Check List

- Get an informed sponsor in development and management.
- Define attainable goals.
- What's in place today? Leveraging existing assets.

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Pre-Automation Check List

- What type of testing will you do?
 - Team structure and skills required.
- What to automate?
 - What is a good automation candidate.
- Coding standards.

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Sponsor in development/management

- Convince sponsor of automation benefits.
- Make sponsor aware of the impact changes have on the automation effort.
 - Qa not taken into consideration, not taken seriously?
 - Use of 3rd party tool, why customize?
- Convince sponsor of the need to enforce good coding standards.
- Sponsor has to enforce cooperation.

If your lucky enough...

- Unique names for objects and controls.
 - Consistency between builds.
- Consistency in functionality of controls.
- Properties and methods made public, why are they hidden in the first place?



Define Goals

- Define measurable quantifiable goals.
 - Use a pilot project to establish baselines.
- Use a milestone process to keep track of progress.
 - Breakdown implementation into stages.
 - Training, analysis of system, testing priority, architecture, knowledge base, etc...

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Record & Playback

- ' Attach to Name=frmPDAMain
- ' Application=PDA.EXE
- VBWindow("Name=frmPDAMain Application=PDA.EXE").Attach
- VBWindow.MenuSelect "Maintenance~Customer~Add Customer"
- ' Attach to Name=frmEditCustomer,
- ' tpAttachChild
- VBWindow("Name=frmEditCustomer", tpAttachChild).Attach
- VBEditBox("Name=txtCustomerID").SetText "001"
- VBEditBox("Name=txtPassword").SetText "mike01"
- VBEditBox("Name=txtName").SetText "Mike"
- VBEditBox("Name=txtAddress").SetText "460 St-Catherines"
- VBEditBox("Name=txtCity").SetText "Montreal"
- VBEditBox("Name=txtState").SetText "Quebec"
- VBEditBox("Name=txtPostalCode").SetText "hue3k4"
- VBEditBox("Name=txtEmailAddress").SetText "ms@compuware.com"

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Structured

- ' Attach to Name=frmPDAMain
- ' Application=PDA.EXE
- VBWindow("Name=frmPDAMain Application=PDA.EXE").Attach
- **If strLanguage = "French" Then**
- **VBWindow.MenuSelect "Maintenance~Client~Ajouter Client"**
- **Else**
- **VBWindow.MenuSelect "Maintenance~Customer~Add Customer"**
- **End If**
- ' Attach to Name=frmEditCustomer,
- ' tpAttachChild
- VBWindow("Name=frmEditCustomer", tpAttachChild).Attach
- VBEditBox("Name=txtCustomerID").SetText "001"
- VBEditBox("Name=txtPassword").SetText "mike01"
-

Modularize

- '\$TPInclude "BNT_Nav"
- '\$TPInclude "BNT_Customer"
- Option Explicit
- Sub Main()
- Dim NavTo As New BNT_Nav
- Dim Customer As New BNT_Customer
-
- **NavTo.AddCustomer**
-
- **Customer.Add** "001", "001", "Michael Sibthorpe", "87 Prince",
"Montreal", _ "Quebec", "h3c2m7", "michael.sibthorpe@compuware.com"
- End Sub



Datadriven

- 'Open file
- Open "c:\program files\compuware\testpartner\datapools\customer.txt" For Input As intFileNum
- 'Loop until the End Of File has been reached
- **Do While Not EOF**(intFileNum)

The input statement will populate your variables. Enter them in the order they appear in the file.

Input #intFileNum, strID, strPassword, strName, strAddress, strCity, strState, strPostal, strEmail

NavTo.AddCustomer

-
- Customer.Add **strID, strPassword, strName, strAddress, strCity, strState, _ strPostal, strEmail**
- **Loop**
- Close #intFileNum

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Keyword Driven

- Data file containing keyword commands (example: excel file)
- Interpreter to convert commands in data file.
- Conventional script to tie the two components together.

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What to automate?

- Low hanging fruit – quick return on investment.
- Data pounding – one script, multiple iterations of data.
- Tests done frequently – acceptance test plan.
- To go where no man or woman has gone before. Automation opens many doors.

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Coding standards

- Code reviews – enforce standards.
- Comment! Comment! Comment!
- Structure tests logically.
- Naming conventions – hungarian notation.
 - strName as string.

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