

# eZAutomate Static Data Parameterization



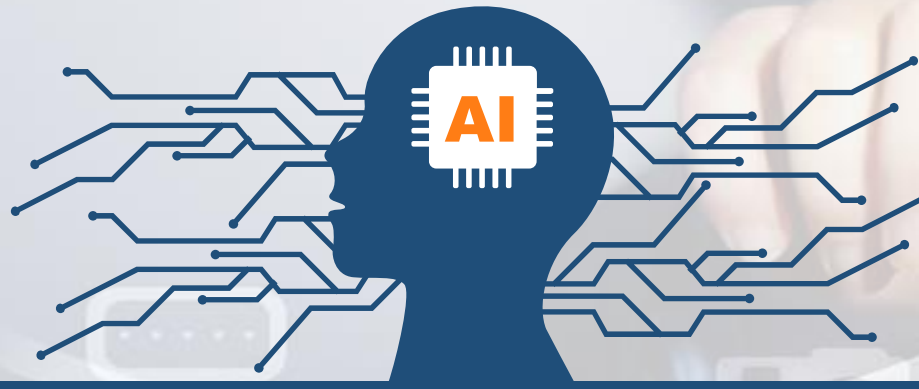
PRODUCT QUALITY



OPERATIONAL EFFICIENCY



TEST INFRASTRUCTURE UTILIZATION



## Universal Technology Solutions

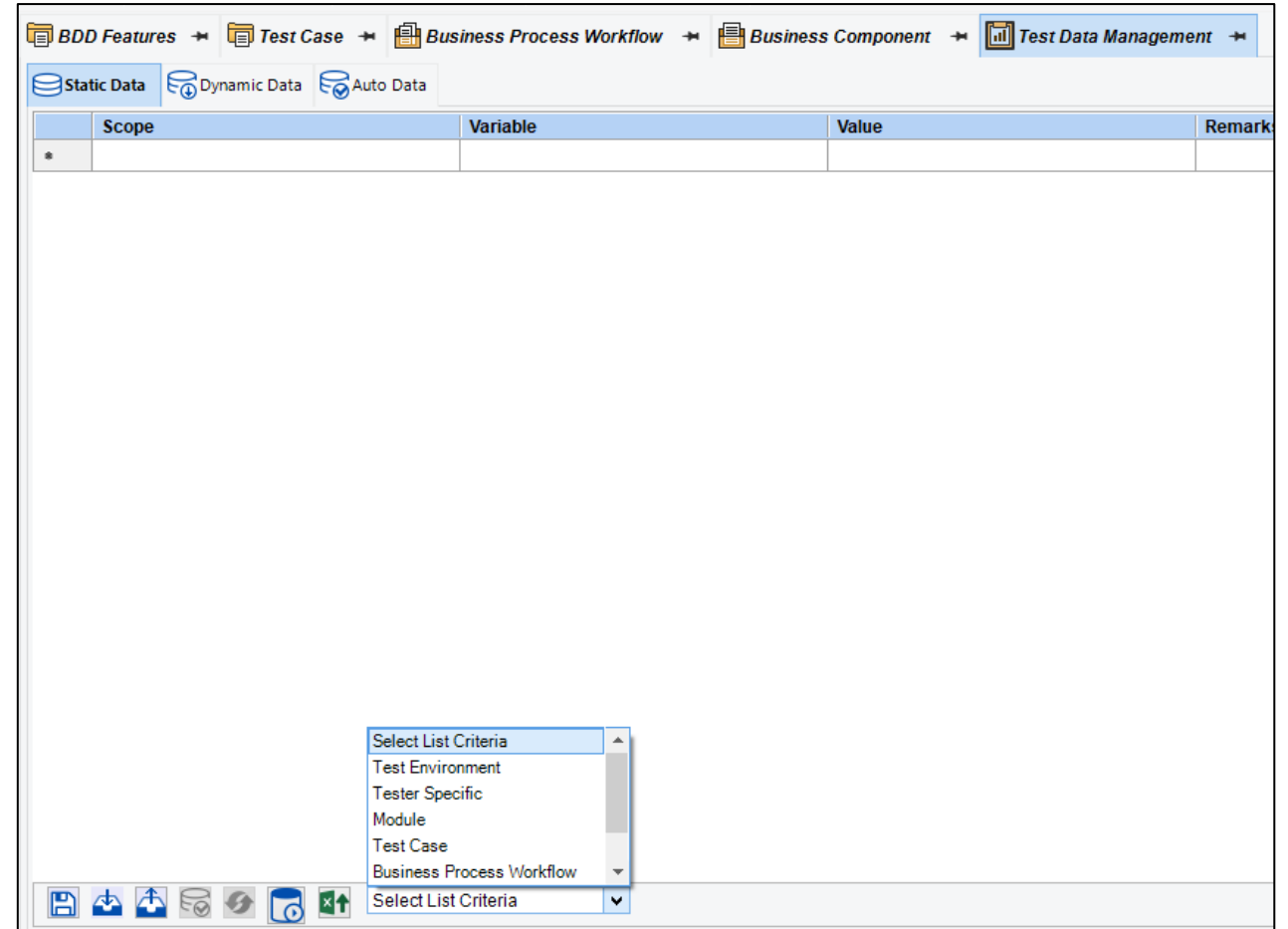


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# Levels of Static Data Parameterization

- Static Data Parameterization can be implemented on Static Variables (Static variable are those whose value will remain same/fixed). This can be done by saving data into database or by saving data into excel sheet.
- In eZAutomate, there are various level for Static Data Parameterization:
  1. Test Environment
  2. Tester Specific
  3. Module
  4. Test Case
  5. Business Process Workflow
  6. Business Component

**Note:** Static variables are represented within angular brackets in Keyword Script Table <>.



# Static Variable Parameterization

Parameterizing static variable:

- Open business component and identify the **Input Value** on which to use static variables.
- Create static variable:
  - Go to **Select List Criteria** and select correct criteria.
  - On the second tab choose the correct criteria name.
  - On the third tab select the scope.
  - In **Variable** column type the name of variable and in **Value** column type the value of the variable.
  - In case AUT is a multilingual application, type the equivalent of **Value** in other languages in respective language column.
  - Click on **Save** to save the defined variables and its values.
- After defining the static variable, key in the variable name in **Input Value** of Keyword Script Table.

**Note:** Same steps are followed to parameterize static variables of all levels

The screenshot displays the 'Static Data' tab in the UTS software. The interface includes a top navigation bar with tabs for 'BDD Features', 'Test Case', 'Business Process Workflow', 'Business Component', and 'Test Data Management'. The main window is titled 'Untitled - Component\* X'. Below the navigation bar, there is a table with the following columns: Steps, Action Reference, Input Value, Expected Value, Action, Application Reference, Test Step Detail, Remarks, and Reporting. The table contains three rows of data:

Steps	Action Reference	Input Value	Expected Value	Action	Application Reference	Test Step Detail	Remarks	Reporting
1	Username	<username>		SetText		Enter text +<user...		<input checked="" type="checkbox"/>
2	Password	<password>		SetText		Enter text +<pass...		<input checked="" type="checkbox"/>
3	Log In			ButtonClick		Click Log In button.		<input checked="" type="checkbox"/>

Below the table, there is a 'Static Data' section with a table for defining static variables. The table has columns for Scope, Variable, Value, French, Dutch, Italian, and Remarks. The table contains two rows of data:

Scope	Variable	Value	French	Dutch	Italian	Remarks
Global	username	utstest				
Global	password	123456				

The bottom of the interface shows a 'Test Environment' dropdown menu with 'Test Environment 1' selected, and a 'Global' dropdown menu.

# Create Static Variable - Test Environment

Steps to create **Test Environment** level variable:

- In the **Static Data** tab of Business Component screen, select **Test Environment** from the **Select List Criteria** drop-down.
- In **Select Test Environment** list, select the particular test environment created under the project.
- In the **Select Variable Scope** drop-down, select **Global** or any TestCase.
  - Global- Variable declared as global can be used by all TestCases under the selected test environment
  - Test Case- Variable declared as test case specific can be used only in the selected TestCase under the selected test environment.
- Execute TestCases in various testing environments like QA, Pre-Production, UAT etc. For each environment designate different data parameters.
- In eZAutomate, same script is used on different environment levels.

The screenshot shows the 'Business Component' screen in the eZAutomate application. The 'Static Data' tab is active. The 'Select List Criteria' dropdown is set to 'Test Environment'. The 'Select Test Environment' list shows 'Test Environment 1' selected. The 'Select Variable Scope' dropdown is set to 'Global'. The 'Input Value' field is empty. The 'Expected Value' field is empty. The 'Action' field is empty. The 'Application Reference' field is empty. The 'Test Step Detail' field is empty. The 'Remarks' field is empty. The 'Reporting' checkbox is checked.

Input Value	Expected Value	Action	Application Reference	Test Step Detail	Remarks	Reporting
						<input checked="" type="checkbox"/>

Variable: Select List Criteria: Test Environment

Select Test Environment: ENV-UTS, ENV-UTS2, Test Environment 1

Select Variable Scope: Global

Test Environment 1

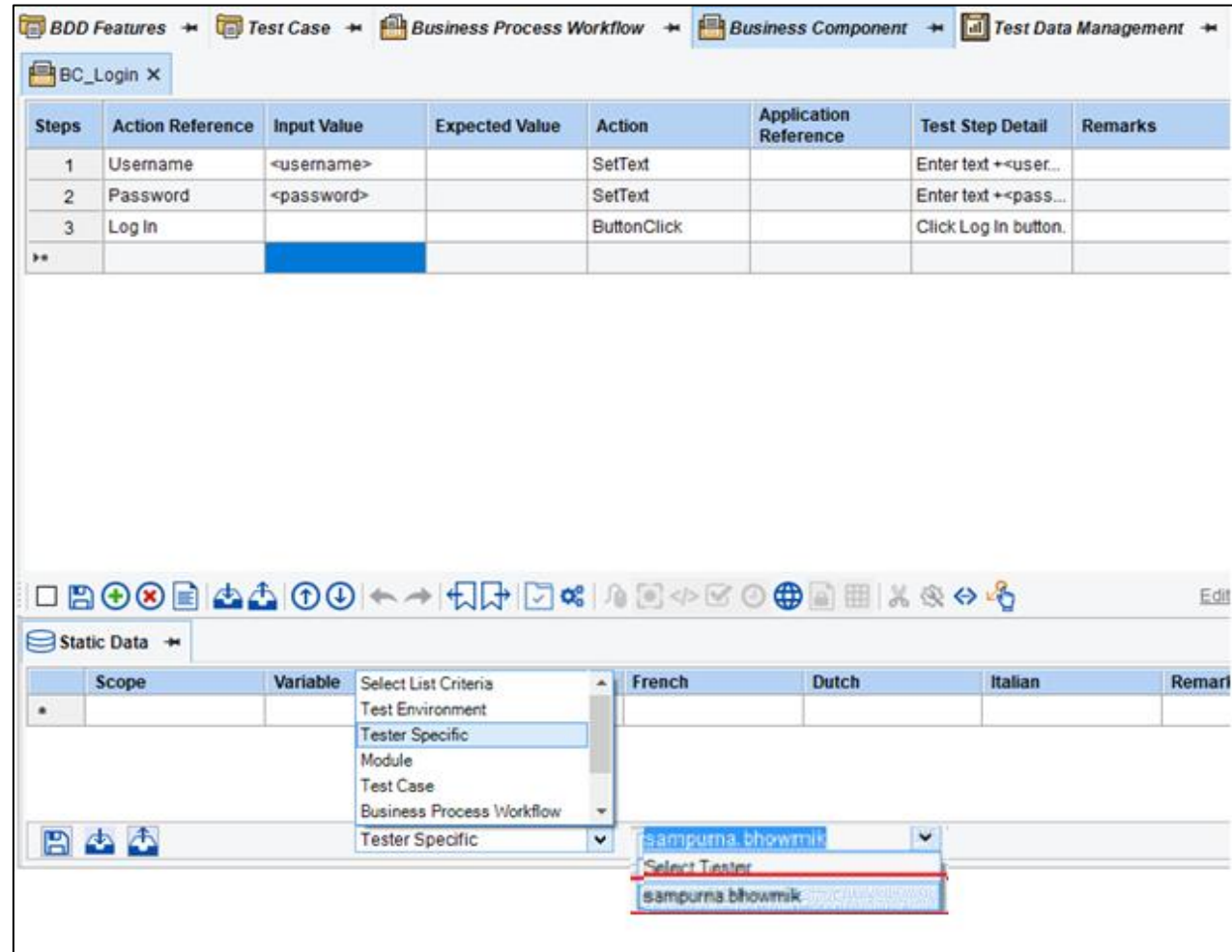
Global

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# Create Static Variable - Tester Specific

Steps to create **Tester Specific** level variable:

- In the **Static Data** tab of Business Component screen, select **Tester Specific** from the **Select List Criteria** drop-down.
- In **Select Tester** list, select the particular tester, with which you want to associate the data.
- In the **Select Variable Scope** drop-down, select **Global** or any Test Case. (These Test Cases are only those which are assigned to the tester you have selected)
  - Global - Variable declared as global can be used by all test cases for the selected tester.
  - Test Case - Variable declared as Test Case specific can be used only in the selected Test Case for the selected tester.
- Execute Test Cases under various tester credentials. For each tester designate different data parameters.



The screenshot shows the Business Component screen with the Static Data tab selected. The 'Select List Criteria' dropdown is open, showing 'Tester Specific' selected. The 'Select Tester' dropdown is also open, showing 'sampurna bhowmik' selected. The table below shows the test steps for the 'BC\_Login' test case.

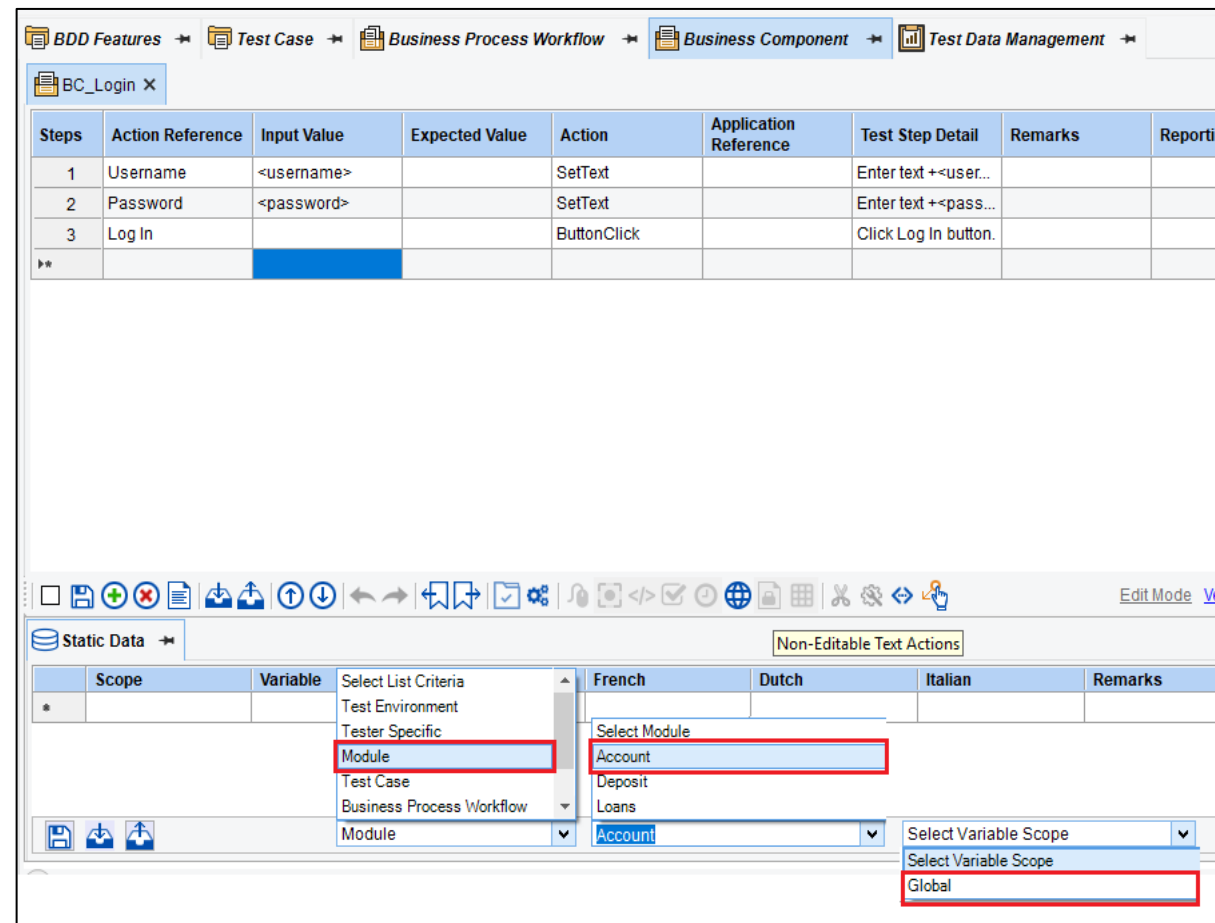
Steps	Action Reference	Input Value	Expected Value	Action	Application Reference	Test Step Detail	Remarks
1	Username	<username>		SetText		Enter text +<user...	
2	Password	<password>		SetText		Enter text +<pass...	
3	Log In			ButtonClick		Click Log In button.	
...							

The 'Static Data' tab is also visible, showing a table with columns: Scope, Variable, Select List Criteria, French, Dutch, Italian, and Remarks. The 'Select List Criteria' dropdown is open, showing 'Tester Specific' selected. The 'Select Tester' dropdown is also open, showing 'sampurna bhowmik' selected.

# Create Static Variable - Module

Steps to create **Module** level variable:

- In the **Static Data** tab, select **Module** from the **Select List Criteria** drop-down.
- In **Select Module** list, select the module name from the list of already created modules under that project, with which you want to associate the data.
- Execute same TestCase with different module references. For each module designate different data parameters.



The screenshot displays the 'Static Data' tab in a software application. The 'Select List Criteria' dropdown is set to 'Module'. The 'Select Module' dropdown menu is open, showing a list of modules: 'Account', 'Deposit', 'Loans', and 'Module'. The 'Account' module is selected. The 'Select Variable Scope' dropdown is also open, showing 'Global' as the selected option. The 'Static Data' table has columns for Scope, Variable, Select List Criteria, Test Environment, Tester Specific, Test Case, Business Process Workflow, and Module. The 'Module' variable is selected in the 'Variable' column. The 'Select List Criteria' dropdown is set to 'Module'. The 'Select Module' dropdown is open, showing a list of modules: 'Account', 'Deposit', 'Loans', and 'Module'. The 'Account' module is selected. The 'Select Variable Scope' dropdown is also open, showing 'Global' as the selected option.

Steps	Action Reference	Input Value	Expected Value	Action	Application Reference	Test Step Detail	Remarks	Report
1	Username	<username>		SetText		Enter text +<user...		
2	Password	<password>		SetText		Enter text +<pass...		
3	Log In			ButtonClick		Click Log In button.		
1*								

Scope	Variable	Select List Criteria	French	Dutch	Italian	Remarks
*		Select List Criteria Test Environment Tester Specific Module Test Case Business Process Workflow Module	Select Module Account Deposit Loans Account			

# Create Static Variable - Test Case

Steps to create **Test Case** level variable:

- In the **Static Data** tab, select **Test Case** from the **Select List Criteria** drop-down.
- In **Select Test Case** list, select the TestCase name with which you want to associate the data. These TestCases will be those which are present under the project.
  - Specific Test Case- Variable declared under any specific TestCase can be used only in that selected TestCase.
  - All option will display all the TestCase level variables with respective scope.

Example:

A static variable is defined with TestCase scope 'TC1' and is referred in a Business Component.

Assuming this Business Component is a part of a Business Process Workflow which in turn is associated with of two TestCases 'TC1' & 'TC2'.

During Execution, the variable will be active only in 'TC1' and not in 'TC2'.

The screenshot displays the 'Static Data' tab in a software application. The top navigation bar includes 'BDD Features', 'Test Case', 'Business Process Workflow', 'Business Component', and 'Test Data Management'. The main table lists test steps for 'BC\_Login' with columns for Steps, Action Reference, Input Value, Expected Value, Action, Application Reference, Test Step Detail, Remarks, and Reporting. Below this, the 'Static Data' section shows a table with columns for Scope, Variable, Select List Criteria, and Remarks. A dropdown menu for 'Select List Criteria' is open, showing options like 'Test Environment', 'Module', 'Test Case', and 'Business Process Workflow'. The 'Test Case' option is selected and highlighted. Below the dropdown, a 'Select Test Case' list shows '1- TC\_Login' as the selected option, also highlighted with a red box.

Steps	Action Reference	Input Value	Expected Value	Action	Application Reference	Test Step Detail	Remarks	Reporting
1	Username	<username>		SetText		Enter text ++user...		✓
2	Password	<password>		SetText		Enter text ++pass...		✓
3	Log In			ButtonClick		Click Log In button.		✓
»								□

Scope	Variable	Select List Criteria	French	Dutch	Italian	Remarks
»	TC_Login	Test Case				

Select Test Case  
1- TC\_Login



# Create Static Variable - Business Process Workflow

Steps to create **Business Process Workflow** level variable:

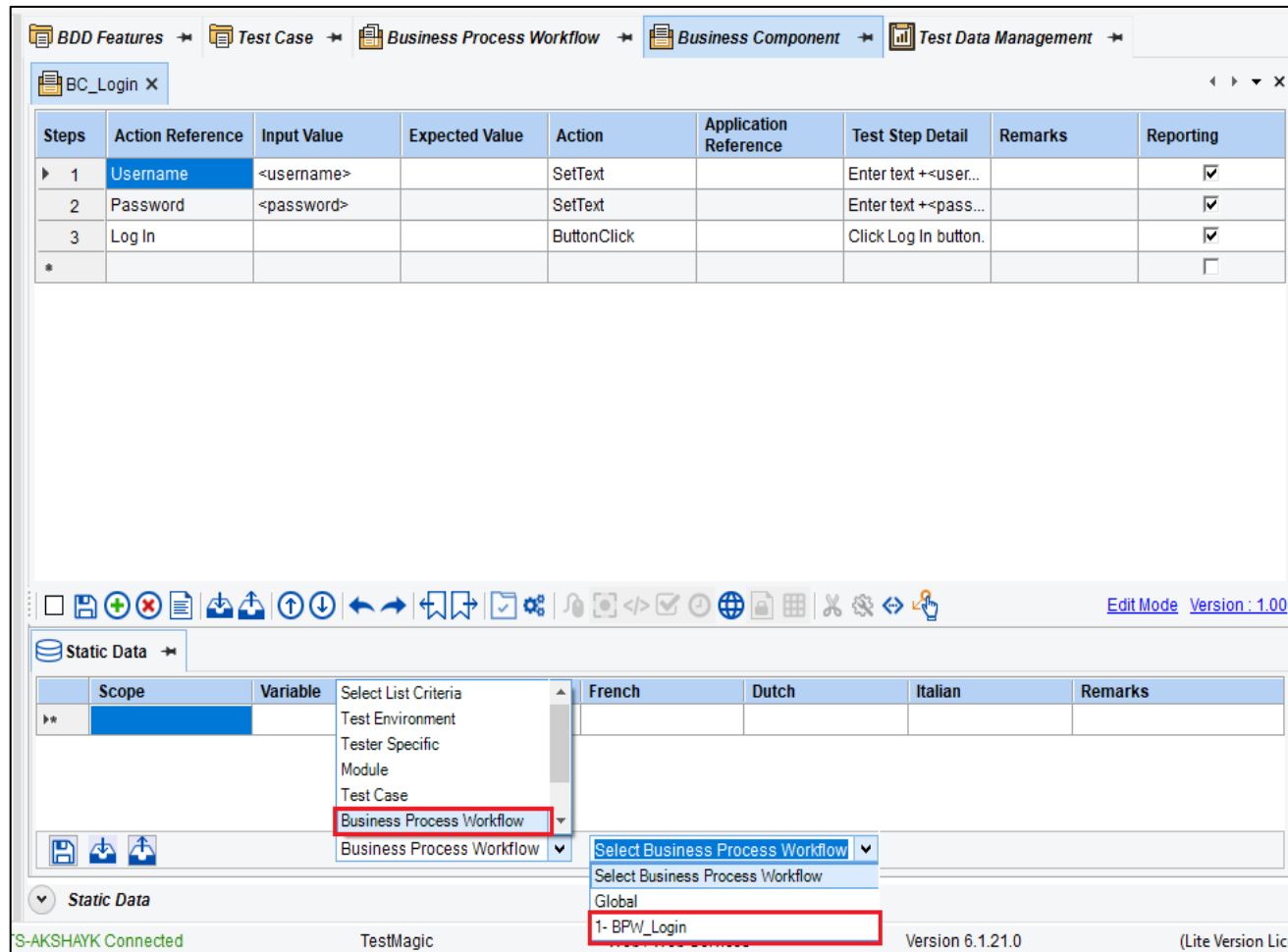
- In the **Static Data** tab, select **Business Process Workflow** from the **Select List Criteria** drop-down.
- In **Select Business Process Workflow** list, all BPWs under that project will occur, select the desired BPW.
  - Variable declared as Business Process Workflow specific can be used only in selected BPW.

Example:

A static variable is defined with Business Process Workflow scope 'BPW1' and is referred in a Business Component.

Assuming this Business Component is associated with two BPWs- 'BPW1' & 'BPW2'

During execution, the variable will be active only in 'BPW1' and not in 'BPW2'.



The screenshot displays the TestMagix application interface. At the top, the navigation bar includes tabs for BDD Features, Test Case, Business Process Workflow, Business Component, and Test Data Management. The 'Static Data' tab is active, showing a table with columns: Scope, Variable, Select List Criteria, French, Dutch, Italian, and Remarks. The 'Select List Criteria' dropdown is set to 'Business Process Workflow'. The 'Select Business Process Workflow' dropdown is open, showing a list of BPWs, with '1- BPW\_Login' selected. The 'Test Case' tab is also visible, showing a table of test steps.

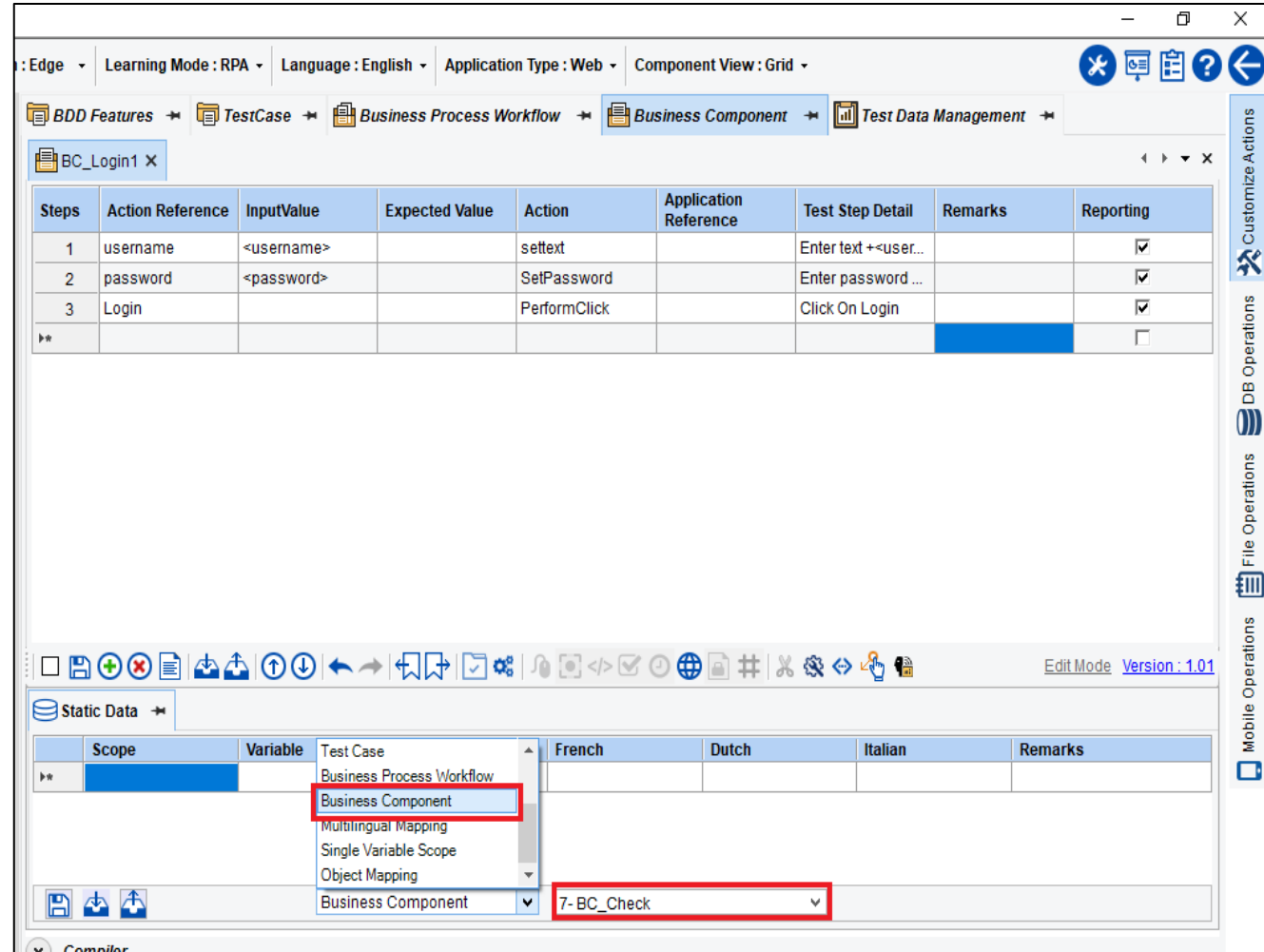
Steps	Action Reference	Input Value	Expected Value	Action	Application Reference	Test Step Detail	Remarks	Reporting
1	Username	<username>		SetText		Enter text +<user...		<input checked="" type="checkbox"/>
2	Password	<password>		SetText		Enter text +<pass...		<input checked="" type="checkbox"/>
3	Log In			ButtonClick		Click Log In button.		<input checked="" type="checkbox"/>
*								<input type="checkbox"/>



# Create Static Variable - Business Component

Steps to create 'Business Component' level variable

- In the **Static Data** tab, select **Business Component** from the **Select List Criteria** drop-down.
- **Select Business Component** list, all BCs under that project will occur, select the desired BC.
  - Global- Variable declared as global can be used by all Business Components.
  - Specific Business Component- If any specific Business Component specific is selected, then the data can be accessed and used only through that particular BC.



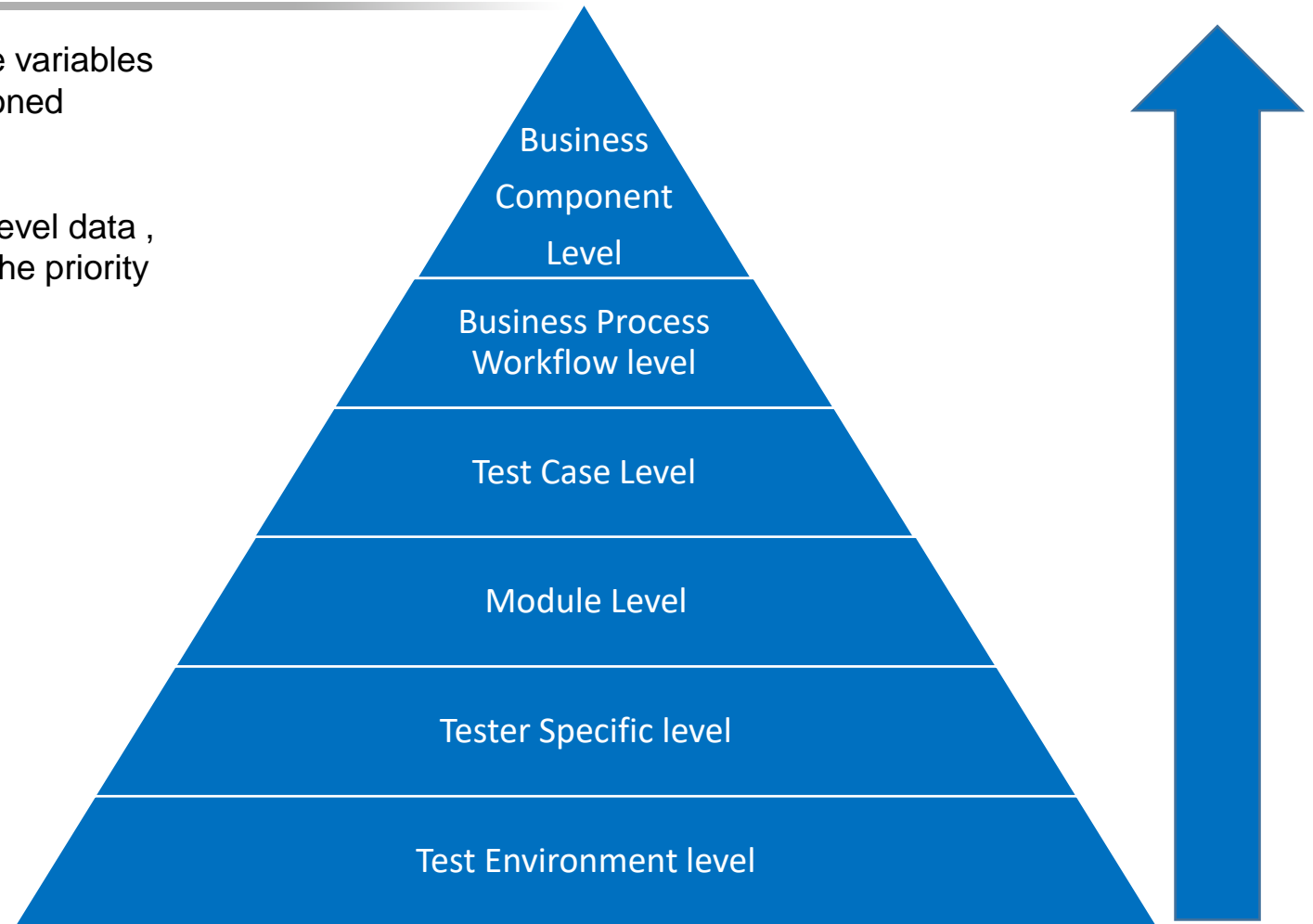
The screenshot displays the 'Static Data' tab in the UTS software. The 'Business Component' is selected in the 'Select List Criteria' drop-down, and '7- BC\_Check' is selected in the 'Business Component' list. The 'Test Case' list is also visible, showing 'Business Component' as the selected option.

Steps	Action Reference	InputValue	Expected Value	Action	Application Reference	Test Step Detail	Remarks	Reporting
1	username	<username>		setText		Enter text +<user...		✓
2	password	<password>		SetPassword		Enter password ...		✓
3	Login			PerformClick		Click On Login		✓
...								

Scope	Variable	Test Case	French	Dutch	Italian	Remarks
...		Business Component				

# Priority of Variables

- In case same variable name is used to defined the variables at multiple parametrization levels, then the mentioned priority pyramid will be followed during execution
- Highest priority will be given to Test Environment level data , then Tester Specific Data and so on according to the priority Pyramid.

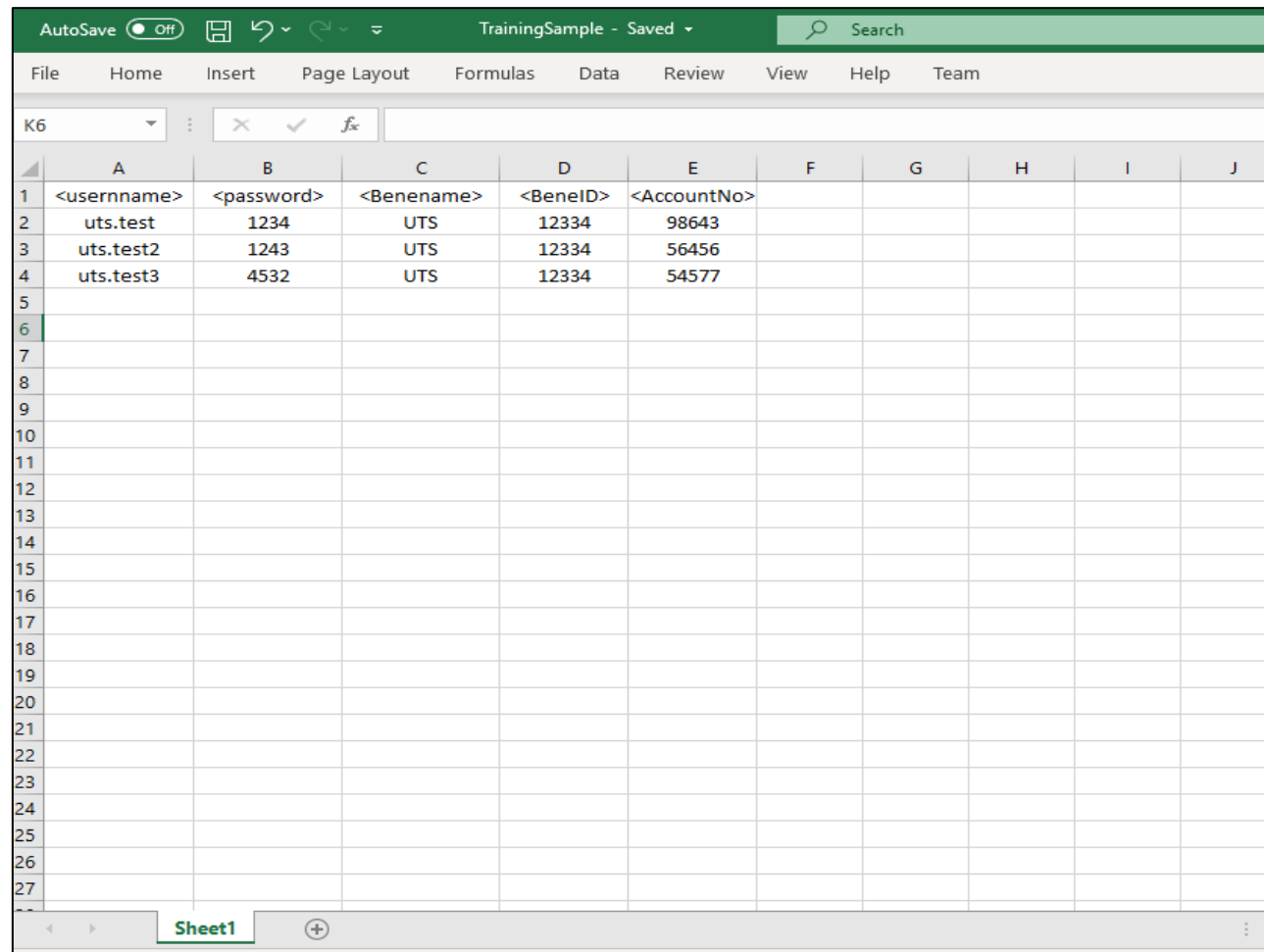


# Parameterization of data using Excel

Steps to parameterize data using excel:

1. Create an Excel file on local machine.
2. Enter variables names and their values in excel.
3. Save the file.

**Note:** This data will only be accessible to the local machine, if this excel is saved on user's machine



The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E	F	G	H	I	J
1	<username>	<password>	<Benename>	<BenelD>	<AccountNo>					
2	uts.test	1234	UTS	12334	98643					
3	uts.test2	1243	UTS	12334	56456					
4	uts.test3	4532	UTS	12334	54577					
5										
6										
7										
8										
9										
10										
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27										

# Parameterization of data using Excel

- Import the created Excel file using external file operation.
- Select **File Data** option, then select **Excel File Action** as **Get Data** to retrieve data from excel.
- Keep **Status Flag** as **True** to use the defined variables and values from Microsoft excel sheet or click **False** to use from Data Parameterization..
- Enter the path where your excel file is saved in **File Path**.
- Take the exact sheet name of the excel where the data is stored and enter in **Sheet Name** textbox.
- Select the **Data Read Type** as Row wise or Column Wise according to the data alignment in the excel.
- In **Variable Row/Column No.**, put the row/column header of which values are to be taken.
- In **Value Row/Column No.**, put the number row/column from where values are to be taken.
- At the time of execution eZAutomate will retrieve data from excel, but it will only accessible to the local machine.

Customize Actions

Invoke Browser  
Variable Operations  
Exchange Variable  
Delay Operations  
Date/Time Operations  
String Operations  
Mathematical Operations  
Windows Operations  
**External Data Operations**

☒ File Data ☐ Auto Data ☐ Execute Test Case ?

Excel file action: Get Data

Status Flag: True

File Path: D:\SampleData.xlsx

Sheet Name: Sheet1

Data Read Type: Row Wise

Variable Row No: 1 Value Row No: 2

☐ Before Current Step ☐ After Current Step ☒ At Last Step

Steps	Action Reference	Input Value	Expected Value	Action
1	D:\SampleData.xlsx;Sheet1;1;2;row	True		GetDataFrmFile
▶▶				

# Thank you for your time and patience



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