### **ZUG**

- Test automation tool.
- Provides an execution environment for tests specified using CHUR test specification language.
- Platform independent, and can be used on any environment that supports the Java Runtime Environment.



# Goals/Objectives

- You'll learn
  - Basics of ZUG and CHUR
  - About work sheets
  - Concepts and Terminologies
  - Write a simple Test Case



## **CHUR**

A simple spreadsheet based test specification language



# Why a new technology?

- Limitations of existing languages
  - Embedded logic / Reusability
  - Specialized staff
  - Cost of maintenance
- The CHUR advantage
  - Spreadsheet based language
  - Logic is separated from test case implementation
  - Very easy to learn.
  - Can be used by non programmers



# **Concepts and Terminologies**

- Test Suite : Collection of automated test case. Represented in spreadsheet and consists of following worksheets:
  - Config Worksheet
  - Macro Worksheet
  - TestCases Worksheet
  - Molecule Worksheet
  - Prototype Worksheet
- **Test Case**: A test case is a set of test steps to test certain feature of a product.
- **Test Step**: A test step consists of a action and verification steps. It can also have some property and some clean up steps.
- **Action**: An action is a piece of work that the test case designer wishes to do. Action takes some arguments. An action can be an atom or a molecule and can also have some property.
- Verification: Verification steps are used to verify the outcome of the action step. Like action step they also takes arguments and can be a molecule or an atom and may have some property.

#### Config Worksheet

- Contains the environment related information.
- Information is typically used by ZUG to locate supporting programs, and upload results into the database.
- Allows references to additional CHUR spreadsheet files, which contain Molecules and Macros to be included.

	А	В
1	ScriptLocation	C:\Users\skhan\Desktop\
2	DBHostName	http://192.168.0.3:4567
3	DBName	Framework
4	DBUserName	davosuser
5	DBUserPassword	user
6	Test Suite Name	Negative
7	Test Suite Role	Zug Client
8	Include	
9		
10   (	Config Macros TestCases Molecules Prototypes	<b>→</b>
Shee	t 1 / 5 PageStyle_Config	STD Sum=0

#### Note:



- This information can also be provided in the ZugINI.XML file
- If provided in both places, this one will override the configuration file

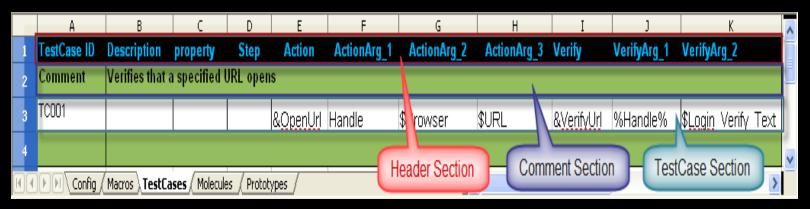
#### Macro work sheet

- Contains symbolic names called macros.
- Macro allows user to give shorter name to constants that can be used in the test case or molecules.
- Macros value are substituted at the time of execution.

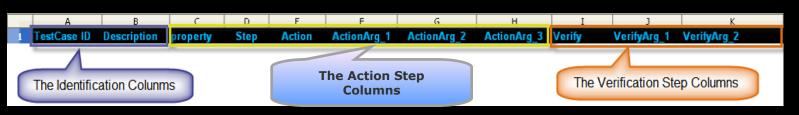
	А	В	С	^				
1	Macro Name	Value	Comment					
2	\$URL	http://google.com	Giving the URL input which the browser will open.					
3	\$Browser	firefox	Specifying which browser to open.					
4	\$Login_Verify_Text	Google	Specifying the text which should be verified in the webpage.	~				
M D D Config Macros TestCases Molecules Prototypes								



- Test Cases and Molecule Work sheet
  - Contains Header Section and Test Cases

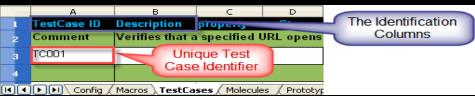


- Test Case sections
  - The identification group of columns
  - The action step group of columns
  - The verification step group of columns





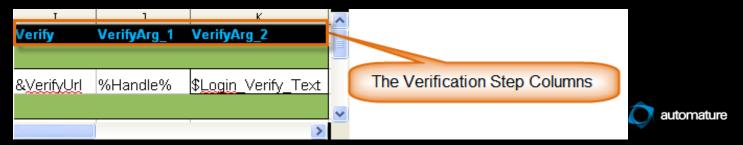
Identification group of columns



The Action group of columns



The Verification group of columns



# **A Simple Test Case**

TestCase ID	Description	property	Step	Action	ActionArg_1	Verify	VerifyArg_1
TC001	Verifies that the file is created			@CreateFile.bat	D:\Testing\Test.txt	@VerifyExistence.bat	D:\Testing\Test.txt
					A		
			An Aton	Action Ar	rguments	n Atom Veri	fication Arguments

• Command Line execution

```
C:\Windows\system32\cmd.exe .

C:\Users\skhan>runzug -verbose E:\TestSuite\Template.xls
```



### **Exercise**

- Find the Zug installation folder on your machine
- Go to the "Input Files" folder
- Open Example2.exe
- Can you try to run it?
- What did you need to change?

