

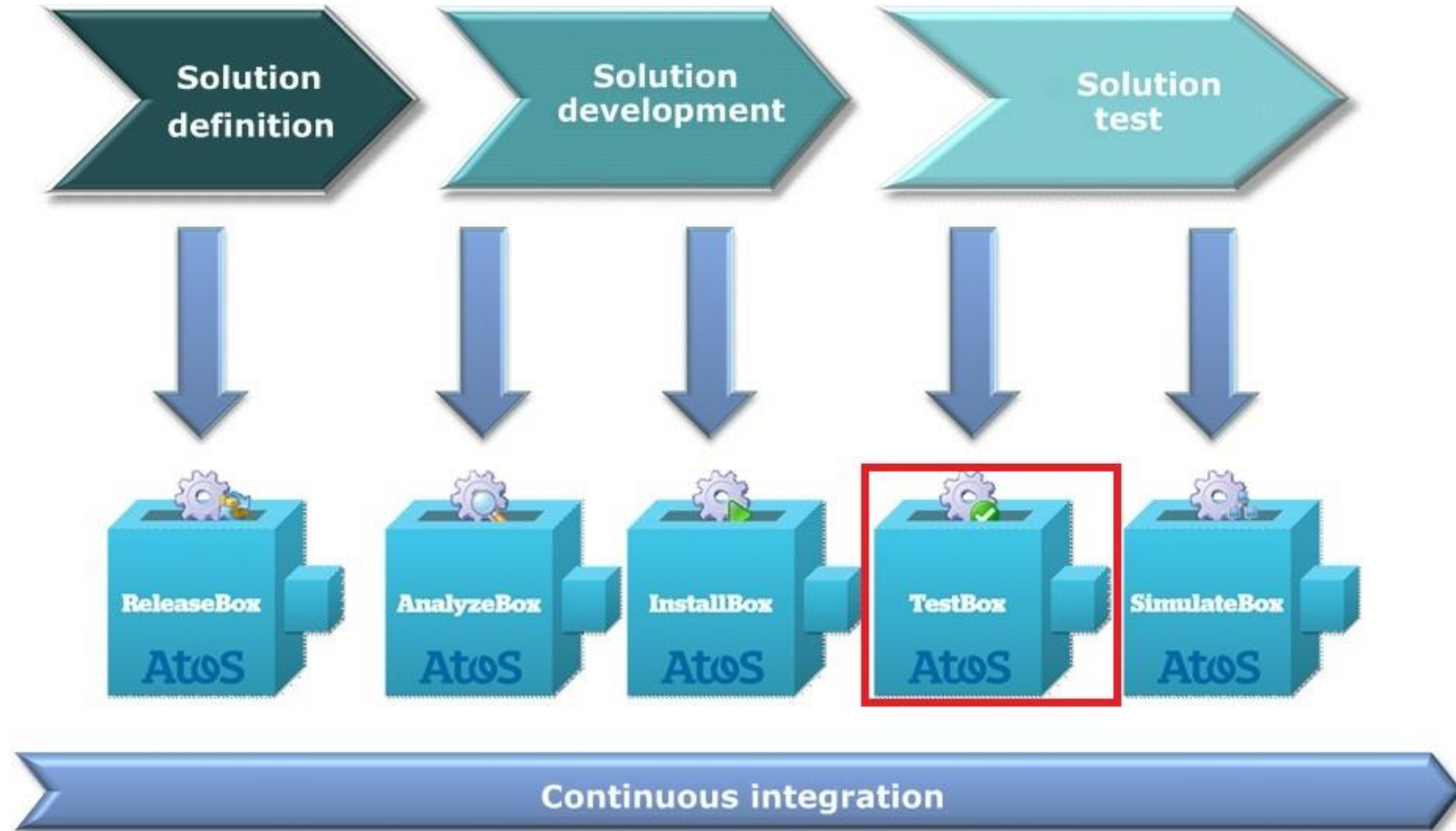


Test Automation with TestBox

June 2016

An industrial offer

Complete cover of a project lifecycle



TestBox : Test automation tool

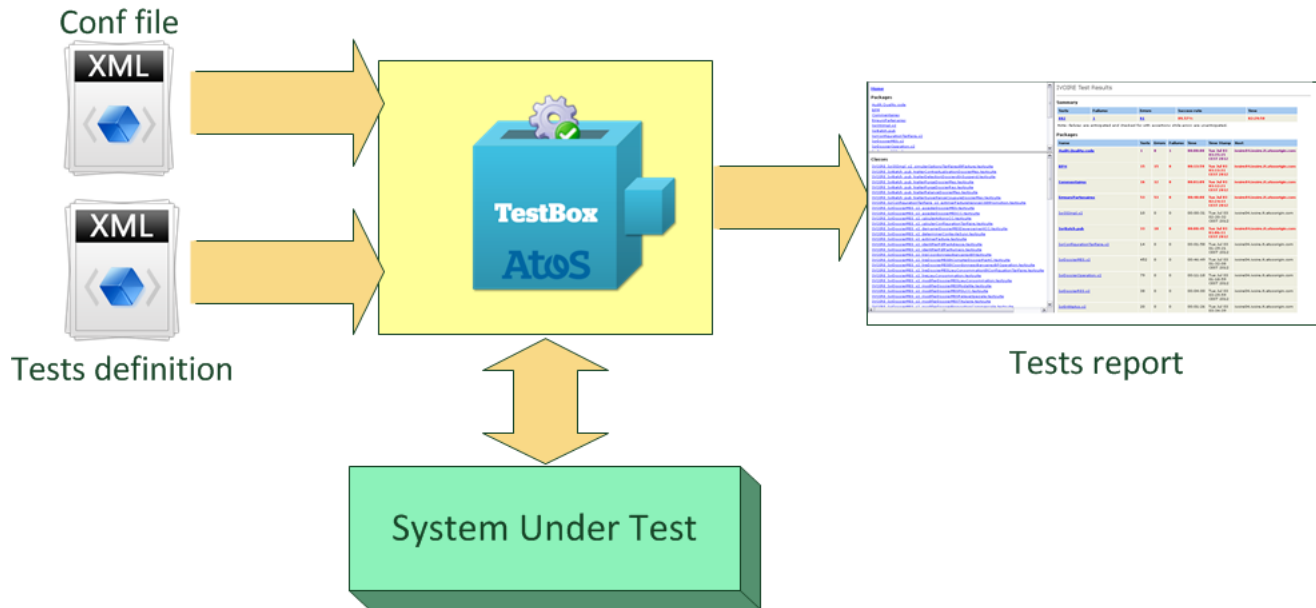
Presentation



- Solution to enable the automation of functional tests or non regression tests (but non GUI tests) independently of the environment
- Provides functions to compare the computed results with the expected results
- Do not require very sharp technical skills (completely based on the XML language)
- Written in Java, multi-platforms (Windows, Linux, AIX, Solaris, ...)
- An Atos product, under license



TestBox : Test automation tool Architecture



TestBox : Test automation tool

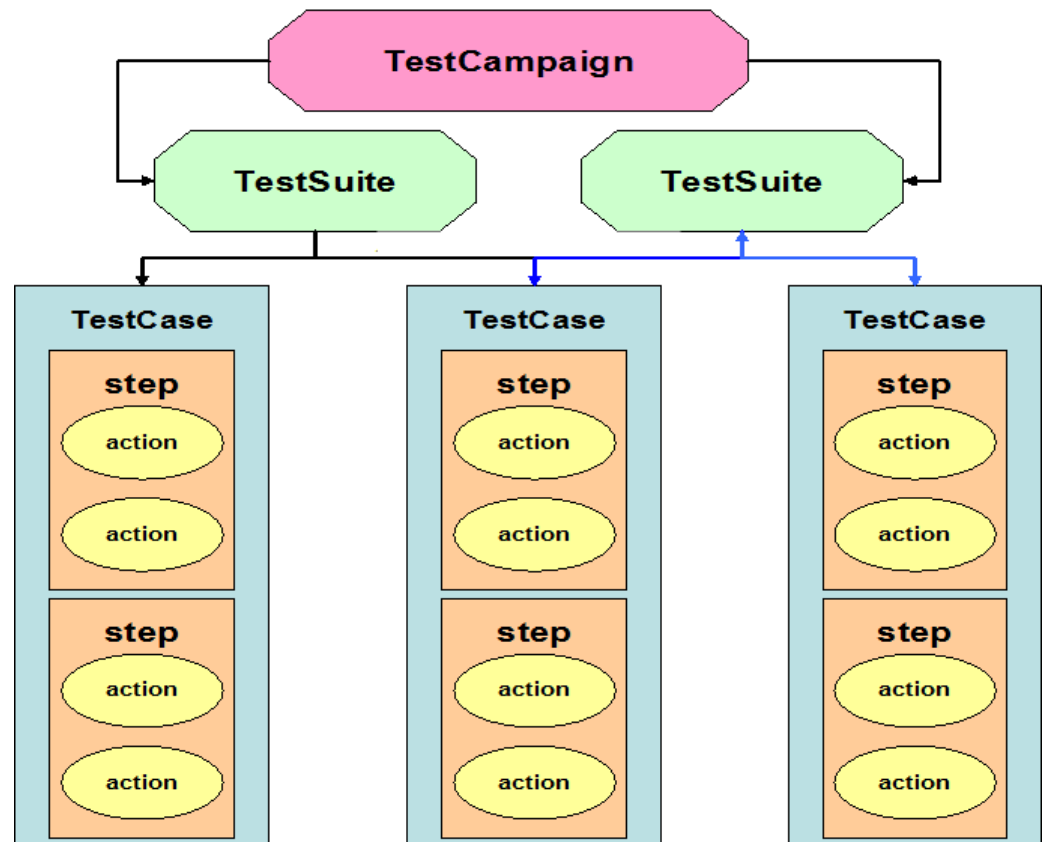
Test structure



TestBox runs TestCases.

They are composed of steps made of one or several actions.

Testcases may optionally be combined as TestSuites and TestCampaigns.

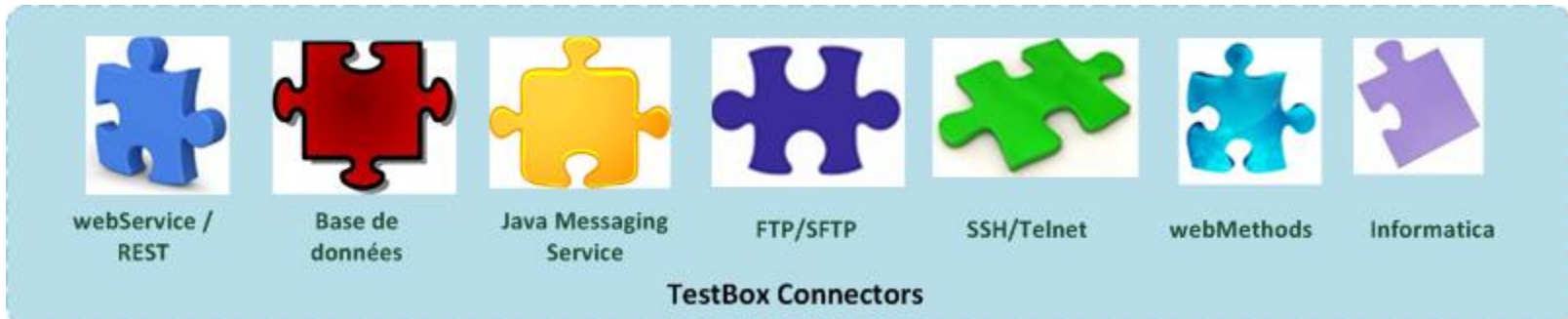


TestBox: Test automation tool

A complete range of connectors



- ▶ Provides a complete range of connectors to interface with a large number of systems :
 - Http(s), REST service, web-service with WS-Security
 - Databases (Oracle, MySQL, SQL Server, DB2, MongoDB)
 - Java Messaging Service (ActiveMQ, webMethods Broker, Weblogic)
 - FTP, SFTP, SSH, Telnet
 - SOA/EAI webMethods, ETL Informatica



TestBox: Test automation tool

A wide set of actions



- ▶ Based on these connectors, provides a wide set of actions :
 - A hundred of directly usable actions
 - Easily extendible by the addition of "custom" action

Database	File	Remote File	HTTP	Informatica	JMS	Mail	Shell	SimulBox	Utils	webMethods
CheckStructure	Compress	ChangeProperty	RequestFile	CallTask	CleanQueue	CleanMail	BeanShell	AddContext	Assert	CreateTrigger
CustomJdbc	ContainsLine	ChangeXml	Rest	CallWorkflow	Read	ReceiveMail	CallScript	ClearContext	ChangeProperty	DeleteTrigger
DeleteTable	Copy	ContainsLine	Soap		Write	SendMail	CallSQL	ListContext	ChangeXml	DoService
DiffTable	CountFile	CountFile	CallWebService		Subscribe		RetrieveMail	Simulate	CheckParameter	WaitNoService
FlushStructure	Delete	CreateProperty			WaitEndSubscriber		RExec		CheckProperty	CleanQueue
FlushTable	DiffFile	Delete					Ssh		CleanAllParameter	Read
JdbcRequest	ExistFile	Get					Telnet		CleanParameter	Write
LoadTable	Move	Put							CreateProperty	
UpdateJdbc	ReplaceContains	Rename							SetParameter	
	Sort	ReplaceContains							Sleep	
	SplitFile	Restore							ToDo	
	ValidFileName	SetParameter							Print	
	ValidFileXml	WaitFile								
	WaitFile	ChmodFile								
	RenameFile	CheckProperty								
	SplitXmlFile	CheckParameter								
	UnCompress									

TestBox: Test automation tool

A powerful engine of comparison



- ▶ Provides a powerful comparison engine to validate the test by comparing the expected results with the obtained results
 - Various native formats
 - ✓ Text : XML, properties (key/value), Text, CSV
 - ✓ Binary : PDF, Excel, tar, tar.gz, zip, .z
 - Automatic and intelligent management of differences
 - Dynamic expression computing
 - Consideration of comparison patterns and data types
 - Consideration of the environment specificities

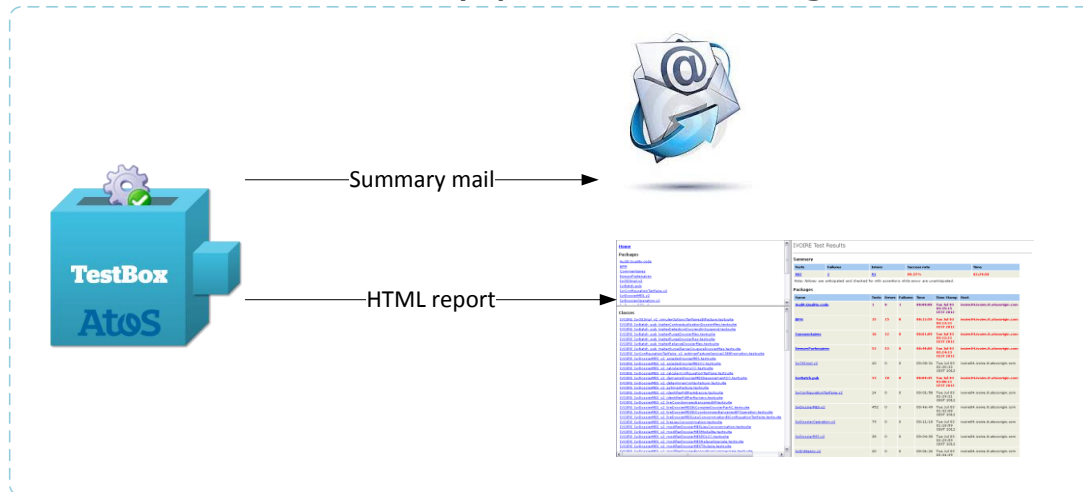


TestBox: Test automation tool

An effective monitoring and reporting



- ▶ Generates automatically a report providing every test status (Success, Failure) and the success rate as well
- ▶ Allows also to :
 - Notify by e-mail every person in charge of tests on the ones in error
 - Report to the project manager an overview of run tests :
 - The general rate of success of the test campaign
 - The test success rate by person in charge / domain

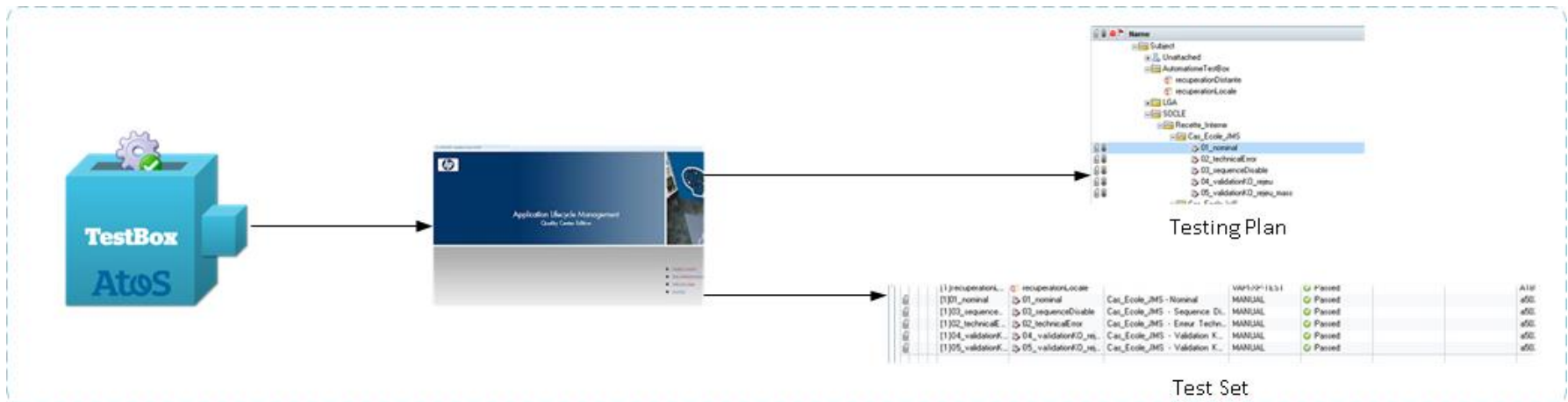


TestBox: Test automation tool

An effective link with HP ALM



- ▶ Allows to interface with HP ALM
 - In an ascending way
 - ✓ Definition of the Quality Center tests cases from the TestBox cases
 - ✓ Valuation of tests results from the TestBox results
 - In a descending way
 - ✓ Execution of TestBox tests from Quality Center

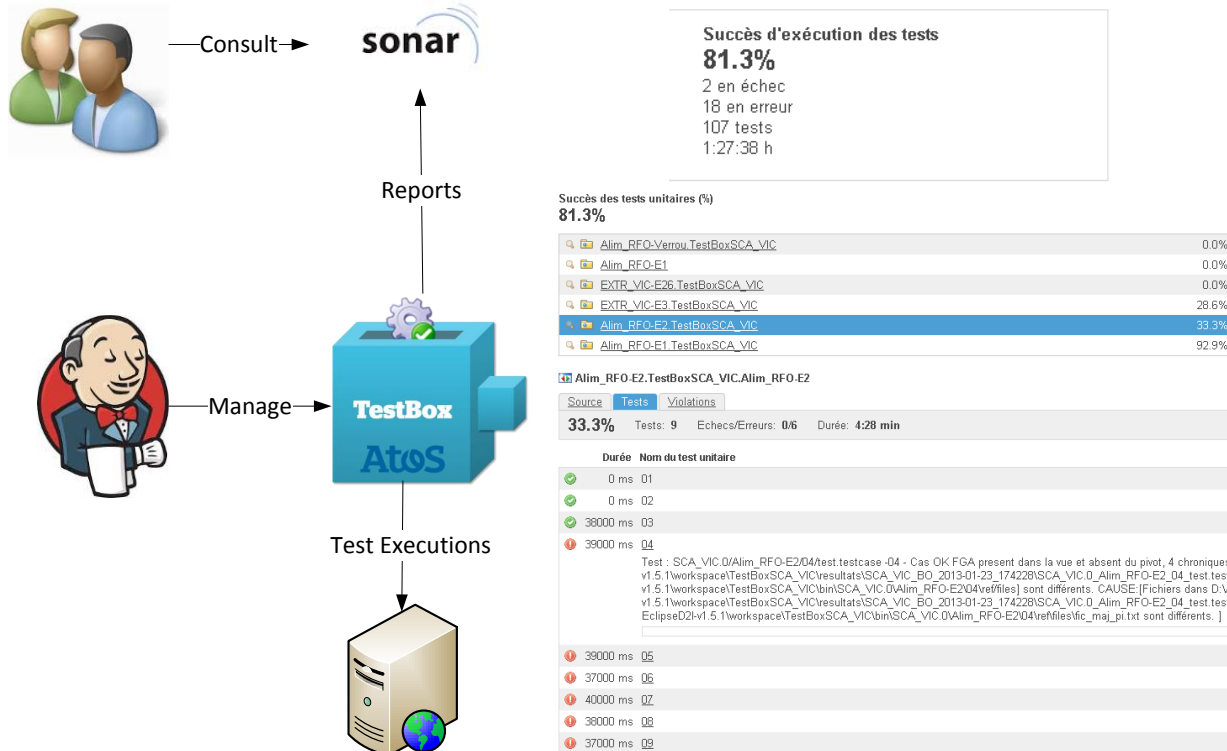


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Continuous integration and Quality measurement



- ▶ Part of the continuous integration process implementation on a project.
 - Integration in Jenkins through the implementation of a parameterized Job
 - Integration in SONAR through the installation of a plugin

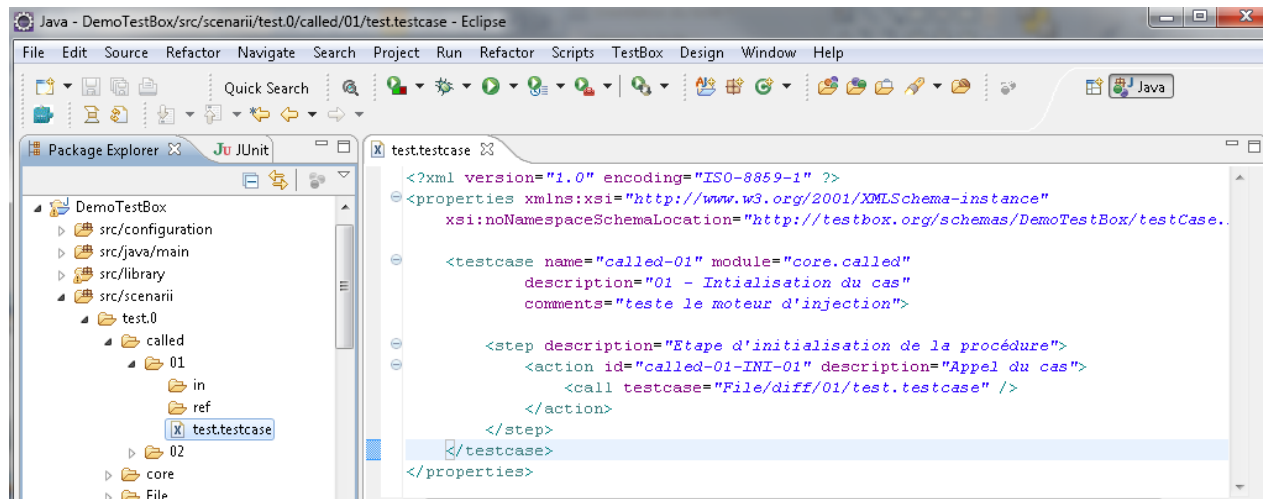
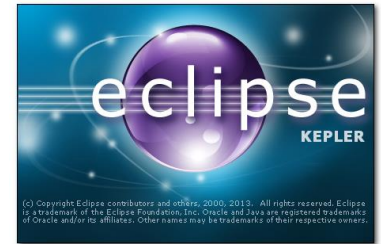


TestBox: Test automation tool

An environment of integrated development



- ▶ Provides a development environment on Eclipse IDE thanks to a plugin
 - Execution of the tests as well as the campaigns of tests simply by a click
 - Contextual help during test design
 - Assistance through an auto-completion mechanism
 - Directly usable and customizable test patterns



TestBox: Test automation tool

Demonstration



► Automatic tests of webServices

- A weather application supplies a webService to provide the temperature of a city in the world
- Example of request / response

✓ Request

```
<typ:Request xmlns:typ="http://example.org/meteo/types/">  
  <country>France</country>  
  <city>Toulouse</city>  
</typ:Request>
```

✓ Response

```
<typ:Response xmlns:typ="http://example.org/meteo/types/">  
  <degrees>17</degrees>  
</typ:Response>
```

- Use SimulateBox to simulate this webService

