



Test & Measurement World



2012 AWARD WINNER



2012: TOSCA Testsuite Achieves Excellence in Support Award



2012: The Association of Support Professionals (ASP) awards TRICENTIS for Excellent Web Support Portal



2012: TRICENTIS Support Named as Certified Support Staff Excellence Center.



2010 Gartner names TRICENTIS® "Cool Vendor"
2011 Gartner includes TRICENTIS in its Magic Q.

Accelerate **Behaviour-Driven Development** in Agile Projects

Behaviour-Driven Development (BDD) is a software development process based on Test-Driven Development (TDD)

BDD combines techniques and principles of

- TDD
- Domain-Driven Design
- Object-Oriented Analysis & Design

BDD is a response to the **issues encountered in TDD**:

- Where to start in the process
- What to test and what not to test
- How much to test in one go
- What to call the tests
- How to understand why a test fails

TDD is non-specific of what to test.

BDD - tests of any unit of software should be specified in terms of the desired behaviour of the unit.

At the **heart of BDD** is a **rethinking** of the approach to

- Unit Testing
- Acceptance Testing

Acceptance Testing is Scenario Driven:

- i. Given [initial context],
- ii. When [event occurs],
- iii. Then [ensure some outcomes]

Remark: business outcomes!



Better collaboration
between developers
test analysts and
business analysts



Executable documentation of the software.

```
Feature:
  When I go to the vehicle page, and select type of vehicle I should have the chosen
  vehicle displayed on the next page.

Scenario: Motorbike #
  Given that I have gone to the Vehicle page #
  When I select "Motorcycle" from the selection #
  And click on the Next button #
  Then "motorcycle" should be my type of vehicle #

Scenario: Enter scooter data
  Given that I am on the vehicleData page
  When I select "Scooter" from the Type of vehicle
  And enter "vespa" as Make
  And enter "100" as CylinderCapacity
  And enter "50" as Performance
  And enter "1000" as ListPrice
  And enter "5000" as MileageYear
  And click on the Next button
  Then the Insurant page is displayed

Scenario: Enter insurant # typeO
  Given that I am on the insurant page # typeO
  When I enter "Alain" as FirstName # typeO
  And enter "T" as LastName # typeO
  And enter "01/01/1990" as DateOfBirth # typeO
  Then the ProductChoice page is displayed # typeO

Scenario: Goto Summary page # type
  Given that I am on the ProductChoice page # type
  And click on the Next button # type
  And click on the Next button # type
  Then the summary page is displayed # type

Scenario: Verify Summary page # typeOf
  Given that I am on the summary page # typeOf
  When the "PriceList" table is displayed # typeOf
  Then the yearly amount is 2913.96 # typeOf
  Product DescriptionNet Premium [EUR]Gross Prem

Automobile Liability:165,18198,22
Premium Tax:171,60205,92
Legal Defense Insurance:369,20443,04
```

```
require "rubygems"
require "watir-webdriver"
require "test/unit/assertions"

b = Watir::Browser.new

Given /^that I have gone to the Vehicle page$/ do
  b.goto("file:///home/alain/sampleApp/_insu/TypeOfVehicle.html")
end

When /^I select "(.*)" from the selection$/ do |item|
  s = b.select_list :id => 'TypeOfVehicle'
  s.select item
  s.selected_options
end

When /^I select "(.*)" from the Type of vehicle$/ do |item|
  s = b.select_list :name => 'TypeOfVehicle'
  s.select item
  s.selected_options
end

And /click on the (.*) button$/ do |buttonName|
  btn = b.button :value, buttonName
  btn.exists?
  btn.click
end

And /enter "(.*)" as (.*)$/ do |text, name|
  t = b.text_field :name => name
  t.exists?
  t.set text
  t.value
end
```

Accelerate BDD LIVE DEMO in TOSCA



GBST Shares

Settles close to 50% of all trades on the Australian Stock Market, ~ AU\$ 2.5 billion every day

Testing Challenges:

- Move towards Agile software development
- Cost and scheduling pressure
- All previous attempts at automation have failed

Solution:

Model-based test automation.

Results:

- Core regression suite implemented in **less than 3 months**
 - 1,009** test cases
 - 33,797** test actions
 - 35** end-to-end business process scenarios, multiple day scenarios
 - 2,511** verification points
- **Speed - Execution effort down by 80% (from 535 h to less than 100 h)**
- **Cost - Annual cost reduction exceeds 50%**



ASB Group - largest provider of financial and insurance services in New Zealand. Awarded New Zealand's best online bank 2012 (Canstar).

Testing Challenges:

- Innovation ahead of competition required shorter release cycles
- Resulting in an ever increasing demand for regression testing
- Previous attempts at test automation did not deliver the desired results

Solution:

Model-based test automation.

Results:

- Core regression suite for FastNet Classic implemented in **less than 5 months**
 - 1,100** test cases
 - 11,968** test actions
 - 92** end-to-end business process scenarios
 - 1,797** verification points
- **Speed - Execution effort down by 95% (from 300 h to less than 12 h)**
- **Cost - Annual cost reduction exceeds 70%**

One World for

- Manual & Automated (seamless automation)
- UI & nonUI
- Technology A, B, C,...
- Bespoken & Packaged (e.g. SAP, Siebel, Oracle eBusiness)

Robust

- Model-based automation minimises impact of change

Cost Effective

- Fast implementation
- Highest possible reuse
- Lowest possible maintenance - avoids the maintenance trap!

Scalable

- Consistent user experience
- On-demand staffing: reach out to non technical staff

Gartner



GARTNER calls it the...

**“Paradigm shift for the software test --
how to avoid the maintenance trap and
elevate test automation to a business
discipline!”**

Watch the GARTNER video at
www.tosca-testsuite.com