

CONTINUOUS TESTING WITH JUBULA

WHERE THE RUBBER MEETS THE ROAD!

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AGENDA

What's Jubula?

Why automation & continuous testing?

CI scenarios in theory

... and in Hudson

THAT'S JUBULA!



UI automation @ eclipse.org/jubula since 2011
GUIdancer "Core" since 2004

JUBULA FEATURES

code-free end-to-end testing

keyword based & huge library

cross UI-toolkit

SWT/RCP/GEF (e3 & e4) + Swing + HTML

cross-platform

Windows, Linux & Mac OS X

continuous integration tools

testexec, autagent, dbtool, autrun

WHY AUTOMATE UI TESTS?

Why not?

manual user interface tests are...

slow

$\pm 2\text{-}3$ steps/min vs. ± 180 steps/min

expensive

time consuming & recurring

error-prone

boring task

deferred

no regression

THE ITE

Integrated Testing Environment
daily test specification & result analysis

DEMO!

WHY CONTINUOUS TESTING?

multiply the potential of automated task
run tests as often as possible

prompt **feedback**
fail fast!

constant **quality** knowledge

build **safety net**
regression runs, e.g. nightly

THAT'S HUDSON!



continuous integration tool @ eclipse.org/hudson

HUDSON FEATURES

(super)-easy setup

central "dashboard" web-app

job scheduling

job distribution

result processing

CT TOOLS USED

Jubula **2.0.0** - standalone version

Hudson **3.0.0** - plugin bundle WAR

Jubula-CI **ANT scripts**

ANT **1.8.2**

Java **1.5+**

STEPS TO TEST CONTINUOUSLY

build AUT

having a CI is recommended but not mandatory

deploy / install & configure AUT

using a well-defined & stable environment is recommended

start & test AUT

process & analyze results

reaction is necessary



START & TEST AUT - PREREQUISITES

(re)-start test machine

best practice: use "cleanly" started OS

enable auto-login

we perform "real" clicks

disable auto-updates & screensaver for OS and Apps

otherwise non-deterministic behavior

start **Hudson slave** on test machine

START & TEST AUT - JUBULA CT TOOLS

autagent

starts & remote-controls AUT

testexec

provides & processes test execution information

drives the AUT-Agent » AUT

stores tests & results in database

embedded H2, Oracle, MySQL, PostgreSQL

[autrun] launch multiple AUTs externally

[dbtool] im- & export test projects within CI

START & TEST AUT - STANDARD WORKFLOW

1. **start autagent**
on test machine
2. **start testexec**
loads tests from database
3. **testexec » autagent: "start & wait for AUT"**
via AUT configuration
4. **test suite execution**
documents all events / steps
5. **testexec provides test result**
in database & file-system

START & TEST AUT - WORKFLOW

highly customizable
35+ parameters

default layout / test execution

Jubula-CI **ANT scripts**

dbURL, project name, AUT-name, test result directory

naming conventions

AUT-configuration: ci.\${os.arch}.\${os.name}

Test Suite names: \${AUT-name}-FULLTEST

DEMO!

START & TEST AUT IN HUDSON

execute ANT script
cross-platform

use build trigger
timer (nightly execution), SCM change, ...

execute on hudson slaves
test distribution

DEMO!

THANK YOU! - Q&A?

Give Feedback on the Sessions

1

Sign In: www.eclipsecon.org

2

Select Session Evaluate



Making ALM Work - ★
Transform your Application Lifecycle Management to Foster Innovation (presented by HP)
Ronit [HP]

EVALUATE

A red arrow points from the 'Evaluate' text in step 2 to the 'EVALUATE' button in this screenshot.

3

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