

J2J

JAVAFX TESTING WITH JUBULA

by @MarkusTiede - BREDEX GmbH

AGENDA

What's Jubula?

The concepts...

JavaFX support in Jubula

Having some fun...

Some insights...

Getting started...

WHAT'S JUBULA?



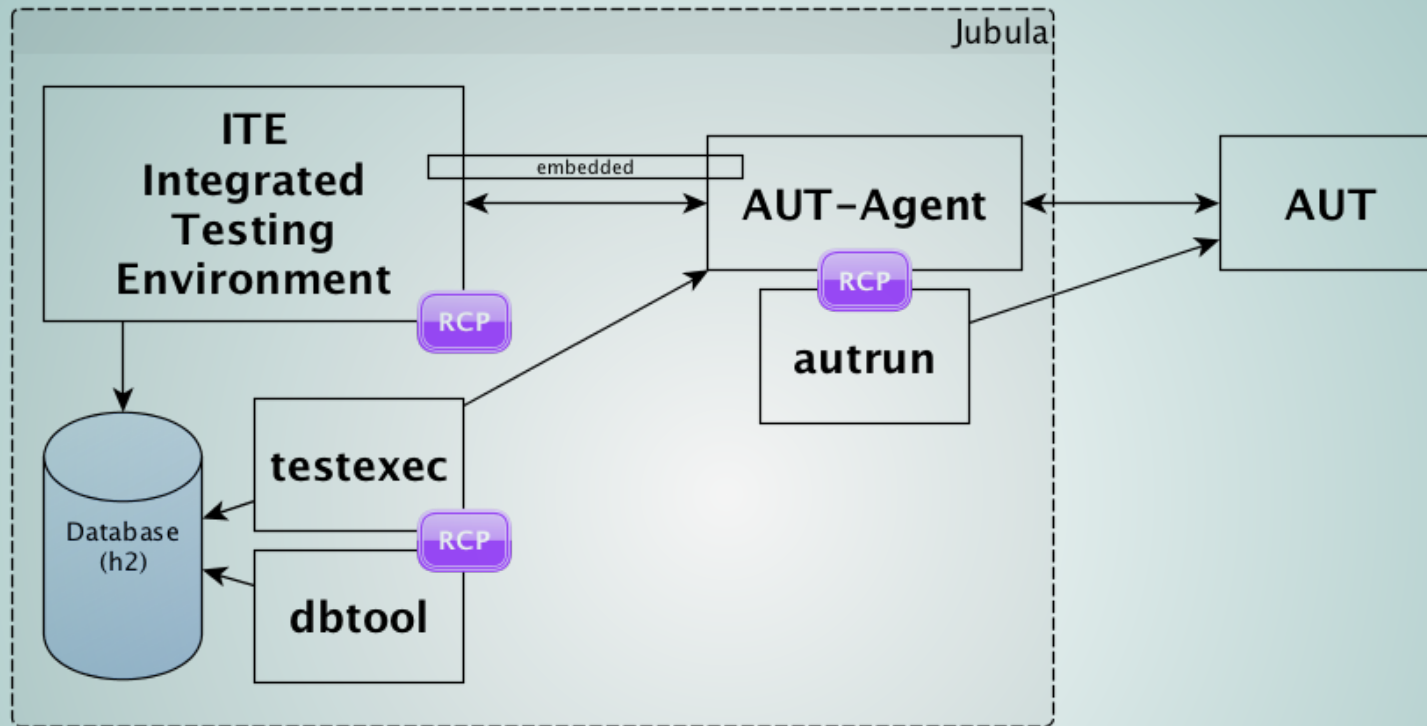
@eclipse.org/jubula since 2011

automated functional GUI testing

Code-free keyword-based black-box approach

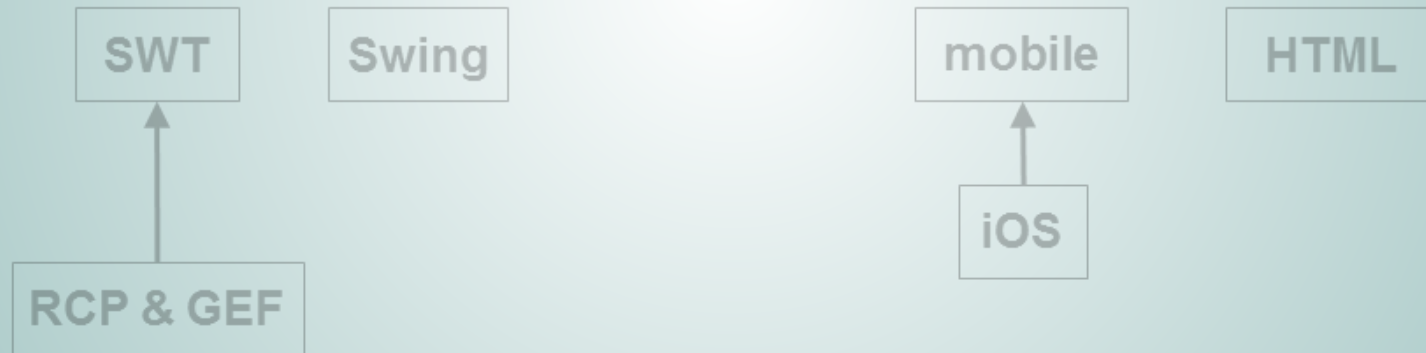
human-readable test steps + robust UI widget recognition

JUBULA - THE BIG PICTURE

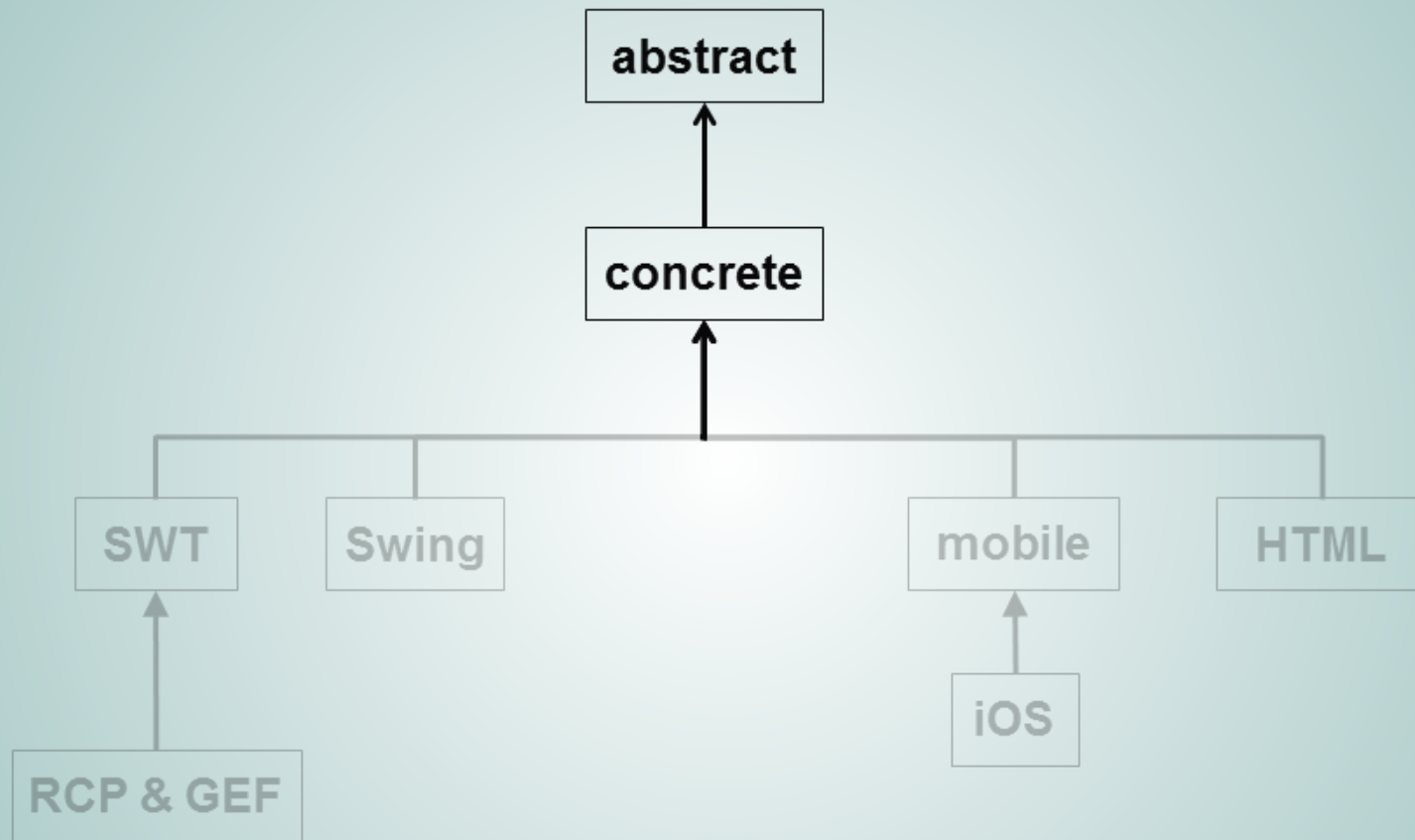


AUT: Application under Test

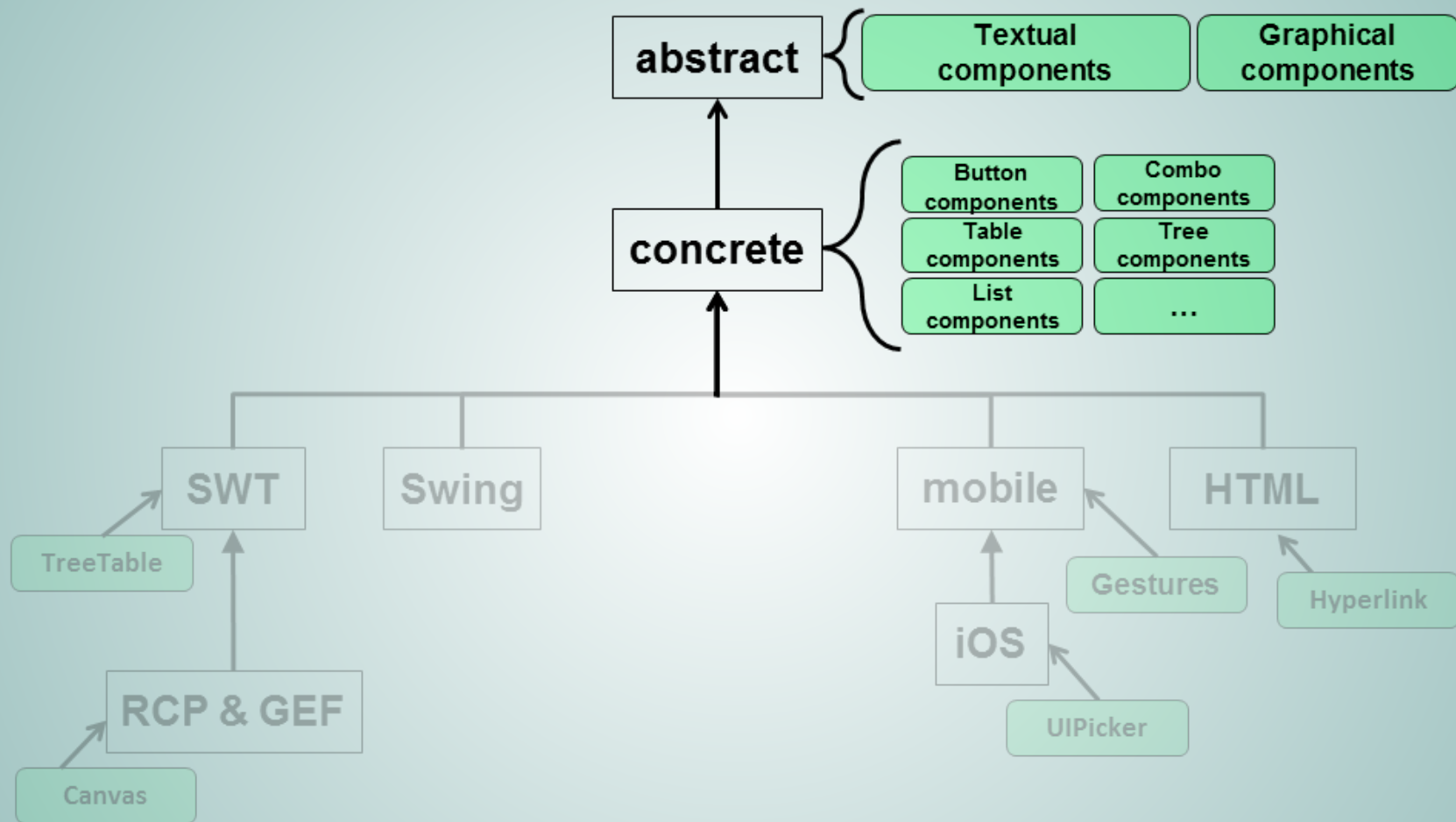
THE CONCEPT: TOOLKITS



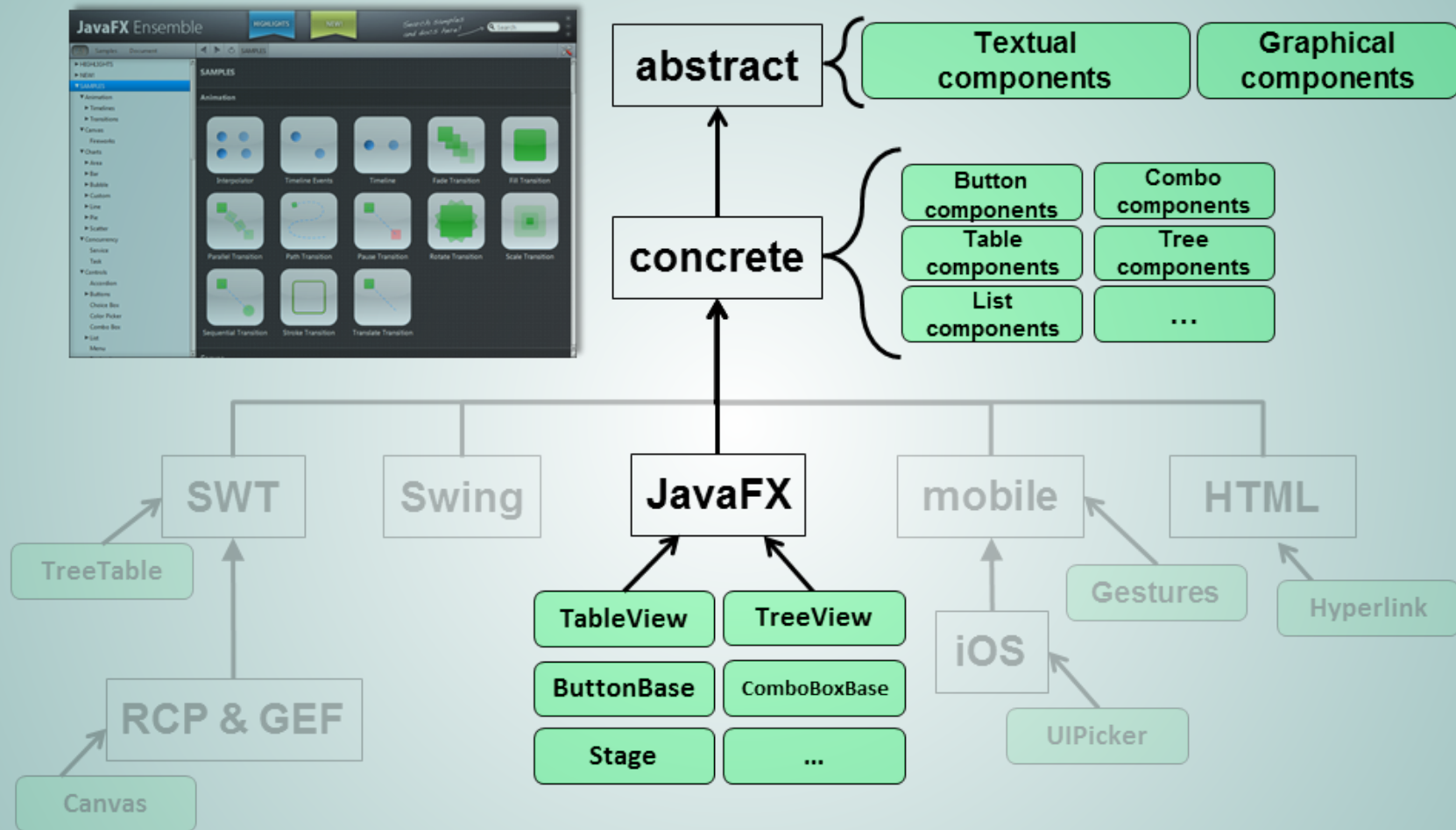
THE CONCEPT: TOOLKIT ABSTRACTION



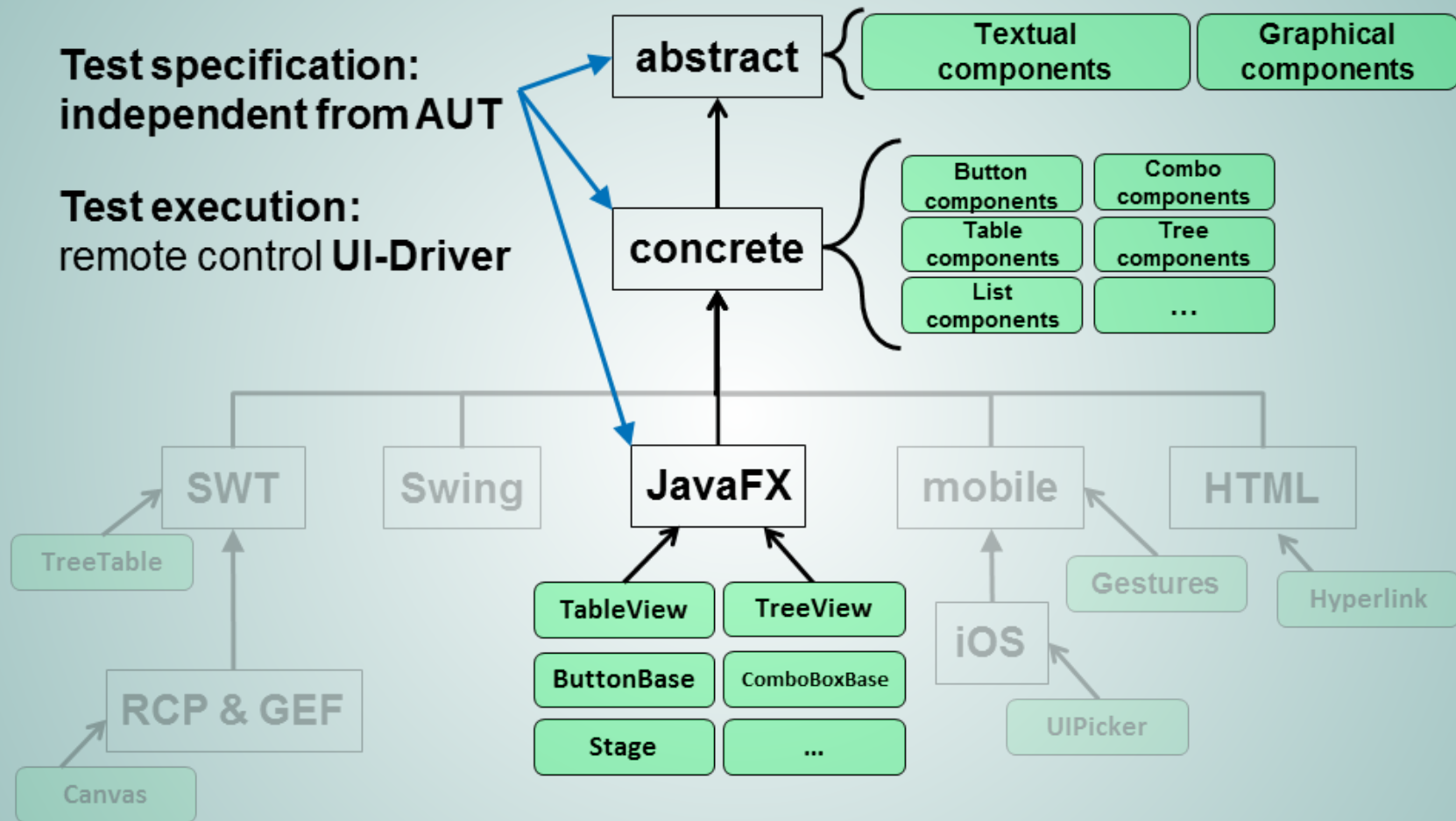
THE CONCEPT: TOOLKIT ABSTRACTION



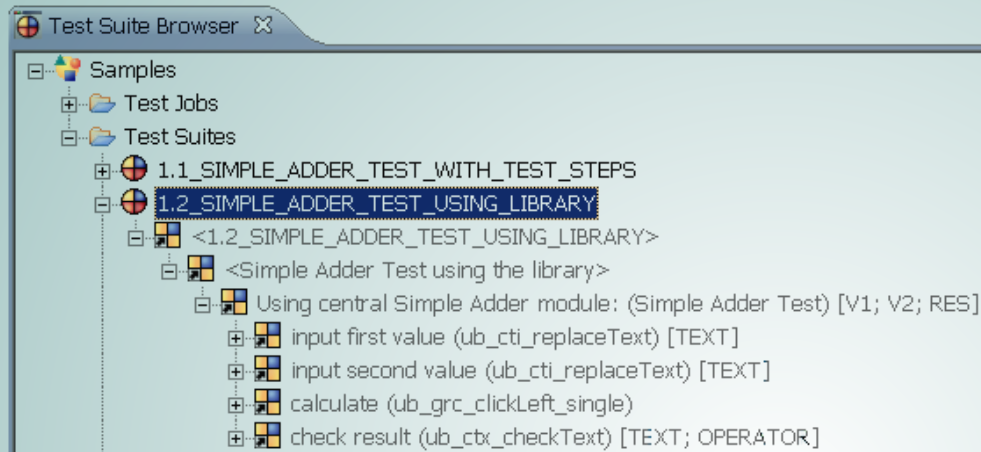
THE CONCEPT: TOOLKIT ABSTRACTION



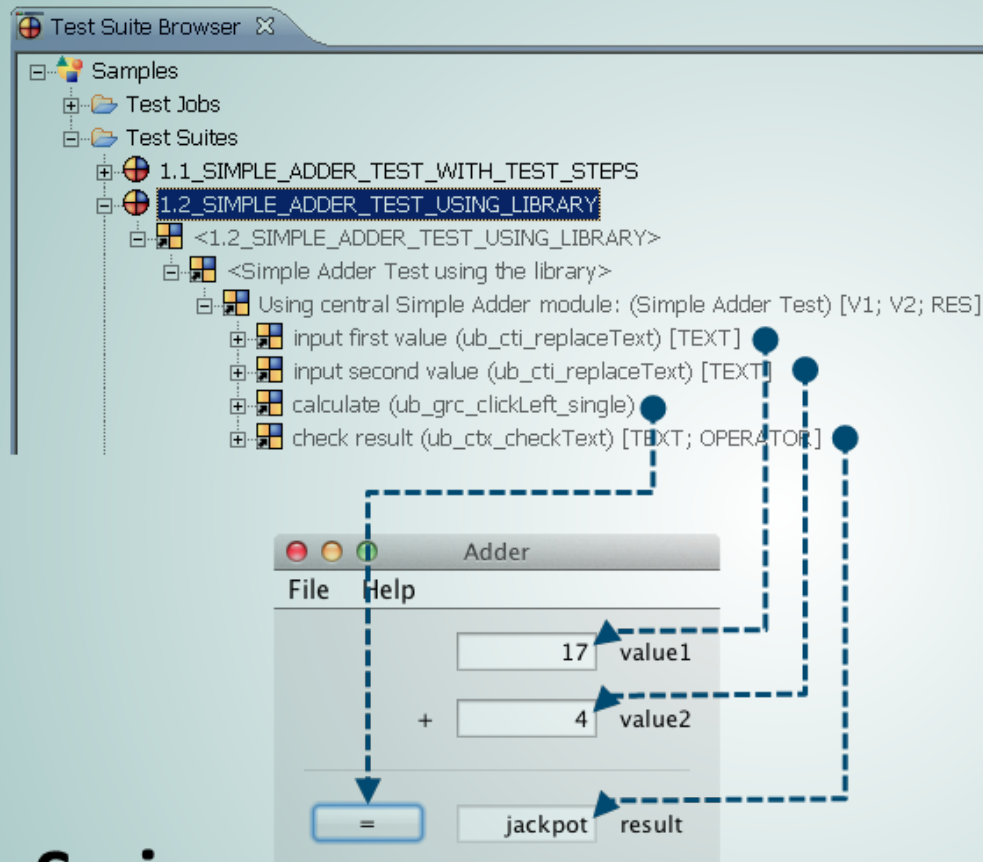
THE CONCEPT: TOOLKIT ABSTRACTION



THE CONCEPT: OBJECT MAPPING

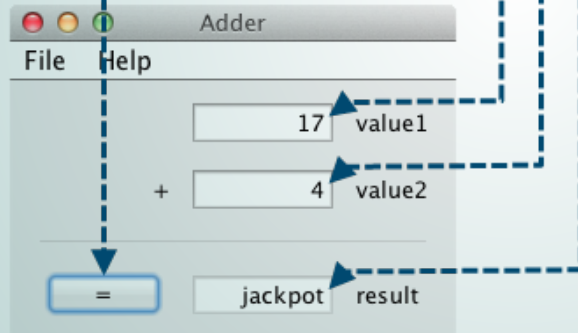
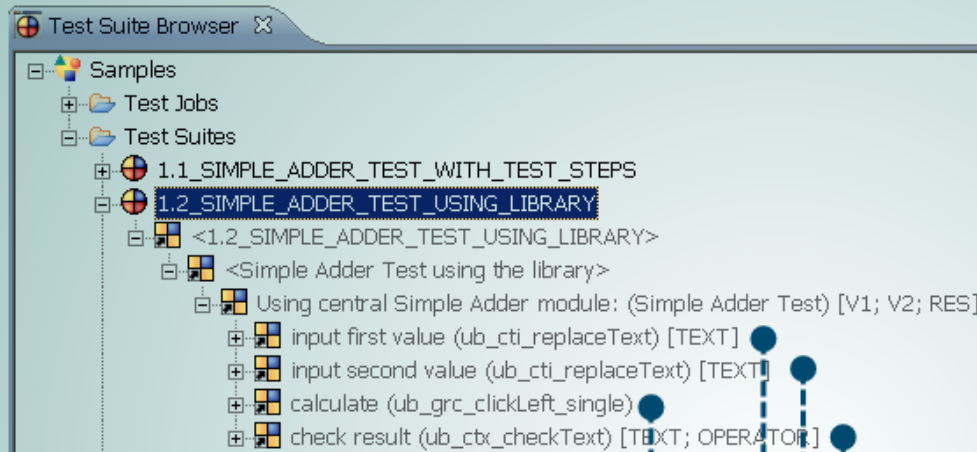


THE CONCEPT: OBJECT MAPPING

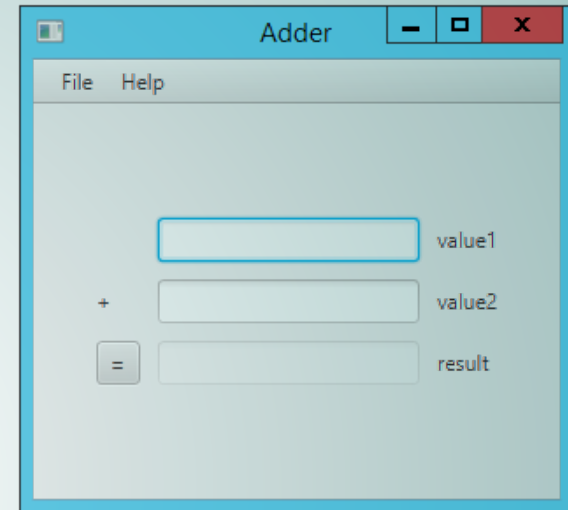


Swing

THE CONCEPT: OBJECT MAPPING

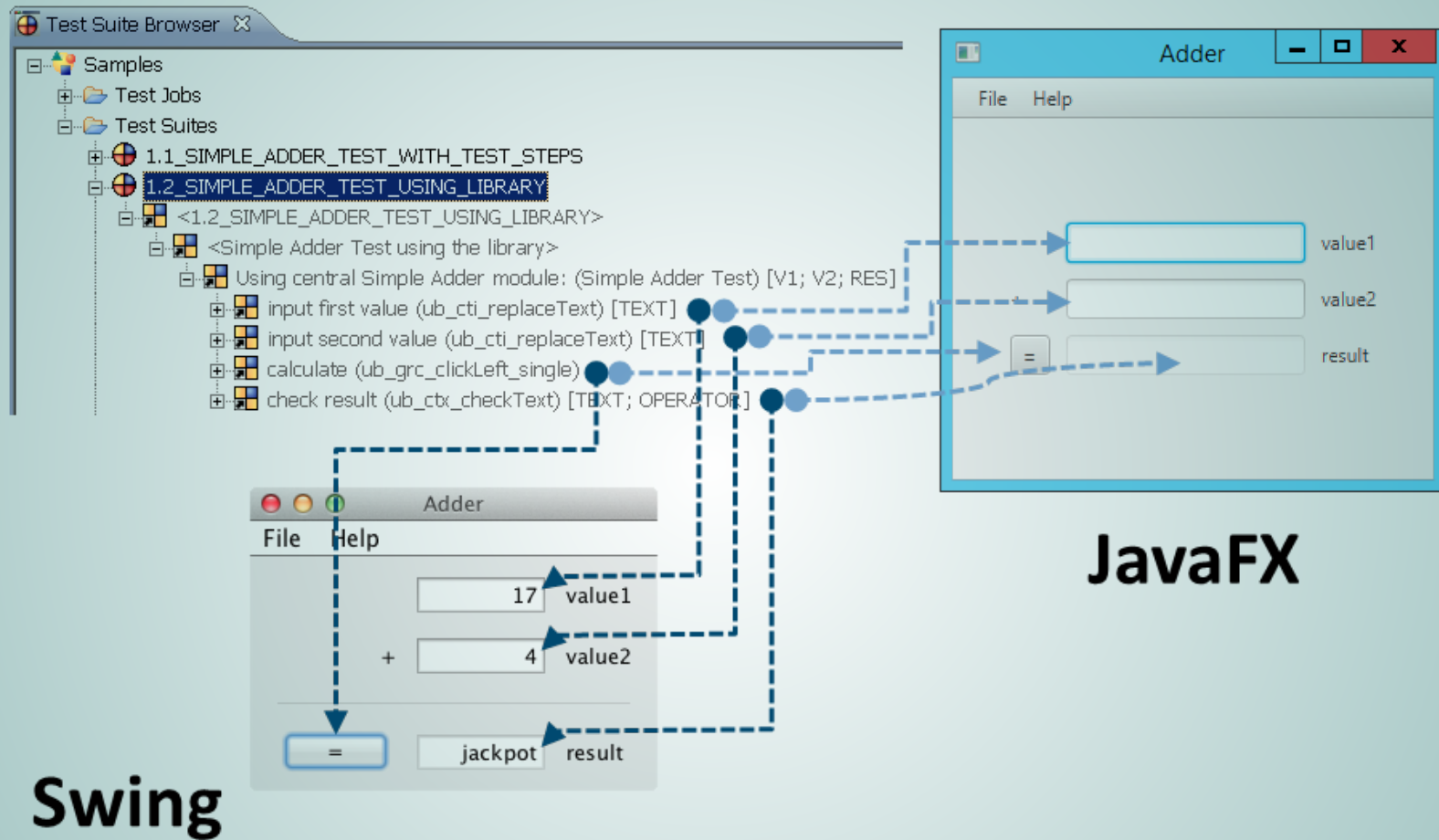


Swing

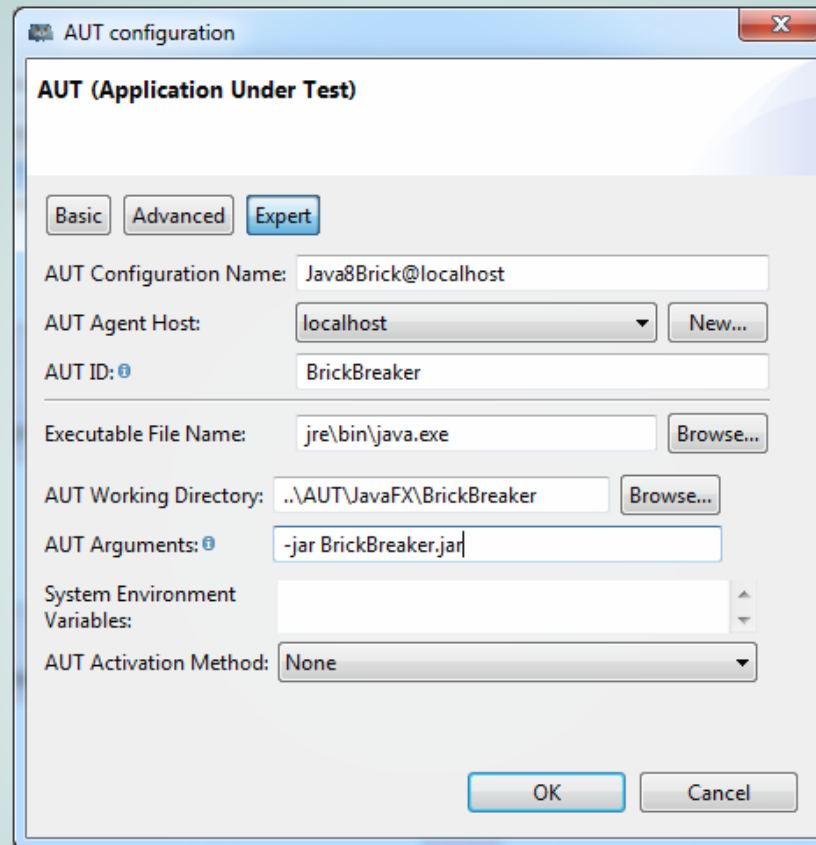


JavaFX

THE CONCEPT: OBJECT MAPPING



THE CONCEPT: AUT START



The image shows a screenshot of the 'AUT configuration' dialog box, specifically the 'Expert' tab. The dialog box is titled 'AUT configuration' and has a standard Windows-style title bar with a close button. The main content area is titled 'AUT (Application Under Test)'. Below the title, there are three tabs: 'Basic', 'Advanced', and 'Expert'. The 'Expert' tab is currently selected. The configuration fields are as follows:

- AUT Configuration Name:** A text field containing 'Java8Brick@localhost'.
- AUT Agent Host:** A dropdown menu showing 'localhost' and a 'New...' button.
- AUT ID:** A text field containing 'BrickBreaker'.
- Executable File Name:** A text field containing 'jre\bin\java.exe' and a 'Browse...' button.
- AUT Working Directory:** A text field containing '..\AUT\JavaFX\BrickBreaker' and a 'Browse...' button.
- AUT Arguments:** A text field containing '-jar BrickBreaker.jar'.
- System Environment Variables:** An empty text area with up and down arrow buttons on the right.
- AUT Activation Method:** A dropdown menu showing 'None'.

At the bottom of the dialog box, there are two buttons: 'OK' and 'Cancel'.

DEMO: SIMPLE ADDER

JAVAFX SUPPORT IN JUBULA

JavaFX on Java 8

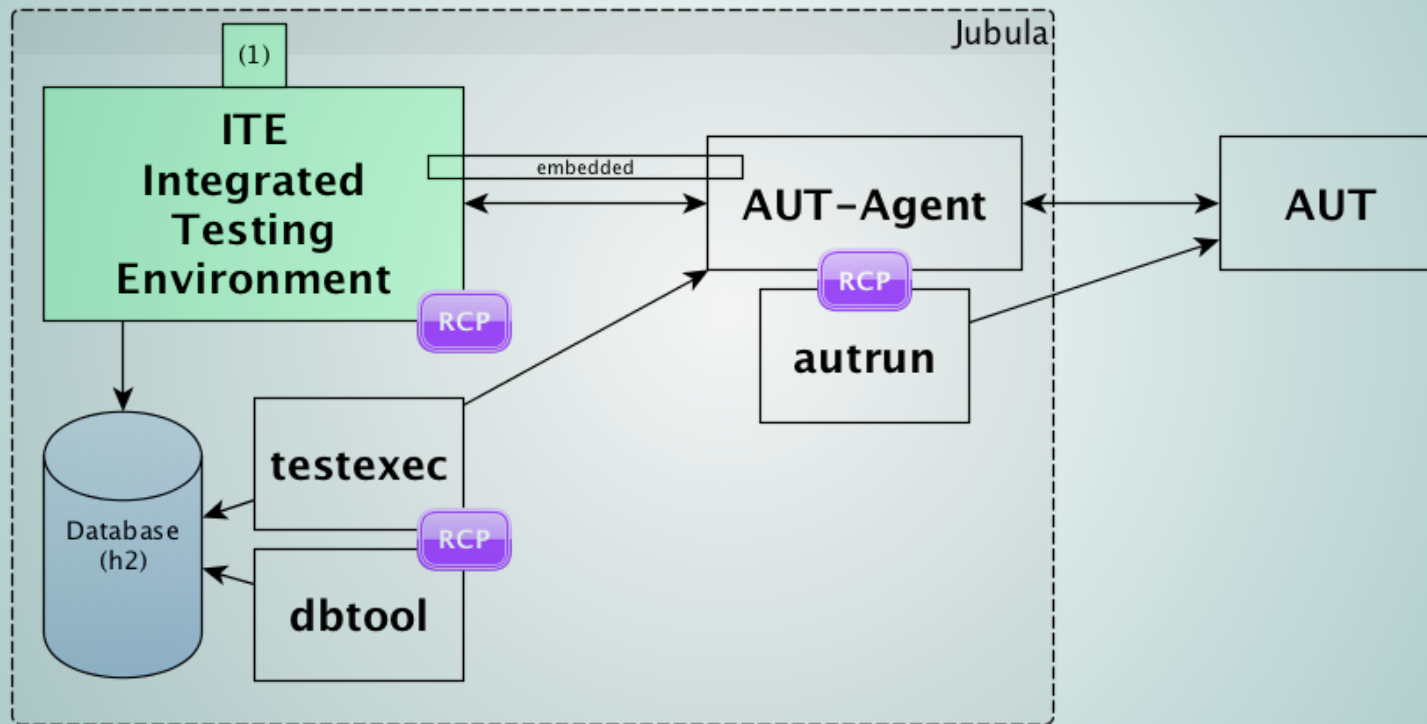
Standalone and **e(fx)clipse** based AUTs

Supported widgets: Accordion, Button, ButtonBase, CheckBox, ChoiceBox, ComboBox, Hyperlink, ImageView, Label, ListView, MenuButton, PasswordField, RadioButton, Stage, TableView, TabPane, Text, TextInputControl, TitledPane, TextArea, TextField, TreeView, TreeTableView, ToggleButton

current status: <http://www.eclip.se/421595>

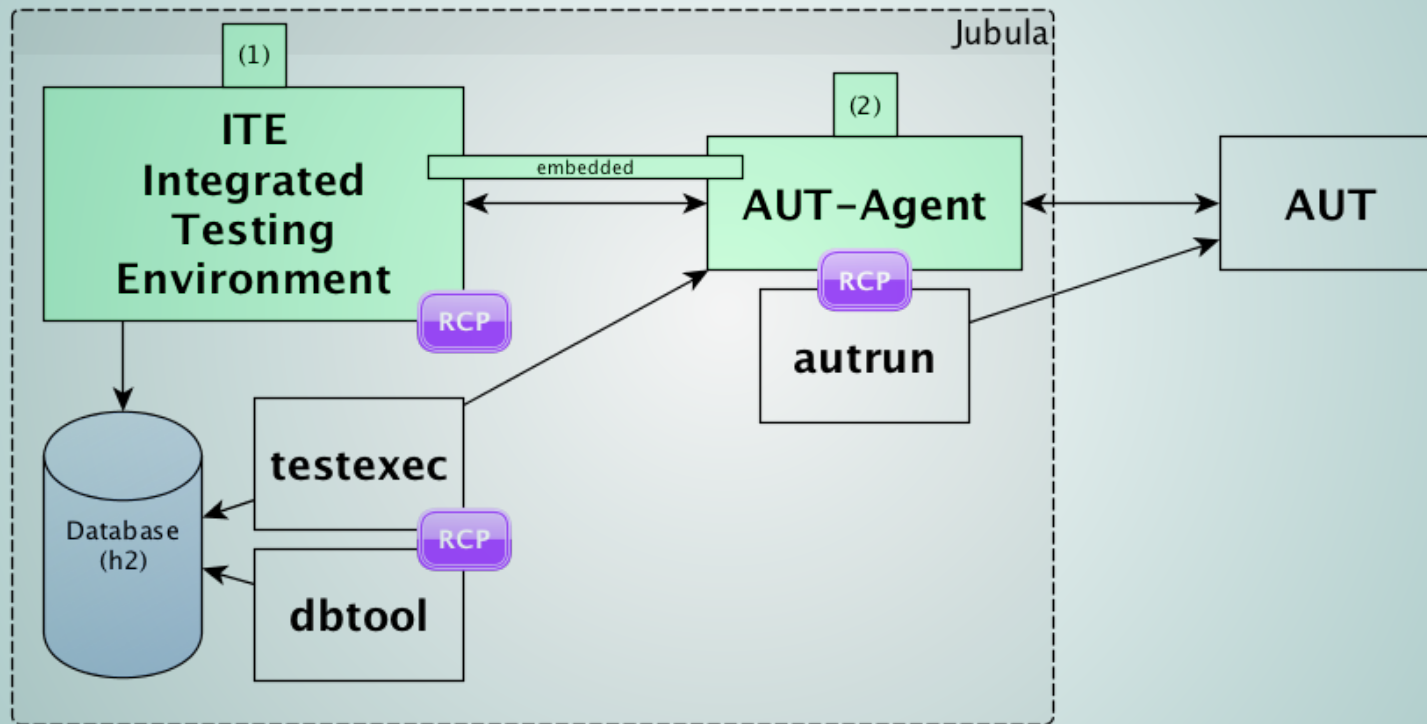
SUPPORTING CUSTOM COMPONENTS

(1) write extension for ITE: `o.e.jubula.toolkit.common.toolkitsupport`
information about type-system and supported CAPs



SUPPORTING CUSTOM COMPONENTS

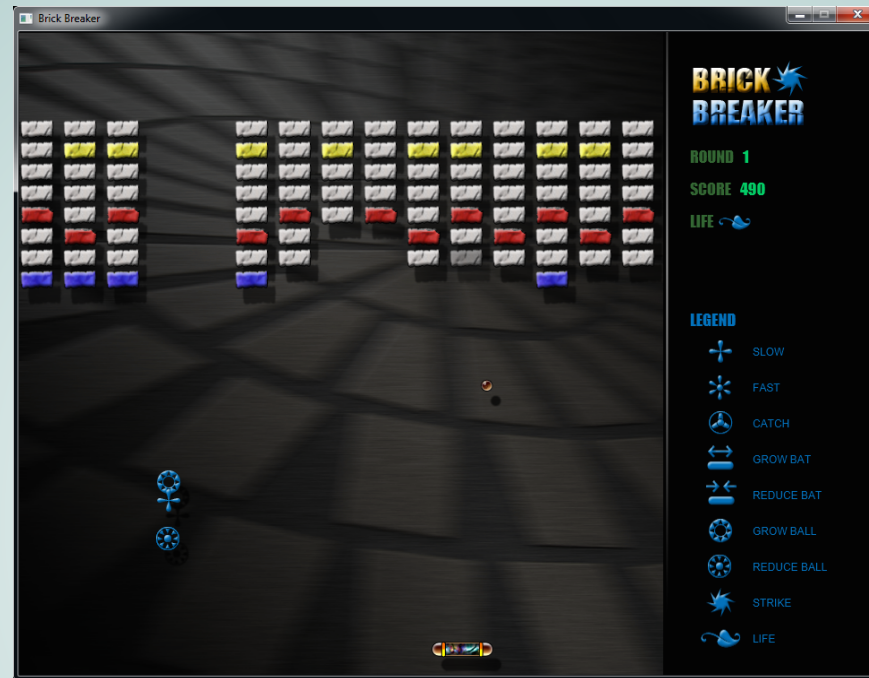
- (2) provide fragments for RC bundles in AUT-Agent
- provide toolkit dependent technical realization



LET'S HAVE SOME FUN...

- show 3 high-level tests using only 4 test steps (out of 270+)
 - store^{a value}
 - wait^{for some time}
 - compare^{expected and actual value}
 - move^{the mouse}
- demonstrate strength in object recognition
 - reliability
 - speed

... AND BREAK STH!



official Oracle JavaFX example application

SOME INSIGHTS...

no modifications in AUT necessary
but to improve object heursitic in JavaFX use:

```
/**  
 * The id of this {@code Node}. This simple string  
 * identifier is useful for finding a specific Node  
 * within the scene graph ...  
 */  
void javafx.scene.Node.setId(String value)
```

GETTING STARTED?

Get the latest version of Jubula!

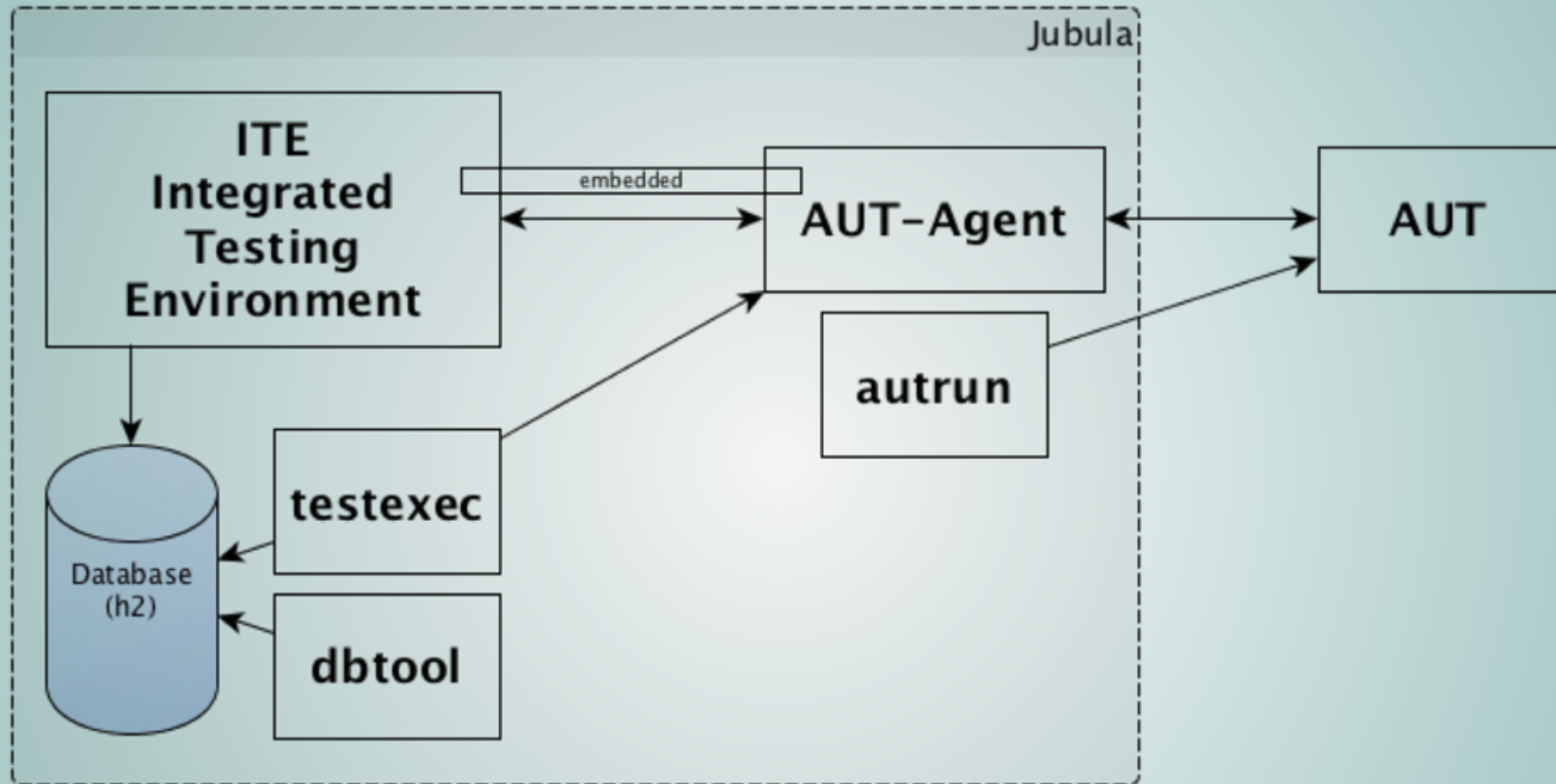
<http://testing.bredex.de>

Recommended: Eclipse for Testers Mars M3 - Friday, November 14

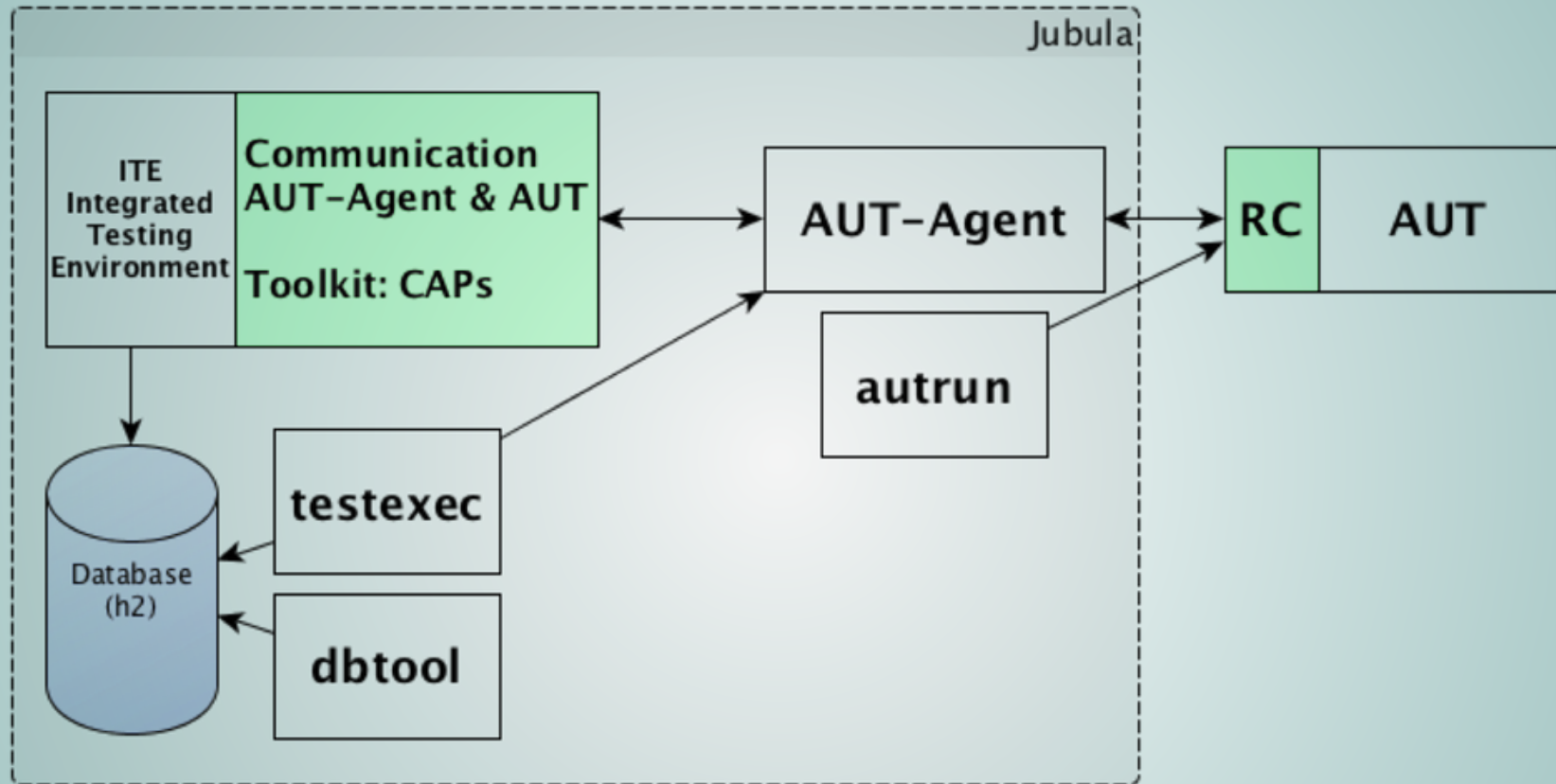
Eclipse Magazin - 5.2014 - Jubula goes JavaFX

First steps: Help → Cheat Sheets...

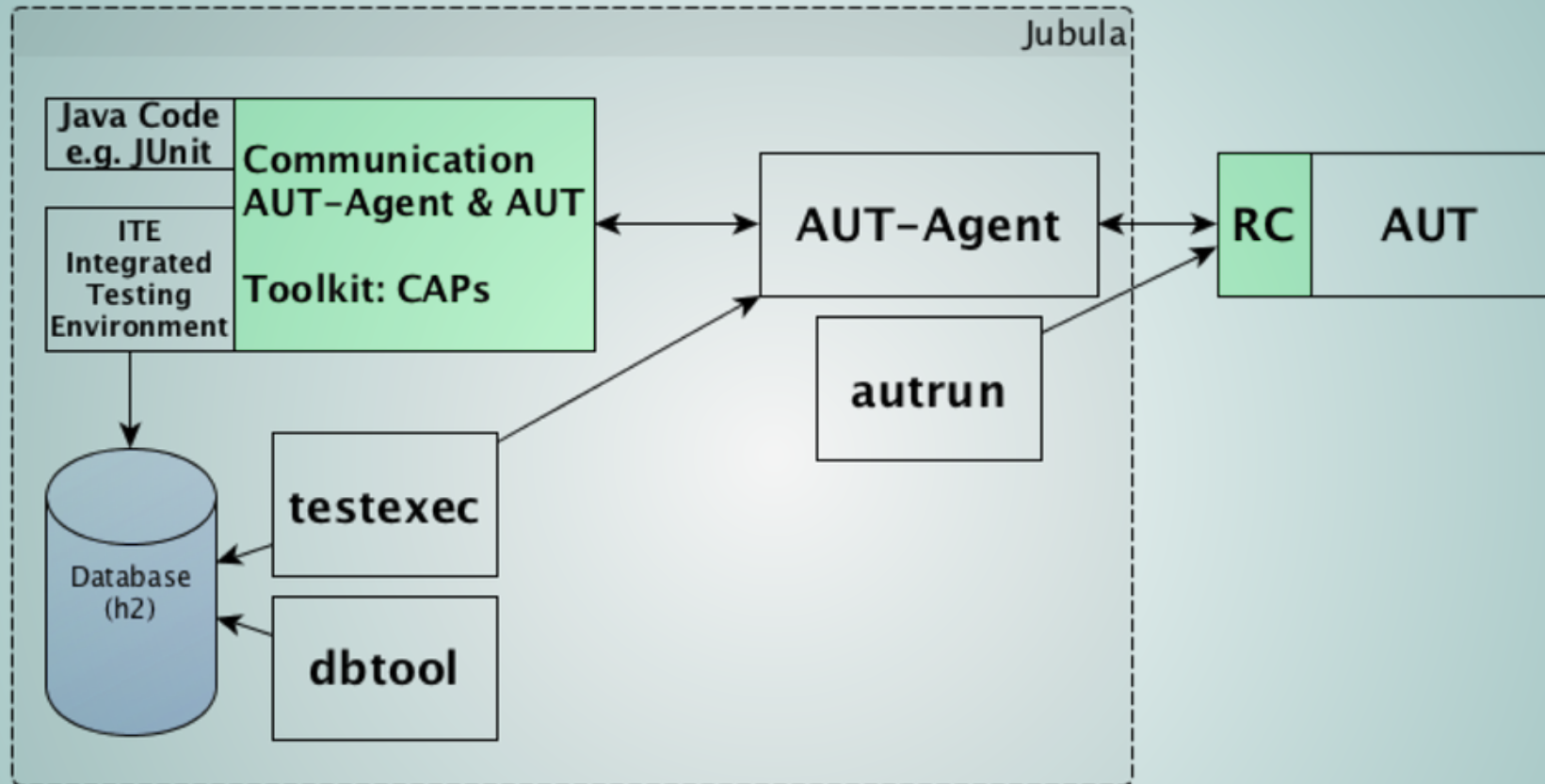
A SNEAK PEEK...



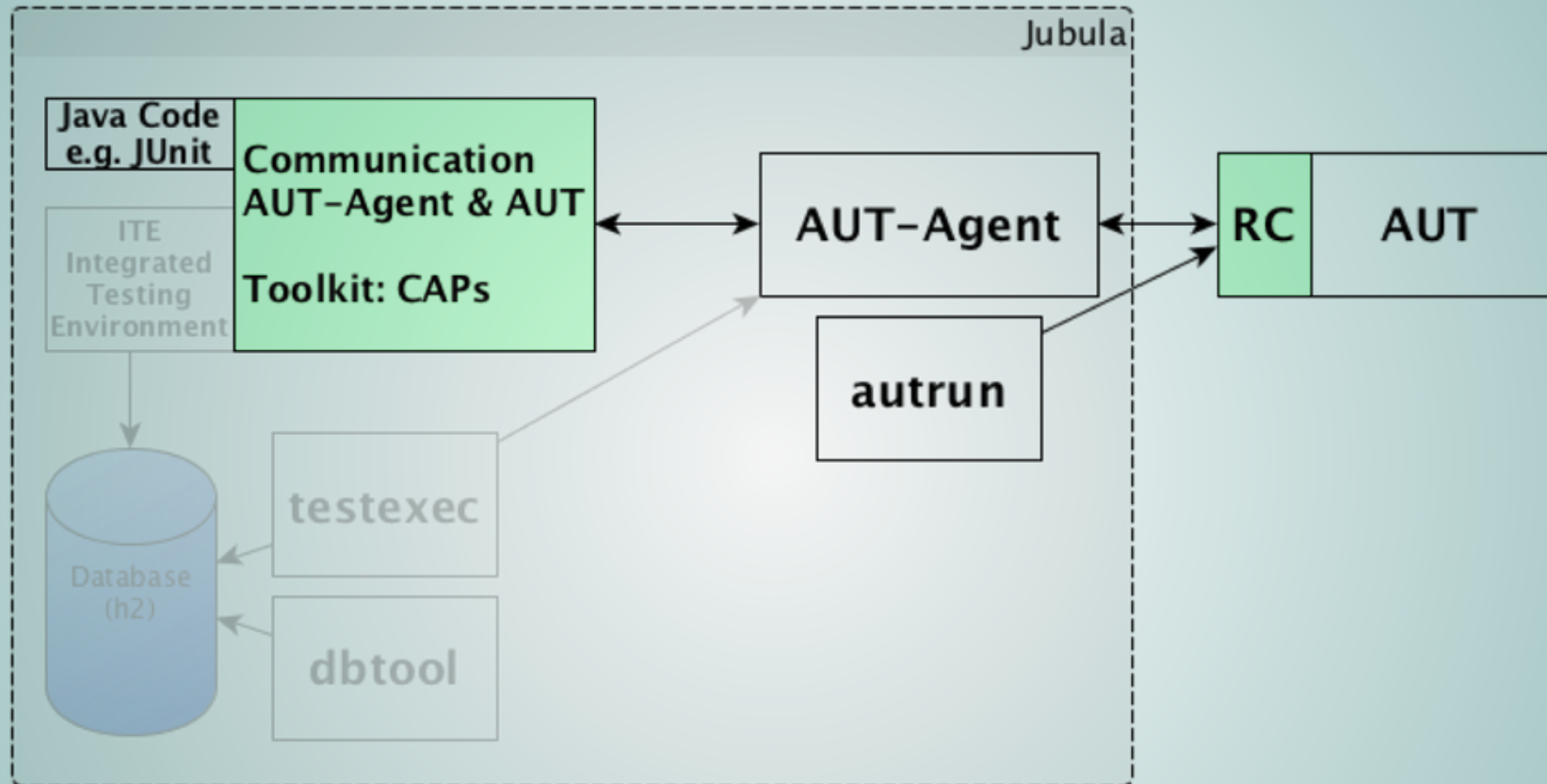
A SNEAK PEEK... TO AN API



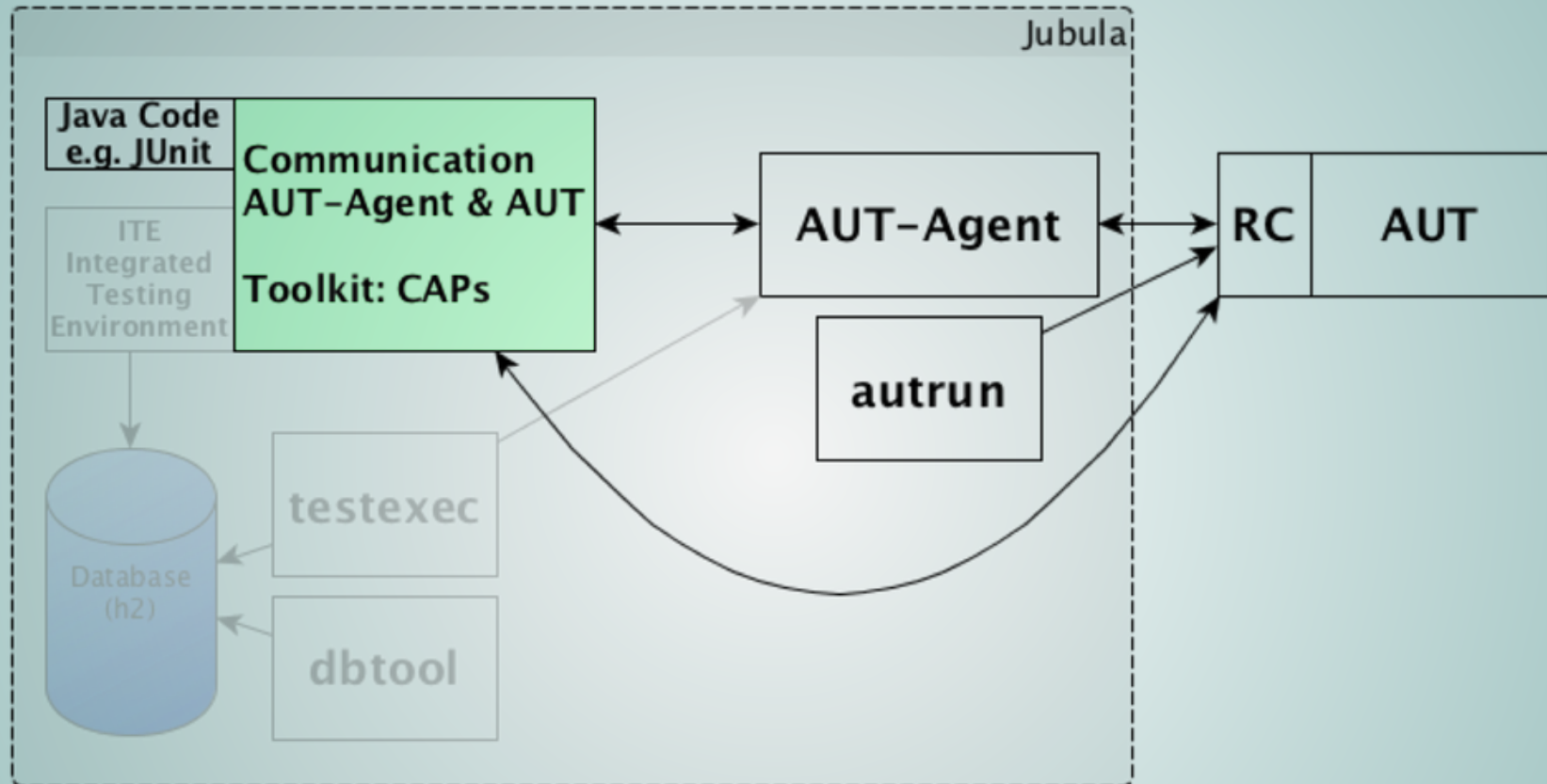
A SNEAK PEEK... TO AN API



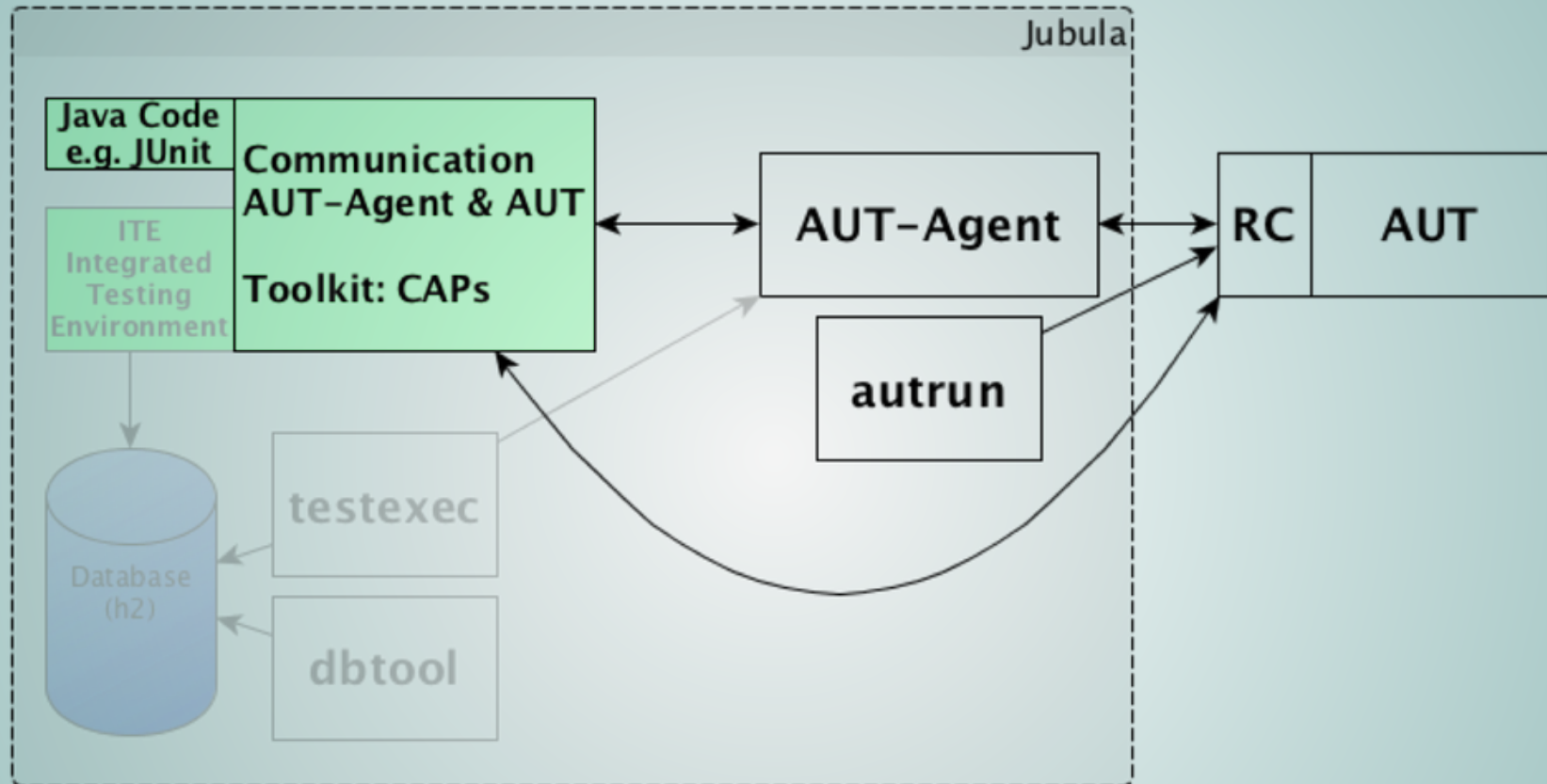
A SNEAK PEEK... TO AN API



A SNEAK PEEK... TO AN API



A SNEAK PEEK... TO AN API



THANKS!

Twitter: @MarkusTiede
Markus.Tiede@bredex.de

Copyright BREDEX GmbH 2014. Made available under the Eclipse Public License v1.0.