



RIENIA

+



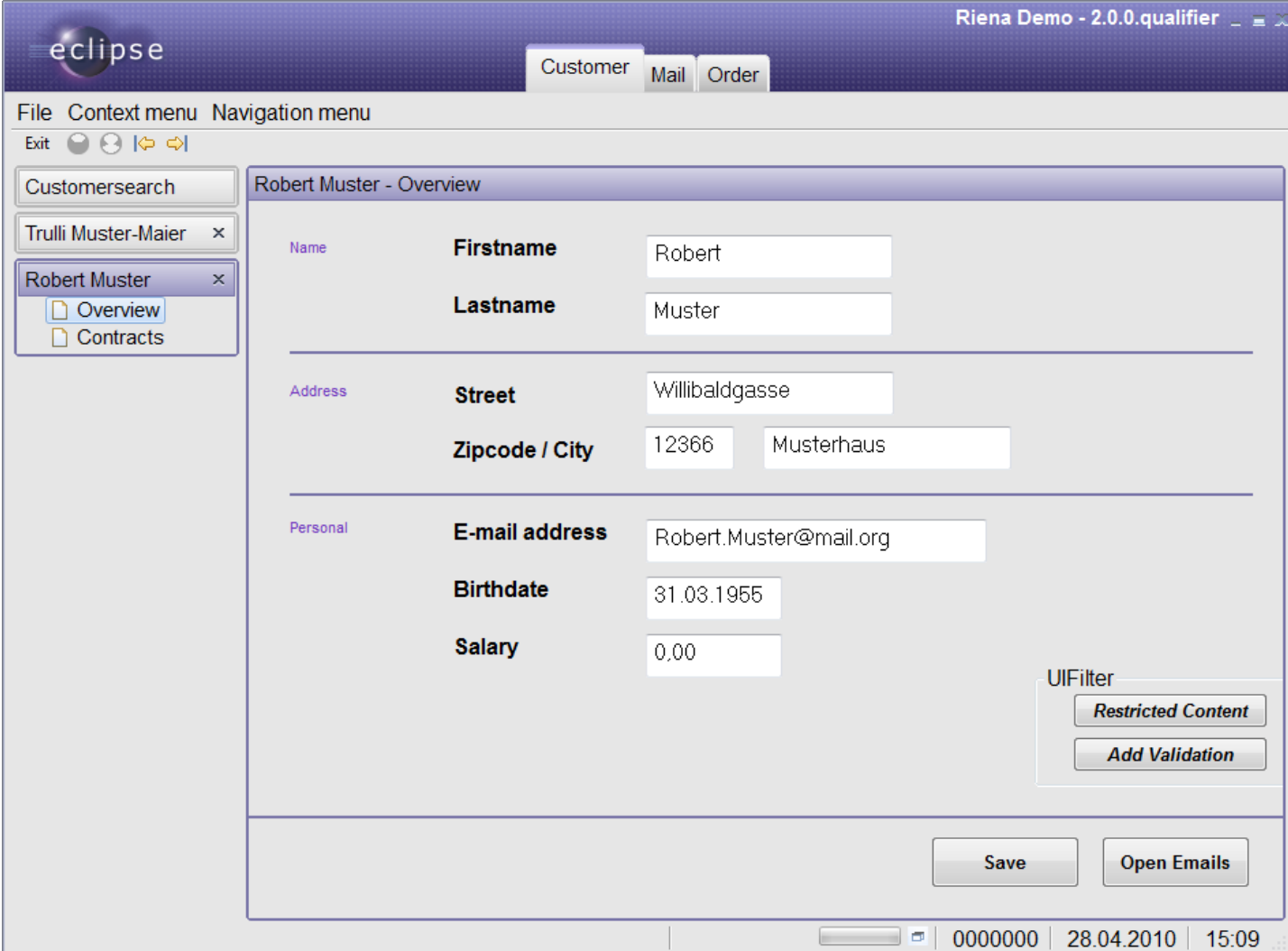
Christian Campo

Eclipse Summit 2010 – Nov 2010

Riena is ...

- **Client / Server Apps (Distributed Components)**
- Based on OSGi / Equinox
- Built on top of RCP
- „Enterprise ready“
- **End-user focused Navigation Concept**
- Service Oriented

Riena UI is ...



The screenshot displays the Eclipse IDE interface with a custom application titled "Riena Demo - 2.0.0.qualifier". The application has a menu bar with "File", "Context menu", and "Navigation menu". Below the menu bar are icons for "Exit", "Home", "Previous", and "Next".

The main content area shows a "Robert Muster - Overview" form. The form is organized into sections:

- Name:** Firstname (Robert), Lastname (Muster)
- Address:** Street (Willibaldgasse), Zipcode / City (12366, Musterhaus)
- Personal:** E-mail address (Robert.Muster@mail.org), Birthdate (31.03.1955), Salary (0,00)

At the bottom right of the form, there is a "UIFilter" section with two buttons: "Restricted Content" and "Add Validation". At the bottom of the form, there are "Save" and "Open Emails" buttons.

The status bar at the bottom of the IDE shows a progress indicator, a refresh icon, and the values "0000000", "28.04.2010", and "15:09".

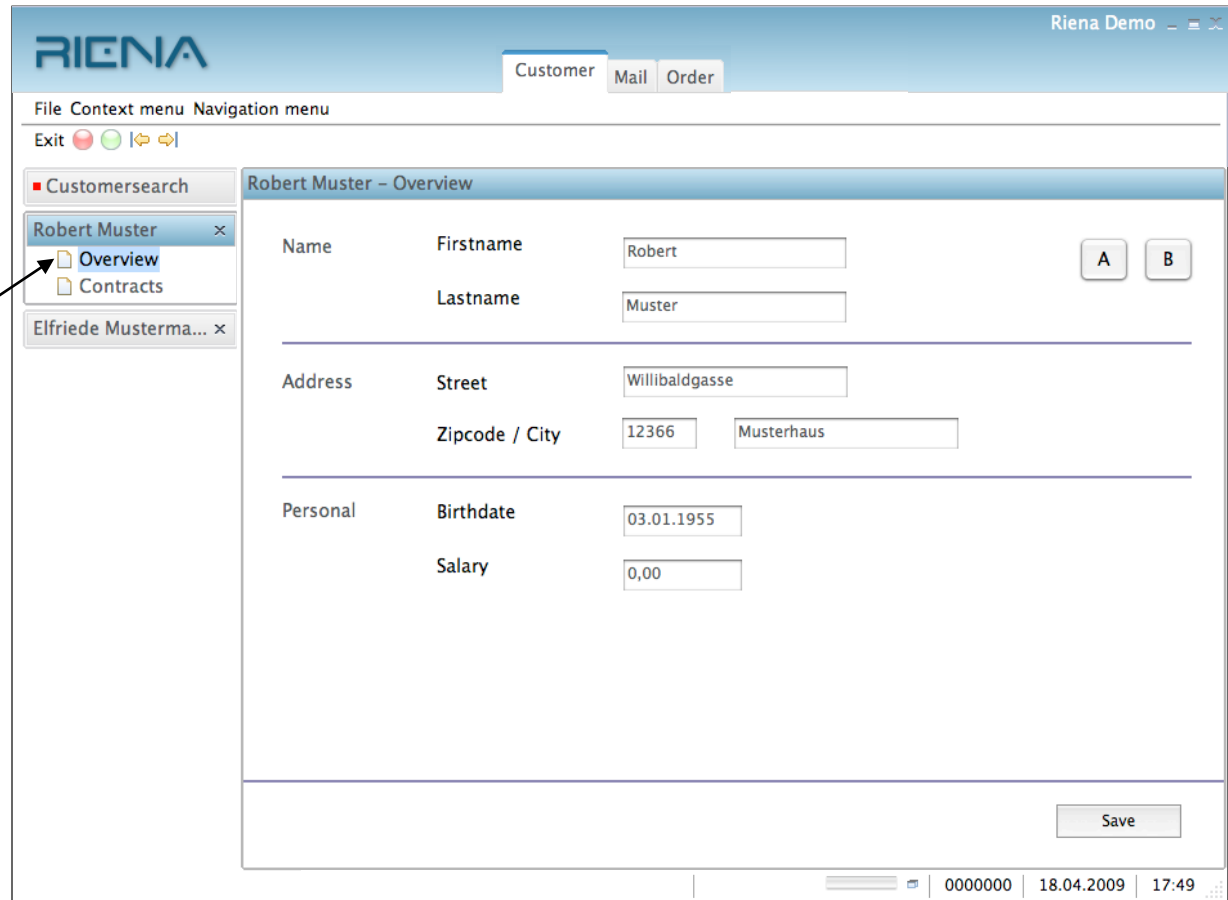
Riena Navigation Model/Processor

- **Tree based Model**
- **Building blocks are...**
 - extensions („assemblies“)
 - nodeBuilders (java code)
- **Multiple instances** per building block possible (i.e. multiple customer records)
- **Navigate from any give node** in the tree to any other node using a simple id
- **Pass parameter**, supply feedback with changelisters
- **Generic NavigationProcessor** included to manage the tree

Riena Navigation Model

Application
Subapplication ...

Modulegroup ...
Module ...
Submodule ...



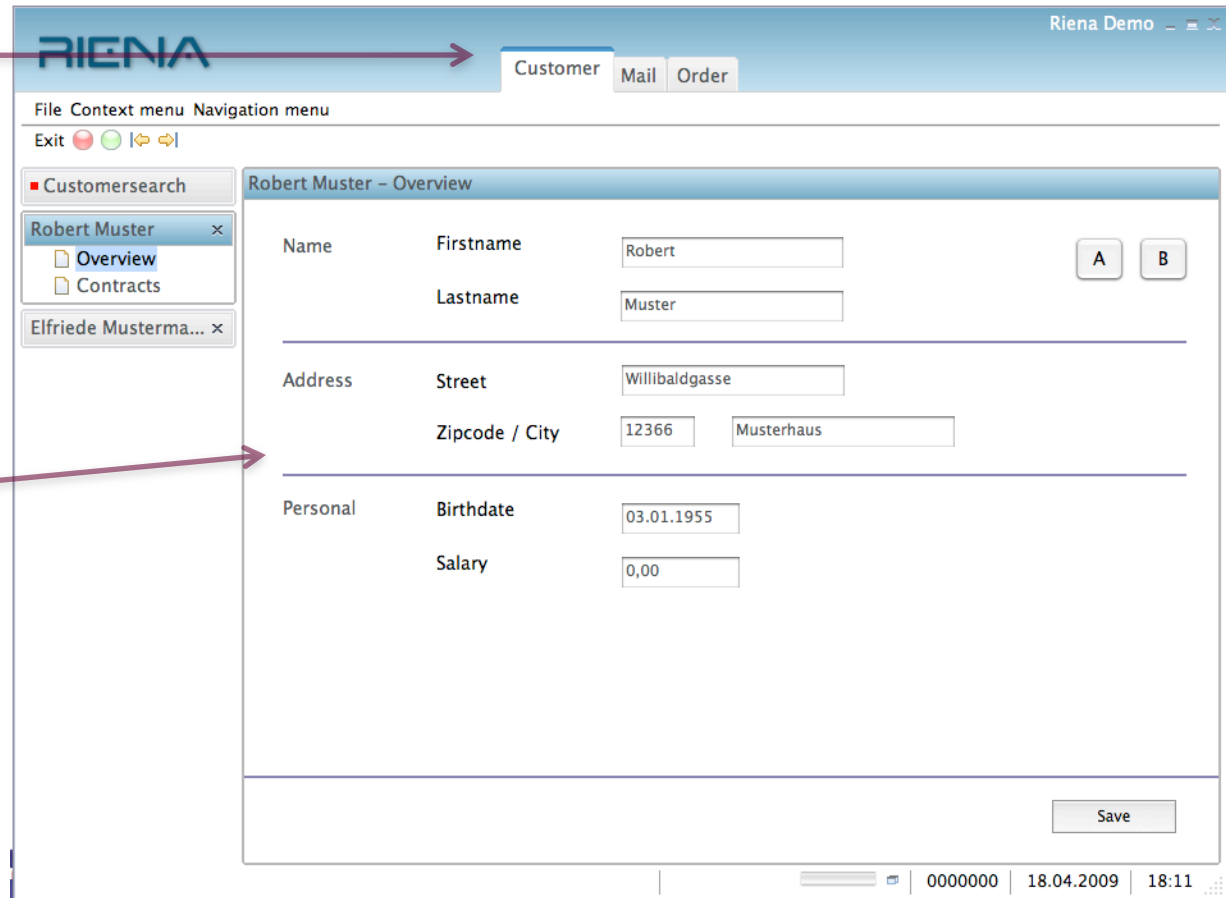
The screenshot shows the Riena application interface. The title bar reads "RIENA" and "Riena Demo". There are tabs for "Customer", "Mail", and "Order". A menu bar includes "File", "Context menu", and "Navigation menu". Below the menu bar are "Exit" buttons and navigation icons. The left sidebar contains a "Customersearch" section with a list of items: "Robert Muster" (with a close button), "Overview" (highlighted with an arrow), and "Contracts". Below this is another item "Elfriede Musterma...". The main content area is titled "Robert Muster - Overview" and contains a form with the following fields:

Name	Firstname	<input type="text" value="Robert"/>	<input type="button" value="A"/>	<input type="button" value="B"/>
	Lastname	<input type="text" value="Muster"/>		
Address	Street	<input type="text" value="Willibaldgasse"/>		
	Zipcode / City	<input type="text" value="12366"/>	<input type="text" value="Musterhaus"/>	
Personal	Birthdate	<input type="text" value="03.01.1955"/>		
	Salary	<input type="text" value="0,00"/>		

At the bottom right of the form is a "Save" button. The status bar at the bottom shows "0000000 | 18.04.2009 | 17:49".

Riena with „RCP Glasses“

- Perspective
- Coolbars
- RCP View owned by Riena, driven by the Navigation Model
- RCP Views

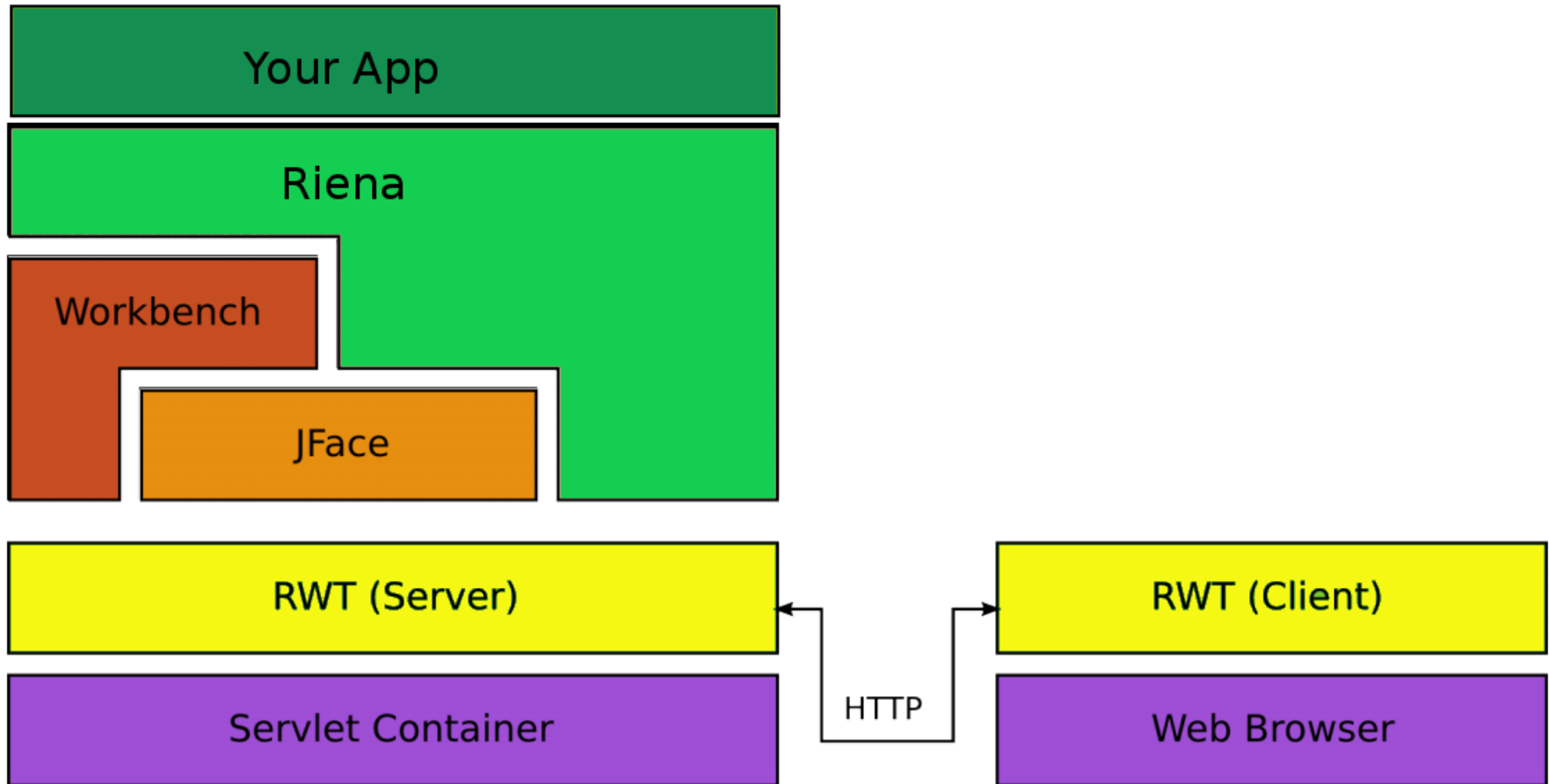


The screenshot shows the Riena Demo application window. The title bar reads "RIENA" and "Riena Demo". The main window has a menu bar with "File", "Context menu", and "Navigation menu". Below the menu bar is a toolbar with "Exit" and navigation icons. The main content area is divided into two panes. The left pane, titled "Customersearch", contains a list of customer names: "Robert Muster" (selected), "Overview", "Contracts", and "Elfriede Musterma...". The right pane, titled "Robert Muster - Overview", displays a form with the following fields:

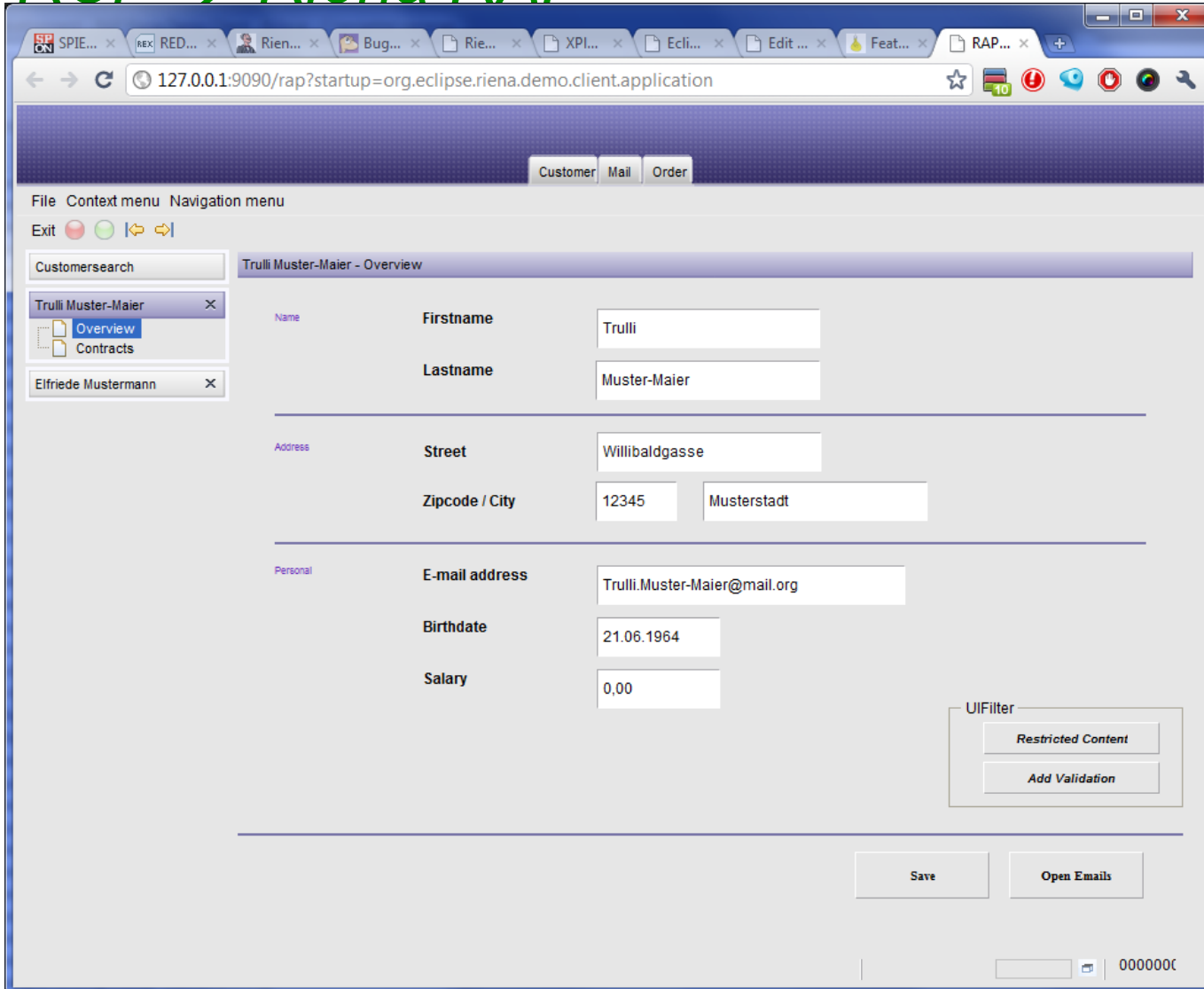
Name	Firstname	<input type="text" value="Robert"/>	<input type="button" value="A"/>	<input type="button" value="B"/>
	Lastname	<input type="text" value="Muster"/>		
Address	Street	<input type="text" value="Willibaldgasse"/>		
	Zipcode / City	<input type="text" value="12366"/>	<input type="text" value="Musterhaus"/>	
Personal	Birthdate	<input type="text" value="03.01.1955"/>		
	Salary	<input type="text" value="0,00"/>		

At the bottom right of the form is a "Save" button. The status bar at the bottom of the window shows "0000000", "18.04.2009", and "18:11".

Riena Client on RAP



Riena RCP → Riena RAP



The screenshot shows a web browser window with the URL `127.0.0.1:9090/rap?startup=org.eclipse.riena.demo.client.application`. The browser tabs include 'SPIE...', 'RED...', 'Rien...', 'Bug...', 'Rie...', 'XPI...', 'Ecli...', 'Edit ...', 'Feat...', and 'RAP...'. The browser interface includes navigation buttons (back, forward, refresh) and a search bar.

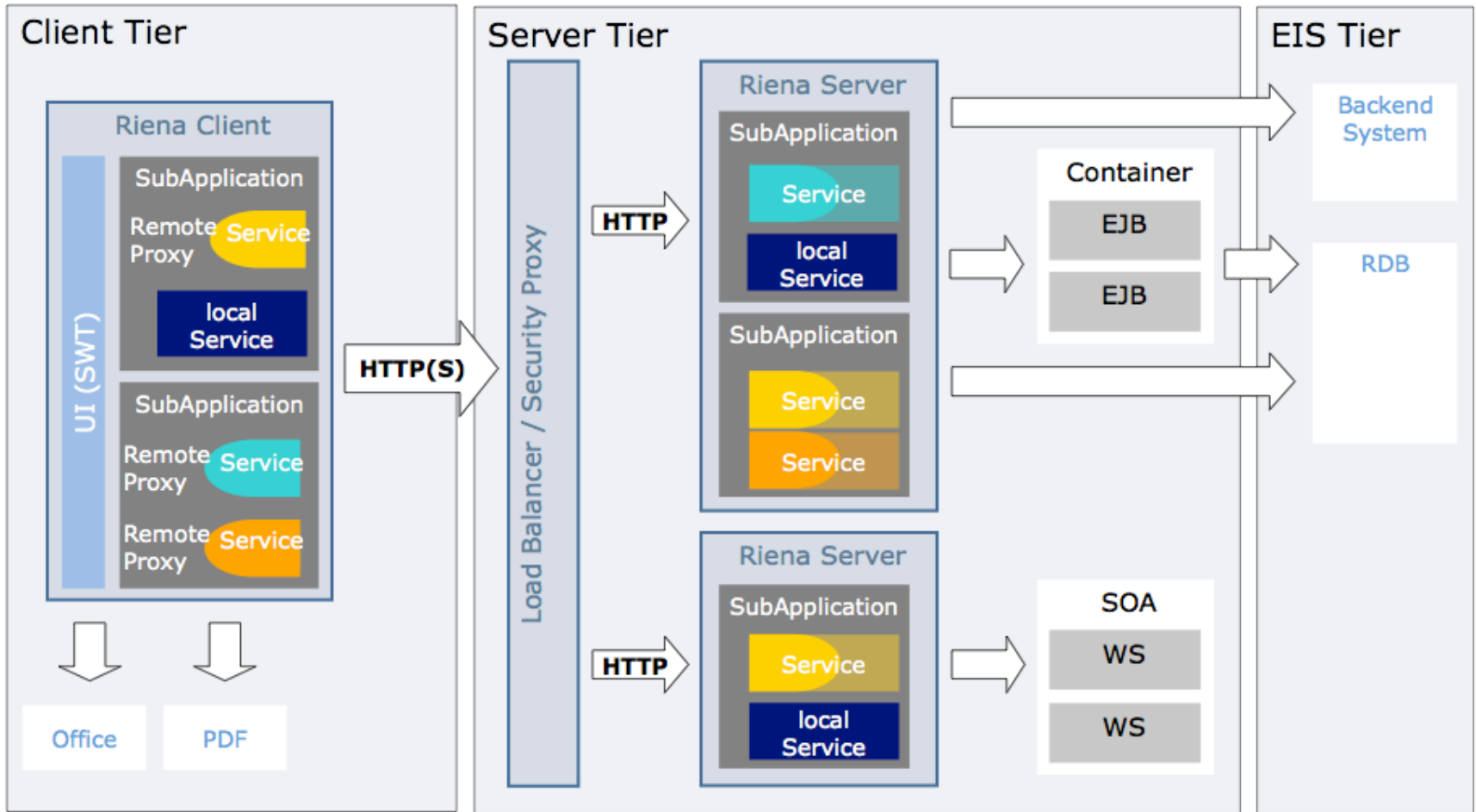
The application interface features a top navigation bar with 'Customer', 'Mail', and 'Order' buttons. Below this is a menu bar with 'File', 'Context menu', and 'Navigation menu'. A toolbar contains 'Exit' and navigation icons. A search bar labeled 'Customersearch' is present. A sidebar on the left shows a tree view with 'Trulli Muster-Maier' selected, containing sub-items 'Overview' and 'Contracts'. Below the sidebar, another entry 'Elfriede Mustermann' is visible.

The main content area displays the 'Trulli Muster-Maier - Overview' form, organized into sections:

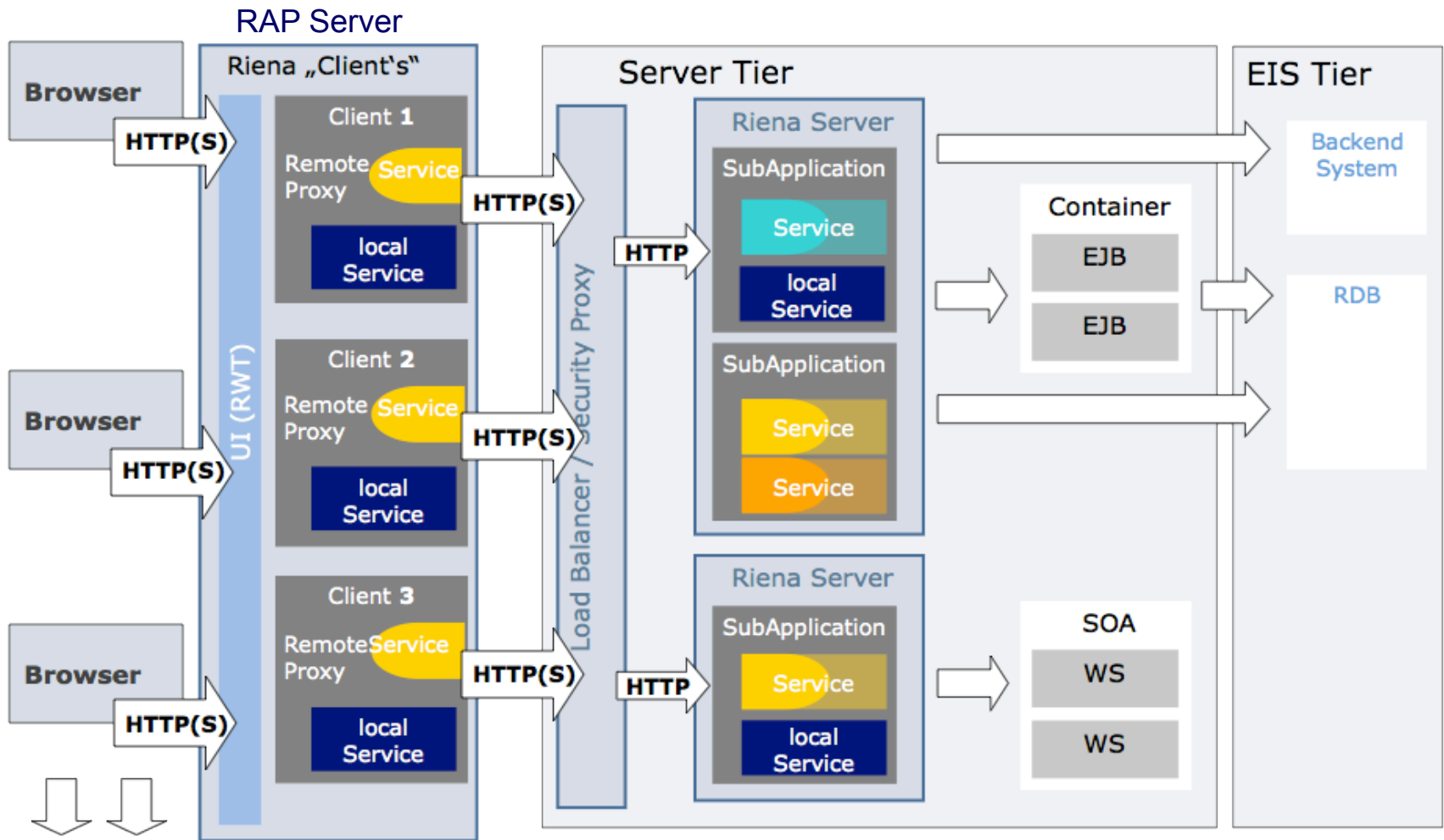
- Name:** Firstname (Trulli), Lastname (Muster-Maier)
- Address:** Street (Willibaldgasse), Zipcode / City (12345, Musterstadt)
- Personal:** E-mail address (Trulli.Muster-Maier@mail.org), Birthdate (21.06.1964), Salary (0,00)

At the bottom right, there is a 'UIFilter' section with buttons for 'Restricted Content' and 'Add Validation'. At the very bottom, there are 'Save' and 'Open Emails' buttons, and a status bar showing '000000C'.

Riena/RCP Architecture



Riena/RAP Architecture



Office PDF

Single Sourcing

- **One Source** for RCP and RAP (with exceptions)
- **Not available** in RAP are...
 - **MouseListener**
 - **PaintListener** (however GC exists)
- Added **Facades** in **Riena** to wrap variations between RCP / RAP
 - GC, SWT (the class), DialogConstants, Browser etc.
- „**Singletons**“: distinguish between
 - **SessionSingletons** (Client specific) and maintain them in the **UserContext**
 - **Global** Singletons

Single Sourcing - Singletons

- **What is a singleton ?**
 - **xxx.getInstance()** (classical)
 - **static singleton** - class with static methods and static fields
 - **pseudo classical** – xxx.getInstance() but no instance state
 - **utility class** – static methods, no fields
- Singletons must be handles correctly in **framework code** (Riena) but also in **your application code**

Single Sourcing - Singletons

Global Singletons

```
private final static SingletonProvider IS = new SingletonProvider(ImageStore.class);

public static ImageStore getInstance() {
    return IS.getInstance();
}
```

Session Specific Singletons

```
private static final SingletonProvider SVP = new SessionSingletonProvider(SwtViewProvider.class);

public static SwtViewProvider getInstance() {
    return SVP.getInstance();
}
```

!!! Magic Involved !!!!

Demo Riena on RAP

Riena on Rap (status)

- Riena 3.0 will deliver artifacts for RCP and RAP
- Riena 3.0M2 is already available for installation
- Riena 3.0 is part of „Indigo“ due in June 2011

- <http://www.eclipse.org/riena>
- http://wiki.eclipse.org/Riena_Project
- riena-dev@eclipse.org

Questions?