

Community Meetings

- 2007 Stuttgart, AEB
- 2008 Pro Logistik, Hannover
vps, Karlsruhe
- 2009 Bammental
FORCAM, Friedrichshafen
- 2010 Heidelberg, Eppelheim
- 2011 Heidelberg, Eppelheim
- 2012 Heidelberg, Eppelheim
- 2013 Heidelberg, Eppelheim
- **2014 Heidelberg, Schwetzingen**

X. Community Meeting



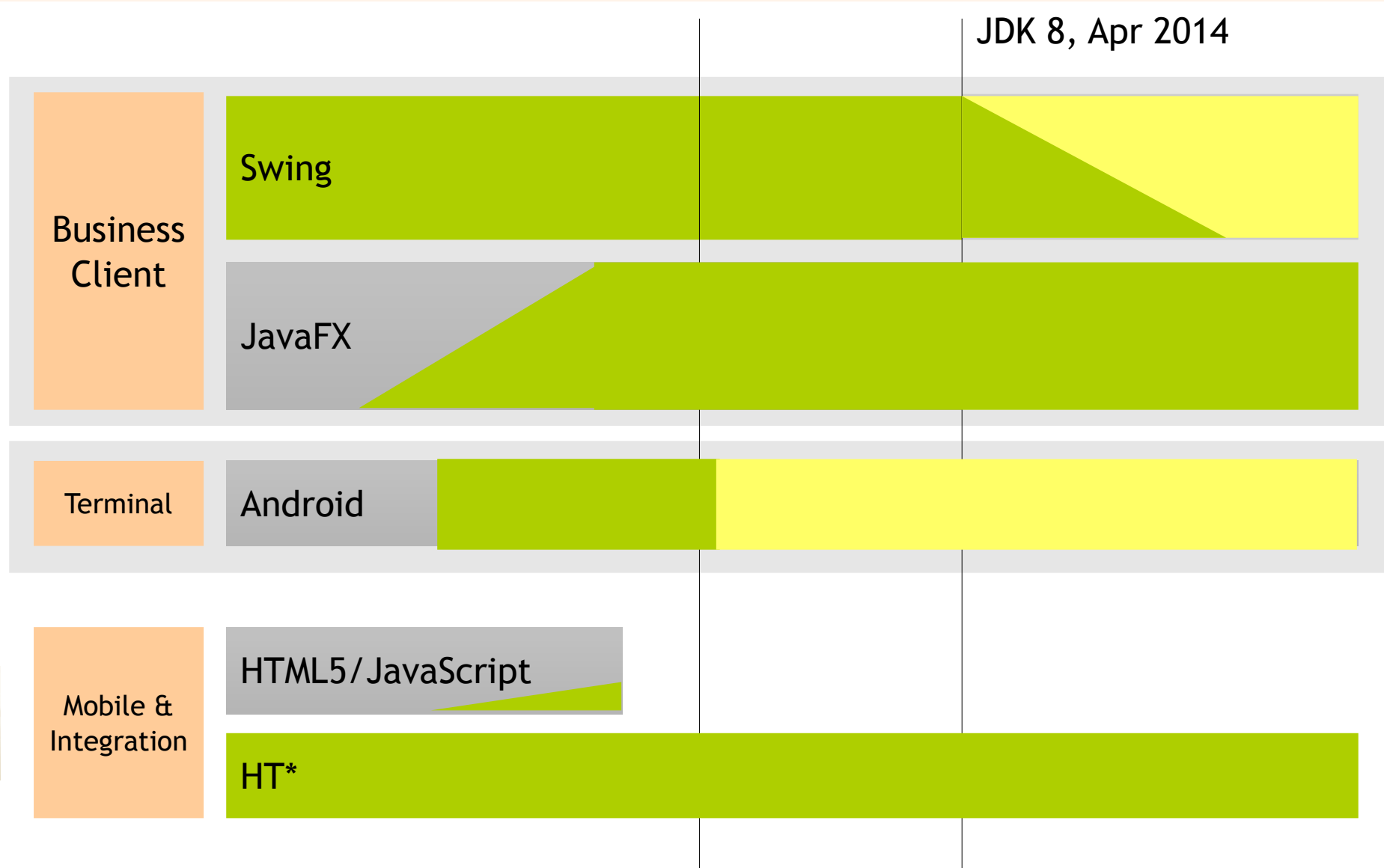
Agenda

- 10:15 Standortbestimmung
- 10:30 Tablet, Phone - HTML5
- 11:30 Anwenderbericht Primion
- 11:50 Kaffeetanken
- 12:00 2014 in a Nutshell
- 12:40 Anwenderbericht PNA
- 13:00 Mittagessen
- 13:40 Industry 4.0
- 14:10 „Incubator“ - Was soll raus?
- 14:30 Anwenderbericht Cellent-FS
- 14:50 Best Practices / Pain Points 2014
- 15:10 Kaffeepause
- 15:30 Entwicklungsplanung

Standortbestimmung

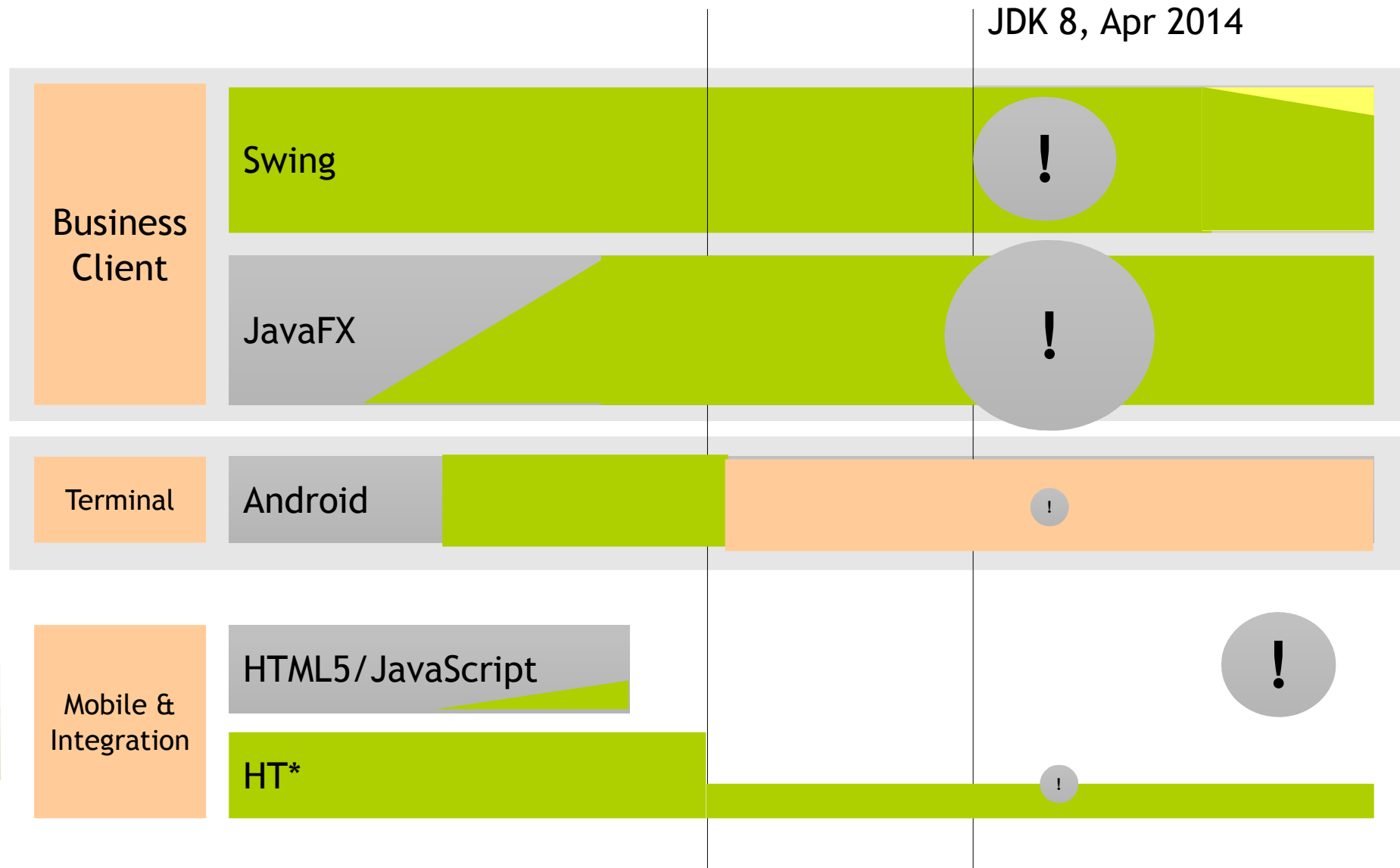


Road Map 2014



Status Quo

JDK 8, Apr 2014



Java Swing - JavaFX

- Neue Nutzer von CaptainCasa: ausschließlich auf JavaFX Client
- Umstieg von Swing Client auf JavaFX Client: kein einziger
 - 3 konkrete Analysen
 - Credo
 - „null Problem“ im Entwicklungsbereich
 - Rollout (Java 8) ist Hauptproblem
 - Vorteile?...

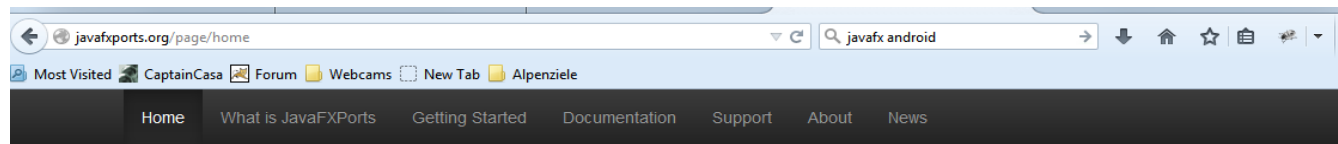


Tablets / Phones
/ etc.



JavaFX

- JavaFX auf Android/iOS kommt leider nicht so schnell zum Fliegen wie erhofft



JavaFX on Mobile and Tablets

Package your JavaFX Application for deployment on iOS and Android. The true spirit of Write Once, Run Anywhere.





Address

First Name

Last Name

Title ▼

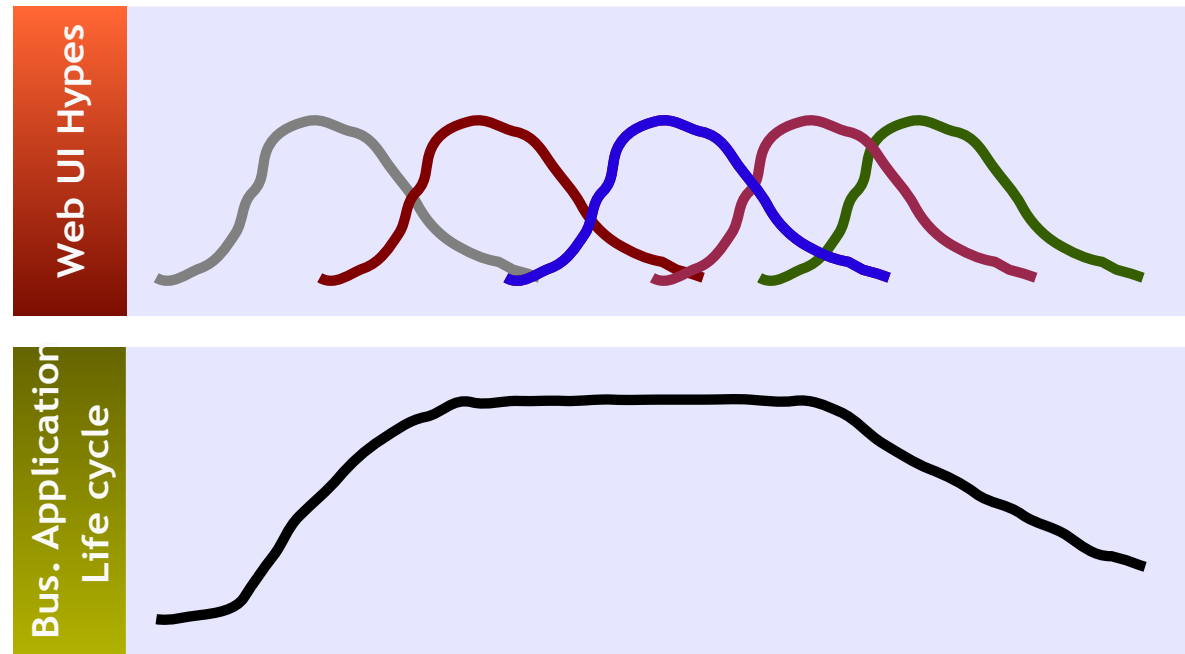
Zip Code / Town

...aber:

- noch eine Strecke entfernt von „industriellem Einsatz“
 - Komplexes Aufsetzen des Projektes
 - Begrenzung auf Android-Java
 - Abstürze bei der Ausführung
- Gefühl
 - big attention
 - limited traction
- Fazit
 - Freude, wenn's kommt, aber derzeit keine strategische Basis

HTML5 für mobile Geräte

- Viele Frameworks...



Und noch eines: SAP/OpenUI5



Latest stable release: 1.24.4 (2014-11-25)

When in doubt, get this version.

[Download OpenUI5 Runtime](#)

[Download OpenUI5 SDK](#)

Erstes Ausprobieren

- Große Anzahl von Controls
 - Mobile Szenarien
 - Desktop Szenarien
- Stabil auf gängigen HTML5 Plattformen
- Ausreichend schnell
- Großes Augenmerk auf Adaptivität

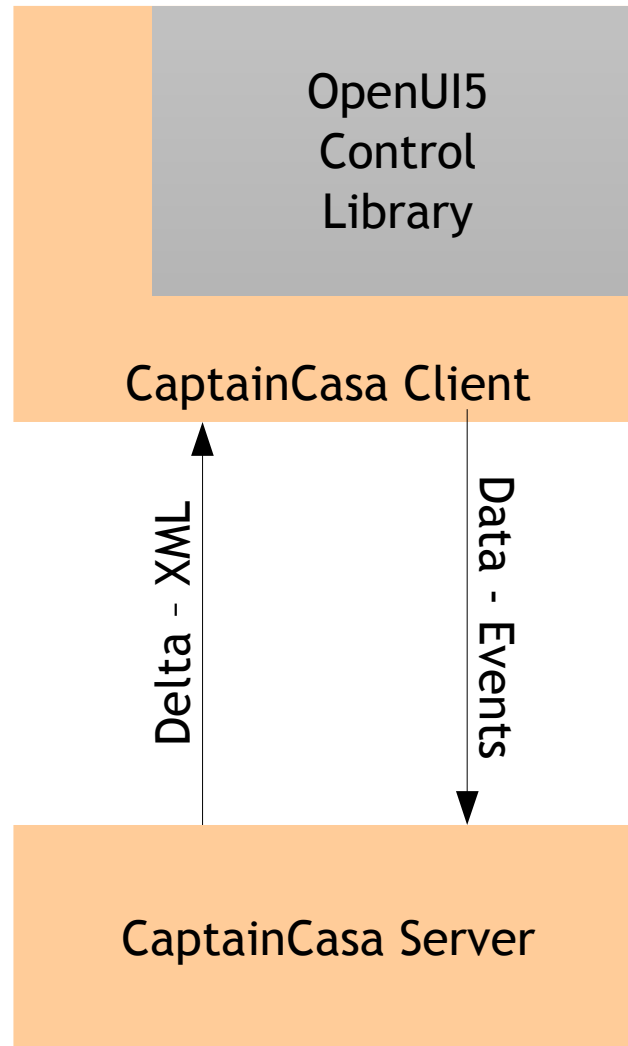


Positionierung SAP/OpenUI5

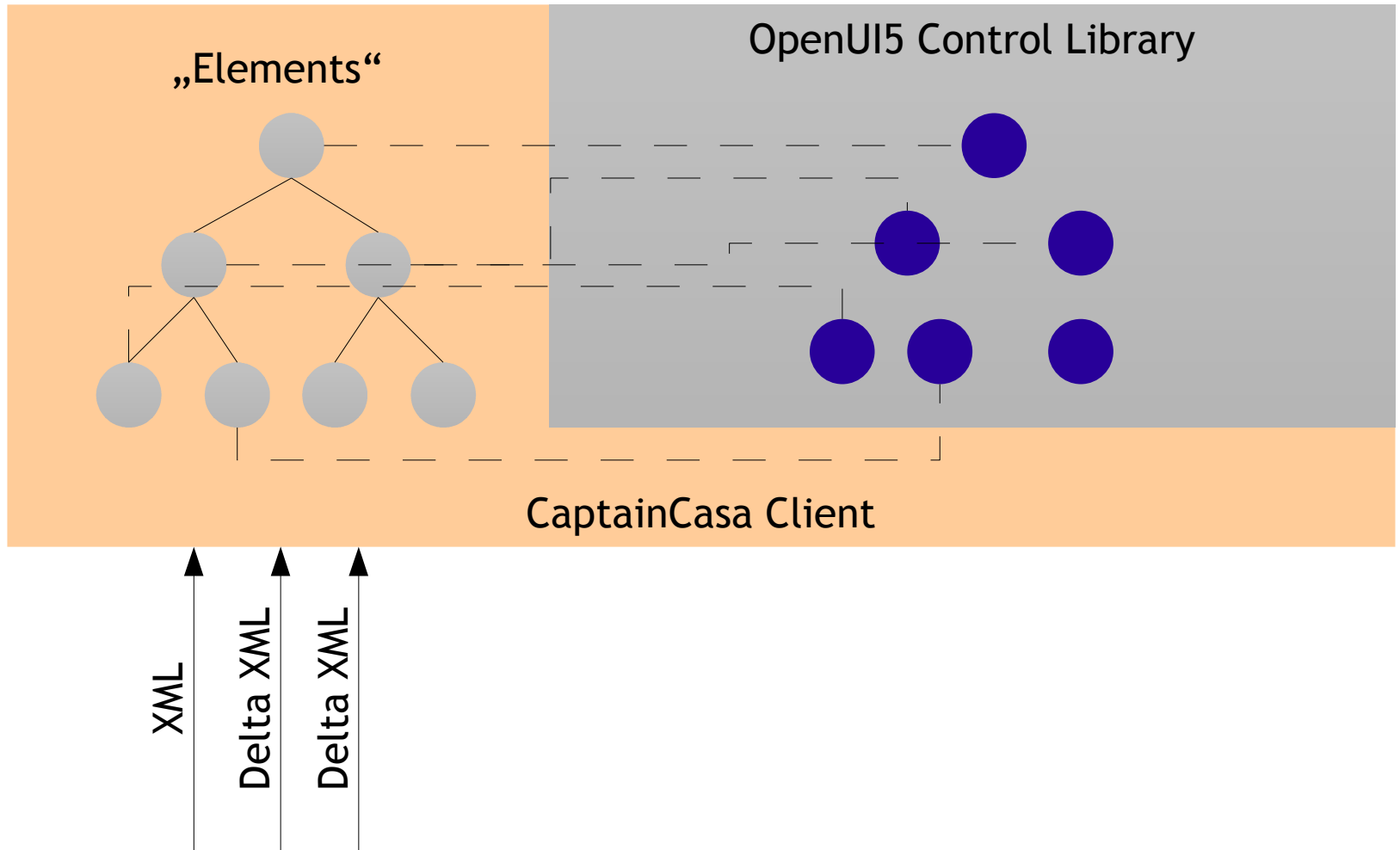
- Reines Client-seitiges Framework
 - JavaScript (+ JQuery)
 - Controls als Objekte einfach ansprechbar
 - Properties
 - Events
 - Bindingkonzepte, wie man Client-seitige Logik an die Controls anschließen kann



Somit passend für CaptainCasa Denke



Ein wenig ins Detail...



JavaScript eines Elements

```
function CCLINKElement()
{
    this.init_CCLINKElement = function()
    {
        this.init_CCControl();
        this.addChildNode = this.addChildNode_CCLINKElement;
        this.applyComponentData = this.applyComponentData_CCLINKElement;
        this.reactOnEvent = this.reactOnEvent_CCLINKElement;
        this.removeChildNode = this.removeChildNode_CCLINKElement;
        this.m_ccClassName = "CCLINKElement";
        // -----
        var that = this;
        this.bindUI5Node(new sap.ui.commons.Link());
        this.m_ui5Node.attachPress(function() {that.reactOnPress(this);});
    };
    this.applyComponentData_CCLINKElement = function()
    {
        this.applyComponentData_CCControl();
        if (this.m_attributesChanged["text"] == true)
        {
            this.m_ui5Node.setText(this.m_attributes["text"]);
        }
    };
};

...
...
```

```
...  
...
```

```
    this.addChildNode_CCLINKElement = function(ccControl,index)  
    {  
        this.addChildNode_CCControl(ccControl,index);  
    };  
    this.removeChildNode_CCLINKElement = function(ccControl)  
    {  
        this.removeChildNode_CCControl(ccControl);  
    };  
    this.reactOnEvent_CCLINKElement = function(ccEvent)  
    {  
        this.reactOnEvent_CCControl(ccEvent);  
    };  
  
    this.reactOnPress = function(pCaller)  
    {  
        this.getPage().callServer(this,this.getId()+".action","invoke()");  
    };  
    this.init_CCLINKElement();  
}
```

```
CCLINKElement.prototype = new CCControl();
```

```
s_CCPageElement_ElementCreators["link"] =  
    function() { return new CCLINKElement(); };
```

SAP UI5 - Interna

- Control == geordneter HTML Produzierer
- .renderer
 - Methode zum Erzeugen des HTMLs
- .onAfterRendering
- .onBeforeRendering
- Erst nach dem Rendern: Zugriff auf Control als Objekt

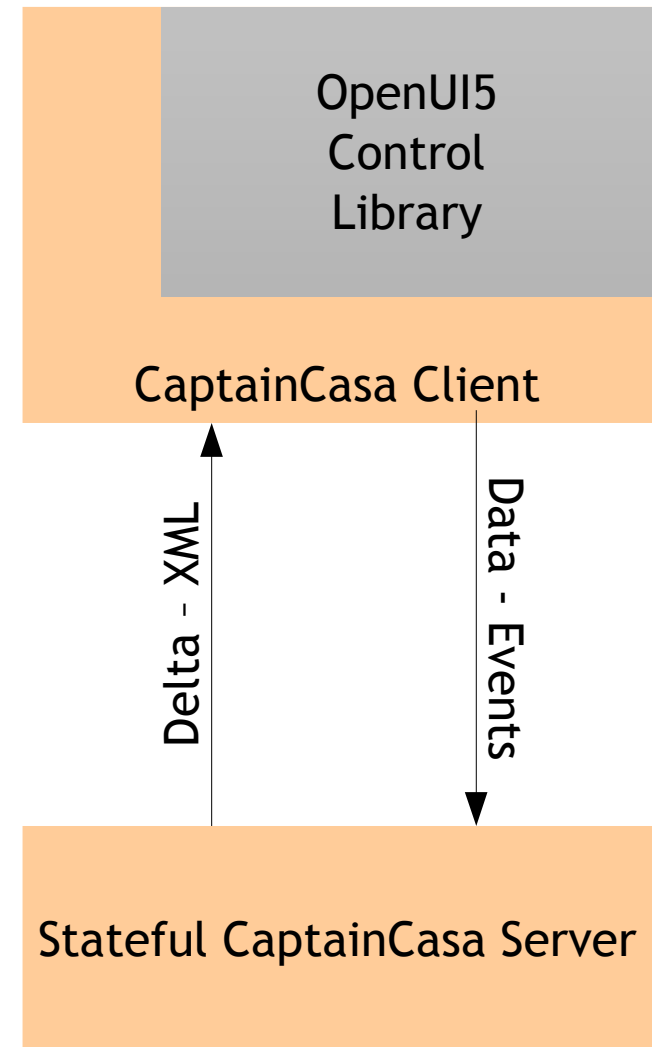
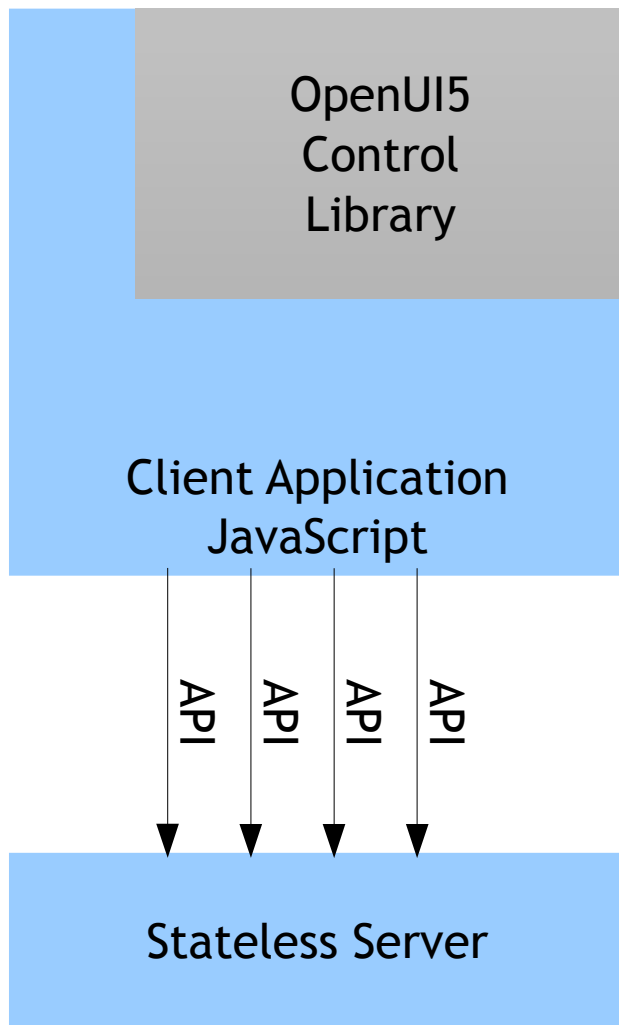


SAP UI5 - Technische Wertung

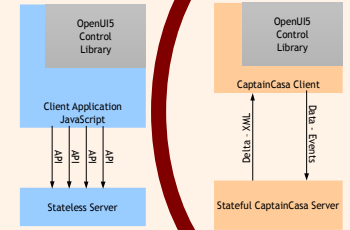
- Konzeptionell „gut“
- Umfang von Controls „gut“
- Erweiterbarkeit „sehr gut“
- Stylesheet eines Themes ist schwere Kost...



Passt die CaptainCasa Denke?

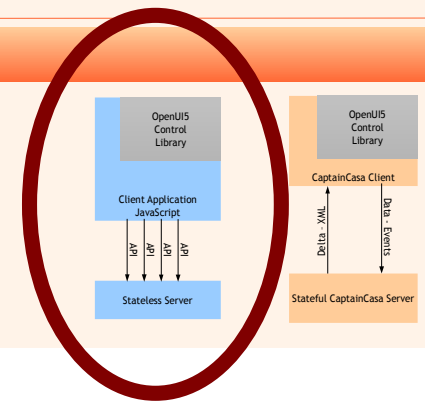


CaptainCasa



- PRO
 - Logik NICHT in JavaScript sondern in Java
 - Wesentlich weniger (öffentliche) Schnittstellen notwendig
 - Security, Wartung, ...
 - Performance auf Endgeräten ist unabhängig von Anwendung
- CONTRA
 - Server Stateful - Memory grenzt Skalierung ein
 - Viele (light weight) Roundtrips
 - Nicht autark lauffähig
 - Gefilterter Zugriff auf UI Framework

SAP/Open UI5 „Default“



- PRO
 - Autarke Szenarien sind (eher) möglich
 - „Keine“ Skalierungsgrenzen
 - Kommunikation zum Server direkt steuerbar
 - Direkter Zugriff auf SAP/OpenUI5
- CONTRA
 - Client Anwendungsteil in JavaScript
 - Performance der Anwendung vom Endgerät abhängig
 - Viele Möglichkeiten, Dinge falsch zu machen...
 - Datenvolumen / Roundtrips

Fazit

- CaptainCasa ist effizienter...
 - ab einem gewissen Anwendungsumfang
 - für Anwendungen mit 100er/1000en von Benutzern (nicht für Millionen von Benutzern!) bzw. für mehr mit einem effizienten State-Management
 - für Anwendungen, die eh eine konstante Netzverbindung erfordern



Cellent-FS

- HTML5 Anforderungen



CaptainCasa SAP/OpenUI5 Strategie

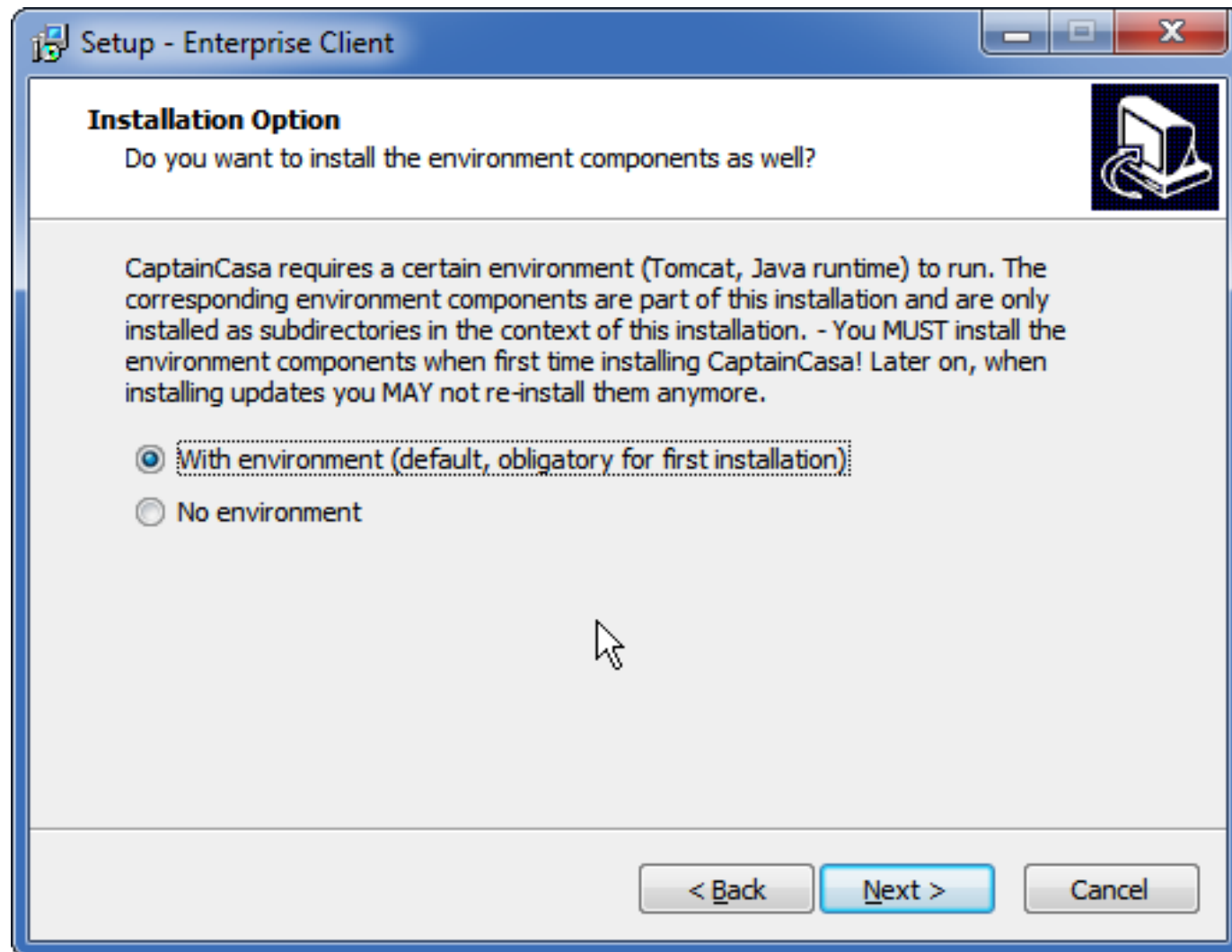
- Tablet/Phone
 - Aufnahme ins Produktportfolio
 - 100% Abdeckung der SAP Controls
 - Keine eigenen Controls
 - Moderate Bepreisung
- Alternativer Rendering-Client für Swing/FX
 - Kontinuierliche Weiterentwicklung in Projekten
 - Keine Grundbepreisung - aber Verrechnung von Projektkosten



2014 in a Nutshell

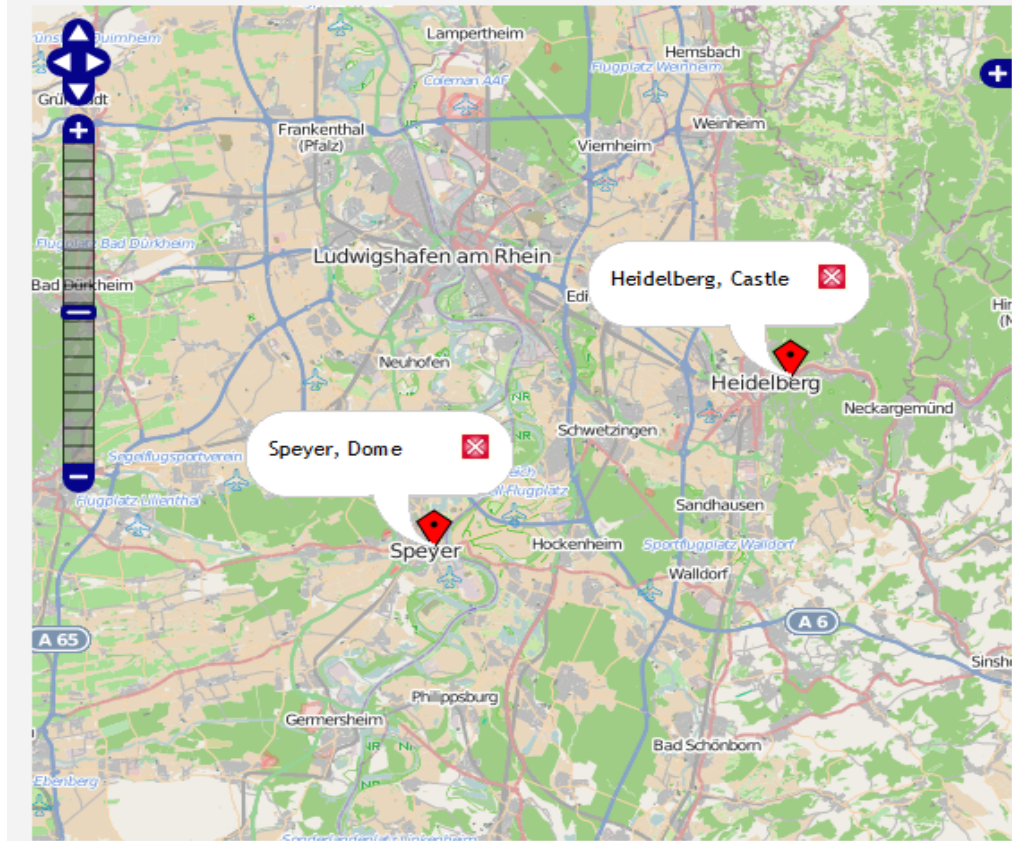


Installationsoption



OSMVIEWER in JavaFX

Name of Location	Latitude	Longitude	
Heidelberg, Castle	49,411112809289975	8,715119361877441	Remove
Speyer, Dome	49,31717765464028	8,442220687866211	Remove



OSMVIEWER in JavaFX

Name of Location	Latitude	Longitude	
Heidelberg, Castle	49,411112809289975	8,715119361877441	Remove
Speyer, Dome	49,31717765464028	8,442220687866211	Remove

SVG Charttab SVG Text

H.Bar

Sales by Product and Region

Product Revenue (Mio EUR)

Region	Hardware	Software	Services
North	~1,000	~800	~1,300
South	~1,200	~1,000	~1,500

NORTH

LongPolling via Comet Protocol

- LongPolling
 - Client sendet Request
 - Server antwortet nicht...
 - ...bzw. erst dann, wenn z.B. ein Event eintritt
- Varianten
 - Default: Request auf Server wartet innerhalb eines Threads => ein Thread belegt
 - Comet: Verarbeitung des Requests über „NIO“ Protokolle => kein Thread belegt
 - Nur Tomcat!

Popup Resizen

- Modal/ModelessPopup
 - initiales Öffnen
 - ==> width/height auf 0 setzen
 - bereits geöffnet
 - ==> `setWidthHeightToDesiredSize()`



SCREENGRABBER

- Neue Attribute
 - GRABTOCLIENTID
 - GRABONDESTROY

The screenshot displays the CaptainCasa Demo Workplace interface. The main window is titled 'Grid with Details' and contains a table of article items. A red box highlights the table and the details section below it. An arrow points to the 'Grid with Details' tab in the top right corner.

Grid with Details

Select one of the following items by double-click.

Article Id	Article Text	Unit of Measure
145616	Text for article 1...	pc
178398	Text for article 1...	kg
159612	Text for article 1...	pc
100663	Text for article 1...	kg
166216	Text for article 1...	pc
72274	Text for article 7...	kg
42236	Text for article 4...	pc
35676	Text for article 3...	kg
187809	Text for article 1...	pc
144690	Text for article 1...	kg

Select one item from the article list, either by double clicking or by navigating with the keyboard and pressing Enter. Result: the details of the item will be shown below the grid.

In the implementation of the example you see:

(.) By overriding the onRowExecute() method you can add server side coding, which is executed when the user double-clicks a row. (There is a corresponding onRowSelect() method which is executed when the user double clicks the grid, as well.)

(.) Inside the grid column fields, and inside the detail fields the business object (Article, Stock) coming from the logic layer is simply referenced. There is no repetition of properties

Id	Quantity
100663	12
Lo...	255
Lo...	562
168040	15
Lo...	282
Lo...	701

Mini Spreadsheet

Region	Revenue	Cost	Profit
North	0,00	0,00	0,00
East	0,00	0,00	0,00
South	0,00	0,00	0,00
	0,00	0,00	0,00

PANE/FIXGRID-KEYSENSITIVE

- Vergleichbar mit
 - FIELD FLUSH="true" DURATION="300"
- Event
 - BaseActionEventKeySequence



FX Client - Field Validation

- ...auch Übernahme nach Swing?



Metro Style

22.04.14

CaptainCasa Demo Workplace

DemoWorkplace

50 100 150

New Functions

- Components
- Containers
- Grids & Trees
 - Grids and Trees
 - Simple Grid
 - Grid of Bean Objects
 - Grid with Details
 - Header and Footer
 - Hide empty rows
 - Scroll Animation
 - Row Height Definitions
 - Grid Columns
 - Grid Header Cell
 - Double line grid
 - Complex Columns
 - Grid Row Selector
 - Horizontal Scrolling
 - Column Sizing by Content
 - Tree
 - Simple Tree
 - Tree with checkbox
 - Tree with smart text
 - Explicit Status Image
 - Select vs. Toggle
 - Row Positioning
 - Grid Popup Menu
- General
- Add-ons

Functions Search

Grid with Details

Demo Layout XML Server side Java Code

Select one of the following items by double-click.

Article Id	Article Text	Unit of Measure	Stock Area
186159	Text for article 1...	pc	Front
3405	Text for article 3...	kg	Back
47553	Text for article 4...	pc	Front
21458	Text for article 2...	kg	Back
20779	Text for article 2...	pc	Front
27973	Text for article 2...	kg	Back
139523	Text for article 1...	pc	Front
53463	Text for article 5...	kg	Back
31401	Text for article 3...	pc	Front
29253	Text for article 2...	kg	Back

Id: 20779 Location: Loc-238 Quantity: 185

Description: Text for article 20779 Location: Loc-235 Quantity: 858

Unit of Measure: pc Location: Loc-228 Quantity: 98

Supplier: 194803 Location: Loc-472 Quantity: 331

Stock Area: Front Location: Loc-426 Quantity: 466

Location: Loc-122 Quantity: 177

Select one item from the article list, either by double clicking or by navigating with the keyboard and pressing Enter. Result: the details of the item will be shown below the grid.

In the implementation of the example you see:

(.) By overriding the onRowExecute() method you can add server side coding, which is executed when the user double-clicks a row. (There is a corresponding onRowSelect() method which is executed when the user double clicks the grid, as well.)

(.) Inside the grid column fields, and inside the detail fields the business object (Article, Stock) coming from the logic layer is simply referenced. There is no repetition of properties within the grid row objects.

(.) The detail area is only rendered when a selected article is available. This is defines within the layout definition of the corresponding row holding the detail area

Hello World!

Basic Controls

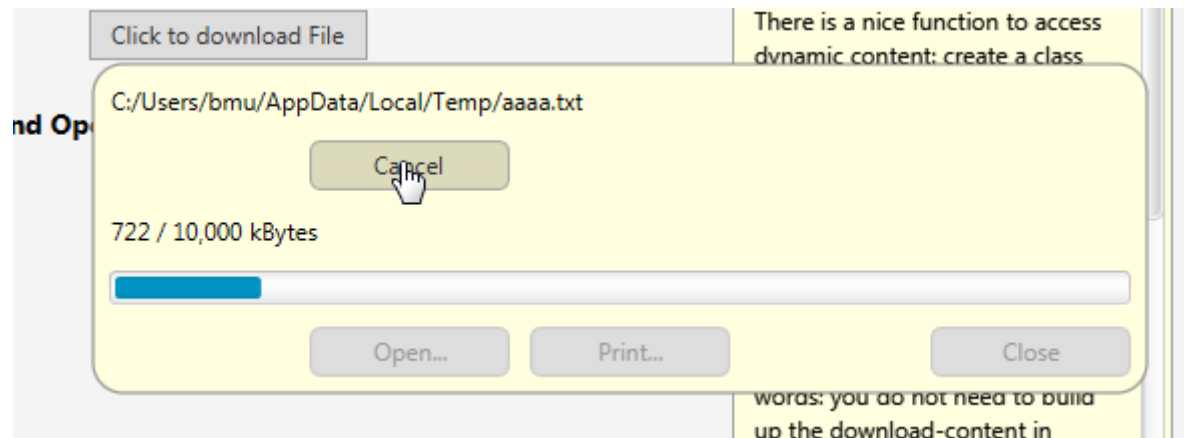
Field Background

Foldable Pane

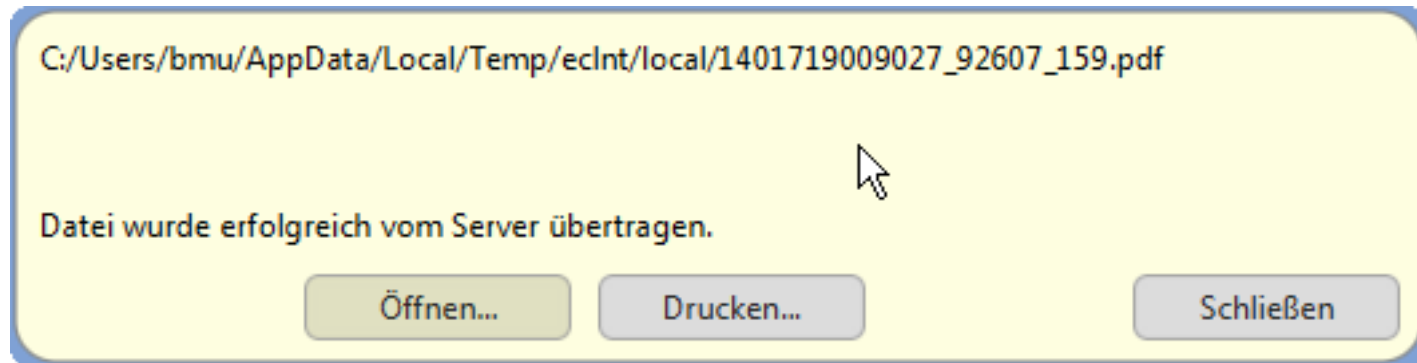
Panes

17(142) ms

File Download / Upload mit Progressbar



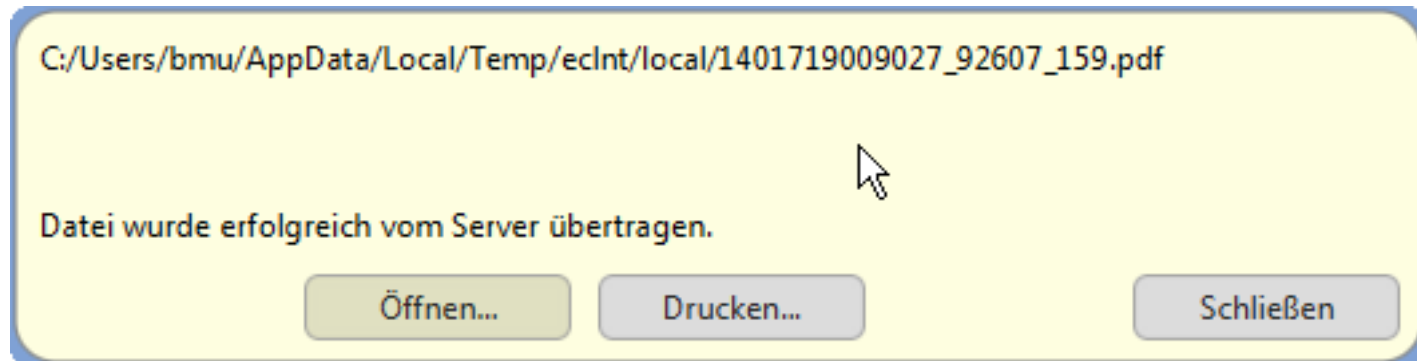
Print in Download Popup



- ***DOWNLOAD**
 - PRINTSUPPORTED true/false/perhaps
 - PRINTIMMEDIATELY true/false



Print in Download Popup

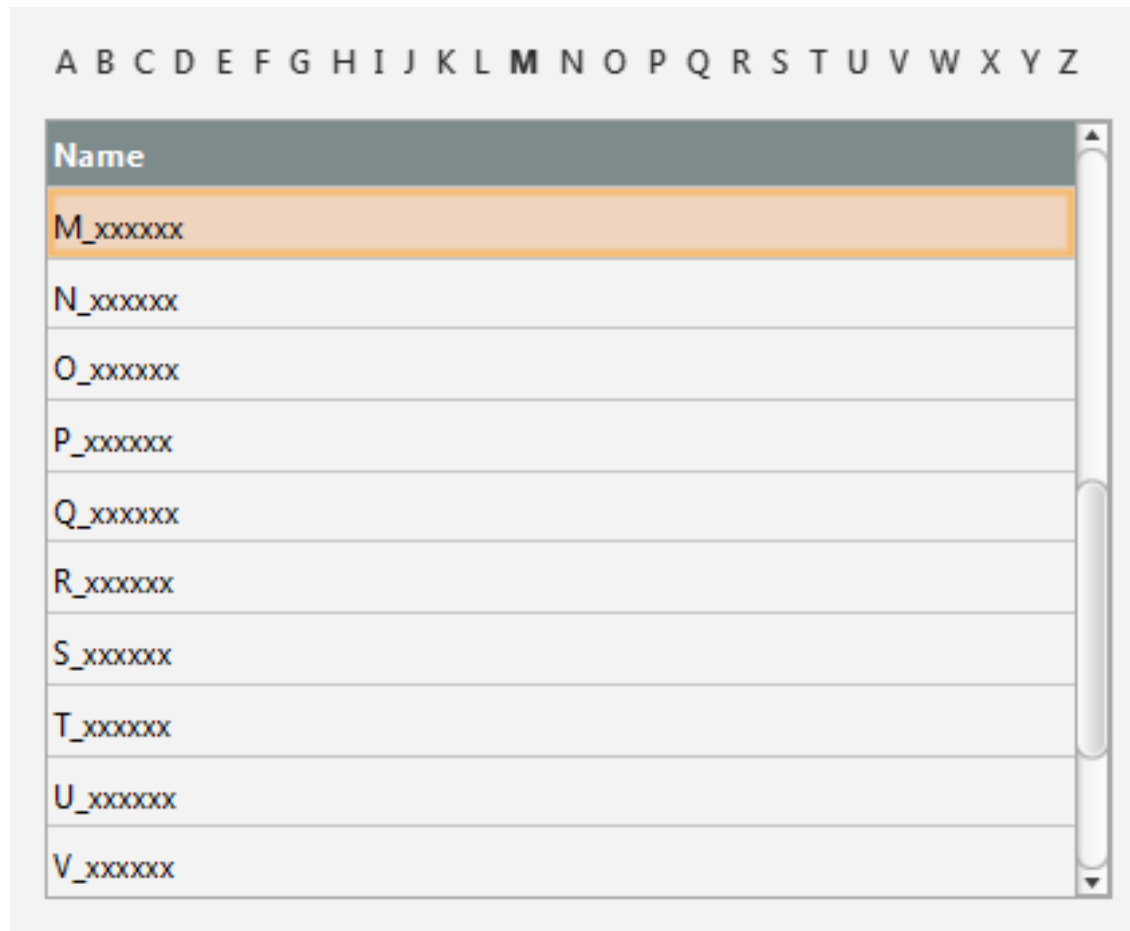


- ***DOWNLOAD**

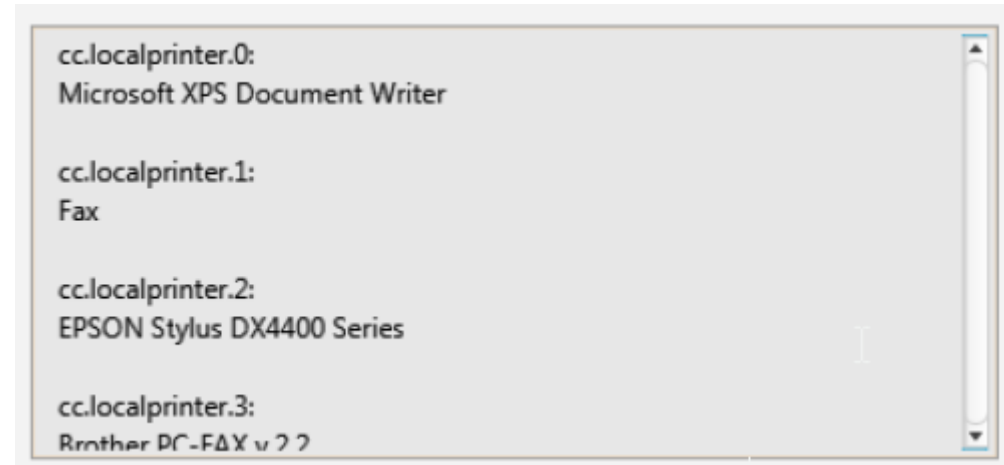
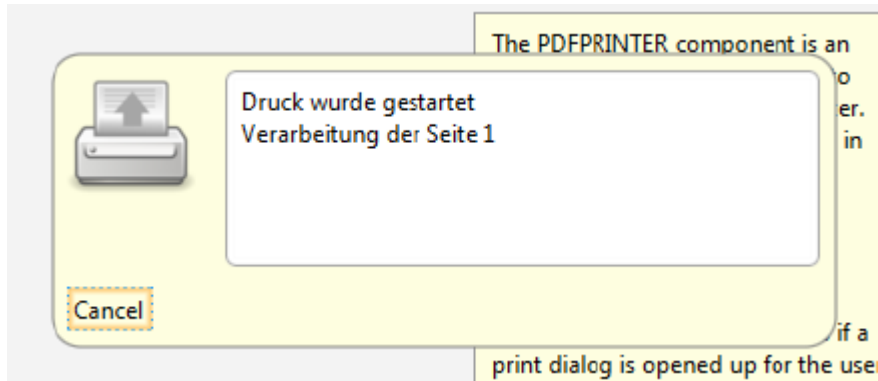
- PRINTSUPPORTED true/false/perhaps
- PRINTIMMEDIATELY true/false

ist'n Scherz

Komponente KEYSELECTOR



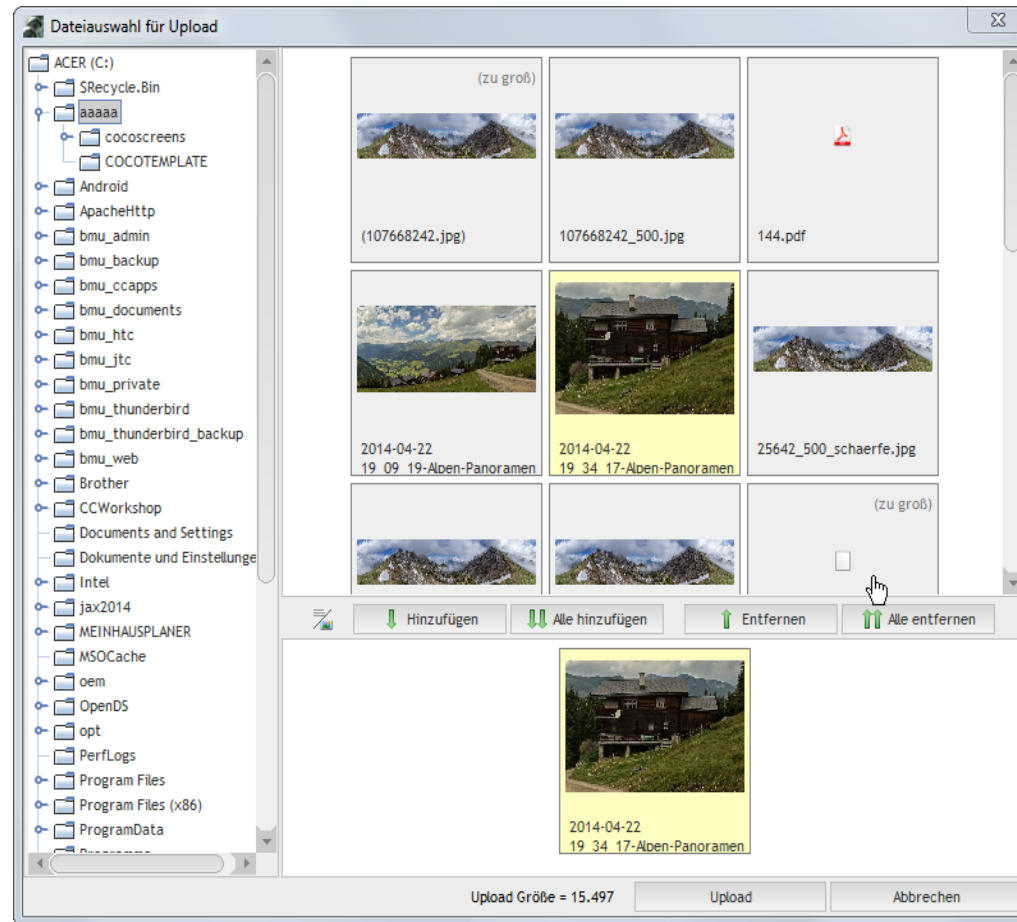
Rund ums Pressure-ing



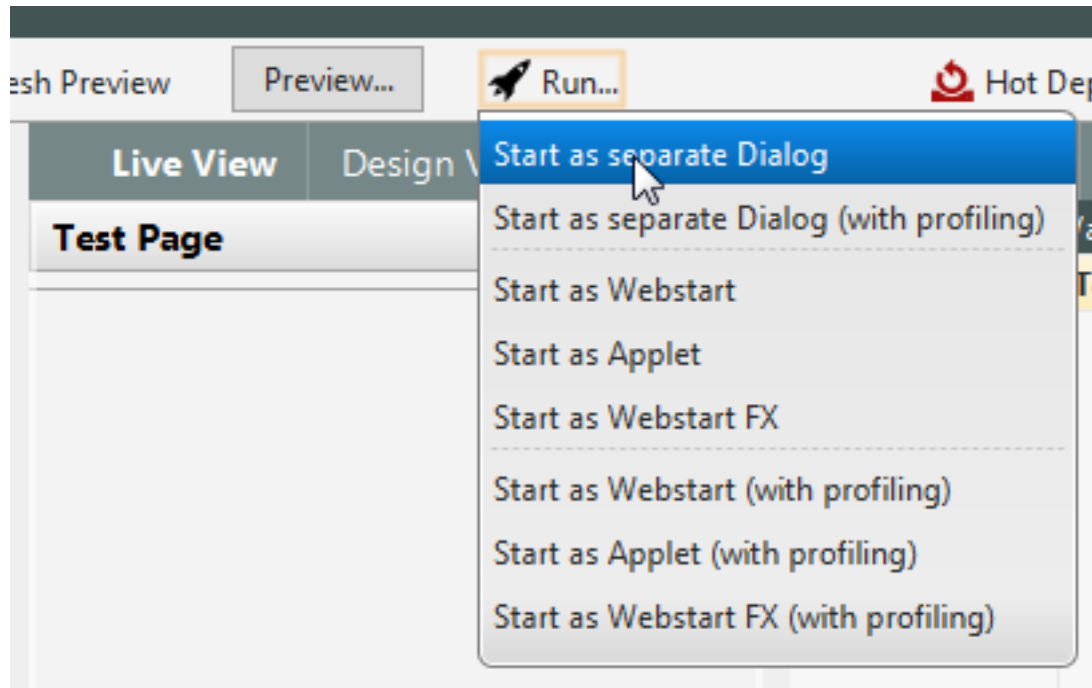
PDFPRINTER-PAPERWIDTH
PDFPRINTER-PAPERHEIGHT
PDFPRINTER-CLIENTPRINTERTRAYNAME

SYSTEMPROPERTYREADER

Swing - File Selection beim Upload



Editor - Start as separate Dialog

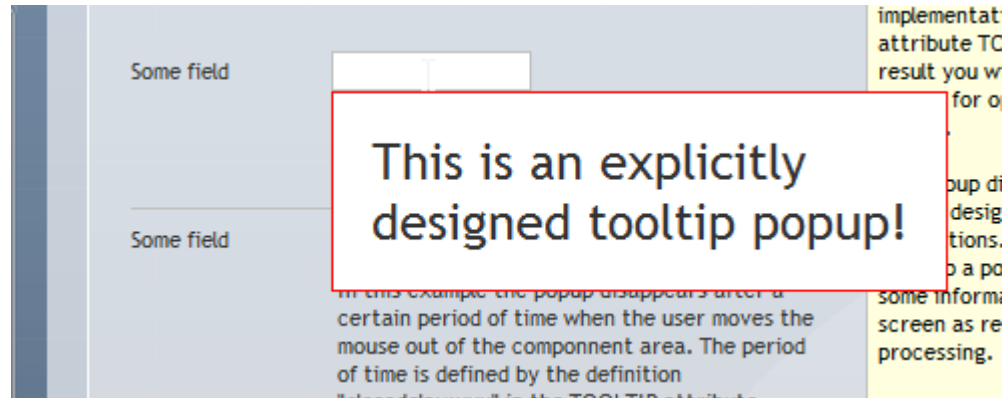


Editor - Non blocking Classloader

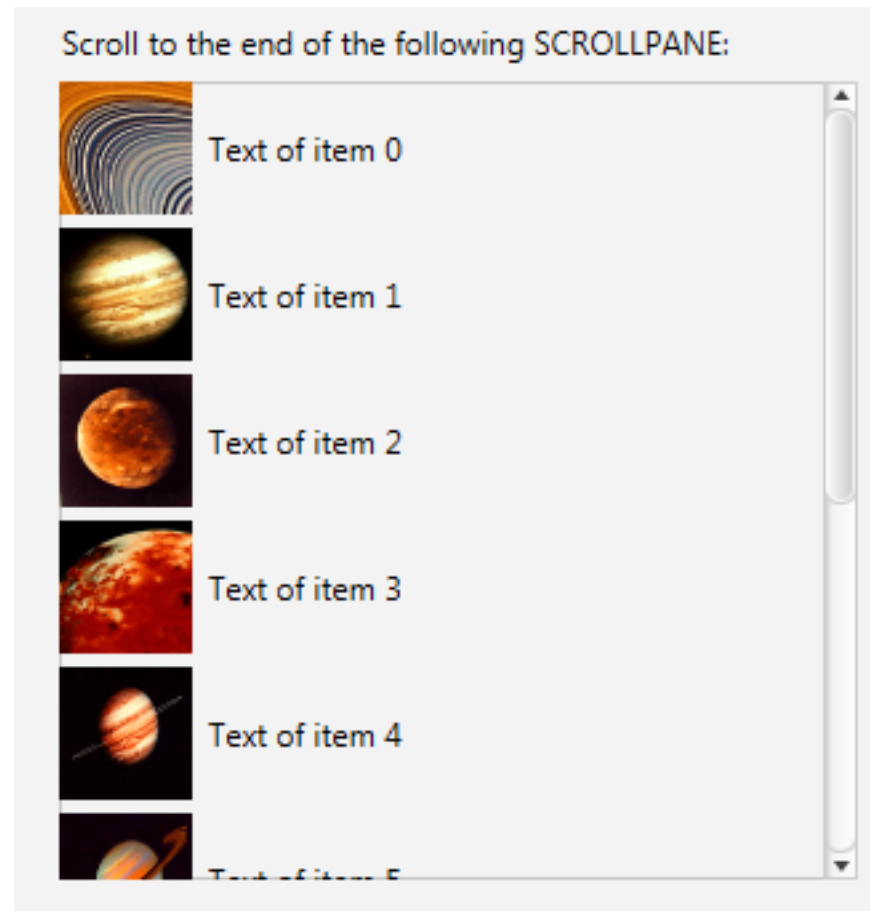
```
<project
  ...
  beanbrowserclassloader="org.ecInt.editor.CopyingClassLoader"
  ...>
</project>
```



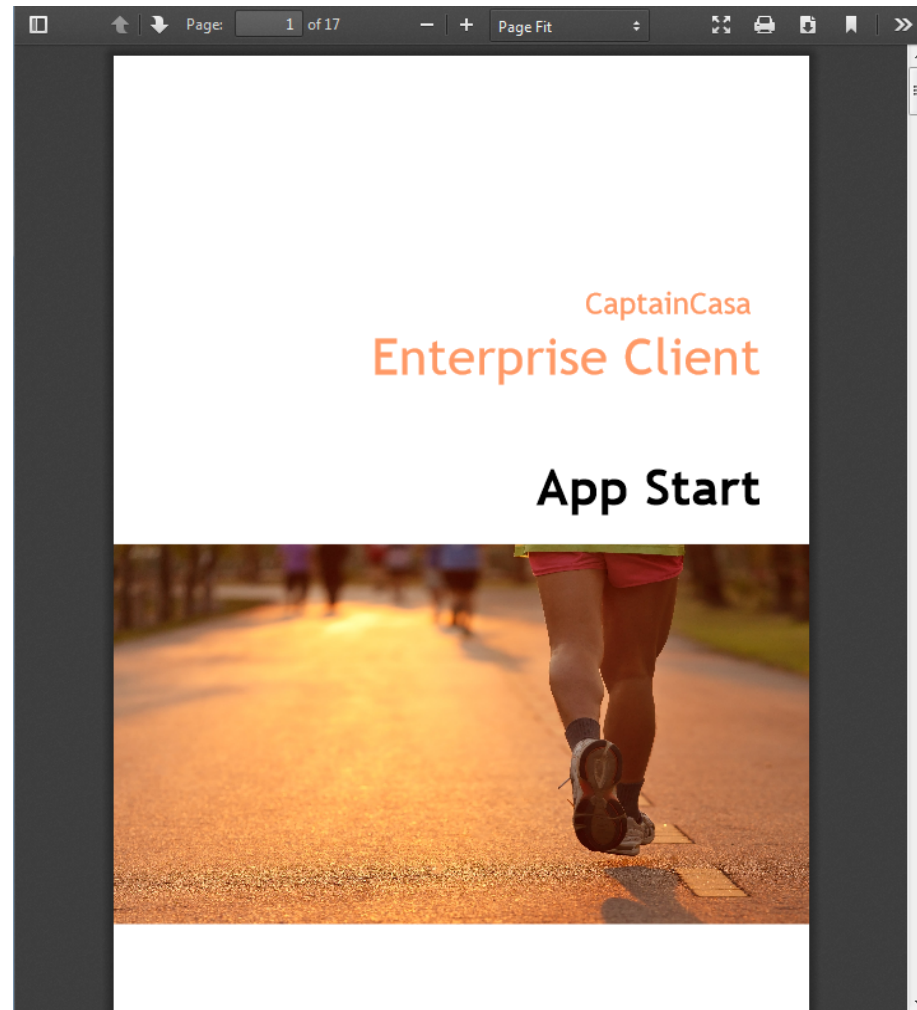
Tooltip Popups



SCROLLNOTIFIER



Applet, WebStart, AppStart



2014 Incubator



Embedded Mini Server

- CaptainCasa als Fat Client...
- Hintergrund
 - Tomcat 7*, 8* unterstützt nicht mehr den embedded Mode



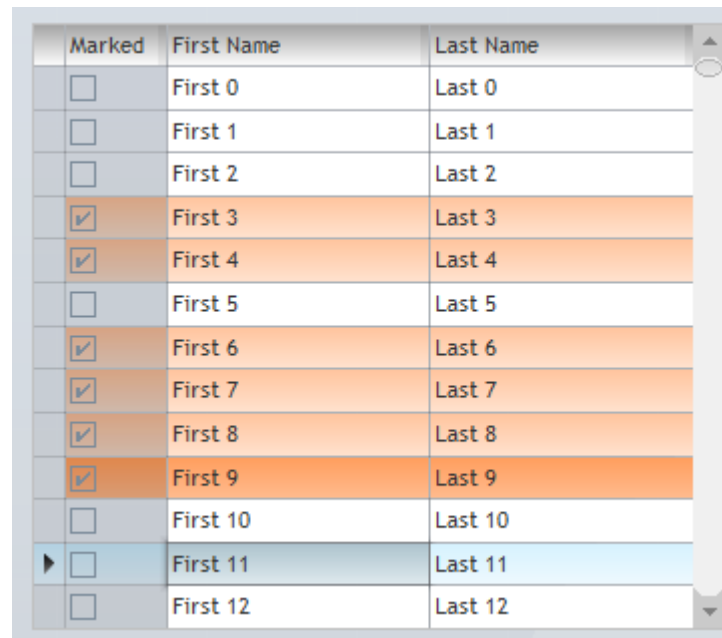
Direct Client Update



2014 Best Practices (Pain Points)



FIXGRID - SELECT \Leftrightarrow MARKED



Marked	First Name	Last Name
<input type="checkbox"/>	First 0	Last 0
<input type="checkbox"/>	First 1	Last 1
<input type="checkbox"/>	First 2	Last 2
<input checked="" type="checkbox"/>	First 3	Last 3
<input checked="" type="checkbox"/>	First 4	Last 4
<input type="checkbox"/>	First 5	Last 5
<input checked="" type="checkbox"/>	First 6	Last 6
<input checked="" type="checkbox"/>	First 7	Last 7
<input checked="" type="checkbox"/>	First 8	Last 8
<input checked="" type="checkbox"/>	First 9	Last 9
<input type="checkbox"/>	First 10	Last 10
<input checked="" type="checkbox"/>	First 11	Last 11
<input type="checkbox"/>	First 12	Last 12

LONGPOLLING - einer für alle

The screenshot displays the CaptainCasa Enterprise Client interface. On the left is a navigation pane with a tree view under the 'General' category. The selected item is 'One Long Polling for different Events'. The main area shows a demo window titled 'One Long Polling for different Events' with a close button. The demo window has three tabs: 'Demo', 'Layout XML', and 'Server side Java Code'. The 'Demo' tab is active, showing a list of events and a text box with explanatory text.

Components

- Containers
- Grids & Trees
- General**
 - ▶ Arranging Pages
 - ▶ Page Bean Binding
 - Page Bean Binding
 - Navigation
 - Opening Dialogs
 - Starting Page Bean in Wokrplace
 - ▶ Dynamic Layout
 - ▶ Asynchronous Processing
 - Timer
 - Call Server on User Inactivity
 - Call Server on Trigger
 - Long Polling
 - Long Operations
 - One Long Polling for different Eve...
 - ▶ Adapter Binding
 - ▶ Focus / Tab Sequence
 - ▶ Client Clipboard
 - ▶ Tool Tips / User Hints
 - ▶ Extended Calendar
- Add-ons

One Long Polling for different Events

Demo | Layout XML | Server side Java Code

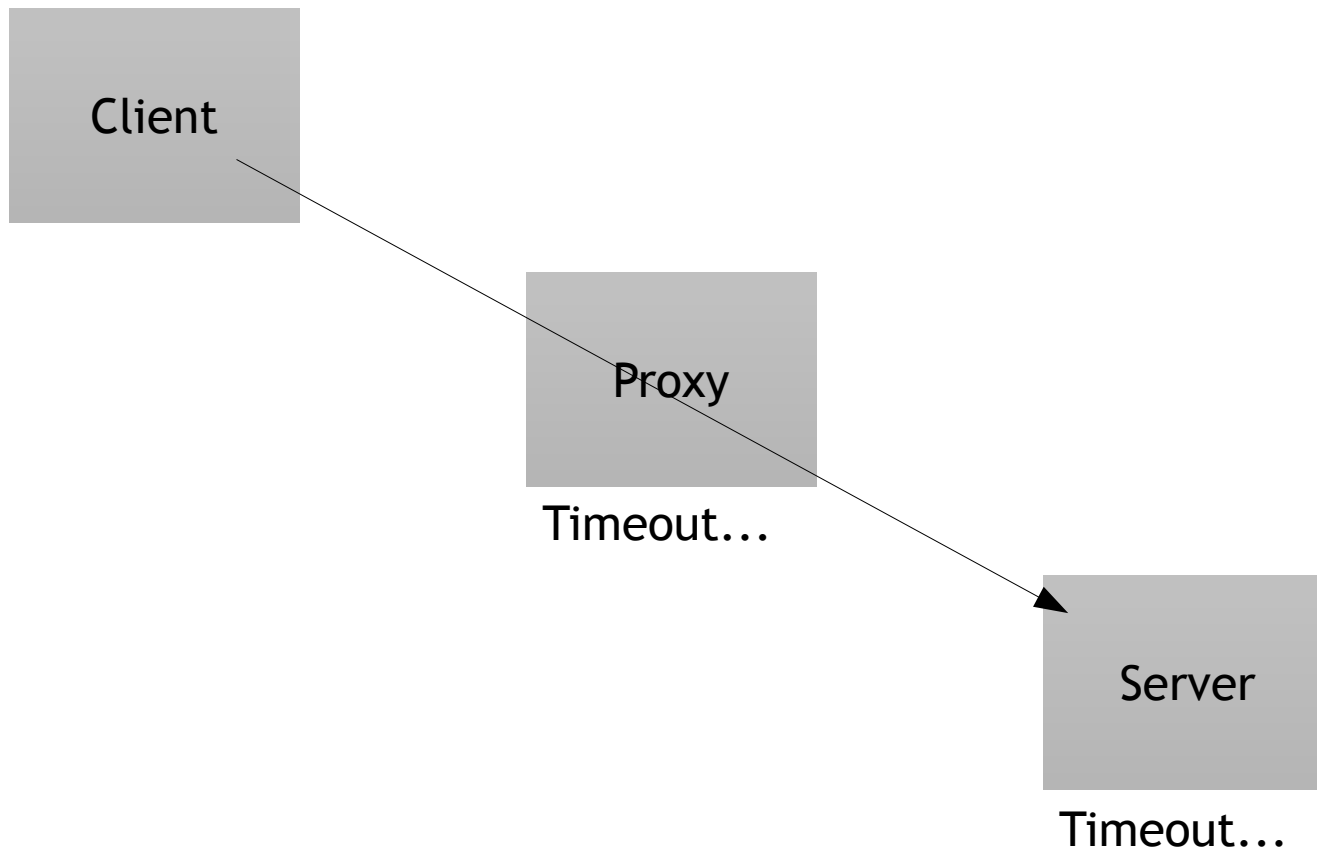
Event: Event1 Creator: Event1 - 1
Event: Event1 Creator: Event1 - 2
Event: Event1 Creator: Event1 - 3
Event: Event2 Creator: Event2 - 1
Event: Event1 Creator: Event1 - 4
Event: Event1 Creator: Event1 - 5
Event: Event1 Creator: Event1 - 6
Event: Event2 Creator: Event2 - 2
Event: Event1 Creator: Event1 - 7
Event: Event1 Creator: Event1 - 8
Event: Event1 Creator: Event1 - 9
Event: Event2 Creator: Event2 - 3
Event: Event1 Creator: Event1 - 10

Instead of having many LONGPOLLING components that work in parallel (each one reserving one connection!) it makes sense to have some central LONGPOLLING component and do all the asynchronous eventing via this component.

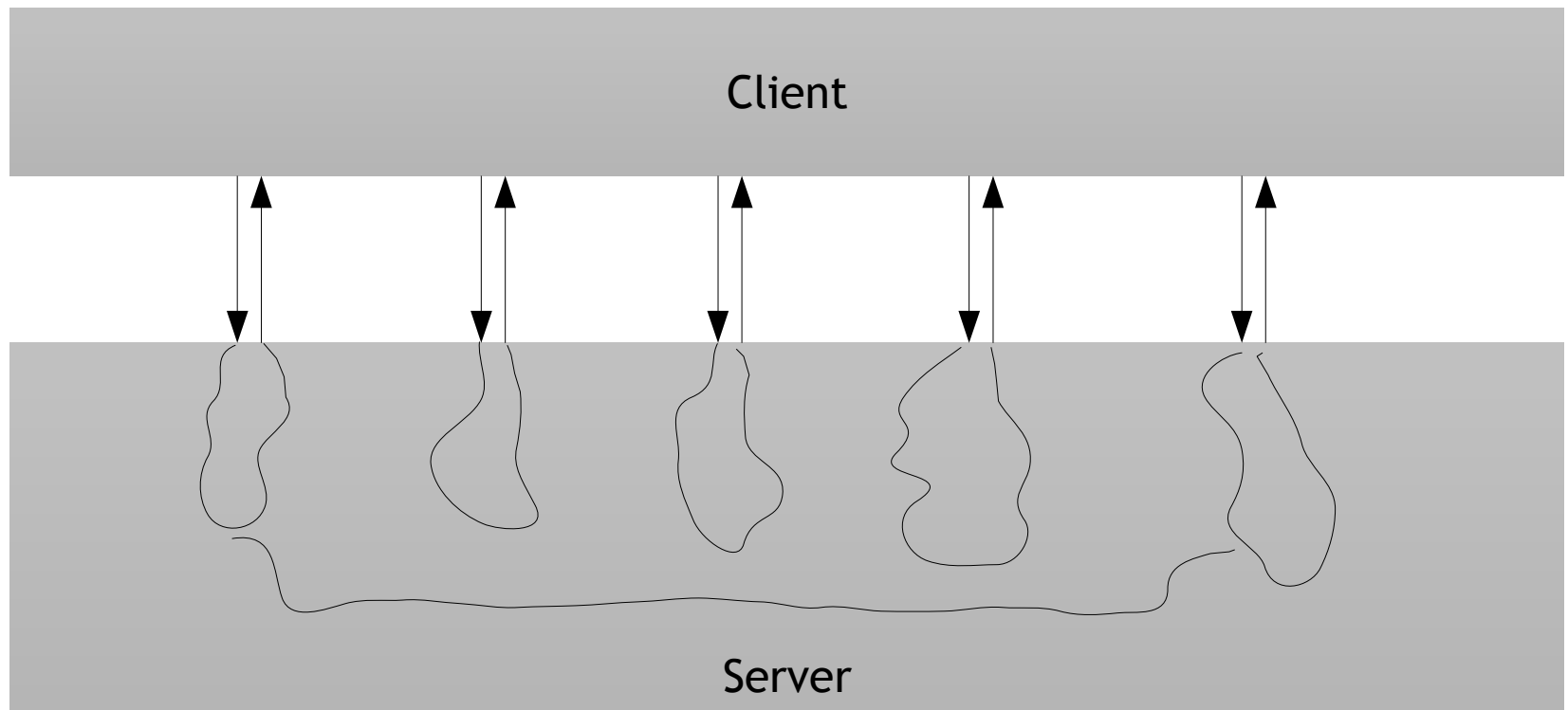
In the example there are two different events (simulated by two threads firing server side events), that use one LONGPOLLING. The events are queued into one event queue (m_events), when passing an event then the LONGPOLLING is triggered in order to invoke the client.

Please carefully note the usage of "synchronized" within the processing the events in the vector "m_events"!

LONGPOLLING - keepAlive()

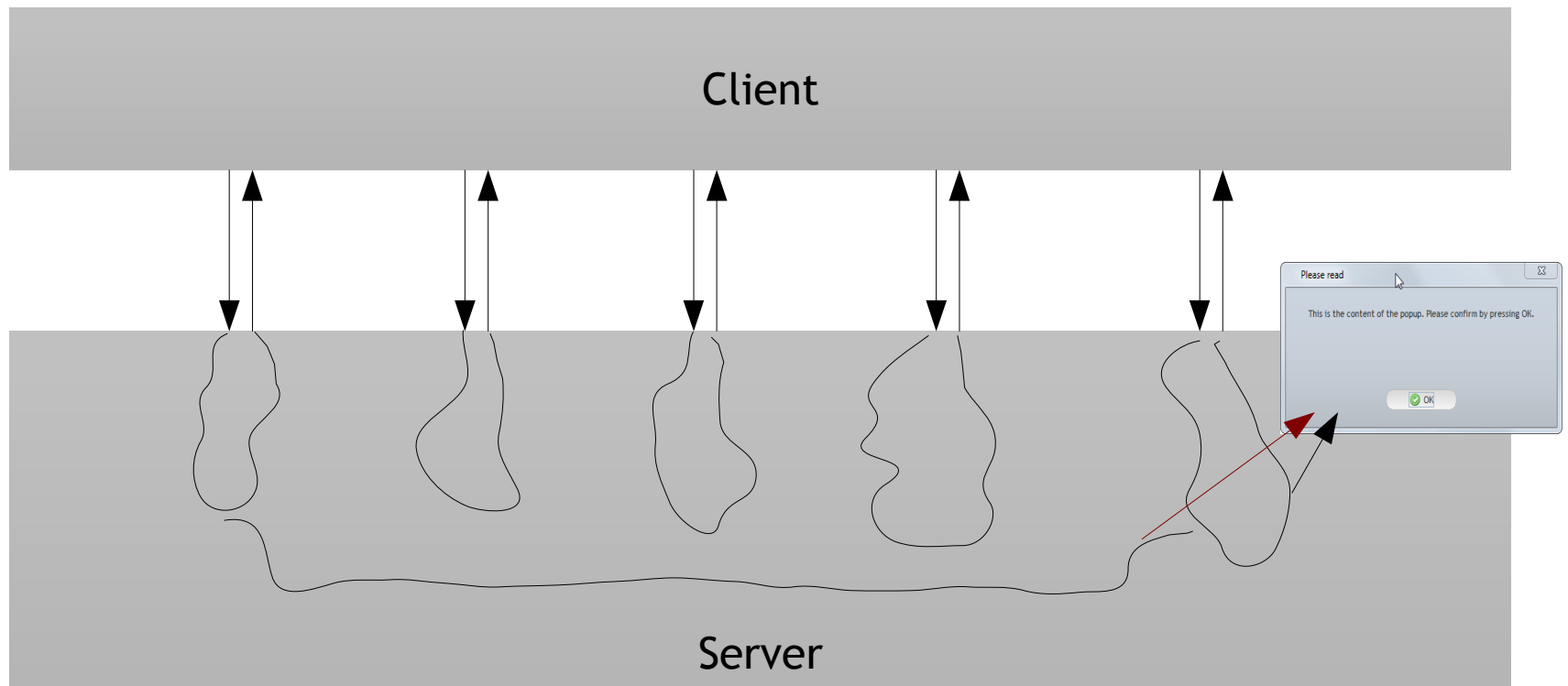


Asynchrone Verarbeitung



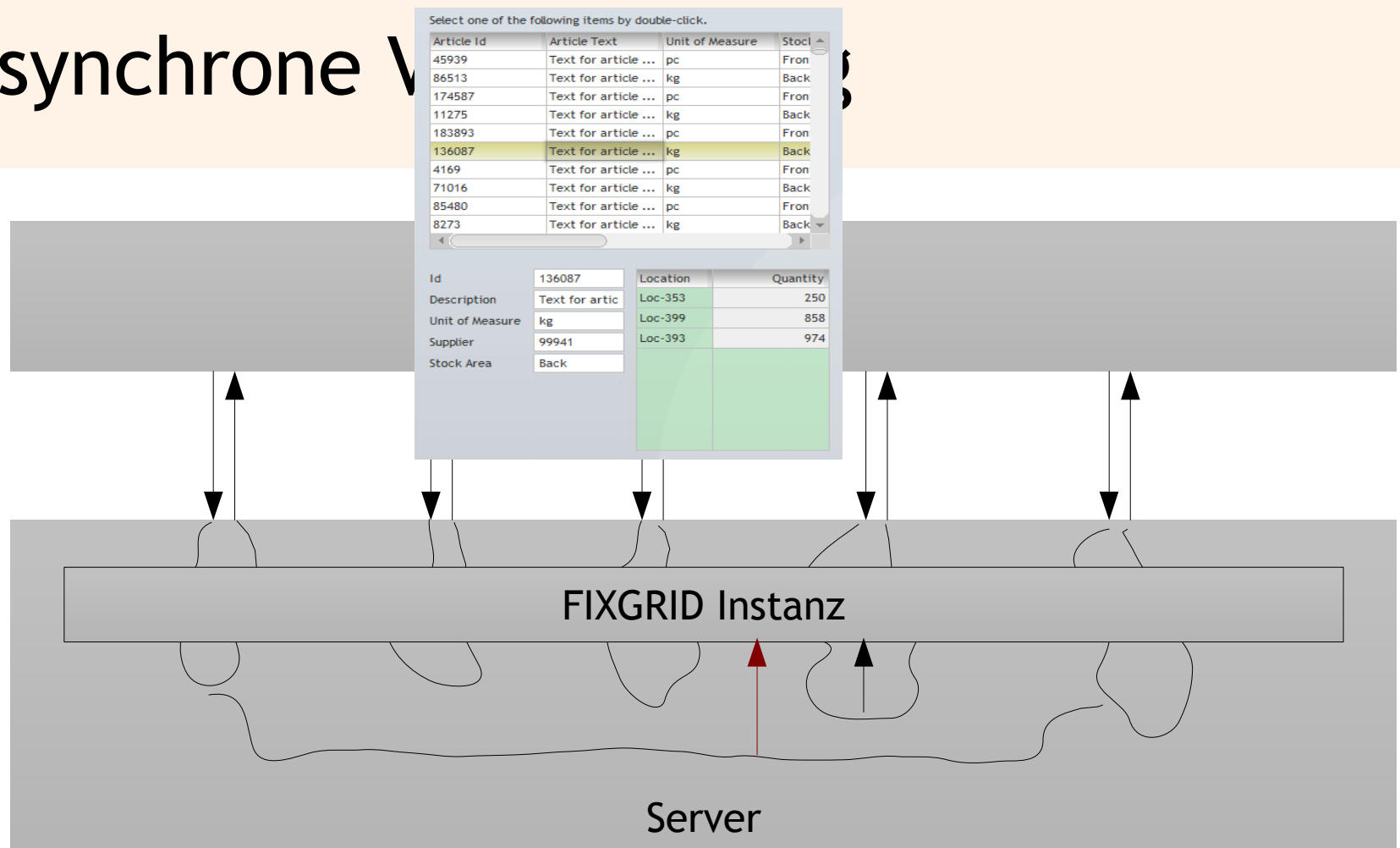
- Aufpassen beim Verändern von UI-nahen Objekten
- Aufpassen beim Aufrufen von UI-Interfaces...

Asynchrone Verarbeitung



- Aufpassen beim Verändern von UI-nahen Objekten
- Aufpassen beim Aufrufen von UI-Interfaces...

Asynchrone V



- Aufpassen beim Verändern von UI-nahen Objekten
- Aufpassen beim Aufrufen von UI-Interfaces...

FORMATTEDFIELD „bigdecimal“

Float Value

333.333.331.968

Big Decimal (3 always)

333.333.333.333,1

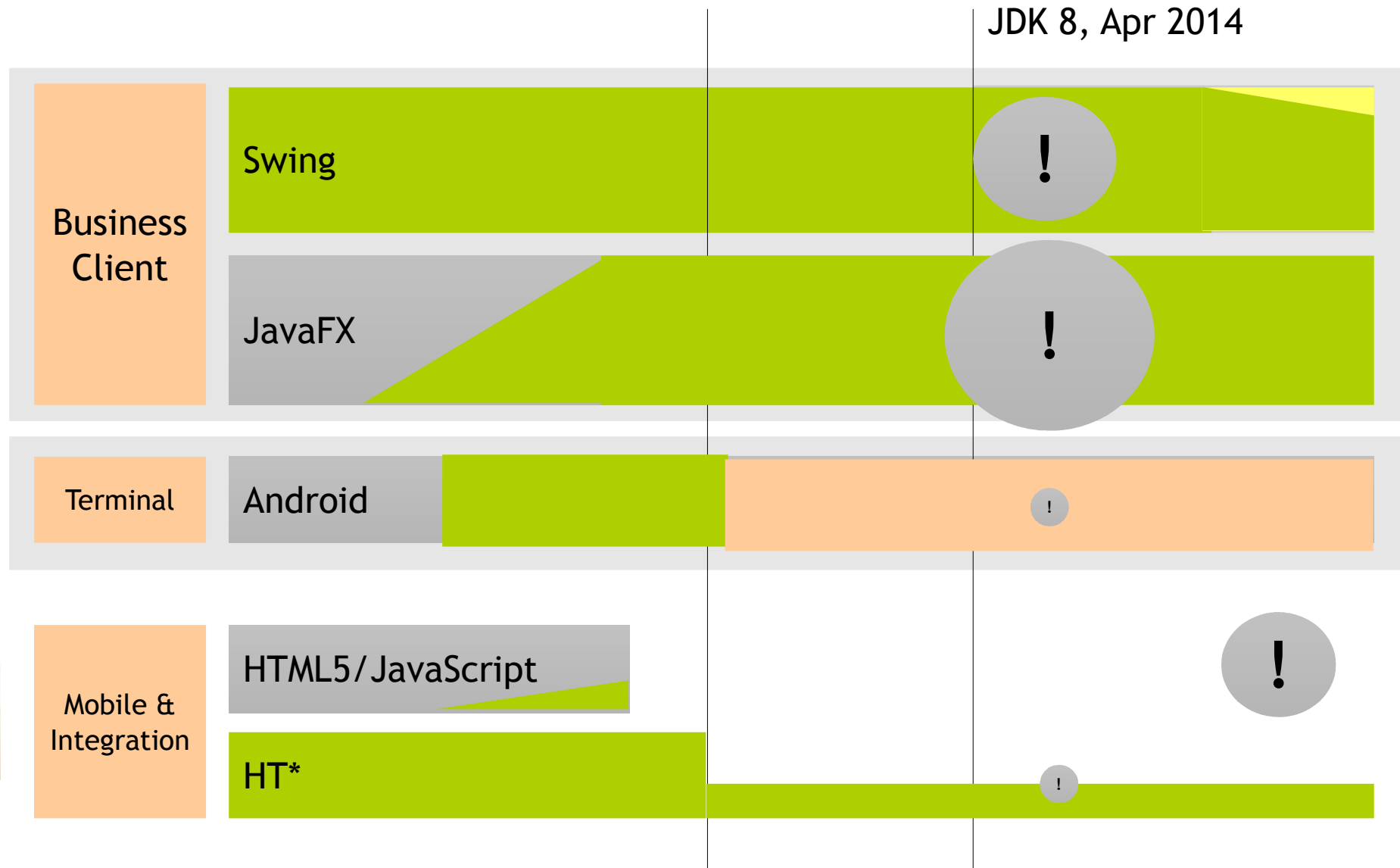


2015 Planung



Status Quo

JDK 8, Apr 2014



CaptainCasa Enterprise Client

Business Client

Swing

JavaFX

SAP UI5 based

Project driven

Mobile & Integration

SAP UI5 based

HT*



Community Veranstaltungen

- ? Wandertag
- ? Wilder Kaiser Klettersteig Tag
- ? CaptainCasa@Tablet/Phone - Kurs
- XI. Community Treffen
 - Donnerstag 03.12.2015

(korrigiert: hier stand ursprünglich 10.12.2015)

