

jpro



THE FUTURE IS FUN!

Herzlich Willkommen!



**Matthias
Hänel**

CEO & FOUNDER OF
onexip GmbH & jpro technologies AG



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Heute

aktuelle Crossplattform Applikationen bestehen aus **vielen Technologien**

- viele verschiedene Technologien
- Applikationen nutzen mehrerer Technologien
- Unterschiedliche Technologien für Desktop, Mobile und Web Applikationen
- Zu viel non-shareable code



Wir müssen das ändern.

Team Geschichte

people bring up **great solutions**



Hans-Henry Sandbaek

CEO & Founder
Sandec Media AG



Florian Kirmaier

CTO & Founder
Sandec Media AG



Tobias Bley

CTO & Founder
onexip GmbH



Matthias Hänel

CEO & Founder
onexip GmbH

Zusammen sind wir

people bring up **great solutions**



Wie ändern wir diese Situation?



Desktop Support

JavaFX runs on **Windows**, **Mac** and **Linux**



Windows

Windows Vista, 7, 8, 8.1 and 10 support



Mac OS X

OS X 10.7.4 and later



Linux

any newer glibc 6 based Linux



IOT Support

JavaFX runs on **embedded ARM systems**



IoT
embedded ARM
Linux support



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Mobile Support

JavaFX with Gluon works on iOS and Android



Android

Android 4 and newer

iOS

iOS

iOS 6 and newer



Gluon



Quality

same code on all platforms



Future safety

new platforms emerging?



Custom Design

possible mobile themed
FXML for each platform

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for the Web

Wir nennen es einfach ...

The logo for 'jpro' is displayed in a large, bold, black sans-serif font. The letter 'j' has a solid black dot. The letter 'o' at the end of the word has a small teal triangle pointing to its right side. Below the letters 'p', 'r', and 'o' is a horizontal bar composed of three colored segments: light green, yellow, and red.



Beispiel Desktop Applikation

UltraMixer on Desktop is great



DJ Software

deployed to million computers wold wide



Reusable libraries

reusing code is one of the major advantages of the Java ecosystem on Desktop



Porting it to JavaFX

Re-implementing the entire Software

Deployment UltraMixer

UltraMixer on the Web is the future



Launch

Crossplattform Technologie für Java

JavaFX läuft auf Desktop, Mobile und Web



CalendarFX



Fashion Shop



Scenbuilder

18



Tetris



MyLeporello



Showcase

jpro shows its power in those demos

jpro it is already used in some real world applications. More follow in the next months.

See <http://jpro.io/?page=demos>

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jpro

How does the magic work?

native **cross platform** support mit JavaFX



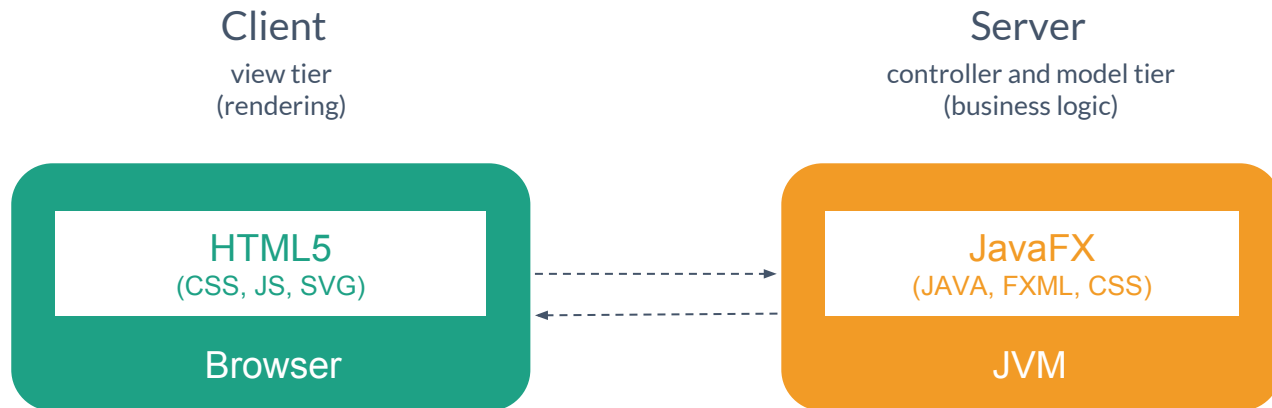
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jpro

jpro Architektur

thin client model



JavaFX Architektur

Inside JavaFX

JavaFX Public APIs and Scene Graph

Quantum Toolkit

Prism / Glass Windowing Toolkit / Media Engine / Web Engine

Java 2D / OpenGL / D3D

JDK API Libraries & Tools

Java Virtual Machine

jpro Architektur

Inside jpro

JavaFX Public APIs and Scene Graph

The logo for jpro, featuring the lowercase letters 'jpro' in a bold, black, sans-serif font. The letter 'o' is stylized with a teal triangle pointing to its right side. Below the letters is a horizontal bar divided into three segments: green, yellow, and red.

JDK API Libraries & Tools

Java Virtual Machine

jpro architecture

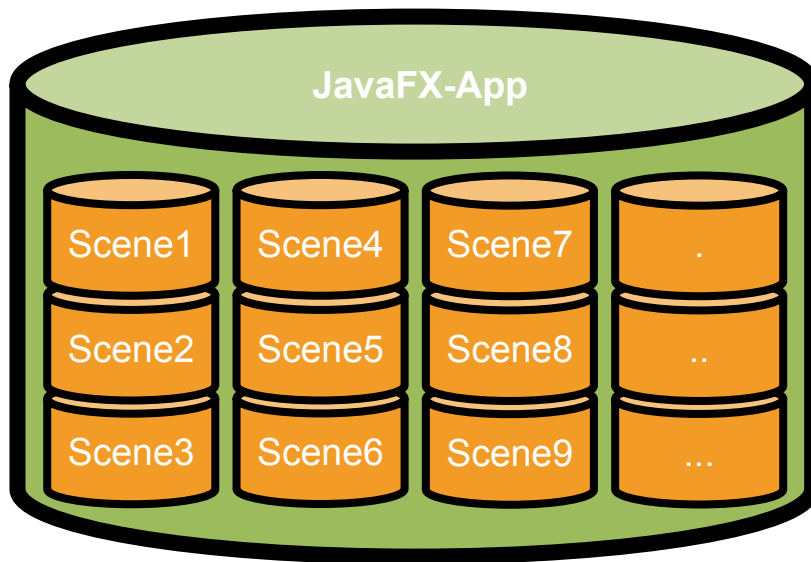
Inside jpro



jpro Serverarchitektur

Inside jpro

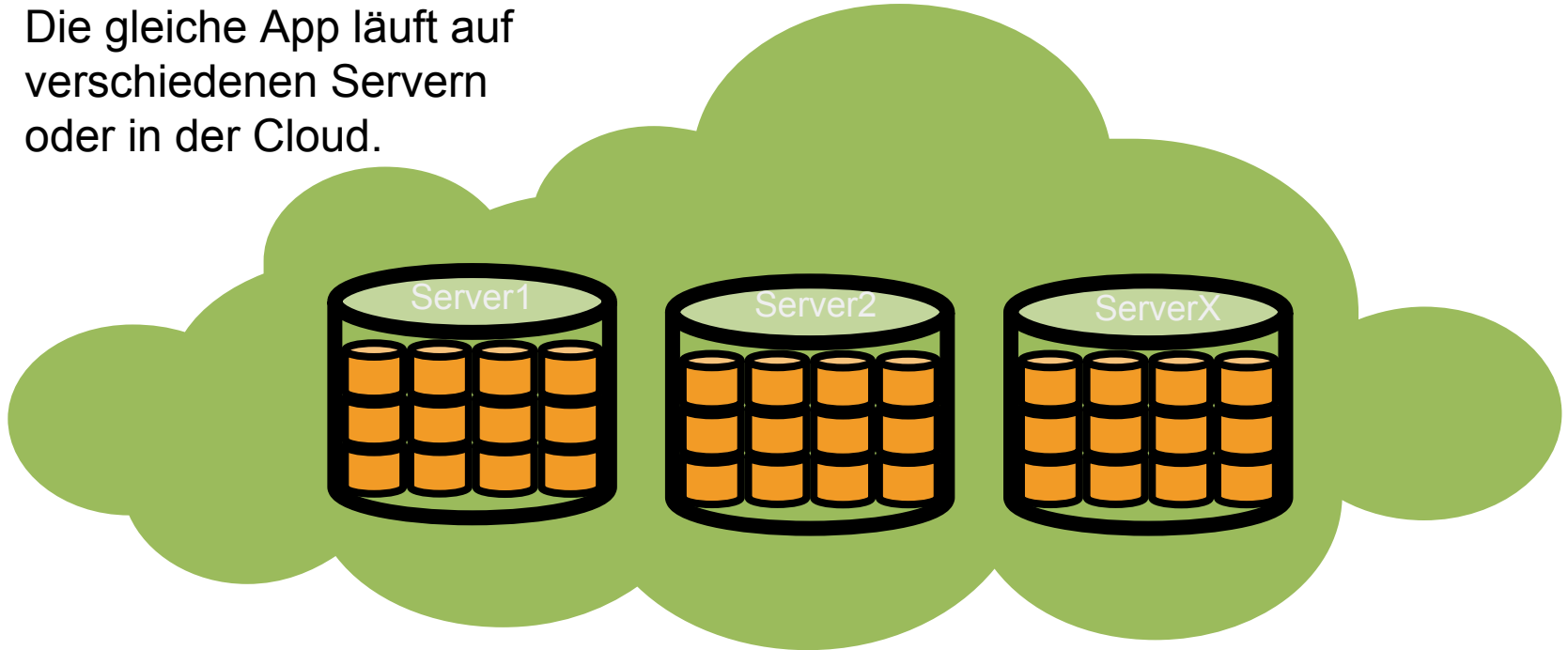
- JavaFX läuft auf dem Server
- eine Scene Instanz pro Nutzer



jpro Serverarchitektur

Inside **jpro**

Die gleiche App läuft auf verschiedenen Servern oder in der Cloud.



Möglichkeiten der Architektur

inside **jpro**



Browser Voraussetzungen

Inside *jpro*

- Aktueller Browser
- Websocket Support
- Aktiviertes JavaScript



Server Technologien

Voraussetzungen für `jpro`



Linux

beyorzugt:
Ubuntu



Gradle

> Version 2.14



Java 8

Oracle JDK 8

Entwicklung mit jpro

jpro app mit Sourcecode starten (z.B. während Entwicklung)

- Gradle-Script erzeugen (build.gradle + settings.gradle)
- Ordner-Struktur erzeugen

```
/src
```

```
  /main
```

```
    /java
```

```
    /resources
```

```
  /test
```

```
    /java
```

```
    /resources
```

- Deployment:

Gradle scripts und src-folder zum Server hochladen

Kommandozeile: `gradle runBrowser` oder `gradle restartServer`



Entwicklung mit jpro

Automatisch erzeugte jpro Pfade

- <http://localhost:8080/test/default>
- <http://localhost:8080/test/fullscreen/default>



Selbst definierte jpro Pfade

- Selbst definierte und zugreifbare Ressourcen liegen in: „resources/jpro/html“
- z.B. resources/jpro/html/index.html
- Zugriffe per <http://localhost:8080/index.html>

von JavaFX zu jpro



- ✓ static Attribute und Methoden (`static`) meiden
Ausnahme: alles was zwischen allen Nutzern geteilt wird
- ✓ Preferences in der Cloud speichern (z.B. database, jclouds)
- ✓ Dateizugriff ändern (Upload/ Download)
- ✓ “Save as...” neu definieren. Entweder als Download oder Speichern in die Cloud
- ✓ `System.exit(0)` und `Toolkit.exit()` entfernen

jpro WebAPI

- ✓ Platform switches (`isDesktop()` / `isBrowser()`)
- ✓ Upload/Download Files
- ✓ Ausführen und eval JavaScript
- ✓ Register JavaScript Variables
- ✓ Register Java Callbacks
- ✓ Cookies zugreifen

The screenshot displays the documentation for the `com.jpro` package. It features a navigation bar at the top with links for `PACKAGE`, `CLASS`, `TREE`, `DEPRECATED`, `INDEX`, and `HELP`. Below the navigation bar, there are links for `PREV PACKAGE`, `NEXT PACKAGE`, `FRAMES`, and `NO FRAMES`. The main content area is divided into two sections: **Interface Summary** and **Class Summary**. The **Interface Summary** section lists the `ScriptResultListener` and `WebCallback` interfaces. The **Class Summary** section lists the `JProApplication`, `WebAPI`, and `WebAPI.FileUploader` classes. On the left side of the screenshot, there is a sidebar titled **All Classes** listing the same classes and interfaces.

Interface	Description
<code>ScriptResultListener</code>	
<code>WebCallback</code>	

Class	Description
<code>JProApplication</code>	
<code>WebAPI</code>	
<code>WebAPI.FileUploader</code>	

best practice

mit [jpro](#)



User Interface paradigm

e.g. rethink web or app metaphors



Responsive Design

GUI adjustment for different devices



application states/pages

like Ajax applications, defining URLs, which direct to defined states in a application like home, purchase, pricing etc.



develop resource-aware

e.g. cache images, save effects, optimise CSS rules, prevent memory leaks



Run JS Code in the Browser

in case of performance optimizations

www.jpro.io



Run performance tests

e.g. JMeter with Web-Driver or Cloud services like loader.io

```
jpro.handsOnCode ();
```

Quellcode

show case



“Hello JPro”
skinned by CSS
Controller Class



Tag Code
embed “Hello JPro”
Demo with <jpro>

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Real World Applikation

Web page jpro.io

[HOME](#)[LIVE DEMOS](#)[SIGN UP](#)[DOCS](#)[COMPANY](#)

JavaFX in the Browser

NO PLUGINS - EVERYWHERE - JPRO

jpro is a new technology which brings Java back into the browser - without Java Plugin. To achieve that, jpro runs JavaFX on the server and maps its scenegraph directly into the browser. The client side rendering is highly optimized with browser side approximations to get a smooth user experience free of lags.

[LIVE DEMOS](#)

By the way... this website is made in JavaFX ;)

Don't believe it? Click these buttons!

[SWITCH TO JAVAFX THEME](#)[SHOW JAVAFX CODE](#)

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Real World Applikation

Web page jpro.io



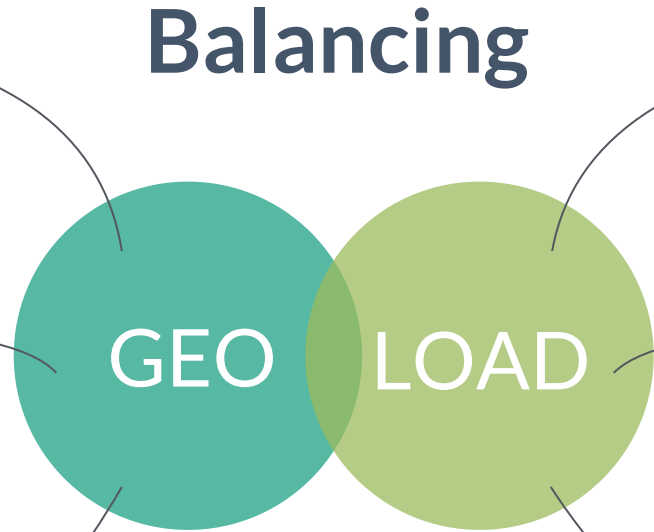
Europe
Server 1: Frankfurt



America
Server 2: California



Asia
Server 3: Sydney



Server 1



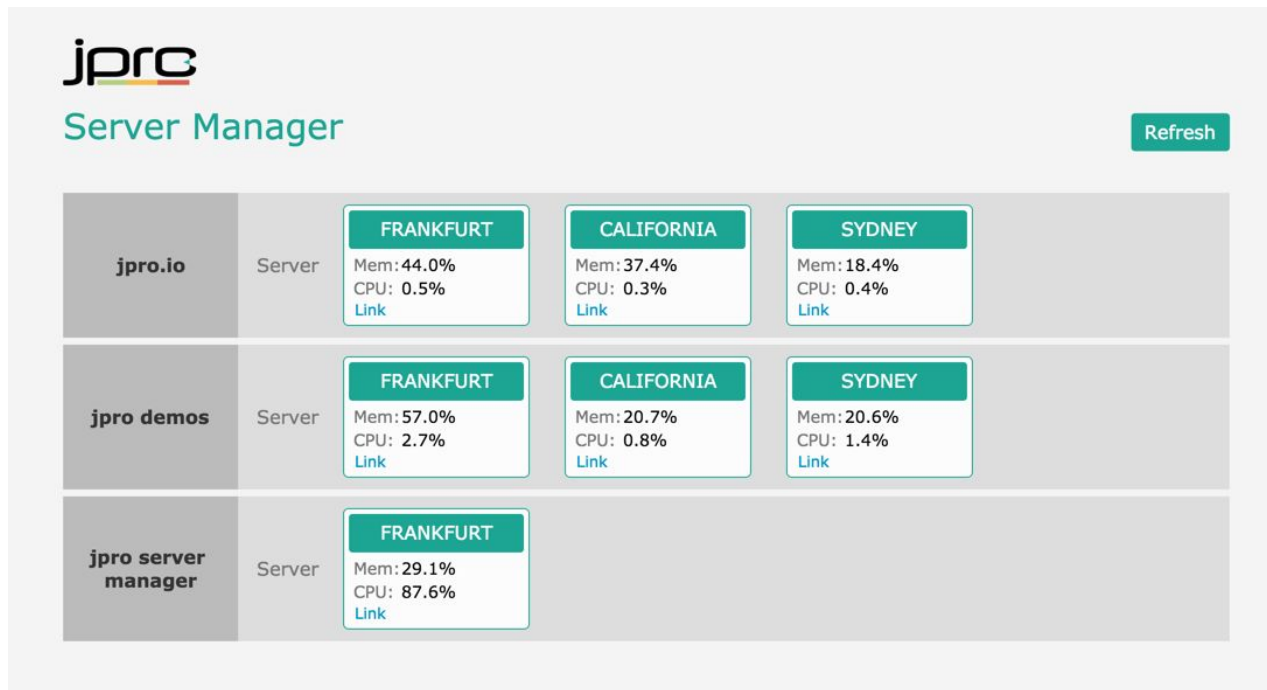
Server 2



Server N

Real World Applikation

Web page jpro.io



Hosting

3x Amazon EC2 t2.large

Geo-Balancing over DNS

Port-Forwarding for
www.jpro.io
(Port 80 => 8080)

jpro = Web 3.0



Unsere Philosophie

sumup everything



W.O.R.A.

Wiederverwendung von
Source Code
sharing is caring



scale easily

serverseitiges Scaling



IP Protection

Geistiges Eigentum ist
geschützt



zentrale Updates

software updates finden
auf dem Server statt



fast development

Eine Sprache (Java),
common tools (Maven,
Gradle, Jenkins)



Crossplattform deployment

Deployment auf alle
Plattformen (Desktop,
Mobile, Web)



being a great team

java und Crossplattform
Enthusiasten

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Roadmap

Projekt **Status**

First Alpha

Demos, Beispiele
Ende 2015

Closed Beta

Viele neue Demos
Early Bird Customers
Sommer 2016

Selected Early Birds

Community Demos
Integration in Web Services

Open Release

Ende Juni 2017

Erste TeaVM version

Anfang 2018



SIGN UP!



jpro.io/?page=signup



KAFFEE PAUSE ?

.....

....



ONE MORE THING?

.....
Go to

multiview.jpro.io

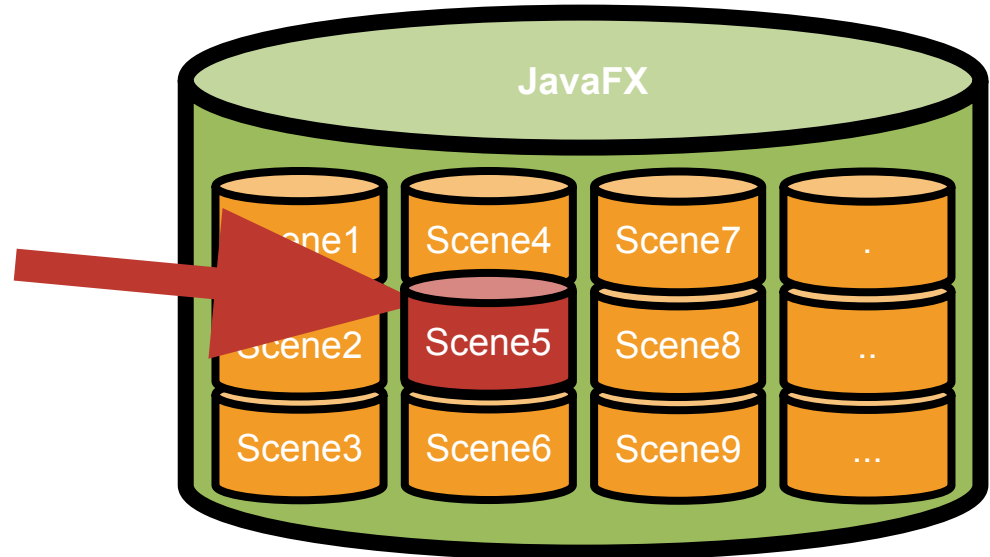
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MultiView?

one more **thing**

- single Scene
- Scene zu mehreren Nutzern routen





VIELEN DANK!



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Q & A?

.....

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