

JavaFX 8



BestSolution

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Agenda

- Short Intro to JavaFX
- News in JavaFX8
 - New APIs
 - New Platforms
- SceneBuilder 2.0
- The Ecosystem around JavaFX
- JavaFX8 on Mobile Devices (Android & iOS) ???

Basics about JavaFX

- **JavaFX8 IS**

- part of OpenJDK
- fully open sourced - e.g. font system has been rewritten to use native technologies to render fonts (DirectWrite, CoreText, Pango)
- part of Oracle JDK8 and found on the extension class path

- JavaFX8 **IS NOT**

- JSRed and hence not part of every Java8 compatible VM (e.g. ibm)
- part of any OSGi-EE e.g. JavaSE-1.8 EE
- on the **bootclasspath** but on the **extension** classpath hence not visible by default to some OSGi implementation (e.g. Equinox)

What is JavaFX

- JavaFX is a graphics toolkit
 - built around a SceneGraph in contrast to Direct Mode toolkits like Swing and SWT
 - uses hardware acceleration if possible
 - OpenGL on Mac OSX, Linux and Embedded (and mobile)
 - DirectX on Windows platform
 - including multimedia support to embed videos and audio

Milk glass demo

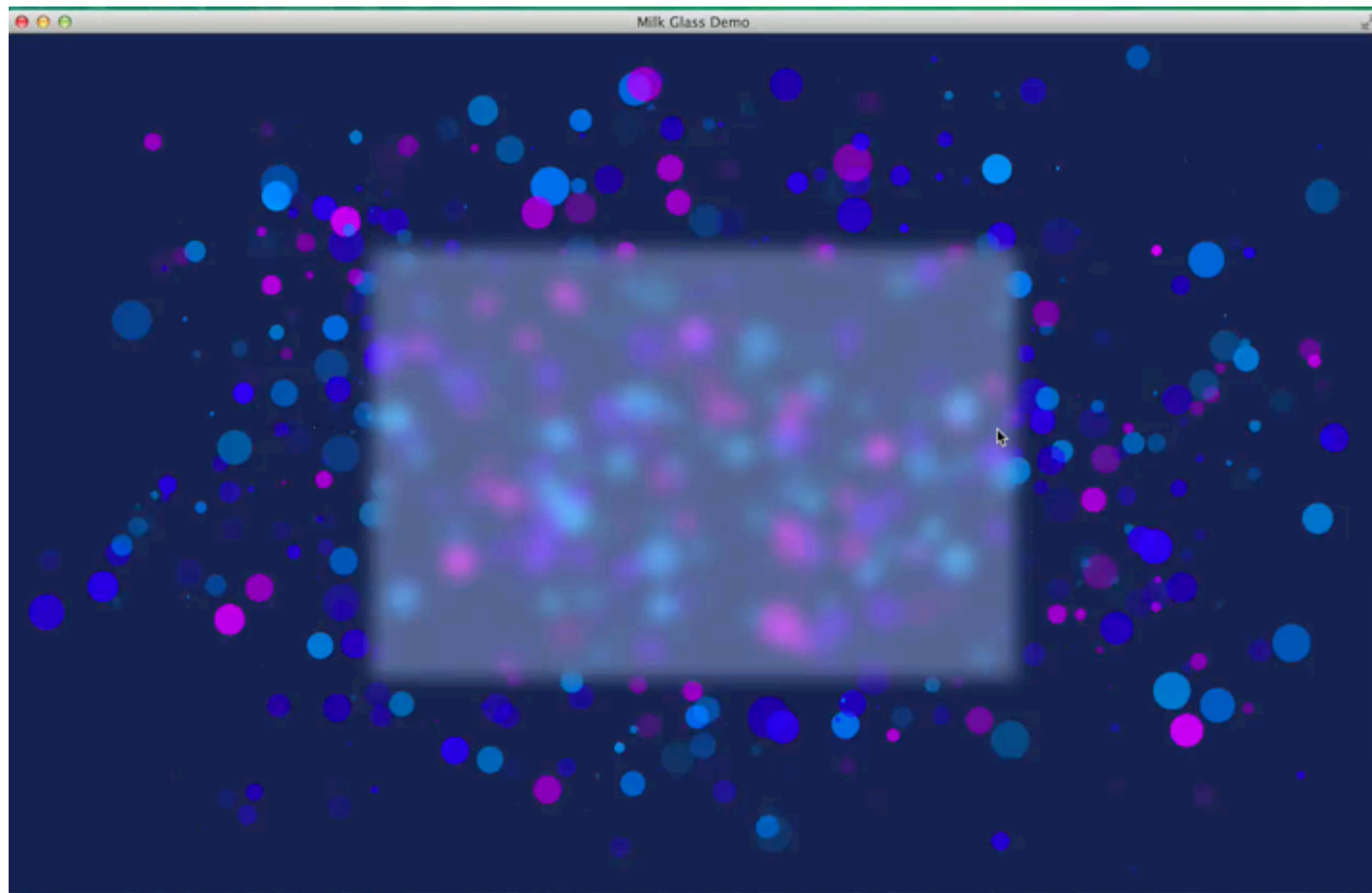


Image Rollover



What is JavaFX

- JavaFX has a pure Java API
- supports a declarative languages to

- construct ap

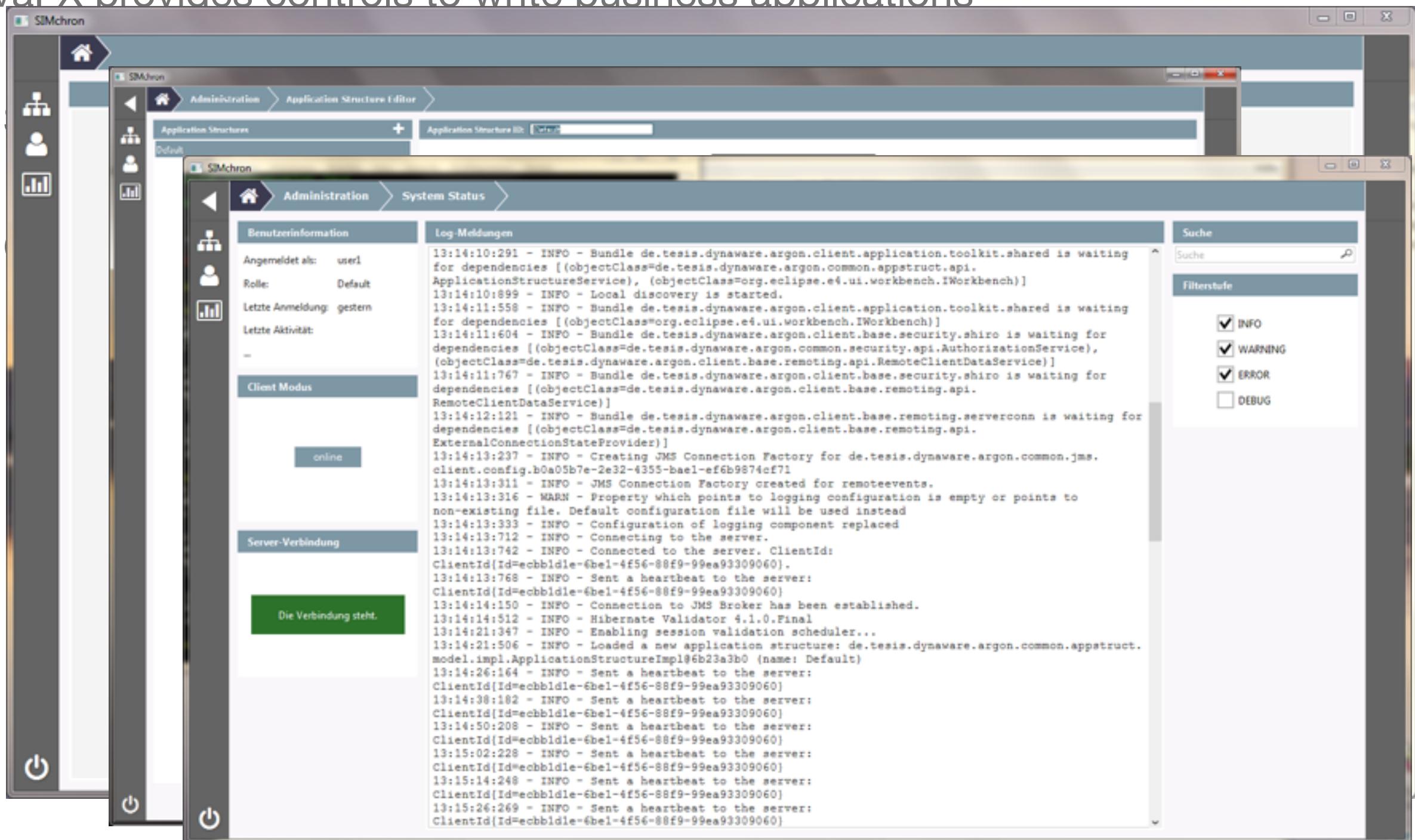
```
<BorderPane xmlns:fx="http://javafx.com/fxml">  
  <center>  
    <Button fx:id="mybutton" text="Hello World">  
  </center>  
</BorderPane>
```

- theme applications name

```
.button {  
  -fx-background-color: red;  
  -fx-border-radius: 10px;  
}
```

What is JavaFX

- JavaFX provides controls to write business applications

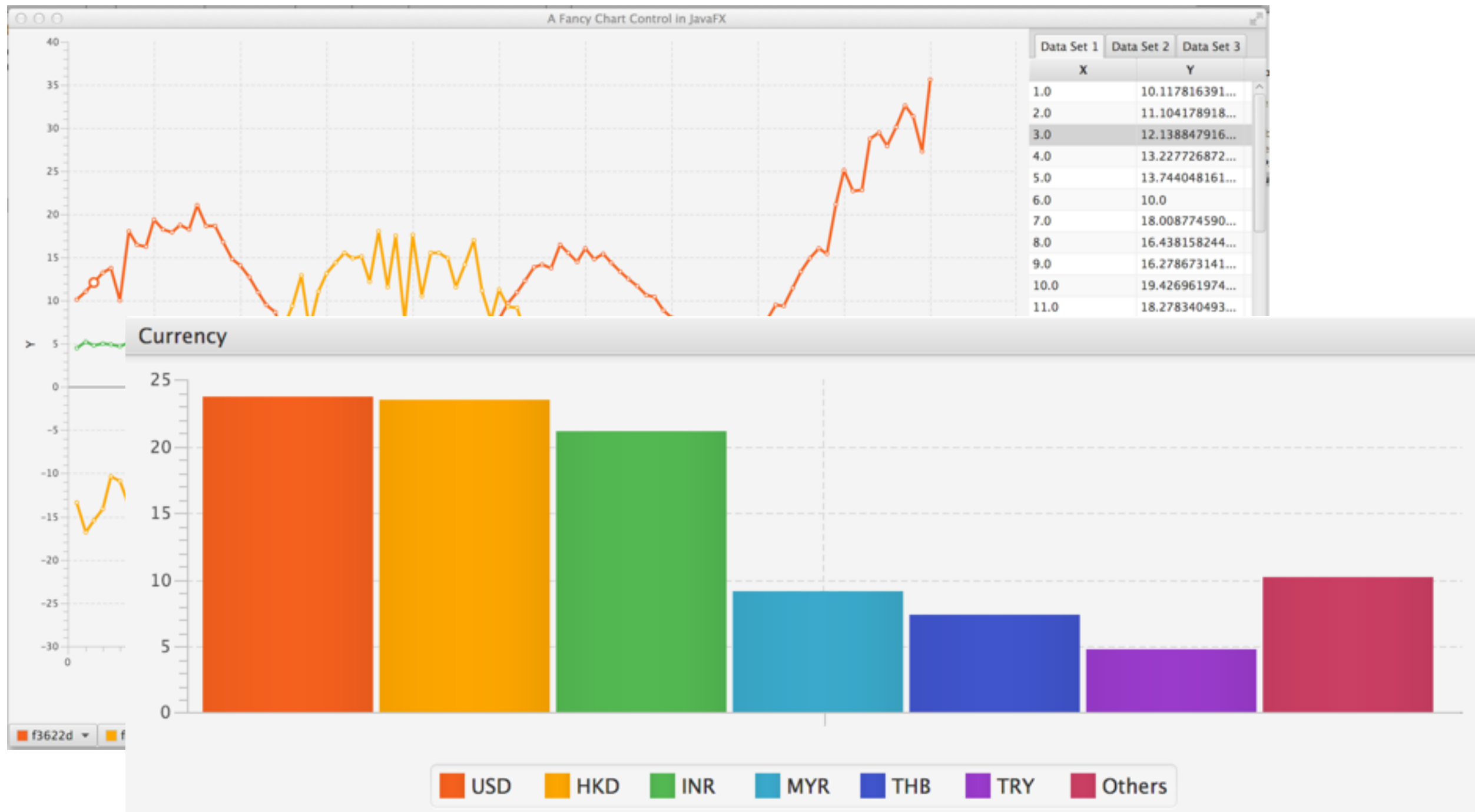


MyFond Application Demo



What is JavaFX

- JavaFX provides a charting library



Fancy Chart Demo



News in JavaFX8

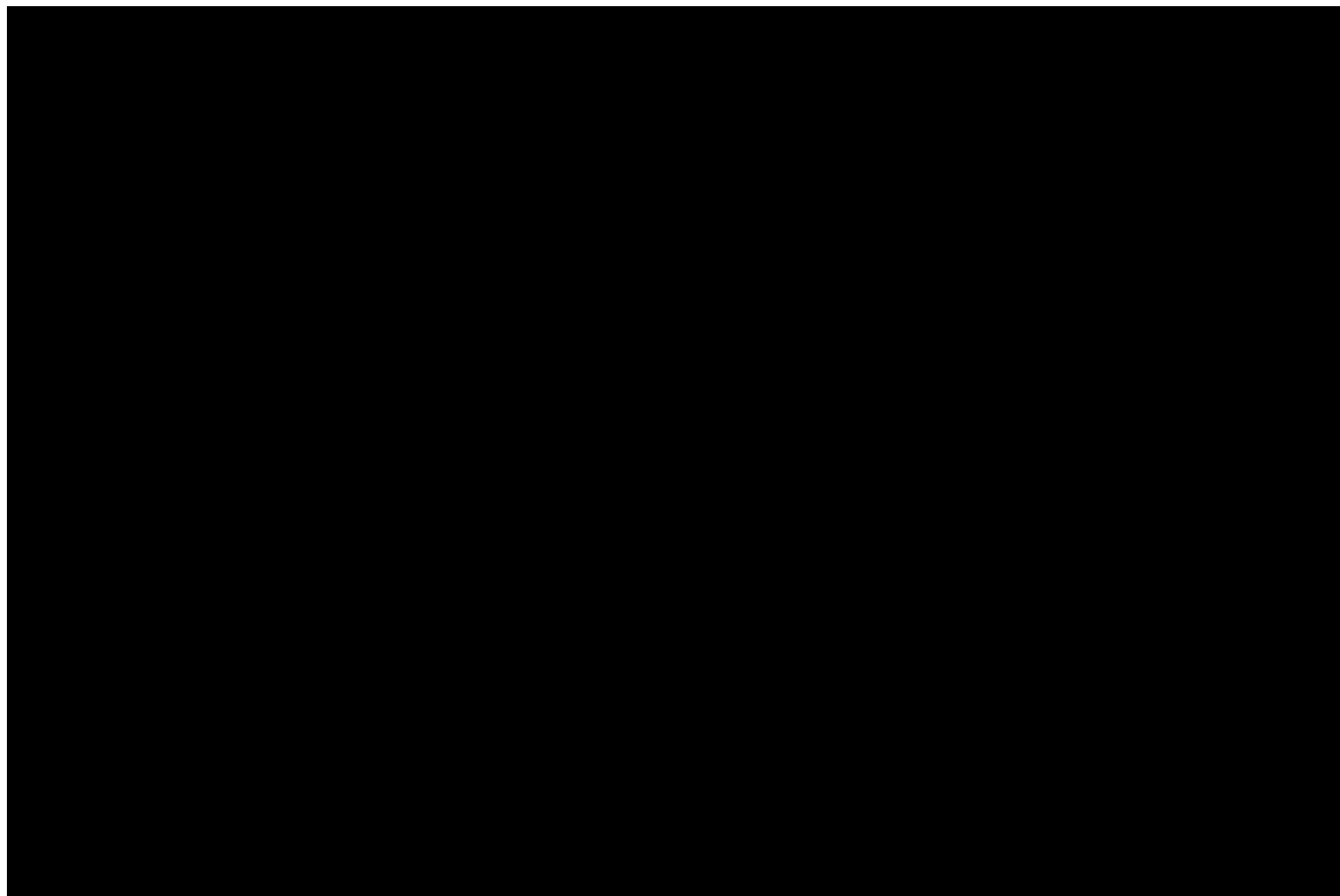
- Make contributions more easy
 - Build system moved from ant to gradle

```
user@host > hg clone http://hg.openjdk.java.net/openjfx/8u-dev/rt
user@host > gradle sdk
```
 - Project layout for all major IDEs part of repo
- Make usage more easy
 - Provide JavaFX source code as part of the JDK download
- Support for all platforms is shipped on the same day (=today)

New APIs

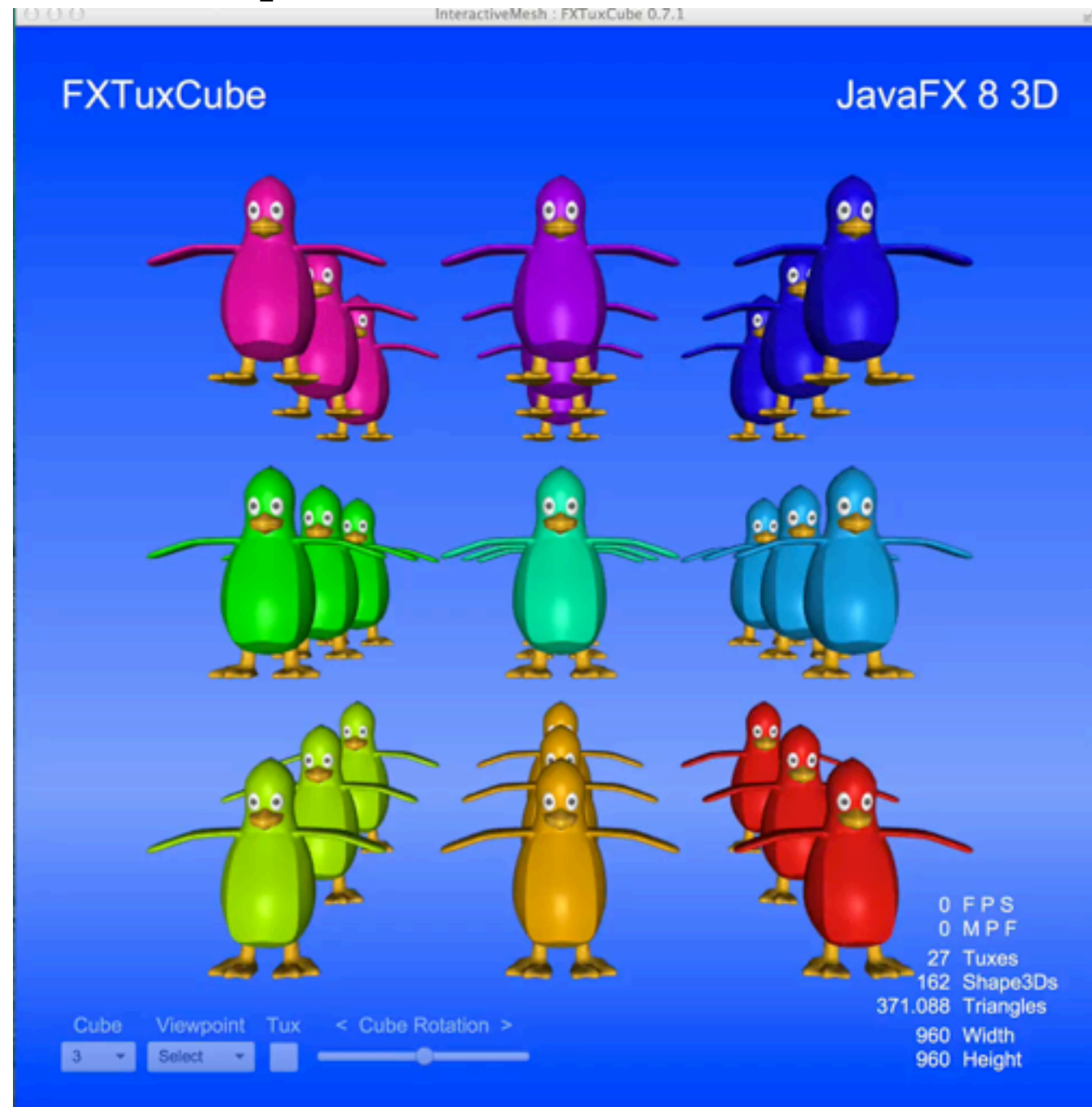
- Control (some samples)
 - TabFolder - added support to cancel tab closing
 - TextFlow - layout (text) nodes in an HTML like model
 - TreeTable
- Collections
 - Filterable & Sortable collections

TabFolder & TextFlow in action



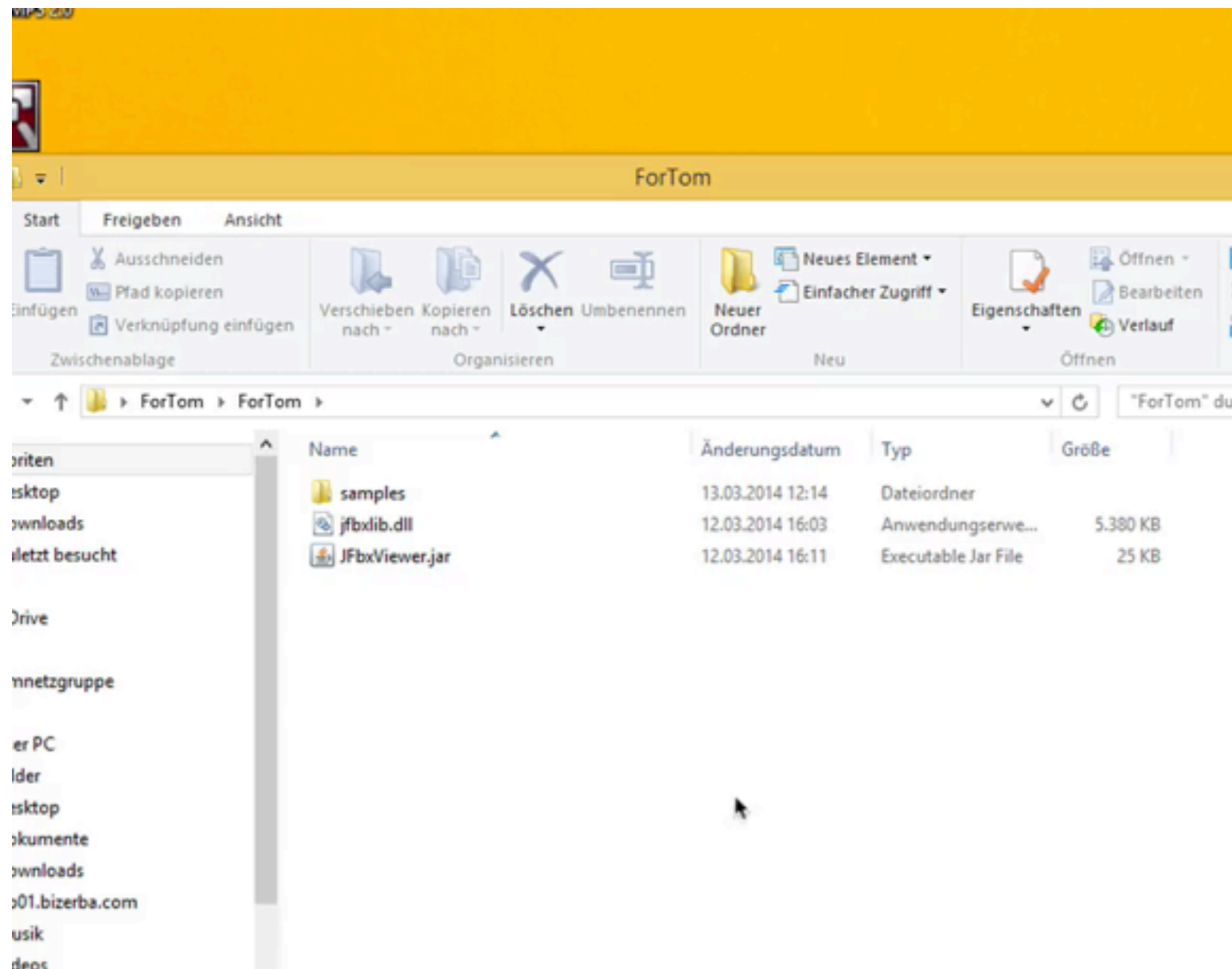
Full 3D support added

Demo Tux - <http://www.interactivemesh.org>



Full 3D support added

Demo Autodeskimporter by TesisDynaware



<https://github.com/tesis-dynaware/fbx-importer>

New platforms

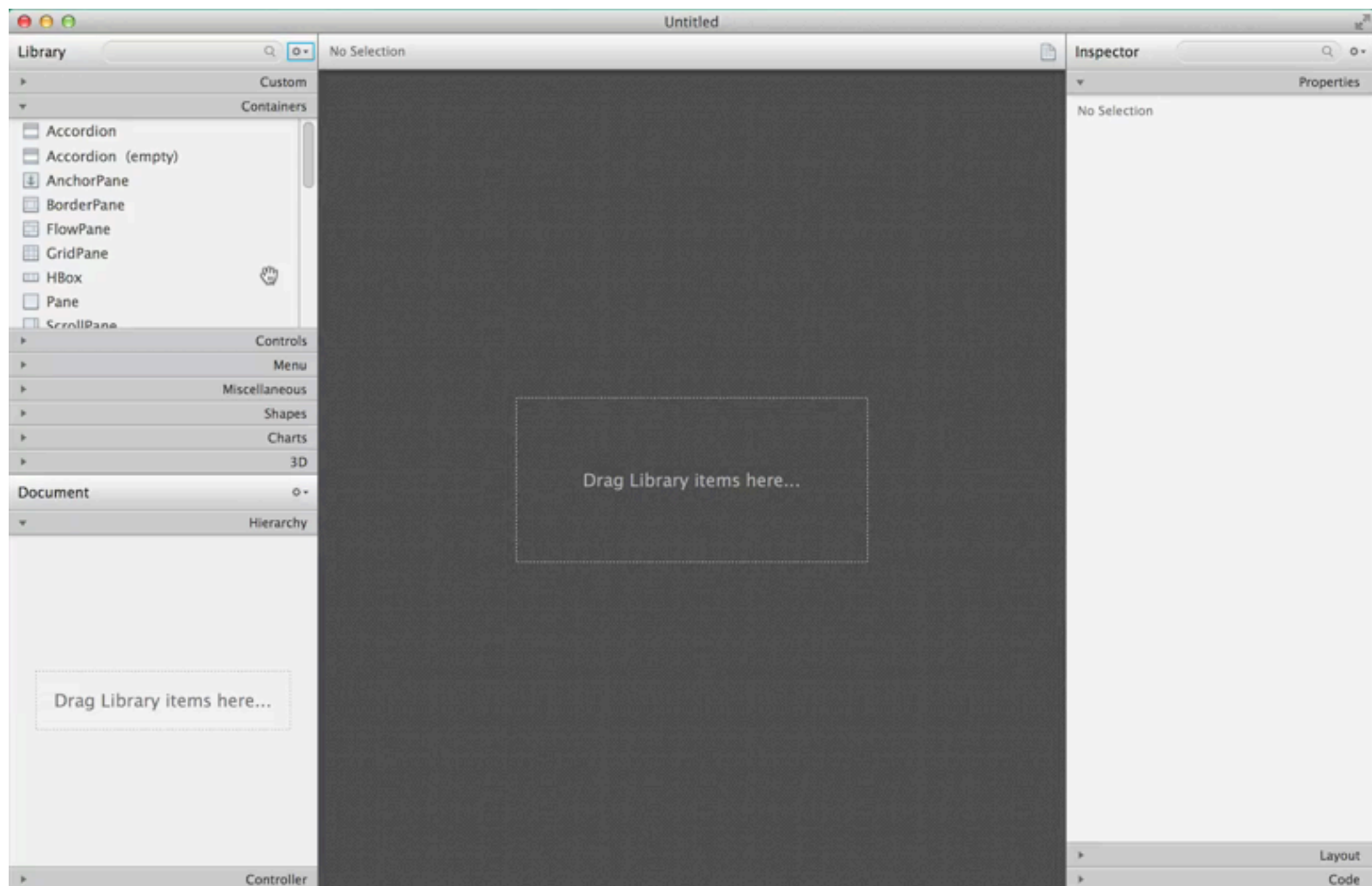
- OpenJDK8 & OpenJFX8 are provided for ARM platforms
 - Reference Platform Raspberry Pi

Raspberry Pi Demo

SceneBuilder 2.0

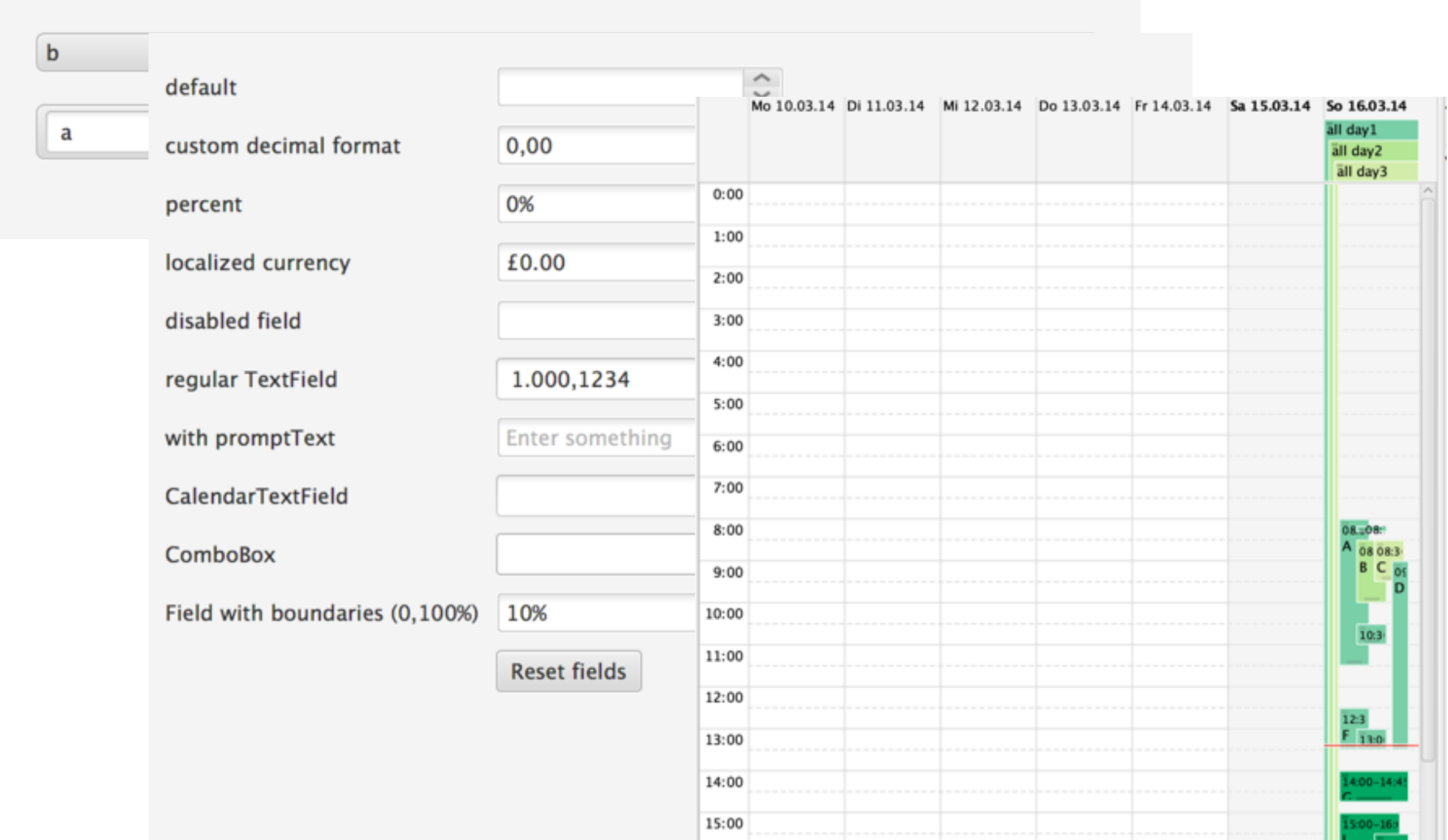
- Source code got released under BSD
- Provides an API to embed into own applications
- Has a new Dark Theme
- Supports custom components

SceneBuilder Demo



JavaFX ecosystem - JFXExtras

- Provides Extra Controls not available in JavaFX Core e.g. a spinner control



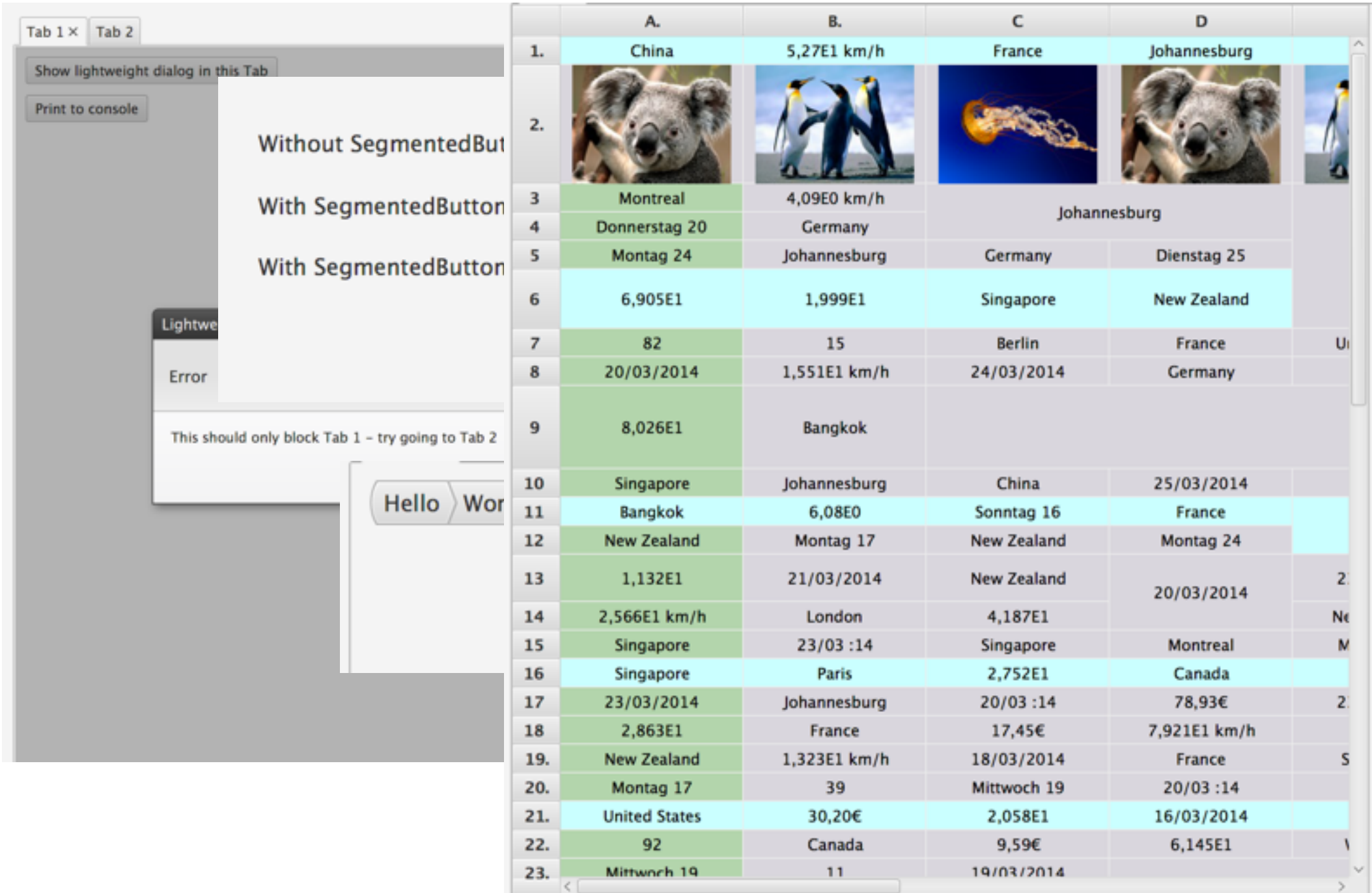
The screenshot displays a collection of JavaFX controls from the JFXExtras library on the left, and a Gantt chart on the right. The controls include:





- default**: A standard text field.
- custom decimal format**: A text field showing "0,00".
- percent**: A text field showing "0%".
- localized currency**: A text field showing "£0.00".
- disabled field**: A disabled text field.
- regular TextField**: A text field showing "1.000,1234".
- with promptText**: A text field with the placeholder text "Enter something".
- CalendarTextField**: A text field for date selection.
- ComboBox**: A dropdown menu.
- Field with boundaries (0,100%)**: A text field showing "10%", with a "Reset fields" button below it.

The Gantt chart on the right shows a timeline from Monday, 10.03.14, to Sunday, 16.03.14. It features various tasks and events represented by colored bars and labels, such as "all day1", "all day2", "all day3", and "08:00-08:30".

JavaFX ecosystem - ControlsFX

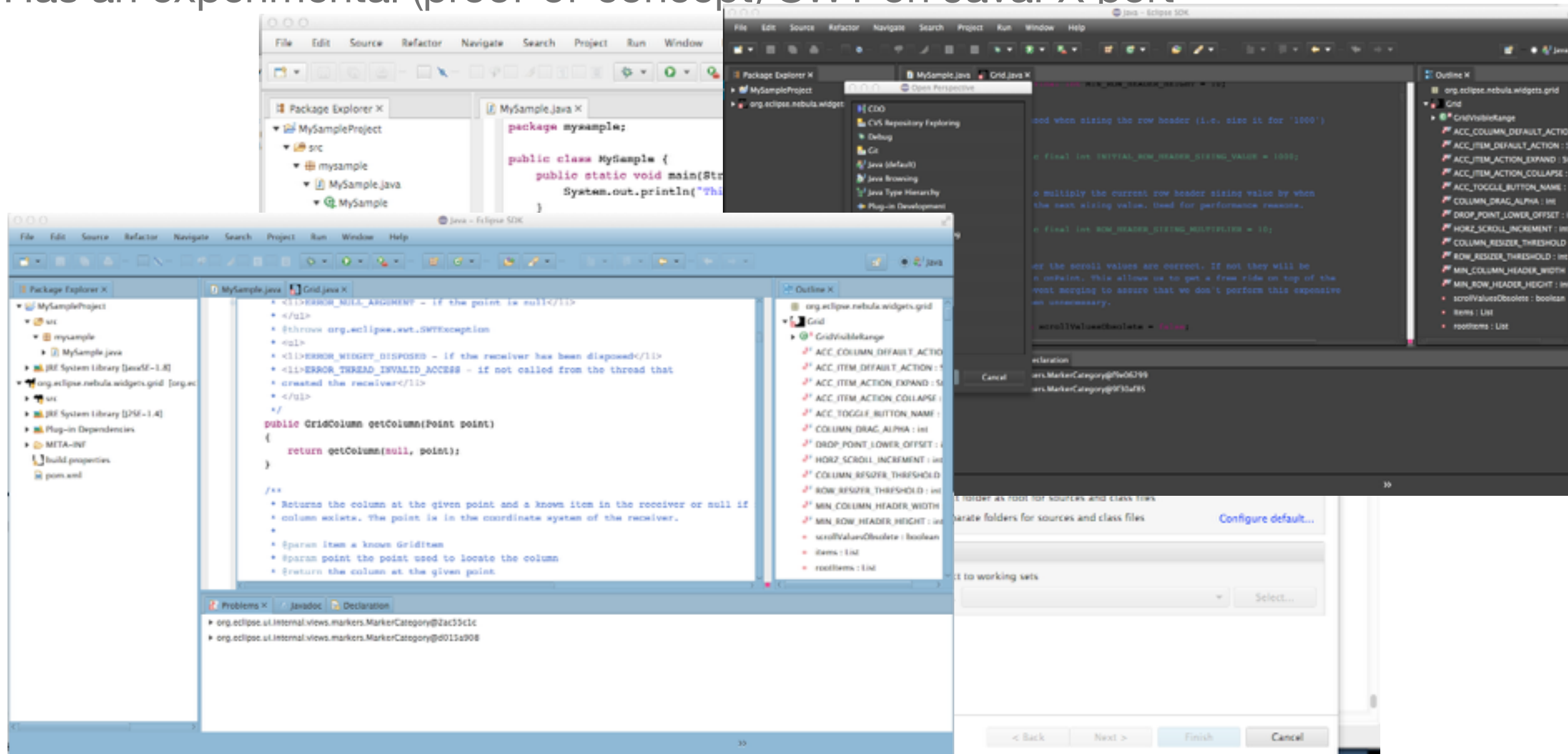
- Provides extra controls not yet part of JavaFX core like e.g. SpreadSheet



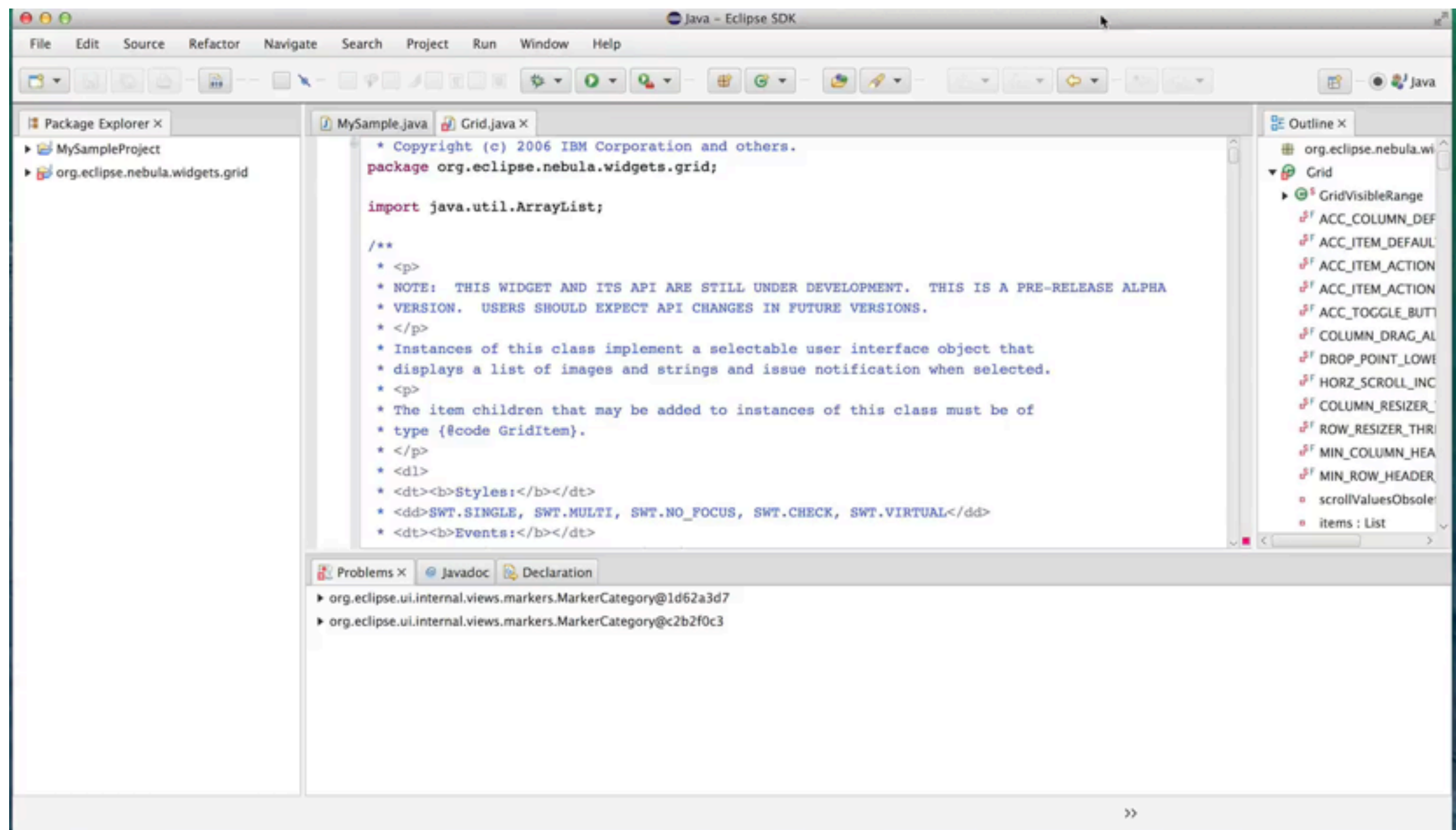
	A.	B.	C	D	
1.	China	5,27E1 km/h	France	Johannesburg	
2.					
3	Montreal	4,09E0 km/h	Johannesburg		
4	Donnerstag 20	Germany			
5	Montag 24	Johannesburg	Germany	Dienstag 25	
6	6,905E1	1,999E1	Singapore	New Zealand	
7	82	15	Berlin	France	U
8	20/03/2014	1,551E1 km/h	24/03/2014	Germany	
9	8,026E1	Bangkok			
10	Singapore	Johannesburg	China	25/03/2014	
11	Bangkok	6,08E0	Sonntag 16	France	
12	New Zealand	Montag 17	New Zealand	Montag 24	
13	1,132E1	21/03/2014	New Zealand	20/03/2014	2
14	2,566E1 km/h	London	4,187E1		Ne
15	Singapore	23/03 :14	Singapore	Montreal	M
16	Singapore	Paris	2,752E1	Canada	
17	23/03/2014	Johannesburg	20/03 :14	78,93€	2
18	2,863E1	France	17,45€	7,921E1 km/h	
19.	New Zealand	1,323E1 km/h	18/03/2014	France	S
20.	Montag 17	39	Mittwoch 19	20/03 :14	
21.	United States	30,20€	2,058E1	16/03/2014	
22.	92	Canada	9,59€	6,145E1	V
23.	Mittwoch 19	11	19/03/2014		

e(fx)clipse - OSGi and Eclipse support

- Provides Equinox OSGi integration
- Has an experimental (proof-of-concept) SWT on JavaFX port



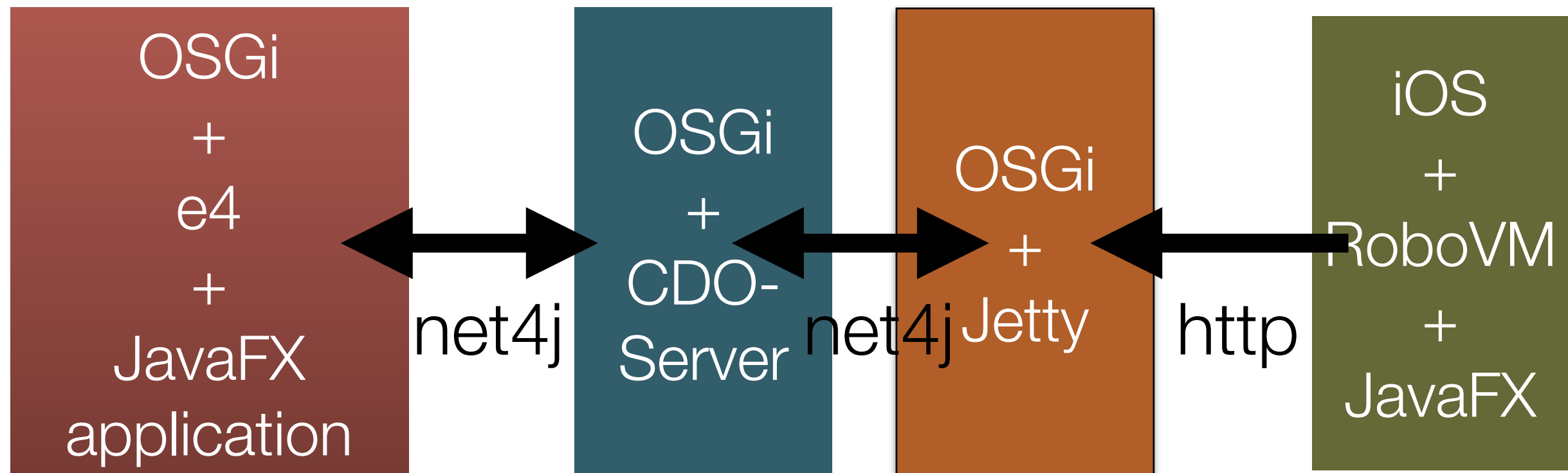
Eclipse on JavaFX Demo



JavaFX Mobile Devices

- JavaFX8 runs on iOS and Android Devices
- No VM provided by Oracle nor official support for JavaFX8 from Oracle
- iOS
 - Running with the help of RoboVM (<http://robovm.org/>)
- Running on Android using Dalvik (<https://bitbucket.org/javafxports/android/wiki/Home>)

iOS Demo setup



Demo JavaFX on iOS

Acknowledgement

- Fancy Chart - Uwe Sander - <http://ustesis.wordpress.com/>
- TESISDynaware - <http://tesis.de/>
 - SIMChron Screenshots
 - Autodesk importer - <https://github.com/tesis-dynaware/fbx-importer>
- Milk Glass Effect - mihosoft.eu
- Image Rollover - Gerrit Grunwald - <https://bitbucket.org/hansolo/imagerollover>
- Tux Sample - <http://www.interactivemesh.org>

Thank You for your attention