

State of Eclipse 4.x

Tom Schindl - BestSolution Systemhaus GmbH, Eric Moffatt IBM

Leuven October 2011

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About Tom

- ❖ CEO BestSolution Systemhaus GmbH
- ❖ Eclipse Committer
 - ❖ e4
 - ❖ Platform UI
 - ❖ EMF
- ❖ Projectlead: UFaceKit, Nebula
- ❖ Member of the Architectual Council



About Eric

- ❖ 30+ GUI experience years
- ❖ Member of Platform UI since 2003
- ❖ Eclipse 4 development lead and e4 committer

A bit of history (and future)

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- ❖ Summer `12: Juno release train will ship on Eclipse 4.2 SDK

Eclipse SDK 3.x vs 4.x

Eclipse 3.x

Eclipse 4.x

Eclipse SDK 3.x vs 4.x

PDE

JDT

Eclipse 3.x

Eclipse 4.x

Eclipse SDK 3.x vs 4.x

PDE

JDT

Platform 3.x

Eclipse 3.x

Eclipse 4.x

Eclipse SDK 3.x vs 4.x

PDE

JDT

Platform 3.x

Equinox

Eclipse 3.x

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Eclipse SDK 3.x vs 4.x

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Eclipse SDK 3.x vs 4.x

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PDE

JDT

Platform 4.x

Eclipse 4.x Application
Platform (RCP 2.0)

Equinox

Eclipse 4.x

Eclipse SDK 3.x vs 4.x

Platform 3.x

jface

core.resources

...

ui.workbench 3.x

Platform 4.x

jface

core.resources

...

ui.workbench 4.x

Eclipse 4
Application Platform

Eclipse 4.1 IDE

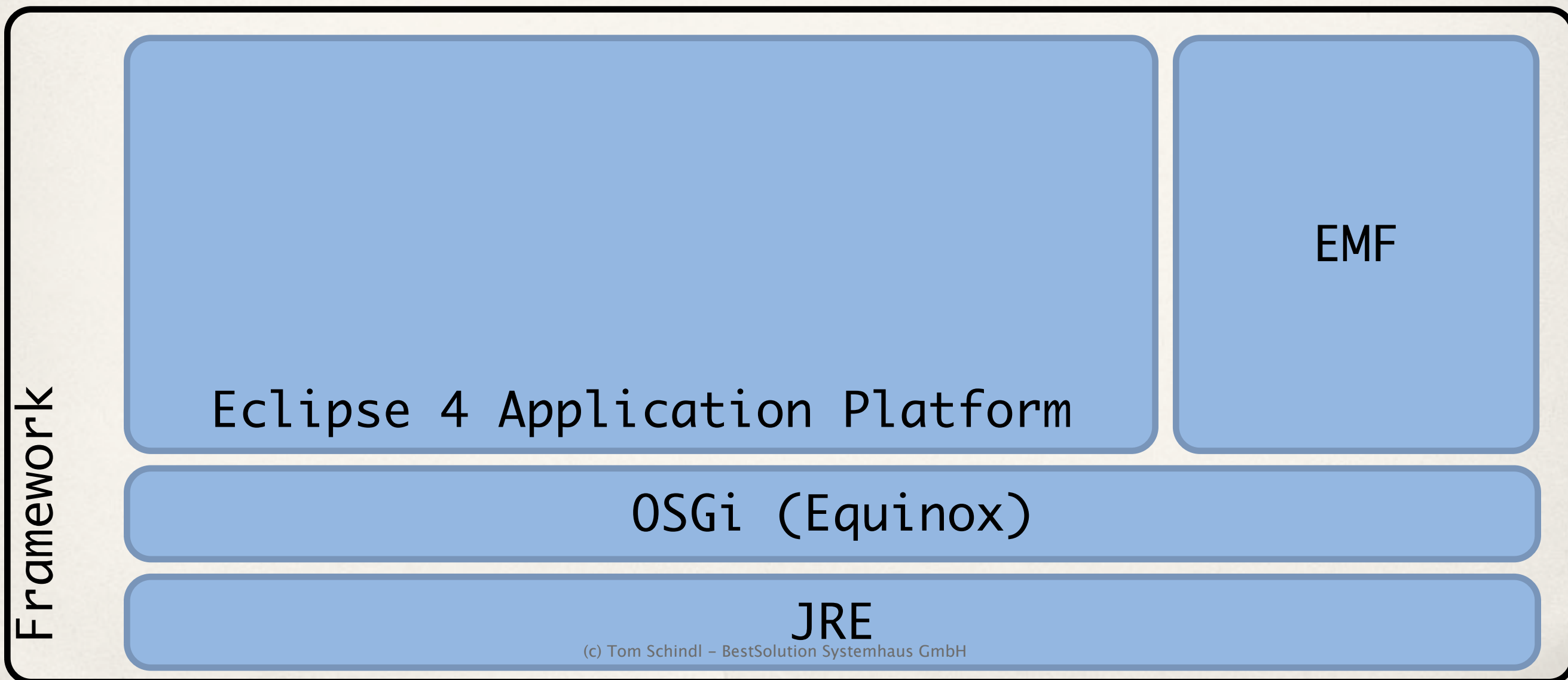
- ❖ Fairly solid Compat-Layer
 - ❖ e.g. PDE, JDT, ... run unmodified
- ❖ Views and Editors can be mixed in same stack
- ❖ Added special MArea-Element to make „Editor-Area“ splittable and maximizeable

Demo Time

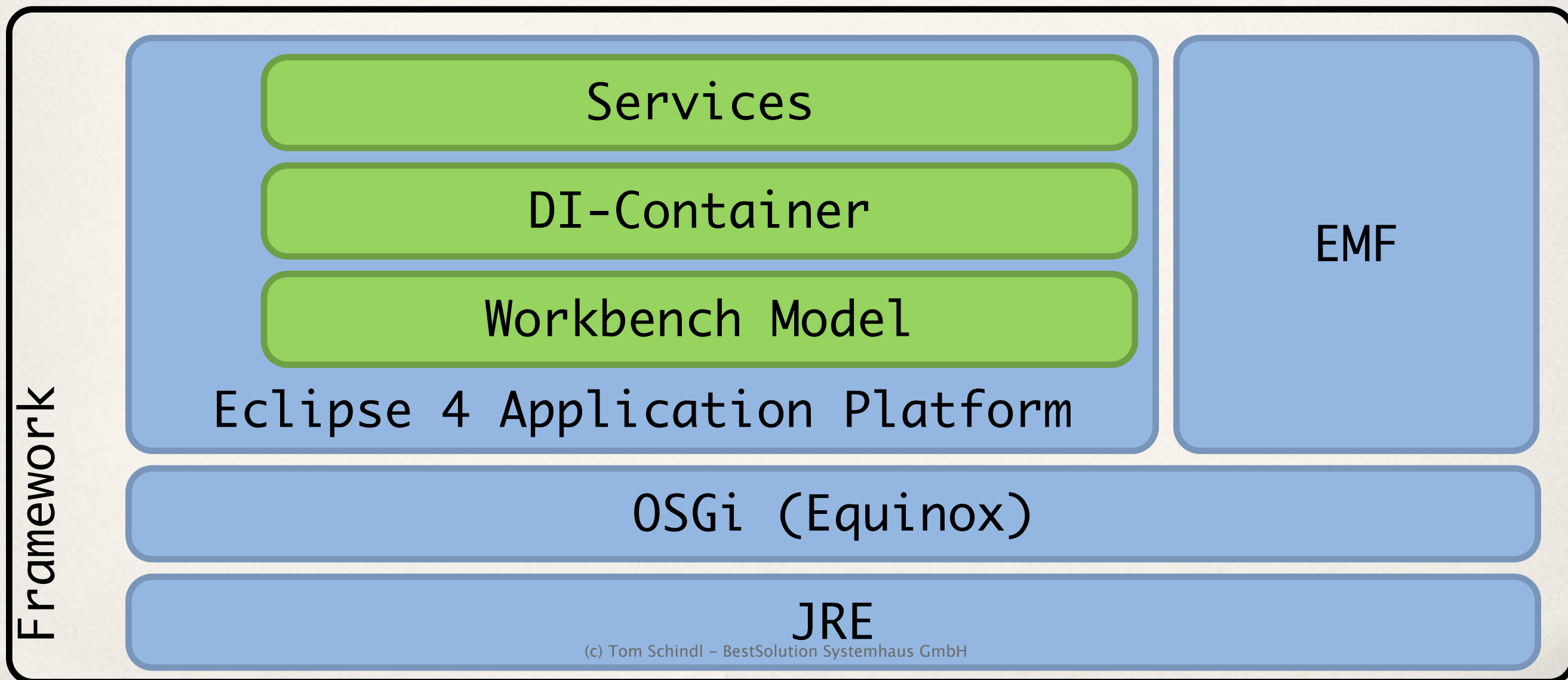
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Eclipse 4.1 Application Platform

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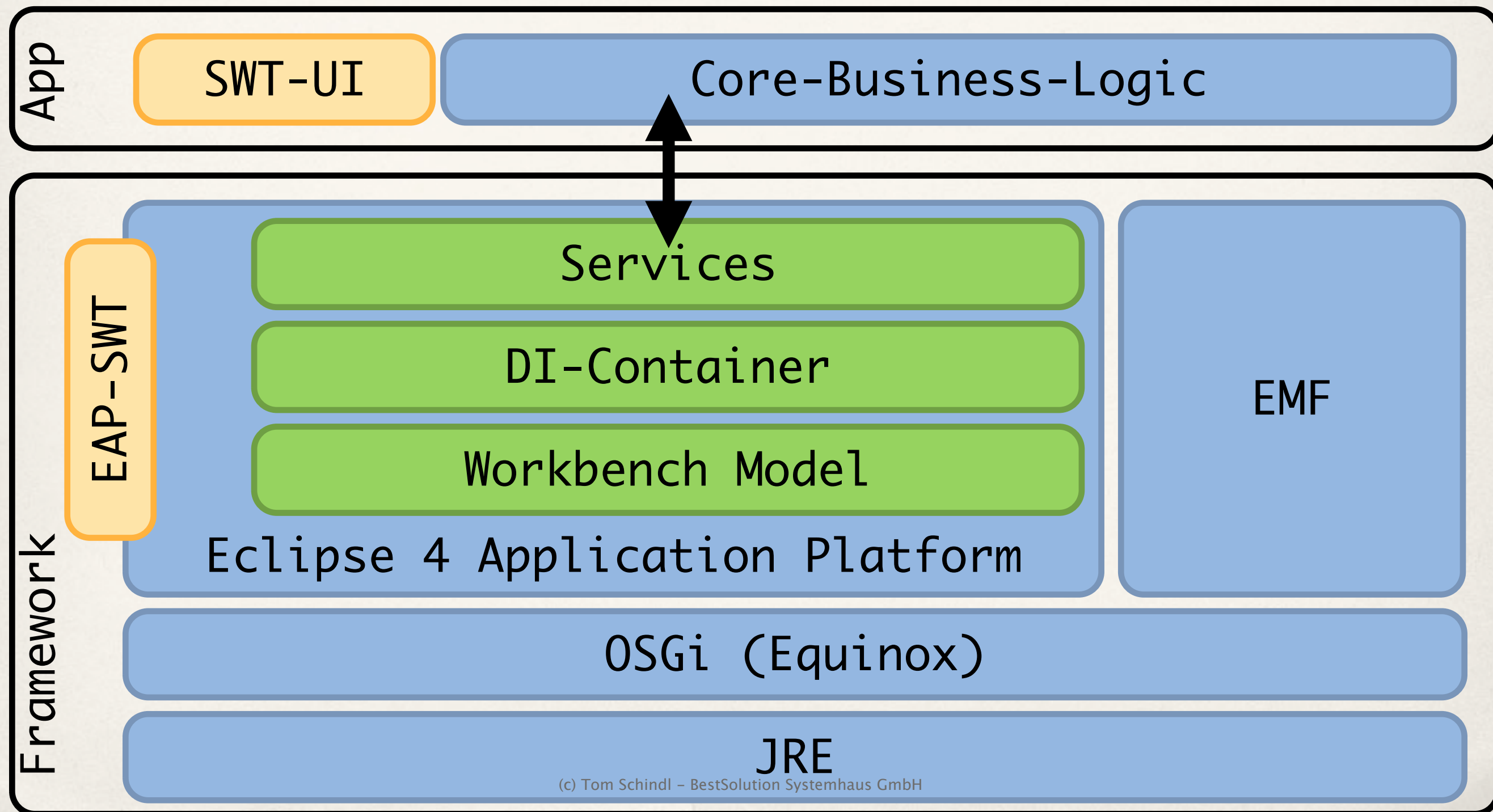


Eclipse 4.1 Application Platform



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Eclipse 4.1 Application Platform



Eclipse 4.1 Application Platform

- ✧ Programming model based upon DI
 - ✧ Standards JSR 330, JSR 250
 - ✧ Custom Annotations e.g. to plug into event-system and preferences

Dependency Injection

```
public class MyPart extends ViewPart {  
    @Override  
    void createPartControl(Composite parent) {  
        getSite().getWorkbenchWindow().getSelectionService()....  
    }  
  
    void selChanged(Object value) {  
    }  
  
    @Override  
    void dispose() {  
    }  
  
    @Override  
    void setFocus() {  
    }  
}
```

Dependency Injection

```
public class MyPart {  
  
    void createPartControl(Composite parent) {  
  
    }  
  
    void selChanged(Object value) {  
    }  
  
    void dispose() {  
    }  
  
    void setFocus() {  
    }  
}
```

Dependency Injection

```
public class MyPart {  
    @PostConstruct  
    void createPartControl(Composite parent) {  
  
    }  
  
    @Inject  
    void selChanged(@Named("selection") Object value) {  
    }  
  
    @PreDestroy  
    void dispose() {  
    }  
  
    @Focus  
    void setFocus() {  
    }  
}
```

Application Model

The screenshot displays the Eclipse IDE interface with the Application Model editor open. The top toolbar shows icons for 'Form' and 'XMI'. The left sidebar contains a tree view of the application model structure, with 'Part - My Part' selected. The main editor area shows the 'Part' configuration page with various fields and checkboxes.

Application Model Editor - Part Configuration

Left Sidebar (Tree View):

- BindingTables
- Handlers
- Part Descriptors
- Commands
- Command Categories
- Windows
 - Trimmed Window - ch.sbb.e4.basic.app
 - Main Menu
 - Handlers
 - Windows
 - Controls
 - Perspective Stack
 - Label
 - Windows
 - Controls
 - PartSashContainer
 - Part Stack
 - Part - My Part**

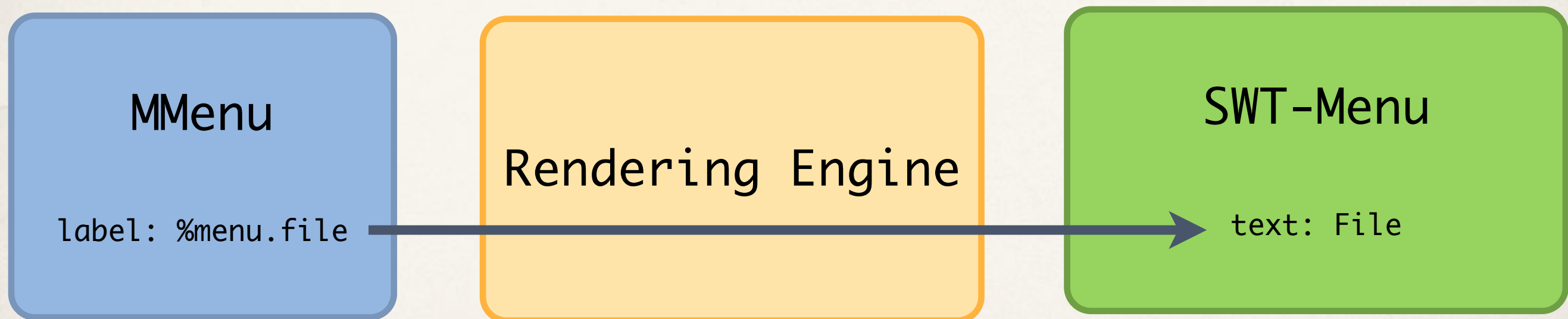
Main Editor (Part Configuration):

- Id:** [Empty text field]
- Label:** My Part
- Accessibility Phrase:** [Empty text field]
- Tooltip:** [Empty text field]
- Icon URI:** [Empty text field] [Find ...]
- Class URI:** platform:/plugin/ch.sbb.e4.basic.app/ch.sbb.e4.basic.app.ui.MyPart [Find ...]
- ToolBar:** ☐
- Container Data:** [Empty text field]
- Closeable:** ☐
- To Be Rendered:** ☒
- Visible:** ☒
- Binding Contexts:** [Empty list area] [Up] [Down]

Bottom Tabs: Default | Supplementary

Eclipse 4.1 Application Platform

- ❖ Support for locales in Application Model
 - ❖ Translations are implement as a decoration which at least in theory supports dynamic language switching



Demo Time

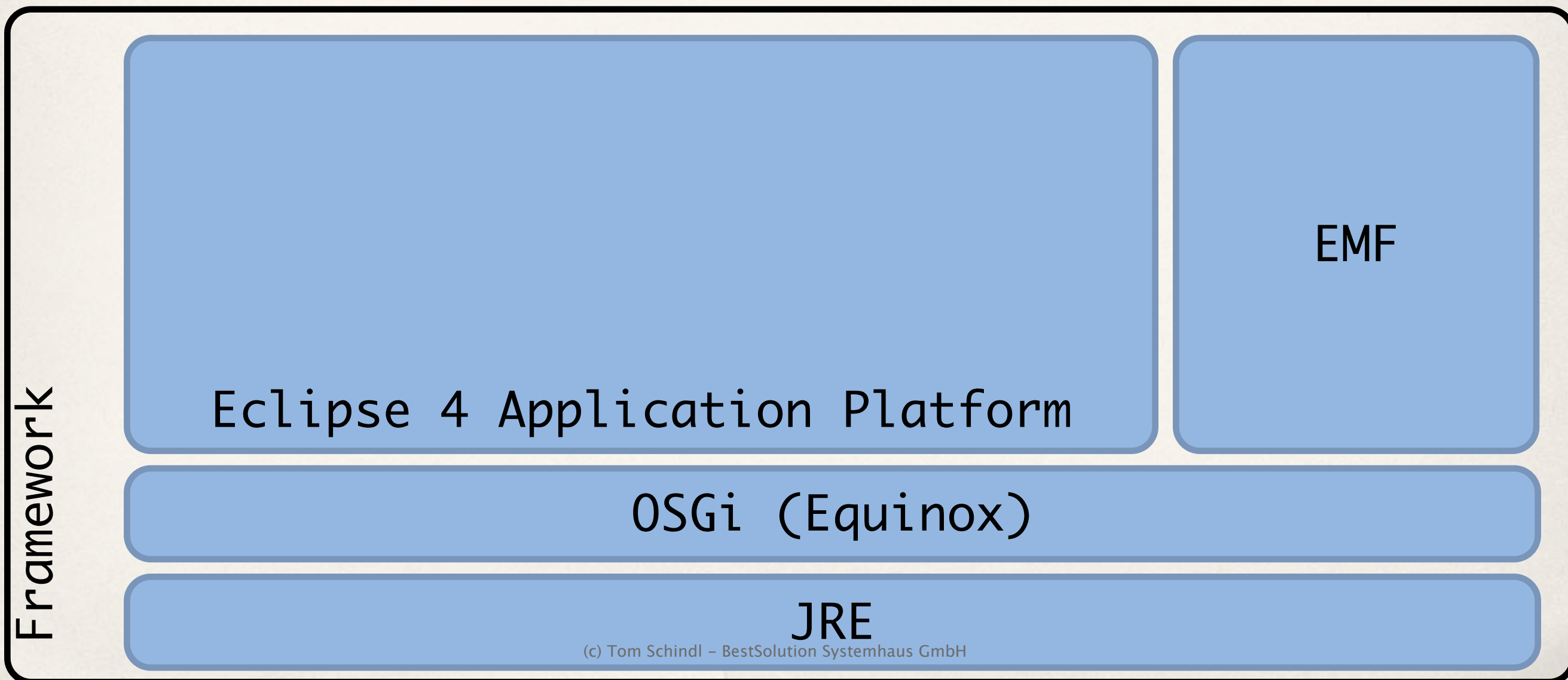
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Eclipse 4.1 Application Platform

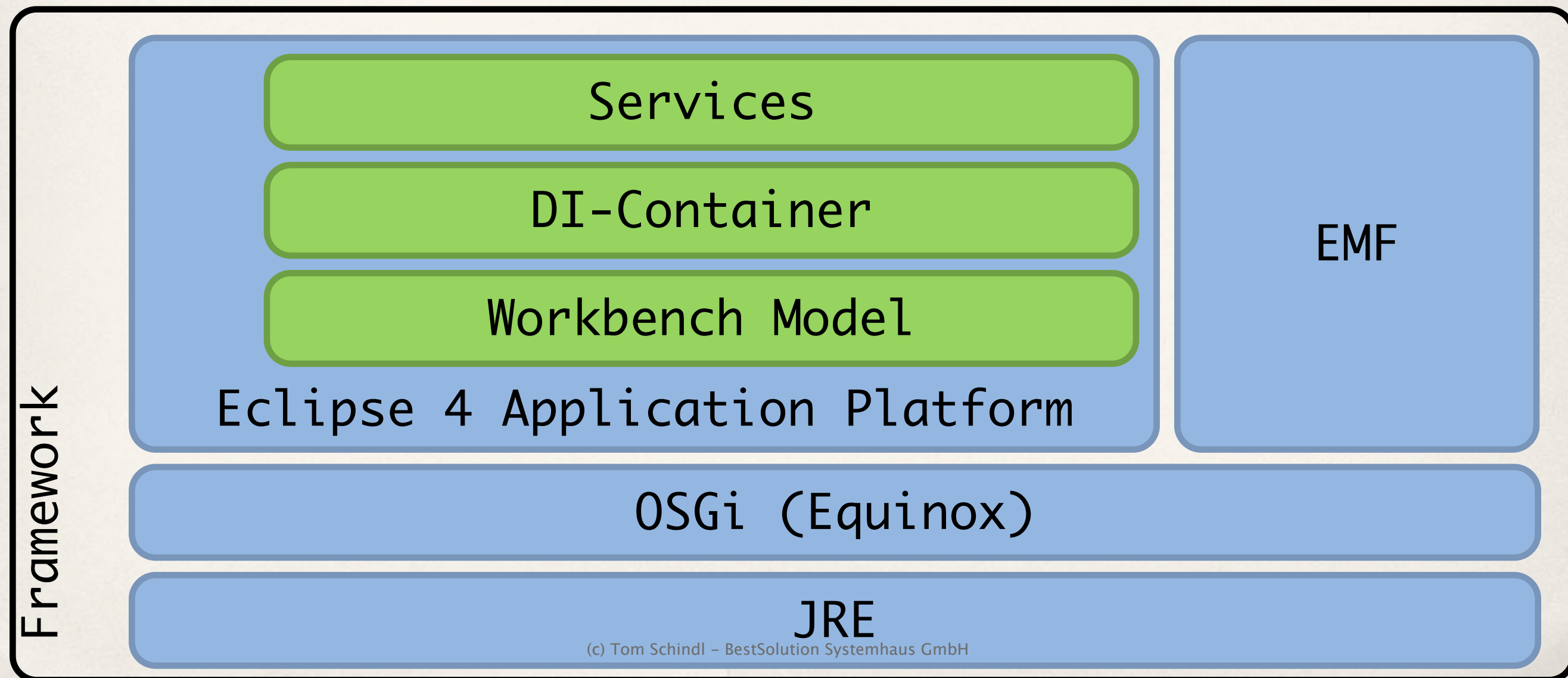
- ❖ Completely widget toolkit agnostic

Eclipse 4.1 Application Platform

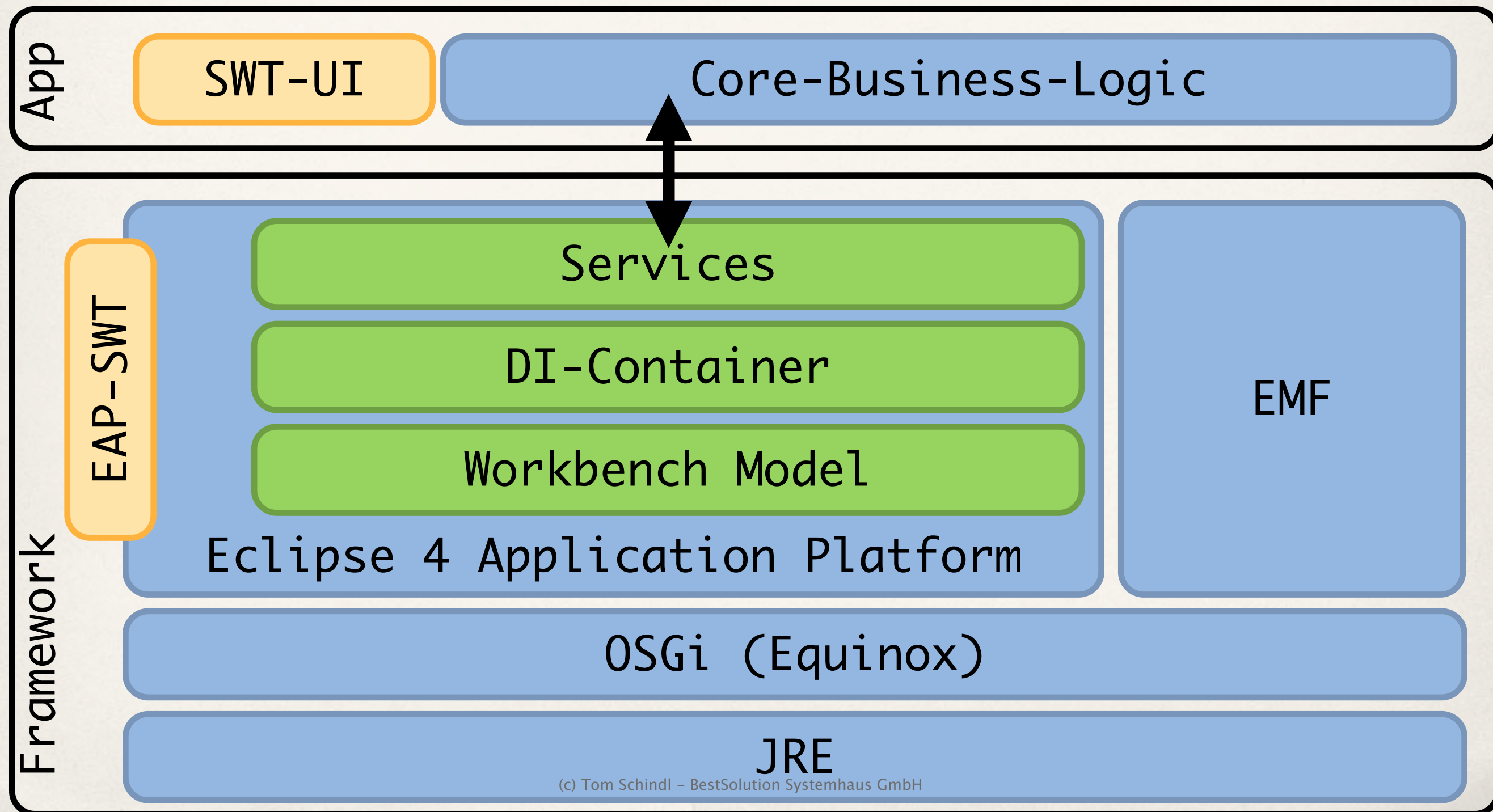
Eclipse 4.1 Application Platform



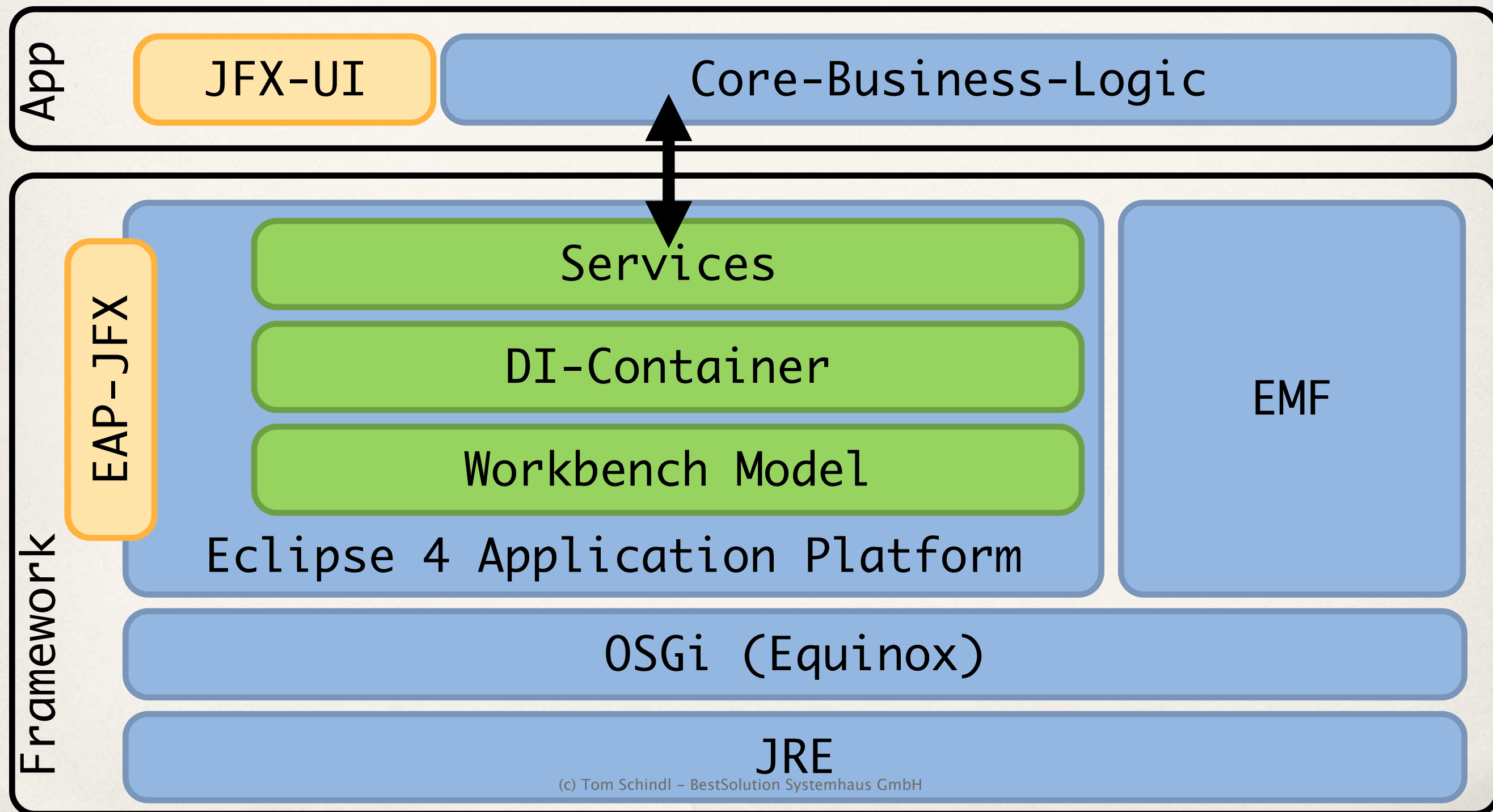
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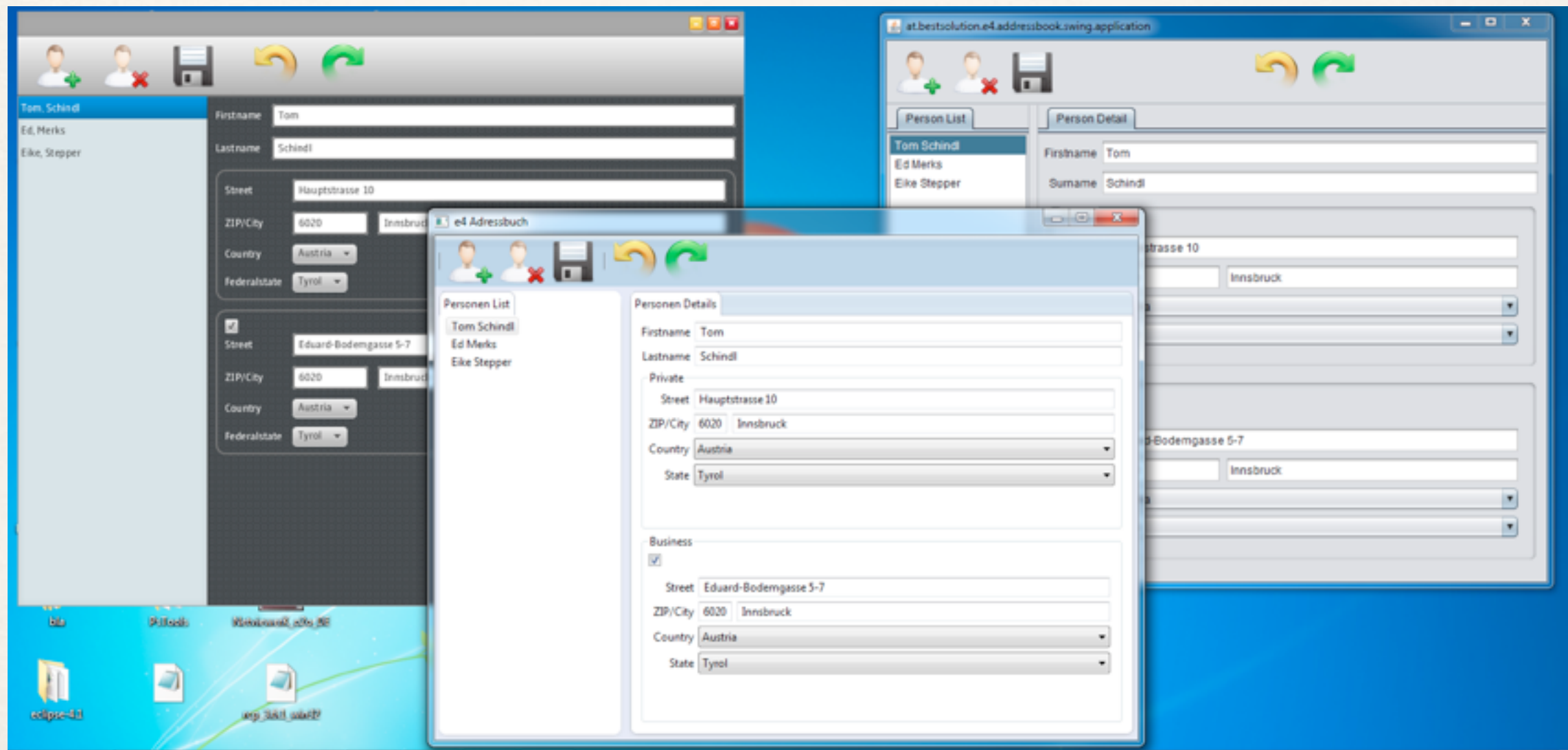


Eclipse 4.1 Application Platform



Eclipse 4.1 Application Platform

- ❖ Completely widget toolkit agnostic



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Eclipse 4.1 Tooling

- ❖ LiveModel Tooling
 - ❖ can be opened as a view
 - ❖ allows to browse widget structure
 - ❖ allows to inspect Object-Structure

Demo Time

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Eclipse 4.2 IDE

❖ Enterprise ready Compat Layer

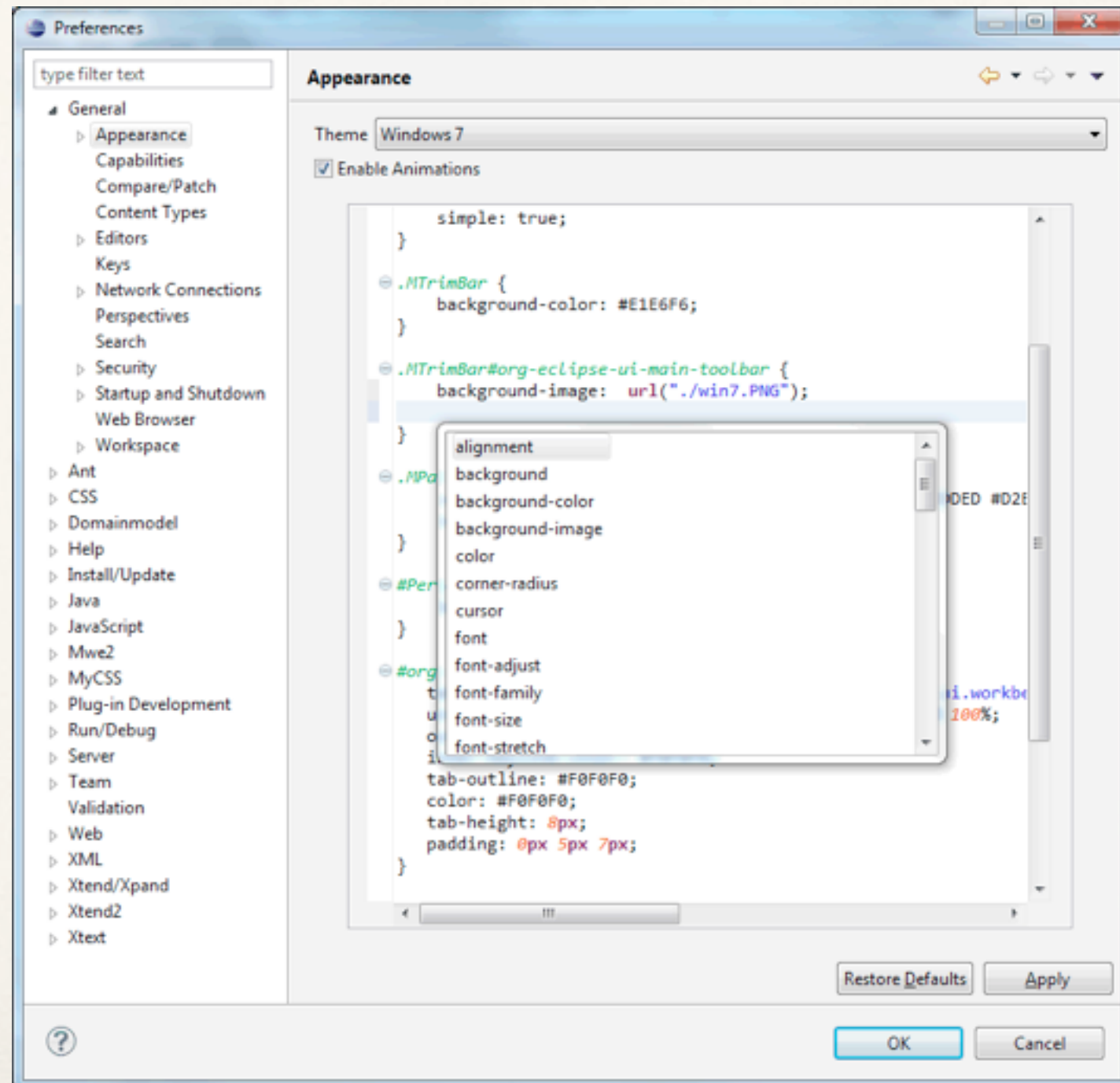
- ❖ All API compatible with 3.x
- ❖ Things you get for free: Structures in Detached Windows

Eclipse 4.2 Application Platform

- ❖ Better integration of DI with OSGi-Service-Registry
- ❖ Native Editor Support in Application Model

Eclipse 4.2 Tooling

❖ CSS-Tooling



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Eclipse 4.2 Tooling

- ❖ Model Tooling
 - ❖ Integrate Search Feature
 - ❖ Integrate into refactoring (e.g. class renaming)

Resources

- ❖ My blog: <http://tomsondev.bestsolution.at>
- ❖ e4-Wiki: <http://wiki.eclipse.org/e4>
- ❖ e4-newsgroup: eclipse.e4
- ❖ e4-mailinglist: e4-dev@eclipse.org