# Eclipse Scout goes Java & HTML5

**Daniel Wiehl, Matthias Zimmermann**

# Agenda

- What's **Scout**
- **16 Years** of technology
- The new **HTML5** UI
- The new Scout **Java** Platform

# Eclipse Scout

## Scout Framework

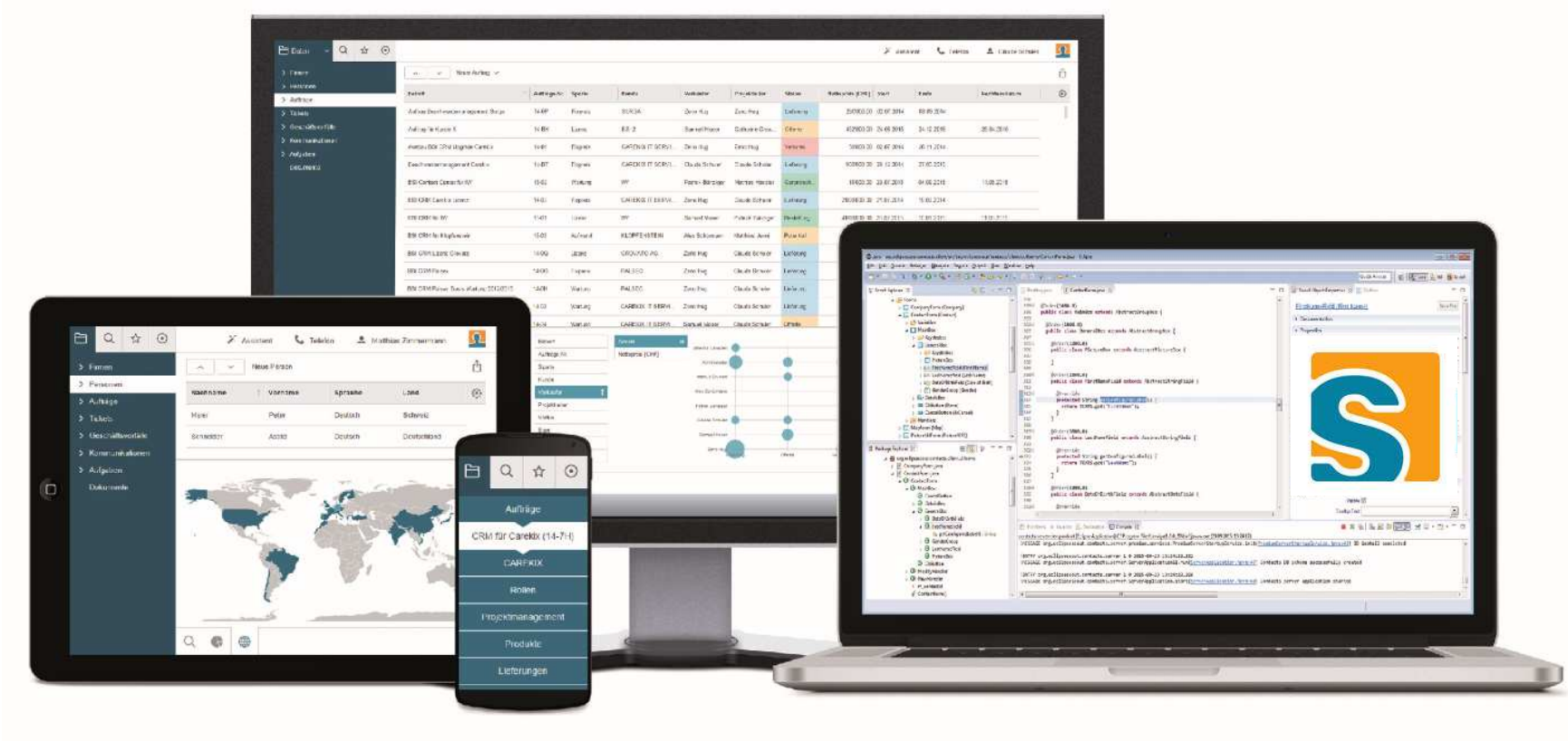
- ➔ Built for **Business Applications**
- ➔ **Multi Device** support
- ➔ Based on **Java** and **HTML5, CSS3, JS**

## Framework Goals

- ➔ **Long term** strategy (enterprise apps live > 10 years)
- ➔ Boosts **productivity** (producing software in Switzerland …)
- ➔ **Easy** to learn (new team members productive in 1-2 weeks)

**Visit us at Booth #8 – next to the coffee cart ☺**

# Eclipse Scout



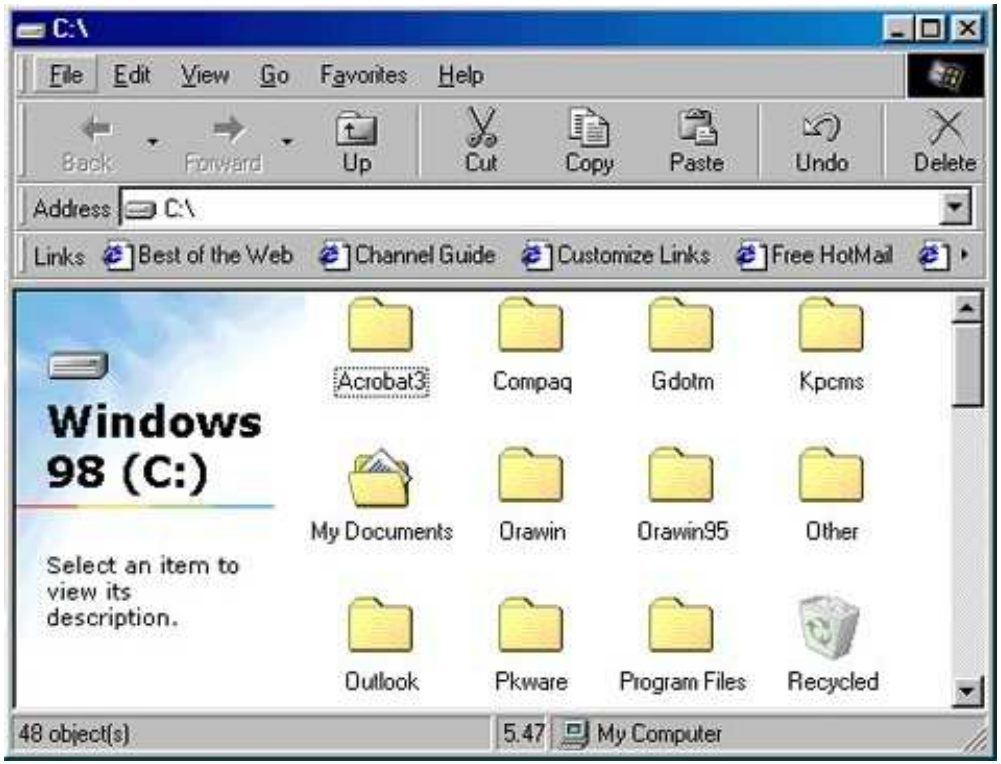
# Back to the Future …

# Let’s go back …

# … 1999

Google!
BETA
Search the web using Google!
Google Search
I'm feeling lucky
Special Searches
Stanford Search
Linux Search
Help!
About Google!
Company Info
Google! Logos
Get Google! updates monthly
your e-mail
Subscribe
Archive
Copyright ©1998 Google Inc.

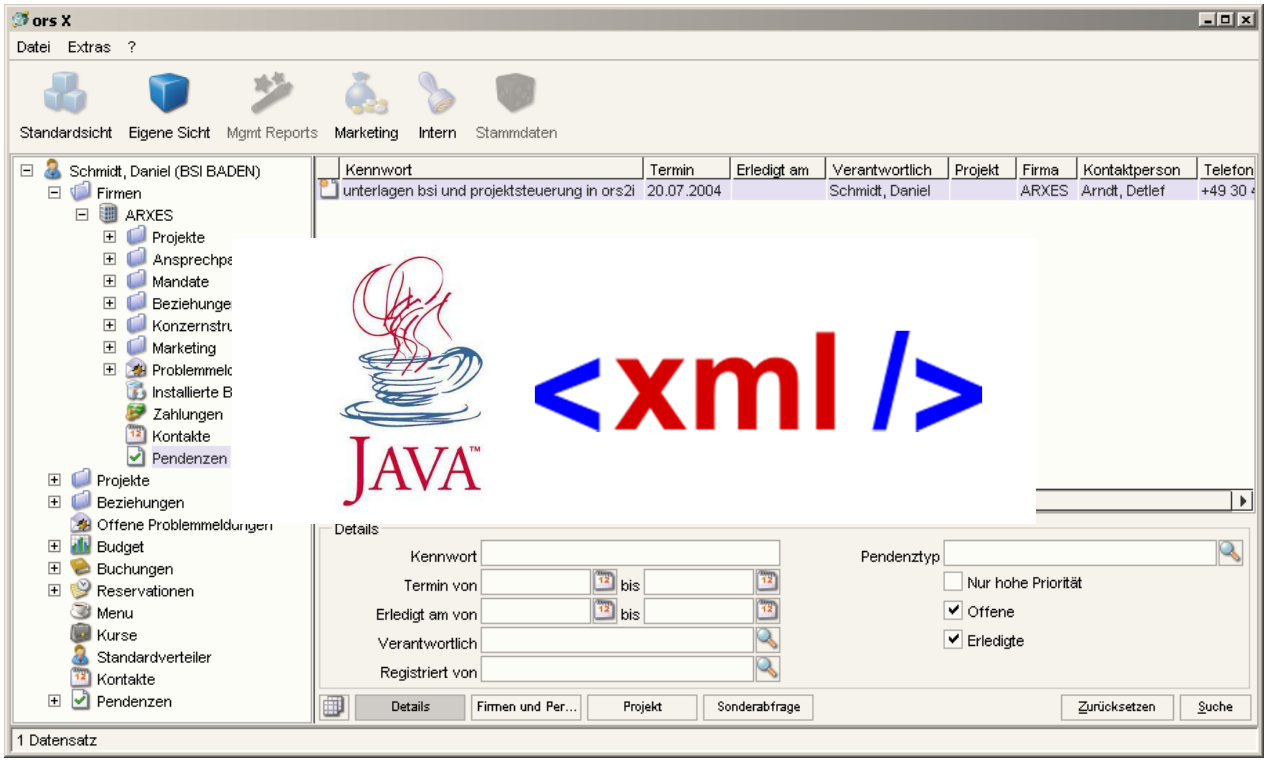
# … 1999


C:\
File Edit View Go Favorites Help
Back Forward Up Cut Copy Paste Undo Delete
Address C:\
Links Best of the Web Channel Guide Customize Links Free HotMail
Windows 98 (C:)
Select an item to view its description.
Acrobat3
Compaq
Gdoltm
Kpcms
My Documents
Orawin
Orawin95
Other
Outlook
Pkware
Program Files
Recycled
48 object(s)
5.47
My Computer

# … 1999

ors2i
Datei Extras Tools ?
Standards
Firmen
BA
BS
BS
Installierte Basis
Zahlungen
Kontakte
enkurzname
USA
USA
USA
AG
USA
USA
NUM
GUPTA
SQLWindows®
WARNING: This program is protected by copyright laws and international treaties. Unauthorized duplication or distribution may result in severe civil or criminal penalties, and will be prosecuted to the fullest extent possible by law.
Copyright ©1987-95 Gupta Corporation. All rights reserved.

# … 2002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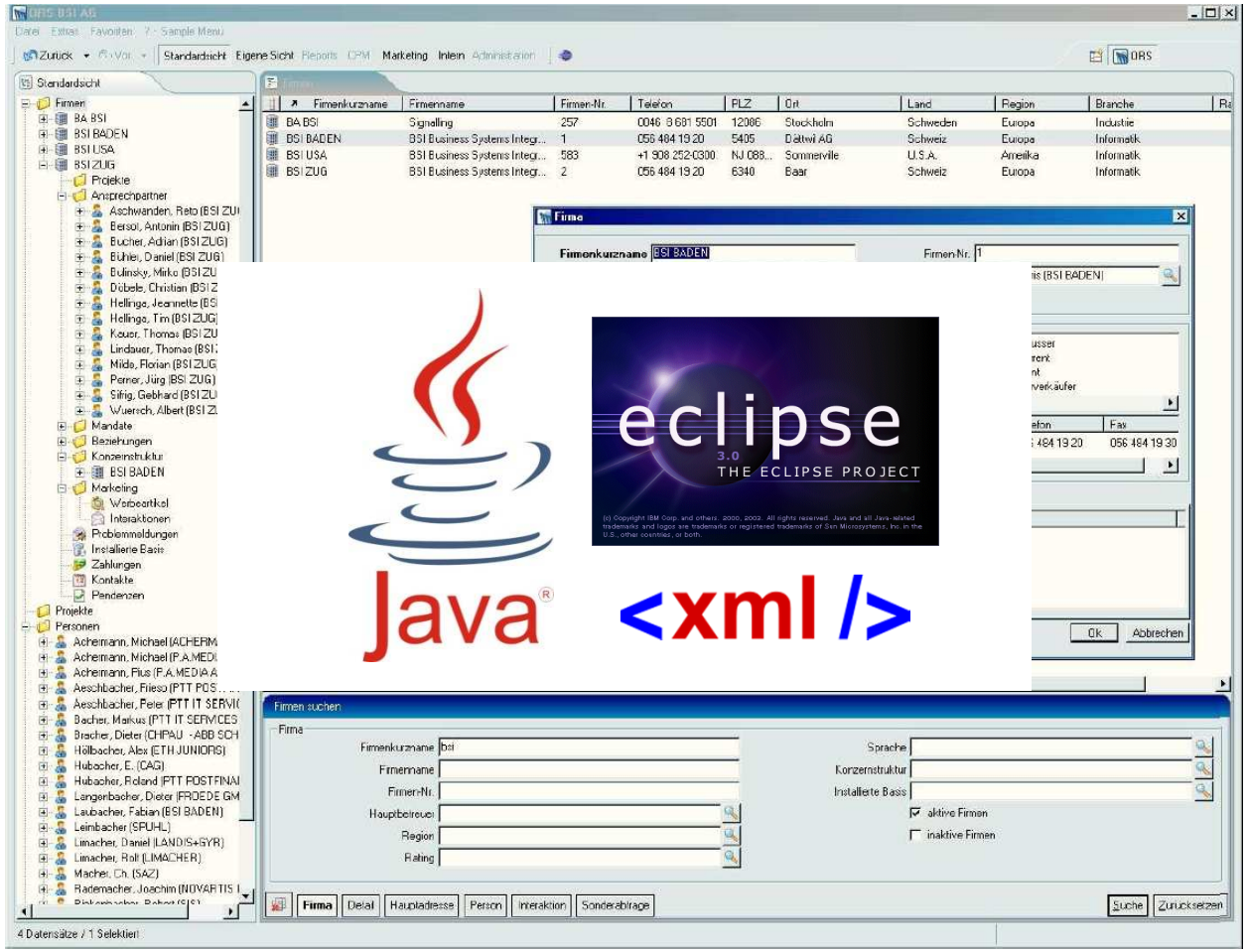
Datei Extras ?
Standardsicht
Eigene Sicht
Mgmt Reports
Marketing
Intern
Stammdaten
Schmidt, Daniel (BSI BADEN)
Firmen
ARXES
Projekte
Ansprechpa
Mandate
Beziehunge
Konzernstru
Marketing
Problemmeld
Installierte B
Zahlungen
Kontakte
Pendenzen
Projekte
Beziehungen
Offene Problemmeldungen
Budget
Buchungen
Reservationen
Menu
Kurse
Standardverteiler
Kontakte
Pendenzen
Kennwort
Termin
Erledigt am
Verantwortlich
Projekt
Firma
Kontaktperson
Telefon
unterlagen bsi und projektsteuerung in ors2i
20.07.2004
Schmidt, Daniel
ARXES
Arndt, Detlef
JAVA™
<xml />
Details
Kennwort
Termin von
bis
Erledigt am von
bis
Verantwortlich
Registriert von
Pendenztyp
Nur hohe Priorität
Offene
Erledigte
Details
Firmen und Per…
Projekt
Sonderabfrage
Zurücksetzen
Suche
1 Datensatz

# … 2005


eclipse
3.0
THE ECLIPSE PROJECT
Java®
<xml />
Firma
Firmenkurzname
Firmen-Nr.
Ok
Abbrechen
Firmen suchen
Firma
Firmenkurzname
Firmenname
Firmen-Nr.
Hauptbetreuer
Region
Rating
Sprache
Konzernstruktur
Installierte Basis
aktive Firmen
inaktive Firmen
Firma
Detail
Hauptadresse
Person
Interaktion
Sonderabfrage
Suche
Zurücksetzen

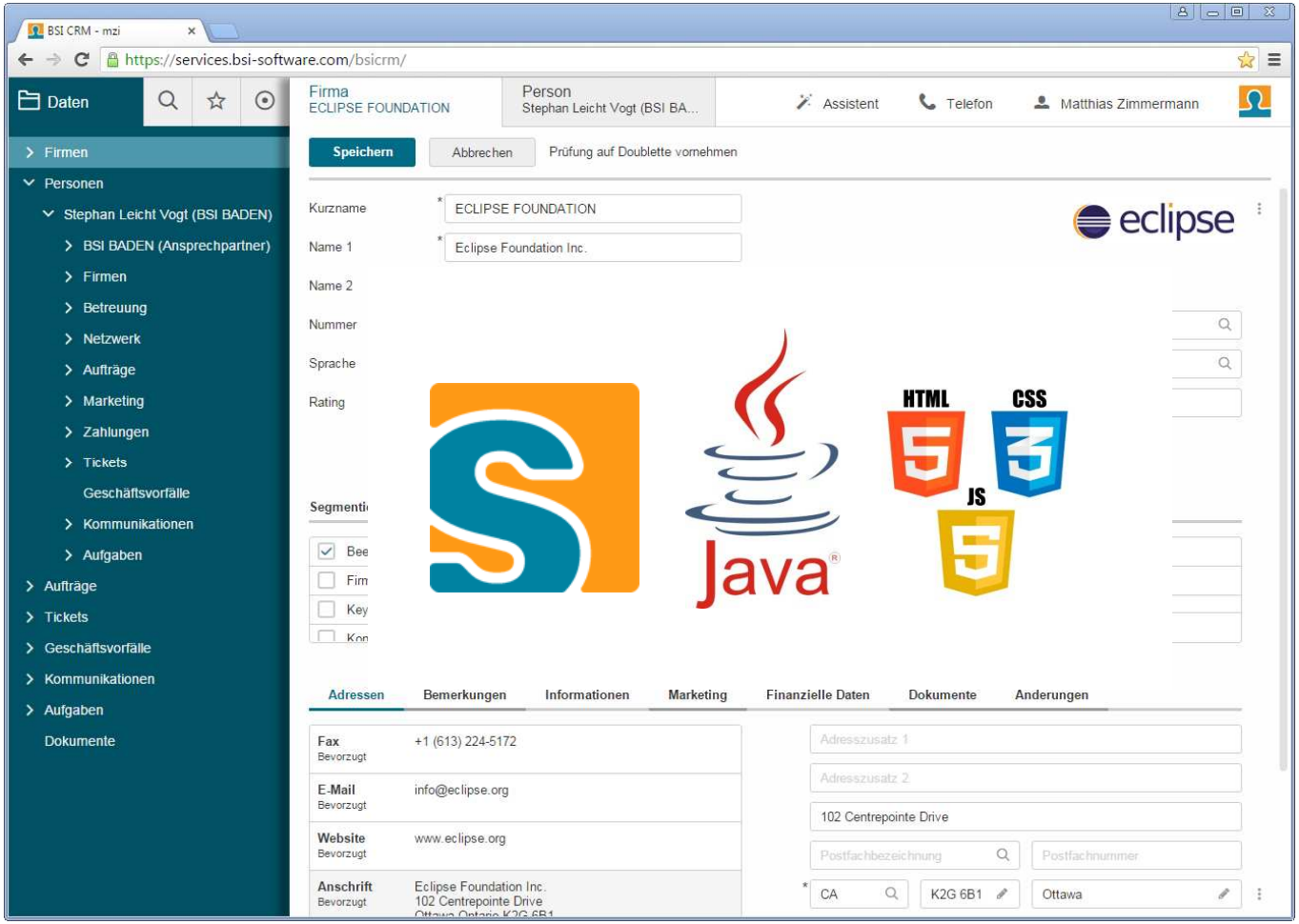
# … 2007

BSI CRM
Datei Extras Prozesse Favoriten ?
Standardsicht Eigene Sicht Reports CPM Marketing Contact Center Human Resources Administration Schnittstellen
Contact Center
Geschäftsvorfälle
Alle
Eigene
<Nicht identifiziert>
Hug, Daniel (I-SOLUTIONS)
Eskalierte
Know-How
Virtuelle Teams
Prozessverwaltung
Statistiken
Telefon
Prozess wählen - 11.04.09 11:25
Detail
Nachname
Vorname
PLZ
Ort
1 Person wählen
2 Kundenübersicht
3 Kundenidentifikation
4 Prozess wählen
5 Prozessschritte unbekannt
Java
eclipse
GALILEO
Abbrechen
Weiter
Abschliessen

# Eclipse Scout 2011

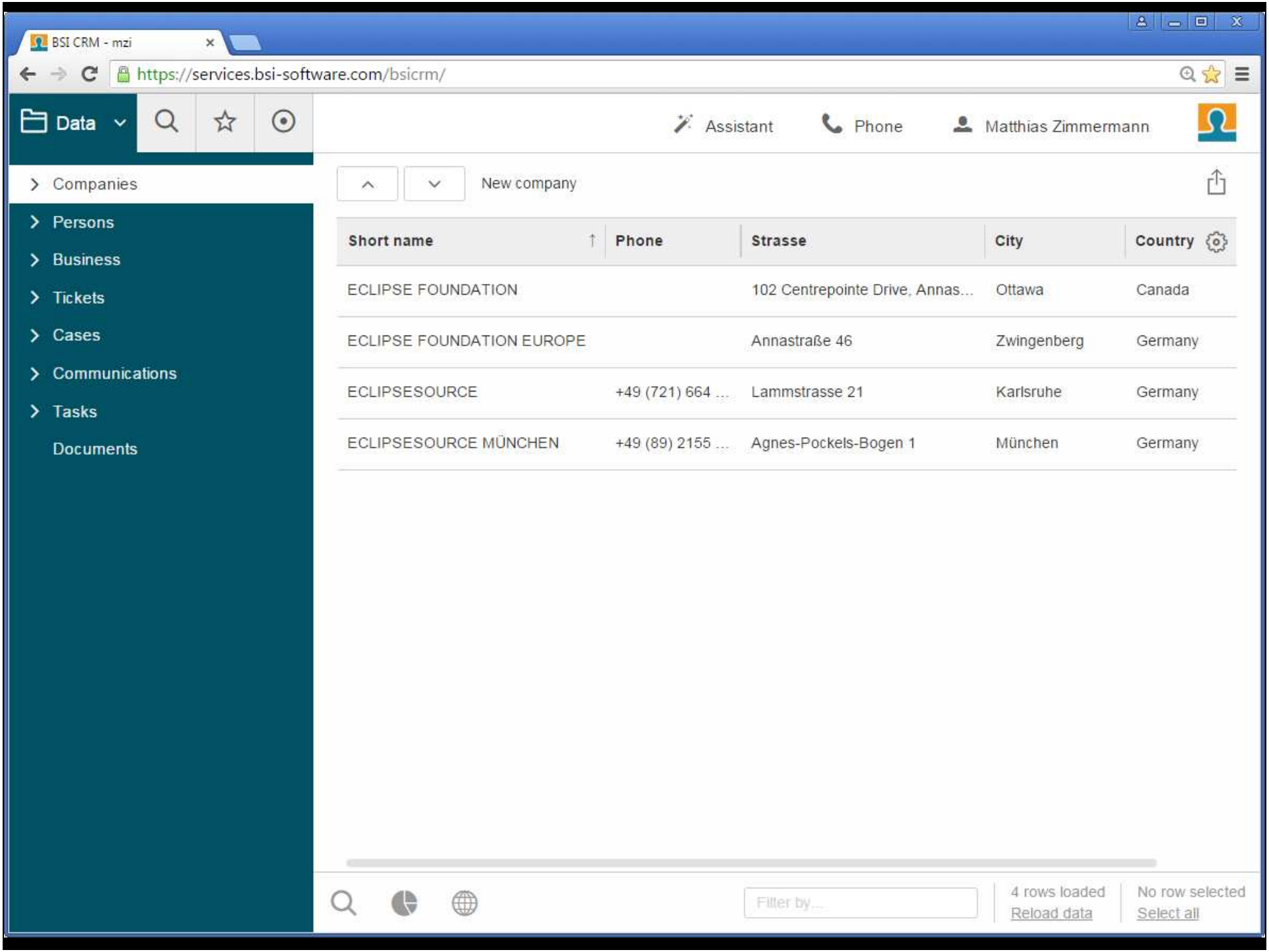
# Eclipse Scout 2012

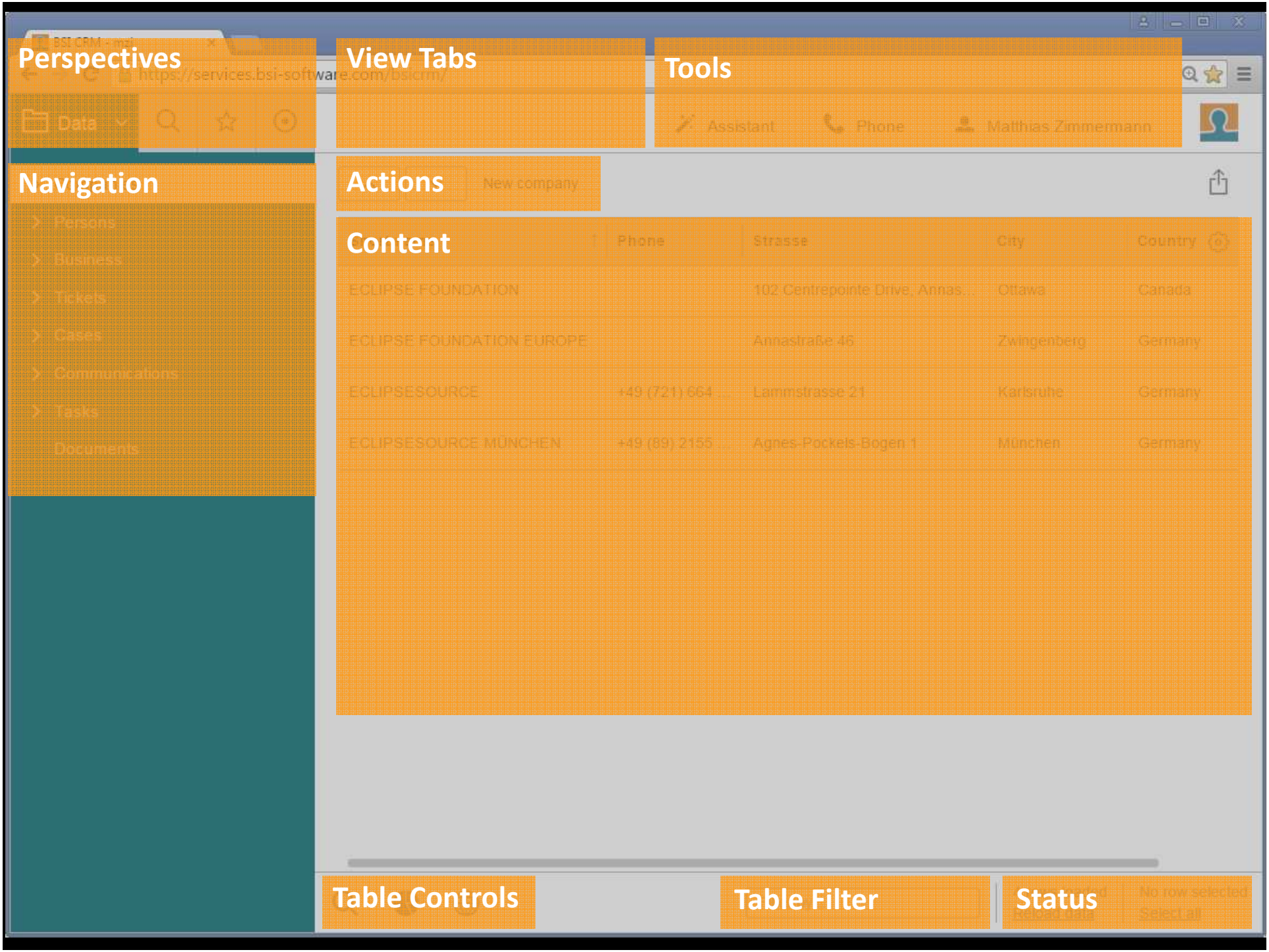
# Eclipse Scout 2015/16



Eclipse Scout Neon

# The new HTML5 UI


BSI CRM - mzi
https://services.bsi-software.com/bsicrm/
Data
Assistant
Phone
Matthias Zimmermann
Companies
Persons
Business
Tickets
Cases
Communications
Tasks
Documents
New company
Short name
Phone
Strasse
City
Country
ECLIPSE FOUNDATION
102 Centrepointe Drive, Annas...
Ottawa
Canada
ECLIPSE FOUNDATION EUROPE
Annastraße 46
Zwingenberg
Germany
ECLIPSESOURCE
+49 (721) 664 ...
Lammstrasse 21
Karlsruhe
Germany
ECLIPSESOURCE MÜNCHEN
+49 (89) 2155 ...
Agnes-Pockels-Bogen 1
München
Germany
Filter by...
4 rows loaded
Reload data
No row selected
Select all


Perspectives
View Tabs
Tools
Navigation
Actions
Content
Table Controls
Table Filter
Status

Eclipse Scout Neon

# **Styling and Themes**

# Themes and Styling with Scout

**Technology**

➔ **CSS3 + Less**

**CSS Organisation**

➔ Global Less files (colors, fonts, sizes, …)

➔ Component specific Less files (Form, Field, Button…)

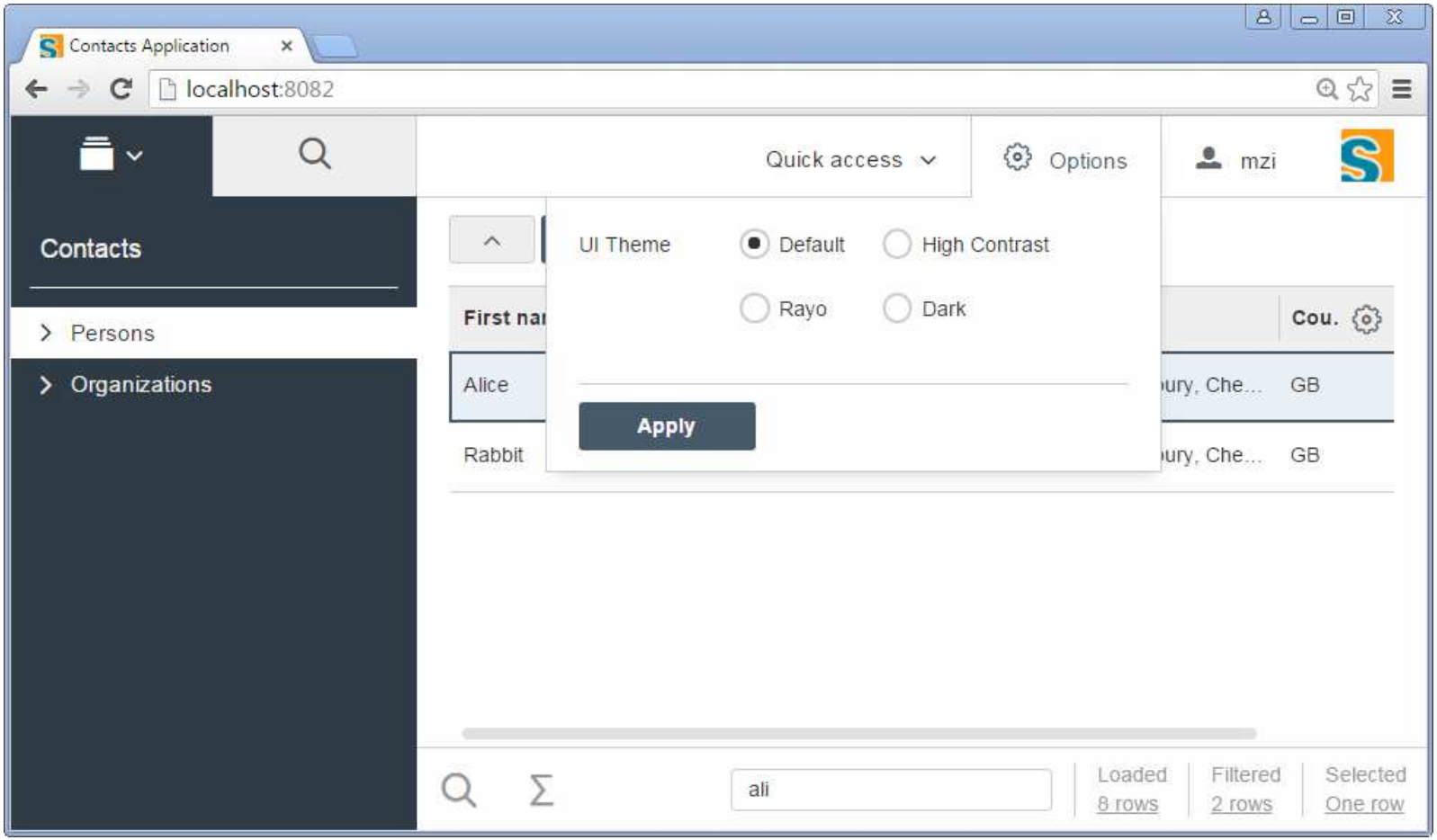
➔ Optional: Project specific Less files

➔ **Theme**: Named set of Less files

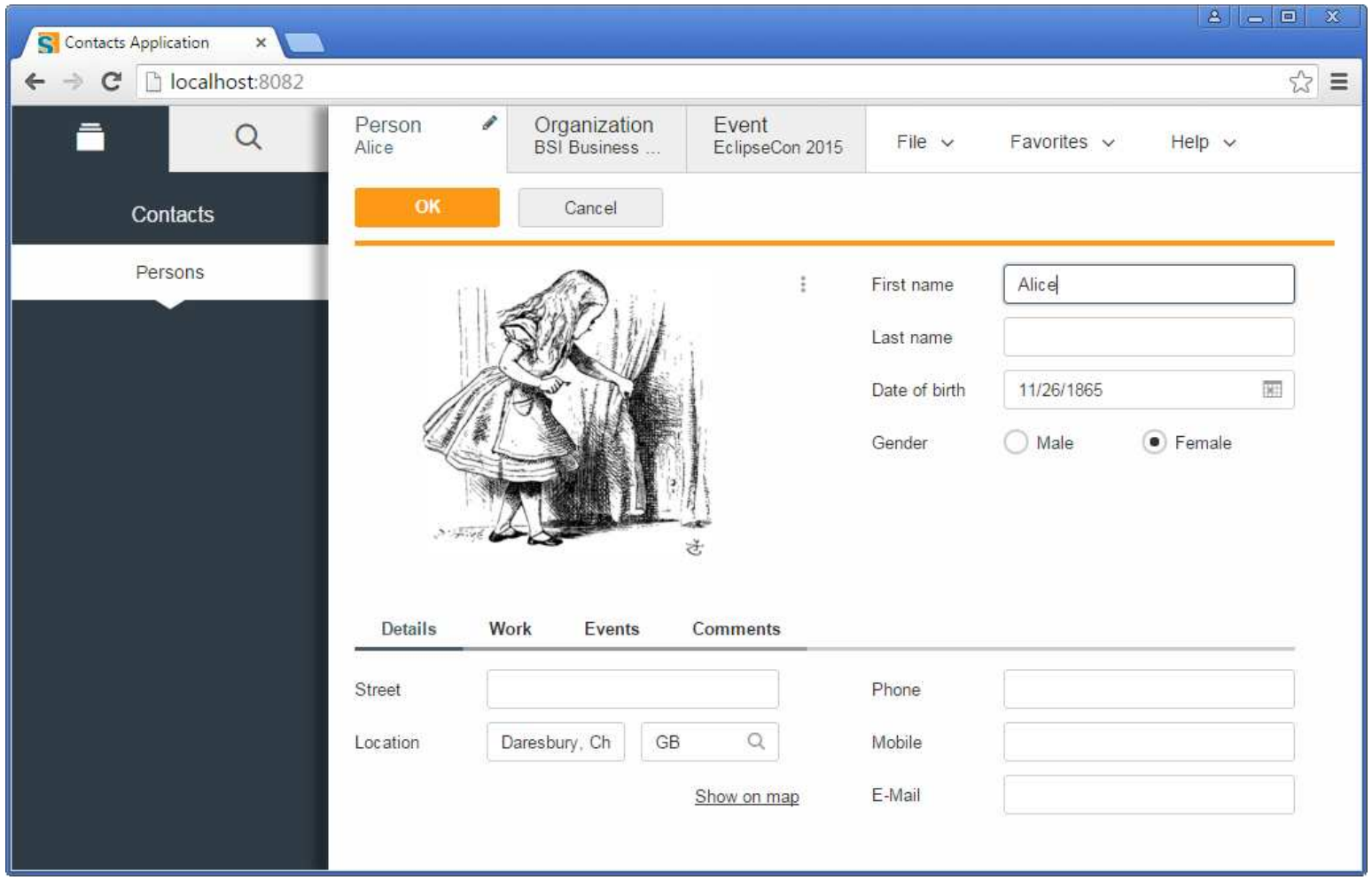
**From Less to final CSS**

1. Project specific files override Scout defaults
2. Single big CSS is assembled, processed and minified

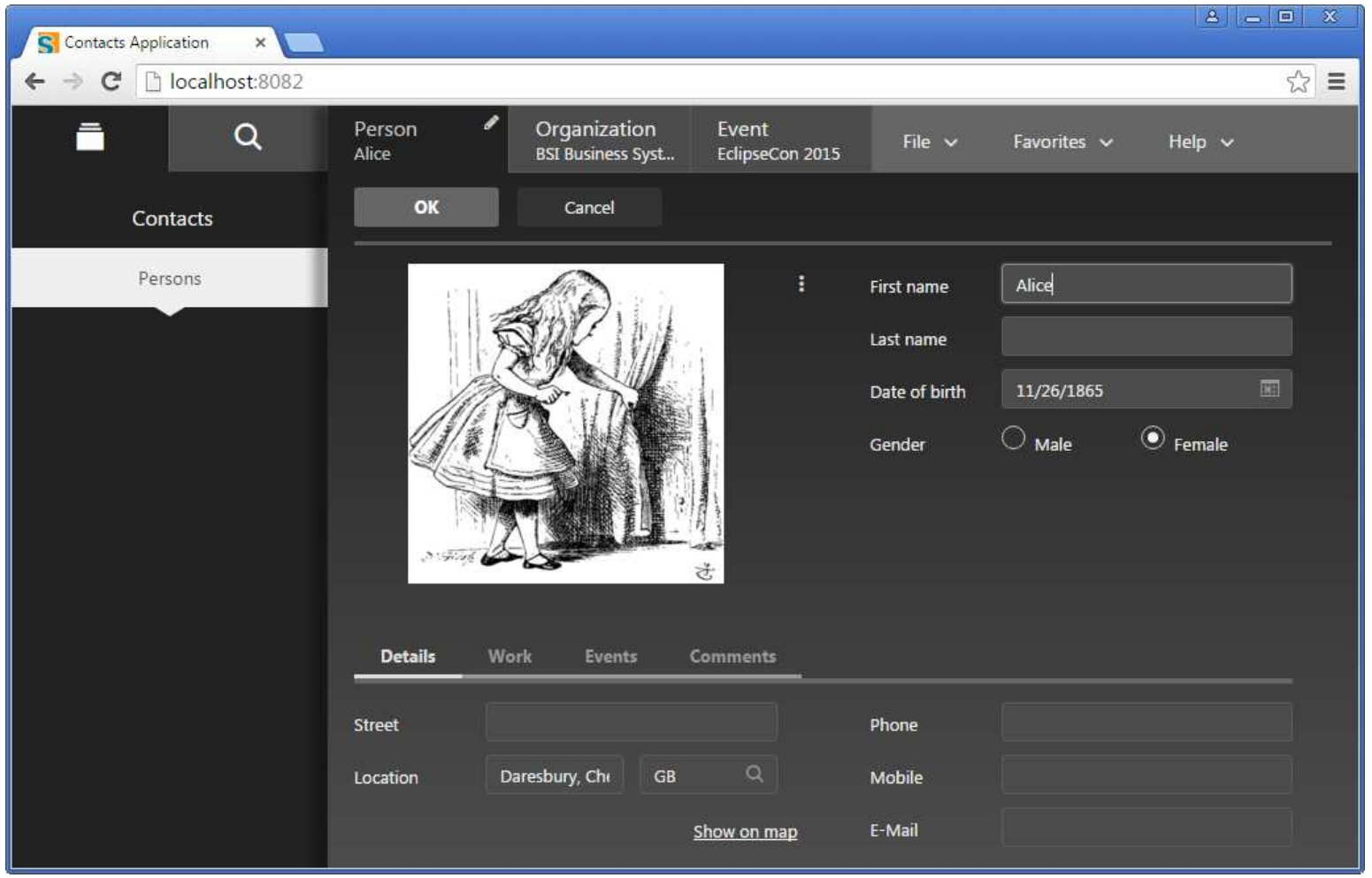
# Theming
## Switching Themes dynamically



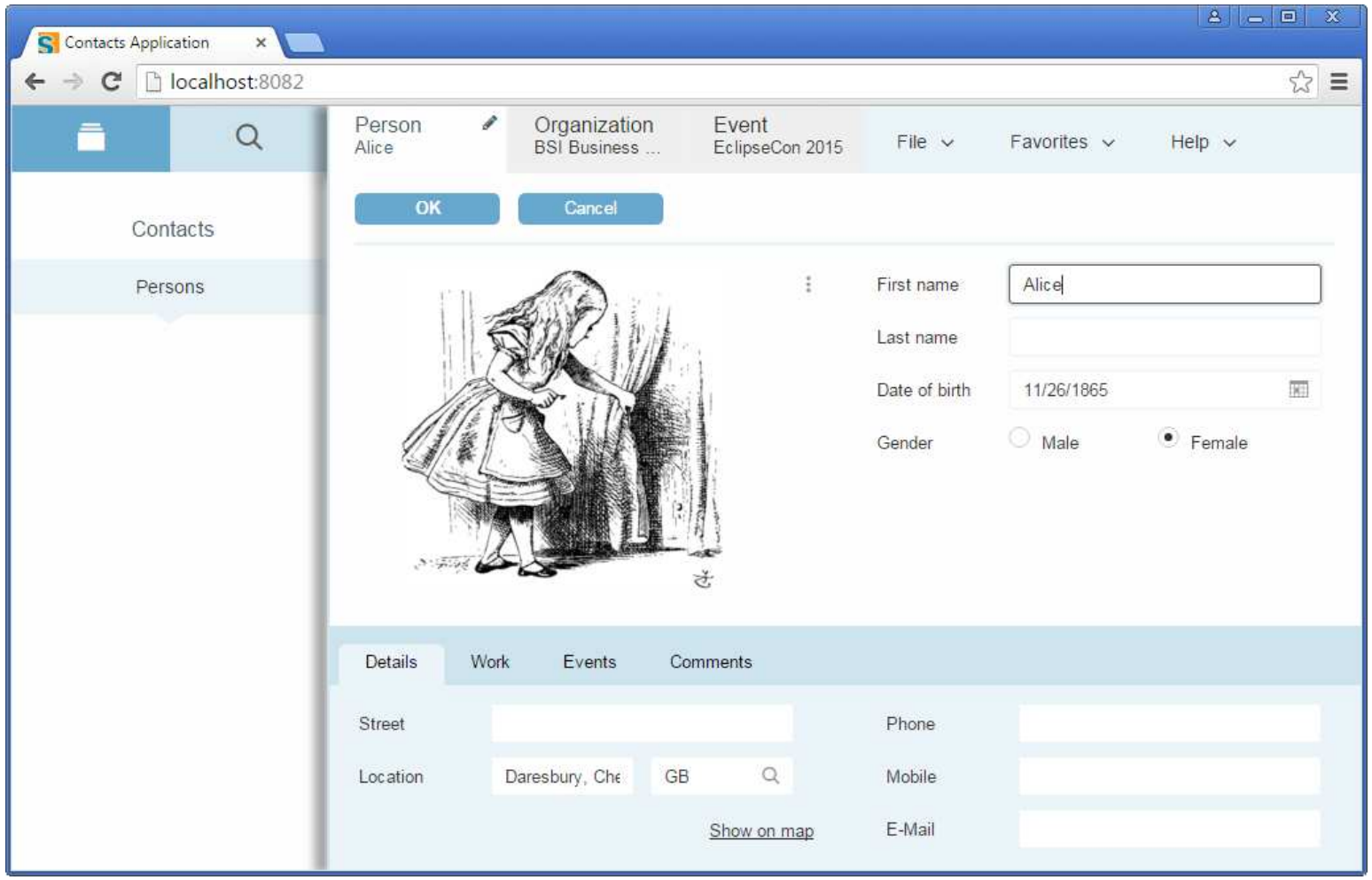
# Theming
## Default Theme



# Theming
## «Dark» Theme



# Theming
## «Rayo» Theme



Eclipse Scout Neon

# **Global Styling + Component Styling**

# Styling with Global Properties

## colors.css, fonts.css, sizes.css …

**Use Case**

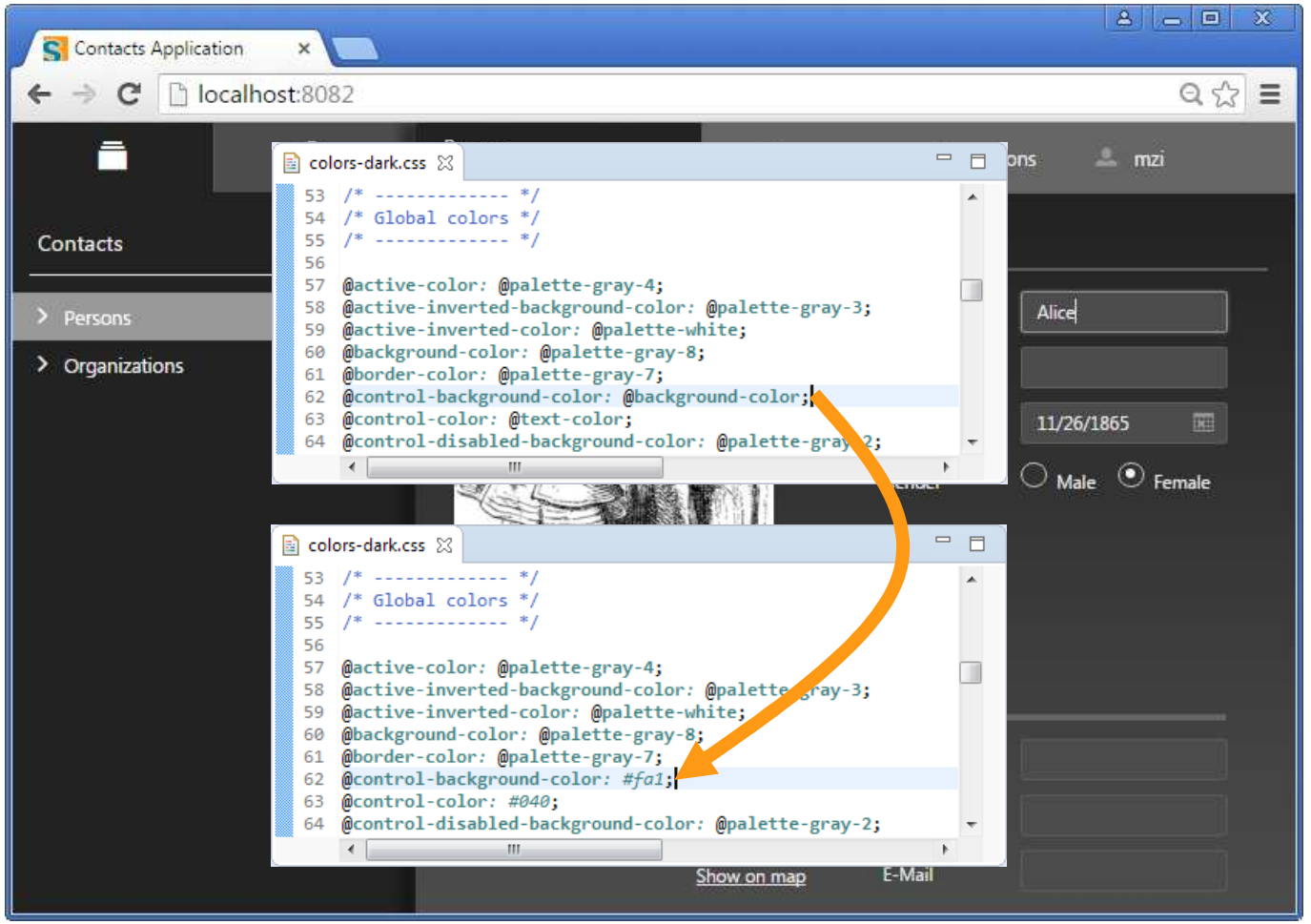
- ➔ Styling of general appearance
  - Colors
  - Fonts
  - Sizes
- ➔ Low effort with upgrades
- ➔ Simple and efficient

**Example**

- ➔ Control colors

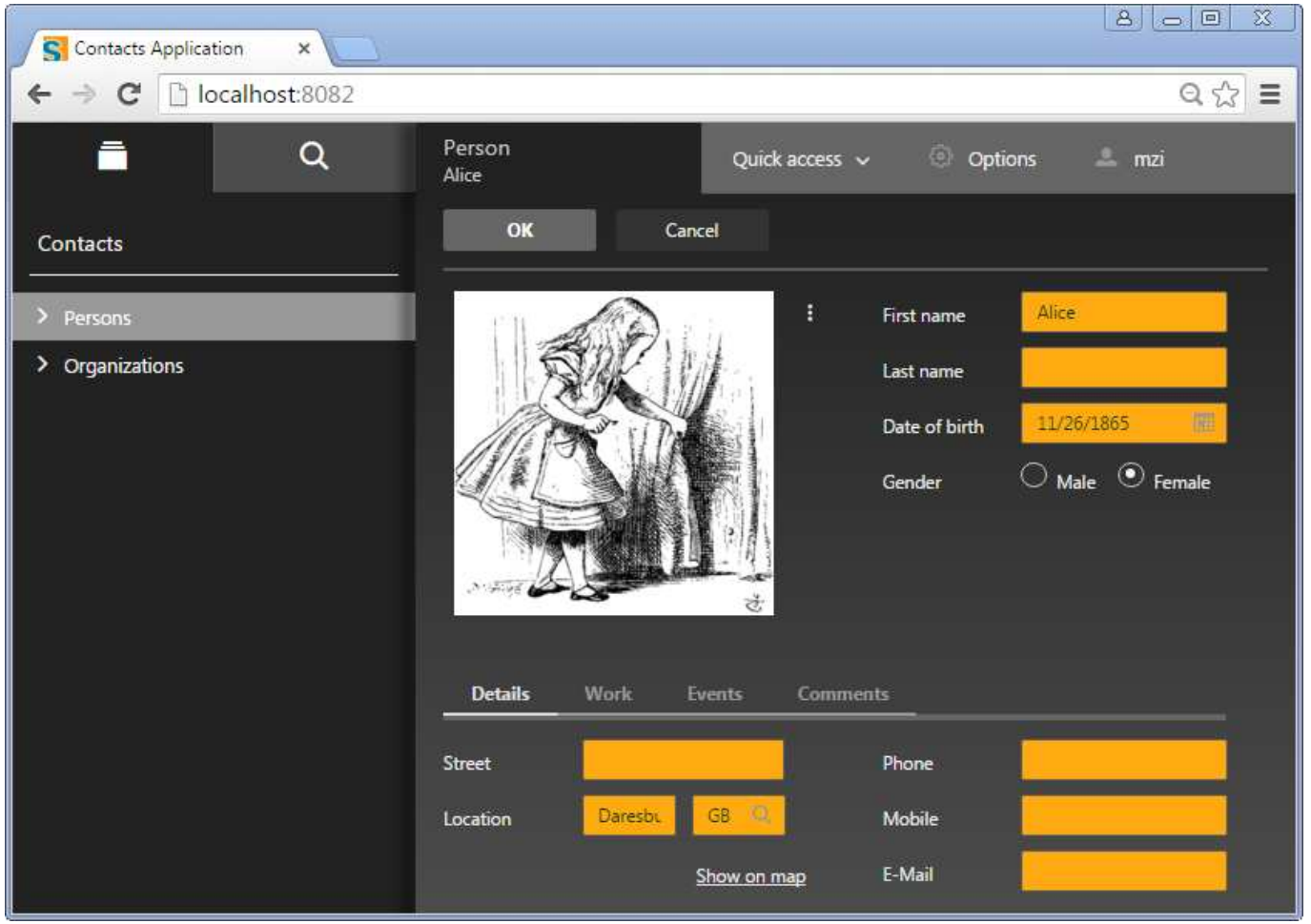
# Changing a Custom Theme

@control-background-color = #fa1;



# Changing a Custom Theme

@control-background-color = #fa1;



# Styling Individual Components
## Forms.css, Menu.css, Desktop.css …

**Use Cases**

- ➔ Modify appearance of individual component
- ➔ Override component Less/CSS3 files
- ➔ Additional efforts for Scout upgrades

**Example**

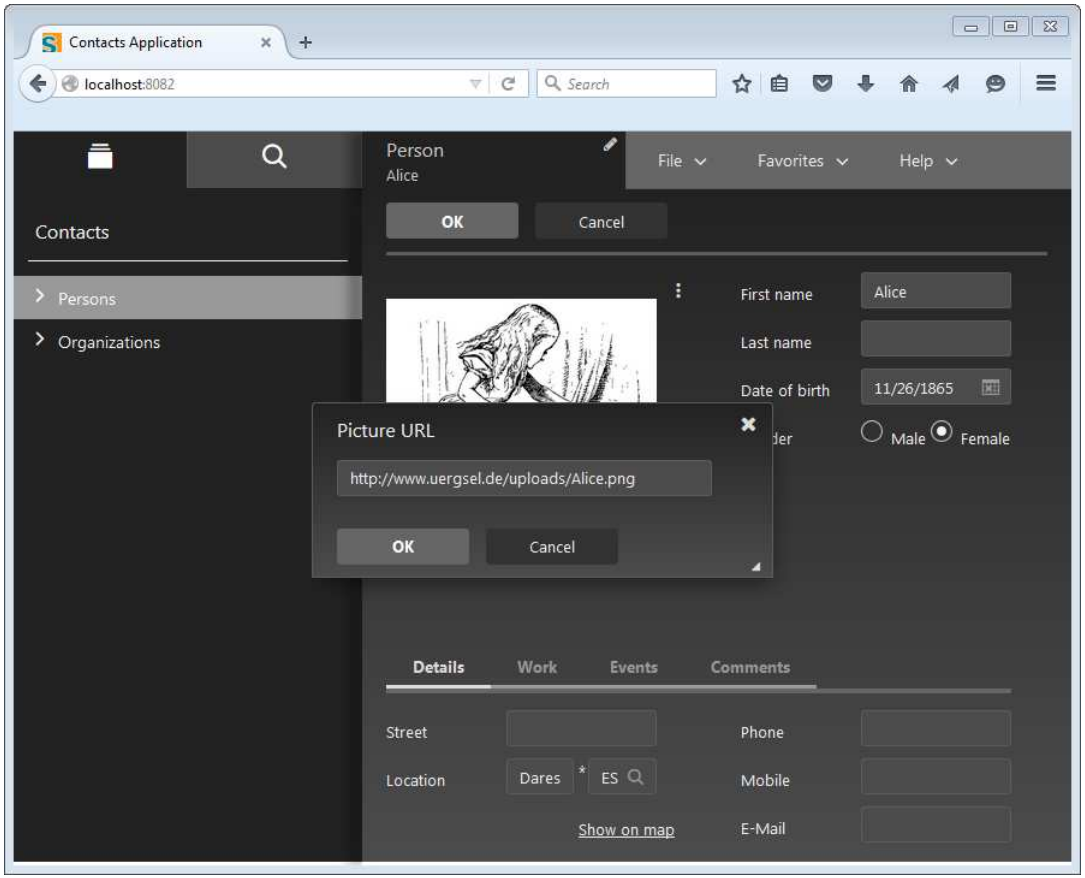
- ➔ Dialog properties

**Please note**

- ➔ Current state (Nov 2015) is work in progress
- ➔ There are still 7 months until Neon M7

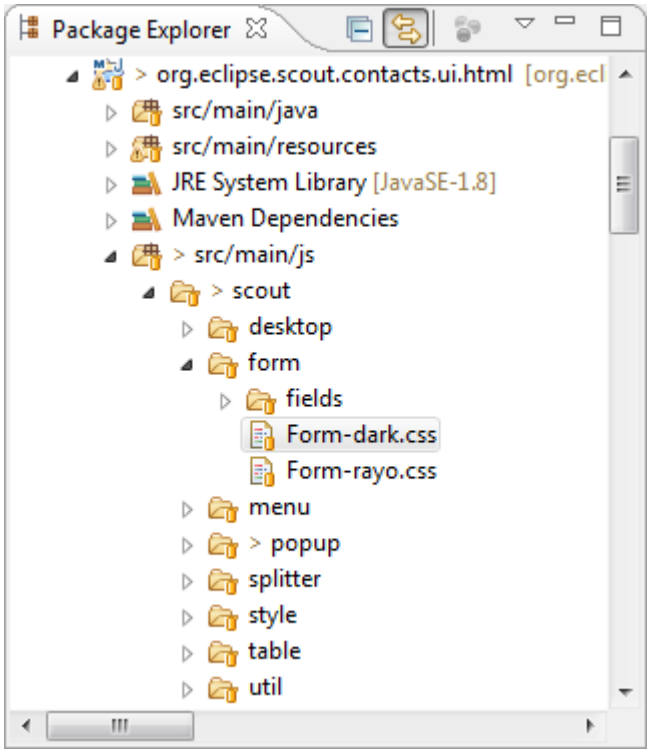
# Styling Individual Components

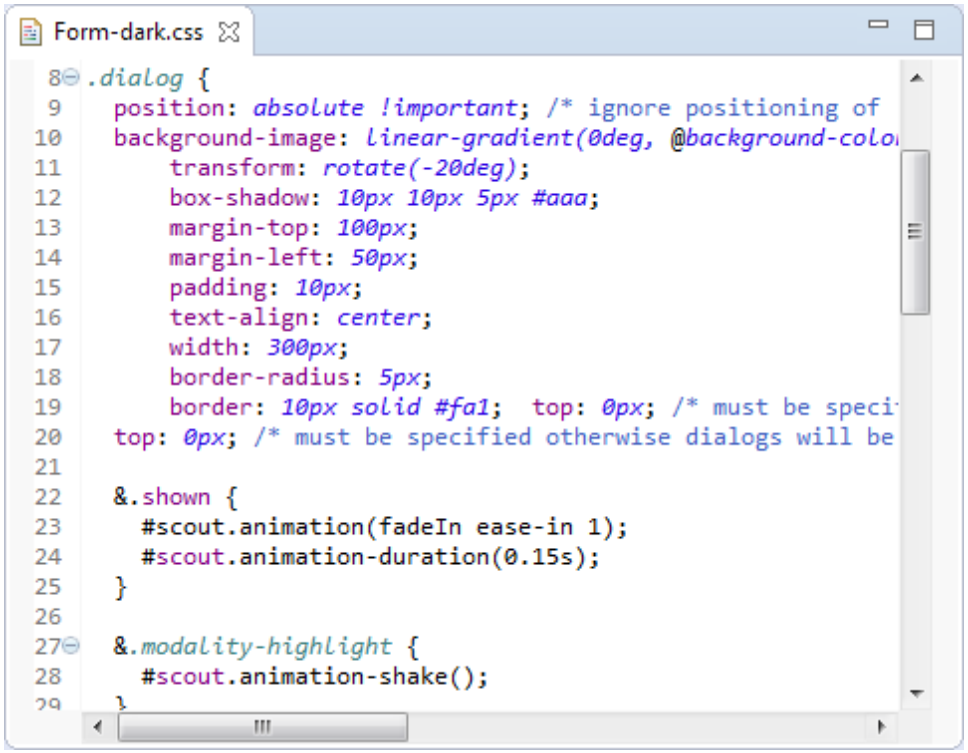
## .dialog class



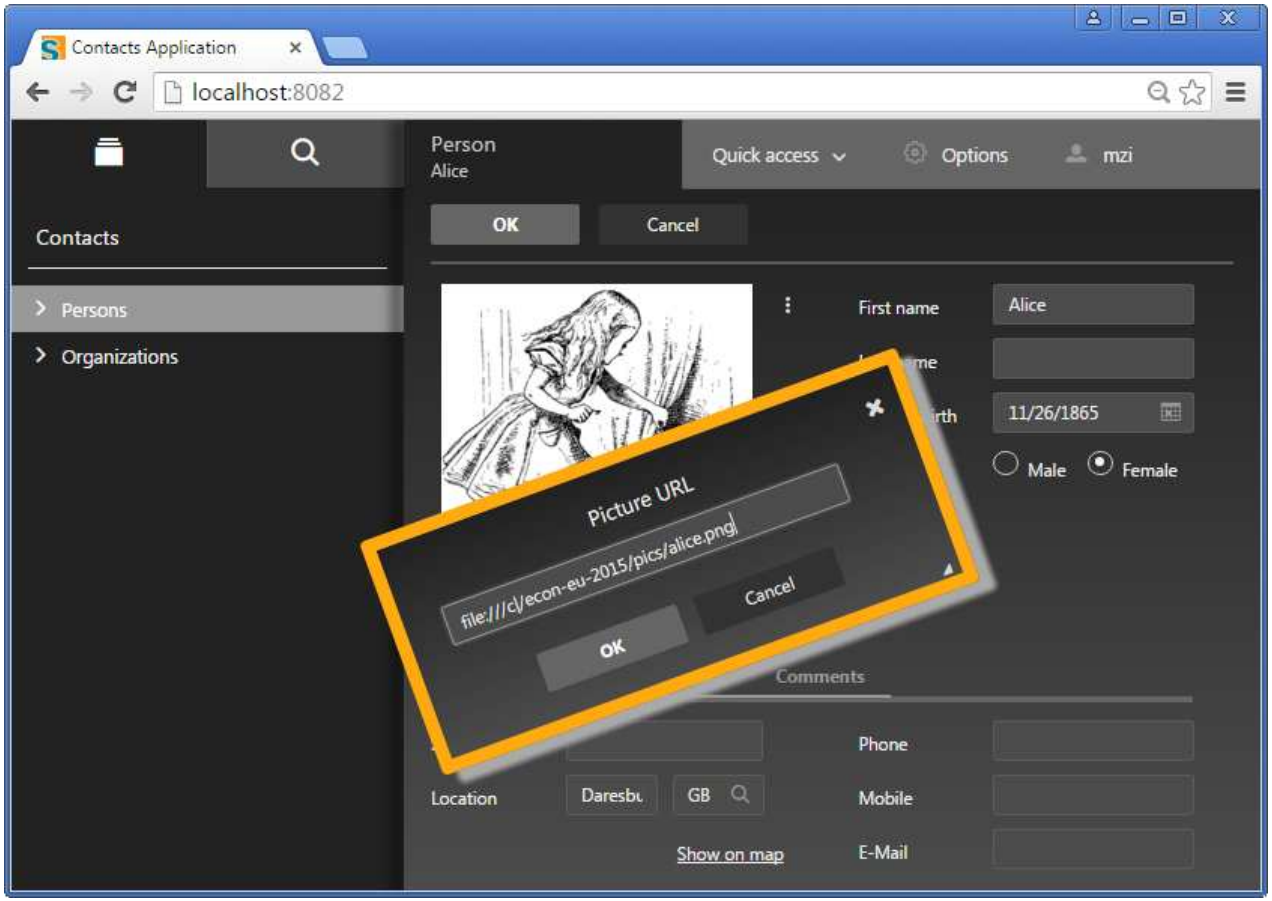
# Styling Individual Components

## .dialog – change some attributes



# Styling Individual Components
and reload …



Eclipse Scout Neon

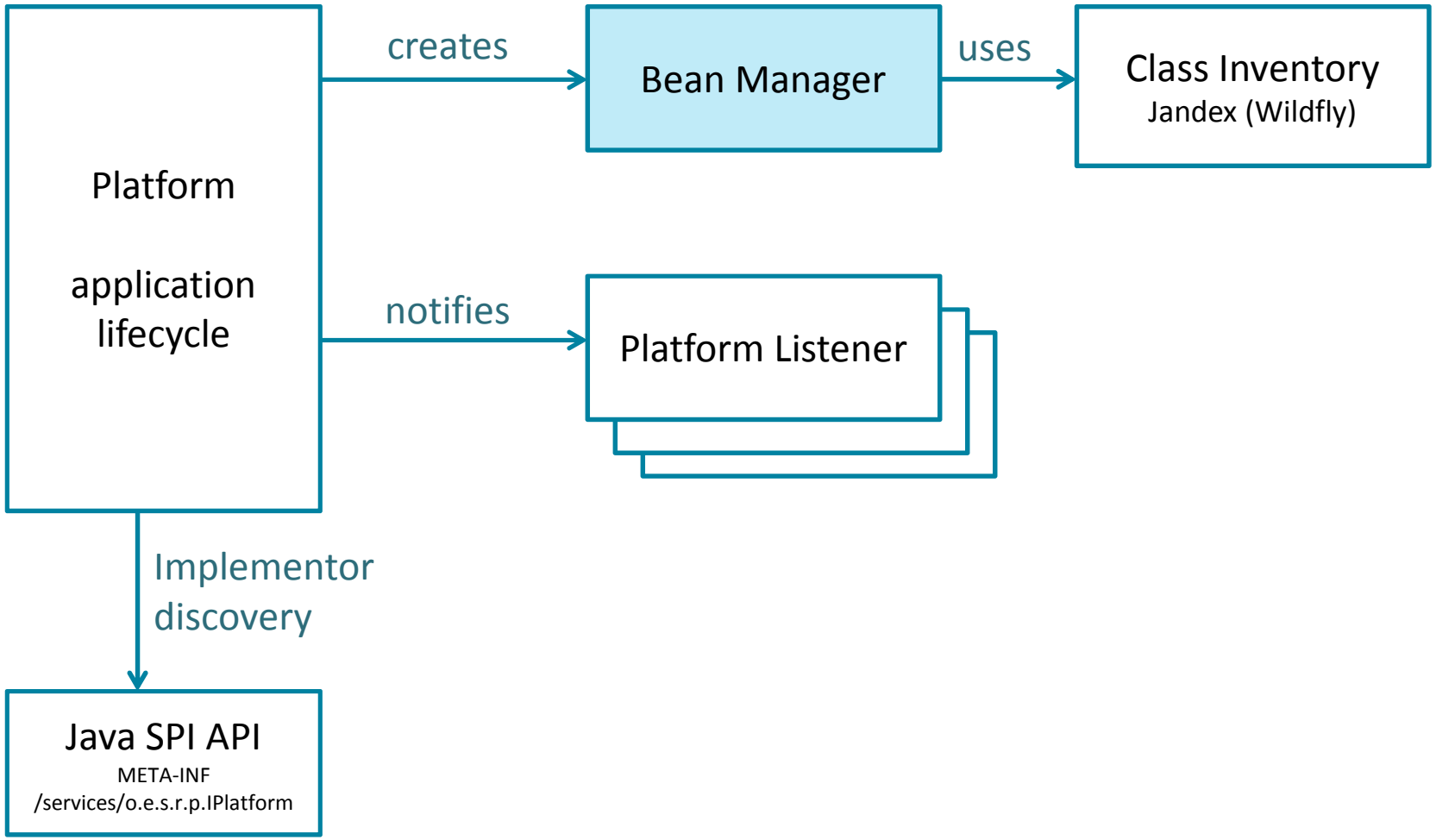
# **The new Java Platform**

- What motivated us to become a vanilla Java framework
- What does the new application platform look like
- How we replaced OSGi services and Eclipse extension registry

# Motivation in making Scout a vanilla Java framework

- bring simplicity back to Scout;
- express project dependencies with Maven only;
- build projects with Maven only;
- integrate third party libraries directly via Maven Central;
- integrate easier with Java EE containers.

# Eclipse Scout Application Platform



# Eclipse Scout Bean Manager

## What is a bean?

- simple Java class;
- is annotated with @Bean;
- does not require you to implement an interface;
- has either application or instance scope.

# Eclipse Scout Bean Manager

## What does an ‘instance scoped’ bean look like?

```
@Bean
public class HelloBean {

  public void sayHello() {
    System.out.println("Hello Ludwigsburg");
  }
}
```

## How to lookup that bean?

```
BEANS.get(HelloBean.class).sayHello();

BEANS.get(HelloBean.class).sayHello();
```

**Different object reference**

```
HelloBean@1f32e575
HelloBean@279f2327
```

# Eclipse Scout Bean Manager

## What does an ‘application scoped’ bean look like?

```
@ApplicationScoped
public class HelloBean {

  public void sayHello() {
    System.out.println("Hello Ludwigsburg");
  }
}
```

## How to lookup that bean?

```
BEANS.get(HelloBean.class).sayHello();

BEANS.get(HelloBean.class).sayHello();
```

**Same object reference**

```
HelloBean@1f32e575
HelloBean@1f32e575
```

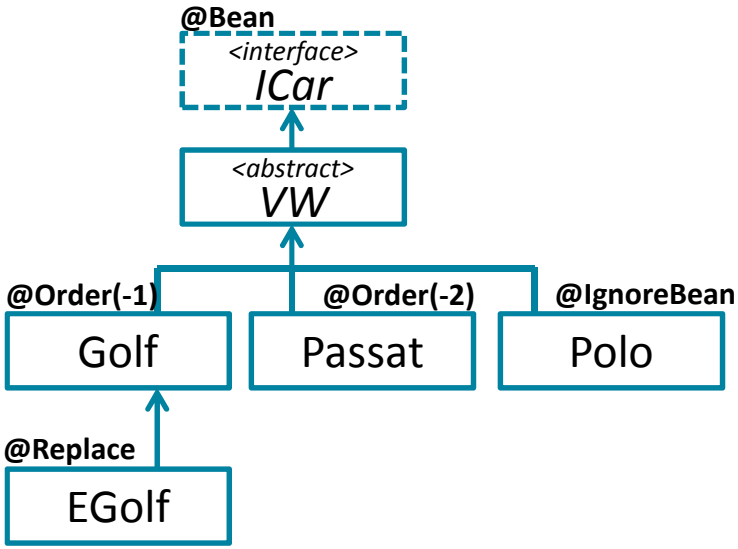
# Eclipse Scout Bean Manager

## What makes Scout Bean Manager so great?

- any object can be a bean;
- a bean can be provided dynamically;
- a bean can be replaced;
- a bean is registered on all its supertypes and interfaces.

# Eclipse Scout Bean Manager

## Some examples




```
BEANS.all(ICar.class);
```
→ Passat, EGolf

```
BEANS.get(ICar.class);
```
→ Passat

```
BEANS.get(VW.class);
```
→ Exception

```
BEANS.get(Golf.class);
```
→ EGolf

```
BEANS.get(Passat.class);
```
→ Passat

```
BEANS.get(Polo.class);
```
→ Exception

```
BEANS.opt(Polo.class);
```
→ null

# Eclipse Scout Bean Manager

## How are beans discovered?

- it’s like magic!
- beans are discovered only by their presence;
- for that to work, Jandex is used to calculate a class inventory index by spidering for classes during Maven build.

# Summary

# Take Home Message

**Neon Release**

➔ **Eclipse Scout** == Vanilla Java Framework

- Powerful Platform
- Maven by the Books

➔ **Eclipse Scout UI** == HTML5, JS, CSS3

- Custom Themes
- Custom Styling

# Thanks

**@EclipseScout**

{daniel.wiehl|matthias.zimmermann}@bsi-software.com