



Eclipse Scout goes Java & HTML5

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Agenda

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

Eclipse Scout

Scout Framework

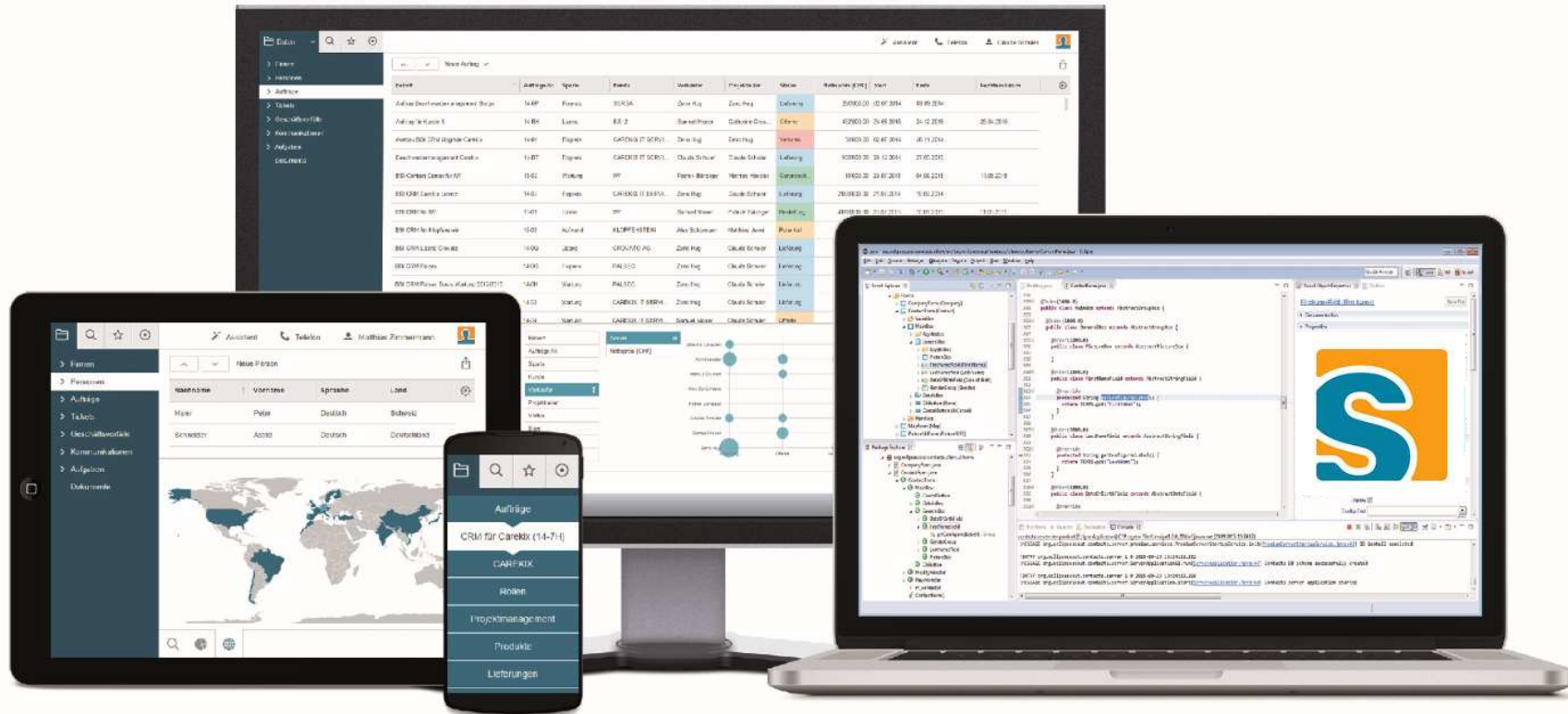
- Built for **Business Applications**
- **Multi Device** support
- Based on **Java** and **HTML5, CSS3, JS**

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!
B E T A

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:

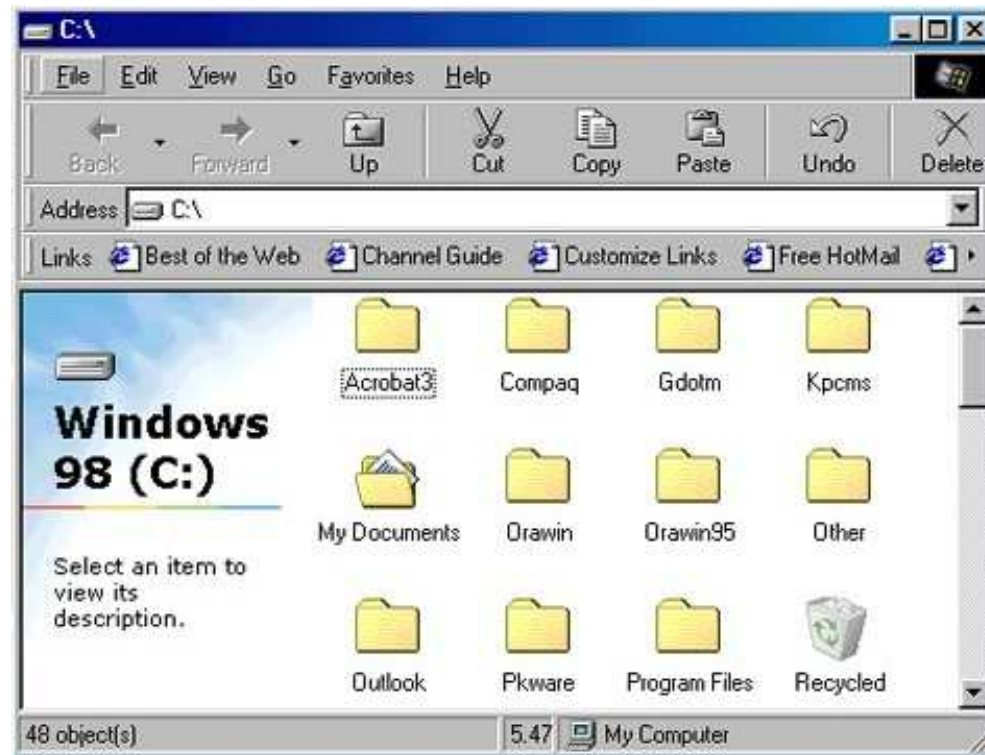
your e-mail

Subscribe

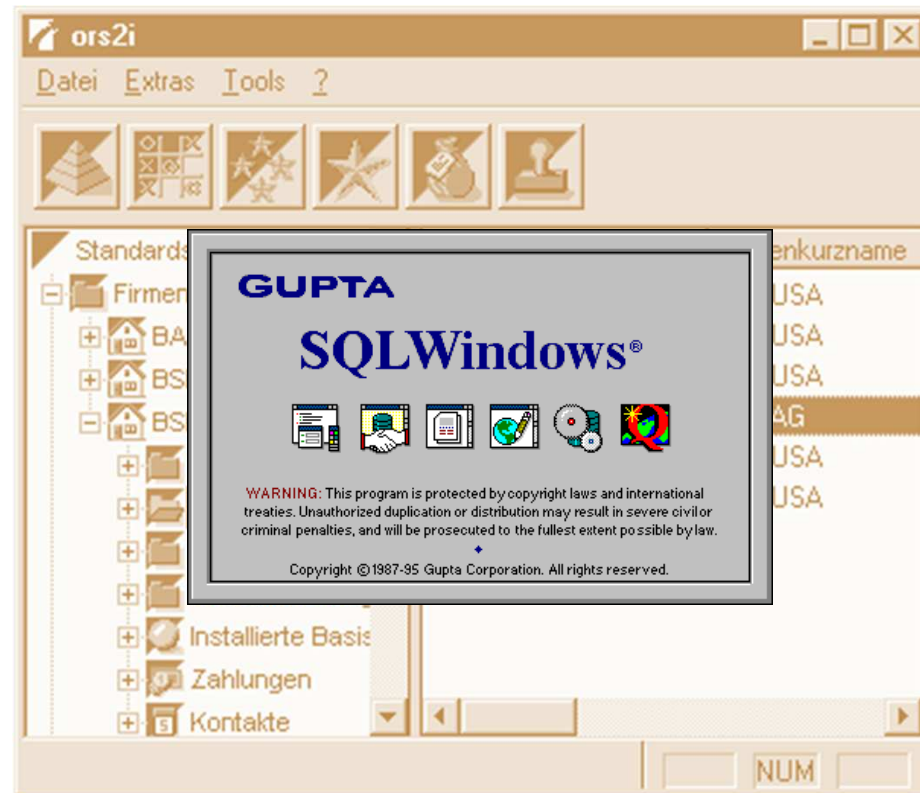
[Archive](#)

Copyright ©1998 Google Inc.

... 1999



... 1999



... 2002

The screenshot shows the 'ors X' application window. At the top, there is a menu bar with 'Datei' and 'Extras ?'. Below it is a toolbar with icons for 'Standardsicht', 'Eigene Sicht', 'Mgmt Reports', 'Marketing', 'Intern', and 'Stammdaten'. The main area is divided into a sidebar on the left and a main content area on the right. The sidebar contains a tree view with 'Firmen' expanded to show 'ARXES' and its sub-items: 'Projekte', 'Ansprechpa...', 'Mandate', 'Beziehunge', 'Konzernstru', 'Marketing', 'Problemmek', 'Installierte B', 'Zahlungen', 'Kontakte', and 'Pendenzen'. The main content area displays a table with the following data:

Kennwort	Termin	Erledigt am	Verantwortlich	Projekt	Firma	Kontaktperson	Telefon
unterlagen bsi und projektsteuerung in ors2i	20.07.2004		Schmidt, Daniel		ARXES	Arndt, Detlef	+49 30 4

Below the table, there is a large graphic featuring the Java logo (a red swirl above a blue cup) and the text '<xml />' in red and blue. Below this graphic is a 'Details' panel with the following fields:

- Kennwort: [Text input]
- Termin von: [Date picker] bis: [Date picker]
- Erledigt am von: [Date picker] bis: [Date picker]
- Verantwortlich: [Text input]
- Registriert von: [Text input]
- Pendenztyp: [Text input]
- Nur hohe Priorität
- Offene
- Erledigte

At the bottom of the window, there is a status bar showing '1 Datensatz' and a row of buttons: 'Details', 'Firmen und Per...', 'Projekt', 'Sonderabfrage', 'Zurücksetzen', and 'Suche'.

... 2005

The screenshot shows a database application window titled 'ORFIS BSI AG'. The main window contains a tree view on the left, a data table in the center, and a 'Firmen suchen' (Search Firms) dialog at the bottom. Overlaid on the center are the Eclipse 3.0 logo and the Java logo with '<xml />' text.

Firmenkurzname	Firmenname	Firmen-Nr.	Telefon	PLZ	Ort	Land	Region	Branche
BA BSI	Signalling	257	0046 8 681 5501	12086	Stockholm	Schweden	Europa	Industrie
BSI BADEN	BSI Business Systems Integr...	1	056 484 19 20	5405	Dätwil AG	Schweiz	Europa	Informatik
BSI USA	BSI Business Systems Integr...	583	+1 908 252-0300	NJ 088...	Somerville	U.S.A.	Arnetika	Informatik
BSI ZUG	BSI Business Systems Integr...	2	056 484 19 20	6340	Baar	Schweiz	Europa	Informatik

Firmen suchen

Firma:

Firmenkurzname:

Firmenname:

Firmen-Nr.:

Hauptbetroun:

Region:

Rating:

Sprache:

Konzernstruktur:

Installierte Basis:

aktive Firmen
 inaktive Firmen

Buttons: Firma, Detail, Hauptadresse, Person, Interaktion, Sonderabrufe, Suche, Zurücksetzen

... 2007

The screenshot displays the BSI CRM application interface. At the top, there is a menu bar with 'Datei', 'Extras', 'Prozesse', and 'Favoriten'. Below this is a navigation bar with icons for 'Standardsicht', 'Eigene Sicht', 'Reports', 'CPM', 'Marketing', 'Contact Center', 'Human Resources', 'Administration', and 'Schnittstellen'. The main window is titled 'Contact Center' and shows a sidebar with a tree view of business cases ('Geschäftsvorfälle') including 'Alle', 'Eigene', '<Nicht identifiziert>', 'Hug, Daniel (i-SOLUTIONS)', 'Eskalierter', 'Know-How', 'Virtuelle Teams', 'Prozessverwaltung', and 'Statistiken'. The central area is titled 'Prozess wählen - 11.04.09 11:25' and contains a 'Detail' section with input fields for 'Nachname', 'Vorname', 'PLZ', and 'Ort'. To the right of this section is a vertical list of process steps: '1 Person wählen', '2 Kundenübersicht', '3 Kundenidentifikation', '4 Prozess wählen', and '5 Prozessschritte unbekannt'. The bottom of the interface features a 'Telefon' icon, an 'Abbrechen' button, and 'Weiter' and 'Abschliessen' buttons. In the center of the main content area, there are two logos: the Java logo on the left and the Eclipse Galileo logo on the right. The Eclipse Galileo logo includes the text 'eclipse GALILEO' and a copyright notice: '(c) Copyright Eclipse contributors and others, 2000, 2009. All rights reserved. Java and all Java related trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and other countries. Eclipse is a trademark of the Eclipse Foundation, Inc.'

Eclipse Scout 2011

The screenshot displays the Eclipse Scout 2011 web application interface. The window title is "BSI CRM - zhu". The main navigation bar includes "Standard view", "Personal view", "Reports", "Marketing", "Contact Center", "Human Resources", "Administration", "CPM", and "BSI IT".

The left sidebar shows a tree view of the application structure, including "Companies", "Persons", "Projects", "Tickets", "Activities", and "Tasks".

The main content area displays a table of contact information. The table has the following columns: Name, Given name, Language, Main account manager, Phone, Mobile phone, and E-mail.

Name	Given name	Language	Main account manager	Phone	Mobile phone	E-mail
Fleseriu	Gabriel	Deutsch	Pedersen, Morten	+41 (56) 484 1...	+41 (79) 321 ...	gabriel.fleseriu@bsiag.com
Frei	Pascale	Deutsch	Isler, Claudia	+41 (56) 484 1...	+41 (79) 474 ...	pascale.frei@bsiag.com
Funk	Uwe	Deutsch	Pedersen, Morten	+41 (56) 484 1...	+41 (78) 920 ...	uwe.funk@bsiag.com
Geismann	Matthias	Deutsch	Bernold, Martin	+41 (56) 484 1...		matthias.geismann@bsia...
						lavid.gerhard@bsiag.com
						:audio.guglielmo@bsiag.c...
						anders.hansen@bsiag.com
						volger.heymanns@bsiag.c...
						justav.hilpert@bsiag.com
						oger.hitz@bsiag.com
						nuriel.hochuli@bsiag.com
						andreas.hoegger@bsiag.c...
						nark.huber@bsiag.ch
						eno.hug@bsiag.com
						sion.huws@bsiag.com
						:laudia.isler@bsiag.com
						evin.kim@bsiag.com
						runo.koefler@bsiag.com
						sigrid.kristiansen@bsiag.c...
Kristiansen	Ulrik	Deutsch		+11 (56) 484 1...	+41 (79) 433 ...	ulrik.kristiansen@bsiag.com
Leicht	Stephan	Deutsch	Seitel, Peter	+41 (56) 484 1...		stephan.leicht@bsiag.com
Lenz	Alberto	Deutsch	Rusche, Christian		+41 (79) 400 ...	alberto@lenz.net
Meer	Astrid	Deutsch	Schöb, Benjamin	+41 (56) 484 1...		astrid.meer@bsiag.com
Merkli	Stephan	Deutsch	Moser, Samuel	+41 (56) 484 1...	+41 (79) 388 ...	stephan.merkli@bsiag.com
Mittmann	Johannes Max	Deutsch	Nielsen, Jan Klint	+41 (56) 484 1...		max.mittmann@bsiag.com
Mortasawi	Mazda	Deutsch	Moser, Samuel	+41 (56) 484 1...	+41 (76) 435 ...	mazda.mortasawi@bsiag.c...
Moser	Adrian	Deutsch	Reichlin, Benedikt	+41 (41) 766 8...		adrian.moser@bsiag.com
Moser	Samuel	Deutsch	Duscha, Stefan	+41 (56) 484 1...		samuel.moser@bsiag.com

85 objects, 1 selected

The bottom section of the interface features three logos: the Scout logo (a stylized 'S' in orange and blue), the Java logo (a red flame over a blue coffee cup), and the Eclipse logo (a blue sphere with a white ring).

Eclipse Scout 2012

The screenshot displays the Eclipse Scout 2012 web application interface. The browser address bar shows the URL: [https://services.bsiag.com/bsicrm/web#com.bsiag.crm.client.core.desktop.PersonalOutline-Zimmermann-Matthias-\(BSI-Z%C3%9CRICH\)-Persons-Leicht-Vogt-Stephan-\(BSI-BADEN\)](https://services.bsiag.com/bsicrm/web#com.bsiag.crm.client.core.desktop.PersonalOutline-Zimmermann-Matthias-(BSI-Z%C3%9CRICH)-Persons-Leicht-Vogt-Stephan-(BSI-BADEN)). The main content area shows a 'Person' profile for Stephan Leicht Vogt, including fields for Name, First name, Company, Main representative, and an 'Active' checkbox. A profile picture of Stephan Leicht Vogt is displayed. Below the profile, there are logos for 'S' (BSI), Java, RAP (Rich Ajax Platform), and Eclipse. The interface also features a left-hand navigation tree with categories like Companies, Persons, Network, Projects, Marketing, Tickets, Cases, Communication, and Tasks. At the bottom, there are options to 'Open as Graphic' or 'Open as PDF' and a navigation menu with 'Organic', 'Hierarchical', 'Orthogonal', and numbered tabs '1 2 3 5 10'.

Eclipse Scout 2015/16

The screenshot displays the BSI CRM software interface. The browser address bar shows the URL <https://services.bsi-software.com/bsicrm/>. The interface is divided into a left sidebar and a main content area.

Left Sidebar (Navigation):

- Daten
- Firmen
- Personen
 - Stephan Leicht Vogt (BSI BADEN)
 - BSI BADEN (Ansprechpartner)
 - Firmen
 - Betreuung
 - Netzwerk
 - Aufträge
 - Marketing
 - Zahlungen
 - Tickets
 - Geschäftsvorfälle
 - Kommunikationen
 - Aufgaben
 - Aufträge
 - Tickets
 - Geschäftsvorfälle
 - Kommunikationen
 - Aufgaben
 - Dokumente

Main Content Area (Company Profile):

Firma: ECLIPSE FOUNDATION
Person: Stephan Leicht Vogt (BSI BA...)

Buttons: **Speichern**, Abbrechen, Prüfung auf Doublette vornehmen

Fields:
Kurzname: * ECLIPSE FOUNDATION
Name 1: * Eclipse Foundation Inc.
Name 2: [Empty]
Nummer: [Empty]
Sprache: [Empty]
Rating: [Empty]

Segmenti:
 Bee
 Firm
 Key
 Kon

Logos: Scout logo (orange and blue 'S'), Java logo (red and blue), HTML5 logo (orange and blue), CSS3 logo (blue and white), JS logo (yellow and blue).

Navigation Tabs: Adressen, Bemerkungen, Informationen, Marketing, Finanzielle Daten, Dokumente, Änderungen

Address Fields:
Fax: +1 (613) 224-5172
E-Mail: info@eclipse.org
Website: www.eclipse.org
Anschritt: Eclipse Foundation Inc., 102 Centrepointe Drive, Ottawa, Ontario, K2G 6B1

Address Details:
Adresszusatz 1: [Empty]
Adresszusatz 2: [Empty]
102 Centrepointe Drive
Postfachbezeichnung: [Empty] Postfachnummer: [Empty]
* CA, K2G 6B1, Ottawa

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

^ v 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

- > Persons
- > Business
- > Tickets
- > Cases
- > Communications
- > Tasks
- Documents

Actions

New company

Content

	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

Table Controls

Table Filter

Status

No row selected
Special

Eclipse Scout Neon
Styling and Themes

Themes and Styling with Scout

Technology

→ CSS3 + Less

CSS Organisation

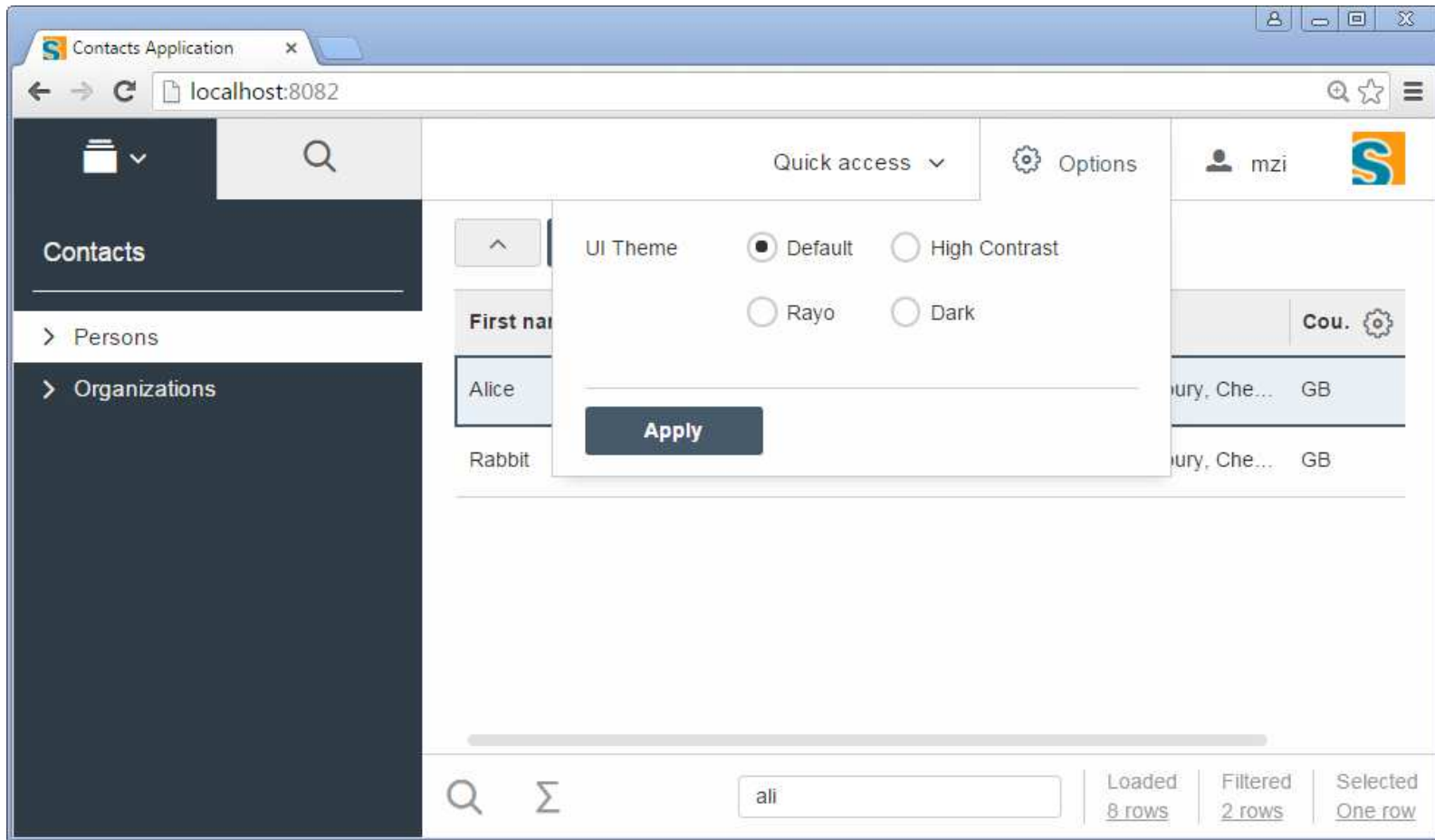
- Global Less files (colors, fonts, sizes, ...)
- Component specific Less files (Form, Field, Button...)
- Optional: Project specific Less files
- **Theme**: Named set of Less files

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



The screenshot shows a web browser window titled "Contacts Application" at the URL "localhost:8082". The application interface includes a dark sidebar with "Contacts", "Persons", and "Organizations" sections. A search bar is visible at the top. An "Options" dialog box is open, displaying "UI Theme" settings with radio buttons for "Default" (selected), "High Contrast", "Rayo", and "Dark". An "Apply" button is present at the bottom of the dialog. In the background, a table of contacts is partially visible, with columns for "First name" and "Cou.". The bottom of the application shows a search filter "ali" and summary statistics: "Loaded 8 rows", "Filtered 2 rows", and "Selected One row".

UI Theme
<input checked="" type="radio"/> Default
<input type="radio"/> High Contrast
<input type="radio"/> Rayo
<input type="radio"/> Dark

First name	Cou.
Alice	GB
Rabbit	GB

Loaded	Filtered	Selected
8 rows	2 rows	One row

Theming

Default Theme

Contacts Application

localhost:8082

Person Alice

Organization BSI Business ...

Event EclipseCon 2015

File Favorites Help

OK Cancel

First name Alice

Last name

Date of birth 11/26/1865

Gender Male Female

Details Work Events Comments

Street

Location Daresbury, Ch GB

Phone

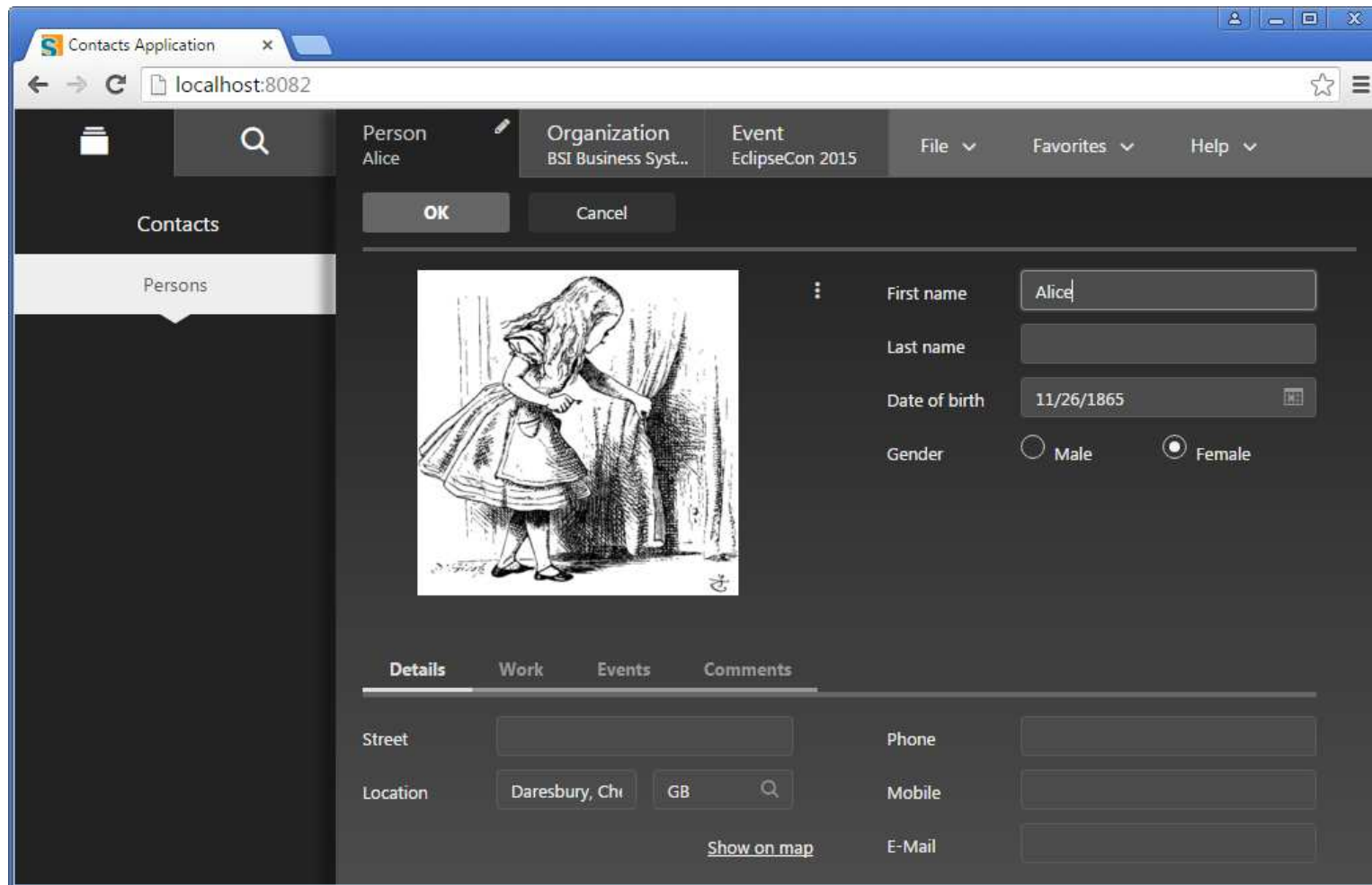
Mobile

E-Mail

Show on map

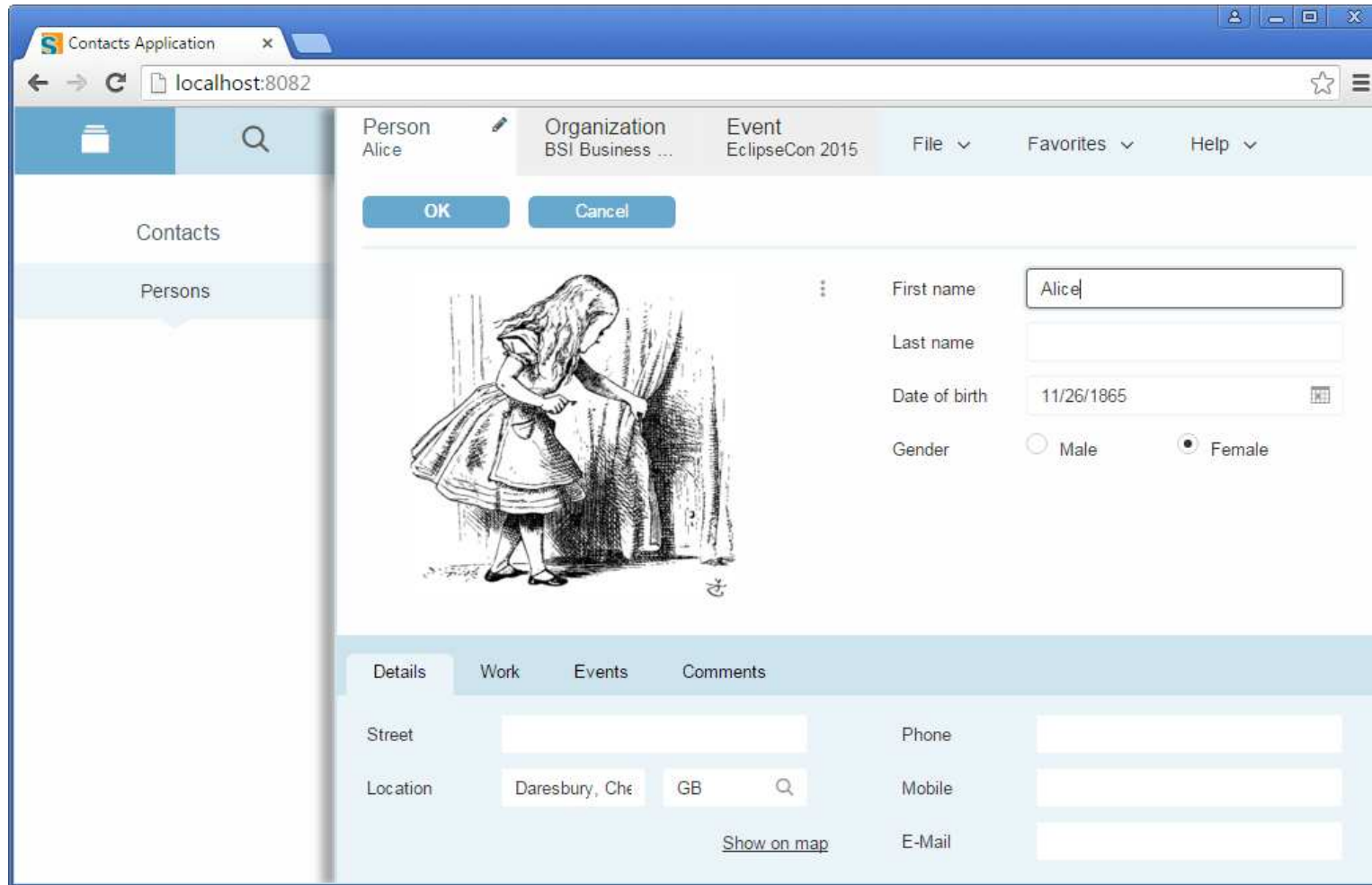
Theming

«Dark» Theme



Theming

«Rayo» Theme



Eclipse Scout Neon
Global Styling + Component Styling

Styling with Global Properties

colors.css, fonts.css, sizes.css ...

Use Case

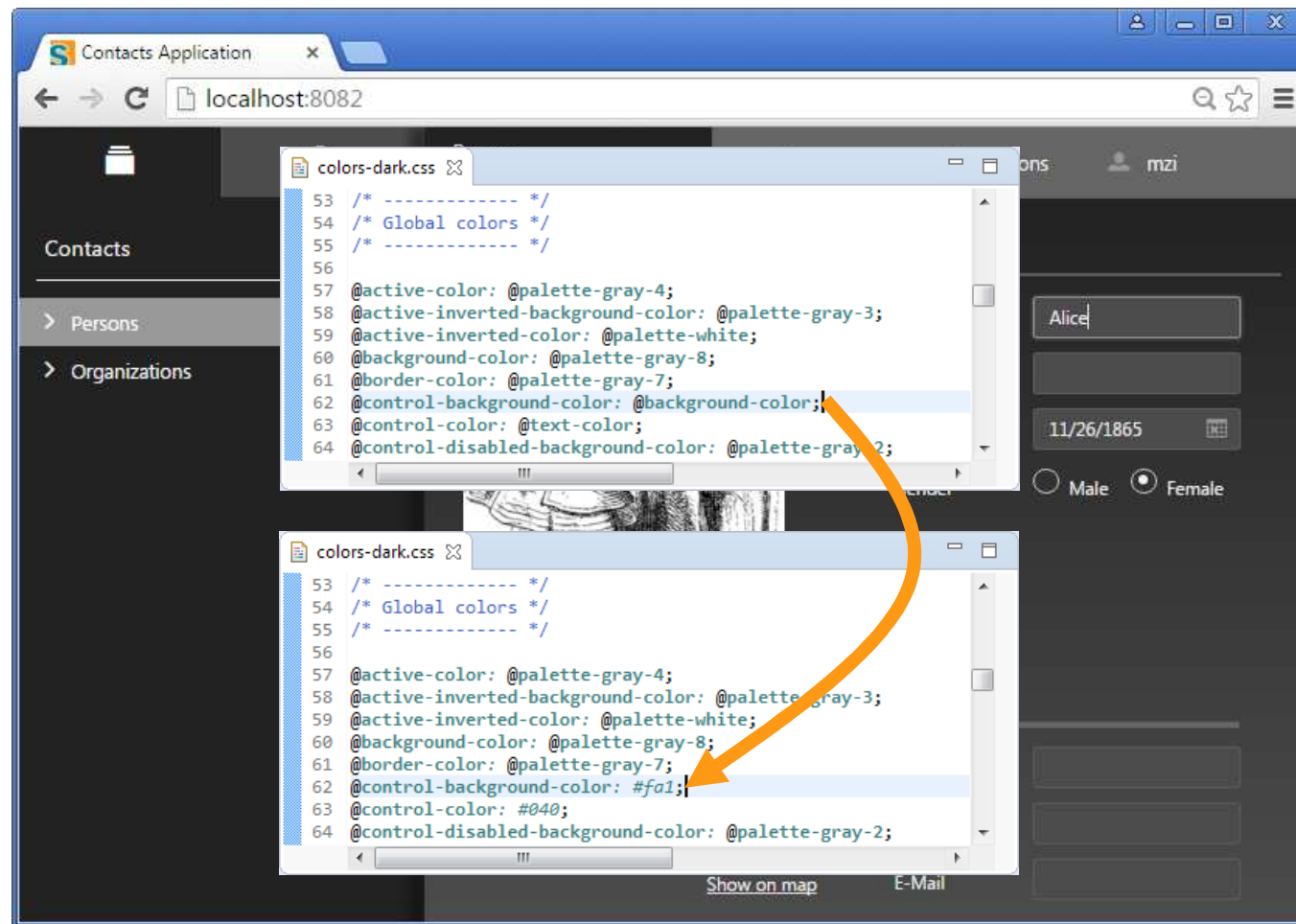
- Styling of general appearance
 - Colors
 - Fonts
 - Sizes
- Low effort with upgrades
- Simple and efficient

Example

- Control colors

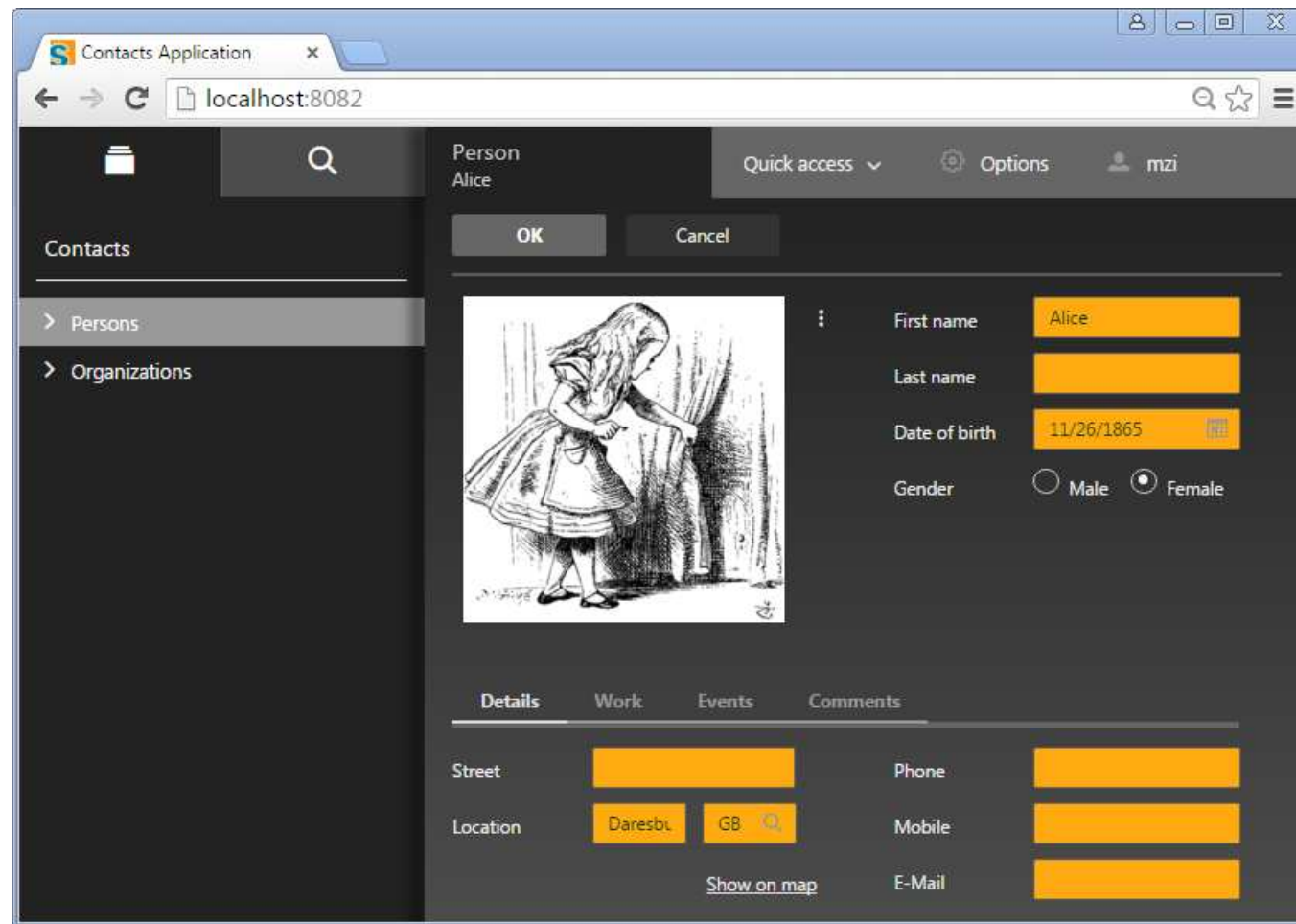
Changing a Custom Theme

@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

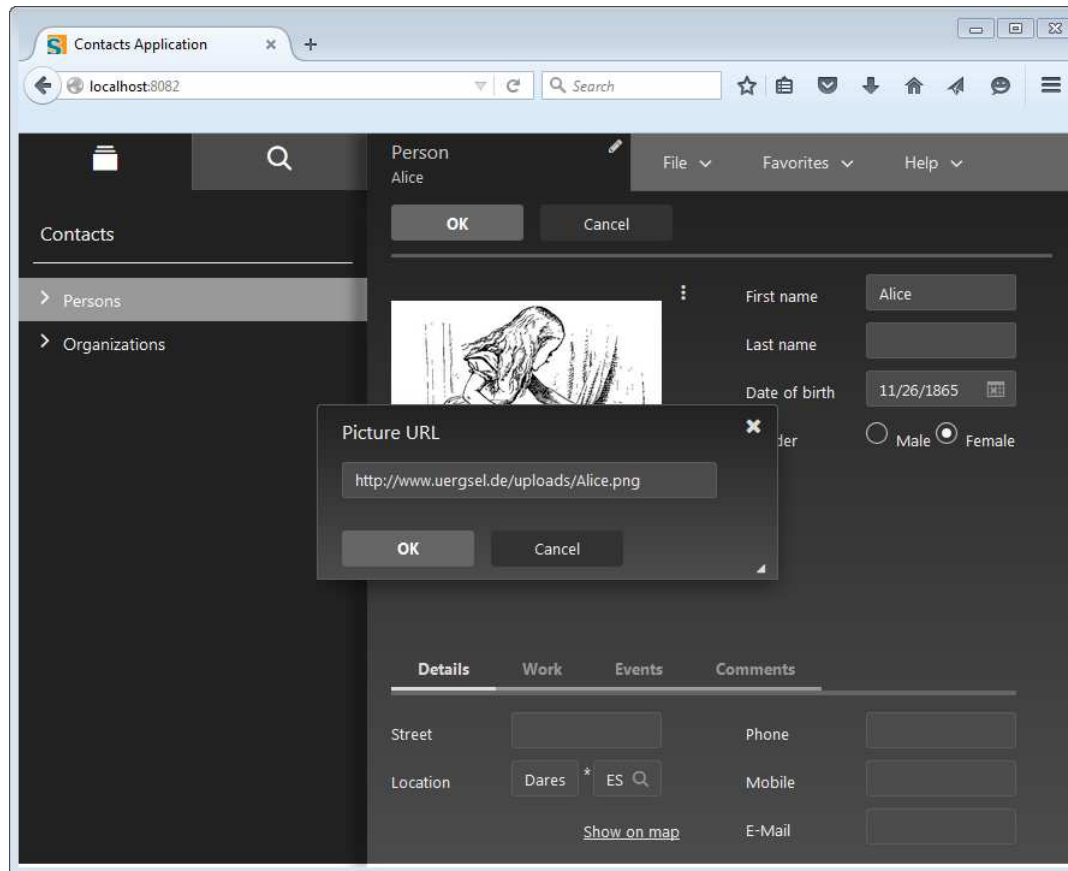
- Dialog properties

Please note

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

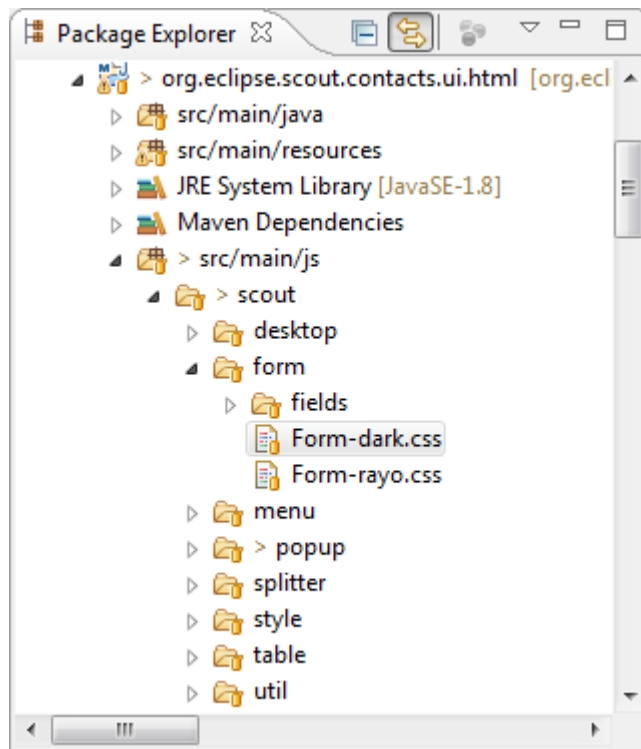
Styling Individual Components

.dialog class



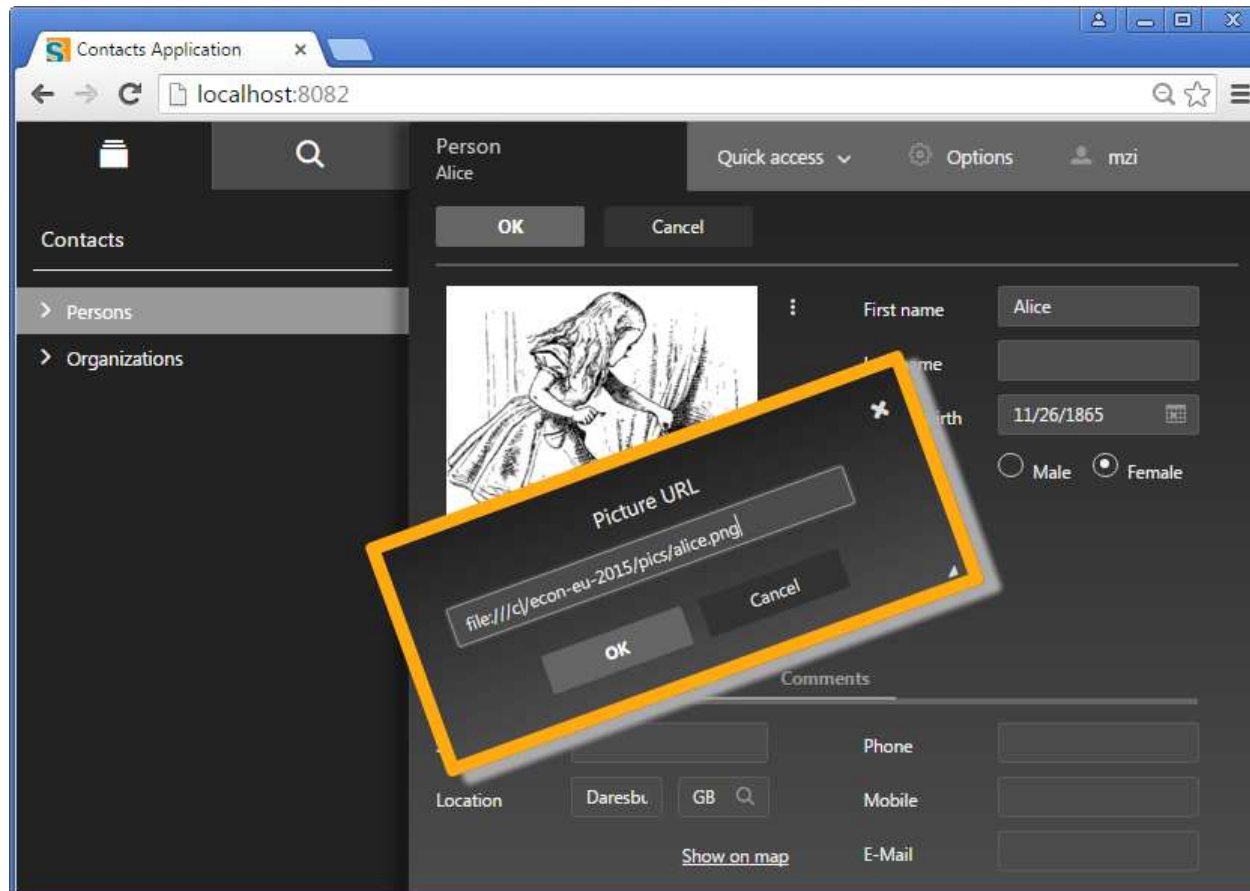
Styling Individual Components

.dialog – change some attributes



```
Form-dark.css
8 @.dialog {
9   position: absolute !important; /* ignore positioning of
10  background-image: linear-gradient(0deg, @background-color, @background-color);
11  transform: rotate(-20deg);
12  box-shadow: 10px 10px 5px #aaa;
13  margin-top: 100px;
14  margin-left: 50px;
15  padding: 10px;
16  text-align: center;
17  width: 300px;
18  border-radius: 5px;
19  border: 10px solid #fa1; top: 0px; /* must be speci
20  top: 0px; /* must be specified otherwise dialogs will be
21
22  &.shown {
23    #scout.animation(fadeIn ease-in 1);
24    #scout.animation-duration(0.15s);
25  }
26
27  &.modality-highlight {
28    #scout.animation-shake();
29  }
```

Styling Individual Components and reload ...



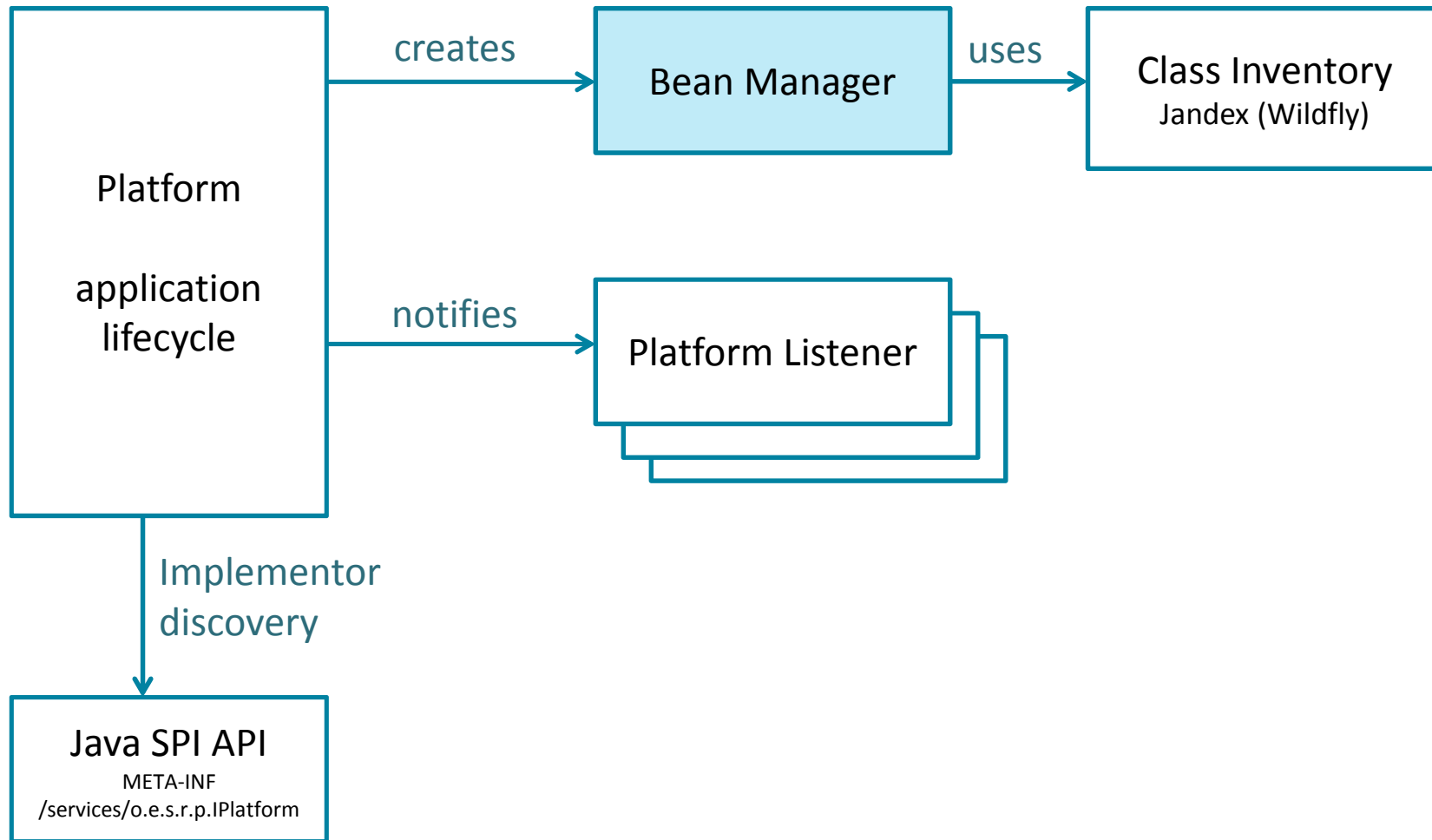
Eclipse Scout Neon
The new Java Platform

- 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

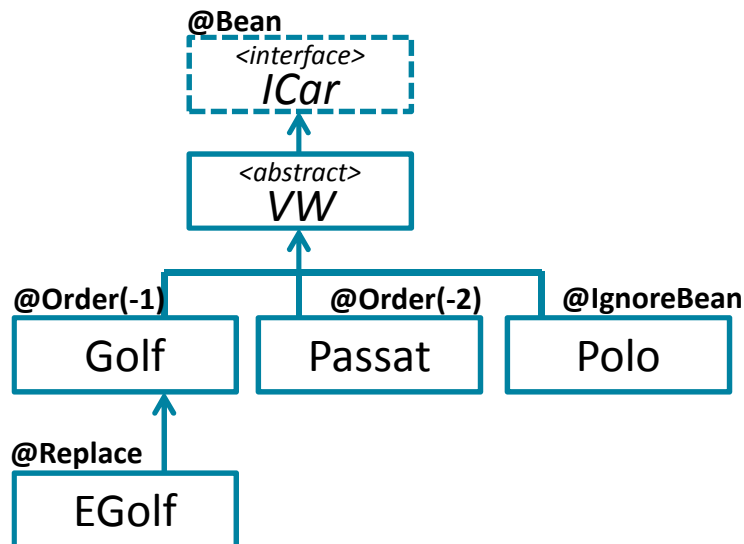
Eclipse Scout Bean Manager

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