



OLAT Layout Workshop

1st international OLAT Conference

26. März 2008

Florian Gnägi, frentix GmbH

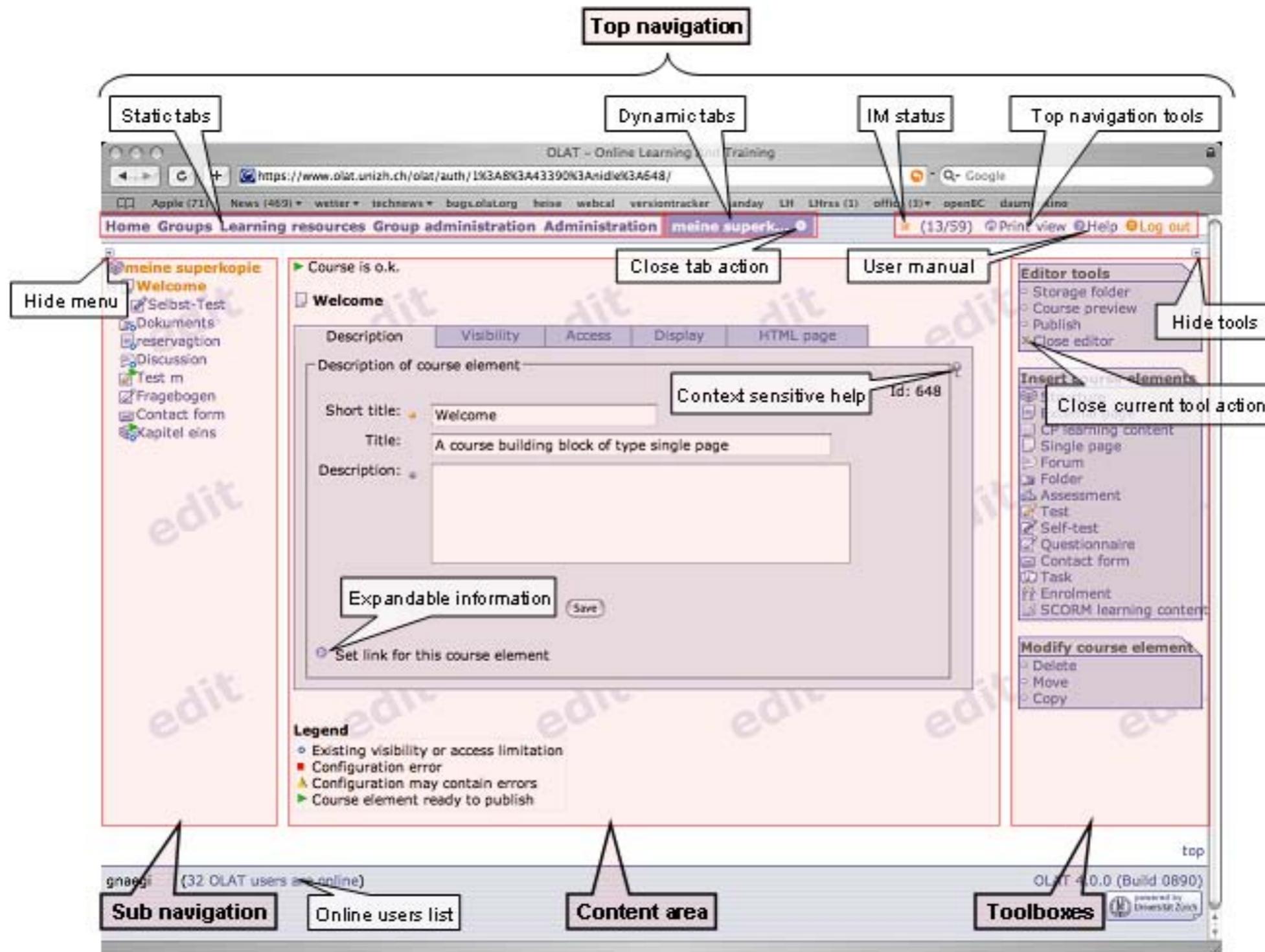
Table of contents

- Some words on the OLAT GUI framework
- What is layout and what is possible with CSS
- Comparison of OLAT 5 and OLAT 5
- CSS basics explained
- Firebugs hands on
- YAML basics explained
- OLAT theme file structure
- OLAT theme hands on

Component based architecture

- OLAT HTML structure „generated“ on-the-fly
- No single HTML template
- Hierarchy of nested components / subtemplates
- Modifications in HTML structure
 - are difficult (side effects)
 - should be avoided
 - must be done in code

GUI elements



What is layout?

- **Layout** = **HTML** structure + **CSS** styles
The general arrangement of the elements and its visual representation
- **Look** can be changed by changing the CSS definitions.
It consists of the general layout styles and the content styles (text formatting).
- **Feel** defined by application
Interaction, basic layout arrangement. You can't change this by CSS rules.

What is possible with CSS? Lets see some examples...


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Willkommen in der OLAT Lernplattform von frentix GmbH

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frentix eLearning Schnellstart Links

Kurse	Lesen Sie die Liste aller Kurse
Katalog	Stöbern Sie nach Kursen im Katalog
Hilfe	Lernen Sie OLAT kennen
Einstellungen	Passen Sie OLAT an Ihre Bedürfnisse an
Arbeitsgruppe	Erstellen Sie eine Gruppe für Ihre Projekte z.B. für den Dokumentenaustausch



Wussten Sie...?

... dass Sie eigene Dokumente anderen Benutzern zugänglich machen können?

Legen Sie Dokumente, die andere OLAT-Benutzer einsehen können, in Ihrem persönlichen Ordner in den sog. "public" Ordner. Die Dokumente können andere Benutzer finden, indem Sie auf 'Andere Benutzer' klicken, Ihren Namen eingeben und dann Einsicht in den Ordner erhalten.

[Weiter...](#)



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Sie haben keine Benachrichtigungen



Macartney Comic: Die Loge



© Eigentum von macartney.ch



Heute: 24.01.2007

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Keine Termine im angegebenen Zeitraum



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frentix GmbH



professional support for the open source LMS OLAT

- Installation / Customizing
- Dedicated Server Hosting / ASP
- Training for OLAT authors / OLAT administrators / OLAT software developers
- Project support / Consulting in the fields of



Lernressourcen

- Katalog
- Suchmaske
- Meine Einträge**
- Kurse
- Tests
- Fragebogen
- CP-Lerninhalte
- SCORM-Lerninhalte
- Ressourcenordner
- Wikis
- Glossar

Lernressourcen

4 Einträge

Typ	Titel der Lernressource	Urheber	Zugriff*	Wählen
	beispielcp	gnaegi	BA-	Inhalt anzeigen
	Minikurs	administrator	BARG	Inhalt anzeigen
	Minitest	administrator	BAR-	Inhalt anzeigen
	Übersicht über SCORM	administrator	B-	Inhalt anzeigen

*)
 B=Besitzer dieser Lernressource (nicht öffentlich)
 A=Alle OLAT-Autoren (nicht öffentlich)
 R=Registrierte OLAT-Benutzer (öffentlich)
 G=Gäste (öffentlich)

Importieren

- Kurs
- CP-Lerninhalt
- SCORM-Lerninhalt
- Test
- Fragebogen
- Wiki
- Glossar
- Andere Formate

Herstellen

- Kurs
- Test
- Fragebogen
- Ressourcenordner
- Wiki
- Glossar



Seite konfigurieren

Willkommen bei OLAT

der E-Learning Plattform des ZAG

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OLAT Schnellstart Links

- [Kurse](#) Lesen Sie die Liste aller Kurse
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Wussten Sie...?

... Sie diese Seite anpassen können?

Über den Link "Seite konfigurieren" können Sie die Reihenfolge der Kästchen auf dem Home ändern oder gewisse Kästchen gar nicht anzeigen.

[Weiter...](#)



Macartney Comic: Die Loge



[Z Eigentum von macartney.ch](#)



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Meine Benachrichtigungen

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Sie haben keine Benachrichtigungen



Meine Leistungsnachweise

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Sie haben keine Leistungsnachweise



Meine Notizen

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Sie haben keine Kursnotizen erstellt



OLAT < 6.0 layout

- Table based layout - but TABLE element is reserved for tabular content, not for layouting!
- CSS classes unstructured, cryptic class names
- Difficult to maintain
- Many issues on different browsers
- Content overflow not addressed properly
- HTML 4.0.1 transitional

OLAT \geq 6 layout

- YAML based layout, no more tables for layouting purposes
- CSS class names conventions
- More reusable components, better to maintain
- Basic issues on different browsers solved, still many issues due to browser bugs
- Content overflow solved
- XHTML 1 transitional

OLAT 6 for layout modders

- In OLAT 6 all GUI components are rewritten
 - New HTML structure
 - New CSS definitions
 - But workflows and arrangements of elements mostly unchanged
- OLAT 5 CSS definitions are incompatible with OLAT 6
 - Custom OLAT layouts will need rewrite
 - Custom course layouts will need rewrite
- Theme support
 - Global level
 - Course level

CSS basics

- CSS styles are applied to HTML elements for *formatting, layouting and effects*
- *Formatting*: font,color, background images...
- *Layouting*: positioning, flow, size...
- *Effects*: different formatting for mouse over

- In theory: HTML structure does not contain formatting or layoutig markup:
 versus

CSS selectors

- CSS selector = mapping between HTML element and CSS rule
- CSS = *Cascading* style sheet:
order of CSS mapping rules and type of rules matters!
- Rule of thumb: the more specific the rule the higher the relevance in the cascade
- Use Firebug to understand the cascade of CSS rules that apply to an element!

Basic CSS selectors

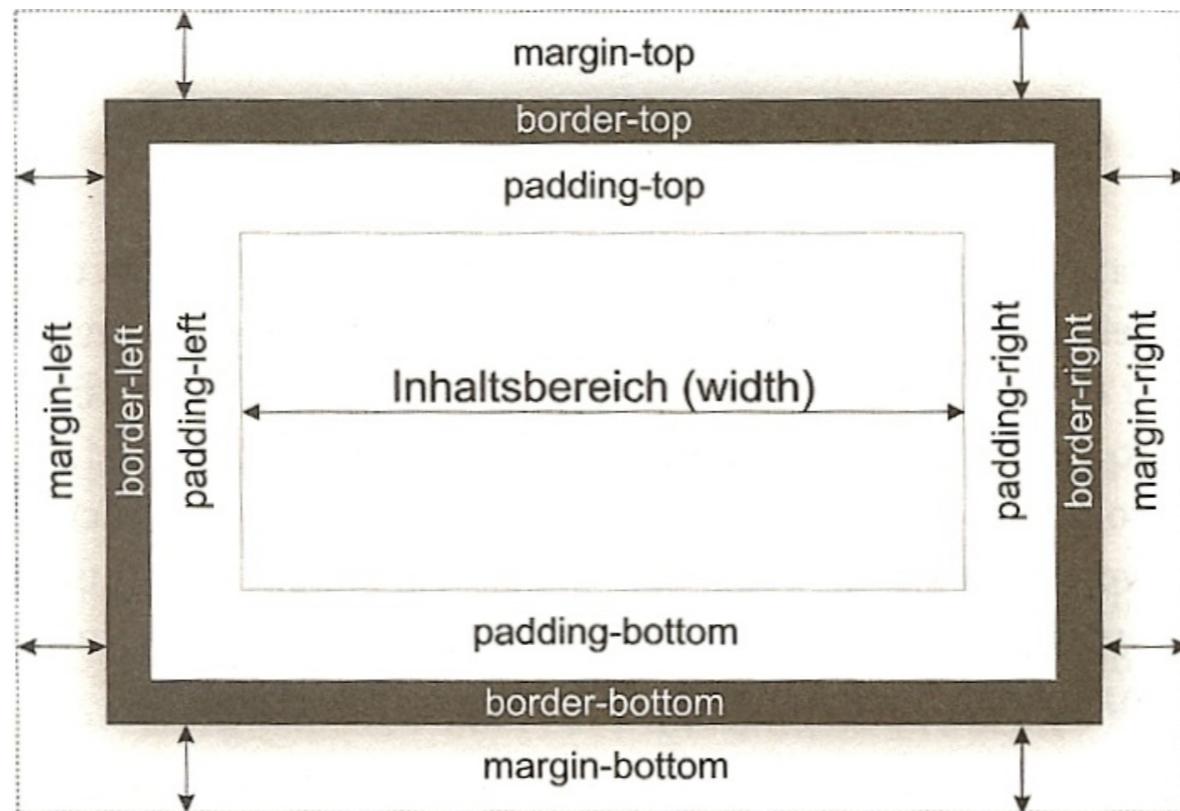
p	Typ-selector: <p>
p a	Descendant selector: <p><a ...> Only <a> elements within <p>
a:hover	Pseudo-class selector: <a ...> triggered on mouse over
.myclass	Class-selector: <p class="myclass">, , ...
p.myclass	Class-selector: <p class="myclass">
#myid	ID-selector: <p id="myid">, , ... (ID unique in HTML structure)
p.myclass ul a#myid	Combination: <p class="myclass">

The following CSS selectors are not fully supported by the different browsers, don't use them:

p:first-child ; p > a ; p + a ; p[foo]

CSS box model

- Each HTML element fits within a box



- CSS style „width“ \neq box width !!!!! (but IE treats it this way!)
- style=“width:100px; border:1px; padding: 10px;“
In IE: total width of box is 100px, inner width of box is 78px
In other browsers: total width of box is 122px, inner width of box is 100px
- Solution is to use wrapper element (div) for border and padding

CSS box display types

- **display = inline**
 - within text flow
 - no line break
 - has no box properties, box properties apply to content
- **display = block**
 - content surrounded by box
 - forces line break before and after
- **display = list-item**
- **display = none**
- For every HTML element display type is predefined, but can be altered via CSS rule (inline: a, span, img, strong; block: h1, table, p, form, div)

CSS element positioning

- **position = static**
 - default value
 - box rendered where defined in element flow
- **position = relative**
 - box rendered relative to the static positioning
 - box still rendered in element flow
- **position = absolute**
 - box rendered relative to the next parent element which is relative or absolute positioned
 - box removed from element flow and rendered as an independent layer
 - Use carefully, accessibility issues, screenreader has problems to handle multiple layers

CSS float

- Elements can be removed from the element flow and be defined as a floating element
- The following elements will flow around the floating element, left or right side
- The end of the floating must be signaled explicitly with „clear“
- „float:left/right“ implicitly sets display type to block, no matter what css rule is defined
- Always set „float:left/right“ in combination with „display:inline“ to fix an IE bug regardless the previous statement

Layout debugging with Firebug

The screenshot shows a web browser window with the URL `http://beta.frentix.com/beta/dmz/`. The page title is "OLAT - Online Learning And Training". The browser's address bar shows the URL and the search engine is set to Google. The page content includes a warning message: "Auf diesem Server können Sie den OLAT 6 Conference-beta Release ausprobieren und die Möglichkeiten der Anpassung mittels CSS testen. frentix wünscht Ihnen viel Spass!". Below this is the "OLAT ANMELDUNG" section, which contains a login form with fields for "OLAT-Benutzername:" and "OLAT-Passwort:", and a "Login" button. To the right of the form is the OLAT logo. At the bottom of the page, there are links for "Gastzugang", "Passwort vergessen", and "Registrierung".

The Firebug developer tool is open at the bottom of the browser window. The "DOM" tab is selected, showing the following HTML structure:

```
<h3>OLAT - Online Learning And Training</h3>
<div class="o_infomessage_wrapper">
  <div class="o_infomessage">
  </div>
  <div class="o_login_form" id="ext-gen25">
    <fieldset id="ext-gen29">
      <ul>
      </ul>
    </div>
  </div>
</div>
<div id="b_ie_clearing"/>
</div>
</div>
```

The "Style" tab is also open, showing the CSS rules for the selected element:

```
div.o_login div.o_login_form
fieldset {
  background: #FFFFFF;
  url(..images/olat/olat_logo.png) no-repeat scroll
  90% 50%;
  margin: 2em 0pt 0pt;
  min-height: 140px;
  padding-right: 30%;
}

fieldset {
  border: 1px solid #ACAAAA;
  margin: 0.5em 0pt 1em;
  padding: 1em;
  position: relative;
}
```

YAML framework

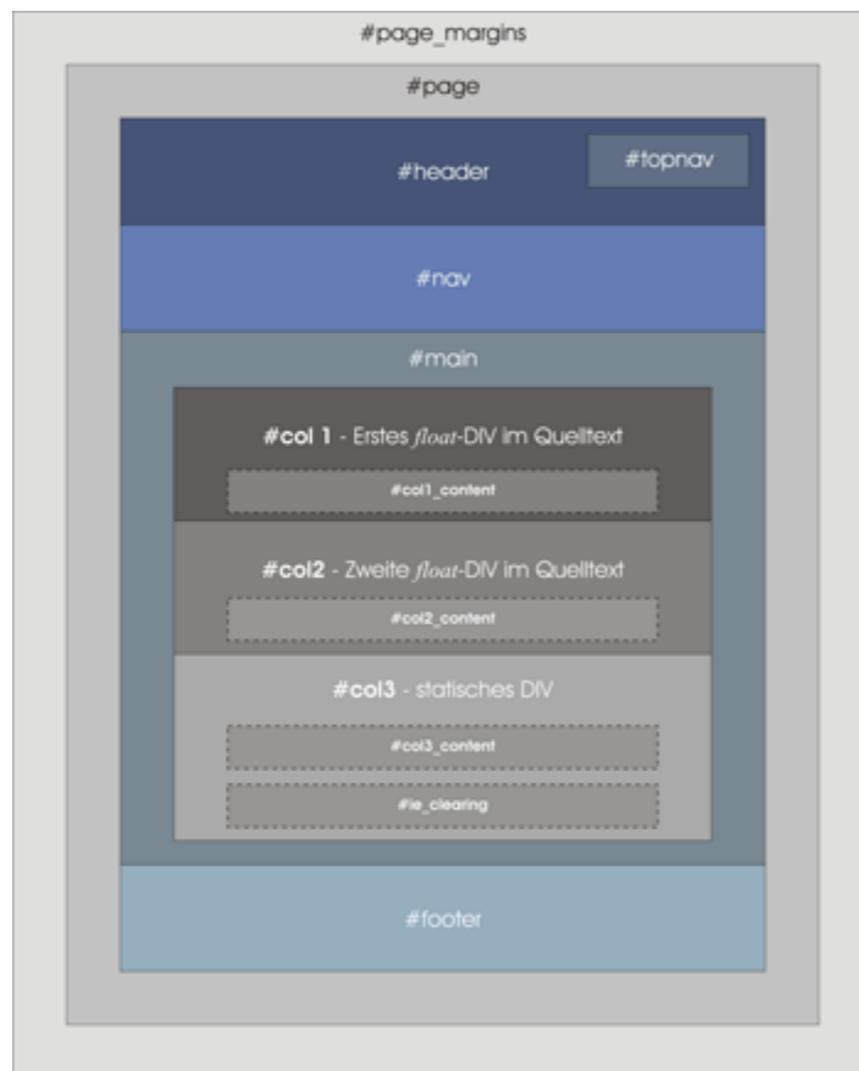
- HTML structure and CSS classes for general purpose multi column layouts
- Table free, pure CSS
- Building blocks for subcolumns, navigation
- Solutions for browser render problems and CSS parse bugs

Finally someone understands CSS (and can explain it to mere mortals)

A must read: <http://www.yaml.de>

HTML structure and YAML layout

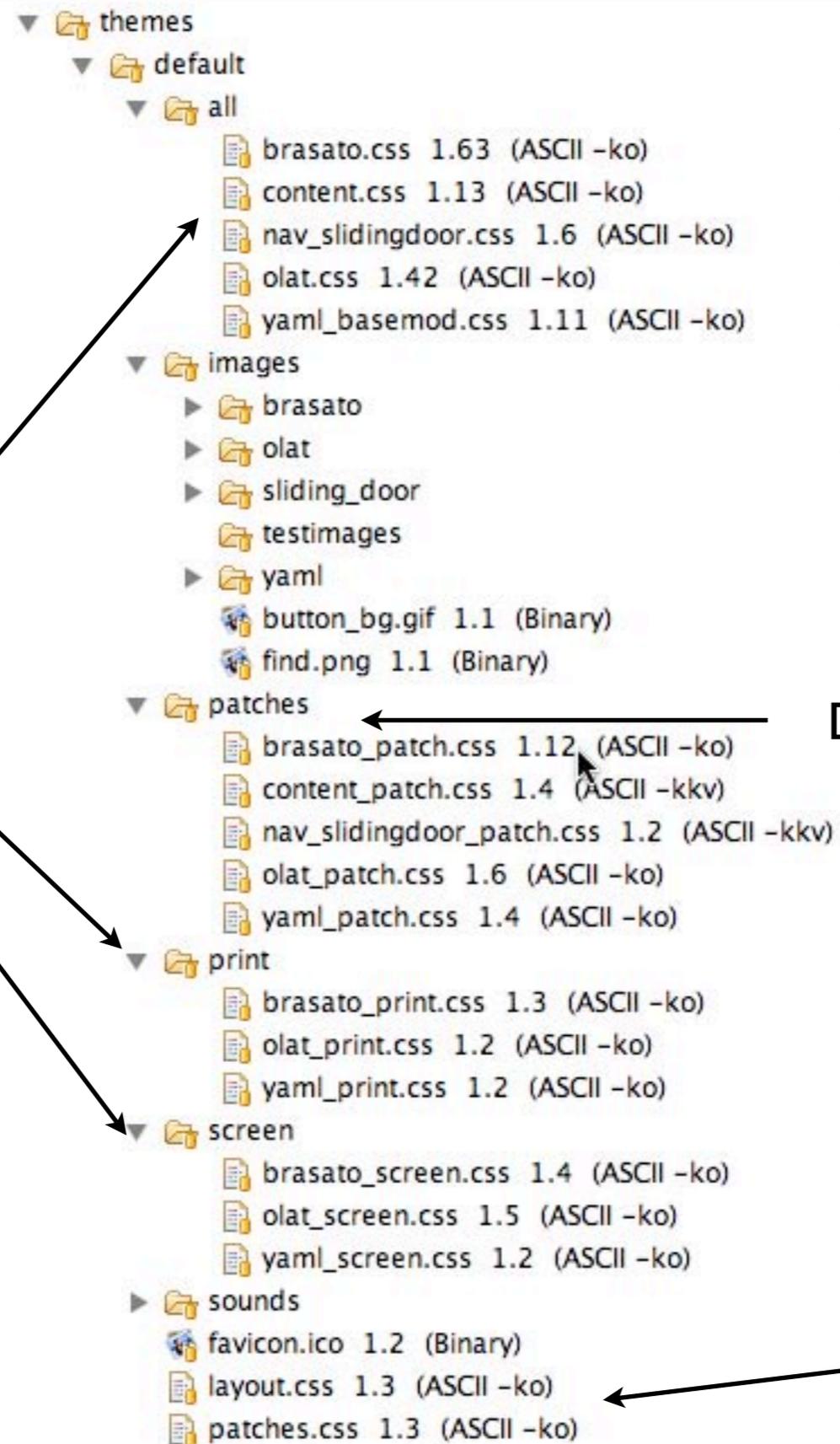
HTML structure



YAML layout structure



OLAT default theme structure



Different CSS files for different media types

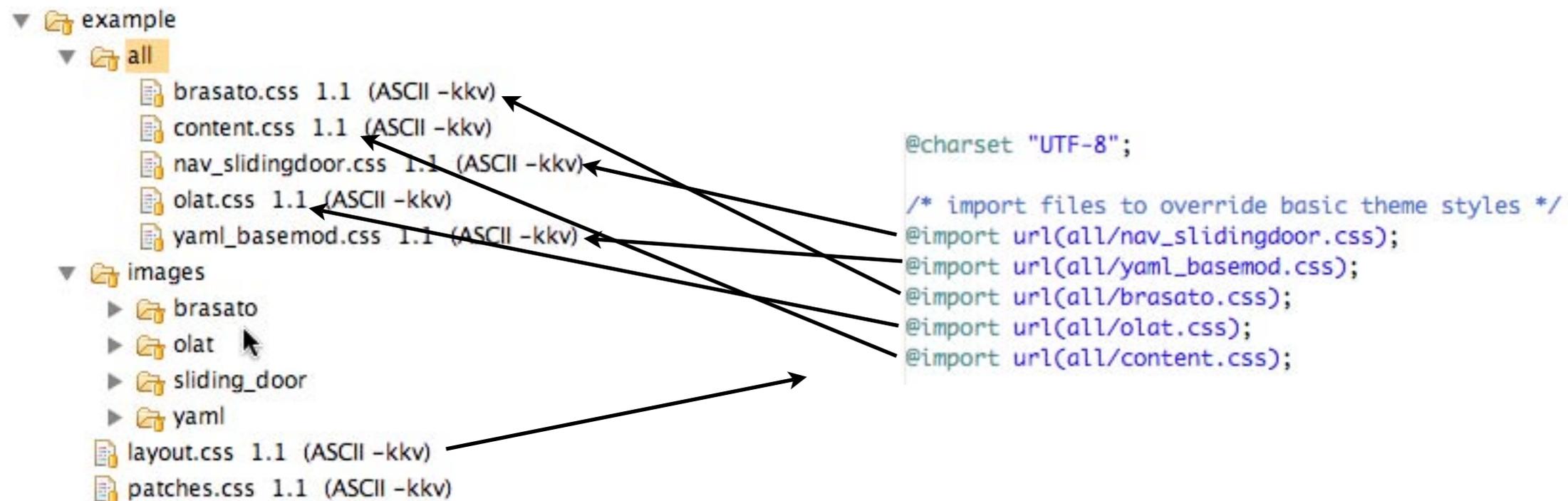
Different files to address different type of styles:

- YAML modifications
- Sliding doors navigation
- Brasato application framework
- OLAT application
- General content styles

Different CSS files for IE patches

Embedded in HTML body layout.css, patches.css (IE fixes)

OLAT example theme



- First, the default theme is applied
- The user theme style must explicitly *override* styles from the default theme -> user theme is much smaller
- Entry point for a theme are the files `layout.css` and `patches.css`, other files are included from there

Example styles content.css

- Other link colors

```
a {color: #486A44; text-decoration:none;}  
a:focus, a:hover, a:active {background-color: #CCE4DA; text-decoration:underline;}
```

- Other font type

```
body { font-family: "Helvetica neue", Helvetica, Geneva, Arial, Verdana, Tahoma, sans-serif; }
```

- Background for HR elements

```
h1,h2,h3,h4,h5,h6 { background: #EEE; }
```

Example styles olat.css

- Custom course element icons

```
.o_co_icon { background-image: url(../images/mycontact.png)}  
a.o_co_icon:hover { background-image: url(../images/mycontact_over.png)}  
.o_cp_icon { background-image: url(../images/mycontent.png)}  
a.o_cp_icon:hover { background-image: url(../images/mycontent_over.png)}  
.o_cp_org { background-image: url(../images/mycontent.png)}  
a.o_cp_org:hover { background-image: url(../images/mycontent_over.png)}  
.o_cp_item { background-image: url(../images/mypage.png)}
```

- Custom styling of standard texts in course

```
div.o_course_run_displaytitle { font-style: italic;}  
div.o_course_run_objectives { background-color: #E9EAEF; background-image: url(../images/myinfo.png); }  
div.o_course_run_scoreinfo {background-color: #E9EAEF; background-image: url(../images/myscore.png); }  
div.o_course_run_disclaimer {background-color: #E9EAEF; background-image: url(../images/mydislaymer.png); }  
div.o_course_run_groupinfo{ background-color: #E9EAEF; background-image: url(../images/mygroup.png); }  
div.o_course_run_statusinfo {background-image: url(../images/mystatus.png); }
```

Example styles yaml_basemod.css

- Custom header with icon

```
#b_header {  
    color: #000; background: #fff url(../images/yaml/header-right.png) repeat-x top right;  
    height: 141px; }  
#b_logo {  
    background: transparent url(../images/yaml/header-left.png) no-repeat top left;  
    height: 141px; width: 302px; }  
#b_topnav { color: #aaa; background: transparent; top: 30px; right: 20px; text-align:right }
```

- Custom page background

```
body { background: red url("../images/mygradientimage.gif") repeat-x top left; }
```

References

- YAML
 - <http://www.yaml.de/>
- CSS Basics and tutorials
 - <http://www.w3.org/TR/REC-CSS2/>
 - <http://www.w3schools.com/css/>
 - <http://www.css4you.de/css-a-z.html>
 - <http://www.d.umn.edu/itss/support/Training/Online/webdesign/css.html>
- CSS special topics
 - <http://www.positioniseverything.net/articles/onetruelayout/>
 - <http://www.satzansatz.de/cssd/onhavinglayout.html>

Hands on

- We build one theme per user
(Not part of OLAT 6, just for the workshop)
- Login <http://beta.frentix.com>
- Mount your OLAT WebDAV volume
- Copy the file /themes/example.zip to your local harddrive
- Unzip it, rename directory „example“ to your username and upload it to /themes. You should now have a directory /themes/myusername in your WebDAV folder
- Log in again
- Edit your theme files, reload browser, edit, reload browser...
- Please, edit ONLY YOUR FILES :-)
- Copy the ‚default‘ folder to you local harddrive as a reference

Questions



Now or later: gnaegi@frentix.com



Universität Zürich



OLAT - Online Learning And Training
The Open Source Learning Management System

Kurslayout anpassen in OLAT: Arbeiten mit CSS und YAML

Pre-Conference Workshop
Mittwoch, 26. März 2008 14:00 – 17:00

Florian Gnägi, Hans-Jörg Zuberbühler

Agenda



Agenda

Hilfsmittel

OLAT-CSS

- Firebug und PSPad installieren
- CSS Umsetzungen in OLAT: vor und nach Version 6.0
- YAML
 - Einführung/Demo
 - Vor- und Nachteile
 - Umsetzung in OLAT
- Uebungen



Helferlein installieren



Agenda

Hilfsmittel

OLAT-CSS

- **Firebug:**
Firefox -> Extras -> Add-ons -> Erweiterungen
herunterladen -> Suchfeld „Firebug“ -> Installieren und
Firefox neu starten
- **PSPad:**
<http://www.pspad.com/de/download.php> -> Download
installer -> Installieren
->Alternative: Dreamweaver oder Notepad verwenden
- **WebDAV mounten:**
Server: <http://beta.frentix.com/beta/webdav>
Benutzername: Bsp. Peter Muster -> pmuster
Passwort: precon08



Agenda

Hilfsmittel

OLAT-CSS

Demo am Beispiel:

- OLAT 3 bis 5.2.x:
o_content
- OLAT ab 6.0:
b_col3_content