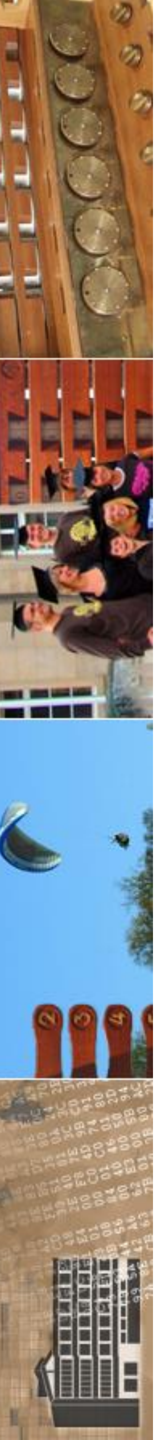
EBERHARD KARLS
UNIVERSITÄT
TÜBINGEN

MATHEMATISCH-
NATURWISSENSCHAFTLICHE FAKULTÄT

Fachbereich Informatik
Informationsdienste



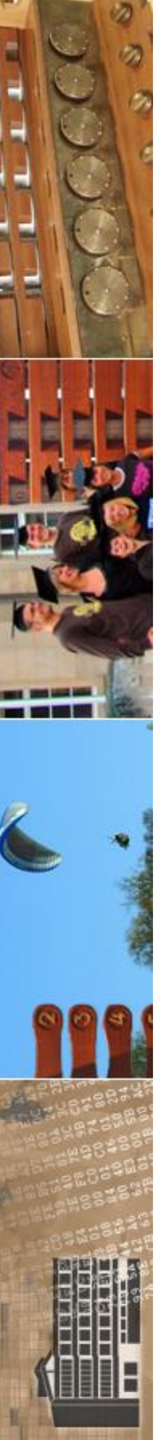
Grundlagen Internet-Technologien

INF3171

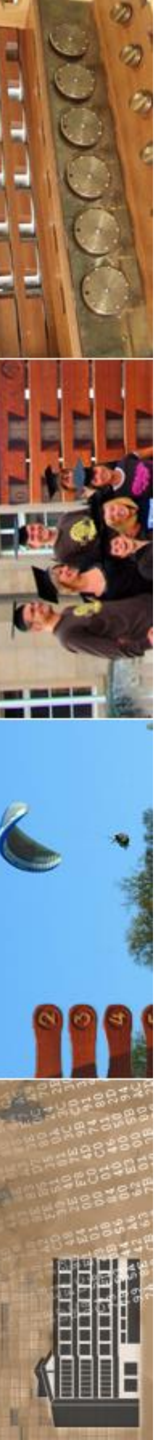
More JavaScript

Version 1.0

06.05.2012

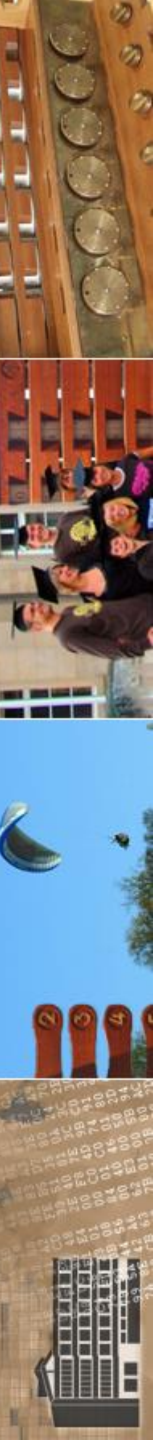


aktuelles



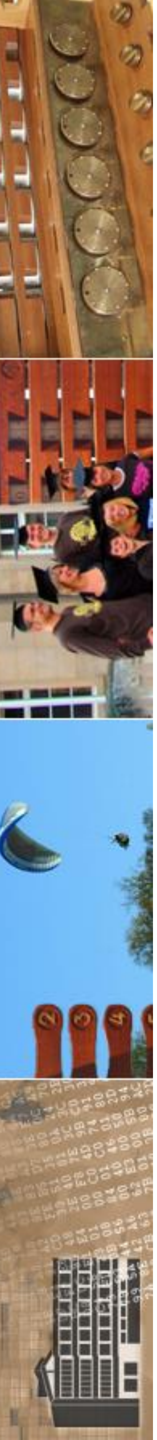
Verbindung JavaScript und HTML

- bisher: JavaScript "nette Scriptsprache"
- nun:
  - interessant, weil **mit HTML verbindbar**
  - Erweiterung von HTML/CSS



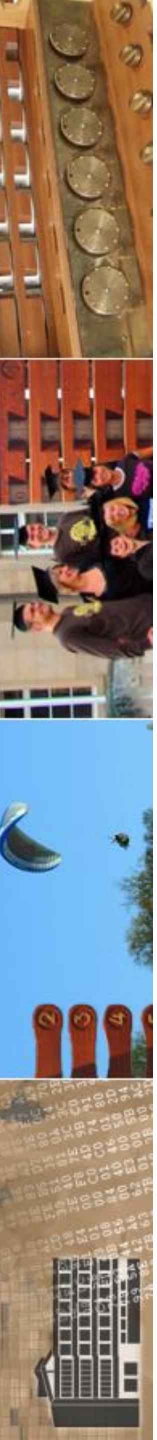
DOM

- **DOM: Document Object Model**
  - http://www.w3.org/DOM/
- Modell, um **auf Webdokumente zuzugreifen**
  - zentral: die zugrundeliegende Baumstruktur
  - *The Document Object Model is a platform- and language-neutral interface that will allow programs and scripts to dynamically access and update the content, structure and style of documents. The document can be further processed and the results of that processing can be incorporated back into the presented page. This is an overview of DOM-related materials here at W3C and around the web.*



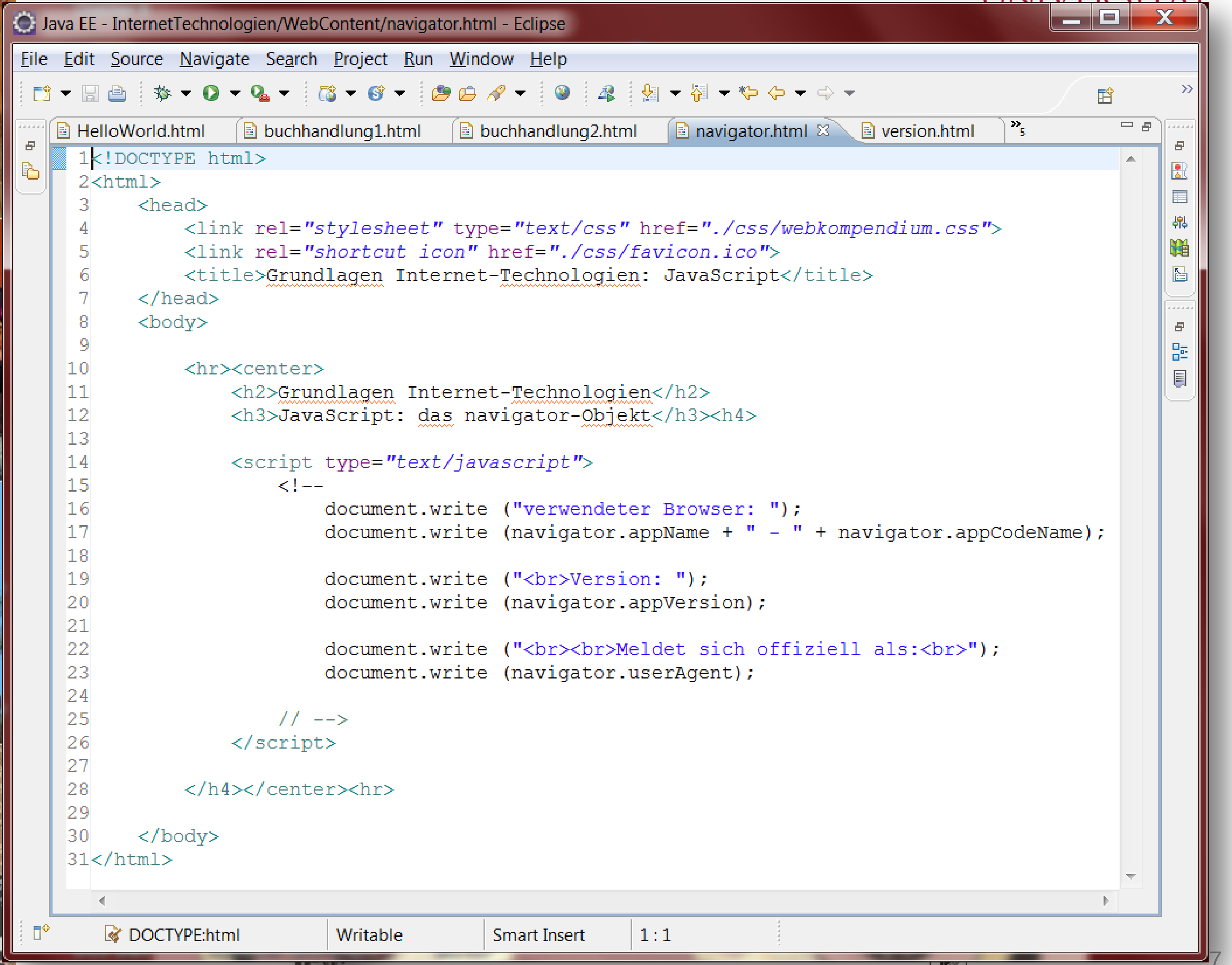
DOM

- konkret: Objekte für die Interaktion **JavaScript ⇔ HTML**
- drei Wurzeln (drei Teilbäume):
  - **window**: aktuelle Browserfenster
  - **screen**: Bildschirm
  - **navigator**: Browser
    - darunter jeweils weitere Hierarchie

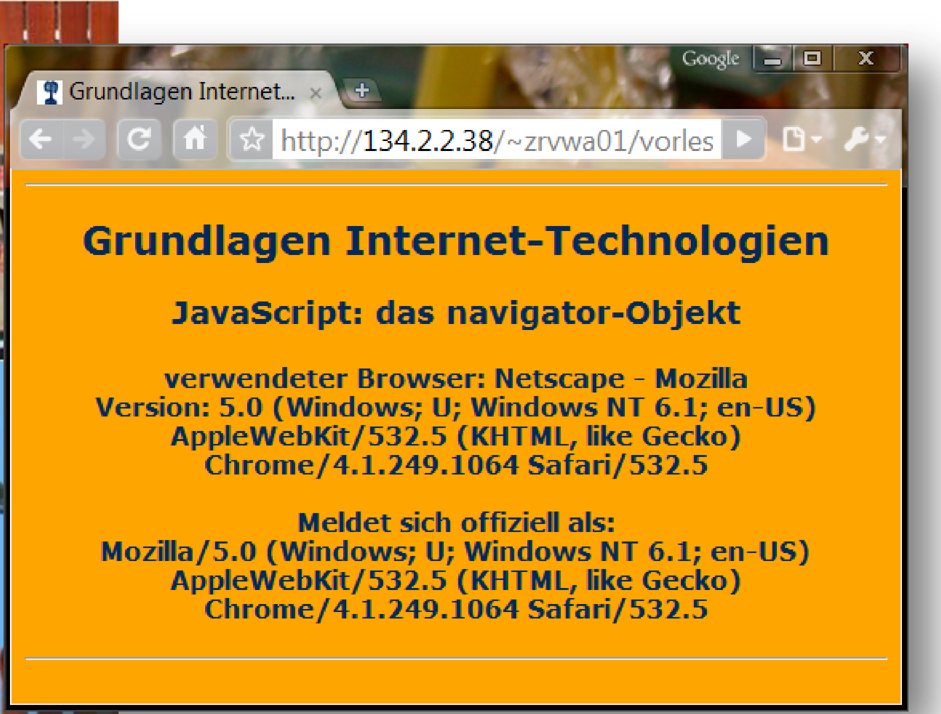


das navigator-Objekt

- …dient der **Verwaltung des Browsers**
- Attribute/Methoden:
  - **`appName`**
  - **`appCodeName`**
  - **`appVersion`**
  - **`userAgent`**
  - **`platform`**
  - **`plugins`**
  - **`mimeTypes`**
  - **`language`**
  - **`javaEnabled()`**
- Beispiel navigator.html und Browserweiche


Java EE - InternetTechnologien/WebContent/navigator.html - Eclipse
File Edit Source Navigate Search Project Run Window Help
HelloWorld.html
buchhandlung1.html
buchhandlung2.html
navigator.html
version.html
DOCTYPE:html
Writable
Smart Insert
1 : 1

```
<!DOCTYPE html>
<html>
    <head>
        <link rel="stylesheet" type="text/css" href="./css/webkompendium.css">
        <link rel="shortcut icon" href="./css/favicon.ico">
        <title>Grundlagen Internet-Technologien: JavaScript</title>
    </head>
    <body>

        <hr><center>
            <h2>Grundlagen Internet-Technologien</h2>
            <h3>JavaScript: das navigator-Objekt</h3><h4>

            <script type="text/javascript">
                <!--
                    document.write ("verwendeter Browser: ");
                    document.write (navigator.appName + " - " + navigator.appCodeName);

                    document.write ("<br>Version: ");
                    document.write (navigator.appVersion);

                    document.write ("<br><br>Meldet sich offiziell als:<br>");
                    document.write (navigator.userAgent);

                // -->
            </script>

        </h4></center><hr>

    </body>
</html>
```

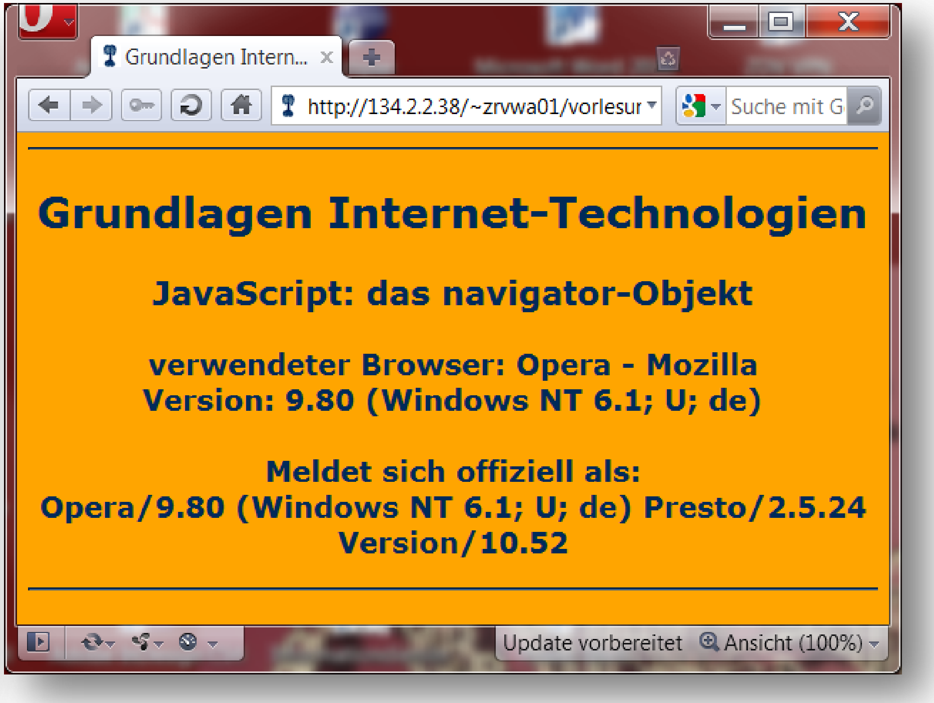


Grundlagen Internet-Technologien

JavaScript: das navigator-Objekt

verwendeter Browser: Netscape - Mozilla
Version: 5.0 (Windows; U; Windows NT 6.1; en-US) AppleWebKit/532.5 (KHTML, like Gecko) Chrome/4.1.249.1064 Safari/532.5

Meldet sich offiziell als:
Mozilla/5.0 (Windows; U; Windows NT 6.1; en-US) AppleWebKit/532.5 (KHTML, like Gecko) Chrome/4.1.249.1064 Safari/532.5

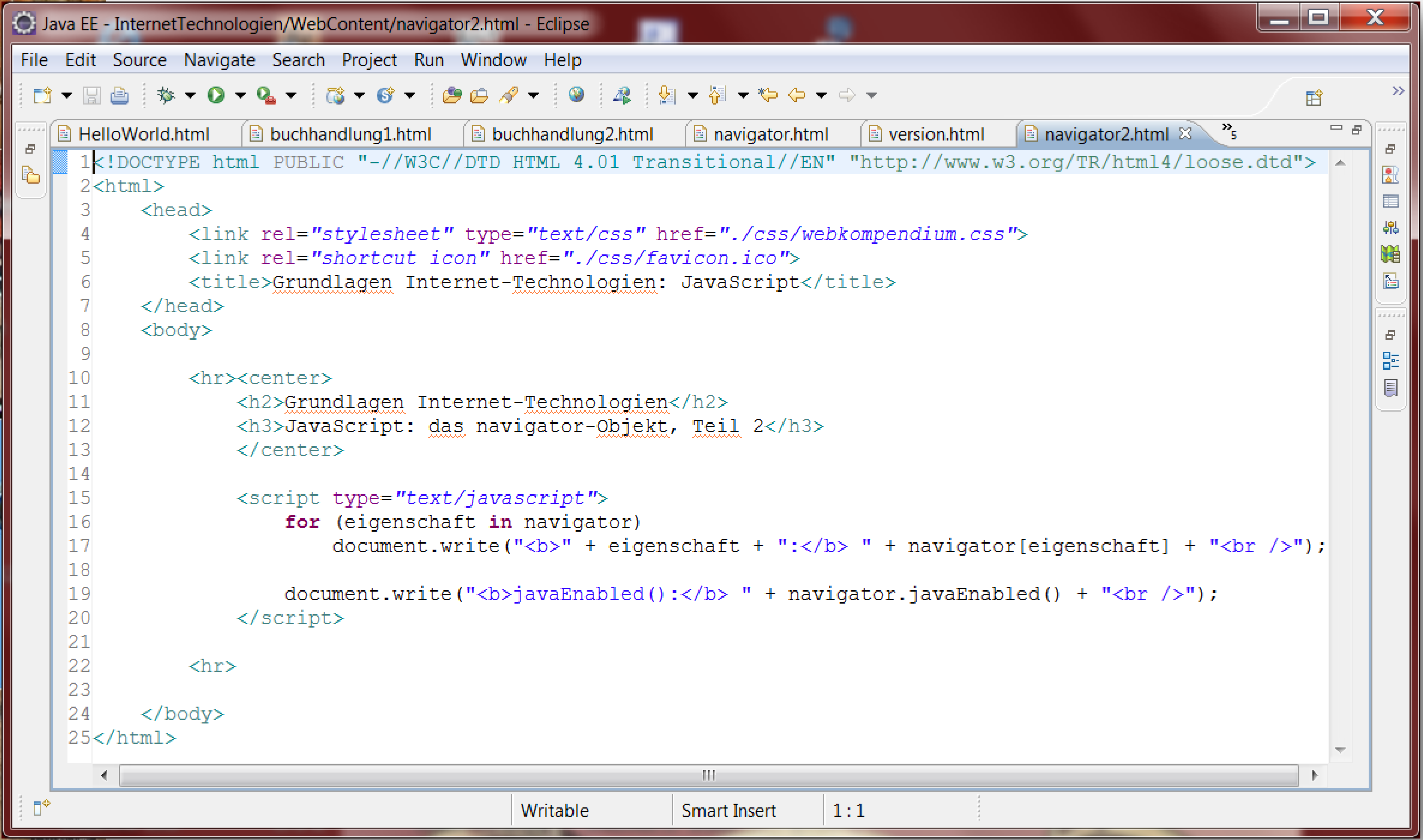


Grundlagen Internet-Technologien

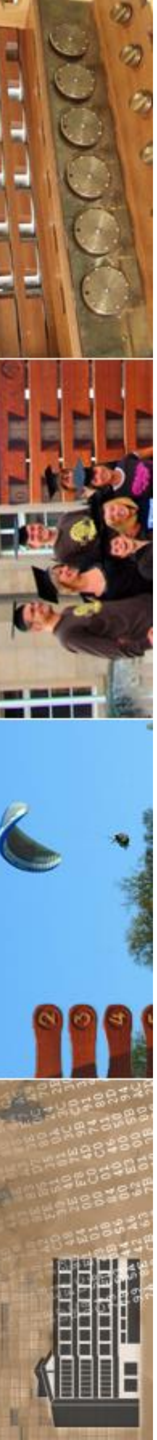
JavaScript: das navigator-Objekt

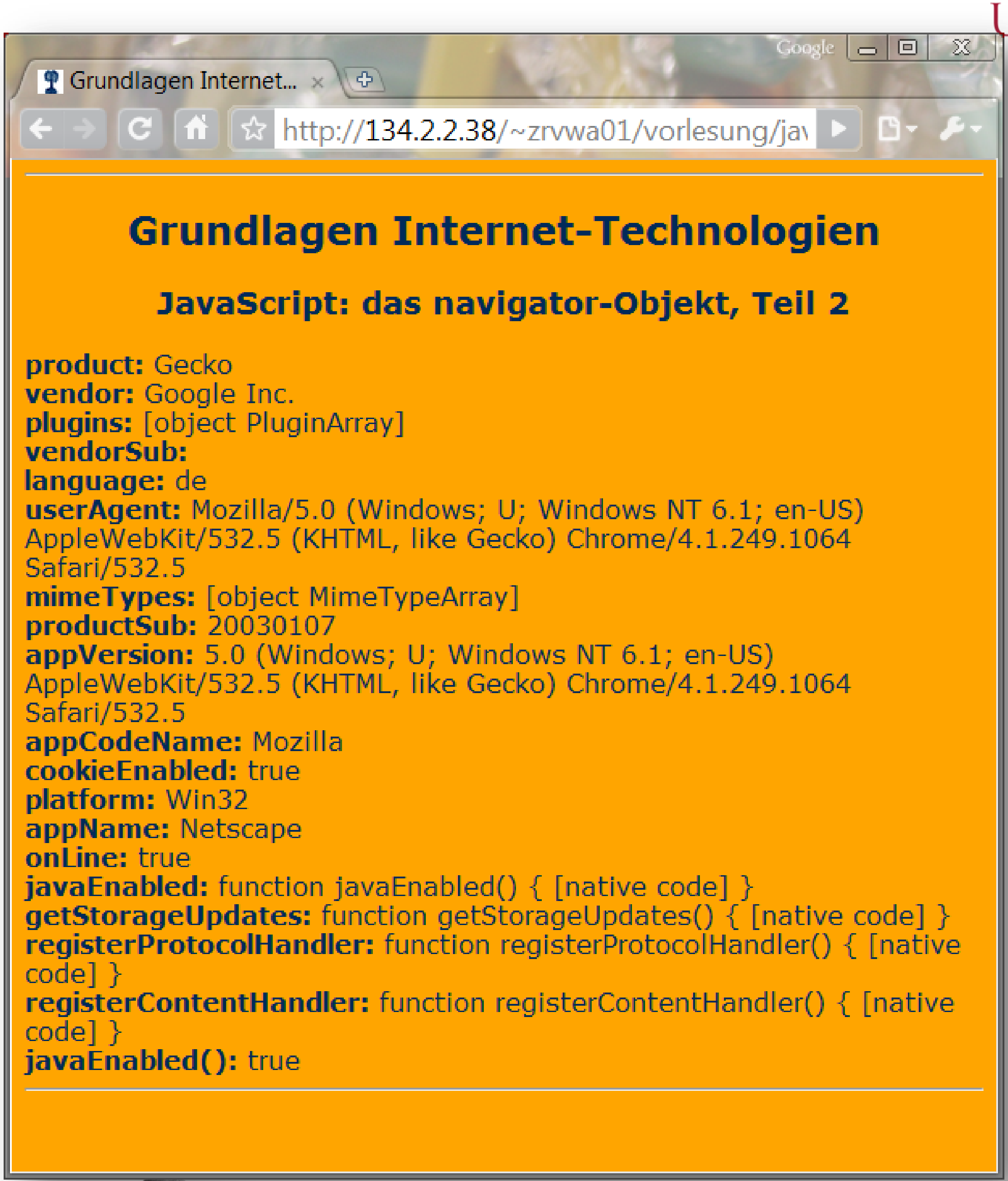
verwendeter Browser: Opera - Mozilla
Version: 9.80 (Windows NT 6.1; U; de)

Meldet sich offiziell als:
Opera/9.80 (Windows NT 6.1; U; de) Presto/2.5.24 Version/10.52


Java EE - InternetTechnologien/WebContent/navigator2.html - Eclipse
File Edit Source Navigate Search Project Run Window Help
HelloWorld.html
buchhandlung1.html
buchhandlung2.html
navigator.html
version.html
navigator2.html
Writable
Smart Insert
1 : 1

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <link rel="stylesheet" type="text/css" href="./css/webkompendium.css">
        <link rel="shortcut icon" href="./css/favicon.ico">
        <title>Grundlagen Internet-Technologien: JavaScript</title>
    </head>
    <body>

        <hr><center>
            <h2>Grundlagen Internet-Technologien</h2>
            <h3>JavaScript: das navigator-Objekt, Teil 2</h3>
            </center>

            <script type="text/javascript">
                for (eigenschaft in navigator)
                    document.write("<b>" + eigenschaft + ":</b> " + navigator[eigenschaft] + "<br />");

                document.write("<b>javaEnabled():</b> " + navigator.javaEnabled() + "<br />");
            </script>

        <hr>

    </body>
</html>
```

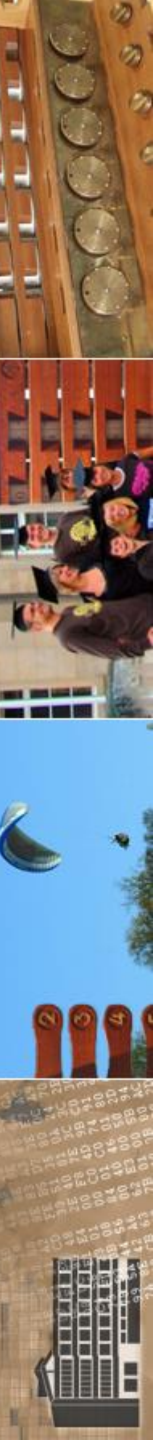




Grundlagen Internet-Technologien

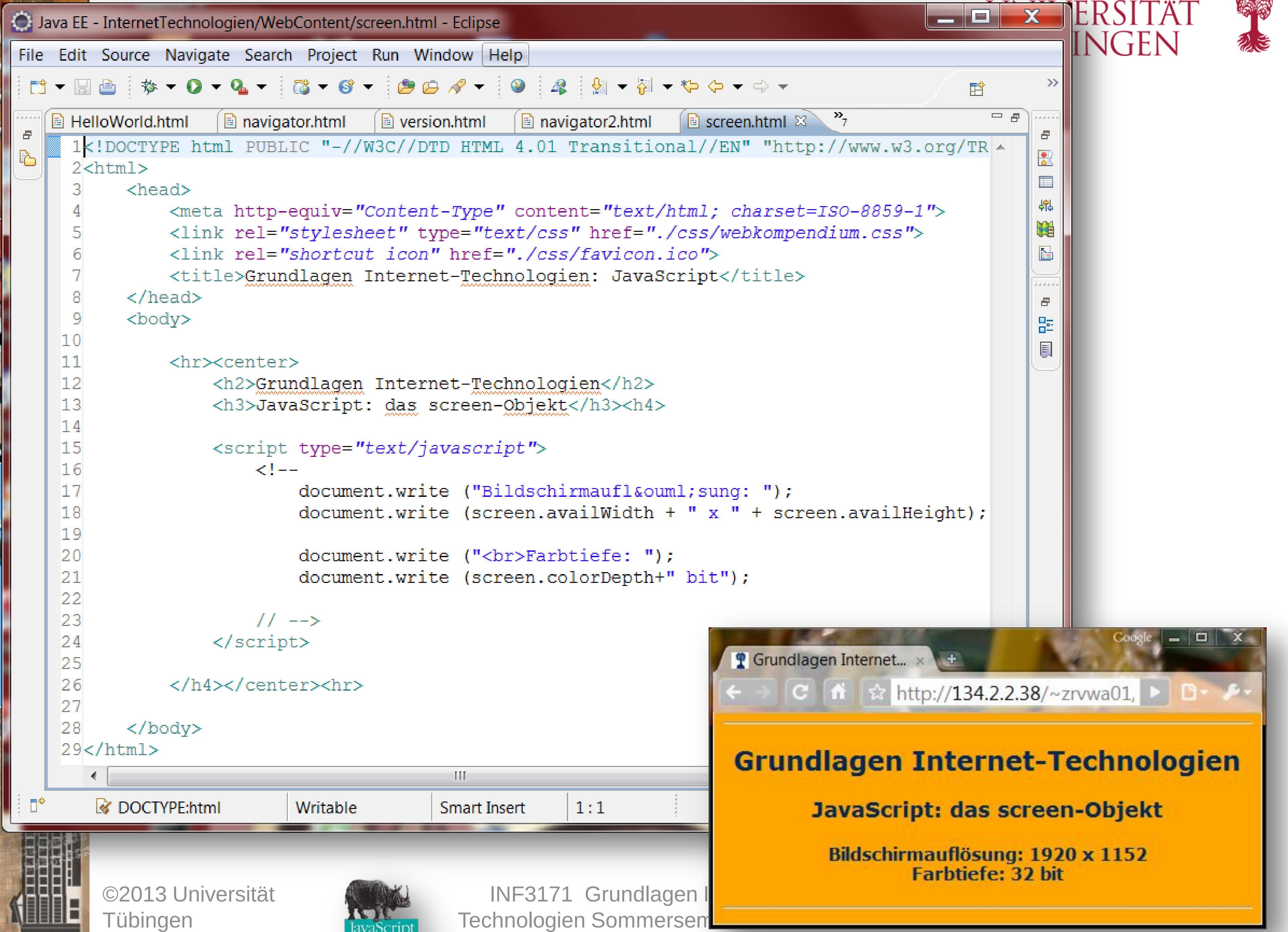
JavaScript: das navigator-Objekt, Teil 2

product: Gecko
vendor: Google Inc.
plugins: [object PluginArray]
vendorSub:
language: de
userAgent: Mozilla/5.0 (Windows; U; Windows NT 6.1; en-US) AppleWebKit/532.5 (KHTML, like Gecko) Chrome/4.1.249.1064 Safari/532.5
mimeTypes: [object MimeTypeArray]
productSub: 20030107
appVersion: 5.0 (Windows; U; Windows NT 6.1; en-US) AppleWebKit/532.5 (KHTML, like Gecko) Chrome/4.1.249.1064 Safari/532.5
appCodeName: Mozilla
cookieEnabled: true
platform: Win32
appName: Netscape
onLine: true
javaEnabled: function javaEnabled() { [native code] }
getStorageUpdates: function getStorageUpdates() { [native code] }
registerProtocolHandler: function registerProtocolHandler() { [native code] }
registerContentHandler: function registerContentHandler() { [native code] }
javaEnabled(): true



das screen-Objekt

- Informationen zum **Bildschirm**
- Attribute:
  - **`availabeHeight`**
  - **`availabeWidth`**
  - **`colorDepth`**
- Beispiel screen.html
- Vorsicht bei mehreren Bildschirmen

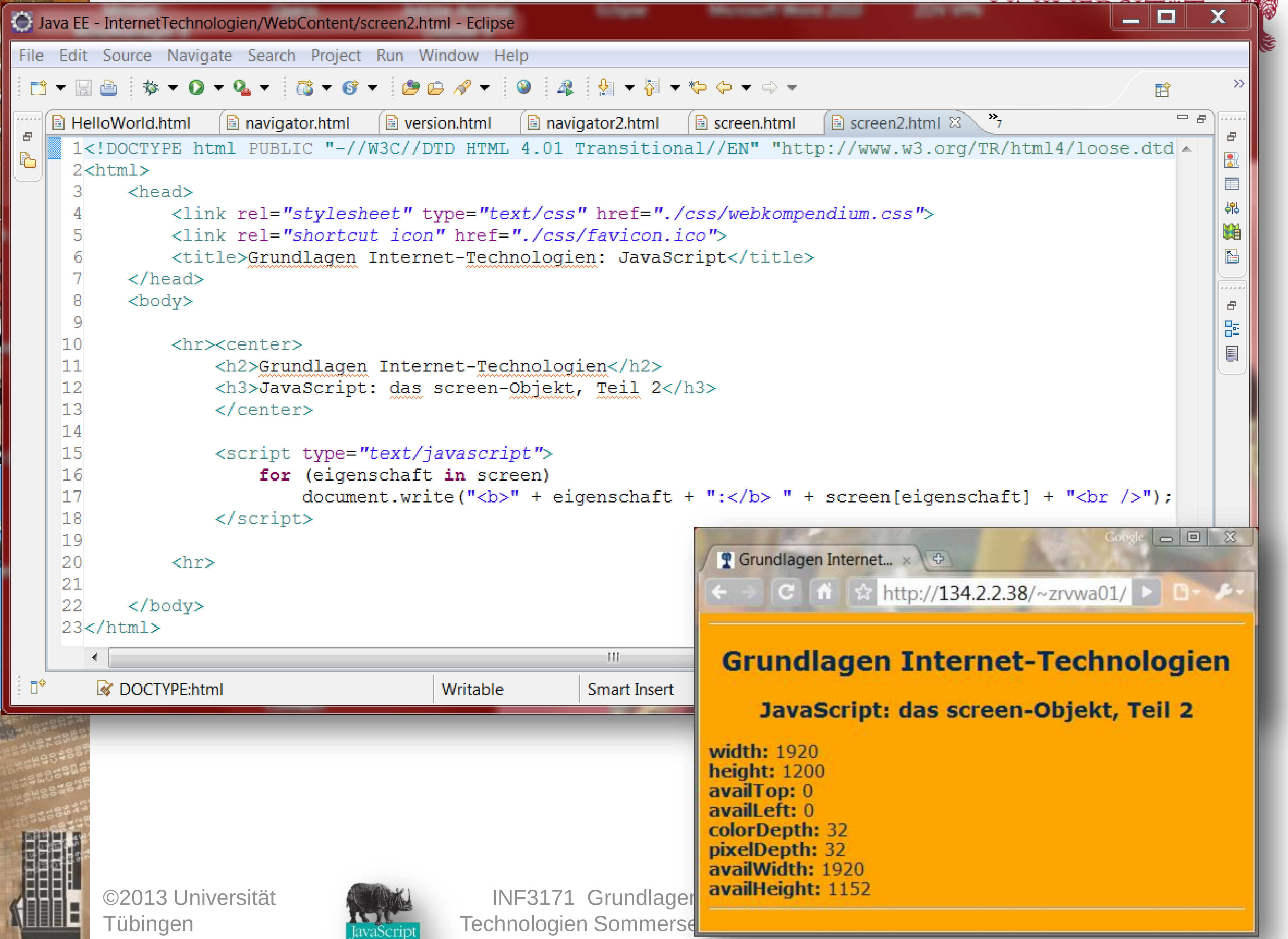

Java EE - InternetTechnologien/WebContent/screen.html - Eclipse
File Edit Source Navigate Search Project Run Window Help
HelloWorld.html
navigator.html
version.html
navigator2.html
screen.html
DOCTYPE:html
Writable
Smart Insert
1 : 1
Grundlagen Internet...
http://134.2.2.38/~zrvwa01,

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
        <link rel="stylesheet" type="text/css" href="./css/webkompendium.css">
        <link rel="shortcut icon" href="./css/favicon.ico">
        <title>Grundlagen Internet-Technologien: JavaScript</title>
    </head>
    <body>

        <hr><center>
            <h2>Grundlagen Internet-Technologien</h2>
            <h3>JavaScript: das screen-Objekt</h3><h4>

            <script type="text/javascript">
                <!--
                    document.write ("Bildschirmaufl&ouml;sung: ");
                    document.write (screen.availWidth + " x " + screen.availHeight);

                    document.write ("<br>Farbtiefe: ");
                    document.write (screen.colorDepth+" bit");

                // -->
            </script>

        </h4></center><hr>

    </body>
</html>
```

Grundlagen Internet-Technologien

JavaScript: das screen-Objekt

Bildschirmauflösung: 1920 x 1152
Farbtiefe: 32 bit



Java EE - InternetTechnologien/WebContent/screen2.html - Eclipse
File Edit Source Navigate Search Project Run Window Help
HelloWorld.html
navigator.html
version.html
navigator2.html
screen.html
screen2.html

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd
<html>
    <head>
        <link rel="stylesheet" type="text/css" href="./css/webkompendium.css">
        <link rel="shortcut icon" href="./css/favicon.ico">
        <title>Grundlagen Internet-Technologien: JavaScript</title>
    </head>
    <body>

        <hr><center>
            <h2>Grundlagen Internet-Technologien</h2>
            <h3>JavaScript: das screen-Objekt, Teil 2</h3>
            </center>

            <script type="text/javascript">
                for (eigenschaft in screen)
                    document.write("<b>" + eigenschaft + ":</b> " + screen[eigenschaft] + "<br />");
            </script>

        <hr>

    </body>
</html>
```

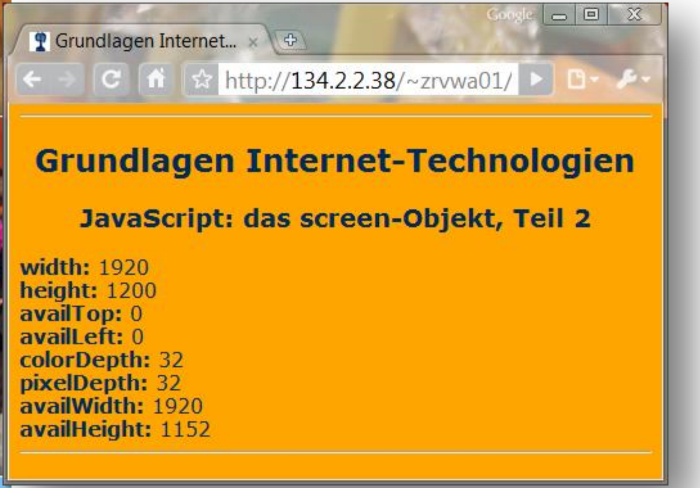
DOCTYPE:html
Writable
Smart Insert
Grundlagen Internet...
http://134.2.2.38/~zrvwa01/

Grundlagen Internet-Technologien

JavaScript: das screen-Objekt, Teil 2

width: 1920
height: 1200
availTop: 0
availLeft: 0
colorDepth: 32
pixelDepth: 32
availWidth: 1920
availHeight: 1152

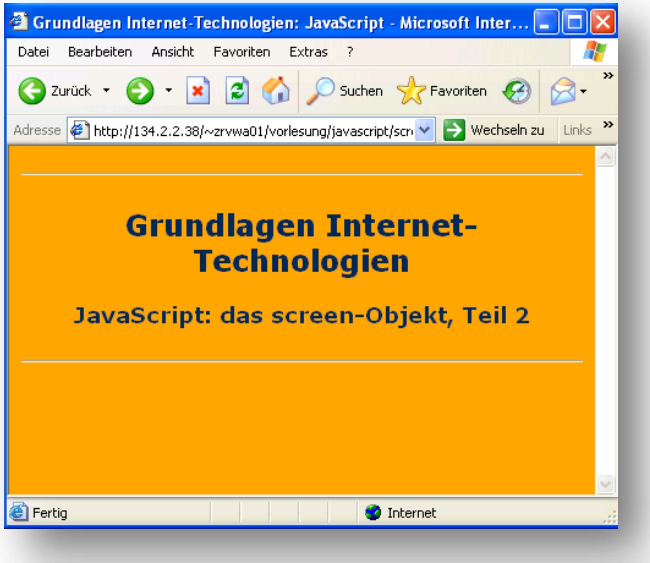
so schön ist JavaScript…



Grundlagen Internet-Technologien

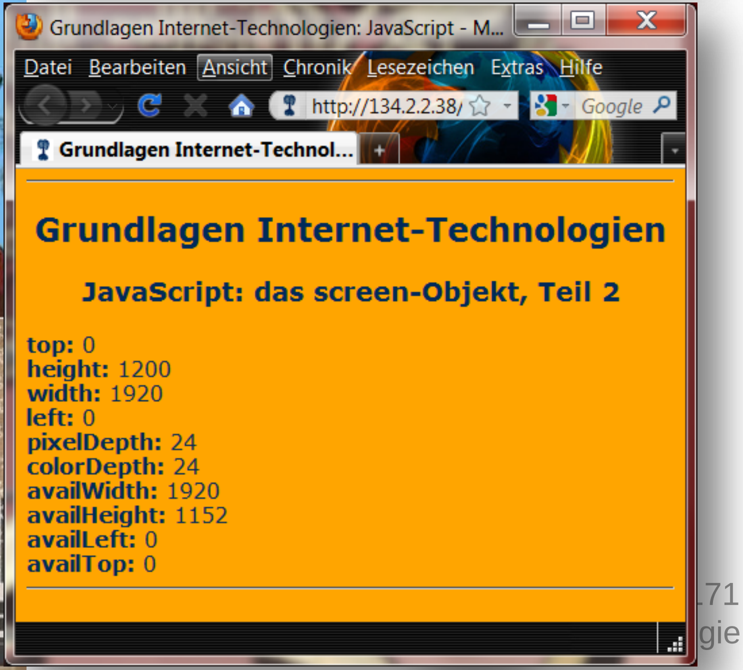
JavaScript: das screen-Objekt, Teil 2

```
width: 1920
height: 1200
availTop: 0
availLeft: 0
colorDepth: 32
pixelDepth: 32
availWidth: 1920
availHeight: 1152
```


Grundlagen Internet-Technologien: JavaScript - Microsoft Inter...
Datei
Bearbeiten
Ansicht
Favoriten
Extras
?
Zurück
Suchen
Favoriten
Adresse
http://134.2.2.38/~zrvwa01/vorlesung/javascript/scr
Wechseln zu
Links
Fertig
Internet

Grundlagen Internet-Technologien

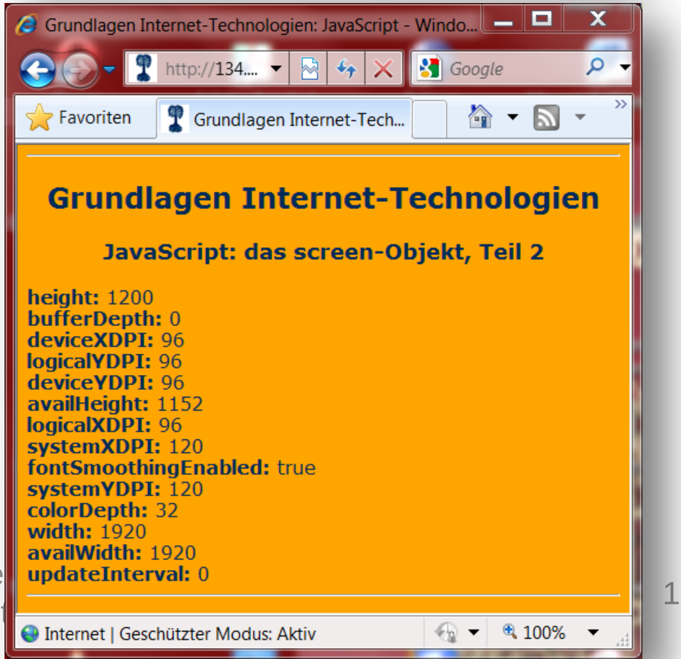
JavaScript: das screen-Objekt, Teil 2


Grundlagen Internet-Technologien: JavaScript - M...
Datei
Bearbeiten
Ansicht
Chronik
Lesezeichen
Extras
Hilfe
http://134.2.2.38/
Google
Grundlagen Internet-Technol...

Grundlagen Internet-Technologien

JavaScript: das screen-Objekt, Teil 2

```
top: 0
height: 1200
width: 1920
left: 0
pixelDepth: 24
colorDepth: 24
availWidth: 1920
availHeight: 1152
availLeft: 0
availTop: 0
```

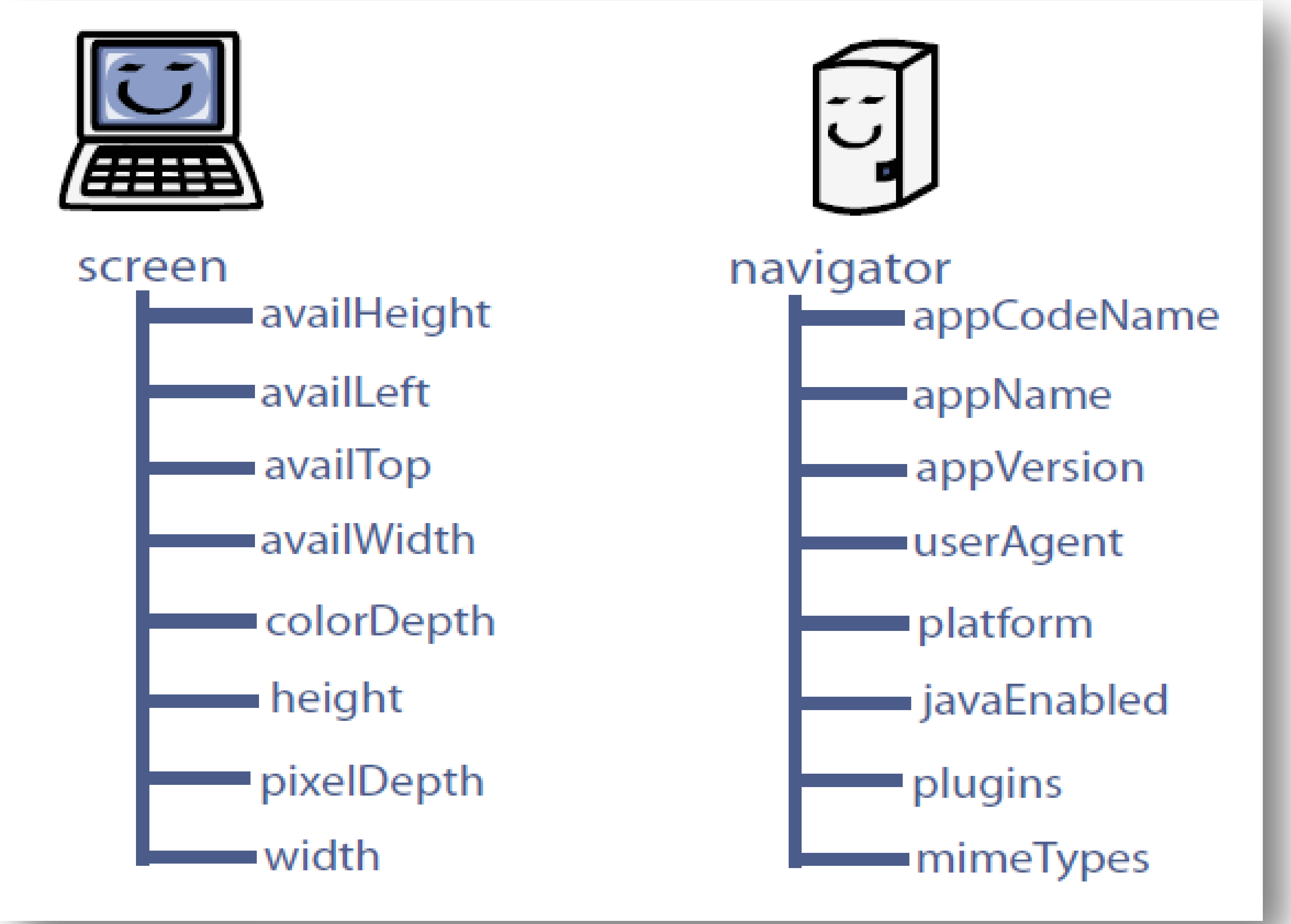

Grundlagen Internet-Technologien: JavaScript - Windo...
http://134....
Google
Favoriten
Grundlagen Internet-Tech...
Internet | Geschützter Modus: Aktiv
100%

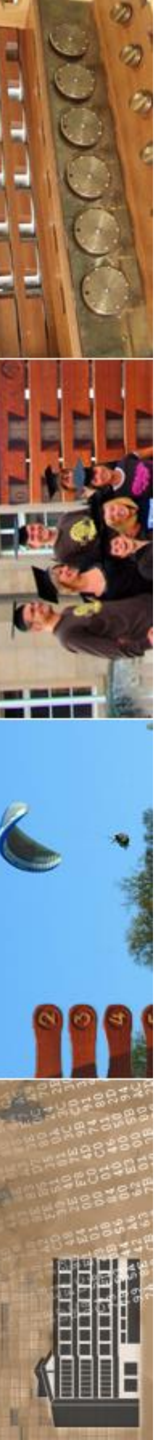
Grundlagen Internet-Technologien

JavaScript: das screen-Objekt, Teil 2

```
height: 1200
bufferDepth: 0
deviceXDPI: 96
logicalYDPI: 96
deviceYDPI: 96
availHeight: 1152
logicalXDPI: 96
systemXDPI: 120
fontSmoothingEnabled: true
systemYDPI: 120
colorDepth: 32
width: 1920
availWidth: 1920
updateInterval: 0
```

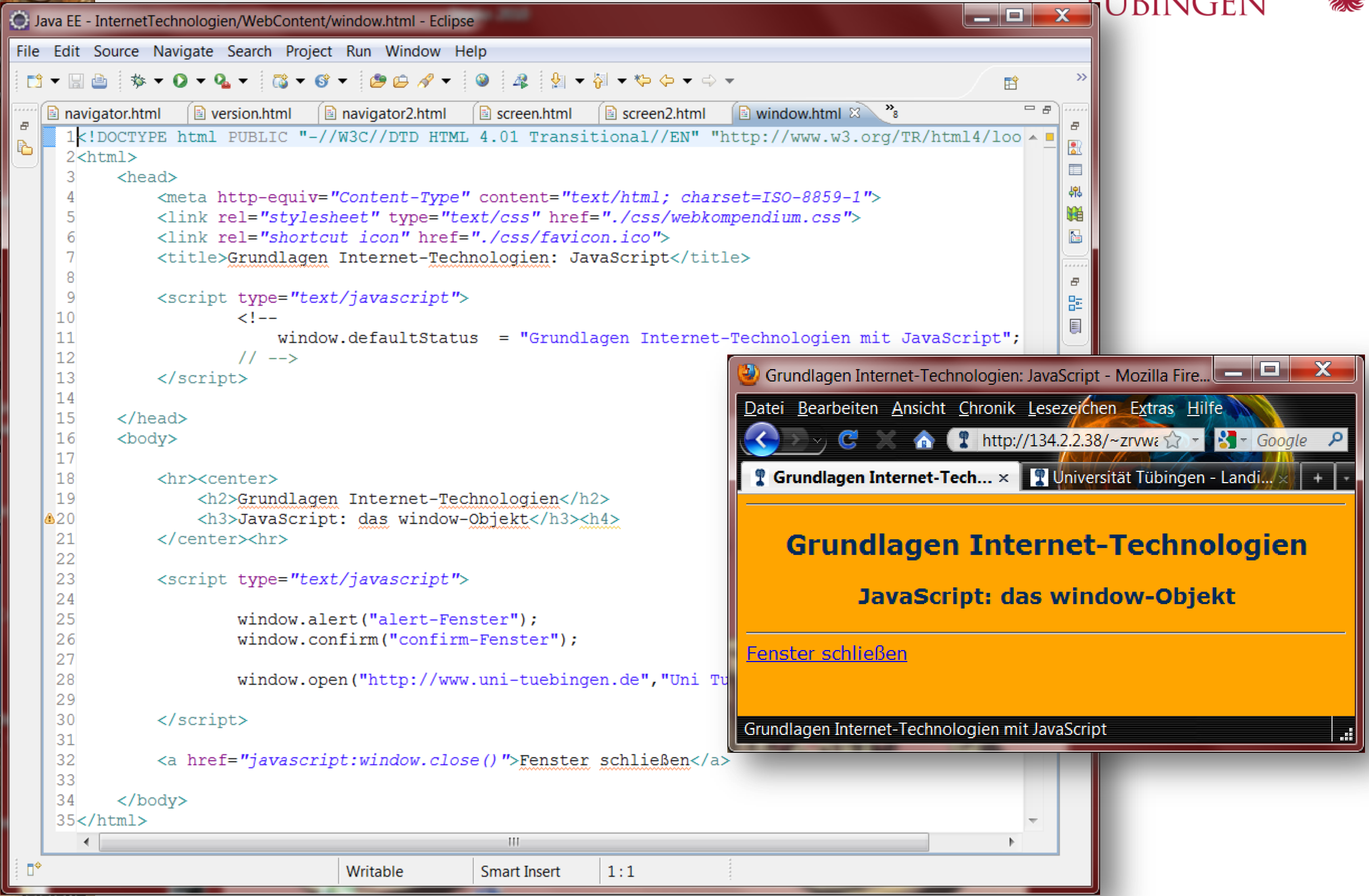
Baumstruktur





das window-Objekt

- Spitze der **Dokumentenhierarchie**
  - komplex
  - wichtige Untergliederungen: document, frames, event, history, location
  - window:
    - alert(…), blur(), close(), confirm(…), defaultStatus(…), fokus(), open(url,name, position), status
  - Beispiel window.html
  - vorsichtiger Einsatz
  - **`window`** ist Standard, kann meistens weggelassen werden


Java EE - InternetTechnologien/WebContent/window.html - Eclipse
File Edit Source Navigate Search Project Run Window Help
navigator.html
version.html
navigator2.html
screen.html
screen2.html
window.html
Writable
Smart Insert
1 : 1

```html
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loo
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
        <link rel="stylesheet" type="text/css" href="./css/webkompendium.css">
        <link rel="shortcut icon" href="./css/favicon.ico">
        <title>Grundlagen Internet-Technologien: JavaScript</title>

        <script type="text/javascript">
                <!--
                    window.defaultStatus  = "Grundlagen Internet-Technologien mit JavaScript";
                // -->
        </script>

    </head>
    <body>

        <hr><center>
            <h2>Grundlagen Internet-Technologien</h2>
            <h3>JavaScript: das window-Objekt</h3><h4>
        </center><hr>

        <script type="text/javascript">

                window.alert("alert-Fenster");
                window.confirm("confirm-Fenster");

                window.open("http://www.uni-tuebingen.de","Uni Tu

        </script>

        <a href="javascript:window.close()">Fenster schließen</a>

    </body>
</html>
```

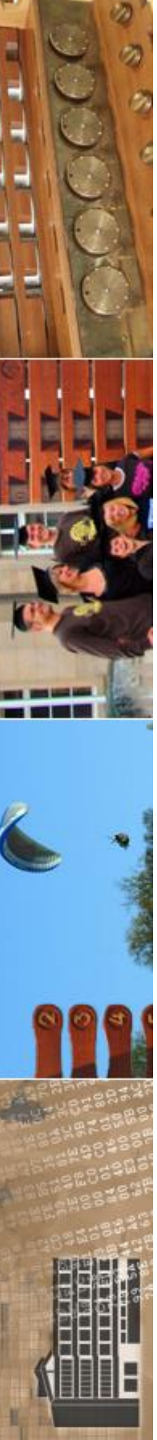
Grundlagen Internet-Technologien: JavaScript - Mozilla Fire...
Datei Bearbeiten Ansicht Chronik Lesezeichen Extras Hilfe
http://134.2.2.38/~zrvwa
Google
Grundlagen Internet-Tech...
Universität Tübingen - Landi...

Grundlagen Internet-Technologien

JavaScript: das window-Objekt

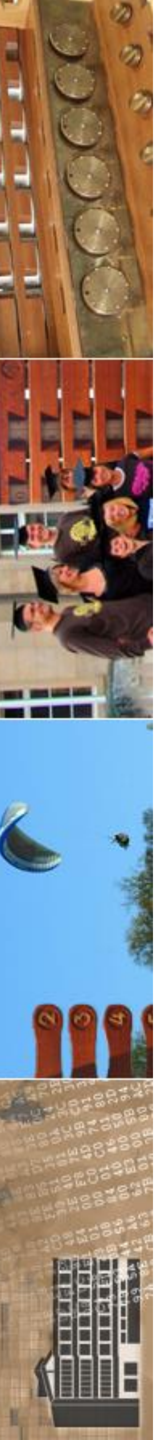
Fenster schließen

Grundlagen Internet-Technologien mit JavaScript



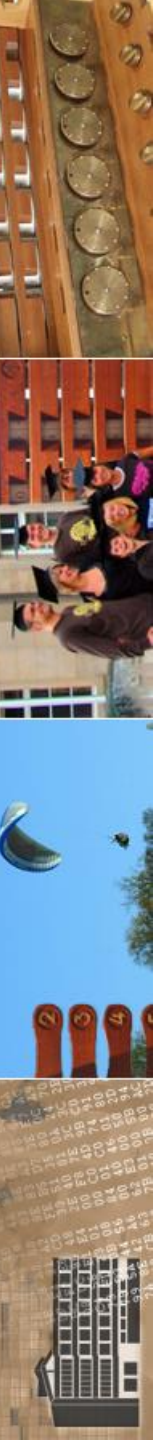
window.location

- verwaltet das aktuell angezeigte Objekt
  - `protocol`
  - `hostname`
  - `port`
  - `pathname`
  - `href`
  - `host`
  - `reload()`



window.history und window.frames

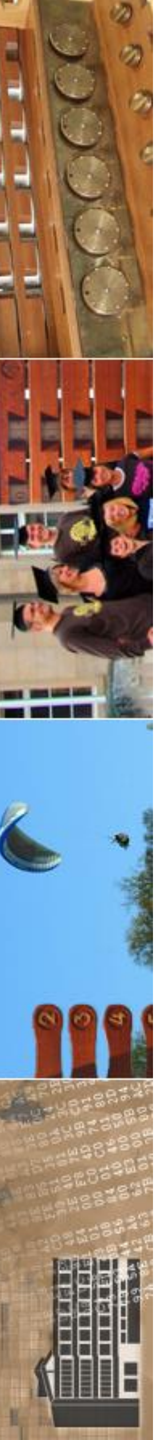
- history verwaltet Browser-History
  - `back()`
  - `forward()`
  - `go(n)`
- frame verwaltet Frameset



window.document

- das angezeigte HTML-Dokument
  - `write(...)`
  - `title`
  - `lastModified`
  - `bgColor und fgColor`

  -
    ```
    <script>
         window.document.write(document.lastModified);
    </script>
    ```

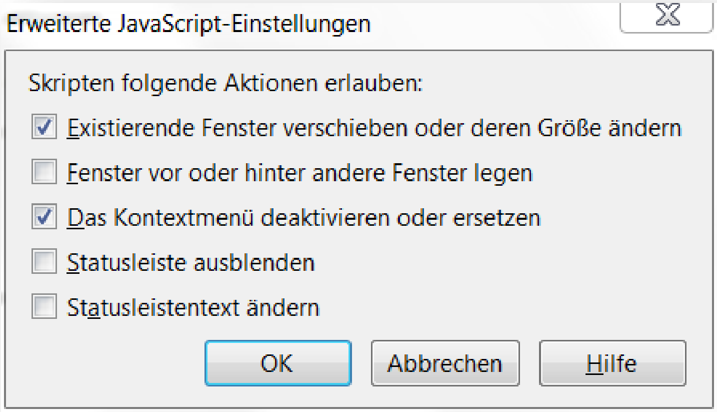


window.document.forms

- Verwaltet Formular
- ➔ behandeln wir in den Übungen

Einfluss auf Browser

- mit JavaScript können auch spezielle Eigenschaften des Browsers über das Window-Objekt gesetzt werden
  - vielfältige Möglichkeiten
  - Gefahr für Benutzer
  - kein guter Stil


Erweiterte JavaScript-Einstellungen

Skripten folgende Aktionen erlauben:

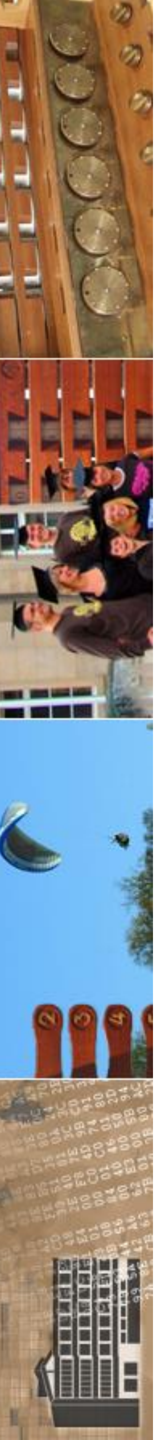
☑ Existierende Fenster verschieben oder deren Größe ändern

□ Fenster vor oder hinter andere Fenster legen

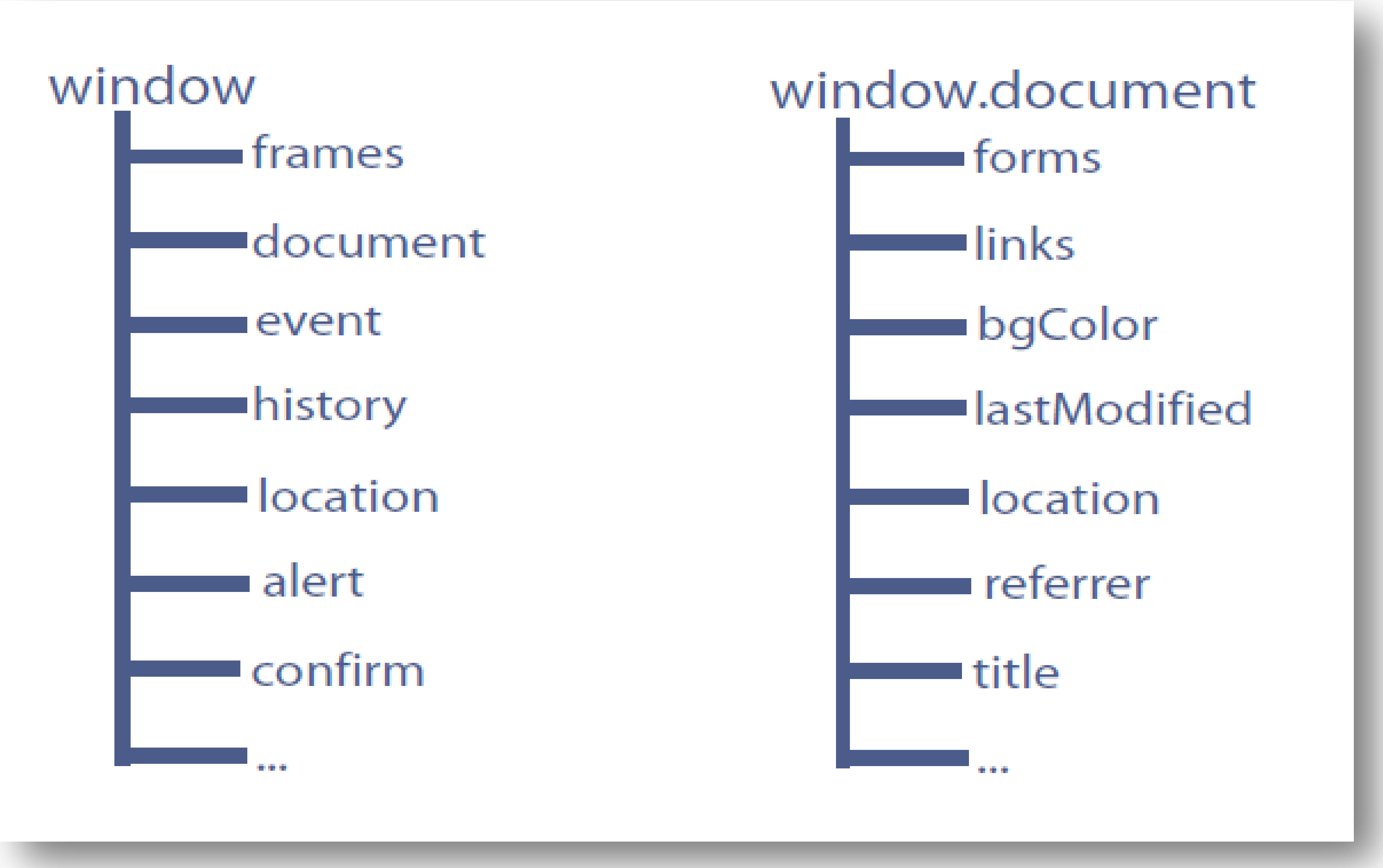
☑ Das Kontextmenü deaktivieren oder ersetzen

□ Statusleiste ausblenden

□ Statusleistentext ändern

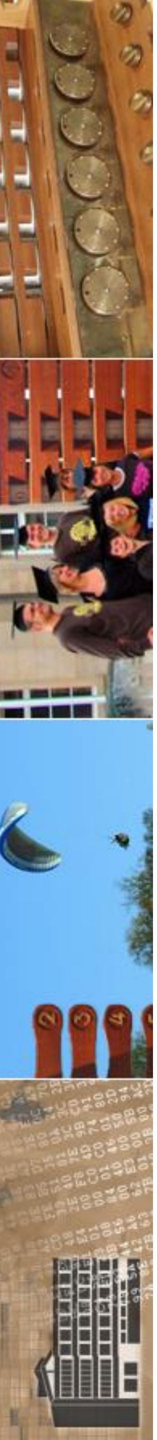


Baumstruktur



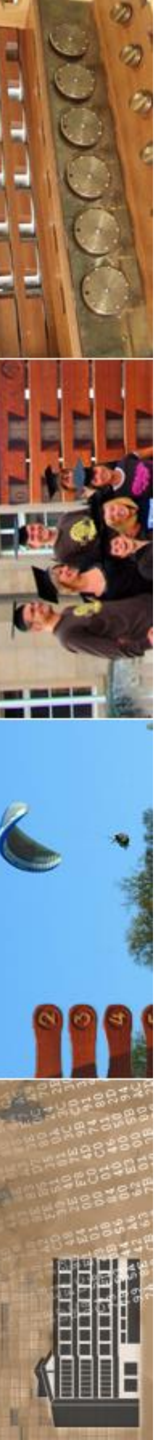
window
- frames
- document
- event
- history
- location
- alert
- confirm
- ...

window.document
- forms
- links
- bgColor
- lastModified
- location
- referrer
- title
- ...



Event-Behandlung mit JavaScript

- Event: Ereignis
  - typische Events:
    - Mausklick
    - "Mouseover"
    - Fenster schließen
    - Seite neu laden
  - nun: Verbinden von Events mit JavaScript-Methoden

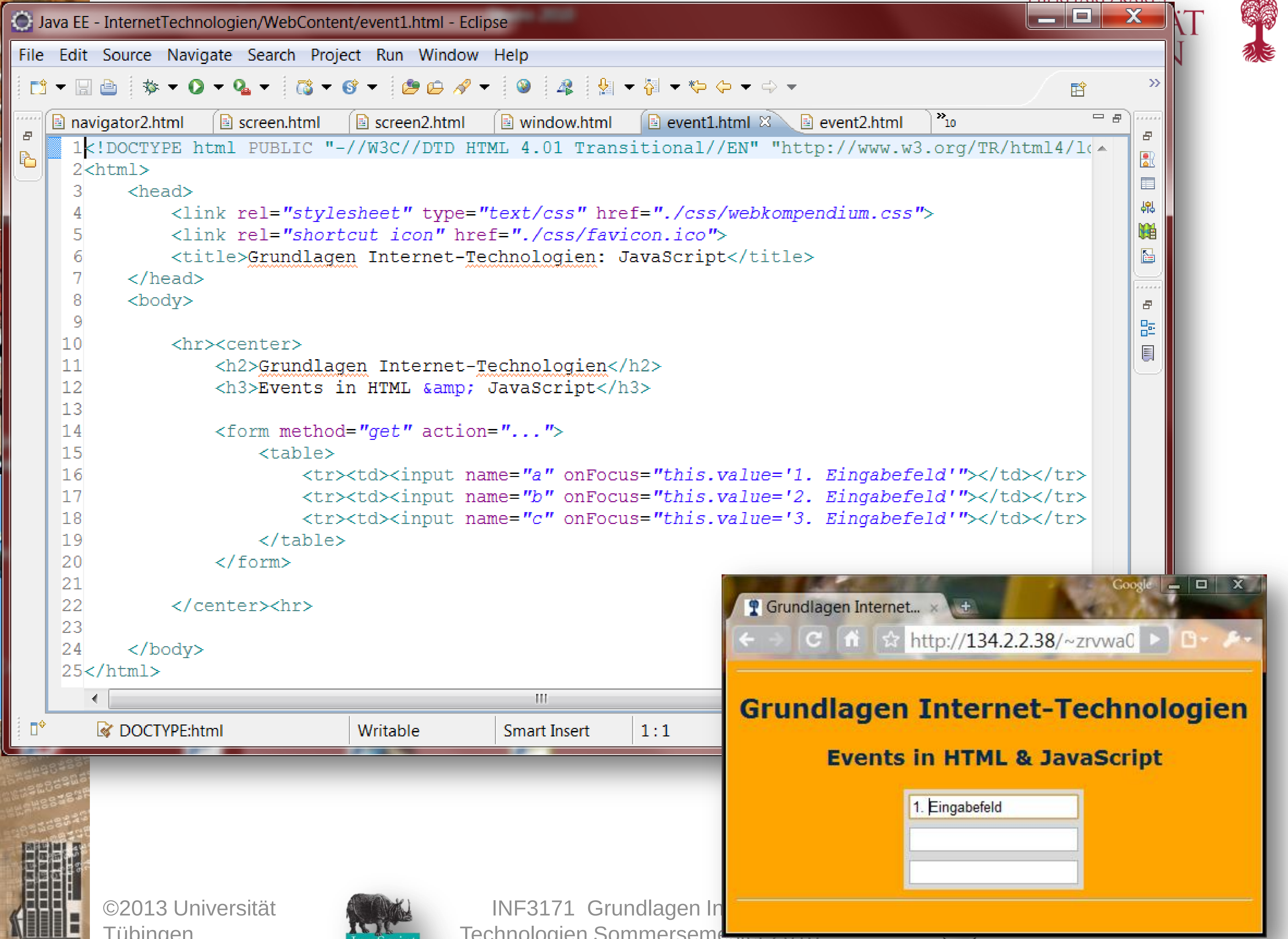


Event-Behandlung mit JavaScript

- zwei Möglichkeiten
  - direkter JavaScript-Link
    - `<a href="javascript:window.close()">…</a>`
  - Event-Handle: Beispiel onFocus als HTML-Attribut:

```
<INPUT onFocus="jsfunction()">
```

- Beispiel even1.html, event2.html



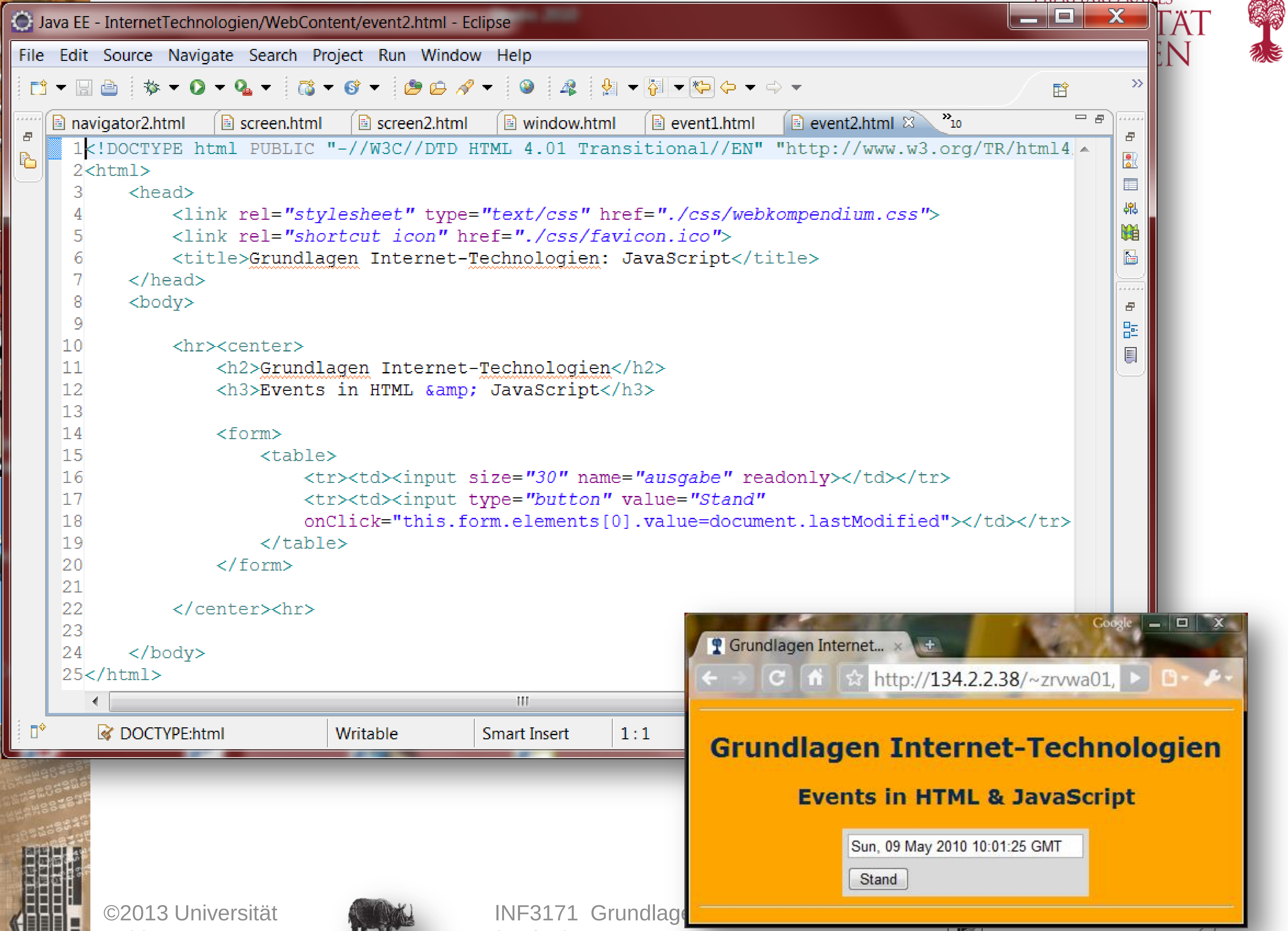
Java EE - InternetTechnologien/WebContent/event1.html - Eclipse
File Edit Source Navigate Search Project Run Window Help
navigator2.html
screen.html
screen2.html
window.html
event1.html
event2.html
DOCTYPE:html
Writable
Smart Insert
1 : 1
Grundlagen Internet...
http://134.2.2.38/~zrvwa0

```html
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/l
<html>
    <head>
        <link rel="stylesheet" type="text/css" href="./css/webkompendium.css">
        <link rel="shortcut icon" href="./css/favicon.ico">
        <title>Grundlagen Internet-Technologien: JavaScript</title>
    </head>
    <body>

        <hr><center>
            <h2>Grundlagen Internet-Technologien</h2>
            <h3>Events in HTML &amp; JavaScript</h3>

            <form method="get" action="...">
                <table>
                    <tr><td><input name="a" onFocus="this.value='1. Eingabefeld'"></td></tr>
                    <tr><td><input name="b" onFocus="this.value='2. Eingabefeld'"></td></tr>
                    <tr><td><input name="c" onFocus="this.value='3. Eingabefeld'"></td></tr>
                </table>
            </form>

        </center><hr>

    </body>
</html>
```

Grundlagen Internet-Technologien

Events in HTML & JavaScript

1. Eingabefeld



Java EE - InternetTechnologien/WebContent/event2.html - Eclipse
File Edit Source Navigate Search Project Run Window Help
navigator2.html
screen.html
screen2.html
window.html
event1.html
event2.html
DOCTYPE:html
Writable
Smart Insert
1 : 1
Grundlagen Internet...
http://134.2.2.38/~zrvwa01,

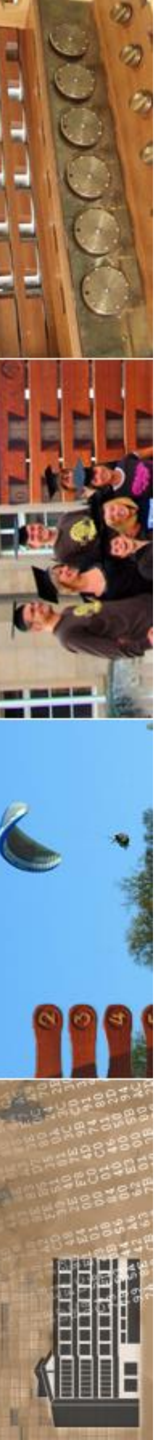
```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4
<html>
    <head>
        <link rel="stylesheet" type="text/css" href="./css/webkompendium.css">
        <link rel="shortcut icon" href="./css/favicon.ico">
        <title>Grundlagen Internet-Technologien: JavaScript</title>
    </head>
    <body>

        <hr><center>
            <h2>Grundlagen Internet-Technologien</h2>
            <h3>Events in HTML &amp; JavaScript</h3>

            <form>
                <table>
                    <tr><td><input size="30" name="ausgabe" readonly></td></tr>
                    <tr><td><input type="button" value="Stand"
                    onClick="this.form.elements[0].value=document.lastModified"></td></tr>
                </table>
            </form>

        </center><hr>

    </body>
</html>
```

Grundlagen Internet-Technologien

Events in HTML & JavaScript

Sun, 09 May 2010 10:01:25 GMT

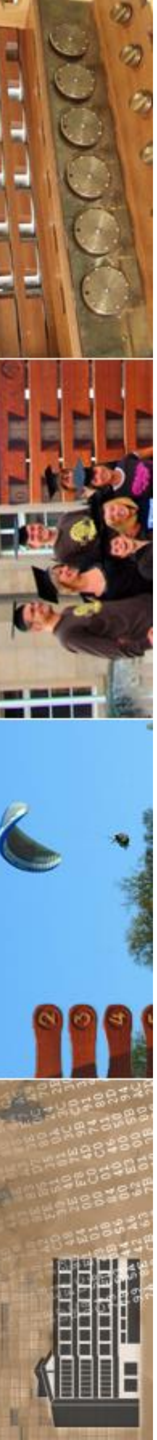
Stand



Übersicht Event-Handles

- viele, aber wieder *abhängig von der JavaScript-Version*

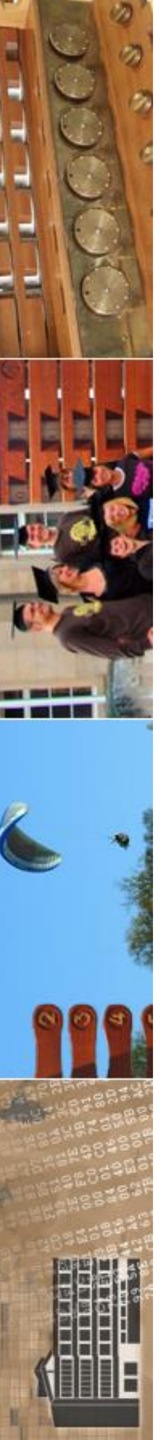
- **`onAbort onBlur onChange onClick onDblClick onError onFocus onKeydown onKeypress onKeyup onLoad onMousedown onMousemove onMouseout onMouseOver onMouseUp onReset onSelect onSubmit onUnload javascript:`**



weitere Punkte zu JavaScript

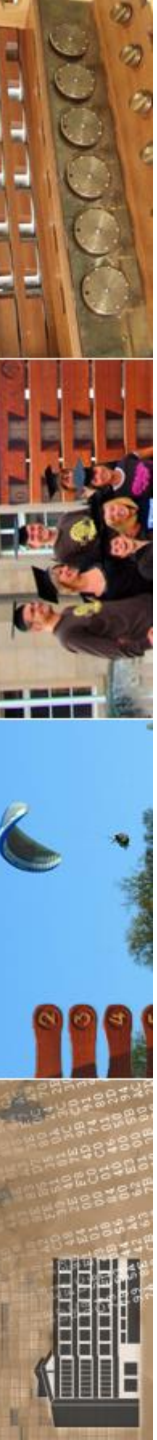
- gemischtes Server-Client-Script
  - `<?php echo("<SCRIPT>document.write("Hello");</SCRIPT>"); ?>`
- interessant: AJAX: Asynchronous JavaScript And XML
- Sicherheit des Clients
- Eingabefokus steuern (google)

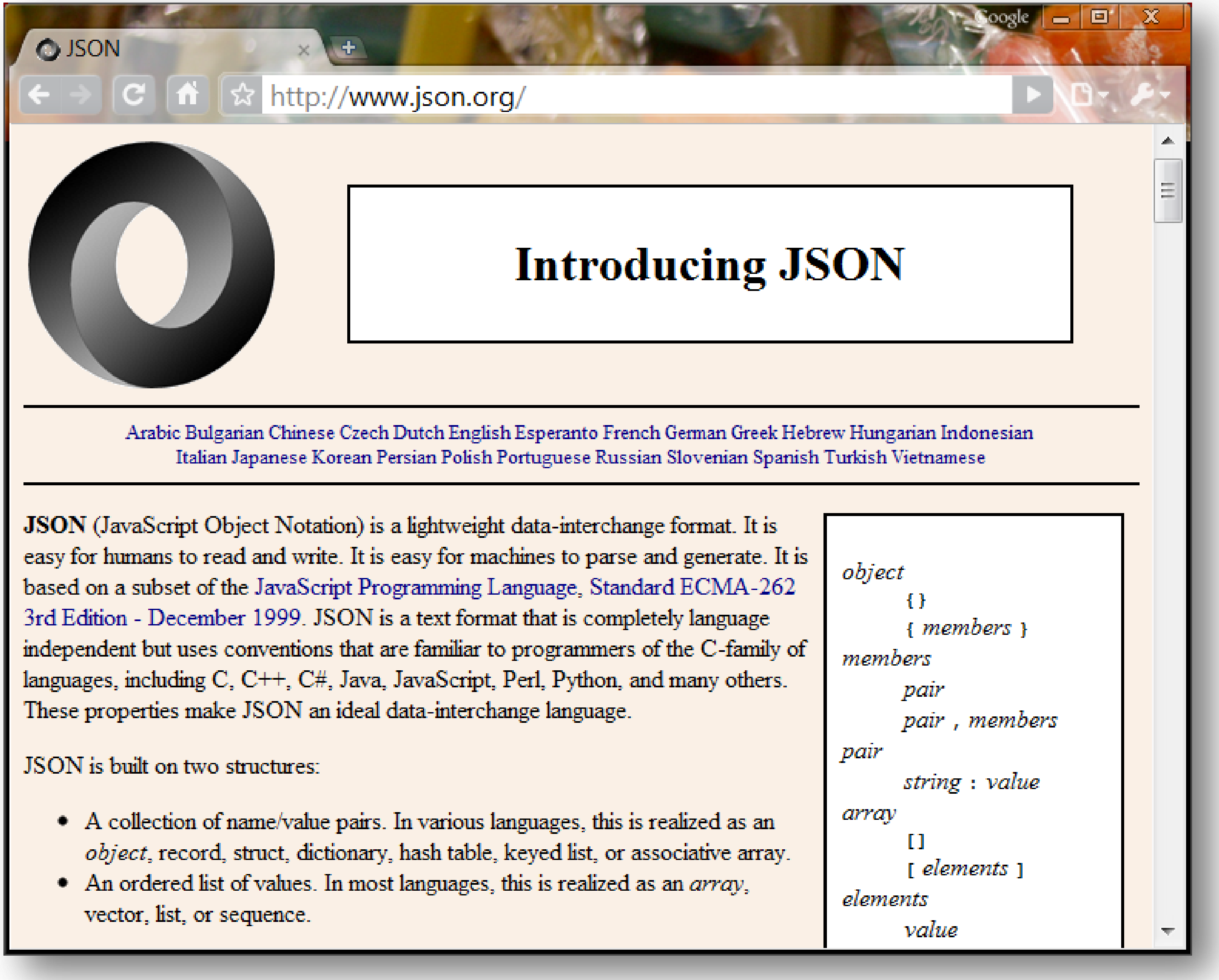
  -
    ```
    <BODY onLoad="self.focus();
    document.forlumar.feld.focus()">
    ```
- destruktive Scripte
- nicht auf JavaScript verlassen



JSON

- JSON: JavaScript Object Notation
- kompaktes **Datenaustauschformat**
  - JavaScript-Notation für Objektliterale
  - http://ww.json.org
- Textformat
  - ungeordneter Container von key-value-Paaren
- wichtige Alternative zu XML als Datenaustauschformat





Introducing JSON

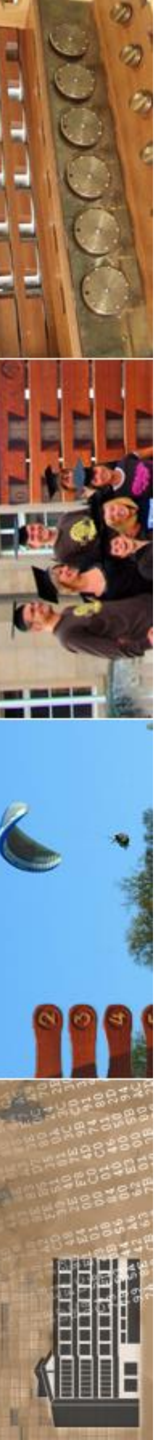
Arabic Bulgarian Chinese Czech Dutch English Esperanto French German Greek Hebrew Hungarian Indonesian Italian Japanese Korean Persian Polish Portuguese Russian Slovenian Spanish Turkish Vietnamese

JSON (JavaScript Object Notation) is a lightweight data-interchange format. It is easy for humans to read and write. It is easy for machines to parse and generate. It is based on a subset of the JavaScript Programming Language, Standard ECMA-262 3rd Edition - December 1999. JSON is a text format that is completely language independent but uses conventions that are familiar to programmers of the C-family of languages, including C, C++, C#, Java, JavaScript, Perl, Python, and many others. These properties make JSON an ideal data-interchange language.

JSON is built on two structures:

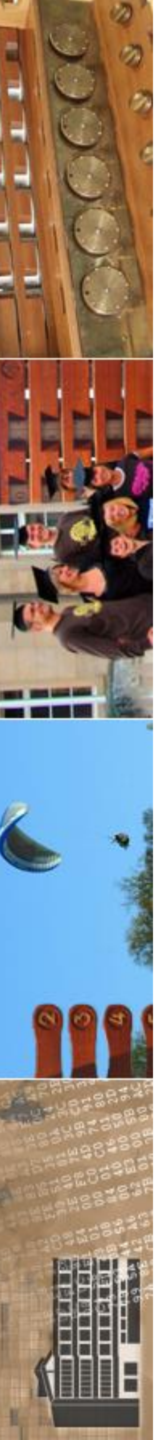
- A collection of name/value pairs. In various languages, this is realized as an *object*, record, struct, dictionary, hash table, keyed list, or associative array.
- An ordered list of values. In most languages, this is realized as an *array*, vector, list, or sequence.

```
object
        {}
        { members }
members
        pair
        pair , members
pair
        string : value
array
        []
        [ elements ]
elements
        value
```



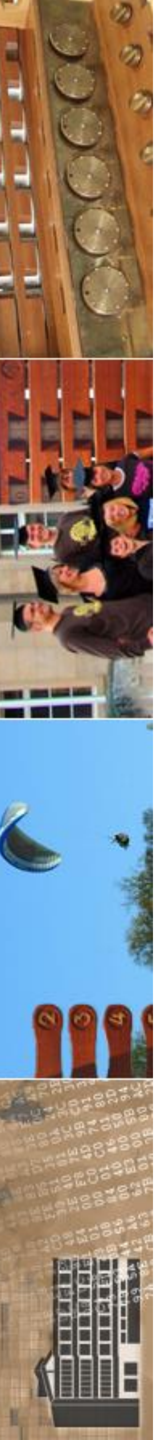
JSON

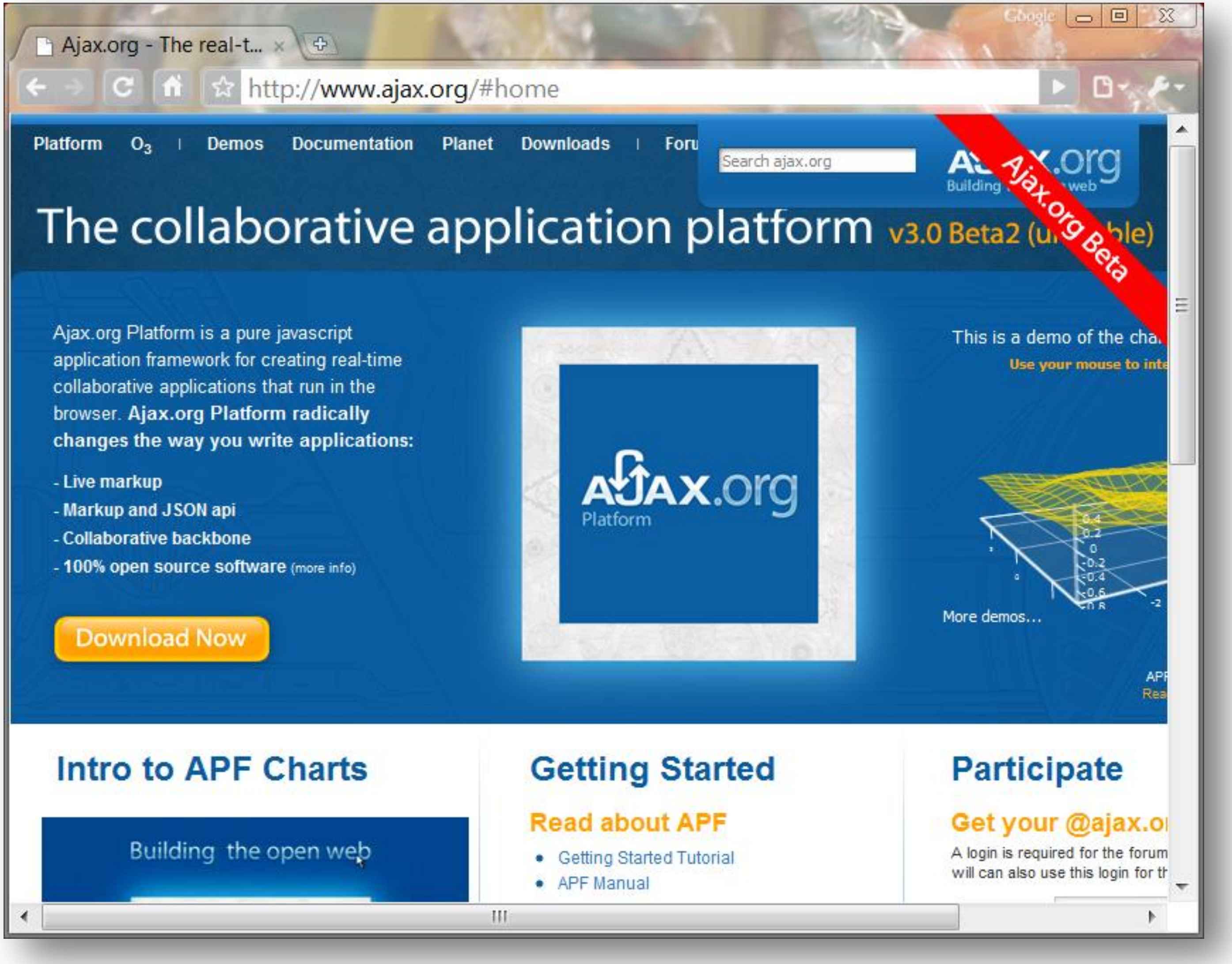
- "JSON (JavaScript Object Notation) is a lightweight data-interchange format. It is easy for humans to read and write. It is easy for machines to parse and generate. It is based on a subset of the JavaScript Programming Language, Standard ECMA-262 3rd Edition - December 1999. JSON is a text format that is completely language independent but uses conventions that are familiar to programmers of the C-family of languages, including C, C++, C#, Java, JavaScript, Perl, Python, and many others. These properties make JSON an ideal data-interchange language."



AJAX

- Asynchronous JavaScript And XML
- **asynchrone** Kommunikation zwischen Client und Server
- gesteuert über JavaScript-Objekt **`XMLHttpRequest`**
  - damit Nachladen von Server-Inhalten/kontinuierliche Kommunikation zwischen Webclient und Webserver
  - Austauschformat XML, JSON, …





Ajax.org - The real-t...

http://www.ajax.org/#home

Platform O$_3$ | Demos Documentation Planet Downloads | Foru

Search ajax.org

A...x.org Building ... web

Ajax.org Beta

The collaborative application platform v3.0 Beta2 (u...ble)

Ajax.org Platform is a pure javascript application framework for creating real-time collaborative applications that run in the browser. **Ajax.org Platform radically changes the way you write applications:**

- **Live markup**
- **Markup and JSON api**
- **Collaborative backbone**
- **100% open source software** (more info)

Download Now

AJAX.org Platform

This is a demo of the cha

Use your mouse to inte

More demos...

APF Rea

Intro to APF Charts

Building the open web

Getting Started

Read about APF

- Getting Started Tutorial
- APF Manual

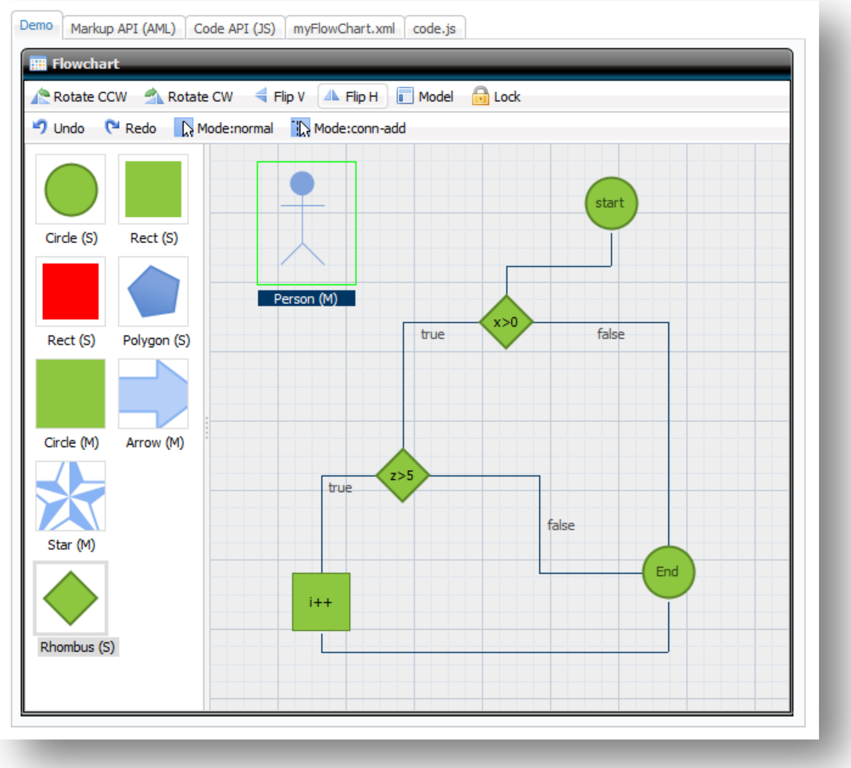
Participate

Get your @ajax.o

A login is required for the forum will can also use this login for th

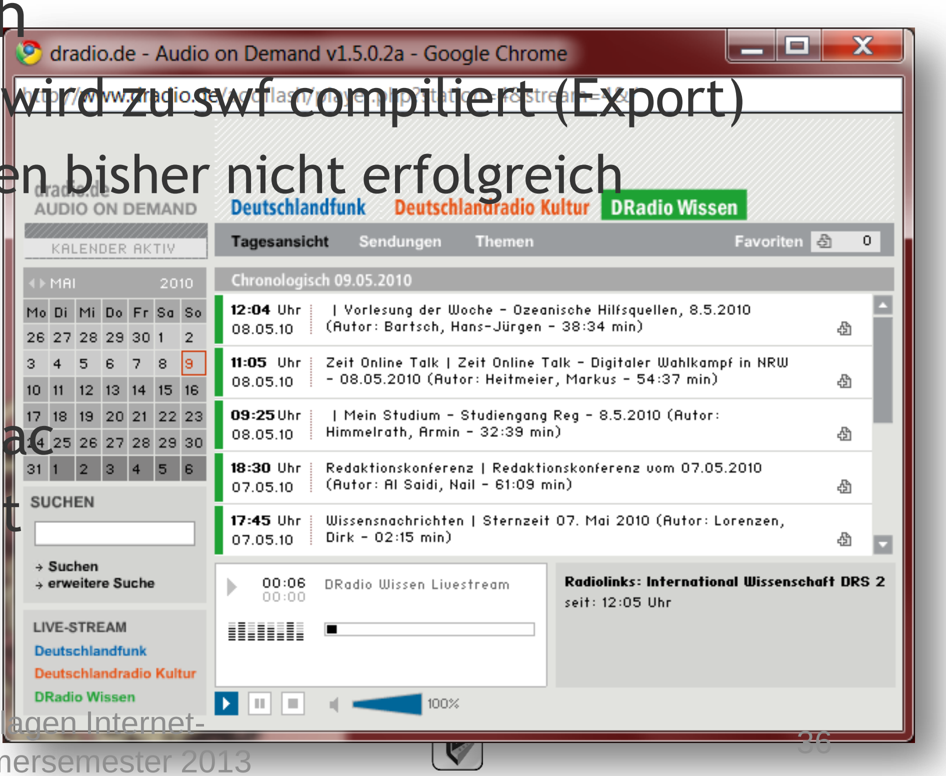
AJAX

- AJAX wird erst interessant, wenn auch serverseitige Techniken eingesetzt werden
  - deshalb behandeln wir es etwas später genauer



weitere Client-Techniken

- Java Applet
  - echtes Java auf dem Client
- Adobe (Macromedia) Flash
  - Bühne in Flash, .fla-Datei, wird zu swf compiliert (Export)
  - proprietär, freie Alternativen bisher nicht erfolgreich
- MS Silverlight
  - beschränkt auf Windows/Mac
  - Alternative Mono/Moonlight



dradio.de - Audio on Demand v1.5.0.2a - Google Chrome

http://www.dradio.de/aodflash/player.php?station=4&stream=1&

dradio.de
AUDIO ON DEMAND

Deutschlandfunk | Deutschlandradio Kultur | DRadio Wissen

KALENDER AKTIV

Tagesansicht | Sendungen | Themen | Favoriten 0

MAI 2010

Mo	Di	Mi	Do	Fr	Sa	So
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

Chronologisch 09.05.2010

12:04 Uhr 08.05.10 | Vorlesung der Woche - Ozeanische Hilfsquellen, 8.5.2010 (Autor: Bartsch, Hans-Jürgen - 38:34 min)

11:05 Uhr 08.05.10 | Zeit Online Talk | Zeit Online Talk - Digitaler Wahlkampf in NRW - 08.05.2010 (Autor: Heitmeier, Markus - 54:37 min)

09:25 Uhr 08.05.10 | Mein Studium - Studiengang Reg - 8.5.2010 (Autor: Himmelrath, Armin - 32:39 min)

18:30 Uhr 07.05.10 | Redaktionskonferenz | Redaktionskonferenz vom 07.05.2010 (Autor: Al Saidi, Nail - 61:09 min)

17:45 Uhr 07.05.10 | Wissensnachrichten | Sternzeit 07. Mai 2010 (Autor: Lorenzen, Dirk - 02:15 min)

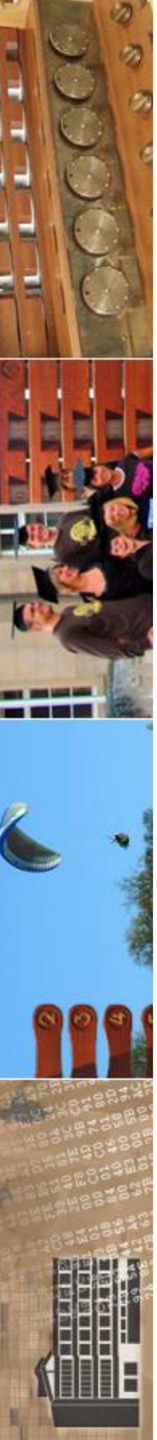
SUCHEN

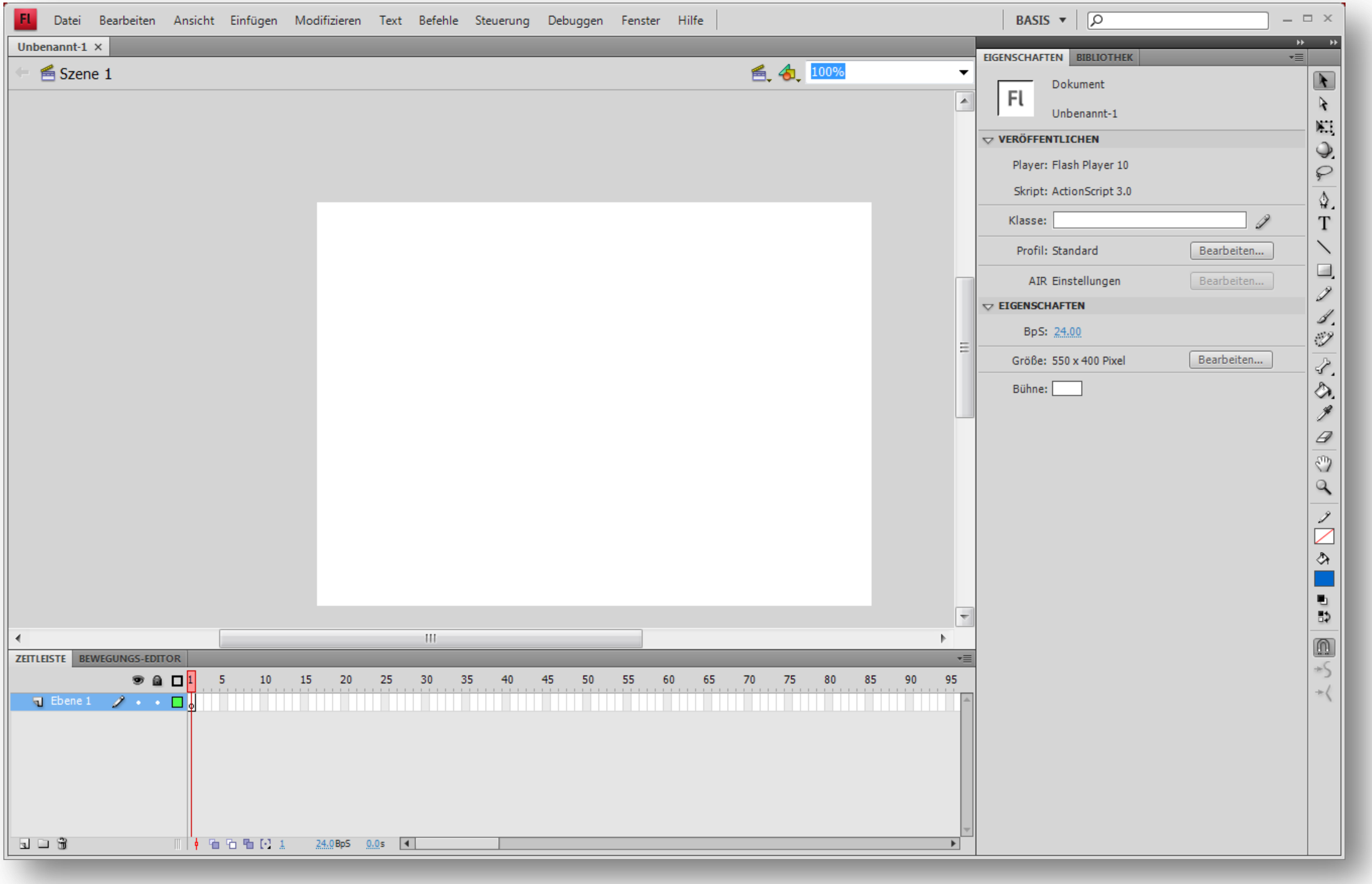
→ Suchen
→ erweitere Suche

00:06
00:00
DRadio Wissen Livestream

Radiolinks: International Wissenschaft DRS 2
seit: 12:05 Uhr

LIVE-STREAM
Deutschlandfunk
Deutschlandradio Kultur
DRadio Wissen





Dokument

Unbenannt-1

VERÖFFENTLICHEN

Player: Flash Player 10

Skript: ActionScript 3.0

Klasse:

Profil: Standard Bearbeiten...

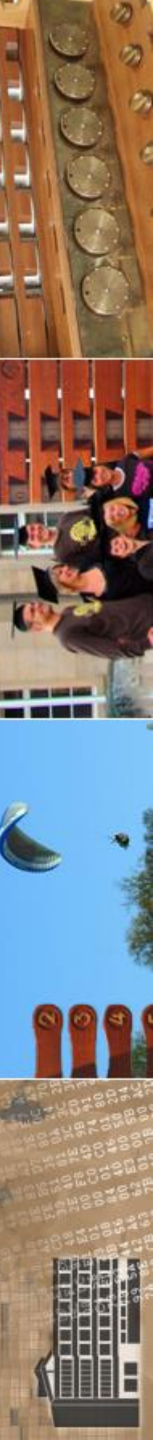
AIR Einstellungen Bearbeiten...

EIGENSCHAFTEN

BpS: 24.00

Größe: 550 x 400 Pixel Bearbeiten...

Bühne:



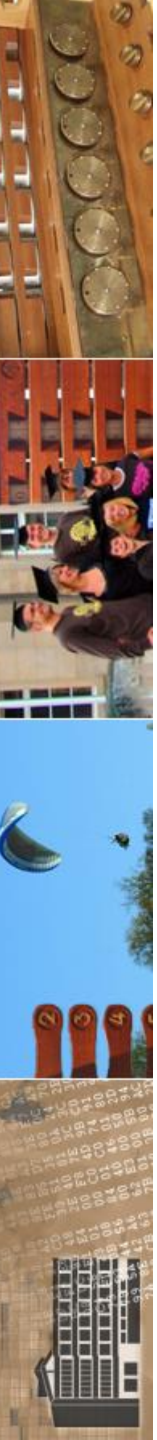
aktuelle Ansätze

- neue Ansätze:
  - JavaScript-**Frameworks**
    - Google Web Toolkit GWT
    - qooxdoo
    - dojo
- Hauptziel: RIA – rich internet application
  Web-Anwendung mit GUI wie lokale Applikation

GWT

- Idee: JavaScript-Client wird in Java geschrieben und mittels Compiler nach Javascript überführt

- http://code.google.com/intl/de-DE/webtoolkit/



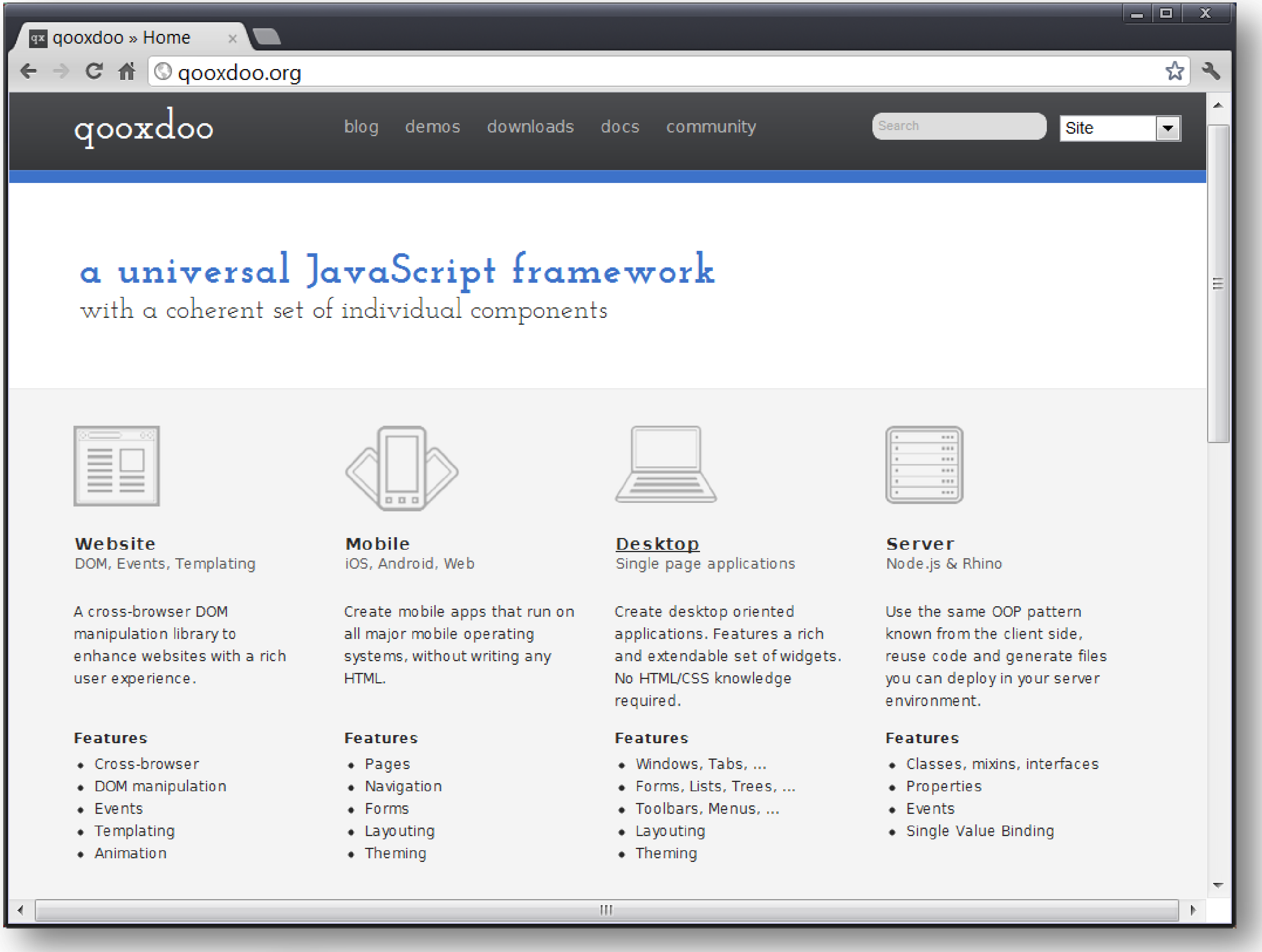
GWT

- „With Google Web Toolkit (GWT), you **write your AJAX front-end in the Java programming language** which GWT then cross-compiles into optimized JavaScript that automatically works across all major browsers. During development, you can iterate quickly in the same "edit - refesh - view" cycle you're accustomed to with JavaScript, with the added benefit of being able to debug and step through your Java code line by line. When you're ready to deploy, GWT compiles your Java source code into optimized, standalone JavaScript files. Easily build one widget for an existing web page or an entire application using Google Web Toolkit.”

qooxdoo

- komplexes JavaScript/AJAX Framework: **qooxdoo** Web Toolkit (QWT)
  - auch Support für mMobile Devices

- http://qooxdoo.org/



a universal JavaScript framework

with a coherent set of individual components

Website
DOM, Events, Templating

A cross-browser DOM manipulation library to enhance websites with a rich user experience.

Features

- Cross-browser
- DOM manipulation
- Events
- Templating
- Animation

Mobile
iOS, Android, Web

Create mobile apps that run on all major mobile operating systems, without writing any HTML.

Features

- Pages
- Navigation
- Forms
- Layouting
- Theming

Desktop
Single page applications

Create desktop oriented applications. Features a rich and extendable set of widgets. No HTML/CSS knowledge required.

Features

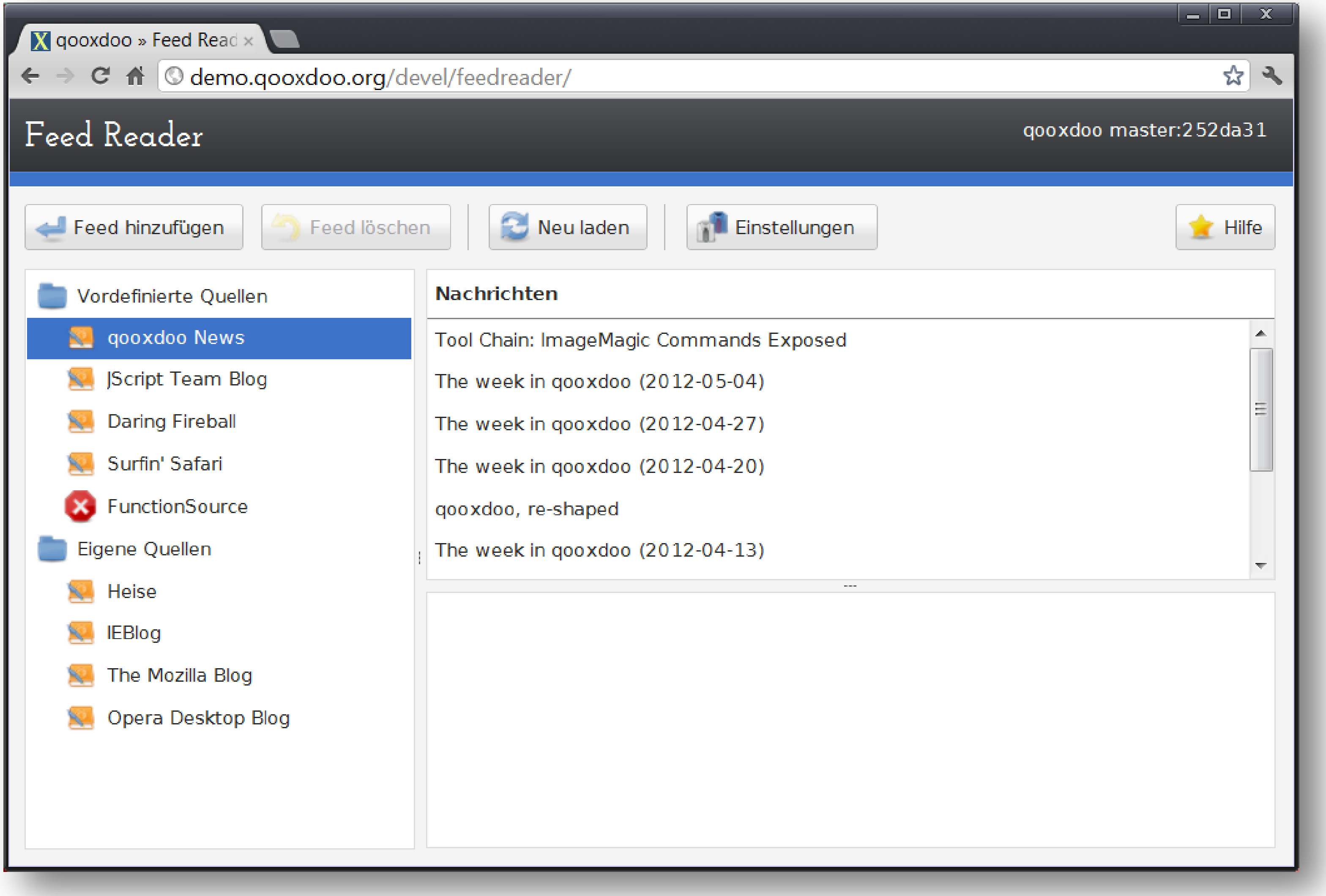
- Windows, Tabs, ...
- Forms, Lists, Trees, ...
- Toolbars, Menus, ...
- Layouting
- Theming

Server
Node.js & Rhino

Use the same OOP pattern known from the client side, reuse code and generate files you can deploy in your server environment.

Features

- Classes, mixins, interfaces
- Properties
- Events
- Single Value Binding



Tool Chain: ImageMagic Commands Exposed

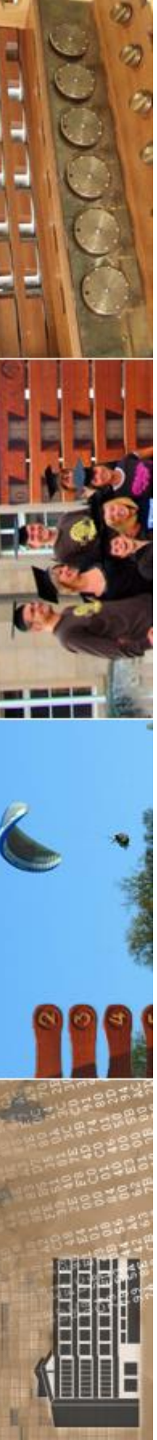
The week in qooxdoo (2012-05-04)

The week in qooxdoo (2012-04-27)

The week in qooxdoo (2012-04-20)

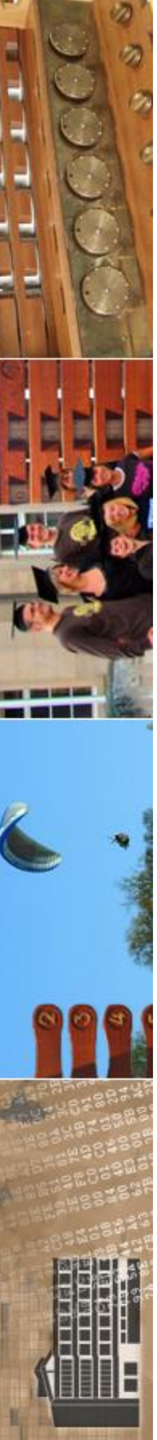
qooxdoo, re-shaped

The week in qooxdoo (2012-04-13)



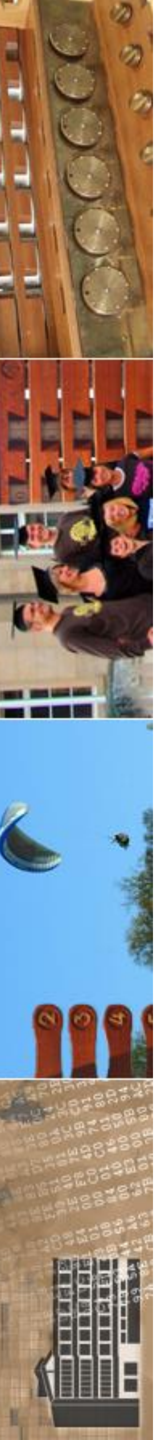
dojo

- dojo-Toolkit: www.dojotoolkit.org
  - sehr leistungsfähiges Toolkit, ab 2004 von Alex Russell, Dylan Schiemann und David Schontzer entwickelt
  - verfügt über Widgets, asynchroner Kommunikation, Möglichkeiten der persistenten Datenspeicherung und mehr



Gemeinsamkeiten

- Web-Applikationen mit dem „Look&Feel“ von klassischen Clientapplikationen
- vergleichsweise einfach zu entwickeln
- es gibt gute Einbindung in Entwicklertools
- schnelle Weiterentwicklung der Frameworks



ECMA Script

- ECMA Script 262 ist Versuch für einen Standard für Sprachen wie JavaScript (und JSON), 1997
  - ECMA: European Computer Manufactors Association
  - JavaScript erfüllt ECMA weitgehend
  - siehe http://www.ecma-international.org/publications/files/ECMA-ST/ECMA-262.pdf
- aktuell ECMA Version 5. und 6 (Draft)

…und nun…

- haben wir die Möglichkeiten von JavaScript genauer kennen gelernt
- wir kennen Begriffe wie DOM, Events in JavaScript, Frameworks in JavaScript und ECMA Script

- als nächstes:

  Einstieg in die **serverseitige Web-Programmierung**