

# DMA

## DEBUGGING UND TESTING IM MOBILEN WEBDESIGN

✿ CONTAO KONFERENZ 2014 ✿

 Janosch Skuplik

GESTRICHEN



# Testing



# Debugging



# Häufige Probleme

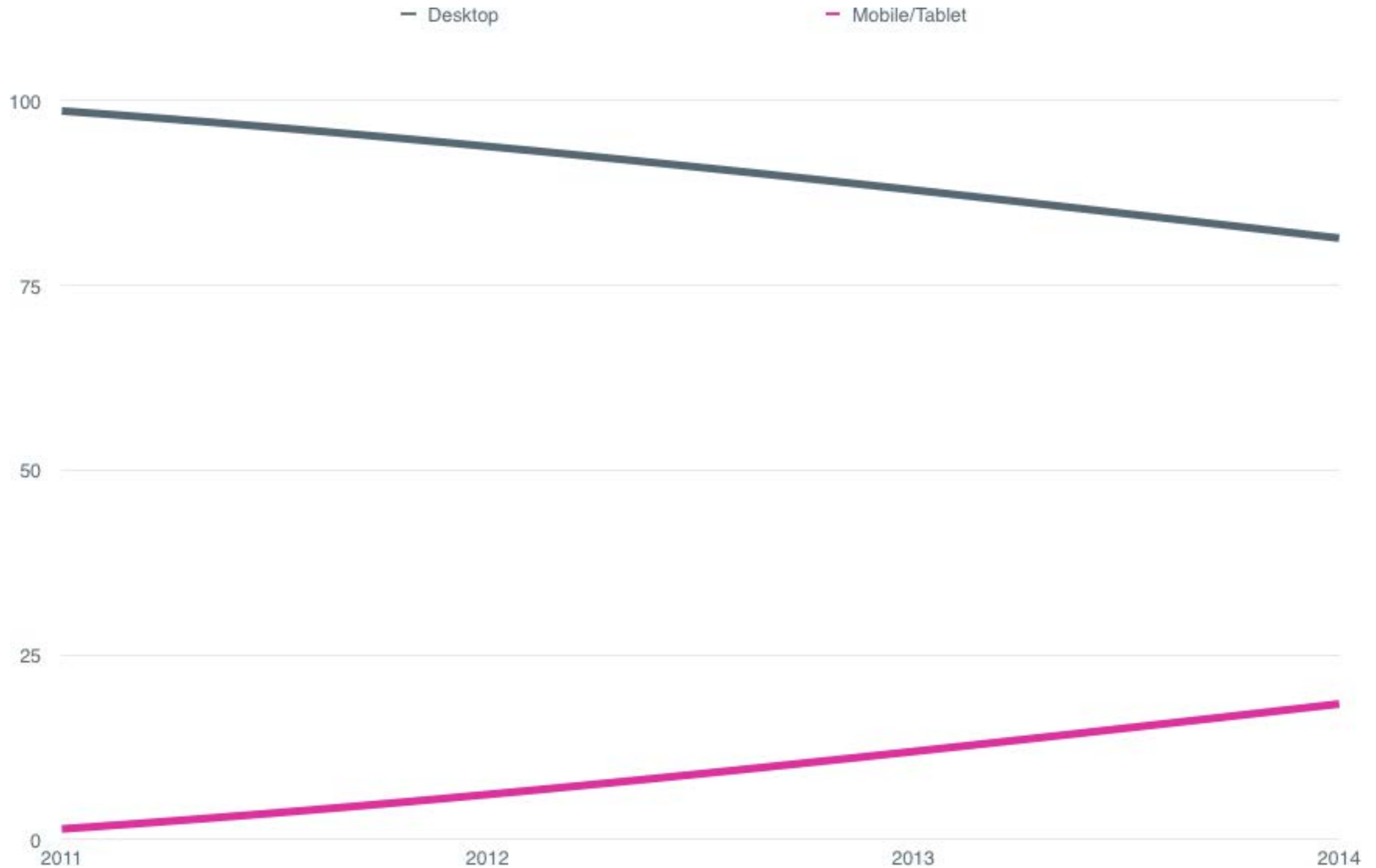
Warum mobile?

# Warum mobile?

**DMA**

1. Die mobile Wachstumsrate ist größer als die von Desktop-PCs

# Warum mobile?



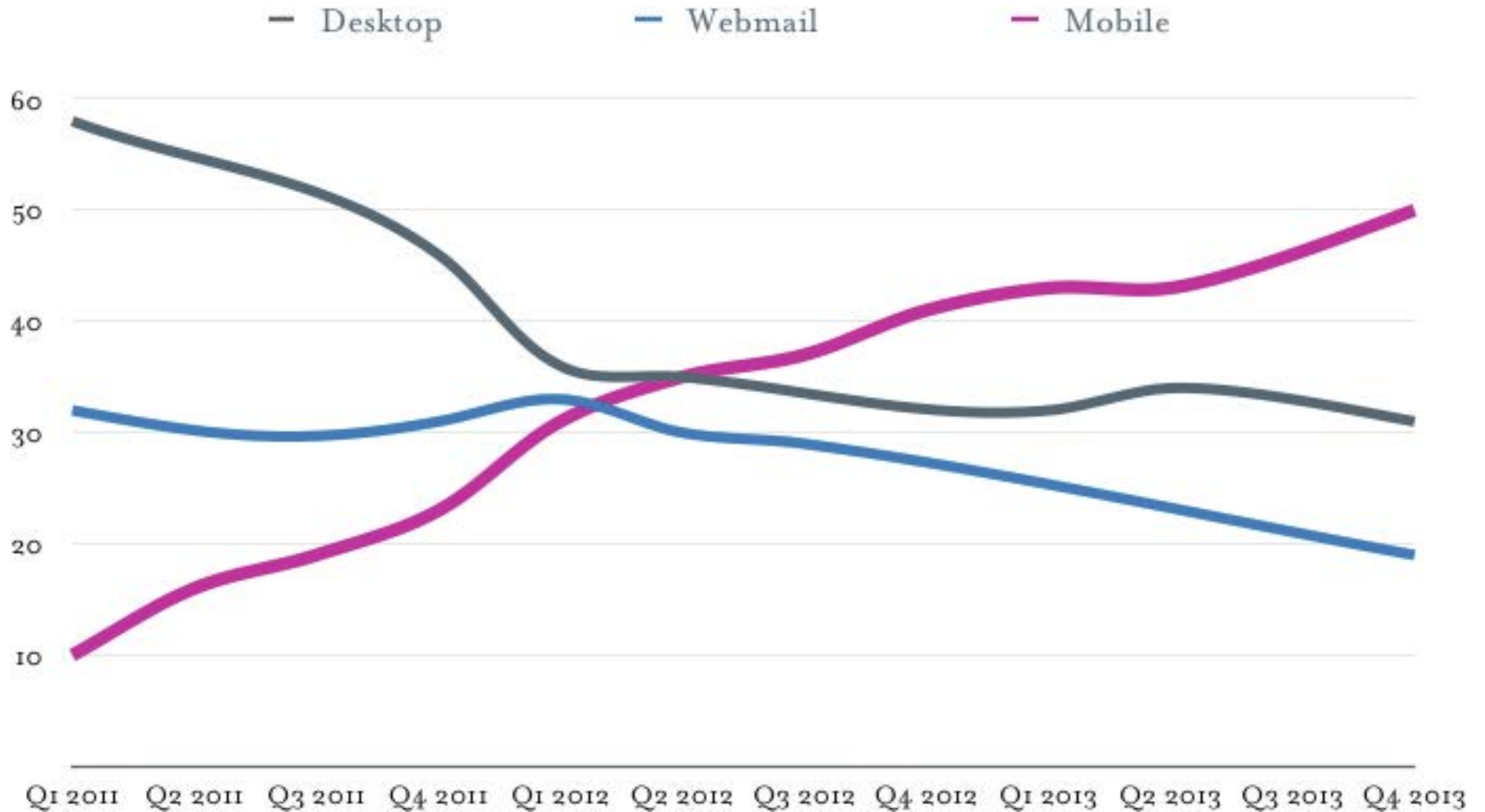


# Warum mobile?

**DMA**

1. Die mobile Wachstumsrate ist größer als die von Desktop-PCs
2. E-Mails werden mobil geöffnet

# Warum mobile?



# Warum mobile?

**DMA**

1. Die mobile Wachstumsrate ist größer als die von Desktop-PCs
2. E-Mails werden mobil geöffnet
3. Links werden in sozialen Netzwerken geteilt
4. Wettbewerbsvorteil

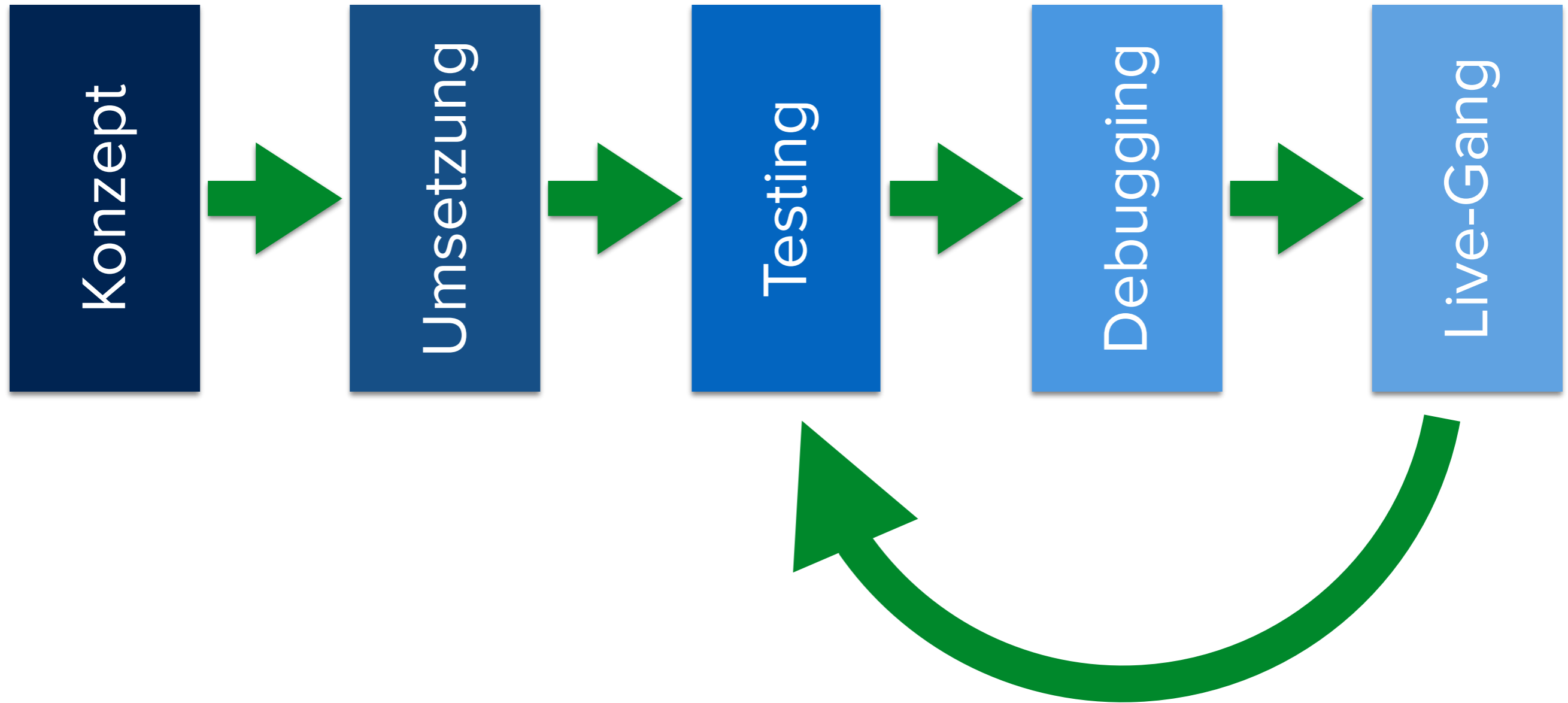
Wie?

...heute egal...

# Testing & Debugging

# Prozess der Umsetzung

**DMA**



## ❁ Testing

- ❁ Auffinden und Lokalisieren von Fehlern
- ❁ Durchgeführt durch das Test-Team
- ❁ Intention: Möglichst viele Fehler finden

## ❁ Debugging

- ❁ Beheben von Fehlern
- ❁ Durchgeführt durch das Entwickler-Team
- ❁ Intention: die gefundenen Fehler beheben



# Testing

# Testing des Layouts

# Debugging

**DMA**

✿ Responsive/Adaptive umgesetzt Seite

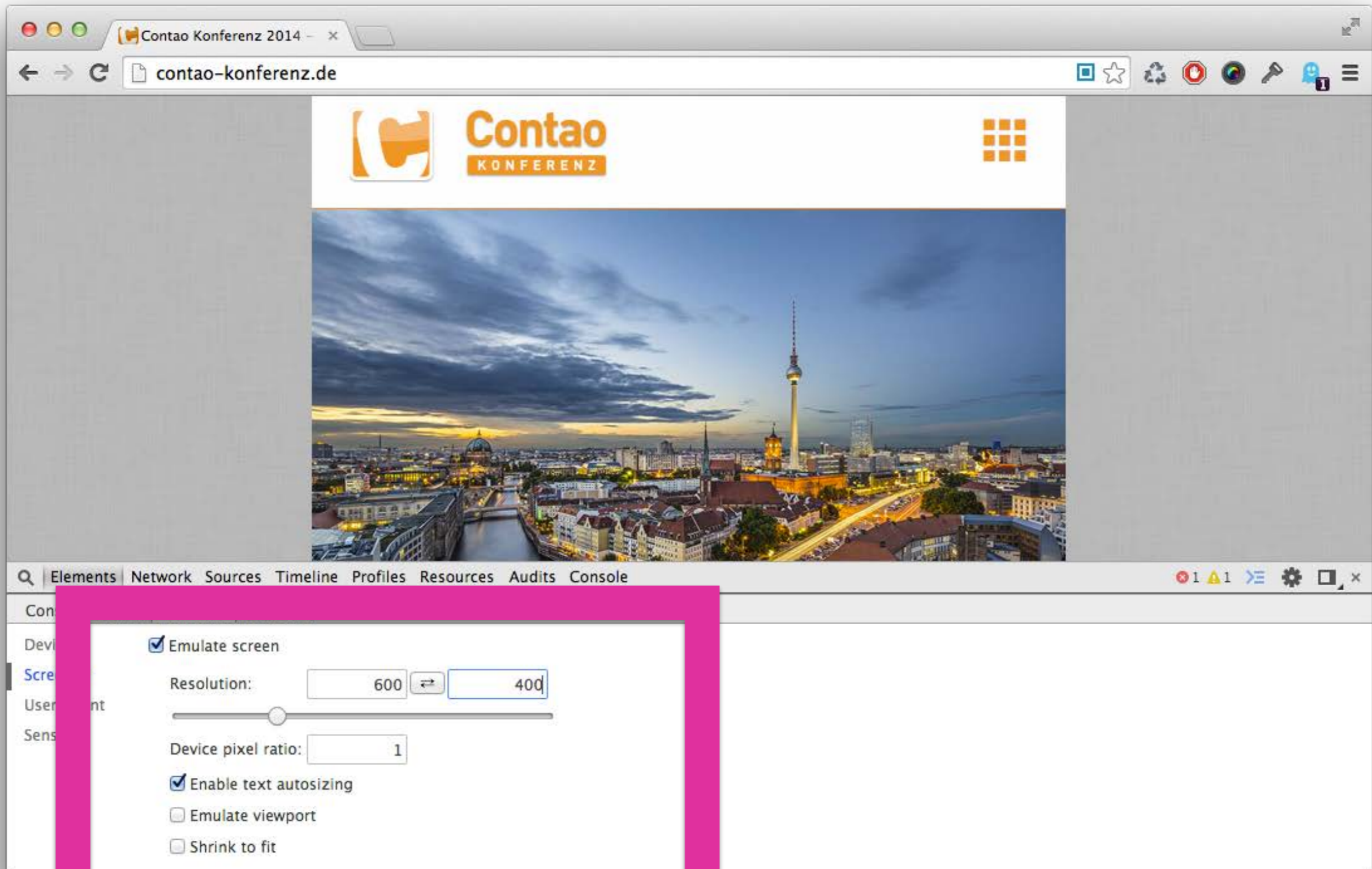
✿ Resize-Tools

# Resizing

# Resize im Browser

The image shows a browser window displaying the website 'Contao Konferenz 2014'. The browser's address bar shows 'contao-konferenz.de'. The website header includes the Contao logo and navigation links: 'INFOS', 'SPRECHER', 'SPONSOREN', 'LOCATION', 'PROGRAMM', and 'TICKET-INFO'. The main content area features a large image of a cityscape with a prominent tower, and text indicating the event dates and location: '15. - 16. MAI 2014, CLUB OFFICE II BERLIN' and 'Gustav-Meyer-Allee 25, Berlin-Wedding'. The browser's developer tools are open at the bottom, with the 'Device Emulation' panel highlighted in pink. This panel shows settings for 'Emulate screen', 'Resolution' (2560 x 1440), 'Device pixel ratio' (1), and checkboxes for 'Enable text autosizing', 'Emulate viewport', and 'Shrink to fit'.

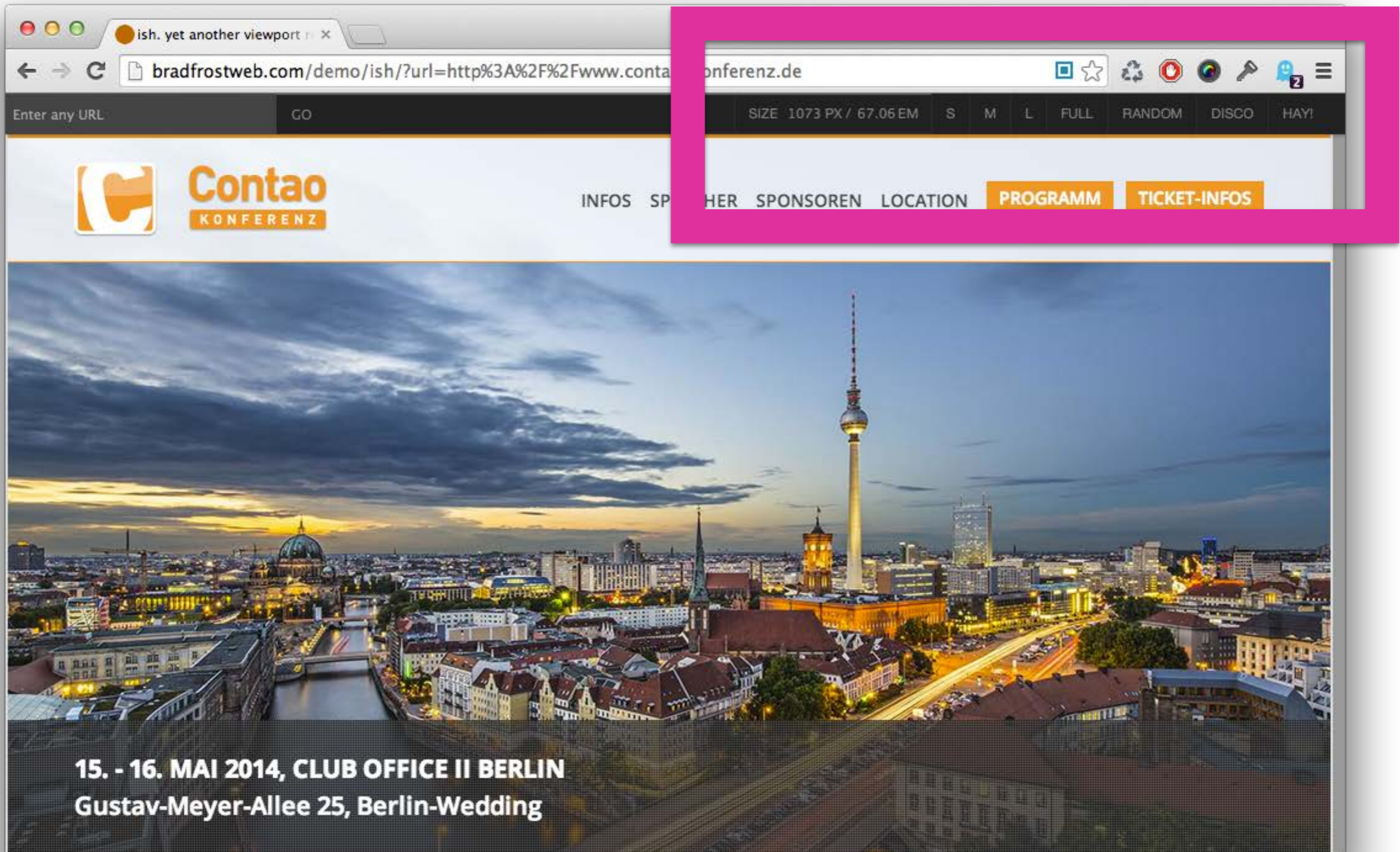
# Resize im Browser



ISH

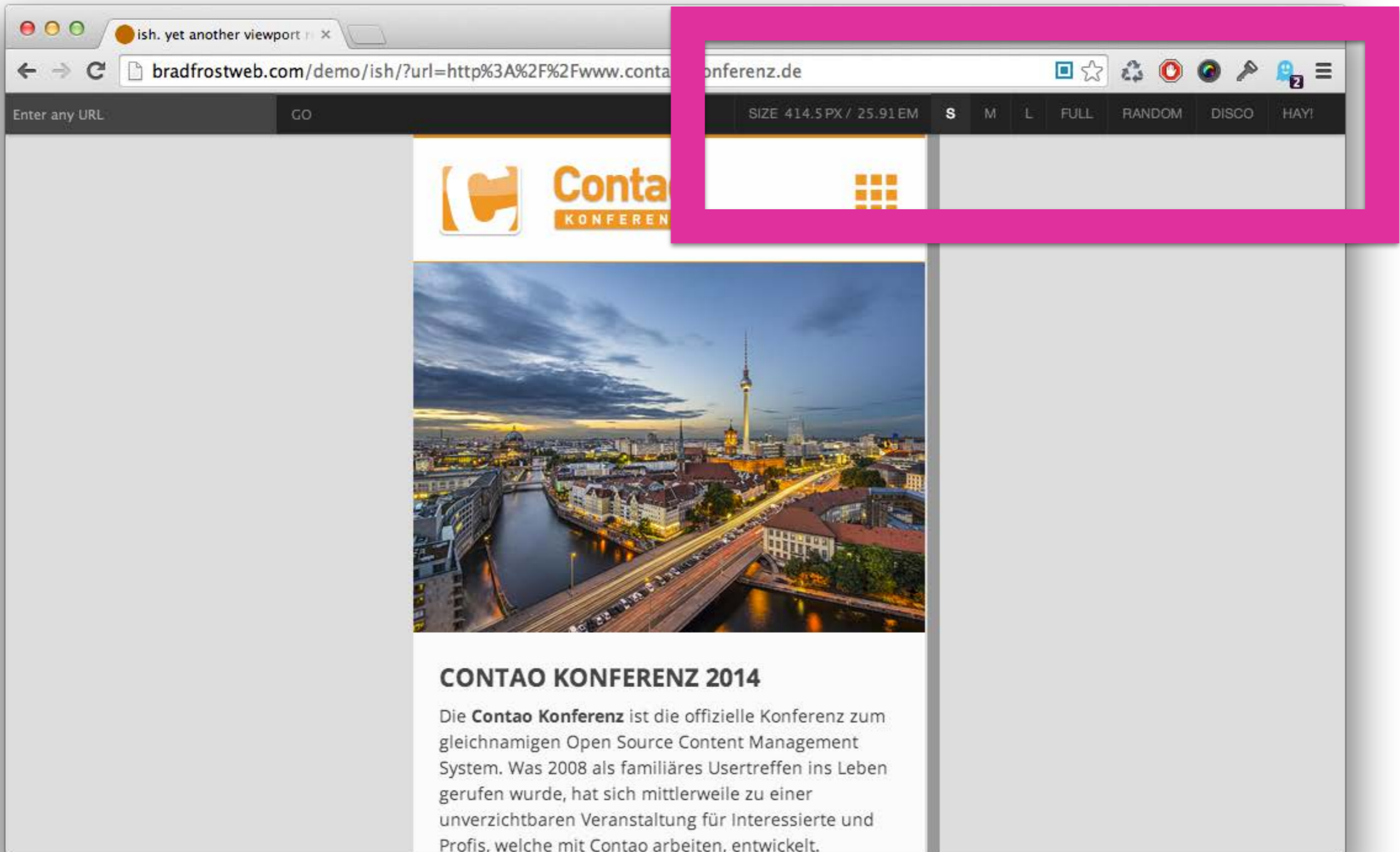
# Resize-Tools

# DMA





# Resize-Tools



ish. yet another viewport

bradfrostweb.com/demo/ish/?url=http%3A%2F%2Fwww.contao-konferenz.de#hay

Enter any URL GO SIZE 388 PX / 24.25 EM S M L FULL RANDOM DISCO HAYI

 **Contao**  
KONFERENZ 

**PROGRAMMÜBERSICHT**  
Die Themen der Contao Konferenz 2014

Weitere Programmpunkte werden wir euch in den nächsten Tagen vorstellen.

**14. Mai (Mittwoch)**  
Get Together im Club Office ab 19.00 Uhr

**15. Mai (Donnerstag)**

Uhrzeit	Main Stage	Raum #1	Raum #2
09:00 Uhr - 10:00 Uhr			

# Debugging

**DMA**

✿ Responsive/Adaptive umgesetzt Seite

✿ Resize-Tools

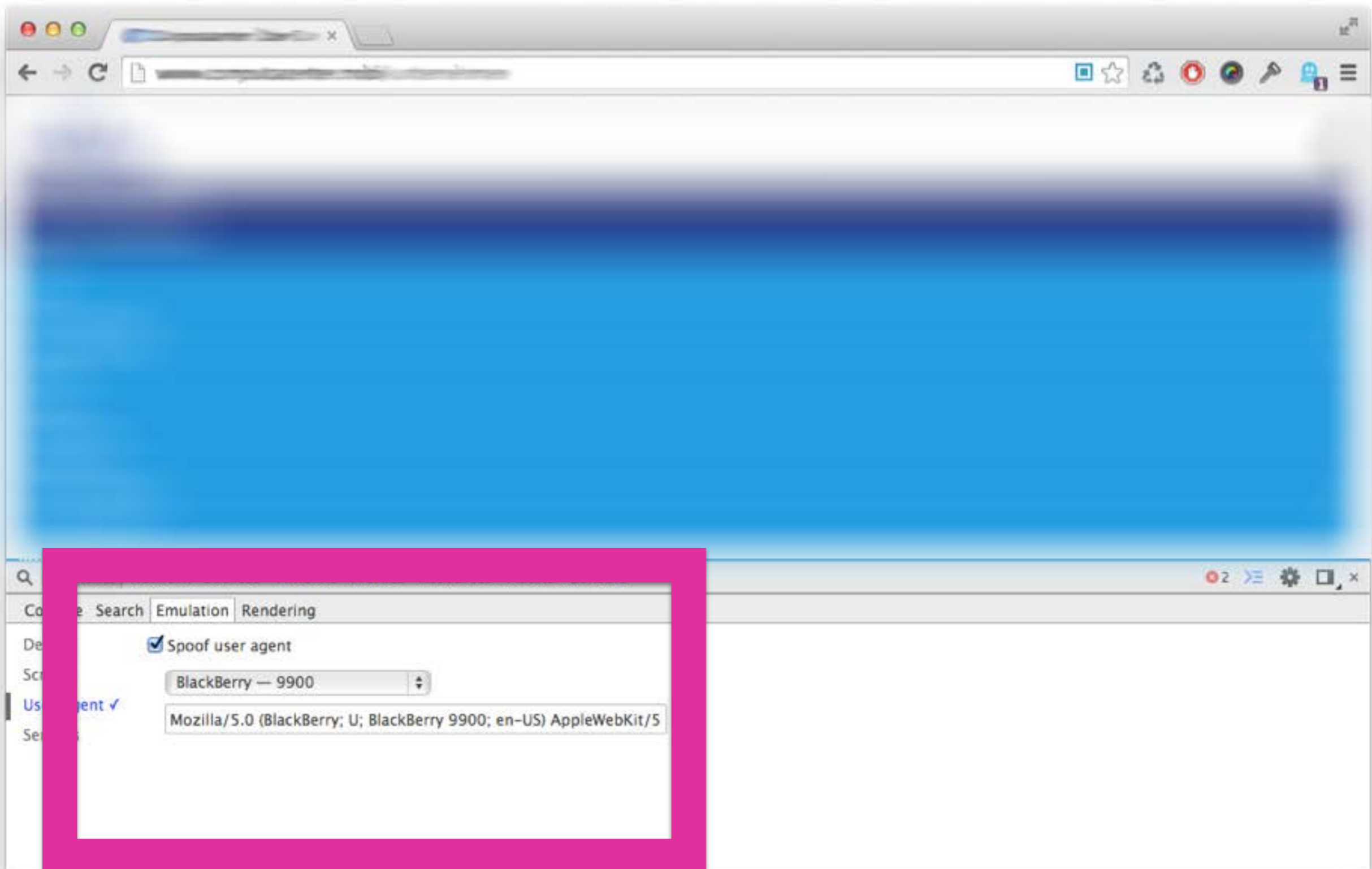
✿ M-Dot-Seite

✿ User-Agent-Switcher

# User-Agent Switching

# User-Agent Switch

DMA



# Testing auf den Geräten

<b>Browser</b>	<b>Platform</b>				
Chrome	Windows XP				
Firefox	Windows XP				
Internet Explorer 10	Windows 7				
Internet Explorer 9	Windows 7				
Internet Explorer 8	Windows XP				
Internet Explorer 7	Windows Vista				
Chrome	OS X				
Firefox	OS X				
Safari	OS X				

# Testing

Gerät	Plattform	OS Version	Breite (P)	Breite (L)	Release
Acer Iconia Tab A1-810	Android	4.2.2	768	1024	2013-05
Acer Iconia Tab A100	Android	4.0.3	800	1280	2011-04
Acer Iconia Tab A101	Android	3.2.1	600	1024	2011-05
Acer Iconia Tab A200	Android	4.0.3	800	1280	2012-01
Acer Iconia Tab A500	Android	4.0.3	648	1280	2011-04
Acer Iconia Tab A501	Android	3.2	800	1280	2011-04
ACER Liquid E2	Android	4.2.1	360	640	2013-05
Ainol Novo 7 Elf 2	Android	4.0.3	496	1024	2012-06
Alcatel One Touch Idol X	Android	4.2.2	480	800	2013-07
Alcatel One Touch T10	Android	4.0.3	480	800	2013-03
Alcatel One Touch 903	Android	2.3.6	320	427	2012-08
Alcatel (Vodafone) Smart Mini 875	Android	4.1.1	320	480	2013-07
Amicroe 7 TouchTAB II	Android	4.0.4	480	800	2013-01
Amicroe 9.7 TouchTAB IV	Android	4.1.1	768	1024	2013-05
Archos 70b (it2)	Android	3.2.1	600	1024	2012-02
Archos 80G9	Android	3.2	768	1024	2011-09
Arnova 10b G3	Android	4.0.3	600	1024	2012-05
Arnova 7 G2	Android	2.3.1	480	800	2011-09
Arnova 7F G3	Android	4.0.3	640	1067	2012-11
Arnova 8C G3	Android	4.0.3	800	1067	2012-11
ASUS Eee Pad Transformer	Android	4.1.2	600	1024	2012-04



- ❁ Beachtet die aktuellen Analytics-Zahlen der Website. Falls keine vorhanden sind, sucht nach vergleichbaren.
- ❁ Versucht die Anzahl auf so wenige explizit erwähnte Geräte/Versionen wie möglich zu beschränken.

„...im mobilen Bereich werden die folgenden Geräte explizit unterstützt: Safari unter iOS 7 auf dem iPhone4/5 und iPad, Chrome auf Android-Geräten ab Android 4.1, nativer Internet-Browser auf Android 2.3-Geräten... Weitere Geräte werden nicht explizit getestet.“

- ❁ Beachtet die aktuellen Analytics-Zahlen der Website. Falls keine vorhanden sind, sucht nach vergleichbaren.
- ❁ Versucht die Anzahl auf so wenige explizit erwähnte Geräte/Versionen wie möglich zu beschränken.
- ❁ Sorgt dafür, dass ihr die vereinbarten Geräte auch selber testen könnt.

Legt mit dem Kunden  
zusammen fest, welche Geräte  
explizit unterstützt werden  
sollen!

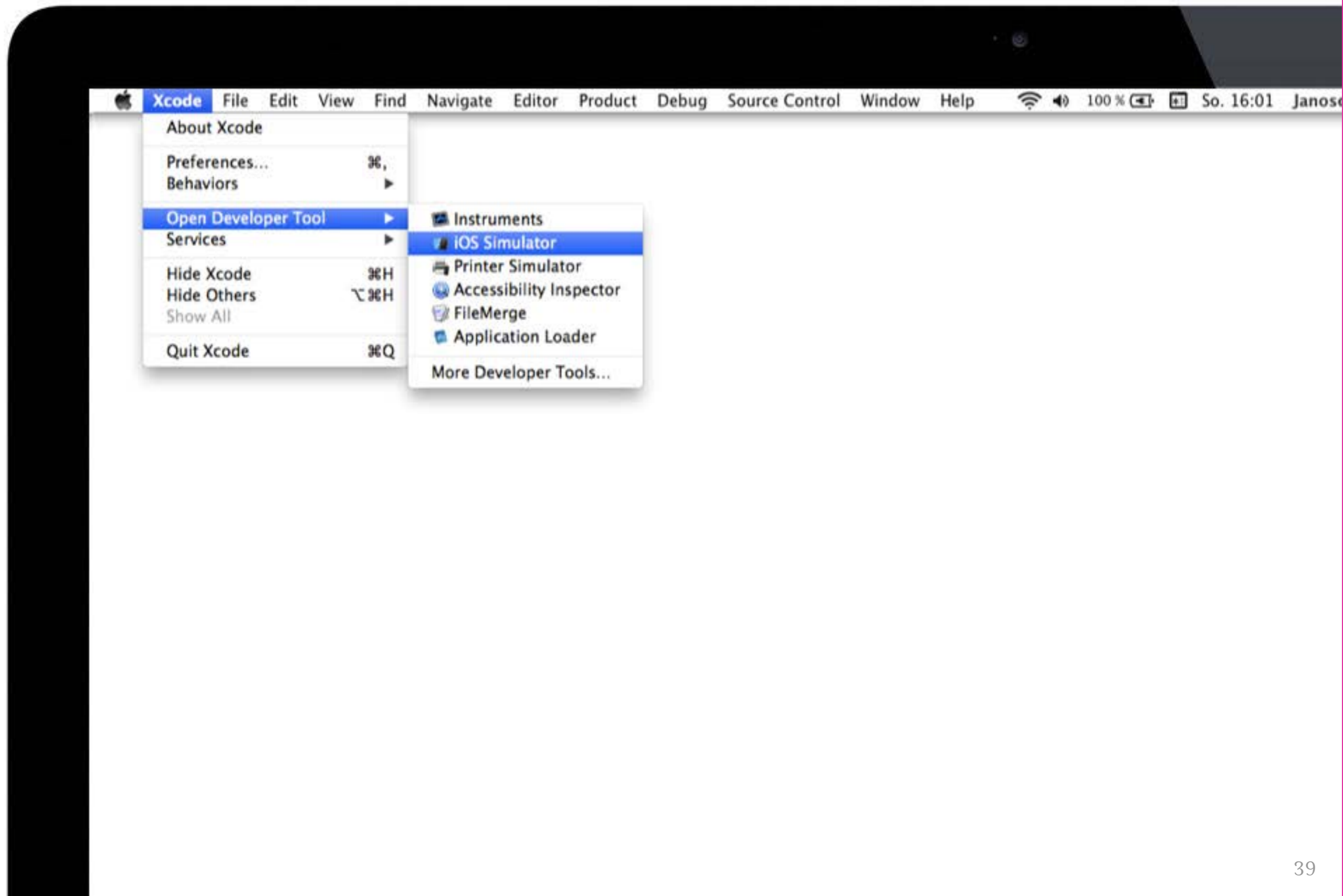
- ❁ eigene Geräte

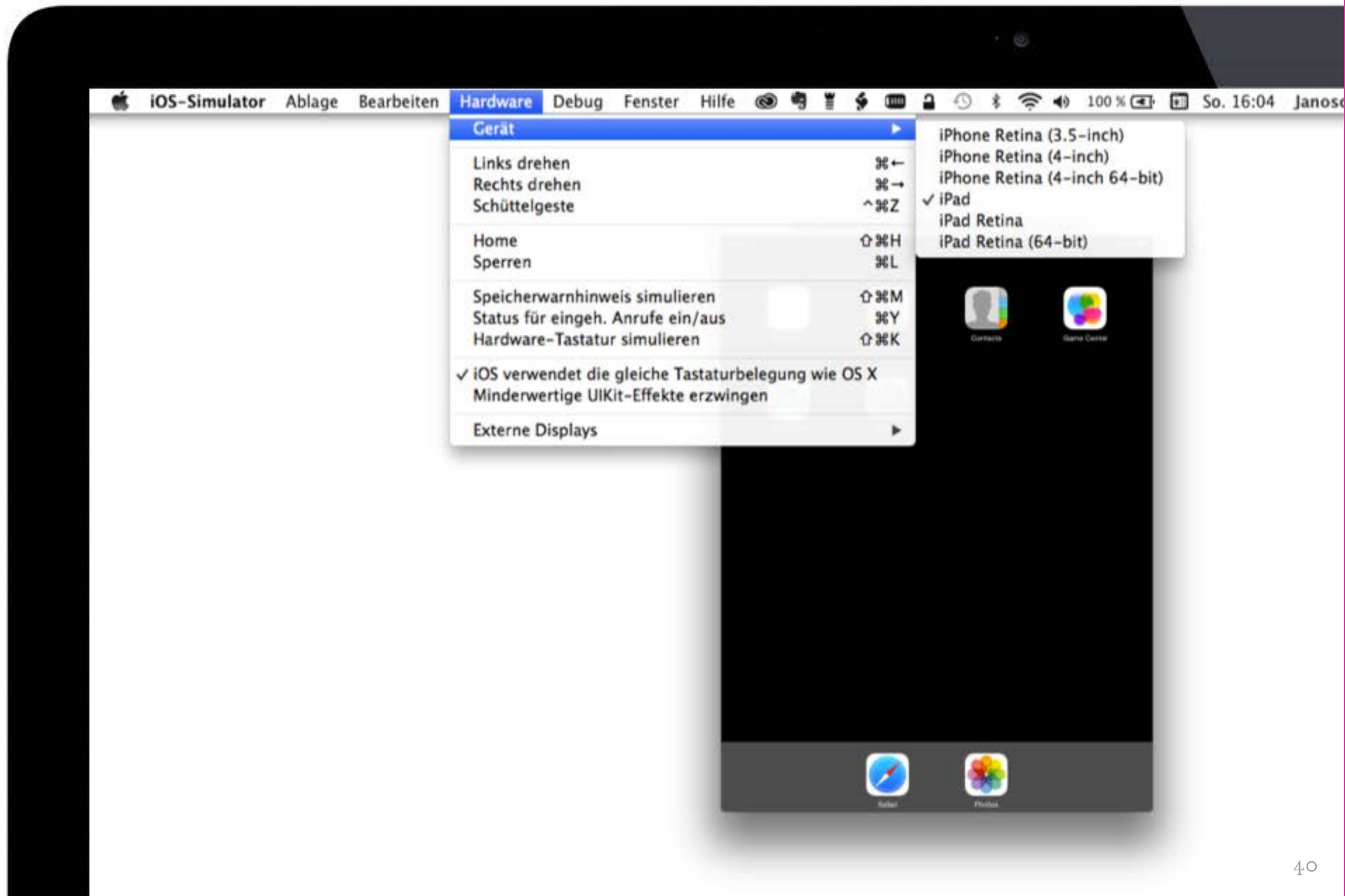
- ❁ Stephanie Rieger: Existing traffic, Regional traffic and market, Device-specific factors, Project-specific factors, Budget

- ❁ Brad Frost: „Own the popular“

- ❁ Simulator/Emulator

# iOS Simulator

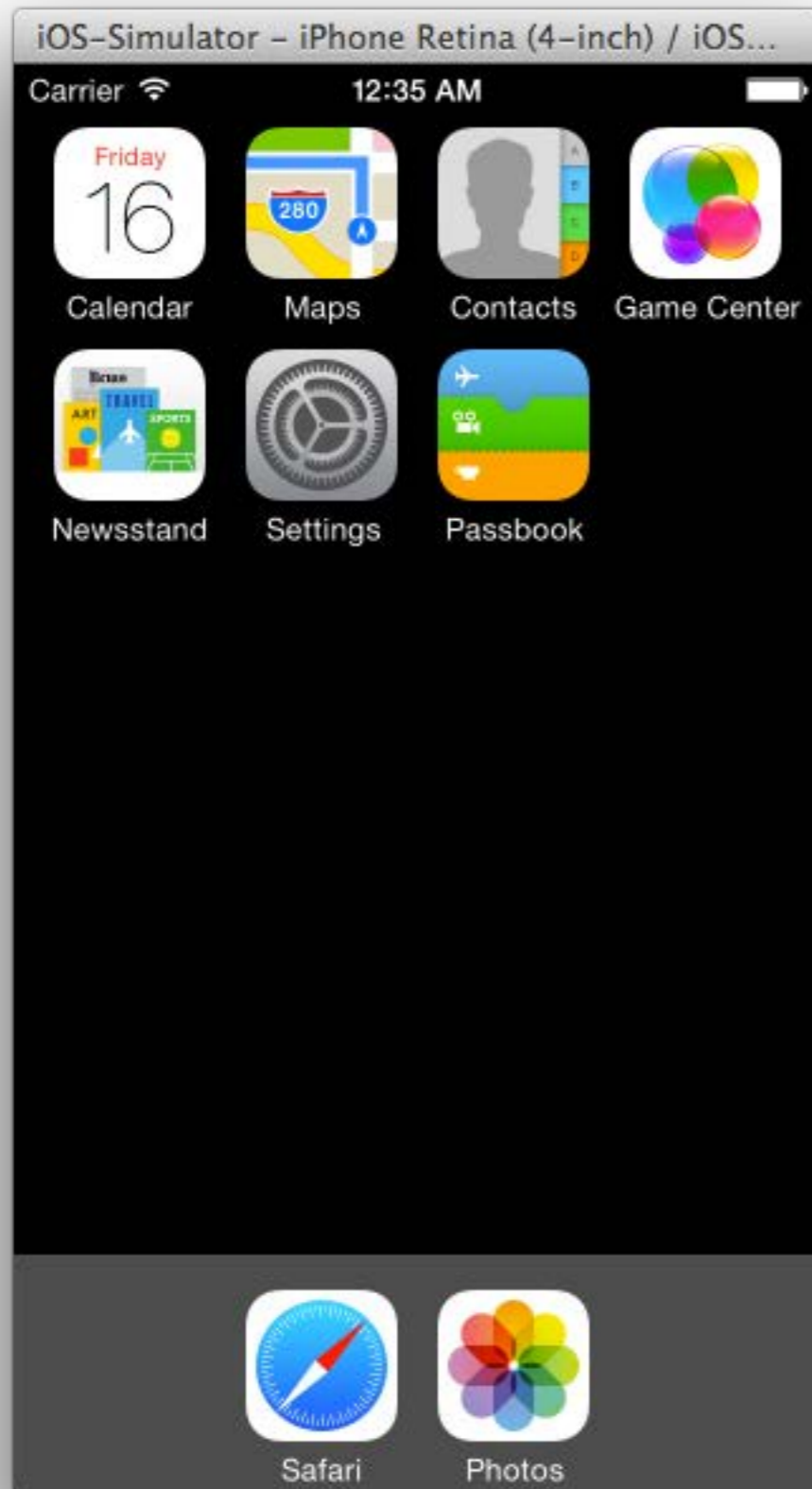






# iOS Simulator

# DMA



OS X only!

[https://developer.apple.com/documentation/IDEs/Conceptual/iOS\\_Simulator\\_Guide/Introduction/Introduction.html](https://developer.apple.com/documentation/IDEs/Conceptual/iOS_Simulator_Guide/Introduction/Introduction.html)

# Android Simulator

# Android Simulator

# DMA

Android Virtual Device Manager

Android Virtual Devices | Device Definitions

List of existing Android Virtual Devices located at /Volumes/Data/Users/janosch/.android/avd

AVD Name	Target Name	Platform	API Level	CPU/ABI
✓ Galaxy_Nexus_by_Google	Android 4.1.2	4.1.2	16	Intel Atom (x86)
✓ Nexus_4	Android 4.4.2	4.4.2	19	ARM (armeabi-v7a)

Buttons: New..., Edit..., Delete..., Repair..., Details..., Start..., Refresh

Legend:  
✓ A valid Android Virtual Device. A repairable Android Virtual Device.  
✗ An Android Virtual Device that failed to load. Click 'Details' to see the error.

Problems | Javadoc | Declaration | Search for messages. Accepts Java regexes. Prefix with pid:, app:, tag: or text: to limit scope. verbose

Le) Time	PID	TID	Application	Tag	Text
----------	-----	-----	-------------	-----	------

# Android Simulator

The screenshot displays the Eclipse IDE interface. At the top, the title bar reads "Eclipse" and the window title is "Java - Eclipse - /Volumes/Data/Users/janosch/Documents/workspace". The main workspace area shows the "Android Virtual Device Manager" dialog box. This dialog has two tabs: "Android Virtual Devices" and "Device Definitions". The "Device Definitions" tab is active, showing a list of known device definitions. The list includes:

- Galaxy Nexus by Google (Screen: 4.7", 720 x 1280, Normal xhdpi, RAM: 1024 MiB)
- Nexus 10 by Google (Screen: 10.1", 2560 x 1600, X-Large xhdpi, RAM: 1907 MiB)
- Nexus 4 by Google (Screen: 4.7", 768 x 1280, Normal xhdpi, RAM: 1907 MiB)
- Nexus 5 by Google (Screen: 5.0", 1080 x 1920, Normal xxhdpi, RAM: 2 GiB)
- Nexus 7 by Google** (Screen: 7.0", 1200 x 1920, Large xhdpi, RAM: 2 GiB) - This row is highlighted in blue.
- Nexus 7 (2012) by Google (Screen: 7.0", 800 x 1280, Large tvdpi, RAM: 1024 MiB)

At the bottom of the list, there is a legend: a green square for "A user-created device definition" and a blue square for "A generic device definition". To the right of the list, there are buttons for "New Device...", "Clone...", "Create AVD...", and "Refresh". A pink rectangular box highlights the "New Device..." and "Clone..." buttons. The background shows the Eclipse IDE with a toolbar, menu bar, and a console window at the bottom. The console window has a search bar and a table with columns: "Level", "Time", "PID", "TID", "Application", "Tag", and "Text".

# Android Simulator

DMA

Java - Eclipse - /Volumes/Data/Users/janosch/Documents/workspace

Quick Access

Java

### Create new Android Virtual Device (AVD)

AVD Name:

Device:

Target:

CPU/ABI:

Keyboard:  Hardware keyboard present

Skin:

Front Camera:  None

Back Camera:  None

Memory Options: RAM:  VM Heap:

Internal Storage:  200  MiB

SD Card:  Size:   MiB  
 File:   Browse...

Emulation Options:  Snapshot  Use Host GPU

Override the existing AVD with the same name

**✗ AVD Name cannot be empty**

Cancel OK

Problems @ Javadoc Deck

Saved Filters + -

All messages (no filters)

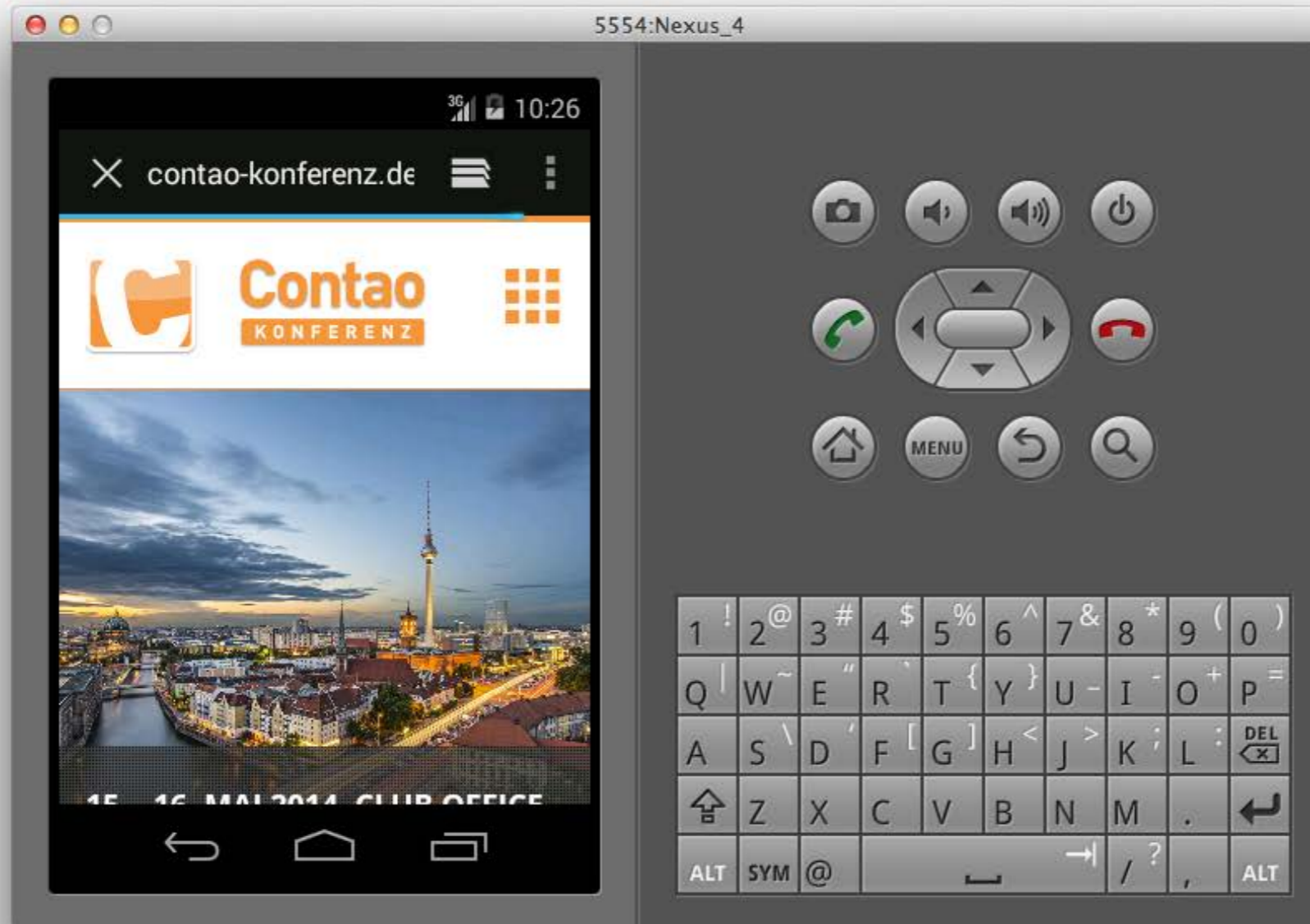
Lev	Time	PID	TID	Application	Tag	Text
D	05-11 10:30:22.688	3275	3282		dalvikvm	Debugger has detached; object registry had 1 entries
E			-1			Device disconnected: 1
E			-1			Device disconnected

verbose

# Android Simulator

# DMA

emulator64-arm Window [System Tray Icons] So. 16:27 Janosch Skuplik



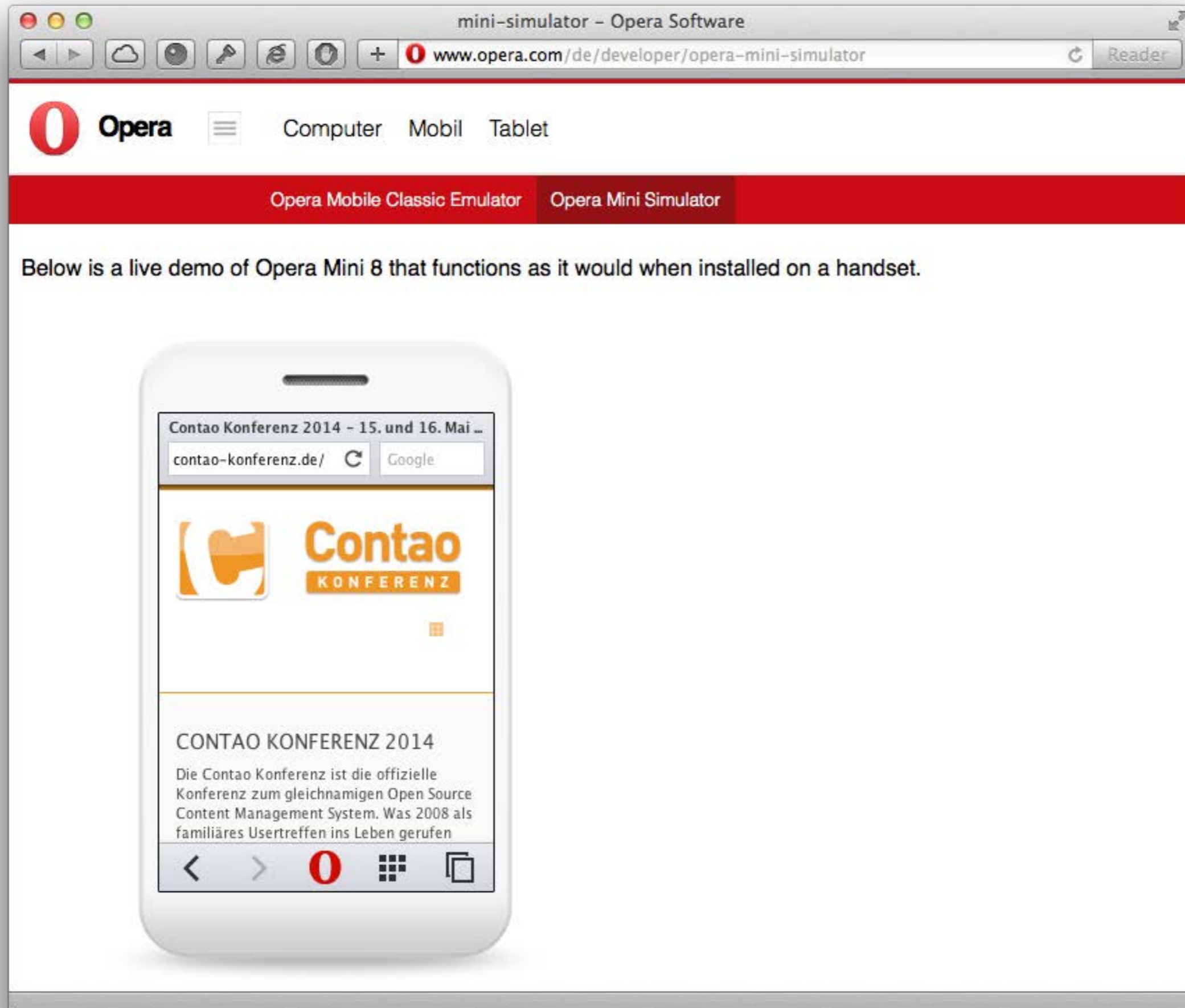
<http://developer.android.com/tools/help/emulator.html>



# Opera Mini

# Opera Mini

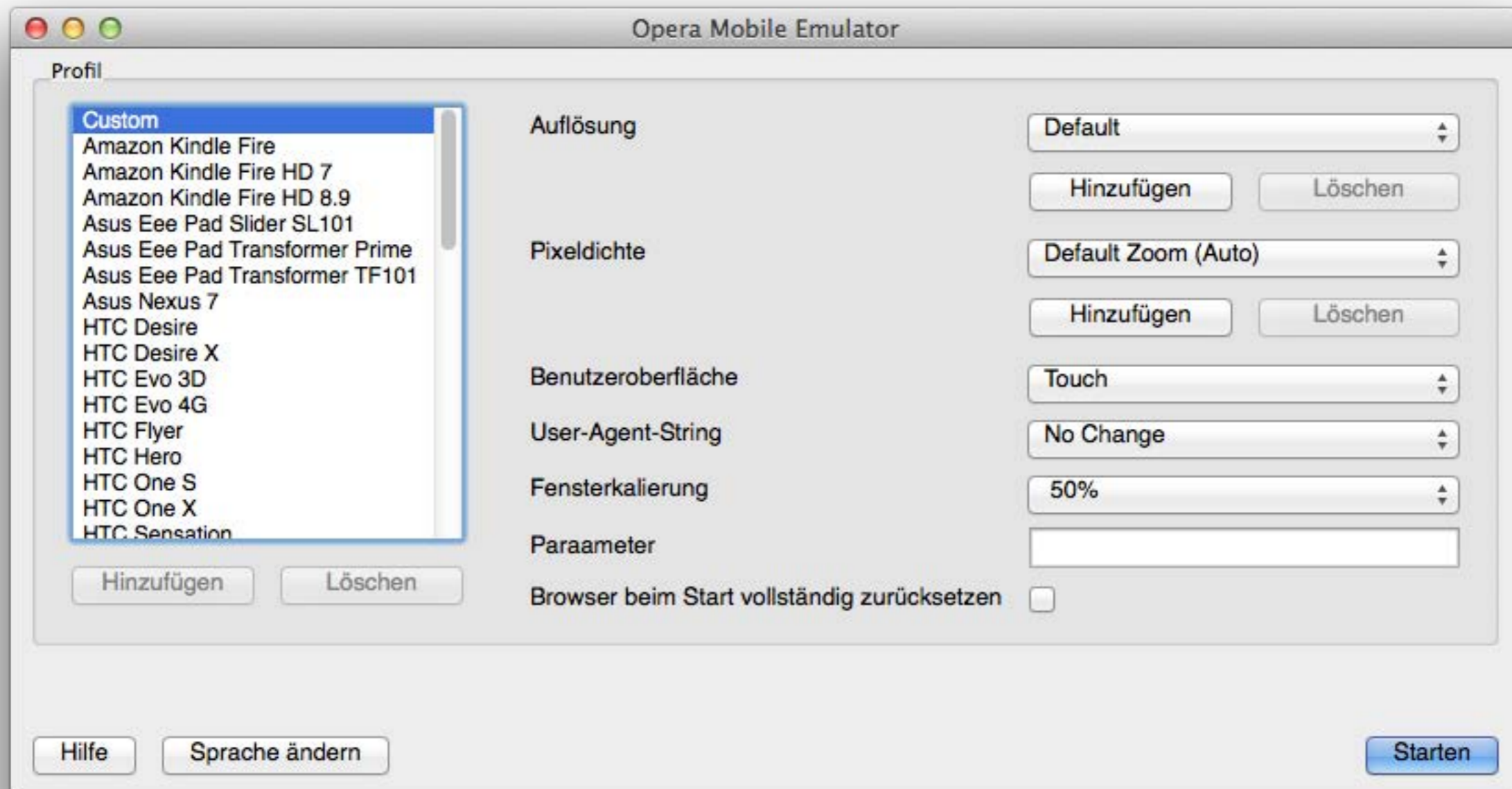
# DMA



The screenshot shows a desktop browser window titled "mini-simulator - Opera Software". The address bar contains "www.opera.com/de/developer/opera-mini-simulator". The page header features the Opera logo and navigation links for "Computer", "Mobil", and "Tablet". A red navigation bar below the header contains two tabs: "Opera Mobile Classic Emulator" and "Opera Mini Simulator", with the latter being the active tab. The main content area contains the text: "Below is a live demo of Opera Mini 8 that functions as it would when installed on a handset." Below this text is a simulated smartphone displaying a mobile website for "Contao Konferenz 2014". The smartphone screen shows a browser interface with a search bar containing "contao-konferenz.de/" and "Google". The website content includes the Contao logo and the text: "CONTAO KONFERENZ 2014" and "Die Contao Konferenz ist die offizielle Konferenz zum gleichnamigen Open Source Content Management System. Was 2008 als familiäres Usertreffen ins Leben gerufen". The smartphone's bottom dock contains navigation icons: back, forward, Opera logo, app drawer, and home.

<http://www.opera.com/de/developer/opera-mini-simulator>

# Opera Mobile





<http://www.opera.com/de/developer/mobile-emulator>

- ❁ eigene Geräte

  - ❁ Stephanie Rieger: Existing traffic, Regional traffic and market, Device-specific factors, Project-specific factors, Budget

  - ❁ Brad Frost: „Own the popular“

- ❁ Simulator/Emulator

- ❁ Verleih-Service

- ❁ Remote Testing-Service



Rapidly test your website for compatibility across 300+ browsers in the cloud.

Enter a URL History ▾

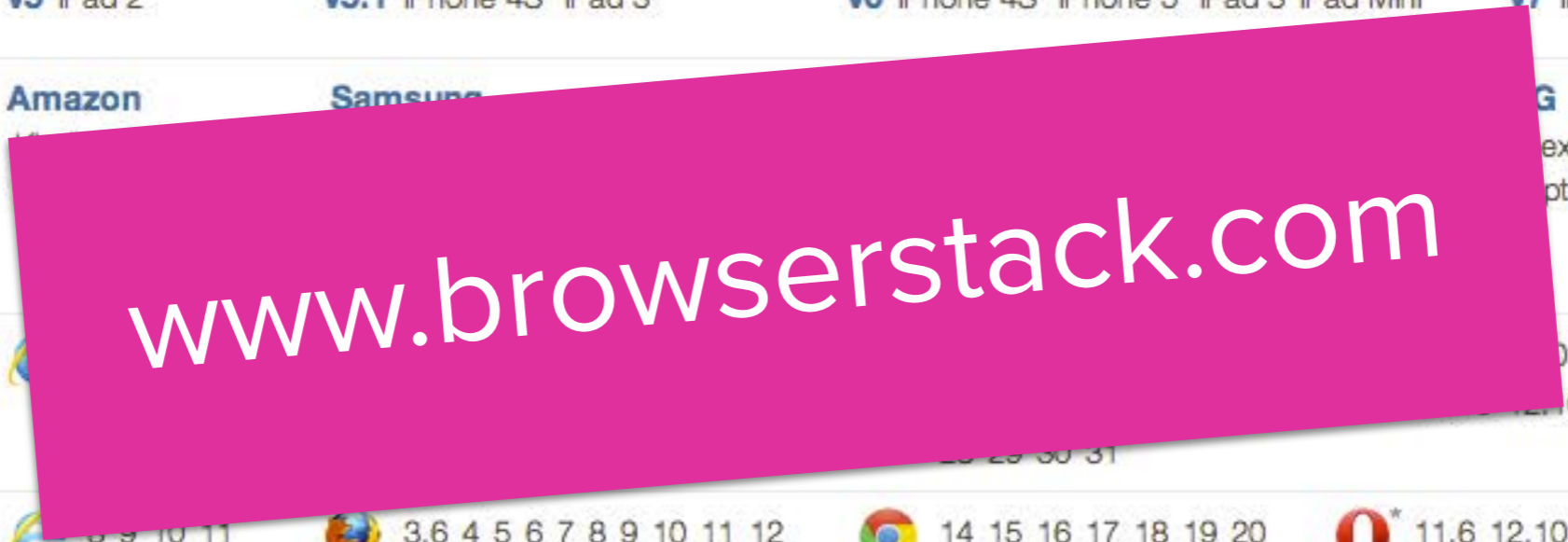
To test your internal web server or design files, setup local testing.

Start local testing

or Use binaries

Select browsers ×

iOS	v5 iPad 2	v5.1 iPhone 4S iPad 3	v6 iPhone 4S iPhone 5 iPad 3 iPad Mini	v7 iPhone 5S iPad 3rd
Android	Amazon	Samsung	LG	HTC
Windows XP				
Windows 7				
Windows 8				
Windows 8.1				
Mac OS X Snow Leopard				
Mac OS X Lion				



www.browserstack.com

# 342 Device/OS/Browser Platforms

ios



souselabs.com



	7.0		7.0
	6.1		6.1
	6.0		6.0
	5.1		5.1
	5.0		5.0
	4		4

## Automate your test!

- 1) Define the browser
- 2) Enter a platform and version.

Can't find your browser?

Change 'webdriver' to 'selenium'

WebDriver ▾

python ▾



- 3)  Code.

- ❁ eigene Geräte

  - ❁ Stephanie Rieger: Existing traffic, Regional traffic and market, Device-specific factors, Project-specific factors, Budget

  - ❁ Brad Frost: „Own the popular“

- ❁ Simulator/Emulator

- ❁ Verleih-Service

- ❁ Remote Testing-Service

- ❁ Expert Review

## Mobile-Testing-Report mdc-gmbh.de

### generelle Optimierungen

JavaScript könnte optimiert werden. Beim Laden einer Seite wird das Hauptmenü immer erst komplett angezeigt  
Impressum: Copyright ist laut Indikator geöffnet, Inhalt wird aber nicht angezeigt

### iPhone 5s, iOS 7.1

keine Auffälligkeiten

### iPhone 4, iOS 6.1

keine Auffälligkeiten

### Samsung Galaxy S2, Android 4.1

Default Browser

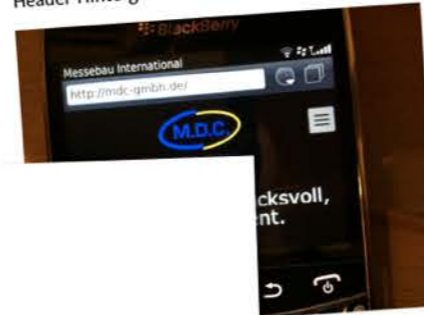


### Windows Phone 8

keine Auffälligkeiten

### BlackBerry 9900, BlackBerry 7.1

Header-Hintergrund auf der Startseite wird nicht angezeigt



Firefox

keine Auffälligkeiten

die meiner Meinung nach über



- ❁ eigene Geräte

  - ❁ Stephanie Rieger: Existing traffic, Regional traffic and market, Device-specific factors, Project-specific factors, Budget

  - ❁ Brad Frost: „Own the popular“

- ❁ Simulator/Emulator

- ❁ Verleih-Service

- ❁ Remote Testing-Service

- ❁ Expert Review

- ❁ Device Labs

# Open Device Labs

# DMA



1. Apple iPhone 5s
2. Apple iPhone 4
3. Apple iPhone 3GS
4. Apple iPad Mini
5. Apple iPad
6. Google Next
7. Samsung Galaxy
8. Motorola Milestone
9. BlackBerry
10. WindowsPhone 8
11. WindowsPhone 7

Coming soon!



# Ergebnis der Test- Phase



# Testingergebnis

The image shows a JIRA issue navigator window and an Excel spreadsheet. The JIRA window displays a filter named 'High priority for 2.0' with the following issues:

T	Key	Summary	Assignee	Reporter	P	Status	Resolution	Created	Updated	Due
	ANGRY-232	Housecleaning crew didn't finish the job	Unassigned	penny		Open	Unresolved	14/Sep/12	17/Sep/12	
	ANGRY-226	My archived issue	Edwin Wong	Edwin Wong		Closed	Fixed	02/Aug/12	18/Oct/12	
	ANGRY-186	ANGRY-148 / This is the first sub task	Unassigned	Michael Tokar		Open	Unresolved	19/Jul/12	18/Oct/12	
	ANGRY-168	ANGRY-163 / Cancel button look and feel.	Unassigned	Christina Bang		Open	Unresolved	15/May/12	09/Aug/12	
	ANGRY-163	As a user, I should be able to hit 'cancel' in addition to 'submit'.	Christina Bang	Ken Olofsen		In Progress	Unresolved	04/May/12	16/Jun/12	10/Jun/12
	ANGRY-156	ANGRY-132 / Decide on new score for bricks	Bryan Rollins	Bryan Rollins		In QA Review	Fixed	15/Apr/12	15/Apr/12	
	ANGRY-148	Flip sometimes leaves bug upside down on chair	Christina Bang	Penny		Open	Unresolved	08/Mar/12	18/Oct/12	
	ANGRY-121	bricks are falling down inconsistently	Unassigned	Roy Krishna		Open	Unresolved	20/Jan/12	18/Oct/12	
	ANGRY-102	Economic Voting	Ross Chaldecott	Roy Krishna		ToDo	Unresolved	31/Oct/11	15/Feb/12	
	ANGRY-87	ANGRY-85 / subby	Unassigned	Roy Krishna		Open	Unresolved	12/Sep/11	09/Aug/12	
	ANGRY-85	My second issue created via REST	Unassigned	Bryan Rollins		Open	Unresolved	06/Sep/11	18/Oct/12	
	ANGRY-71	Level 6 looks the same as level 5	Peter Obara	Ken Olofsen		In Progress	Unresolved	06/Jun/11	18/Oct/12	
	ANGRY-67	As a nerd, I can flip in a chair while waiting to be shot into the air	Scott	Edwin Wong		Waiting for QA	Fixed	04/Jun/11	18/Oct/12	
	ANGRY-62	As a customer, I want an awesome time with the nerds	Edwin Wong	Edwin Wong		Waiting for QA	Fixed	03/Jun/11	16/Sep/11	
	ANGRY-45	The nerd flies too fast	Roy Krishna	Edwin Wong		Resolved	Fixed	02/Jun/11	29/Feb/12	
	ANGRY-41	I don't like the yellow sun	Ross Chaldecott	Edwin Wong		Open	Unresolved	02/Jun/11	18/Oct/12	
	ANGRY-34	As a customer, I want a to play a great game with Angry Nerds	Edwin Wong	Edwin Wong		Waiting for QA	Fixed	02/Jun/11	15/Apr/12	

The Excel spreadsheet shows a list of book requests with the following columns: Issue Type, Key, Summary, and Assignee.

Issue Type	Key	Summary	Assignee
Book Request	BOOK-129	The One Minute Manager - Blanchard & Johnson	Alyce Tinyow
Book Request	BOOK-128	Java Persistence with Hibernate by Christian Bauer and Gavin King	Alyce Tinyow
Book Request	BOOK-127	Beginning iPhone Development: Exploring the iPhone SDK (Paperback)	Alyce Tinyow
Book Request	BOOK-126	Please order 10 copies of Mike Cohn's "User Stories Applied"	Alyce Tinyow
Book Request	BOOK-125	The Web Application Hacker's Handbook: Discovering and Exploiting Security Flaws (Paperback)	Alyce Tinyow
Book Request	BOOK-124	Groundswell	Alyce Tinyow
Book Request	BOOK-123	Web Security Testing Cookbook	Alyce Tinyow
Book Request	BOOK-122	Book request, Pulling Strings with Puppet	Alyce Tinyow
Book Request	BOOK-121	Book request, Automating Linux System Administration	Alyce Tinyow
Book Request	BOOK-120	Please order 4 (four) copies of "Do you Matter: How Great Design will make People Love your Company" for Design Team	Alyce Tinyow
Book Request	BOOK-119	User Stories Applied: For Agile Software Development (Addison-Wesley Signature Series) (Paperback)	Alyce Tinyow
Book Request	BOOK-118	Practical API Design	Alyce Tinyow
Book Request	BOOK-117	The First 90 Days: Critical Success Strategies for New Leaders at All Levels	Alyce Tinyow
Book Request	BOOK-116	Adrenaline Junkies and Template Zombies: Understanding Patterns of Project Behavior	Alyce Tinyow
Book Request	BOOK-115	Please order another copy of "Java Power Tools [ILLUSTRATED] (Paperback)"	Alyce Tinyow
Book Request	BOOK-114	Programming-Collective-Intelligence	Alyce Tinyow
Book Request	BOOK-113	Please buy this book!	Alyce Tinyow
Book Request	BOOK-112	SOA Using Java Web Services for IJUG sponsorship	Alyce Tinyow
Book Request	BOOK-111	Quarterly marketing books	Rochell Lopez
Book Request	BOOK-110	2 Copies of Maven: The Definitive Guide	Rochell Lopez
Book Request	BOOK-109	Book request: Greasemonkey Hacks	Alyce Tinyow
Book Request	BOOK-108	The Pragmatic Programmer: From Journeyman to Master (ISBN 0-201-61622-X)	Alyce Tinyow
Book Request	BOOK-107	Request for 'Influence: The Psychology of Persuasion' book by Robert B. Cialdini	Alyce Tinyow
Book Request	BOOK-106	Request for 'Hug Your Customers' book by Jack Mitchell	Alyce Tinyow
Book Request	BOOK-105	Ajax Security by Addison-Wesley Professional	Scott Harwood
Book Request	BOOK-104	Network Warrior [ILLUSTRATED] (Paperback)	Steve Smith
Book Request	BOOK-103	Practice of System and Network Administration, The (2nd Edition) (Paperback)	Steve Smith

# Debugging

# Simulator

Bildet einen Teil eines Systems nach, ohne mit diesem 100% übereinzustimmen.

# Emulator

Versucht ein System so originalgetreu wie möglich darzustellen.

# iOS Simulator

# Debugging

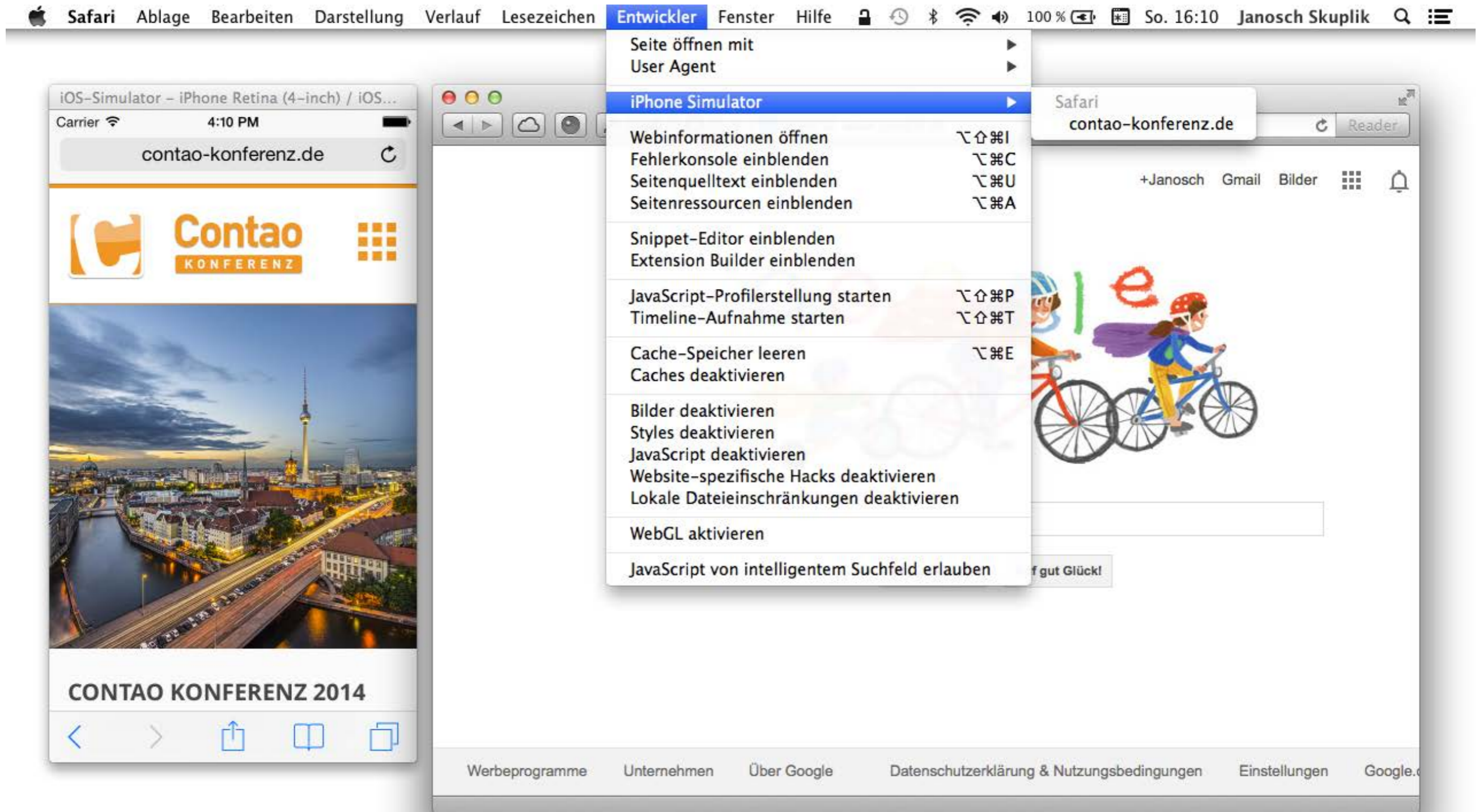
# DMA



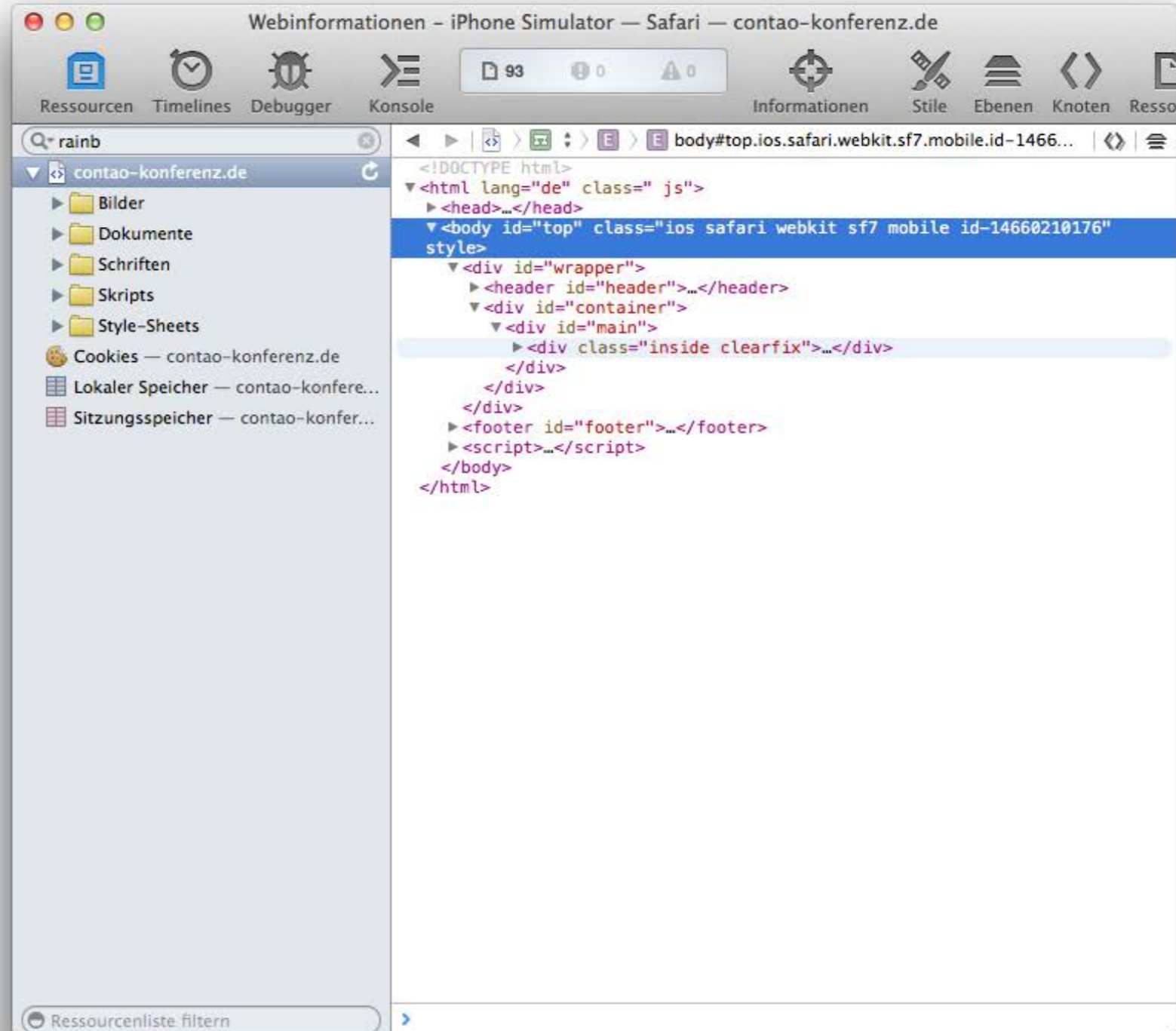


# Debugging

# DMA



# Debugging

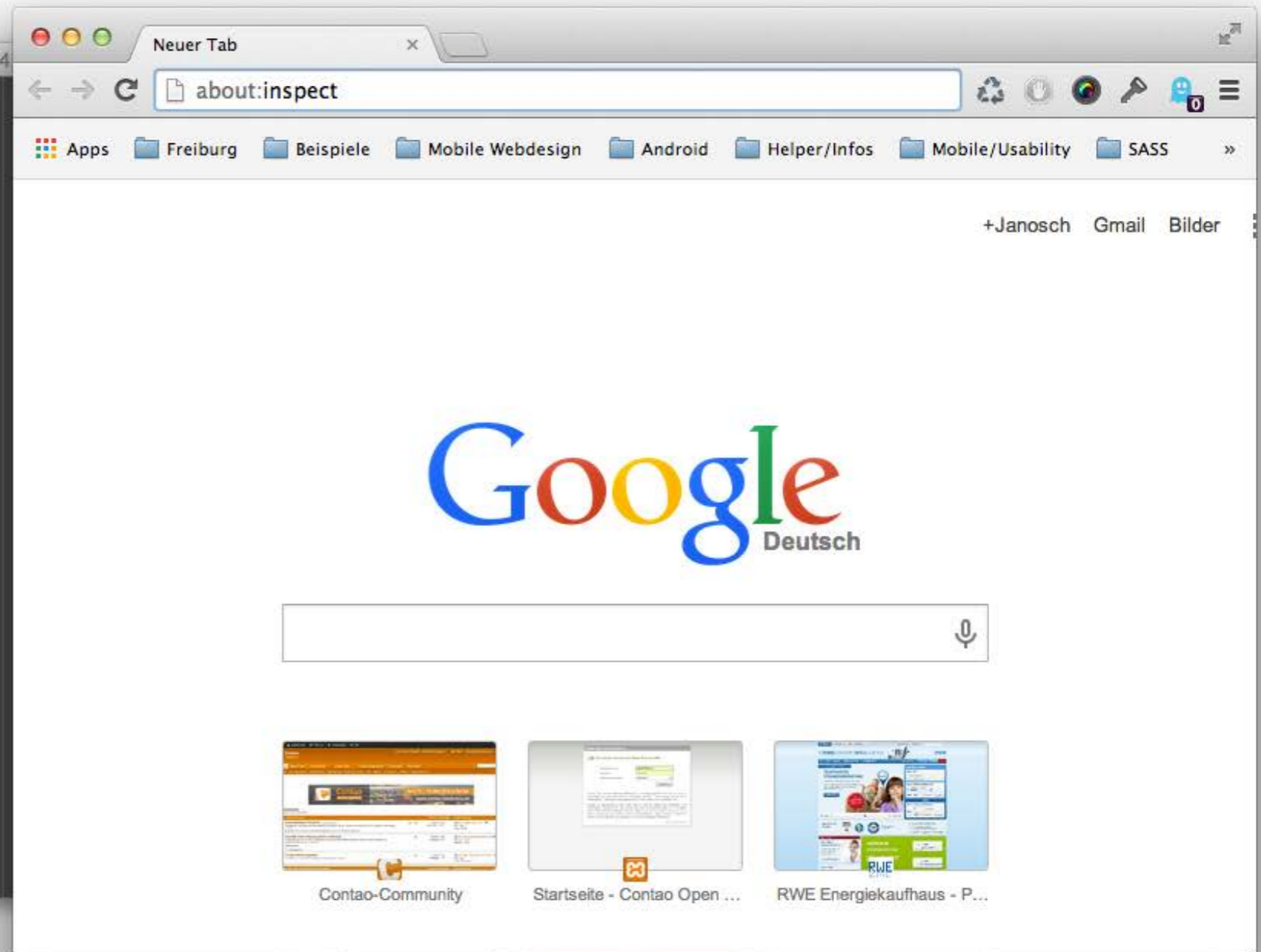


# Android Simulator

# Debugging

# DMA

Chrome Datei Bearbeiten Anzeigen Verlauf Lesezeichen Fenster Hilfe 100% So. 16:29 Janosch Skuplik



# Debugging

# DMA

Chrome Datei Bearbeiten Anzeigen Verlauf Lesezeichen Fenster Hilfe 100% So. 16:29 Janosch Skuplik

The image shows a mobile browser window on the left and a Chrome DevTools inspection window on the right. The mobile browser displays the website 'contao-konferenz.de' with a logo and a cityscape image. The DevTools window shows the 'Inspect with Chrome DevTools' interface, with a pink box highlighting the 'WebView in com.android.browser (Version/4.0 Chrome/30.0.0.0)' section. This section includes a small thumbnail of the inspected element and its bounding box information: 'at (0, 77) size 320 x 355'. The DevTools window also shows the 'Discover USB devices' checkbox checked and the 'Port forwarding...' button.

# Debugging

# DMA

Chrome Datei Bearbeiten Anzeigen Verlauf Lesezeichen Fenster Hilfe 100% So. 16:30 Janosch Skuplik



Developer Tools - http://contao-konferenz.de/

Elements Resources Network Sources Timeline Profiles Audits Console

```
<!DOCTYPE html>
<html lang="de" class=" js">
  <head>...</head>
  <body id="top" class="android chrome webkit ch30 mobile id-14660210176" style="background-color: #fff; color: #000; height: 100%; margin: 0; padding: 0;">
    <div id="wrapper">
      <header id="header">...</header>
      <div id="container">
        <div id="main">...</div>
      </div>
      <footer id="footer">...</footer>
      <script>...</script>
      <span style="position: absolute; left: -999px; top: -999px; visibility: hidden;">...</span>
    </body>
  </html>
```

Styles Computed »

element.style { }

53fa29c6-collection.css:958

@media screen, projection

body 53fa29c6-collection.css:968 {

font: normal 14px/1.5 'open\_sansregular', Arial, Helvetica, sans-serif;

~~webkit-text-size-adjust: none;~~

color: #454545;

53fa29c6-collection.css:958

@media screen, projection

html, 53fa29c6-collection.css:964

body {

height: 100%;

53fa29c6-collection.css:533

@media screen, projection

body, 53fa29c6-collection.css:538

form {

margin: 0;

padding: 0;

53fa29c6-collection.css:201

body {

margin: 0;

53fa29c6-collection.css:30

@media screen, projection

body { 53fa29c6-collection.css:49

~~color: #000;~~

background-color: #fff;

53fa29c6-collection.css:30

@media screen, projection

html, 53fa29c6-collection.css:32

body, div, span, applet, object, iframe, h1, h2, h3, h4, h5, h6, p, blockquote, pre, a, abbr, acronym, address, big, cite, code, del, dfn, em, font, imo

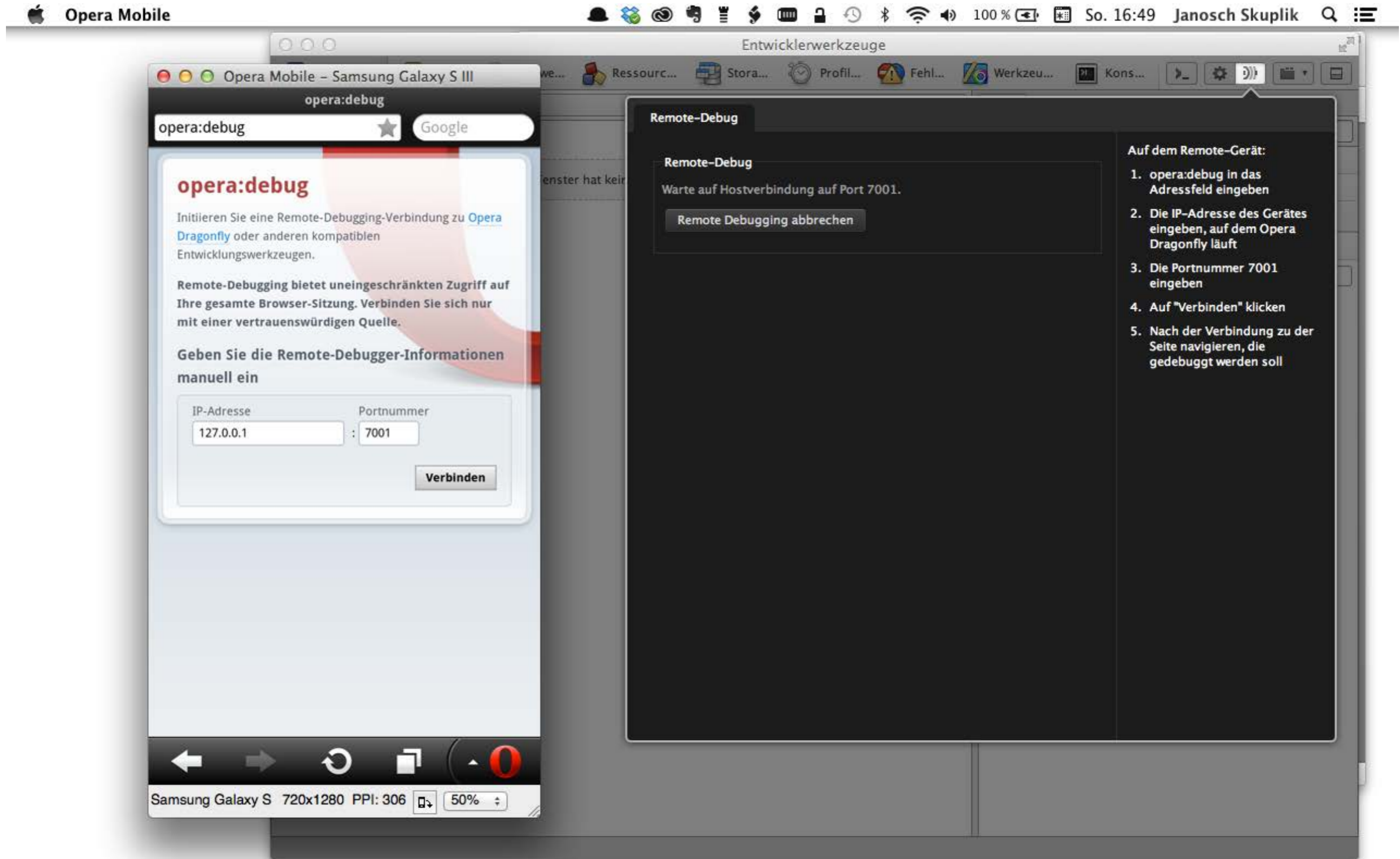
html.js body#top.android.chrome.webkit.ch30.mobile.id-14660210176

2 3

# Opera Mobile

# Debugging

# DMA





# Debugging

# DMA

The image shows a screenshot of the Opera Mobile browser interface. The browser window displays the website 'contao-konferenz.de/' with the title 'Contao Konferenz 2014 - 15. und 16. Mai 2014, Club Office II ...'. The page content includes the Contao logo and a main heading 'CONTAO KONFERENZ 2014'. Below the heading, there are two paragraphs of text describing the conference. The browser's address bar shows the URL and a search engine (Google). The bottom of the browser window displays the device information: 'Samsung Galaxy S 720x1280 PPI: 306' and a zoom level of '50%'. To the right of the browser window, the 'Entwicklerwerkzeuge' (Developer Tools) are open. The 'Doku...' (DOM) pane shows the HTML structure of the page, with the following code visible:

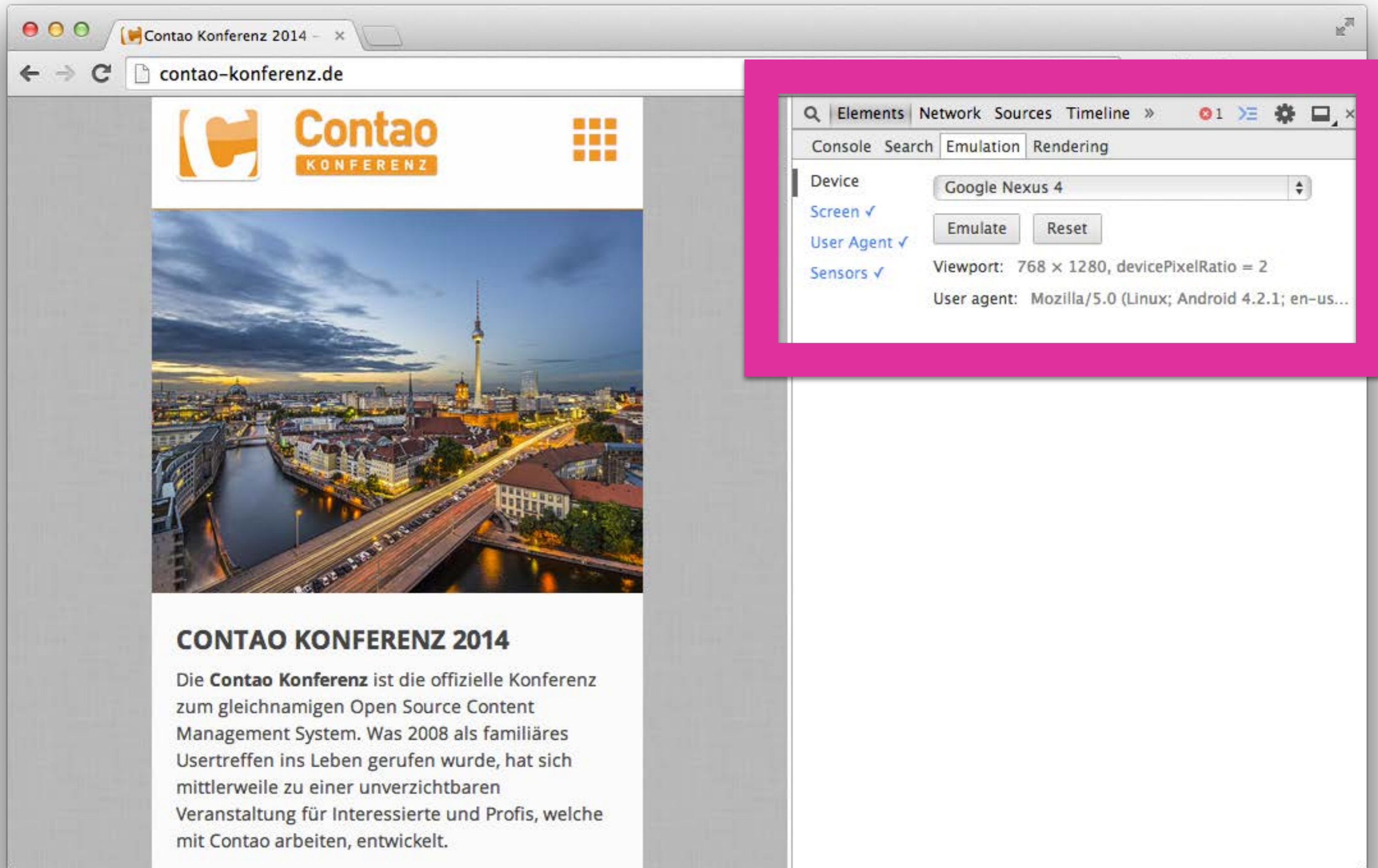
```
<!DOCTYPE html>
<html lang="de">
  <::before>
  <head>
  <body id="top" class="android opera-mobile presto om12 id-14660210176">
    <div id="wrapper">
      <header id="header">
      <div id="container">
        <div id="main">
          <div class="inside clearfix">
            <::before>
            <div class="mod_article freestyle first block" id="landing">
            <div class="mod_article block" id="intro">
              <div class="inside clearfix">
                <::before>
                <h2 class="ce_headline col-lg-12 col-md-12 first">
                <!-- Spaltenset Start -->
                <section class="ce_colsetStart subcolumns colcount_2 yam13 col-50x50">
                <!-- first Column -->
                <div class="c50l col_1 first">
                  <div class="subcl" style="padding-right:25px;">
                    <div class="ce_text block">
                      <p>
                    </div>
                  </div>
                </div>
                <!-- second Column -->
                <div class="ce_colsetPart c50r col_2 last">
                </section>
                <!-- Spaltenset End -->
                <::after>
            </div>
          </div>
          <div class="mod_article headline-block block" id="programm">
          <div class="mod_article bgr-colored block" id="sprecher">
          <div class="mod_article bordered block">
```

The 'Styles' pane on the right shows the computed style for the selected element, including padding: 8px 0px; and vertical-align: baseline;. The 'Geerbt von div' (Inherited from div) pane shows the default user-agent styles for the element, such as display: block; margin-bottom: 1em; margin-top: 1em;. The breadcrumb at the bottom of the developer tools indicates the current element's path: < .block > div.inside.clearfix > section.ce\_colsetStart.subcolumns.colcount\_2.yam13.col-50x50 > div.c50l.col\_1.first > div.subcl > div.ce\_text.block > p >

# Chrome Emulator

# Debugging

# DMA



The image shows a web browser window displaying the website 'contao-konferenz.de'. The browser's address bar shows the URL 'contao-konferenz.de'. The website header features the 'Contao KONFERENZ' logo and a grid icon. Below the header is a large image of a cityscape at dusk, with a prominent tower. The main content area contains the following text:

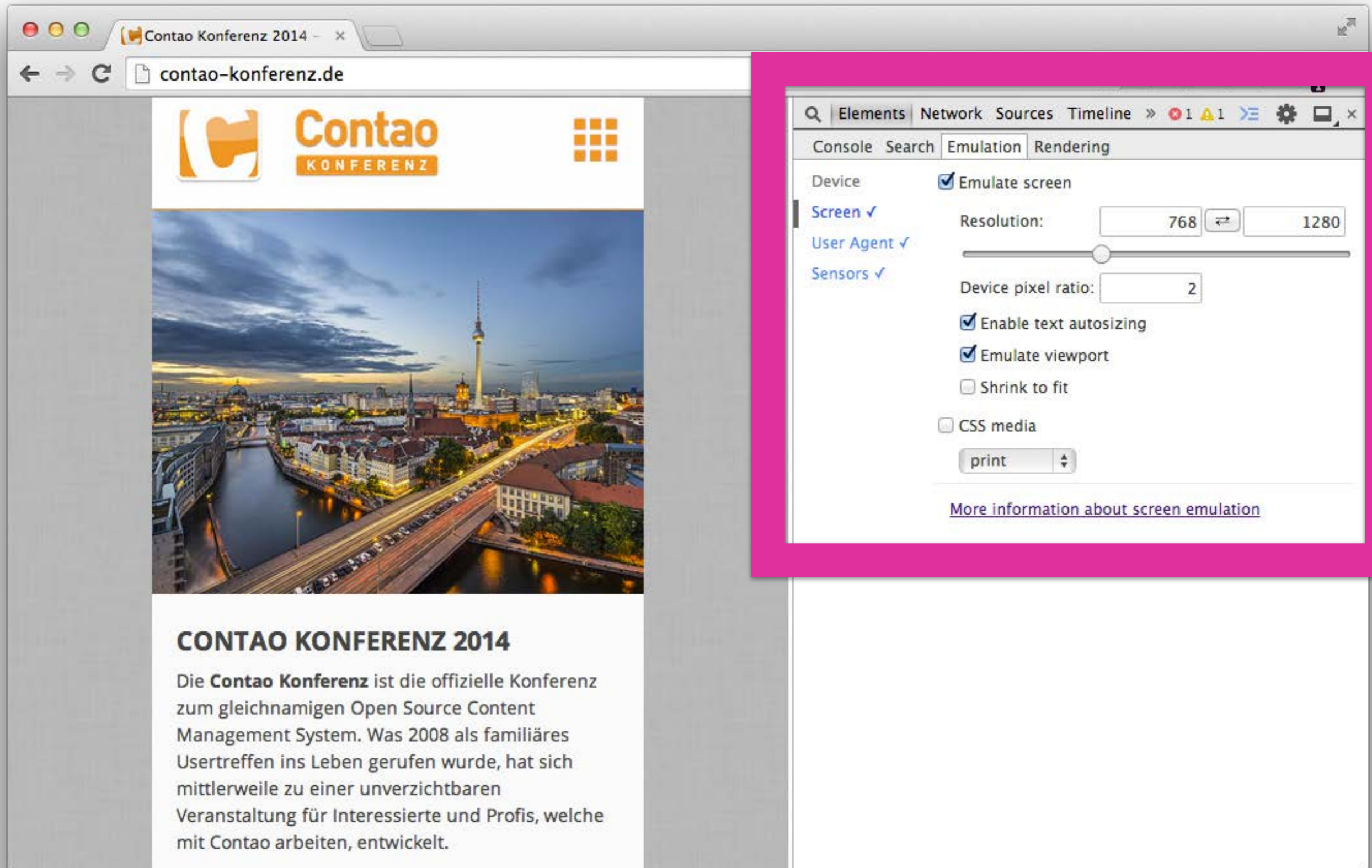
## CONTAO KONFERENZ 2014

Die **Contao Konferenz** ist die offizielle Konferenz zum gleichnamigen Open Source Content Management System. Was 2008 als familiäres Usertreffen ins Leben gerufen wurde, hat sich mittlerweile zu einer unverzichtbaren Veranstaltung für Interessierte und Profis, welche mit Contao arbeiten, entwickelt.

Overlaid on the right side of the browser window is the Chrome DevTools 'Emulation' panel. This panel is highlighted with a pink border and shows the following settings:

- Device: Google Nexus 4
- Screen: ✓
- User Agent: ✓
- Sensors: ✓
- Emulate: [button]
- Reset: [button]
- Viewport: 768 x 1280, devicePixelRatio = 2
- User agent: Mozilla/5.0 (Linux; Android 4.2.1; en-us...

# Debugging



The screenshot shows a web browser window displaying the website [contao-konferenz.de](http://contao-konferenz.de). The page features the Contao Konferenz logo and a large image of a city at dusk. Below the image, the text reads:

## CONTAO KONFERENZ 2014

Die **Contao Konferenz** ist die offizielle Konferenz zum gleichnamigen Open Source Content Management System. Was 2008 als familiäres Usertreffen ins Leben gerufen wurde, hat sich mittlerweile zu einer unverzichtbaren Veranstaltung für Interessierte und Profis, welche mit Contao arbeiten, entwickelt.

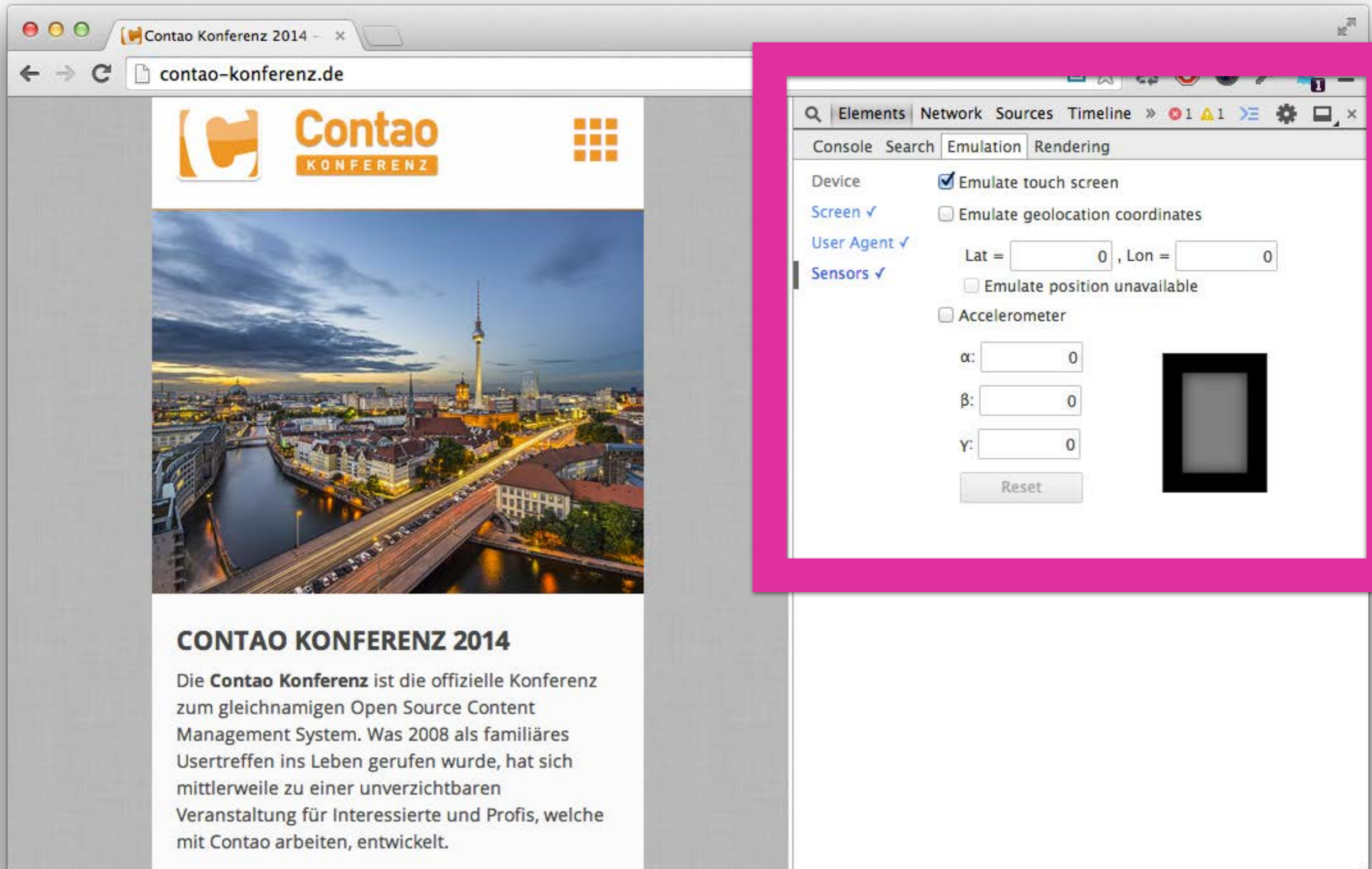
The Chrome DevTools Emulation panel is open on the right side of the browser window, showing the following settings:

- Emulate screen
- Resolution: 768 x 1280
- Device pixel ratio: 2
- Enable text autosizing
- Emulate viewport
- Shrink to fit
- CSS media
- print

[More information about screen emulation](#)

# Debugging

# DMA



The image shows a browser window displaying the website 'contao-konferenz.de'. The page features the Contao logo and a large photograph of a city at dusk. Below the photo, the text reads: **CONTAO KONFERENZ 2014**  
Die **Contao Konferenz** ist die offizielle Konferenz zum gleichnamigen Open Source Content Management System. Was 2008 als familiäres Usertreffen ins Leben gerufen wurde, hat sich mittlerweile zu einer unverzichtbaren Veranstaltung für Interessierte und Profis, welche mit Contao arbeiten, entwickelt.

Overlaid on the right side of the browser window is the Chrome DevTools 'Emulation' panel. This panel is highlighted with a thick pink border. It contains the following settings:

- Device:** A dropdown menu.
- Emulate touch screen:**
- Emulate geolocation coordinates:** . Below this are input fields for 'Lat = 0' and 'Lon = 0'.
- Emulate position unavailable:**
- Accelerometer:** . Below this are input fields for 'α: 0', 'β: 0', and 'γ: 0'.
- Reset:** A button.

To the right of these settings is a visual representation of a mobile device screen.

Echte Geräte

# echte Geräte

## ❁ Möglich für

❁ Android Chrome

❁ Android Firefox

❁ Opera Mobile

❁ iOS Safari

❁ ...immer mehr Unterstützung

## ❁ Vorgehen

❁ Geräte per USB mit dem Rechner verbinden

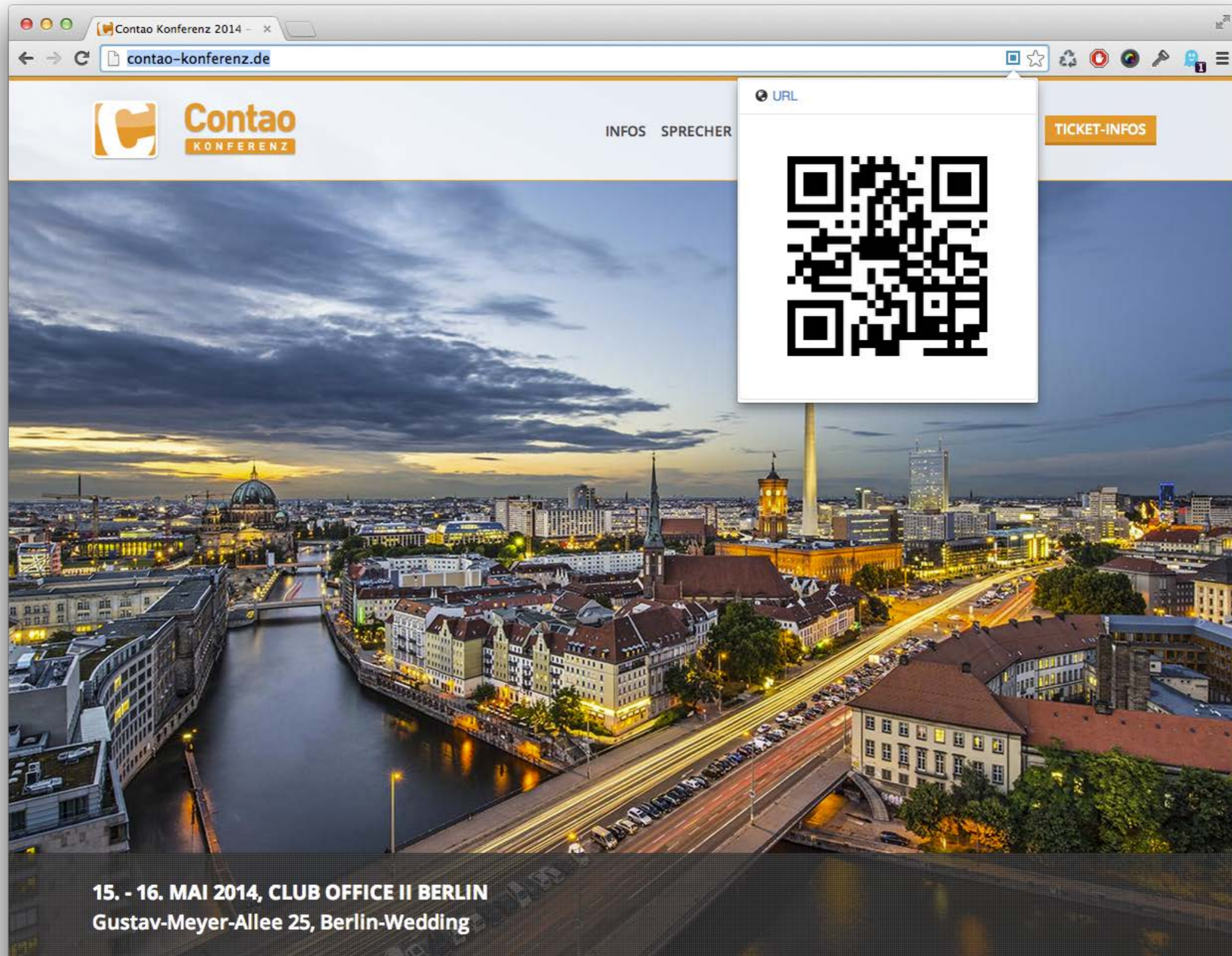
❁ analog zu den Emulatoren

# Nützliche Tools



# QR-Code

# DMA



The image shows a screenshot of a web browser displaying the website for the Contao Konferenz 2014. The browser's address bar shows the URL `contao-konferenz.de`. The website header includes the Contao logo, the text "Contao KONFERENZ", and navigation links for "INFOS" and "SPRECHER". A "TICKET-INFO" button is visible on the right. The main content area features a large, high-angle photograph of a city at dusk, with a river and illuminated buildings. A white rectangular box with a black QR code is overlaid on the right side of the image. At the bottom of the page, a dark grey banner contains the text: "15. - 16. MAI 2014, CLUB OFFICE II BERLIN" and "Gustav-Meyer-Allee 25, Berlin-Wedding".

# Adobe Edge Inspect

DMA

Contao Konferenz 2014 - x Cross-browser testing, me x

html.adobe.com/edge/inspect/

Adobe & HTML Our Mission Web Platform Open Source Web Tools & Services Events

**In** Adobe Edge Inspect CC  
Preview & inspect web designs on devices.

html.adobe.com/edge/inspect

Plan options

# Häufige Fallstricke

# Häufigkeiten

**DMA**

1. Navigation 27 %
2. Device Detection 23 %
3. Verwendung eines Grids 13 %
4. Integration eines Sliders 10 %
5. Grafiken 8 %

# Navigation

1. Hover-Effekte
2. JavaScript-Variante, die Fehler wirft
3. JavaScript-Variante ohne Fallback
4. Select-Menüs sind schwierig zu handeln

# Device Detection

**DMA**

## I. Contao Core:

iPad => Desktop

Android-Tablet => mobile

```
dcaconfig.php: $GLOBALS[',TL_CONFIG']['os']['iPad']['mobile'] = true;
```

## 2. Andere Methoden:

[mobiledetect.net](http://mobiledetect.net) => Contao-Erweiterung

# Feature Detection

1. Besser als Device Detection
2. Clientseitig kein Problem (modernizr)
3. Serverseitig existieren ein paar Möglichkeiten:
  1. WURFL (nicht Open Source)
  2. Detector (<http://detector.dmolsen.com/>)  
Kombination aus Datenbank und Modernizr
  3. MobileESP: <http://blog.mobileesp.com>

1. Touch-Events
2. Bilder-Größe/Darstellung responsive



# CSS-Eigenschaften

**DMA**

# position: fixed

# CSS position:fixed - Recommendation

Method of keeping an element in a fixed location regardless of scroll position

**\*Usage stats:** Global

Support:	83.14%
Partial support:	6.76%
Total:	89.9%

Show all versions	IE	Firefox	Chrome	Safari	Opera	IOS Safari	Opera Mini	Android Browser	Blackberry Browser	IE Mobile
								2.1		
								2.2		
								2.3		
						3.2		3.0		
						4.0-4.1		4.0		
	8.0		31.0			4.2-4.3		4.0		
	9.0		32.0			5.0-5.1		4.1		
	10.0	28.0	33.0	5.1		6.0-6.1		4.2-4.3	7.0	
Current	11.0	29.0	34.0	7.0	20.0	7.0	5.0-7.0	4.4	10.0	10.0
Near future		30.0	35.0		21.0					
Farther future		31.0	36.0		22.0					
3 versions ahead		32.0	37.0							

Notes Known issues (1)

Only works in And  
scalable=no">. Par

Edit on GitHub

e-width, user-

[caniuse.com/#feat-css-fixed](https://caniuse.com/#feat-css-fixed)

# CSS-Eigenschaften

**DMA**

I. Ressource: [caniuse.com/#cats=CSS](https://caniuse.com/#cats=CSS)

1. Retina
2. unterschiedliche Grafiken für verschiedene Geräte

[www.nrw-day.de](http://www.nrw-day.de)

# Performance

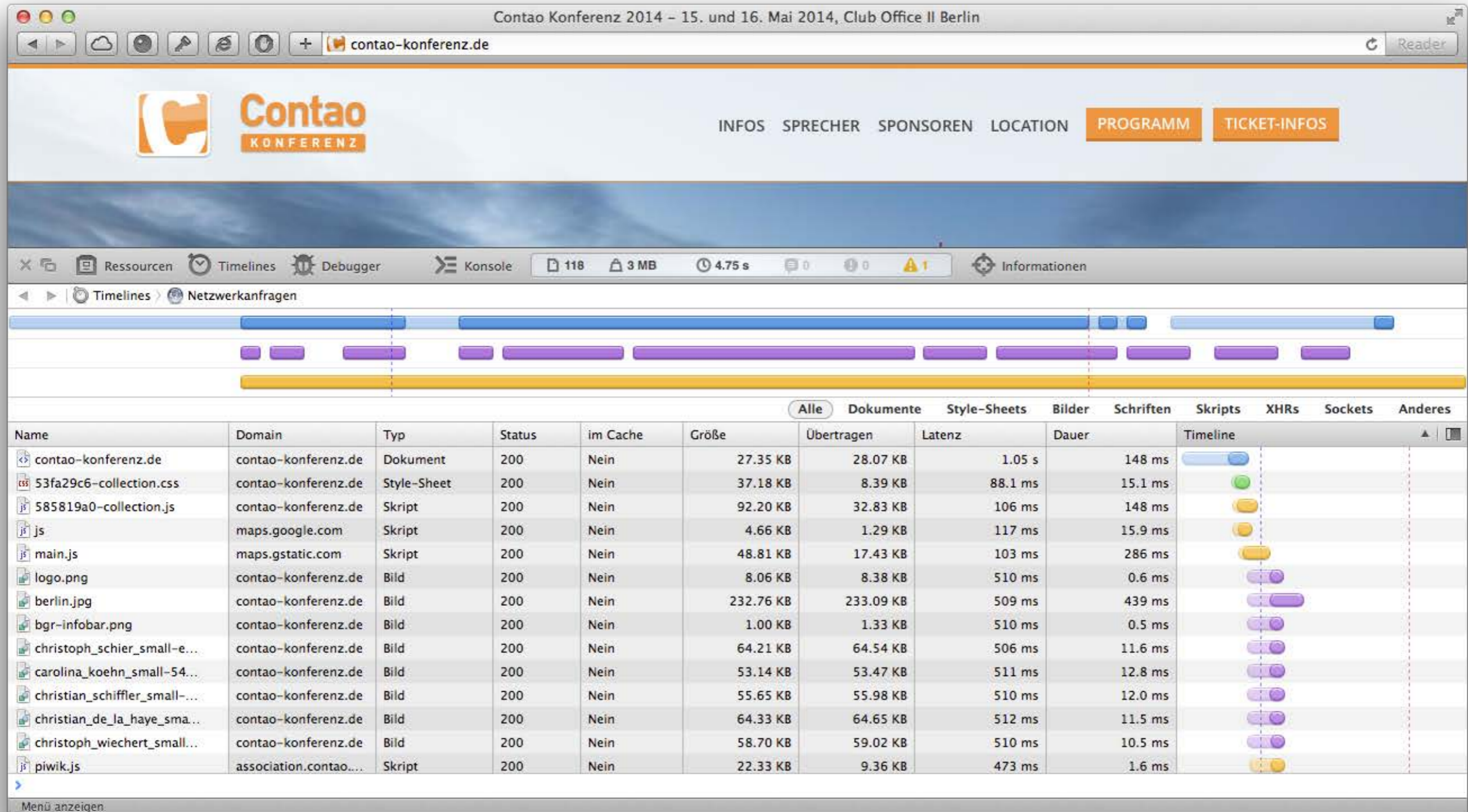
**DMA**

1. Kompression

2. Komprimierung

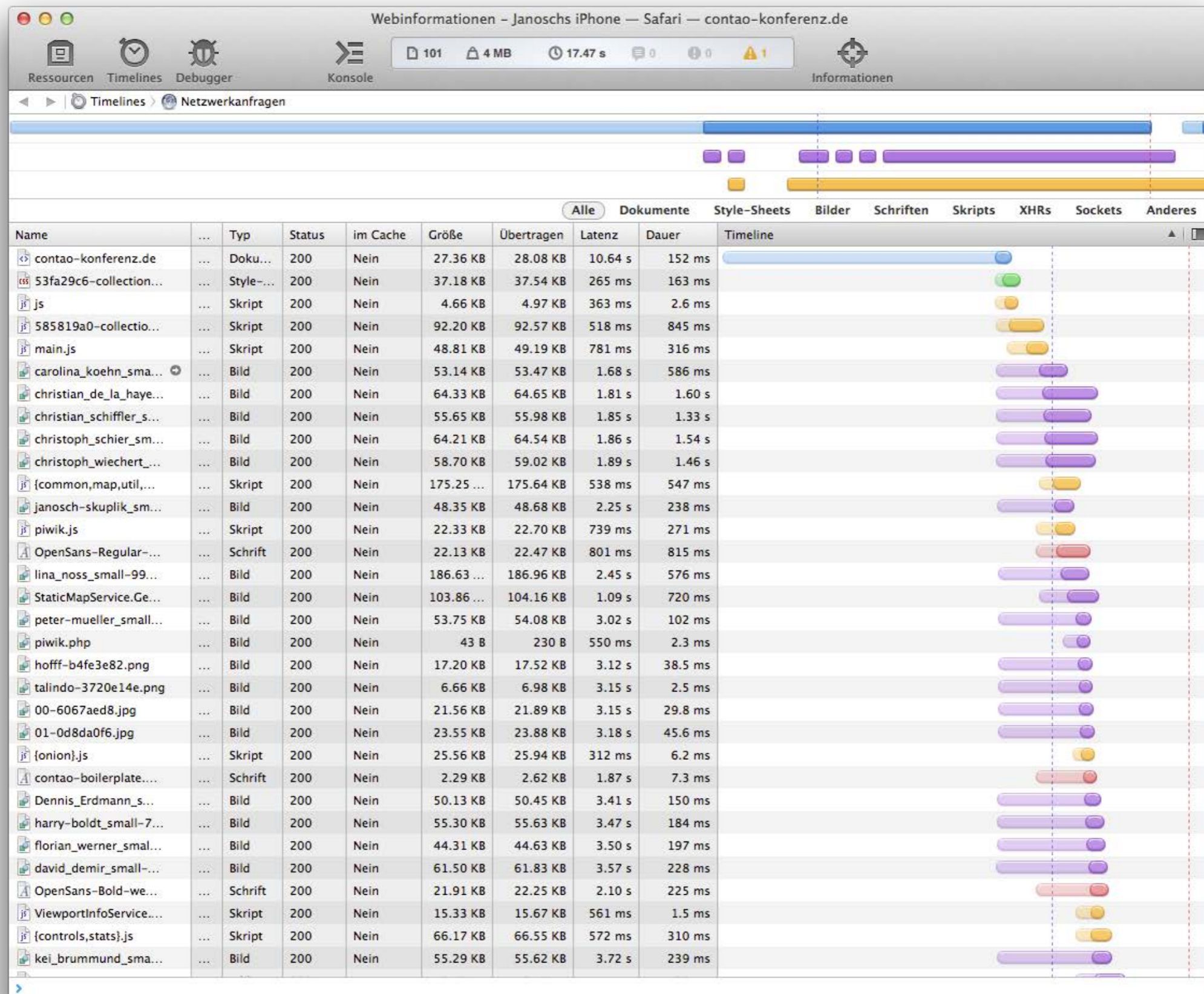
# Performance

# DMA



# Performance

# DMA



# Performance

**DMA**

1. Kompression
2. Komprimierung
3. Wenige HTTP-Requests
4. Conditional Loading
5. Geplanter Einsatz von JavaScript
6. Icons über Icon-Fonts (oder mind. Sprite-Grafik)
7. Kleine Bilder über Data-URL's
8. Performance Budget



*Hier kommt die Zusammenfassung hin...*

Definiert die mobilen Geräte projektabhängig...

Definiert die mobilen Geräte projektabhängig...

Testet möglichst auf echten Geräten...

Definiert die mobilen Geräte projektabhängig...

Testet möglichst auf echten Geräten...

Debugging ist für mobile Geräte möglich...

Definiert die mobilen Geräte projektabhängig...

Testet möglichst auf echten Geräten...

Debugging ist für mobile Geräte möglich...

Mobile Geräte werden immer wichtiger!

# Buchempfehlung

**DMA**

## Mobile Web Handbook

[www.smashingmagazine.com/books/](http://www.smashingmagazine.com/books/)



**\$15** ~~\$19~~

**eBook**

PDF, ePUB, Amazon Kindle.

**\$29.90** ~~\$39~~

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Printed, gorgeous hardcover.

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GLÜCK AUF