

# dotMobi

## Drupal Ireland Meetup

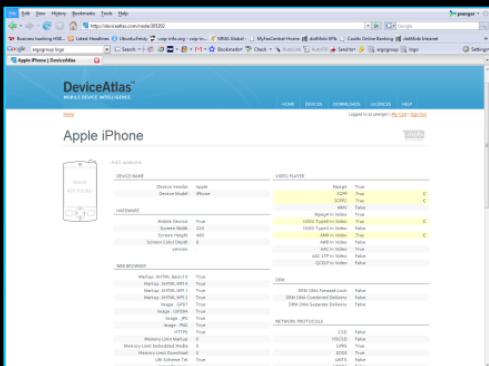
## Mobile Browser Testing With Drupal

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dotMobi

- Top Level Domain for .mobi
- Joint venture of top industry players
- .mobi is for mobile content
- mobile users have different needs

INVESTORS





Web  
GUI



Bulk  
Data  
Sources

UAProf

WURFL

NOKIA



Others



Downloadable  
API

# Our Problem (1/2)



- Create testing interface for mobile browsers
- As easy as
  - 1) Login
  - 2) Run Test
  - 3) Submit
- Simple & advanced tests
- Session aware

# Our Problem (2/2)



- Drupal doesn't allow modification of HTTP Headers
- Drupal doesn't support dynamic header/body/footer content in a way suitable for our application
- Data must be stored in the DeviceAtlas database
- All input & output must be strictly controlled, and must be easily administered

# Our Solution (1/3)



- “Dumb” Drupal theme switcher
  - Theme switcher based on Domain
  - Could have been made device aware
- “Intelligent” device detection for easy session startup
- All admin work is done through Drupal

# Our Solution (2/3)

- Additional templating layer which uses CCK extensively
  - Uses PHPTemplate up to a point
  - Output generated dynamically for each test
  - Drupal outputs dynamic HTTP headers, HTML headers, body and footer content
  - Intelligent template controller substitutes embedded files into the content

#### HTTP Headers:

```
Cache-Control: no-transform  
Content-Type: text/html; charset=utf-8
```

#### Body HTML:

```
<h4>!title</h4>!content  
!yes_link !notsure_link !no_link  
<h4>!tests_progress</h4>!section_link  
!home_link
```

#### Embedded Files:

```
<none>  
AMR - NB  
GIF - Lynx  
GIF89a - Walky  
JPG - Kitten  
M4A
```

# Our Solution (3/3)



## Drupal 5 Core & Contrib

- CCK
- CCK Taxonomy
- PhpTemplate
- ImageField
- FileField
- MimeDetect

## dotMobi Custom

- TS Core
- TS Sessions
- TS Tests
- TS Special Tests
- Test Import Tool
- TADA Theme

# Putting it all together - TA-DA!

## Creating a simple TA-DA image test

- Assign to a test category
- Provide:
  - Test title & description
  - HTTP content type headers
  - HTML wrappers for headings, content and footers
  - Templated body text
  - Files to be embedded in pages

HTTP Headers:  
Cache-Control: no-transform  
Content-Type: text/html; charset=utf-8

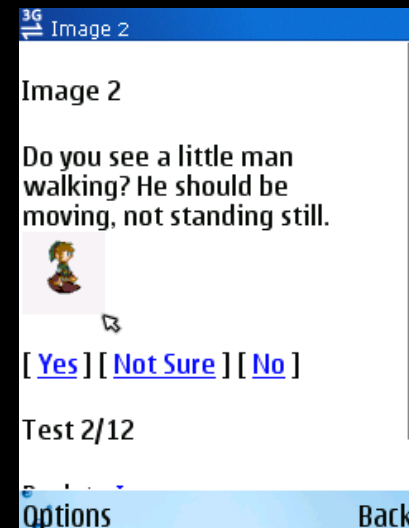
+

Body HTML:  
<h4>!title</h4>!content  
!yes\_link !notsure\_link !no\_link  
<h4>!tests\_progress</h4>!section\_link  
!home\_link

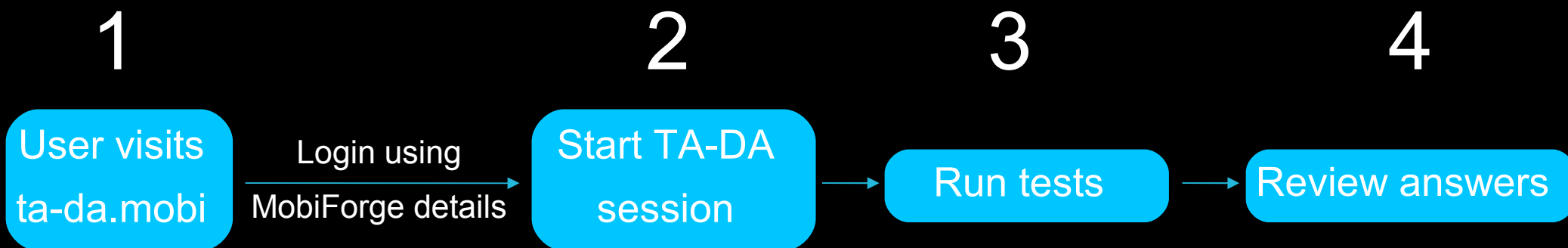
+

Embedded Files:  
<none>  
AMR - NB  
GIF - Lynx  
GIF89a - Walky  
JPG - Kitten  
M4A

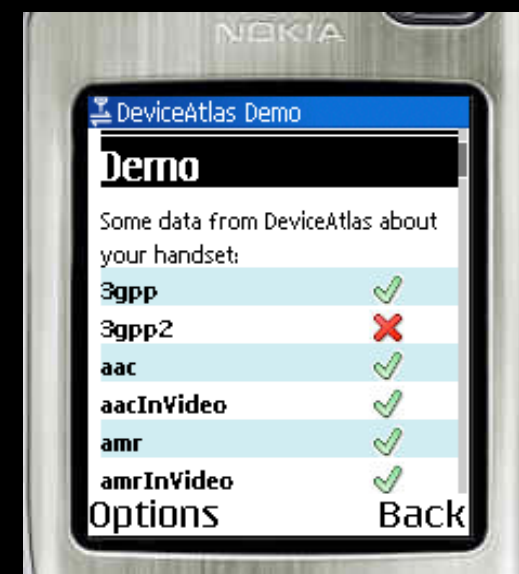
=



# Using TA-DA (1/2)



- 1
  - Start TA-DA or
  - View a quick device-info page
- 2
  - Intelligent device detection
  - Session management
    - Recognises based on combination of user & UserAgent string



# Using TA-DA (2/2)

- 3 • Catch answers provided by user
- Redirect user based on answer
  
- 4 • Review page for all answers



| Test                            | Answer |
|---------------------------------|--------|
| <a href="#">Image 1</a>         | Yes    |
| <a href="#">Image 2</a>         | Yes    |
| <a href="#">Image 3</a>         | Yes    |
| <a href="#">Image 4</a>         | Yes    |
| <a href="#">Markup 1</a>        | Yes    |
| <a href="#">Markup 2</a>        | Yes    |
| <a href="#">tel: URI scheme</a> | Yes    |
| <a href="#">Audio Format 1</a>  | Yes    |
| <a href="#">Audio Format 2</a>  | Yes    |

We then convert test answers into valid sources of data for DeviceAtlas



# DeviceAtlas – Device Profile



- Device Name
- Hardware
- Environment
- Web Browser
- Audio Player
- Video Player
- DRM
- Network Protocols
- JavaVM
- User Agent Strings

## Device Name

Device Vendor Apple ●  
Device Model iPhone ●

## Hardware

Mobile Device True  
Screen Width 320  
Screen Height 480  
Screen Color Depth 8  
version -

## Environment

OS Symbian False  
OS Linux False  
OS Windows False  
OS Rim False  
OS Osx True  
OS Proprietary -  
OS Version -  
Developer Platform 1.1  
Developer Platform Version -

## Web Browser

Markup XHTML MP11 True  
Markup XHTML MP12 True  
URI Scheme Tel True ●  
HTTPS True

where you have helped [\(what's this?\)](#) or  where you can help  conflicted values

## Audio Player

MIDI Monophonic False ●

What do you think?  What everyone else thinks

**MIDI Monophonic (midiMonophonic)** is defined as: The ability to play MIDI files with not more than 1 note at a time, normally Type 0. The device is able to play the MIDI file as expected.

| Reporting Source    | Reporting Value |
|---------------------|-----------------|
| ascherhauferr       | False           |
| Tobias Eisentraeger | False           |
| atrasatti           | False           |
| <b>daniel.hunt</b>  | <b>True</b>     |

MIDI Polyphonic False ●

AMR False  
MP3 True  
AAC True  
QCELP False

## Video Player

MPEG4 True  
3GPP False  
3GPP2 False  
WMV False  
H263 Type0 In Video False  
H263 Type3 In Video False  
MPEG4 In Video True

# Summary & Resources



- Main links

- <http://deviceatlas.com>
- <http://ta-da.mobi>

- Developer Portal

- <http://mobiforge.com>

The screenshot shows the DeviceAtlas website with a navigation menu (HOME, MY ACCOUNT, DEVICES, DATA, DOWNLOADS, LICENCES, HELP, REGISTER!), a search bar, and a sign-in section. The main content area features the headline "Ensuring your mobile content can find its way in the world." and a list of benefits: "Multi-sourced data, for maximum reliability and scope.", "Market leading performance, with small footprint.", "Free to use for development purposes.", and "For live usage, priced to fit the lowest budget. Transparent, Supported, and Future Proof." Below this is a "Register and access data for thousands of devices!" button. There are also sections for "Top Viewed Devices" and "Newest Devices" with tables listing vendor and model information.

| Vendor | Model                   | Views |
|--------|-------------------------|-------|
| Apple  | iPhone                  | 9242  |
| Nokia  | N95 8GB                 | 5304  |
| Nokia  | N73                     | 3597  |
| RIM    | BlackBerry 8100 (Pearl) | 3164  |
| Nokia  | N70                     | 3030  |

| Vendor | Model         |
|--------|---------------|
| NEC    | N902iL        |
| NEC    | N902iS        |
| SHARP  | SH902i        |
| NEC    | N902i         |
| Nokia  | 6225 (Sprint) |

The screenshot shows the mobiForge website with a navigation menu (Starting, Designing, Developing, Testing, Running, News, Blogs, Forums, Directory) and a search bar. The main content area features a featured article titled "Adding location to a non GPS phone: introducing OpenCellID" with a "READ MORE" button. There are also sections for "MOBIFORGE NEWS" and "HOT IN THE FORUMS" with various news items and forum topics. A "Developer's guide" and "Why register?" section is also visible.

the mobile web has a name



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