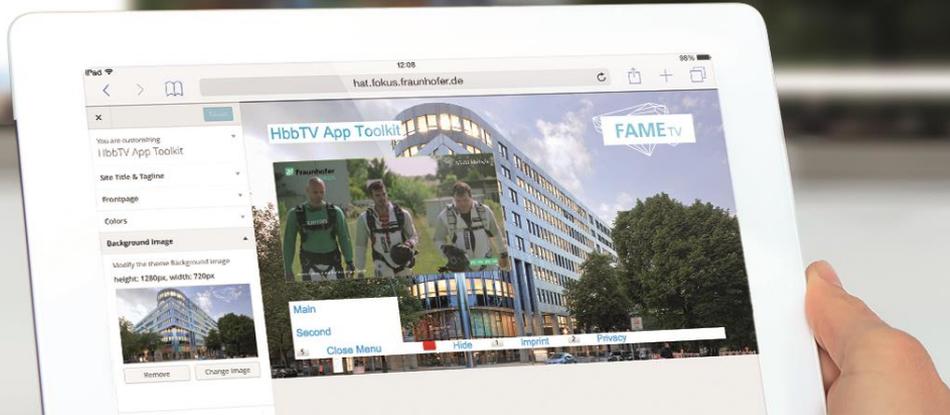


HBBTV APPLICATION TOOLKIT – BUILDING POWERFUL HBBTV APPS



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Fraunhofer FOKUS - Research Institute for Open Communications Systems



TEST ON REAL DEVICES



CREATE AN HBBTV APPLICATION? JUST THIS...?

```
<!DOCTYPE html PUBLIC "-//HbbTV//1.1.1//EN" "http://www.hbbtv.org/dtd/HbbTV-1.1.1.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">

  <head>

    <meta http-equiv="Content-Type" content="application/vnd.hbbtv.xhtml+xml; charset=utf-8" />

  </head>

  <body>

  </body>

</html>
```

landing.html

HBBTV APPLICATION TOOLKIT

- Editor that enables
 - a fast and easy creation of **HbbTV applications**
 - without any technological knowledge
 - in every modern browser
- Template based app creation with customizable UI (Branding)
 - Templates tailored to the TV screen!



HbbTV
APPLICATION
TOOLKIT

HBBTV APPLICATION TOOLKIT

- For WordPress



- **Wordpress Theme + Plugins:**

- Project site: <https://www.fokus.fraunhofer.de/go/hat>
 - Documentation: <http://fraunhoferfokus.github.io/HAT/>
 - Code: <https://github.com/fraunhoferfokus/HAT>
-
- Web Frontend based on CSS3, HTML5
 - Editor runs on all (modern) browsers

HBBTV APPLICATION TOOLKIT

- Run HbbTV Apps together with your existing (WP hosted) websites
 - Use same content, media library, user accounts, site features, etc...
- HAT includes (HbbTV specific) templates, modules, and plugins such as
 - Picture Galleries, Video Galleries, Text, Logo, Custom Menus & Navigation, Imprint
 - Interactive video, social media, companion screen support, 360° video playback

CONCEPT

HbbTV Application Toolkit **Editor**



Generating HbbTV Apps by using a collection of **modules**

Text

Video

Menu

Layout



Gallery

Broadcast

Social Feed

Image

Popup

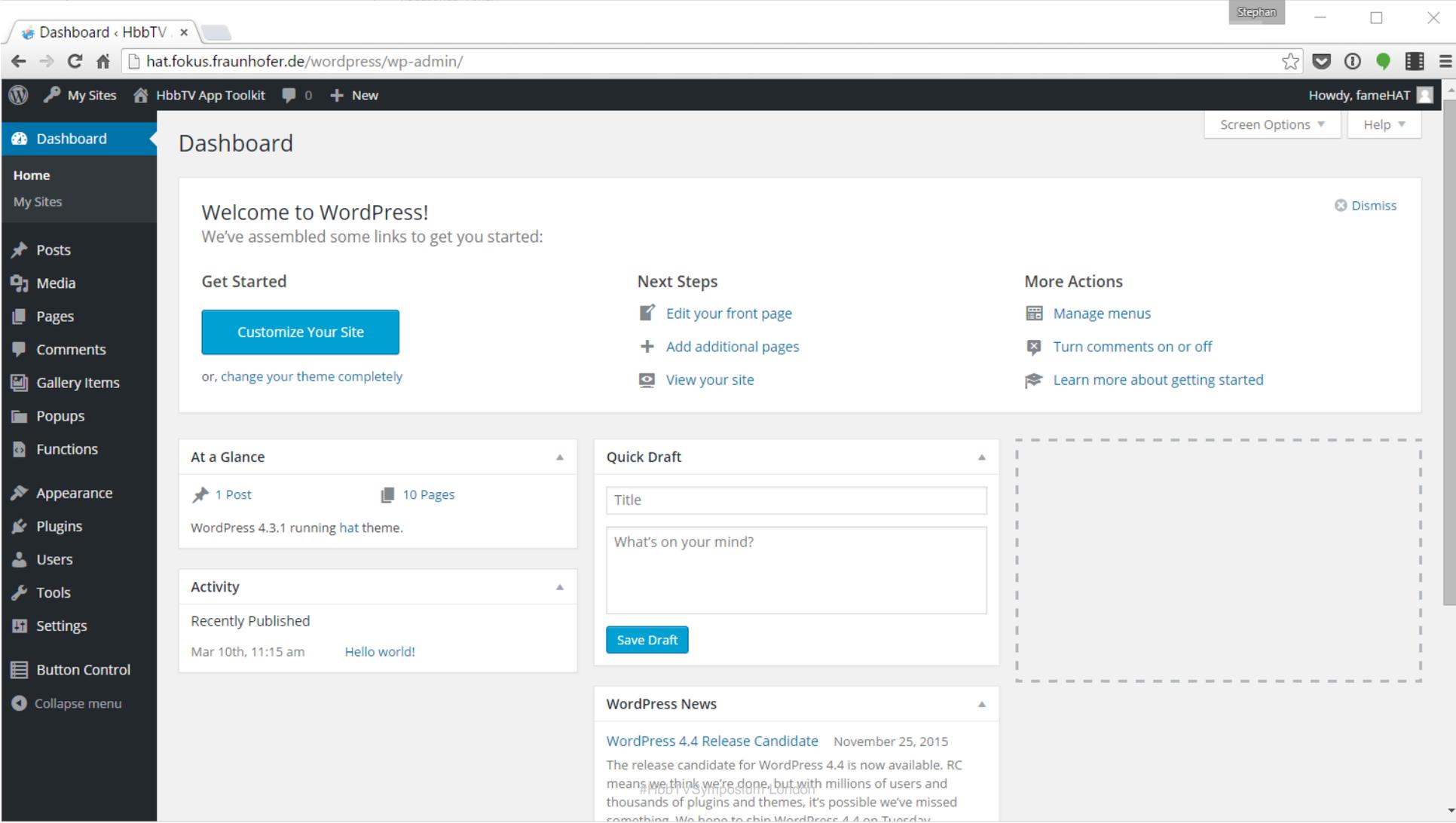


HbbTV App 1.



HbbTV App 2.





Dashboard

Dashboard

Welcome to WordPress!

We've assembled some links to get you started:

Dismiss

Get Started

[Customize Your Site](#)

or, change your theme completely

Next Steps

- [Edit your front page](#)
- [Add additional pages](#)
- [View your site](#)

More Actions

- [Manage menus](#)
- [Turn comments on or off](#)
- [Learn more about getting started](#)

At a Glance

1 Post 10 Pages

WordPress 4.3.1 running hat theme.

Quick Draft

Title

What's on your mind?

Save Draft

Activity

Recently Published

Mar 10th, 11:15 am Hello world!

WordPress News

[WordPress 4.4 Release Candidate](#) November 25, 2015

The release candidate for WordPress 4.4 is now available. RC means we think we're done, but with millions of users and thousands of plugins and themes, it's possible we've missed something. We hope to ship WordPress 4.4 on Tuesday.

Stephan

Pages < HbbTV App 1 x

hat.fokus.fraunhofer.de/wordpress/wp-admin/edit.php?post_type=page

My Sites HbbTV App Toolkit 0 + New

Howdy, fameHAT

Screen Options Help

Pages [Add New](#)

All (10) | Published (10)

Bulk Actions Apply All dates Filter

10 items

<input type="checkbox"/>	Title	Author	Tags		Date
<input type="checkbox"/>	Broadcast	fameHAT	—	—	2015/06/25 1:54:05 pm Published
<input type="checkbox"/>	Concept	fameHAT	—	—	2015/09/04 9:13:41 am Published
<input type="checkbox"/>	Gallery	fameHAT	test	—	2015/09/02 11:01:01 am Published
<input type="checkbox"/>	HAT - Front Page	fameHAT	—	—	2015/05/12 1:51:30 pm Published
<input type="checkbox"/>	Imprint	fameHAT	—	—	2015/05/18 11:42:45 am Published
<input type="checkbox"/>	Media Flow	fameHAT	ifa	—	2015/08/26 6:49:21 am Published
<input type="checkbox"/>	Privacy	fameHAT	—	—	2015/05/18 11:43:32 am Published
<input type="checkbox"/>	SecondScreen	fameHAT	#HbbTVSymposium London	—	2015/10/21 7:41:18 am Published

Dashboard
Posts
Media
Pages
All Pages
Add New
Tags
Comments
Gallery Items
Popups
Functions
Appearance
Plugins
Users
Tools
Settings
Button Control
Collapse menu

Stephan

hat.fokus.fraunhofer.de/wordpress/wp-admin/post.php?post=16&action=edit

My Sites HbbTV App Toolkit 0 New View Page

Howdy, fameHAT

Content Box Middle

Contenttype: Text
Navigable:
Title: Future of TV



Add Media

Visual Text

B *I* ABC          

HAT is based on WordPress and allows to create HbbTV applications in a very simple, fast and efficient way. It allows content creators without specific technical skills to build interactive TV applications and has been implemented by Fraunhofer FOKUS.



HbbTV
APPLICATION
TOOLKIT

p

Save Changes

Content Box Left

Contenttype: Social

Parent

(no parent)

Template

Three Columns

Order

0

Need help? Use the Help tab in the upper right of your screen.

Featured Image

[Set featured image](#)

Tags

Separate tags with commas

[Choose from the most used tags](#)

Publish

Status: **Published** [Edit](#)

Visibility: **Public** [Edit](#)

Revisions: 3 [Browse](#)

Published on: May 12, 2015 @ 13:51 [Edit](#)

[Move to Trash](#)

- My Sites
- HbbTV App Toolkit
- 0 + New View Page
- Dashboard
- Posts
- Media
- Pages
- All Pages
- Add New
- Tags
- Comments
- Gallery Items
- Popups
- Functions
- Appearance
- Plugins
- Users
- Tools
- Settings
- Button Control
- Collapse menu

Howdy, fameHAT

Edit Page [Add New](#)

HAT

Permalink: <http://hat.fokus.fraunhofer.de/wordpress/> [View Page](#)

Revisions

- fameHAT, 7 months ago ([May 18, 2015 @ 11:31:39](#))
- fameHAT, 7 months ago ([May 18, 2015 @ 11:29:10](#)) [Autosave]
- fameHAT, 7 months ago ([May 12, 2015 @ 13:51:30](#))

Content Box Middle



Contenttype:

Navigable:

Title:

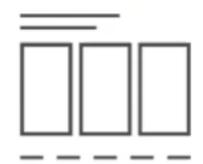
[Add Media](#)

Visual



HAT is based on WordPress and allows to create HbbTV applications in a very simple, fast and efficient way. It allows content creators without specific technical skills to build interactive TV applications and has been implemented by Fraunhofer FOKUS.

Design of template-three_columns



Page Attributes

Parent:

Template:

Order:

Need help? Use the Help tab in the upper right of your screen.

Featured Image

[Set featured image](#)

HbbTV App Toolkit



Social Feed

 **DW Innovation**
vor 2 Stunden

#FOKUSMWS talks
TV&Media: What we have today will probably look very different in 2 yrs time, thanks Pablo Argon @ericsson

 **Travellers Meet**
vor 2 Stunden

#MTM15 talks
MTM "Rare Breed" Speaker - Dilip Bam. Most people call him eccentric. But we think he is most normal... fb.me/Fdkka891

 **MTM India**
vor 2 Stunden

#MTM15 talks
500 days on the road. 5 days to go.
<http://fb.me/3BLw4inJz>

Future of TV

HAT is based on WordPress and allows to create HbbTV applications in a very simple, fast and efficient way. It allows content creators without specific technical skills to build interactive TV applications and has been implemented by Fraunhofer FOKUS.



5 Menu  Hide  Privacy 2 Pop-up 3 Concept

Stephan

hat.fokus.fraunhofer.de/wordpress/wp-admin/post.php?post=195&action=edit

My Sites HbbTV App Toolkit 0 New View Page

Howdy, fameHAT

Edit Page [Add New](#)

Gallery

Permalink: http://hat.fokus.fraunhofer.de/wordpress/?page_id=195 [Change Permalinks](#) [View Page](#)

Layout

Box Width: %
Box Alignment:

Content Box

Contenttype:
Navigable:
Title:

[Add Media](#) Visual Text

B I ABC [List Icons] [Link] [Image] [Table]



#HbbTV Symposium London

Design of template-fullpage



Page Attributes

Parent:
Template:
Order:

Need help? Use the Help tab in the upper right of your screen.

Featured Image

[Set featured image](#)

Tags

Separate tags with commas

test

HBBTV APP TOOLKIT – LIVE CASES

grenzenlos
25h
Mauerfall

DIE SOCIAL TV-APP ZUM MAUERFALL-JUBILÄUM

#rbb25h rbb[®] FERNSEHEN

Live-Blog

- rbb-info vor 3 Minuten
Gleich geht's los und wir berichten wieder live aus dem allseits bekannten Studio an
- Sophie vor 7 Minuten
- Andreas vor 12 Minuten

Ausblenden 0 Startleiste 1 Datenschutz 2 Impressum



www.verknalltundabgedreht.de
Mo - Fr um 16:05 auf rbb

LAURA

#verknallt15

verknallt und abgedreht vor 11 Tagen

Dote Doktor vor 11 Tagen
@verknallt: Ja hat Spaß gemacht! :-)

Dote Doktor vor 11 Tagen

Startleiste 1 Datenschutz 2 Impressum 3 LiveBlog aus

rbb[®] mdr[®]

Unser Sandmännchen

Ausblenden 0 Startleiste 1 Datenschutz 2 Impressum

PLUGINS

1. Social Media
2. Interactive Video
3. Companion Screen support
 - Companion Screen (launch, sync, communicate, ...)
4. Dynamic Ad-insertion
 - Display personalized (in-stream (pre-roll, mid-roll, post-roll), overlay, ...) Advertisements in HbbTV
 - Support of DVB/DASH events, VAST
5. 360° Video playback

grenzenlos
25h
Mauerfall

DIE SOCIAL TV-APP ZUM MAUERFALL-JUBILÄUM

#rbb25h

rbb®
FERNSEHEN



Live-Blog



rbb-info

vor 3 Minuten

Gleich geht's los und wir berichten wieder live aus dem gläsernen Studio an



Sophie

vor 7 Minuten



Andreas

vor 12 Minuten

Als die Mauer fiel...



Ausblenden

0

Startleiste

1

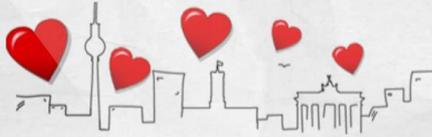
Datenschutz

2

Impressum

RBB-ONLINE.DE

verknallt & abgedreht



www.verknalltundabgedreht.de
Mo - Fr um 16:05 auf rbb



#verknallt15

verknallt&abgedreht
vor 11 Tagen

Date Doktor
vor 11 Tagen
@verknallt: Ja hat Spaß gemacht! :-)

Date Doktor
vor 11 Tagen

- Ausblenden
- 0 Startleiste
- 1 Datenschutz
- 2 Impressum
- 3 LiveBlog aus

Interactive video



Companion Screen



SECOND SCREEN ADVERTISING

maxdome Du bestimmst was läuft.

SO SICHERST DU DIR DEINEN MAXDOME GRATISMONAT!

 Melde dich jetzt im Web an unter:
www.maxdome.de/hbbtv

 Noch schneller gehts mit deinem QR-Code Scanner



1 Verwende maxdome nach der Registrierung auf vielen Smart-TVs, Mobilten Plattformen, Spielkonsolen oder im Web.

[0] DATENSCHUTZ [1] IMPRESSUM [BACK] ZURÜCK ■ AUSBLENDEN ■ STARTLEISTUNG

maxdome Login

Sichere Datenübertragung

1 2 3

Jetzt kostenlosen Testmonat starten?

Kostenloses Konto erstellen:

Deine E-Mail Adresse

Gewünschtes Passwort (min. 8 Zeichen)

Jetzt kostenlos testen

Deine Daten werden sicher verschlüsselt übertragen.

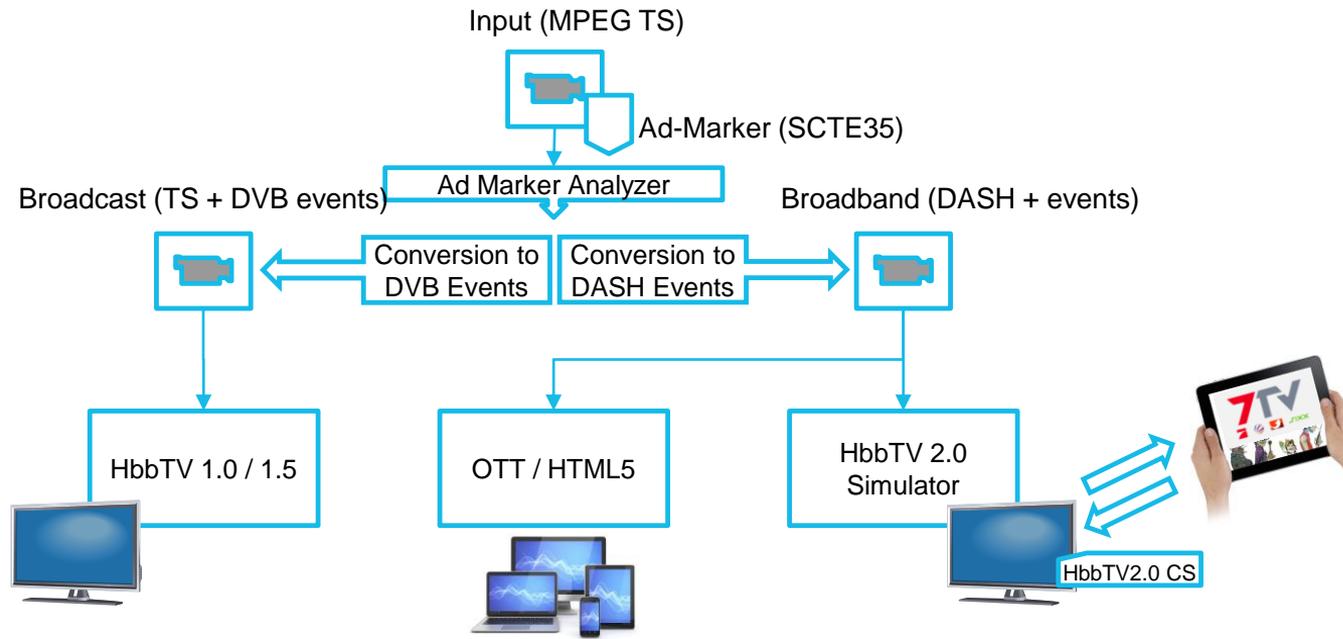
[Zurück](#)

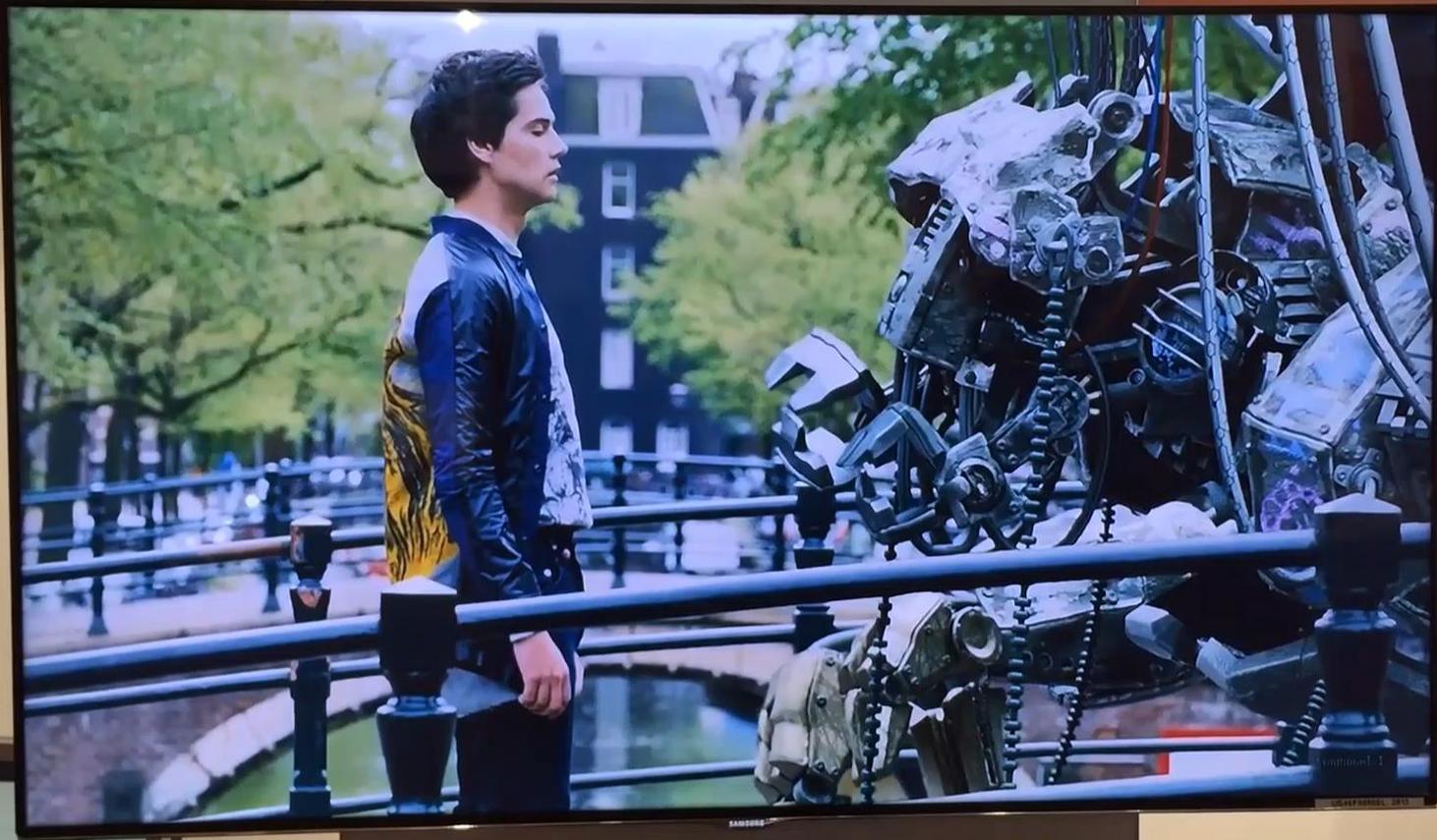


Intro
The
Fut

DYNAMIC AD-INSERTION FOR HbbTV 2.0

Highlevel Solution Overview





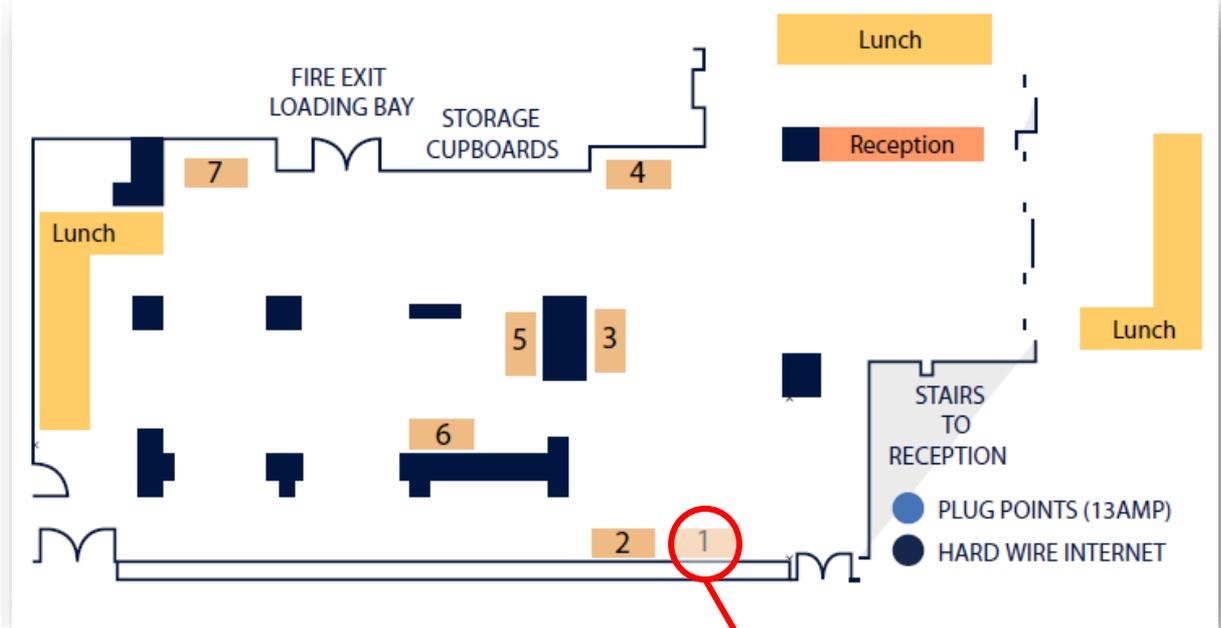




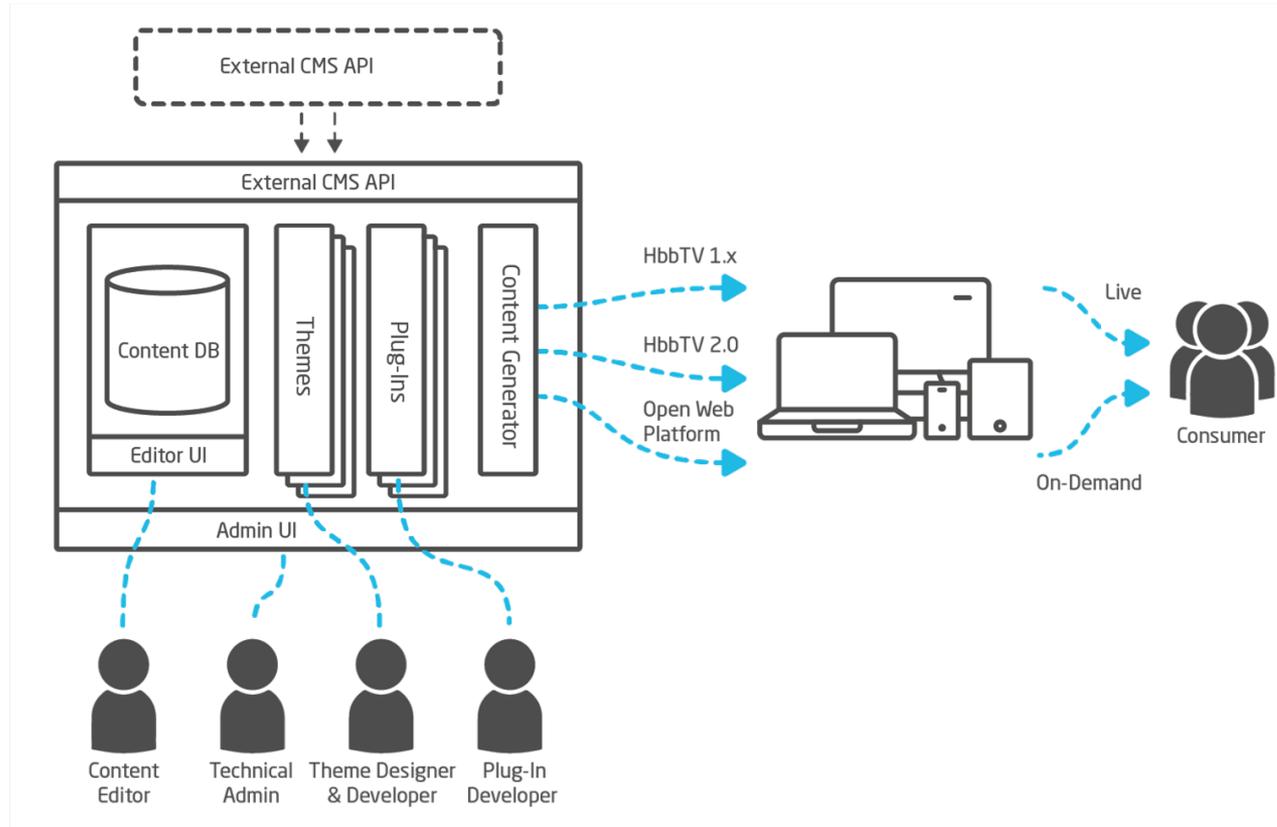
VISIT OUR DEMO BOOTH

Fraunhofer FOKUS Demos

- HbbTV App Toolkit – HAT
- 360° Video Playback for HbbTV
- Ad-Insertion
- Multiscreen



MPAT - MULTI PLATFORM APPLICATION TOOLKIT



NEXT STEPS / RELEASES

- Responsive++
 - Live vs on-demand
- Towards multi-platform
 - HTML5
 - Mobile
 - Smart TVs
 - “Sticks”
- Set of themes and plug-ins, including
 - Breaking news (Alerts, Warnings)
 - EPG
 - Games / Quiz
 - Video chat
 - Shopping
 - Payment
 - Widgets aka Weather
 - ...

6TH FOKUS MEDIA WEB SYMPOSIUM – WWW.FOKUS.FRAUNHOFER.DE/GO/MWS

June 15-16, 2016, Berlin



6th FOKUS Media Web Symposium: Towards the Web of Everything

The 6th FOKUS Media Web Symposium will focus on the convergence of the Media Web and the Internet of Things. Within the Conference, several Workshops and Tutorials offer the latest insights in Connected TV, Web Technologies, Streaming Media and Multiscreen Solutions.



More information at:

www.fokus.fraunhofer.de/go/hat

Thank you for listening!

Questions?



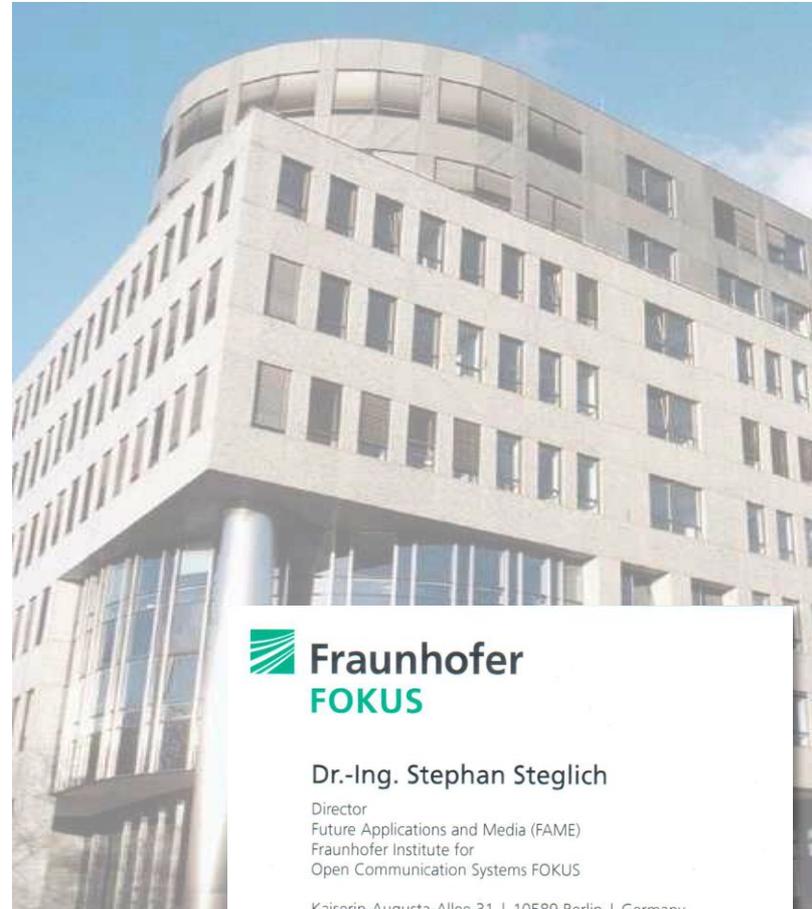
Fraunhofer
FOKUS



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