

Accessibility services based on HbbTV - examples

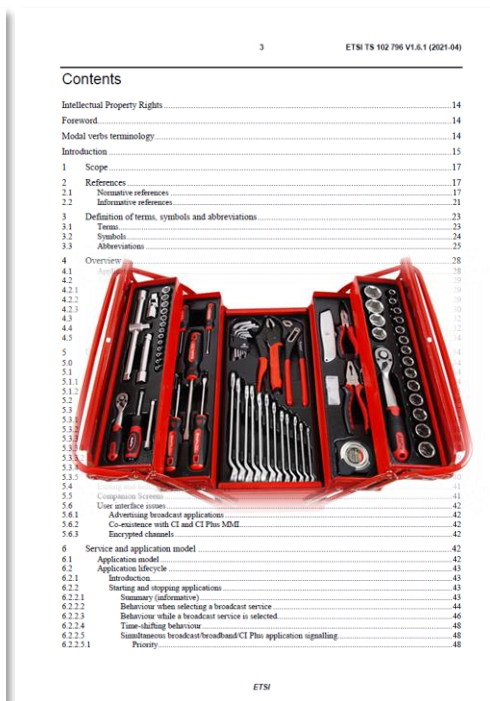
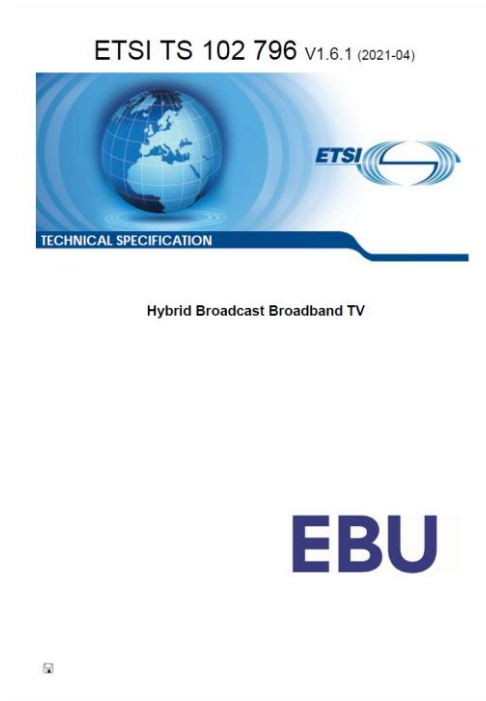
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HbbTV webinar „Accessibility Solutions with HbbTV“
Sept 21, 2021

HbbTV – a powerful toolbox

HbbTV specification

- provides a powerful toolbox
- toolbox growing over HbbTV versions
- does not predefine any concrete type of service
- specifically: does not explicitly deal with accessibility today (just mandates EBU-TT-D renderer)
- leaves it completely to service providers to build attractive and useful services



HbbTV within ARD



ARD provides a rich number of HbbTV services:

- started 2009 with 6 HbbTV apps
- currently some 40 different (at least differently branded) HbbTV apps
- by far, HbbTV is the technology with the highest reach on big screens for ARD services

rbb as one of the ARD broadcasters provides

- the ARD wide autostart launcher app including widgets for all ARD HbbTV apps, „teasers“ and the „Replay“ function
- AITs and DSM-CC carousels and events for ARD
- a number of HbbTV services



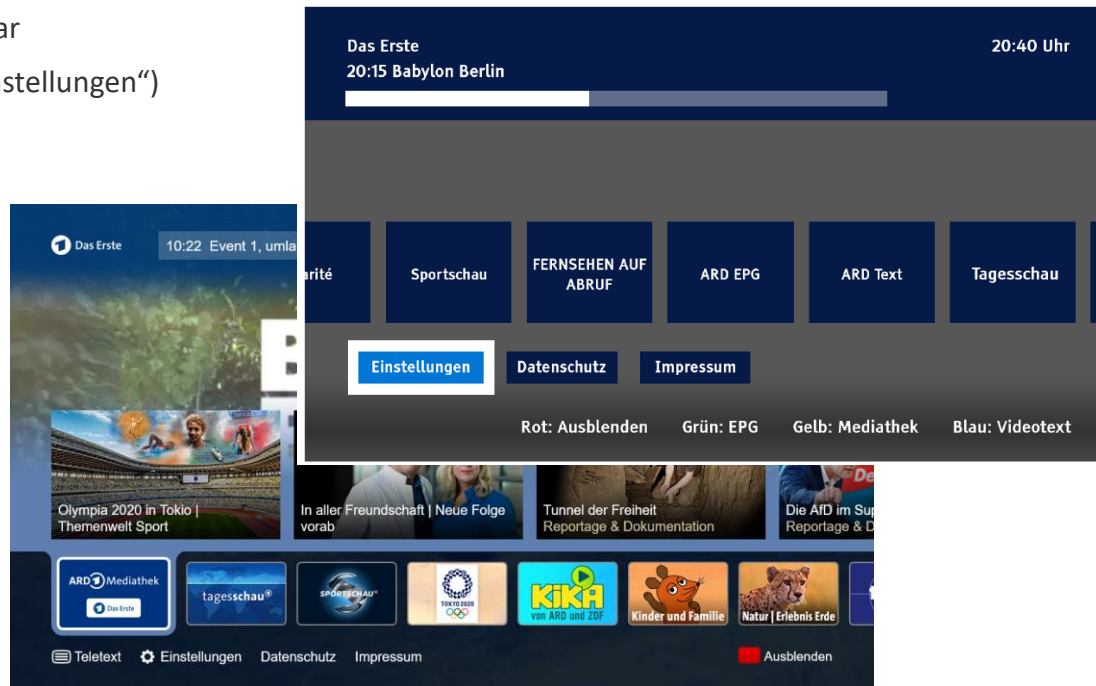
Easily readable version of launcher bar

(Regular operation)



The easily readable version of the launcher bar

- can be reached via the settings menu („Einstellungen“)
- uses a bigger font
- provides high contrast UI
- shows focus very clearly

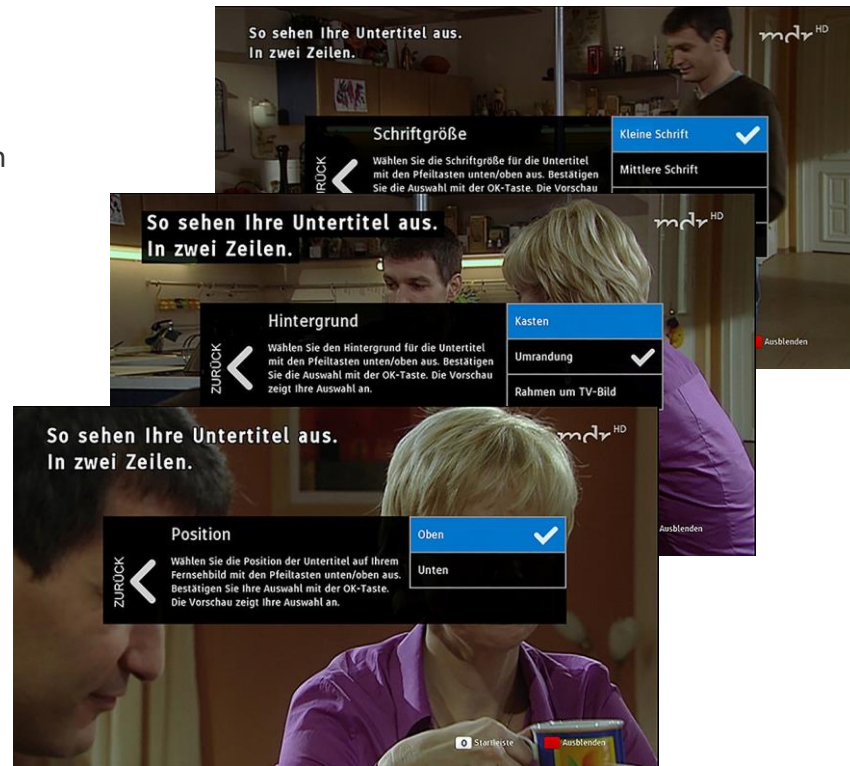


Subtitle rendering configuration

(Regular operation)

ARD offers subtitling via HbbTV rendering

- subtitles are transmitted via DSM-CC stream events
- configuration options are offered for font size, background and position



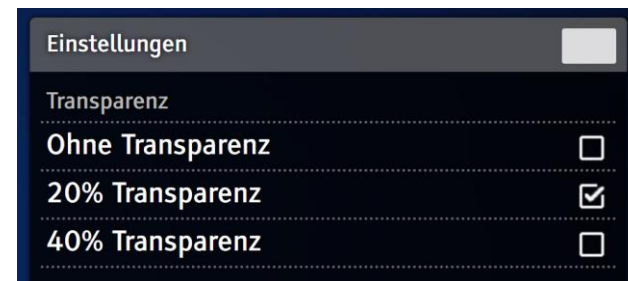
Configuration options for HbbTV teletext

(Regular operation)



ARD rendering options for their HbbTV Teletext services

- colour schema, font size and transparency can be configured



Signer service

(Regular operation)



ARD provides a signer service:

- as IP stream started via HbbTV
- combined LinearTV and signer in one stream
- regularly for events of specific public value
- easy access via „Red Button“



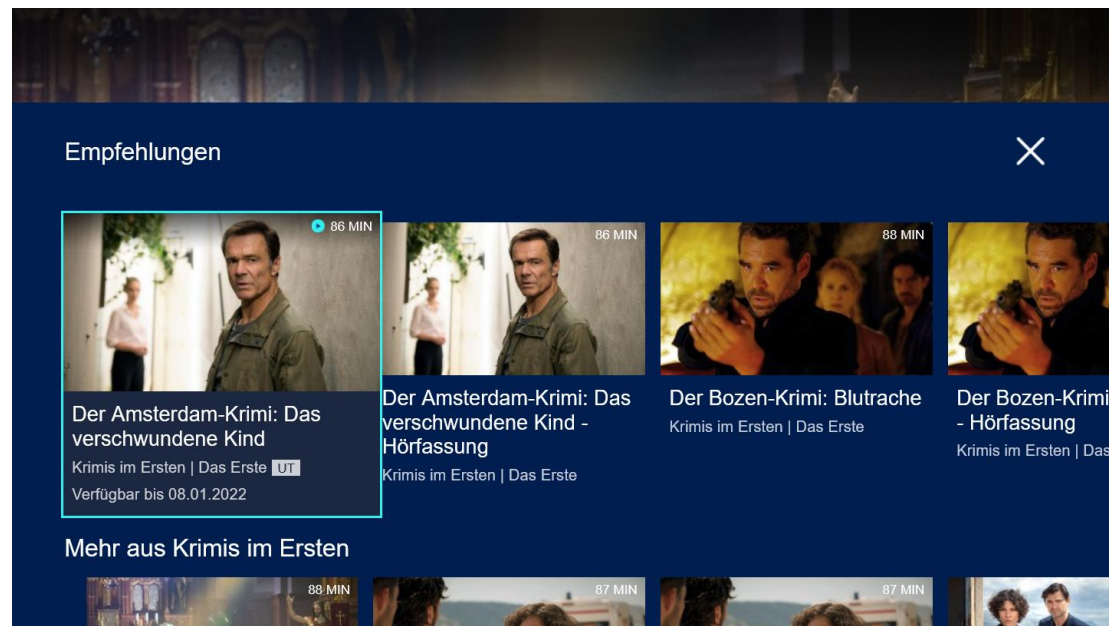
Audio description in the catch-up-tv application

(Regular operation)



ARD provides audio description in the catch-up-tv app:

- via dedicated video versions by now
- GUI will be improved to have one preview image only plus configuration options



Enhanced dialogue & audio description via IP

(Pilot operation)



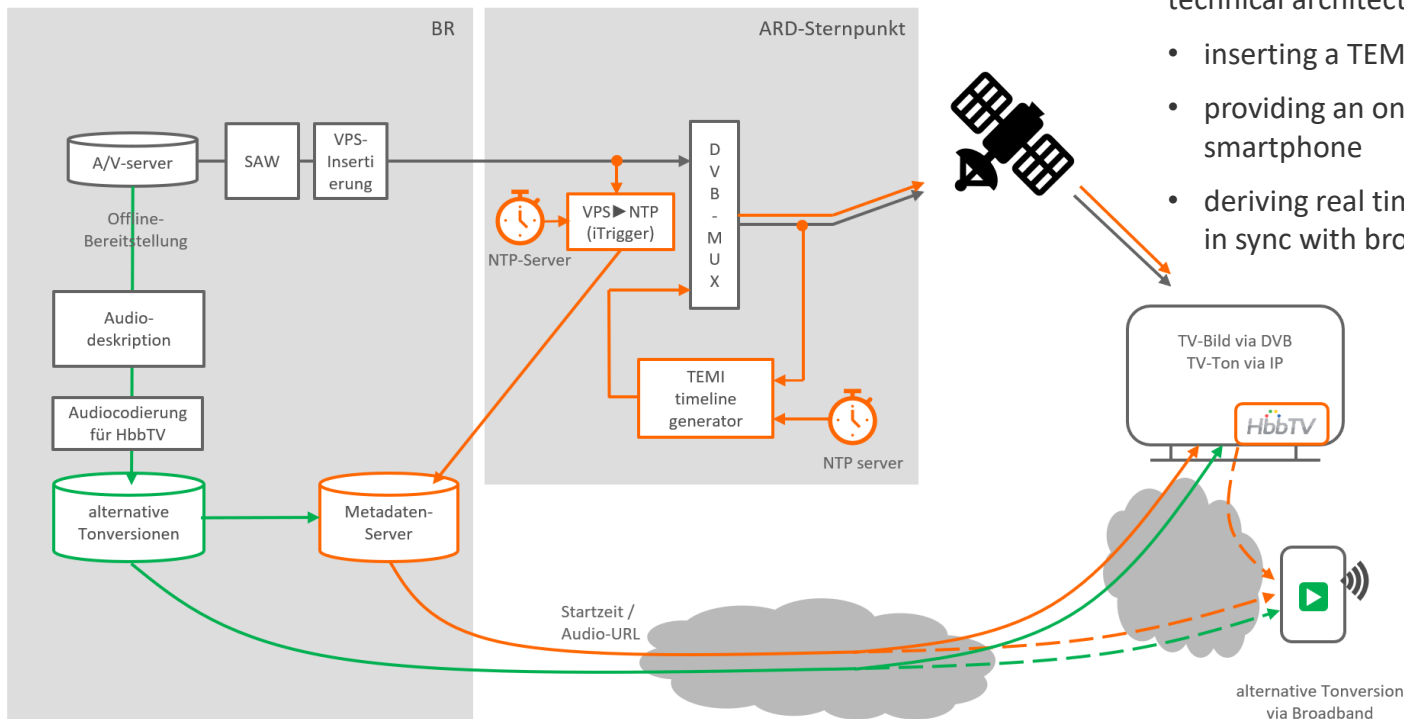
ARD broadcaster BR has launched pilot services delivering in the broadcast context:

- enhanced dialogue audio versions via IP to be played on the TV in sync with the broadcast video
- audio description to be played via a mobile app in sync with the broadcast video for individual use



Enhanced dialogue & audio description via IP

(Pilot operation)



technical architecture for this project

- inserting a TEMI timeline into the DVB mux
- providing an on demand audio for TV and/or smartphone
- deriving real time trigger info to play IP audio in sync with broadcast video

Easy access to enhanced dialogue broadcast audio

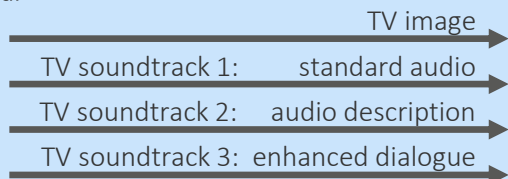
(Currently being implemented)



Enhanced dialogue audio versions via broadcast are not easily accessible on some TV sets.

ARD will add to the settings menu of the HbbTV launcher bar an element that allows to select this audio via a change of the audio track triggered by the HbbTV app.

Broadcast-Signal



GUI symbolic only!

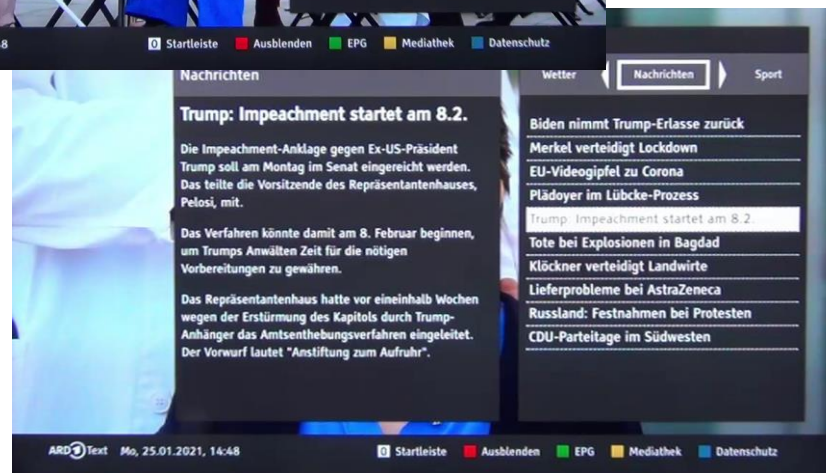


Voice output

(Prototype)

Prototype of the ARD HbbTV teletext service

- allowing full navigation via voice feedback
- top menu as well as headlines are spoken while page is navigated
- voice output reacts very fast on navigation steps
- full news message is spoken when selected



EBU work on accessibility services using HbbTV



The HbbTV & DVB-I Interoperability group* is currently preparing the document

**EBU GUIDELINES FOR DELIVERING
ACCESSIBILITY SERVICES USING HBBTV**
A guide to current practice and future possibilities

Purpose:

help organisations who are considering using HbbTV to provide accessibility services

It offers suggestions for how HbbTV can be used currently to provide the main media accessibility services for those with sensory differences

EBU work on accessibility services using HbbTV



The EBU guidelines for delivering accessibility services using HbbTV focus on

- Optional subtitles (closed captions)
- sign language interpretation (SLI)
- audio description (AD)
- clean audio (sound channel with enhanced sound for the components necessary to follow the content)

The report gives background on accessibility features and related user experience, and describes implementation options based on the currently available tools of the HbbTV toolbox.

Deciding on the optimum system for delivering subtitles can be relatively complex, and a 'decision tree' is suggested in the report that may help.

The first edition of the guidelines will be published later in 2021 – watch tech.ebu.ch for details



Thank you for your attention!

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