

HbbTV V2 Specification

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The HbbTV initiative started in 2008 with activities in France and Germany to define how a web browser in a TV set could be used to add value to broadcast television and enable services linking broadcast and broadband content delivery. The first specification was finalised at the end of 2009. This was based on HTML4, CSS2, DOM2 with video presentation addressed through the <object> element as defined by CEA (for broadband delivered video) and the Open IPTV Forum (for broadcast delivered video). The HbbTV specification was revised during 2011/12 to add support for delivering video via broadband using MPEG DASH but without updating the web specifications forming the basis of the platform.

First implementations of HbbTV appeared in TV sets in 2010 with widespread introduction in products in 2011. Today HbbTV is the de-facto default solution for Hybrid TV in markets and countries where the broadcast system uses DVB technologies. Additionally there is growing interest in adapting HbbTV for markets and countries using other broadcast technologies. (This paper will not provide general information on the market adoption of the HbbTV specification as it is assumed other paper(s) will do that.)

Late in 2012, the HbbTV Association started gathering requirements for a major update to the specification, informally called “HbbTV v2”. By March 2013, this had resulted in an agreed set of 19 features, one of which covered updating the web specifications from the HTML4, CSS2 and DOM2 generation to the more recent HTML5, CSS3 and DOM3 generation as well as a selection of the many specifications around HTML5. Others of the 19 features relate to a variety of second screen scenarios. By the time of the workshop, there should be a complete draft of the specification – somewhat similar to a “last call working draft” stage in the W3C process.

This paper will give an overview of two aspects of the HbbTV v2 specification work most relevant to the W3C and the stated objectives of the workshop.

- Firstly it will describe the selection of web and W3C specifications used by the HbbTV v2 specification and some of the issues encountered while making that selection. It will also identify where HbbTV has found it necessary to define additional constraints or requirements and explain the reasons behind this.
- Secondly it will describe the second screen scenarios addressed in the HbbTV v2 specification and the technical solutions that have been selected and/or developed for these.

The author is Chair of the Specification Working Group in the HbbTV Association. This paper is proposed with permission of the Steering Group of the HbbTV Association and their agreement to disclose HbbTV Association confidential information.