

## DVB-HTML

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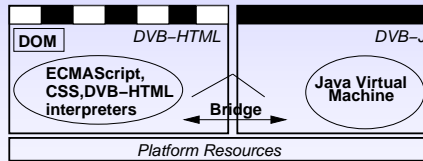
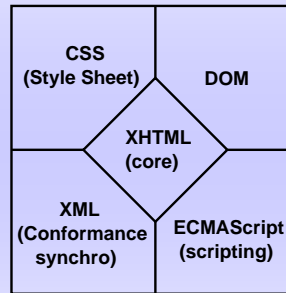
## Outline

- Overview
- Valid Tags: XHTML
- Look: CSS
- Accessing the Tree: DOM
- Relationship with Java

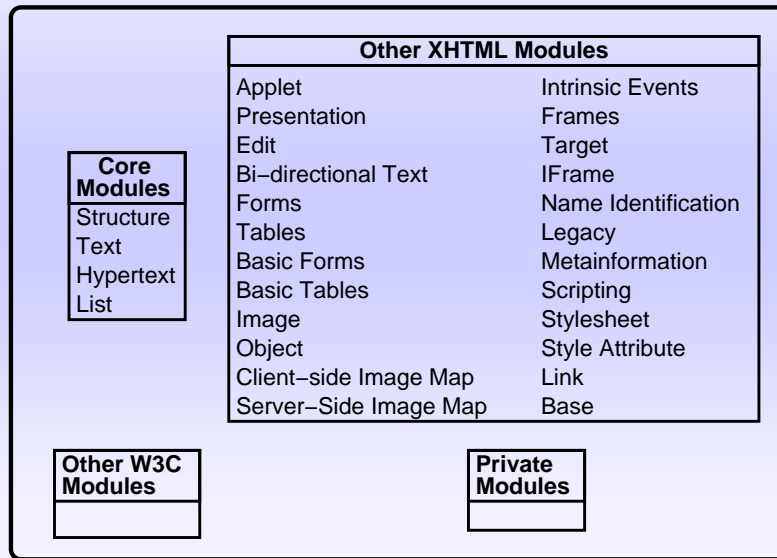
## Overview

### Modularisation of XHTML

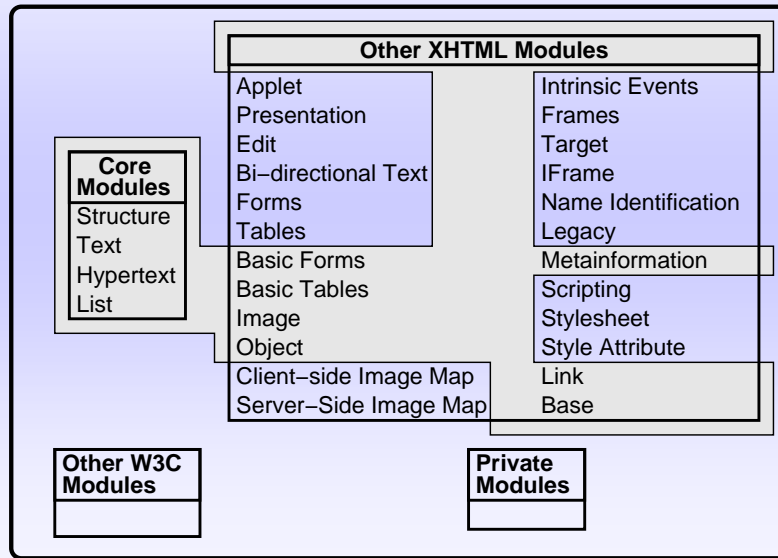
- Superset of XHTML Basic
- Comparable to XHTML 1.1
- CSS Support
  - CSS2 Compatible
  - DVB Extensions
- Media Types Support
  - DVB-J Applications
  - Video and Audio (MPEG-2)
  - ECMAScript
  - Images (png, gif, mpeg)
- DOM
  - Level 2 Modules
  - DVB Extensions



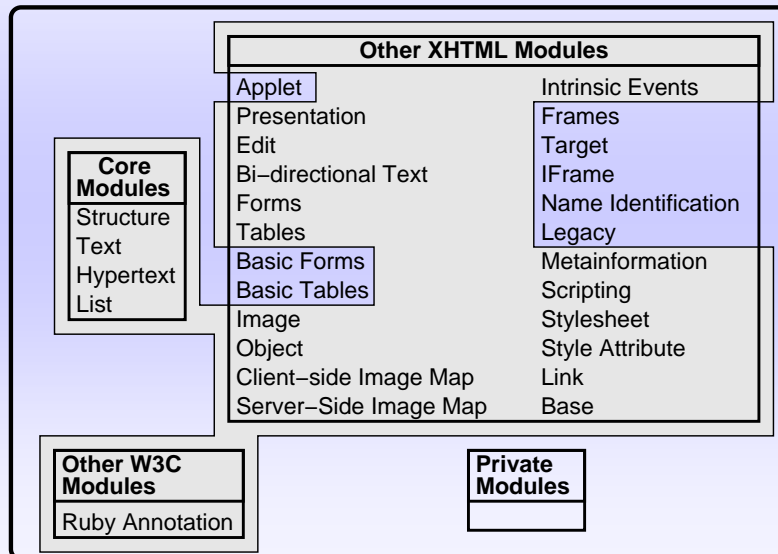
## XHTML Modularisation



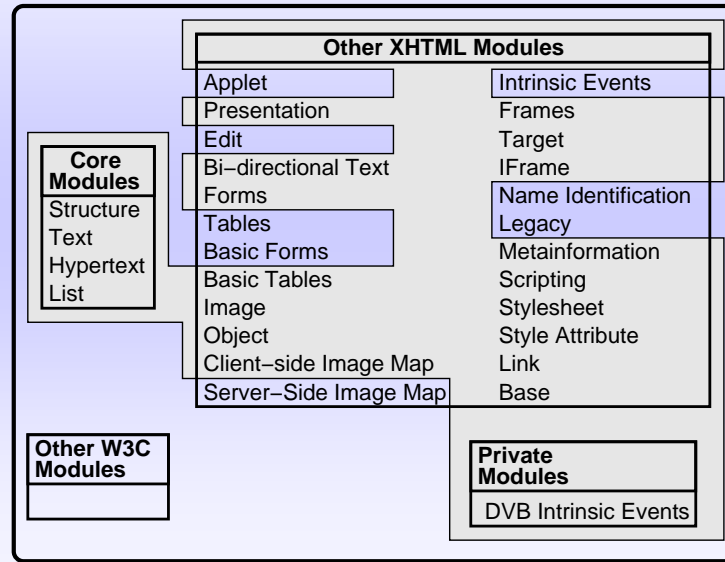
## XHTML Basic



## XHTML 1.1



## DVB-HTML



## CSS

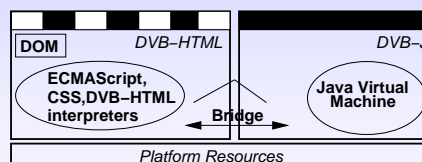
- Compliant with CSS2:
  - Properties: background, border, font, text, table...
  - Layout (all CSS2): absolute positioning, fixed positioning...
  - Selectors (all CSS2): hover, focus, active, lang...
- CSS3:
  - User Interface Module (directional navigation): nav-up, nav-down, nav-left, nav-right
  - Colour Module: opacity (transparency: alpha channel support)
- DVB Extensions:
  - New media-type: "dwb-tv", an extension of screen
  - Compose-rule: how to apply transparency
  - Clip-video: place a video (or a part of it) in a given location
  - Viewport: MHP graphics architecture integration (background + video + applications)

## DOM

- DOM Level 2 Modules
  - Core, Views, Stylesheets
  - HTML not required: does not need to support HTML DTD
- DOM Level 2 Events
  - Events, UIEvents, MutationEvents required
  - HTMLEvents not required
- MHP Extensions
  - DVB-HTML: replacement of DOM Level 2 HTML (DVB-HTML DTD)
  - DVB Events and KeyEvents: binding remote control events and lifecycle, synchronisation with external video files
  - DVB CSS: for CSS Extensions
  - DVB Environment: platform characteristics

## Relationship With Java

- application/dvbj media type
  - Similar to Applet
- EcmaScript
  - Using the bridge
  - Developer can access to MHP packages



## MHP Web Page

**“Is it true that DVB-HTML may be replaced in the future within theMHP1.1 specification by another TV-centric HTML-based language? In the spirit of global harmonization, it has been suggested that DVB-HTML should be modified or replaced by the resulting work of the CableLabs-OpenCable and ATSC-DASE harmonization. The discussions are still ongoing”**

## CENELEC Technical Report

“The most likely candidate [...] is ACAP. ACAP [...] will be made available to DVB in order to for it to evaluate the possible replacement of its DVB-HTML presentation engine in MHP 1.1 specification. It should however be noted that ARIB has also proposed BML specification for consideration in this harmonization process. Therefore, there is insufficient certainty as this point in time to determine whether harmonization efforts with respect presentation engines will actually lead to a positive and useful result within a reasonable amount of time.”

## Cesar's Doctoral Thesis

“As a final conclusion we will like to propose the following questions: What organization should be in charge of defining a standard for the declarative environment, DVB, CableLabs, ATSC, ARIB, W3C, SMPTE? Would not be better if all these groups joins, and harmonize, so the number of defined tags for the same purpose stop increasing unnecessarily?”