

TIZEN™ DEVELOPER CONFERENCE MAY 7-9, 2012



Advanced HTML5 features in Tizen Web Platform

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HTML5 Overview

HTML5 Overview

- HTML5 in the narrow sense
 - The specification titled “HTML5” - HTML & XHTML !
- HTML5 in the wider sense - “Open Web Platform”
 - The HTML5 language as framework
 - CSS2/CSS3, SVG, MathML
 - Additional specialized technologies
 - Storage, threads, fonts, geolocation, ...
- Goal of HTML5 and Open Web Platform
 - Same quality as native applications, but more portable
 - Can run without installation: always latest version
 - Same technology for many different platforms/devices: desktop, mobile, television...
 - The most interoperable platform in the industry



HTML5 Overview

Structure/Semantic Markup + Style



APIs

`<header>`

`<nav>`

`<section id="content">`

`<article>`

`<article>`


`<article>`

`<footer>`




New Markups in HTML5

Legend

 Not supported Markup

- New Markup Elements - for better structure
 - `<article>`, `<aside>`, `<command>`, `<details>`, `<summary>`, `<figure>`, `<figcaption>`, `<footer>`, `<header>`, `<hgroup>`, `<mark>`, `<meter>`, `<nav>`, `<progress>`, `<ruby>`, `<rt>`, `<rp>`, `<section>`, `<time>`
- New Media Elements - for media content
 - `<audio>`, `<video>`, `<source>`, `<embed>`
- The Canvas Element - for drawing
 - `<canvas>`
- New Form Elements and Input type attribute values
 - `<datalist>`, `<keygen>`, `<output>`
 - New input type attribute values: email, url, number, range, date, month, week, time, datetime, datetime-local, search, color, etc

New APIs in HTML5

Legend	
	Not supported API

- Graphics
 - 2D Canvas API, Timing control for script-based animations API
- Multimedia
 - getUserMedia API, **WebRTC API**, **Web Audio API**
- User interactions
 - Touch Event API, Vibration, Web Notifications
- Data Storage
 - Web Storage, File Reader API, File Writer API, File System API, Indexed Database API, WebSQL API
- Personal Information Management
 - **Contacts API**, **Calendar API**
- Sensors and hardware integration
 - Geolocation API, DeviceOrientation Event, Battery Status API, **System Information API**
- Network
 - XHR, Cross-Origin Resource Sharing, Server-Sent Events, WebSocket API, **Network Information API**
- Communication
 - **Messaging API**, HTML5 Web Messaging, **Web Intents**
- Performance & Optimization
 - **Navigation Timing**, **Resource timing**, Page visibility API, Web Workers

HTML5 features supported in Tizen Web Platform

HTML5 features supported in Tizen Web Platform

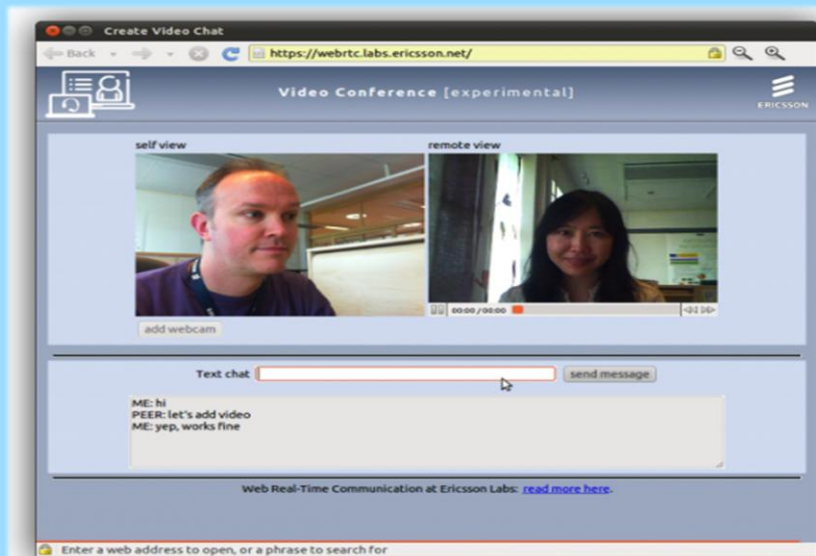
- HTML5TEST.COM
(Total Score: 500)

current			Score	Bonus
Opera Mobile 12.00 »		<i>Multiple platforms</i>	369	11
Firefox Mobile 10 »		<i>Multiple platforms</i>	325	9
iOS 5.1 »		<i>Apple iPhone, iPad and iPod Touch</i>	324	9
MeeGo/Harmattan »		<i>Nokia N9 and N950</i>	284	14
Android 4.0 »		<i>Samsung Galaxy Nexus</i>	273	3
BlackBerry OS 7 »		<i>BlackBerry Bold 9900 and others</i>	273	3
Bada 2.0 »		<i>Samsung Wave and others</i>	268	9
Nokia Belle FP 1 »	S60 5.4	<i>Nokia 603, 700 and 701</i>	226	9
webOS 2.2 »		<i>Palm Pre 2 and HP Pre 3</i>	210	5
Android 2.3 »		<i>Google Nexus S and others</i>	189	1
Windows Phone 7.5 »		<i>Samsung Omnia W, LG E906 and ot...</i>	138	5
development or beta			Score	Bonus
Tizen 1 »			408	15
BlackBerry 10 »			381	10
Chrome Beta »		<i>All Android 4 devices</i>	364	10
Firefox Mobile 12 »		<i>Multiple platforms</i>	328	9
Windows Phone 8 »			300	6
Nokia Belle FP 2 »	S60 5.5		256	9

⟨Source: <http://html5test.com/results/mobile.html> ⟩

Advanced HTML5 features

- WebRTC(Web Real-Time Communication)
 - Provides video conferencing feature base on the P2P
 - Core features consist of getUserMedia, Media Stream and P2P



Advanced HTML5 features

- getUserMedia feature of Tizen Web Platform
 - Face detection and recognition, Bar code recognition, AR, and etc



< 3D Ping Pong Game >



< You So Pretty >

<Source: <http://updates.html5rocks.com/2012/04/WebRTC-Protothon>>

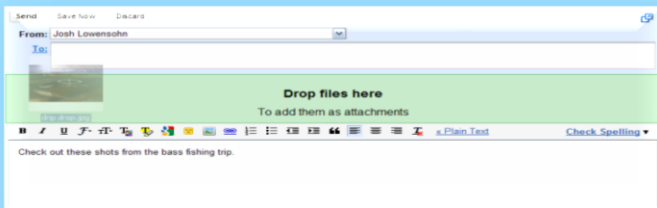
- getUserMedia + record feature of Tizen Web Platform
 - TalkingTom, Voice/Video recording, and etc

Demos in Tizen Web Platform

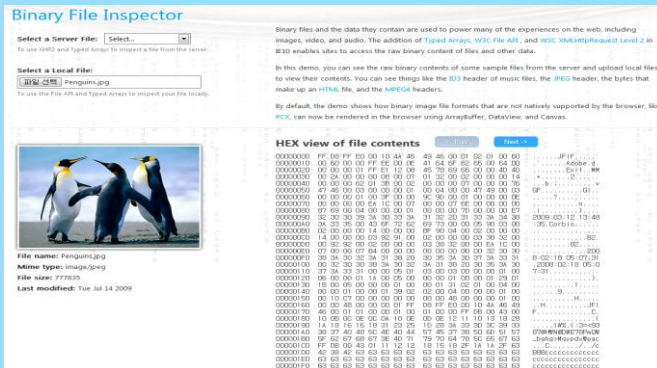
- record API demo of WebRTC
- P2P demo of WebRTC

Advanced HTML5 features

- File APIs (File Reader, Writer, Directories and System)



< File drag and drop in mail web app >



< File analysis or reading metadata >



< Saving a file in image editor web app >

Advanced HTML5 features

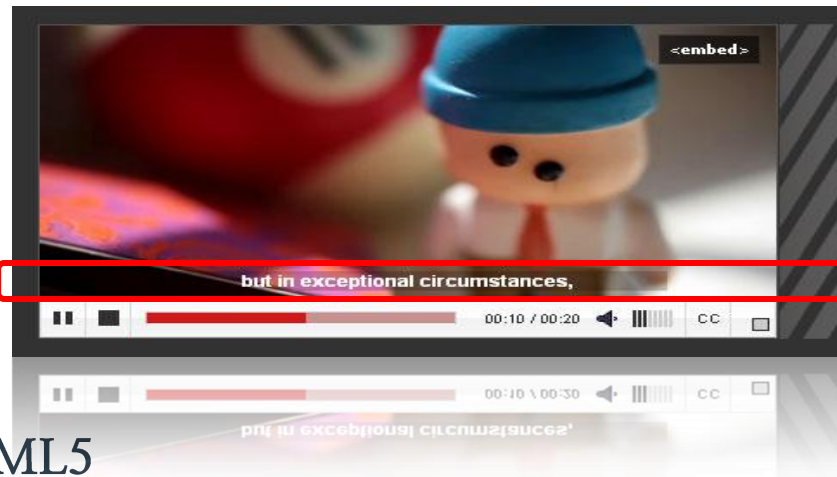
- Device APIs
 - Vibration API
 - As a notification in a game or other use case
 - Battery Status API
 - Web-based email client
 - Network Info
 - Adaptive streaming web apps



Upcoming HTML5 features for Tizen Web Platform

HTML5TEST.COM compatibility

- HTML5 Video <track>
 - Supporting subtitle, caption, extra
- HTML5 Microdata
 - Supporting semantic annotation in HTML5
- HTML5 Forms
 - Supporting advanced form features



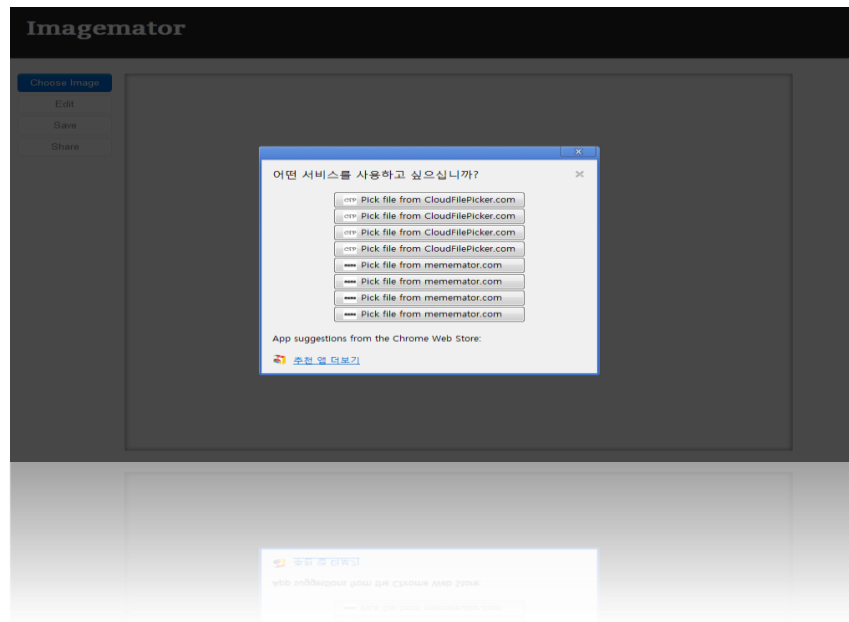
Ringmark compatibility

- W3C Core Mobile Web Platform CG(Community Group)
- Ringmark test suites
 - R0 has passed, but R1 had 20 fails



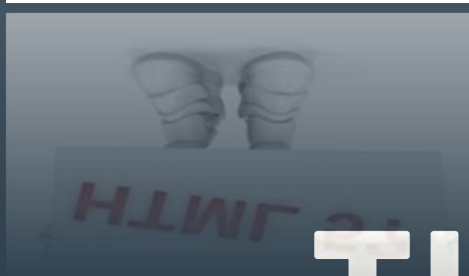
Web Intents

- Web Intents
 - is a framework for client-side service discovery and inter-application communication



Other features

- HTML Media Capture
 - supporting a capture attribute for launching camera native app
- Screen orientation lock
 - For HTML5 game app



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