

## NetFront™ HTML5 Platforms for Automotive

High performance HTML5 engines enabling a standards based solution for delivery of HMI, services and applications

ACCESS provides the automotive market with the broadest range of commercially supported HTML5 platforms, enabling OEMs and suppliers to deploy full featured, flexible HTML5 based browser solutions. ACCESS provides IVI solution providers with the choice of WebKit or Chromium Blink.



ACCESS' NetFront™ Browser portfolio offers advanced HTML5 support, providing OEMs with a powerful and flexible platform to provide In-Vehicle Infotainment (IVI) systems. Driven by consumer's expectations based on smartphones the expectations for the in-vehicle experience is that it is a connected and interactive experience. This means that the fixed functionality IVI platforms of the past are no longer enough for drivers. In order to achieve this, leveraging standards based HTML5 technology enables the development of in-vehicle HMI applications, application stores and internet/cloud delivered applications and content. This enables OEMs to deliver platforms with the car that can be dynamically enhanced by apps long after the vehicle has been sold. HTML5 also provides the ability to develop highly portable and reusable applications leading to lower development and maintenance costs for OEMs as functionality can be reused between models and brands.

## **The ACCESS Approach**

Commercially supported WebKit and Chromium Blink based browser engines, along with world class support and engineering services means that ACCESS offers choice and security to OEMs and IVI platform developers. ACCESS NetFront Browser HTML5 solutions help IVI system developers by leveraging a wide experience of successfully delivering to the embedded browser, CE equipment and automotive markets. Partnering with ACCESS brings the technology and know-how needed for any automotive integration project and ensures a successful deployment of the chosen HTML5 service platform. ACCESS addresses real world shortcomings which affect open source browser platforms to ensure they are applicable to vehicle IVI platforms. By providing robust and reliable solutions with high stability and market leading performance on embedded platforms ACCESS helps reduce time to market and risk. Support, maintenance and engineering services help throughout the integration and deployment phases of the project.

## **HTML5 Standards and Platform Support**

ACCESS HTML5 platforms for automotive deliver support for core HTML5, CSS3 and JavaScript and a choice for Tier1s and OEMs based on the target platform. ACCESS is a member of GENIVI, regularly demonstrating at the member's showcase events and is actively reviewing the evolving W3C Vehicle Information API. Additionally, ACCESS offers support for worldwide Digital Television (DTV) standards and specifications, including HbbTV (1.5 & 2.0.1), BML and Hybridcast / ARIB STD-B62/TR-B39 (2nd generation digital broadcasting). Support for online platforms delivered as OTT services, such as YouTube, make NetFront™ browsers an ideal solution for connected automotive infotainment systems as vehicle connectivity improves.

A key additional value of ACCESS solutions for the automotive industry is support for external media players via both Chromium Blink and WebKit . This enables the HTML5 platform to leverage industry standard media player solutions using standard web technologies.

NetFront™ browser solutions are provided as a Software Development Kit (SDK) which is embedded into the IVI solution architecture. The SDK approach provides the IVI platform developer maximum flexibility to integrate HTML5 capabilities within their platform to ensure the best presentation of the Human-Machine Interface (HMI), in-car services or downloaded apps for extended functionality. ACCESS solutions provide support for key automotive operating system platforms such as QNX and Linux.

## **High Performance**

ACCESS engineers its HTML5 solutions to take advantage of platform and hardware capabilities, supporting OpenGL ES and industry standard media playback solutions. This enables delivery of market leading performance, with fully supported and maintained APIs rather than project specific changes that lead to increased ongoing maintenance costs.

## Support

NetFront™ Browser is a commercially provided and supported comprehensive solution that includes documentation and world class engineering support. ACCESS also provides professional services to tailor and optimize the solution for a particular device or environment and to ensure the success of the customer's automotive projects.

## The Power of One Billion

NetFront™ Browser solutions leverage ACCESS' market-proven experience in embedded and CE platforms to enhance open source browser technologies, being successfully deployed in over 1.5 billion devices throughout the world.

## Key Features and Benefits

- Choice of HTML5 engine : Chromium Blink or WebKit
- Advanced HTML5 features including Canvas 2D, Web Workers, Web Storage, CORS, Audio/Video tags, etc.
- WebGL, extending Java-Script™ to enable interactive 3D graphics
- CSS3 including Animations, 3D Transforms, Transitions and Media Queries
- Supports leading DTV technologies incl. CE-HTML, HbbTV, BML, Hybridcast and YouTube on TV
- Predictable memory usage to avoid platform memory fragmentation issues
- Highly portable with platform-agnostic porting APIs
- Open source enhanced with experience and technologies deployed in over 1.5 billion devices

## Specifications

### Markup & Style Sheets

- HTML5 (Audio/Video tags, Canvas, Web Workers, Web Storage, etc.)
- HTML 4.01, XHTML 1.1, XHTML Basic 1.1, CE-HTML, XML 1.1
- CSS1, CSS2, CSS3 (Media Queries, Animations, Transforms, Transitions, etc.)

### Security

- TLS1.2, NSS
- Configurable digital certificates

### Browser SDK Features

- Embeddable HTML library

- Configurable dynamic memory usage
- Cookie & Cache Management
- Tabbed browsing support
- Page history
- Configurable error pages

## **Supported CPU Architectures**

- TI OMAP, Renesas R-Car, Intel/x86, Freescale i.MX, ARM®, MIPS, SH

## **Device Classes**

- Automobile Infotainment Systems
- Connected TVs & STBs
- PVRs / DVRs
- Game Consoles
- HDMI sticks
- Internet-capable Media Players

## **Memory Usage**

- Code Size (uncompressed):  
WebKit 40MBytes  
Chromium 90MBytes
- RAM Size: recommended:  
WebKit: 128Mbytes+  
Chromium 256Mbytes+ (single tab)

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## **Related downloads**

[Product brochure](#) (PDF, 289 kB)

ACCESS [HTML5 White Paper](#)

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*Experts from ACCESS Europe discuss the next generation of in-car experiences*

## FREE WEBINAR ON DEMAND



Learn how to [secure in-car services with ACCESS and Irdeto](#)

## Automotive IoT whitepaper



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## Related products for Connected cars

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