

The QNX Aviage HMI Player for Adobe Flash Lite 3

Embeddable player (including audio, Flash video, and network communications) for running Flash applications while preserving realtime performance and reliability

Solution highlights

- ▶ Support for local and network-capable Flash content as well as video playback (FLV)
- ▶ Support for mixed-mode graphical environments — both Flash-based and native 2D and 3D graphics (such as OpenGL ES)
- ▶ Adobe Acceptance Test Suite (ATS) certification
- ▶ Support for a wide range of embedded silicon, including ARM, PowerPC, SH-4, and x86
- ▶ Optimization for low overhead and optimal memory usage
- ▶ Support for numerous input models and local font rendering
- ▶ Future-readiness with support for extendable application frameworks
- ▶ Based on the QNX Advanced Graphics framework (GF), which allows software developers to implement entire UIs in Adobe Flash

Fast time to market

Leap directly from graphical prototype to final product without HMI re-coding. Test entire HMIs on a desktop and then run the same content on embedded targets without re-engineering.

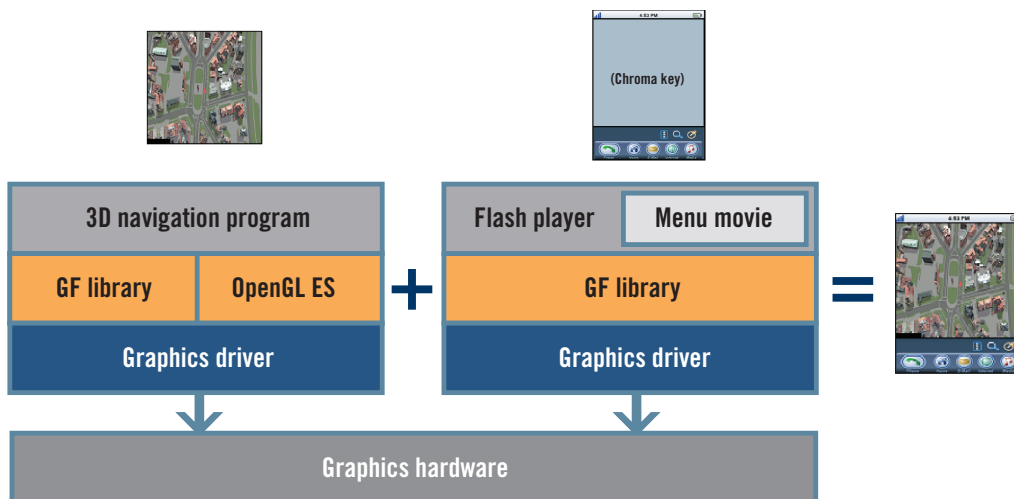
Large base of developers and content

Capitalize on the millions of Flash developers and designers along with the thousands of Flash components and source examples available today ... and immediately apply this expertise to your production HMIs.

Distributed HMIs

Build seamless distributed HMIs that can manage content (both control and data) across a network. For example, any networked device — be it a mobile phone, QNX-based TV remote, etc — can control a multimedia server using the same Flash content.

Seamlessly integrate various graphics technologies



Flash excels as a screen manager — use it as the main environment to launch and control menu transitions and audio effects as well as other graphical applications including OpenGL ES programs.

Supported features

Programming features support

- Flash 8 or earlier, ActionScript v 1.0, 2.0
- Interruptible/re-entrant player
- Dynamic loading of SWF data
- XML sockets
- XML parsing, string/array/XML-to-native-objects conversion
- ActionScript strict mode
- Set/clear interval
- Shape-drawing API
- Data storage

Sound support

- PCM and ADPCM, embedded MP3

Image and video support

- PNG, JPEG, GIF, BMP, SGI, TGA, animated GIF
- Flash video (FLV) using On2 codec in addition to Sorenson codec

Multimedia support

- Dynamic loading of multimedia files using external codec support (e.g. JPEG)

Text support

- UTF-8 character set
- Latin1, Latin2, Latin4, Cyrillic, Greek, Turkish, Big5 (Chinese), GBK (Chinese), ShiftJIS (Japanese), KoreanUHC
- Dynamic text
- Device-specific vector fonts
- Improved small text readability, text measurement, text wrap
- Inline text input, English only. Other languages supported through external input engines

Flash Lite features

- Access to device-specific features (such as volume, backlight) through private messaging services
- Reduced runtime memory consumption
- Graceful handling of out-of-memory conditions
- Runaway script limit, ActionScript slicing

Other features

- Dynamic memory handling
- Device-specific capabilities: Ability to query information about current environment
- Flash metadata
- Various input models: Mouse, stylus, keyboard
- Background transparency
- Object model (for components)
- Improved event model, scriptable masks
- SWF file compression
- Dynamic discovery of device features
- ActionScript exception handling
- Web services and SOAP API
- New preloader API, progressive download
- Enhanced local file security, persistent storage

System requirements

- Typical Flash player size (core player + renderer DLL): 800K code
- Recommended minimum RAM: 2MB for standalone content, more for video
- Content size-to-heap ratio: 1 to 15
- Supported graphics chip with color depth of one of the following: ARGB8888, RGB565, ARGB1555

Certification

- Flash player binary is certifiable via open or closed certification
- Certification level must be chosen and processes completed before start of production

Foundry27

This community portal for QNX software developers provides source repositories, forums, blogs, wikis, and, in the community spirit, a bazaar that lets developers share source code and binaries with one another. Whether the developer wants to download source, discuss ideas with fellow developers, or even create a new code project for the QNX community, Foundry27 offers the resources required.

About QNX Software Systems

QNX Software Systems, a Harman International company (NYSE: HAR), is the leading global provider of innovative embedded technologies including middleware, development tools, and operating systems. Corporations such as Cisco, Daimler, General Electric, Lockheed Martin, and Logitech depend on QNX technology for a wide range of mission-critical applications.

