

The lalaPlayer Engine connects to digital media sources, manages the media content, plays a variety of digital formats and streams all seamlessly to the user. Consumer products using this engine can operate as stand-alone products without a PC or external devices.

The heart of the lalaPlayer Engine is a UPnP Client/Server, and the software application runs on a variety of embedded small footprint CPU boards as well as on all popular PC platforms.

The basic package includes intuitive browsing interfaces for portable digital music (USB MP3 players). Music from the Internet (on-demand and free Internet radio services) without any PC proxy, automatically detects and connects to music on the network (UPnP/DLNA music servers or PCs).

An advanced API layer allows ease of use and remote operation. A rich library of interfaces and drivers allows building a variety of consumer electronics products. All the hardware drivers and interfaces and a complete user interface solution for graphic LCD displays are included in the basic package.

The lalaPlayer incorporates enhanced network functionality, including authentication, security, smart network configuration and wireless operation. It does not require complex set-up and configuration.



lalaPlayer Engine internal architecture



The lalaPlayer Engine runs on variety of embedded small footprint CPU boards as well as on all popular PC and Linux platforms. The image shows the lalaCore 32bit SBC.





- By choosing the lalaPlayer Engine as the foundation of your next generation music delivery system, you can shorten time to market and free up internal development resources to focus on delivering the user experience that your customers demand.
- The lalaPlayer Engine allows you to build products that combines advanced features like interfacing to portable digital music players, streaming Internet media, and automatic software updates with clear, simple user interfaces using the input methods of a traditional radio or a remote control device.
- Available as a completely integrated solution with the lalaCore hardware or as a customized version on a variety of embedded small footprint CPU boards and customized user interfaces.











Features

Digital audio quality Intelligent user interface with graphic display Friendly navigation of Tracks/Albums/Artist/Genre/ Playlists Favorite library across all sources Multiple control interfaces (IR, Network API, and front panel) Automatically detect USB and media content sources Multipoint to multipoint distribution Direct access to the Internet (no PC needed) Wire/WiFi network modes Auto network mode detection Static/DHCP network configuration Authentication Security (128 bit key) AM/FM tuner control (I2C) Volume and tone control Clock automatically adjusts from the Internet Alarm clock can wake up from any source.

Content Modules

IalaPlayer IalaServer (Iala1000) IalaDock UPnP and DLNA servers Rhapsody on-demand service RadioTime Internet Radio Shoutcast iPod

Hardware Platforms

Reciva

IalaCore (Cirrus Logic EP9302) Freescale MX21 Marvell PXA270 Intel X86 Arkados Al-1100 Powerline

Operating Systems

ARM-9 Linux 2.4 and 2.6 Windows Linux Fedora and Ubuntu

uC/OS

API Commands Summary

Player commands: Play, Pause, Next, Prev., Up, Down, Volup, Voldn, Select, On, Off, Radio, Rhapsody, iPod, USB, Favorite, Clock, Alarm, Tone, Random, Repeat, Sleep,

Network commands: Static IP, DHCP, IP Address, Network Mask, Gateway IP, Ad-hoc, Infrastructure, Channel, ESSID, WEP key

System commands: Restore, Restart, Upgrade, Upload, Help

Advanced commands: Stop, Read/Write to display, Get/ Select media servers, sources, library items, contents, metadata and more.

Hardware Drivers

Ethernet WiFi Graphics LCD Digital Audio (I2S) AM/FM Tuner (I2C) IR (Infrared)

Open Sources Credits

libusb	libjpeg
samba	openssl
lirc	ffmpeg
zd1211	libmad
libsqlite3	



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