

# ACCESS Linux Platform Developer FAQ

For developers new to PalmSource and Palm OS®

PalmSource, Inc., a wholly owned subsidiary of ACCESS CO., LTD. is the company behind Palm OS, a leading operating system powering mobile devices and phones. PalmSource, acquired by ACCESS in 2005, is now developing the ACCESS Linux Platform (ALP)—a fully integrated Linux-based platform for smartphones and mobile devices.

The mobile Linux market is expected to grow from shipments of 3.5 million in 2005 to 28.1 million by 2010, according to the industry analyst firm Informa\*. This new mobile Linux market should open new opportunities for Linux third-party developers. ALP will incorporate many open source components including GTK and GStreamer. In addition, ALP will support a wide variety of third-party Linux applications and services.

## For Palm OS Developers

The ACCESS Linux Platform will include a Palm OS compatibility layer, currently known as GHost (Garnet Host). It is expected that properly written 68K Palm OS applications will run on ALP-based devices with little or no modification.

Following is an FAQ for any developer interested in learning more about developing for ALP:

**Q. What is the ACCESS Linux Platform?**

A. The ACCESS Linux Platform, or ALP, is a fully integrated, open, flexible and commercial-grade Linux-based solution tailored for smartphones and mobile devices. ALP combines open source components with proprietary technologies from both PalmSource and ACCESS.

**Q. Which Linux kernel does ALP use?**

A. ALP is implemented on a standard version 2.6.12 (and above) kernel. ALP is designed to be kernel agnostic, and does not rely on unique features of any specific Linux distribution. We intend to provide a reference kernel implementation, and expect licensees to integrate their kernel of choice to better accommodate hardware designs, silicon selection and other business arrangements.

**Q. Which open source components does ALP include?**

A. Example of some of the open source components of ALP include:

- Standard, commercial-grade Linux kernel - version 2.6.12 and above
- Optimized implementation of GIMP ToolKit (GTK+)
- GStreamer
- SQLite

**Q. When will the toolset be available to create applications for ALP?**

A. We plan to make an SDK and other tools available to developers in the first half of 2007.

**Q. Will there be a charge for this SDK?**

A. There is no charge. To obtain the SDK and tools, developers just need to register with our ACCESS Developer Network. Information can be found on our web site, [www.palmsource.com](http://www.palmsource.com).

**Q. What tools will you be providing?**

A. We plan to deliver a complete set of tools for developing applications on ALP, including the open source Eclipse IDE, Glade user interface builder, gcc compilers, gdb debuggers, plus extensions to optimize these tools for ALP.

**Q. Since ALP includes a number of open source components; will you support a variety of programming languages such as Python?**

A. We are in the process of evaluating a number of toolsets and will provide any updated information once decisions are made.

**Q. Are there any other components included in ALP that developers can utilize?**

A. Yes, ALP includes a number of components from both PalmSource and ACCESS. In addition, we have developed MAX (Mobile Application eXperience), a new UI infrastructure and style designed for enhanced usability with a five-way navigation button, with or without a touch screen. MAX has been designed to help overcome the disorientation common to mobile UX (e.g., tunneling menus).

**Q. What are the features of MAX?**

A. The GUI API in MAX is an optimized version of the Gimp Toolkit (known as GTK+) for embedded devices. This is the same GUI toolset that powers the GNOME desktop user interface in many Linux distributions such as RedHat, Ubuntu and SUSE. Therefore, it is possible that many GTK applications can be ported to ALP. Depending on how it is implemented, MAX can float above a "normal" application, or an application could be written completely in the MAX world and style. MAX has been designed to help overcome the disorientation common to many mobile UXs (e.g., tunneling menus).

The primary features of MAX include:

- Optimized widgets for smartphones and wireless handhelds
- Support for one-handed interaction model via 5-way navigation & 2 dedicated keys
- Support for two-handed interaction model with a more traditional Palm OS® look-and-feel (touch-screen and stylus.)
- Improved support for multitasking applications (e.g., play music while browsing)·Manages interruptions (e.g., receive call while checking calendar)
- Enables access to background tasks from any screen (through the use of "access panels")
- Provides background activity awareness to the user
- Provides predictable navigation model and a globally available "BACK" button

**Q. Which technologies from PalmSource and ACCESS does ALP include?**

A. From PalmSource, ALP presently will include:

- Messaging and telephony middleware
- MAX Application Framework
- A suite of commercial grade mobile applications including telephony, messaging, PIMs, multimedia

From ACCESS, ALP presently will include:

- NetFront™ browser engine and associated technologies
- JV-Lite2 Java virtual machine
- JSR implementations

**Q. Are you making any modifications to any of the open source components included in ALP?**

A. Yes. Any changes and enhancements that we make to Linux open source components will be subject to the appropriate licenses (GPL or LGPL) and we will be making those changes and enhancements public according to these licenses requirements.

**Q. Will existing Palm OS® applications run on ALP?**

A. ALP includes GHost (Garnet Host) a Palm OS compatibility layer. It is expected that properly written 68K based Palm OS applications will run on ALP-based devices.

**Q. What is GHost?**

A. Ghost is a Palm OS compatibility layer. It is expected that properly written 68K based Palm OS applications will run without modification on ALP-based devices.

**Q. Does the incorporation of SQLite at the OS level mean that the current Data Manager is going away?**

A. Applications can still use Data Manager, the file system, VFS and/or SQLite. All are layered on top of a standard file system.

**Q. Will native mode ALP programs be using any Palm OS API's?**

A. Our objective is to avoid having redundant APIs in the system.

**Q. Will you be providing a complete list of existing APIs that will or won't be included in ALP?**

A. Public APIs will be documented in the ALP SDK.

**Q. Will there be a way to port existing Palm OS applications to ALP?**

A. We intend to provide a porting guide and toolset to help facilitate the transition.

**Q. If I want to learn more about developing applications utilizing the open source components in ALP, where would I find information?**

A. There are a number of resources, including:

GNU GCC compiler toolset: <http://gcc.gnu.org>  
 Eclipse: <http://www.eclipse.org>  
 GTK development libraries: <http://www.gtk.org>

We also recommend you check out what a number of mobile Linux organizations are working on:

CE Linux Forum: [www.celinuxforum.org](http://www.celinuxforum.org)  
 LiPS Forum: <http://www.lipsforum.org/>  
 OSDL and the OSDL Mobile Linux Initiative: [www.osdl.org](http://www.osdl.org)

\* Informa Telecom & Media "Future Mobile Handsets 7th Edition" Report, October 2005

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