

Sun Java™ Wireless Client

Version 1.1.2 for the Java™ 2 Platform, Micro Edition



Key feature highlights

- Performance-tuned, deployment-ready implementation of the Java™ Technology for the Wireless Industry (JSR 185) specification
- Improved GUI:
 - Portability through adaptive user interface technology
 - Skinnable user interface for easier device customization and branding
- High performance from tight integration with Connected Limited Device Configuration (CLDC) HotSpot™ Implementation 1.1.2
- Reduced time to market through the use of a revolutionary modular architecture
- Well-defined porting layer for portability and integration with native platform software
- New integrated, pretested, optimized Java 2 Platform, Micro Edition (J2ME™) optional packages:
 - J2ME Web Services APIs (JSR 172)
 - Security and Trust Services APIs for J2ME (JSR 177)

Users have rapidly adopted mobile devices based on Java™ 2 Platform, Micro Edition (J2ME™) technology. For faster, easier development of more sophisticated applications, the Java Technology for the Wireless Industry (JTWI) specification, developed under Java Specification Request (JSR) 185, will form the common core for most new Java platform wireless handsets.

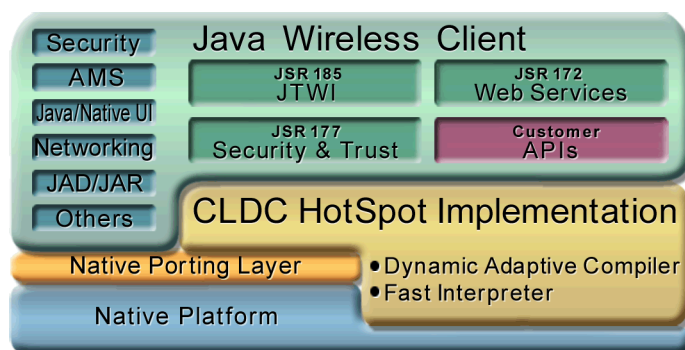
As more sophisticated applications become available, users demand better usability and performance. To meet market demands, manufacturers and wireless carriers need to improve deployment efficiency, reduce costs, and accelerate time to market. The Sun Java Wireless Client is the solution. It is the new and enhanced version of the Java Technology for Smartphones HotSpot™ Implementation.

The Java Wireless Client is a high-performance, feature-rich, deployment-ready implementation of the JTWI specification. It was designed from the ground up to reduce porting and deployment costs. In addition to being JTWI-compliant, the Java Wireless Client is integrated with, pretested with, and optimized for the following J2ME optional packages:

- J2ME Web Services APIs (JSR 172)
- Security and Trust Services APIs for J2ME (JSR 177)

Superior Performance and Start Up

Successful devices rely on superior user response time, which is driven largely by the performance of the Java virtual machine. Another important performance metric is the time a user has to wait for an application to start (application start-up time). The Java Wireless Client has excellent user responsiveness and application start-up time. It is pretested and optimized to take advantage of Sun's industry-leading Connected Limited Device Configuration (CLDC) HotSpot Implementation 1.1.2.



Sun Java™ Wireless Client

Easier Porting — Better Time to Market

Two features of the Java Wireless Client make it easier to port, reducing time to market for device manufacturers. The first is adaptive user interface technology, and the second is a combination of modularity and a well-defined porting layer, which eases integration with native platform software.

Adaptive User Interface Technology:

Portable, Customizable, Brandable Interfaces

Matching the Mobile Information Device Profile (MIDP) graphical user interface (GUI) to native device software can be one of the most expensive steps in porting MIDP. This cost can increase significantly when there are multiple devices, different looks (different *skins*), and unique customer requirements.

To significantly reduce the costs of porting MIDP GUIs, the Java Wireless Client introduces adaptive user interface technology. Adaptive user interface technology allows the GUI to support multiple skins. Each skin is created at device build time.

Adaptive user interface technology is composed of two components:

- A MIDP-compliant set of LCDUI widgets written in the Java programming language
- A set of images for each widget to define its skin

In parallel with the rest of the port, a specific skin can be created by developing a set of skin images. The images are linked into the MIDP build time.

Adaptive user interface technology significantly reduces GUI-related porting costs with its flexible design. It ensures that the device meets manufacturers' and customers' requirements in a very short amount of time.

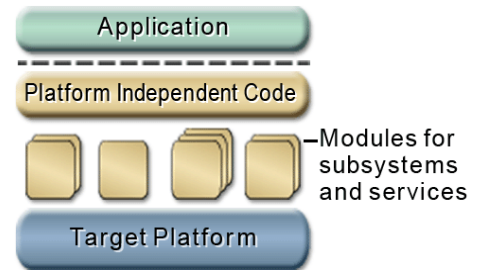
Improved Portability Through Modularity

In software, performance and portability are often in conflict. Modularity reconciles these goals. It provides flexibility in a world in which mobile devices have different operating systems, system-level architectures, graphics, and multimedia characteristics.

A module is an implementation of a piece of functionality, optimized for a particular platform. Modules are independent of each other. Each one has a well-defined porting layer so that it is easier to create or update.

Modules have the following advantages:

- *Reusable in new devices with similar characteristics and modularity* — To put the Java Wireless Client on a particular platform, the most suitable modules are integrated and the others are set aside.
- *Control of runtime overhead and footprint* — Unused modules are compiled out. They do not take runtime resources or footprint, making room for more product features.
- *Reduced costs* — Modules are integrated, updated, and replaced separately.
- *Flexibility* — Features are chosen and the corresponding modules created. The easier device differentiation means specific market and user needs can more readily be addressed.



For More Information

- To read the CLDC HotSpot Implementation Virtual Machine white paper, visit java.sun.com/j2me/docs.
- To learn more about the JTWI specification, visit java.sun.com/products/jtwi.
- To read the full text of the JTWI JSR, visit jcp.org/jsr/detail/185.jsp.
- For more information on the J2ME platform, visit java.sun.com/j2me.

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