

Oracle® Java Micro Edition Software Development Kit

Release Notes

Release 8.2

E49310-04

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What's New in This Release

The following items are new in the Oracle Java ME SDK 8.2 release:

- Support for Java ME Embedded 8.2
- Support for Linux/x86
- User experience enhancements when working with external devices
- To adhere to Oracle security recommendations, Java ME Embedded 8.2 no longer supports SSLv3

Installation Prerequisites

The Oracle Java ME SDK 8.2 product has three distinct components:

- The Oracle Java ME SDK 8.2 base platform, which includes the runtimes (virtual machines), emulators, libraries, and more.
- A supported IDE, such as NetBeans 8.0.2 or Eclipse 4.5 (installed separately).
- Oracle Java ME SDK 8.2 plugins for NetBeans IDE 8.0.2 and Eclipse IDE 4.5. The plugins extend NetBeans and Eclipse so that you can seamlessly access the Oracle Java ME SDK 8.2 features and utilities from the IDE.

Note: NetBeans IDE 8.0.2 or Eclipse IDE 4.5 must run with JDK 8u40 or higher in order to work with Oracle Java ME SDK 8.2 plugins.

Supported Platforms

The minimum system configuration for working with Oracle Java ME SDK 8.2 is:

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- Microsoft Windows 7 (32-bit or 64-bit) with recent service packs; Linux (Ubuntu 14.04.1 LTS 64 bit).
- Java Platform, Standard Edition Software Development Kit (JDK) release 8 with latest updates.
- NetBeans IDE 8.0.2 or Eclipse IDE 4.5 with all the latest patches installed. You can download the latest versions at:
 - <https://netbeans.org/downloads/>
 - <https://www.eclipse.org/downloads/>

Oracle Java ME SDK 8.2 Plugins

Plugins make Oracle Java ME SDK 8.2 platform features available in NetBeans IDE 8.0.2 or Eclipse IDE 4.5. Plugins are delivered in two bundles:

- **Java ME SDK Tools:** This bundle is required.
- **Java ME SDK Demos:** This bundle is optional, but useful for getting started quickly. The documentation refers to the demos to illustrate features.

For more information on installing the Oracle Java ME SDK 8.2 plugins, see the *Oracle Java Micro Edition Software Development Kit Developer's Guide*.

Note: The samples do not implement security measures. The "[Installation and Runtime Security Guidelines](#)" suggests how to maintain an environment in which sample code can be run safely.

Known Java ME SDK Issues

The following bugs are known to directly affect Oracle Java ME SDK 8.2:

MEEP media related packages and JSR177 APDU package are not supported on Linux platform

Release 8.2 does not support `javax.microedition.media`, `javax.microedition.media.control`, and `javax.microedition.apdu` packages on Linux platform.

Installation of 32-bit support libraries on 64-bit Linux machines is required to run Java ME SDK

E.g., to install 32-bit support libraries on Ubuntu 14.0.4, perform the following commands:

1. `sudo dpkg --add-architecture i386`
2. `sudo apt-get update`
3. `sudo apt-get install libc6:i386 libncurses5:i386 libstdc++6:i386`
4. Reboot the machine.

On Windows platform, Java ME SDK does not install if the path to the destination folder or the user profile folder contains non-ASCII characters

The installer is not able to load certain files that are located on a path with non-ASCII characters if the language for non-Unicode programs is set to a locale other than the one used for that path. For example, if the destination folder where you want to install Java ME SDK or the user profile folder contains Russian characters, the language for

non-Unicode programs must be set to Russian locale. This will not happen if you use only ASCII characters in your paths.

However, if you need to have non-ASCII characters, you can manage the language for non-Unicode programs in Windows as follows:

1. Open the Control Panel, select **Clock, Language, and Region**, and then select **Region and Language**.
2. Open the **Administrative** tab and check the **Language for non-Unicode programs** section.
3. Click **Change system locale** and select the locale that is used in your paths.
4. Click **OK** and then **Apply**.

Only Eclipse rendered by GTK2 is currently supported

For more information about running Eclipse IDE on top of GTK2, see the *Oracle Java Micro Edition Software Development Kit Developer's Guide*.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Installation and Runtime Security Guidelines

Oracle Java ME SDK 8.2 requires an execution model that makes certain networked resources available for emulator execution. These required resources might include, but are not limited to, a variety of communication capabilities between the Oracle Java ME SDK 8.2 components. It is important to note that the Oracle Java ME SDK 8.2 installation and runtime system is fundamentally a developer system that is not specifically designed to guard against any malicious attacks from outside intruders. Given this, the Oracle Java ME SDK 8.2 architecture can present an insecure operating environment to the Oracle Java ME SDK 8.2 installation file system itself, as well as its runtime environment, during execution. For this reason, it is important to observe the precautions outlined in the following security guidelines when installing and running the Oracle Java ME SDK 8.2.

To maintain optimum network security, Oracle Java ME SDK 8.2 can be installed and run in a *closed* network operating environment, meaning the Oracle Java ME SDK 8.2 system is not connected directly to the Internet, or to a company Intranet environment that could introduce unwanted exposure to malicious intrusion. This is the ideal secure operating environment when it is possible. Oracle Java ME SDK 8.2 does not require an Intranet connection that supports network connections to systems outside the Oracle Java ME SDK 8.2 architecture to intra-company resources.

An example of a requirement for an Internet connection is Oracle Java ME SDK 8.2 running wireless functionality that requires a connection to the Internet to support the

communications with the wireless network infrastructure that is part of the Java ME application execution process. Whether or not an Internet connection is required depends on the particular Java ME application running on Oracle Java ME SDK 8.2. For example, some Java ME applications can use an HTTP connection. In any case, if the Oracle Java ME SDK 8.2 is open to any network access you should be aware of the following precautions to protect valuable resources from malicious intrusion:

- Installing the Java ME SDK Demos plugin is optional. Some sample projects use network access and open ports. Because the sample code does not include protection against malicious intrusion, you must ensure your environment is secure if you choose to install and run the sample projects.
- Install Oracle Java ME SDK 8.2 behind a secure firewall that strictly limits unauthorized network access to the Oracle Java ME SDK 8.2 file system and services. Limit access privileges to those that are required for Oracle Java ME SDK 8.2 usage while allowing all the bidirectional local network communications that are necessary for the Oracle Java ME SDK 8.2 functionality. The firewall configuration must support these requirements to run Oracle Java ME SDK 8.2 while also addressing them from a security standpoint.
- Follow the principle of *least privilege* by assigning the minimum set of system access permissions required for installation and execution of Oracle Java ME SDK 8.2.
- Do not store any sensitive data on the same file system that is hosting Oracle Java ME SDK 8.2.
- To maintain the maximum level of security, make sure the operating system patches are up-to-date on the Oracle Java ME SDK 8.2 host machine.

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