Oracle® Java Micro Edition Embedded Client Release Notes

Release 1.0

E23107-01

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1 Overview

Oracle® Java Micro Edition (Java ME) Embedded Client provides the Java ME platform for embedded devices. Oracle Java ME Embedded Client is based on Connected Device Configuration (CDC) technologies and caters to a wide range of embedded application use cases and associated middleware. Supporting a wide range of embedded devices, the Oracle Java ME Embedded Client is suitable for implementation in: electronic book readers, multi-function printers, residential gateways, network attached storage, Smart Electric metering, VoIP phones, digital TV set top boxes, and Blu-Ray Disc players.

2 Documentation

In addition to the general information provided in these Release Notes, the product documentation provides detailed information regarding installation and use of the Oracle Java ME Embedded Client. Documentation is available in the Java ME documentation repository at http://download.oracle.com/javame/embedded.html.

- *Oracle Java Micro Edition Embedded Client Installation Guide*
- *Oracle Java Micro Edition Connected Device Configuration Runtime Guide*
- (JSR 66) - RMI Optional Package Specification Version 1.0
- (JSR 169) - JDBC Optional Package for CDC/Foundation Profile 1.0
- (JSR 172 [RPC, XML]) - J2ME ME Web Services Specification 1.0
- (JSR 217) - Personal Basis Profile 1.1.2
- (JSR 218) - Connected Device Configuration (CDC) 1.1.2

- (JSR 219) - Foundation Profile 1.1.2

3 System Requirements

The following sections describe the host system and target device requirements for the Oracle Java ME Embedded Client SDK.

3.1 SDK Host System Requirements

The Oracle Java ME Embedded Client SDK environment must meet the hardware and software requirements described in the following sections.

3.1.1 Host System Hardware Requirements

- 1.0 Ghz X86 family processor
- 1 GB Ram
- Full Personal Basis Profile functionality requires a graphics card capable of 3D graphics. Oracle has tested the following cards:
  - Nvidia cards
  - Intel G33/G31 series
  - ATI Radeon HD 4300
  - Mobile Intel 4 series express
- 140 MB of free disk space for the Oracle Java Micro Edition Embedded Client SDK

3.1.2 Operating System Requirements

- Linux - Ubuntu 10.04
- Windows - Windows XP

3.2 Target Device Requirements

The current version of Oracle Java Micro Edition Embedded Client provides binaries for the following target platform running Linux.

- ARMv5
- ARMv7
- MIPS
- PowerPC

For more details on these target platforms, refer to Chapter 1 of the *Oracle Java Micro Edition Embedded Client Installation Guide*.

4 Installation Instructions

Refer to the *Oracle Java Micro Edition Embedded Client Installation Guide* for detailed installation steps. The document provides relevant information for both SDK hosts and target platforms, along with instructions for configuring NetBeans.

5 Notable Features

The following lists some important features in this release:

- Oracle Java ME Embedded Client Software Developer's Kit is integrated with NetBeans (with custom plugin).
- Profiling, debugging, and desktop emulation capability with NetBeans.
- Eclipse IDE support is also available.

6 Known Problems

This section describes known problems and issues in this release.

6.1 General Issues

- The Oracle Java ME Embedded Client SDK might work on different flavor of Linux or Windows Operating system, but Oracle has tested only those specified above.
- To work around a libdirectfb package issue on Ubuntu 10.10 or later, you can search the Internet for `libdirectfb-1.2-0_1.2.8-5ubuntu2_i386.deb` then run the command `dpkg -i *.deb` to install that specific older libdirectfb-1.2_0 side by side the newer incompatible libdirectfb-1.2_9.
- The Oracle Java ME Embedded Client binaries for ARMv6 and ARMv7 CPU architectures were tested only on ARMv7 architecture.
- The PC SDK supports developing, running both Graphics and non-Graphics applications. However the binaries for ARMv5, ARMv6/v7, PowerPC, MIPS are headless and do not have any Graphics support.
- Oracle JavaME Embedded Client was evaluated for Internationalization and Localization support. But it may have some latent issues causing problems with such support.

6.2 Debugging

- Only interpreted code can be debugged.
- CDC debugger connections use sockets. Shared memory connections are not supported.

6.3 Profiling

- An OutOfMemoryException might be thrown if there is not enough memory for the class file instrumentation code to run to completion before garbage collection occurs. If this happens, increase the heap size. From the command line use the argument -Xmx64m, where 64m is the number of megabytes freed for the heap. In NetBeans,
- JVMTI CPU profiling measures the time spent between method enter and method exit. Should a method call out to native C code, the profiling tool is unaware of whether the application is blocked or looping. In order to eliminate discrepancies in the results, a NetBeans "Customized Filter Set" can be used to exclude methods that call out to native code.
- Heap-dump is not currently implemented.

- Profiling of ROMized system classes is not supported.
- While configuring Attach Mode options, the Select Target Type menu option "Attach Method" must be set to "Remote" for working with Oracle JavaME Embedded Client. The "Local" mode is not supported.

7 Accessibility

For resources to assist you in creating applications accessible to those with disabilities, consult the Java SE Desktop Accessibility page and the overview of the Java Accessibility API and the Java Accessibility Utilities.

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