

Oracle® Java Micro Edition Embedded Client

Release Notes

Release 1.1.1

E23816-02

May 2013

These Release Notes describe platform requirements, documentation, installation, new features, known problems and issues, and documentation accessibility for the Oracle Java Micro Edition Embedded Client.

Table of Contents

[Introduction](#)

[Platforms and Requirements](#)

[Documentation](#)

[Installation Instructions](#)

[New in this Release](#)

[Known Problems and Issues](#)

[Documentation Accessibility](#)

1 Introduction

Oracle Java Micro Edition Embedded Client is a Java platform that can be deployed to a number of embedded devices including, but not limited to, set-top boxes, electronic book readers, multi-function printers, residential gateways, smart utility meters, network attached storage, and Internet phones.

2 Platforms and Requirements

You use two platforms when you work with Oracle Java Micro Edition Embedded Client: the host and the target. The host is the personal computer on which Oracle Java Micro Edition Embedded Client applications are built. The target is the device where applications run.

2.1 Host Requirements

The host is an x86 personal computer running Linux. The following table gives the detailed host requirements.

Requirement	Description
CPU	1.0 GHz x86 family (or faster)
Memory	1GB RAM (or more)
Free disk space	10GB (or more)

ORACLE®

Requirement	Description
Operating System	Linux - Ubuntu 10.04
Java Developer's Kit (JDK)	1.6.0 (latest version)

2.2 Target Requirements

This release supports targets based on three CPU architectures: ARM, MIPS, and x86. Older Linux kernels and `glibc` libraries might work, but this section lists the tested versions.

2.2.1 ARM Target Requirements

The following table gives requirements for ARM-based targets.

Requirement	Description
CPU	ARM v5, v6, or v7
Floating Point	Soft
ROM	At least 5MB for Java
RAM	At least 8MB for Java
Operating System	<ul style="list-style-type: none"> ▪ v5: Linux kernel 2.6.31 or higher; <code>glibc</code> 2.10.2 or higher ▪ v6/v7: Linux kernel 2.6.35 or higher, <code>glibc</code> 2.12.1 or higher

2.2.2 MIPS Target Requirements

The following table gives requirements for MIPS-based targets.

Requirement	Description
CPU	MIPS32 74K
Floating Point	Hard
ROM	At least 5MB for Java
RAM	At least 8MB for Java
Operating System	Linux kernel 2.6.22 or higher; <code>glibc</code> 2.8 or higher

2.2.3 x86 Target Requirements

The following table gives requirements for x86-based targets.

Requirement	Description
CPU	Pentium III or higher
Floating Point	Hard
ROM	At least 5MB for Java
RAM	At least 8MB for Java
Operating System	Linux kernel 2.6.35 or higher; <code>glibc</code> 2.12.1 or higher

3 Documentation

In addition to these Release Notes, the following documents are included in the Oracle Java Micro Edition Embedded Client documentation set:

- *Oracle Java Micro Edition Embedded Client Architecture Guide*
- *Oracle Java Micro Edition Embedded Client Customization Guide*
- *Oracle Java Micro Edition Embedded Client Developer's Guide*

Note: The *Oracle Java Micro Edition Embedded Client Architecture Guide* is a prerequisite for all Oracle Java Micro Edition Embedded Client guides. It defines concepts that are mentioned in the other guides.

4 Installation Instructions

Follow these installation instructions:

1. On the host computer, unzip the downloaded product zip file, which creates the directory `ojec1.1.1/`.
2. Copy the `ojec1.1.1/bin/` and `lib/` directories to the target device, or mount them across the network.
3. Use the following commands on the target to verify the installation:

```
% cd ojec1.1.1
% bin/cvm -version
```

5 New in this Release

The following changes have been made to Oracle Java Micro Edition Embedded Client 1.1.1:

- The ahead-of-time compilation feature has been disabled due to issues found with different kernel versions.
- A problem has been fixed in which the `close()` method of `ZipOutputStream` would enter an infinite loop if forced to terminate while deflating.
- A problem has been fixed in which CVM crashed when `Class.getDeclaredMethod()` was called with a null `parameterTypes` argument.
- Other minor bugs have been fixed.

Refer to the Oracle Java Micro Edition Embedded Client *Architecture Guide* for the definitive list of components and versions supported in this release.

6 Known Problems and Issues

This section describes known problems and issues in this release.

6.1 Debugging Limitations

- Only interpreted code can be debugged.

- Oracle Java Micro Edition Embedded Client debugger connections use sockets. Shared memory connections are not supported.

6.2 Profiling Limitations

- To profile with the NetBeans IDE, use version 7.0.

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. For example, this option sets the heap to 64 megabytes: `-Xmx64m`.

- JVM TI CPU profiling measures the time spent between method entry and 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 Java Embedded Client. The "Local" mode is not supported.

6.3 Documentation Issues

No known issues.

7 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 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.

Oracle® Java Micro Edition Embedded Client , Release 1.1.1
E23816-02

Copyright © 2012, 2013, Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, duplication, disclosure, modification, and adaptation shall be subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License (December 2007). Oracle America, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications. Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

