„PersonalMicroEmbedded Java“

Eine kleine Zusammenstellung von interessanten Seiten aus dem Internet mit Quellenangabe.

Erstellt am: 21.03.2002
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Personal Micro Embedded Java

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Applets
The PersonalJava platform is available on most commercial embedded operating systems used in consumer products running on most microprocessors. This means you spend less time porting, testing, and tuning, and more time focused on hot new product features. We also give you a rich object-oriented component architecture, so that adding new software components to your product doesn't mean a complete system rewrite. Your newest software components simply snap into place and run.

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**The EmbeddedJava Application Environment**

Unlike the Java and PersonalJava platforms (which have required core APIs), the EmbeddedJava application environment allows for APIs to be configured relative to the requirements of an application. This allows EmbeddedJava technology to fit into the very limited memory footprints of embedded devices, including industrial controllers, process controllers, or scientific instruments.

The [EmbeddedJava specification](http://java.sun.com/products/embeddedjava/overview.html) allows any fields and methods from the core JDK™ 1.1.7 APIs (except java.applet) to be used in development. This allows developers to capitalize on the robust fullness of the Java APIs, but provides the flexibility to scale down and use only what is truly necessary. Sun provides optimizing tools to create the environment and convert the code into a condensed representation. Since applications are written in the Java language, software modules or entire applications can be migrated later to new platforms and easily reused, regardless of the underlying RTOS and target processor.

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Aus: [http://java.sun.com/j2me/faq.html#7](http://java.sun.com/j2me/faq.html#7)

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- What happens to PersonalJava™ and EmbeddedJava™ technologies?

„PersonalMicroEmbedded Java“
The PersonalJava™ application environment was the first Micro Edition technology and has gained tremendous momentum amongst devices requiring full web fidelity. The current generation of the PersonalJava application environment (3.1) is based on a JDK™ 1.1 code base. The next release of PersonalJava technology will be based on a Java™ 2 Platform code base and be separable into components: the Connected Device Configuration (CDC) and the Personal profile which will provide full compatibility for applications written to the PersonalJava runtime specification. This release is slated for early 2001.

EmbeddedJava™ technology continues into the new framework with little change. EmbeddedJava technology provides licensing terms and tools to vendors who want to incorporate the many benefits of Java technology in their devices, but do not require a platform-based solution. In the new framework EmbeddedJava technology allows such vendors to utilize Java libraries outside of a J2ME profile, but only for closed, "black box" solutions -- where an API is not exposed.


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**PersonalJava™ Emulation Environment**

The PersonalJava emulation environment helps you verify that the applets and applications you develop using the Java™ Development Kit (JDK™) will run on an implementation of the PersonalJava application environment.

The PersonalJava emulation environment software allows you to:

- Test applets that will run in browsers supporting the PersonalJava application environment
- Test applications that will run on the PersonalJava application environment

The PersonalJava emulation environment includes no compiler or other development tools. You should use the tools from the Java Development Kit to write and compile your applets and applications. The following chart explains which version of the JDK to use when writing for a specific version of the PersonalJava API.

<table>
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</thead>
<tbody>
<tr>
<td>1.1, 1.1.x 1.2</td>
<td>3.0.2</td>
<td>Solaris/SPARC</td>
<td>Touchable</td>
<td>min+</td>
</tr>
<tr>
<td>1.1, 1.1.x 1.2</td>
<td>3.0.2</td>
<td>Solaris/SPARC</td>
<td>Motif</td>
<td>max</td>
</tr>
<tr>
<td>1.1, 1.1.x 1.2</td>
<td>3.0.2</td>
<td>Windows/x86</td>
<td>Touchable</td>
<td>min+</td>
</tr>
<tr>
<td>1.1, 1.1.x 1.2</td>
<td>3.0.2</td>
<td>Windows/x86</td>
<td>Win32</td>
<td>max</td>
</tr>
<tr>
<td>1.1, 1.1.x 1.2</td>
<td>3.0.2</td>
<td>Solaris/SPARC</td>
<td>Touchable</td>
<td>min++</td>
</tr>
</tbody>
</table>

There are multiple versions of the PersonalJava emulation environment depending on your needs. Please consult the chart below to understand which version to use.
Use one of the min+ versions if you wish to have an environment which includes the minimal set of libraries defined by the relevant version of the PersonalJava API specification, except it includes File I/O support.

Use one of the min++ versions if you wish to have an environment which includes the minimal set of libraries defined by the relevant version of the PersonalJava API specification, except it includes File I/O support, and is compiled with the LOCALE=ALL build option.

Use one of the max versions if you wish to have an environment which includes the maximal set of libraries defined by the relevant version of the PersonalJava API specification.


JavaCheck™ - Platform Compatibility Insurance for your Applications and Applets

JavaCheck™, is a developer tool for testing whether applications and applets will be compatible with a particular Java™ environment and can, thus, run on all devices which implement that Java environment. It analyzes class files to find dependencies not included in a particular Java API specification. This helps developers to write Java applications and applets that can run safely on different Java platform implementations.

JavaCheck reads platform specification files (.spc), files of a specific Java API specification that have been encoded. Currently, platform specification files are available for the PersonalJava™ API only.

<table>
<thead>
<tr>
<th>If you are targeting this version of the PersonalJava API specification</th>
<th>Which corresponds to this reference implementation from Sun</th>
<th>Use this version of JavaCheck</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>1.0</td>
<td>2.0.1</td>
</tr>
<tr>
<td>1.1.x</td>
<td>1.1, 3.0.x</td>
<td>3.0</td>
</tr>
<tr>
<td>1.2</td>
<td>3.1</td>
<td>Available soon!</td>
</tr>
</tbody>
</table>

Note that all dot-dot versions of the specification are minor updates that clarify and remove errors in previous versions. The latest dot-dot version would obsolete all previous ones in the same series.


Jeode™ IA Edition

Jeode™ IA Edition is an implementation of Insignia's industry-leading Java™ virtual machine environment tailored for the limited memory resources and browsing requirements of digital set-top boxes, automobile telematics devices, web tablets, thin clients and other types of information...
appliances. This implementation of Jeode technology is well-proven in the field, having secured dozens of design wins.

Jeode IA Edition incorporates the Jeode EVM™ runtime engine, a "Sun Authorized Virtual Machine" that is fully compatible with the PersonalJava™ specification, and supports all PersonalJava 1.2 class libraries, including optional classes.

Aus: http://www.insignia.com/content/products/pdaFaq.shtml

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What standards does Insignia Jeode support?

Insignia Jeode is fully compatible with the PersonalJava 1.2 specification which is the basis for Sun's PersonalJava 3.1 reference implementation. Insignia is committed to following Sun's and the JCP's roadmaps.

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Which Java standards does Insignia Jeode support?

For high-end PDAs such as PocketPCs, Insignia Jeode supports PersonalJava. The J2ME equivalents of PersonalJava will be supported soon after they are completed by the Java Community Process (JCP).

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Introduction

Thank you for evaluating CrEme. This is the User's Guide for the evaluation version of CrEme V3.11 and should be used together with CrEme Installation Guide and Evaluation License agreement documents found in documentation directory within this evaluation kit.

This kit contains CrEme V3.11 which is based on Sun Microsystems' Personal Java, version 3.1, which corresponds to JDK version 1.1.8. CrEme V3.11 has passed TCK on several WinCE platforms, and is fully compatible with pJava 3.1 MAX configuration. Please note that File dialogs, and PopupMenus (AWT) are supported by the TinyAWT graphical interface (CrEme's optional AWT), but not yet by the Truffle (CrEme's default AWT).

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Aus: http://java.sun.com/products/personaljava/truffle/intro.html#defs
Truffle Customization Guide

The Truffle graphical toolkit can be used to develop different look & feel designs for a variety of consumer devices. The Truffle graphical toolkit provides designers with a flexible framework that has most of the functionality necessary to implement a custom look & feel design. This allows consumer device designers to concentrate their efforts on the small amount of code that represents the look & feel itself.

Aus: http://jcp.org/jsr/detail/62.jsp

JSRs: Java Specification Requests

Detail

JSR 62
Personal Profile Specification

Print Format

The J2ME™ Personal Profile provides the J2ME environment for those devices with a need for a high degree of Internet connectivity and web fidelity.

Specification Lead
Jon Courtney
Sun Microsystems, Inc.

Expert Group
Espial Group, Inc.
Motorola
Nokia Corporation
Philips
Samsung Electronics Corporation
Sharp Corporation
Siemens
Sun Microsystems, Inc.
Symbian Ltd
WindRiver Systems

Private Expert Group homepage

Status

Public Review 15 Apr, 2002
Community Draft Ballot 03 Dec, 2001
Community Review 03 Dec, 2001
Expert Group Formation 29 Jul, 2000
CAFE 09 May, 2000
JSR Approval 21 Apr, 2000

Java Community Process version in use: 2.1
Section 2: Request

2.1 Please describe the proposed Specification:

The J2ME Personal Profile provides the J2ME environment for those devices with a need for a high degree of Internet connectivity and web fidelity. This Profile is intended to provide the next generation of Sun’s PersonalJava™ environment, and as such has the explicit requirement of providing compatibility with applications developed for versions 1.1.x and 1.2.x of the PersonalJava Application Environment Specification.

The J2ME Personal Profile provides a profile of the Java™ 2 Platform, Micro Edition in devices characterized as follows:

- 2.5 M minimum ROM available *
- 1 M minimum RAM available *
- Robust connectivity to some type of network.
- Graphical user interface, providing a high degree of web fidelity and the capability of running Java web applets
- Supporting a complete implementation of the J2ME Foundation Profile (see JSR-000046 J2ME Foundation Profile), and the J2ME Connected Device Configuration (see JSR-000036 J2ME Connected Device Configuration)

* Application and localization memory requirements are additional.

2.2 What is the target Java platform? (i.e., desktop, server, personal, embedded, card, etc.)
Java 2 Micro Edition

2.3 What need of the Java community will be addressed by the proposed specification?
Provide a standard Java 2 Micro Edition profile for devices with relatively limited resources but a need for web fidelity. It will also provide a smooth transition for those utilizing already-existing versions of PersonalJava technology.

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2.10 Are there any existing specifications that might be rendered obsolete, deprecated, or in need of revision as a result of this work?

This specification is intended to supersede Versions 1.1.x and 1.2.x of the PersonalJava Application Environment Specification (as they will be subsumed by this specification).

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