

An Introduction to Java ME

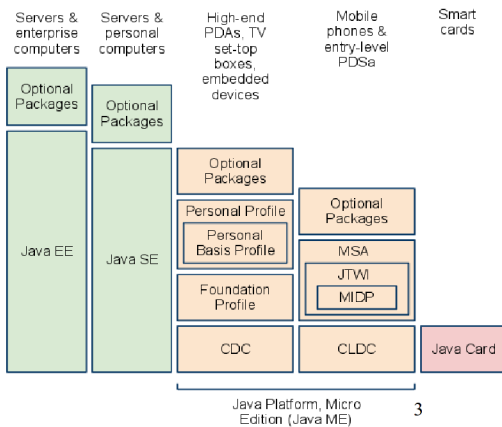
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What is Java ME

- Portable application development framework
 - Write once run everywhere (or write one debug everywhere)
- Rich set of APIs
- Ease of use
- There are more than 2 billion Java ME enabled mobile phones and PDAs

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Java Versions



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Java SE vs. Java ME

- Java ME is mainly a subset of J2SE
 - But different UI and event handling
 - Both CLDC and CDC support some Java APIs outside Java SE
 - Less utility classes
- Code runs on both platforms?
 - Basic algorithms
 - But whole applications need porting

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Basic Terms - Configuration

- Defines Java platform for different devices classes (specification for the JVM/KVM)
 - CLDC
 - Limited UI
 - Low computing power
 - Limited connectivity
 - CDC
 - High bandwidth network connections
 - Large memory requirements



Currently CLDC 1.1 in most new phones

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Basic Terms - Profile

- Extension and more detailed specification for a configuration
 - Contains APIs for UI, event handling, data storage, networks, timer, ..
 - Minimum requirements for devices (screen size, input possibilities, ...)
- For mobile phones:
 - Mobile Information Device Profile (MIDP)



Currently MIDP 2.1 in most new phones

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Basic Terms - JSR

- Java Specification Request (JSR)
 - Specifications for Java platform.
- Examples
 - JSR 82: Bluetooth APIs
 - JSR 179: Location APIs
 - JSR 184: Mobile 3D APIs
 - JSR 226: Scalable 2D Vector Graphics

Different phones will support different JSRs so you have to check the device manufacturers page to see which.

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SDKs

- Device specific SDKs
 - Emulate target more accurately
 - Support device specific APIs
 - Additional device skins

Device specific SDKs are found on manufactures homepages

- SDK from Sun
 - Good generic SDK, useful for initial development

<http://java.sun.com/javame/sdk/>
<http://www.oracle.com/technetwork/java/javame/>

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