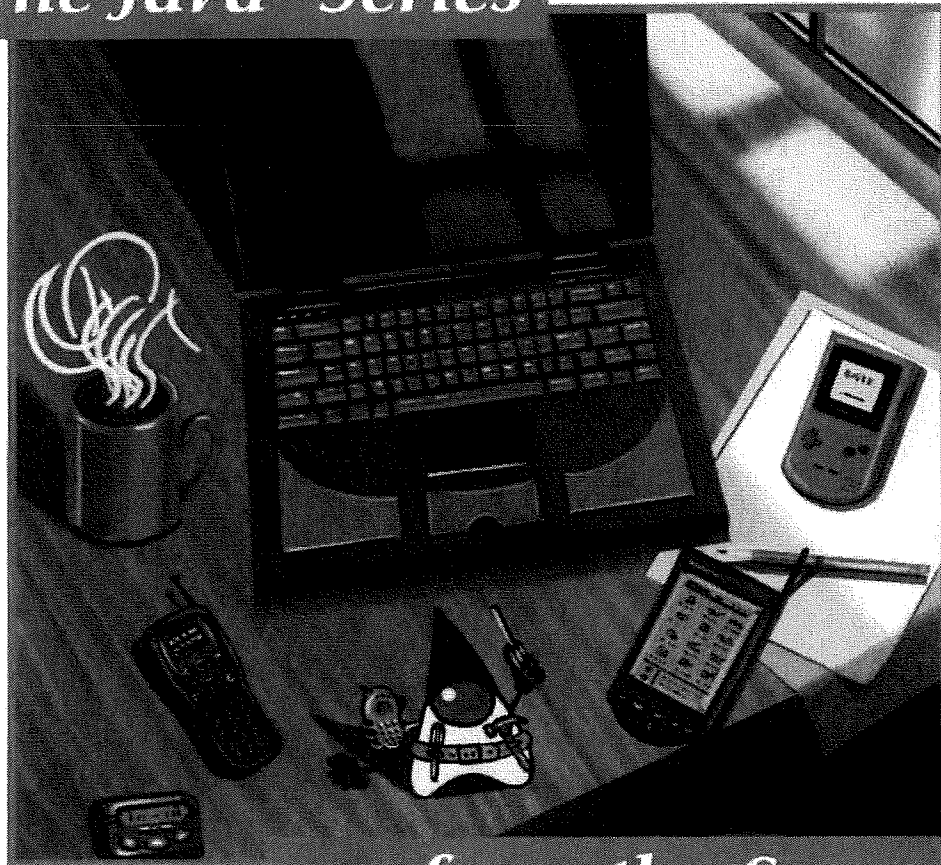


Roger Riggs • Antero Taivalsaari • Mark VandenBrink

Programming Wireless Devices with the Java™ 2 Platform, Micro Edition

Foreword by James Gosling

The Java™ Series



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J2ME™
Connected Limited Device Configuration (CLDC)
Mobile Information Device Profile (MIDP)

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Overview of Java 2 Platform, Micro Edition (J2ME™)

2.1 Java 2 Platform

Recognizing that one size does not fit all, Sun Microsystems has grouped Java technologies into three editions, each aimed at a specific area of today's vast computing industry:

- *Java 2 Platform, Enterprise Edition (J2EE™)* for enterprises needing to serve their customers, suppliers and employees with scalable server solutions.
- *Java 2 Platform, Standard Edition (J2SE™)* for the familiar and well-established desktop computer market.
- *Java 2 Platform, Micro Edition (J2ME™)* for the combined needs of:
 - consumer and embedded device manufacturers who build a diversity of information devices,
 - service providers who wish to deliver content to their customers over those devices,
 - content creators who want to make compelling content for small, resource-constrained devices.

Each Java platform edition defines a set of technologies that can be used with a particular product:

- Java virtual machines that fit inside a wide range of computing devices,
- libraries and APIs specialized for each kind of computing device,
- tools for deployment and device configuration.

Figure 2.1 illustrates the Java 2 Platform editions and their target markets, starting from the high-end platforms on the left and moving towards low-end platforms on the right. Basically, five target markets or broad device categories are identified. Servers and enterprise computers are supported by Java 2 Enterprise Edition, and desktop and personal computers by Java 2 Standard Edition. Java 2 Micro Edition is divided broadly into two categories that focus on high-end and low-end consumer devices. Java 2 Micro Edition is discussed in more detail later in this chapter. Finally, the Java Card™ standard focuses on the smart card market.

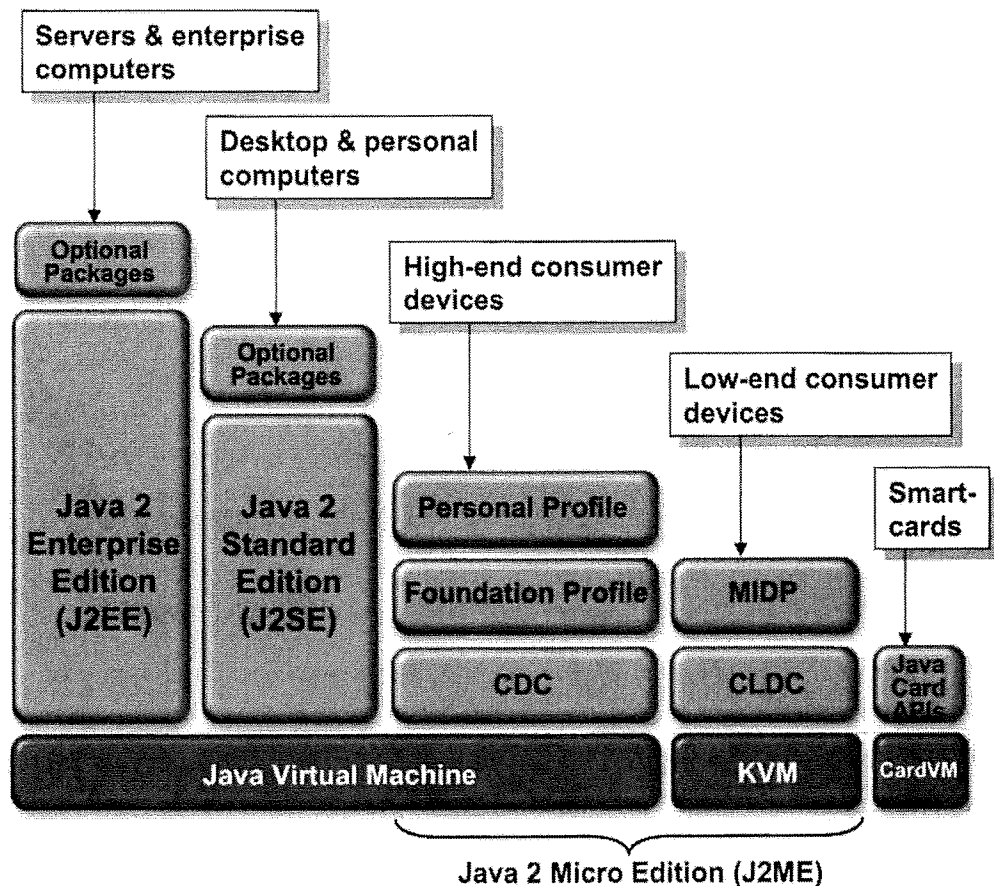


Figure 2.1 Java 2 Platform editions and their target markets

2.2 Java 2 Platform, Micro Edition (J2ME)

Java 2 Platform, Micro Edition (henceforth referred to as *Java 2 Micro Edition* or J2ME) specifically addresses the large, rapidly growing consumer space, which covers a range of devices from tiny commodities, such as pagers, all the way up to the TV set-top box, an appliance almost as powerful as a desktop computer. Like the

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