

# WEBSPHERE STUDIO DEVICE DEVELOPER THREE-DAY WORKSHOP FOR IBM BUSINESS PARTNERS

Are your clients looking to extend consumer and/or enterprise-class applications to mobile and embedded devices? Are they interested in the platform portability of an open standards-based architecture? Could you better leverage limited development resources by utilizing a consistent programming model across both the device-side and server-side of an end-to-end mobile solution? If so, this workshop is for you.

Start building your embedded device programming skills and solutions today! This three-day no-fee workshop focuses on delivering the skills needed by solution architects and developers who want to deliver embedded device applications using the Eclipse-based WebSphere Studio Device Developer (WSDD) integrated development environment (IDE) and the WebSphere Micro Environment Java-Powered<sup>™</sup> runtime.

#### WHAT YOU WILL DISCOVER BY ATTENDING THIS WORKSHOP

In addition to learning the WebSphere Studio Device Developer integrated development environment, you also will gain valuable insight required to leverage the IBM WebSphere Programming Model for consistent device-side and server-side Java application development. Class projects will be deployed on various device emulators and PDAs for testing and execution, utilizing the award-winning WebSphere Micro Environment embedded JVM.

Note: WebSphere Studio Device Developer integrates with WebSphere Studio Application Developer and WebSphere Studio Site Developer, which produce the corresponding server-side application code.

## **COURSE HIGHLIGHTS**

- IBM WebSphere Programming Model
- WebSphere Studio Device Developer (WSDD) IDE Usage
- Device setup, build scripts, and run configurations
- Running, debugging and profiling code
- J2ME and Profiles
- MIDP Programming
- Web Services Toolkit for Mobile Devices
- Foundation Profile Programming
- OSGi<sup>™</sup> specifications and the IBM Service Management Framework
- Extension Services for WebSphere Everyplace

### PRICING, TERMS, AND CONDITIONS

- There is no charge to attend this workshop; however, travel and lodging expenses are the responsibility of each attendee.
- Acceptance into the workshop is by invitation only. To qualify, you must register via the IBM web site: <u>www.ibm.com/software/pervasive/education</u>. Attendance confirmation will be made within 10 business days of registration.

#### PREREQUISITES

- Understanding of object-oriented programming concepts, systems and languages, particularly Java
- Familiarity with other IDEs and/or knowledge of device programming (highly recommended)

#### **CLASS LAB EQUIPMENT**

 Programmer workstations, PDAs, and WebSphere Studio Device Developer evaluation licensed software will be provided for student use during the class.

#### DETAILS

- Sessions are fast-paced and targeted to a technical audience, (sales and marketing content is not covered).
- Intended participants are ISVs, Solution Providers, and OEMs who are developing the deviceside end-to-end mobile and/or embedded applications, products, offerings, and services for enterprise and/or consumer use.
- Typical device target markets will include In-Hand (PDAs, smartphones), In-Home (residential service gateways, set top boxes), In-Vehicle (telematics), and In-Commercial (industrial automation and control).

While the focus of this workshop is on the device-side of end-to-end mobile e-business solutions, the WebSphere Studio Device Developer IDE integrates with other WebSphere Studio tools for server-side application development. Some labs will use WebSphere Studio Site Developer, with WSDD as a plug-in.

In addition to learning the IDE, the IBM WebSphere Programming Model is introduced. This programming model builds on a highly configurable embedded Java Virtual Machine and includes the IBM Service Management Framework (SMF) implementation of the OSGi specification to enable lifecycle management of network-deployed applications, as well as support to extend the J2EE/WebSphere programming model to embedded devices utilizing Java Servlet and Java Server Pages interfaces.

Participants should have a good technical understanding of the Internet; a solid background in programming, application design, and development; and an understanding of web application concepts and technologies. An understanding of object-oriented programming concepts, systems, and languages also is required. Java programming experience is a must. Prior device programming experienced would be a plus.



This workshop will help attendees understand the WebSphere Studio Device Developer IDE and assist in the architecture and design of future embedded device applications. Concepts learned in this class are complementary to topics learned in the WebSphere Everyplace Access Wireless Workshop for IBM Business Partners, extending the open standards-based options for device deployment.

*Note:* This workshop does not replace IBM Learning Services' offerings for advanced training or for certification requirements or certification training. IBM Learning Services provides advanced classes, and the ILS education roadmap should be used to determine which classes are appropriate.

| Location              | Class Dates       |
|-----------------------|-------------------|
| Dallas, Texas         | Jan 27 – 29, 2004 |
| San Mateo, California | Feb 3 – 5, 2004   |
| Stuttgart, Germany    | Mar 9 – 11, 2004  |
| Paris, France         | Mar 16 – 18, 2004 |

## DATES AND LOCATIONS OF WORKSHOPS



#### AGENDA

Note: This is a hands-on workshop with approximately 50% lecture and 50% lab work. Deployment platforms for the labs (furnished) are Compaq iPaq and Palm Tungsten PDAs, using the WebSphere Micro Environment. (Palm units support MIDP applications.)

#### Day One

IBM WebSphere Programming Model Inside WSDD Installation Lab CVS Running Builds on Devices Debugging Smart Linker Using WSDD Lab Remote Debugging Lab MicroAnalyzer Lab CVS Lab (optional) Note: Day one labs utilize the developer workstation, WSDD-included simulators and iPaq hand-held computers.

#### Day Two

J2ME Overview CLDC and MIDP *MIDP Profile Lab MIDP Canvas Lab* Web Services *Web Services Lab Note:* Day two labs utilize the developer workstation, WSDD-included simulators and Palm Tungsten or iPaq hand-held computers (at the student's choice).

#### Day Three

CDC, Foundation, Personal Profiles Foundation and Personal Profile Lab OSGi and SMF SMF Installation Lab SMF Servlet Programming Lab SMF on Devices Lab Extension Services for WebSphere Everyplace Lab Note: Day three labs utilize the developer workstation, WSDD-included simulators and iPaq hand-held computers.

