

## IBM WebSphere Studio Device Developer

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### Highlights

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- ***Enables developers to extend e-business applications onto cellular telephones, Personal Digital Assistants (PDAs) and other pervasive devices***
- ***Integrated Development Environment (IDE) for the creation of J2ME™ applications for running on Java Powered™ devices***
- ***Award-winning tools that assist in building the next generation of wireless applications***

### Gaining the competitive edge

IBM pervasive computing is enabling developers to create, test and extend e-business applications to mobile devices, using open standards and Java™ technology, supported by the WebSphere® platform and its proven, secure and reliable infrastructure. IBM WebSphere Studio Device Developer provides the foundation for building these applications.

### Extending e-business

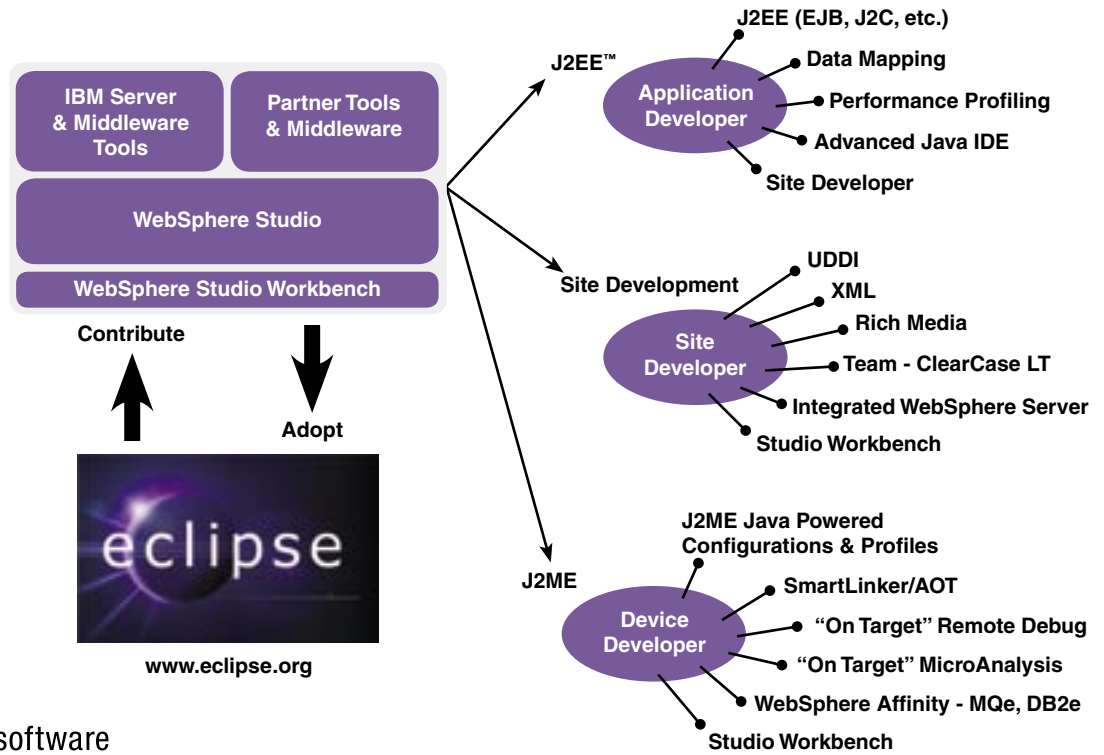
Existing wireless e-business applications have been accessed through browsers. IBM has now taken data, transactions and applications one step further by leveraging open standards to connect devices to e-business applications.

To deliver the next generation of e-business applications, an Integrated Development Environment (IDE) must support a wide variety of devices, over a broad range of networks, and allow new applications to be easily built and deployed.

WebSphere Studio application development products can allow developers to build and deploy applications that connect devices to any data on any server. Built from the ground up, IBM software is designed to help you maximize network usage by managing both device and server software in a scalable, secure environment. It can allow you to add additional data services faster and easier, and at a lower cost. You can enable devices (cellular phones, PDAs and handheld computers) to become part of an end-to-end e-business solution.


WebSphere Studio Device Developer is also translated into Japanese, Korean, Simplified Chinese and Traditional Chinese, enabling a world-wide development community to build, test and deploy e-business on demand applications.

# The Right Tools



**WebSphere** software

## WebSphere Studio Device Developer

	Productivity Features	Benefits
<b>Build</b>	Integrated Development Environment <ul style="list-style-type: none"> <li>• Editors</li> <li>• Code Completion</li> <li>• Refactoring Tools</li> <li>• Compiler Integration</li> <li>• Project, Class, MIDlet Wizards</li> </ul>	A set of integrated tools to assist in the development and testing of J2ME applications for deployment to small devices.
	Team Development Environment	Provides extended development team a seamless environment for sharing assets. Allows for control of the development process and delivery of higher quality code.
	ANT Build Environment	Allows developers to create sophisticated build scripts and quickly test new variations on their program.
	Emulator Launcher/Emulator Interface	Speeds the compile/deployment cycle, provides view of the application that has been pre-loaded into the emulator, ready to test. Supports several emulators including MIDP, NOKIA® and Palm OS® Emulator (POSE).
	 Ships with development version of WebSphere Micro Environment Java Powered Runtime from IBM <ul style="list-style-type: none"> <li>• CLDC/MIDP</li> <li>• CDC/Foundation</li> <li>• Personal (Beta)</li> </ul>	By integrating runtime elements tightly with the tools, a productive iterative development environment for J2ME applications is provided to the developer.
	Version Control Interface (to CVS and commercially available version control systems)	Assists developers in controlling all elements that make up an application.
	Language translations <ul style="list-style-type: none"> <li>• Japanese</li> <li>• Korean</li> <li>• Simplified Chinese</li> <li>• Traditional Chinese</li> </ul>	Enables a whole new development community to build e-business applications.
<b>Optimize</b>	SmartLinker technology	Optimizes applications to efficiently use memory on small devices.
	JXE Link	Optimizes application for target hardware.
	Java Powered Runtime from IBM <ul style="list-style-type: none"> <li>• CLDC/MIDP</li> <li>• CDC/Foundation</li> <li>• Personal (Beta)</li> </ul>	Quickly test applications inside the IDE.
	Just-in-time (JIT) and Ahead-of-Time (AOT)	Provides compilation technology to speed up portions of applications.
<b>Test</b>	"On Target" MicroAnalyzer	Enables discovery of bottlenecks in application performance for quick tuning. Delivers enhanced end-user experience.
	Applications for flash memory	Enables specification of applications to be deployed to flash memory and executed in place (XIP). Provides "instant on" capability for the end-user.
	"On Target" Remote Debug	Allows deployment of an application to a device and remotely debugs the application as it runs 'live' on the device.
	MicroAnalyzer	Points out bottlenecks in applications. Allows the developer to view memory status, threading and timing of all methods. A feedback loop identifies possible optimizations that a developer could use to speed up the application.
<b>Deploy</b>	SMF Bundle Development Tool	Packages applications as Open Services Gateway initiative (OSGi) bundles, which facilitates the creation of software that can be provisioned to devices, updated on the device or removed from the device.
<b>Maintain</b>	Dynamic Install	Enables tools platform to be quickly updated to appropriate level for a specific plug-in extension.
	Web Updates	Enables developers to stay up-to-date with the latest enhancements (performance, size, new device support) from IBM.

WebSphere Studio Device Developer is powered by eclipse technology ([www.eclipse.org](http://www.eclipse.org)), which can enable you to take advantage of this open platform architecture. By integrating productivity features as plug-in extensions to the WebSphere Studio platform, IBM has created a single, collaborative environment.

WebSphere Studio Device Developer also plugs into WebSphere Studio Application Developer to form a solution for the building, deployment, testing and maintenance of applications that connect J2ME devices to existing J2EE e-business systems.

#### **For more information**

To learn more about IBM pervasive computing software solutions, visit [ibm.com/pvc](http://ibm.com/pvc) or call your local IBM representative.



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