J2EE Application Development with WebSphere Studio
IBM Application Development Vision

Delivering a rapid and efficient response to business needs through a powerful development and deployment environment integrating the entire team throughout the application life cycle.
Open and Integrated Application Development

**Business Problem**
Productivity & quality limitations due to the inability to integrate best-of-breed tools & infrastructure in a single, seamless environment.

**Technology Problem**
Lack of an open application development integration platform similar in nature to open deployment platforms (e.g., Apache / J2EE / Linux).

A newly integrated, open
WebSphere Studio

An open tool platform contributed by IBM to an independent open source organization.
A "Portal-like" Approach for Developers

An integrated experience unlocks greater productivity by bringing order and collaboration to rapidly expanding e-business development teams.

Independent tools and poorly connected islands of development

Best-of-breed tools and teams working together in an integrated environment

WebSphere software
IBM
Eclipse

A personalized, extensible development platform organized via developer
"Perspectives"

Products built on WebSphere Studio Workbench inherit these capabilities plus ‘plug-ins’ built by others

Eclipse

- Plug-in Development Tools
- Java & JavaScript Tools
- Debugging Services
- Project Management
- Desktop & Help Frameworks
- Software Configuration Management support
WebSphere Studio

- A single, comprehensive development environment with unprecedented flexibility & extensibility
- Configurations with tools to meet the needs of specific developer roles
- Extended and customized with partner, customer & IBM tools
- Common development environment across Windows and Linux

www.eclipse.org
### WebSphere Studio Family

**IBM eServer & Middleware Tools**
- Asset Analyzer to identify reusable code
- zSeries and iSeries tools for developing, integrating, testing, and managing assets
- WebSphere tools for Portals, Voice, Wireless, Commerce, MQ, Crossworlds
- DB2, Domino and Tivoli tools

**Partner Tools and Middleware**
- Rational Software: UML modeling, Unified Process, Asset management
- Versata: Business rules driven RAD
- Macromedia: ColdFusion for WebSphere
- and many others

**WebSphere Studio configurations for:**
- **Web site developers**
- **Java application developers**
- **Cross-enterprise developers**

**Java**
- Enterprise, Standard and Micro Editions

**3GL Programming**
- COBOL
- PL/1

**Rapid Development (RAD)**
- Visual development
- Scripting and 4GL
- Code and data generation
- **Unit Test**
- Functional and Performance

**WebSphere Studio Workbench**
- The Eclipse Platform plus partner support for integrating with WebSphere Studio
WebSphere Studio Development Environment

WebSphere Studio Enterprise Developer

Application Developer Integration Edition 4.1

Application Developer v4.03

Site Developer Advanced v4.03
- HTML/JSP/Servlet Tools
- Rich media Tools
- Web Services Tools
- XML Tools
- Database Tools
- ClearCase LT OEM

J2EE (EJB) Tools
- Performance and Trace Tools

JCA Connectors (CICS, IMS, HOD)
- Microflow Builder
- Services architecture for accessing EIS resources
- CCF Connectors
- Runtime Only
- VAJ EAB migration Document

Visual Assembly Tool
- Apache Struts Builder
- E/C/D for COBOL and PL/I
- EGL Development Tools

WebSphere Studio Workbench

IBM Server & Middleware Tools

Partner Tools & Middleware

WebSphere Studio

WebSphere Studio Workbench

IBM Server & Middleware Tools

Not available yet
WebSphere Studio

Application Developer

- For professional developers of Java & J2EE applications
- Wizard-driven support for developing HTML, JSP, XML, EJB, WebServices and Java
- Advanced tools for code generation and performance tuning
- Supports testing, debugging and deployment to standard J2EE server (including WebSphere Application Server, Tomcat and BEA WebLogic)
- Includes a highly integrated WebSphere Application Server test environment and deployment automation tools
- Includes Rational ClearCase LT but supports all major SCM systems
Recent Awards

Best Application Development Product Vendor Of The Year

Most Valuable Product
Best Java Deployment Tool

Best Web Services IDE
Best Web Services Automation Tool

Best Java IDE
Best Team Development Product
Most Innovative Java Product
Getting started with WebSphere Studio Application Developer

- Migration Resources web page:
- Free Trial downloads
- Self-running demo
- Migration guides
- Education classes
- Migration and deployment services
- Competitive upgrade pricing available
- Easy migration from any other Java IDE
Easy Migration for J2EE Applications

- What you need before you migrate to Application Developer
  - Your J2EE Application packaged in a EAR file
  - Example: petstore.ear deployed to WebLogic 6.1
  - Source code: file system, source code management tool

- Migration Steps
  - Install Application Developer
  - Import the EAR file
  - Import the source code
  - Add the necessary library jar files into the java build path
  - Install and configure the WebLogic plugin
Import the EAR File
Import Source Code
Add Library JARS
WebLogic Plugin

- currently available WebLogic plugin
  - Genuitec EASIE Weblogic Plugin - www.genuitec.com
  - ObjectEdge - www.objectedge.com

- Genuitec EASIE Weblogic 6 Plugin Configuration
  - start and stop WebLogic from within the Workbench
  - deploy, debug, run your J2EE applications
Genuitec Plugin

- Genuitec EASIE Weblogic 6 Plugin Configuration

![Configuration Interface]

- BEA home directory: D:\WebGain\bea
- Weblogic installation directory: D:\WebGain\beawlserv6.1\sp1
- Admin username: system
- Admin password: WebGainStudio
- Execution domain root: D:\WebGain\beawlserv6.1\sp1\config
- Execution domain name: mydomain
- Execution server name: myserver
- Hostname:PortNumber: localhost:7001
- Installed WLS JDK name: JDK16jweblogic
- Security policy file: D:\WebGain\beawlserv6.1\sp1\lib\weblogic.policy
- JAAS login configuration filo: D:\cloudscape\system\samples\eval\cloudscape\data\-Djava.library.path=D:\WebGain\beawlserv6.1\sp1\bin;
- Optional JVM arguments: D:\cloudscape\system\samples\eval\cloudscape\data\-Djava.library.path=D:\WebGain\beawlserv6.1\sp1\bin;
- Append to classpath: D:\WebGain\beawlserv6.1\sp1\samples\eval\cloudscape\lib\cloudscape.jar
- Append to library path: 
- External Management Server:
  - This server is running standalone
  - This server is externally managed
- "Start Weblogic" launches in:
  - Debug mode
  - Run mode

[Buttons: Restore Defaults, Apply, OK, Cancel]
Genuitec WebLogic Plugin Features

- deploy, debug, run your J2EE applications
Summary

- WebSphere Studio is built on the open technology of Eclipse
- WebSphere Studio offers a complete, integrated application development environment for J2EE
- WebSphere Studio supports building and deploying standard J2EE applications on any J2EE standard application server (eg. WebSphere Application Server, BEA WebLogic, Apache Tomcat, etc.)
- Easy to migrate to WebSphere Studio from any other Java IDE
- Resources:
  - WebSphere Studio Application Developer info: www.ibm.com/software/ad/studioappdev
  - WebSphere Developer Domain: www.ibm.com/websphere/developer