

Borland® JBuilder® 9

Feature Matrix

	PERSONAL	DEVELOPER	ENTERPRISE
Developer productivity			
Support for the latest Java™ standards			
Build Java™ applications, applets, and JavaBeans® with no proprietary code or markers	✓	✓	✓
True two-way visual IDE with Borland® Two-Way-Tools™	✓	✓	✓
Cross-platform development—with customizable look-and-feel—on the Windows®, Linux®, and Solaris® operating systems	✓	✓	✓
Visual development using the Java 2 JFC/Swing components for professional UI development in Java	✓	✓	✓
Support for the latest Java standards including Java 2, Java 2 JFC/Swing, XML, Java2D, Message Queue, Java collections, Accessibility API, Speech API, and more	✓	✓	✓
Built-in support for the latest Java 2 platform	✓	✓	
Includes Java 2 SDK 1.4 with built-in HotSpot™ Client Virtual Machine for increased performance	✓	✓	✓
Borland® JBuilder® IDE hosted on Java 2 SDK 1.4.1 for enhanced platform interoperability and performance	✓	✓	✓
Develop, debug, and compile with Java 2 SDK 1.3 and SDK 1.4	✓	✓	✓
Support of all JDK® 1.4 language features including asserts	✓	✓	✓
Visual two-way Java environment for rapid developer productivity			
IBM® VisualAge® for Java form designer support	✓	✓	✓
Themed audio feedback with customizable audio themes	✓	✓	✓
Professional IDE with integrated Borland AppBrowser,™ editor, debugger, compiler, and help	✓	✓	✓
Wizards for rapid development of applications, applets, JavaBeans, and more	✓	✓	✓
Visual Java 2 two-way designers and wizards for drag-and-drop JFC/Swing application development	✓	✓	✓
Customizable code creation based on developer style preferences	✓	✓	✓
Visual customization of Java layout managers for rapid UI development	✓	✓	✓
Visual menu designer	✓	✓	✓

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Visual design of JavaBeans components and integration of third-party components to the component palette	✓	✓	✓
Unicode® -enabled editor with mapping to single and double-byte code pages	✓	✓	✓
OpenTools API for adding new and customizing existing functionality of the JBuilder environment	✓	✓	✓
Customizable toolbar	✓	✓	✓
XML-based Project Manager supporting JPX project file format	✓	✓	✓
Context-sensitive help (F1) on source editor keywords	✓	✓	✓
Two-way code migration			
Create project from existing code wizard		✓	✓
Import project from version management system		✓	✓
Import Enterprise JavaBeans™ (EJB™) applications from existing code			✓
Import Web applications from existing code		✓	✓
Import VisualCafé™ project wizard			✓
Configuration management			
New! Export project configurations as an Apache™ Ant Script		✓	✓
Project groups		✓	✓
Add another project as a library			✓
Select compiler including Borland Make for Java (bmj) or javac, the Java compiler		✓	✓
Configuration management infrastructure which supports custom enterprise build processes and external Ant 1.5 builds	✓	✓	✓
Extend the build system with custom build tasks	✓	✓	✓
Add Ant nodes to projects and execute Ant targets from within JBuilder	✓	✓	✓
Add custom Ant-based build tasks with custom Ant libraries to run Ant from within JBuilder	✓	✓	✓
Rapid navigation from Ant build error messages to source files	✓	✓	✓
Customize build menu and toolbar with custom build targets	✓	✓	✓
Support for SQLJ™ (Supports the Oracle® and IBM® DB2® translators for SQLJ to generate Java from SQLJ)			✓
Open Tools Runner	✓	✓	✓
SQLJ syntax highlighting			✓
External build task wizard to create external tasks that allow execution of external shell or console commands as part of the build process		✓	✓
Filter selected packages from build process; includes a filter overview folder to view filtering rules		✓	✓

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Out-of-the-box build process to create native launchers		✓	✓
Accept build targets as arguments with the external command line build	✓	✓	✓
Sample to illustrate the new build system: using RetroGuard to obfuscate jars	✓	✓	✓
Package Java applications as native executables		✓	✓
Runtime configurations for managing multiple executables per project		✓	✓
JDK switching for developing to different Java JDK versions and Java 2 SDK editions (J2ME,™ J2SE,™ and J2EE™)	✓	✓	✓
Fast Java compiler for rapid compiles	✓	✓	✓
Command line compiler, dependency checker, and build		✓	✓
Compile option to strip debug information (source, line, and member) to reduce class file size		✓	✓
Built-in local obfuscator to protect Java source code		✓	✓

UML™ code visualization

UML™ class and package diagram representation of code: Limited Class Association Diagram, Reverse Class Association Diagram, Limited Class Dependency Diagram, Reverse Class Dependency Diagram, and the Class Inheritance Diagram			✓
View multiple classes including inner classes and anonymous classes via tabbed user interface			✓
Full browser-based navigation functionality to navigate diagrams and change focus to new classes and packages			✓
Filter to exclude chosen classes packages from diagrams for a project			✓
Choose to include libraries on a project basis to view dependencies in diagrams			✓
Structure pane tree view of package or class with expandable folders; navigate to diagrams from tree view			✓
Customize fonts and colors in diagram presentation			✓
Fast access to refactoring functions directly from diagrams: rename, move, find reference, find definition			✓
Limited package dependency diagram			✓
Print diagram, or save diagram as an image			✓
Quick navigation from diagram to source code and documentation			✓

Refactoring

Invoke refactoring from structure pane	✓	✓	✓
Extract a method: convert a code selection to a method	✓	✓	✓
Introduce a variable: select a complex expression and convert to a variable	✓	✓	✓
Change a methods signature: add, remove, or re-order parameters	✓	✓	✓

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Surround with try/catch: surround a code selection with try/catch and automatically add specific catch blocks for all detected and selected exceptions	✓	✓	✓
Rename packages and update all references	✓	✓	✓
Rename classes and update all references	✓	✓	✓
Rename methods and update all references	✓	✓	✓
Rename fields, method arguments, and local variables; and update all references	✓	✓	✓
Move classes and update all references	✓	✓	✓
Search and find all references	✓	✓	✓
Find definitions for a symbol	✓	✓	✓
Validate new names based on context	✓	✓	✓
Refactoring cancel, undo, redo	✓	✓	✓
Check for limitations prior to refactoring	✓	✓	✓
Invoke refactoring from code editor	✓	✓	✓
Invoke refactoring from UML diagrams			✓
Unit testing			
Cactus support			✓
EJB test client based on Cactus			✓
EJB test client based on JUnit			✓
Unit test collector runner for automatic unit test collection, test suite generation, and running			✓
Borland Optimizeit™ Code Coverage integration with unit test runner (Optimizeit is included only in JBuilder Enterprise)	✓	✓	✓
Test stack trace filter to exclude classes from traces	✓	✓	✓
Tight integration of JUnit	✓	✓	✓
Built-in test runner	✓	✓	✓
Quick navigation to unit test failures in your source code	✓	✓	✓
Automatic test discovery to identify test cases or test suites			✓
Test case wizard to create test case class skeletons	✓	✓	✓
Test case fixture support		✓	✓
Fixture wizard for JNDI			✓
Fixture wizard for JDBC®			✓
Comparison fixture wizard			✓
Custom fixture wizard			✓
Test configuration support			✓
Test case wizard to create logical groupings of unit tests			✓

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Debugging of test classes	✓	✓	✓
Right click on methods to debug individual methods without debugging entire unit test class	✓	✓	✓
Javadoc tools			
Javadoc wizard to generate documentation node in project. Select which packages are documented and format of output		✓	✓
Automate Javadoc generation as part of the build process		✓	✓
Interactive Javadoc syntax checker	✓	✓	✓
Doclet support to govern output format: includes standard JDK 1.3 doclet, JDK 1.4 doclet, and JDK 1.1 doclet		✓	✓
Advanced state-of-the-art Borland AppBrowser™ IDE			
Dockable message/output panes with enhanced functionality	✓	✓	✓
Drag and drop file open	✓	✓	✓
New! Drag and drop enabled project pane	✓	✓	✓
New! Right-click in project pane to add classes, interfaces, packages, JavaServer Pages™ (JSP™) or any files	✓	✓	✓
Better user interface with consistent behavior and navigation	✓	✓	✓
AppBrowser for integrated management of projects, classes, and source	✓	✓	✓
Project-level class filter configuration	✓	✓	✓
Directory view project node with project-aware file support		✓	✓
Java 2 visual designers for drag-and-drop JFC/Swing application development, without proprietary markers or code	✓	✓	✓
Support for layout managers, Swing components, Swing borders	✓	✓	✓
Integrated HTML and Javadoc viewer	✓	✓	✓
Integrated UML browser for code visualization			✓
Java help system with full BOOLEAN text search for easier access to documentation	✓	✓	✓
Built-in API browser for class file methods and data members	✓	✓	✓
StructureInsight™ for rapid file navigation through source files	✓	✓	✓
Message view toggler to turn message view on or off	✓	✓	✓
Enhanced status bar	✓	✓	✓
Single-click message or editor tab closing	✓	✓	✓
Add favorites to open file dialog	✓	✓	✓
Integrated Javadoc syntax checker provides interactive feedback for creating compliant Javadoc entries	✓	✓	✓

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Javadoc browser dynamically generates Javadoc from Javadoc embedded in source code	✓	✓	✓
HTML4, XML, and CSS2 cascading style-sheet layout viewer		✓	✓
Documentation Type Definition (DTD) support and extensible dynamic tags handling		✓	✓
Documentation print capability inside the AppBrowser		✓	✓
Customizable support for print to printer or to HTML file for creating superior project documentation		✓	✓
Project folders and resource management for increased productivity		✓	✓
Package view for displaying source packages in project view with customizable package nesting levels	✓	✓	✓
Easier import of existing Java source packages	✓	✓	✓
AppBrowser™ editor features			
Line numbering	✓	✓	✓
Text drag and drop editing	✓	✓	✓
Access refactoring, find definitions, and find references from within the editor		✓	✓
Advanced search-and-replace options with pattern matching	✓	✓	✓
Search combo box now available from the toolbar	✓	✓	✓
Global Search and Replace on all files in path	✓	✓	✓
Emacs™-style single-line indenting and automatic code formatting	✓	✓	✓
Use regular expressions in search expressions	✓	✓	✓
Highlighted brace matching	✓	✓	✓
Syntax highlighting for multiple file types, including Java, HTML, and C/C++	✓	✓	✓
Advanced syntax highlighting for XML, WML, IDL, JSP, and XSL, CSS style sheets		✓	✓
Customizable smart keys with auto-indent option	✓	✓	✓
CUA® editor keymap	✓	✓	✓
Emacs editor keymap	✓	✓	✓
Microsoft® Visual Studio® keymap	✓	✓	✓
Brief® editor keymap	✓	✓	✓
Macintosh® keymap	✓	✓	✓
CodeWarrior® for Mac® keymap	✓	✓	✓
Visual Keymap editor for customizing environment actions and key strokes definitions	✓	✓	✓
Quick access keymap dropdown to toggle keymap	✓	✓	✓

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Code templates			
New! Configurable Smart Code templates to automate common coding tasks	✓	✓	✓
New! Macros in templates	✓	✓	✓
New! Sync Edit to simultaneously edit multiple identical identifiers in a block of code	✓	✓	✓
New! File awareness in templates	✓	✓	✓
New! Open Tools API to enable additional file type template categories	✓	✓	✓
New! Class-aware templates integrated with automatic insertion of import statement	✓	✓	✓
New! Surround block templates to surround selection with template code	✓	✓	✓
Code formatting			
Smart automatic code formatting	✓	✓	✓
Set indenting	✓	✓	✓
Format tab size	✓	✓	✓
Set end-of-line characters	✓	✓	✓
Select multiline characters	✓	✓	✓
Format continuation indent	✓	✓	✓
Format braces	✓	✓	✓
Set spaces	✓	✓	✓
Select blank lines	✓	✓	✓
Format event handling	✓	✓	✓
Format import statements	✓	✓	✓
Preview before setting preferences	✓	✓	✓
Access quick format via keyboard, or menu from editor	✓	✓	✓
Import/export code formatting settings	✓	✓	✓
SmartDiff™ across different code formats	✓	✓	✓
Section 508 accessibility			
Access JBuilder functionality through keyboard	✓	✓	✓
Swing accessibility framework usage	✓	✓	✓
Integrate OS system font size as selected	✓	✓	✓
All color coding complemented by non-color based functions	✓	✓	✓
Navigation across panes and tabs available from keyboard	✓	✓	✓
High-contrast color scheme	✓	✓	✓
Editor text zoom	✓	✓	✓

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Message severity status with multiple communications schemes (color, icon, sound, and symbol)	✓	✓	✓
Browser splitter access via keyboard	✓	✓	✓
BeansExpress™ for rapidly creating Java components			
More than ____ JavaBeans included	200+	300+	300+
BeansExpress™ to rapidly create reusable JavaBeans		✓	✓
Creation of property getter/setter methods from existing members		✓	✓
Synchronized scrolling between BeansExpress and implementation code		✓	✓
Source code for JavaBeans			✓
Visual bean designers to easily create properties, events, and BeanInfo		✓	✓
BeanInsight™ to create and manipulate JavaBeans properties and validate JavaBeans		✓	✓
Iterative design of entity beans for EJB			✓
CodeInsight™			
CodeInsight™ to speed coding and reduce syntax errors	✓	✓	✓
Code Completion automatically displays package, members, methods, and events for Java classes and JavaBeans	✓	✓	✓
CodeInsight automatic import statement completion and optimization	✓	✓	✓
New! ToolTips for correcting missing imports	✓	✓	✓
CodeInsight package content review	✓	✓	✓
Code Parameter ToolTips automatically display procedure, method, and event parameter lists	✓	✓	✓
Customizable CodeInsight for key-binding and appearance	✓	✓	✓
Visual indication of public, protected, private, and deprecated members	✓	✓	✓
Package completion wizard to help ensure proper syntax	✓	✓	✓
Package Browser to list classes by package	✓	✓	✓
ErrorInsight™			
ErrorInsight™ to automatically display common coding errors	✓	✓	✓
Red underlining of syntax errors	✓	✓	✓
New! Add method wizard when error fix requires creation of new method	✓	✓	✓
New! Add throw cause and surround with try/catch to fix uncaught exceptions	✓	✓	✓
New! Error prompt to fix "type not found" errors	✓	✓	✓
New! Error prompt to fix "methods not found" errors	✓	✓	✓

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New! Error prompt to fix "constructor not found" error	✓	✓	✓
New! Error prompt to fix "variable not found" errors	✓	✓	✓
New! Error prompt to fix class name or filename errors	✓	✓	✓
New! Error prompt to fix packages or directories	✓	✓	✓
New! Error prompt to fix type mismatches	✓	✓	✓
New! Error prompt to fix class declarations	✓	✓	✓
New! Fix missing import packages error	✓	✓	✓
New! Error prompt to fix missing import classes errors	✓	✓	✓
Javadoc Insight™			
New! Javadoc Insight to speed coding of Javadoc tags and reduce syntax errors	✓	✓	✓
New! Add custom Javadoc tags to Javadoc Insight		✓	✓
New! Color highlighting of Javadoc syntax	✓	✓	✓
Wizards			
More consistent behavior and navigation across all wizards	✓	✓	✓
Javadoc wizard adds Javadoc nodes to projects and automatically creates Javadoc formatted according to doclets		✓	✓
Wizards to generate unit tests	✓	✓	✓
Project wizard for conveniently and effectively starting new projects	✓	✓	✓
Project Import wizard to import existing code projects		✓	✓
Applet wizard for quickly defining and creating Java applets	✓	✓	✓
Application wizard for rapidly creating GUI applications in Java	✓	✓	✓
Class wizard to simplify the creation and definition of classes; package, base class, and class options	✓	✓	✓
Web Start wizard creates Java Network Launching Protocol (JNLP) and generates home page with Java plug-in detection		✓	✓
JavaBean wizard to radically simplify coding and speed implementation of JavaBeans		✓	✓
Dialog, frame, and panel wizards with flexibility for Swing, AWT, or custom base classes to speed up the creation of Java graphical user interfaces	✓	✓	✓
Implement interface wizard to assist in implementing Java interfaces	✓	✓	✓
Method wizard for implementing override or abstract methods	✓	✓	✓
Resource string wizard for easier creation of resource bundles		✓	✓
Data module wizard to simplify data access development using data modules		✓	✓
Servlet wizard for creating HTML, XHTML, XML, and WML Java servlets based on Servlet 2.2 or 2.3		✓	✓

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JSP wizard for rapidly creating JSP (JavaServer Pages) Web applications based on JSP 1.1 or 1.2		✓	✓
CORBA® interface wizard with sample interface definition to simplify the creation of IDL files			✓
CORBA server interface wizard for quickly defining and creating CORBA interface beans			✓
HTML CORBA client application wizard to rapidly create a JSP or HTML client from an IDL file			✓
CORBA server application wizard to rapidly create a CORBA server application from an IDL file			✓
EJB interface wizard to simplify development of EJBs			✓
EJB deployment wizard to rapidly deploy to application servers			✓
EJB group wizard to create EJB groups for importing existing/creating new EJB descriptors			✓
EJB test client wizard to create beans based on available EJB groups			✓
Language translation support			
Resource string wizard for eliminating hard-coded strings and easier creation of resource bundles		✓	✓
Convenient visual editing of individual property files		✓	✓
Simultaneous editing for multiple language versions of resource bundles		✓	✓
Support for language translations within the visual designer		✓	✓
Deployment with Archive Builder™			
Archive Builder™ to quickly build deployable archive types for applets, applications, JavaBeans, and OpenTools	✓	✓	✓
New! Fully manage archive content using either inclusion or exclusion logic	✓	✓	✓
Archive support for native executable		✓	✓
Java archive and PkZIP® (JAR and ZIP) format support	✓	✓	✓
Option to exclude dependencies from archives	✓	✓	✓
Web start applet and application packaging support		✓	✓
Deployment of user-defined file types	✓	✓	✓
Adding multiple classes or entire packages to deployment archive	✓	✓	✓
Auto-archive to update archive files at build time	✓		✓
Smart dependency checking for class and resource dependencies		✓	✓
Creating manifest information automatically or manually	✓	✓	✓
Archive source and documentation	✓	✓	✓

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J2EE application client packaging		✓	✓
Resource adapters archive (RAR) support for packaging J2EE EIS connectors		✓	✓
Enterprise Archive (EAR) support for packaging an entire set of components of an application; includes support for J2EE 1.2 and 1.3		✓	✓

Sample applications

Generic sample applications	✓	✓	✓
OpenTools sample applications showing diff-view and keymap definitions implementation	✓	✓	✓
Multilingual online shopping sample application with source code	✓	✓	✓
Extensible version control system OpenTools sample with integrated Concurrent Versions System (CVS) functionality with support for update, merge, add, and check-in/out		✓	✓
OpenTools sample applications for adding custom wizards, viewers, and many more	✓	✓	✓
XML tutorial showing examples of validation, databinding, XSL, database import/output, and more			✓
Online store real-life sample program with credit card approval, order entry, and order tracker functionality			✓
Shopping cart example using JSP		✓	✓
Credit card approval client using CORBA/RMI			✓
Bookstore sample application to demonstrate InternetBeans™ Express with DataExpress™ for EJB and more			✓

JBuilder® installation support

Product uninstall	✓	✓	✓
Dynamic product license registration	✓	✓	✓
Product install from server	✓	✓	✓
Generic product installation for unsupported platforms			✓
CVS client installation	✓	✓	✓

Debugging

Graphical debugger for bringing complex applications to market faster

Debugger with breakpoints, stepping, and watches for detecting bugs fast	✓	✓	✓
Debugging of Java 2 applications based on the industry-standard Java Platform Debugger Architecture (JPDA)	✓	✓	✓
Local variables view for all stack-frames for all threads	✓	✓	✓
Runtime evaluation for class members including variables and constants	✓	✓	✓

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Advanced debugger features, including conditional breakpoints, breakpoint logging, evaluator, step out, and run to end of method		✓	✓
Debugging in multiple Java 2 SDK versions and editions	✓	✓	✓
Advanced runtime evaluation and dynamic invocation of methods		✓	✓
Evaluator variable inline assignment		✓	✓
Debug configurations for managing multiple debug sessions per project		✓	✓
Simultaneous display of thread and stack-frame context		✓	✓
Floating debug windows to view multiple debug views simultaneously		✓	✓
Advanced smart debugging			
Set Execution Point function to move execution point while debugging (JDK 1.4 HotSwap support)		✓	✓
Smart Swap to swap out classes while debugging (JDK 1.4 HotSwap support)		✓	✓
Add non-Java program language source line breakpoint (JSR 45 support)		✓	✓
Set source view to toggle between non-Java code and generated Java source while debugging		✓	✓
Simultaneous multiprocess debugging to simplify development of partitioned applications	✓	✓	✓
Debugging of JDK with Java 2 JPDA debug API support		✓	✓
Line, class, method, and exception breakpoints to narrow down bugs more efficiently		✓	✓
SmartStep for configuring debug stepping (step into, over, out) behavior in class source	✓	✓	✓
ToolTip Evaluation for on-the-spot display of member instances		✓	✓
ExpressionInsight™ with detailed structure view of member instances		✓	✓
Breakpoint actions for programmable control on break events		✓	✓
Breakpoint expressions for getting an automated view on developer logging information		✓	✓
Sourceless debugging for stepping into classes without associated source code		✓	✓
Exception source trace to find source location of exception incident		✓	✓
Servlet debugging, breakpoints, evaluators, watches, etc.		✓	✓
JSP source code debugging with Java debugging support		✓	✓
Thread deadlock, stalls, and race conditions detection on precise error location		✓	✓
Keep thread suspended option for tracking thread race conditions		✓	✓
Cross-process breakpoints to control stepping behavior for debugging server code		✓	✓
Attach to and debug running process		✓	✓
Multiplatform and remote debugging for debugging complex distributed applications on a variety of platforms		✓	✓

	PERSONAL	DEVELOPER	ENTERPRISE
XML for Java™ development			
Generic XML support			
Project support for XML file types: XSD, XSP, DTD, XSL, MAP (XML-DBMS), WML, XHTML	✓	✓	✓
Browser-based XML viewer		✓	✓
Tree view for XML in browser view		✓	✓
XML environment			
Java API for XML Processing (JAXP) and DOM integrated library integration		✓	✓
Xerces 2.02 (XML) and Xalan 2.2 (XSLT) integration		✓	✓
Validation with error tracing		✓	✓
Transformation with source and browser view of both XML and HTML output		✓	✓
Transform trace for selection, generation, and template creation		✓	✓
Cocoon publishing engine integration for creating XML Web applications			✓
XML-based Web application projects with Cocoon runtime integration			✓
JavaBeans® binding and persistence			
Generate XML instance from DTD		✓	✓
Generate DTD from XML		✓	✓
Generate Java classes from DTD		✓	✓
Generate Java classes from schema		✓	✓
Open architecture for third-party, data-binding solutions		✓	✓
Advanced XML support			
SAX parser generator wizard, now based on JAXP			✓
XML ModelTableBean and XML ModelSQLBean to import/export DTD/XML data from or to relational databases			✓
XML TemplateTableBean and XML TemplateSQLBean to transform automatically generated XSL style sheets from XML to HTML			✓
XML mapping generation from RDBMS			✓
XML SQL generation from RDBMS			✓
XML SQLBean and XML TemplateSQLBean to generate XML packets complying to Borland XML DTD on declarative SQL templates			✓

Mobile development

New! Develop Java applications based on Sun® J2ME™		
Class/Package Browser	✓	✓
Mobile JDK switching	✓	✓
Supports MIDP 1.0 profile	✓	✓
MIDP project wizard	✓	✓
MIDlet wizard	✓	✓
Two-way visual designer for rapid application development	✓	✓
Designer support for MIDP UI elements	✓	✓
Sun J2ME Wireless Toolkit 1.0.4 included	✓	✓
Support for Nokia Developer's Suite for J2ME	✓	✓
Support for Siemens Mobility Toolkit (SMTK) for Java™ Development	✓	✓
Support for Sprint PCS Wireless Toolkit	✓	✓
New! Support for Sony Ericsson J2ME SDK	✓	✓
CodeInsight for CLDC/MIDP classes	✓	✓
Debug in micro-device emulator	✓	✓
Debug on actual micro device (if enabled in device JDK)	✓	✓
Archive builder to automatically create JAR, manifest and JAD files	✓	✓
Option to automatically obfuscate source code as part of archive process. RetroGuard v1.1 included or configure to use obfuscator of your choice	✓	✓
Screen manager to easily design complex, multi-screen applications	✓	✓
Implementation of Unified Emulator Interface (UMI) for easier integration with third-party emulators	✓	✓
Over The Air (OTA) Provisioning to upload MIDlet suites to FTP server without leaving JBuilder, download and test in emulator, or run directly from remote server	✓	✓

Team development

Supported version control systems		
New! Borland StarTeam® support	✓	✓
CVS support	✓	✓
Rational® ClearCase® version 4.1 support		✓
Microsoft® Visual SourceSafe® support ¹	✓	✓
Integrated team development		
SmartDiff for differences (diffs) between files independent of formatting changes	✓	✓

Borland® JBuilder® 9 Feature Matrix

	PERSONAL	DEVELOPER	ENTERPRISE
Revision browser for displaying history information of source versions	✓	✓	✓
Revision information on revision type, time stamp, author, and label	✓	✓	✓
Revert to previous source revisions	✓	✓	✓
Visual source-level display of diffs in distinct source revisions	✓	✓	✓
Diffs between different types of source revisions, including file buffers and local and backup files	✓	✓	✓
Revision browser for viewing source versions	✓	✓	✓
To-do list manager and to-do source comment tags	✓	✓	✓
Conflict resolution for reconciling source versions between workspace and repository now applies to all file types	✓	✓	✓
Conflict navigation in source editor	✓	✓	
Check out from branch	✓	✓	✓
Status browser to show what files have pending changes	✓	✓	
Commit browser to show and commit files to VCS	✓	✓	✓
Set version label: per file, per branch, per project	✓	✓	✓
Synchronized scrolling between source and history pane	✓	✓	✓
Difference view of arbitrary files	✓	✓	✓
New! Refactoring aware RenameNotifier to create a rename action to be displayed in the Commit Browser of version management systems that support the renaming function	✓	✓	✓
New! Prompt to checkout files needed to complete a refactoring	✓	✓	✓
Version control management			
Version control console	✓	✓	✓
Version control configuration to select server location, repository location, branch, and version selection	✓	✓	✓
Version control OpenTools API to tightly integrate third-party version control systems	✓	✓	✓
New! Commit browser framework now supports action changes on multiple files at the same time	✓	✓	✓
Library and SDK definitions			
Configuration definition categories for the granular differentiation between user, team, and environment settings	✓	✓	✓
JDK definitions for project, user, or environment level	✓	✓	✓
Class, source, documentation and required library settings per library definition	✓	✓	✓
Share library definitions of JDK locations among team members	✓	✓	✓

	PERSONAL	DEVELOPER	ENTERPRISE
Local file versioning			
Local or network file versions	✓	✓	✓
Configurable history of source files on file system	✓	✓	✓
CVS-specific			
Create local CVS repository	✓	✓	✓
New! Lightweight administration and branching support, including the ability to create, switch, and merge branches	✓	✓	✓
New! Special update support based on revisions	✓	✓	✓
New! Modify version labels	✓	✓	✓
CVS commit browser to resolve conflicts	✓	✓	✓
CVS support for status browser	✓	✓	✓
CVS support for commit browser	✓	✓	✓
CVS file locking support with edit, undo edit, and watches	✓	✓	✓
CVS server add-on to list projects and branches	✓	✓	✓
Create project from CVS repository	✓	✓	✓
Browse CVS modules in repository	✓	✓	✓
New! Browse repository using the Pserver protocol	✓	✓	✓
Reconciling local files with repository: read-only reconcile and read-write reconcile	✓	✓	✓
CVS local and remote file system, remote CVS server, and remote shell connections, now with port selection	✓	✓	✓
Direct protocol support for CVS	✓	✓	✓
Rational® ClearCase®-specific			
View editor for selecting, creating, and modifying ClearCase® views			✓
ClearCase support for status browser			✓
ClearCase support for commit browser			✓
Checking in and checking out file to and from Version Object Base (VOB) view and undo check-out			✓
Direct protocol support for ClearCase			✓
Create project from VOB			✓
Place project into VOB			✓
ClearCase snapshots support			✓
Unified Change Management (UCM) support			✓
Launch ClearCase Explorer®			✓
Apply label			✓
ClearCase user options			✓

Borland® JBuilder® 9 Feature Matrix

	PERSONAL	DEVELOPER	ENTERPRISE
ClearCase merge manager			✓
ClearCase find checkouts			✓
Create a ClearCase VOB (versioned object base)			✓
Create and update view			✓
Project explorer			✓
Join UCM project			✓
Native ClearCase tools support for file operations, including check-in, check-out, undo check-out, add file, properties for file, history for file, compare with prior version, and version tree for file			✓

Microsoft® Visual SourceSafe® (VSS)-specific features

VSS commit browser to resolve conflicts		✓	✓
New! Directory browser to pull and place a Visual SourceSafe project		✓	✓
Pull and post files from and to VSS project		✓	✓
VSS support for status browser		✓	✓
VSS support for commit browser		✓	✓
Direct protocol support for VSS		✓	✓
Create project from VSS		✓	✓
Place JBuilder project into VSS		✓	✓

Web development

Servlet engine integration

Borland® Enterprise Server, Web Edition support			✓
New! Borland® Enterprise Server 5.2 support			✓
Tomcat 3.3 with Servlet 2.2 and JSP 1.1		✓	✓
Tomcat 4.0 with Servlet 2.3 and JSP 1.2		✓	✓
Tomcat 4.1 with Servlet 2.3 and JSP 1.2		✓	✓
BEA® WebLogic® 6.0, 6.1, and 7.0 servlet engine support			✓
New! BEA® WebLogic® 8.1 servlet engine support			✓
IBM® WebSphere® 4.0, all editions servlet engine support			✓
New! IBM WebSphere 5.0 servlet engine support			✓
New! Sybase® Enterprise Application Server (EAServer) 4.2 servlet engine support			✓
Sun® ONE (iPlanet™) Application Server 6.0, and 6.5 servlet engine support			✓

MVC-based Struts application framework

HTML/JSP to Apache Struts converter wizard		✓	✓
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Borland® JBuilder® 9 Feature Matrix

	PERSONAL	DEVELOPER	ENTERPRISE
Struts action form creation wizard		✓	✓
Struts action creation wizard		✓	✓
Generate JSP input form from Struts action form		✓	✓
Struts visual configuration editor		✓	✓
Web application wizard with Struts support		✓	✓
Struts framework support in JSP wizard		✓	✓
New! Struts 1.1 support		✓	✓
Web deployment			
Advanced error detection of embedded Java source in JSP, by pre-compiling before deploying to servlet engine		✓	✓
Web Start launcher wizard		✓	✓
WAR Web application archives		✓	✓
Two-way Deployment Descriptor Editor according to Servlet 2.2/2.3 specification		✓	✓
Java Web Start support			
Java Web Start-ready applications for Java™ Network Launching Protocol (JNLP) creation		✓	✓
JNLP support v1.0.0		✓	✓
Web Start home page generation with Java plug-in detection		✓	✓
Integrated Web development			
Unified configuration of Borland Enterprise Server for JSP, servlets, and EJB when used as Web server			✓
JSP/Servlet framework support		✓	✓
Struts 1.0 framework		✓	✓
InternetBeans Express 1.1 framework		✓	✓
JSTL (JavaServer Pages Standard Tag Library) 1.0 framework		✓	✓
Cocoon framework			
JavaScript® execution and viewing for most common JavaScript tasks			✓
Support for Servlet 2.2/JSP 1.1 and Servlet 2.3/JSP 1.2 standards			✓
Plug-in-ready servlet engine support			✓
Option to switch between servlet plug-ins			✓
Tomcat 3.1, 3.2, 4.0, and 4.1 engine plug-in			✓
CSS templates for creating presentation layers for XML data			✓
StructureInsight™ for XML, JSP, HTML, WML, and XSL source files			✓

	PERSONAL	DEVELOPER	ENTERPRISE
Advanced Web development for Java™ servlet support			
Rapid development of dynamic servlet based thin-client Java services		✓	✓
Servlet 2.3 filters and listeners		✓	✓
Includes servlet templates		✓	✓
Servlet wizard for creating thin-client HTML, XHTML, XML, and WML Java servlets based on Servlet 2.2 and 2.3		✓	✓
Local execution of servlet		✓	✓
Local debugging of servlet		✓	✓
Remote execution of servlet		✓	✓
Remote debugging of servlet		✓	✓
Advanced Web development for JSP™ servlet support			
JSP Tag Library support		✓	✓
Tag Library integration with JSP/Servlet framework		✓	✓
Rapid development of dynamic JSP-based thin-client Java services		✓	✓
JSP wizard for rapidly creating JSP Web applications based on JSP 1.1/1.2 and tag libraries		✓	✓
Executes JSP in the built-in Web server			✓
JSP syntax highlighting and structure view		✓	✓
Includes servlet and JSP templates		✓	✓
Local execution of JSP		✓	✓
Easier launch of JSP (WebRun and WebDebug)		✓	✓
Remote execution of JSP		✓	✓
Local inline debugging of JSP		✓	✓
Native JSP debugging with full breakpoint, watches, evaluation, and context information support		✓	✓
CodeInsight, ErrorInsight, ToolTip Evaluation for JSP-embedded Java		✓	✓
InternetBeans™ Express for component-based, data-driven applications			
InternetBeans Express presentation components for rapidly creating Web-driven Internet applications based on DataExpress™		✓	✓
InternetBeans Express JSP/Servlet framework		✓	✓
InternetBeans Express employ proven DataExpress components for ultra-fast database access to JDBC or JDataStore™ databases		✓	✓
More than 15 InternetBeans™ for page producer, table, field, check-box, combo-box, text-area, and more controls		✓	✓
Rapidly create dynamic, data-driven thin-client Web documents, including support for markup languages such as HTML, XML, and WML		✓	✓

	PERSONAL	DEVELOPER	ENTERPRISE
Quickly link Web front-ends with EJB			✓

Web Services

Web Services			
New! Support for asynchronous Web Services			✓
Import WSDL wizard to generate Java classes from existing WSDL			✓
Implement a Web Service as an EJB based on WSDL			✓
Export Class As A Web Service wizard to expose selected methods of a Java class as Web Services and generate WSDL file			✓
Deploy an EJB as a Web Service			✓
Create a SOAP deployment environment			✓
New! Support for Apache SOAP Version 2.3			✓
Support for Apache Axis Web Services runtime			✓
New! Support for Apache™ Axis version 1.2			✓
Support for WebLogic native Web Services runtime and deployment			✓
New! Support for WebLogic 8.1 native Web Services			✓
Deploy Axis runtime to Tomcat, Borland Enterprise Server, WebLogic, and WebSphere			✓
UDDI Web Services explorer to browse and import available services			✓
New! UDDI Web Services Explorer now supports UDDI 2.0			✓
Publish Java Web Service to UDDI directory			✓
TCP Monitor to monitor SOAP messages transported between client and server			✓

Database

Third-generation DataExpress™ components for simplified data access and management			
dbSwing™ data-aware JavaBeans for developing full-featured Java 2 database applications	✓	✓	✓
Swing data-aware models and binders for use with standard Swing components, including JTable, JList, and text controls	✓	✓	✓
ProcedureDataSets to easily use stored procedure in applications	✓	✓	✓
Serializable DataSets for distributed database computing solutions	✓	✓	✓
DataExpress data-access components with JDBC database connectivity, including support for master-detail relationships, picklists, lookups, multiple table joins, and transactions	✓	✓	✓
JDBC data sources	✓	✓	✓
Connection pooling	✓	✓	✓

Borland® JBuilder® 9 Feature Matrix

	PERSONAL	DEVELOPER	ENTERPRISE
DataExpress source code for control and flexibility in building Java database applications			✓
Connect to registered data sources via JNDI	✓	✓	✓
Simplify database development with an integrated suite of SQL tools			
Visual tools for creating two-tier client/server applications	✓	✓	✓
StructureInsight for SQL database queries		✓	✓
SQL Builder to visually create and edit SQL queries to JDBC data sources		✓	✓
Database Pilot™ for viewing database schema and creating connection URLs		✓	✓
Visual tools for database development, including column editor, connection editor, link editor, sort editor, MetaDataUpdate Editor, and Resolve Order Editor	✓	✓	✓
SQL92 query syntax support	✓	✓	✓
Resourceable SQL to simplify management of SQL code	✓	✓	✓
JDBC monitor to test and tune SQL applications		✓	✓
Interactive SQL command line tool		✓	✓
Borland® JDataStore™ —embedable Java™ database for development, prototyping, and deployment			
Extremely fast JDBC database written entirely in Java	✓	✓	✓
Faster JDBC access than many established native databases	✓	✓	✓
Small RAM and disk memory footprint	✓	✓	✓
Generates very small database file footprint, often half the size of competitors	✓	✓	✓
Easier to embed and deploy using a single executable .jar file	✓	✓	✓
Nearly zero administration	✓	✓	✓
Automatic crash recovery	✓	✓	✓
Visual tools and error messages available in Japanese, German, French, and Spanish	✓	✓	✓
Development license for JDataStore included (additional licensing required for deployment)	✓	✓	✓
Extremely powerful! Supports complex business logic and thousands of users	✓	✓	✓
Tight integration between JBuilder and Borland Enterprise Server for highly productive development	✓	✓	✓
Certified on broad range of Java Virtual Machines (JVM™) including JVM 1. 4, 1.3, 1.2, and 1.1	✓	✓	✓
Certified on many OS platforms, including Linux,® Mac OS X, Windows® 95, 98, 2000, Windows XP™	✓	✓	✓

Borland® JBuilder® 9 Feature Matrix

	PERSONAL	DEVELOPER	ENTERPRISE
Supports small device platforms, including Symbian™ OS, embedded Linux, and Windows CE®	✓	✓	✓
Passes the entire Sun J2EE 1.3.1 Certification Test Suite (CTS), including the JDBC, PM, XA, and JTA test trees	✓	✓	✓
Complete support for JDBC 3 compliance	✓	✓	✓
JDBC 3 save points and parameter metadata	✓	✓	✓
ODBC support for native applications using the EasySoft™ ODBC-JDBC Gateway	✓	✓	✓
Comprehensive subset of entry-level SQL 92 standard	✓	✓	✓
Local Type 4 JDBC driver for high-speed in-process access	✓	✓	✓
Remote Type 4 JDBC driver for multiprocess/computer access	✓	✓	✓
New! Optimized for high transaction loads of J2EE/EJB/OLTP applications	✓	✓	✓
Optimized for complex DSS/OLAP queries	✓	✓	✓
Optimized to allow read-only transactions to operate at full speed without needing to acquire locks	✓	✓	✓
Ability to use read-only transactions for online backup and long running reports for continuous database availability	✓	✓	✓
Support for all four JDBC transaction isolation levels	✓	✓	✓
Row-level locking for increased concurrency	✓	✓	✓
JDBC connection pooling with statement caching	✓	✓	✓
High-speed transactional crash recovery from system failures	✓	✓	✓
Unicode for String/Char data	✓	✓	✓
Support for collation keys for international sorting and indexing	✓	✓	✓
Database and log files portable across all platforms	✓	✓	✓
Support for many additional SQL keywords including: ACTION, ANY, CALL, CHECK, EXCEPT, FOREIGN, INTERSECT, NO, REFERENCES, SOME, USER	✓	✓	✓
Stored procedures and user-defined functions that can be implemented in Java	✓	✓	✓
Support for Java triggers	✓	✓	✓
Security features for user authentication and database encryption	✓	✓	✓
Rich data type support for Java primitives, Java objects, and Blobs	✓	✓	✓
Data replication support using DataExpress components for disconnected computing models	✓	✓	✓
“Pluggable” storage for DataExpress data-access JavaBean components	✓	✓	✓
Direct binding of tables and columns to visual swing JavaBean controls	✓	✓	✓
Portable transactional file system capability for random access files	✓	✓	✓
Visual JDataStore™ Explorer interactive data viewing and editing	✓	✓	✓
Visual JDataStore Explorer transaction, security, and backup administration	✓	✓	✓

	PERSONAL	DEVELOPER	ENTERPRISE
Visual JDataStore Explorer import from other JDBC databases for interoperability	✓	✓	✓
Visual JDataStore Explorer interactive table/index create/restructure provided	✓	✓	✓
Visual JDataStore Explorer interactive SQL execution	✓	✓	✓
Visual JDataStore Server interactive database connection monitoring and logging	✓	✓	✓

Enterprise application development

Application server support

Extendable modular services-based server integration to support servlet, JSP, EJB, and deployment using multiple platforms.	✓
New! Create multiple copies of application server integration configurations	✓
New! Customize synchronization of application server integration configurations with individual projects	✓
New! Borland® Enterprise Server, AppServer™ Edition 5.2 with EJB 1.1/J2EE 1.2 and EJB 2.0/J2EE 1.3	✓
New! BEA WebLogic 8.1 with EJB1.1/J2EE 1.2 and EJB 2.0/J2EE 1.3	✓
WebLogic 7.0, with EJB 1.1/J2EE 1.2 and EJB 2.0/J2EE 1.3	✓
WebLogic 6.1, with EJB 1.1/J2EE 1.2 and EJB 2.0/J2EE 1.3	✓
WebLogic 6.0 with EJB 1.1	✓
New! IBM WebSphere 5.0 with EJB 1.1/J2EE 1.2 and EJB 2.0/J2EE 1.3	✓
IBM WebSphere 4.0 with EJB 1.1	✓
Sun ONE (iPlanet) Application Server 6.5 with EJB 1.1	✓
Sun ONE (iPlanet) Application Server 6.0 with EJB 1.1	✓
Oracle9i™ Application Server ²	✓
New! Sybase® EAServer 4.2	✓
Sybase® EAServer 4.1	✓

Enterprise deployment archives (EAR)

EJB archives according to J2EE 1.2 specification	✓
EAR group file nodes J2EE 1.2- and J2EE 1.3-compatible	✓
Import existing external archives into EAR group	✓
Import from existing EJB groups	✓
EAR packaging, deployment, and run for all supported application servers	✓
J2EE application client JAR files	✓

EJB™ test client wizard

Boundary testing	✓
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Borland® JBuilder® 9 Feature Matrix

	PERSONAL	DEVELOPER	ENTERPRISE
Generate test clients from a pre-packaged EJB archive			✓
Generate test clients based on JUnit or Cactus			✓
DataExpress™ for EJB™			
DataExpress for EJB for seamless access of session beans and entity beans through DataExpress			✓
DataExpress access beans SessionBeanConnection, EjbClientDataSet, EntityBeanProvider, EntityBeanResolver to connect back-end business logic to front-ends			✓
Rapid J2EE™ platform-compliant development and deployment			
Local and remote Hot-Deploy deployment to running EJB container			✓
Java™ Messaging Service (JMS) wizard for creating message producers and consumers			✓
Generate or update source implementation skeletons from remote interface			✓
Visually create EJBs to comply with the J2EE standard			✓
EJB 1.1-compliant support and EJB 2.0-style interfaces with visual tools			✓
Visual creation of EJB deployment, environment, and control descriptors			✓
EJB groups to organize deployment descriptors and EJB archives			✓
Multiple EJBs per project			✓
EJB group wizard to create EJB groups for importing existing or creating new EJB descriptors			✓
EJB wizard for creating entity and session bean Java source code, including home and remote interfaces			✓
Auto-packaging of beans at project build time			✓
Creation of deployable archives per EJB group at project build time			✓
Instant execution of EJB in run or debug mode			✓
Container (application server) configuration for default and EJB 1.1-compliant application servers			✓
EJB-aware BeansExpress with visual property editor and method level conflict resolution			✓
EJB test client wizard to create beans based on available EJB group			✓
Use EJB test client wizard to customize EJB client based on EJB group			✓
Resource adapters archive (RAR) support for packaging EIS connectors for J2EE			✓
Two-way deployment descriptor editor			
Visual creation and configuration of XML deployment descriptors		✓	✓
Deployment descriptor XML source editor		✓	✓

Borland® JBuilder® 9 Feature Matrix

	PERSONAL	DEVELOPER	ENTERPRISE
Two-way editing of deployment descriptor for home and remote interface, container transactions, security roles, and data sources		✓	✓
StructureInsight for visual and XML deployment descriptors		✓	✓
Bean verifier to check integrity of EJB before deployment		✓	✓
Visual designer for EJB™ 2.0			
Visual point-and-click two-way designer of entity, session, and message beans.			✓
Two-way generation of both classes and deployment descriptors			
Improved performance, error handling, and better diagrams			✓
Support for more coding scenarios, including multiple ejbCreate methods per bean and bean inheritance, and two-way coding support for individual user coding styles			✓
Visually create Container Managed Persistence (CMP) entity beans, including properties and interfaces			✓
Visually design CMP 2.0 relationships and configure database mapping			✓
Visually create session beans			✓
Automatically arrange beans			✓
Create multiple design panes to logically group beans in an EJB group			✓
Generate database schema from entity beans in the designer			✓
Import EJB source code without deployment descriptors			✓
Import EJB for CMP 2.0 and Bean Managed Persistence (BMP) projects for Borland Enterprise Server and BEA WebLogic into the designer			✓
Control cardinality of CMP 2.0 relationships			✓
Automatically insert and update import statements when exposing a method with a remote interface			✓
Visually create message-driven beans			✓
Edit bean package source paths			✓
Generate entity beans from existing database schema			✓
Visually move methods between beans and interfaces			✓
Support for BMP-driven entity beans			✓
Entity Bean Modeler™ for EJB™ 1.0 and EJB 1.1			
User-defined mapping between table metadata and Java data types			✓
Generate BMP source code from table relations			✓
Entity Bean Modeler to create CMP and BMP entity beans, including home and remote interfaces, as well as primary key classes			✓
Combination of DataExpress integrated database tools with entity bean functionality			✓
Visual mapping of data source, tables, and fields to entity bean			✓

Borland® JBuilder® 9 Feature Matrix

	PERSONAL	DEVELOPER	ENTERPRISE
Model entity bean table relationships between tables for foreign keys, primary keys, unique indexes, field names, and field types			✓
Fine-tuning of class, interface, primary keys, and JNDI names for Java code generation			✓
Optionally generate EJB 1.1– or EJB 2.0–style classes with abstract field accessors			✓
Borland® Enterprise Server support			
Enhanced! Borland Enterprise Server, AppServer Edition 5.2 development license, a complete J2EE 1.3 and EJB 2.0 implementation, including both an EJB service and a Servlet/JSP service		✓	✓
Support of EJB for stateless and stateful session beans, message-driven beans, and entity beans with bean-managed persistence and container-managed persistence			✓
Dynamic Hot-Deploy, to deploy/undeploy/redeploy EJBs to container without shutting down or restarting			✓
JBuilder integration provides an authentic enterprise development and deployment experience for J2EE and Web Services applications			✓
Full support for the Java™ Connector Architecture			✓
Borland Enterprise Server includes support for the CORBA 2. 4 specification			✓
Support for distributed transactions with Java Transaction Service (JTS) and Java Transaction API (JTA)			✓
2PC Transaction Service			✓
Support for JMS through SonicMQ® bundling			✓
SonicMQ 4 integration			✓
Enhanced support for CMP 2.0 entity bean relationships			✓
J2EE Blueprints including SmartTicket, PetStore 1.3 and clustered PetStore 1.3			✓
Support for local interfaces			✓
RMI-over-IIOP and Java-to-IDL mapping			✓
CORBA compliance with both RMI-over-IIOP and Java-to-IDL mapping			✓
Ability to instantiate CORBA objects and EJB in the same container			✓
JNDI naming, load balancing, fault tolerance, and fail-over in the Naming Service			✓
Java Naming and Directory Interface (JNDI)			✓
Both HTML-based and Java-based visual GUI tools for simplified administration			✓
Security features out of the box, including strong 128-bit encryption, authentication, and authorization			✓
Support for efficient application partitioning			✓
Management functionality			✓
Integrated Management Console with auto-discovery of components			✓

Borland® JBuilder® 9 Feature Matrix

	PERSONAL	DEVELOPER	ENTERPRISE
Management server (Borland Management Hub) includes the ability to establish rules to create the desired state of managed applications			✓
Database Repository provides scalability and reliability			✓
Best-practices clustering support including a Cluster Wizard to easily build a load-balanced cluster of J2EE servers			✓
Define rules to control start and stop sequence of services across multiple AppServers in cluster			✓
Integrated Java Web server with support for Servlets and JSP			✓
Web Services support based on Apache Axis—expose EJBs, Java, and CORBA as Web Services			✓
Apache 2.0 includes improvements in performance and scalability			✓
Tomcat 4.0 with metrics display to track number of hits, response time, and instance counts			✓
IIOP Connector delivers improved performance, Smart Session support, and the ability to cluster Tomcats across multiple domains with fail-over and round-robin support			✓
Usability using the Borland Console allows easier configuration of Web container			✓
BEA WebLogic Server™ support			
New! Integrated WebLogic Server™ 8.1 (EJB 1.1 and EJB 2.0) development support, including both an EJB service and a servlet/JSP service			✓
Integrated WebLogic Server™ 7.0 (EJB 1.1 and EJB 2.0) development support, including both an EJB service and a servlet/JSP service			✓
Integrated WebLogic Server 6.1 (EJB 1.1 and EJB 2.0) development support			✓
Integrated WebLogic Server 6.0 (EJB 1.1 and EJB 2.0) development support			✓
Integrated support for WebLogic Server 7.0 native Web Services runtime			✓
Support for CMP and BMP entity bean creation			✓
EJB 2.0 CMP relationships for entity bean support			✓
EJB 2.0 message-driven beans			✓
Targeted deployment to WebLogic Server			✓
Dynamic Hot-Deploy to deploy/undeploy/redeploy EJBs to container without shutting down or restarting			✓
Integrated Two-Way-Tools for managing and deploying beans, including Deployment Descriptor Editor, Entity Bean Modeler, and more			✓
Configurable WebLogic ejbc compiler settings for home and remote interfaces			✓
IBM® WebSphere® server support			
New! Integrated WebSphere 5.0 (EJB 1.1) development support including both an EJB service and a servlet/JSP service			✓

Borland® JBuilder® 9 Feature Matrix

	PERSONAL	DEVELOPER	ENTERPRISE
Integrated WebSphere 4.0 (EJB 1.1) development support including both an EJB service and a servlet/JSP service			✓
Support for BMP entity bean creation			✓
Targeted deployment to WebSphere server			✓
Integrated Two-Way-Tools for managing and deploying beans, including Deployment Descriptor Editor, Entity Bean Modeler, and more			✓
Sun® ONE Application Server support			
Integrated Sun ONE iPlanet 6.5 (EJB 1.1) development support including both an EJB service and a servlet/JSP service			✓
Integrated Sun ONE iPlanet 6.0 (EJB 1.1) development support			✓
Support for CMP and BMP entity bean creation			✓
Targeted deployment to Sun ONE Server			✓
Integrated Two-Way-Tools for managing and deploying beans, including Deployment Descriptor Editor, Entity Bean Modeler, and more			✓
Dynamic Hot-Deploy to deploy/undeploy/redeploy EJBs to container without shutting down or restarting			✓
			✓
CORBA® distributed object development			
Included! Borland VisiBroker® for CORBA ORB™ development license, naming, and event services for creating distributed Java 2 applications			✓
Visual tools for rapidly creating HTML front-ends to CORBA servers using servlets or JSP			✓
Generation of server monitors to simplify testing of CORBA servers			✓
Advanced integration of CORBA/IIOP development with support for both Borland VisiBroker® for Java and OrbixWeb™ for Java data modeler to visually create IDL interfaces for distributed CORBA development			✓
IDL navigation and syntax highlighting			✓
Visual tools to rapidly create client applications for CORBA servers			✓
Visual tools to rapidly create CORBA servers			✓
Multi-tier CORBA sample applications using VisiBroker with source code			✓
Full support for the CORBA 2. 4 specification			✓
Portable Object Adapter (POA) with support for POA policies, such as Thread, Lifespan, Object ID Uniqueness, ID Assignment, Servant Retention, Request Processing, and Implicit Activation			✓
Objects By Value (OBV) for passing of arbitrary complex objects and graphs of objects by value across processes, machines, and languages			✓
Java2iiop compiler for creating IIOP-compliant stubs and skeletons directly from Java interfaces			✓

	PERSONAL	DEVELOPER	ENTERPRISE
RMI distributed object development			
Integrated project management for RMI development	✓	✓	✓
Automatic invocation of RMIC postprocessor to create skeletons and stubs	✓	✓	✓
Synchronized interface and implementation			✓
RMI encapsulation			✓

J2EE made easier

Applications based on Session Facades, Struts, and DTO patterns			
New! Session façade wizard to create session beans based on session façade and DTO pattern			✓
New! Wizard to create JavaBean client wizard for session facades			✓
New! Wizard to create Struts application for client session facades			✓

Complete performance tuning with Borland® Optimizeit™ Suite 5.5

Flexibility to match many development environments			
New! Borland® Optimizeit™ Suite delivers complete performance management capabilities for identifying and solving code-level performance issues. This integrated solution comprises Optimizeit™ Profiler, Optimizeit™ Thread Debugger, and Optimizeit™ Code Coverage			✓
New! Improve performance and reliability of any Java code: Java applications, J2EE applications, servlets, applets, Enterprise JavaBeans, JavaBeans, JSP applications, and Java tag libraries			✓
New! Requires no code modifications; runs with Sun JDK 1.1.8, most Java 2-compliant virtual machines, including Sun J2SE v1.3 with built-in HotSpot™ Virtual Machine, Sun J2SE v1.4.1, and IBM® Developer Kit, Java™ 2, Technology Edition, version 1.3			✓
New! Integrates fully with popular application servers including Borland Enterprise Server, IBM WebSphere, BEA WebLogic, and Sun ONE			✓
New! Integration wizards for Borland Enterprise Server, AppServer Edition 5.2, BEA WebLogic Server 7.0 and 8.1, and IBM WebSphere 5.0			✓
New! Seamless integration with JBuilder enables developers to run Optimizeit™ Suite right from within the JBuilder UI	✓	✓	✓
New! Easily connects to a remote Java process to test a program running on a different machine			✓
New! Optimizeit Performance Tracker analyzes the performance impact of code changes by comparing snapshots			✓

Optimizeit™ Profiler for memory and CPU profiling			
New! High-level performance overview allows developers to understand in real time if a performance issue is related to CPU, or memory, or both			

Borland® JBuilder® 9 Feature Matrix

	PERSONAL	DEVELOPER	ENTERPRISE
New! High-level performance-related data displayed in real time allows developers to understand if a performance issue is related to CPU, memory, or both			✓
New! Automatic Memory Leak Detector monitors the evolution of memory usage over time for the immediate identification of potential memory leaks			✓
New! Real-time monitoring of object allocations to understand how the profiled program uses the virtual machine memory; Allocation Backtrace View allows developers to identify the code or part of the program responsible for instance allocations			✓
New! Object Size Display automatically computes and displays in real time the amount of memory being consumed by all instances of a class; view and sort by object size to prioritize objects consuming the most memory			✓
New! Reduced reference graph provides a transitive closure of the full reference graph to display only references that should be removed in order to free the object for garbage collection			✓
New! CPU Profiler: measure pure CPU usage or time usage during a profiling session, with option to use sampling-based or instrumentation-based profiler			✓
New! Display of profiling information per thread and thread groups with color highlighting of threads that were busy during profiling session			✓
New! Hot Spot Display: lists methods where most time was spent to help identify bottlenecks due to single methods			✓
New! Visually isolate critical code with a new scalable call graph. Select a string allocation and highlight the flow of a method call to see where memory and time are being spent			✓
Optimizeit™ Thread Debugger			
New! Real-time display of the progress of all threads running within the virtual machine			✓
New! Easy-to-read color coding of thread behavior makes it simpler to understand thread issues occurring in real time: thread contentions for a monitor, thread starvation for a resource, and excessive locking			✓
New! Understand thread contentions for a monitor with the detailed panels of the Contention View			✓
New! Wait state monitoring: understand why a thread is not making progress with the Waiting View and I/O Waiting View			✓
New! Excessive locking: Monitor Enter View reports where a thread enters and holds monitors, allowing developers to understand and correct excessive locking			✓
New! Deadlock analysis: graphical view of the relationships between threads and monitors to quickly understand deadlock situations			✓
New! Predict deadlocks: Monitor Usage Analyzer generates full list of warnings and errors that may lead to deadlocks and performance bottlenecks such as lock order warnings, lock and wait warnings, and lock and I/O wait warnings			✓

	PERSONAL	DEVELOPER	ENTERPRISE
Optimizeit™ Code Coverage			
New! Real-time Class Coverage View to quickly see the coverage for each class and identify classes not fully covered			✓
New! Real-time display of all classes and interfaces used by the tested program and real-time percentage of lines covered per class			✓
New! Method Coverage View displays the methods and lines of code for a selected class which have not been used, allowing developers to modify test plans to cover all areas of the code			✓
New! Source Code Viewer shows lines of code which have never been executed, making it simpler to spot dead code			✓
New! Option to display the interfaces that have been loaded by the virtual machine and those that have not been loaded			✓
New! Batch-mode support to easily include code coverage in any batch-mode testing process			✓
New! SnapshotMerger merges different runs of the same application from the command line to see coverage of the combined runs			✓
New! Generate customized, detailed coverage reports directly from the command line			✓

¹ Available on Windows® platform only.

² Oracle9i™ Application Server integration plug-in must be installed separately from JBuilder CD and is supported by Oracle.