IBM

WebSphere software

Meeting the needs of your evolving e-business with a comprehensive, open development environment.

Increase developer productivity with a flexible, portal-like set of integrated best-of-breed tools.

Today's business demands speed. To meet business objectives, it's critical that you enable diverse development teams across your enterprise to deliver high-quality applications quickly. Communicate effectively. And work together efficiently to meet goals. These development teams need the technology and collaborative environment that enable them to share common tools, application components and practices so efforts aren't duplicated. Your entire team can work smarter, helping you reduce development time and save money. But if you're still relying on mainframe computers to run your core business processes, your developers and programmers can be tied to disparate, independent systems. These enormous, complex systems contain vast, rich stores of valuable data, including historical business data, customer information and legacy application code. To harvest and leverage your wealth of business information and to extend your IT investments, you need to tap into those resources.

IBM WebSphere® Studio helps you develop the process and provides the tools and infrastructure you need to strategically transform your enterprise and effectively compete in the world of e-business. Fully understand application assets. Integrate assets with internal and trading partner processes. And extend assets across your enterprise quickly. With technology and tools that enable nondisruptive, tight integration of back-end systems, fast migration of core processes to Web-based services and advanced Web application development, IBM can help you stay in step with the pace of change.

Supply your team with robust tools

One key to e-business success is having technology that grows with you. Whether you're building a single application or developing a sophisticated, enterprise-class application environment, the decisions you face can be daunting. Mapping your growth plan. Choosing the right platform. Buying software to support your IT platform. Building your development team. Deciding on an integration strategy. Then, deciding what business data, applications and process-es should be available to customers, employees and trading partners. And giving your team the tools they need to set your plan in motion.

The Internet can help you reach global customers and your increasingly mobile workforce. But to leverage Web oppor-tunities, you need to know your valuable business data and application functions can be delivered reliably, safely and on time. The platform you choose is critical to your success. And it has to support a complete software solution that grows at your pace.

WebSphere Studio provides a comprehensive set of integrated tools to help increase your team's productivity throughout the entire application development lifecycle. As your e-business capabilities grow, so can the complexities of your IT environment. WebSphere Studio extends the life

of your investments by opening the doors to new technologies, while leveraging traditional technologies and mixed workload environments. It helps you manage the growing diversity and interaction among developer roles in the flexible, team-oriented processes required to give you an edge in today's business environment.

User-friendly tools and wizards allow you to quickly and easily perform many development tasks. From building simple Web pages to developing advanced enterprise applications that span disparate platforms. Beginners and experts alike can create Web pages that deliver rich, engaging Web con-tent to your customers. Through integrated components and a comprehensive, design tool set to help you develop and deploy dynamic e-business applications. Quickly enhance the function of existing Web pages with ease and create, test and publish interactive Web sites.

Rely on WebSphere Studio for your application development needs

WebSphere Studio is built on Eclipse technology, an open-source development environment supported by industry-leading vendors. And when you incorporate best-of-breed third-party tools as your business needs evolve, you can see a complete and tightly integrated solution customized to meet your needs.

Increase productivity and efficiency

Why start your application development process anew, when reusing your existing development assets is faster? WebSphere Studio increases team productivity and lets you build, test and deploy applications quickly by automating development and deployment processes.

WebSphere Studio also lets you maximize development team efficiency. You'll have more resource time to spend on creating value for your business infrastructure. Help reduce costs and increase collaboration by standardizing the development environment. Focus on solving the problem, rather than managing the tools.

As your applications mature and get closer to deployment, you don't want a showstopping defect to hold up delivery of a business-critical offering. WebSphere Studio lets you enhance application quality by using built-in performance analysis and tracing tools, integrated debuggers and unit test environments to detect defects early in the development lifecycle.

Improve flexibility with comprehensive solutions

Pulling together assets built in disparate environments can delay the delivery of business-critical applications. WebSphere Studio increases collaboration by using a single environment that scales to support multiple types of development—Web, business logic, integration and traditional.

Your team can use the same environment, customized to meet their individual development needs, as they develop new applications—in multiple languages, on various platforms and for the latest devices.

WebSphere Studio can also help you prevent vendor lock-in and avoid technology dead ends, because it's built on industry-supported open technologies that grow and change with your needs. Choose the development options that work best for your business and expand at a comfortable rate.

Leverage innovative technology and development techniques

WebSphere Studio allows individual developers to integrate tools based on their specific needs. IBM and other industry-leading vendors have created tools based on the Eclipse framework—an open source development environment with tools that work together. This helps you ensure that the widest set of assets are available to your development team.

By exploiting the WebSphere Studio family of products, you can benefit from complementary toolkits to support the full spectrum of application development, including database, integration, wireless, collaboration and systems management. Toolkits to support emerging technologies in several areas include voice recognition and portal development. These cutting-edge, state-of-the-art tools can help you deploy your applications faster. As communication among your developers improves, the discovery, development and deployment phases of the application lifecycle can flow smoothly.

> *"The integration of Rational ClearCase and IBM WebSphere Studio families is the type of innovative solution supported by market-leading companies that… customers require in today's economy."*
>
> *-Roger Oberg, Vice President, Product Marketing, Rational Software*

WebSphere Studio provides a complete set of Web services tools that makes it easy to design and create Web services to integrate companies, customers, suppliers and employees over the Internet in heterogeneous environments.

Take another step toward successful application development
With WebSphere Studio you can build Java® 2 Platform, Enterprise Edition (J2EE) technology-compliant applications that enhance user reach and customer experience. These J2EE applications can help reduce the cost and complexity of developing multitier, enterprise services and can be rapidly deployed and easily enhanced as the enterprise responds to competitive pressures. For example, WebSphere Studio gives your development team access to databases and links to transaction-processing systems. Developers can use the tools they need to create, edit and validate enterprise application archive files. The development environment in WebSphere Studio provides testing and support for IBM WebSphere Application Server, which allows you to quickly and easily create J2EE applications to fit your business needs.

Your system administrators can keep track of your applications with monitoring and profiling tools that feature customizable views and comprehensive error logs. Identify, isolate and repair glitches that can decrease performance. The built-in unit test environment allows your developers to test their applications on the fly. With performance-profiling and tracing,

further examine your code and application development to identify memory usage, attack memory leaks and identify bottlenecks to help you fine-tune your application performance. WebSphere Studio lets your quality and assurance team test applications early in the development cycle to save time and improve project-wide efficiency. And, through the performance analyzer, learn which operations take the most time to execute to help you improve runtime memory usage.

The built-in Web services tools in WebSphere Studio support standards like Simple Object Access Protocol (SOAP), Universal Description, Discovery and Integration (UDDI), Web Services Description Language (WSDL) and Web Services Inspection Language (WSIL). You can construct applications by visually composing components as services. These application services can be accessed through the Web or implemented as local Java services (JavaBeans or Enterprise JavaBeans) or legacy assets. By working with all components as services, you have the flexibility to mix and match functions from different sources, bringing innovative processes, services and value chains to market quickly and efficiently.

With IBM WebSphere Studio, your developers can use robust graphical tools to quickly and easily build custom application adapters. This allows them to reuse existing resources and save time when integrating new J2EE technology-based applications with back-end systems.

> *"WebSphere Studio, Version 5 will revolutionize the way Mid-Comp International develops scalable flexible business solutions."*
> *-Robert Hare, WebSphere Division Manager, Mid-Comp International*

As your e-business grows, you need to be able to develop applications for mobile computing devices. WebSphere Studio lets you combine WebSphere software function and extend e-business applications with the convenience of handheld computers, personal digital assistants (PDAs) and Internet-enabled mobile phones. So you can reach customers—regardless of location or device.

Conduct e-business on a large scale with enterprise development
As your e-business grows, you want to add new features and offerings without expending more resources to get the new application to market. With WebSphere Studio, you can build and deploy high-quality, J2EE technology-based applications in a fraction of the time it might take with conventional tools. Developers without expertise in Java componentry can easily generate and rapidly deliver business application components.

A business-oriented language, Enterprise Generation Language (EGL), lets you rapidly write full-function applications that deliver enterprise business processing and data to browsers, regardless of your experience with Web or object-oriented technologies. An EGL-generated program written for one target platform can be converted easily for use on other enterprise platforms. As a result, you can write code to respond to platform and business requirements without worrying or limiting future migration and integration. You can leverage existing skill sets to create leading-edge applications without regard to specific platform or technology skill requirements.

WebSphere Studio lets your developers work with your business experts to define the business rules that need to be implemented. This collaboration helps decrease the cost of application development and maintenance required as business rules change. It can also lower your total cost of ownership by decreasing the time required to make important changes to application code.

Integrate your business systems
Integration is one of the biggest challenges facing businesses today. WebSphere Studio allows you to extend your business to the Web while continuing to use your existing systems and processes. This means you can integrate your new e-business applications with your legacy or packaged applications to leverage the breadth of information and processes now available on the Web through Web services.

WebSphere Studio reduces development complexity by providing application workflow to help you visually manage the flow of information between application components, Web services and back-end systems. WebSphere Studio also simplifies integration by leveraging a services-oriented architecture that allows developers to interact with all application artifacts in the same way. Regardless of their underlying implementations, providing continuity within the development team.

WebSphere Studio—your launchpad to success

WebSphere Studio is a core building block that maximizes return on investment, helps reduce time to market and potentially lowers labor costs through developer productivity. As new competitive challenges emerge and technology evolves, the WebSphere Studio product family provides you with the technology, flexibility and agility to quickly expand your business regardless of language, platform or device.

The WebSphere Studio product family is part of the IBM WebSphere software platform for e-business—a set of integrated, award-winning e-business solutions. No matter where you are in the e-business cycle, the WebSphere software platform helps you to grow—at the speed the market demands.

For more information

To learn more about the IBM WebSphere Studio family of integrated products for e-business, visit:

ibm.com/websphere/studio

WebSphere Studio

WebSphere Studio can be tailored to meet specific development needs of your growing business—from simple Web site creation to complex e-commerce and enterprise application development.

Product or solution	Benefit
IBM WebSphere Studio Homepage Builder	Create and publish Web sites with ease by using a user-friendly interface, easy-to-use wizards, templates and support for popular development languages like JavaScript, Dynamic HTML and Cascading Style Sheets (CSS).
IBM WebSphere Studio Site Developer	Build, test and maintain dynamic Web sites, applications and Web services using Java, JavaScript and JavaServer Pages.
IBM WebSphere Studio Application Developer	Optimize and simplify J2EE application development through best practices, templates, code generation and a comprehensive development environment with WebSphere Studio Application Developer. WebSphere Studio Application Developer Integration Edition accelerates development by adding visual workflow to build and integrate complex applications.
IBM WebSphere Studio Enterprise Developer	Give J2EE capabilities, rapid application development and team support to diverse enterprise application development organizations.
IBM WebSphere Studio Device Developer	Create and test applications that will be deployed on handsets and other mobile computing devices.
IBM WebSphere Studio Asset Analyzer	Maintain and extend existing enterprise assets through impact analysis and graphical application understanding.
IBM WebSphere Studio Application Monitor	Resolve performance problems with J2EE applications running on the IBM WebSphere for z/OS™ platform, without requiring modification to the application code.
Toolkits for IBM WebSphere Studio	Quickly and easily add new function and tools targeted at application development needs.

The WebSphere Studio product family comparison

The WebSphere Studio product family offers the tools and services you need to create a diverse and robust e-business.

	WebSphere Studio Homepage Builder	WebSphere Studio Device Developer	WebSphere Studio Site Developer	WebSphere Studio Application Developer	WebSphere Studio Enterprise Developer
Eclipse technology-based user interface		X	X	X	X
Web tools	X		X	X	X
Struts support			X	X	X
Relational database tools			X	X	X
XML tools			X	X	X
Web services			X	X	X
Java tools		X	X	X	X
Team support		X	X	X	X
Integrated unit test environment			X	X	X
Profiling and tracing tools		X		X	X
J2ME tools		X			
J2EE tools				X	X
Generated EJB test client				X	X
ClearCase LT (included)				X	X
Java Message Service (JMS) tools					X
Java Connector Architecture (JCA) tools				IE*	X
Visual workflow tools				IE	X
Service-oriented architecture				IE	X
Assembler, COBOL and PL/1 tools					X
Creates IBM CICS® code, IBM IMS® and SQL statements					X
Enterprise Generation Language (EGL) tools					X
Runtime support					
Tomcat		X	X	X	X
WebSphere Application Server - Express			X	X	
WebSphere Application Server			X	X	X
WebSphere Application Server Enterprise				IE	X
WebSphere Micro Environment		X			

* Available only in WebSphere Studio Application Developer Integration Edition

IBM. ®

G325-2123-00