Rapidly Build e-business Systems for High Volume Transactions!

IBM

VisualAge Generator, VisualAge for Java, WebSphere Studio and WebSphere Application Server

Highlights

Provides an integrated Java development and test environment for the creation of Java clients and transactional server programs

Provides a simplified approach for programmers to rapidly create e-business applications

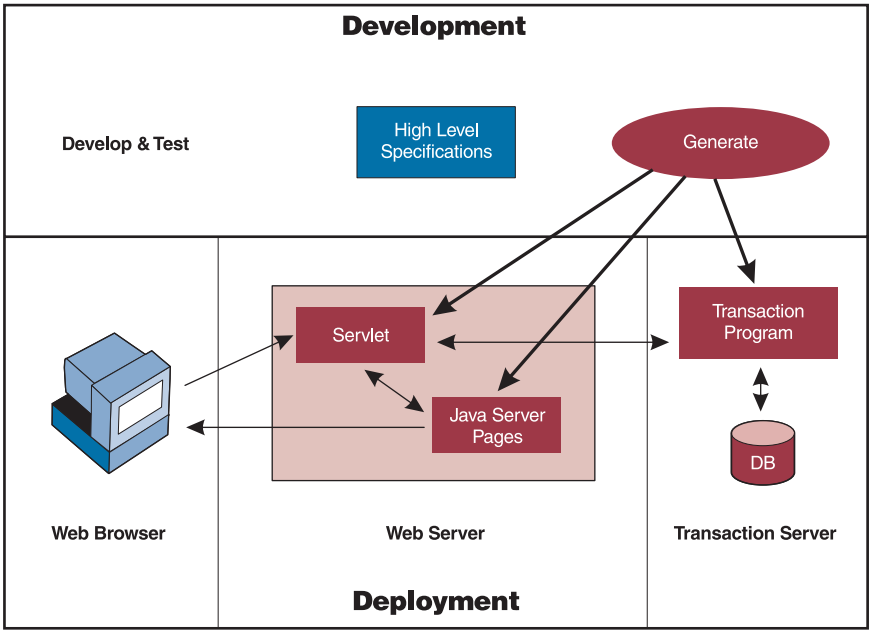
Shields your development organization from the complexities of implementing server-driven Web systems

Accelerates Web page development with an industry leading easy-to-use visual page designer for JavaServer Pages, HTML and DHTML

Supports high-end transactional environments and enables powerful interactions with databases and transaction processing systems

Provides deployment and management of Java applications and Enterprise JavaBean components

IBM provides an extremely powerful tool set for building and deploying e-business applications using VisualAge® Generator, VisualAge for Java™, WebSphere™ Studio and WebSphere Application Server. This solution gives you the productivity of component-based visual development and the runtime scalability to meet your most demanding transactional enterprise requirements. VisualAge Generator, which is integrated with VisualAge for Java Enterprise Edition, simplifies the development of applets, applications and servlets, as well as the development of scalable server transactions for multiple platforms. WebSphere Studio accelerates Web page development with a powerful visual page designer. WebSphere Application Server Advanced Edition provides a robust Web server, including support for deploying and managing Enterprise JavaBean™ components. With VisualAge and WebSphere, you've got a world-class solution for rapidly building and deploying enterprise e-business applications.



IBM provides a simplified approach for creating e-business systems. Develop and test using high level specifications; let VisualAge Generator generate default JSPs, Java code and the transaction server program.

Develop Enterprise Web Applications

VisualAge Generator is completely integrated with VisualAge for Java Enterprise Edition. This solution provides support for Internet and intranet applications by enabling organizations to rapidly develop applets, servlets, applications, Enterprise JavaBean components and transactional server applications for multitier environments, scaling from workstations up to IBM OS/390® servers. It offers a simpler programming environment for building scalable Web systems, enabling you to deliver complex, multitier applications faster. This application development solution gives you high productivity through data-model driven templates, visual development and a platform-neutral high-level specification language. It offers support for legacy applications, data and skills. This solution allows developers to build applications that target the Java 2 Platform. VisualAge for Java offers wizards that simplify Enterprise JavaBean (EJB) development by generating the bulk of EJB infrastructure code. Team development support is fully integrated into VisualAge for Java Enterprise Edition and VisualAge Generator, providing software configuration management and version control. This enables developers to work on complex projects as a team and to rebuild any current or previous level of code.

More than Enterprise Access

Enterprise Access Builders (EABs) in VisualAge for Java enable developers to quickly and easily extend existing application servers to e-business. The EABs facilitate creation of beans and Enterprise JavaBeans that extend IBM CICS® Transaction Servers, Encina, IBM MQSeries®, IBM IMS™, IBM Host On-Demand, Lotus® Domino™ and SAP R/3 applications to the Web. But, what happens when you need a new server application or component as part of your Web system? How can you rapidly develop new server code and easily tie it into your Web client? How can you test the entire system on your workstation? How can you re-target your server code for a different platform without rewriting? How can you do this without your server programmers becoming experts in connectivity, including marshaling and data conversion?

Use VisualAge Generator

The answer is to use VisualAge Generator to rapidly build transactions for the third tier. VisualAge Generator brings your business to the Web, providing Web access to all supported server environments, including Microsoft® Windows NT®, IBM OS/2®, IBM AIX®, Sun Solaris™, Hewlett-Packard HP-UX, IBM OS/400®, IBM OS/390, IBM VM™ and IBM VSE™, using CICS, IMS, IBM DB2®, Oracle®, ODBC, VSAM, DL/I and more. VisualAge Generator automatically generates JavaBeans™ that run on the middle tier and facilitate the exchange of data with the transaction server. The JavaBeans shield developers from complex APIs and handle all aspects of communicating with the enterprise server, including marshaling data from objects to server database structures, converting data between Java and host forms and controlling commit or roll back for extended units of work for multiple server calls within a transaction.

So, by using either the Enterprise Access Builders to access existing assets or the VisualAge Generator specification language to develop new assets, developers are isolated from low-level communications APIs and data type conversions. VisualAge Generator produces 100% pure Java™ for clients and Web application servers, and high-performing C++ or COBOL source for transactional server programs. It offers rapid database access through static SQL support. Native support of the most proven TP monitors in the industry assures the transactional scalability required by the most demanding critical business systems.

WebSphere Rapid Application Development

Web systems are rapidly evolving to multitier, server-centric architectures, wherein server content is displayed to the end user in dynamic Web pages, using technology such as JavaServer™ Pages (JSP). Thus far, tooling for Web applications has been client-centric. Client-centric tools provide little assistance for handling the complexities of the mid-tier level, leaving programmers to write detailed, low-level code to handle data conversion, session state management and server connectivity. Gaining the skills required to develop server-centric Web systems is time-consuming and expensive. The market demands a higher level of tooling for this type of Web application.

VisualAge Generator offers a simplified approach for creating multitier, server-centric e-business systems, making it easy for organizations to leverage existing skills to build Web applications. The VisualAge Generator WebSphere RAD capability supports a clear separation of concerns between the Web designer and the enterprise developer. VisualAge Generator automatically generates a default JSP, JavaBean components and transaction server code, all from high-level specifications. The JavaBeans run on the Web application server and handle data conversion, state management and server connectivity. The JSP can be enhanced by the Web designer using

IBM WebSphere Studio, which accelerates Web page development with an industry leading easy-to-use visual page designer for JavaServer Pages, HTML and DHTML. Wizards help developers create dynamic interactive Web pages. The WebSphere Studio workbench environment lets Web development teams organize and manage Web projects, view the Web site structure and publish pages. The power of VisualAge Generator's WebSphere RAD solution is that it leverages existing skills, reducing the cost of entry for e-business.

Debug Multitier Systems from your Workstation

VisualAge for Java Enterprise Edition is filled with cross-platform debugging, testing and performance analysis tools. Plus, the VisualAge for Java Remote Debugger tests and debugs interpreted and compiled Java running on multiple platforms. The VisualAge Generator Interactive Test Facility is transparently invoked by the VisualAge for Java debugger, enabling debugging of the server code running on any platform, including access to remote data. The test facility provides for rapid iteration between specification and verification, freeing the developer from costly generation, compilation and deployment steps, and facilitating an evolutionary prototyping approach. By hosting an IBM WebSphere Application Server Advanced Edition test environment within VisualAge for Java Enterprise Edition, developers using Java and/or the Generator specification language can pretest their applications and servlets before deploying to a remote server. The developer can start and stop both the server and the application and actually change the application, all within the development environment. A remote debugging feature enables developers to debug programs residing on a remote WebSphere Application Server. This powerful testing environment eliminates the need to set up a full, n-tier runtime infrastructure for each developer and therefore speeds up the development cycle.

Deploy with IBM WebSphere Application Server - Powerful, Scalable, Secure

With its focus on extensive performance, scalability and security, IBM WebSphere Application Server Advanced Edition provides a strong cross-platform, Java-based Web application platform that supports deployment of e-business applications and components—including JavaBeans, Java servlets, JavaServer Pages and Enterprise JavaBeans for transactions, enterprise system access and dynamic Web content. The Advanced Edition includes XML Document Structure Services support, security controls and application access protection, support for LDAP-based user registries and site analysis tools. WebSphere Application Server is Tivoli Ready™ and includes an IBM HTTP server powered by Apache, as well as support for other major Web servers.

The Advanced Edition provides additional features in support of transaction management, including EJB and container services that support bean-managed and container-managed persistence and an integrated Java-based Object Request Broker (ORB) within the EJB server.

Customer Reaction

Leif Hoppe, Vice President of Danske Data for Den Danske Bank says, "In keeping with the market place demand, we want to reach out to our customers over the Internet. We believe IBM's VisualAge Generator Version 4 provides us with the right tool that will move us into this new e-business environment using the mainframe as a transaction server. It will also help the transition of our mainframe programmers to the new world of Web technology with relative ease."

Byron Roberts, Project Director, State of California Department of Health Services, states that, "With VisualAge Generator Version 4, our transition to e-government keeps getting easier and easier. We've already experienced significant time savings using the current version of VisualAge Generator, VisualAge for Java and WebSphere Application Server to move onto the Web. Now, with the added capabilities of VisualAge Generator Version 4, we expect to see an even greater boost to developer productivity. This will in turn expedite the implementation of our e-government strategy. IBM has created a real winner."

VisualAge and WebSphere—the right choice

VisualAge Generator, VisualAge for Java, WebSphere Studio and WebSphere Application Server provide a powerful solution for building and running e-business applications—applications that meet the most stringent reliability, scalability and availability requirements of today's and tomorrow's networked world.

Accompanying Services

IBM and IBM Business Partners provide training, as well as services for installation, customization and mentoring.

For More Information

Please contact your local IBM sales representative, IBM Business Partner or visit us at:
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