



IBM WebSphere Development Studio Client for iSeries V6.0 offerings deliver the power of the Rational Software Development Platform to the iSeries market

Overview

WebSphere® Development Studio Client for iSeries™ V6.0 is an IDE for creating traditional IBM @server iSeries server applications and e-business on demand™ solutions.

Key enhancements:

- WebSphere Development Studio Client V6.0 is based on RWD.
- IBM WebFacing Tool delivers additional Web Settings to make it easier to customize your Web-enabled interface to 5250 applications to look and feel like a native Web application. These applications run in batch mode with no Online Transaction Processing (OLTP) requirements.
- HATS Toolkit V6.0 delivers a new Java™ Server Faces support for Integration Objects and enhanced sub-file support for its dynamic run-time transformation of the 5250 data stream. These applications require OLTP capacity.
- RSE, the replacement for PDM and SEU, delivers quality, function, and usability enhancements for developing native iSeries applications.
- iSeries Web Tools improves subfile support and Web diagram support.
- iSeries Java Tools adds visual components and beans to the Visual Editor for Java palette and delivers ease of use enhancements.
- iSeries integrated debugger enhances support for end-to-end debugging of iSeries native and e-business applications across multiple tiers and platforms.

WebSphere Development Studio Client Advanced Edition for iSeries V6.0 includes all the capabilities in RAD.

Key Advanced Edition enhancements:

- RAD delivers everything you need to create well-designed, scalable code ready for production.
- IBM WebFacing Tool delivers advanced capabilities for customization, access to iSeries system screens in batch mode, the ability to generate native portlets, and single signon support using Enterprise Identify Mapping (EIM).
- Support for Cascading Style Sheets-Positioning (CCS-P) will be available in a fixpack update.
- RSE now supports AIX® and Linux™ server development on @server i5.
- In iSeries Java Tools, the generated Program Call Java bean now supports J2EE Connector Architecture.
- The Enterprise Generation Language component in WebSphere Development Studio Client Advanced Edition is replacement product for VisualAge® Generator for AS/400®.

Key Prerequisites

Refer to the Hardware requirements and Software requirements requirements sections.

Planned availability dates

July 15, 2005 (electronic software delivery)

July 22, 2005 (media and documentation)

Availability of Programs with encryption algorithm in France is subject to French government approval.

Cryptography in this product is limited to password encryption, authentication or digital signature.

This announcement is provided for your information only. For additional information, contact your IBM representative.

At a Glance

New offerings include:

- WebSphere Development Studio Client for iSeries V6.0 is based on Rational® Web Developer for WebSphere Software V6.0 (RWD).
- WebSphere Development Studio Client Advanced Edition for iSeries V6.0 is based on Rational Application Developer for WebSphere Software V6.0 (RAD).

The new offerings deliver:

- Integration into the RSDP to leverage the capabilities of the Rational development tools
- Simplified design and construction featuring drag-and-drop UI, rapid deployment to WebSphere Application Server and enhanced WebSphere Portal development
- Host Access Transformation Services (HATS) Toolkit V6.0
- Improved reliability, function, and usability for Remote System Explorer (RSE)
 - Additional RSE support for AIX and Linux server development on IBM @server i5
- Applications built with iSeries Web Tools support Mozilla browser V1.7, or later
- Separate installation of CODE and VARPG
- Additional language features, GUI designer and run-time support in VARPG
- Migration of WebSphere Development Studio Client and the Advanced Edition projects to the new V6.0 integrated development environment (IDE)
- Enhanced ease-of-use and the out-of-the-box experience

Description

WebSphere Development Studio Client for iSeries V6.0

WebSphere Development Studio Client for iSeries inherits and extends the robust, easy-to-use development environment of Rational Web Developer V6.0.

Rational Web Developer V6.0 is an easy-to-use, highly productive IDE for visually constructing, testing, and deploying dynamic Web sites, Web services, and Java applications. Rational Web Developer simplifies Java development with Rapid Application Development tools, templates, and wizards.

Rational Web Developer V6.0 is built on Eclipse V3, an open standards-based development platform (Rational Software Development Platform) for development tools. Rational Web Developer enables you to maximize developer productivity by integrating best-of-breed tools from IBM, IBM Business Partners, and the Eclipse community to customize your development environment to meet your needs.

The Rational Software Development Platform offers IBM business partners and customers a single, integrated application development environment that is based on open standards, including the universal Eclipse framework. This transforms the way software is built by providing a unified approach, which is customizable to any project or team size. The comprehensive Rational Software Development Platform combines products and services to meet the specialized needs of developers and ISVs by supporting open source and multi-platform environments and ensuring the easy plug in of new tools over time. For more information, refer to

<http://www.ibm.com/software/info/developer/about.jsp>

Rational Web Developer V6.0 makes Web development faster and your productivity higher. Support for new industry standards simplifies the development of rich Web user interfaces and business logic. Also, Rational Web Developer offers high-productivity tools for business-oriented developers who are new to Java.

Benefits of Rational Web Developer include the ability to:

- Build dynamic Web user interfaces with minimal coding using standards-based JavaServer Faces (JSF) components
- Visually design and develop rich Web user interfaces using drag-and-drop components and a Visual Page Designer
- Build data-driven Web pages with minimal coding and point-and-click database connectivity
- Use a fourth generation language, Enterprise Generation Language (EGL), to generate business logic and data-driven Web applications in Java
- Build rich Web user interfaces with performance and maintenance characteristics of thin clients using JSF extensions

IBM WebFacing Tool quickly, easily, and cost effectively generates Web interfaces to 5250 applications that run in batch mode.

- Generates a new, fully-functional Web user interface based on Data Description Specification (DDS) source code
- Comprehensive DDS keyword support

- Improved conversion and Web Settings support within the IBM WebFacing Tool
- Dependencies on CODE designer are eliminated
- Web-enabled response times comparable to green-screen applications

HATS Toolkit V6.0 includes a default transformation engine that quickly and easily generates a dynamic Web interface from a 5250 datastream. The resulting Web interface can also be customized with HATS Toolkit. The Web interface can be deployed to production with the purchase of HATS run-time license.

Benefits:

- Browser interface to host applications
- Navigation of host applications improves and generates portal interfaces
- No access to source code is required
- New Java ServerFaces (JSF) UI for Integration Objects
- Improved iSeries sub-file support

For a more detailed comparison of the IBM WebFacing Tool and Host Access Transformation Services, visit

<http://www.ibm.com/software/awdtools/wdt400/about/webfacing.html>

Remote Systems Explorer has leveraged the Eclipse V3 IDE to deliver improved ease-of use and better reliability. The integrated debugger improves connectivity support by eliminating the callback requirement to the workstation. RSE also includes new documentation to assist you using PDM and SEU, to migrate to the Eclipse-based IDE. Migrating to the new IDE enables you to become more productive with your native iSeries development. It also allows you to easily move to other Web-enabling, Web, Web services and Java development tasks. These other development tasks can be executed from different perspectives in the same IDE.

The introduction of "First Steps" from the Welcome view allows new users to become familiar with iSeries development tasks quickly using RSE. User Roles allow you to see only the function required to do your job, simplifying your experience with the product.

CoOperative Development Environment (CODE) and VisualAge RPG, the classic development tools, can now be separately installed on a workstation. This substantially reduces the disk space, memory and performance requirements of the workstations required to effectively run these tools. This enhancement is in response to customer feedback.

WebSphere Development Studio Client Advanced Edition for iSeries V6.0

WebSphere Development Studio Client Advanced Edition for iSeries V6.0 inherits and extends the capabilities of Rational Application Developer V6.0. Rational Application Developer is a comprehensive integrated development environment to help accelerate the development of fully-compliant Java 2 Enterprise Edition (J2EE) V1.4 applications. This IDE supports the development of Web, Web services, Java, SOA, and Enterprise JavaBean (EJB) applications. With integrated Portal, UML visual editing, code analysis, and automated test and deployment tools, Rational Application Developer includes virtually everything Java developers need to create well designed, scalable applications.

With **Rational Application Developer V6.0**, you can:

- Accelerate the development of Web services and J2EE applications with visual tools, templates, and wizards
- Detect performance issues early with graphical performance and profiling trace tools
- Visualize and graphically edit code through the Unified Modeling Language (UML) Visual Editor for Java and EJB
- Collaborate and share assets across the team using the included Rational ClearCase® LT version control
- Create and test portlets in a visual environment leveraging Portal Toolkit
 - Create JSF portlets
 - Create Struts portlets using Web Diagram Editor
 - Test and debug on WebSphere Portal Test Environment

Note: Portal Toolkit and WebSphere Portal are shipped with WebSphere Development Studio Client Advanced Edition. Their installations are required to create a portlet development environment in WebSphere Development Studio Client Advanced Edition.

WebSphere Development Studio Client Advanced Edition V6.0 delivers significant advanced capabilities, including:

- IBM WebFacing Tool
 - Support for iSeries system screens (non-DDS screens). The 5250 datastreams associated with the system screens are converted into a Web user interface that runs in batch mode.
 - Support for generating Struts portlets.
 - Single sign-on support using EIM.
 - A wizard to generate a Struts-compliant interface to a 5250 application. This is an architected interface that can be easily extended with other Struts-based Web applications. Struts actions can be added to enhance the generated application.
 - You can use command keys to invoke user-defined actions to integrate new functions delivered by a Web application into the Web-enabled interface.
 - Support for displaying and printing iSeries spool files.
 - Support for Cascading Style Sheets-Positioning (CCS-P) will be available in a fixpack update. This support will allow the fields on the Web-enabled interface to be repositioned, unconstrained by the boundaries of the original 5250 area, and will provide almost unlimited customizability of the Web-enabled interface.
- Enterprise Generation Language (EGL)
 - Support for the generation of 5250 COBOL applications as well as Java applications from EGL. The run-time components for both types of applications are provided in the tool. These components make WebSphere Development Studio Client Advanced Edition the iSeries replacement product for VisualAge Generator for AS/400
- iSeries Web Tools
 - Support for single sign-on using EIM
- iSeries Java Tools
 - Enhancements to the Program Call Wizard to allow the specification of J2EE Connection Architecture (JCA) connector using Java Naming and Directory Interface (JNDI)

- Remote System Explorer
 - Enhanced support for AIX and Linux development on @server i5

Accessibility by people with disabilities

Some accessibility features may not be available in the following optionally installed components/bundled products:

- VisualAge RPG
- CODE

Product Positioning

WebSphere Development Studio Client for iSeries V6.0

WebSphere Development Studio Client is the IDE that replaces Application Development ToolSet (ADTS) as the default tools for developing iSeries applications. ADTS includes Source Entry Utility (SEU), Program Development Manager (PDM), and a number of 3GL development tools.

RSE, a component of WebSphere Development Studio Client, offers unique iSeries development capabilities to the Eclipse IDE, and provides access to iSeries system functions. WebSphere Development Studio Client offers a more productive environment for developing iSeries server applications. The offering also includes development tools for:

- Web sites and Web applications
- Web services applications
- Java applications
- Web-enabled applications using:
 - IBM WebFacing Tool
 - WebSphere Host Access Transformation Services
- Portable cross platform Java applications using EGL
- XML
- Debugging e-business applications

The IBM WebFacing Tool and WebSphere HATS Toolkit are both shipped in the offering. IBM WebFacing Tool generates a new Web GUI to a 5250 application based on DDS source code. This new Web interface is created in a development time modernization effort. HATS Toolkit provides a development environment for a dynamic runtime transformation of the 5250 datastream. The resulting Web interface can also be customized with the HATS Toolkit. WebSphere Development Studio Client and WebSphere Development Studio Client Advanced Edition only ship the HATS Toolkit. You must purchase HATS run-time licences to deploy the Web Interface to production.

WebSphere Development Studio Client also offers an integration point for iSeries tool vendors to integrate their solutions into the Eclipse IDE.

WebSphere Development Studio for iSeries is shipped to over 80% of the iSeries customers on OS/400® V5R2 and i5/OS V5R3. These customers have unlimited copies per iSeries server of the entitled WebSphere Development Studio Client, making WebSphere Development Studio Client pervasive in the iSeries marketplace.

WebSphere Development Studio Client is the default tool set for iSeries development because:

- It offers a more productive IDE for iSeries server application development
- It includes the tools for creating e-business on demand applications

- It is pervasive in the iSeries development community

WebSphere Development Studio Client Advanced Edition for iSeries V6.0

Acquire the WebSphere Development Studio Client Advanced Edition if you need to:

- Web-enable iSeries system screens from within an application Web-enabled with the IBM WebFacing Tool and have the entire application run in batch mode
- Generate Struts-based Web-enabled applications with extension points that can be extended with other Struts-based Web applications
- Create a Struts portal interface for existing 5250 green-screen applications
- Display and print spool files from an application Web-enabled with the IBM WebFacing Tool
- Implement single sign-on using Enterprise Identity Mapping (EIM) for Web and Portal applications created with IBM WebFacing Tool
- Reposition fields on the Web-enabled interface, unconstrained by the boundaries of the original 5250 area, to customize the style of the Web-enabled interface
- Implement single sign-on using EIM for Web applications created with iSeries Web Tools
- Create fully compliant J2EE applications using EJBs
- Performance tune Java applications using the comprehensive run-time problem determination solution
- Generate COBOL-based and green-screen applications from EGL in addition to Java
- Develop AIX and Linux applications for @server i5 from a common integrated development environment

The IBM WebFacing Tool advanced features

When you create a new Web interface to a 5250 application using the IBM WebFacing Tool, the interface looks like a green-screen interface running in a browser. The application chrome and colors are much more attractive than a green screen but the interface behavior is select-and-enter versus point-and-click. You do not gain the ease-of-learning and ease-of-use characteristics of a Web GUI until you customize the Web-enabled application. The basic tools in WebSphere Development Studio Client can be used for most of these customizations. However, the functions of this new Web application are constrained by the capabilities of the original green-screen application.

The wizard in the advanced IBM WebFacing Tool generates a Struts-compliant Web application that can be leveraged and extended with other Struts-compliant Web applications. This substantially increases the potential of a Web-enabled application. The Struts interface makes it easy to extend the capabilities of the Web-enabled application. The command-key-override in WebSphere Development Studio Client Advanced Edition allows developers to integrate new capabilities into the Web-enabled interface. The developer selects an available command key and links a Struts action or a new Struts-based Web application via the associated Web address. By pressing the command key, a push button in the browser interface, a call is made to the Web address that kicks off the new action or Struts-based application.

A service for displaying and printing spool files is included in WebSphere Development Studio Client Advanced

Edition. This is just one example of the many services or extensions that can be created for the Web interface created by the IBM WebFacing Tool.

The lack of support for iSeries system screens was a significant challenge to many organizations who wanted to Web-enable their solutions using the IBM WebFacing Tool. Most system screens are defined using UIM. Therefore, most system screens could not be converted using the IBM WebFacing Tool.

Previously, the system screens had to be Web-enabled using a 5250 data stream conversion tool and required interactive workload. The resulting Web-enabled application could not run entirely in batch mode; instead it required an Enterprise Server. IBM has added a 5250 datastream conversion engine to the IBM WebFacing Tool to handle UIM-based iSeries system screens (and other UIM screens) and allow the Web-enabled application to run in batch mode. This capability enables developers to Web-enable their entire solutions, including system screens, and run them in batch mode on i5/OS Standard Edition.

In addition, the IBM WebFacing Tool has added advanced functions to generate Struts-based portlet applications and provide single sign-on support using IBM EIM. Struts actions can be added to enhance the generated applications. These applications can be deployed to a WebSphere Portal Server and added to the portal pages served by the server.

In a fixpack update, IBM WebFacing Tool will provide Cascading Style Sheets-Positioning support to deliver pixel-based repositioning of 5250 fields on the Web-enabled interface. The Web Settings function in the IBM WebFacing Tool is enhanced to associate a new pair of row,column coordinates to a 5250 field. This enhancement allows 5250 fields to be repositioned on the Web page, unconstrained by the boundaries of the original 5250 area.

Enterprise Generation Language (EGL)

A fourth-generation development tool, EGL is included. EGL:

- Allows developers to rapidly generate both Java applications and iSeries green-screen applications
- Is the follow-on product to VisualAge Generator
- Generates Java code in Developer Studio Client
- Generates iSeries COBOL code in WebSphere Development Studio Client Advanced Edition

Remote System Explorer (RSE) extensions

RSE has added extensions in WebSphere Development Studio Client Advanced Edition to support the development of Linux and AIX applications. Developers using the IDE in the advanced edition can now develop Linux and AIX applications using Java and C/C++. These RSE extensions expand the support for working with applications in other @server i5 operating systems besides i5/OS.

Product Positioning with Rational Software:

WebSphere Development Studio Client is a superset of Rational Web Developer, adding function pertinent to iSeries developers (as described above). Similarly, WebSphere Development Studio Client Advanced Edition is a superset of Rational Application Developer. Both products are integral elements of the Rational Software Development Platform, which means that they will integrate with any other product based on the Rational Software Development Platform to produce a single IDE

with aggregated functionality. Thus, the functionality of WebSphere Development Studio Client and WebSphere Development Studio Client Advanced Edition can be extended through the installation of other Rational products, such as:

- IBM Rational Software Modeler (for code-independent modeling)
- IBM Rational Software Architect (for architecting and modeling Java and C++ code; a superset of Rational Application Developer and Rational Software Modeler)
- IBM Rational Functional Tester (for automated testing of Web and Java applications)
- IBM Rational Functional Tester Extension for Terminal-based Applications (for automated testing of 5250/3270 terminal-based applications). This product requires Rational Functional Tester.
- IBM Rational Performance Tester (for load testing of Web applications)
- IBM Rational Performance Analyst (for analyzing performance of Java applications; no i5/OS native performance analysis supported)

Also, WebSphere Development Studio Client Advanced Edition includes Rational ClearCase LT, a software configuration management tool. Rational ClearCase LT is included for developers, working on complex projects or within large teams, to coordinate versioning and to protect team assets.

IBM Rational ClearCase LT server does not run on i5/OS. WebSphere Development Studio Client Advanced Edition provides integration between Rational ClearCase LT and iSeries native source with iSeries projects.

Reference information

Refer to Marketing Announcement letter ZP05-0261 dated July 12, 2005.

Refer to Programming Announcement letter ZP04-0509 dated November 03, 2004.

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