



IBM WebSphere Development Studio Client for iSeries V5.1.2 offerings deliver Eclipse IDE for application development and e-business on demand solutions

Overview

WebSphere® Development Studio Client for iSeries™ V5.1.2 is an integrated development environment (IDE) for creating traditional IBM @server iSeries server applications and e-business on demand™ solutions. Key enhancements in this release include:

- WebSphere Studio Site Developer V5.1.2 with a new User Interface (UI) framework, a new Enterprise Generation Language (EGL) for generating Java™ applications from a procedural language, and JavaServer Faces (JSF) for developing Java 2 Enterprise Edition (J2EE) Web applications.
- IBM WebFacing Tool — A source-code-based application transformation development tool.
- HATS Toolkit — A development environment to produce a dynamic runtime transformation of the 5250 datastream.
- RSE for improved iSeries integration and V5.3 language support for syntax checking, program verifying, and help.
- iSeries Web Tools deliver improved integration with the Web Diagram Editor by allowing multiple output page generation. Web site designer allows users to choose a Page Template for the generated JavaServer Pages (JSPs).
- iSeries Java Tools for improved Program Call Markup Language (PCML) support and a new feature in the Program Call wizard which allows you to define authentication and library list settings in a separate configuration file with great flexibility.

- iSeries integrated debugger for enhanced support for end-to-end debugging of Web applications, and enhanced integration with RSE.

WebSphere Development Studio Client Advanced Edition for iSeries V5.1.2 is an integrated development environment for creating sophisticated, fully J2EE-compliant, Java applications. In addition to the functions included in Development Studio Client, the key Advanced Edition functions in V5.1.2 include:

- WebSphere Studio Application Developer V5.1.2
- IBM WebFacing Tool customization capabilities
- iSeries Web Tools provide single signon support using EIM
- In the iSeries Java Tools, the generated Program Call Java bean can now support J2EE Connector Architecture
- Capability to generate ILE COBOL from EGL

Key prerequisites

Refer to the **Hardware requirements** and **Software requirements** sections.

Planned availability date

July 16, 2004: Electronic software and physical delivery

At a glance

WebSphere Development Studio Client for iSeries V5.1.2 includes:

- WebSphere Studio Site Developer V5.1.2
- Remote System Explorer (RSE) for server application development productivity improvement
- Wizards to help Java, Web, and Web services developers access iSeries data and applications
- IBM WebFacing Tool and Host Access Transformation Services (HATS) Toolkit
- Separate installation of the classic tools (CODE, VisualAge® RPG)
- IBM integrated iSeries debugger (Eclipse-based) for all languages

WebSphere Development Studio Client Advanced Edition for iSeries V5.1.2 delivers all the capabilities in WebSphere Development Studio Client as well as:

- WebSphere Studio Application Developer V5.1.2
- IBM WebFacing Tool enhancements for Portal and system screen support
- Single sign-on for regular Web applications and for Portal in the IBM WebFacing Tool
- iSeries Web Tools for single sign-on using Enterprise Identity Mapping (EIM)
- iSeries Java Tools support for JCA
- Extension to EGL to generate 5250 applications in ILE COBOL

This announcement is provided for your information only. For additional information, contact your IBM representative, call 800-IBM-4YOU, or visit the IBM home page at: <http://www.ibm.com>.

Description

WebSphere Development Studio Client for iSeries V5.1.2

WebSphere Development Studio Client for iSeries inherits and extends the robust, easy-to-use development environment of WebSphere Studio Site Developer V5.1.2.

WebSphere Studio Site Developer V5.1.2 is an easy-to-use, highly productive IDE for visually constructing, testing, and deploying dynamic Web sites, Web services, and Java applications. Site Developer simplifies Java development with Rapid Application Development (RAD) tools, templates, and wizards.

Site Developer V5.1.2 is built on Eclipse, an open standards-based development platform for development tools. Site Developer enables you to maximize developer productivity by integrating best-of-breed plug-in tools from IBM, IBM Business Partners, and the Eclipse community and customizing your development environment to meet your needs.

Site Developer V5.1.2 offers enhancements to make Web development faster and developers' productivity higher. There is support for new industry standards that simplify the development of rich Web user interfaces and business logic. Also, Site Developer offers high-productivity tools for business-oriented developers that are new to Java. Benefits of Site Developer include the ability to:

- Build dynamic Web user interfaces with minimal coding using standards-based JSF components
- Visually design and develop rich Web user interfaces using drag-and-drop reusable components and visual Page Designer
- Build data-driven Web pages with minimal coding and point-and-click database connectivity
- Use a fourth 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

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

- Source code-based application modernization for the Web
- Support for the INVITE and DSPATR keywords is added
- Improved Web page response times when connecting to the IBM WebFacing server that has the latest service level applied
- Improved performance of iSeries job and system information retrieval

The **HATS Toolkit** quickly and easily generates a default dynamic runtime transformation of the 5250 datastream. The resulting Web interface can also be customized with the HATS Toolkit. The Web interface can be deployed to production with the purchase of HATS separately.

- Allow users to give Host applications a Web "look and feel"
- Improve the navigation of host applications and generate portal interfaces
- No access to source code is required

For a more detailed comparison of the IBM WebFacing Tool and the HATS Toolkit, visit

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

Improved V5.1.2 iSeries Support

- RSE continues to enhance the editor functions. The V5.3 iSeries RPG, COBOL, CL (syntax checking only), and DDS language support for syntax checking, program verifying, and help is included. There is also SQL syntax checking for ILE RPG, and expanded remote searching capabilities.
- iSeries Web Tools provide improved integration with the Web Diagram Editor and Web Site Designer, and improved message handling.
- iSeries Java Tools deliver enhancements to make the import and export extensions more widely available by moving the extensions into the Eclipse base. There is improved PCML support, Program Call Wizard usability, and Web service generation.
- The Eclipse debugger provides support in RSE (service entry point) for debugging Web applications.
- iSeries programs and commands can be started via run launch configurations.

Improved access to remote Linux, UNIX, and Microsoft™ Windows™ systems

The Remote System Explorer can also be used for accessing remote Linux, UNIX®, and Windows systems. This includes running remote commands, remote editing, compiling, and searching. The 5.1.2 release adds support for working with remote archives.

WebSphere Development Studio Client Advanced Edition for iSeries V5.1.2

WebSphere Development Studio Client Advanced Edition for iSeries inherits and extends the capabilities of WebSphere Studio Application Developer (Application Developer) V5.1.2. Application Developer is a core development environment for visually designing, constructing, testing, and deploying Web services, Portal applications, and J2EE applications. Application Developer speeds J2EE development by providing a complete set of high-productivity tools, templates, and wizards.

With Application Developer V5.1.2 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 Enterprise JavaBean (EJB)
- Collaborate and share assets across the team using the included Rational® ClearCase® LT version control
- Create and test Portlets in a visual environment along with Portal Toolkit.
 - Create JSF portlets
 - Create Struts portlets using Web Diagram Editor
 - Testing and debugging on WebSphere Portal Test Environment

Note: Portal Toolkit and WebSphere Portal installation are required to create portlet development environment on top of Studio.

IBM Development Studio Client Advanced Edition V5.1.2 delivers significant advanced capabilities, including:

- IBM WebFacing Tool
 - Support for iSeries system screens (non-DDS screens). The 5250 data streams associated with the system screens are converted into Web GUIs which run 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.
 - The developer 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.
- EGL
 - Support for the generation of 5250 COBOL applications as well as Java applications from EGL. The runtime components for both types of applications are provided in the tool.
- iSeries Web Tools
 - Support for single sign-on using EIM
- iSeries Java Tools
 - Allows the specification of J2EE Connection Architecture (JCA) connector using Java Naming and Directory Interface (JNDI) name in the Program Call Wizard

Web technologies choices

Your Goal	Technology	Notes
Quickly Web-enable existing interactive iSeries applications	IBM WebFacing Tool	Converts display file (DSPF) DDS to JSPs; built on Struts
Build Web applications with iSeries business logic	Web tools for iSeries	Wizards and Web components for building JSP files that provide a user interface for iSeries business logic; built on Struts
Build Web applications with iSeries data	JavaServer Faces (JSF)	Rich tagging choices for user interface; strategic choice for data-driven applications that have little business logic; emerging technology (a potential follow-on to Struts)

Your Goal	Technology	Notes
Build Web applications with iSeries data, moving more user interface logic to the client	JSF with client-side scripting	Provides better response times by reducing trips to the server; validation and formatting is done on the client; uses JSF extensions
Build Web applications with Java business logic	Struts and Struts tools	Rich tagging choices for model-controller; leverages JSPs for user interface
Encapsulate your applications from future technology changes and enable them for multiple platforms	EGL	Fourth generation language; abstracts your applications at a higher level and generates the appropriate Java (standard edition) or iSeries COBOL code (Advanced Edition only); leverages JSF; learning time relatively short for COBOL or RPG programmers

Accessibility by people with disabilities

WebSphere Development Studio Client for iSeries V5.1.2 and WebSphere Development Studio Client Advanced Edition for iSeries V5.1.2:

- Support interfaces commonly used by screen readers
- Can be operated using only the keyboard
- Allow the user to request more time to complete timed responses
- Support customization of display attributes such as color, contrast, and font size
- Communicate all information independently of color
- Support interfaces commonly used by screen magnifiers
- Support the attachment of alternative output devices
- Provide keys which can be distinguished by touch without activating them
- Provide documentation in an accessible format
- Require minimal reach and manual dexterity
- Support the attachment of alternative input and output devices
- Support alternatives to audio information
- Support adjustable volume control
- Do not flash the screen at rates that could induce epileptic seizures

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

- VisualAge RPG
- CODE

Product positioning

WebSphere Development Studio Client for iSeries V5.1.2

WebSphere Development Studio Client is the integrated development environment that replaces Application Development ToolSet as the default tools for developing iSeries applications.

RSE, a component of Development Studio Client, offers unique iSeries development capabilities in addition to Eclipse IDE, and provides access to iSeries system functions. 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
- Debugging e-business applications

The IBM WebFacing Tool and WebSphere HATS Toolkit are both shipped in the offering. IBM WebFacing Tool is a source-code-based application transformation development tool. HATS Toolkit provides a development environment to produce a dynamic runtime transformation of the 5250 datastream. The resulting Web interface can also be customized with the HATS Toolkit. Development Studio Client and Development Studio Client Advanced Edition ship the HATS Toolkit only. Customers can purchase HATS separately to deploy the Web Interface to production.

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 customer on OS/400® V5.2. These customers have unlimited copies per iSeries server of the entitled Development Studio Client, making Development Studio Client pervasive in the iSeries marketplace.

Development Studio Client is the default toolset for iSeries development because:

- It offers a more productive IDE for iSeries server applications
- 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

You will want to acquire the WebSphere Development Studio Client Advanced Edition if you require the capabilities to:

- Web-enable iSeries system screens from within an application Web-enabled with the 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 WebFacing Tool.
- Single sign-on is available for regular Web applications and for portal in the IBM WebFacing Tool.
- iSeries Web Tools support for single sign-on using EIM.
- Create fully compliant J2EE applications using EJBs.
- Performance tune Java applications.
- Generate both Java based and green-screen applications from EGL.

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 realize the ease-of-learning and ease-of-use characteristics of a Web GUI until you customize the Web-enabled application. The basic tools in 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 the 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 which kicks off the new action or Struts-based application.

A service for displaying and printing spool files is included in the advanced edition of the workstation tools. 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.

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. OS/400 Enterprise Edition is considerably more expensive than OS/400 Standard Edition. 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 OS/400 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.

EGL

A fourth-generation development tool, EGL was added to the advanced workstation tool. This tool allows developers to rapidly generate both Java applications as well as iSeries green-screen applications using the same fourth-generation language. EGL is the follow-on product to VisualAge Generator. EGL allows you to generate Java code in Development Studio Client, and iSeries COBOL code in Development Studio Client Advanced Edition.

Reference information

Refer to Software Announcement 203-293, dated October 28, 2003.

Refer to Software Announcement 204-092, dated May 4, 2004.

Trademarks

iSeries and e-business on demand are trademarks of International Business Machines Corporation in the United States or other countries or both.

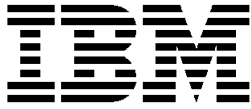
WebSphere, the e-business logo, VisualAge, ClearCase, Rational, and OS/400 are registered trademarks of International Business Machines Corporation in the United States or other countries or both.

Microsoft and Windows are trademarks of Microsoft Corporation.

Java is a trademark of Sun Microsystems, Inc.

UNIX is a registered trademark of The Open Group in the United States and other countries

Other company, product, and service names may be trademarks or service marks of others.



IBM US Announcement Supplemental Information

May 4, 2004

Education support

A multichannel delivery strategy is planned to address the e-business education requirements for the iSeries™ marketplace.

For more information, visit the following Web site

<http://www.ibm.com/software/awdtools/iseries>

IBM Global Services, Learning Services, provides education to support many IBM offerings. Descriptions of Learning Services courses, with links to Global Campus for enrollment, are on the IBM Learning Services Web site

<http://www.ibm.com/services/learning>

The appropriate curriculum will include the enhancements described in this announcement.

Select your country/region for local information.

Call IBM Education and Training at 800-IBM-TEACH (426-8322) for questions, catalogs, schedules, and enrollments.

Service offerings

For service offering information, visit

<http://www.ibm.com/software/awdtools/iseries/services/>

Promotional material: For promotional materials, visit

<http://www.ibm.com/software/awdtools/iseries>

Demonstrations: For demonstration information, visit the following Web site

<http://www.ibm.com/software/awdtools/iseries>

Offering information

Product information will be available on day of announcement through Offering Information Web site at:

<http://www.ibm.com/common/ssi>

Information is also available through the Passport Advantage® Web site at

<http://www.ibm.com/software/passportadvantage>

Publications

No publications are shipped with these products.

All the documentation for these programs is online, viewable with the built-in browser, or in PDF files which can be viewed and printed using Adobe Acrobat Reader.

This announcement is provided for your information only. For additional information, contact your IBM representative, call 800-IBM-4YOU, or visit the IBM home page at: <http://www.ibm.com>.

Technical information

Hardware requirements

System

- Requires one of the following iSeries models: 170, 250, 270, 7xx, 8xx, 520 or 570

If WebSphere® Application Server on iSeries is used for applications built with WebSphere Development Studio Client for iSeries, or WebSphere Development Studio Client Advanced Edition for iSeries components, refer to the WebSphere Application Server documentation for minimum iSeries hardware requirements.

Workstation (minimum requirements):

- Server/Java™/Web/IBM WebFacing Tool development
 - Intel™ Pentium™ II processor minimum; Pentium III 500 MHz, or faster, recommended
 - 512 MB RAM minimum
 - 768 MB RAM recommended for running or debugging in Unit Test Environment
- Required hard drive space: 2200 MB
 - Additional disk space is required for your development resources
 - Additional 700 MB of temporary hard drive space is needed during product installation
 - Classic tools (CODE and VARPG) only: 650 MB
- Portal Toolkit:
 - 3 GB hard disk space plus storage for portlet development projects
 - Memory: 758 MB minimum, 1GB recommended
- Microsoft™ Windows™: VGA graphics card (1024 x 768, or higher, recommended, 256 colors)
- CD-ROM/DVD drive
- Mouse or pointing device

Software requirements

System:

- OS/400® V5.1, V5.2, V5.3
- Development Studio Client V5.1.2 and Development Studio Client Advanced Edition V5.1.2 support will end for the release of OS/400 when that OS/400 release officially ends service, or when Development Studio Client V5.1.2 and Development Studio Client Advanced Edition V5.1.2 officially end service.
- Some components will need additional PTFs. The PTF information is available at

<http://ibm.com/software/awdtools/iseries>

- OS/400 is needed only if the programming objects are located on the iSeries server or the applications contain backend code on the iSeries server.
- To compile RPG, COBOL, C or C++ on the iSeries server, 5722-WDS must be installed.

Workstation:

- Windows 2000 Professional, SP2, or later
- Windows XP Professional, SP1, or later
- Microsoft Internet Explorer 5.5, SP1, or later

Note: If you want to profile your applications, ensure that JRE 1.3.0, or later, is installed.

V5.1.2 enhancements

Remote System Explorer (RSE):

- V5.3 support for RPG, COBOL, CL and DDS
- Remote Systems LPEX editor:
 - SQL syntax checking for ILE RPG
 - ILE RPG fixed form to free form conversion wizard
 - ILE RPG D-specification wizard
 - ILE RPG Java method call wizard
 - Automatic code completion for ILE RPG control blocks
 - Automatic indentation for ILE RPG free form editing
 - ILE COBOL syntax checking and program verifier for V5R3 enhancements
 - Automatic uppercasing for COBOL (both ILE and OPM)
 - Customizable CL editor formatter
 - Editor parser settings/preferences for RPG, COBOL, CL and DDS
 - Other miscellaneous enhancements in response to customer requests
- Include key lists in outline view for ILE RPG
- Ability to specify command line parameters for actions invoked from the iSeries table view.
- More Programming Development Manager (PDM) affinity:
 - Additional member attributes in table view and properties dialog
 - PDM f.keys supported in table view
 - Right-click search action, like PDM option 25
- New iSeries Job Status view for monitoring and working with OS/400 jobs
- Expanded remote searching capabilities to include:
 - Searching the contents of remote files
 - Asynchronous searching
 - Searching by additional file properties
- Error list view for remote compile commands on Linux, Windows, UNIX®, and local connections
- Ability to expand, and work with the contents of zip, jar, and tar archives in the RSE.
- Launch configurations for running iSeries applications

iSeries Web Tools

- iSeries Web Tools has leveraged the Web Site Designer to allow easy design of iSeries Web application and build consistent Web sites. The Web Interaction wizard allows you to choose a Page Template for the generated JaveServer Pages (JSPs), and the pages created from the Page Designer with iSeries Web Components can be easily applied with a Page Template.

- Web Interaction wizard now supports JSP with plain HTML controls, in addition to iSeries Web Components.

You can use plain HTML controls or iSeries Web Components to build your Web pages that has interaction with an iSeries program or procedure call.

- A much improved message handling feature is provided.

You can now associate an iSeries Message file or a Java properties file with your Web application, such that run-time messages can be retrieved from the message file or properties file and displayed on your Web pages.

- The flow controller feature is also improved.

You can now connect multiple output pages from the Web Diagram editor and specify the flow conditions in the Web Interaction wizard.

- Java classes created by Web Interaction wizard are now based on templates, and these classes are enhanced with more methods and are organized in packages.
- You can define a program or procedure to call when session times out.
- You can define a cascading style sheet or your own styles for iSeries Web Components. This gives you a lot of flexibilities in customizing the look and feel of Web pages with iSeries Web components.
- The palette of iSeries Web Components is now moved from snippets to palette view.

Entry field validation is now supported for the attribute view of each Web component to help eliminate the chance of entering incorrect data.

- Enhance security to provide Single signon authentication via Enterprise Identity Mapping (EIM) (Advanced Edition only).

iSeries Java Tools

- iSeries Java Tools have made import and export extensions more widely available by moving the extensions to WebSphere Studio Workbench.
- Enhanced PCML support. Program Call wizard now fully supports PCML 4.0. Users can import any PCML files generated by Cobol, or RPG iSeries compilers.
- Improved Program Call Wizard usability. Enhanced tree view allows easier reordering of parameters, and replacement of text field with editable combo box.
- Enhanced Web service generation to fully support arrays and structures.
- Enhanced Program Call Wizard to collect runtime information, and generate configuration file.

- Allow specification of J2EE Connection Architecture (JCA) connector using Java Naming and Directory Interface (JNDI) name in Program Call Wizard (Advanced Edition only)

IBM WebFacing Tool adds support for:

- Applications that use the DDS keyword INVITE and CL commands, such as SNDRCVF or RCVF WAIT(*NO), perform asynchronous input/output of data to the screen
- Applications that use program-to-system fields for setting the display attributes of protected fields
- Performance improvement for applications that require job attributes information for resolving certain DDS keywords
- Migrating projects from the previous release to the new release
- Accessing DDS based RPG, COBOL, or CL applications from portal pages by generating portlet applications for the DDS applications. The generated portlet applications can be run locally from the IDE provided by WebSphere Development Studio Client Advanced Edition for testing and can be deployed to IBM's WebSphere Portal Server for running in production mode.(Advanced Edition only).
- Single sign-on allowing users who have been authenticated by the WebSphere server to traverse WebFacing Web or portlet applications without having to re-login. This support is in V5.2, and later, OS/400 release only (Advanced Edition only).
- Applications that display system screens during the application flow (Advanced Edition only)

Debug:

- Improved debugging of third-tier Web-enabled applications using the IBM WebFacing Tool, as well as the other Java-to-native applications and Java-to-native web applications
- Step Return (the ability to return to the calling procedure) (V5.3 only)
- Step into DB2® stored procedures
- Debug support for Portal server (Advanced Edition only)

WebSphere Host Access Transformation Services (HATS) Toolkit

- You can use the HATS Toolkit to create a Web application in which host screens are transformed into Web pages. HATS Toolkit runs in the WebSphere Studio workbench and appears as a perspective in WebSphere Development Client and WebSphere Development Client Advanced Edition.
- The complementary copy of HATS included with the offering is for development use only.
 - If you receive this offering, by ordering the iSeries program, WebSphere Development Studio for iSeries (5722-WDS), you may install HATS for developing iSeries applications onto an unlimited number of development workstations that are connected to the server to which the WebSphere Development Studio for iSeries program is licensed, without paying additional license fees.

- For deployment, user-based licenses must be independently acquired. Refer to the HATS announcement for more information on acquiring HATS licenses.

Portal Toolkit V5.0.2.2 and WebSphere Portal Unit Test Environment V5.0.2.1 (Advanced Edition only)

The IBM Portal Toolkit V5.0.2.2 provides the capabilities to customize and manage the enterprise portal and create, test, debug, and deploy individual portlets and Web content. Portals provide a mechanism for aggregating information and accessing enterprise services via a single consolidated view of Web usage. The Portal Toolkit plugs into WebSphere Studio Application Developer and provides a comprehensive framework for the development of e-business applications. The Portal toolkit is installed with the WebSphere Portal Unit Test Environment which allows for debugging and testing of portlet applications inside Development Studio Client Advance Edition.

- Templates in the Portal Toolkit enable developers to quickly and easily create their own portlets.
- Debugging and deployment tools shorten the development cycle. In addition, the sample portlets provide best programming practices.
- Bundling WebSphere Portal content publishing resource wizards.
- Portlet creation and customization
 - IBM portlet API and JSR 168 portlet API support.
 - Portlet Wizard supports action handling, message handling, using Portlet Data, single sign-on function, cooperative portlets, and multiportlet applications development
 - Portlet.xml editor is a GUI-based editor for deployment descriptor for IBM portlet and JSR 168 portlet.
- Portlet testing and debugging with WebSphere Portal V5.0
 - Portal Unit Test Environment for WebSphere Portal V5.0.2.1 and WebSphere Portal V4.2.1.

WebSphere Portal V4.2.1 is not provided in Application Developer. You need to acquire the V4.2.1 WebSphere Portal product separately.

 - Portlet Preview for viewing portlets during development quickly.
 - Remote Server Attach for debugging portlets on WebSphere Portal running on a remote machine.
 - Usability enhancement — Easy installation of the WebSphere Portal Test Environment.
- Along with Application Developer V5.1.2, Portal Toolkit V5.0.2.2 allows:
 - JSF portlet and Struts portlet development
 - JSF portlet using both IBM Portlet APIs and JSR 168: Generated JSR 168 portlets only run on WebSphere Portal V5.0.2.1.
 - Struts portlet using IBM Portlet APIs: WebSphere Portal V5.0.2.1 does not support Struts Portlets with JSR 168.
 - Web Services Client portlet development
 - Portal programming model support

- Cooperative portlets, Portlet Messaging, People Awareness

Portal Toolkit is available in the WebSphere Portal product. You can download the latest version of the Portal Toolkit from the IBM Web site. To improve your installation process for Portal Toolkit and Portal Test Environment, Development Studio Client Advanced Edition bundles Portal Toolkit V5.0.2.2 and WebSphere Portal V5.0.2.1.

Restriction for Portlet programming

- Using WebSphere Data Object (WDO) with WebSphere Portal 5.0.x is not a supported configuration because WDO requires WebSphere 5.1 and WebSphere Portal is not yet based on WAS 5.1. However, this particular configuration has been enabled for prototyping purposes only. WDO with WebSphere Portal 5.0.x should not be used for production applications. IBM will not service defects reported for this configuration and does not assure forward migration, compatibility, or support of applications built using WDO on WebSphere Portal 5.0.x. Using WDO on WebSphere Portal versions prior to 5.0.x will not work.
- JSR 168 portlet only runs on WebSphere Portal V5.0.2.1.
- Struts Portlet with JSR 168 is not supported by WebSphere Portal V5.0.2.1.

Enterprise Generation Language (EGL)

EGL is a high-level procedural language (familiar to SQL, COBOL, RPG, Informix™ 4GL developers) that allows developers to build J2EE applications without having to know Java or object-oriented programming concepts. EGL allows you to generate Java code in Development Studio Client, and iSeries COBOL code in Development Studio Client Advanced Edition.

Reference for the HATS V5.0 offering to run applications created with the HATS Toolkit

- HATS is not included in this offering. You can acquire HATS separately if you wish to deploy the Web interface to production.
- HATS transforms the screens of a host application into Web pages that are part of a WebSphere application running on a Web server. End users access the pages from their Web browsers and use the pages to send and receive data from the host application. HATS has two components:
 - HATS Toolkit, running on a client. The HATS Toolkit is shipped in Development Studio Client and development Studio Client Advanced Edition.
 - The HATS run-time code, running inside one or more HATS applications deployed on WebSphere Application Server. It sends data back and forth between the user and an application on the host. End users interact with the HATS application through their Web browsers.
- Key enhancements in HATS V5.0:
 - Transforms 5250 screens into HTML dynamically
 - Migrates one or more host applications to the Web within hours, without having to access or modify source code
 - Improves host application and ease of use through a zero-footprint and zero-download solution
 - Integrates with WebSphere Studio, WebSphere Application Server, and WebSphere Portal

- Supports single sign-on using Tivoli® Access Manager
- Provides programmed access to host transactions through standard Web services interfaces

Planning information

Packaging: WebSphere Development Studio Client for iSeries V5.1.2 media package contains the following:

- WebSphere Development Studio Client for iSeries V5.1.2 DVD
- WebSphere Development Studio Client for iSeries V5.1.2 CD set
- WebSphere Host Access Transformation Services (HATS) V5.0 CD
- DB2 Enterprise Server Edition V8.1.3 for the Windows Operating Environments CD

WebSphere Development Studio Client Advanced Edition for iSeries V5.1.2 media package contains the following items:

- WebSphere Development Studio Client Advanced Edition for iSeries V5.1.2 DVD
- WebSphere Development Studio Client Advanced Edition for iSeries V5.1.2 CD set
- WebSphere HATS V5.0 CD
- WebSphere Portal Toolkit V5.0.2.2 and WebSphere Portal V5.0.2.1 CD
- DB2 Enterprise Server Edition V8.1.3 for the Windows Operating Environments CD

Security, auditability, and control

WebSphere Development Studio Client for iSeries V5.1.2 and WebSphere Development Studio Client Advanced Edition for iSeries V5.1.2 use the security and auditability features of the respective operating systems.

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

Ordering information

Product information

Licensed function title	Product group	Product category
WebSphere Development Studio Client for iSeries	WebSphere	WebSphere Tools
WebSphere Development Studio Client Advanced Edition for iSeries	WebSphere	WebSphere Tools

Passport Advantage program licenses

Description	Part number	Entitled maintenance offerings description	Media packs description	Part number
WebSphere Development Studio Client Advanced Edition for iSeries		WBSPH DVPT STUDIO CLI ADV ISER USER	WDS Advanced Ed for iSeries Multilingual(French, Korean, Chinese — Simplified, Spanish, Brazilian Portuguese, German, Japanese, Chinese — Traditional, English U.S., Italian) Windows 2000, Windows XP, Windows NT CD-ROM Digital Disk — ISO 9660 Standard	BA0CPML
WDS Advanced Ed for iSeries Users SW Maintenance Annual Renewal	E001LL			
WDS Advanced Ed for iSeries Users License & SW Maintenance 12 Months	D51LPLL			
WDS Advanced Ed for iSeries Users SW Maintenance Reinstatement 12 Months	D51LRLL			
WDS Advanced Ed User from WDS Tradeup LC/SW Maint 12 months	D51LSLL			
WDS Advanced Ed User from WDT Tradeup LC/SW Maint 12 months	D51LTLL	WEBSPHR DEV STU CLI FOR ISERIES USR	WDS for iSeries Multilingual (French, Korean, Chinese — Simplified, Spanish, Brazilian Portuguese, German, Japanese, Chinese — Traditional, English U.S., Italian) Windows 2000, Windows XP, Windows NT CD-ROM Digital Disk — ISO 9660 Standard	BA0CNML
WDS Advanced Ed User from VA Generator LC/SW Maint 12 months	D53U7LL			
WebSphere Development Studio Client for iSeries				
WDS for iSeries Users SW Maintenance Annual Renewal	E00AULL			
WDS for iSeries Users License and SW Maintenance 12 Months	D5165LL			
WDS for iSeries Users SW Maintenance Reinstatement 12 Months	D5167LL			

Withdrawal of previous Passport Advantage part numbers: IBM will withdraw from marketing the following parts licensed under the IBM international program license agreement on the dates specified.

Passport Advantage supply

Description	Part number	Program description	Part description	Part number	Withdrawal from marketing date
WebSphere Development Studio Client Advanced Edition for iSeries					
Media Pack Multilingual (French, Korean, Chinese — Simplified, Spanish, Brazilian Portuguese, German, Japanese, Chinese — Traditional, English U.S., Italian) Windows 2000, Windows XP, Windows NT™ CD-ROM Digital Disk — ISO 9660 Standard V5.1.2	BA0CPML	WDS for iSeries V5.1.0 (5724-A81)	WS Development Studio Client for iSeries V5.1 Media Pk Multilingual	BA0BBML	8/27/04
WebSphere Development Studio Client for iSeries					
Media Pack Multilingual (French, Korean, Chinese — Simplified, Spanish, Brazilian Portuguese, German, Japanese, Chinese — Traditional, English U.S., Italian) Windows 2000, Windows XP, Windows NT CD-ROM Digital Disk — ISO 9660 Standard V5.1.2	BA0CNML	WDS Advanced Edition for iSeries V5.1.0 (5724-D46)	WS Development Studio Client Advanced Ed for iSeries V5.1 Media Pk Multi	BA0BAML	8/27/04

Orders for these part numbers will not be accepted after the effective date of withdrawal, nor will normal marketing activities or educational support be available unless previous agreement exists between the customer and IBM.

Passport Advantage customer: Media pack entitlement details

Customers with active maintenance or subscription for the following products are entitled to receive the corresponding media pack.

Terms and conditions

This product is only available via Passport Advantage. It is not available as shrinkwrap.

Agreement: IBM International Program License Agreement. Proofs of Entitlement (PoE) are required for all authorized use.

Part number products only, offered outside of Passport Advantage, where applicable, are license only and do not include Software Maintenance.

License information (LI) form numbers

- WDSc for iSeries (5724-A81): L-JWOG-5W3L4Y
- WDSc Advanced Edition for iSeries (5724-D46): L-JWOG-5W3LAD

Limited warranty applies: Yes

Warranty: This program has warranty for a minimum of one year from acquisition from IBM or authorized IBM Business Partner. The warranty provided to the customer, for at least one year from acquisition, is access to databases (read Web sites) for program information and FAQs, including any known fixes to defects, which the customer can download or obtain otherwise and install at leisure.

Money-back guarantee: If for any reason you are dissatisfied with the program, return it within 30 days from the invoice date, to the party (either IBM or its reseller) from whom you acquired it, for a refund. This applies only to your first acquisition of the program.

Copy and use on home/portable computer

- WDSc for iSeries: Yes
- WDSc Advanced Edition for iSeries: Yes

Volume orders (IVO): No

Passport Advantage applies: Yes and through the Passport Advantage Web site at

<http://www.ibm.com/software/passportadvantage>

Usage restriction: Yes

For usage requirements, refer to the license that accompanies the product. The program-unique Terms section of the license documents the restrictions of the use of the product and the software associated with the product.

Software maintenance applies: Yes

Software Maintenance, previously referred to as Subscription and Technical Support, is now included in the Passport Advantage Agreement. Installation and technical support for the products announced in this letter is provided by the Software Maintenance offering of the IBM International Passport Advantage Agreement. This fee service enhances customer productivity by providing voice and/or electronic access into the IBM support organizations.

IBM includes one year of Software Maintenance with the initial license acquisition of each program acquired. The initial period of Software Maintenance can be extended by the purchase of a renewal option that is available.

While your Software Maintenance is in effect: IBM provides you assistance for your routine, short-duration installation and usage (how-to) questions and code-related questions. IBM provides assistance via telephone and, if available, electronic access, only to your information systems (IS) technical support personnel during the normal business hours (published prime shift hours) of your IBM support center. This assistance is not available to your end users. IBM provides Severity 1 assistance 24 hours a day, every day of the year. For additional details, consult your IBM Software Support Guide at

<http://techsupport.services.ibm.com/guides/handbook.html>

Software Maintenance does not include assistance for the design and development of applications, your use of programs in other than their specified operating environment, or failures caused by products for which IBM is not responsible under this agreement.

For more information, about the Passport Advantage Agreement, refer to the IBM International Passport Advantage Agreement Software Announcement 201-202, dated July 10, 2001, or visit the Passport Advantage Web site at

<http://www.ibm.com/software/passportadvantage>

Complimentary products: IBM provides licensed copies of complimentary products in our product boxes. The complimentary products are not upgradeable through the originally ordered product. They are only upgradeable separately as individual products. If a fully licensed product is required, contact IBM or your reseller. In addition, complimentary products do not entitle customers to receive service support.

IBM operational support services — Support line: No

iSeries software subscription applies: No

IBM Electronic Services

IBM Global Services has transformed its delivery of hardware and software support services to put you on the road to higher systems availability. IBM Electronic Services is a Web-enabled solution that provides you with an exclusive, no-additional-charge enhancement to the service and support on the IBM eServer®. You should benefit from greater system availability due to faster problem resolution and preemptive monitoring. IBM Electronic Services is comprised of two separate but complementary elements: IBM Electronic Services news page and IBM Electronic Service Agent™.

IBM Electronic Services news page provides you with a single Internet entry point that replaces the multiple entry points traditionally used by customers to access IBM Internet services and support. By using the news page, it enables you to gain easier access to IBM resources for assistance in resolving technical problems.

The IBM Electronic Service Agent is no-additional charge software that resides on your IBM eServer system. It is designed to proactively monitor events and transmit system inventory information to IBM on a periodic customer-defined timetable. The IBM Electronic Service Agent tracks system inventory, hardware error logs, and performance information. If the server is under a current IBM maintenance service agreement or within the IBM warranty period, the Service Agent automatically reports hardware problems to IBM. Early knowledge about potential problems enables IBM to provide proactive service that maintains higher system availability and performance. In addition, information collected through the Service Agent will be made available to IBM service support representatives when they are helping answer your questions or diagnosing problems.

To learn how IBM Electronic Services can work for you, visit

<http://www.ibm.com/support/electronic>

Prices

Passport Advantage

For Passport Advantage and charges, contact your IBM representative or your authorized IBM Business Partner. For additional information about the Passport Advantage offering, visit the following Web site

<http://www.ibm.com/software/passportadvantage>

To order, contact the Americas Call Centers, your local IBM representative, or your IBM Business Partner.

To identify your local IBM Business Partner or IBM representative, call 1 800-IBM-4YOU (426-4968).

Trademarks

iSeries, Informix, and Electronic Service Agent are trademarks of International Business Machines Corporation in the United States or other countries or both.

Passport Advantage, WebSphere, OS/400, DB2, Tivoli, and eServer are registered trademarks of International Business Machines Corporation in the United States or other countries or both.

Intel and Pentium are trademarks of Intel Corporation.

Microsoft, Windows, and Windows NT are trademarks of Microsoft Corporation.

Java is a trademark of Sun Microsystems, Inc.

UNIX is a registered trademark of The Open Group in the United States and other countries

Other company, product, and service names may be trademarks or service marks of others.