V5R1 Update on IBM WebSphere Development Studio for iSeries

Authors: Jim Mason President – Cape Cod Bay Systems

Dave Slater World-wide Market Manager ISeries AD products

'Whats the Biggest Story for v5r1 software to date? You!

For IBM, you are. You have ordered over 15,000 licenses for WebSphere Development Studio for iSeries in the first 90 days since v5r1 became available. By year end, you will have exceeded every IBM forecast for this new iSeries server development toolset. And that's before most of you have had the opportunity to really explore all the benefits many of the new tools in the package offer!

'Whats is WebSphere Development Studio for iSeries?

IBM has repackaged iSeries server host based and workstation based development tools into 1 package: WebSphere Development Studio for iSeries. The package is available as a no-charge upgrade to existing customers of our IBM iSeries server AD tools with software subscription. Ordering 5722-WDS includes the full package: host components and workstation components. Workstation components are packaged on separate media for install on workstations with unlimited licenses per server.

The host components include:

- ILE RPG
- ILE COBOL
- ILE C
- ILE C++
- ADTS

The workstation components include:

- CODE/400
- VisualAge for Java Professional edition with AS/400 Enterprise Toolkit
- WebSphere Studio for iSeries: Professional edition with iSeries Affinity extensions
- WebFacing Tool
- VisualAge RPG

'Whats easier now??

- generate Java web front-ends (JSPs, servlets, Javabeans) for 5250 RPG, COBOL applications using the WebFacing Tool
- generate more Java web applications using Studio and VisualAge wizards accessing host batch and service programs
- visually build web database queries and updates with WebSphere Studio
- test WebSphere applications in VisualAge's WebSphere Test Environment
- write business logic for new e-business applications in ILE RPG or ILE COBOL with added interoperability enhancements for Java.
- customize, generate and create new Java beans.
- build advanced Java applications for new e-business applications from beans.
- use enhanced remote debug support included with CODE/400.

In addition, the IBM tools suite now cover the full range of e-business use cases:

- rapid web-enablement of existing RPG and COBOL applications
- quick web access to iSeries server data
- building advanced Java applications with a variety of network protocols
- creating J2EE EJB applications
- B2B applications with new web services support (coming in the next release)

The tool set also supports role-based, team development well:

- solid version control, code management with standard interfaces (XMI) to enterprise level code management and design tools
- tools easily focused by role: web site master, page producers, application assemblers, bean developers, host integration, host development

Many of the e-business applications developed can run in any open standards runtime: IBM WebSphere, Apache Tomcat or other Java web application servers.

IBM offers software extensions to the WebSphere environment that complete e-business application needs: Commerce Suite, Payment Manager, LDAP server, Connect for iSeries, Business Intelligence access. etc.

The impact of the new IBM tools?

Bottomline: e-business a lot faster for a lot less.

Development tool impacts include:

- significantly lower costs for e-business enablement
- much faster payback on e-business investments
- drives down the learning curve for e-business
- flexible web growth strategies for: rapid enablement, extension and re-engineering
- increased productivity and interoperability in all programming languages
- easiest way to build web applications for iSeries
- easy access to existing RPG business logic and data for web applications
- better Java integration with other languages
- higher productivity through continuous upgrade & extentions of tools

A year ago, I made a preliminary estimate of 24 to 30 man weeks to build a Java web application that integrated an existing order entry, inventory application and related data for a customer. At the time, the customer decided it was more than they had available in the budget.

They asked me last week to give a new estimate for the project. Based on using the new tools, my time is now 8 to 10 weeks. A 65% reduction in the time and cost to deliver the Java web application! Yes, e-business is real on the iSeries ... and the tools are getting better all the time!

Directions for IBM development tools

IBM will continue to move more toward implementation of current open e-business standards in all their tools. This has big payoffs for both reuse of existing IT assets across platforms and major improvements in productivity for runtime and development tools.

In the next release, IBM is adding web services development support for discovery, development, description, object & data mapping, publishing and consuming web services to make web applications more dynamic, service oriented and component based.

IBM will continue 2 "levels" of offerings: a Professional edition that is included in WebSphere Development Studio and an Advanced edition that will have an additional license fee for the workstation tools. Typically, the Advanced edition offers more automated builders for J2EE EJB (Enterprise Java Beans) and Enterprise connector tools (eg MQ, etc). Both WebSphere Studio and VisualAge for Java have Professional and Advanced editions.

There will be a common IDE (Integrated Development Environment), WebSphere Studio Workbench (WSW), that will integrate both IBM and vendor/partner development tools that let them interoperate using common services. The IDE will provide customizable "role-based" perspectives of the tool repository to ease the developer learning curve. In addition to lower tool building costs, this will improve developer productivity and shorten the learning curve as well.

WebSphere Studio version 4.0 adds:

- new web services wizards to define, build and publish web services supports SOAP, WSDL, UDDI
- improved support for pervasive applications (WML, WAP etc) with WebSphere Everyplace SDK included
- more JSP 1.1, Servlet 2.2 support (3.5.3 has this now)

VisualAge for Java version 4.0 adds:

- limited to EJB 1.0, JSP 1.1, Servlet 2.2 support (WebSphere 4.0 supports EJB 1.1)
- wizards with WAR file support for deployment to web application servers
- JDK 1.2.2 development with deployment to 1.2.2 or 1.3 environments
- wizards to generate JCA (Java Connectivity Architecture) code to invoke host applications
- an updated WebSphere Test Environment

With the new "extensible, pluggable" architecture for the IDE, IBM will be able to implement the newest standards faster in the tools. In addition, 3rd parties can add their tools as custom plug-ins. Expect to see fix packs that update the following items on a continuing basis:

- Java JDK 1.3, then 1.4 with API's for:RMI-IIOP, JPDA, JCA, XML, XSLT, JNDI, JINI, JDBC, SQLJ, JNI, Servlets, JSP, JMX, JXTA
- J2EE 1.2 with extension support for: JSP 1.2, Servlets 2.3, EJB 2.0, JDBC 3.0
- Web Services: SOAP 2.1, UDDI, WSDL 1.1, XML DADs, DTDs & Schemas and future Web Services standards

How to get started with WebSphere Development Studio

- visit the IBM web site for more info (<u>www.ibm.com/software/ad/wds400</u>)
- if you don't have the tools yet, order program 5722-WDS(remember it's a free upgrade if you have iSeries server AD tools and software subscription)
- look at the IBM web site above for education and training sourcesthere are a variety of training options including: self study courses,IBM and 3rd party training classes, Internet based training etc
- attend the IBM labs at COMMON October 22-26 on the new tools
- look to IBM business partners with services & tools to web-enable your applications using the new tools - some are listed on the IBM web site above
- for business partners, look to Partner World for Software for iSeries for added support
- visit the IBM WebSphere Developer Domain and VisualAge Developer Domain web sites for more developer tips

What are you waiting for? click here: (www.ibm.com/software/ad/wds400)