Rational® software

IBM Rational Developer for System i for SOA Construction, Version 7.1

Highlights

■ *Facilitates in-house development of Web and SOA-based applications to meet business needs*

■ *Exploits advances in middleware and technology to enable developers with limited training to build applications and interfaces*

■ *Enables the transformation of EGL source into Java or COBOL code for deployment to a variety of environments*

■ *Helps deliver an Eclipse-based integrated development environment for RPG and COBOL programming*

■ *Quickly and easily generates a dynamic Web interface from a 5250 data stream*

Reducing the cost, time and training needed for development

IBM Rational® Developer for System i for SOA Construction, Version 7.1 software is designed to enable developers to build innovative, rich Web applications and user interfaces that can link to back-end applications created using RPG, COBOL and Enterprise Generation Language (EGL) programs. The offering contains the latest Web development tools for the IBM System i™ platform, including powerful EGL-based Web development tools targeting the IBM i environment.

Rational Developer for System i for SOA Construction can help simplify and accelerate the development of service-oriented architecture (SOA) applications and the modernization of legacy systems, while also helping to reduce development costs. With minimal retraining, developers can reuse and extend IT assets using wizards designed to convert existing callable RPG and COBOL programs into Web services. Developers then can use IBM Rational Business Developer software to extend these applications to the Web.

Building on IBM Rational Business Developer, Version 7.1 software

IBM Rational Business Developer, Version 7.1 software delivers the latest technology tools to support the definition and test/debug of EGL applications and services. It is also a generation engine that can transform EGL source into Java™ or COBOL code optimized for deployment to a variety of application hosting environments—including Java Platform, Enterprise Edition (Java EE) servers; IBM WebSphere® software; Apache Web server; Tomcat application server; and IBM i Integrated Application Server—as well as to traditional transactional systems such as the IBM i environment.

EGL is designed to hide the details of the target execution platforms and associated middleware, helping to free developers to focus on business problems rather than on the underlying implementation technologies. Developers with little or no experience with Java and Web technologies can use EGL to create enterprise-class services and applications quickly and easily. Even those who aren't familiar with i environment programming can quickly create highly optimized System i technology–based Web services and programs.

Rational Business Developer has functions that can further strengthen platform coverage, including support for SOA and business integration solutions. The software can also help users extend RPG and COBOL applications to the Web.

A spectrum of development capabilities
Rational Business Developer software is designed to address the spectrum of modern business application requirements, including the development of:

- *Business services. EGL includes the built-in notion of "service," allowing developers to create and consume services in a simple and straightforward way, and to permeate systems architecture with service orientation.*
- *Web applications. EGL is tightly integrated with the JavaServer Faces (JSF) framework and JSF tooling, enabling programmers to easily create Web applications without needing to know Java or the details of the JSF framework.*
- *Portlets. Developers can deploy EGL JSF Web applications to the IBM WebSphere Portal Server platform. EGL provides built-in functions to interface with the IBM WebSphere Portal framework, including support for interportlet communications.*

- *Reports. EGL integrates with Business Intelligence and Reporting Tools (BIRT), an open source reporting engine, allowing teams to create professional reports.*
- *Batch systems. The language includes the notion of "batch program," which can be generated to run without end-user interaction, allowing developers to produce reports or perform batch database loads or updates.*
- *Text user-interface applications. To facilitate the migration of legacy systems to a modern development environment, EGL enables developers to create traditional character-based or green-screen user interfaces, such as 5250 and 3270, and relative programming constructs. This capability can also be used for new development, if needed.*

Enhancements to an industry-leading tool
Rational Business Developer, Version 7.1 includes the following enhancements in addition to the existing capabilities of version 7.0:

- *IBM i Integrated Application Server support. Generated Java Web applications can now be deployed to the IBM i Integrated Application Server.*
- *IBM i environment data queues and data areas support. These resources can now be accessed through new EGL functions.*

Easy, fast development and deployment
When developing i technology–based applications, programmers can use the capabilities of Rational Business Developer to help them improve their productivity.

- *Language. EGL provides a comprehensive but easy-to-learn language notation that's modern and modular. And it includes a rich library of functions to help boost developers' productivity for commonly required operations, such as date, time, math and string manipulation. Additionally, the language is extensible and offers interoperability with other languages, including EGL interfaces to native Java code.*
- *Tools. To further boost developers' productivity, Rational Business Developer includes a rich set of tools built on the Eclipse integrated development environment (IDE) framework. The set includes EGL source animation for debugging; powerful smart editing; visual construction; graphical navigation; tight integration of EGL notation with graphical Web development tooling; and automatic transformation of Unified Modeling Language (UML) models or database schemas into functional EGL services and applications.*

- *SOA. EGL is designed to facilitate services development and deployment. A simplified and abstracted SOA development paradigm has been built into the language itself, and it's complemented by tools and generation technology. EGL supports the creation of services without requiring that developers know Web service protocols and standards such as Web Services Description Language (WSDL), Simple Object Access Protocol (SOAP) or XML.*

Building on IBM Rational Developer for System i, Version 7.1 software

IBM Rational Developer for System i, Version 7.1 software provides an Eclipse-based IDE for RPG and COBOL programmers, including edit/compile/debug capabilities. Key enhancements to version 7.1 include:

- *Improved application diagrams in functional zoom, program calls and control language (CL) support.*
- *IBM i Web services and Java tools in the integrated language environment (ILE) Web services and program call bean.*
- *An improved level of program verifiers, syntax checkers, content assist, editor wizards and outline view — which have been updated to the IBM i, Version 6.1 host level.*
- *Screen designer technology preview phase 2.*
- *Debug support.*
- *Reduced footprints in disk and memory.*

Rational Developer for System i allows developers to modernize existing RPG and COBOL applications to enable them for SOA. Its edit/compile/debug capability can be used to separate batch code into reusable procedures that can be consumed as Web services. And the new Web services wizard can help convert these procedures into services. These steps can then enable Rational Business Developer to consume those existing RPG and COBOL services.

Building on IBM Rational HATS Toolkit, Version 7.1 software

The IBM Rational Host Access Transformation Services (HATS) Toolkit, Version 7.1 software product includes a default transformation engine designed to quickly and easily generate a dynamic Web interface from a 5250 data stream. The resulting Web interface can then be customized with the toolkit. Rational HATS can also be used to create Web services that provide standard programming interfaces to business logic and transactions contained within host applications.

The IBM WebFacing Deployment Tool offering, formerly a component in IBM WebSphere Development Studio Client and IBM WebSphere Development Studio Client Advanced Edition software, is now a component of Rational HATS Toolkit, Version 7.1.

The WebFacing Deployment Tool is designed to be used to quickly, easily and cost-effectively generate Web user interfaces to 5250 applications that run in batch mode. Applications produced with the Rational HATS Toolkit require the purchase of IBM Rational HATS for 5250 Applications licenses and IBM Rational HATS for 5250 Applications, Version 7.1 media prior to deployment to production.

Why use IBM Rational development tools?

Virtually anyone who works in the IBM i environment and needs to focus more on solving business problems and less on underlying implementation technologies can benefit from using the bundled IBM Rational Developer for System i for SOA Construction offering. The software can help organizations modernize applications, reassign existing staff, repurpose assets and improve productivity.

For more information

To learn more about IBM Rational Developer for System i for SOA Construction, Version 7.1 software, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/software/awdtools/rdi

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