



IBM Rational Software Architect for WebSphere Software, Version 7.5

Highlights

- ***Helps reduce risk and accelerate software delivery with abstraction, automation and simplification tools***
- ***Provides tools to quickly configure a design environment tailored to your business***
- ***Helps manage your deployment infrastructure, enabling you to deploy solutions on first try***
- ***Includes comprehensive design and development tools for proven, new and emerging programming models***
- ***Integrates with the software lifecycle and development teams' processes***

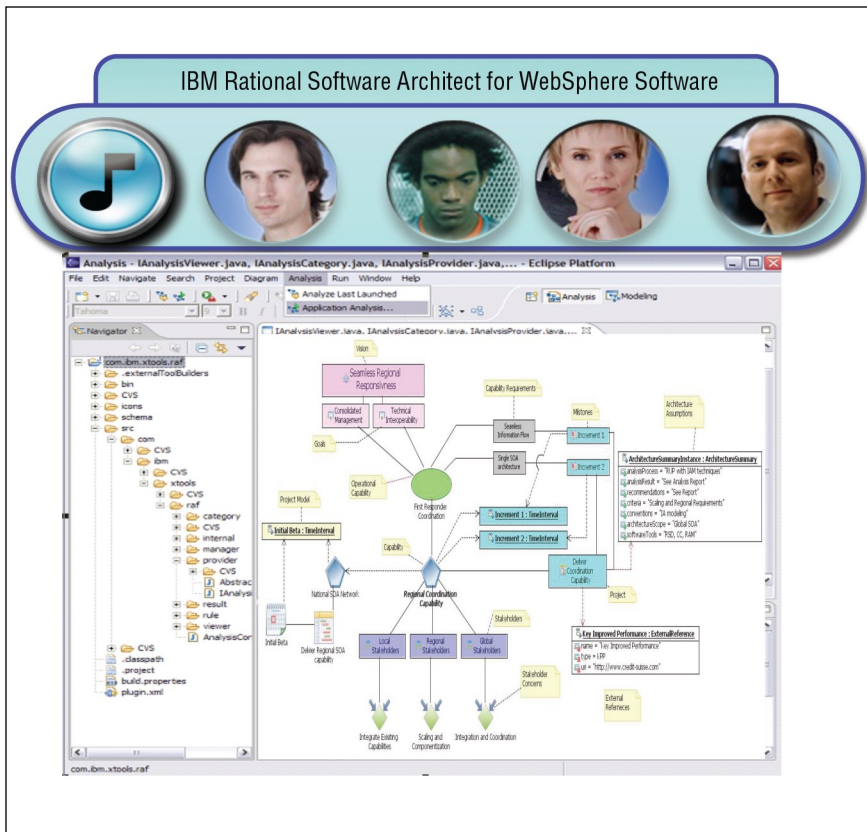
To succeed with software delivery, you require tools that help you mitigate project risk, clearly describe and communicate problem and solution domains, help you learn and apply new techniques quickly, enable more effective team collaboration, and make development best practices repeatable and automated. The IBM Rational® Software Architect for WebSphere Software, Version 7.5 application, which includes IBM Rational Application Developer software, can help you achieve your goals.

A powerful, integrated design and development environment, IBM Rational Software Architect for WebSphere Software can help IT architects and developers understand, design, manage and evolve solutions and services across the team, across the world and across different areas of technical expertise. Its abstraction, analysis and reporting capabilities are designed to enable more effective communication

and collaboration, and its automation and intelligent editing tools can help improve productivity, enhance architectural control and ease the design-to-code experience for Java™ and Java Platform, Enterprise Edition (Java EE); Web services; service-oriented architecture (SOA); and Web 2.0 applications.

Reducing software delivery complexity with abstraction

You likely already rely on abstractions such as whiteboard diagrams and text documents that are challenging to use when you collaborate with distributed stakeholders. As requirements evolve and the implementation process reveals new technical insights, these designs can quickly become obsolete. To go back and update such documents is costly and often not feasible with impending deadlines and project pressures. Furthermore, these specifications become only semantically imprecise “blobs” that cannot support automated analyses, and they cannot be leveraged to maintain architectural consistency and control.



IBM Rational Software Architect for WebSphere Software is an integrated platform for innovation and collaboration.

IBM Rational Software Architect for WebSphere Software offers a platform on which to:

- Communicate and collaborate on your requirements and designs using precise specifications that support development automation.
- Analyze and manage project size, complexity, health and risks.
- Manage architectural consistency and conformity.
- Improve project outcomes.

With Rational Software Architect for WebSphere software, you can quickly and efficiently build documentation with abstractions such as Unified Modeling Language (UML) analysis and design models. And through its built-in profile editor, Rational Software Architect for WebSphere Software enables you to create your own domain-specific solution analysis and design environment, tailored to your problem and solution

domains. Then with the click of a button, you can generate profile-specific model templates, palettes, context menus, properties views and more.

Developing faster while reducing costs with automation

Semantically rich abstractions alone can add value, but when you use them to automate development, you can realize even greater returns. Rational Software Architect for WebSphere Software includes many model-to-code and code-to-model transformations covering domains such as Java; Java EE, including Java Persistence API (JPA) and Enterprise JavaBeans (EJB); Web Services Description Language (WSDL); XML Schema Definition (XSD); and, with the addition of IBM Rational Modeling Extension for Microsoft® .NET software, C#.

Even greater power can be found beyond the built-in transformations. IBM Rational Software Architect for WebSphere Software provides a powerful collection of tools for authoring your own model-to-model and model-to-text/code transformations. By using these tools to leverage your UML-based or domain-specific model (DSL)-based abstractions, you can generate high percentages of implementation code and realize a substantial return on your investment. The generated code is often more consistent and contains no hand-coding errors, so it yields additional savings in terms of fewer testing requirements and reduced maintenance costs over the lifetime of your solutions.

Leveraging expertise across your projects through simplification

As new techniques such as Web 2.0, SOA and Agile methods emerge, leveraging them can be challenging because many people simply don't know where to begin. Rational Software Architect for WebSphere Software provides smart accelerators that can help you adopt new approaches.

With its profiles, wizards and tutorials, Rational Software Architect for WebSphere Software can help you start and establish an efficient and scalable SOA. The software also includes IBM Rational Application Developer for WebSphere Software, with tools for Java, Java EE and Web services transformations and implementations, as well as tools for SOA applications that are optimized for IBM WebSphere® software and IBM Information Management middle-ware. The solution provides unit test

environments for IBM WebSphere Application Server, Version 6.1 and IBM WebSphere Portal Server, Version 6.0 software. And support for the Java Runtime Environment allows you to optimize applications for Apache Tomcat and middleware environments from other vendors.

The included Web diagram editor is aware of services, data and EJB and provides a range of capabilities for designing Web applications, enabling development teams to save time and boost productivity. For teams leveraging portal technology, portlet design wizards can help support complex data types, as well as JavaServer Faces (JSF) and Struts portlets. The integrated IBM WebSphere Portal test environment enables you to test business process portals with other resources, such as content management systems and embedded messaging.

If you are entering the world of Web 2.0, Rational Software Architect for WebSphere Software tools can simplify the creation of responsive Rich Internet Applications. Comprehensive support for asynchronous JavaScript and XML (AJAX), drag-and-drop widgets, code assist, validation and refactoring wizards for JavaScript and Dojo can help speed development and assist you in creating Web 2.0 applications.

Rational Software Architect for WebSphere Software also includes Java and Java EE visual construction and graphical tools that can help novice developers get started quickly, freeing senior developers to

concentrate on building differentiating business logic. Code rules and reviews help ensure that best practices are facilitated throughout the implementation. Significant tooling for Java EE security helps make it easier to create, assign, integrate and test an application's security requirements. Visual architectural discovery tools are designed to make application maintenance and enhancement easier by helping you recognize design intent and understand the best approach to modifying or enhancing applications with minimal disruption.

Bridging the business-IT gap

Rational Software Architect for WebSphere Software promotes communication and collaboration as part of an integrated approach to business solution delivery. It integrates with IBM WebSphere Business Modeler and IBM Rational Data Architect software, and with the new included deployment architecture platform, it spans the four subarchitectures that must compose business-aligned IT solutions—business process, information, software/services, and operations.

Requirements stored and managed by IBM Rational RequisitePro® software can be accessed and associated to corresponding model elements of these four architectural domains, and then synchronized using selectable rules. This traceability can help mitigate project risk by understanding the impact of changes in your requirements or your implementations.

Because it integrates with WebSphere Business Modeler, Rational Software Architect for WebSphere Software can help you take business process models that represent a business services contract and refine them into technical service realization contracts. The Rational software can then take this set of well-architected services and use built-in transformations to generate Business Process Execution Language (BPEL) and Service Component Definition Language (SDCL) that is consumable and editable by IBM WebSphere Integration Developer software and executable on the IBM WebSphere Process Server platform. Because Rational Application Developer is included in Rational Software Architect for WebSphere Software, you can accelerate development of the service providers and clients.

Throughout the development lifecycle, robust software configuration management products such as IBM Rational ClearCase® or IBM Rational Team Concert software can manage your collaborative files. And you can manage change with Rational Team Concert or IBM Rational ClearQuest® software. Because Rational Software Architect for WebSphere Software integrates with IBM Rational Asset Manager software, you can manage subsets of your process, software, information and deployment models as reusable architecture building blocks. You can also manage your custom profiles, templates, patterns, transformations and other key executable assets effectively. Further, integration with the IBM Rational Unified Process® (IBM RUP®) solution gives teams the ability to work with a single documented process.



Bridging the development-operations gap

IT organizations often face a communication gap between development and IT operations. Symptoms include frequent deployment failures that require emergency responses to reconfigure infrastructure and to repackage, or even rearchitect, applications.

The deployment architecture platform included within IBM Rational Software Architect for WebSphere Software can help ensure that software solutions are deployable the first time, every time. It enables you to capture rich semantic representations of your technical infrastructure, create best-practice templates describing your standard technology configurations, and generate logical operational models that begin to describe the requirements for deploying applications under development.

These tools can help software architects elicit their solutions' deployment requirements and take them through the task of properly matching those requirements to the capabilities of the IT technical infrastructure.

Why IBM Rational Software Architect for WebSphere Software?

Optimizing software delivery is critical to producing superior IT solutions and software-intensive systems. Even as scope and complexities continue to increase, it is important to deliver high-quality, cost-effective results in less time.

The IBM Rational Software Architect for WebSphere Software, Version 7.5 solution enables you to accelerate time to market with higher-quality solutions while spending fewer development dollars up front and reducing the costs of maintenance over the lifetime of your solutions.

For more information

To learn more about the IBM Rational Software Architect for WebSphere Software solution, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/software/awdtools/swarchitect/websphere

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