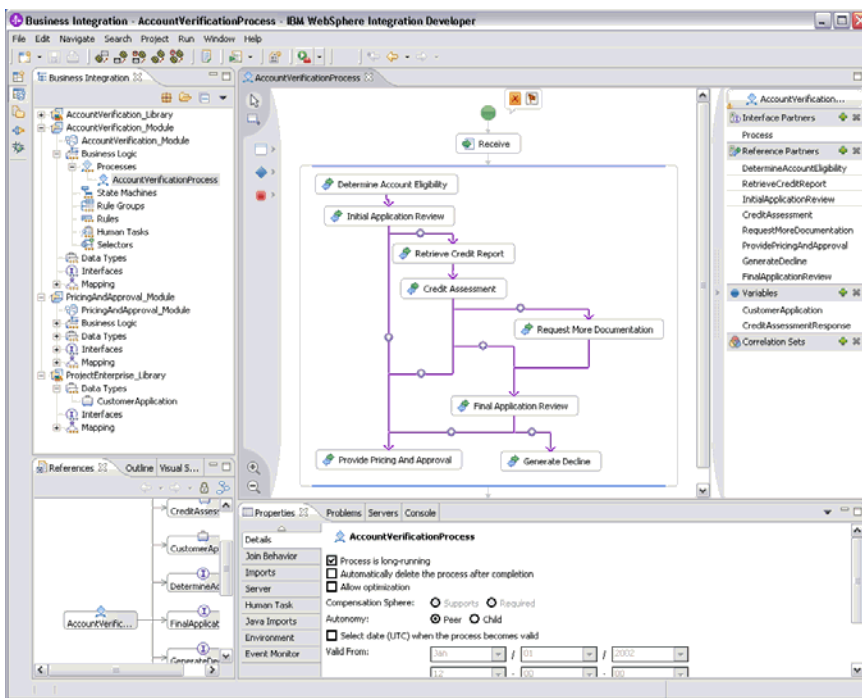


IBM WebSphere Integration Developer, Version 6.0

Highlights

- Provides one tool for integration through a single programming model that describes all types of WS-BPEL-based processes that span people, tasks, systems, architectures and languages
- Offers a composite application framework designed to accelerate solution development by wiring service components together without developers needing detailed knowledge of underlying IT components
- Enables a clean hand-off from business analysts by transforming business models from WebSphere Business Modeler to IT flows that support accurate implementation
- Includes role-based development through integration with Rational development tools and WebSphere Business Modeler
- Provides an easy-to-use, intuitive GUI that requires minimal skills—designed specifically for non-Java programmers
- Helps increase efficiency and reuse by enabling you to browse service components and assemble solutions quickly



WebSphere Integration Developer enables non-Java developers to build business solutions by wiring together service components.

Rapidly deliver high-quality solutions

Many organizations are under constant pressure to deliver more business value without increasing IT costs. To build successful solutions to business challenges, you have to model and simulate these solutions to determine their efficacy. Then, you have to implement the models using proven components that provide the flexibility you need to change the behavior of business processes. Composite application development based on a service oriented architecture (SOA) delivers rapid solution-development capabilities by transforming your IT infrastructure into standards-based service components that can be consumed using a single programming model. These service components become the building block for assembling effective business solutions.

Delivering on the SOA promise

Business processes have life cycles that are driven by business goals and implemented by IT. As a result, you have to align IT processes that span your entire organization with your business goals. However, you might be dealing with an IT infrastructure that is complex and inflexible. One that comprises a wide range of applications

and technologies—each designed to address specific business and IT challenges. SOA and composite application development enable you to solve this problem by using existing IT resources as services that you can rapidly assemble to create business-process flows.

Shift to On Demand Business with WebSphere Integration Developer

IBM WebSphere® Integration Developer, Version 6.0 software is Eclipse technology-based tooling designed to enable you to rapidly assemble business solutions based on a composite application-development framework—using minimal programming skills.

With WebSphere Integration Developer, you can author SOA-based services and choreograph them into business processes that you can deploy on IBM WebSphere Process Server. WebSphere Integration Developer offers a role-based development experience that specifically targets the integration developer on a single and integrated Eclipse platform.

You can also expand the capabilities of WebSphere Integration Developer to include business analysts and Java™ 2 Platform, Enterprise Edition (J2EE) developers by adding other IBM application-development tools. And because WebSphere Integration Developer is based on open-standards-based technologies, such as Web Services Description Language (WSDL), XML Schema Definition (XSD) and Web Service-Business Process Execution Language (WS-BPEL), you can model, implement and deploy complex composite applications without extensive knowledge of the underlying implementation.

WebSphere Integration Developer complements IBM WebSphere Business Modeler, Version 6, and can be used in conjunction with IBM Rational® Software Architect, Version 6 and IBM Rational Application Developer, Version 6. When combined into a single integrated development environment (IDE), these products provide a complete suite of tools to model, simulate, author and deploy composite SOA applications.

Designed to provide leading-edge integration-development capabilities

WebSphere Integration Developer, Version 6.0 focuses on developer productivity by providing easy-to-use authoring tools that enable you to rapidly build and debug composite business-integration applications. Combined with other development tools like Rational Application Developer and WebSphere Business Modeler, it provides comprehensive support for your enterprise developers.

Together, WebSphere Process Server and WebSphere Integration Developer provide comprehensive services to enable the development of composite integration applications. These service components include:

- *Business processes*
- *Human tasks*
- *Business-state machines*
- *Business rules*
- *Interface maps*
- *Business-object maps*
- *Relationships*
- *Selectors*
- *Java objects*
- *Imports and exports for Web services, adapters, JMS and Enterprise JavaBeans (EJB)*

Business processes

The business-process component in WebSphere Process Server and WebSphere Integration Developer use a WS-BPEL technology-compliant process engine. WS-BPEL defines a model and a grammar for describing the behavior of a business process based on interactions between the process and its partners. Support for WS-BPEL includes:

- *An improved business-process editor with an easy-to-use authoring experience*
- *Intuitive drag-and-drop tools to visually define the sequence and flow of WS-BPEL business processes*
- *A visual business-process debugger to step through and debug WS-BPEL business processes*
- *Long- and short-running business processes*
- *Compensation support to provide transaction rollback-like function for loosely coupled business processes that cannot be undone automatically by the application server*
- *Integrated fault handling to provide an easy and integrated means of performing in-flow exception handling*
- *The ability to include Java snippets and artifacts as part of a business process*

Human tasks

WebSphere Process Server and WebSphere Integration Developer provide human-task support that expands the reach of WS-BPEL to include activities requiring human interaction as steps in an automated business process. Business processes involving human interaction can be *interruptible* and *persistent* (a person might take a long time to complete the task) and can resume when the person completes the task. Human-task support includes:

- *The ability to invoke human tasks from a business process to represent a step in a business process that is performed manually*
- *The ability to assign people to specific instances of a process using staff queries that are resolved at run time using an existing enterprise directory*
- *A graphical browser-based interface that can be used to query, claim, work with, complete and transfer work items to another user*
- *JavaServer Faces (JSF) components to create custom clients*
- *Advanced work-item management support that enables users to create, transfer and delete work items*
- *Dynamic setting of duration and calendar attributes for staff activities*

- *Dynamic setting of staff assignment using custom attributes*
- *Originating task support to invoke any kind of service (including a business process)*
- *Ad hoc creation and tracking of human tasks*
- *Administrative tasks*

You can use the human-tasks function to invoke services (such as a business process), participate in a business process (traditional staff activity) or administer a business process (process administrator). Pure human tasks are also available to implement ad hoc processing. By separating human-task support from the core WS-BPEL engine, WebSphere Process Server and WebSphere Integration Developer enable you to create pure WS-BPEL code without IBM extensions for human tasks.

Business-state machines

WebSphere Process Server and WebSphere Integration Developer provide a business-state-machine component that you can use to model heavily event-driven business-process scenarios. These event-oriented scenarios are sometimes hard to model in a WS-BPEL model, but can be very easy to model in a state-machine diagram. The WebSphere Process Server state machine is designed to

emulate Unified Modeling Language (UML) state-machine diagrams. The combination of WS-BPEL business processes with business-state machines gives you more business-process automation choices—enabling you to address business problems more effectively.

Business rules

WebSphere Process Server and WebSphere Integration Developer contain a business-rule component that provides support for rule sets (if-then rules) and decision tables. Business rules are categorized into rule groups that hide implementation details from the consumer and are accessed just like any other component.

WebSphere Process Server and WebSphere Integration Developer also provide a Web client with plain-text display capabilities to enable on-the-fly changes to business rules to be deployed using an intuitive user interface. By separating the business-rules component from the individual business-process flows, WebSphere Process Server and WebSphere Integration Developer enable a rule to be managed by the domain expert for that particular business rule. Also, by encapsulating rules as a service component, WebSphere Process Server and WebSphere Integration Developer enable a rule to be used across multiple processes for maximum business flexibility.

Supporting components

WebSphere Process Server and WebSphere Integration Developer provide a wide range of supporting components designed to facilitate component-based application development. These supporting components include:

- *Interface maps that can be used to convert semantically, but not syntactically, identical interfaces. You can use interface maps to import existing services that might have an interface definition that doesn't meet requirements already in place. You can also use them to implement a completely canonical integration solution where one component has no knowledge of the implementation details of another component.*
- *Business-object maps that can be used to translate one business object into another. For example, as part of an interface map, it is often necessary to translate the arguments of an operation because the parameters of the operations might be described differently. These business-object maps can also be invoked from a business process to translate data (such as extracting an address from a customer record).*

- Relationships that can be used to convert key information to access the same data sets in various back-end systems and keep track of which data sets represent identical data. This component enables cross-referencing and federation of heterogeneous business objects across disparate enterprise information systems (EISs). You can also define lookup relationships for static data (such as mapping postal codes into city names).
- Selectors that can be used to dynamically invoke different components based on various rules (such as date). You can increase flexibility by combining the selector component with interface maps. WebSphere Process Server provides a Web interface that enables you to change selector rules on the fly.

Back-end system connectivity

WebSphere Integration Developer provides integrated, open-standards-based support for building composite applications, such as WS-BPEL business processes that integrate with back-end systems. Features include:

- *Integrated tool support for using J2EE Connector Architecture (JCA), Version 1.0 and Version 1.5 resource adapters to access back-end systems*
- *Enhanced tool integration for JCA adapters with tool plug-in extensions (available from IBM and IBM Business Partners)*

- *Enhanced JCA, Version 1.5 resource adapter support that uses IBM WebSphere Adapters*
- *Support for the entire suite of WebSphere Adapters*
- *Easy-to-use tools that enable you to create services out of JCA resource adapters or WebSphere Adapters, and that enable you to include those services as part of an integration application*
- *Sophisticated wizards to manage the low-level data-handling requirements for JCA resource adapters*
- *Support for Web services (based on Java Specification Request [JSR] 109 and Java application programming interface [API] for XML-Remote Procedure Call [JAX-RPC] technology)*
- *Support for JMS through integrated WebSphere messaging resources (with full connectivity to existing IBM WebSphere MQ technology-based networks)*
- *Support for calling EJB session beans*
- *Wizards to quickly and simply expose IBM CICS® or IBM IMS™ programs as enterprise services, including the ability to import definitions from COBOL, C structures, CICS basic mapping support (BMS) and IMS Message Format Service (MFS) definitions*

J2EE application server

WebSphere Process Server and WebSphere Integration Developer build on WebSphere Application Server capabilities to provide a J2EE and Web services technology-based application platform for deploying enterprise Web services solutions for dynamic On Demand Business.

For more information

To learn more about IBM WebSphere Integration Developer, Version 6.0, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/software/integration/wid

To join the IBM WebSphere Global Community, visit:

www.websphere.org



IBM WebSphere Integration Developer, Version 6.0 at a glance

Hardware requirements

- Processor speed: 1GHz minimum (faster recommended)
 - RAM: 1 to 2GB recommended
 - Disk space: 4GB (includes IBM WebSphere test environment)
 - Display resolution: 1024x768 minimum; 1280x1024 recommended
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Software requirements

For Microsoft® Windows®

- Windows XP Professional with Service Pack (SP) 1 and SP2
 - Windows 2000 Professional with SP3 and SP4
 - Windows 2000 Server with SP3 and SP4
 - Windows 2000 Advanced Server with SP3 and SP4
 - Windows Server 2003 Standard Edition
 - Windows Server 2003 Enterprise Edition
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For Linux®

- Red Hat Enterprise Linux (RHEL) Workstation, Version 3.0 (all SPs)
- SUSE LINUX Enterprise Server (SLES), Version 9 (all SPs)

Note: For the latest hardware and software requirements for WebSphere Integration Developer, visit ibm.com/software/integration/wid/requirements/.

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09-05
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