



**WebSphere** software

# IBM WebSphere Process Server, Version 6.1 and IBM WebSphere Integration Developer, Version 6.1

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## Highlights

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- **Enables you to rapidly construct and deploy processes that can meet the goals of your business**
- **Offers advanced administration and management features**
- **Provides simplified tools to describe, create and manage business processes**
- **Delivers high performance and quality of service with advanced fault-tolerance and error- detection capabilities**
- **Runs natively on z/OS, to integrate seamlessly with your most-critical application assets**
- **Runs natively on i5/OS, providing a highly scalable IT architecture for exceptional business resiliency**
- **Delivers one platform, one tool for end-to-end integration to provide service discovery, mediation and orchestration**
- **Integrates more into your business processes by using Web services, application adapters and advanced messaging capabilities**
- **Supports comprehensive, human-centric business process and task management**
- **Provides service-governance capabilities with dynamic runtime discovery and invocation of services**

## Your business engine for critical processes

Markets change, economies rise and fall, new threats and opportunities present themselves, and your business is in the middle of it all. In this dynamic, on demand world, you need to take back control of your business. You need to respond faster than your competitors, out-maneuvering them to stay ahead of the game, and provide your customers with the service and products that differentiate you from your competitors. Business process management (BPM) enables you to do exactly that.

At the heart of BPM is IBM WebSphere® Process Server, Version 6.1, a high-performance business engine that can run your critical business processes securely, consistently and with transactional integrity. Whether you need to automate processes in the factory, process claims and financial payments, run an efficient supply chain or help ensure compliance with the latest industry regulations, WebSphere Process Server can orchestrate the assets of your business to form highly optimized and effective processes to meet your business goals.

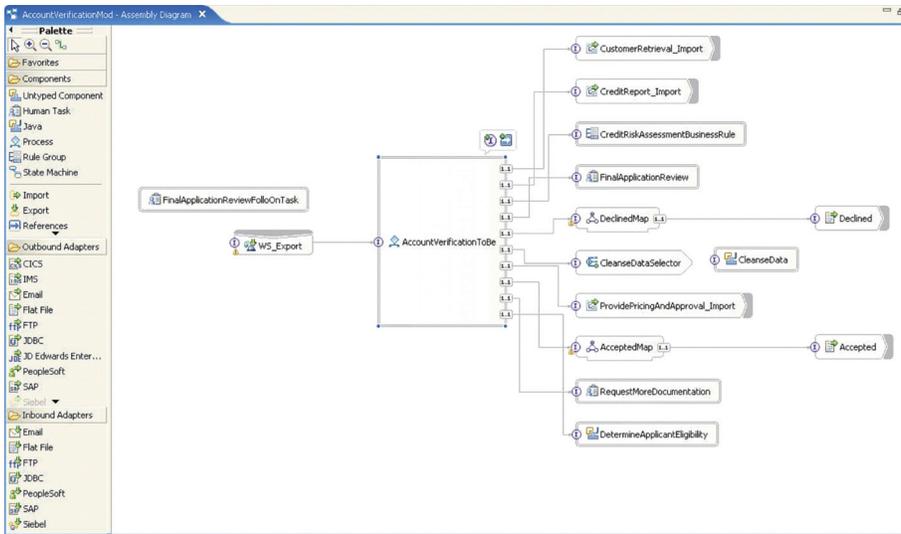


Figure 1. WebSphere Integration Developer enables rapid and easy construction of business-process and integration solutions.

### One platform, one tool, one set of skills

WebSphere Process Server and IBM WebSphere Integration Developer, Version 6.1 together deliver a unique integration experience that can help simplify resource integration at the process level right through to the information held in your business applications and components. They help deliver a service oriented architecture (SOA) based on a common model to orchestrate, mediate, connect, map and run the underlying functions and tasks as part of your business processes.

### Visualize

Your integration developers have to learn only one set of skills, using one tool for many uses. WebSphere Integration Developer is the Eclipse-based tool for building SOA-based BPM and integration solutions across WebSphere Process Server, IBM WebSphere Enterprise Service Bus and IBM WebSphere Adapters. As a result, WebSphere Integration Developer simplifies integration with rich features that accelerate the adoption of SOA by rendering existing IT assets as service components that encourage reuse and efficiency.

Integration developers can assemble complex business solutions—regardless of whether the components are processes, mediations, services, human tasks, business rules, adapters or code. They construct process and integration solutions using drag-and-drop technology to visually define the sequence and flow of business processes. (See Figure 1.) The visual editors for human-related tasks, business-state machines, business rules, data mapping and other components minimize the need to write Java™ code. And IBM WebSphere Business Modeler together with WebSphere Integration Developer provides an end-to-end solution for business analysts to collaborate with developers to define and implement business processes in a simple and straightforward fashion. The tight integration between these tools provides the ability to make incremental changes in the business model and apply them without loss of implementation to support business-driven change.

### *Orchestrate*

WebSphere Process Server carries out a series of services, as part of a process, with end-to-end transactional integrity. This capability includes comprehensive support for human-related tasks, integration of information from disparate applications into the process, and integration with information management systems. Flexibility is maximized through the ability to choose which services to dynamically invoke from IBM WebSphere Service Registry and Repository depending on environmental factors that affect the process instance at that time. Together with IBM WebSphere Business Monitor, WebSphere Process Server offers a comprehensive SOA offering that completes the life cycle of business processes.

### *Mediate*

WebSphere Process Server contains a rich set of mediation and integration capabilities also found in WebSphere Enterprise Service Bus. It abstracts the complexities of integration between applications and data sources by mediating between services wherever they are—regardless of vendor, platform or whether they are homegrown or packaged applications. This function means that you can present every asset in the business as a set of well-defined services—and shield the business from technology changes while providing stable interfaces to orchestrate business processes.

With strong support for Java Messaging Services (JMS) that lets you take advantage of the extensive platform reach of IBM WebSphere MQ, as well as Web services, XML and many other standards, you can be assured that your processes can reach every part of your business as well as that of your trading partners.

### **Market-leading middleware designed for BPM**

WebSphere Process Server and WebSphere Integration Developer, in combination with WebSphere Business Modeler and WebSphere Business Monitor, enable you to take advantage of IBM's extensive experience and long history in providing solutions that address the full life cycle of BPM. With the combination of open standards, SOA, and the new features and enhancements described here, WebSphere Process Server and WebSphere Integration Developer enable you to rapidly build and deploy flexible processes that integrate all aspects of the process from the people interactions to integration with existing services and applications. This means that you can build your SOA the way you want it—flexible, fast and business-driven.

### **New in this release**

WebSphere Process Server, Version 6.1 and WebSphere Integration Developer, Version 6.1 have been enhanced with a number of new features and capabilities, including:

#### *Platform alignment and currency*

- *Support for IBM WebSphere Application Server, Version 6.1. This allows WebSphere Process Server to leverage WebSphere Application Server and inherit the new features and benefits that were introduced in WebSphere Application Server, Version 6.1.*
- *WebSphere Integration Developer, Version 6.1 support for Eclipse, Version 3.2.2. This enables integration with the latest IBM Rational® Application Developer, Version 7 and other Eclipse-based tools.*
- *Support for the IBM i5/OS® operating system. This enables WebSphere Process Server to run on the IBM System i™ platform to leverage native i5/OS facilities.*
- *Remote IBM DB2® support for System i platforms. This enables integration with i5/OS applications and leverages relational database-management servers running on i5/OS operating system.*
- *Remote access from a distributed platform to a DB2 installation on an IBM z/OS® system.*

- Support for 64-bit Microsoft® Windows,® Linux,® IBM AIX,® HP, Sun, i5/OS and z/OS platforms.
- Support for Windows Vista as a design, development and test platform (not for production). This enables use of Microsoft's latest version of its desktop operating system.
- Support for IBM zSeries File System (zFS) as the strategic z/OS file system for installation and configuration of WebSphere Process Server and WebSphere Application Server. zFS also supports the previous versions of WebSphere Process Server and WebSphere Application Server, and the previous version of hierarchical file system (HFS).

#### *Enhanced usability, enabling better business flexibility*

Enabling easier administration and management of WebSphere Process Server is key to a successful deployment of your SOA infrastructure. New installation, configuration and profile-management enhancements increase the usability of WebSphere Process Server:

- *Install Factory enhancements for defining and building WebSphere Process Server installations at a specific fix level, adding additional files to the installation and leaving out features that are not required*
- *Eclipse-based, profile-management tool consistent for all WebSphere platforms*
- *Enhanced configuration management for deployment*
- *Support for pattern-based configurations, improving productivity for administrators who configure WebSphere Application Server Network Deployment clusters and all required resources for WebSphere Process Server environments*

#### *Enhanced developer productivity*

- *Enhancements to business integration view and enhanced palettes in the graphical editors*
- *Overall improvements in the usability of the WebSphere Adapter wizards; simpler access to context-sensitive documentation when tooling adapters; simpler Enterprise Services Discovery wizard, allowing for faster adapter configuration; adapters now displayed on the palette*
- *Reduced build times and memory footprint in WebSphere Integration Developer*
- *Improvements in the testing experience with better synchronization between the design and testing environment, and reduced publishing time*
- *Improved ability to reuse assets and make changes quickly by leveraging the enhanced refactoring*
- *Improved installation experience and ability to apply service updates to the integrated unit test environment in the same manner as the tooling*
- *Improved handling of complex Web Service Definition Language (WSDL) and XML Schema Definition (XSD) artifacts when processing custom and industry-standard schemas*

#### *Simplified business-driven development*

- *Improved developer productivity and traceability of model artifacts and process flows between WebSphere Business Modeler and WebSphere Integration Developer*
- *The ability in WebSphere Integration Developer to compare model changes and automatically merge changes, helping business analysts using WebSphere Business Modeler and developers using WebSphere Integration Developer iterate on changes faster*
- *Improved integration with WebSphere Business Monitor with end-to-end monitoring improvements*

#### *Enhanced human workflow*

- *Preconfigured people directory for rapid prototyping in WebSphere Integration Developer, which simplifies the testing of human tasks.*
- *Support for testing people queries with a configured people directory.*
- *Participant-substitution capabilities that allow people to temporarily delegate work while they are unavailable.*
- *Bulk application programming interfaces (APIs) to ease transferring many tasks in a single operation.*
- *Support for virtual member manager, a new component of WebSphere Application Server for integrating client-specific people directories.*

- Ability to optionally restrict automatic deletion to tasks that are completed successfully.
- Integration of IBM Lotus® Forms Designer and Server with WebSphere Integration Developer, providing the ability to generate forms from a human-task workflow and use forms for user interaction in a business process.
- A new wizard in the WebSphere Integration Developer, providing the ability to generate portlet-based user interaction quickly and easily for a business process. This can help simplify integration with IBM WebSphere Portal and accelerate time to value with a faster and more-usable human-task user interface.

#### *Business-process enhancements*

- Generic JMS interface for the business flow manager, allowing for programmatic interaction with business-process templates and instances
- Extensions to the generic Web services interface for the business flow manager
- Web Services Business Process Execution Language (WS-BPEL) forEach construct, allowing processing of a dynamic number of multiple branches (either in parallel or serially)
- Extension of suspend capabilities, allowing you to specify automatic resumption of process instances

- Ability to restrict automatic deletion to processes that completed successfully, enabling you to keep only process instances that might need further analysis or repair
- Additional data-handling option that ignores missing data during access instead of producing errors
- Support for back links in single-threaded flows

#### *Business rules*

- Ability to extend existing custom business-user clients to administer business rules used in process flows. A new business-rules administration API allows for creating, reading, updating and deleting rules as an alternative to using the business rules manager.
- Ability to assign new custom properties to business-rule groups and access those properties from the rule logic of rule sets and decision tables. This helps to provide these rules with access to environment information captured in the properties. The properties can also be used for searching on business-rule groups through the business rules manager or custom management clients.

#### *Business Process Choreographer Explorer and Business Process Choreographer Observer*

- Enhancements to Business Process Choreographer (BPC) Explorer leverage new WebSphere Process Server, Version 6.1 capabilities for increased efficiency:
  - Handle the absence and substitution of users.
  - Support the *suspend until* option for processes and tasks.
  - View and edit XML source for data.
  - Extend custom views to support sorting and controlling the amount of data returned to users.
  - Fully combine more filter criteria across processes and tasks with their definitions and instances.
  - Navigate between related tasks (subtasks and follow-on), administer and view information about ad hoc tasks.
  - Include human-task priority and business category as filter criteria and list columns.
  - Edit custom properties.
  - Improve the usability of the graphical process view (see Figure 2).
- Reports in BPC Observer can now be exported for further analysis in third-party tools, such as Microsoft Excel, or saved for generation automatically at a later time, based on schedule, or on demand.

## Why platform matters

The platform you use matters. Some systems have greater reliability, flexibility, security, scalability and availability than others. That is why WebSphere Process Server is now available on a greater range of systems than ever before, including the IBM System z™ platform and now the IBM i5/OS operating system. Because we know that platform matters to you.

### IBM System z

For many years, the mainframe has been associated with a set of traditional core values: availability, security and scalability. As a result, many enterprises around the world have chosen the mainframe as their deployment platform for mission-critical applications. It is no surprise that in industries such as banking, where factors like security are so important, there is a strong affinity to mainframe servers.

IBM WebSphere Process Server for z/OS, Version 6.1 takes advantage of today's System z servers by taking the traditional values of the mainframe to the next level. It offers:

- Extremely high levels of application and data availability for business resiliency.
- Rock-solid security and privacy.
- Massive horizontal and vertical scalability features for nondisruptive growth.
- An optimized operating environment with higher utilization and balanced system design.
- Advanced multidimensional virtualization capabilities.
- Highly responsive, autonomic and intelligent workload management.
- Compliance with open and industry standards.
- Unmatched platform support for transformation and integration of existing applications and data.
- Specialty engines that are integrated with and leverage existing assets with a new set of economics.
- World-class integrated support.

These capabilities that the mainframe brings to the market are becoming very important for all industries. The cost that results from failures, downtime or security breaches can be very expensive. Thus, resiliency is of growing importance. By choosing to run WebSphere Process Server on System z, companies across a range of industries can take advantage of these key capabilities to help address many of their business requirements.

### IBM i5/OS

WebSphere Process Server, Version 6.1 can now run native under IBM i5/OS.

The IBM i5/OS integrated operating environment has a highly scalable and virus-resistant architecture with a proven reputation for exceptional business resiliency to provide the efficient IT infrastructure that companies rely on to support business-critical applications.

The i5/OS operating environment integrates a trusted combination of relational database, security, Web services, networking and storage-management capabilities. It provides a broad and highly stable database and middleware foundation for efficiently deploying business-processing applications.

The i5/OS operating environment has helped companies over many years to focus on innovation and delivering new value to their business, not just on managing their data-center operations. IBM i5/OS:

- Provides low total cost of ownership.
- Runs a wide range of applications, from character-based and enterprise resource planning (ERP) to SOA.
- Delivers industry-leading customer and IBM Business Partner satisfaction.
- Supports mixed workloads on a single server, with stability at high levels of system utilization.
- Delivers a secure design that provides natural defenses against viruses and the vulnerabilities that they attempt to exploit.
- Delivers reliability as a feature, not an option.
- Helps ensure the investment protection of IT assets.

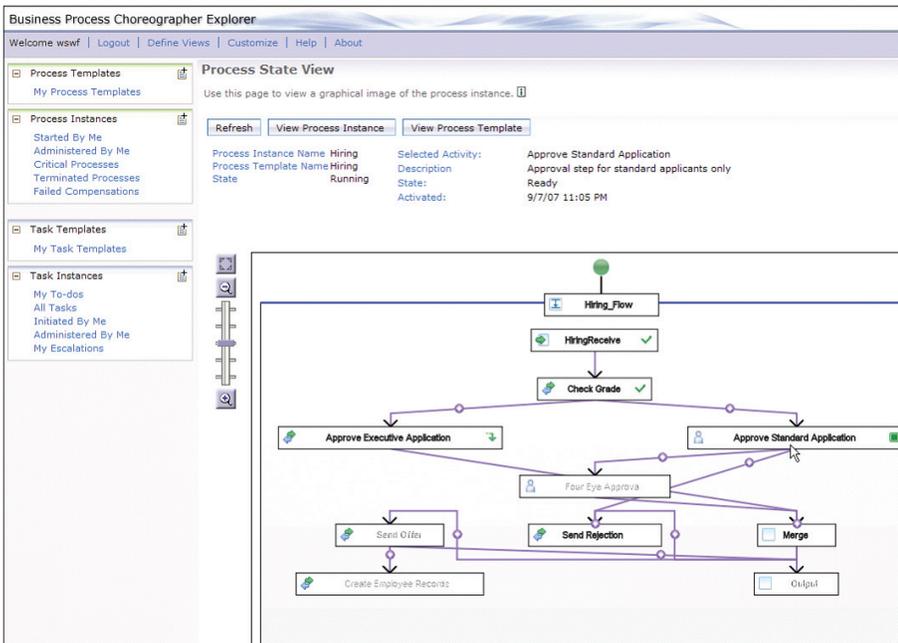


Figure 2. WebSphere Process Server enables you to graphically view the state of running processes.

### Connectivity

Reuse and connectivity are necessary for any SOA deployment to reduce cost and allow for business responsiveness and flexibility. WebSphere Process Server, Version 6.1 helps to increase the ability to connect with additional environments with increased service component architecture (SCA) bindings. To improve connectivity, WebSphere Process Server:

- Enables integration with any third-party message provider that is compliant with JMS 1.1 Application Server Facilities (ASF), and supports automatic setup of generic JMS resources for WebSphere Application Server.
- Enables connection with applications and services through generic HTTP 1.0 and 1.1 bindings.
- Presupplies data bindings for easy integration with IBM WebSphere Transformation Extender.
- Contains custom data samples with sample scenarios for export and import, fixed-width, delimited, and name-value pair formats.
- Includes enhancements to business fault support, enabling differentiation between business and runtime exceptions.
- Delivers enhanced support for WSDL and XSD, enabling the use of many industry-standard XML schemas.
- Includes a business object instance validator that can be invoked for either implicit, interface-qualifier-based validation or explicit, programmatic validation.

### Additional ESB mediation support

- Significantly enhanced visual XML Mapper that provides a fast and easy way to create data maps using Extensible Stylesheet Language Transformation (XSLT)
- A New Business Object Map primitive that allows business object maps to be reused between Process Server and ESB
- New Service-Invoke Primitive allows external service to be invoke during mediation, either synchronously or asynchronously
- New splitting and aggregating primitives that allow enhanced processing of single or composite messages by splitting parts of the message and invoking multiple services
- Enhanced custom mediation that allows the specification of complex custom logics with dynamic terminal and properties support
- System-wide, common database support and schema qualifier on the message logger primitive
- Performance enhancements



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## IBM WebSphere Process Server, Version 6.1 and IBM WebSphere Integration Developer, Version 6.1 at a glance

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### Hardware and software requirements

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For the latest information about hardware and software requirements for WebSphere Process Server, Version 6.1, visit:

[ibm.com/software/integration/wps/sysreqs](http://ibm.com/software/integration/wps/sysreqs)

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For the latest information about hardware and software requirements for WebSphere Integration Developer, Version 6.1, visit:

[ibm.com/software/integration/wid/sysreqs/](http://ibm.com/software/integration/wid/sysreqs/)

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### For more information

To learn more about IBM WebSphere Process Server, Version 6.1 and IBM WebSphere Integration Developer, Version 6.1, contact your IBM representative or IBM Business Partner, or visit:

[ibm.com/software/integration/wps](http://ibm.com/software/integration/wps)

[ibm.com/software/integration/wid](http://ibm.com/software/integration/wid)

To join the IBM WebSphere Global Community, visit:

[www.websphere.org](http://www.websphere.org)

To find out more about how IBM is helping to drive standards for an SOA programming model, visit:

[www.osoa.org](http://www.osoa.org)

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