



IBM Software Group

IBM Business Process Management Suite V6.1.2

New feature product overview



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This presentation provides an introduction to the new features and functions for each of the products in the IBM Business Process Management Suite V6.1.2.

WebSphere® Process Server

- Upgrade or installation process
- Installation usability enhancements
 - ▶ DB configuration before installation
 - ▶ Quick start using the products
 - ▶ Apply fixes during installation



Here are a few of the enhancements for the WebSphere Process Server. The install and upgrade process allows an upgrade from V6.1 to V6.1.2. This process is not like moving from V6.0.2 to V6.1 which required a new installation and then migration of the applications, configuration and topology settings. An existing V6.1 installation can be upgraded in place, keeping all configuration and applications as they are.

Other installation enhancements include providing database scripts separate on the installation disk and applying the latest set of fixes during the install. Many times it is preferred to have the database tables created before the installation occurs. This allows the databases to be kept on a separate system from the applications and servers. Any fixes that are available can be put into a specific directory on the installation disk before running install. The installation will apply these fixes before any profiles are created.

WebSphere Process Server

- WebSphere Integration Developer support
 - ▶ High priority XSD holes
 - ▶ Horizontal trace
 - ▶ Server unit test environment
 - ▶ Improved WebSphere test environment console messages and tracing
 - ▶ Business calendar
- Performance improvements
- Data bindings



There are still many holes in the XSD support which have been improved on in this release. WebSphere Process Server has also provided support for many of the new WebSphere Integration Developer enhancements. The horizontal trace allows a unique ID provided by process server to be used to identify trace across SCA components. This allows WebSphere Integration Developer to link those traces during the viewing. Enhancements to allow a server used in the WebSphere test environment to be reset to its original state or reinstall the server have been added. The business calendar support has been added to WebSphere Process Server to provide a consistent model for business calendars between modeler, WebSphere Integration Developer and the Business Process Choreographer for calendar events related to human tasks and other calendar operations.

Performance in the process server continues to be improved with this release. Most of the performance enhancements are related to the WebSphere test environment in the WebSphere Integration Developer for deployment and application startup.

In the 6.1.0.1 fix pack there were many changes made to the data bindings in WebSphere Process Server which are used by the adapters. There are a set of samples that help to explain these changes.

Business Process Choreographer

▪ **V6.1.0.1**

- ▶ Force completion of BPEL wait activities
- ▶ Force completion or retry of human task activities
- ▶ BFM query API performance
- ▶ Business process navigation performance
- ▶ Validation of group work items during deployment
- ▶ Fine-grained common business events



For the business process choreographer the V6.1.0.1 fix pack provided several new features which were not fully implemented in the V6.1 release. HTM administrators can now over-ride the timeout setting specified for a BPEL wait activity in WebSphere Integration Developer and force a BPEL wait activity to complete early using the BPC Explorer. Similar to BPEL wait activities, HTM administrators can now force completion or retry of human task activities using the BPC Explorer. There are improved performance features included for BFM query API and the business process navigation. If the people assignment criteria "Group" is used, the runtime now checks that the server where this task is deployed to verify that it has been configured to support group work items. More fine-grained Common Business Events are introduced supporting custom properties and event sequencing for exploitation by WebSphere Business Monitor.

Business Process Choreographer

▪ **V6.1.2**

- ▶ Improved monitoring support
- ▶ Enhanced dynamicity for in-flight processes
- ▶ REST API for BFM, HTM and BR
- ▶ Business space for human workflow
- ▶ Graphical process widget
- ▶ Business calendar exploitation for human tasks



For the V6.1.2 release there are an additional set of new features. There is additional Common Base Event generation to allow better monitoring with WebSphere Business Monitor. The ability to jump backward or forward, skip certain activities within a process, and to update variables of a process has been added. This is exposed by way of a new graphical process widget in BPC Explorer. A set of REST-full APIs implementation of certain BFM, HTM and BR APIs have been added for use by the Business Space for Human Workflow. These APIs are not exposed in V6.1.2 to allow the creation of new widgets. There is a new, ready-to-run, Web 2.0 BPM client for business users. This provides Rich UI widgets support human-centric client spaces, including a graphical process widget for viewing human workflow. A new widget for graphically displaying a business process and for dynamically changing the flow of the business process is also provided. With the business calendar support now being provided in the process server, BPC can exploit the new Business Calendars to be used when assigning human tasks to people.

WebSphere Integration Developer

- Ease of use enhancements
 - ▶ Quality of service usability improvements
 - ▶ Manage server profiles
 - ▶ Sticky notes
 - ▶ Consistent actions between editors
 - ▶ View and publish changes to server
 - ▶ Refactoring



The WebSphere Integration Developer has a long list of new features and improvements. The first category for these falls under the ease of use.

Some of the improvements for the quality of service for components include imports and exports preferred interaction style, assembly editor enhanced with highlighting and visual feedback to show how transactions propagate through SCA components.

A test environment server profiles can be reset or re-created with the default settings.

Sticky Notes are available across the editors to allow information to be saved that is not part of the editor content. These notes can be hidden, deleted, moved and support an undo or redo function.

The editors now support consistent action for cut, copy and paste operations.

A new dialogue shows the differences between the workspace and the published contents on servers.

Refactoring the Rename Interface Operation Parameter affects any component that references an operation parameter. The names that are displayed as Inputs, Outputs, and Faults in the Interface Editor depend on the style of the underlying WSDL operation.

WebSphere Integration Developer

- Ease of use enhancements
 - ▶ Authoring/WebSphere test environment performance
 - ▶ Business calendar
 - ▶ Rational® Asset Manager
 - ▶ Business space



Authoring and WebSphere test environment Performance improvements include improved build and publish times to test environment, reduced accumulated memory with successive publishes or adding or removing projects and improved performance of server start and recycle times.

The Business Calendar integration now supports Modeler Time-Tables and provides a rich set of semantics surrounding time and schedule based operations or decisions. The ability to compose those intervals into a single semantically meaningful interval, for example *Regular Working Hours*, a human task can use a calendar to determine if enough time has elapsed since a certain event and then trigger an escalation.

A new “client platform” called Business Space has been added to WebSphere Process Server, Monitor and Pub Server to support a widget view. The integration developer has provided a new client type with a new user interface definition for human tasks that matches the new client environment. In the integration developer, the users can generate, specify and modify the visualization of human task data as HTML page used within Business Space.

WebSphere Integration Developer

- XSD enhancements
 - ▶ Substitution groups
 - ▶ Mapping – Array support
 - For each
 - Append
 - Merge



Substitution groups are very similar to choice types. They allow a given base element (referred to as the substitution group head) to be replaced with a different element. Substitution group support will include showing and selecting the substitutable elements of a head element throughout the various integration developer components.

The XML Mapping Tool will add extended array support into the editor by making it easier for users to understand how arrays are handled and executed. The “for each”, “append” and “merge” transforms are added. The “for each” is a transform with only *one* array input (either primitive or complex type) that can be drilled into (similar to Inline map). The “append” is a transform with *multiple* inputs (either primitive or complex type) that can be drilled into (similar to Inline map). The “merge” transform is similar to the Append transform, however, it joins elements from different inputs.

WebSphere Integration Developer

- Problem determination enhancements
 - ▶ Troubleshooting enhancements
 - Cross-Component trace / XCT
 - Fine grained trace
 - ▶ Debugging enhancements
 - Debugging local XML maps



Cross-Component Trace allows the view of log information to be correlated, across multiple synchronous, asynchronous, or long running units or instances of work or processes and components, multiple log files, and multiple threads, for a SCA flow. The integration developer provides a viewer that organizes trace records to match the SCA programming model, with terminologies, presentations and paradigms that are consistent with the test client. Users are able to view the records, and performs preliminary analysis of what were the requests or responses and calls and what the error or exception are and which component or work item in the SCA model they are related to. A snapshot of data being passed and returned can also be viewed. These logs can be reconstructed into re-runnable test scenarios, which can be saved for further investigation and debugging.

Fine Grained Trace allows you to quickly visualize the path performed for a single execution for a component.

Enabling debugging of Local XML Maps provides the ability to set “entry” and “exit” breakpoints on all transforms, including those in in-line maps and submaps. You can optionally be able to stop at the beginning of a top-level map (before any transforms have been executed) and at the end of a top-level map, so they can see the map result before completing the map as a whole.

WebSphere Integration Developer

- Testing Enhancements
 - ▶ Wait Task
 - ▶ Command Line Invocation
 - ▶ Emulate Human Tasks
 - ▶ Standalone Data Pool
 - ▶ Test through SCA and Web service binding exports
 - ▶ Testing Local XSLT Maps
 - ▶ Component Test Explorer



The Wait Task for test environment aids the Test Component in synchronizing multiple asynchronous calls in a single test case. This also allows a test case to pause for a certain amount of time before continuing execution.

The Command Line Invocation allows users to automate their tests using Ant scripts and potentially schedule the tests during low usage time.

Scripts can be run independently or in headless mode. The result of automation is an XML file describing results.

The stand-alone Data Pool Support allows Data pools to now saved to the workspace.

Component Test Through SCA and Web services provides the ability to invoke Web service binding exports and SCA binding exports.

Enabling Local Testing of XSLT Maps allows testing support in tools to find problems with maps without having to go to the server runtime. This allows users to iteratively test their XML maps in the tools while developing and allows users to unit test XML maps in the Integration Test Client and have these tests run in the tools.

The Component Test Explorer solves the problem that test cases can not be deployed to a server to be queried, started or scheduled. This provides a Web interface to display component test projects on the server (including the test suites and test cases) and allows you to select and run test cases from the Web based Component Test Explorer application.

Modeler

- Process editor enhancements
 - ▶ Business Process Management Notation support
 - ▶ Usability improvements
- Human task enhancements
 - ▶ Business calendar support
 - ▶ Direct deploy of human-centric business processes
 - ▶ Data driven simulation with human-centric business processes
 - ▶ Storyboarding with human-centric business processes and eForms.



The modeler enhancement focus for the V6.1.2 release is on the ability to interface with other modeling tools and repositories. A standard Business Process Modeling Notation will allow organizations within a company to communicate their business processes in a graphical form. Several new features allow the custom images to be used for icons and the capability to size, move, show or hide and set as view for the dynamic palette. Breadcrumb navigation in process diagram allows links between diagrams to provide a flow through them.

There have been a lot of exciting enhancements in the area of human tasks.

The human tasks have added better support for a business calendar. The business calendar is now part of WebSphere Process Server and can be used by WebSphere Integration Developer, the Business Process Choreographer and the modeler. This allows a calendar to be created with a work week schedule associated with the human task and then exported into integration development environment.

Direct deploy of human-centric business processes provides scripts to the integration developer that enable them to create and populate the WebSphere Process Server runtime user registries. This provides the capability to run a human-centric business process in WebSphere Integration Developer without any additional development.

Data driven simulation with human-centric business processes extends the power of the WebSphere Business Modeler simulator to human tasks. The process navigation during the simulation is based on predefined inputs and real time user interactions.

Storyboarding provides the ability to step through a series of user interface forms. This is a semi-manual process which allows indexing to any form in the business process. This provides a quick and easy way to gather user requirements and validate the business process flow.

Modeler

- Rational Asset Manager
- Model synchronization
 - ▶ Using the Rational Asset Manager
 - ▶ Support for human task and business rules
- Points of agility
 - ▶ Business measures enhancements
 - ▶ Business rules
 - ▶ Fabric integration



The rational asset manager can now be used to synchronize a model between modeler and WebSphere Integration Developer. This makes the development process work better allowing the modeler to export the human tasks and business rules into asset manager and later the WebSphere Integration Developer can import those changes. After the first import, the model is synchronized to allow implementation details in WebSphere Integration Developer to remain intact. During synchronization selection of the updates required can be made.

The modeler now provides a way to indicate dynamic content and generate a fabric configuration file on export.

The modeler presentation will not go into the details of what fabric is or how it works but will cover the integration of fabric from the modeler point of view.

Publishing server

- Publishing server and business space.
 - ▶ Partitioning by business space
- Business space additional information
 - ▶ Installation, dependencies, configuration, user registries, databases, packaging



Business space has been introduced in the V6.1.2 release. It provides a Web browser set of widgets that interface with modeler, process server, monitor and pub server. The integration of business space with the pub server will cover information on installation, configuration and dependencies from the point of view of the pub server.

Both the fabric and business space products are covered in the BPM overview and the business space overview but not discussed in detail during the modeler or publishing server presentations.

Monitor

- Business activity monitoring everywhere – Blackberry, Google gadgets
- Monitor debugger
- Monitor model editor – monitor model from Modeler, using the asset repository
- Dashboard – changes, business space
- New routes to market – Message Broker, WebSphere Business Events, Fabric



A new feature in Monitor V6.1.2 is the ability to view Monitor dashboards on your Blackberry mobile device and on your PC desktop using Google gadgets. This means that you can easily check your key performance indicators anywhere that you go.

The monitor debugger allows you to easily determine why your model is discarding events or why your dashboard data is incorrect. You can use the Eclipse debug environment to iteratively step through your monitor model logic to determine the exact nature of problems that you are seeing.

You can now automatically create a fully run-able monitor model from Modeler. Also, the monitor model editor has been integrated with the Rational Asset Manager.

The dashboard looks different in this release. There are many new enhancements in the dashboard views including a new simplified KPI view. Also the business space is now used to integrate process applications and other applications with the dashboard.

A new event emitter capability has been added to Message Broker, WebSphere Business Events and Fabric, so that Monitor can receive these events and provide monitoring data and visualizations on the dashboard.

Summary

- V6.1.2 new features and functions
 - ▶ WebSphere Process Server
 - ▶ Business process choreographer
 - ▶ WebSphere Integration Developer
 - ▶ Modeler
 - ▶ Publishing server
 - ▶ Monitor



This presentation provided a brief overview of the new features and functions for each of the BPM products that are part of the V6.1.2 release. Following this presentation, you should review the product presentations for V6.1.2 that interest you and your company. There is much more detail in those individual presentations.

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