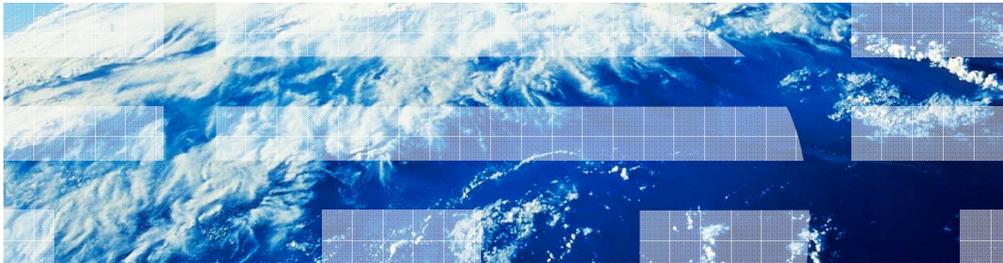


# WebSphere Business Process Management WebSphere Process Server V7.0

Overview of what is new in V7.0



This presentation provides an overview of features that are new in version 7.0. Business process and human task related enhancements are covered in a different presentation.

## Installation

- Can be installed using the launchpad, invoking the installer in the product image or silent install
- Consistent Launchpad experience across the portfolio
- IBM Installation Manager based installation

WebSphere® Process Server can be installed using the launchpad, manually invoking the installers from under the product images or silently using the response files. The launchpad for WebSphere Process Server is the single point of reference for installing the entire server environment, which can include WebSphere Process Server, WebSphere Application Server Network Deployment, a Web server, and additional supporting software and documentation. Launchpad has been redesigned to keep the experience of installing the various products across the Business Process Management portfolio consistent. With V7.0 WebSphere Process Server uses the IBM Installation manager to install the product and the necessary feature packs like the XML and the SCA feature packs.

## Installation

- Install WebSphere Application Server Network Deployment V7.0 and import into IBM Installation Manager
  - Can be done through the launchpad which silently installs application server and imports into IBM installation manager
- Use Installation Manager to
  - install XML feature pack, SCA feature pack and WebSphere Process Server
  - create stand-alone development profiles
  - launch the Profile Management Tool when install is complete

This slide summarizes the steps for WebSphere Process Server installation. You can either install it manually or use the launchpad which simplifies the process of installation by breaking it down into two steps. The first step is to install the WebSphere Application Server Network Deployment. You can use the link in the launchpad which will silently install the application server and the right level of installation manager if one doesn't exist already. The script also imports the installed Application Server into the IBM installation manager. The second step is to install the WebSphere Process Server on top of the WebSphere Application Server Network Deployment. You can just use the link in the launchpad for this task. The launchpad will invoke the installation manager with the default to install WebSphere Process Server. The default option includes the XML and SCA feature packs and the WebSphere Process Server Environment. You can choose to install samples and development profiles for WebSphere Process server and WebSphere Enterprise Service Bus. At the end of the installation you will also be given an option to launch the profile management tool to create any additional profiles.

## Database configuration

- WebSphere Process Server and WebSphere Enterprise Service Bus server profiles have multiple components using databases, they can be divided into these categories
  - CommonDB – Used by Maps, Relationships, Recovery and so on
  - BPCDB – Used by Business Process Choreographer
  - CEIDB – Used by Common Event Infrastructure
  - MEDB – Used by all the messaging engines, you can choose to setup each messaging engine on a separate database
  - BSPACE – Used by Business Space
- The components here can actually be setup in a single database or multiple databases

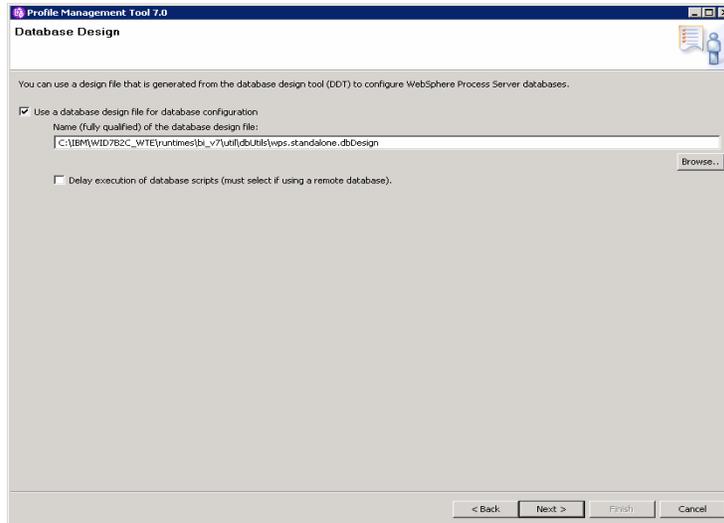
WebSphere Process Server and WebSphere Enterprise Service Bus server profiles use databases to store information used by several components. For example a common database is used to store information regarding maps, relationships, recovery data and so on. Business Process Choreographer, event and messaging engine data is also saved in databases. All of these components can be setup in a single database or multiple databases. When you are creating the profile, you are asked to enter configuration information regarding these databases. In most cases the person creating the profile might not be a database administrator. In such cases before creating the profile you need to get all the necessary information regarding database configuration from your database administrator.

## Database design tool

- Tool for database design
  - Installs with product installation
  - Located under <installdir>\util\dbUtils
  - allows you to create the database design file to be used for the components being configured (schema naming, table space, and so on)
  - an independent tool not tied with profile creation
  - generates the DDL files which can be used by DBA for database and table creations.
  - output can be used during profile creation and deployment environment configuration
  - Can reuse the database design generated for new configurations

With V7.0 you now have a tool to generate SQL files independent of profile creation and deployment environment configuration. This reduces the overlap of roles of profile installer database administrator as discussed in the previous slide. This is a tool independent of profile creation wizard and can be used to configure databases for common usage patterns like the stand-alone and the deployment environment topologies. The output of this tool is a design file which can be used in the profile creation wizard and other scripts used for database configuration. The tool also provides an option to create the SQL files based on your design so the database administrator can setup and configure databases independent of profile creation. You also have more flexibility in choosing the schema names, table spaces, and buffer pools. This tool provides the consistency in database configuration across multiple products in Business Process Management suite (WebSphere Process Server, WebSphere Enterprise Service Bus and Monitor Server)

## Profile creation wizard – Database design



This slide shows a panel from the profile management wizard where you are prompted for the database design file. If you provide the database design file, the wizard will use the information from the file to configure databases and will not prompt you for any other information regarding databases.

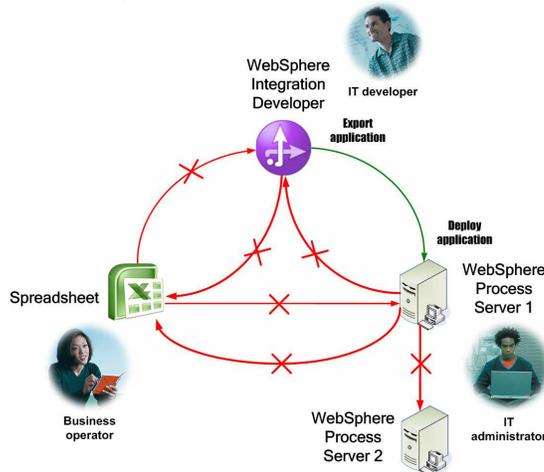
## Create profile using database design file

- Versions before 7.0
  - **manageprofiles.bat** -create -templatePath ..\profileTemplates\default.wbiserver -dbType DB2\_Universal -dbUserId user -dbPassword pass -dbName test -dbJDBCClasspath <WAS\_INSTALL\_ROOT>\universalDriver\_wbi -dbHostName myDBServer -dbServerPort 50000 [-dbSchema ... ] ..... [a lot more parameters ]
- Version 7.0 using the design file created by the tool
  - **manageprofiles.bat** -create -templatePath ..\profileTemplates\default.wbiserver -wbidbDesign wps.Stand-alone.dbDesign

This slide shows an example of how using the database design file with manageprofiles script simplifies the process of creating new profiles. In versions before V7.0, you have to provide all the necessary database parameters as shown here. But with version 7.0 you can use the database design tool to generate a database design file which then can be passed to the manageprofiles script.

## Relationship instance data

- No easy way to import or export the relationship instance data



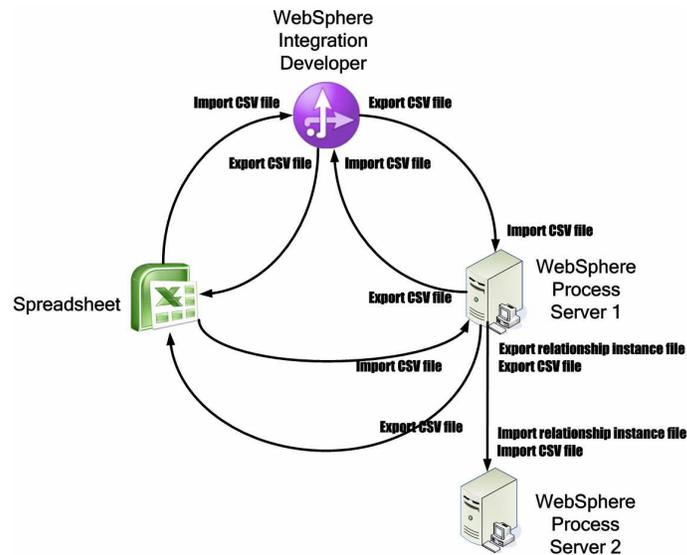
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Overview of what is new in V7.0

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Relationship service in WebSphere Process Server is a service that manages the correlation between business objects or other primitive data. Relationship service is internally invoked by business object Map and XML Map services. As you can see in the picture above, there is no easy way for you to either import existing data into WebSphere Integration Developer or WebSphere Process Server. The business operator has to define this data in WebSphere Integration Developer and then the application should be deployed to WebSphere Process Server. If there is any changes to this instance data, there is no easy way to export the data or to move the instance data from one server to another.

## Relationship instance data import/export enhancements



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Overview of what is new in V7.0

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In V7.0 there are several enhancements that are made to simplify the process of importing and exporting the relationship instance data as you move along the development cycle. As you can see in the picture here, in WebSphere Integration Developer, you have the ability to import the data directly from a file with comma separated values and export the data as comma separated values. The business operator who defines these instance data no longer needs to work with the WebSphere Integration Developer but can just define the data in a flat file. The migration of data from server to server is also simplified with the ability to now export the relationship instance data from WebSphere Process Server. The exported data can than be imported into another server.

More information about the various formats that the data can be imported from and exported to is covered in a separate presentation.

## Business space enhancements

- Common user interface for the WebSphere Business Process Management suite of products
- Web 2.0 based
- Business Space layered on top of Mashups 2.0
  - Preserve the Business Space experience
  - A special Business Space theme
    - Logon screen, palette, collection of pages, home space concept
  - Will provide better integration with other products such as WebSphere Portal server.
- You need to migrate widgets developed for version 6.2 of Business Space to run in version 7.0 of Business Space.

Business Space provides an environment designed for viewing, modifying, monitoring, and optimizing content provided by IBM Business Process Management (BPM) software, other IBM software, and vendor products.

For version 7.0, Business Space is a layer that runs on Lotus® Mashups 2.0. The Business Space experience from previous versions is preserved such as a user owned space as a collection of pages and a product agnostic home space for each user.

With Business Space becoming a layer that runs on Lotus Mashups, there is now a single platform for iWidget development. Many of the features such as spaces and templates previously in Business Space are now handled by Lotus Mashups.

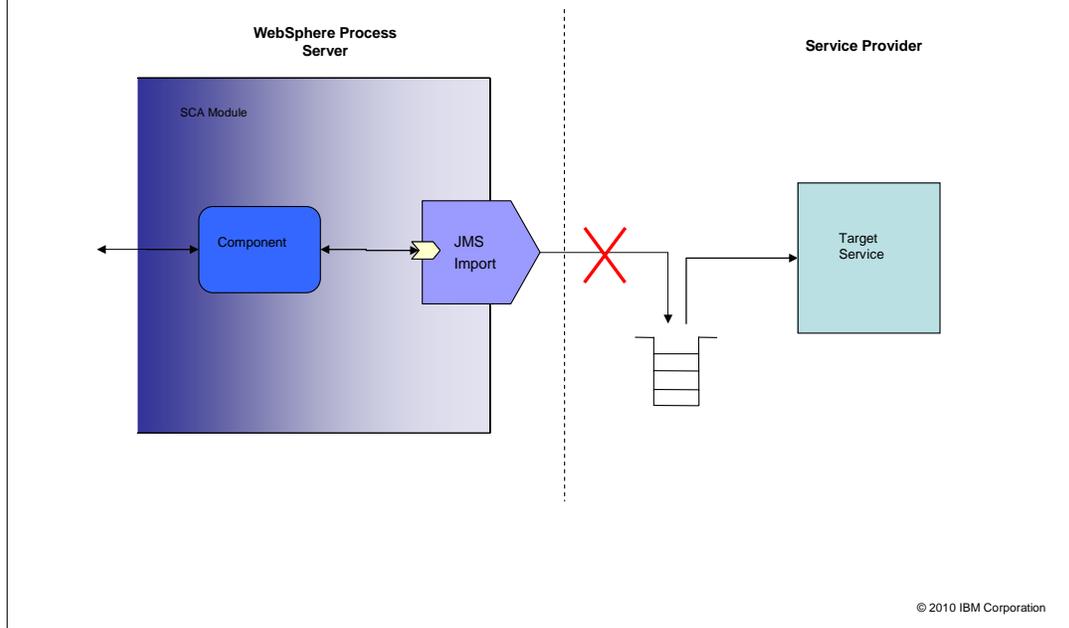
If you have any widgets that you developed in prior versions, you need to migrate widgets to run in version 7.0 of Business Space.

## Store and forward

- When a target service is unavailable, you can
  - Setup Websphere process server and Websphere Enterprise Service Bus to store the messages that are sent to this target service
  - Forward these messages once the service is available.
- Store and forward can be configured
  - for target services that are called asynchronously and synchronously
  - Store and forward qualifier can be setup on asynchronous invocation point only

Store and forward is a new feature that is introduced in V7.0. This feature provides you an option to configure WebSphere Process Server and WebSphere enterprise Bus to store messages when a target service becomes unavailable instead of generating failed events. The stored messages can be forwarded when the service becomes available. This feature is enabled by configuring a qualifier in WebSphere Integration Developer. This feature can be enabled for services that are called synchronously or asynchronously but the qualifier has to be setup only at a point in your flow where there is asynchronous invocation.

## Example scenario - Asynchronous imports (JMS, MQ, and so on)



This slide shows a scenario where you have a JMS import unable to make a connection to the external destination which can be a queue. The import creates `ServiceUnavailableException` to the calling component. This exception propagates back until it is handled or an asynchronous invocation is reached. A failed event is generated at the first asynchronous invocation point. In a scenario where store and forward is not enabled, any subsequent requests for this service will result in failed events until the service becomes available. If store and forward is setup and configuration matches, subsequent messages after the first failed event sent to this component are stored which reduces the internal roundtrip time involved in generating failed events for each request. When the service becomes available, you can initiate forward which will take care of forwarding all the messages stored.

## Store and forward configuration

- Specify the components where the store and forward should occur
- View in business space the points at which the store is activated
- Store or forward messages from business space
- Works with event sequencing

You have the ability to specify where in your flow you want the store to be enabled and what exceptions can trigger the storing of messages. If you have event sequencing and store and forward enabled, when you start forwarding the messages, the sequencing is maintained. You can access the store and forward qualifiers you configured in business space widgets.

## Migration

- V2V migration for WebSphere Process Server V7 (N-2)
  - 602, 61, 62 supported
  - Side by side, remote, network deployment with minimal downtime, OS update
  - Command line, migration wizard, several scripts provided
  - All products using the same migration tool
- Reduce WICS Migration Complexity
  - Map loosely type outbound BOs to BPEL type
  - Determine BO type of BusObj
  - BO improvements for performance
  - Tolerant no reverse map in outbound port
  - Support migrate compensation service call from ICS
  - Full functional support for the command line tool

In the V7 runtime there were some additional improvements provided for version to version migration from 602, 61 or 62. The migration supports side by side or remote migration. It also allows network deployment migration with minimal downtime or all nodes can be migrated at the same time. Operating system upgrades are also allowed. The migration can be done with command line using several scripts which are provided or using the migration wizard which will step through the set up of parameters required for the migration. The same runtime migration tool is for all BPM products which allows augmented profiles from those products to be migrated.

Improvements in the WICS migration were included in V7.0 to improve performance and reduce the complexity. Several areas of focus include BO type support, outbound port enhancements, support of compensation service calls from WICS and improvements in the command line tool.



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