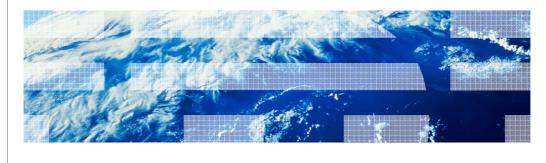
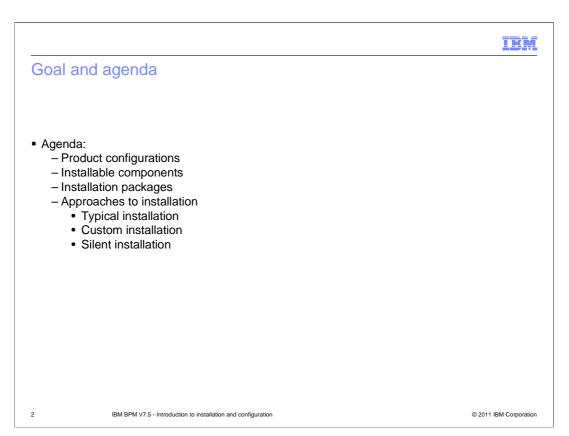
# IBM Business Process Manager V7.5

# Installation and upgrade

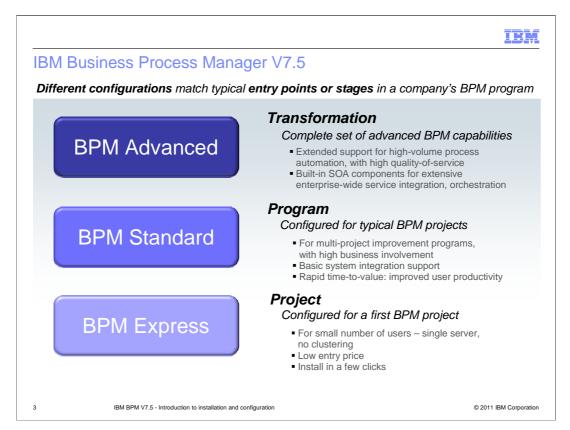


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This presentation provides an introduction to the IBM Business Process Manager V7.5 installation.



The goal of the presentation is to give you an overview of how you can install the IBM Business Process Manager in single server configuration. You will learn about the various product configurations that are offered. The installable components and the various installation packages for advanced configuration are described. You will also learn about the different ways you can install the product.

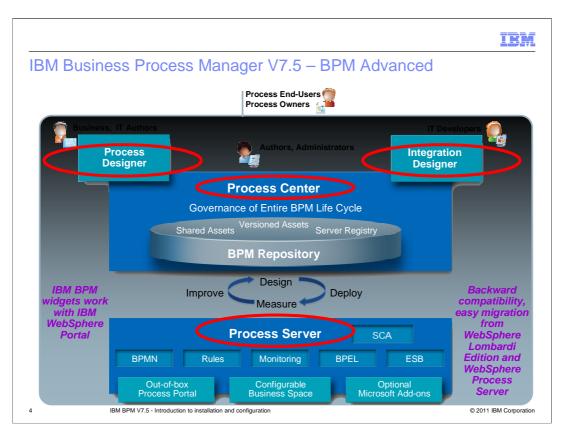


The Business Process Manager is packaged in three different configurations, each of which provides functionality appropriate for different stages of business process management adoption by your business. The configurations build on each other, satisfying the need for companies to be able to move up as their commitment to business process management grows.

The entry level product is the BPM Express and is good for a group just starting out with business process management. The BPM Express contains functionality that comes from the WebSphere Lombardi<sup>®</sup> Edition heritage. BPM Express can only be installed in a standalone server with no clustering and has a very simple installation process. The pricing is low to enable you to get started with a business process management project without having to make a major investment.

BPM Standard comes next. Similar to the BPM Express, the functionality of the BPM Standard comes from the WebSphere Lombardi Edition heritage. However, it is intended for an organization which might have several BPM projects. It enables clusters of the servers within a WebSphere Application Server deployment manager cell environment.

The top of the food chain is BPM Advanced. It contains functionality from both the WebSphere Lombardi Edition and WebSphere Process Server heritages. This adds a Service Oriented Architecture capability and high volume process automation that is transactional and secure and provides easy access to many types of external systems



The architecture diagram shown here provides a good introduction to the makeup of the IBM BPM Advanced V7.5. The installable components are highlighted in red here. In this presentation, you will learn how to install the IBM BPM V7.5 product and create the process center and process server profiles. IBM Integration Designer installation details are not part of this presentation. For more description on the different parts of this diagram, see the presentation titled "Introduction to IBM Business Process Manager"

# Installation packages

- Installation packages for IBM Business Process Manager Advanced V7.5
  - IBM Business Process Manager Advanced
    - Option to create Process Center and Process Server type profiles:

http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.wbpm.imuc.ebpm.doc/topics/cins\_bpm\_pc\_ps\_package.html

- IBM Business Process Manager Advanced Edition: Process Server
  - Option to create Process Server profile:

http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.wbpm.imuc.ebpmps.doc/topics/cins\_bpm\_pc\_ps\_package.html

- Installation package for IBM Business Process Manager Standard V7.5
  - Option to create standard process enter and process server type profiles:

http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.wbpm.imuc.sbpm.doc/topics/cins\_bpm\_std\_package.html

- Installation package for IBM Business Process Manager Express V7.5
  - Option to create express process enter and process server type profiles:

http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.wbpm.imuc.stbpm.doc/topics/cins\_bpm\_package.html

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This slide lists the two installation packages available for the IBM Business Process Manager Advanced.

IBM Business Process Manager Advanced package installs the product binaries for Process Center, Process Designer, Process Server on to your system. You are able to create both process center and process server type profiles.

IBM Business Process Manager Advanced: *Process Server* installs the product binaries for Process Server. Process Center and Process Designer binaries are not part of the IBM BPM Advanced: Process Server configuration

Installation packages for Express and Standard configurations are also shown here. Functionally the only difference between express and standard configurations is that express does not support clustering. Only stand-alone configurations are supported.

For the rest of the presentation whenever standard is mentioned, the same applies also for express configuration and profiles.

# Profile types supported by various editions

		IBM BPM Advanced	
	Business Process Manager Standard/Express	Business Process Manager Advanced	Business Process Manager Advanced – Process Server
IBM BPM Standard/Express - Process Center	х	Х	
IBM BPM Standard/Express - Process Server	Х	Х	х
IBM BPM Advanced - Process Center		Х	
IBM BPM Advanced - Process Server		х	х
WebSphere enterprise Service Bus		х	х
6 IBM BPM V7.5 -	Introduction to installation and configuration		© 2011 IBM Corporation

This table shows the various profile types that can be created by using the various package types. The first column lists the type of BPM profiles you can create using Business Process Manager Standard package. As mentioned before BPM Advanced is available in two packages. With the first package BPM advanced, you can create BPM Advanced process center, BPM Advanced process server, BPM Standard process center, BPM Standard process server and WebSphere Enterprise Service Bus profiles. With Business Process Manager Advanced – Process Server, you can create all the profile types listed for BPM Advanced package except the process center profiles.

#### Installation Enhancements

- Single step install. Installation Manager used to install WebSphere Application Server
  - Previously required
    - (1) install of WebSphere Application Server and then
    - (2) import into IBM Installation Manager
- IBM Process Designer installed silently using the IBM Installation Manager
- Launchpad enhancements
  - Typical install New for V7.5

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In V7.0, Installation Manager did not support installation of WebSphere Application Server. So you need to install WebSphere Application Server using the Install Shield MultiPlatform installer or silent install and then import the WebSphere Application Server Installation into IBM Installation Manager. Once the import is done, you can proceed with installation of WebSphere process Server. With V7.5, IBM Installation Manager is now capable of installing the WebSphere Application Server version need for IBM Business Process Manager V7.5 products. So there is only one tool that you need to work with when installing and maintaining the IBM BPM V7.5 products. IBM Process Designer which is the authoring environment for the process applications is also now managed by Installation Manager. More details on the installation of process designer are provided later on in this presentation. There is also a new option now available through launchpad called typical installation. Typical installation path minimizes the amount of input requested from you and defaults most of configuration attributes.



Shown here in the slide are the versions of various components and products that are available for installation with IBM BPM V7.5 . Installation Manager v1.4.3 is installed or is updated to V1.4.3 if it is already installed . WebSphere Application Server V7.0.0.17 is installed along with Feature Pack for XML v1.0.0.9 and feature pack for Service Component Architecture (SCA) v1.0.1.11. IBM DB2 Express V9.7.0.4 is the prerequisite for installing IBM BPM V7.5.

You can install the software interactively from the launch pad program, invoke installation manger graphical user interface or silently by running Installation Manager in silent installation mode. In silent mode, the installation wizard does not display a graphical interface, but reads your responses from a response file. You can see the options available through launchpad here on this slide. Details about typical, custom and silent installation are covered in the upcoming slides

# Typical installation

- Typical installation
  - Launchpad based user interface with minimal input required
  - Installs all the binaries silently through Installation Manager
  - Creates a stand-alone profile
    - For BPM Advanced package option to create stand-alone advanced process center or advanced process sever profile
    - For BPM Advanced Process Server package only advanced process server profile option is available
    - For BPM Standard option to create stand-alone standard process center or standard process sever profile
  - Optionally installs DB2 Express
    - Only on Windows<sup>®</sup> and Linux<sup>®</sup> 32 or 64 bit when installing with administrator or root privileges
  - Or can use an existing DB2, Oracle or SQL Server database
  - Process Designer installed locally only for Windows platform
    - Option available when using IBM BPM Advanced package or IBM BPM Standard
    - Not available when using IBM BPM Advanced Process Server package

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Typical installation simplifies the process of installing IBM BPM V7.5 product by defaulting the values for most of the configuration. Typical installation option is available for both packages - IBM BPM Advanced and IBM Advanced Process Server. You will interact only with launchpad and not with Installation Manager when you choose typical installation option. Launchpad will silently install the product binaries for both the advanced edition packages, and create a profile based on your selection in the launchpad panels.

You should select the Typical option to maintain a personal copy of IBM Business Process Manager on your system. In this way, you can develop integration services or business processes locally, or you can contribute artifacts using the export and import functions in the product. A Typical install is also recommended for proof of concept work and for learning about the features and functions of the product.

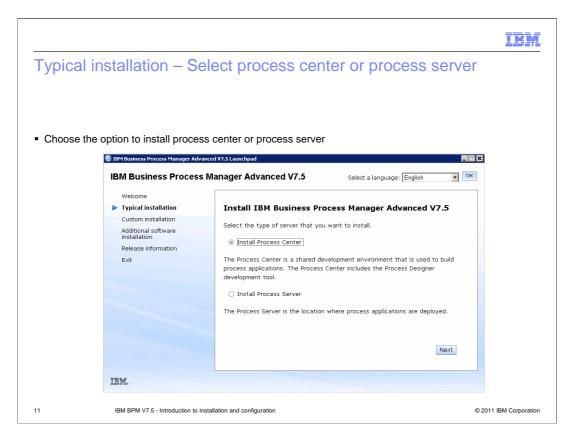
# Typical installation – Required information

- Choose the option to install Process Center or Process Server
  - For Process Center or Process Server option
    - Hostname for the server (defaults provided)
    - · Installation directory path
    - If DB2 Express should be installed and configured
      - If not, database information needed:
        - » Type
        - » Hostname and port
        - » User ID and password
        - » Database names for process center/server and performance data warehouse
  - For Process Server only:
    - Type of server (test, staging, production)
    - Hostname and port of Process Center to connect to (optional)

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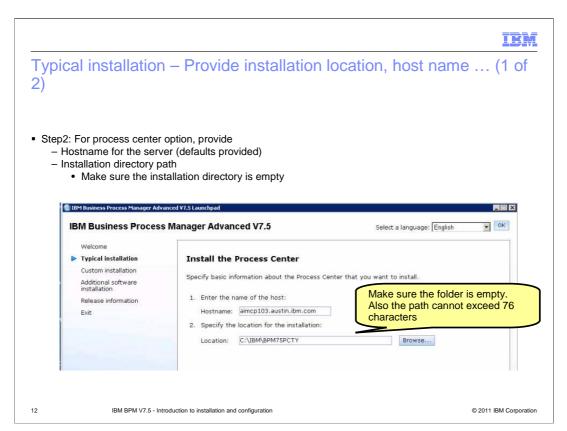
This slide list the various steps involved in the typical installation process. The first step in the process is to choose the type of profile you want the typical installer to create after the product installation. You need to provide the host name of the system where you are installing the product, path where you want to install. Optionally you can choose to install DB2 Express or use an existing database server. In the case of using existing database server, You are prompted for database specific information like type of database server, host name and port, user ID and password and the name of the databases required for the BPM V7.5 profiles. In the case of process server option, you will also be prompted to select the type of environment you will use the process server for, host name where process center is installed and port information of process center so process server is connected to process center.



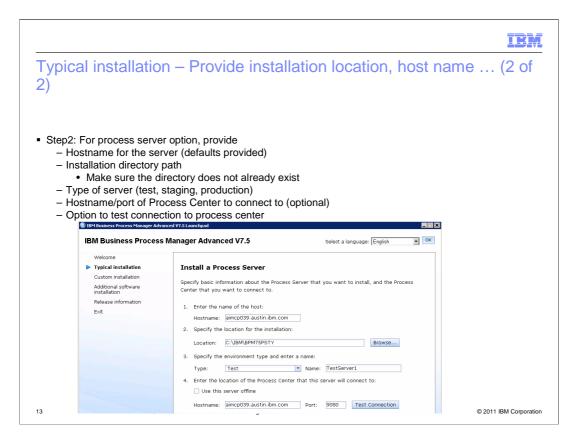
In the next couple of slides, you are shown some of the important panels in typical installation process. The screen capture shown here are from IBM BPM Advanced V7.5 package but the process is the same for IBM BPM Advanced – Process Server V7.5 and for the IBM BPM Standard V7.5. The differences if any are pointed out for the various packages.

In this slide you can see the first step in the process is the selection of the type of profile you want the installer to create after product installation. You are given the option to create process center and process server option for IBM BPM Advanced V7.5 and IBM BPM Standard packages.

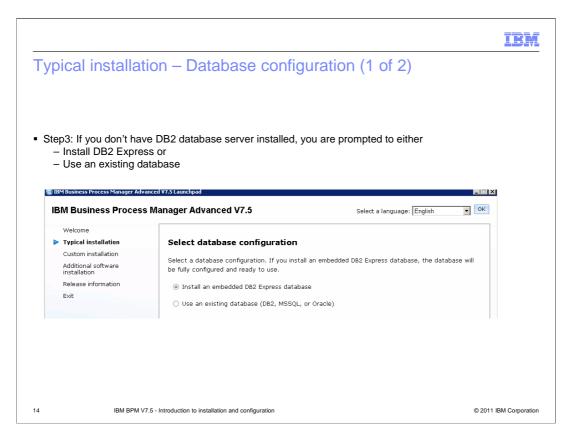
For IBM BPM Advanced – Process Server package, you can only create an advanced process server profile. So no profile selection panel is shown.



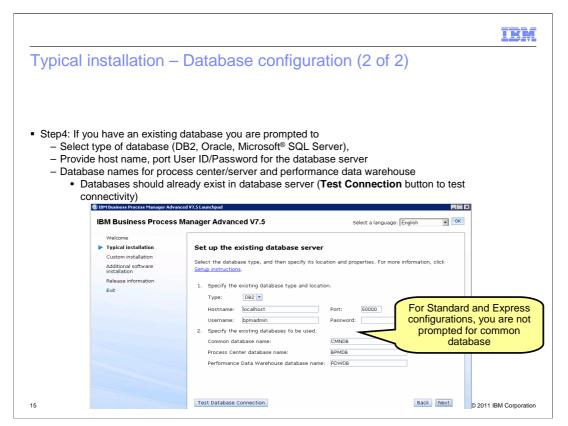
Shown here is the necessary information you need to provide for process center option. Provide the host name where you are installing the product. Make sure that the installation folder in the path you provide for the location is empty. The path should not exceed 76 characters.



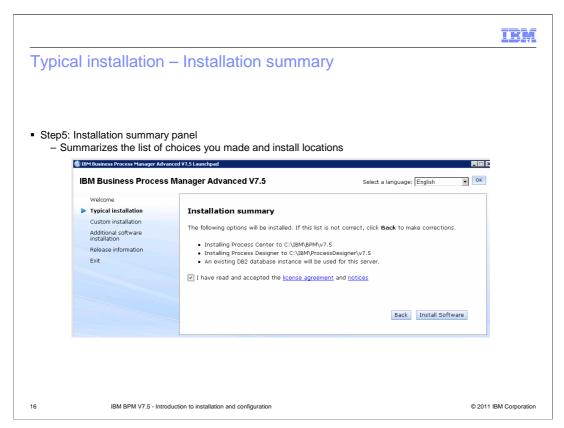
If you chose the process server option, you are prompted for host name where you are installing the product, location, type of the server and name for the environment. You will also be prompted to provide the host name and port of the process center to connect to. If you do not intend to use process server to deploy process pass, you don't need to be connected to the Process center. You can just select the offline option.



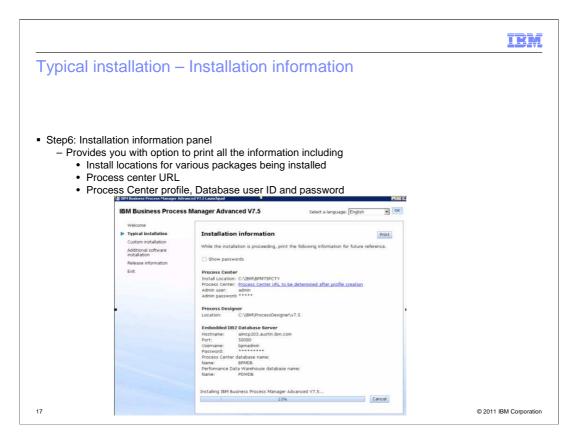
The next step in the installation process is the choice of database server. If you already have DB2 installed on your system, you will not see this panel. In this [panel, you can make the choice of either installing the DB2 express packaged with IBM BPM V7.5 or use an existing database server.



This panel is displayed both in the case of you having an existing DB2 server installed, choose to use an existing database server or choose to install DB2 Express packaged with the product. In this panel, select the type of database you are planning on using. In the case where you are installing DB2 Express, leave the default for the type. You are also required to provide the host name, port, database credentials. If you chose to install DB2 Express, the database names you provide here will automatically be created for you during profile creation. If you are using an existing database, make sure you have already created the databases before you provide them here. The databases should be created with 32K page size and the username you provide here in this panel should have the administrative rights on these databases. For standard and express configurations, you only need to enter two databases. You are not prompted to enter the common database information.



This panel lists the products being installed and the installation locations. Make sure you read the agreement and notices and agree to proceed with installation. Process designer is installed by the typical installer when you choose the option to install product binaries and create process center profile option.



The installation information panel lists the installation locations, port numbers, username and passwords for the various components that are being installed.

#### Typical installation – Miscellaneous details

- DB2 Express
  - Only available for Windows and Linux 32 and 64 bit only when installing as administrator
- Existing Database server
  - You need to create the databases on existing server
  - Set the page size to 32k (default size for DB2 is 4K)
  - Provide administrative rights on the database to the username you provide for database access in launchpad
- 32 bit versus. 64 bit
  - Typical install detects the underlying OS and defaults the installation based on OS
  - Use custom install if you want to choose 32 bit compatibility mode on 64 bit systems
- Set ulimit to a minimum of 8799 or more
  - Refer to information center for more details:

http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.wbpm.imuc.ebpm.doc/topics/tins\_typical\_installation\_pc.html

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Shown here are some of the miscellaneous details that relate to typical installation. DB2 Express can only be installed when you run the installer as administrator on Windows and Linux. If you choose the option to use an existing database, make sure the databases you provide for the profile are already created. The installer will not create the databases in case of existing databases. The database page size should be set to 32K. By default the database page size for DB2 is 4K. Also make sure that you provide administrative rights on the database to the username you will provide in the typical installer to access the database.

For typical installation, the product's bit architecture must match the system's bit architecture. If you are on a 32 bit system, a 32 bit version of the product is installed. If you are on a 64 bit system, a 64 bit version of the product is installed. If you need to install a 32 bit product on a 64 bit system, you must use the Custom installation option. On UNIX® systems, the recommended ulimit value is 8799.

# Installation approach – Custom installation

- Custom installation option
  - Use if your deployment environment requires additional cluster nodes or
  - if you need any installation or configuration options that are not provided by the Typical installation option
  - Utilizes Installation Manager panels to gather information and to install required products and components
    - WebSphere Application Server, SCA, XML feature packs and IBM business Process Manager product binaries
    - No profile creation option except when using IBM BPM Advanced Process Server
  - Option to install DB2 Express on Windows and Linux

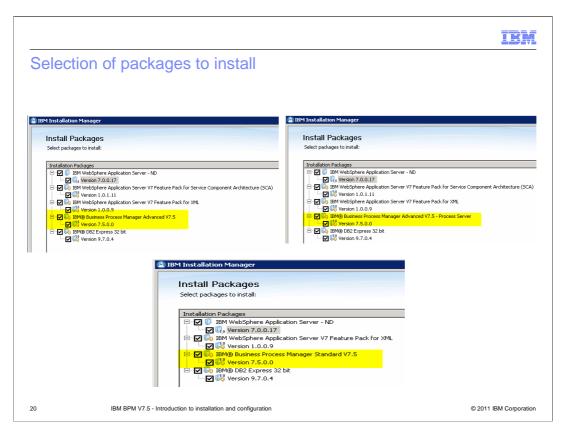
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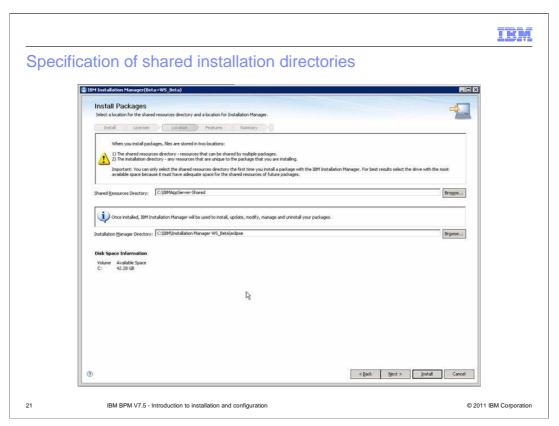
Use the Custom installation option to install IBM Business Process Manager if your deployment environment requires additional cluster nodes or if your business requires complex deployment environment and database topologies. IBM Business Process Manager Express does not support clustering. Use the Custom installation option to install IBM Business Process Manager Express if you need any installation or configuration options that are not provided by the Typical installation option.

Custom installation option invokes the IBM Installation Manager and you select the components required for the installation and provide the values required in the installation manager panels. You have the option to install DB2 Express. Custom installation does not provide the option to create a profile during installation except for the IBM BPM Advanced – Process Server. For IBM BPM Advanced, Standard, and Express, the product binaries are installed. You can then use the profile management tool to create a profile after installation.

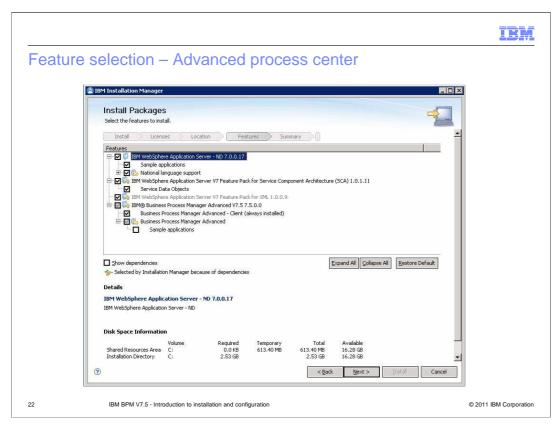
The next couple of slides walk you through some of the panels in custom installation.



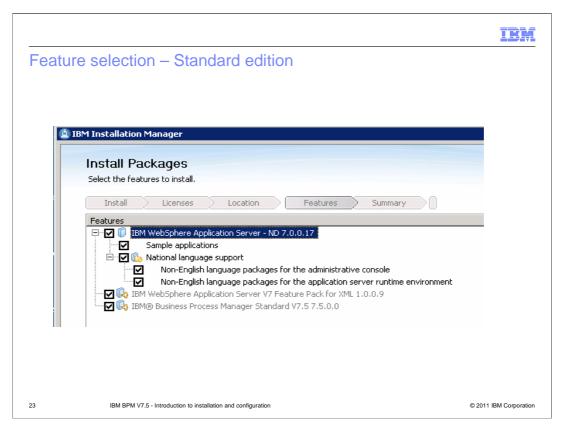
Shown here in this slide is the initial packages panel in installation manager. WebSphere Application Server, SCA, XML feature packs are mandatory to install the IBM Business Process Manager. Depending on what installation package, you are using the Business process manager binaries installed are different as highlighted in the screen captures above.



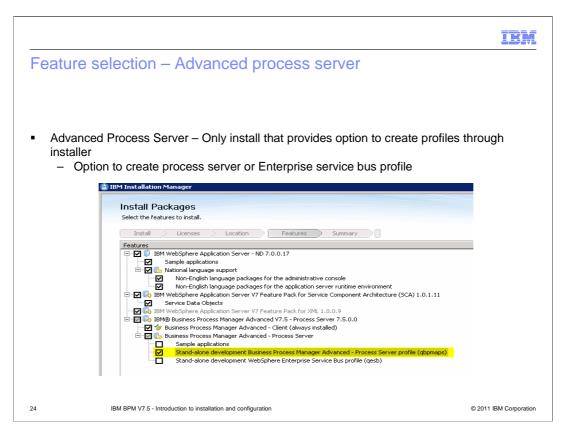
In this panel, you are prompted to enter the path for shared resources folder. If you already have another product that is managed by installation manager, it will reuse the existing shared resources folder and will not prompt you for the location. If you do not have Installation manager installed, you are prompted to enter the path where you want to install it. If you already have installation manager it is updated to the right level.



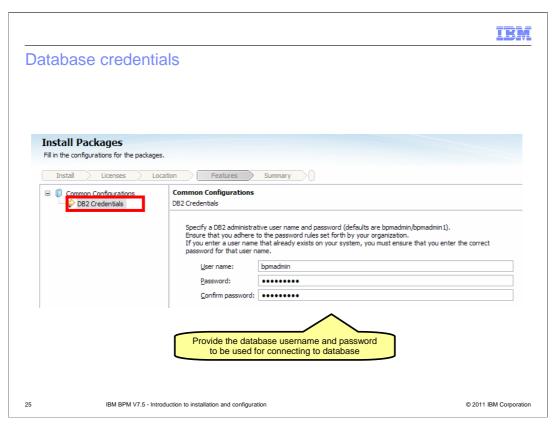
Shown here is the feature selection panel for the IBM BPM Advanced. On the Features page, select the package features that you want to install. Installation Manager automatically enforces any dependencies with other features and display updated download size and disk space requirements for the installation. Notice that there is no option to create a profile.



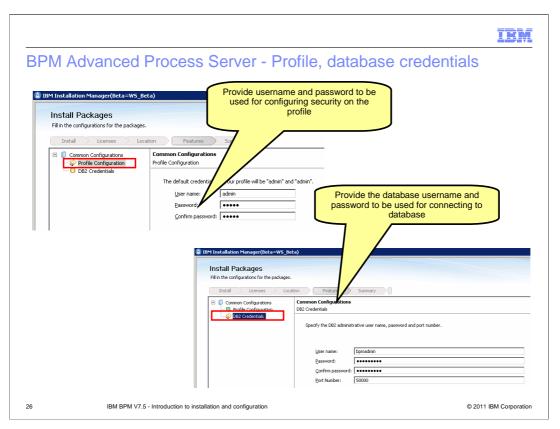
Shown here is the feature selection panel for the IBM BPM Standard but same features apply to Express too. Notice that there is no option to create a profile.



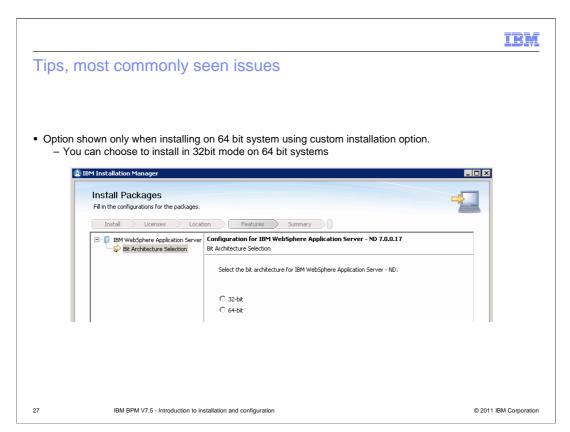
Shown here is the feature selection panel for the IBM BPM Advanced – Process Server package. This is the only package that will give you an option to create a BPM Advanced process server profile or a WebSphere Enterprise Service Bus profile



If you chose to install DB2 Express, you are prompted to enter the port, username and password for the database server. The default username and password are bpmadmin and bpmadmin1. Make sure you provide the password that will meet your security policies or the installation of DB2 will fail and roll back the whole installation.



Shown here is the panels from the BPM Advanced – Process Server custom installation. If you chose to create a profile, you are prompted to enter the username and password to enable security. You will also be prompted to enter the DB2 username, password and the port information so the necessary databases for the profile can be created on the database server.

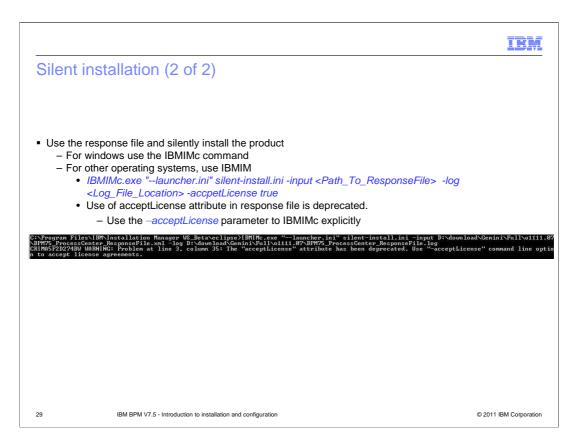


Shown here is the bit architecture selection page. You are shown this panel only when installing on a 64 bit system. You can choose the option to install 64 bit or choose to run under 32 bit compatibility mode. This panel is followed by summary panel where you start the installation. One the installation is complete, depending on the package you used you are given an option to launch the profile management tool which can be used to create profiles.



When you install in silent mode, the user interface is not available. Instead, you run a command to use a response file that installs the product. A sample response file is provided with the installable images. You can edit the sample response file and customize it for your installation.

You can also create a response file by recording your actions in Installation Manager. When you record a response file, the selections that you make in Installation Manager are stored in an XML file. When you run Installation Manager in silent mode, Installation Manager uses the data in the XML response file to perform the installation. Refer to the link provided here for more information on how to use the record feature.



Once you have the response file generated, you can now use the Install manager to silently install the IBM BPM V7.5 products. You can use the IBMIMc command for windows operating system and IBMIM for other OS. An example of the usage is shown here in the slide. Read and accept the license terms before installing. Adding - acceptLicense to the response file means that you accept all licenses. -acceptLicense is a mandatory parameter that needs to be passed.

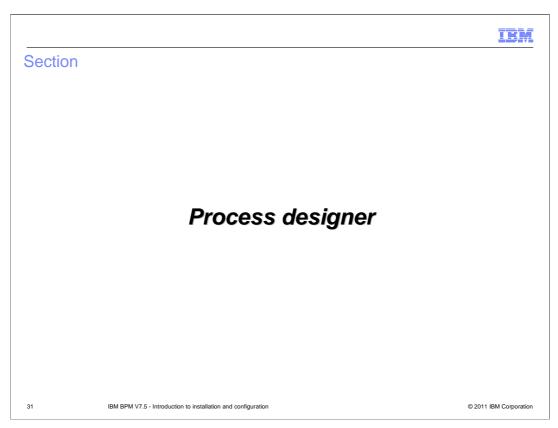
#### Profile creation

- Use the manageprofiles command
  - Located under <Install\_Dir>\bin\
  - Example:
  - manageprofiles.bat -enableService false -perfDWDbName PDWPCMP -procSvrDbName CMDDBPCMP -dbType DB2\_UNIVERSAL -dbPassword bpmadmin1 -dbUserId bpmadmin dbHostName aimcp039.austin.ibm.com -winserviceCheck false -profileName PC1MP -create dbCreateNew true -enableAdminSecurity true -adminUserName admin -hostName aimcp039.austin.ibm.com -dbServerPort 50000 -adminPassword admin -templatePath C:\IBM\BPM75PC\_Silent\_111107\profileTemplates\BPM\default.procctr.adv -dbName BPMPCMP omitAction samplesInstallAndConfig
- Use the profile management tool

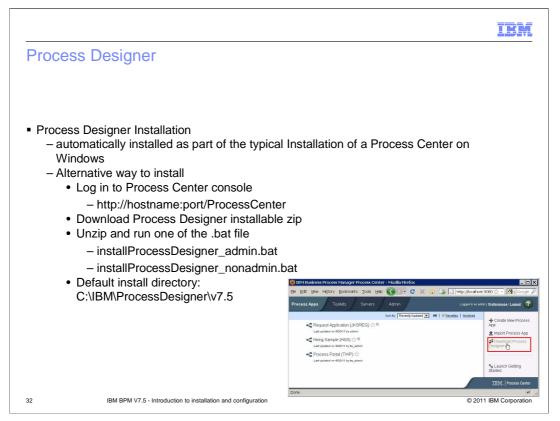
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After you perform a Custom installation, you can use the Profile Management Tool which provides gui or the manageprofiles command-line utility to create a stand-alone server profile. A sample command for creating a profile with manageprofiles command is shown here.



In the next section, installation details of process designer are covered.



Process designer is automatically installed when you use typical installation path and choose to create a process designer with either the BPM V7.5 Advanced or the standard packages. If you want to install another instance of the process designer, you can download the installable code from the process center console. Shown here is a screen capture of the process center console and the link you use to download the archive file that contains the installable code for Process Designer. Once downloaded, you can extract the contents to the system where you want to install the process designer and run the installProcessDesigner\_admin.bat or the installProcessDesigner\_nonadmin.bat depending on you are an administrative user or a non-administrative user. Process designer is supported on windows operating system

# Upgrade from express → standard → advanced configurations

- Supported paths
  - Express --> Standard
    Express --> Advanced Process Center
    Standard --> Advanced Process Center
- Profiles from previous install not upgraded
- Install on top of the package of existing edition
  - For example, if Standard was installed at C:\BPM75, invoke Installation Manager from the Advanced Process Center edition using launchpad custom installation
  - Choose to use an existing package group and select the package group for C:\BPM75
  - Once install is complete, your standard installation is now upgraded to Advanced Process Center edition

 $\underline{http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.wbpm.imuc.stbpm.doc/topics/tins\_edition\_upgrading.html}$ 

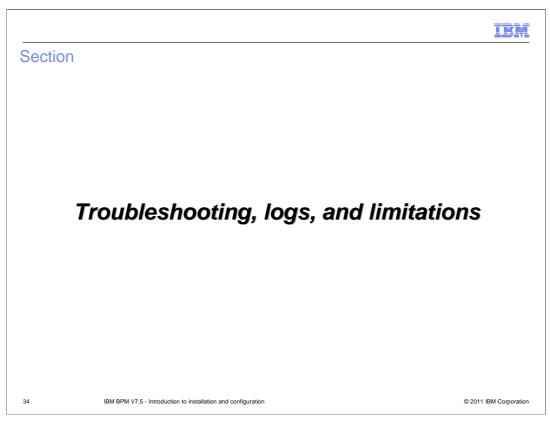
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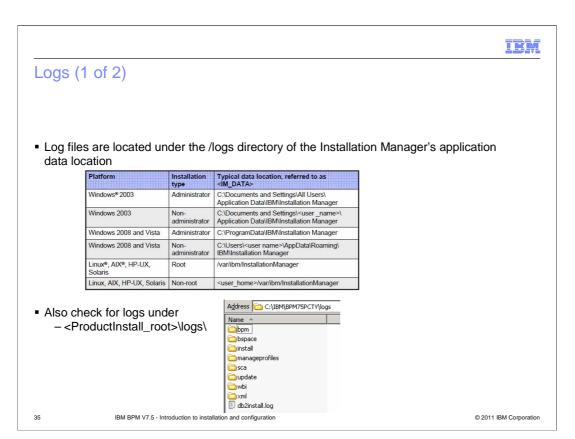
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Upgrade a configuration of IBM Business Process Manager by using IBM Installation Manager to install the new configuration over a previously installed configuration in the same package group.

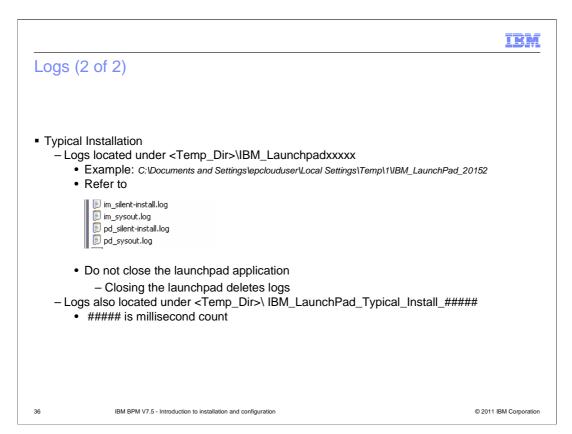
The supported upgrade paths are shown here. There are no upgrade paths to or from the IBM Business Process Manager Advanced - Process Server configuration. When you perform a configuration upgrade, any existing IBM Business Process Manager profiles are left unchanged.



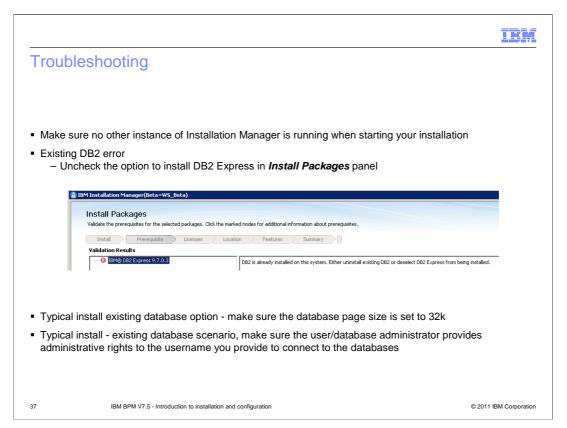
The next section covers the details on some of the known issues and log files.



This slide lists the log file locations for checking installation messages.



If you use the typical install option, the logs are located under your temp directory as shown here.

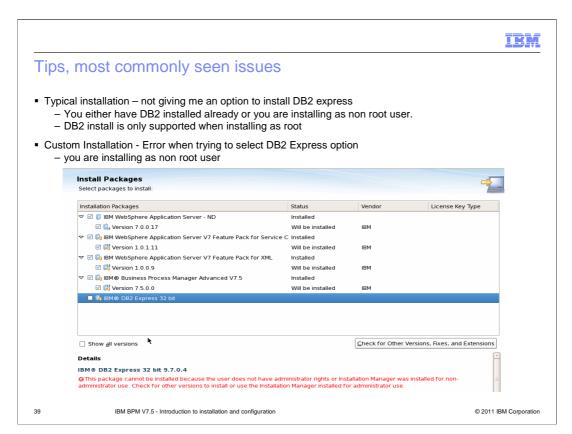


Only one instance of installation manager can be active at a time. So make sure when you start your installation, no other instance of installation manager is active. Show here is also an error you see when you choose to install DB2 Express when you already have an existing DB installation on your system. Go back to package selection panel and uncheck the option to install DB2 Express.

When using an existing database option either with typical installation or when creating profiles, make sure the databases page size is set to 32k. Username you provide to connect to databases should have administrative rights on the database.



When installing DB2 Express, the default username and password used by installer are bpmadmin and bpmadmin1. The default password might not meet your default security policies so make sure you change the default to what your policies require the password to be.



In typical install, you will not see the option to install DB2 Express if you are installing as a non root user. With custom install if you see an error when trying to select the option to install DB2 express as shown here, make sure you're installing as root user. DB2 Express is only supported when installing as root user.

# **Summary**

- Presentation covered:
  - Product packaging
  - Installed components
  - Installation packages
  - Approaches to installation
  - Typical and custom installation
  - Installation of the authoring environments
  - Upgrade
- Presentation goal was to provide a basic understanding to the approach to installation

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In summary, this presentation discusses how you can install and manage IBM Business Process Manager using Installation Manager. It provides details on the various steps in the installation process, how you can install interactively using the launch pad and how to silently install the product. Details on how to upgrade are also covered along with information on the most common issues and log files.

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