Installing WebSphere® Business Monitor V6.0.2 - Basic

Installation type: Basic

What this exercise is about

The objective of this lab is to provide instructions for installing WebSphere Business Monitor V6.0.2 using the **Basic** installation type**.**

Lab requirements

List of system and software required for the student to complete the lab.

- WebSphere Business Monitor V6.0.2

- WebSphere Process Server V6.0.2

- WebSphere Application Server V6.0.2.17

- WebSphere Portal Server V5.1.0.4

- DB2® UDB Enterprise Server Edition V8.2.6

- DB2 Cube Views V8.2.6

- Alphablox V8.4.0

What you should be able to do

At the end of this lab you should be able to use the Monitor Launchpad to:

- Install DB2 UDB Enterprise Server Edition V8.2.6 and DB2 Cube Views V8.2.6

- Install WebSphere Application Server V6.0.2.17 and WebSphere Portal Server V5.1.0.4

- Install WebSphere Process Server V6.0.2

- Create MONITOR and DATAMART databases

- Install WebSphere Business Monitor Server and Dashboard Server

Exercise instructions

Some instructions in this lab may be Windows® operating-system specific. If you plan on running the lab on an operating-system other than Windows, you will need to run the appropriate commands, and use appropriate files (.sh vs. .bat) for your operating system. The directory locations are specified in the lab instructions using symbolic references, as follows:

| Reference Variable	Windows Location	AIX®/UNIX® Location
<MONITOR_HOME>	C:\IBM\WebSphere\Monitor	
<WPS_HOME>	C:\IBM\WebSphere\ProcServer	
<DB2_HOME>	C:\IBM\DB2\SQLLIB	
<WAS_HOME>	C:\IBM\WAS	
<PORTAL_HOME>	C:\IBM\PortalServer	
<ALPHABLOX_HOME>	C:\IBM\Alphablox	
<DB2_BACKUP_DIR>	<MONITOR_HOME>\dbbackup	
<DB2_TABLESPACE_DIR>	<MONITOR_HOME>\dbspace	

Windows users note: When directory locations are passed as parameters to a Java™ program such as EJBdeploy or wsadmin, it is necessary to replace the backslashes with forward slashes to follow the Java convention.

Introduction

WebSphere Business Monitor V6.0.2 Basic installation is used to install all the Monitor components on a single machine. The Basic installation type is ideal for quick prototyping, proof of concepts, demonstrations and testing.

The key part of this lab is the **Launchpad** program, which is used to install all the pre-requisites and the Monitor Server components. The improved Launchpad program makes installing the complete set of supporting software very simple. This improved Launchpad program also supports the incremental installation, leveraging the existing pre-requisite product installations.

As stated above, the Basic installation is used to install all the Monitor components on a single machine. The Monitor Server runs on top of WebSphere Process Server V6.0.2; WebSphere Process Server V6.0.2 is installed as one of the pre-requisites. The Dashboard Server runs on WebSphere Portal Server which in turn runs on a WebSphere Application Server.
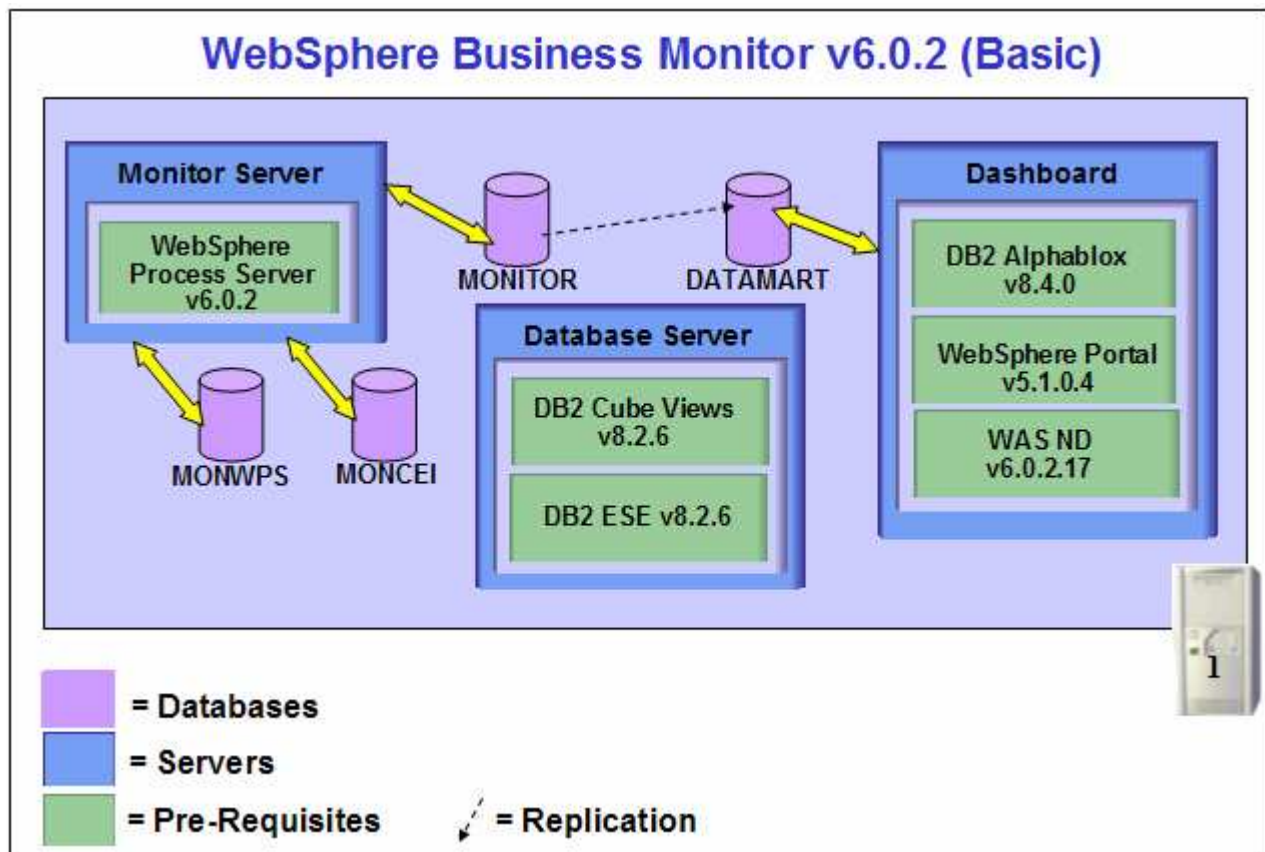
WebSphere Business Monitor Server V6.0.2 includes the following new installation features and improvements:

- Launchpad now supports incremental installation. The pre-requisite products can be installed manually outside of the Launchpad environment, and then Monitor can be incrementally installed "on top of" these prerequisite products

Installation type: Basic

- You can select from Basic and Advanced types depending on the stage of use (prototyping or production). Basic installation type uses many default options, reducing complexity, while Advanced includes flexibility required in production installs

- The WebSphere Portal Server footprint size is reduced (skips Content Management)

- The number of databases has been reduced from five to two. The number of database replications is reduced from two to one. Database tables and columns now have simpler, more meaningful names

- Database Architecture is simplified to only MONITOR and DATAMART (formerly called HISTORY) databases

- The product includes silent install capability for Monitor features such as the database, Monitor server, and the Dashboard server

- The Launchpad gives you a choice to use DB2 as the Process Server database

- Overall install process time has been cut by more than 50%

Installation type: Basic

Part 1: Preparing for the Monitor V6.0.2 Launchpad

In this section of the lab, the pre-requisite software will be obtained and extracted.

Obtain the pre-requisite software and extract in such a way to create the correct on-disk structure for the Launchpad to run

____ 1.	The following are the installation files needed to install the WebSphere Business Monitor V6.0.2

	__ a. Alphablox_v840.zip (Alphablox V8.4.0)

	__ b. CUBE_v826.zip (DB2 CUBE Views V8.2.6)

	__ c. ESE_v826.zip (DB2 UDB Enterprise Server Edition V8.2.6)

	__ d. Portal_v5104.zip (WebSphere Portal Server V5.1.0.4)

	__ e. ProcessServer_*.zip (WebSphere Process Server V6.0.2)

	__ f. WAS_v60217.zip (WebSphere Application Server V6.0.2.17)

	__ g. Monitor_v602.zip (WebSphere Business Monitor V6.0.2)

Note: Portal Server does not support WebSphere Process Server V6.0.2 and therefore it cannot be installed on the WebSphere Application Server that comes with the WebSphere Process Server V6.0.2 installation. A separate WebSphere Application Server V6.0.2.17 installation is required.

____ 2.	Download all the installation zip files to a directory for example : C:\MonitorDrivers-v602\

Note: WinZip versions before version 10 could have problems extracting the number of files or the directory structure depth from the source archive (.zip) files. Use unzip instead, which can be downloaded from the Internet at http://www.info-zip.org/pub/infozip/.

	__ a. Extract all of the .zip files into a directory named for example, C:\CDImage-v602\ to create an on-disk image and confirm that the directory structure was extracted correctly. It should appear similar to the picture shown below:

Installation type: Basic
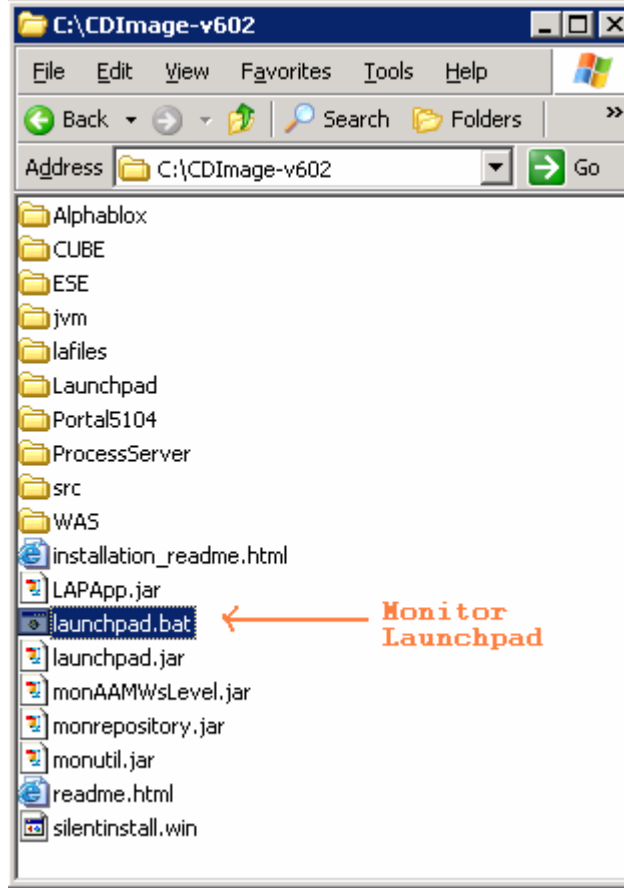
Note: If using WinZip, right-clicking on the .zip files and selecting "**Extract here**" from the context menu produces the correct directory structure for the Monitor Launchpad to detect the pre-requisite software.

Part 2: Installing Monitor Server and Dashboard client

The Launchpad program installs the prerequisite software in a premeditated sequence; however, the Launchpad program also detects the prerequisite software if they were pre-installed. The installation sequence for pre-installing the Monitor pre-requisite software out of the Monitor Launchpad can be found at the end of the document, in the section "**Task1: Pre-install the Monitor prerequisites**"

The following prerequisites are mandatory before running the Launchpad program:

The Launchpad program expects the following prerequisites for the WebSphere Process Server and WebSphere Application Server installations

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Note: Since this is a single machine topology, one user can be used for both the WebSphere Process Server and WebSphere Application Server.

Create WebSphere Process Server user

- The WebSphere Process Server user must be an Operating System user with administrative privileges

- The existing **Administrator** user ID can be as the WebSphere Process Server user

- If planned to create and use a user other than Administrator, create a user for example **wpsadmin** and ensure the user is the member of **Administrators** group. Don't forget to remember the password

Create WebSphere Application Server user

- The WebSphere Application Server user must be an Operating System user with administrative privileges

- The existing **Administrator** user ID can be as the WebSphere Application Server user

- If planned to create use a user other than Administrator, create a user for example **wasadmin** and ensure the user is the member of **Administrators** group. Don't forget to remember the password

The following pre-requisite is not mandatory but if you want to:

Note: The Launchpad creates the DB2 user and groups if they do not exist during the DB2 installation.


Create DB2 Administrator user, DB2 Administrator groups

- The DB2 Administrator user must be an Operating System user with administrative privileges

- The DB2 Administrator user must be less than or equal to 8 characters

- Create two groups DB2ADMINS and DB2USERS

- Create a user for example **db2admin** and ensure the user is the member of **Administrators** and **DB2ADMINS** groups

Follow the instructions below to complete the WebSphere Business Monitor V6.0.2 Basic installation.

_____ 1.   From the directory where all the pre-requisites and the Monitor driver are extracted (Ex:- **C:\CDImage-v602**), double click on the **launchpad.bat** to run the Launchpad program

Installation type: Basic
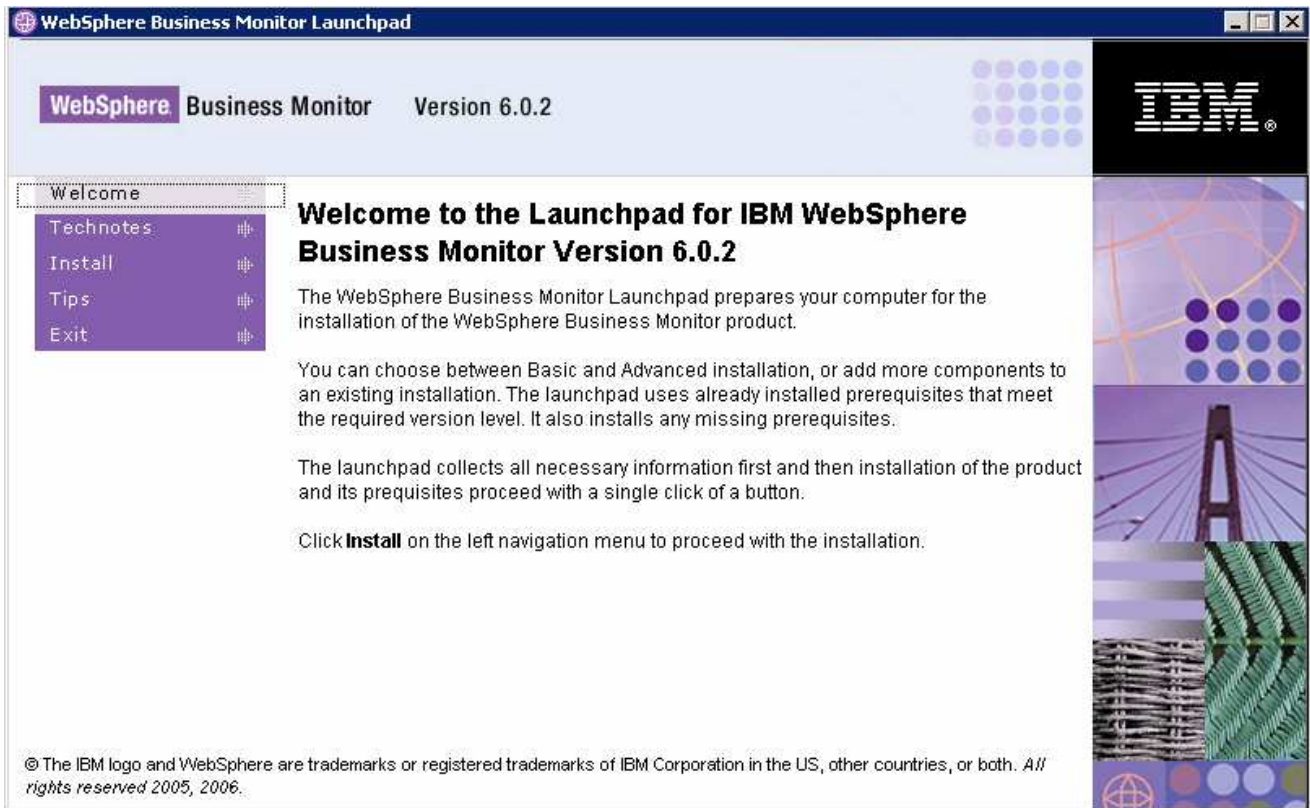
_____ 2.   From the welcome screen, click on **Install** link

_____ 3.   Read the license agreement to accept the it

Installation type: Basic

____ 4.   Click the **Accept** button to continue

____ 5.   In the following screen, choose the **Installation Type** as **Basic**

Note: There are two types of installation that can be chosen from: **Basic** and **Advanced.** The Basic installation is a single machine topology type of installation whereas the advanced installation is a multi-machine topology type of installation.

Installation type: Basic
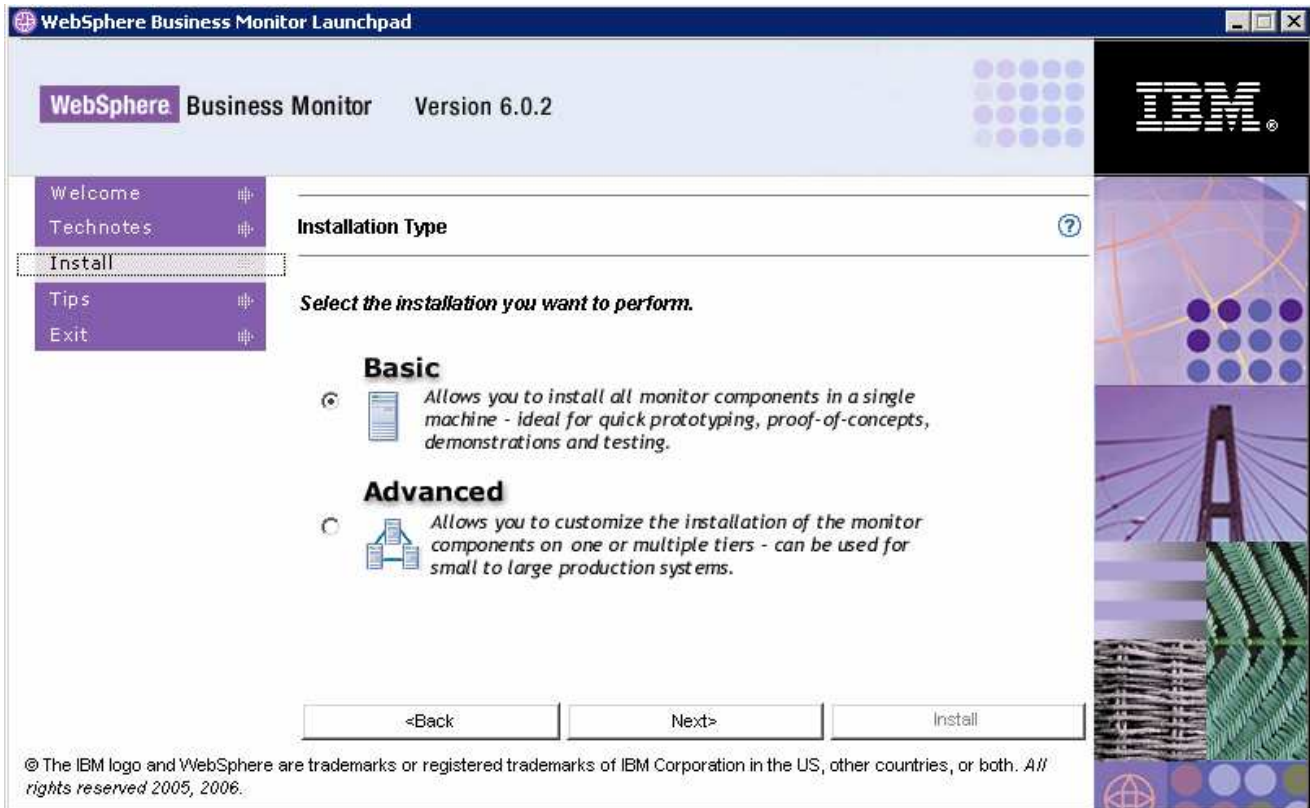
____ 6.   Click **Next**

____ 7.   On the following **Monitor Server Target Directories** screen, accept the defaults

- WebSphere Process Server home : **C:\IBM\WebSphere\ProcServer**

- Use DB2 Enterprise Server Edition for Process Server Databases : **Selected** (not available)

- WebSphere Business Monitor home : **C:\IBM\WebSphere\Monitor**

Note: When selecting "**Use DB2 ESE for Process Server databases**" the Monitor Launchpad creates the databases on a database server local to the Process Server. WebSphere Process Server uses the database names MONWPS and MONCEI when installed using Launchpad. For the **Basic** installation type, DB2 is mandatory for the Process Server databases.

Installation type: Basic
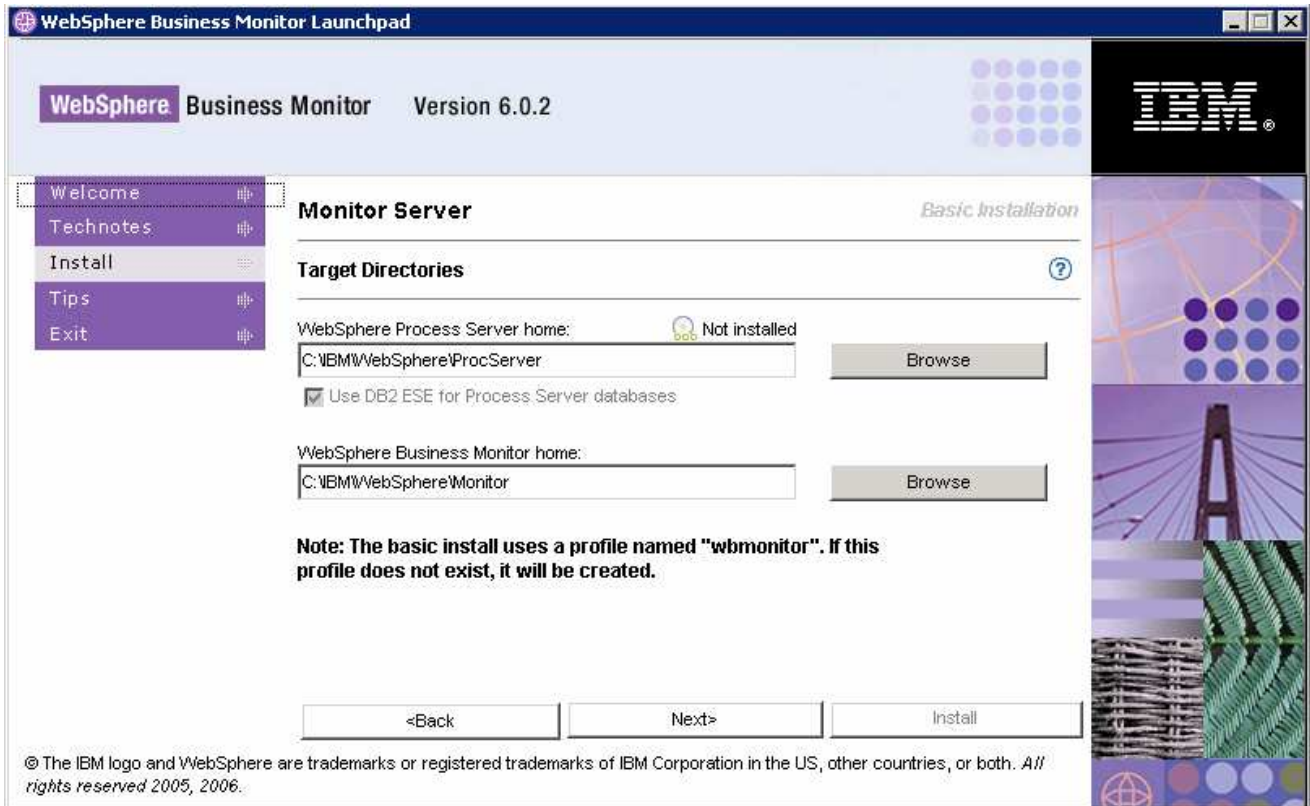
_____ 8.   Click **Next**

_____ 9.   In the following screen, provide the following **DB2 Information for Process Server Database** :

__ a. To set the target directory for **DB2 Home** filed. Click the **Browse** button to set a different target directory or accept the default

- DB2 Home: **C:\IBM\DB2\SQLLIB** (default)

__ b. Enter the **DB2 User name**, **Password** and **Conform Password** fields:

- DB2 User name   : **db2admin**

- Password   : **xxxxxxxx**

- Confirm Password   : **xxxxxxxx**

__ c. The **DB2 server hostname** field is not available and defaults to localhost

- DB2 server hostname : **localhost** (default)

__ d. Enter the **DB2 server port** or accept the default

- DB2 server port   : **50000** (default)

Installation type: Basic
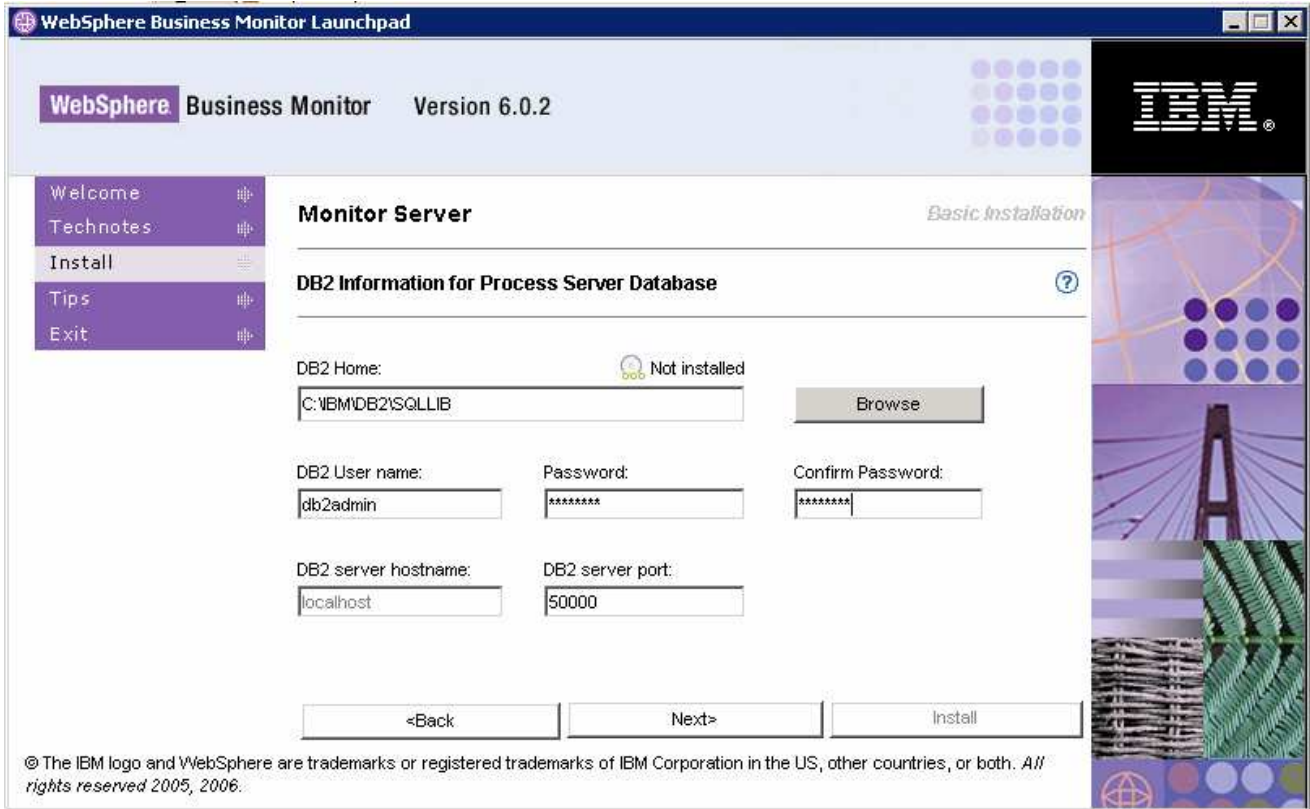
____ 10. Click **Next**

____ 11. In the following screen, enter the Operating System specific, **WebSphere Process Server User name** and **Password**

- DB2 User name   : **Administrator**

- Password   : **xxxxxxxxxxx**

___

Note: The **WebSphere Process Server User** is an Operating System specific user and it is mandatory that the user ID already exist and that the user is part of the **Administrators** group. For example, "admin" can be used.

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Installation type: Basic
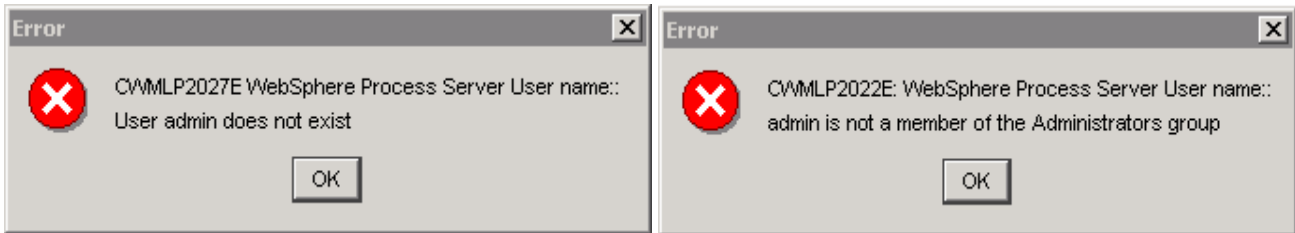
____ 12. Click **Next**

____ 13. Verify the following Dashboard target directories screen :

- WebSphere Application Server home : **C:\IBM\WAS**

- WebSphere Portal home : **C:\IBM\PortalServer**

- DB2 Alphablox home : **C:\IBM\Alphablox**

- WebSphere Business Monitor home : **C:\IBM\WebSphere\Monitor** (not available)

Note: The **WebSphere Business Monitor home** directory was already set as the Monitor Server Target Directory and the same will be used for the Dashboard target directory. That is the reason why the field is not available and defaults to the preset value
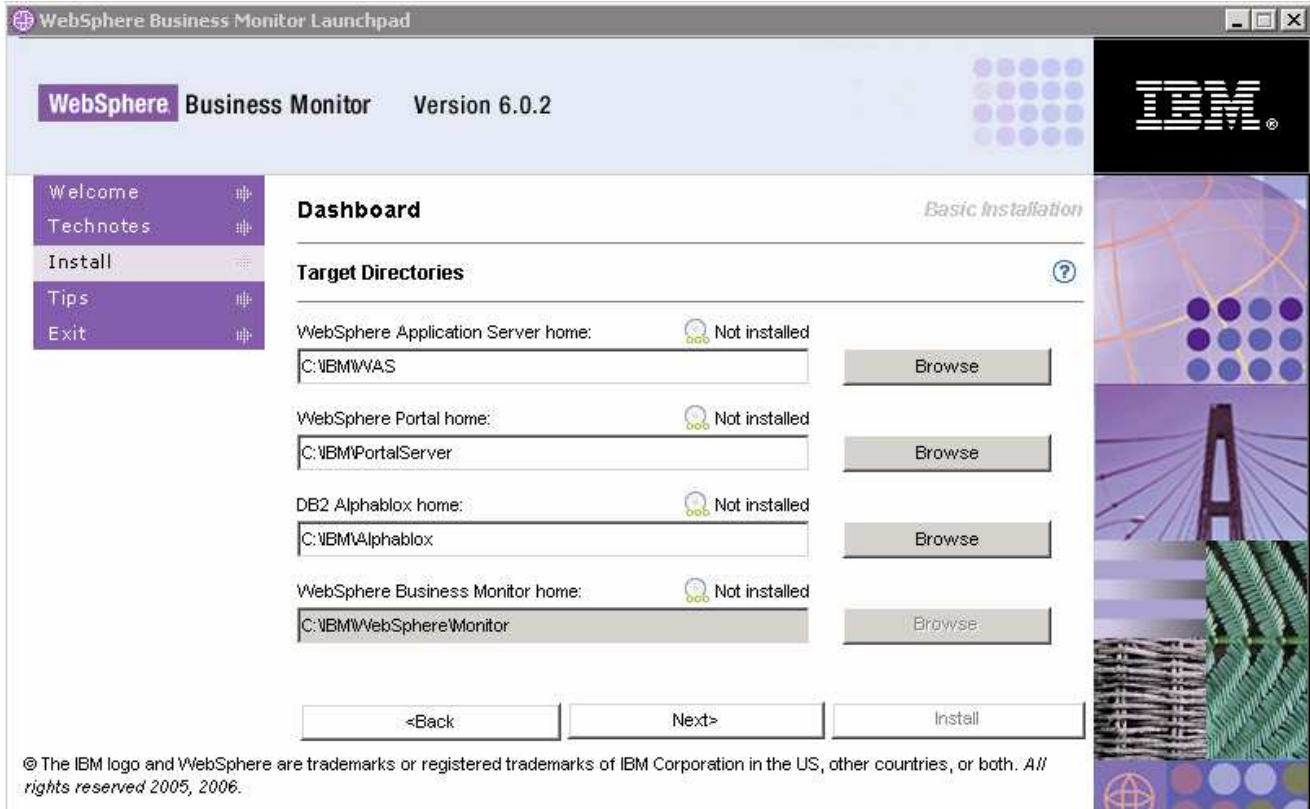
____ 14. Accept the defaults and click **Next**

____ 15. In the following screen, provide the **WebSphere Application Server Admin ID**, **WebSphere Portal Admin ID** and **DB2 Alphablox Admin ID** with their respective **Password(**s)

- WebSphere Application Server Admin ID / Password : **Administrator/xxxxxxxxxxx**

- WebSphere Portal Admin ID / Password   : **wpsadmin/wpsadmin** (accept default)

- DB2 Alphablox Admin ID / Password   : **admin/password** (accept default)

Note: The **WebSphere Application Server User** is an Operating System specific user and it is mandatory that the user be pre-existing and that it be part of the **Administrators** group. The user ID which is used for the WebSphere Process Server can be used here.

Note: The **WebSphere Portal Admin** and **DB2 Alphablox Admin** users and passwords default to **wpsadmin**/**wpsadmin** and **admin**/**password**. For this exercise, it is recommended that you not change them.

Installation type: Basic
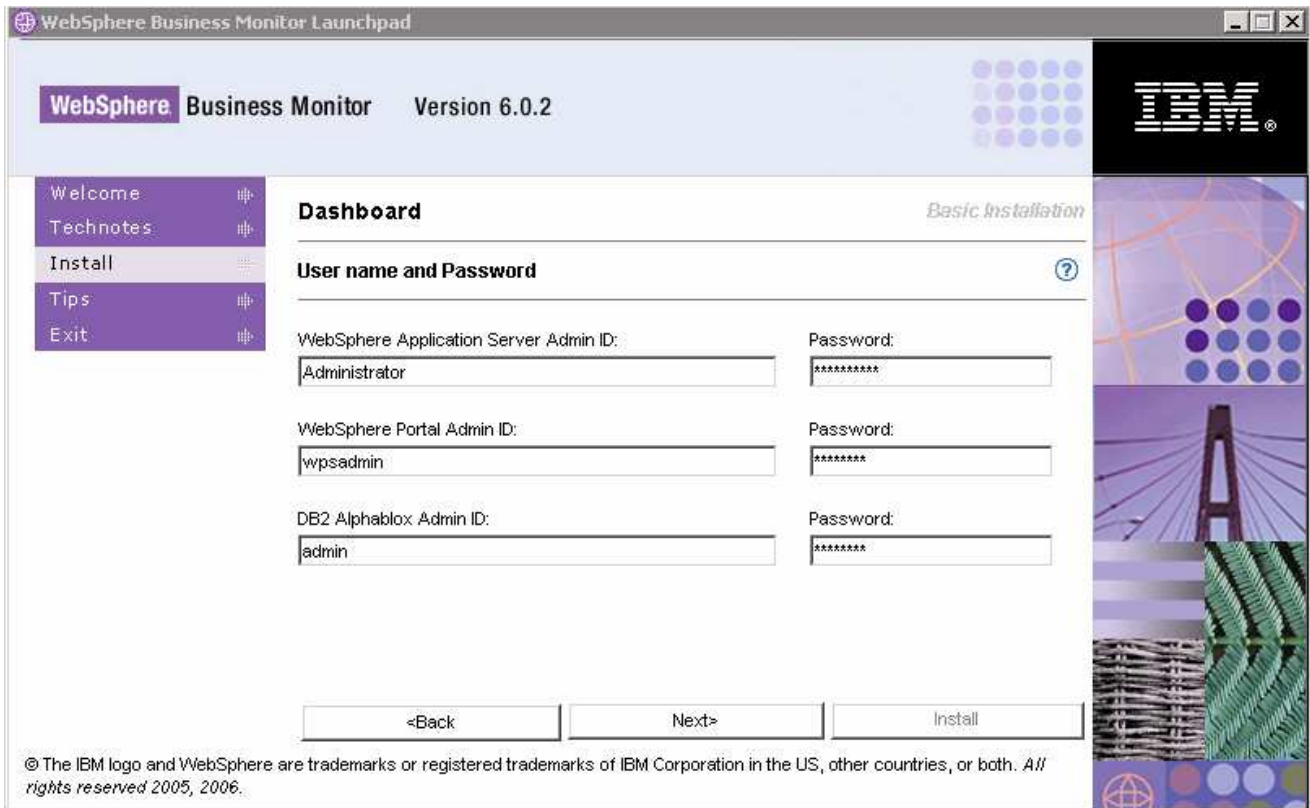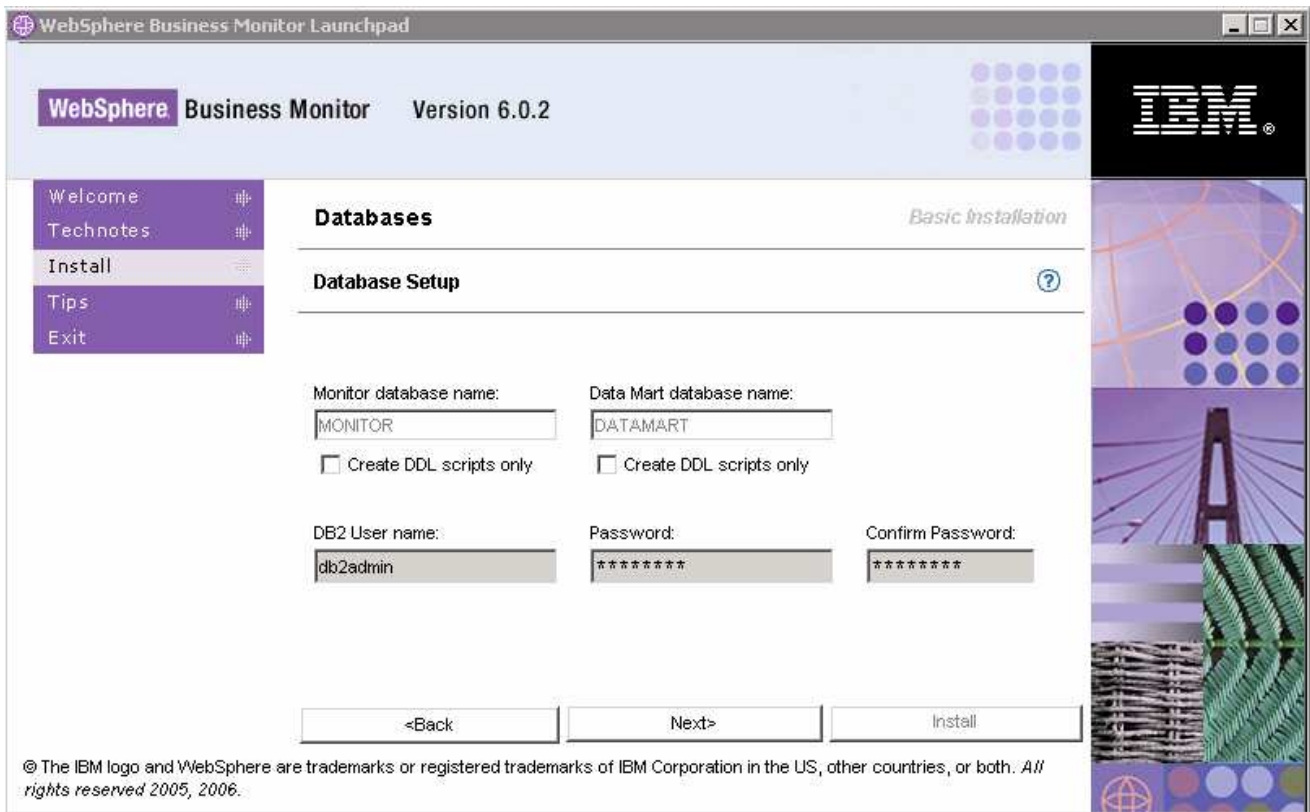
_____ 16. Click **Next**

_____ 17. In the following **Database Setup** screen, provide the **DB2 User name** and **Password.**

- Monitor Database name : **MONITOR** (defaulted and not available)

- Monitor Database name : **DATAMART** (defaulted and not available)

- DB2 User name : **db2admin** (not available)

- Password : **xxxxxxxx** (not available)

Note: The **DB2 User** used for Monitor Databases is same as the one used for Process Server Databases, so the DB2 user name and password are defaulted and not available.

Note: - For the **Basic** installation type, the Monitor databases can only be created on a local database server.

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____ 18.   Click **Next**

____ 19.   On the following **Database Target Directories** screen, accept the defaults

- DB2 Home   : **C:\IBM\DB2\SQLLIB** (defaulted and not available)

- Install DB2 Enterprise Server Edition : **Selected** (defaulted and not available)

- Install DB2 Cube Views   : **Selected** (defaulted and not available)

- DB2 backup directory   : **C:\IBM\WebSphere\Monitor\dbbackup**

- DB2 tablespace directory   : **C:\IBM\WebSphere\Monitor\dbspace**

Note: The **Install DB2 Enterprise Server Edition** and **DB2 Cube Views** options are selected by default and not available since they are mandatory.
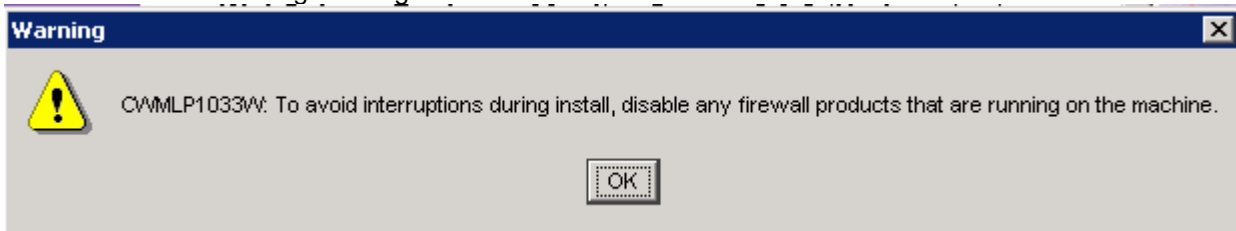
Installation type: Basic
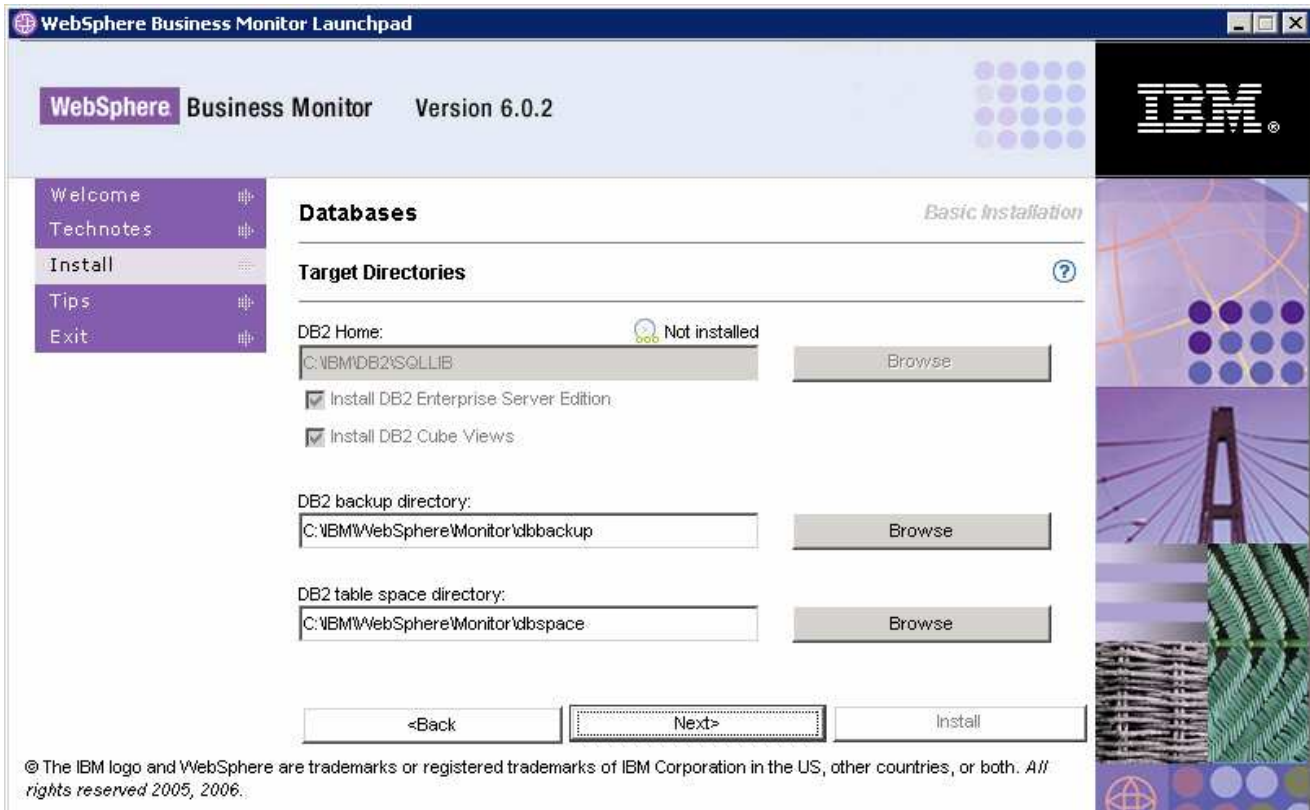
____ 20. Click **Next**

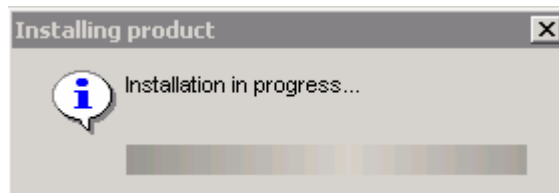____ 21. In the following Summary screen, review the installation summary and click **Install**

Installation type: Basic
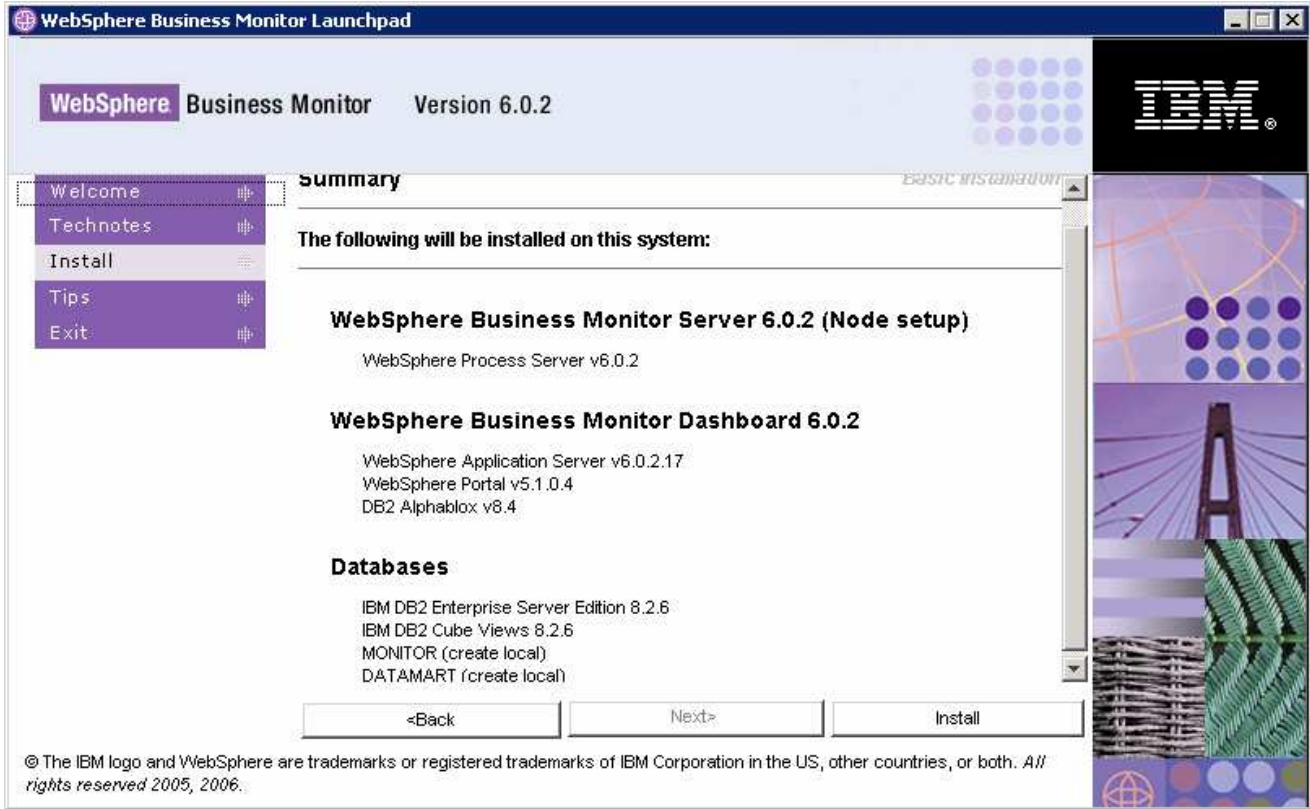
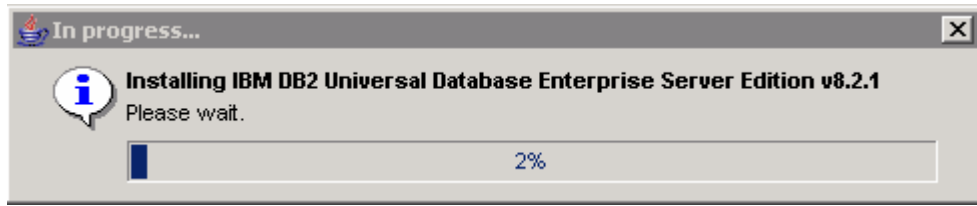**Note:** Follow the Warning message as shown below:

____ 22. The installation progresses in the following **sequence** without an interruption as follows:
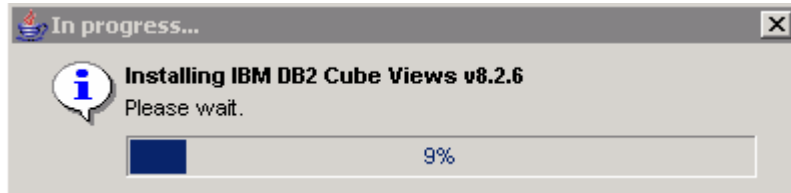

   a. DB2 Enterprise Server Edition installation in progress. This should take about 5 minutes to complete.

In progress... [X]

Installing IBM DB2 Universal Database Enterprise Server Edition v8.2.1
Please wait.

| 2% |

b. DB2 Cube Views installation progress. This should take about 3 minutes to complete.

In progress... [X]

Installing IBM DB2 Cube Views v8.2.6
Please wait.

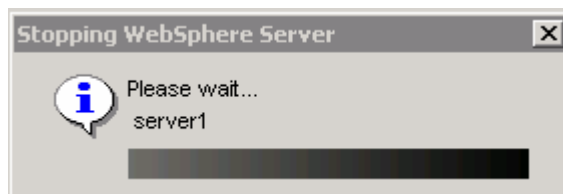| 9% |

c. WebSphere Application Server installation progress. This should take about 12 minutes to complete.

In progress... [X]
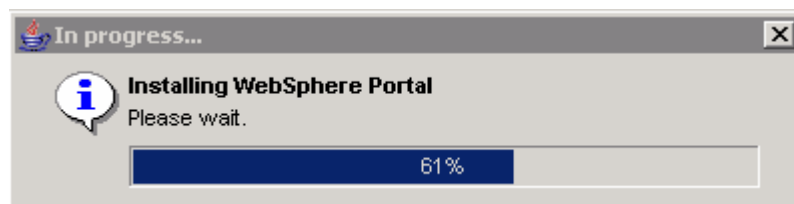
Installing WebSphere Application Server.
Please wait.

| 6% |
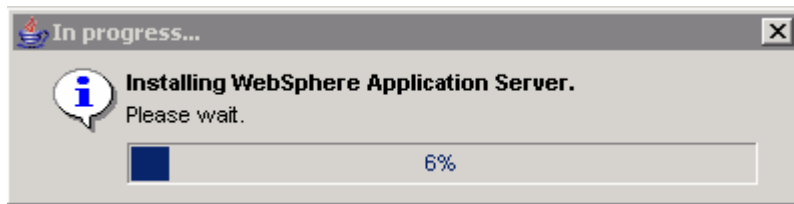
d. A new **wp_profile** creation progresses for Portal Server (Dashboard installation). This should take about 5 minutes to complete.

In progress... [X]

Creating new wp_profile for Dashboard install.
Please wait.

| 27% |
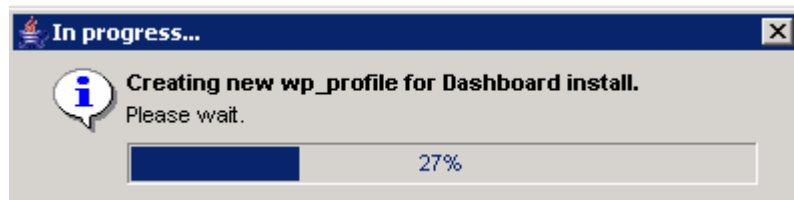
e. Once the **wp_profile** creation is complete, the Launchpad stops the WebSphere Application server making way for Portal Server installation.
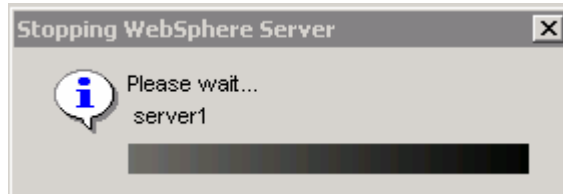
Stopping WebSphere Server [X]

Please wait...
server1

f. WebSphere Portal Server installation progress. This should take about 45 minutes to complete.

In progress... [X]

Installing WebSphere Portal
Please wait.

| 61% |

Installation type: Basic

g. Once the Portal Server installation is complete, the Launchpad stops the WebSphere Application server making way for DB2 Alphablox installation.

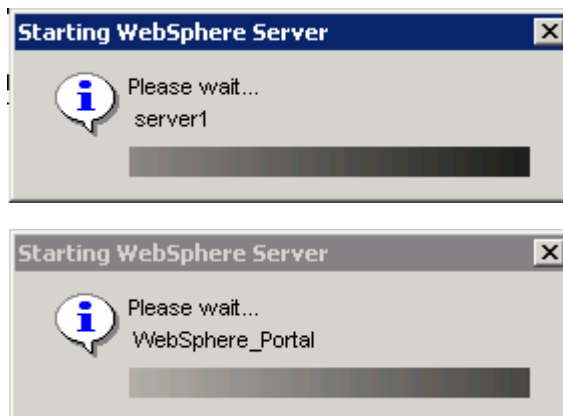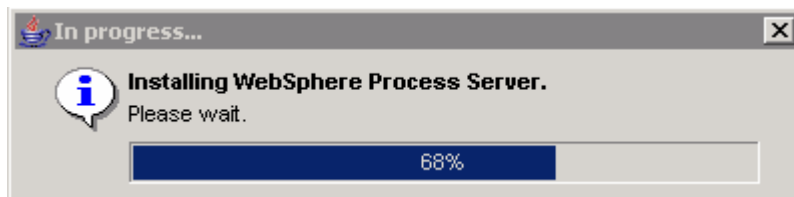h. DB2 Alphablox Installation progress. This should take about 4 minutes to complete.
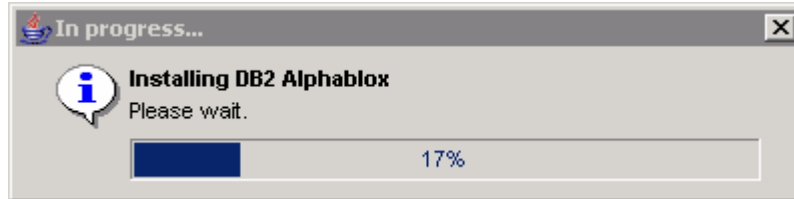
i. Once the DB2 Alphablox installation is complete, the Launchpad starts the WebSphere Application server and the WebSphere Portal Server as follows:

j. Process Server Installation progress. This should take about 40 minutes to complete.

Note: Once the Process Server installation is complete, the installation wizard is launched automatically to install the Monitor components: the VpdExport and the Monitor databases MONITOR and DATAMART. The Monitor un-installer is also created at this time.

k. The installation progresses starting with the VpdExport component which holds the installation information of the monitor server components. This should take about 5 minutes to complete.

Note: VpdExport is an InstallShield tool where the Monitor Install and Uninstall is recorded and maintained as a database. VpdExport is installed when the first Monitor feature is installed and uninstalled when the last Monitor feature is uninstalled.

VpdExport is located at C:\Program Files\Common Files\InstallShield\Universal\Common\Gen2_vpddb
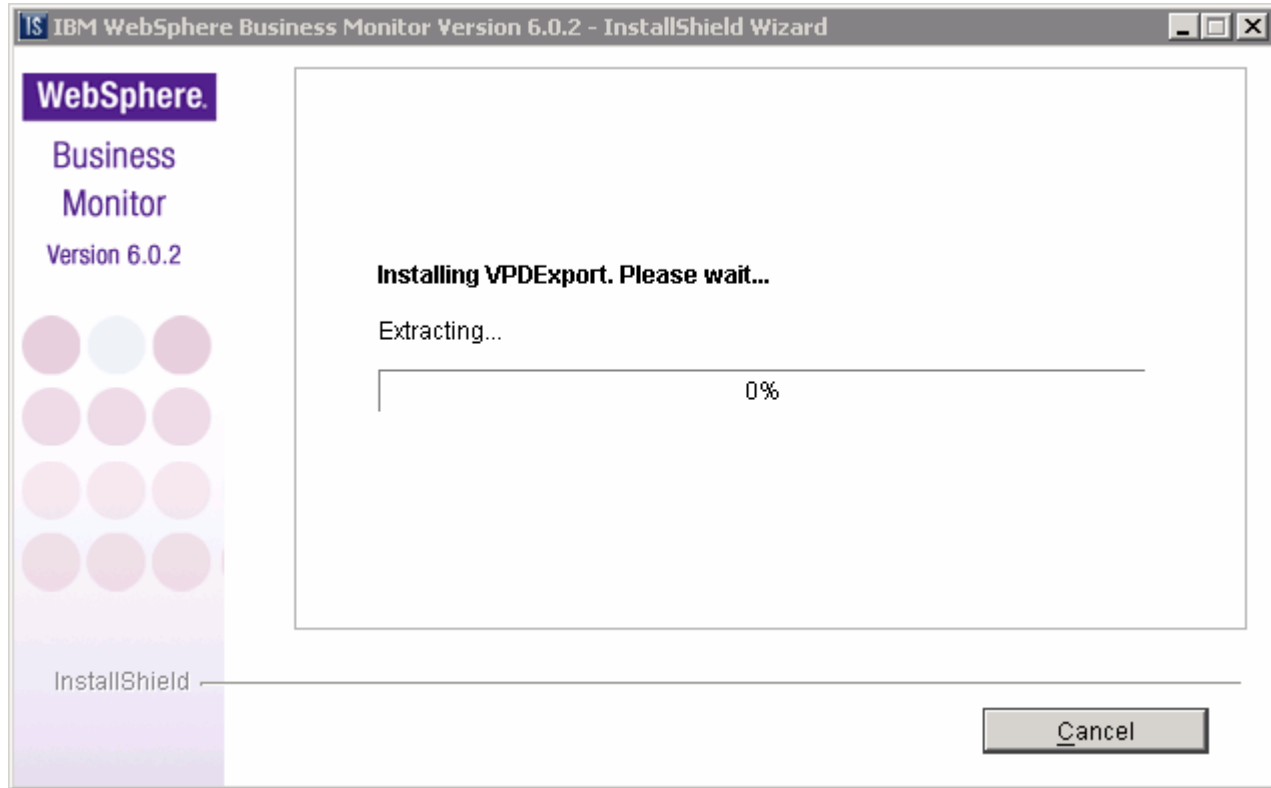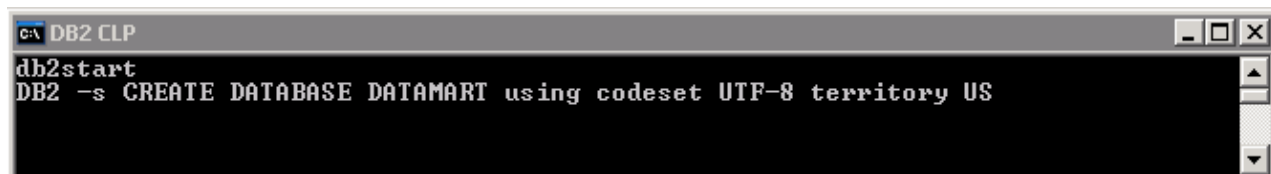
l. MONITOR Database creation. This takes about 3 minutes to complete.

Note: Do not attempt to close the DB2 command widow during the database creation action. The window closes by itself on completion.
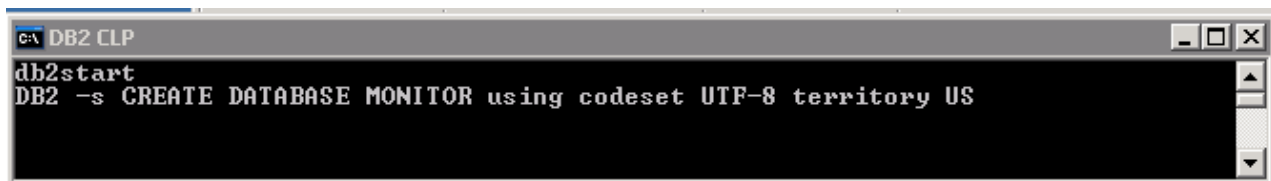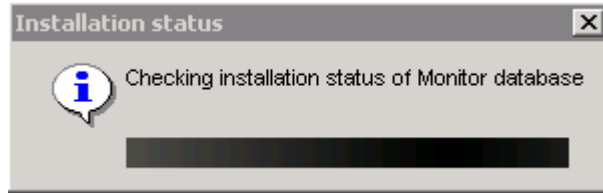
m. DATAMART Database creation. This takes about 2 minutes to complete.

n. The installer checks the status of the Monitor databases created as follows:

Installation type: Basic
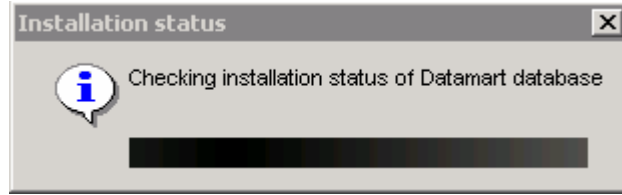
o. When the Database status check is complete, the installer stops WebSphere Application Server, Portal Server and the Process Server to prepare for the Monitor Server and Dashboard Client installation and re-launches.
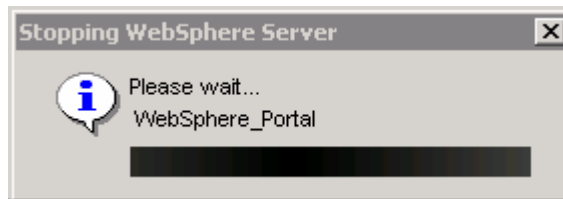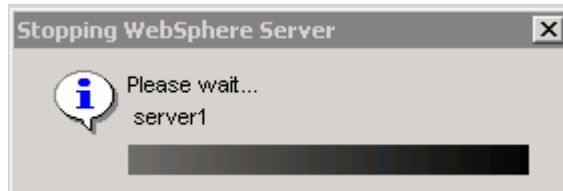
Note: Once the Monitor Database status check is complete, the installation wizard is launched automatically again to install the remaining Monitor components: the Monitor Server, Dashboard.

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p. The Monitor and Dashboard installation progresses. This should take about 30 minutes to complete.

Installation type: Basic
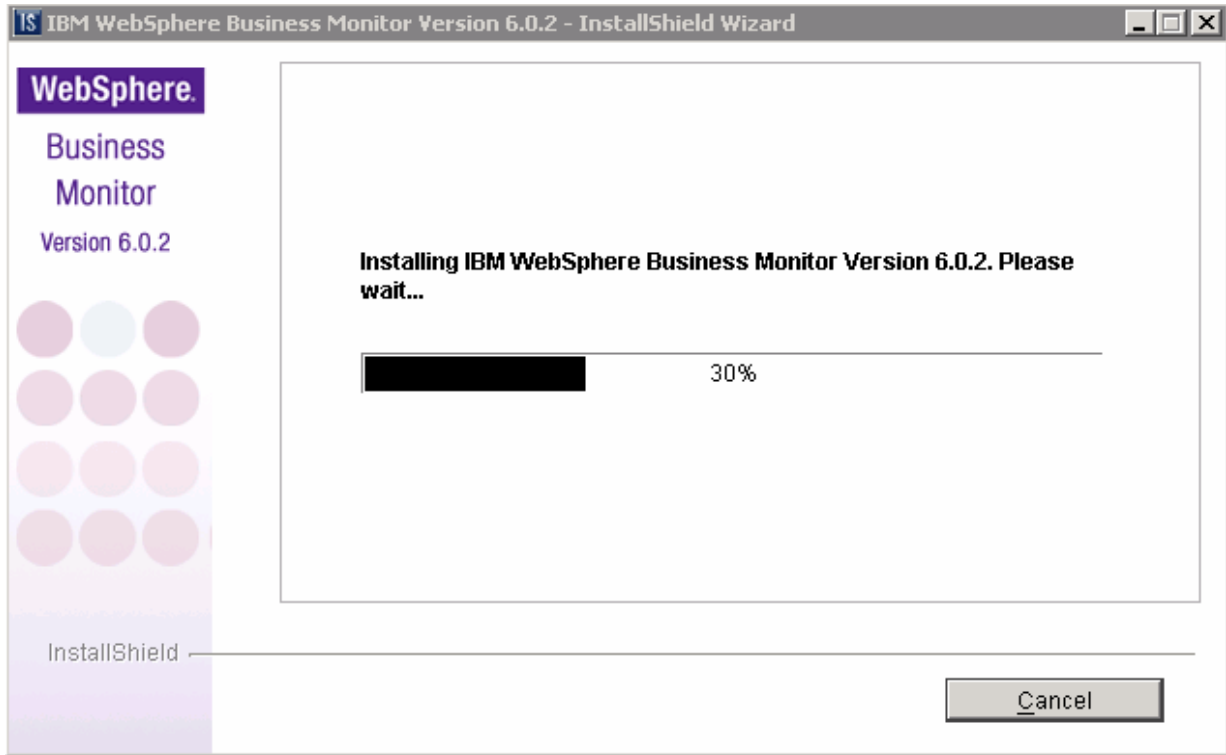
q.   The Installer checks the status of the Dashboard and Monitor installation as follows:
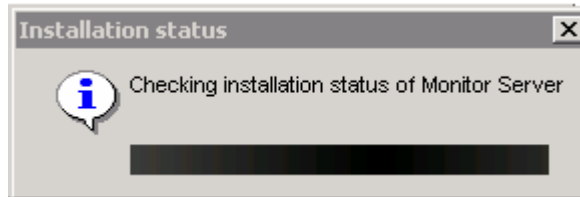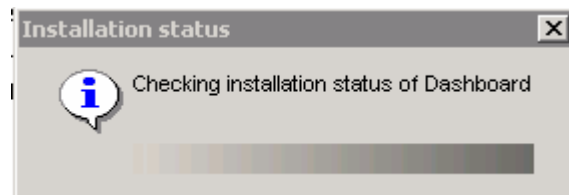
____ 23.   Review the **Result** Summary and ensure all the software components listed are successfully installed.

Installation type: Basic
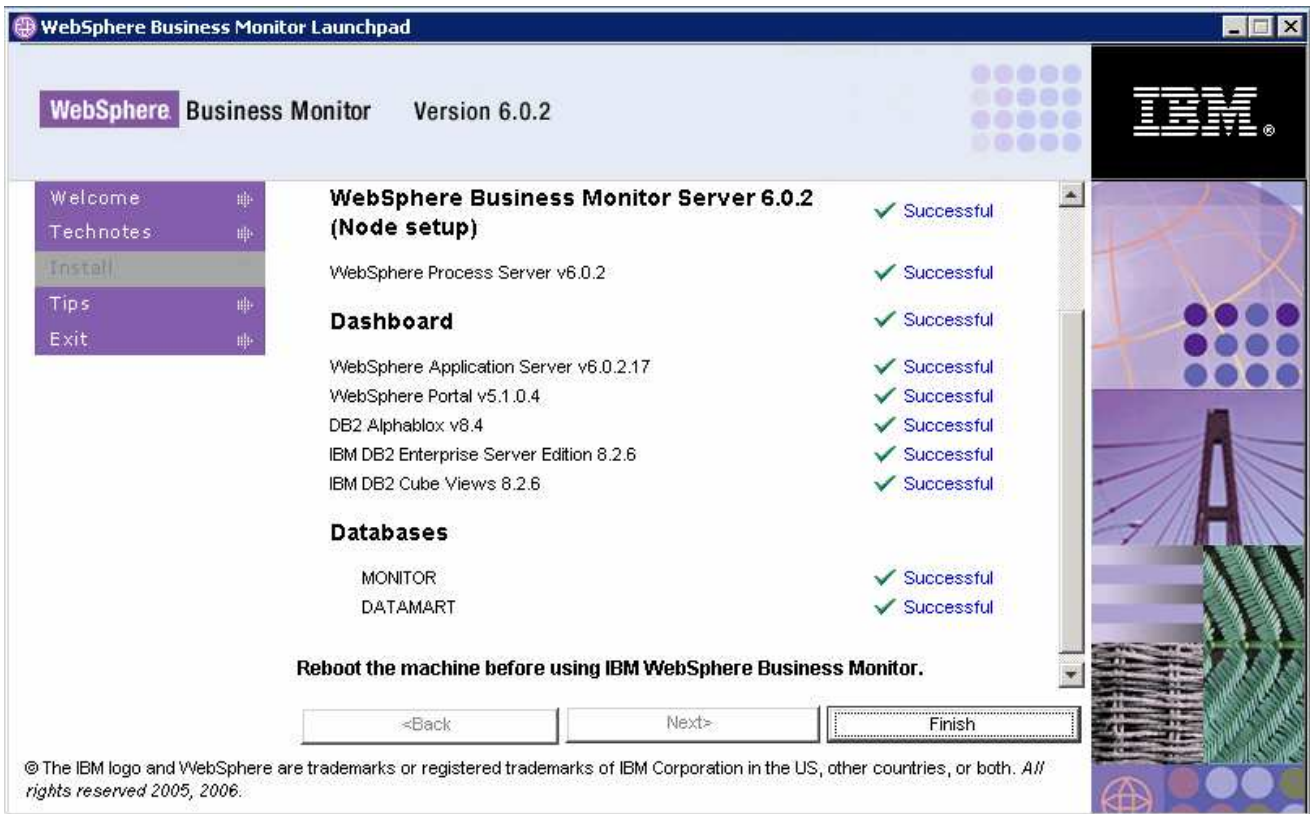
____ 24. Click **Finish**

____ 25. Click **Yes**
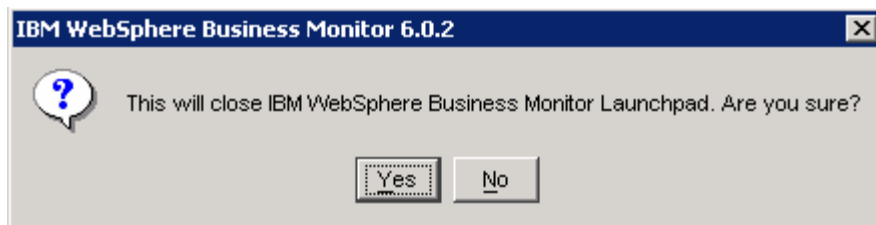
____ 26. **Reboot** the machine

____ 27. The WebSphere Business Monitor Server V6.0.2 of Installation type **Basic** is complete

What you did in this exercise

You obtained the Monitor 6.0.2 drivers and pre-requisites, extracted them to create an on-disk image making it easy for the Launchpad to run. You used the Launchpad program to install all the pre-requisite software, created the Monitor Databases and finally installed the Monitor Server and Dashboard Client.

Task 1: Pre-install Monitor prerequisites

This part of the lab helps you take advantage of the new incremental installation feature of the Launchpad program by leveraging the existing pre-requisite product installations for the Basic installation.

IMPORTANT: If you choose to pre-install the Monitor and Dashboard pre-requisites not using the Monitor Launchpad, the Dashboard pre-requisites, WebSphere Application Server V6.0.2.17 and the Portal Server V5.1.0.4, are installed first and the Monitor Server pre-requisite WebSphere Process Server V6.0.2 is installed second. This a workaround for a problem that is related to the WebSphere Application Server pre-requisite for Dashboard and the WebSphere Process Server pre-requisite for Monitor and the fact that their default ports happen to be the same. Obviously, if both the WebSphere Application Server and the WebSphere Process Server are being installed on the same machine, it is undesirable for their ports to overlap. Therefore, at least one of the products must make use of different port numbers from its defaults. Unfortunately,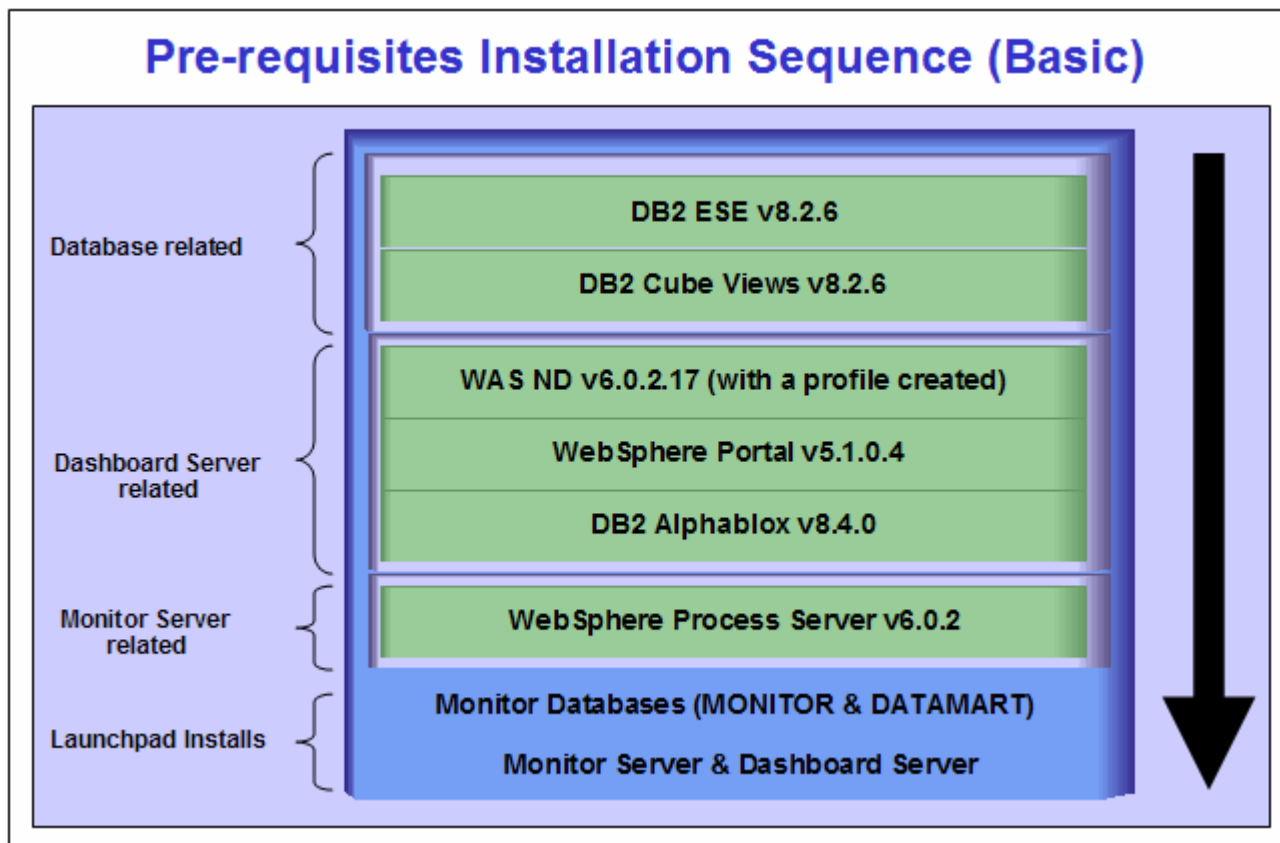 if the WebSphere Process Server is already installed, and then the WebSphere Application Server is installed next, the WebSphere Application Server installation does not adjust its port numbers. Fortunately, in the reverse situation, WebSphere Process Server will adjust its port numbers.

Therefore, the workaround is to make sure WebSphere Application Server is installed before the WebSphere Process Server Installation. To ensure the workaround is achieved, the Dashboard pre-requisites are installed prior to the Monitor Server.

Follow the sequence to install pre-requisites as shown in the diagram below:

Pre-requisites Installation Sequence (Basic)

Database related
- DB2 ESE v8.2.6
- DB2 Cube Views v8.2.6

Dashboard Server related
- WAS ND v6.0.2.17 (with a profile created)
- WebSphere Portal v5.1.0.4
- DB2 Alphablox v8.4.0

Monitor Server related
- WebSphere Process Server v6.0.2

Launchpad Installs
- Monitor Databases (MONITOR & DATAMART)
- Monitor Server & Dashboard Server

Installation type: Basic

Appendix 1: Uninstalling WebSphere Business Monitor and its prerequisites

From the Windows Control Panel's Add/Remove Programs utility, follow the uninstall sequence below:

_____ 1.   Uninstall the WebSphere Business Monitor components: the MONITOR and DATAMART Databases, Monitor Server components and the Dashboard Server

_____ 2.   Uninstall WebSphere Process Server V6.0.2

_____ 3.   Uninstall DB2 Alphablox

_____ 4.   Uninstall WebSphere Portal Server 5.1.0.4

_____ 5.   Uninstall WebSphere Application Server

_____ 6.   Uninstall DB2 Cubes View V8.2.6

_____ 7.   Uninstall DB2 UDB Enterprise Server Edition 8.2.6

_____ 8.   Visit the "**Appendix 2: Hints and troubleshooting**" section at the end of the document for more information
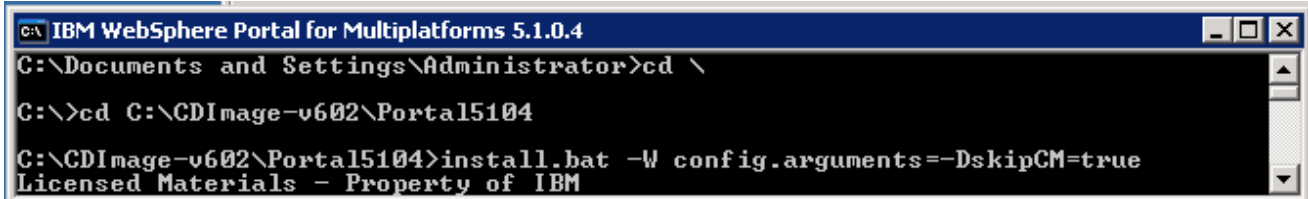
Appendix 2: Hints and troubleshooting

Hints:

1. To manually install the Portal Server V5.1.0.4, follow the instruction below:

   The Monitor Launchpad installs the **lighter-weight version** of Portal V5.1.0.4, and to achieve the same by installing Portal Server out of the Monitor Launchpad;

   Run the command: **install.bat -W config.arguments=-DskipCM=true**

```
IBM WebSphere Portal for Multiplatforms 5.1.0.4                          _ □ ✕
C:\Documents and Settings\Administrator>cd \

C:\>cd C:\CDImage-v602\Portal5104

C:\CDImage-v602\Portal5104>install.bat -W config.arguments=-DskipCM=true
Licensed Materials - Property of IBM
```

2. Portal user ID and Alphablox user ID

   Details: - The Portal Server user ID and Alphablox user ID are not Operating System specific or do not require to be re-defined in the system

   Solution: - Accept the default user ID for the Portal Server and Alphablox. Also accept the Launchpad defaulted passwords for Portal Server and Alphablox.

3. Portal and Alphablox default passwords

   Details: - The Launchpad defaults to the pre-defined passwords to their respective users.

   Solution: - The default Portal password is **wpsadmin** and the default Alphablox password is **password**

4. Change Alphablox default password

   Details: - When Launchpad installs Alphablox, the default for Alphablox user ID is 'admin' and password is 'password'. You can modify the password for existing user ID

   Solution: - Open the Alphablox Admin page: Ex: - http://localhost:9081/AlphabloxAdmin. Login with default **user ID/password** and click on '**Administration**' tab and then '**Users**' tab. Select user ID '**admin**' then click '**Edi**t' button. Provide new password for 'admin' user. Click **Save**

5. Create new user ID for Alphablox

   Details: - New Alphablox user ID can be created from Alphablox Admin page

   Solution: - Open the Alphablox Admin page: Ex: - http://localhost:9081/AlphabloxAdmin. Login with default **user ID/password** and click on '**Administration**' tab and then '**Users**' tab. Click '**Create**' button then provide new user ID and password. Click **Save**

6. Select 'Create DB manually' option

   Details: - If user uses the Launchpad to install Databases and select the option 'Create DB manually' on the Database setup panel, the Launchpad will only generate scripts and DDL scripts.

   Solution: - Run the DDL scripts manually

Installation type: Basic

Troubleshooting:

1. Useful files for debugging installation problems

   Details: - When debugging installation problems, gather as much information as possible

   Solution: - If you have a problem installing any of the Monitor components, please include these files when you request assistance.

   - All files in <MONOTOR_HOME>\install\logs

   - The following files in the %TEMP% directory of the Administrator user

     (C:\DOCUME~1\user ID\LOCALS~1\Temp/)

     launchpad-monitor.log
     launchpad-Traces.log
     Mon_Install.rsp
     WbimInstall.log

   - The Process Server log file: SystemOut.log

2. Monitor Databases install failed

   Details: - If Launchpad displays the status of Databases install as **'Failed'** on the final **Result** panel
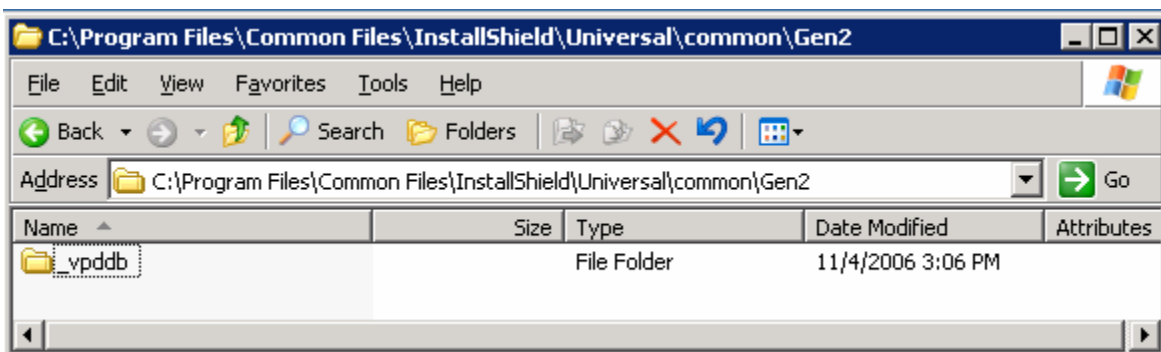
   Solution: - Open DB2 Control Center and drop all Monitor databases

3. The Install Shield's vpd properties sometimes gets corrupted

   Details: - If a monitor installation fails in an unexplained manner, the Install Shield product registry can get corrupted and you may need to clean things up.

   Solution: -

   a. Find for the **Gen2** directory in C:\Program Files\Common Files\InstallShield\Universal\common\Gen2 and delete it

   b. Remove the Monitor registry entry in **HKEY_LOCAL_MACHINE → SOFTWARE → IBM**

   c. Remove the directory that Monitor is currently installed in

   d. If the Monitor databases are already installed, you need to drop them

4. How to manually uninstall Monitor features

Installation type: Basic

Details: - If the Monitor uninstaller fails, you can manually uninstall the Monitor features.

Solution: -

 e. On Windows, the path is C:\Program Files\Common Files\InstallShield\Universal\common\Gen2. On AIX, the path is /usr/lib/objrepos/InstallShield/Universal/common/Gen2

 f. Remove the Monitor registry entry in **HKEY_LOCAL_MACHINE → SOFTWARE → IBM**

 g. Remove the directory that Monitor is currently installed in

 h. Remove **install.vlf**. On Windows, the path is **%WINDIR%**. On AIX, the path is **/usr/lib/objrepos**

5. Debugging Monitor database creation problems

 Details: - If the Monitor database creation fails, you will see this error message:
 An error occurred and product installation failed. Look at the log file
 C:\DOCUME~1\user ID\LOCALS~1\Temp/WbimInstall.log for details

 Solution: - Follow these steps to determine where the problem occurred.

 i. In WbimInstall.log, look for this line:
  ProductException: (error code = 601; message="The execution of the bat file failed with a return code of 2")

 j. Go up 3 lines and you will see this line: "installing Bat File Test Condition PA (bat_test_xxx)".

 k. The text in parentheses tells you what script was running. Each script has log files associated with it.

 l. Here are the possible text values and the log files associated with them.

  bat_test_repository - db2CreateMonDBOut.log, db2CreateMonDBErr.log
  bat_test_datamart - db2CreateDatamartOut.log, db2CreateDatamartErr.log
  bat_test_repos_catalog1 - catalogMonDBOut.log, catalogMonDBErr.log
  bat_test_datamart_catalog - catalogDatamartOut.log, catalogDatamartErr.log

 m. The log files will tell you why the database creation failed

6. Debugging Monitor JDBC Data Sources in WebSphere Process Server

 Details: - The Monitor install finishes and the JDBC data sources return an error when tested in the Admin Console.

 Solution: - It is possible that there may have been a DB2 node named either MONITOR or DATAMART in your local DB2 instance. If this is the case, you need to un-catalog the node and install again. To check for this problem, open a DB2 Command Window and type "db2 list node directory". If the results show a node with the name MONITOR or DATAMART, delete it with the command "db2 delete node MONITOR".

Installation type: Basic

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