

# IBM Software Assembly Toolkit Tutorial

## Deploying a Sample Solution

In this tutorial, we are going to walk through the installation of an integrated solution (application and middleware components). The Deployment Wizard will perform the install. This tutorial assumes that you have already downloaded and installed IBM Software Assembly Toolkit 3.1.

### Part 1: Import the sample solution into IBM Software Assembly Toolkit

The sample solution we are using installs and configures middleware (a database server, web server, and application server) and lays down an application that runs on the middleware stack.

1. The sample has been provided on the USB drive - the ISAT Sample Solution for Windows (ISAT\_Sample\_WIN\_v4r1\_S.zip).
2. You will need to obtain the following install images from the Software Access Catalog or from Xtreme Leverage:
  - DB2 Express V9.5 (Part number – C152RML)
  - WebSphere Application Server Express V6.1 (Part number – C95CQML)
  - IBM HTTP Server and WAS Plug-in V6.1 (WAS Supplemental Part number – C95CGML)
3. Select **Start > Programs > IBM Solution Assembly Toolkit 3.1 > Express Runtime Developer**. If you see the **Welcome** window, close it to go to the workbench.
4. From the menu, click **File -> Import...**
5. Select **General -> Existing Projects into Workspace** and click **Next**
6. Click on **Select archive file** and **Browse** to the location of the ISAT\_Sample\_WIN\_v3r1\_S.zip
7. Click on **Select All** and click **Finish**, the resulting window looks like Figure 1.1

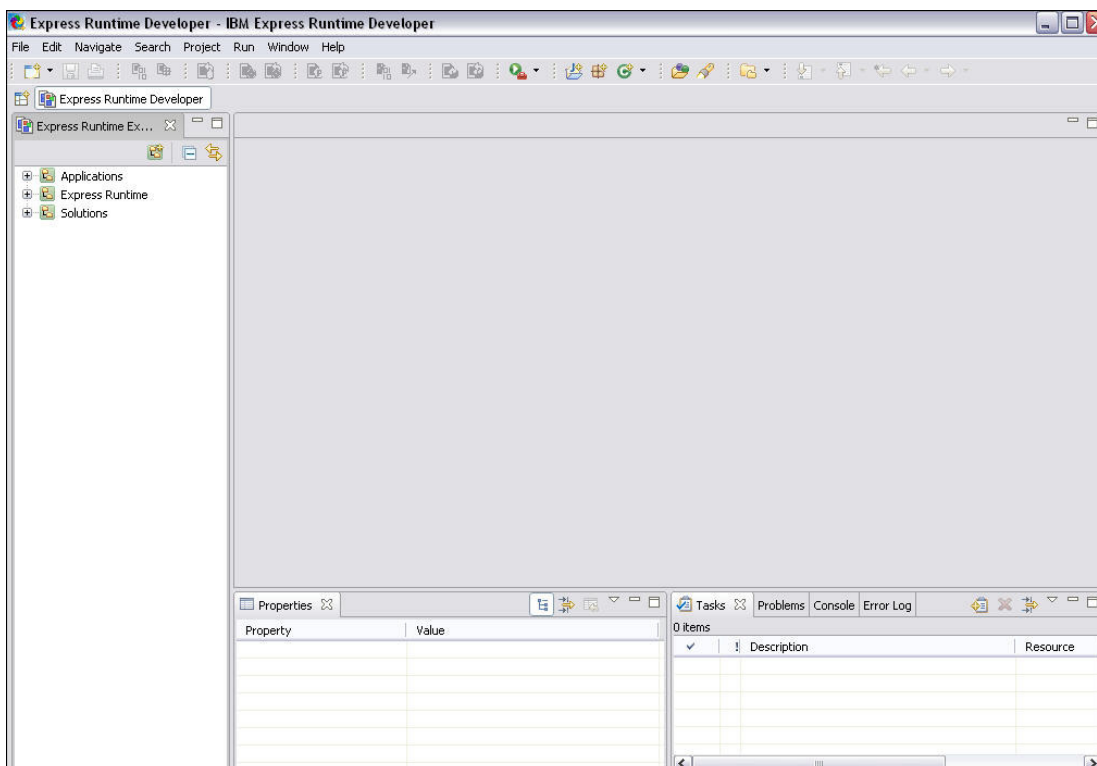


Figure 1-1 IBM Software Assembly Toolkit developer window

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### Part 2: Build the sample solution

When you are building your own solutions from the sample building blocks we have provided in this e-Kit, you will follow the same process whenever you download a new application Deployment Accelerator.

1. In the Express Runtime Explorer panel, expand Applications -> DB2 Express, Version 9.5 and right click on Windows – DB2 Express (DB2Express\_WIN\_v9r5\_A). Select **Generate Deployment Packages**.
2. You will be prompted to browse to the location for the Disk 1 – DB2 Universal Database Express Edition for Windows. Find the location where you unpacked C152RML and click **OK**. This will take a few moments while a jar file is created with the install image for DB2.
3. In the Express Runtime Explorer panel, expand Applications -> IBM HTTP Server, Version 6.1 and right click on Windows – IBM HTTP Server (IHS\_WIN\_v6r1\_A). Select **Generate Deployment Packages**.
4. You will be prompted to browse to the location for the Disk 1 – HTTP Server for Windows. Find the location where you unpacked C95CGML and click **OK**. This will take a few moments while a jar file is created with the install image for HTTP Server.
5. In the Express Runtime Explorer panel, expand Applications -> IBM HTTP Server, Version 6.1 -> Web server plug-ins for IBM WebSphere Application Server, Version 6.1 and right click on Windows – Web server plug-ins for IBM WebSphere Application Server (WASExpress\_Plugin\_WIN\_v6r1\_A). Select **Generate Deployment Packages**.
6. You will be prompted to browse to the location for the Disk 1 – Web server plug-ins for IBM WebSphere Application Server for Windows. Find the location where you unpacked C95CGML and click **OK**. This will take a few moments while a jar file is created with the install image for the web server plug-ins.
7. In the Express Runtime Explorer panel, expand Applications -> WebSphere Application Server - Express, Version 6.1 and right click on Windows – WebSphere Application Server - Express (WASExpress\_WIN\_v6r1\_A). Select **Generate Deployment Packages**,
8. You will be prompted to browse to the location for the Disk 1 – WebSphere Application Server - Express for Windows. Find the location where you unpacked C95CQML and click **OK**. This will take a few moments while a jar file is created with the install image for WAS Express.
9. In the Express Runtime Explorer panel, expand Solutions and right click on ISAT Sample Solution for Windows (ISAT\_Sample\_WIN\_v3r1\_S). Select **Generate Solution**. This compiles all the programs and build a deployable solution – you are now ready to install it.

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### Part 3: Deploy the sample solution

You are now ready to deploy the sample solution. For this tutorial, we will run the deployment wizard from within the Express Runtime Developer. The other alternative would be to export this solution to disk(s) and launch the Deployment Wizard from your solution disk.

1. In the Express Runtime Explorer panel, expand Solutions and right click on ISAT Sample Solution for Windows (ISAT\_Sample\_WIN\_v3r1\_S). Select **Test in Deployment Wizard**.
2. You will be greeted with a **Welcome** page that describes the solution you are deploying (Figure 1-2). Click **Next**.

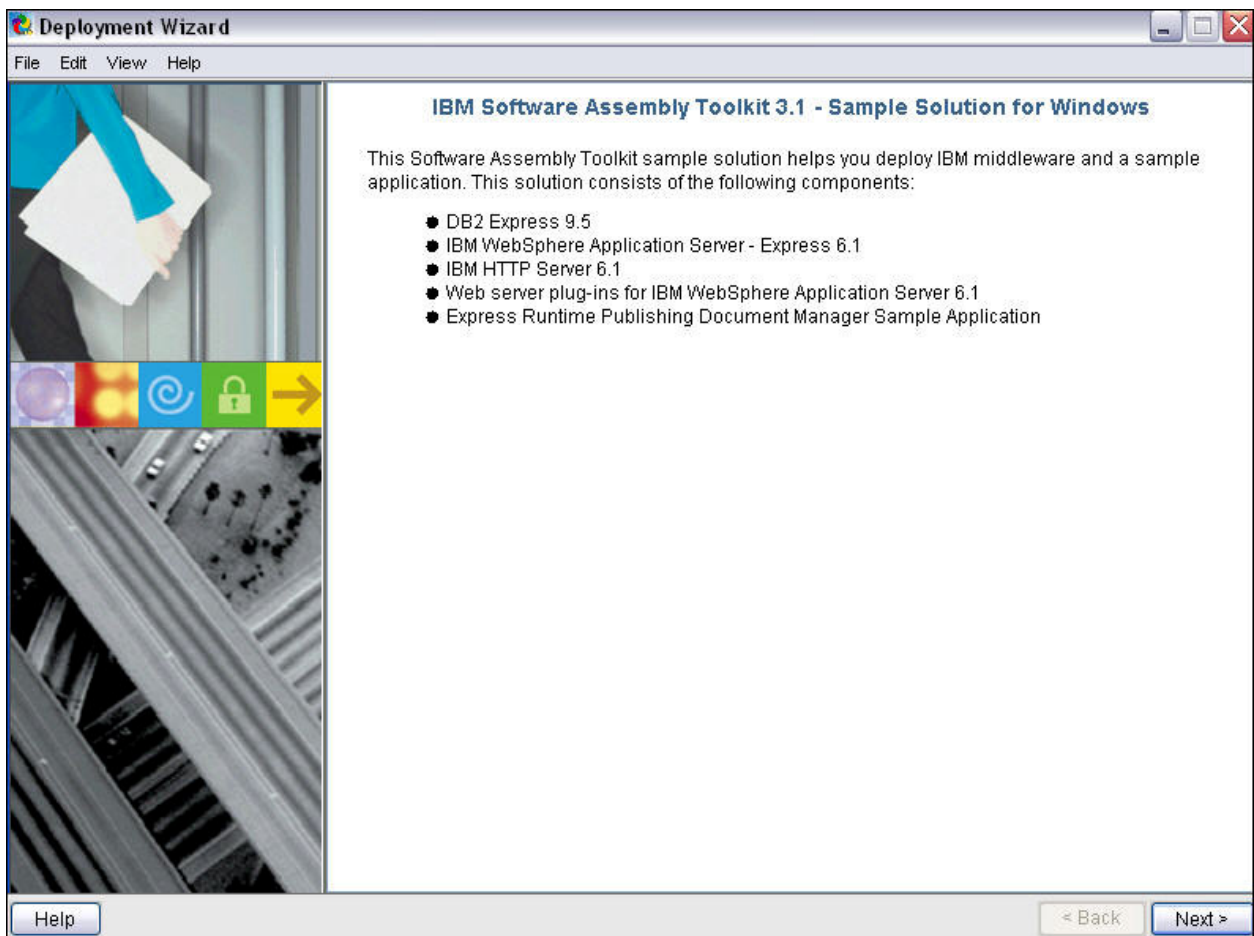


Figure 1-2 Sample application welcome screen

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3. On the task selection screen (Figure 1-3), select **Sample application and IBM middleware for Windows**. Click **Next**.

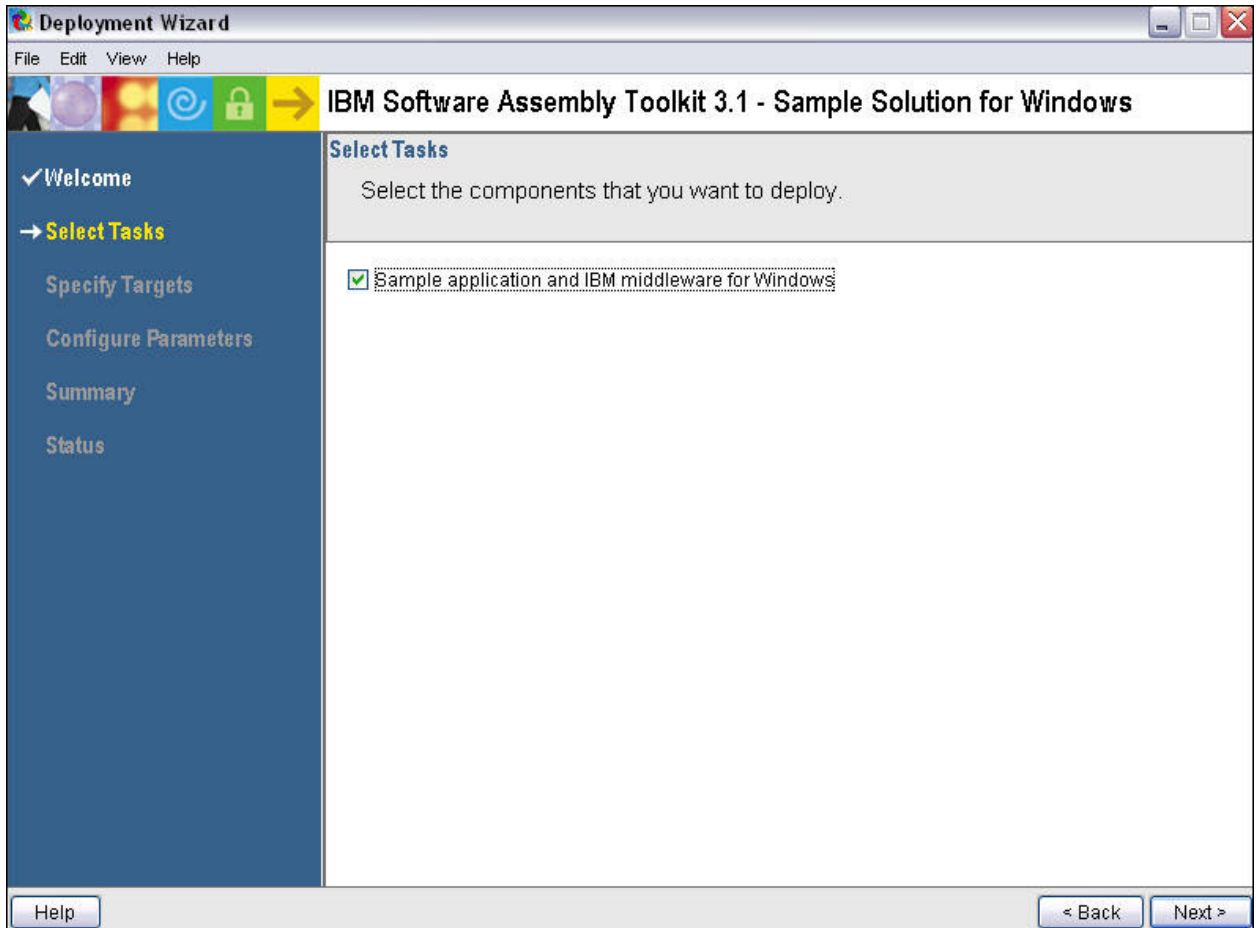


Figure 1-3 Task selection screen

Note: This task includes the Publishing Document Manager sample application and all the middleware components needed to run the sample. Because all the components are in a single task, they are deployed together as a unit to the same target.

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4. For each task, you would be presented with a **Specify Target Computers** window (see Figure 1-4). You are required to provide hostname or IP address of the machine where the sample application and middleware components will be deployed.

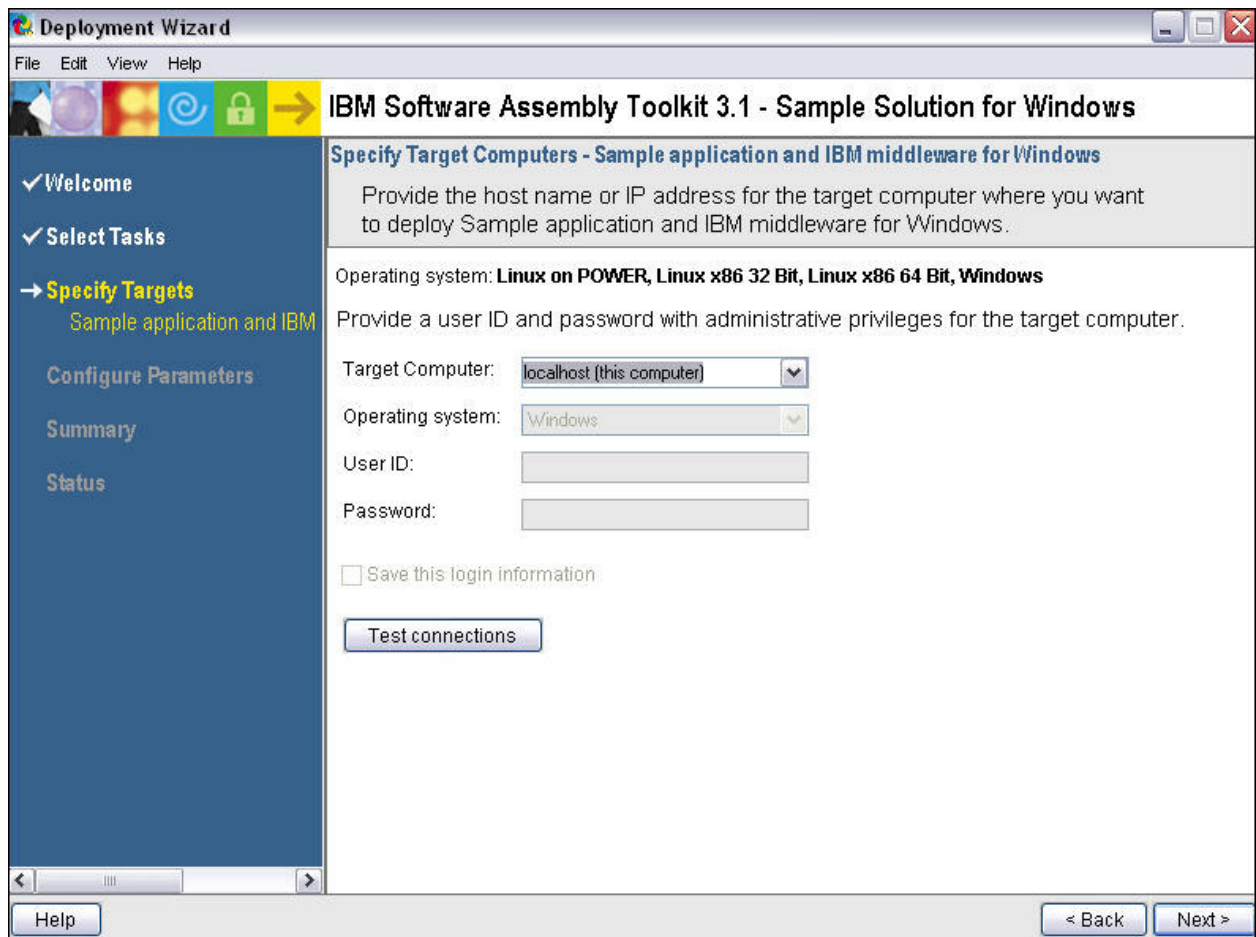


Figure 1-4 Specify Target screen

Note: You may notice there is a **Test connections** button. You can use this button to test the connection across the network to the target computer that you have specified. Unless you are installing on the local machine, you must have a user ID and password with Administrator authority on the target computer. Enter a target computer and click on **Test connections** to see if the Deployment Wizard can deploy to the requested target machine.

5. In this exercise, we will be doing a local deployment whereby everything will be deployed on the same machine where the solution file is located. Enter **localhost** or the IP address of your machine in the **Target Computer** field.
6. Click **Next**.

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7. There is one **Configure Parameters** screen for each application, including the middleware components that we are going to deploy (unless there are no variables exposed for that application).

The first middleware component to configure is **DB2 Express**. You will notice that the passwords have not been pre-filled for the DB2 Instance User and the DB2 DAS User, (which you have to scroll down to see - Figure 1-5). The userids do not have to exist, because they will be created during the install process.

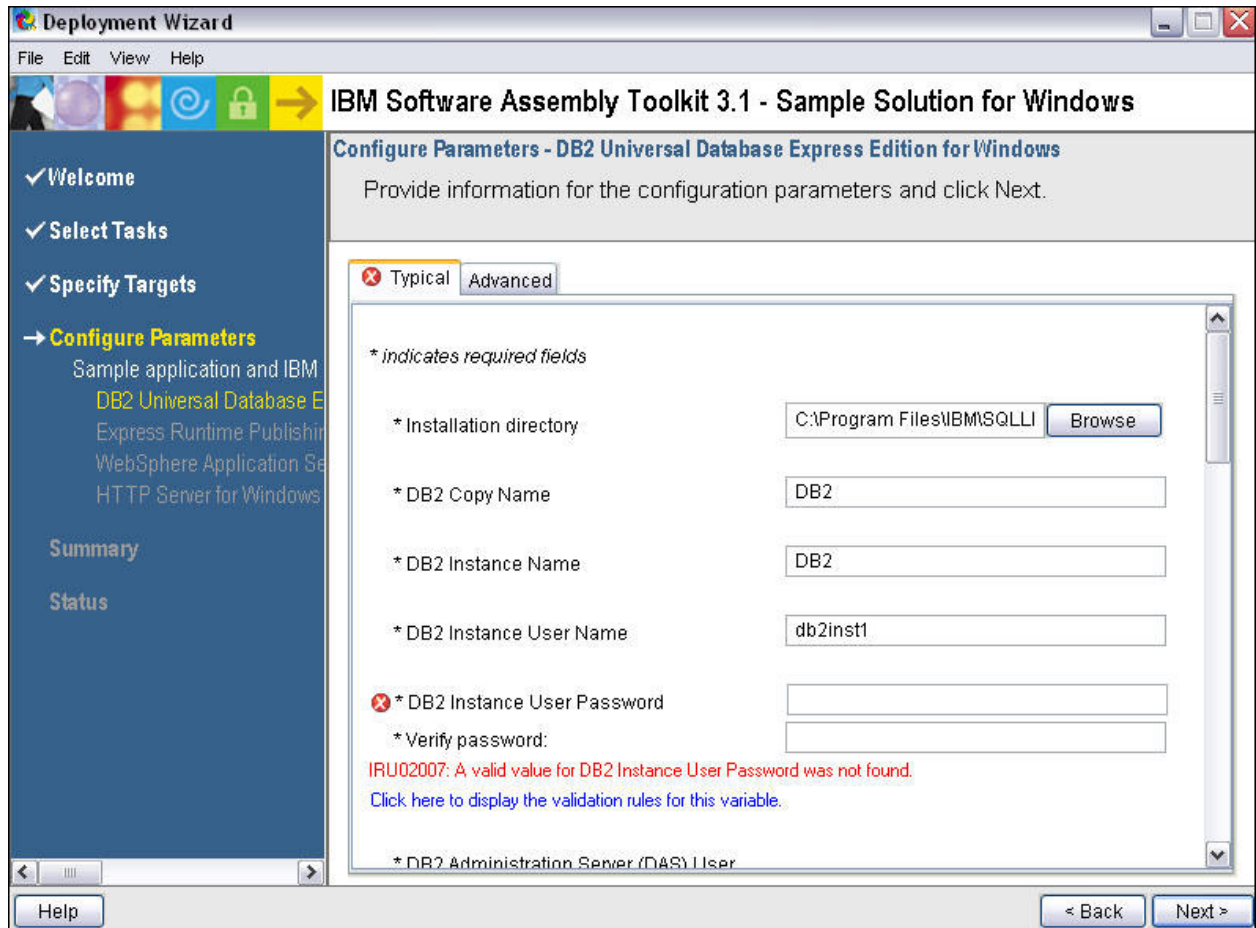


Figure 1-5 Configure parameters for DB2 Express

Note: As you page through these parameters screens, keep in mind that each of these variables are shown to the installer because that was specified in the deployment accelerators. You may add or remove variables or make them read only depending on the needs of your solution.

Take special note of the read only fields that have been shared between applications - the installer only has to enter the information once.

8. You will not be allowed to proceed until you have corrected all validation errors. Enter a password value and confirm it for each userid.
9. Accept the defaults for the remaining parameters. Click **Next**.

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- Next, you will see the **Configure Parameters – Express Runtime Publishing Document Manager DB2 Configuration for the Windows, Linux, and Linux on POWER operating systems** (Figure 1-6).
- Set the Database bin folder to **C:\Program Files\IBM\SQLLIB\bin**. This folder should match the installation directory (+ \bin) you specified as the install location for DB2 on the previous screen.
- Click **Next**.

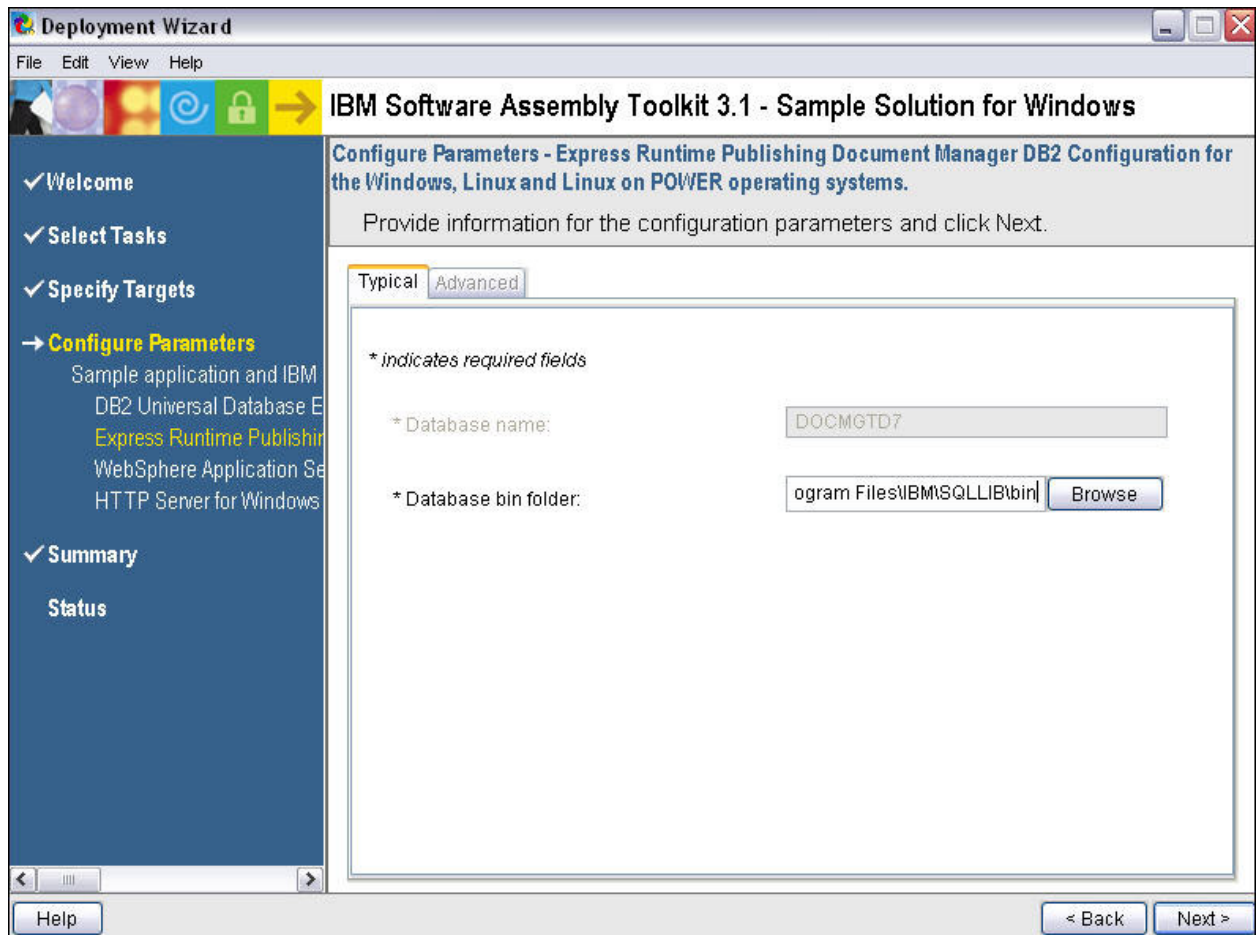


Figure 1-6 Configure parameters for DB2 Configuration



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13. Next you will see **Configure Parameters - WebSphere Application Server – Express**. Accept the defaults and click **Next**.
14. **Configure Parameters - IBM HTTP Server**. Accept the defaults and click **Next**.
15. The summary panel as shown in Figure 1-7 provides information on the tasks you selected in the previous steps, hostname or IP address of the target machine as well as the estimated time needed to deploy all tasks.
16. Click **Deploy all** to start the deployment of **Sample application and IBM middleware for Windows**.

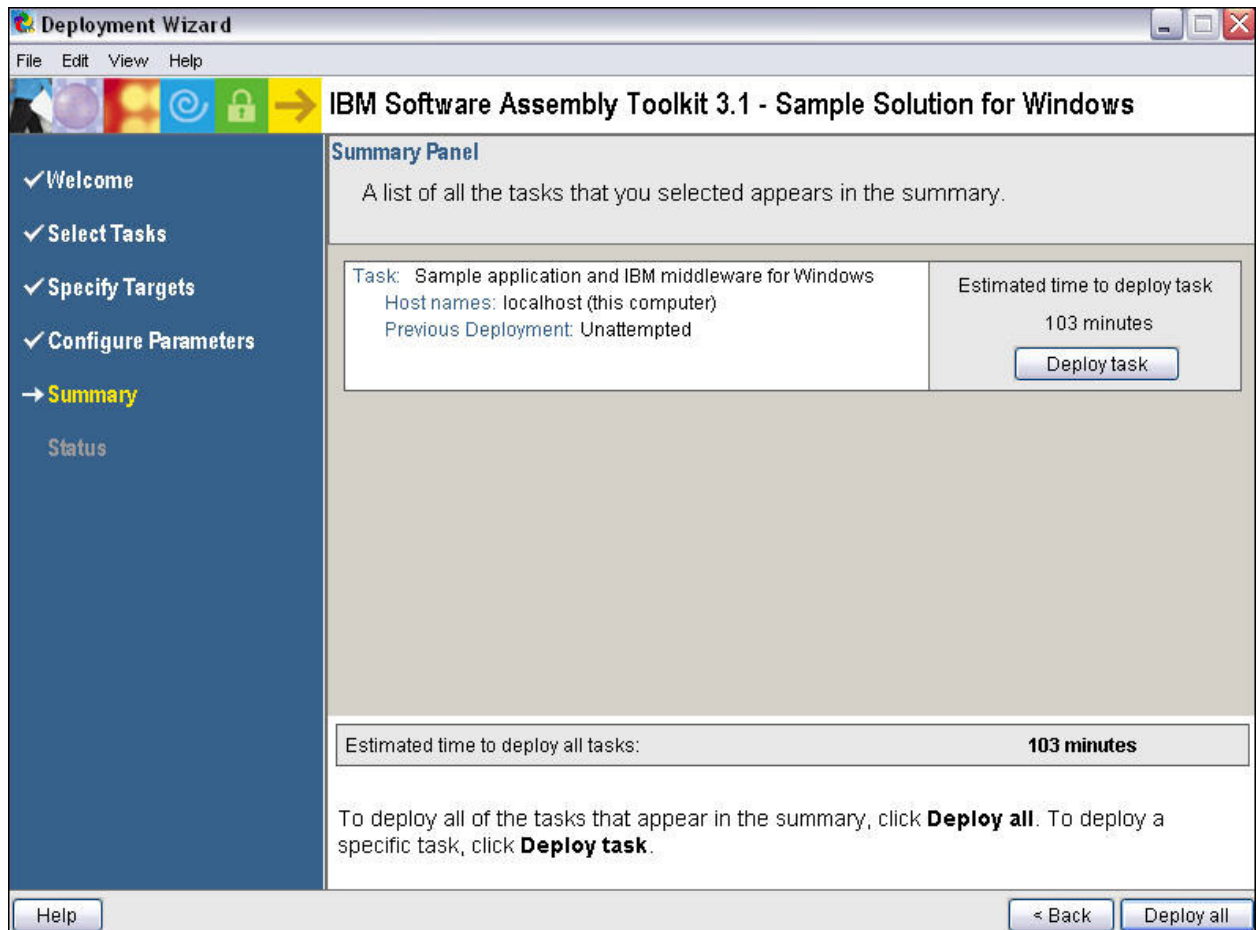


Figure 1-7 Summary Panel



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17. A screen similar to Figure 1-8 will be displayed when deployment of the sample application and IBM middleware starts.

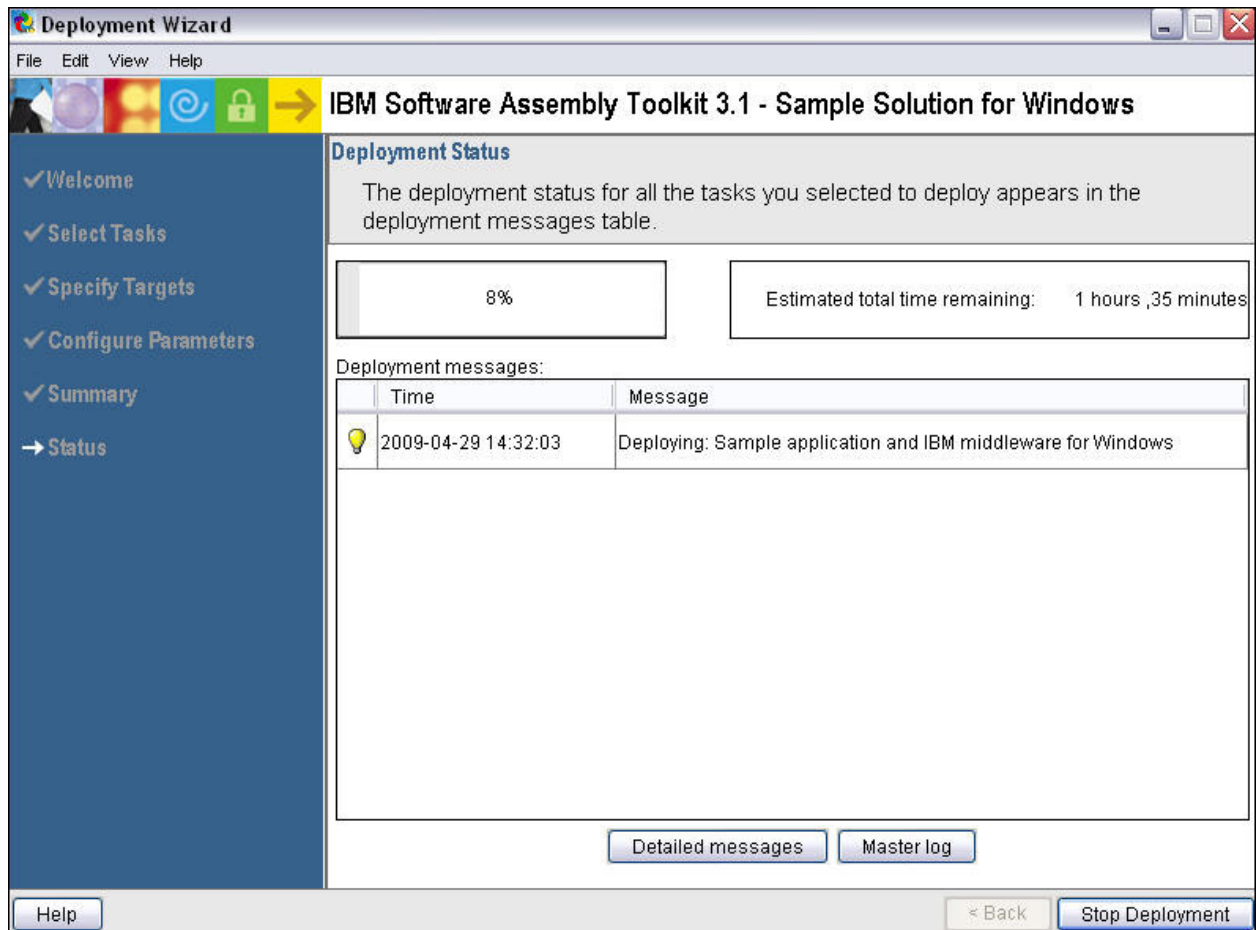


Figure 1-8 Deployment Status

Note: the first time you attempt to deploy a solution, you may see popups as the deployment packages are being created. This is a one-time occurrence for each solution.

You can check the messages generated by the Deployment Wizard from time to time to see if the installation of each component is successful by clicking on the **Master log** button. The same log file can be retrieved from

C:\<ER\_installation\_directory>\SolutionEnable\logs\IRU\_DeploymentWizard.log

Alternatively, you can use the **Detailed messages** button to view the progress of the deployment.

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18. A screen similar to Figure 1-9 will be displayed when the deployment finishes for all the components without any errors.

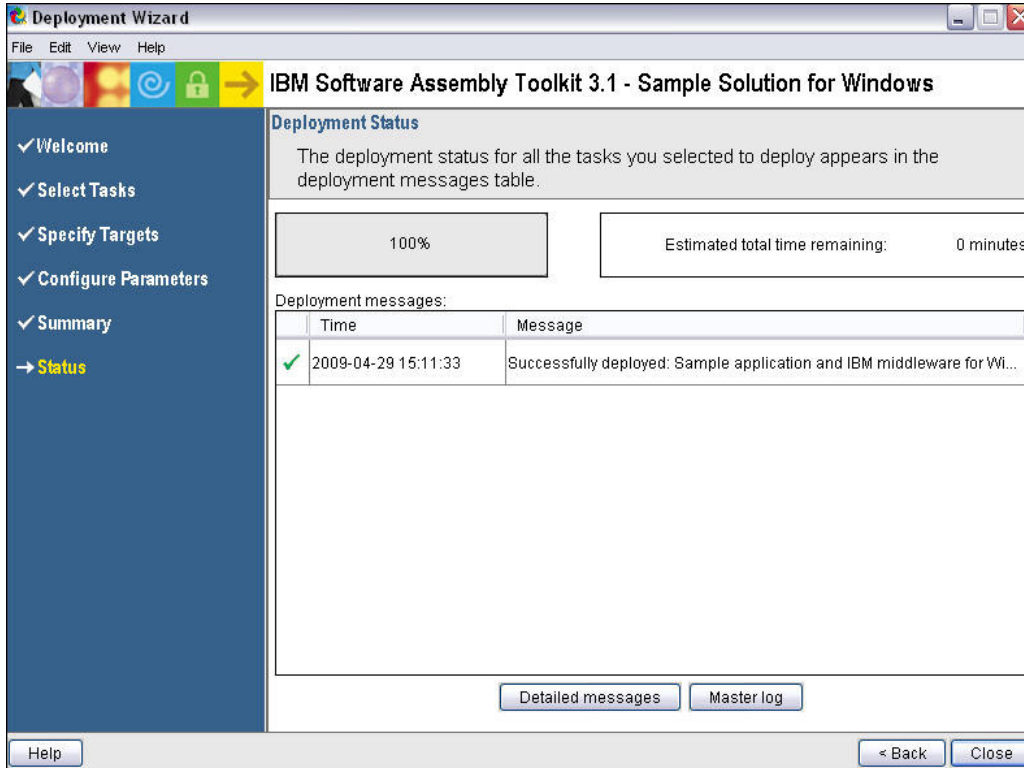


Figure 1-9 Deployment successful

19. A screen similar to Figure 1-10 will be displayed if you click on **Detailed messages**.

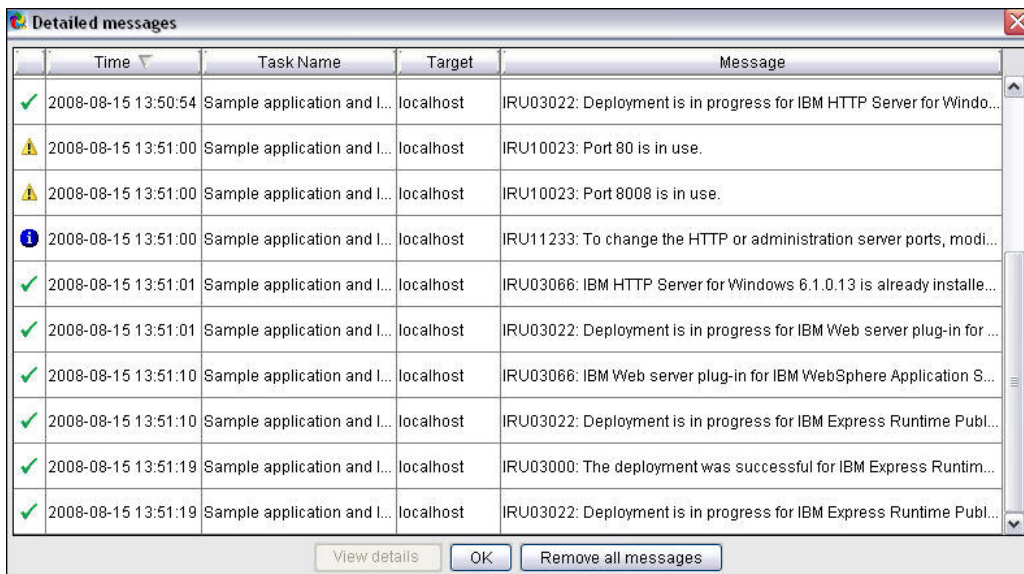


Figure 1-10 Detailed message

Note: yellow and blue icons indicate informational or warning messages.

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20. Click **OK** to close the **Detailed messages** dialog.
21. Click on **Master log** to see how information is gathered from all the log files and combined to show you the results of the deploy. After you finish browsing through the log, close the log window.
22. Click **Close** to close the Deployment Wizard. You will be asked if you want to save your changes, but you do not need to save the configuration information you entered at this time, so click **No**.
23. Next, let's move on to test the Publishing Document Manager application. Open a browser window (Internet Explorer), type in the following URL - <http://localhost:9080/RuntimeDocumentMgmt/>. The logon panel should display, as shown below.
24. Enter **Admin** in the Username field and **admin** in the Password and click on **Login** to verify that the application has been installed correctly.

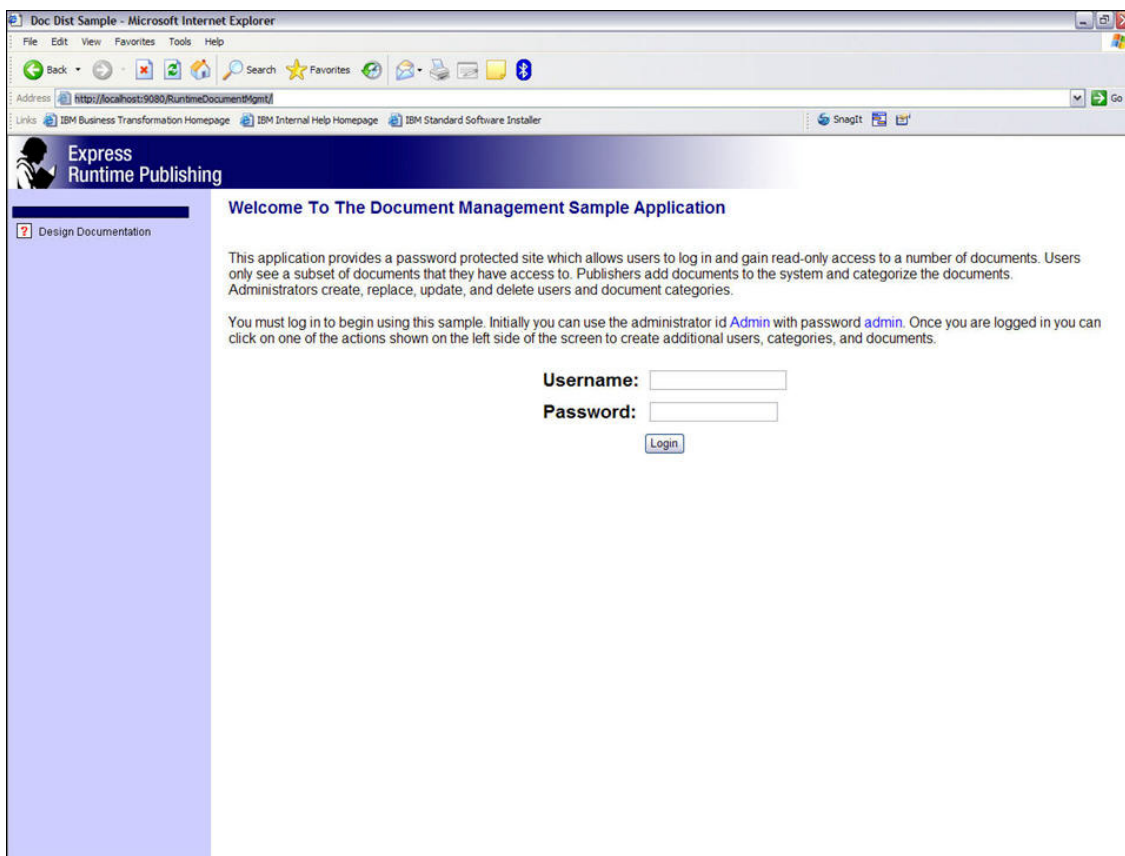


Figure 1-11 Publishing Document Manager page

**Congratulations!** You have successfully deployed WebSphere Application Server, HTTP Server, DB2 Express and the Publishing Document Manager application; configured them to work together and you didn't have to know all the configuration details about the middleware you installed.