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.

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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,
- 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.
- 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.

😢 Deployment Wizard						
File Edit View Help	characterization in the second second					
	IBM Software Assembly Toolkit 3	1.1 - Sample Solution for Windows				
✓Welcome	Configure Parameters - DB2 Universal Dat Provide information for the configura	abase Express Edition for Windows ation parameters and click Next.				
✓ Select Tasks						
✓ Specify Targets	🔇 Typical Advanced					
→ Configure Parameters Sample application and IBM	* indicates required fields					
DB2 Universal Database E Express Runtime Publishir	* Installation directory	C:\Program Files\IBM\SQLLI Browse				
WebSphere Application Se HTTP Server for Windows	* DB2 Copy Name	DB2				
Summary	* DB2 Instance Name	DB2				
Status	* DB2 Instance User Name	db2inst1				
	⊗ * DB2 Instance User Password					
	* Verify password:	Preservered unse met forund				
	Click here to display the validation rules for this variable.					
<	* DB2 Administration Sever (DAS) Lise	r 💌				
Help		< Back Next >				

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).
- 11. 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.
- 12. Click Next.

🕏 Deployment Wizard					
File Edit View Help					
K 🔘 📮 🕑 🔒 🔶	IBM Software Assembly Toolkit 3.1 - Sample Solution for Windows				
√Welcome	Configure Parameters - Express Runtime Publishing Document Manager DB2 Configuration for the Windows, Linux and Linux on POWER operating systems.				
✓ Select Tasks	Provide information for the conf	iguration parameters and click Next.			
✓ Specify Targets	Typical Advanced				
→ Configure Parameters Sample application and IBM	* indicates required fields				
DB2 Universal Database E Express Runtime Publishin WebSphere Application Se	*Database name:	DOCMGTD7			
HTTP Server for Windows	* Database bin folder:	ogram Files\IBM\SQLLIB\bin Browse			
✓ Summary					
Status					
<					
Help	<u>a</u>	< Back 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.

😢 Deployment Wizard		
File Edit View Help		
K () 	IBM Software Assemb	bly Toolkit 3.1 - Sample Solution for Windows
	Deployment Status	
✓Welcome	The deployment status	s for all the tasks you selected to deploy appears in the
✓ Select Tasks	deployment messages	s table.
✓ Specify Targets	8%	Estimated total time remaining: 1 hours ,35 minutes
✓ Configure Parameters	Danloyment messages:	
✓ Summary	Time	Message
→ Status	2009-04-29 14:32:03	Deploying: Sample application and IBM middleware for Windows
		Detailed messages Master log
Help		< Back Stop Deployment

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

 $C:\< ER_installation_directory>\SolutionEnabler\logs\IRU_DeploymentWizard.log$

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.

😢 Deployment Wizard				
File Edit View Help				
K () 	IBM Software Assemb	oly Toolkit 3.1 - Sample Solution for Windows		
√Welcome	Deployment Status The deployment status for all the tasks you selected to deploy appears in the			
✓ Select Tasks	deployment messages table.			
✓ Specify Targets	100% Estimated total time remaining: 0 m			
✓ Configure Parameters	L			
🗸 Summary	Time	Message		
→ Status	2009-04-29 15:11:33	Successfully deployed: Sample application and IBM middleware for Wi		
		Detailed messages Master log		
Help		< Back Close		

Figure 1-9 Deployment successful

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

	Time 💎	Task Name	Target	Message	1
1	2008-08-15 13:50:	54 Sample application and I	localhost	IRU03022: Deployment is in progress for IBM HTTP Server for Windo	
Å	2008-08-15 13:51:0	0 Sample application and I	localhost	IRU10023: Port 80 is in use.	
Å	2008-08-15 13:51:0	0 Sample application and I	localhost	IRU10023: Port 8008 is in use.	
i)	2008-08-15 13:51:0	0 Sample application and I	localhost	IRU11233: To change the HTTP or administration server ports, modi	
1	2008-08-15 13:51:0)1 Sample application and I	localhost	IRU03066: IBM HTTP Server for Windows 6.1.0.13 is already installe	
1	2008-08-15 13:51:0)1 Sample application and I	localhost	IRU03022: Deployment is in progress for IBM Web server plug-in for	
1	2008-08-15 13:51:*	0 Sample application and I	localhost	IRU03066: IBM Web server plug-in for IBM WebSphere Application S	
1	2008-08-15 13:51:*	0 Sample application and I	localhost	IRU03022: Deployment is in progress for IBM Express Runtime Publ	
~	2008-08-15 13:51:*	9 Sample application and I	localhost	IRU03000: The deployment was successful for IBM Express Runtim	-
1	2008-08-15 13:51:*	9 Sample application and I	localhost	IRU03022: Deployment is in progress for IBM Express Runtime Publ	

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 <u>http://localhost:9080/RuntimeDocumentMgmt/</u>. 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.

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dress a http://localhost:9080/Runtim	DocumentMgmt/			<u> </u>
s 👌 IBM Business Transformation Hor	epage 🛛 IBM Internal Help Homepage 🎽 IBM Standard Software Installe	5	SnagIt 🔁 🛃	
Express				
Runtime Publish	ng			
	Welcome To The Document Managem	ent Sample Application	1	
Design Documentation				
	This application provides a password protected sit only see a subset of documents that they have accord Administrators create, replace, update, and delete	e which allows users to log in a ess to. Publishers add documer users and document categorie	nd gain read-only access to a number of docum nts to the system and categorize the documents s.	ients. Users
	You must log in to begin using this sample. Initially click on one of the actions shown on the left side of	ou can use the administrator ic the screen to create additional	d Admin with password admin. Once you are log users, categories, and documents.	gged in you can
		Username:		
		Password:		
		Login		

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.