

WebSphere 6.0 Installation Guide

Version 5.1.0

February 2009



Oracle® Insurance Insight

WebSphere 6.0 Installation Guide

Version 5.1.0

E14944-01

February 2009

Copyright © 2009, Oracle. All rights reserved.

The Programs (which include both the software and documentation) contain proprietary information; they are provided under a license agreement containing restrictions on use and disclosure and are also protected by copyright, patent, and other intellectual and industrial property laws. Reverse engineering, disassembly, or decompilation of the Programs, except to the extent required to obtain interoperability with other independently created software or as specified by law, is prohibited.

The information contained in this document is subject to change without notice. If you find any problems in the documentation, please report them to us in writing. This document is not warranted to be error-free. Except as may be expressly permitted in your license agreement for these Programs, no part of these Programs may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose.

If the Programs are delivered to the United States Government or anyone licensing or using the Programs on behalf of the United States Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS

Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the Programs, including documentation and technical data, shall be subject to the licensing restrictions set forth in the applicable Oracle license agreement, and, to the extent applicable, the additional rights set forth in FAR 52.227-19, Commercial Computer Software--Restricted Rights (June 1987). Oracle USA, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

The Programs are not intended for use in any nuclear, aviation, mass transit, medical, or other inherently dangerous applications. It shall be the licensee's responsibility to take all appropriate fail-safe, backup, redundancy and other measures to ensure the safe use of such applications if the Programs are used for such purposes, and we disclaim liability for any damages caused by such use of the Programs.

The Programs may provide links to Web sites and access to content, products, and services from third parties. Oracle is not responsible for the availability of, or any content provided on, third-party Web sites. You bear all risks associated with the use of such content. If you choose to purchase any products or services from a third party, the relationship is directly between you and the third party. Oracle is not responsible for: (a) the quality of third-party products or services; or (b) fulfilling any of the terms of the agreement with the third party, including delivery of products or services and warranty obligations related to purchased products or services. Oracle is not responsible for any loss or damage of any sort that you may incur from dealing with any third party.

Oracle, JD Edwards, and PeopleSoft are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

THIRD PARTY SOFTWARE NOTICES

This product includes software developed by the Apache Software Foundation (http://www.apache.org/).

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The Apache Software License, Version 2.0 Copyright (c) 2004 The Apache Software Foundation. All rights reserved.

The Apache Software License, Version 1.1 Copyright (c) 1999-2003 The Apache Software Foundation. All rights reserved.

This product includes software developed by Advanced Software Engineering (http://www.advsofteng.com)

Advanced Software Engineering - Chart Director

* This software is based in part on the work of the Independent JPEG Group

* This software is based in part of the work of the FreeType Team

Copyright © 2004 Advanced Software Engineering Limited

This product includes software developed by Sitraka Inc.

Sitraka is owned by Quest Software (http://www.quest.com/).

Copyright © 2000, 2001 by Sitraka Inc. All Rights Reserved.

Sitraka, the Sitraka logo, JClass, JClass Chart, JClass Chart 3D, JClass DataSource,

JClass Elements, JClass Field, JClass HiGrid, JClass JarMaster, JClass LiveTable,

JClass PageLayout, and JClass SwingSuite are trademarks of Sitraka Inc.

Parts of JClass code use material Copyright 1998, James R. Weeks and BioElectroMech as part of the work done by the Independent JPEG group. Use of this software for JPEG encoding is covered by this license: The JpegEncoder and its associated classes are Copyright (c) 1998, James R. Weeks and BioElectroMech.

THIS SOFTWARE IS PROVIDED BY THE AUTHOR AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This product includes software developed by Tanuki Software (http://wrapper.tanukisoftware.org/)

Tanuki Software – Java Service Wrapper

All SET components were released under the following license, which must be included verbatim in the documentation of any Oracle application incorporating the Tanuki software:

Copyright (c) 2001 Silver Egg Technology

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sub-license, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE ANDNON-INFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

This product includes software developed by John Resig (http://jquery.com/)

jQuery - Copyright (c) 2008 John Resig

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

This product includes JSON software (http://json.org/)

JSON-lib 2.0

Copyright (c) 2002 JSON.org

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

Table of Contents

TABLE OF FIGURES	6
ABOUT THIS GUIDE	8
CHAPTER 1 INSTALLATION ROADMAP	9 9
CHAPTER 2 SYSTEM INFORMATION	. 10 . 10
Installation Prerequisites	10
System Requirements	10
CHAPTER 3 INSTALLING WEBSPHERE 6.0	. 11 . 11
Step 1: Install the WebSphere Application Server	. 11
Step 2: Install the IBM HTTP Server	21
Step 3: Start WebSphere Services as Windows Services	33
Step 4: Configure the Java Virtual Machine	35
CHAPTER 4 INSTALLING THE WEBSPHERE 6.0 FIXPACKS	39 39
Step 1: Download the Fixes	39
Step 2: Install the Fix Packs Installing Refresh Pack 2 Installing Fix Pack 21 Installing the SDK 1.4.2 Cumulative Fix	42 42 48 52
Step 3: Recycle the WebSphere Services Recycling the IBM HTTP Server Recycling the WebSphere Application Server	57 57 60
CHAPTER 5 INCREASING THE HTTP TIMEOUT PERIOD	63 63

Table of Figures

Figure 1: launchpad.bat	11
Figure 2: WebSphere Launchpad Screen	11
Figure 3: WebSphere Installation Wizard Welcome Screen	12
Figure 4: Software License Agreement	13
Figure 5: System Prerequisites Check	13
Figure 6: Default Installation Directory	13
Figure 7: Customized Installation Directory	14
Figure 8: Select Custom Installation	14
Figure 9: Select Features to Install	15
Figure 10: List of Ports	15
Figure 11: Node and Host Name	16
Figure 12: Windows Service Definition	16
Figure 13: Summary Screen	17
Figure 14: Installation in Progress	17
Figure 15: Installing Core Components	18
Figure 16: Installation Successfully Completed	18
Figure 17: First Steps Screen	19
Figure 18: Validating the Installation	20
Figure 19: InstallShield Wizard for the IBM HTTP Server	21
Figure 20: License Agreement Screen	21
Figure 21: Installation Directory	22
Figure 22: Installation Setup Type	22
Figure 23: Run IBM HTTP Server as a Windows Services	23
Figure 24: Installation Summary Screen	23
Figure 25: Installing IBM HTTP Server	24
Figure 26: Installation Completed	24
Figure 27: Plugin Installation Wizard Welcome Screen	25
Figure 28: WebSphere Support Site	25
Figure 20: Software License Agreement	26
Figure 30: System Prerequisites Check	26
Figure 31: Select Web Server to Configure	27
Figure 32: Select a Local Installation	27
Figure 33: Specify the Target Directory for the Plug-ins	28
Figure 34: Specify the Server Location	28
Figure 35: Specify the bttnd conf File and the Web Server Port	28
Figure 36: Specify the Web Server Definition Name	20
Figure 37: Specify Path to plug.in-cfg yml File	20
Figure 38: Installation Summary Screen 1 of 2	20
Figure 30: Installation Summary Screen 2 of 2	20
Figure 40: Installation Progress Screen 1 of 3	30
Figure 41: Installation Progress Screen 2 of 3	30
Figure 42: Installation Progress Screen 3 of 3	21
Figure 42: Installation Flogless Screen 1 of 2	31
Figure 44: Installation Summary Screen 2 of 2	21
Figure 44. Installation Summary Science 2 of 2	20
Figure 45. Return to Laundhpau Dase Screen	32 22
Figure 40. WebSphere Services III the Control Faher	32 22
Figure 49. Set WebSphere Stortup Type to Autometic	33 22
Figure 40. Set WebSphere Stattup Type to Automatic	აა ე⊿
Figure 49. Start IDIVI TITIF Server and IDIVI WebSphere Application Server Vo - SerVerT	ა4 25
Figure 50. WebSphere Administrative Console Login Screen	35
Figure 51. Application Servers > server1 > Dresses Definition	30
	30

Figure 53: Java Virtual Machine	36
Figure 54: Set Initial and Maximum Heap Size	37
Figure 55: Return to the Process Definition Screen	. 38
Figure 56: Recommended WebSphere Fixes	. 39
Figure 57: Recommended Fixes for WebSphere 6.0	40
Figure 58: Fix Packs for WebSphere 6.0	41
Figure 59: Downloaded Fix Pack Files	41
Figure 60: Turn off WebSphere Services	. 42
Figure 61: WebSphere\AppServer\updateinstaller\ directory	42
Figure 62: Update Installer Welcome Screen	43
Figure 63: Confirm Installation Directory	43
Figure 64: Install Maintenance Package	. 44
Figure 65: Maintenance Package Name	. 44
Figure 66: Update the JDK	44
Figure 67: Update the JDK Files	45
Figure 68: Relaunch the Update Wizard	45
Figure 69: Install Maintenance Package	. 46
Figure 70: Enter Maintenance Package Name	46
Figure 71: Update Summary Screen	46
Figure 72: Upgrade Successful	47
Figure 73: New WebSphere\AppServer\updateinstaller Directory	48
Figure 74: 6.0.2-WS-WAS-WinX32-FP00000021.pak	48
Figure 75: Click update.exe to Launch the Installation Wizard	48
Figure 76: Installation Wizard Welcome Screen	49
Figure 77: Installation Directory	49
Figure 78: Select Install Maintenance Package	. 50
Figure 79: Confirm Maintenance Package Name	50
Figure 80: Installation Summary Screen	50
Figure 81: Installing the Package	51
Figure 82: Installation Complete	51
Figure 83: Installation Wizard Welcome Screen	52
Figure 84: Select Target Installation Directory	53
Figure 85: Select Install Maintenance Package	53
Figure 86: Confirm Maintenance Package Name	53
Figure 87: Undate JDK Message	54
Figure 88: Undating IDK	54
Figure 89: JDK Undate Complete	54
Figure 00: Select "Install Maintenance Package"	55
Figure 91: Confirm Maintenance Package Name	55
Figure 92: Pre-Installation Information Screen	55
Figure 03: Post-Installation Information Screen	56
Figure 0/: Restart IBM HTTP Server	57
Figure 05: java ava Process	58
Figure 06: WebSphere/AppServer/logs/cerver1/server1 rid	50
Figure 90. WebSphere Appleation Server	60
Figure 97. Stop WebSphere Application Server	60
Figure 90. No java.exe Flocess indicates WebSphere Stopped	61
Figure 99. No server Lorifice WebSphere Stortup	62
Figure 100. java.exe veniles webopilere oldilup	62
Figure 101. Low CFU Usage indicates webopitete Statting	62
Figure 102. http://www.communectional.communections.com	62
Figure 104: Undeted Timpout Period 2000	64
Figure 104: Opdated Timeout Period = 3000	64

About this Guide

Welcome to the *WebSphere 6.0 Installation Guide*. This guide describes how to install and configure the WebSphere Application Server 6.0 to use as the application server for Insight V5.1.0.

This document is intended for experienced systems administrator.

	Also, this installation will show how to install and utilize the IBM HTTP Server as the Web Server. It is possible to use Microsoft IIS server as the Web Server in
NOTE	conjunction with WebSphere but that is out of scope for this document. Make sure that Microsoft IIS is uninstalled or at least turned off before attempting to install and use the IBM HTTP Server as explained in this document.

If you need assistance with Oracle Insurance Insight, please log a Service Request using My Oracle Support at <u>http://metalink.oracle.com</u>.

Address any additional inquiries to:

Oracle Corporation World Headquarters 500 Oracle Parkway Redwood Shores, CA 94065 U.S.A.

Worldwide Inquiries: Phone: +1.650.506.7000 Fax: +1.650.506.7200 oracle.com

Installation Roadmap

Step	Action	Go to Chapter
Step 1: Prepare to Install WebSphere	 Obtain ID/password for your Local Administrator account Verify system software/hardware requirements 	Chapter 2: System Information
Step 2: Install WebSphere	 Install the WebSphere Application Server Install the IBM HTTP Server Start WebSphere services as Windows services Configure the Java Virtual Machine 	Chapter 3: Installing WebSphere
Step 3: Install WebSphere 6.0 Fixpacks	 Download the fixpacks Install the fixpacks a. Install Refresh Pack 2 b. Install Fixpack 21 c. Install JDK Cumulative Fixpack 3. Recycle the WebSphere services 	Chapter 4: Installing the WebSphere 6.0 Fixpacks
Step 4: Increase the HTTP Timeout Period	Edit the IBMHttpServer\conf directory\ httpd.conf to increase the HTTP Timeout period	Chapter 5: Increasing the HTTP Timeout Period

System Information

Installation Prerequisites

Prior to installing WebSphere Application Server 6.0 you will need to know the password for the local Administrator account. Please have this information ready before starting.

System Requirements

Skywire Software recommends the following as the minimum requirements for Insight.

Operating Environment:

• Windows Server 2003

Database Platform:

- Microsoft SQL Server 2005 Service Pack 2, Enterprise Edition
 - * Insight requires this version to enable specific features such as: Table Storage Partitions and VarDecimal Storage Format

Application Server Environment:

- IBM WebSphere Application Server Version 5.1, V6.0
- * Contact Skywire Software for other J2EE environments

NOTE Netscape[®] and Mac[®] OS browsers are unable to fully support Insight.

End-user Workstation Requirements:

- P3 500 MHz processor or faster
- 512 MB of RAM or greater
- 20 MB of free disk space
- Microsoft Windows 2000 or XP
- Microsoft Internet Explorer Version 6.0 and later
- Adobe Acrobat Reader 5.0 and later

Installing WebSphere 6.0

Step 1: Install the WebSphere Application Server

 Locate your IBM WebSphere 6.0 setup files and double-click on launchpad.bat to launch the WebSphere Installation Wizard. If you are installing from a CD, the Wizard launches automatically when you insert the CD into the CD drive.



Figure 1: launchpad.bat

The Launchpad screen appears.

🕲 Launchpad Base		
WebSphera Application Server		
Welcome	WebSphere Application Server Version 6.0	
Solution Installation Diagrams	IBM WebSphere Application Server, Version 6.0 is an integrated platform that contains an Application Server, Web development tools, a Web server, and additional supporting software and documentation. This launchpad may serve as a single point of reference for installing your	
WebSphere Application Server Installation	Application Server environment.	
IBM HTTP Server Installation	See the <u>solution installation diagrams</u> for illustrations of common application server environments.	
Web Server plug-ins Installation	To begin, select an entry from the list below. If you would like help documentation and support links to these concepts before initializing a wizard interface, select from the list to the left.	
Application Clients Installation	🗴 Launch the installation wizard for WebSphere Application Server	
Application Server Toolkit Installation	🖄 Launch the installation wizard for IBM HTTP Server	
	🖄 Launch the installation wizard for Web server plug-ins	
	🖄 Launch the installation wizard for WebSphere Application Clients	
	Launch the installation wizard for the Application Server Toolkit on Linux (Intel) and Windows platforms	
	Important: Before installing a Web server plug-in, you must install a version of WebSphere Application Server and a supported Web server.	
	(C) Copyright IBM Corporation 2004. IBM, the IBM logo, and WebSphere are trademarks of International Business Machines Corporation in the United States, other countries or both. Rational is a registered trademark of Rational Software Corporation and/or IBM Corporation in the United States, other countries or both. Other company, product and service names may be trademarks or service marks of others.	

Figure 2: WebSphere Launchpad Screen

Next ≻

Cancel

< Back

	In this guide, we are concretely installing the following components:	
 the WebSphere Application Server the IBM HTTP Server, and 	In this guide, we are separately installing the following components.	
	the WebSphere Application Server	
	the IBM HTTP Server, and	
NOTE	 the Web server plug-in for these two components. 	
	These components will all be installed on the same server machine. It is possible to have each installed on separate machines but that is beyond the scope of this document.	

2. Click on the Launch the installation Wizard for WebSphere Application Server link to launch the installation Wizard:



The WebSphere installation Wizard welcome screen appears: 월 Installation wizard Welcome to IBM WebSphere Application Server, V6 New installation features for Version 6 include separately installable components on the product CD: The WAS directory includes the installation program for the Application Server. Separate installation directories and programs exist for IBM HTTP Server. the Web server plug-ins, and the application clients. WebSphere, software These programs do not install as part of the Application Server installation. Use the launchpad in the root directory of the CD or in the directory where you unpack a downloaded Application Server to launch available installation programs. See the readme file in the same directory if you cannot start the launchpad. See Help for installation panels (WAS/docs/InstallGuide_en.html#panels) for panel-by-panel field descriptions and help.

Figure 3: WebSphere Installation Wizard Welcome Screen

Click Next to continue.

3. Click **Next>.** The software license agreement screen appears.



Figure 4: Software License Agreement

4. Accept the terms and click Next>. The System prerequisites screen appears.



Figure 5: System Prerequisites Check

5. Click <u>Next></u>. The Wizard asks you to specify an installation directory.

🕲 Installation wizard		×
	Installation directory IBM WebSphere Application Server, V6 will be installed to the specified directory. You can specify a different directory or click Browse to select a directory. Directory name:	
	Browse	j
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel	-)



6. Either accept the default locations or specify your own. If you plan to install more than one version of WebSphere, it's a good idea to use something like **C:\IBM\WS6.0** as the base location where WS6.0 represents the version of WebSphere. For example:

🍪 Installation wizard	
	Installation directory IBM WebSphere Application Server, V6 will be installed to the specified directory. You can specify a different directory or click Browse to select a directory. Directory name: CNIBMWVS6.0WebSphereVAppServer
	Browse
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 7: Customized Installation Directory

 Click <u>Next></u>. The Wizard asks you to choose either a Full or Custom setup type. Performing a Custom installation allows you to avoid installation of all the sample applications and saves some time.

🕲 Installation wizard	
	Choose the setup type that best suits your needs.
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 8: Select Custom Installation

8. Choose **Custom installation** and click <u>Next>.</u> A list of available features to install appears.

🔮 Installation wizard	
Installation wizard	Select IBM WebSphere Application Server Network Deployment, V6 features to install. See the InstallGuide_en.html file in the docs directory for descriptions of the features. Product Installation Core product files Application Server Samples Javadocs
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 9: Select Features to Install

9. Unselect the **Application Server Samples** and click <u>Next>.</u> A list of ports appears.

🍪 Installation wizard		
	The values in the following fields define the ports for the Application 5 not conflict with other profiles in this installation. Another installation Application Server or other programs might use the same ports. To a port conflicts, verify that each port value is unique.	Server and do of WebSphere woid run-time
	Administrative console port (Default 9060):	9060
	Administrative console secure port (Default 9043):	9043
	HTTP transport port (Default 9080):	9080
	HTTPS transport port (Default 9443):	9443
	Bootstrap port (Default 2809):	2809
webSphere, software	SOAP connector port (Default 8880):	8880
	SAS SSL ServerAuth port (Default 9401):	9401
	CSIV2 ServerAuth listener port (Default 9403):	9403
	CSI⊻2 MultiAuth listener port (Default 9402):	9402
	ORB listener port (Default 9100):	9100
	High availability manager communication port (Default 9353):	9353
	Service Integration Port (Default 7276):	7276
	Service Integration Secure Port (Default 7286):	7286
	Service Integration $\underline{M}Q$ Interoperability Port (Default 5558):	5558
	Service Integration MQ Interoperability Secure Port (Default 5578):	5578
InstallShield		
	< <u>Back</u> Next>	<u>C</u> ancel

Figure 10: List of Ports

10. Click <u>Next></u>. The Wizard asks you for the node name and hostname.

🗳 Installation wizard	
	Node and host names Specify a node name and a host name. Node name: DELL2Node01 Host name: DELL2
WebSphere. software	Node name:The node name is for administration and must be unique.Host name:The host name is the domain name system (DNS) name (short or long) or the IP address of this computer.
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 11: Node and Host Name

11. Accept the defaults and click <u>Next></u>. The Wizard asks you choose whether to run WebSphere as a Windows service.

🍪 Installation wizard	
WebSphere software	Windows service definition Choose whether to use a Windows service to run the WebSphere Application Server, and configure startup and recovery actions. Run the Application Server process as a Windows service. Log on as a local system account Log on as a specified user account User name: Password: Startup type: Manual ▼ The user account that runs the Windows service must have the following user rights: Act as part of the operating system Log on as a service
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 12: Windows Service Definition

12. Accept the defaults and click **<u>Next></u>**. A summary of features that will be installed appears on the screen.



Figure 13: Summary Screen

13. Review the installation summary and click **<u>Next></u>**. The installation begins:



Figure 14: Installation in Progress

...and the core components will be installed

🕲 Installation wizard		
	Installing component: image.config.instance	
THE MILLER HERE .	< <u>B</u> ack <u>N</u> ext >	<u>C</u> ancel

Figure 15: Installing Core Components

When the installation has completed the following screen appears.

🕙 Installation wizard	
	Installation is complete
	The core product files for IBM WebSphere Application Server, V6, installed successfully.
	Use the First steps console to run an installation verification test, start and stop your Application Server, or link to other information and features relating to your Application Server.
	✓ Launch the First steps console
WebSphere. software	By default, the administrative console does not have security enabled. The information center describes how to set up and enable user authentication for the administrative console. http://publib.boulder.ibm.com/infocenter/ws60help/index.jsp
InstallShield	
	< <u>B</u> ack Fi <u>n</u> ish <u>C</u> ancel

Figure 16: Installation Successfully Completed

14. Click Finish to close this screen and open the First Steps console.



Figure 17: First Steps Screen

15. Click Installation verification to test the installation.

A separate window appears displaying a list of diagnosis messages.

First steps output - Installation verification		
Server name is:server1 Profile name is:default Profile name is:default Profile type is:default Cell name is:DELL2Node01 Cell Node name is:DELL2Node01 Current encoding is:Cp1252 Server port number is:9080 IVTL0020I: Could not connect to Application Server, waiting for server to start IVTL0010I: Connecting to the WebSphere Application Server to start IVTL0010I: Could not connect to Application Server, waiting for server to start Start running the following command:emd exe 6* 0* 0* 000 WebSphere AppServer/profiles/default/bin/startServer.bat* server1 - profileName defau > mequest to start this server will be completed by starting the > associated Windows Service. >ADMU/0116I: Tool information is being logged in file >	It	
 C:\IBM\WS6.0\WebSphere\AppServer\profiles\default\logs\server1\startServer.log ADMU0128I: Starting tool with the default profile 		
> >ADMU3100I: Reading configuration for server: server1 > >ADMU3200I: Server launched. Waiting for initialization status.		
> >ADMU3000I: Server server1 open for e-business; process id is 2460 >		
IVTL0015I: WebSphere Application Server DELL2 is running on port 9080 for profile default Testing server using the following URL:http://DELL2:9080/ivt/ivtserver?parm2=ivtservlet IVTL0050: Servlet Engine Verification Status - Passed Testing server using the following URL:http://DELL2:9080/ivt/ivtserver?parm2=ivtAddition.jsp IVTL0055I: JSP Verification Status - Passed Testing server using the following URL:http://DELL2:9080/ivt/ivtserver?parm2=ivtAddition.jsp IVTL0056I: JSP Verification Status - Passed Testing server using the following URL:http://DELL2:9080/ivt/ivtserver?parm2=ivtAddition.jsp IVTL0056I: JSP Verification Status - Passed IVTL0060I: EJB Verification Status - Passed IVTL0035I: Scanning the file C:\\BMWVS6.0WvebSphere\AppServer\profiles\default\logs\server1\SystemOut.log for errors and warnings IVTL0040I: 0 errors/warnings were detected in the file C:\\BMWVS6.0WvebSphere\AppServer\profiles\default\logs\server\profiles\default\logs\server\profiles\default\logs\server\profiles\default\logs\server\profiles\default\logs\server\profiles\default\logs\server\profiles\default\logs\server1\SystemOut.log IVTL0040I: 0 errors/warnings were detected in the file C:\\BMWVS6.0WvebSphere\AppServer\profiles\default\logs\server\profiles\default\logs\server1\SystemOut.log IVTL0080I: IvT Verification Succeeded IVTL0080I: Installation Verification is complete		

Figure 18: Validating the Installation

When the following message appears then the installation is complete:

Installation verification is complete

16. Click the Exit link to exit the First Steps screen and return to the Launchpad screen.

Step 2: Install the IBM HTTP Server

1. Click on the <u>Launch the installation Wizard for IBM HTTP Server</u> link on the Launchpad screen to start the installation Wizard:



Figure 19: InstallShield Wizard for the IBM HTTP Server

2. Click <u>Next>.</u> The license agreement appears.

🙆 IBM HTTP Server 6.0 Inst	aller	
	Software License Agreement	
WebSphere. software	Please read the following license agreement carefully.	
	International Program License Agreement	^
	Part 1 - General Terms	
	BY DOWNLOADING, INSTALLING, COPYING, ACCESSING, OR USING THE PROGRAM YOU AGREE TO THE TERMS OF THIS AGREEMENT. IF YOU ARE ACCEPTING THESE TERMS ON BEHALF OF ANOTHER PERSON OR A COMPANY OR OTHER LEGAL ENTITY, YOU REPRESENT AND WARRANT THAT YOU HAVE FULL AUTHORITY TO BIND THAT PERSON, COMPANY, OR LEGAL ENTITY TO THESE TERMS. IF YOU DO NOT AGREE TO THESE TERMS,	•
	accept the terms in the license agreement	
	O I do not accept the terms in the license agreement	
InstallShield		
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel	

Figure 20: License Agreement Screen

3. Accept the terms and click <u>Next></u>. The Wizard asks you for an installation directory.

🕲 IBM HTTP Server 6.0 Ins	taller 📃 🗖 🔀
WebSphere. software	Click Next to install "IBM HTTP Server 6.0" to this directory, or click Browse to install to a different directory. <u>D</u> irectory Name: CNBMWS6.0NBM HTTP Server
InstallShield	B <u>r</u> owse
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 21: Installation Directory

 Select the base directory that you used for the Application Server (i.e., C:\IBM\WS6.0)and click <u>Next></u>. The Wizard asks you for the installation setup type.

😫 IBM HTTP Server 6.0 Inst	aller 📃 🗖	×
WebSphere. software WebSphere. software InstallShield	Choose the setup type that best suits your needs. • Typical • The program will be installed with the suggested configuration. • Custom • Custom • Developer Installation(non-administrative) • This setup type includes only the essentials for running IHS. This • Installation does not require administrative privileges.	

Figure 22: Installation Setup Type

5. Select the **Typical** setup and click <u>Next></u>. The Wizard asks whether to run the IBM HTTP Server as a Windows Service.

🗳 IBM HTTP Server 6.0 Insta	ller 🔲 🗖 🗖 🔀
InstallShield	Iter Run IBM HTTP Server as a Windows Service Run IBM HTTP Administration as a Windows Service Log on as Local System account Log on as a specified user account User name: Password: Startup Type: Automatic The user account specified to run the Windows Service must have the following user rights: Act as part of the operating system Log on as a service Act as part of the operating system Log on as a service

Figure 23: Run IBM HTTP Server as a Windows Services

6. Select Log on as Local System account and click <u>Next></u>. A summary of the components to be installed appears on the screen.

🕲 IBM HTTP Server 6.0 Insta	iller	
WebSphere. software	IBM HTTP Server 6.0 will be installed in the following location: C:\\BM\W\S6.0\\BM HTTP Server with the following features: HTTPServer base Security for a total size: 97.1 MB	
	< <u>B</u> ack <u>N</u> ext >	<u>C</u> ancel

Figure 24: Installation Summary Screen

7. Click <u>Next></u>. The installation begins:

🕲 IBM HTTP Server 6.0 Insta	ller	
WebSphere. software	Installing IBM HTTP Server 6.0. Please wait C:\IBM\WS6.0\IBM HTTP Server\include\http_connection.h	
InstallShield	43%	
	< <u>B</u> ack Next >	<u>C</u> ancel

Figure 25: Installing IBM HTTP Server

This screen appears upon the successful completion of the installation:

🕲 IBM HTTP Server 6.0 Inst	aller 📃 🗖 🔀
WebSphere. software	The InstallShield Wizard has successfully installed IBM HTTP Server 6.0. Choose Next to continue the wizard.
InstallShield	
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 26: Installation Completed

8. Click <u>Next></u>. The following screen appears. This screen asks you to install the WebSphere plug-ins.

🗳 IBM HTTP Server 6.0 Insta	aller 📃 🗖 🔀
WebSphere. software	Launch the WebSphere Application Server - Plugin install For information on configuring and using the IBM HTTP Server, refer to the on-line IBM HTTP Server Information Center. http://publib.boulder.ibm.com/infocenter/ws60help/index.jsp?topic=/com.ibm. websphere.ihs.doc/welcome_ihs.html
InstallShield -	< <u>B</u> ack Fi <u>n</u> ish Cancel

9. Click Finish. The welcome screen for the plug-in installation Wizard appears.

\varTheta Plug-ins installation w	izard for Version 6
WebSphere software	Welcome to Web server plug-ins for IBM WebSphere Application Server V6. This wizard installs Web server plug-ins for IBM WebSphere Application Server V6 on your computer.
	Select an item from the following list to learn more about the installation: Installation roadmap: Overview and installation scenarios Plug-ins section of the Getting Started guide Installing the plug-ins also installs the required level of GSKit. Click Next to continue
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 27: Plugin Installation Wizard Welcome Screen

 To learn more about the plug-in installation, check a box and click the <u>Next></u> button. When you do you, your browser is launched and you are transferred to WebSphere's support site.



Figure 28: WebSphere Support Site

 To continue with the installation without viewing the documentation, unselect the box and click the <u>Next></u> button. The software license agreement for the plug-ins appears.

Plug-ins installation	wizard for Version 6	×
	Software License Agreement	
	Please read the following license agreement carefully.	
WebSphere. software /	International Program License Agreement	^
	Part 1 - General Terms	
	BY DOWNLOADING, INSTALLING, COPYING, ACCESSING, OR USING THE PROGRAM YOU AGREE TO THE TERMS OF THIS AGREEMENT. IF YOU ARE ACCEPTING THESE TERMS ON BEHALF OF ANOTHER PERSON OR A COMPANY OR OTHER LEGAL ENTITY, YOU REPRESENT AND WARRANT THAT YOU HAVE FULL AUTHORITY TO BIND THAT PERSON, COMPANY, OR LEGAL ENTITY TO THESE TERMS. IF YOU DO NOT AGREE TO THESE TERMS,	>
¶¥j ⊕	● I accept the terms in the license agreement	
Som Weer	I do not accept the terms in the license agreement	
InstallShield		
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel	

Figure 29: Software License Agreement

10. Accept the terms and click **<u>Next></u>**. The Wizard will run a prerequisite check of your system.

Plug-ins installation	wizard for Version 6
WebSphere software	System prerequisites check The installation wizard checks your system to determine whether a supported operating system is running and whether the operating system has the appropriate service packs and patches. After checking prerequisites, the installation wizard checks for existing WebSphere Application Server products. Your system completed the prerequisites check successfully.
InstallShield	< Back Next > Cancel



11. Click <u>Next></u>. The system asks you to select the server to configure.

Plug-ins installation wizard for Version 6		
	Select the Web server to configure. All plug-in binaries are installed, but only selected Web servers are configured:	
WebSphere software	None IBM HTTP Server V6 Anache Web Server V2	
	Control Control V2 Control	
	 Microsoft Internet Information Services V6 Microsoft Internet Information Services V5 	
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel	

Figure 31: Select Web Server to Configure

12. Select **IBM HTTP Server V6** and click <u>Next></u>. The Wizard asks you for the location of the server.

\varTheta Plug-ins installation	wizard for Version 6
WebSphere software	Install the Web server plug-ins to the machine where the Web server exists. When the Application Server and Web server exist on the same machine, choose the local installation scenario. When the Application Server and the Web server are not on the same machine, choose the remote installation scenario.
	For more information about installation scenarios, see the Installation roadmap on the Welcome panel.
	Select the installation scenario that matches your environment: Web server machine (remote) WebSphere Application Server machine (local)
InstallShield	< Back Next > Cancel

Figure 32: Select a Local Installation

13. Choose the local installation scenario and click **<u>Next></u>**. The Wizard asks you for the plug-in installation directory.

Plug-ins installation w	rizard for Version 6	
	Installation location of the Web server plug-ins for WebSphere Applica	ation Server
	Web server plug-ins installation location:	
WebSphere software	C:\IBMWVS6.0\Plugins	
	ſ	Browse
InstallShield		
	< <u>B</u> ack <u>N</u> ext >	<u>C</u> ancel

Figure 33: Specify the Target Directory for the Plug-ins

14. Select the target directory and click **<u>Next></u>**. The Wizard asks you for the location of the server.

\varTheta Plug-ins installation v	rizard for Version 6
	Provide the installation location of WebSphere Application Server Version 6.
WebSphere software	Installation location of WebSphere Application Server V6:
	C:\IBMWVS6.0WVebSphere\AppServer
	Browse
InstallShield	
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 34: Specify the Server Location

15. Verify the location of the application server and click **Next>.** The Wizard asks you for the location of the **httpd.conf** file and the Web server port.

Plug-ins installation wizard for Version 6		
	Select the Web server configuration files and identify the Web server port to configure the Web server definition.	
WebSphere software	Select the existing IBM HTTP Server httpd.conf file:	
	C:\IBMWVS6.0\IBM HTTP Server\confthttpd.conf	
	Browse	
	Specify the Web server port:	
	80	
InstallShield		
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel	

Figure 35: Specify the httpd.conf File and the Web Server Port

16. Browse to the **httpd.conf** file location and specify the Web server port, and click <u>Next></u>. The Wizard asks you for a Web Server definition name.

Plug-ins installation	wizard for Version 6	
WebSphere software	A Web server definition lets you manage a Web server through the admi console. Specify a unique Web server definition name: webserver1	nistrative
InstallShield		
	< <u>B</u> ack <u>N</u> ext >	<u>C</u> ancel

Figure 36: Specify the Web Server Definition Name

17. Enter a name and click <u>Next></u>. The Wizard asks you to confirm the path to the plug-in-cfg.xml file.

Plug-ins installation v	vizard for Version 6
	Select the plugin-cfg.xml file to use for the selected Web server. The Wizard uses the following location below to generate a plugin-cfg.xml file if one does not exist. If you change the location, the plugin-cfg.xml file must exist.
WebSphere. software	Web server plugin-cfg.xml file:
	C:\IBMWVS6.0\WebSpherelAppServer\profiles\default\config\cells\DELL2Node01Cell\nodes\webserver1_node\servers\webserver1\plugin-cfg.xml
	Browse
InstallShield	
	< <u>Back</u>



18. Click **<u>Next></u>**. The Wizard displays the first summary screen of the configuration.

Plug-ins installation	wizard for Version 6
	The wizard detects a default stand-alone Application Server that does not have a Web server definition.
WebSphere. software	Web server to configure: IBM HTTP Server V6
	Web server definition: webserver1
	Profile name: default
	Plug-in configuration file: C:\IBM\WVS6.0\WVebSphere\AppServer\profiles\default\config\cells\DELL2Node 01Cell\no(
matanometa -	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 38: Installation Summary Screen 1 of 2

19. Click <u>Next></u>. The Wizard displays the second summary screen of the configuration.

Plug-ins installation wizard for Version 6					
	Please read the summary information below.				
WebSphere software	Web server plug-ins for WebSphere Application Server will be installed in the following location: C:\IBM\WS6.0\Plugins				
	for a total size: 89.5 MB				
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel				

Figure 39: Installation Summary Screen 2 of 2

20. Click <u>Next></u>. The installation begins.

Several screens will appear to allow you to follow the progress of the installation.

🕀 Plug-ins installation w	izard for Version 6
	Installing Web server plug-ins for WebSphere Application Server. Please wait
WebSphere software	Extracting
	0%
InstallShield	
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 40: Installation Progress Screen 1 of 3

Plug-ins installation wizard for Version 6				
WebSphere software	Installing component: prereq.jdk			
	23%			
InstallShield				
	< <u>B</u> ack <u>N</u> ext >	<u>C</u> ancel		

Figure 41: Installation Progress Screen 2 of 3

Plug-ins installation v	vizard for Version 6
	Installing Web server plug-ins for WebSphere Application Server. Please wait
WebSphere software	Extracting
	0%
InstallShield -	
	< Back Next > Cancel

Figure 42: Installation Progress Screen 3 of 3

When the installation finishes the following summary screen appears:

Plug-ins installation	wizard for Version 6
\rightarrow	A stand-alone Application Server is now configured with a Web server definition. See the following details for more information.
WebSphere software	Web server to configure: IBM HTTP Server V6
A	Web server definition: webserver1
	Profile name: default
1	Plug-in configuration file: C:\IBM\WS6.0\WebSphere\AppServer\profiles\defaulf\config\cells\DELL2Node 01Cell\nodes\webserver1_node\servers\webserver1\plugin-cfg.xml
InstallShield	
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 43: Installation Summary Screen 1 of 2

21. Click **<u>Next></u>**. The summary information below appears.

Plug-ins installation wizard for Version 6					
	Please read the summary information below.				
WebSphere software	Installation is complete. Installation and configuration successful.				
	Check the following log file for details: C:\IBMWVS6.0\Plugins\logs\install\log.txt				
	The plug-in binaries are in the following directory: C:\IBM\WVS6.0\Plugins				
InstallShield					
	< Back Next >	<u>F</u> inish			

Figure 44: Installation Summary Screen 2 of 2

🗳 Launchpad ND						
WebSphere Application Server Network Deployment						
Welcome	WebSphere Application Server Network Deployment Version 6.0					
Solution Installation Diagrams WebSphere Application Server Network	IBM WebSphere Application Server, Version 6.0 is an integrated platform that contains an Application Server, Web development tools, a Web server, and additional supporting software and documentation. This launchpad may serve as a single point of reference for installing your Application Server environment.					
Deployment Installation	See the <u>solution installation diagrams</u> for illustrations of common application server environments.					
IBM HTTP Server Installation						
Web Server plug-ins Installation	To begin, select an entry from the list below. If you would like help documentation and support links to these concepts before initializing a wizard interface, select from the list to the left.					
Application Clients Installation	🖄 Launch the installation wizard for WebSphere Application Server					
Application Server Toolkit Installation	🖄 Launch the installation wizard for IBM HTTP Server					
	🖄 Launch the installation wizard for Web server plug-ins					
	🖄 Launch the installation wizard for WebSphere Application Clients					
	Launch the installation wizard for the Application Server Toolkit on Linux (Intel) and Windows platforms					
	Important: Before installing a Web server plug-in, you must install a version of WebSphere Application Server and a supported Web server.					
	(C) Copyright IBM Corporation 2004. IBM, the IBM logo, and WebSphere are trademarks of International Business Machines Corporation in the United States, other countries or both. Rational is a registered trademark of Rational Software Corporation and/or IBM Corporation in the United States, other countries or both. Other company, product and service names may be trademarks or service marks of others.					

22. Click **<u>Finish</u>**. You will be returned to the Launchpad screen.

Figure 45: Return to Launchpad Base Screen

- 23. Close this window.
- 24. Open Services under the Control Panel to see the new IBM services and verify that WebSphere is running. You can also make it Automatic so that it will start when the machine is rebooted. See the next section to automate the startup process.

Services						
<u>File A</u> ction <u>V</u> iew	Help					
) 🗟 😫 🕨 🔳 🗉 🖦					
🍓 Services (Local)	🖏 Services (Local)					
	IBM WebSphere Application Server	Name 🛆	Description	Status	Startup Type	
	V6 - DELL2Node01	HTTP SSL	This servic	Started	Manual	
		W Human Interface Device Access	Enables ge		Disabled	
	Stop the service	BM HTTP Server 6.0	IBM_HTTP		Automatic	
		BIBM WebSphere Application Server V6 - DELL2Node01	Controls th	Started	Automatic	~
	Description:	K				>
	Extended Standard					

Figure 46: WebSphere Services in the Control Panel

Step 3: Start WebSphere Services as Windows Services

Starting the WebSphere Server from the **First Steps** screen or from the Windows Menu runs the service within the scope of the current user. This means that when the current user logs out of windows, the service stops.

To run WebSphere services outside of the scope of the current user session, use the Windows Services that were implemented during this installation.

1. Open Services under your machine's Control Panel.

Services							
<u>Fi</u> le <u>A</u> ction ⊻iew	Help						
← → 🔳 🗗 🕻) 🖪 😫 🕨 🗉 🗉 🖦						
🆓 Services (Local)	Services (Local)	-					
	IBM WebSphere Application Server	Name 🔺	Description	Status	Startup Type	Log On As	<u>^</u>
	V5 - server1	BIBM HTTP Administration 1.3.28			Automatic	.\Administrator	
	Charle the entrying	Server 1.3.28 IBM HTTP Server 1.3.28			Automatic	.\Administrator	
	Start the service	IBM WebSphere Application Server V5 - server1	Controls th		Manual	.\Administrator	
		🍓 IMAPI CD-Burning COM Service	Manages C		Manual	Local System	
	Description:	🎇 Indexing Service	Indexes co		Manual	Local System	
	WebSohere Application Server V5 server	🎇 InstallDriver Table Manager	Provides s		Manual	Local System	
	named: server1	🍓 iPod Service	iPod hardw	Started	Manual	Local System	
		Note: Services	Manages I	Started	Automatic	Local System	
		🍓 Load Manager Scheduler	The sched	Started	Automatic	Local System	
		🍓 Logical Disk Manager	Detects an	Started	Automatic	Local System	
		🏶 Logical Disk Manager Administrative Service	Configures		Manual	Local System	~
	Extended Standard						

Figure 47: IBM WebSphere Services

- 2. Change the Log On As for each service from .\Administrator to Local System.
- 3. Turn off the **IBM HTTP Administration service** (this is only used for administration of the http server which is not needed).
- 4. Set the "IBM WebSphere Application Server v6 server1" Startup Type to Automatic.

Services								×	
<u>Eile A</u> ction <u>V</u> iew	Ele Action View Help								
← → 💽 🗗 🔮									
🍓 Services (Local)	🍇 Services (Local)								
								-	
	IBM WebSphere Application Server	Name 🛆	Description	Status	Startup Type	Log On As		^	
	V5 - server1	IBM HTTP Administration 1.3.28			Manual	Local System			
	Chart the end of	BIM HTTP Server 1.3.28			Automatic	Local System			
	Start the service	BM WebSphere Application Server V5 - server1	Controls th		Automatic	Local System			
		🦓 IMAPI CD-Burning COM Service	Manages C		Manual	Local System			
	Description:	🎇 Indexing Service	Indexes co		Manual	Local System			
	WebSphere Application Server V5 server	🏶 InstallDriver Table Manager	Provides s		Manual	Local System			
	named: server1	🍓 iPod Service	iPod hardw	Started	Manual	Local System			
		PSEC Services	Manages I	Started	Automatic	Local System			
		Scheduler Scheduler	The sched	Started	Automatic	Local System			
		Logical Disk Manager	Detects an	Started	Automatic	Local System			
		Service Disk Manager Administrative Service	Configures		Manual	Local System		~	
	Extended / Standard /								

Figure 48: Set WebSphere Startup Type to Automatic

5. Start the IBM HTTP Server and IBM WebSphere Application Server V6 – server1.

🖏 Services									
<u>File A</u> ction <u>V</u> iew	e Action View Help								
← → 💽 🚰 🕼) 🖪 👔 🕨 🗉 🗉 🖦								
🎇 Services (Local)	Services (Local)								
	IBM WebSphere Application Server	Name 🔺	Description	Status	Startup Type	Log On As	^		
	V5 - server1	IBM HTTP Administration 1.3.28	IBM_HTTP		Manual	Local System			
	Chan the equive	Server 1.3.28 IBM HTTP Server 1.3.28	IBM_HTTP	Started	Automatic	Local System			
	Restart the service	BM WebSphere Application Server V5 - server1	Controls th	Started	Automatic	Local System			
		MAPI CD-Burning COM Service	Manages C		Manual	Local System			
	Description	Notexing Service	Indexes co		Manual	Local System			
	Controls the running of an IBM	🎇 InstallDriver Table Manager	Provides s		Manual	Local System			
	WebSphere Application Server V5 server	🖏 iPod Service	iPod hardw	Started	Manual	Local System			
	named: server1	Note: Services	Manages I	Started	Automatic	Local System			
		🏶 Load Manager Scheduler	The sched	Started	Automatic	Local System			
		🍓 Logical Disk Manager	Detects an	Started	Automatic	Local System			
		🍓 Logical Disk Manager Administrative Service	Configures		Manual	Local System	~		
	Extended Standard								

Figure 49: Start IBM HTTP Server and IBM WebSphere Application Server V6 – server1

Step 4: Configure the Java Virtual Machine

1. Open the WebSphere Administrative Console from the Start menu:

Start>Programs>IBM WebSphere Application Server>Administrative Console

🥖 IBM WebSphere Application Server Administrative Login - Windows Internet Explorer 🔳 🗖 🔀
🕞 🕞 👻 🖻 http://localhost:9060/ibm/console/ 💌 🍫 🗙 Google
Here Applicatio
Welcome, please enter your information.
User ID: mel
Log in
The User ID does not require a password, and does not need to be a User ID of a user in the local user registry. It is only used to track user-specific changes to configuration data. Security is NOT enabled
Done 🔍 🔍 Docal intranet 🔍 100% 👻 🚊

Figure 50: WebSphere Administrative Console Login Screen

- 2. Enter anything for the User ID and click on the **Log in** button (the Administrative Console uses this to keep track of any edits that are made within the session).
- 3. From the menu in the left frame select Servers->Application Servers->server1.

The screen below appears:

Application servers > server An application server is a server which provides services required to run enterprise applications. Runtime Configuration General Properties Container Settings Name	Application servers	2
General Properties Container Settings Name	Application servers > server1 An application server is a server which pr Runtime Configuration	rovides services required to run enterprise applications.
Server1 Web Container Settings Run in development mode E DB Container Settings Parallel start Business Process Services Server specific Application Settings Classloader policy Multiple Messaging engines Class loading mode Parent first Messaging engines Parent first Server Infrastructure Apply OK Reset Cancel Mutiple Java and Process Management Class loader Drocess Definition	General Properties	- Container Settings
 EJB Container Settings Run in development mode Container Services Container Services Server specific Application Settings Classloader policy Multiple Class loading mode Parent first Messaging engines Messaging engines Messaging engines Messaging engines SIB service 	server1	Web Container Settings
Container Services Concel Cancel Concess Definition Class loading mode Parent first OK Reset Cancel Cancel Cancel Class Loader Process Definition Environment Entries Process Execution		EJB Container Settings
✓ Parallel start Business Process Services Server-specific Application Settings Classloader policy Multiple ✓ Class loading mode Parent first ✓ Messaging engine inbound transports Messaging engine inbound transports Messaging engine inbound transports Messaging engine inbound transports SIB service Server Infrastructure Apply OK Reset Cancel Apply OK Reset Cancel ✓ Dava and Process Management ✓ Class loader ● Process Definition ● Process Definition ● Process Execution	Run in development mode	
Server-specific Application Settings Server messaging Classloader policy Multiple Messaging engines Site service Apply OK Reset Cancel Server Infrastructure Apply OK Reset Cancel Java and Process Management Image: Class loader Image: Process Definition Environment Entries Image: Process Execution Process Execution Image: Process Execution	Parallel start	Business Process Services
Class loader policy Multiple V Class loading mode Parent first V Apply OK Reset Cancel Apply OK Reset Cancel Dava and Process Management Class loader Dava and Process Management Class loader Process Definition Environment Entries Process Execution	Server-specific Application Settings	Server messaging
Class loading mode Parent first Class loading mode Parent first	Classloader policy Multiple V	Messaging engines
	Class loading mode	Messaging engine inbound transports
= <u>SIB service</u> <u>Server Infrastructure</u> Apply OK Reset Cancel □ Java and Process Management = <u>Class loader</u> = <u>Process Definition</u> = <u>Environment Entries</u> = <u>Process Execution</u>	Parent first V	WebSphere MQ link inbound transports
Apply OK Reset Cancel Isva and Process Management Image: Class loader Image: Class loader Image: Process Definition Image: Environment Entries Image: Process Execution		SIB service
Apply OK Reset Cancel D Java and Process Management Class loader Process Definition Environment Entries Process Execution		Server Infrastructure
Class loader Process Definition Environment Entries Process Execution	Apply OK Reset Cancel	Java and Process Management
Process Definition Environment Entries Process Execution		Class loader
Environment Entries Process Execution		Process Definition
Process Execution		Environment Entries
		Process Execution
Monitoring Policy		Monitoring Policy

Figure 51: Application Servers > server1

4. Click on Java and Process Management->Process Definition under Server Infrastructure. The screen below appears:

Application servers	? =
<u>Application servers</u> > <u>server1</u> > Process Defin	ition
A process definition defines the command line start/initialize a process.	information necessary to
Configuration	
General Properties	Additional Properties
Executable name	Java Virtual Machine
	Environment Entries
Executable arguments	Process Execution
	Process Logs
	Monitoring Policy
	Logging and Tracing

Figure 52: Application Servers > server1 > Process Definition

5. Click on Java Virtual Machine under Additional Properties. The screen below appears:

Application servers	2 🗆
Application servers > server1 > Process Defin	ntion > Java Virtual Machine
Advanced Java virtual machine settings.	
Configuration	
General Properties	
Olesseth	 Additional Properties
Classpath	Custom Properties
Boot Classpath	
verbose class loading	
Verbose garbage collection	
Verbane WI	
Verbose JNI	
Initial Heap Size	
512	
Maximum Heap Size	
1024	

Figure 53: Java Virtual Machine

6. For a stand alone WebSphere installation, adjust the **Maximum Heap Size** to be 1 half of the memory on the machine and the **Initial Heap Size** to be 1 half of that. So for a server with 2 GB of RAM, set the **Maximum Heap Size** to 1024 and **Initial Heap Size** to 512.



Figure 54: Set Initial and Maximum Heap Size

7. Click the **OK** button at the bottom of the window to submit the changes.

_	
Ξ	Messages
	Changes have been made to your local configuration. Click <u>Save</u> to apply changes to the master configuration.
	The server may need to be restarted for these changes to take effect.

8. Click the <u>Save</u> link to apply changes to the master configuration. You will be transferred to a final page to allow you to review your workspace changes.

Application servers ? =
<u>Application servers</u> > <u>server1</u> > <u>Process Definition</u> > Save
Save your workspace changes to the master configuration
Click Save to update the master repository with your changes. Click Discard to discard your changes and begin work again using the master repository configuration. Click Cancel to continue working with your changes.
Total changed documents: 1
Save Discard Cancel

9. Click on the **Save** button to update the master configuration with your changes.

pplication servers	2
Application servers > server1 > Process Defin	ition
A process definition defines the command line	information necessary to
start/initialize a process.	
Configuration	
General Properties	Additional Properties
Executable name	Java Virtual Machine
	Environment Entries
Executable arguments	Process Execution
	Process Logs
	Monitoring Policy
	Logging and Tracing

Figure 55: Return to the Process Definition Screen

10. Click on **Logout** to end your session.

Installing the WebSphere 6.0 Fixpacks

Once you have tested the installation you need to download and install the following fixes from the IBM WebSphere support site:

- Refresh Pack 2
- Fix Pack 21 (or most current)
- V6.0.2.21(onward) and V6.1 Update Installer
- V6.0.2: SDK 1.4.2 Cumulative Fix

Step 1: Download the Fixes

1. Enter the following URL in your browser to review recommended fixes for WebSphere Application Server:

http://www-1.ibm.com/support/docview.wss?rs=180&uid=swg27004980

NOTE

E You can also get here by using Google to search for WebSphere Fixpacks.

The following web page appears:



Figure 56: Recommended WebSphere Fixes

2. Click Version 6.0.

This link displays a list of fixes for Version 6.0.

		Version 6.0	
Fix	Level	Released	Comments
Fix Pack 23	6.0.2.23	12 OCT 2007	The date is an estimated future release date. Future fix packs will be released
Fix Pack 21 AIX HP-UX Linux OS/400® Solaris Windows Maintenance Deveload Wiggerd	6.0.2.21	20 JUL 2007	New: Maintenance Download Wizard: See the Tools section below for more details.
Interim Fix PK44764		23 May 2007	Any "Save" operation fails with ServletException: Missing message for key ""ChangesFound.??" using the Administrative Console when running on a non-English locale operating system. See the <u>Flash</u> for more details.
Interim Fix PK45268		21 May 2007	Every time an application (not Version 4.0) that is using a standard data source (using the IBM Relational Resource Adapter) does a JNDI lookup to get a data source object, error message DSRA9010E appears in the SystemOut.log. See the <u>Flash</u> for more details.
Interim Fix PK41446		11 May 2007	In some scenarios after a closed connection error the webcontainer may corrupt a buffer being used to send a response.
Refresh Pack 2 • <u>AIX</u> • <u>HP-UX</u> • <u>Linux</u> • <u>OS/400</u> • <u>Solaris</u> • <u>Windows</u>	6.0.2	18 JUL 2005	Readme for multiplatforms Readme for OS/400 Version V6.0.1 for Windows Server 2003 x64 edition is available from <u>Passport</u> <u>Advantage</u> .
<u>Release 6.0</u>	6.0.0.1	10 DEC 2004	You can download the version V6.0 (V6.0.0.1) release from <u>Passport Advantage</u> . <u>Release Notes</u>

Figure 57: Recommended Fixes for WebSphere 6.0

Other V6.0	tools and fixes	Released	Comments
V6.0 Maintenanc	e Download Wizard	20 JUL 2007	The wizard will step you through a series of selection panels to identify, and help you download, the recommended maintenance packages for your WebSphere Application Server V6.0 environment.
V6.0 Installation	Factory	13 OCT 2006	See the <u>Flash</u> for more details.
V6.0.2.21(onwar Installer	rd) and V6.1Update	07 SEP 2007	Install instructions Starting with Fix Pack 6.0.2.21, Update Installer is no longer packaged with the Fix Pack. You MUST use <u>this</u> Update Installer for V6.0.2.21 (onward) and V6.1 fix pack updates.
V6.0 Update Ins	taller	14 AUG 2006	Readme for Multiplatforms Readme for OS/400
V6.0.2: SDK 1.4	.2 Cumulative Fix	20 JUL 2007	<u>Readme</u>

3. Scroll down to the section on the table labeled: "Other V6.0 tools and fixes".

Figure 58: Fix Packs for WebSphere 6.0

You need to download the following files for Windows:

- Refresh Pack 2
- Fix Pack 21 (or most current)
- V6.0.2.21 (onward) and V6.1 Update Installer
- V6.0.2: SDK 1.4.2 Cumulative Fix
- 4. Use FTP or IBM's Download Director (DD) to download the files to your system.

NOTE For the WebSphere 6.0 release you can download the files using standard FTP or IBM's Download Director (DD). Download Director provides a GUI for downloading files. It is faster and more intuitive than the FTP method.

After downloading, you should have the following files or similar on your system.

Folders	×	Name	
 	^	 6.0-W5-WAS-WinX32-RP0000002.zip 6.0.2-W5-WAS-WinX32-FP00000021.pak updi.6000.windows.ia32.zip 6.0.2-WS-WASJavaSDK-WinX32-FP00000021.pa 	k

Figure 59: Downloaded Fix Pack Files

Step 2: Install the Fix Packs

Before installing the fix packs:

Open Control Panel->Services and make sure that all WebSphere services are turned OFF.

🍓 Services							×
<u>File A</u> ction <u>V</u> iew	Help						
	〕 🖳 🔮 🕨 🗉 💷 🖦						
🆏 Services (Local)	🍓 Services (Local)						
	IBM WebSphere Application Server	Name 🛆	Description	Status S	Startup Type	Log On As	^
	V6 - DELL2Node01	BM HTTP Server 6.0	IBM_HTTP	, p	Automatic	Local System	-
	Charle the second sec	IBM WebSphere Application Server V6 - DELL2Node01	Controls th	ļ.	Automatic	Local System	
	Start the service	MAPI CD-Burning COM Service	Manages C	P	Manual	Local System	~
	Extended Standard						

Figure 60: Turn off WebSphere Services

Installing Refresh Pack 2

The first step is to install refresh pack 2 (i.e., 6.0-WS-WAS-WinX32-RP0000002.zip).

 Go to the directory where you downloaded the fix packs and extract the contents of 6.0-WS-WAS-WinX32-RP0000002.zip into the WebSphere\AppServer directory (this is the root directory where you installed WebSphere). This file's contents are written to the WebSphere\AppServer\updateinstaller\ directory.



Figure 61: WebSphere\AppServer\updateinstaller\ directory

2. Double click on **update.exe**. The Update Installer Welcome screen appears.

쒑 IBM Update Installer	for WebSphere Software V6.0.2.0
BM Opdate Installer	 Welsphere Software V6.0.2.0 Welcome to the IBM Update Installer for WebSphere Software wizard. This wizard installs or uninstalls maintenance packages, including interim fixes, fix packs, and refresh packs. The following products are supported: IBM WebSphere Application Server V6 or above IBM WebSphere Application Server V6 or above IBM WebSphere Application Server - Express V6 or above IBM Application Client for WebSphere Application Server V6 or above IBM WebSphere Extended Deployment V5.1 or above IBM HTTP Server V6 or above Click on the links above for product specific support information. Additional information can be found at the Information Centers and Support sites for WebSphere and related products homepage. Before installing or uninstalling maintenance, stop all WebSphere and related processes, and read the Update Installer readme. Also ensure that you are using the latest version of the Update Installer program Click Next to continue.
	< Back Next > Cancel

Figure 62: Update Installer Welcome Screen

3. Click **<u>Next></u>**. The Wizard asks you for the WebSphere installation directory.

🍪 IBM Update Installer	for WebSphere Software V6.0.2.0
WebSphere, software	Enter the installation location of the WebSphere product you want to update. Directory Name: C:\IBM\WS6.0\WebSphere\AppServer
	B <u>r</u> owse
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 63: Confirm Installation Directory

Confirm the target location and click <u>Next></u>. The Wizard asks you to confirm the maintenance operation.

🕲 IBM Update Installer t	for WebSphere Software V6.0.2.0
WebSphere, software	Select the maintenance operation. Install maintenance package. Uninstall maintenance package.
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 64: Install Maintenance Package

 Select "Install maintenance package" and click <u>Next></u>. The Wizard displays the name of the maintenance package is to be installed.

😫 IBM Update Installer f	or WebSphere Software V6.0.2.0
WebSphere, software	Enter the file name of the maintenance package to install. C:\IBM\WS6.0\WebSphere\AppServer\updateinstaller\maintenance\6.0-\WS-\WAS-\WinX32-RP0000002.pak Browse
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 65: Maintenance Package Name

 Click <u>Next></u>. At this point the Wizard checks your system to see if it needs to update the installed JDK. If it must update the JDK then the screen below appears.



Figure 66: Update the JDK

7. Click <u>Next></u>. The Wizard will update the JDK files.

🕲 IBM Update Installer for WebSphere Software V6.0.2.0		
WebSphere, software	Copying JDK files: Source: C:\IBM\WS6.0\WebSphere\AppServer\java\jre Target: C:\IBM\WS6.0\WebSphere\AppServer\updateinstaller\java	
	17%	
instalionieid -	< <u>B</u> ack <u>N</u> ext >	<u>C</u> ancel

Figure 67: Update the JDK Files

The Wizard informs you when the JDK installation is finished.

🍪 IBM Update Installer	for WebSphere Software V6.0.2.0
WebSphere, software	Success: The JDK was successfully copied. The wizard must now be relaunched in order to continue the installation Click Relaunch to relaunch the wizard.
InstallShield	< <u>B</u> ack <u>R</u> elaunch <u>C</u> ancel

Figure 68: Relaunch the Update Wizard

8. Click **<u>Relaunch</u>** to continue with the update. Again, the Wizard asks you to select the maintenance operation.

🍄 IBM Update Installer	for WebSphere Software V6.0.2.0
WebSphere, software	Select the maintenance operation. Install maintenance package. Uninstall maintenance package.
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 69: Install Maintenance Package

9. Select "Install maintenance package" and click **<u>Next></u>**. The Wizard displays the target location where the maintenance package is to be installed.

🗳 IBM Update Installer	for WebSphere Software V6.0.2.0
WebSphere. software	Enter the file name of the maintenance package to install. C:\IBM\WS6.0\WebSphere\AppServer\updateinstaller\maintenance\6.0-WS-WAS-\ Browse
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 70: Enter Maintenance Package Name

10. Click <u>Next></u>. The following summary screen appears.

🕙 IBM Update Installer	for WebSphere Software V6.0.2.0
	The following product will be upgraded:
WebSphere software	by installing the following maintenance package: • RP6020 - WebSphere Application Server 6.0.2.0 This maintenance package requires updates to profiles. Back up each profile with the backupConfig command before you continue, or archive the entire profiles directory. Click Next to begin the installation.
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 71: Update Summary Screen

11. Click **<u>Next></u>** to begin the installation. When the installation finishes, this screen appears:

🕲 IBM Update Installer	for WebSphere Software V6.0.2.0
WebSphere, software	Success: The following product was successfully upgraded:
	< <u>B</u> ack <u>R</u> elaunch <u>F</u> inish

Figure 72: Upgrade Successful

12. Click <u>F</u>inish.

Installing Fix Pack 21

- 1. Delete the contents of the **WebSphere\AppServer\updateinstaller** directory. We will replace this with a newer update installer component.
- Go to the temporary directory where you downloaded the fixpacks and extract the file containing the newer Update Installer component, updi.6000.windows.ia32.zip, to the WebSphere\AppServer\updateinstaller directory.

Folders	×	Name
 Image: System Apps Image: Temp 		 lib maintenance docs framework responsefiles update.exe update.jar version.txt

Figure 73: New WebSphere\AppServer\updateinstaller Directory

 Return to the directory where you downloaded the fixpacks and copy the 6.0.2-WS-WAS-WinX32-FP00000021.pak file over to the WebSphere\AppServer\updateinstaller\maintenance sub-directory.

Folders	×	Name 🔺
🖃 🧰 updateinstaller	~	🔤 6.0.2-WS-WAS-WinX32-FP00000021.pak
🗉 🧰 docs		
🗷 🚞 framework	_	
🚞 lib	_	
🚞 maintenance		

Figure 74: 6.0.2-WS-WAS-WinX32-FP00000021.pak

4. Go to the **WebSphere\AppServer\updateinstaller directory** and double-click **update.exe** to launch the update Wizard.



Figure 75: Click update.exe to Launch the Installation Wizard



The Update Installer welcome screen appears:

Figure 76: Installation Wizard Welcome Screen

5. Click **Next>.** The Wizard asks you for the target installation directory.

🔮 IBM Update Installer	for WebSphere Software V6.0.2.7
WebSphere. software	Enter the installation location of the WebSphere product you want to update. Directory Name: C:\IBMWVS6.0WVebSphere\AppServer Browse
InstallShield	< <u>Back</u> ext > Cancel

Figure 77: Installation Directory

6. Click <u>Next></u>. The Wizard asks you to select the maintenance operation.

🕲 IBM Update Installer	for WebSphere Software V6.0.2.7	
WebSphere. software	Select the maintenance operation.	
InstallShield	< <u>B</u> ack Next >	<u>C</u> ancel

Figure 78: Select Install Maintenance Package

7. Confirm "Install maintenance package" and click <u>Next></u>. The Wizard asks you for the name of the maintenance package.

🕙 IBM Update Installer f	for WebSphere Software V6.0.2.7
	Enter the file name of the maintenance package to install.
TAT	C:\IBM\WS6.0\WebSphere\AppServer\updateinstaller\maintenance\6.0.2-WS-WAS-WinX32-FP00000021.pak
WebSphere, software	Browse
Installenield	
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 79: Confirm Maintenance Package Name

8. Confirm the name and click **<u>Next></u>**. The Wizard displays a summary screen for the installation.



Figure 80: Installation Summary Screen

9. Click <u>Next></u> to begin the installation.

BM Update Installer for WebSphere Software V6.0.2.7		
	Backing up component: cscope	
websphere, software	20%	
InstallShield -	< <u>B</u> ack <u>N</u> ext >	<u>C</u> ancel

Figure 81: Installing the Package

The following screen appears once the installation has finished.

🔮 IBM Update Installer	for WebSphere Software V6.0.2.7
WebSphere, software	Success: The following product was successfully upgraded:
	< <u>Back</u> elaunch <u>Finish</u>

Figure 82: Installation Complete

10. Click **<u>F</u>inish** to exit the Wizard.

Installing the SDK 1.4.2 Cumulative Fix

This step requires you to install the SDK 1.4.2 Cumulative Fix Pack (6.0.2-WS-WASJavaSDK-WinX32-FP00000021).

1. Return to the directory where you downloaded the Fixpacks.

Folders	x	Name
🗉 🧰 WS5.1	~	ୟ 6.0-WS-WAS-WinX32-RP0000002.zip
🖃 🫅 WS6.0	_	國 6.0.2-WS-WAS-WinX32-FP00000021.pak
🗉 🚞 Disk1		updi.6000.windows.ia32.zip
🧀 Fixpacks		6.0.2-WS-WASJavaSDK-WinX32-FP00000021.pak

 Copy the 6.0.2-WS-WASJavaSDK-WinX32-FP00000021.pak file to the WebSphere\AppServer\updateinstaller\maintenance\ directory.

Folders	х	Name
updateinstaller Im docs	^	6.0.2-W5-WA5-WinX32-FP00000021.pak 6.0.2-W5-WASJava5DK-WinX32-FP00000021.pak
🗉 🧰 framework		
ib ib maintenance	-	

3. Double-click WebSphere\AppServer\updateinstaller\update.exe to start the Wizard.

Folders		×	Name 🔺
	 updateinstaller idocs framework lib maintenance responsefiles util 		framework ib maintenance responsefiles update.exe update.jar frespon.txt

The installation Wizard opens.



Figure 83: Installation Wizard Welcome Screen

4. Click <u>Next></u>. The Wizard asks you for the target installation directory.

😫 IBM Update Installer f	or WebSphere Software V6.0.2.7
	Enter the installation location of the WebSphere product you want to update. Directory Name:
WebSphere, software	C:\IBM\WS6.0\WebSphere\AppServer
	B <u>r</u> owse
InstallShield	
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 84: Select Target Installation Directory

5. Click <u>Next></u>. The Wizard asks you to select the maintenance operation.

🔮 IBM Update Installer	for WebSphere Software V6.0.2.7
WebSphere. software	Select the maintenance operation. ● Install maintenance package. ● Uninstall maintenance package.
InstallShield	< <u>B</u> ack <u>Next</u> <u>C</u> ancel

Figure 85: Select Install Maintenance Package

6. Confirm "Install maintenance package" and click <u>Next></u>. The Wizard asks you for the name of the maintenance package.

🍪 IBM Update Installer	for WebSphere Software V6.0.2.7
WebSphere, software	Enter the file name of the maintenance package to install. C:\IBM\WS6.0\WebSphere\AppServer\updateinstaller\maintenance\6.0.2-WS-WASJavaSDK-WinX32-FP00000021.pak Browse
THE MILETING MALE	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 86: Confirm Maintenance Package Name

7. Click <u>Next></u>. The Wizard checks to see if the JDK requires an update. If it does, the following screen appears.



Figure 87: Update JDK Message

8. Click **<u>Next></u>**. The Wizard updates the JDK.

업 IBM Update Installer	for WebSphere Software V6.0.2.7	
WebSphere, software	Copying JDK files: Source: C:\IBM\WS6.0\WebSphere\AppServer\java\jre Target: C:\IBM\WS6.0\WebSphere\AppServer\updateinstaller\java	
- the	17%	
InstallShield		
instanomera -	< Back Navts C	ancel
		ancer

Figure 88: Updating JDK

This message appears once the update is complete.

🔮 IBM Update Installer	for WebSphere Software V6.0.2.7	
WebSphere, software	Success: The JDK was successfully copied. The wizard must now be relaunched in order to continue the installation Click Relaunch to relaunch the wizard.	
InstallShield	< <u>B</u> ack <u>R</u> elaunch <u>C</u> ancel	

Figure 89: JDK Update Complete

9. Click **<u>Relaunch</u>** to continue with the installation. Again, the Wizard asks you to select the maintenance operation.

🕲 IBM Update Installer for WebSphere Software V6.0.2.7		
WebSphere. software	Select the maintenance operation.	
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel	

Figure 90: Select "Install Maintenance Package"

10. Select <u>Next></u>. The Wizard asks you for the name of the maintenance package.

🗳 IBM Update Installer	for WebSphere Software V6.0.2.7
WebSphere, software	Enter the file name of the maintenance package to install. C:\IBM\WS6.0\WebSphere\AppServer\updateinstaller\maintenance\6.0.2-WS-WASJavaSDK-WinX32-FP00000021.pak Browse Browse
InstallShield	< <u>Back</u> ext>

Figure 91: Confirm Maintenance Package Name

11. Confirm the name and click <u>Next></u>. The installation summary screen appears.



Figure 92: Pre-Installation Information Screen

12. Click **<u>Next></u>** to start the installation. When the installation finishes, the following message appears.



Figure 93: Post-Installation Information Screen

- 13. Click Finish.
- 14. Restart the WebSphere Services again.

Step 3: Recycle the WebSphere Services

Once you finish installing the fixes you must restart the WebSphere services from the Windows Services in order for the updates to take affect.

Recycling the IBM HTTP Server

1. Click on the **IBM HTTP Server** and click on the <u>Restart</u> link.

Services						X
Eile Action View						
🆏 Services (Local)	🏇 Services (Local)					
	IBM HTTP Server 6.0	Name 🔺	Description	Status Startup Typ	e Log On As	^
		🔼 🎇 Human Interface Device Access	Enables ge	Disabled	Local System	
	Stop the service	IBM HTTP Server 6.0	IBM_HTTP	Started Automatic	Local System	
	Restart the service	💻 🎇 IBM WebSphere Application Server V6 - DELL2Node01	Controls th	Started Automatic	Local System	
		VICE MAPI CD-Burning COM Service	Manages C	Manual	Local System	~
	Extended Standard					_

Figure 94: Restart IBM HTTP Server

The selected service will stop:

Service Control	×
Windows is attempting to stop the following service on Local Computer	
IBM HTTP Server 6.0	

And then restart...

Service Control	K
Windows is attempting to start the following service on Local Computer	
IBM HTTP Server 6.0	
	1
	J

NOTE

The **IBM WebSphere Application Server V6 – (node)** service should not be recycled in this fashion.

The main reason is that this approach does not allow enough time for the system to free up all of the WebSphere resources after stop before it automatically turns around and begins the startup process.

Once you issue the stop command there are two files in particular which you can use to monitor WebSphere's resources to ensure that all resources have been released:

- java.exe
- server1.pid

java.exe

The Windows Task Manager displays one **java.exe** process per WebSphere server instance. After WebSphere has completed the shutdown process, this file disappears from the Windows Task Manager. Usually this process is the one that is using the most memory on the system. Sort the processes by **Mem Usage** in descending order to quickly locate this process.

🗏 Windows Task Manager 📃 🗖 🔀						
<u>File Options View Shut Down H</u> elp						
Applications Proce	Applications Processes Performance Networking Users					
Image Name	User Name	CPU	Mem Usage	^		
java.exe	SYSTEM	00	278,152 K			
WINWORD.EXE	Dan	00	94,072 K			
sqlservr.exe	SYSTEM	00	77,700 K			
svchost.exe	SYSTEM	00	36,096 K			
java.exe	SYSTEM	00	30,944 K			
OUTLOOK.EXE	Dan	00	30,640 K			
explorer.exe	Dan	00	20,840 K			
javaw.exe	Dan	00	19,776 K			
iSate.exe	SYSTEM	00	18,772 K			
Ding.exe	Dan	00	18,276 K			
mmc.exe	Dan	00	16,820 K			
CAVTray.exe	Dan	00	15,456 K			
MsDtsSrvr.exe	NETWORK SERVICE	00	12,380 K			
YahooWidgetEng	ji Dan	00	11,708 K			
svchost.exe	LOCAL SERVICE	00	10,324 K			
vpngui.exe	Dan	00	9,348 K			
Apache.exe	SYSTEM NETWORK CERUICE	00	7,756 K			
svcnost.exe		00	7,264 K	~		
	5Y51FM	1111	7.12ILK			
Show processes from all users End Process						
Processes: 61 CF	Processes: 61 CPU Usage: 11% Commit Charge: 1529M / 3923M 📑					

Figure 95: java.exe Process

server1.pid

While the WebSphere service is running, the **WebSphere\AppServer\logs\server1** directory contains a **server1.pid** file. After WebSphere has completed the shutdown process, this file disappears from the directory.



Figure 96: WebSphere\AppServer\logs\server1\server1.pid

Recycling the WebSphere Application Server

1. Select the WebSphere Application Server service and click on the <u>Stop</u> link.

Services					
<u>Eile Action View H</u> elp					
Services (Local)					
IBM WebSphere Application Server	Name 🛆	Description Statu	s Startup Type	Log On As	~
V6 - DELL2Node01	Human Interface Device Access	Enables ge	Disabled	Local System	
Sheet the equipe	Magazina IBM HTTP Server 6.0	IBM_HTTP Start	ed Automatic	Local System	_
Start the service	IBM WebSphere Application Server V6 - DELL2Node01	Controls th	Automatic	Local System	
	MAPI CD-Burning COM Service	Manages C	Manual	Local System	~
Extended / Standard /					



The following dialog box appears:

Service Control			
Windows is attempting to stop the following service on Local Computer			
IBM WebSphere Application Server V6 - DELL2Node01			

2. After shutdown, open the Windows Task Manager and verify that the **java.exe** file associated with WebSphere has been removed from the process view.

🗏 Windows Task Manager 📃 🗖 🔀						
<u>File O</u> ptions <u>V</u> iew S	ih <u>u</u> t Down <u>H</u> elp					
Applications Process	Applications Processes Performance Networking Users					
Image Name	User Name	CPU Mem Usage	<u>~</u>			
WINWORD.EXE	Dan	00 97,948 K				
sqlservr.exe	SYSTEM	00 77,700 K				
svchost.exe	SYSTEM	00 37,324 K	3			
java.exe	SYSTEM	00 30,944 K				
OUTLOOK.EXE	Dan	00 30,648 K				
explorer.exe	Dan	00 26,288 K				
javaw.exe	Dan	00 19,776 K				
iSafe.exe	SYSTEM	00 18,772 K				
Ding.exe	Dan	00 18,276 K				
mmc.exe	Dan	00 16,896 K				
CAVTray.exe	Dan	00 15,456 K				
MsDtsSrvr.exe	NETWORK SERVICE	00 12,380 K				
YahooWidgetEngi.	Dan	00 11,700 K				
svchost.exe	LOCAL SERVICE	00 10,364 K				
vpngui.exe	Dan	00 9,348 K				
Apache.exe	SYSTEM	00 7,756 K				
svchost.exe	NETWORK SERVICE	00 7,264 K				
cvpnd.exe	SYSTEM	00 7,120 K				
Lspoolsv.exe SYSTEM 00 7.060 K 🚬						
Show processes from all users						
Processes: 59 CPU	Processes: 59 CPU Usage: 1% Commit Charge: 906M / 3923M					

Figure 98: No java.exe Process Indicates WebSphere Stopped

Go to the **WebSphere\AppServer\logs\server1** folder and look for the **server1.pid** file. When this file disappears, WebSphere has completed the shutdown process.

Folders	×	Name 🔺
optionalLibraries optionalLibraries		 native_stderr.log native_stdout.log startServer.log stopServer.log SystemErr.log SystemOut.log Trace.log
iserver1	V	<

Figure 99: No server1.pid Indicates WebSphere Stopped

- 3. Return to **Control Panel->Services** and select the WebSphere Application Server.
- 4. Click on the <u>Start</u> link. The following message box appears:

Service Control	<
Windows is attempting to start the following service on Local Computer	
IBM WebSphere Application Server V6 - DELL2Node01	
)

5. Open the Task Manager and look for the **java.exe** process. The **Mem Usage** rises for the **java.exe** process during the startup.

🗏 Windows Task Manager 📃 🗖 🔀					
<u>File Options View Shut Down H</u> elp					
Applications Processes	Performance Netw	orking	Users		
Image Name	User Name	CPU	Mem Usage	^	
java.exe	SYSTEM	00	147,180 K		
WINWORD.EXE	Dan	00	101,676 K		
sqlservr.exe	SYSTEM	00	77,700 K		
java.exe	SYSTEM	00	46,844 K		
svchost.exe	SYSTEM	00	37,264 K		
java.exe	SYSTEM	00	30,944 K		
OUTLOOK.EXE	Dan	00	30,648 K		
explorer.exe	Dan	00	26,288 K		
javaw.exe	Dan	00	19,776 K		
iSafe.exe	SYSTEM	00	18,772 K		
Ding.exe	Dan	00	18,276 K		
mmc.exe	Dan	00	16,908 K		
CAVTray.exe	Dan	00	15,456 K		
MsDtsSrvr.exe	NETWORK SERVICE	00	12,380 K		
YahooWidgetEngi	Dan	00	11,700 K		
svchost.exe	LOCAL SERVICE	00	10,364 K		
vpngui.exe	Dan	00	9,348 K		
Apache.exe	SYSTEM	00	7,756 K		
svchost.exe	NETWORK SERVICE	nn	7.264 K	<u> </u>	
Show processes from all users End Process					
Processes: 62 CPU Usage: 1% Commit Charge: 1571M / 3923M					

Figure 100: java.exe Verifies WebSphere Startup

6. Click on the **Performance** tab. The Performance view shows a busy CPU until the service has completed the startup process. When the CPU goes to low usage, WebSphere is ready to use again.

🗏 Windows Task Manager 📃 🗖 🔀						
<u>File O</u> ptions <u>V</u> i	ew Sh <u>u</u> t Down <u>H</u> el	P				
Applications Pr	Applications Processes Performance Networking Users					
CPU Usage -	CPU Usage H	listory				
1 %	1 %					
701 MB						
- Totals		Physical Memory (ю————			
Handles	22804	Total	2086980			
Threads Processes	665 55	Available System Carbe	1190148 1389068			
-Commit Char						
Total	717824	Total	173268			
Limit	4017276	Paged	149796			
Peak	770600	Nonpaged	23472			
Processes: 55	CPU Usage: 1%	Commit Charge:	701M / 3923M 📑			

Figure 101: Low CPU Usage indicates WebSphere Starting

Increasing the HTTP Timeout Period

The HTTP Timeout Period for IBM HTTP server defaults to 300 seconds (5 minutes). If you want to give the user control over what they want to do with long running query requests without the http requests timing out, this needs to be bumped. The recommended new value is 3000 which equals 50 minutes. This should provide adequate time for any query to return results.

To increase the timeout period, follow these steps:

1. Go to the IBMHttpServer\conf directory and locate the httpd.conf file.





- 2. Open httpd.conf file in a text editor such as Notepad.
- 3. Locate the Timeout period value.

httpd.conf - Notepad		×
<u>F</u> ile <u>E</u> dit F <u>o</u> rmat <u>V</u> iew <u>H</u> elp		
### Section 1: Global En∨ironment #		^
# The directives in this section affect the overall operation of Apache, # such as the number of concurrent requests it can handle or where it # can find its configuration files. #		
# # ServerRoot: The top of the directory tree under which the server's # configuration, error, and log files are kept. *		
<pre># NOTE! If you intend to place this on an NFS (or otherwise network) # mounted filesystem then please read the LockFile documentation (available # at <url:http: docs-2.0="" httpd.apache.org="" mod="" mpm_common.html#lockfile="">); # you will save yourself a lot of trouble.</url:http:></pre>		
# Do NOT add a slash at the end of the directory path.		
* ServerRoot "C:/IBM/WS6.0/IBM HTTP Server"		
# # PidFile: The file in which the server should record its process # identification number when it starts. #		
PidFile logs/httpd.pid		
# # Timeout: The number of seconds before receives and sends time out. # Timeout <u>300</u>		~
	>	

Figure 103: Default Timeout Period = 300

4. Change the value to 3000.



Figure 104: Updated Timeout Period = 3000

- 5. Save and close the httpd.conf file.
- Open Control Panel->Services and recycle the IBM HTTP Server for this new setting to take effect.

Index

Edition Notice	2

F

E

fix pack 1	
installing	42

Ι

Initial Heap Size	37
Insight Support	8
Installation Prerequisites	10

J

java.exe	58
L	
launchpad.bat	11

M

R

Requirements	
System	10

S

server1.pid	59
start WebSphere	
with Windows Services	33
Support	8
System Requirements	10

W

WebSphere

installing	11
WebSphere Administrative Console login	
screen	35