IBM

IBM WebSphere Commerce Fix Pack

for AIX, Solaris Operating Environment, Linux,

Windows NT, and Windows 2000

Installation Guide

Version 5.4.0.6

Note:

Before using this information and the product it supports, be sure to read the general information in the "Notices" section.

Second Edition (May 2004)

This edition applies to version 5.4 of the following products:

- IBM WebSphere Commerce Business Edition for AIX
- IBM WebSphere Commerce Professional Edition for AIX
- IBM WebSphere Commerce Business Edition for Solaris Operating Environment software
- IBM WebSphere Commerce Professional Edition for Solaris Operating Environment software
- IBM WebSphere Commerce Business Edition for Linux Operating Environment software
- IBM WebSphere Commerce Professional Edition for Linux Operating Environment software
- IBM WebSphere Commerce Business Edition for Windows NT and Windows 2000
- IBM WebSphere Commerce Professional Edition for Windows NT and Windows 2000
- IBM WebSphere Commerce Professional Entry Edition for the Windows NT and Windows 2000
- IBM WebSphere Commerce Business Edition for Linux for IBM ^ zSeries and S/390
- IBM WebSphere Commerce Studio, Business Developer Edition for Windows NT and Windows 2000
- IBM WebSphere Commerce Studio, Professional Developer Edition for Windows NT and Windows 2000

It also applies to all subsequent releases and modifications until otherwise indicated in new editions. Ensure that you are using the correct edition for the level of the product.

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Before you begin

Conventions used in this book

This book uses the following highlighting conventions:

Boldface type indicates commands or graphical user interface (GUI) controls such as names of fields, buttons, or menu choices.

`Monospaced type` indicates examples of text you enter exactly as shown, as well as directory paths.

Italic type is used for emphasis and variables for which you substitute your own values.

> **WIN** indicates information that is specific to WebSphere Commerce for Windows NT and Windows 2000.

> **AIX** indicates information that is specific to WebSphere Commerce for AIX.

> **SOLARIS** indicates information that is specific to WebSphere Commerce for the Solaris Operating Environment software.

> **Linux** indicates information specific to the following products:

- WebSphere Commerce Business Edition for Linux
- WebSphere Commerce Professional Edition for Linux
- WebSphere Commerce Business Edition for Linux for IBM ^ zSeries and S/390

> **DB2** indicates information that is specific to DB2 Universal Database.

> **Oracle** indicates information that is specific to Oracle.

Default installation paths

When this book refers to installation paths, it uses the following default paths:

- *WC_installdir*: the WebSphere Commerce root directory. For example, the default path for AIX is:

      /usr/WebSphere/CommerceServer

- *WCSTUDIO_installdir*: the WebSphere Commerce Studio root directory. For example, the default path is:

      drive:\WebSphere\CommerceServerDev

- *WAS_installdir*: the WebSphere Application Sever root directory. For example, the default path for AIX is:

      /usr/WebSphere/AppServer

- `WC_APPLICATION_HOME`: the name of the WebSphere Commerce enterprise application. The default name for AIX is:

  `WC_Enterprise_App_instance_name.ear`

- `VAJ_installdir`: is the VisualAge for Java installation directory. For example, the default path is:

  `drive:\VAJava`

Chapter 1 Introduction

This document describes the steps required to apply the IBM® WebSphere® Commerce 5.4.0.6 fix pack to your WebSphere Commerce Business Edition 5.4, WebSphere Commerce Professional Edition 5.4, or WebSphere Commerce Professional Entry Edition 5.4 system. It also describes how to apply the fix pack to WebSphere Commerce Studio Business Developer Edition 5.4, or WebSphere Commerce Studio Professional Developer Edition, 5.4.

WebSphere Commerce fixes and features included in this fix pack are also listed in this document.

Before applying this fix pack to a WebSphere Commerce 5.4 system, you must do the upgrades listed in the **Preinstallation** section. It is recommended that you read this document in its entirety, before installing the fix pack. If you have installed any WebSphere Commerce fixes prior to this fix pack, and have any concerns regarding the removal of those fixes, please contact WebSphere Commerce support.

Chapter 2 Product editions

WebSphere Commerce editions supported by this fix pack

This fix pack supports the following WebSphere Commerce Version 5.4 editions:

- Business Edition
- Professional Edition
- Professional Entry Edition

This fix pack supports WebSphere Commerce Version 5.4 on the operating systems listed below. For the specific requirements on each of the supported operating systems, refer to "Prerequisite software" in the *IBM WebSphere Commerce Version 5.4 Installation Guide.*

- AIX®
- Solaris
- Linux
- Windows NT® or Windows® 2000 Server

The WebSphere Commerce 5.4.0.6 fix pack can be applied to the 5.4 base level (5.4.0.0) or a system with the 5.4.0.1, 5.4.0.2, 5.4.0.3, 5.4.0.4, or 5.4.0.5 fix pack applied.

WebSphere Commerce Studio users

For more information on how to install the WebSphere Commerce fix pack Version 5.4.0.6 on your WebSphere Commerce Studio machine, refer to the **Installing the fix pack on WebSphere Commerce Studio** section.

Chapter 3 New and changed components

Software stack updates

This fix pack requires updates to the following components of the software stack:

- DB2® Universal Database™
- WebSphere Application Server

For complete details about these updates, refer to the **Preinstallation** section.

WebSphere Commerce updates

This release includes improvements or updates to the following areas:

- Access control
- Catalog
- Catalog Manager
- Collaboration
- Contracts
- DB2/390 support, on Linux for IBM zSeries and S/390
- Installation
- Loader
- Migration
- Updated store models
- Orders
- Performance
- Search
- Security
- Tools framework
- Web Editor

The WebSphere Commerce 5.4.0.6 fix pack includes the following fixes:

APAR#	Abstract
IY33258	Invocation Exception on creating new DynamicKitAccessBean
JR17319	When a catentry has "published" set to 0, the product/item still shows up in the shopping flow
IY32110	Bug in OfferBeanFinderHelper
IY33936	Allow population of existing DB2 databases
JR17236	Remove Domino as LDAP server for member subsystem
JR17290	Site Administration tool has poor performance with large number of users/organizations
IY33175	Support HTML e-mail
JR17050	When running OrderStatusUpdate XML inbound messages, only the last orderitem status gets a 'G' as expected, while the rest of the orderitems associated with the order do not get updated to a 'G'.

IY33179	ç character causes messages to truncate
JR17288	Bug in error reporting in shopping cart.jsp
IY33200	OrderCopy NullPointer when copying OrderItemComponent
JR17274	Order by clause used in pushdownquery on ordAccbean causes problems
IY33183	Select contract price logic defect; the wrong price is selected according to offer.precedence
JR17057	The close bracket (>) is missing from HTML output when executing a JSP file in Product Advisor
JR17112	Drop constraint when no result found in search
IY33178	Update to performance fix for dynamic tree
IY33176	Unable to highlight node when dynamic tree is expanded
JR16936	Accelerator cannot handle large catentry_id values
IY30331	Auction - control rule using imprecise double comparisons fails
JR17049	Changing Stores WebPath from '/webapp/wcs/stores/servlet' to '/servlet' causes some e-mail to fail.
JR17233	Poor performance in SendWCSOrderCmdImpl
JR17385	Prevent HTTP cookie from being added to HTTP response
JR17610	eMarketingSpot.setMaximumNumberOfCollateral command not working
IY35015	When importing contract there are duplicate entries in summary
IY35964	Fixed problem in CustomPricingTCDataBean.java when handling multiple price list
IY34859	Fix performance problem due to CustomProductSetDataBean
JR17526	Call DB2 updateConfig after loading DB2smartguide
IY36116	Productset ejb does not throw exception when XML file is too large
JR17356	ScheduledOrderProcessCmdImpl Defect
IY34892	AccessControlJDBC Helper problems
JR17409	Fix an instance creation problem
JR17386	When an outbound MQ-Message (eg. Predefined Messages - Report_
JR17657	Implement audit flag
IY38822	Massloader fails with load option on Oracle(PMR 59583)
IY41514	EI - Got NullPointerException when publishing a store
IY41532	WCBE JavaMail did not release connection on error
IY42025	Resolve fulfillment center performance
IY42665	Make CMRedeploy work in a cloned environment
IY42916	Duplicate Key problem in Scheduler
IY44296	OrderProcess does not cancel payment to WPM in a rollback situation
IY44967	Failed to import the AC policy using acpload
IY45506	Deadlock occurred on ORDERITEMS table when applying DB2 Fix Pack
IY45759	Fail to update an orderitem with quantity=0
IY45760	Shopping flow failed if one order filled by multiple fulfillments
IY45950	SegmentCustomerListDatabean scalability issue
IY46237	PDI encryption tool doesn't work for existing data
IY46464	Misconfiguration in MQ adaptor bring down the whole MQ system
IY46496	Delay in execution time of scheduled jobs

IY46640	LDAP Repository strips out spaces from user names
IY46658	userreg and users tables get poor performance when using LDAP
IY46991	Finder Methods missing dispentrel.rank and dispcgprel.rank function
IY47399	JSPInvokerConnection throws NullPointerException
IY47690	Member Group Criteria doesn't tolerate != operator
IY47693	HTMLEncoder.encodeHTMLSymbols does not correctly convert DBCS
IY47904	Update CSRCustomerInfoUpdateCmd to support add'l parameters
IY49048	Extra sql trace logs messages
IY49582	State abbreviation does not support more than 2 CHAR
IY52093	OrderSearchBean does search on Custom Order Status
JR17443	Large XML files in ORDERTRANSFORM index array out of bounds exception
JR17841	Japanese notification e-mails unreadable
JR17871	dbclean issues with guest users
JR17989	Fix Pack: ProductSetOwner CMP fields for TCs not set in database
JR18164	Need to change code to create HTTPSession
JR18227	Sql -301ns when running db2diag at level 4
JR18333	Cannot create a user properly on active directory
JR18471	Fix user authority
JR18559	CustomPriceList cannot be saved if XML large
JR18594	Credt card expiry date 10 yrs in future not accepted
JR18617	Product search fails
JR18639	Retrofit WebController change
JR18658	Cannot adjust order amount in Accelerator
JR18693	Messages get lost on the out bound queue
JR18822	Problem running ReturnCreditAndCloseScan to credit a return
JR18910	SendMsgCmd does not provide interface to setContentType of HTML
JR18960	Non-English characters in the Organization Administration Console not correct
JR19038	orderProcess changes timeplaced field in Orders table
JR19070	ownerID used instead of ownerDN in SAROwner bean
JR19078	Tax calc.breakdown for mul.tax cat. N/A after a return
JR19380	Can't send the attachment within email notification
LI70162	Cannot create duplicate categories from accelerator

Additions to the Load command

To improve performance during instance creation, the following two items have been added as options, starting from WebSphere Commerce 5.4.0.2, for the -method parameter of the Load command:

    -method createonly

Use the createonly option with the -method parameter to create massload data (MLD) files without loading the data into the database. The files that are created when you use this option (.mld and .cmd files) are placed in a directory named `MassLoadOutputFiles`. This directory is created as a subdirectory under the directory from which you run the Load command (under your working directory); therefore, your working directory must be writable.

The following example runs the Load command using the createonly option with the -method parameter on a Windows system:

```
massload -dbname mall -dbuser db2admin -dbpwd db2admin
-infile c:\WebSphere\CommerceServer\data\example.xml
-method createonly
```

You can subsequently use your native database load utility to load the MLD files that you created into a WebSphere Commerce database by running the Load command using the loadonly option with the -method parameter as described next.

Note: The program obtains information about the native database load utility that your database product uses from the customizer property file. For more information on the customizer property file, see the *IBM WebSphere Commerce 5.4 Catalog Manager User's Guide*.

-method loadonly -directory *fullpathdir*

Use the loadonly option with the -method parameter to load MLD files that were created using the createonly option with the -method parameter as described previously. When you use the loadonly option, you must also use the -directory parameter or an error will result.

Note: The -directory parameter replaces the -infile parameter that you would specify if you were using any other option with the -method parameter.

For the value of the -directory parameter, you must specify the fully qualified path of the `MassLoadOutputFiles` directory that was created using the createonly option; in addition, the `MassLoadOutputFiles` directory and the files within it must be writable.

The following example runs the Load command using the loadonly option with the -method parameter (and the required -directory parameter) on a Windows system:

```
massload -dbname mall -dbuser db2admin -dbpwd db2admin -method
loadonly -directory
c:\WebSphere\CommerceServer\bin\MassLoadOutputFiles -schemaname
wcsadmin
```

Always specify the name of the target database schema using the -schemaname parameter when you run the Load command using this option. Otherwise, the program uses the name of the database schema obtained when the `MassLoadOutputFiles` directory and its files were originally created.

Use the loadonly option with the -method parameter only for instance creation. If you use it at any other time, the result may not be desirable.

When you use the loadonly option with the -method parameter, errors and other messages are saved in files that have a .log extension. These log files are written to the `MassLoadOutputFiles` directory specified for the -directory parameter.

For more information on the Load command, including information on other options that can be used with the -method parameter, see the *IBM WebSphere Commerce 5.4 Catalog Manager User's Guide*.

Duplicate record checking with ID resolution

Previously, the Loader package resolved IDs and loaded data without inspecting the incoming data for duplication of what already existed in the target database. Consequently, database tables could be updated without actually changing the contents of the database. This had performance implications -- the Loader spent time reloading data that already existed.

In order to improve performance, the Loader package now eliminates duplicate XML elements early in the process -- during ID resolution. You do not need to use any new parameters to utilize this feature. When you use the update or mixed method with the ID Resolve command, the ID Resolver automatically recognizes XML elements being resolved that are duplicates of records that already exist in the database. The duplicates are not written to the output file specified by the -outfile option; but the Loader package Error Reporter writes them to the `xxx.error.xml` file (where `xxx` is the input XML file name without the file extension). The entries in the `xxx.error.xml` file are made without counting the duplicates as actual errors.

Each element is checked for duplication by comparing that element's attributes to the corresponding columns in the database table. An element must always contain all of the attributes required by the DTD. However, elements may also contain optional attributes. In checking for duplicates, therefore, the ID Resolver uses all of the attributes contained by each element; if any attribute is different, the element is not considered to be a duplicate.

When you use the mixed method with the ID Resolve command, only elements already determined to be noncandidates for insertion are further processed to check for duplicates. This increases the efficiency of the process.

Duplicate record checking is not performed by the ID Resolver when you use the load method because the loadable elements should not already exist in the database when you use the load method.

Note: Relationship elements (such as cattogrp and catgrprel) may not be reported as duplicates.

Additions to the Organization Approval

To allow an organization to override the parent organization's approval requirement, the disable member groups have been added to the list of approval levels for the organization. The Site Administrator can logon to the WebSphere Commerce Administration Console, select **Sites > Access Management > Organizations** to view all organizations. From this list, the Site Administrator can select an organization and click **Approval** to view a list of approval groups for the organization and select approval groups from this list and move them to the Selected roles list. The default available approval groups, including the new disable member groups, are as follows:

- Contract Submit Approvals
- Order Process Approvals
- RFQ Response Approvals
- User Registration Approvals
- DisableInherited Contract Submit Approvals (new)
- DisableInherited Order Process Approvals (new)
- DisableInherited RFQ Response Approvals (new)
- DisableInherited User Registration Approvals (new)

By default, the root organization has the User Registration Approvals group added to the Selected roles list and the default organization has the DisabledInherited User Registration Approvals group added to the Selected roles list. The implication of this default setting is:

- A user registering to any organization except the default organization requires approval, unless this organization explicitly disables the approval.
- A user registering to the default organization does not require approval.

MigrateEncryptedInfo.sh now supports wasuser

The MigrateEncryptedInfo.sh script has been updated to expect a fifth parameter when the database is DB2 and the user is not the DB2 instance user (typically DB2INST1). The fifth parameter specifies the path to the DB2 instance home directory.

Performance improvement by removing case sensitive search by logon Id

When using WebSphere Commerce with LDAP enabled, the LDAP distinguished name (DN) is captured in the USERREG.LOGONID field in the database. Because the DN is case insentive on LDAP, the query on the logon ID field in the commerce database must also be made case insensitive. The way this case insentive query was implemented in the 5.4 GM had some

performance issues, leading to a fix in fix pack 6. The fix is that we now store the logon ID in lowercase when LDAP is used, which means we can do a much faster query to lookup a user.

As part of the migration to 5.4.0.6 or later, it is necessary to run a database update script if you are using LDAP. This script will convert all of the logon ID entries in your database to lowercase. The queries have also been modified, to ensure that the external behavior remains identical. That is, you can enter your logon ID in mixed case, and we will still be able to resolve the correct user in the database.

These scripts will be run as part of the fix pack install process; however, if you have additional feeds on the users and orgentity tables it may be helpful to know about these scripts.

DB2 and Windows migration script usage:

WC_installdir\bin\updatedb.db2.d62022_ldap.bat *database_name db_user_name db_user_password db_schema_owner*

For example, c:\WebSphere\CommerceServer\bin\updatedb.db2.d62022_ldap.bat WC54 db2admin password db2admin

DB2 and AIX or Linux or Solaris migration scripts usage:

WC_installdir/bin/updatedb.db2.d62022_ldap.sh *database_name db_user_name db_user_password db_schema_owner*

For example, /opt/WebSphere/CommerceServer/bin/updatedb.db2.d62022_ldap.sh WC54 db2admin password db2admin

Oracle and Windows migration scripts usage:

WC_installdir\bin\updatedb.oracle.d62022_ldap.bat *database_name db_user_name db_user_password db_schema_owner*

For example, c:\WebSphere\CommerceServer\bin\updatedb.oracle.d62022_ldap.bat WC54 db2admin password db2admin

Oracle and AIX or Solaris migration script usage:

WC_installdir/bin/updatedb.oracle.d62022_ldap.sh *database_name db_user_name db_user_password db_schema_owner*

For example, /opt/WebSphere/CommerceServer/bin/updatedb.oracle.d62022_ldap.sh WC54 db2admin password db2admin

Encrypting/Decrypting Existing Payment Data - PDIEnforce.sh and PDIEnforce.bat

PDIEnforce is used to encrypt or decrypt the rows of the database that represent payment sensitive data. The tool will either encrypt or decrypt rows of the database table based on the encryption flag set in the instance xml file. If the instance xml file has encryption enabled, then the tool will encrypt any entries within the table that are currently stored in human-readable form. If the instance xml file contains a flag to disable encryption, then the PDIEnforce tool will decrypt any encrypted rows of the database table.
This is useful in the following two scenarios:

Scenario 1: A user decides to start encrypting payment information. They modify the instance xml file to enable data encryption. This will cause any future orders to store encrypted payment data, however it does not encrypt existing database entries that are in the clear. PDIEnforce will read the instance xml file and traverse through the database to encrypt the un-encrypted rows.

Scenario 2: Payment data in the clear may be more useful in a development or test environment. In order to decrypt payment data, modify the instance xml file to disable encryption and run PDIEnforce to decrypt the encrypted rows of the database.

The usage of PDIEnforce is as follows:

a. Navigate to *WC_installdir*/bin

b. Run the script:

      PDIEnforce.sh db2 *instance_name*

      PDIEnforce.sh oracle *instance_name*

Where *instance_name* represents on which instance PDIEnforce should execute.

a. Navigate to *WC_installdir*\bin

b. Run the script:

      PDIEnforce.bat db2 *instance_name*

      PDIEnforce.bat oracle *instance_name*

Where *instance_name* represents on which instance PDIEnforce should execute.

Note: You can enable or disable encryption by setting the PDIEncrypt="off" or PDIEncrypt="on" flag in the *instance_name*.xml file, found in *WC_installdir*/instances/*instance_name*/xml directory. Please see chapter four of the Security Guide for information on enabling this feature during instance creation.

Chapter 4 Installing and uninstalling the fix pack

To apply this fix pack, your WebSphere Commerce version must be at a 5.4, 5.4.0.1, 5.4.0.2 , 5.4.0.3, 5.4.0.4 or 5.4.0.5 level on the AIX, Solaris, Linux, Windows NT, or Windows 2000 operating system. If you have installed any other WebSphere Commerce fixes prior to applying this fix pack, contact WebSphere Commerce support.

Ensure that you back up your database before applying this fix pack. For instructions on how to back up your database, see your database software documentation.

Preinstallation

Preinstallation requirements for DB2/390

On the Linux for IBM ^ zSeries and S/390 platform, WebSphere Commerce fix pack 5.4.0.6 allows you to create a 2-tier configuration with a remote DB2 for z/OS server.

Requirements for the remote DB2 for z/OS system

Before installing DB2 for z/OS support, ensure that your system meets the requirements listed in the following guides:

- *DB2 Universal Database for OS/390 and z/OS Installation Guide Version 7* (Document Number GC26-9936-01)
- *DB2 Universal Database for OS/390 and z/OS Administration Guide Version 7* (Document Number SC26-9931-01)

Setting up the data conversion environment

In order to use Unicode, you need to set up the Unicode data conversion environment for IBM z/OS. Support for Unicode has been integrated with the z/OS platform since Version 1.2. To enable the data conversion environment, do the following:

1. Find SYS1.SCUNJCL(CUNJIUTL) and copy it to a private library.
2. Edit and update CUNJIUTL. For example:
   ```
   //CUNJIUTL JOB ACCT#,,CLASS=A,MSGLEVEL=(1,1),MSGCLASS=A
   //CUNMIUTL EXEC PGM=CUNMIUTL
   //SYSPRINT DD   SYSOUT=*
   //TABIN    DD   DISP=SHR,DSN=SYS1.SCUNTBL
   //SYSIMG   DD   DSN=user.private.library(CUNIMG00),DISP=SHR
   //SYSIN    DD   *

   /******************************************
   * INPUT STATEMENTS FOR THE IMAGE GENERATOR *
   ******************************************/

   CASE NORMAL;                 /* ENABLE TOUPPER AND TOLOWER */

   ........
   CONVERSION 0037,1208,ER;
   CONVERSION 1208,0037,ER;
   CONVERSION 0500,1208,ER;
   CONVERSION 1208,0500,ER;
   .........

   /*
   ```
   Ensure above 37<->1208 and 500<->1208 data conversion are enabled. You may need to add other data conversion pair if you have other code page in your own environment.
3. Submit the CUNJIUTL JOB. Ensure the return code is 0.
4. As specified in JOB CUNJIUTL (see SYSIMG DD card in the JCL), an image for conversion environment would be created as *user.private.library*(CUNIMG00). Copy this member to the current system parmlib. For example, USER.PARMLIB or SYS1.PARMLIB.

5. Create a new system parmlib member CUNUNI*xx*, where *xx* is the suffix of the member, in the current system parmlib, such as USER.PARMLIB or SYS1.PARMLIB. For example, member *USER.PARMLIB(CUNUNIxx)* which contains the following:
   `REALSTORAGE 0 ; IMAGE `*CUNIMG00*`;`
   where *CUNIMG00* refer to the member copied to system parmlib.
6. Edit and update the current system IEASYS*yy* to add a parameter for the data conversion environment. For example, add `"UNI=`*xx*`"`, where *yy* is the suffix of the system IEASYS*yy* and *xx* is the suffix of the member CUNUNI*xx* created in step 5.
7. ReIPL the system.
8. Check the data conversion environment by running the D UNI,ALL command from the system console. All data conversion pairs will be displayed in the `CONVERSION` section of the command output. Ensure that all conversion pairs exist. If so, then the data conversion environment has been set up successfully.

Preinstallation requirements for WebSphere Application Server

Notes: These WebSphere Application Server steps are not required if you are applying the fix pack to WebSphere Commerce Studio. In this case, proceed to **Preinstallation requirements for DB2 Universal Database**

For WebSphere Commerce Business Edition for Linux for IBM ^ zSeries and S/390 only, proceed to the section **Installing WebSphere Application Server Version 4.0.4**.

If you are running WebSphere Application Server Version 4.0.2, you must remove any previously installed fixes from the machine and then upgrade to at least WebSphere Application Server Version 4.0.3 with the fixes.

As such, you must perform the following steps:

- Uninstalling previous WebSphere Application Server fixes
- Installing WebSphere Application Server Version 4.0.3
- Applying fixes to WebSphere Application Server 4.0.3

The details of each step are provided in the following sections.

Uninstalling previous WebSphere Application Server 4.0.2 fixes

This section describes how to remove previously applied WebSphere Application Server fixes. The following WebSphere Application Server fixes must be removed if they are currently installed on your system:

 ▶ WIN   If WebSphere Application Server is installed on Windows, the following fixes must be removed:

- PQ54291 - Add support for WebSphere Commerce Suite caching
- PQ55771 - Command line utilities do not work when using JCE package
- PQ57814 - WebSphere Application Server security fails after a period of time due to excessive file handles being opened for wsserver.key

- PQ58443 - When installing an EAR with enterprise beans in version 4.0.2 and choosing to regenerate the deployed code, performance issues occur

AIX **SOLARIS** **Linux** If WebSphere Application Server is installed on AIX, Solaris, or on Linux, the following fixes must be removed:

- PQ54291 - Add support for WebSphere Commerce Suite caching
- PQ57814 - WebSphere Application Server security fails after a period of time due to excessive file handles being opened for wsserver.key
- PQ58443 - When installing an EAR with enterprise beans in version 4.0.2 and choosing to regenerate the deployed code, performance issues occur
- PQ58038 - Performing an export via XMLConfig puts an additional CRLF into the exported file at <application-server-full-name>. This only applies to Linux platform.

You must uninstall any WebSphere Application Server fixes in the reverse order that you installed them.

To determine which fixes are installed and the order in which they were installed, do the following:

1. Using a text editor, open the following file:
   `WAS_installdir/properties/com/ibm/websphere/product.xml`

2. You must make note of each fix that has been applied. Each fix is surrounded by `<event></event>` tags and has a type of `<type>Fix</type>`. Note the date and time of each fix to determine the order in which they were installed (this is not necessarily the order they are listed in the file).

3. Determine which fixes were already removed. Each removed fix has an `<event>` type of `<type>backout</type>`.

4. To uninstall the remaining fixes in the reverse order that they were installed, do the following:
   a. Change directory to the fix location, as follows:
      `WAS_installdir/eFix/PQ#`
   b. Stop WebSphere Application Server and IBM HTTP services.
   c. Run the backup JAR file using the following command. Note that the JAR file name is case-sensitive. As such, ensure that you type the exact file name.
      `WAS_installdir/java/jre/bin/java -jar PQ#_eFix_backup.jar`

Installing WebSphere Application Server Version 4.0.3

After removing the fixes for WebSphere Application Server 4.0.2, the next step is to install the WebSphere Application Server 4.0.3 PTF.   This can be found at the following Web address:

http://www.ibm.com/support/docview.wss?uid=swg24001292

When installing the PTF, follow the instructions included in the accompanying README file. Ensure WebSphere Application Server and IBM HTTP services (both server and administration server) have been stopped before applying the PTF.

Applying fixes to WebSphere Application Server 4.0.3

After WebSphere Application Server 4.0.3 is installed, you must apply the following fixes:

- PQ63116 - When the administration server is stopped and restarted, various clients get authentication errors (note that this fix is included in the Cumulative Security eFix).
- PQ61462 - Associate a naming issue after install.
- Cumulative WebSphere Plug-in eFix 4.0.2/4.0.3/4.0.4.
- PQ67506 - IIS plugin truncates certificates (note that this is for IIS users only).

To apply these fixes, do the following:

1. Using a Web browser, navigate to the following Web page:
   http://www.ibm.com/software/webservers/appserv/support.html

2. For each of the preceding listed fixes, enter the fix number (for example, `PQ63116`) or enter `plugin cumulative` as the search keyword to search and download the fix. Install all fixes according to their corresponding README files, and in the exact order as shown in the preceding list.

3. Apply the workaround for the potential problems listed at:
   http://www.ibm.com/support/docview.wss?rs=494&uid=swg21054765

Installing WebSphere Application Server Version 4.0.4

▶ Linux   **For Linux for IBM ^ zSeries and S/390 only**

1. Ensure you already have the WebSphere Application Server 4.0.2 installed without fixes as part of the initial product installation.

2. Install the WebSphere Application Server 4.0.4 PTF, this can be found at the following Web address: http://www-1.ibm.com/support/docview.wss?rs=180&context=SSEQTP&q=fix pack&uid=swg24001635

   When installing the WebSphere Application Server 4.0.4 PTF, follow the instructions included in the accompanying README file. Ensure WebSphere Application Server and IBM HTTP services (both server and administration server) have been stopped before applying the PTF.

Preinstallation requirements for DB2 Universal Database

A memory leak existed in the version of DB2 (7.1.0.55) that was shipped with WebSphere Commerce 5.4. The issue has been addressed with DB2 Version 7 with fix pack 6 (7.1.0.60). Refer to the DB2 APAR IY26608 at the following Web address:
   http://www.ibm.com/support/manager.wss?rs=0&rt=0&org=SW&doc=1049150

If you are running the version of DB2 that was originally shipped with WebSphere Commerce 5.4, you must upgrade to at least DB2 version 7.1.0.60. Note that a BIND is required for all databases; see the DB2 fix pack README for details.

DB2 Version 7 fix packs can be found at:

http://www.ibm.com/cgi-bin/db2www/data/db2/udb/winos2unix/support/v7fphist.d2w/report

Installation

This section provides information about how to install the fix pack. It is divided into different sections, depending upon the operating system to which you are installing the fix pack. Refer to the appropriate section for your configuration.

Important: Prior to installing the WebSphere Commerce Version 5.4.0.6 fix pack, ensure you have completed the steps in the **Preinstallation** section. If you experience problems while installing the WebSphere Commerce Version 5.4.0.6 fix pack, do not attempt to reinstall the fix pack before you run the uninstall script. For instructions on how to uninstall the fix pack, refer to the **Uninstallation** section.

Note that the installation scripts are case sensitive. As such, ensure that you review the examples carefully.

Installing the fix pack on AIX

▶ AIX ◀   To install the WebSphere Commerce Version 5.4.0.6 fix pack, complete the following steps:

1. Download the fix pack from the IBM Web site and extract the files into a temporary directory. This directory must be writable.

2. Ensure that you are logged in as the root user for WebSphere Commerce.

3. Stop the following:

   - Web server and its respective administration processes
   - WebSphere Application Server
   - WebSphere Commerce Configuration Manager server
     For instructions on how to stop and start these components, refer to "Starting and Stopping WebSphere Commerce Components" in the *IBM WebSphere Commerce Version 5.4 Installation Guide.*

4. Run `slibclean` on the command line to release library resources.

5. You must run the `install_wc.sh` command. Do the following:

   a. Using the command line, navigate to the temporary directory, and enter
      ```
      ./install_wc.sh
      ```

   b. When prompted to indicate if you have stopped the following processes, enter `1` (Process) to continue the fix pack installation.

      - Web server services and their respective administration processes
      - WebSphere Application Server service
      - WebSphere Commerce Configuration Manager Server service

c. Enter the directory where WebSphere Commerce is installed. For example, enter `/usr/WebSphere/CommerceServer`.

d. Enter the directory where WebSphere Application Server is installed. For example, enter `/usr/WebSphere/AppServer`.

e. Enter the edition of WebSphere Commerce that you have installed: `Business` or `Pro`.

f. Enter the Database type that is installed: `db2` or `oracle`

g. When prompted to indicate if the install information entered is correct, enter `1` (yes) to continue the fix pack installation.

6. If you have previously created instances, you must run the `install_was` command for each instance that was created before applying this fix pack. To run this command, do the following:

a. Navigate to the temporary directory for the instance, and enter `./install_was.sh`

b. Enter the directory where WebSphere Commerce is installed. For example, enter `/usr/WebSphere/CommerceServer`.

c. Enter the directory where WebSphere Application Server is installed. For example, enter `/usr/WebSphere/AppServer`.

d. Enter the directory where your application is installed in the `WAS_installdir/InstalledApps` directory. For example, enter `WC_Enterprise_App_instance_name.ear`.

e. Enter the edition of WebSphere Commerce that you have installed: `Business` or `Pro`.

f. Enter the type of database used with WebSphere Commerce: `db2 or oracle`.

g. Repeat steps a through f for each instance.

7. Confirm that the WebSphere Commerce 5.4.0.6 fix pack installation was successful by checking the `WC_installdir/service/fixpack/5406/WCfixpack5406_wc_AIX.log` file. The text "`Completed WebSphere Commerce 5.4.0.6 Fixpack Installation with no errors.`" should display near the end of the log file.

   If you have previously created an instances, check the following log for each instance: `WC_installdir/service/fixpack/5406/WC_Enterprise_App_instance_name.ear.log`

8. If you have previously created instances, add new bootstrap data for each instance by doing the following:

a. Ensure you are logged in as a non-root user (default is `wasuser`). If you are using root user ensure your system variables are setup correctly.

b. Navigate to the `WC_installdir/bin` directory:

c. Run the following script:

```
updatedb.sh database user password schemaowner infile dbtype dbuserhome
locale
```

 DB2   For example:

```
updatedb.sh mall db2inst1 db2inst1 DB2INST1 wcs.updateFP.bootstrap.xml DB2
/home/db2inst1 en_US
```

 Oracle   For example:

```
updatedb.sh o817 wcsuser wcsuser WCSUSER wcs.updateFP.bootstrap.xml ORACLE
/home/oracle en_US
```

9. Confirm that the `updatedb.sh` command was successful by checking the `WC_installdir/logs/updatedb.log` file. The file should not contain error messages.

10. If you have previously created instances, update the stored procedures by doing the following:

a. Ensure you are logged in as a non-root user (default is `wasuser`).

b. Using a command line, navigate to the `WC_installdir/bin` directory.

c. Run the following command: `. /<DB2 instance home>/sqllib/db2profile`. For example, `. /home/db2inst1/sqllib/db2profile`.

d. Run the following script to drop the stored procedures:

    DB2   `./dropsp.db2.sh database user password`

    Oracle   `./dropsp.oracle.sh database user password`

e. Run the following script to recreate the stored procedures:

    DB2   `./createsp.db2.sh database user password schemaowner`

    Oracle   `./createsp.oracle.sh database user password`

11. Complete the steps in the **Postinstallation** section and apply the applicable fixes.

12. Run the `wcpostinstall.sh` script from the *WC_installdir/*bin directory. Ignore the error messages `unsupported HTTPVERSION: 1.3.19.2,` `unsupported WASVERSION: looking for 4.0.2` in the *WC_installdir/*`logs/wcpostinstall.log` file.

13. Restart the following:

    • Web server and its respective administration processes
    • WebSphere Application Server
      For instructions on how to stop and start these components, refer to "Starting and Stopping WebSphere Commerce Components" in the *IBM WebSphere Commerce Version 5.4 Installation Guide.*

Installing the fix pack on Solaris

SOLARIS To install the WebSphere Commerce Version 5.4.0.6 fix pack, complete the following steps:

1. Download the fix pack from the IBM Web site and extract the files into a temporary directory. This directory must be writable.

2. Ensure that you are logged in as the root user for WebSphere Commerce.

3. Stop the following:

   - Web server and its respective administration processes
   - WebSphere Application Server
   - WebSphere Commerce Configuration Manager server
     For instructions on how to stop and start these components, refer to "Starting and Stopping WebSphere Commerce Components" in the *IBM WebSphere Commerce Version 5.4 Installation Guide.*

4. You must run the install_wc.sh command. Do the following:

   a. Using the command line, navigate to the temporary directory, and enter
      ./install_wc.sh

   b. When prompted, select option 1 (Process)to indicate you have stopped the following processes:

      - Web server services and their respective administration processes
      - WebSphere Application Server service
      - WebSphere Commerce Configuration Manager Server service

   c. Enter the directory where WebSphere Commerce is installed. For example, enter
      /opt/WebSphere/CommerceServer.

   d. Enter the directory where WebSphere Application Server is installed. For example, enter
      /opt/WebSphere/AppServer.

   e. Enter the edition of WebSphere Commerce that you have installed: Business or Pro.

   f. Enter the Database type that is installed: db2 or oracle

   g. When prompted to indicate if the information entered is correct, enter 1 (yes) to continue the fix pack installation.

5. If you have previously created instances, you must run the install_was command for each instance that was created before applying this fix pack. To run this command, do the following:

a. Navigate to the temporary directory for the instance, and enter ./install_was.sh

b. Enter the directory where WebSphere Commerce is installed. For example, enter /opt/WebSphere/CommerceServer.

c. Enter the directory where WebSphere Application Server is installed. For example, enter /opt/WebSphere/CommerceServer.

d. Enter the directory where your application is installed in the WAS_installdir/InstalledApps directory. For example, enter WC_Enterprise_App_instance_name.ear.

e. Enter the edition of WebSphere Commerce that you have installed: Business or Pro.

f. Enter the type of database used with WebSphere Commerce: db2 or oracle.

g. Repeat steps a through f for each instance.

6. Confirm that the WebSphere Commerce 5.4.0.6 fix pack installation was successful by checking the WC_installdir/service/fixpack/5406/WCfixpack5406_wc_SUN.log file. The text "Completed WebSphere Commerce 5.4.0.6 Fixpack Installation with no errors." should display near the end of the log file.

If you have previously created instances, check the following log for each instance:
WC_installdir/service/fixpack/5406/WC_Enterprise_App_instance_name.ear.log

7. If you have previously created instances, add new bootstrap data for each instance by doing the following:

a. Ensure you are logged in as a non-root user (default is wasuser). If you are using root user ensure your system variables are setup correctly.

b. Navigate to the WC_installdir/bin directory:

c. Run the following script:
updatedb.sh database user password schemaowner infile dbtype dbuserhome locale

DB2   For example:

updatedb.sh mall db2inst1 db2inst1 DB2INST1 wcs.updateFP.bootstrap.xml DB2 /home/db2inst1 en_US

Oracle   For example:

updatedb.sh o817 wcsuser wcsuser WCSUSER wcs.updateFP.bootstrap.xml ORACLE /export/home/Oracle en_US

8. Confirm that the `updatedb.sh` command was successful by checking the *WC_installdir*`/logs/updatedb.log` file does not contain error messages.

9. If you have previously created instances, update the stored procedures by doing the following:

    a. Ensure you are logged in as a non-root user (default is `wasuser`).

    b. Using a command line, navigate to the *WC_installdir*`/bin` directory.

    c. Run the following command: `.  /`*<DB2 instance home>*`/sqllib/db2profile`. For example, `.  /home/db2inst1/sqllib/db2profile`.

    d. Run the following script to drop the stored procedures:

        > DB2   `./dropsp.db2.sh` *database user password*

        > Oracle   `./dropsp.oracle.sh` *database user password*

    e. Run the following script to recreate the stored procedures:

        > DB2   `./createsp.db2.sh` *database user password schemaowner*

        > Oracle   `./createsp.oracle.sh` *database user password*

10. Complete the steps in the **Postinstallation** section and apply the applicable fixes.

11. Run the `wcpostinstall.sh` script from the *WC_installdir*`/bin` directory. Ignore the error messages `unsupported HTTPVERSION: 1.3.19.2,` `unsupported WASVERSION: looking for 4.0.2` in the *WC_installdir*`/logs/wcpostinstall.log` file.

12. Restart the following:
    *   Web server services and their respective administration services
    *   WebSphere Application Server service
        For instructions on how to stop and start these processes, refer to "Starting and Stopping WebSphere Commerce Components" in the *IBM WebSphere Commerce Version 5.4 Installation Guide.*

Installing the fix pack on Linux

> Linux   To install the WebSphere Commerce Version 5.4.0.6 fix pack, complete the following steps:

If you want to use a 2-tier configuration with remote DB2 for z/OS, install WebSphere Commerce 5.4 and apply fix pack 5.4.0.6 immediately. If an existing version of WebSphere Commerce will be used, ensure that you run the wcpostinstall.sh command after applying the fix pack.

1. Download the fix pack from the IBM Web site and extract the files into a temporary directory. This directory must be writable.

2. Ensure you are logged in as the root user for WebSphere Commerce.

3. Stop the following:

   - Web server and its respective administration processes
   - WebSphere Application Server
   - WebSphere Commerce Configuration Manager Server
     For instructions on how to stop and start these components, refer to "Starting and Stopping WebSphere Commerce Components" in the *IBM WebSphere Commerce Version 5.4 Installation Guide*.

4. You must run the `install_wc.sh` command. Do the following:

   a. Using the command line, navigate to the temporary directory, and enter
      `./install_wc.sh`

   b. When prompted to indicate if you have stopped the following processes, enter `1` (yes) to continue the fix pack installation.

      - Web server services and their respective administration processes
      - WebSphere Application Server service
      - WebSphere Commerce Configuration Manager Server service

   c. Enter the directory where WebSphere Commerce is installed. For example, enter
      `/opt/WebSphere/CommerceServer`

   d. Enter the directory where WebSphere Application Server is installed. For example, enter
      `/opt/WebSphere/AppServer`

   e. Enter the edition of WebSphere Commerce that you have installed: `Business` or `Pro`

   f. Enter the type of database used with WebSphere Commerce: `db2`

Oracle Oracle is not supported in this release.

    g. When prompted to indicate if the install information entered is correct, enter `1` (yes) to continue the fix pack installation.

5. If you have previously created instances, you must run the `install_was` command for each instance that was created before applying this fix pack. To run this command, do the following :

    a. Navigate to the temporary directory for the instance, and enter `./install_was.sh`

    b. Enter the directory where WebSphere Commerce is installed. For example, enter `/opt/WebSphere/CommerceServer`

    c. Enter the directory where WebSphere Application Server is installed. For example, enter `/opt/WebSphere/AppServer`

    d. Enter the directory where your application is installed in the `WAS_installdir\InstalledApps` directory. For example, enter `WC_Enterprise_App_instance_name.ear`.

    e. Enter the edition of WebSphere Commerce that you have installed: `Business` or `Pro`.

    f. Enter the type of database used with WebSphere Commerce: `DB2`

    Oracle Oracle is not supported in this release.

    g. Repeat steps a through f for each instance.

6. Confirm that the WebSphere Commerce 5.4.0.6 fix pack installation was successful by checking the `WC_installdir/service/fixpack/5406/WC_fixpack5406_wc_LINUX.log` log file.

    The text "`Completed WebSphere Commerce 5.4.0.6 Fixpack Installation with no errors.`" should display near the end of the log file.

    If you have previously created instances, check the following log for each instance: `WC_installdir/service/fixpack/5406/WC_Enterprise_App_instance_name.ear.log`

7. If you have previously created instances, add new bootstrap data for each instance by doing the following:

    a. Ensure you are logged in as a non-root user (default is `wasuser`). If you are using root user ensure your system variables are setup correctly.

b. Navigate to the *WC_installdir/*bin directory:

c. Run the following script:

```
updatedb.sh database user password schemaowner infile dbtype dbuserhome
locale
```

`DB2`   For example:

```
updatedb.sh mall db2inst1 db2inst1 DB2INST1 wcs.updateFP.bootstrap.xml
DB2 /home/db2inst1 en_US
```

`Oracle`   Oracle is not supported in this release.

8. Confirm that the updatedb.sh command was successful by checking the *WC_installdir/*logs/updatedb.log file. The file should not contain error messages.

9. If you have previously created instances, update the stored procedures by doing the following:

a. Ensure you are logged in as a non-root user (default is wasuser).

b. Using a command line, navigate to the *WC_installdir/*bin directory.

c. Run the following command: . /*<DB2 instance home>*/sqllib/db2profile. For example, . /home/db2inst1/sqllib/db2profile.

d. Run the following script to drop the stored procedures:

`DB2`   ./dropsp.db2.sh database user password

e. Run the following script to recreate the stored procedures:

`DB2`   ./createsp.db2.sh database user password schemaowner

10. Complete the steps in the **Postinstallation** section and apply the applicable fixes.

11. Run the wcpostinstall.sh script from the *WC_installdir/*bin directory. Do not use the wcb.sh script as it has been superseded by the wcpostinstall.sh script.

12. Restart the following:

- Web server services and their respective administration services
- WebSphere Application Server service
  For instructions on how to stop and start these components, refer to "Starting and Stopping WebSphere Commerce Components" in the *IBM WebSphere Commerce Version 5.4 Installation Guide.*

Installing the fix pack on Windows NT or Windows 2000

> **WIN** To install the WebSphere Commerce Version 5.4.0.6 fix pack on your WebSphere Commerce machine, complete the following steps:

1. Download the fix pack from the IBM Web site and extract the files into a temporary directory. This directory must be writable.

2. Ensure that you are logged in with a Windows user ID that is a member of the Administrator group.

3. In the Services panel, stop the following services:
   - Web server services and their respective administration processes
   - WebSphere Application Server service
   - WebSphere Commerce Configuration Manager Server service
     For instructions on how to stop and start services, refer to "Starting and Stopping WebSphere Commerce Components" in the *IBM WebSphere Commerce Version 5.4 Installation Guide*.

4. You must run the `install_wc` command. Do the following:

   a. Using the command line, navigate to the temporary directory, and enter `install_wc`.

   b. When prompted, enter `n` to indicate that you are not applying the fix pack to WebSphere Commerce Studio.

   c. When prompted, enter `proceed` to indicate you have stopped the following processes:

      - Web server services and their respective administration processes
      - WebSphere Application Server service
      - WebSphere Commerce Configuration Manager Server service

   d. Enter the directory where WebSphere Commerce is installed. For example, enter `C:\Program Files\WebSphere\CommerceServer`.

   e. Enter the directory where WebSphere Application Server is installed. For example, enter `C:\Program Files\WebSphere\AppServer`.

   f. Enter the edition of WebSphere Commerce that you have installed: `Business` or `Pro`.

   g. When prompted to indicate if the information entered is correct, enter `1` (yes) to continue the fix pack installation.

5. If you have previously created instances, you must run the `install_was` command for each instance that was created before applying this fix pack. To run this command, do the following:

a. Navigate to the temporary directory for the instance, and enter `install_was`.

b. Enter the directory where WebSphere Commerce is installed. For example, enter
`C:\Program Files\WebSphere\CommerceServer`.

c. Enter the directory where WebSphere Application Server is installed. For example, enter
`C:\Program Files\WebSphere\AppServer`.

d. Enter the type of database used with WebSphere Commerce: `DB2` or `Oracle`.

e. Enter the edition of WebSphere Commerce that you have installed: `Business` or `Pro`.

f. Enter the directory where your application is installed in the
`WAS_installdir\InstalledApps` directory. For example, enter
`WC_Enterprise_App_instance_name.ear`.

g. When prompted to indicate if the information entered is correct, enter `1` (yes) to continue
the fix pack installation.

h. Repeat steps a through g for each instance.

6. Confirm that the WebSphere Commerce 5.4.0.6 fix pack installation was successful by
checking the `WC_installdir\service\fixpack\5406\WCfixpack5406_wc_WIN.log` file.
Ensure that no errors were reported. The text "`Completed WebSphere Commerce 5.4.0.6`
`Fix Pack Installation with no errors.`" should display near the end of the log file.

If you have previously created instances, check the following log for each instance:
`WC_installdir\service\fixpack\5406\WC_Enterprise_App_instance_name.ear.log`

7. If you have previously created instances, add new bootstrap data by running the following
script from a command line, in the `WC_installdir\bin` directory:
`updatedb.bat database user password schemaowner infile dbtype locale`

> DB2   For example:

`updatedb.bat mall build build BUILD wcs.updateFP.bootstrap.xml DB2 en_US`

> Oracle   For example:

`updatedb.bat o817 wcsuser wcsuser WCSUSER wcs.updateFP.bootstrap.xml oracle`
`en_US`

8. Confirm that updatedb.bat command was successful by checking the
`WC_installdir\logs\updatedb.log` file. The file should not contain error messages.

9. If you have previously created instances, update the stored procedures by running the following scripts from a command line, in the *WC_installdir*\bin directory:

   a. Run the following script to drop the stored procedures:

   `DB2` `dropsp.db2.bat` *database user password*

   `Oracle` `dropsp.oracle.bat` *database user password*

   b. Run the following script to recreate the stored procedures:

   `DB2` `createsp.db2.bat` *database user password schemaowner*

   `Oracle` `createsp.oracle.bat` *database user password*

10. Complete the steps in the **Postinstallation** section and apply the applicable fixes.

11. Restart the following services:

   • Web server services and their respective administration services
   • WebSphere Application Server service
   For instructions on how to stop and start services, refer to "Starting and Stopping WebSphere Commerce Components" in the *IBM WebSphere Commerce Version 5.4 Installation Guide*.

Installing the fix pack on WebSphere Commerce Studio

To install the WebSphere Commerce Version 5.4.0.6 fix pack on your WebSphere Commerce Studio machine, complete the following steps:

1. Download the fix pack from the IBM Web site and extract the files into a temporary directory. This directory must be writable.

2. Ensure that you are logged in with a Windows user ID that is a member of the Administrators group.

3. Shut down VisualAge® for Java™.

4. Modify the `instance_name.xml` for the WebSphere Commerce Studio instance to ensure that the instance name in `WCSTUDIO_installdir\instances\instance_name\xml\instance_name.xml` is correct.

   For example, if the instance name is VAJ_Demo, you must modify the `VAJ_Demo.xml` file by replacing the instance name in the entry InstanceName="demo" with the correct instance name as InstanceName="VAJ_Demo".

5. You must run the `install_wc` command. To run this command, do the following:

   a. Using the command line, navigate to the temporary directory, and enter `install_wc`.

   b. When prompted, enter `y` to indicate that you are applying the fix pack to WebSphere Commerce Studio.

   c. When prompted, enter `proceed` to indicate you have stopped the VisualAge for Java process.

   d. Enter the directory where WebSphere Commerce Studio is installed. For example, enter `C:\WebSphere\CommerceServerDev`.

   e. Enter the directory where `java.exe` is located. For example, enter `D:\WebSphere\WebSphereStudio4\bin`.

   f. Enter the edition of WebSphere Commerce Studio that you have installed: `Business` or `Pro`.

   g. When prompted to indicate if the information entered is correct, enter `1` (yes) to continue the fix pack installation.

6. Confirm that the WebSphere Commerce 5.4.0.6 fix pack installation was successful by checking the `WCSTUDIO_installdir\service\fixpack\5406\WCfixpack5406_wc_WIN.log` file.

Ensure that no errors were reported. The text "`Completed WebSphere Commerce 5.4.0.6 Fixpack Installation with no errors.`" should display near the end of the log file.

7. Add new bootstrap data by running the following script from a DB2 command window, in the `WCSTUDIO_installdir`\bin directory:

   `updatedb.bat database user password schemaowner infile dbtype locale`

   > DB2   For example:

   `updatedb.bat mall build build BUILD wcs.updateFP.bootstrap.xml DB2 en_US`

   > Oracle   For example:

   `updatedb.bat o817 wcsuser wcsuser WCSUSER wcs.updateFP.bootstrap.xml Oracle en_US`

8. Confirm that `updatedb.bat` command was successful by checking the `WCSTUDIO_installdir`\logs\updatedb.log file. The file should not contain error messages.

9. Copy the `WCSTUDIO_installdir`\instances\default\xml\search.xml file into your `WCSTUDIO_installdir`\instances\`instance_name`\xml directory.

10. If you are using VisualAge for Java, you must copy files updated in the `WCSTUDIO_installdir`\wc.ear directory to the VisualAge for Java's WebSphere Test Environment directory as follows:

    a. Backup any customized files in the `VAJ_installdir`\ide\project_resources\IBM WebSphere Test Environment\hosts\default_host\default_app\web directory.

    b. Copy the content of the `WCSTUDIO_installdir`\wc.ear\wcstores.war directory, except for the subdirectories `META-INF`, `WEB-INF`, and any published store directory (for example, `InFashion`) into the `VAJ_installdir`\ide\project_resources\IBM WebSphere Test Environment\hosts\default_host\default_app\web directory.

    c. Copy the content of the `WCSTUDIO_installdir`\wc.ear\wctools.war directory, except for the subdirectories `META-INF` and `WEB-INF`, into the `VAJ_installdir`\ide\project_resources\IBM WebSphere Test Environment\hosts\default_host\default_app\web directory.

    d. Add and merge the previous customized code into the newly copied files in WebSphere Test Environment directory.

11. If you are using VisualAge for Java to create customized WebSphere Commerce code, you must do one of the following:

a. If you are going to apply the Commerce Enhancement Pack (October 2002), proceed directly to the portions of the *Commerce Enhancement Pack (October 2002) Getting Started Guide* that apply to WebSphere Commerce Studio. After installing the Commerce Enhancement Pack, you must then import the corresponding WebSphere Commerce code repository, according to the instructions in the *Commerce Enhancement Pack (October 2002) Code Transition Guide*.

b. If you are not applying the Commerce Enhancement Pack (October 2002), then follow the instructions in the *WebSphere Commerce fix pack 5.4.0.6 Code Transition Guide*. This guide is available in the `repository.zip` package.

Postinstallation

This section describes steps that must be performed after the 5.4.0.6 fix pack has been applied to a WebSphere Commerce machine. These steps are not required for WebSphere Commerce Studio machines.

Postinstallation information is divided into the following subsections:

- Staging server user information
- Postinstallation steps for all platforms
- Postinstallation steps for specific platforms

Ensure that you complete all of the appropriate postinstallation steps for your configuration.

Staging server users

An error in the `WC_installdir`/schema/oracle/wcs.stage.trigger.sql file for Oracle users causes the trigger USTG_TRDDESC to work incorrectly with staging databases.

> **Oracle** If you are using an Oracle database, do the following to correct the USTG_TRDDESC trigger:

1. Using SQLPLUS, connect to the staging database with the user ID that WebSphere Commerce instance uses to connect to the database (for example, WC).
2. Run the following command from the `WC_installdir`/schema/oracle directory:
   ```
   sqlplus wcs/wcs@o817 < wcs.stage.trigger.sql
   ```
   where */wcs* is the user ID and o817 is the database name.

Postinstallation steps for all platforms

The following postinstallation steps must be performed for all WebSphere Commerce machines, regardless of the operating system that you are using:

- WebSphere Application Server security JSSE cumulative fix
- Adding the missing search.xml file
- Enabling SSL for QuickPlace (if you are using QuickPlace)
- Enabling the double click feature
- Configuring an administrator ID to use with Payment Manager

Each topic is described in more detail in subsequent sections.

WebSphere Application Server security JSSE cumulative fix

After you have completed installing the fix pack 5.4.0.6, you must apply the following cumulative fix: *WAS_Security_03-17-2003_4.0.5-4.0.4-4.0.3-4.0.2-4.0.1_JSSE_cumulative_Fix*. Refer to the following site for support and download information: http://www-1.ibm.com/support/docview.wss?rs=180&context=SSEQTP&q=JSSE+cumulative+Fix&uid=swg24004455&loc=en_US&cs=utf-8&lang=en.

Adding the missing search.xml file

After applying the fix pack 5.4.0.6, do the following:

1. Navigate to the `WC_installdir\instances\default\xml\`directory.

2. From this directory, copy the `search.xml` file into your
   `WC_installdir`/instances/`instance_name`/xml directory.

Enabling SSL for QuickPlace

After you have completed installing the fix pack 5.4.0.6 and all services have been restarted, additional steps are required if you need to enable SSL for QuickPlace. For each instance that has already been created or for any created in the future, you must update the class path, as follows:

1. Start the WebSphere Application Server Administration Console. Refer to "Starting and Stopping WebSphere Commerce Components" in the *IBM WebSphere Commerce version 5.4 Installation Guide*.

2. Stop WebSphere Commerce.

3. From the **Tools** menu, select **Application Assembly Tool**.

4. In the **Welcome to Application Assembly Tool** window, click the **existing** tab.

5. Click **Browse**.

6. Navigate to the
   `WAS_installdir`/installedApps/WC_Enterprise_App`instance_name`.ear directory.

7. Click once on the `wcstores.war` directory and then click **Select**.

8. Click **OK**.

9. Add `lib/sslite.zip` to the class path, then click **Apply**.

10. Select **File** and **Open**.

11. Navigate to the
    `WAS_installdir`/installedApps/WC_Enterprise_App`instance_name`.ear directory.

12. Click once on the `wctools.war` directory and then click **Open**.

13. Add `lib/sslite.zip` to the class path, then click **Apply.**

14. Close the Application Assembly Tool.

15. Restart WebSphere Commerce.

After updating these class path values, refer to *IBM QuickPlace User Guide* for information about enabling SSL for QuickPlace. In particular, refer to the "Setting Up the QuickPlace Server to Use or Stop Using SSL" section in Chapter 5, "Administering a QuickPlace Server".

Enabling the double click feature

Important: For a detailed description of this feature, refer to the technical note listed in the Troubleshooting Section. You should review the technical note before you enable this feature.

After you have completed installing the fix pack 5.4.0.6 and all services have been restarted, do the following to enable the double click feature:

1. Stop the following services:
    *   Web server services and their respective administration processes,
    *   WebSphere Application Server service,
    *   WebSphere Commerce Configuration Manager Server services.
    For instructions on how to stop and start services, refer to "Starting and Stopping WebSphere Commerce Components" in the *WebSphere Commerce Version 5.4 Installation Guide*.

2   Before running the double click feature, confirm the setting in the `instance_name.xml` file for your WebSphere Commerce instance is set correctly as follow:
    a. In a text editor, open the
        `WC_installdir`/instances/`instance_name`/xml/`instance_name`.xml file.
    b. search for the `EnableDoubleClickHandler` string. Ensure that the value is set to `true`.

3   Restart your system.

Configuring an administrator ID to use with Payment Manager

If you have Payment Manager installed on your local WebSphere Commerce machine, you must follow the steps below to configure a WebSphere Commerce administrator ID to use with Payment Manager. Note that the newest version of Payment Manager is known as WebSphere Commerce Payments:

1. Logon to the WebSphere Commerce Administration Console as `wcsadmin`.
2. Select **Sites > Access Management > Users** to define a new user, for example `mySpecialPMAdminID`, and assign the user to the Site Administrator role.
3. Select **Payments** > **Users**. The **User Search** page displays.
4. Enter the newly defined ID in the **User Name** field and click **Search**. The new user ID will be listed in the results screen.
5. Click the new user ID to display the **Users** screen.
6. Ensure that the **Merchant** list is cleared, and select **Payment Manager Administrator** as the role for the new ID. Click **Update** to complete the assignment.
7. Log off from the WebSphere Commerce Administration Console.

8. Stop WebSphere Commerce instance from the WebSphere Application Server Administration Console.
9. In a text editor, open the *WC_installdir*/instances/*instance_name*/xml/*instance_name*.xml file.
10. Locate the `<PaymentManager>` node, and change the value specified for the PaymentManager attribute `PMAdminId` to the new ID.
11. Save and close the *WC_installdir*/instances/*instance_name*/xml/*instance_name*.xml file.
12. Restart the WebSphere Commerce instance from the WebSphere Application Server Administration Console.

Postinstallation steps for specific platforms

The following postinstallation steps are specific to the operating system listed:

> AIX > SOLARIS > Linux

   • Installing APAR IY56108

> Linux

   • Creating the DB2 for z/OS database instance
   • Installing DB2 special fix 6369
   • Creating the DB2 for z/OS stored procedure
   • Deleting the DB2 for z/OS WebSphere Commerce instance

> WIN

   • Correcting the store publishing problem

Each topic is described in more detail in subsequent sections.

> AIX > SOLARIS > Linux   **Installing APAR IY56108**

This APAR installs files that are not included in the fix pack. Download and install APAR IY56108 from the WebSphere Commerce 5.4.0.6 download page (http://www.ibm.com/support/docview.wss?uid=swg24006485). The instructions for installing the APAR are packaged with the tar file.

> Linux   **Creating the DB2 for z/OS database instance**

1. Configure the DB2 for z/OS database. The database administrator needs to allocate the following resources and provide the values when installing WebSphere Commerce:

DB2 for z/OS properties	Default value	Notes
Database user		The user name for DB2 for z/OS.
Database password		The password for DB2 for z/OS.
Schema owner		The user group that owns the WebSphere Commerce 5.4 schema.
Location		The database location.

Catalog	PRVDB7	The database catalog.
DB2 for z/OS server		The host name for DB2 for z/OS.
Port		The port for DB2 for z/OS.
System name	DSN7	The database system name.
Data storage group volume	PVDB71	The volume of the WebSphere Commerce 5.4 data.
Index storage group volume	PVDB71	The volume of the WebSphere Commerce 5.4 indices.
Buffer pool for database tables	BP0	The buffer pool (4KB). Use another 4KB bufferpool, such as BP1. For advanced performance concerns, refer to the *DB2 Universal Database for OS/390 and z/OS Administration Guide*
Buffer pool large	BP16K0	The buffer pool (16KB).
Data storage group	PVDB71	The storage group name of the WebSphere Commerce 5.4 data.
Index storage group	PVDB71	The storage group name of the WebSphere Commerce 5.4 indices.

If multiple WebSphere Commerce instances share the same DB2 for z/OS server, make sure that the values for the following parameters are unique for each instance:

       i.   schema owner

      ii.   data storage group

    iii.   data storage group volume

    iv.   index storage group

     v.   index storage group volume

This is mandatory in order to avoid conflict between instances. Besides, using different buffer pools for different instances is not mandatory, but is recommended, because it may enhance performance.

2. Customize the database properties:

   a. Run the following commands from a command prompt:

```
su - wasuser
cd /opt/WebSphere/CommerceServer/bin
./schemaupdate.db2_390.sh
```

b. Provide the requested information from the table in step 1 when prompted. The following information is also required:

- **Enter data storage group name.** The default is WC54TSSG. You can use any valid name as a storage group name. You can select the default value by pressing Enter.
- **Enter index storage group name.** The default is WC54IXSG. You can use any valid name as a storage group name. You can select the default value by pressing Enter.
- **Enter Primary (PRIQTY) Quantity.** The default is 96. You can select the default value by pressing Enter.
- **Enter Secondary (SECQTY) Quantity.** The default is 1440. You can select the default value by pressing Enter.

3. Change the database name. For each WebSphere Commerce 5.4 instance created with DB2 for z/OS, four databases are created on the DB2 for z/OS server. The database names use WC54DB as a prefix and end with an integer. For example, WC54DB1, WC54DB2, WC54DB3, and WC54DB4. If you want to use a different prefix, for example, to avoid a name conflict, do the following:

a. In a text editor, open the `/opt/WebSphere/CommerceServer/bin/modifyschema390.sh` file.

b. Replace the original name with the new name. Ensure that the new name contains no more than six alpha-numerical characters only. For example, from `NEWDB1=WC54DB$DBN1` to `NEWDB1=new_name$DBN1`.

4. Create the instance by doing the following:

a. Start the WebSphere Application Server and logon as wasuser.

b. To start the Configuration Manager, run the `./config_server.sh` command.

c. In a second command window, run the `./config_client.sh` command.

d. In the Configuration Manager, right click **Instance List**, then click **Create Instance**.

e. For detailed instruction on how to fill in the panels of Instance Creation Wizard, refer to the *IBM WebSphere Commerce for Linux, IBM eServer zSeries and S/390 Installation Guide Version 5.4*. Only the Database Panel is different with this fix pack, so use the following instructions:

- **Database Administrator Name:** Enter the name of your local database administrator.
- **Database Administrator Password:** Enter the password associated with the database administrator user's ID.
- **Database Administrator Home directory:** Enter the local database instance home directory.
- **Database name:** Enter an alias name for the instance database.
- **Database type:** Select `DB2/390`.
- **Database user name:** Enter your DB2 for z/OS user ID.
- **Database user password:** Enter the password associated with the DB2 for z/OS user ID.
- **Database user home directory:** Enter the same value used for the **Database Administrator Home directory**.
- Check **Use remote database**.
- **Database server hostname:** Enter the host name for your DB2 for z/OS server.
- **Database server port:** Enter the port used to access the DB2 for z/OS server.
- **Database node name:** Enter a short name for your DB2 for z/OS server.

- **Database schema owner:** Enter the user group who owns the instance database schema.
- **Database Location Name:** Enter the location name of the remote DB2 for z/OS system.

   f. After completing all the panels, click **Finish** to start instance creation.

5. During instance creation, a dialog box opens with the following message: **Run CHECKV54, then click OK to continue**. When the message displays, do the following:

   a. Run the following commands:
```
cd /opt/WebSphere/CommerceServer/schema/db2_390
ftp DB2/zOS_server
cd "dataset_name"
ascii
put CHECKV54
```
     Ask your database administrator to allocate a data set to you.

   b. Connect to the DB2 for z/OS server with IBM Personal Communication.

   c. Submit the CHECKV54 job. Check the log to ensure the job was successful.

Installing DB2 special fix 6369

Special fix 6369 corrects the DB2 Universal Database Client problem. It was built on DB2 fix pack 7 for Linux for IBM zSeries and S/390 and should be applied on the local Linux for IBM zSeries and S/390 host. Before applying the fix, the DB2 version will be 7.1.0.68, and after, it will be at the 7.1.0.69 level.

To install DB2 special fix 6369, do the following:

1. Stop DB2.
2. Copy the `/opt/WebSphere/CommerceServer/lib/linux390/special_6369.tar.gz` file to a temporary directory.
3. Change to the temporary directory and run the following commands as root:
```
gunzip special_6369.tar.gz
tar -xvf special_6369.tar
cp INST/bin/* /usr/IBMdb2/V7.1/bin
cp INST/lib/* /usr/IBMdb2/V7.1/lib
cp INST/bnd/* /usr/IBMdb2/V7.1/bnd
/usr/IBMdb2/V7.1/instance/db2iupdt db2inst1
```
4. Restart DB2.

Creating the DB2 for z/OS stored procedure

Before you publish a sample store, you must first create a set of stored procedures by doing the following:

1. Create the source data set and copy the source members:
   a. Create the *userID*.WC54.STOPROC data set. Use the same settings as the DSN710.SDSNSAMP data set.
   b. FTP or send all files in the `opt/WebSphere/CommerceServer/schema/linux390/storedprocs` directory to the newly created data set.

    c. Create the following three data sets: *userID*.DBRMLIB.DATA, *userID*.RUNLIB.LOAD, *userID*.SRCLIB.DATA. Use the same settings as the DSN710.DBRMLIB.DATA, DSN710.RUNLIB.LOAD, and DSN710.SRCLIB.DATA data sets. You can also refer to the **Example to create data set** document in the /opt/WebSphere/CommerceServer/schema/linux390/storedprocs directory.

2. Compile and load the stored procedure into the database:

    a. Ensure that the DSNHSQL, TSOBATCH, and TSOBATCA members are in your system library, for example, SYS1.PROCLIB. Change the user IDs, CEE library, IGY library, IEL library, DB2 library, DB2 SSN, user source DBRMLIB library, user RUNLIB library, and user SRCLIB library to match your own environment. Refer to the members in the `/opt/WebSphere/CommerceServer/schema/linux390/storedprocs` directory as examples. You may need to ask your system administrator.

    b. Update member CMNJCLnn (nn=01~15) in *userID*.WC54.STOPROC data set. Change the user ID, password, QUALIFIER(*schema_name*), and DB2 SSN. When running the CTRSP1 job step, the format of RUN statement depends on how you set up the DSNTEP2 program. Use the following example as your guide:

```
//CRTSP1   EXEC TSOBATCH,DB2LEV=DSN710
//SYSTSIN  DD *
DSN SYSTEM(DSN1)
RUN PROGRAM(DSNTEP2) PLAN(DSNTEP71) LIB('DSN710.RUNLIB.LOAD')  +
PARMS('SQLTERM(!)')
```

    c. Update member CMNSPDmm (mm=01~15) in the *userID*.WC54.STOPROC data set by changing the schema name. For example, `CREATE PROCEDURE` *`schema_name`*`.AdjustInventory`

    d. If you have created these 15 stored procedures before, you have to drop them all before recreating them. Job DELALL will do that. Edit and update DELALL in *userID*.WC54.STOPROC, change the USER, PASSWORD in the job card. Change the schema name of the procedures as in the previous step. For example:

```
    DROP PROCEDURE schema_name.AdjustInventory RESTRICT
```

       Submit DELALL and ensure all stored procedures are dropped successfully.

    e. Submit CMNJCLnn (nn=01~15). Check the job control language (JCL) output and ensure that the highest return code is <=04.

    f. Verify the stored procedure in DB2 by running the following command from the DB2 command line:

```
db2 "select name from sysibm.sysroutines where schema='schema_name'"
```

       You can also run the query in DB2I SPUFI. The 15 stored procedure names should be displayed.

3. Prepare the Workload Manager (WLM) application environment:

    a. The stored procedure uses WLM environment WLMENV3, which should be defined in WLM.

    b. In TSO command mode, type `ex 'sys1.sblscli0(iwmarin0)'`. Depending on your environment, you can also call the WLM definition from the ISPF menu.

    c. Press Enter. The **WLM definition** panel opens.

    d. Press Enter. The **Choose Service Definition** panel opens.

    e. Select the **Extract definition from WLM couple data set** option.

    f. Press Enter. The **Definition Menu** panel opens.

    g. Select the **Application Environments** option.

h. Press Enter. The **Application Environment Selection List** panel opens. Create the WLMENV3 definition using the following values:

  Application Environment Name: `WLMENV3`
  Description: `Stored Proc Env 17 TCB`
  Subsystem Type: `DB2`
  Procedure Name: `V71AWLM3`
  Start Parameters: `DB2SSN=&IWMSSNM`
  `NUMTCB=17`
  `APPLENV=WLMENV3`

i. As an option, you can change the V71AWLM3 procedure name, as well as the APPLENV name WLMENV3. But if you change WLMENV3 to another name, you have to update the WLM ENVIRONMENT WLMENV3 in all 15 CMNSPDmm members accordingly.

j. Press F3 to return to the **Definition Menu** panel. From the **Utilities** menu, select **Validate definition** and press Enter.

k. Press F3 to return to the **Definition Menu** panel. From the **Utilities** menu, select **Install definition** and press Enter.

l. Press F3 to return to the **Definition Menu** panel. From the **Utilities** menu, select **Activate service policy** and press Enter.

m. The definition is now ready.

4. Prepare the V71AWLM3 system procedure.

a. This procedure name must match the WLMENV3 definition. It must be in the system procedure library, usually called SYS1.PROCLIB. Refer to V71AWLM3 in the `/opt/WebSphere/CommerceServer/schema/linux390/storedprocs` directory as a example. Update the user ID, user library, and DB2SSN according to your own environment.

b. Enter ISPF Command Shell, and add a user ID for procedure V71AWLM3. For example:

  `ADDUSER V71AMLM3 NOPASSWORD OMVS(UID(0))`

c. Grant DB2 authority for this user ID. For example:

  `RDEFINE SERVER DB2.`*`DSN1`*`.* UACC(NONE)`
  `PERMIT DB2.DSN1.* CLASS(SERVER) ID(V71AWLM3) ACCESS(READ)`
  `SETR RACLIST(SERVER) REFRESH`

  Where *DSN1* is the DB2 subsystem name. You can change it to match your own environment.

Deleting the DB2 for z/OS WebSphere Commerce instance

To delete the WebSphere Commerce instance, do the following:

1. Start the WebSphere Application Server Administration Client:

a. Collapse **Enterprise Applications**, right click **WebSphere Commerce Enterprise Applications**, select **Stop** in the pop-up menu.

b. Collapse **Nodes >** *host_name* **> Application Servers**, right click **WebSphere Commerce Server -** *instance_name*, select **Stop** in the pop-up menu.

c. Right click **Enterprise Applications** > **WebSphere Commerce Enterprise Applications,** and select **Remove** in the pop-up menu.

d. Right click **Nodes** > *host_name* **> Application Server > WebSphere Commerce Server -** *instance_name*, and select **Remove** in the pop-up menu.

e. Collapse **Resources > JDBC Providers** > **WebSphere Commerce DB2 JBDC Driver** *instance_name*, click **Data Sources**.

f. Go to right upper subwindow, right click **WebSphere Commerce Unknown DataSource** *instance_name*, select **Remove** in the pop-up menu.

g. Exit the WebSphere Application Server Administration Client.

2. Start the WebSphere Commerce Configuration Manager.

a. Collapse **WebSphere Commerce >** *host_name* **> Instance List**.

b. Right click the instance name, then select **Delete instance...** in the pop-up menu.

3. Run the following commands:

```
rm -fr WC_installdir/instances/instance_name
su - db2inst1
db2 uncatalog db database_name
db2 uncatalog dcs db Rdatabase_name
db2 terminate
exit
```

Where *database_name* is the name of your database, for example, MALL, and R*database_name* is the name of your database with the prefix R. For example, RMALL.

4. Then, `ftp /opt/WebSphere/CommerceServer/schema/db2_390/DROPDB` to your DB2 for z/OS server and run the DROPDB file in SPUFI.

⟩ WIN **Correcting the store publishing problem**

Store publishing fails with the error message `java.lang.NullPointerException at com.ibm.wca.MassLoader.Formatter.JDBCFormatter$FormatWorker.run(JDBCFormatter. java(Compiled Code))` in the `WC_installdir`/instances/*instance_name*/logs/wcs.log file. To correct the problem, do the following after you have created the instance:

1. In a text editor, open the `adminserver.bat` file.

2. Set the `JITC_COMPILEOPT` environment variable by inserting the lines that are displayed in bold as shown in the following file excerpt. Note that the examples below for setting the environment variable is split across several lines for presentation purposes only. It should be added to the file on a single line with no spaces between the methods and classes.

```
...

SET CONSOLE_ENCODING=-Dws.output.encoding=console
SET JITC_COMPILEOPT=
SKIP{com/ibm/wca/MassLoader/Formatter/JDBCFormatter$FormatWorker}{run}

...
```

Uninstallation

If you experience problems during the installation of this fix pack, do not attempt to reinstall the fix pack before you run the uninstall script. The directory that contains the uninstall scripts is _WC_installdir_/service/fixpack/5406. Reinstalling the fix pack, without first uninstalling it, will overwrite the backup JAR files in the _WC_installdir_/service/fixpack/5406 directory, which were created during the initial installation.

Preparing to uninstall the fix pack

Before uninstalling the fix pack, you must stop the Web server and WebSphere Application Server. If you do not stop these components, you will see errors as described in **Chapter 5 Troubleshooting guide**.

Uninstalling the fix pack from AIX

> AIX To uninstall the WebSphere Commerce Version 5.4.0.6 fix pack, complete the following steps:

1. Ensure you are logged in as the root user for WebSphere Commerce.

2. Stop the following:

   - Web server and its respective administration processes
   - WebSphere Application Server
   - WebSphere Commerce Configuration Manager server
     For instructions on how to stop and start these components, refer to "Starting and Stopping WebSphere Commerce Components" in the _IBM WebSphere Commerce Version 5.4 Installation Guide_.

3. You must run the uninstall_wc command, by doing the following:

   a. Using the command line, navigate to the _WC_installdir_/service/fixpack/5406 directory.

   b. Enter the following command: ./uninstall_wc.sh

   c. Enter the directory where WebSphere Commerce is installed. For example, enter /usr/WebSphere/CommerceServer.

   d. Enter the directory where WebSphere Application Server is installed. For example, enter /usr/WebSphere/AppServer.

   e. When prompted to indicate if the information entered is correct, enter 1 (yes) to continue the fix pack uninstallation.

4. If you have previously created instances, you must run the `uninstall_was` command for each instance. To run this command, do the following:

   a. Using a command line, navigate to the following directory:
      `WC_installdir/service/fixpack/5406`

   b. Enter the following command: `./uninstall_was.sh`

   c. Enter the directory where WebSphere Application Server is installed. For example, enter `/usr/WebSphere/AppServer`.

   d. Enter the directory where your application is installed in the `WAS_installdir/InstalledApps` directory. For example, enter `WC_Enterprise_App_instance_name.ear`.

   e. Repeat steps b through d for each instance.

5. Confirm that the WebSphere Commerce 5.4.0.6 fix pack uninstallation was successful by checking the following files in the `WC_installdir/service/fixpack/5406` directory:
   `uninstallWC_Enterprise_App_instance_name.ear.log`
   `uninstallWCfixpack5406_wc_AIX.log`

   Ensure that no errors were reported.

6. Rename the `WC_installdir/service/fixpack/5406` directory to a backup directory `(for example, WC_installdir/service/fixpack/backup)` before you reinstall the fix pack.

Uninstalling the fix pack from Solaris

SOLARIS   To uninstall the WebSphere Commerce Version 5.4.0.6 fix pack, complete the following steps:

1. Ensure you are logged in as the root user for WebSphere Commerce.

2. Stop the following:

    - Web server and its respective administration processes
    - WebSphere Application Server
    - WebSphere Commerce Configuration Manager server
      For instructions on how to stop and start these components, refer to "Starting and Stopping WebSphere Commerce Components" in the *IBM WebSphere Commerce Version 5.4 Installation Guide*.

3. You must run the `uninstall_wc` command, by doing the following:

    a. Using the command line, navigate to the `WC_installdir/service/fixpack/5406` directory.

    b. Enter the following command: `./uninstall_wc.sh`

    c. Enter the directory where WebSphere Commerce is installed. For example, enter `/opt/WebSphere/CommerceServer`.

    d. Enter the directory where WebSphere Application Server is installed. For example, enter `/opt/WebSphere/AppServer`.

    e. When prompted to indicate if the information entered is correct, enter `1` (yes) to continue the fix pack uninstallation.

4. If you have previously created instances, you must run the `uninstall_was` command for each instance. To run this command, do the following:

    a. Using a command line, navigate to the following directory:
        `WC_installdir/service/fixpack/5406`

    b. Enter the following command: `./uninstall_was.sh`

    c. Enter the directory where WebSphere Application Server is installed. For example, enter `/usr/WebSphere/AppServer`.

    d. Enter the directory where your application is installed in the `WAS_installdir/InstalledApps` directory. For example, enter `WC_Enterprise_App_instance_name.ear`.

    e. Repeat steps b through d for each instance.

5. Confirm that the WebSphere Commerce 5.4.0.6 fix pack uninstallation was successful by checking the following files in the `WC_installdir/service/fixpack/5406` directory:
`uninstallWC_Enterprise_App_instance_name.ear.log`

`uninstallWCfixpack5406_wc_SUN.log`

Ensure that no errors were reported.

6. Rename the `WC_installdir/service/fixpack/5406` directory to a backup directory (for example, `WC_installdir/service/fixpack/backup`) before you reinstall the fix pack.

Uninstalling the fix pack from Linux

> Linux   If you have created an instance on Linux for IBM zSeries with DB2 for z/OS, you must delete this instance before uninstalling the WebSphere Commerce Version 5.4.0.6 fix pack. Support for DB2 for z/OS begins with WebSphere Commerce Version 5.4.0.6 fix pack. If you do not have, at a minimum, the WebSphere Commerce Version 5.4.0.6 fix pack your DB2 for z/OS instance will not work.

For instructions on how to delete a instance with DB2 for z/OS, refer to the *Deleting the WebSphere Commerce instance* section.

To uninstall the WebSphere Commerce Version 5.4.0.6 fix pack, complete the following steps:

1. Ensure you are logged in as the root user for WebSphere Commerce.

2. Stop the following:

   - Web server and its respective administration processes
   - WebSphere Application Server
   - WebSphere Commerce Configuration Manager server
     For instructions on how to stop and start these components, refer to "Starting and Stopping WebSphere Commerce Components" in the *IBM WebSphere Commerce Version 5.4 Installation Guide*.

3. You must run the `uninstall_wc` command, by doing the following:

   a. Using a command line, navigate to the following directory:
      `WC_installdir/service/fixpack/5406`

   b. Enter the following command:
      `./uninstall_wc.`sh

   c. Enter the directory where WebSphere Commerce is installed. For example, enter
      `/opt/WebSphere/CommerceServer`.

   d. Enter the directory where WebSphere Application Server is installed. For example, enter
      `/opt/WebSphere/AppServer`.

4. If you have previously created instances and you have applied the fix pack you must run the `uninstall_was.sh` command for each instance. To run this command, do the following:

   a. Using a command line, navigate to the following directory:
      `WC_installdir/service/fixpack/5406`.

   b. Enter the following command:
      `./uninstall_was.`sh

c. Enter the directory where WebSphere Application Server is installed. For example, enter `/usr/WebSphere/AppServer`.

d. Enter the directory where your application is installed in the `WAS_installdir`/InstalledApps directory. For example, enter `WC_Enterprise_App_instance_name`.ear.

e. Repeat steps b through d for each instance.

5. Confirm that the WebSphere Commerce 5.4.0.6 fix pack uninstallation was successful by checking the following files in the `WC_installdir`/service/fixpack/5406 directory:

```
uninstallWC_Enterprise_App_instance_name.ear.log
uninstallWCfixpack5406_wc_LINUX.log
```

Ensure that no errors were reported.

6. Rename the `WC_installdir`/service/fixpack/5406 directory to a backup directory (for example, `WC_installdir`/service/fixpack/backup)before you reinstall the fix pack.

Uninstalling the fix pack from Windows NT or Windows 2000

WIN   To uninstall the WebSphere Commerce Version 5.4.0.6 fix pack, complete the
following steps:

1. Ensure you are logged in with a Windows user ID that is a member of the Administrator
    group.

2. In the Services panel, stop the following services:

    *   Web server and its respective administration processes
    *   WebSphere Application Server
    *   WebSphere Commerce Configuration Manager server
        For instructions on how to stop and start these components, refer to "Starting and
        Stopping WebSphere Commerce Components" in the *IBM WebSphere Commerce
        Version 5.4 Installation Guide*.

3. You must run the `uninstall_wc` command, by doing the following:

    a. Using the command line, navigate to the following directory:
        `WC_installdir\service\fixpack\5406`

    b. Enter the following command: `uninstall_wc`

    c. When prompted to indicate if you are uninstalling this Fix Pack from WebSphere
        Commerce Studio, enter `n`.

    d. Enter the directory where WebSphere Commerce is installed. For example, enter
        `C:\Program Files\WebSphere\CommerceServer`.

    e. Enter the directory where WebSphere Application Server is installed. For example, enter
        `C:\Program Files\WebSphere\AppServer`.

4. If you have previously created instances, you must run the `uninstall_was` command for
    each instance. To run this command, do the following:

    a. Using a command line, navigate to the following directory:
        `WC_installdir\service\fixpack\5406`

    b. Enter the following command: `uninstall_was`

    c. Enter the directory where WebSphere Application Server is installed. For example, enter
        `C:\Program Files\WebSphere\AppServer`.

    d. Enter the directory where your application is installed in the
        `WAS_installdir\InstalledApps` directory. For example, enter
        `WC_Enterprise_App_instance_name.ear`.

e. Repeat steps b through d for each instance.

5. Confirm that the WebSphere Commerce 5.4.0.6 fix pack uninstallation was successful by checking the following files in the `WC_installdir`\service\fixpack\5406 directory:

```
UninstallWC_Enterprise_App_instance_name.ear.log
UninstallWCfixpack5406_wc_WIN.log
```

Ensure that no errors were reported.

6. Rename the `WC_installdir`\service\fixpack\5406 directory to a backup directory (for example, `WC_installdir`\service\fixpack\backup) before you reinstall the fix pack.

Uninstalling the fix pack from WebSphere Commerce Studio

To uninstall the WebSphere Commerce Version 5.4.0.6 fix pack from your WebSphere Commerce Studio machine, complete the following steps:

1. Ensure that you are logged in with a Windows user ID that is a member of the Administrator group.

2. Shut down VisualAge for Java.

3. You must run the `uninstall_wc` command, by doing the following:

    a. Using the command line, navigate to the following directory:
       `WCSTUDIO_installdir\service\fixpack\5406`

    b. Enter the following command:
       `uninstall_wc`

    c. When prompted to indicate if you are uninstalling this Fix Pack from WebSphere Commerce Studio, enter `y`.

    d. Enter the directory where WebSphere Commerce Studio is installed. For example, enter
       `C:\WebSphere\CommerceServerDev`

    e. Enter the directory where `java.exe` is located. For example, enter
       `C:\WebSphere\WebSphereStudio4\bin`

4. Confirm that the WebSphere Commerce 5.4.0.6 fix pack uninstallation was successful by checking the following file in the `WCSTUDIO_installdir\service\fixpack\5406` directory:

    `UninstallWCfixpack5406_wc_WIN.log`

    Ensure that no errors were reported.

5. Rename the `WCSTUDIO_installdir\service\fixpack\5406` directory to a backup directory (for example, `WCSTUDIO_installdir\service\fixpack\backup`) before you reinstall the fix pack .

Restoring code in your VisualAge for Java workspace
When you uninstall fix pack 5.4.0.6 from your WebSphere Commerce Studio machine, you must also restore the level of code contained in your VisualAge for Java workspace to the level that it was at before you imported the `WC_5406.dat` file.

To restore the level of code in your workspace, use the tools provided by VisualAge for Java to replace the WebSphere Commerce projects with the versions that you created in the "Backing up

your WebSphere Commerce assets" section of the *WebSphere Commerce fix pack 5.4.0.6 Code Transition Guide*.

Chapter 5 Troubleshooting guide

For general troubleshooting information, see the *IBM WebSphere Commerce Version 5.4 Installation Guide*. The following information is specific to this fix pack.

Technical Notes

Refer to the following technical notes if the abstract applies to your system. You can find this information using the Technotes link at the following Web site:

www.ibm.com/software/webservers/commerce/wc_be/support.html
www.ibm.com/software/webservers/commerce/wc_pe/support.html

Component of WebSphere Commerce affected by the technote	Technote number	Description
Refer to these technotes after installing the WebSphere Commerce Version 5.4.0.6 fix pack:		
Store publishing	1053492	Some constraints are missing in Product Advisor database tables causing FashionFlow store publish to fail
Product Advisor	1053765	Product Advisor performance improvement
Search schema optimization parameters	1054327	How search schema optimization parameters improve performance using DB2 or Oracle
Store publishing	1054760	IDRESGEN does not resolve CPPMN_ID from CPPMNDESC table, causing the FashionFlow store publish to fail
All	1054765	Upgrading to WebSphere Application Server 4.0.3
Stopping the WebSphere Commerce instance	1055289	Errors from the Scheduler EJB beans at shutdown
Logs, wcpostinstall.sh	1055304	Running database scripts and logging exceptions after running wcpostinstall.sh again
IDResolver and Loader	1055305	Permission and access denied for trace.txt and message.txt
File permissions	1055308	Files have incorrect ownership permissions
Web server plug-in	1079765	Setting up the 3-tier Web server plug-in cache
	1079766	Enabling the double click feature
Payment Manager	1106207	Using Payment Manager with SSL

All platforms for WebSphere Commerce

WebSphere Payments with SSL not communicating properly

Using WebSphere Payments with SSL turned on, the KeyManagerFactory class will not return KeyManager properly. Refer to technote 1106207 for complete details.

The `WCSRealm.jar` file has been updated in this fix. Refer to the Payment Manager configuration section of the *IBM WebSphere Commerce Version 5.4 Installation Guide* for steps to propagate changes made to `WCSRealm.jar` to your Payment Manager.

If you are using WebSphere Application Server version 4.0.3, you must do the following:

1) Navigate to the `WAS_installdir\InstalledApps\WC_Enterprise_App_instance_name.ear\lib\payment\` directory.

2) Make a backup copy of the `eTillCal.zip` file.

3) Replace the `eTillCal.zip` file in the current directory with the one located in temporary install directory.

Microsoft(R) Internet Explorer Version 6

Tools may look distorted using Microsoft Internet Explorer Version 6. If this occurs and you want to use Microsoft Internet Explorer Version 6, do the following:

1. In a text editor, open the JSP file which is not displaying correctly.

2. Locate the following line:

   - `<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0//EN">`

     Replace it with:

   - `<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 TRANSITIONAL//EN">`

Web server or WebSphere Application Server (or both) not stopped

Before uninstalling this fix pack, you must stop the Web server and WebSphere Application Server. For example, if the Web server is left running you will see the following error:

> WIN   Example error on Windows:

```
    2002/09/13 12:17:46 Error 79 -- Unable to open destination file:
   d:\WebSphere\CommerceServer\bin\wccache.dll :
d:\WebSphere\CommerceServer\bin\wccache.dll (The
process cannot access the file because it is being used by another process)
```

```
2002/09/13 12:17:46 Error 18 -- Extraction failed:
D:\WebSphere\CommerceServer\bin\wccache.dll
```

In this case, the fix pack installation could not overwrite the file. To remedy this error, you must stop the Web server, unzip the `wccache` file from the fix pack file and replace the file in `WC_installdir\bin` directory. The platform specific instructions for this fix are provided next.

WIN   Update the `wccache.dll` file by doing the following:

1. At a command prompt, enter the following command:
    ```
    unzip WCfixpack5406_wc_WIN.zip
    ```

2. Copy the `wccache.dll` file to the `WC_installdir\bin` directory.

AIX   Update the `libwccache.a` file by doing the following:

      1. At a command prompt, enter the following commands:
```
tar -xvf WCfixpack5406_wc_AIX.tar
jar -xvf WCfixpack5406_wc_AIX.jar
```

2. Copy the `libwccache.a` file to the `WC_installdir/bin` directory.

SOLARIS   Update the `libwccache.so` file by doing the following:

1. At a command prompt, enter the following commands:
    ```
    tar -xvf WCfixpack5406_wc_SUN.tar
    jar -xvf WCfixpack5406_wc_SUN.jar
    ```

2. Copy the `libwccache.so` file to the `WC_installdir/bin` directory.

Linux   Update the `libwccache.so` file by doing the following:

1. At a command prompt, enter the following commands:

    For Linux ,
    ```
    tar -xvf WCfixpack5406_wc_LINUX.tar
    jar -xvf WCfixpack5406_wc_LINUX.jar
    ```

    For zLinux,
    ```
    tar -xvf WCfixpack5406_wc_zLINUX.tar
    jar -xvf WCfixpack5406_wc_zLINUX.jar
    ```

2. Copy the `libwccache.so` file to the `WC_installdir/bin` directory.

Unable to publish large stores

`DB2` If you are using a DB2 database and you are unable to publish a large stores (for example, the FashionFlow sample store) for instances created after applying the fix pack 5.4.0.3, 5.4.0.4 or 5.4.0.6. Run the following SQL statements to modify the database configuration each time after a new instance is created:

```
db2 "update database configuration for database_name using applheapsz
16384"
db2 "update database configuration for database_name using stmtheap 60000"
db2 "update database configuration for database_name using app_ctl_heap_sz
8192"
db2 "update database configuration for database_name using locklist 400"
db2 "update database configuration for database_name using indexrec
RESTART"
db2 "update database configuration for database_name using logfilsiz 1000"
db2 "update database configuration for database_name using logprimary 12"
db2 "update database configuration for database_name using logsecond 10"
```

Where *database_name* is the instance database name, for example, mall.

Platform-specific for WebSphere Commerce

`AIX` `SOLARIS` **fix pack installation fails if wcpostinstall script was not run**

If you are installing this fix pack on a new WebSphere Commerce 5.4 system, ensure that you run the WebSphere Commerce 5.4 wcpostinstall script from the base package in the `WC_installdir`/bin directory as part of the initial WebSphere Commerce 5.4 installation. If you attempt to install this fix pack before the `wcpostinstall.sh` script has been run, the fix pack installation will fail.

`WIN` **Exception error while creating an instance**

Ignore the following exception errors when you are creating an instance from the Configuration Manager:

```
COM.ibm.db2.jdbc.DB2Exception: [IBM][CLI Driver] CLI0116E  Invalid transaction
state. SQLSTATE=25000
at
COM.ibm.db2.jdbc.app.SQLExceptionGenerator.throw_SQLException(SQLExceptionGene
rator.java:184)
at
COM.ibm.db2.jdbc.app.SQLExceptionGenerator.check_return_code(SQLExceptionGener
ator.java:441)
at COM.ibm.db2.jdbc.app.DB2Connection.close2(DB2Connection.java:875)
at COM.ibm.db2.jdbc.app.DB2Connection.close(DB2Connection.java:827)
at COM.ibm.db2.jdbc.app.DB2Connection.finalize(DB2Connection.java:936)
at java.lang.ref.Finalizer.invokeFinalizeMethod(Native Method)
at java.lang.ref.Finalizer.runFinalizer(Finalizer.java(Compiled Code)
at java.lang.ref.Finalizer$FinalizerThread.run(Finalizer.java(Compiled Code))
at java.lang.ref.Finalizer$FinalizerThread.run(Finalizer.java(Compiled Code))
```

WebSphere Commerce DB2 for z/OS limitations

1. In the 2-tier DB2 for z/OS configuration, the LOAD method from the Loader is not supported.
2. The SQL WITH clause is not supported in the filter file of Mass Extract.
3. The staging server cannot be used.
4. When using the Database Cleanup utility, only the bottom-up method is supported.

SQL error when creating stored procedures

If you encounter the following error while creating stored procedures:

```
==============================================================================
SQL0443N  Routine "PUT_ROUTINE_SAR" (specific name "db2udp!put_routine_sar")
has returned an error SQLSTATE with diagnostic text "-970, 55009, P5526570".
SQLSTATE=38000
```

You must perform the following steps:
1. Switch to DB2 user, for example `su - db2inst1`
2. Navigate to the `/home/<database instance>/sqllib/function/routine/sqlproc/<DB name>/<schema name>` directory. For example,
   `/home/db2inst1/sqllib/function/routine/sqlproc/RMALL/DB2INST1`.
3. Make a backup copy of all files in this directory.
4. Delete all files whose name start with the letter `P`.
5. Recreate stored procedures as described in the installation steps for your specific platform.

WebSphere Application Server security JSSE cumulative fix
If you are using WebSphere Application Server 4.0.5, you must apply the following cumulative fix: *WAS_Security_03-17-2003_4.0.5-4.0.4-4.0.3-4.0.2-4.0.1_JSSE_cumulative_Fix*. Refer to the following site for support and download information:

http://www-1.ibm.com/support/docview.wss?rs=180&context=SSEQTP&q=JSSE+cumulative+Fix&uid=swg24004455&loc=en_US&cs=utf-8&lang=en.

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