

IBM WebSphere Commerce Analyzer



Installation and Configuration Guide

Version 5.5

IBM WebSphere Commerce Analyzer



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Note

Before using this information and the product it supports, read the information in "Notices" on page 95.

First Edition, First Revision (September 2003)

This edition applies to version 5.5 of IBM WebSphere Commerce Analyzer, and to all subsequent releases and modifications until otherwise indicated in new editions.

IBM welcomes your comments. You can send your comments by using the online IBM WebSphere Commerce documentation feedback form, available at the following URL:

<http://www-3.ibm.com/software/genservers/commerce/rcf.html>

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About this book

This book provides information about installing and configuring IBM® WebSphere® Commerce Analyzer, Version 5.5 (also called WebSphere Commerce Analyzer or WCA). After installation and configuration, use this book for information about the following:

- Required post-configuration tasks
- Uninstalling WCA

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.

Monospace type indicates an example, text you type, or text that is displayed on the screen.

Italic type indicates new terms, book titles, CD labels, or variable information that must be replaced by an actual value.

Summary of changes

The most recent version of this document is available as a PDF file from the Technical Library page of the WebSphere Commerce Web site:

- Business Edition:
http://www.ibm.com/software/webservers/commerce/wc_be/lit-tech-general.html
- Professional Edition:
http://www.ibm.com/software/webservers/commerce/wc_pe/lit-tech-general.html
- WebSphere Commerce - Express:
www.ibm.com/software/commerce/express/

Updates from the last version of this book are identified by revision characters contained in the margin. This book uses the following conventions for revision characters:

- The "+" (plus) character identifies updates that have been made in the current revision of this document.

To learn about last-minute changes to the product, see the current product README file, also available from the WebSphere Commerce Web site.

Related information

The WCA Installation and Configuration Guide is available on the *IBM WebSphere Commerce Analyzer Edition* CD in the *locale* directory. After installation, the books for those locales that are installed can also be found on the WCA server in the %IWDA_DIR%\doc\locale directory. The English books are installed in the %IWDA_DIR%\doc\en_US directory.

- *locale* is the locale of the computer. For example, for United States English the locale is en_US.



- %IWDA_DIR% is an environment variable that represents the Windows® directory where WCA is installed. By default, this directory is:
C:\Program Files\IBM\WCA

The following table shows the documentation provided with WCA, along with descriptions and file names.

Note: Only the *IBM WebSphere Commerce Analyzer, Version 5.5 Installation and Configuration Guide* and the README are available on the CD. *IBM WebSphere Commerce Analyzer, Version 5.5 Technical Reference* and *IBM WebSphere Commerce Analyzer, Version 5.5 Datamart Reference* are available from the WebSphere Commerce Web site:

- Business Edition:
http://www.ibm.com/software/webservers/commerce/wc_be/lit-tech-general.html
- Professional Edition:
http://www.ibm.com/software/webservers/commerce/wc_pe/lit-tech-general.html
- WebSphere Commerce - Express:
www.ibm.com/software/commerce/express/

The *IBM WebSphere Commerce Analyzer, Version 5.5 Installation and Configuration Guide* and the README are also available from the Web site.

Book	Description	PDF File name
<i>IBM WebSphere Commerce Analyzer, Version 5.5 Installation and Configuration Guide</i>	Provides information that is required to install and configure the WCA server, as well as troubleshooting information.	install.pdf
<i>IBM WebSphere Commerce Analyzer, Version 5.5 Technical Reference</i>	Provides information about the following topics: <ul style="list-style-type: none"> • Maintaining the WCA server • Improving performance •  Professional  Business • Using IBM DB2® Intelligent Miner™ for Data • Contains information for the System Administrator about: <ul style="list-style-type: none"> – Customer scenarios – Extending the database schema (adding to the business reports; this might be adding fields to the WCA datamart or, more often, adding a report) – Customizing the database schema by adding to the business reports, adding a report, or changing the schema provided with WCA) 	techref.pdf
<i>IBM WebSphere Commerce Analyzer, Version 5.5 Datamart Reference</i>	Contains information about WCA datamart tables and views.	datamrt.pdf
README file	Provides last-minute information about WCA	README.txt

You can use Adobe Acrobat Reader to view the PDF files. Go to www.adobe.com for information about Adobe Acrobat Reader.

For information about WebSphere Commerce, see the following documents:

- *IBM WebSphere Commerce Quick Beginnings*
- *IBM WebSphere Commerce Installation Guide*

- *IBM WebSphere Commerce Fundamentals*

Support Web sites

Check the WebSphere Commerce Web site for WebSphere Commerce FixPaks. Any updates to WCA will be included in the WebSphere Commerce fix packs:

- www.ibm.com/software/commerce/support/

See the following Web sites for support information about products that work with WCA 5.5:

IBM DB2 Universal Database™ Enterprise Server Edition

www.ibm.com/software/data/db2/udb/support.html

IBM DB2 Intelligent Miner for Data

www.ibm.com/software/data/iminer/fordata/support.html

License information

After installation, the license agreements in various languages for WCA can be found in the %IWDA_DIR%\license\language.txt file (where *language* is the language of the license).

Use a text editor to view or print the license agreement in the language you choose.

Installation and configuration checklist

The following is a high-level checklist for installation and configuration of WCA. The checklist contains pointers to sections of this book that provide more detailed information.

- ___ 1. Verify that the hardware requirements for the WCA server are met. See “Required hardware for the WCA server” on page 5.
- ___ 2. Verify that the software requirements for the WCA server are met. See “Required software setup for the WCA server” on page 5.
- ___ 3. Gather the information you will need during installation and configuration. See “Information required during WCA installation and configuration” on page 6.
- ___ 4. Be sure all requirements for the WebSphere Commerce server are met. See Chapter 3, “Required updates to the WebSphere Commerce server before you install WCA,” on page 7.
- ___ 5. If the WebSphere Commerce server uses an Oracle database, set up the Information Integrator. See “Additional setup needed for Oracle” on page 17.
- ___ 6. Install WCA. See Chapter 4, “Installing WCA,” on page 9.
- ___ 7. Perform™ pre-configuration activities. See “Pre-configuration checklist” on page 13.
- ___ 8. Configure WCA. See Chapter 6, “Configuring WCA,” on page 19.
- ___ 9. Make required updates to the WebSphere Commerce server. See Chapter 7, “Setting up the Capture program on the WebSphere Commerce server,” on page 59.
- ___ 10. Perform post-configuration activities. See Chapter 8, “After configuration,” on page 63.

Chapter 1. What is WebSphere Commerce Analyzer ?

IBM WebSphere Commerce Analyzer, Version 5.5 (also called WCA) is an optionally installable feature of WebSphere Commerce. WebSphere Commerce provides tools for creating and maintaining an online store. WCA provides information that address the marketing and merchandising activities in the store. You can use this information to help manage the success of the store.

WCA creates and maintains a datamart containing information that is needed to generate business reports about the stores. The datamart is an IBM DB2 relational database that is created on the WCA server. The datamart contains data that is extracted from the WebSphere Commerce transactional database server and reorganized for efficient reporting. IBM DB2 provides the tools you need for database administration.

The business manager accesses the business reports from the browser-based WebSphere Commerce Accelerator, which is installed with WebSphere Commerce.

Business managers may also use third party reporting tools to query the datamart directly. Several reporting integration kits supporting this feature are available online at the following URL:

<http://gwareview.software.ibm.com/software/genservers/commerce/wca/integkits>

Note: A business manager could be a marketing, merchandising, or sales manager.

After you install WCA and run the replication and extraction processes for the first time, replication and extraction of new data from the WebSphere Commerce database to the WCA datamart can be scheduled to run periodically. For example, you might schedule these processes to occur just after midnight or at some other time when there is little activity for the store you are managing.

WCA can provide information about multiple stores. The WCA datamart supports multiple languages.

The following software is packaged with WCA:

- IBM DB2 Universal Database Enterprise Server Edition, Version 8.1
-  IBM DB2 Intelligent Miner for Data, Version 8.1

Who uses WCA?

There are three types of WCA users. In this book they are called system administrators, business analysts, and business managers. In some businesses, more than three people might fill these roles, and they might have different titles.

The system administrator is the person who installs, configures, and keeps the WCA server operational. The system administrator also performs the following tasks:

- Administers DB2 and the DB2 Warehouse Center
- Schedules generation of the business reports
- Performs maintenance activities, such as backups, on the WCA server
- Diagnoses and resolves problems that might occur

The business analyst is knowledgeable about data analysis and data mining. For WCA, the business analyst works with the system administrator to do the following:

- **Professional** > **Business** Use the data mining functions of Intelligent Miner for Data
- Define how the business reports are customized

The business manager is concerned with the operation of the stores from a business perspective. This person develops the marketing strategy and tracks the success of the stores. The business manager determines the types of customers the stores target and plans promotional events and their associated advertising.

How does WCA work with WebSphere Commerce?

The following diagram shows the relationship between the components of WebSphere Commerce and WCA.

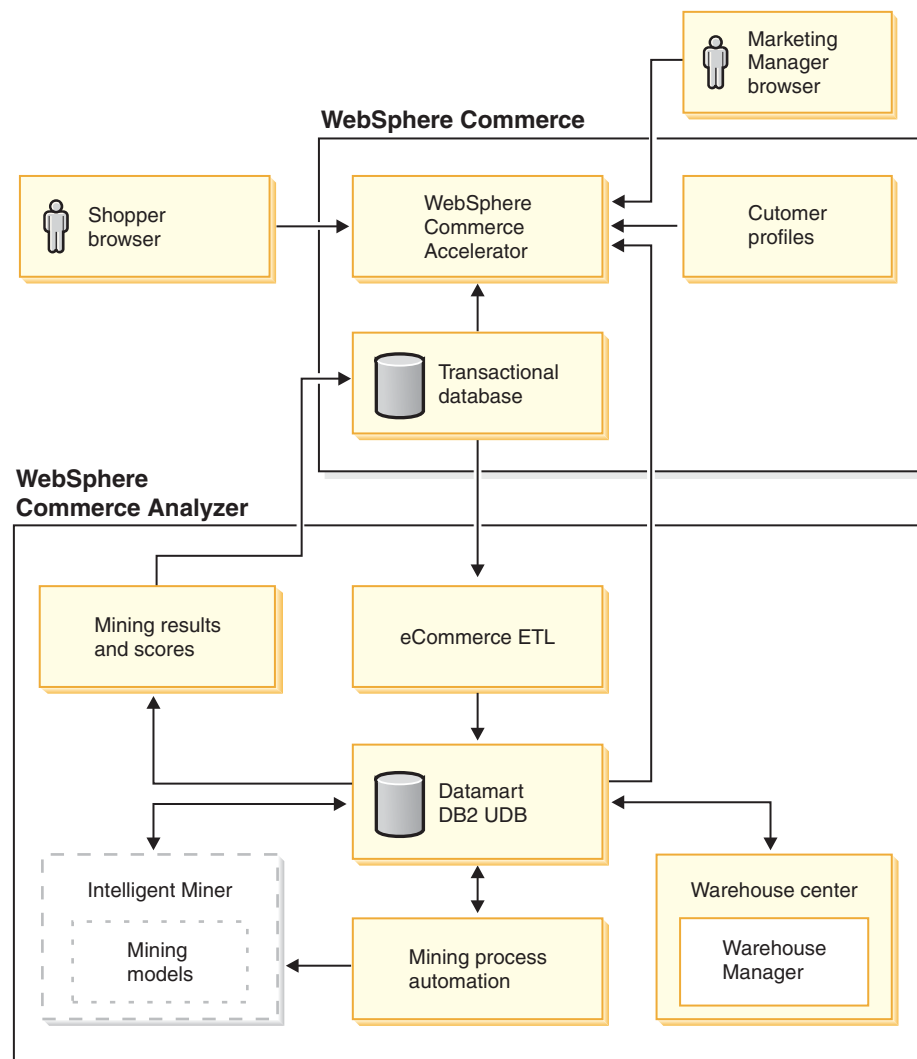


Figure 1. WebSphere Commerce and WCA components

Shoppers use Web browsers to shop at a store that was created using WebSphere Commerce. During a shopping session, a shopper browses the products, views the

displayed ads, and might purchase products. WebSphere Commerce collects detailed data about the products and ads that were viewed and the items that were purchased during each session. This customer session data is stored on the WebSphere Commerce transactional database server.

WCA replicates the customer session data, along with product and promotion data from the WebSphere Commerce transactional database server, into temporary tables on the WCA server. This is called replication. WCA then transforms the data into tables that can be used for reporting and stores it in the WCA datamart. This is called extraction. During the initial replication, all existing data is obtained from the WebSphere Commerce database server. Subsequently, only new data is obtained.

Professional **Business** IBM DB2 Intelligent Miner for Data mines the data in the WCA datamart. It discovers patterns in the data that are useful for answering specific business questions related to data mining and then stores the results in the WCA datamart. From the datamart, the results can be used to produce data mining-related business reports.

You can customize the business reports to better meet the requirements of your business. For information about how to customize the business reports, see the *IBM WebSphere Commerce Analyzer, Version 5.5 Technical Reference*.

The Reporting Framework, the reporting toolkit provided with WebSphere Commerce, produces the business reports from the data in the WCA datamart. Other reporting applications can also be integrated to produce business reports.

Several Reporting Integration Kits have been developed for third party reporting tools. The integration kits include predefined reports that work with the datamart. To download these integration kits, see the following URL:

<http://gwareview.software.ibm.com/software/genservers/commerce/wca/integkits>

Chapter 2. Before you install WCA

Install the WCA server on a machine that does not have other duties for better performance. Do not install the WCA server on one of the WebSphere Commerce servers.

Before you install the WCA server, use the information in this chapter to help plan your installation.

Coexistence with previous versions of WebSphere Commerce Analyzer

WCA 5.5 is an enhanced version of IBM WebSphere Commerce Analyzer, Version 5.4 (also known as WCA Entry). WCA 5.5 has more power and flexibility than WCA Entry. If you have installed WCA Entry, you can install WCA5.5 on a different computer and generate reports for the same store, using the same WebSphere Commerce database, while you try WCA 5.5.

Required hardware for the WCA server

The following hardware is required for the WCA server:

A Pentium® III (733 MHz or higher) IBM-compatible personal computer. The computer must have the following:

- A minimum of 1 GB of random access memory (RAM).
- Be sure that the following disk space requirements are met:
 - A minimum of 2 GB of free disk space on the installation drive for program files.
 - A minimum of 1 GB of free disk space for databases and data on the drive where you create the WCA databases. Your installation might require more disk space. See the *IBM WebSphere Commerce Analyzer, Version 5.5 Technical Reference* for information about determining data storage requirements.
 - A minimum of 100 MB of free disk space on the system drive. In addition, a minimum of 100 MB of free disk space on the drive where the TEMP environment variable points, if it is not the same as the system drive.
- A CD-ROM drive.
- A graphics-capable monitor with a color depth of at least 256 colors.
- A local area network (LAN) adapter that is supported by the Transmission Control Protocol/Internet Protocol (TCP/IP).

Required software setup for the WCA server

To prepare the computer for installing WCA, do the following:

- + — 1. Install Windows 2000 Professional or Windows 2000 Server with Service Pack 3 or higher on the computer where you will install WCA.
- + — 2. Create the two Windows administrator users. One administrator will own the datamart owner and the other will own the WCA control database.

Note: If you plan to use the Fast Load option (recommended) during WCA configuration, see “Using Fast Load or Custom Load” on page 15.

Software installed with WCA

When you install WCA, IBM DB2 Universal Database Enterprise Server Edition, Version 8.1 is also installed if it is not already installed on the computer.

Express When you install WCA, IBM DB2 Universal Database Express Edition, Version 8.1 is also installed if it is not already installed on the computer.

Professional **Business** WCA also supports the installation of IBM DB2 Intelligent Miner for Data, Version 8.1.

Information required during WCA installation and configuration

Before you install WCA, collect the following information, which you must supply during installation and configuration:

WebSphere Commerce information that is already defined:

- Host name of the WebSphere Commerce transactional database server
- Database name and alias of the WebSphere Commerce server database
- Schema name for the WebSphere Commerce database
- Store IDs for the stores for which you want to generate business reports
- Catalog IDs for reporting
- Currency for reports
- User ID and password that are used to access the WebSphere Commerce server database

WCA information that must be defined during installation and configuration:

- The location where WCA, and if necessary, DB2, and **Professional** **Business** IBM DB2 Intelligent Miner for Data, Version 8.1. will be installed.
- Name of the WebSphere Commerce database on the WCA server
- Names of the WCA datamart and the DB2 Warehouse Center control database.
- User ID and password for the WCA datamart and the DB2 Warehouse Center control database.
- The location in which the WCA datamart is to be created.
- The location in which the DB2 Warehouse Center control database is to be created.

Chapter 3. Required updates to the WebSphere Commerce server before you install WCA

The sections in this chapter contain instructions for making required updates to the WebSphere Commerce server. All of these procedures should be done before you install WCA.

Requirements for the WebSphere Commerce server

WCA reports on stores that were created using WebSphere Commerce 5.5. The WCA server can connect to WebSphere Commerce transactional database servers that are running the following software:

- Microsoft® Windows 2000.
- OS/400® V5R2M0, Version 5, release 2, modification 0.


Important

You should have the latest PTFs for the above software, as listed on the WebSphere Commerce Web site. Refer to the following URL:

<http://www-3.ibm.com/software/genservers/commerce/wcbe/support/>

- IBM AIX®, Version 5.1.
- Solaris 2.8 MTCE 7 by Sun Microsystems, Inc.

WCA can extract data from the following types of databases on the WebSphere Commerce database server:

- IBM DB2 Universal Database Enterprise Server Edition, Version 8.1 or higher.
-  IBM DB2 Universal Database Express Edition, Version 8.1
- Oracle 9i. For replication, IBM DB2 Information Integrator, Version 8.1 is also required. You also require an ODBC connection to the WCA data mart database. You can create an ODBC connection to the ODBC WCA data mart database using IBM DB2 Administration Client, or by using other methods.

Note: Oracle is not supported on iSeries™.

- IBM DB2 Universal Database for iSeries, V5R2M0

Be sure that the following requirements are met:

- The WebSphere Commerce transactional database server must be configured to support remote Open Database Connectivity (ODBC).
- Before any user traffic (shopping) occurs, you must enable the **UserTrafficEventListener**, **CampaignRecommendationListener**, and **CampaignRecommendationStatisticsListener** components through the WebSphere Commerce Configuration Manager. See the *IBM WebSphere Commerce Installation Guide* and the WebSphere Commerce online help for information about enabling these components.
- If you use an Oracle database on the WebSphere Commerce server, you must install IBM DB2 Information Integrator, Version 8.1 so that the data in the Oracle database can be extracted.

- WCA uses currency conversions to compare the sales value of orders within and between stores. The CURCONVERT table in the WebSphere Commerce database contains information that allows WCA to perform currency conversions. If this table is not populated, the Select Store step of WCA configuration will not work. Use the DB2 Control Center to make sure that the WebSphere Commerce CURCONVERT table is populated with the correct currency conversion before you install WCA.

In addition, for each currency supported by a store, there must be a conversion from that currency to the default currency for the store. For each default store currency, there must also be a conversion to the reporting currency that is used for the reports. The reporting currency is selected during WCA configuration. You cannot complete WCA configuration without these currency conversions because WCA extraction cannot function correctly without them. For information about creating currency conversions, see the WebSphere Commerce documentation.

- Use WebSphere Commerce Configuration Manager to enable the integration of WCA. For instructions on configuring WCA using the WebSphere Commerce Configuration Manager, see the *IBM WebSphere Commerce Additional Software Guide*. To check, select the WebSphere Commerce *instance_name* in WebSphere Commerce Configuration Manager, then select the WebSphere Commerce Accelerator. Select the appropriate radio button indicating that WebSphere Commerce Analyzer is installed or not.
- Check to see if you have at least one WebSphere Commerce catalog that is organized as a tree. See “Catalog structure for category reports” for instructions.

Catalog structure for category reports

To obtain accurate reports on categories, there must be a catalog that represents categories and products as a tree. This means that the relationship between Categories and sub-Categories is one-to-many and that the relationship between Sub-Categories and Products is also one-to-many. A catalog organized in this way enables WCA to calculate metrics based on products and to associate each metric with a single category. Without such a catalog, the business reports might contain inaccurate results. For example, some sales might be counted in more than one category.

As an example, an existing catalog that is not organized as a tree might contain the following entries:

```
Catalog: Winter Catalog
  Category: Men's clothing
    Item: IBM sweatshirt with hood

  Category: Women's clothing
    Item: IBM sweatshirt with hood
```

Because the item IBM sweatshirt with hood belongs to two categories, Men’s clothing and Women’s clothing, the catalog is not organized as a tree and cannot be used effectively by WCA when it generates business reports. A sale of the item IBM sweatshirt with hood might be counted in both categories.

When creating a catalog organized as a tree, you might instead use the following organization:

```
Catalog: Analysis of Winter Catalog
  Category: Sweatshirts
    Item: IBM sweatshirt with hood
```

Chapter 4. Installing WCA

The WCA installation program installs the WCA server. It also installs IBM DB2 Universal Database Enterprise Server Edition, Version 8.1 if it is not already installed on the computer. **Express** IBM DB2 Universal Database Express Edition, Version 8.1

Professional **Business** WCA also supports the installation of IBM DB2 Intelligent Miner for Data, Version 8.1.

Use the instructions in this chapter to install WCA. After installation, before you can use WCA to view the business reports, you must perform the tasks in “Installation and configuration checklist” on page xi.

Notes:

1. If you have already installed WCA 5.5 and you are reinstalling it, be sure to uninstall the existing copy first. See Chapter 9, “Removing WCA,” on page 67 for information about uninstalling WCA.
2. If you have other versions of the prerequisite software, you must cancel the installation and either upgrade or uninstall the older software. Then, you can restart installation.

To install WCA, use the steps that follow.

1. Close any programs that are running.
2. Ensure that you are logged in as a Windows administrator.
3. Insert the *WebSphere Commerce Analyzer v5.5* CD.
4. From the root directory of the *WebSphere Commerce Analyzer v5.5* CD, run **setup**. The Software License Agreement window opens.
5. Review the license and click **I accept the terms in this license agreement** to accept the terms of the agreement and click **Next**.
6. Read the information on the Setup for IBM WebSphere Commerce Analyzer window, and click **Next**.

Note: The windows that are displayed during installation can vary based on what is installed on the computer. If some or all of the prerequisite software is already installed, some of the windows described in the following procedure might not be displayed. If all of the prerequisite software is installed, skip to 11 on page 11. Otherwise, continue with the next step.

7. If any prerequisite software has not been installed, the Verify Installation of Prerequisite Product window opens. The software that needs to be installed is listed. (**Professional** **Business** You also have the opportunity to install, if it is not already, Intelligent Miner. If you want to install Intelligent Miner for Data, ensure the **IBM DB2 Intelligent Miner for Data, Version 8.1** check box is selected.) Click **Next**.
8. A series of windows opens in which you are to indicate the location of the installation software for each of the programs you are going to install. Type the location of the installation software in the **Select location of install media** field and then click **Next**.

Note: If you cannot select the drive letter of the CD in the Browse window, type the path name in the **Select location of install media** field.

9. A series of windows opens in which the default location of the software is indicated. Either accept the default folder or click **Browse** to specify the folder in which you want to install the prerequisite software. Click **Next**.
10. If the IBM DB2 Universal Database Enterprise Server Edition, Version 8.1 **Express** IBM DB2 Universal Database Express Edition, Version 8.1 Instance Owner Information window (Figure 2) opens, complete the following fields:

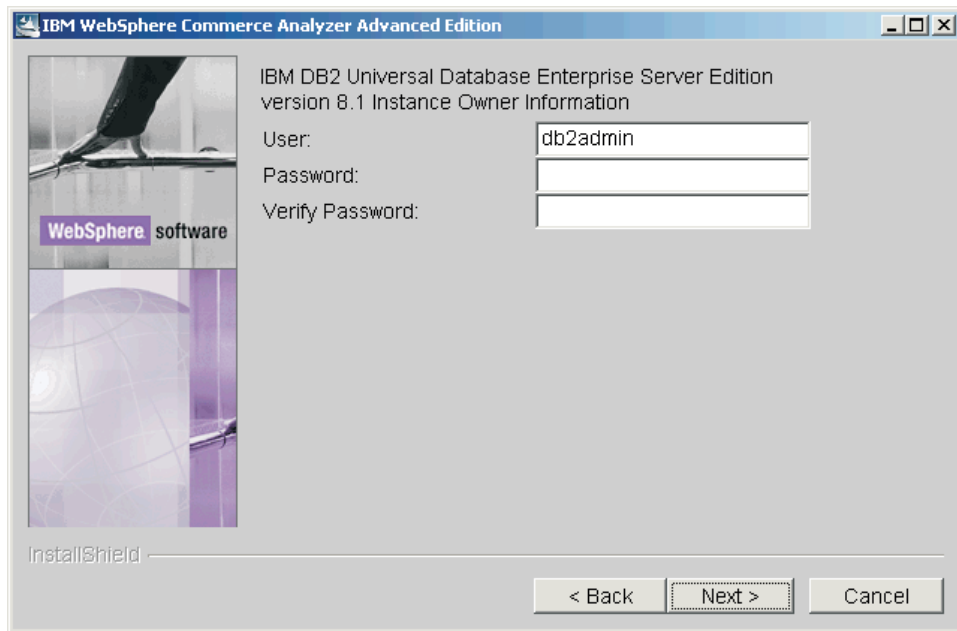


Figure 2. IBM DB2 Universal Database Enterprise Server Edition, Version 8.1 Instance Owner Information window


- a. Type the user name and password for the DB2 user in the **User** and **Password** fields. Keep in mind the following restrictions.
 - The user name and password can use any character.
 - The user name cannot be longer than 20 characters.
 - The password can be no longer than 14 characters.
 - The user name cannot be any of the following, in upper, lower, or mixed case: USERS, ADMINS, GUESTS, PUBLIC, LOCAL.
 - The user name cannot begin with any of the following, in upper, lower, or mixed case: IBM, SQL, SYS.
 - The user name cannot be the same as any Windows service name or the hostname of the computer.
 - The user name must be defined on the local computer and belong to the Local Administrator's group.
 - The user name must have the **Act as part of the operating system** advanced user right.

Note: To be sure that the user name has the correct access, specify a user name that is not already defined, and it will be created with the correct access rights.

- If the user name is a Windows logon user name that is already defined, the password must be the password for that user name. The password must also conform to all the other requirements. If it does not conform, particularly to the character set limitations, the password for the Windows user name must be changed.
- b. Retype the DB2 user password in the **Verify Password** field.
 - c. Click **Next**.
11. On the WCA installation directory window, either accept the default folder or click **Browse** to specify the folder in which you want to install WCA. The default is C:\Program Files\IBM\WCA .
Click **Next**. The Set Data Directory window opens.

Note: The Set Data directory captures configuration logging information. Unless you are operating under disk space constraints, this directory should remain the same as the WCA installation directory.
 12. In the **Directory Name** field, type the path in which the data will be stored. The default is C:\Program Files\IBM\WCA .
Click **Next**. The Set name for Start Menu item window opens.
 13. Type a word or phrase that will be put in the Windows Start menu. Click **Next**.
 - If you are installing prerequisite software, the Verify Installation of Prerequisite Products window opens. Continue with step 14.
 - If you are not installing prerequisite software, a window opens indicating the WCA installation directory and the program size. Continue with step 15.
 14. Review the information on the window. Click **Next** if all information is correct. Installation of each of the prerequisite software products begins. When each product is installed, a message window opens indicating whether the installation was successful. Click **Next** to begin installation of the next product. After the last of the prerequisite software products is installed, a window opens indicating the WCA installation directory and the program size.
 15. If the window is accurate, click **Next**. A progress indicator is displayed while the installation program copies files.
 16. When installation is complete, a message is displayed indicating whether WCA installation was successful. Click **Next**. A message window is displayed indicating you should check the following Web page for information about FixPaks you must download and install:
www.ibm.com/software/commerce/support/
Click **OK** to close the message window. The README file is displayed.
 17. Read or print the information and then click **Next**. The final installation window opens.
 18. To restart the computer immediately, click **Yes, I want to restart my computer now**. If you do not want to restart the computer right away, click **No, I will restart my computer later**. However, you must restart the computer before you configure WCA or use any of the products that were installed with WCA.

Note: Professional Business If you installed Intelligent Miner for Data, you must restart the computer.
 19. Click **Finish**.

20.  400 If the machine hosting the WebSphere Commerce database is an iSeries machine, you must install DB2 Connect™ and the corresponding fixpacks. To install, do the following:
- a. Install DB2 Connect 8.1 Personal Edition on top of DB2 8.1 Express.
 - b. Download the DB2 Fixpack 2 (update.exe) from the following URL:
ftp://ftp.software.ibm.com/ps/products/db2/fixes/english-us/db2winIA32v8/fixpak/FP2_WR21318/
 - c. Install DB2 Fixpack 2, selecting the typical install including Data Warehousing.
 - d. Install the DB2 patches for WCA as instructed in “Pre-configuration checklist” on page 13.

Chapter 5. Before you configure WCA

After installation, the WebSphere Commerce Analyzer Configuration Manager creates databases on the WCA server and sets parameters that enable the WCA server to communicate with the WebSphere Commerce transactional database server. You can also use Configuration Manager to change the configuration of the WCA server. The first time you run Configuration Manager, it creates the following databases:

DB2 Warehouse Center Control Database

This database contains information about the processes used on the WCA server.

WCA datamart



This database contains information about the store for which the business reports are generated.

Pre-configuration checklist

Before you begin configuration, be sure of the following:

- ___ 1. Decide whether to use the Fast Load option (recommended) or the Custom Load option for configuring the extraction scripts during configuration. See "Using Fast Load or Custom Load" on page 15 for information.
- ___ 2. Check the fiscal calendar requirements for your business.
- ___ 3. Check the reference keys used in your WebSphere Commerce database. See the "Maintaining Reference Texts" section in the *IBM WebSphere Commerce Analyzer Technical Reference* for a description and a mapping of WebSphere Commerce references to those used by WCA.
- ___ 4. Be sure that the following currency conversions exist:
 - For each currency supported by a store for which you want reports, there must be a conversion from that currency to the default currency.
 - For each currency supported by a store for which you want reports, there must be a conversion from that currency to the WebSphere Commerce reporting currency.

Note: Supported currencies conversions are stored in the CURCONVERT table on the WebSphere Commerce system.

- ___ 5. Ensure that the WebSphere Commerce database server has started.
- ___ 6. You should be aware of the operating system that WebSphere Commerce database server is on.
- ___ 7.  You will need to know the paths available on the WebSphere Commerce database server that can be used to place the replication table spaces. This includes:
 - Ensuring adequate permissions on this path.
 - Ensuring adequate space on this path.
- ___ 8.  You will need to know the paths available on the WCA machine that can be used to place the replication table spaces. This includes:
 - Ensuring adequate permissions on this path.
 - Ensuring adequate space on this path.
- ___ 8. Verify that DB2 Warehouse XTServer program is using port number 11004.

___ 9. After installing WebSphere Commerce Analyzer, but before configuring it, you must manually install the following patches for DB2:

- iwh2serv.exe
- db2_vw.jar
- db2XTrigger.jar

To install the patches, do the following:

- Stop all DB2 services.
- Each of the patches is replacing an existing file. As a result, you should make backup copies of these files. The files are located in the following directories:
 - iwh2serv.exe in \SQLLIB\bin
 - db2_vw.jar in \SQLLIB\tools
 - db2XTrigger.jar in \SQLLIB\tools
- Copy the patches, located on the WCA install CD, directory \db2patches to the directories listed in step b.
- Restart all DB2 services.
- Add an additional system classpath entry before configuring WebSphere Commerce Analyzer. Do the following:
 - Open **Control Panel** --> **System** --> **Advanced** --> **Environment variables** --> **System variables** --> **edit CLASSPATH**.
 - Append the following:
 - drive:\SQLLIB\tools\db2vwcom.jar

Note: The drive and directory for DB2 is defined by the user and may not be c:\SQLLIB

___ 10. 400 If the machine hosting the WebSphere Commerce database is an iSeries machine, do the following:

- Ensure that DB2 Connect and Fixpack 2 are installed. For more information see, Chapter 4, "Installing WCA," on page 9.
- Install the following files:
 - db2replctr.jar
 - db2replapis.jar

To install the patches, do the following:

- Stop all DB2 services.
- Each of the patches is replacing an existing file. As a result, you should make backup copies of these files. The files are located in the following directory:
 - \SQLLIB\tools.
- Copy the patches, located on the WCA install CD, directory \db2patches to the directories listed in step b.
- Restart all DB2 services.

Note: The drive and directory for DB2 is defined by the user and may not be c:\SQLLIB

___ 11. DB2 If the WebSphere Commerce database is on DB2, create a system DSN in the ODBC Data Source Administrator notebook to access the WebSphere Commerce database on the WCA machine.

Deciding what type of data storage to use

DB2 can use one of two types of data storage when it creates table spaces. These are Database Managed Storage (DMS) and System Managed Storage (SMS). During configuration of WCA, you select which type of data storage you want to use. The default is DMS. The following information provides an overview of the differences between DMS and SMS to help you to decide which type of data storage to use.

Database Managed Storage

When DMS is used, the table space is managed by the database administrator. The size of the table space is specified and the space allocated when the tables are created. Data can be stored contiguously, which improves performance when data in the table is updated, deleted, or read.

System Managed Storage

When SMS is used, the operating system manages the table space, which is limited by the size of the hard disk. Data is stored randomly on the hard disk under the table space's directory container (the directory name in the file system). While the use of this type of data storage requires relatively little maintenance by the administrator, it is not optimized for performance. This can result in a significant reduction in performance when data in the table is updated, deleted, or read. In addition, if you want to expand the size of an SMS container beyond the size of the current container (the hard disk), you must use a redirected restore.

Using Fast Load or Custom Load

The extraction scripts, which are later used during the ETL phase, include access and datamart parameters. Predefined extraction scripts are available which contain default values for these parameters. They need to be configured to include the current values.

If you use the Custom Load option, you can specify your own database names and user IDs, and these values will be used for the extraction scripts, but the configuration takes significantly longer than the Fast Load (up to 4 days of processing).

If you select the Fast Load option (recommended), the configuration of the extraction scripts takes place quickly, because the predefined extraction scripts are used as is. If you select Fast Load, you will need to complete some manual steps as described in Appendix B, "Configuration task details," on page 71. Fast Load is automatically selected, if you do not change the default values during configuration.

If you choose Fast Load, you will need to complete the following steps using the default database names and users, where specified. You will need to create the following Windows administrators before proceeding:

- User Id: martuser
- Password: martuser
- User id: ctrluser
- Password: ctrluser

The following list shows the default values used by WCA Configuration:

WebSphere Commerce database information:

- **Database name:** wsmall
- **User name:** malluser

Important:

1. The user name must exist on the WebSphere Commerce server and must have access to the WebSphere Commerce database.
2. You must enter this information during the Configure WebSphere Commerce Database Access configuration step (see “Connecting to the data source” on page 21).

- **Schema:** wcsadmin

The schema name is set up on the WebSphere Commerce server. You select the name during the Configure WebSphere Commerce Database Access configuration step (see “Connecting to the data source” on page 21). If your WebSphere Commerce database schema name is not wcsadmin, you can still use the Fast Load option. You will need to update some metadata in the control database in a future configuration step.

WCA datamart information:

- **Datamart name:** wcamart

You must enter this name during the Create WebSphere Commerce Analyzer Datamart configuration step (see “Creating the datamart” on page 23) .

- **Owner:** martuser
- **Password:** martuser

Important: For Fast Load, you will need to use the default database name and user ID with corresponding password.

DB2 Warehouse Center control database information:

- **Control Database Name:** wctrctrl
- **Administrator user ID:** ctrluser
- **Administrator password:** ctrluser

This user ID must exist on the WCA server. You must enter these names during the Configure DB2 Warehouse Center Control Database configuration step (see “Configuring the DB2 Warehouse Center control database” on page 30).

Note: For Fast Load, you will need to use the default database name, user ID and corresponding password.

Replication options

There are two options for running replication: continuous and non-continuous.

Continuous replication

When a replication cycle completes, another replication cycle starts. If the extraction is started according to the schedule or manually, the system waits to finish the current replication cycle and starts the extraction step after the current cycle has completed.

Non-continuous replication

The replication starts only when the extraction is scheduled to run or when extraction is started manually.

The replication method is set on the Promote Steps window (Figure 11 on page 33). See “Promoting the Warehouse steps to production mode” on page 32 for more information.

Before configuring replication on an iSeries

Install the Data Propagator Licence Program 5722DP4 and the latest PTFs (program temporary fix) available on the iSeries system.

If the source tables were not journaled when created, follow the instructions for journaling in the *IBM DB2 Replication Guide and Reference*. Generally, if the library was created using the **CREATE COLLECTION** statement, the tables in the library should already be journaled. Use the command **WRKOBJPDM *library_name*** and look for processes with JRN in their names. If those processes exist, the tables are already journaled.

Change the user profile to CCSID (coded character set identifier) 37 by typing the following at an iSeries command prompt:

```
CHGUSRPRF USRPRF(username) CCSID(37)
```

where *username* is the name of the current user.

Start the distributed data management (DDM) server by typing the following command:

```
STRTCPSVR SERVER(*DDM)
```

Give the database user "secofficer" authority to register tables for replication by typing the following command on the iSeries system:

```
CHGUSRPRF USRPRF(user_ID) USRCLS(*SECOFR) SPCAUT(*USRCLS)
```

where *user_ID* is the user ID of the database user.

Give the database user the authority to change objects in the Data Propagator by typing the following command on the iSeries system:

```
GRTOBJAUT OBJ(QDP4/*ALL) OBJTYPE(*PGM)USER(user_ID) AUT(*USE)
```

where *user_ID* is the user ID of the database user.

Note: Ensure that subsystem QZSNDPR in library QDP4 is started.

Additional setup needed for Oracle

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In order to replicate data between the WCA datamart and the Oracle WebSphere Commerce database, WCA uses a federated database, which acts as a DB2 proxy to the Oracle database. To facilitate this relationship, you must install DB2 Information Integrator with the Oracle relational wrappers. Then set up the federated database as follows:

1. On the WCA system, install the Oracle client software and the Information Integrator components for Oracle.
2. Set up an Oracle connection to the WebSphere Commerce database.
3. Log on to the machine as the database owner.
4. Open the file *db2dir/cfg/db2dj.ini* and confirm the value for ORACLE_HOME is the actual install location of Oracle. If necessary, modify the file.
where *db2dir* is the install location for DB2.

5. Check that database manager config variable FEDERATED is set to YES. At a DB2 command prompt, type:

```
db2 get dbm cfg
```

If it is not set to YES, type:

```
db2 update dbm cfg using FEDERATED YES
```

6. Create a Federated database for connection to Oracle. Type:

```
db2 create db database_name collate using identity
```

where *database_name* is the chosen database name for the Federated database

7. Register the database for ODBC. Type:

```
db2 catalog SYSTEM ODBC DATA SOURCE database_name
```

8. Connect to the database. Type:

```
db2 connect to database_name
```

9. Create the Oracle wrapper. Type:

```
db2 create wrapper sqlnet
```

10. Create server mapping. Type:

```
CREATE SERVER oraalias TYPE ORACLE VERSION 'version_number' WRAPPER SQLNET OPTIONS( ADD NODE 'oraname', PASSWORD 'Y');
```

where:

- *oraalias* is the server alias name for the name of the Oracle database as listed in the tnsnames.ora file
- *version_number* is Oracle version number
- *oraname* is the name of the Oracle database as listed in the tnsnames.ora file

11. Create user mapping. Type:

```
db2 create user mapping for db2user server oraalias options (remote_authid 'orauser', remote_password 'orapassword')
```

where:

- *db2user* is the user ID with which you log into the database
- *orauser* is the user who owns the store schema
- *orapassword* is the corresponding password

12. Verify that data can be retrieved from the remote WebSphere Commerce database after completing the Information Integrator setup. To verify, create an alias for a populated database table in the WebSphere Commerce database and retrieve the data using the database. To complete this test, do the following:

- Create a nickname for the STORE table to test the connection to the Information Integrator database using the following:

```
- db2 create nickname STORE for oraalias.orauser.STORE
```

If you can create the nickname successfully, run the following command to view the Oracle table from the Information Integrator database.

```
- db2 select count(*) from STORE
```

The data is retrieved from the remote WebSphere Commerce database.

Note: See the *IBM DB2 Information Integrator Data Source Configuration Guide* for detailed descriptions of these commands.

13. Drop the STORE nickname created for the STORE database table:

- - db2 drop nickname STORE

Chapter 6. Configuring WCA

The following sections tell you how to start and use Configuration Manager to configure WCA. Be sure that you have met all the requirements described in Chapter 5, “Before you configure WCA,” on page 13 before you start Configuration Manager.

Starting Configuration Manager

To start Configuration Manager:

1. Log on as the owner of the WCA datamart.
2. On the Windows desktop, click **Start** → **Programs** → **IBM WCA** → **Configuration**.

Note: This is the correct sequence if you accepted the default Start Menu item name when you installed WCA. If you specified another name, modify the sequence as needed.

The IBM WebSphere Commerce Analyzer Configuration Manager window (Figure 3) opens.



Figure 3. Configuration Manager window

Using Configuration Manager

The IBM WebSphere Commerce Analyzer Configuration Manager window (Figure 3) presents a set of tasks related to completing configuration of WCA. The tasks are:

Pre-Configuration

Use this task to display a pre-configuration checklist. For detailed information about the items on the checklist, see Chapter 5, “Before you configure WCA,” on page 13.

Configure Databases

Use this task to configure the WCA databases. See “Configuring WCA databases” on page 21.

Configure Options

Use this tool to configure the WCA business options after the databases have been configured. See “Configuring WCA business options” on page 34.

Post-Configuration

Use this task to display a post-configuration checklist. For detailed information about the items on the checklist, see Chapter 7, “Setting up the Capture program on the WebSphere Commerce server,” on page 59 for information about updates to the WebSphere Commerce server and Chapter 8, “After configuration,” on page 63 for information about updates to the WCA server after configuration.

Information Center

Use this task to display a Web page containing links to the WCA documentation, as well as the WCA Web site.

Exit (Alt +F4)

Use this selection to exit Configuration Manager.

Note: Aside from displaying the checklists, you can only run one task at a time.

Shortcut keys in Configuration Manager

In Configuration Manager, you can use the keyboard, rather than the mouse, for all actions. The shortcut keys and their actions are shown in the following table:

Table 1. Shortcut keys in Configuration Manager



Action	Key
Move to the next field on a window.	Tab
Return to the previous field on a window.	Shift+Tab
Exit	Alt+F4
Move to the next configuration step.	Alt+N
Return to the previous configuration step.	Alt+B
Move to the next selection in a drop-down list.	Down arrow
Return to the previous selection in a drop-down list.	Up arrow
Display online help information for this window.	Alt+H
View the Configuration Manager log.	Alt+V

Completing the configuration steps

WCA configuration is divided into two main tasks:

- Configuring databases (see “Configuring WCA databases” on page 21).
- Configuring business options (see “Configuring WCA business options” on page 34).

Configuring WCA databases

1. Close any programs that are running.
2. Start Configuration Manager. The IBM WebSphere Commerce Analyzer Configuration Manager window (Figure 3 on page 19) opens.
3. On the left side of the window, click **Configure Databases**. The first of a series of windows opens. In these windows you can complete the following steps.
 - Configure WebSphere Commerce Database Access (see “Connecting to the data source”)
 - Create WebSphere Commerce Analyzer Datamart (see “Creating the datamart” on page 23)
 - Replication Setup for Source Databases (see “Configuring replication” on page 26)
 -   Schedule Mining (see “Configuring the data mining environment and schedule” on page 28)
 - Configure DB2 Warehouse Center Control Database (see “Configuring the DB2 Warehouse Center control database” on page 30)
 - Prepare Promote Steps (see “Preparing to promote Warehouse steps” on page 31)
 - Promote Steps (see “Promoting the Warehouse steps to production mode” on page 32)

After you configure the WCA databases, you must configure the business options. See “Configuring WCA business options” on page 34.

After you configure the WCA server for the first time, you must use the sections in Chapter 8, “After configuration,” on page 63 before you can generate the business reports.

Connecting to the data source

During this configuration step, you set parameters that enable the WCA server to connect to the WebSphere Commerce transactional database server. When you click **Configure Databases** on the Configuration Manager window (Figure 3 on page 19), the Configure WebSphere Commerce Database Access window (Figure 4 on page 22) is displayed. To connect to WebSphere Commerce, complete the fields on the window if they do not contain the correct information.

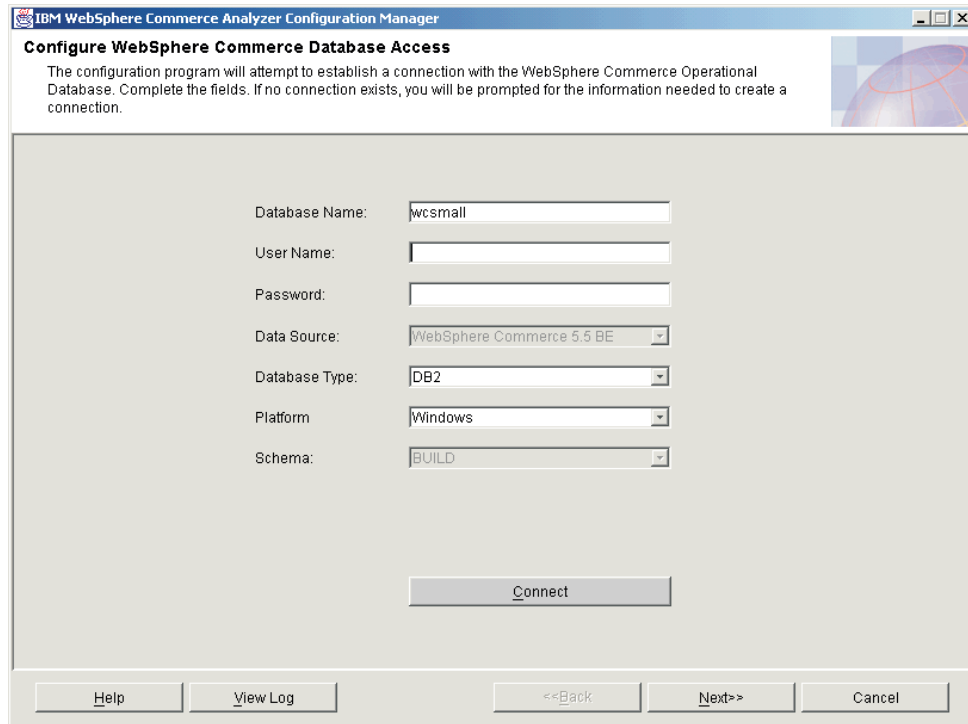


Figure 4. Configure WebSphere Commerce Database Access window

- + 1. Type the name of the WebSphere Commerce database that accesses the WebSphere Commerce transactional database, in the **Database Name** field.
- + **> Oracle** Type the name of the Federated database created to access the WebSphere Commerce database.
- + 2. Type the User ID of the WebSphere Commerce database that accesses the WebSphere Commerce transactional database server in the **User Name** field.
- + **> Oracle** Type the Federated database user name in the **User Name** field.
- + 3. Type the password of the WebSphere Commerce database that accesses the WebSphere Commerce transactional database server in the **Password** field.
- + **> Oracle** Type the Federated database password in the **Password** field.
- + 4. Select the type of database on the WebSphere Commerce database server from the **Database Type** list box. You can select **DB2** or **Oracle**.
- + **Note:** If you select **Oracle**, two additional fields will be displayed on the window. See steps 7 and 8 on page 23.
- + 5. If the database type is DB2, the version of WebSphere Commerce installed on the WebSphere Commerce database server is automatically filled in. If the database type is Oracle, select the version of WebSphere Commerce from the **Data Source** list box.
- + **Note:** If a connection does not currently exist, this field will not be available.
- + 6. Select the platform on which the WebSphere Commerce database resides from the **Platform** list box.
- + 7. If you selected **Oracle** in the **Database Type** list box, type the name you designated for the Oracle database in the **Original Source** field. This is variable name *oraalias* you specified in step 10 in "Additional setup needed for Oracle" on page 17

8. If you selected **Oracle** in the **Database Type** list box, type the original schema name of the Oracle database in the **Original Schema** field. This is variable name *orauser* you specified in step 11 in "Additional setup needed for Oracle" on page 17

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9. Click **Connect**. If the connection is successful, a DB2 Command Line Processor window opens and executes the commands to create nicknames. A message is displayed indicating whether you connected successfully. If no connection is found, the Create a connection to the database window opens. Fill in the fields for the WebSphere Commerce server and press **OK**. If you receive a message that saying that you did not connect, see "Configure WebSphere Commerce Database Access error messages" on page 77.

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Note: When connection is successful the user mappings and nicknames for WebSphere Commerce database are set up in the Federated Database.

10. If you connected successfully, select the name of the WebSphere Commerce database schema from the **Schema** list box for the version of WebSphere Commerce you have installed.

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Notes:

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- a. If you only have one schema, you do not need to select the database schema. The schema will be automatically selected.
- b. If the **Schema** list is empty, close WCA Configuration, delete the contents of the directory `/wca/tmp`, and try WCA Configuration again.

11. Click **Next**. The Create WebSphere Commerce Analyzer Datamart window (Figure 5 on page 24) is displayed. Follow the steps in "Creating the datamart."

Creating the datamart

During this configuration step, you create the datamart on the WCA server if it does not exist. If the datamart already exists, the information currently in the datamart is overwritten.

To create the WCA datamart, complete the fields on the Create WebSphere Commerce Analyzer Datamart window (Figure 5 on page 24) if they do not contain the correct information.

Note: This procedure may take several minutes while DB2 creates and populates several system tables.

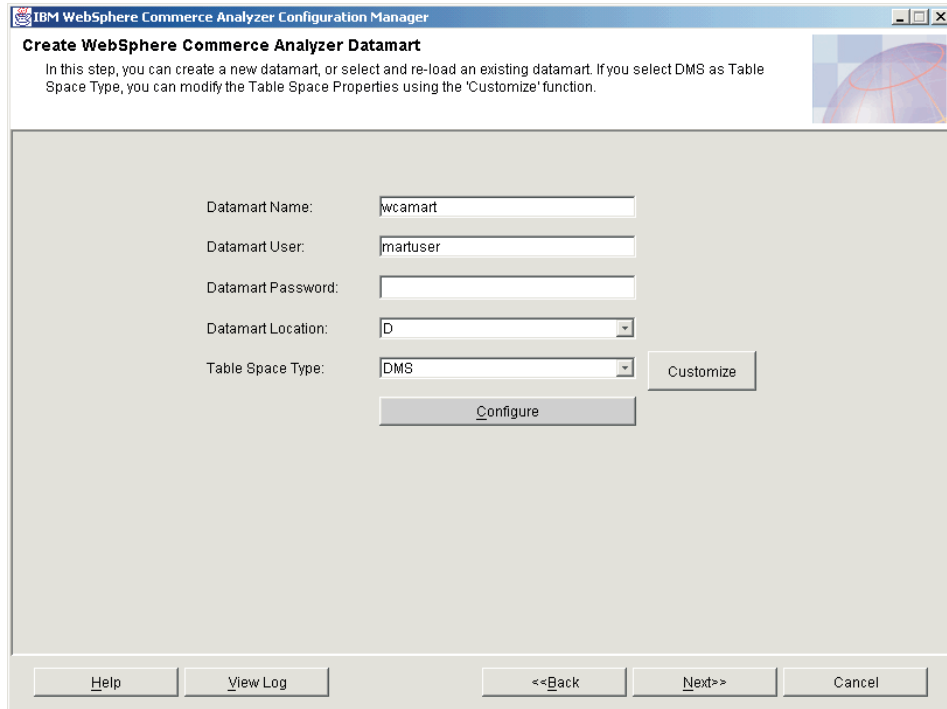


Figure 5. Create WebSphere Commerce Analyzer Datamart window

- + 1. Type the name for the datamart in the **Datamart Name** field. This name must be 8 characters or less and must contain only characters in the DB2 character set.
- + 2. Type the Windows user ID of a Windows administrator in the **Datamart User** field. If you are using Fast Load, the Datamart User ID must be martuser.
- + 3. Type the corresponding password for the user in the **Datamart Password** field.
- + 4. Select the path on which you want to create the datamart in the **Datamart Location** field.
- 5. Select the type of data storage for DB2 to use when it creates table spaces from the **Table Space** list box. You can choose **DMS** or **SMS**. (See “Deciding what type of data storage to use” on page 15 for more information.)
 If you choose **DMS**, you can change the default values provided by WCA configuration. To do so:
 - a. Click **Customize**. The Modify Initial DMS Values window (Figure 6 on page 25) opens.

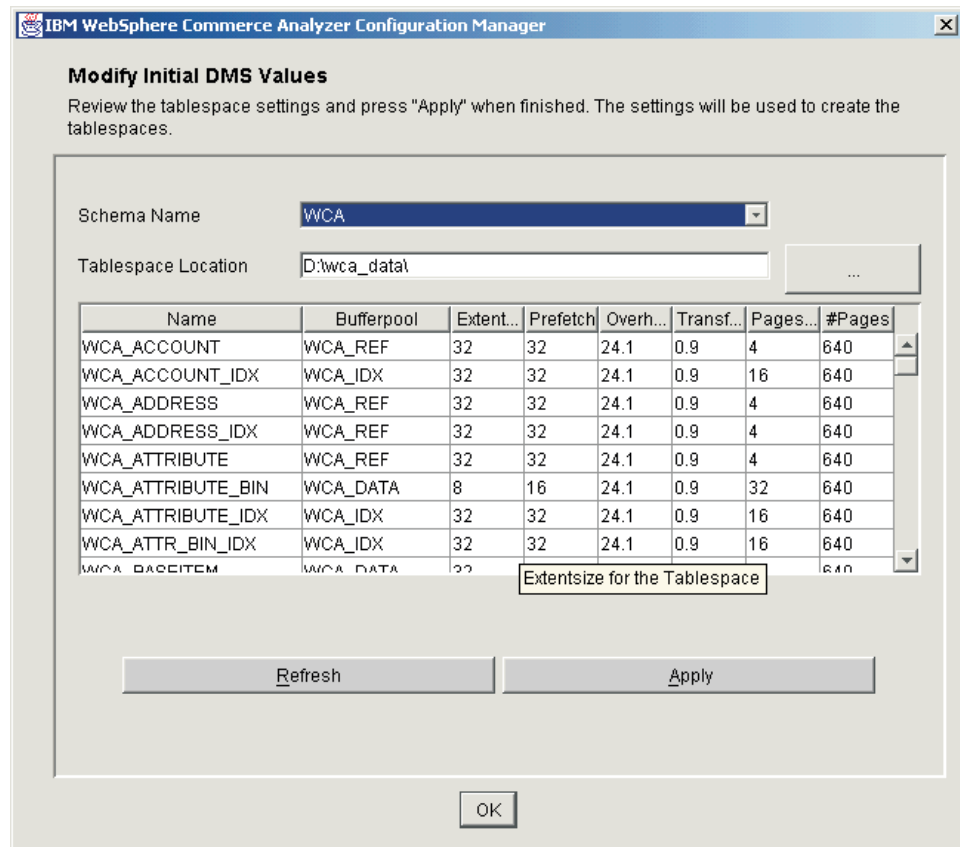


Figure 6. Modify Initial DMS Values window

- + b. In the **Tablespace Location** field, accept the default path, or click the ...
 - + button, and navigate to the location of the tablespaces.
 - + c. Make any necessary changes to the values in the table.
 - + • The script %IWDA_DIR%\bin\db2\55be_ext\wca crt tblsp_dms.sql is
 - + used to create the table spaces for the datamart schema WCA. The values
 - + from the script are used to populate the values for **Name**, **Extentsize**,
 - + **Prefetchsize**, **Overhead**, **Transferrate**, **Pagesize**, and **# of Pages**. The
 - + values for **Bufferpool** are taken from the script
 - + %IWDA_DIR%\bin\db2\wca crt bufferpools_dms.sql. If you need to
 - + make changes to the bufferpool values, make a copy of the script in the
 - + %IWDA_DATA%\tmp directory and modify it as required.
 - + **Note:** If you decide that you do not want to commit the changes, or that
 - + you have made a mistake, click **Refresh** to reload the original
 - + values in the window.
 - + d. Click **Apply** to apply the changes you made. A copy of the script
 - + wca crt tblsp_dms.sql is created with the new values. The modified script
 - + is written to %IWDA_DATA%\tmp\wca crt tblsp_dms.sql.
 - + e. Click **OK** to close the Modify DMS Values for the Datamart window.
 - + f. You can modify the new script as required, if necessary. The modified script
 - + is not deleted automatically. If you re-run the configuration, the modified
 - + script is used, even if you did not re-open the window to customize the
 - + DMS values.
6. Click **Configure** to create the WCA datamart. If you already have a datamart installed, you will be asked if you want to drop or use the old datamart. If you

decide to use the old datamart, the database will be kept and re-loaded. Creation of the datamart might take several minutes. Once the process completes, you receive a message indicating whether the datamart was successfully created. If the datamart is not created, see “Create WebSphere Commerce Analyzer Datamart error messages” on page 77.

7. Click **Next**. The Replication Setup for Source Databases window (Figure 7) opens. Follow the steps in “Configuring replication.”

Configuring replication

During this configuration step, Configuration Manager sets up replication with the WebSphere Commerce server.

Configuration Manager checks if the replication control tables already exist on the WebSphere Commerce server. If the tables exist, the entries in the registry table and in the prune control table that refer to WCA are deleted. If at least one of the tables is missing, the replication setup creates all the tables and the corresponding table spaces TSSNAP01 and TSSNAP02.

Notes:

1. Before you begin configuring replication, ensure the path where you want to create table spaces on the WebSphere Commerce server exists.
2. Ensure the path where you want to create tablespaces on WCA exists.

To configure replication complete the fields on the Replication Setup for Source Databases window (Figure 7).

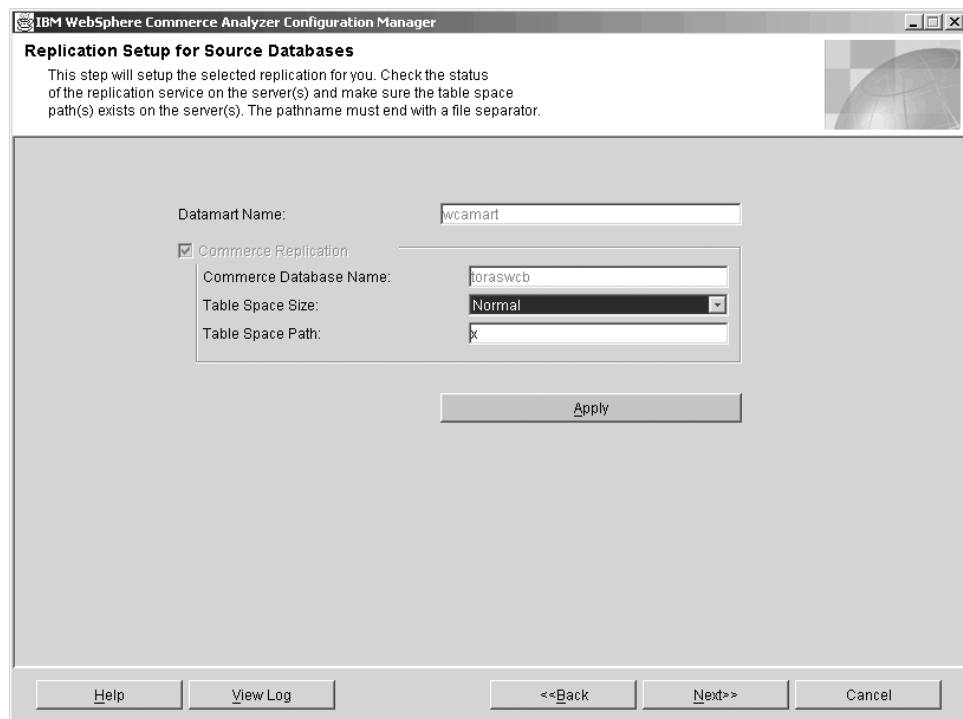


Figure 7. Replication Setup for Source Databases window

1. The name of the datamart to which data is to be replicated is pre-filled in the **Datamart Name** field. Subscriptions are set up for this datamart.

2. The first time you run configuration, the check boxes for the data sources are set according to your previous selections, and cannot be changed (that is, the check box for **Commerce Replication** is always checked).

If you partially re-do the configuration later, the check boxes will reflect the new state.

- If this is the first time you are running configuration or if you clicked the **Commerce Replication** check box, the name of the database on the server from which you want data replicated should be pre-filled in the **Commerce Database Name** field. Subscriptions will be added to this database. To change this field:
 - a. Click **Back** until the Configure WebSphere Commerce Database Access window (Figure 4 on page 22) is displayed.
 - b. Make the change to the **Database Name** field on that window.
 - c. Click **Connect**.
 - d. Click **Next** until the Replication Setup for Source Databases window is displayed again.

Note: Steps 3 and 4 does not apply if your WebSphere Commerce server is on iSeries.

3. Select the size of the replication table spaces from the **Table Space Size** list box. Choose from:
 - **Normal**
 - **Medium**
 - **Large**
 - **Extra large**

Note: For a discussion of table space size properties see “Troubleshooting table space size requirements” on page 87.

4. Type the path on the WebSphere Commerce server where you want the table spaces created in the **Table Space Path** field. Note that this path must exist on the WebSphere Commerce machine before you can enter it in the **Table Space Path** field.

Important: Make sure that you use the correct format when typing the path. The format depends on the platform on which WebSphere Commerce is running.

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- The path must include the local drive on the WebSphere Commerce machine.
- If it is on a Windows machine, you would type *d:\tablespacedir*, where *d* is the drive letter of the machine and *tablespacedir* is the pathname of the directory on which you want the table spaces created. Note that the drive letter and directory should be the actual drive and directory as they exist on the WebSphere Commerce machine, not a mapped drive letter and directory.
- If it is on an AIX or a Solaris, you would type: */tablespacepath/*, where *tablespacepath* is the path where you want the table spaces created. The direction of the slashes depends on the operating system you are using. If you are using AIX, Solaris or Linux, use forward slashes. For example: *c:/tablespacedir/* or *:/tablespacedir*
- If the commerce server is using Oracle, the tablespaces will be created on the federated database, which is local. So you would type *c:\tablespacedir*, where *c* is a local drive on the machine

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where WCA is installed and *tablespacedir* is the pathname of the directory on which you want the table spaces created.

5. Click **Apply**. A message is displayed indicating whether the setup was successful. If the setup was unsuccessful, refer to “Replication Setup for Source Databases error messages” on page 78.
6. If setup was successful, click **Next**.
 - If you have installed **Professional** **Business** Intelligent Miner, the Schedule Mining window (Figure 8) opens. Follow the steps in “Configuring the data mining environment and schedule.”
 - If you have not installed **Professional** **Business** Intelligent Miner, the Configure DB2 Warehouse Center Control Database window (Figure 9 on page 30) opens. Follow the steps in “Configuring the DB2 Warehouse Center control database” on page 30.

Configuring the data mining environment and schedule

Professional **Business** During this configuration step, you set up the proper environment for operating mining-related data activities in WCA. It includes setting up the mining base and the parameters for mining scheduling. On the Schedule Mining window (Figure 8) , complete the fields if they do not contain the correct information.

If you do not want to use mining, click **Next** to display the Configure DB2 Warehouse Center Control Database window (Figure 9 on page 30). Follow the steps in “Configuring the DB2 Warehouse Center control database” on page 30.

IBM WebSphere Commerce Analyzer Configuration Manager

Schedule Mining

In this step, the configuration program sets up the proper environment for operating data mining related activities in the WebSphere Commerce Analyzer. Make sure the mining base name is different from the mining base names used by other applications.

Mining Base Name:

Mining User Name:

Mining Password:

Activate Mining

Mining Training Interval:

Mining Apply Interval:

Activate Closed Loop

Figure 8. Schedule Mining window

1. Type the name for the mining base in the **Mining Base Name** field.

Important: Make sure the name is different from the mining base names used by other applications. If you have completed this step previously, the name you previously specified will be imported into DB2 Intelligent Miner for Data. You can delete this mining base in DB2 Intelligent Miner or choose a different Mining Base name.

2. Type the user ID of the data mining user in the **Mining User Name** field.
3. In the **Mining Password** field, type the password of the data mining user you indicated in the **Mining User Name** field.
4. If you want to activate mining, do not alter the **Activate Mining** check box. It is checked by default. Continue with step 5.
If you do not want to activate mining, clear the check box . You can skip to step 8.

Note: The data mining steps will fail if there is no data to mine. Deselect individual data mining models that do not have data in the related tables (during full customization), or deselect data mining entirely if you do not have data in the related tables.

5. Type the interval (measured in days) of how often the mining models need to be trained in the **Mining Training Interval** field. See “How to set up the mining execution schedule” for information on how the value should be defined in order to get different scheduling.
6. Type the interval (measured in days) of how often the mining models need to be applied to the operational data set in the **Mining Apply Interval** field. See “How to set up the mining execution schedule” for information on how the value should be defined in order to get different scheduling.
7. Click the **Activate Closed Loop** check box to generate data mining results and scores that can be imported into the WebSphere Commerce database. You can use these results to create customer profiles.
8. Click **Apply**. A message is displayed indicating whether the configuration step was successful. If the configuration step was unsuccessful, refer to “Schedule Mining error messages” on page 79.
9. If the configuration step was successful, click **Next** to display the Configure DB2 Warehouse Center Control Database window (Figure 9 on page 30). Follow the steps in “Configuring the DB2 Warehouse Center control database” on page 30.

How to set up the mining execution schedule

Professional > Business

1. Run the mining with the ETL schedule.
If the value of **Mining Training Interval** is set to 0, the mining model training operation will be executed every time the scheduled WCAETL runs.
If the value of **Mining Apply Interval** is set to 0, the mining model apply (scoring) operation will be executed every time the scheduled WCA ETL runs.
2. Run the mining with its own schedule.
If the **Mining Training Interval** or **Mining Apply Interval** is set to a value greater than or equal to 1, the mining operations will adjust the execution frequency according to the values specified.
It is recommended that the mining model training be scheduled less frequently. For example, if you want the mining model to be trained once a week, and the model to be applied to the data once a day, you can set **Mining Training Interval** to 7 and **Mining Apply Interval** to 1.

- To deactivate mining, clear the **Activate Mining** check box on the Schedule Mining window (Figure 8 on page 28).

Configuring the DB2 Warehouse Center control database

During this configuration step, you configure the DB2 Warehouse Center control database to manage the extraction process. To configure the DB2 Warehouse Center control database, complete the fields on the Configure DB2 Warehouse Center Control Database window (Figure 9).

Figure 9. Configure DB2 Warehouse Center Control Database window

- Type the Control Database name for the DB2 Warehouse Center control database in the **Warehouse Database Name** field. This name cannot be more than 8 characters long.
Note: If you are using Fast Load, the control database name must be **wcactrl**.
- Type the user ID of the DB2 database administrator on the WCA server in the **Warehouse Administrator User ID** field. This is the user who manages the WCA datamart and schedules replication and extraction.
Note: If you are using Fast Load, the user ID of the DB2 database administrator on the WCA server should be **ctrluser**, using the password **ctrluser**.
- Type the password for the DB2 database administrator on the WCA server in the **Warehouse Administrator Password** field.
- Verify that the **Warehouse Schema Name** field contains the name of the Warehouse Center schema.
- From the **Warehouse Database Location** list box, select the drive or path on which you want the DB2 Warehouse Center control database created.

6. Verify that the **Datasource** field contains the name of the source database.

 The **Datasource** field contains the name of the Federated Database.

7. Verify that the **Datamart Name** field contains the name of the WCA datamart.
8. Click **Configure Warehouse**. If a Warehouse Database already exists, you are asked if you want to use the old database or drop it.

You are also asked if you want to use the Fast Load option (recommended), which uses pre-built scripts or the Custom Load option, which configures each script individually and takes considerably longer to run. (See “Using Fast Load or Custom Load” on page 15.)

Then, a message is displayed indicating whether the configuration step was successful. If the configuration step was unsuccessful, refer to “Configure DB2 Warehouse Center Control Database error messages” on page 80.

9. If the configuration step was successful, click **Next**. The Prepare Warehouse window (Figure 10 on page 32) opens. Follow the steps in “Preparing to promote Warehouse steps.”

Preparing to promote Warehouse steps

The Prepare Promote Steps window (Figure 10 on page 32) lists an overview of the steps that are required to prepare the DB2 Control Center database for further configuration. These steps depend on whether Fast Load or Custom Load has been run in the previous step.

You must complete each of the steps listed before continuing with the WebSphere Commerce Analyzer Configuration Manager.

- For more information on **Warehouse Initialization**, see “Initializing the Warehouse Center Control Database” on page 71.
- For more information on **Password Changes**, see “Updating information in the Warehouse sources and targets” on page 72.
- For more information on **Fast Load Changes**, see “Changing the schema name for the WebSphere Commerce tables” on page 73.
- To start the DB2 Warehouse External Trigger Server, do the following:
 - On the Warehouse Center Server Windows system, open a command prompt.
 - Add the following jar-files to your classpath: DB2DIR\tools\db2XTrigger.jar; DB2DIR\java\common.jar, where DB2DIR is the installation location of DB2.
 - Type the following:

```
%IWDA_DIR%\jre\bin\java db2_vw_xt.XTServer 11004
```

where:

- 11004 is the portnumber. See the DB2 documentation for details.
- Leave the XT™ server running after promotion is complete. It is required during the execution of WCA.

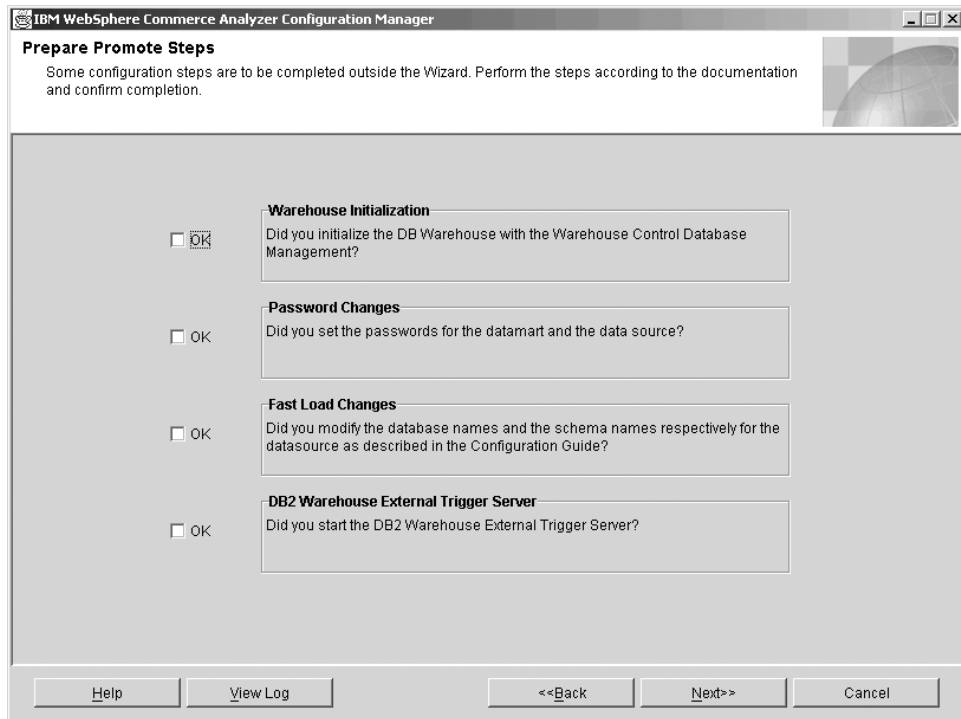


Figure 10. Prepare Promote Steps window

After you have completed the above steps, do the following:

1. Click the **OK** check boxes on the Prepare Promote Steps window.
2. Click **Next** to display the Promote Steps window (Figure 11 on page 33). Follow the steps in “Promoting the Warehouse steps to production mode.”

Promoting the Warehouse steps to production mode

During this configuration step, you promote the Warehouse steps to production mode and select a replication type. Complete the fields on the Promote Steps window (Figure 11 on page 33) if they do not contain correct information.

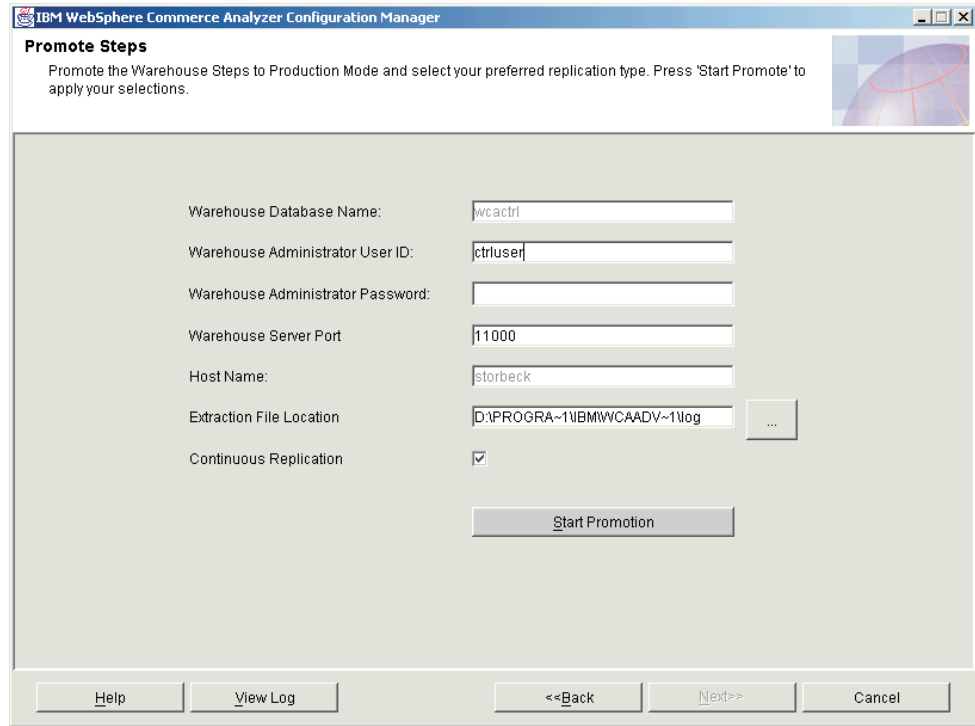


Figure 11. Promote Steps window

1. In the **Warehouse Administrator User ID**, type the user ID of the owner of the database listed in the **Warehouse Database Name** field.
2. Type the Administrator User ID's password in the **Warehouse Administrator Password** field.
3. Type in the port number used for the XTServer in the **Warehouse Server Port** field.

Note: The port numbers must match exactly, otherwise the trigger program will not exit.

4. After you start promotion, the host name of the Warehouse Server will be verified and automatically displayed in the **Host Name** field. If the content changes you will be asked for confirmation of the host name.
5. In the **Extraction File Location** field, specify the path where the extraction files will be temporarily located. This directory or file system should be large enough to hold the all of the extraction files.
6. If you do not want to schedule replication, leave the **Continuous Replication** check box checked. If you want replication to start and stop on schedule, clear the check box. For further details, see "Replication options" on page 16.
7. Click **Start Promotion**. A message is displayed indicating whether the configuration step was successful. If the configuration step was unsuccessful, refer to "Promote Steps error messages" on page 81.

Note: Promotion may take 45 minutes or longer to run.

8. If the configuration step was successful, you have finished configuring WCA databases. Click **Cancel** to return to the IBM WebSphere Commerce Analyzer Configuration Manager window.




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- + In the command window that is running the XTServer, press Ctrl+C to quit the
- + XTServer. (Figure 3 on page 19).

Configuring WCA business options

After you configure WCA databases, you must configure business options.

Business option configuration steps are:

- Select Online Stores and the Language and Currency for Reports (see “Selecting the stores and languages” on page 35)
- Select Catalog (see “Selecting catalogs” on page 37)
- Load References and Financial Periods (see “Loading references and financial periods” on page 38)
-  Select Mining Models (see “Selecting Mining Models” on page 40)
- Configure Order Status Mappings (see “Assigning Order Status Values” on page 41)
- Select Order Status Attributes (see “Selecting order status properties” on page 43)
- Select Orders to be Totaled for RFM (see “Selecting orders to be totaled for RFM” on page 45)
- Define Associations between Orders and Coupons/Initiatives/Metaphors (see “Associating orders with coupons, initiatives and metaphors” on page 47)
- Select Member Attributes (see “Selecting member attributes” on page 49)
- Select Abandoned Order Properties (see “Selecting properties for abandoned orders” on page 50)
- Select Properties for Request for Quotation (RFQ) (see “Defining RFQ properties” on page 51)
- Select Contract Properties (see “Defining contract status” on page 53)
- Maintain WCA Parameters (see “Working with parameters” on page 54)

Before you can begin these tasks, you must first choose a configuration path (see “Choosing a configuration path”).

Choosing a configuration path

Before you start the business options configuration tasks, you must choose whether you want to use default configuration settings or whether you want to customize the settings.

1. Close any programs that are running.
2. Start Configuration Manager. The IBM WebSphere Commerce Analyzer Configuration Manager window (Figure 3 on page 19) opens.
3. On the left side of the window, click **Configure Options**. The Business Options Configuration Path window (Figure 12 on page 35) opens.

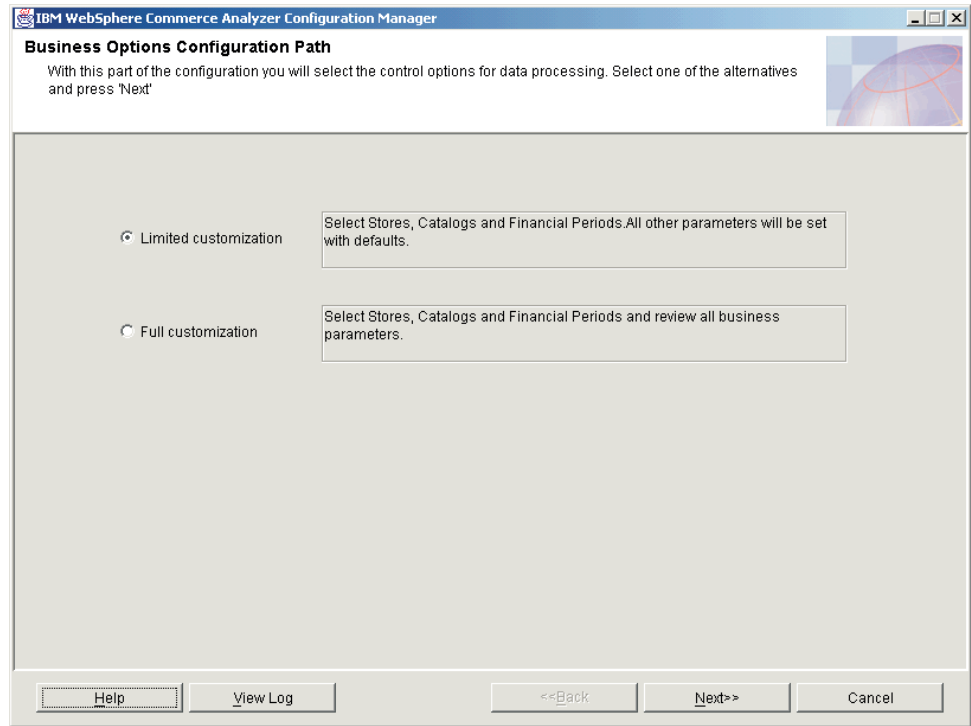


Figure 12. Business Options Configuration Path window

4. Select one of the following options:
 - **Limited customization**
Select this option to use default settings for parameters only. You must select stores, catalogs, and financial periods.
 - **Full customization**
Select this option to select stores, catalogs, financial periods, and all business parameters.
5. Click **Next**. A Connect to Database window opens.
6. The WCA datamart owner's ID is pre-filled in the **User ID** field. Type the corresponding password in the **Password** field.
7. Click **OK**. Another Connect to Database window opens.
8. The WebSphere Commerce database owner's ID is pre-filled in the User ID field. Type the corresponding password in the **Password** field.
9. Click **OK**. The Select Online Stores and the Language and Currency for Reports window (Figure 13 on page 36) opens. Follow the steps in "Selecting the stores and languages."

Selecting the stores and languages

During this configuration step, you set or change the stores, language, or currency of the stores for which the business reports are generated. To set or change the store information complete the fields on the Select Online Stores and the Language and Currency for Reports window (Figure 13 on page 36).

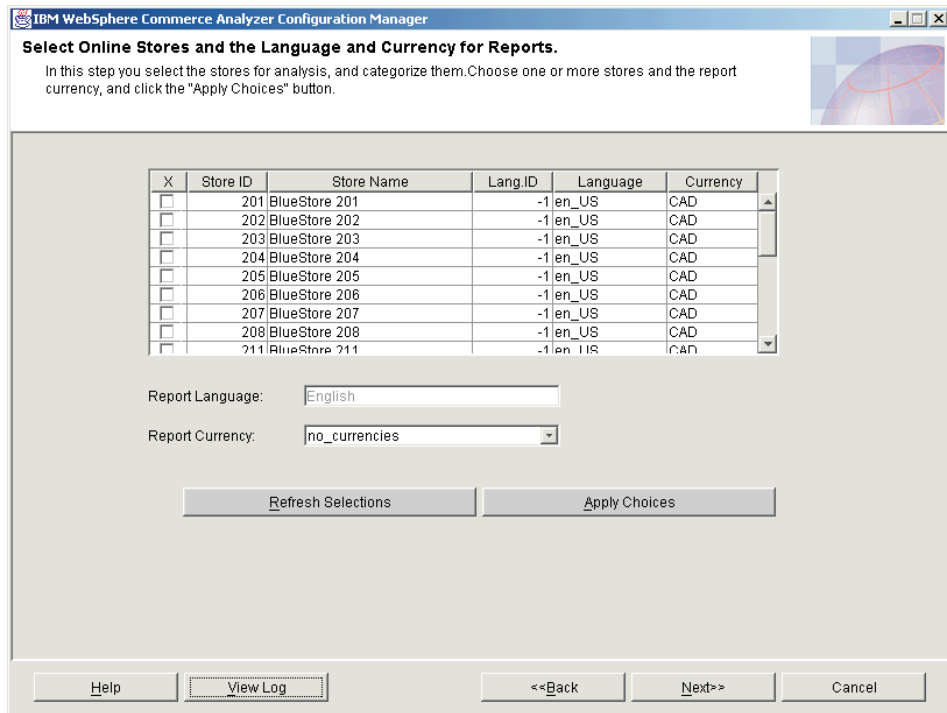


Figure 13. Select Online Stores and the Language and Currency for Reports window

1. Select the store or stores for which you want to generate the business reports by clicking the check box in the **X** column corresponding to the store listed in the **Store Name** column.
2. Select the language in which you want the business reports generated from the **Report Language** list box. The default language for business reports is the language of the locale.
3. From the **Report Currency** list box, select the currency with which you want the business reports to be generated.

Note: If you decide that you do not want to commit the changes, or that you have made a mistake, click **Refresh Selections** to reload the original values in the window.

4. Click **Apply Choices**. A message is displayed indicating whether the configuration step was successful. If the configuration step was unsuccessful, refer to “Select Online Stores and the Language and Currency for Reports error messages” on page 82.

Note: After you have selected a store for analysis, you can use Configuration Manager to stop reporting on that store. To do so, deselect the check box corresponding to the store for which you want to stop reporting. Then click **Apply Choices**.

Important: If data that has already been extracted for a store into the datamart, the data will not be automatically deleted if the store is de-selected. Disabling a store will only stop new data being loaded. To remove existing data for a store see “Removing a store” in the *IBM WebSphere Commerce Analyzer Technical Reference*.

5. If the configuration step was successful, click **Next** to display the Select Catalog window. Follow the steps in “Selecting catalogs” on page 37.

Selecting catalogs

During this configuration step, you select one or more catalogs previously set up in WebSphere Commerce. See “Catalog structure for category reports” on page 8 for information about setting up catalogs on WebSphere Commerce before installing WCA.

Be sure that each catalog you select is organized as a tree. This organization allows WCA to calculate metrics based on products and to associate each metric with a single category. If you select a catalog that is not organized as a tree, the business reports might contain inaccurate results. See “Catalog structure for category reports” on page 8 for more information.

To select catalogs, complete the Select Catalog window (Figure 14).

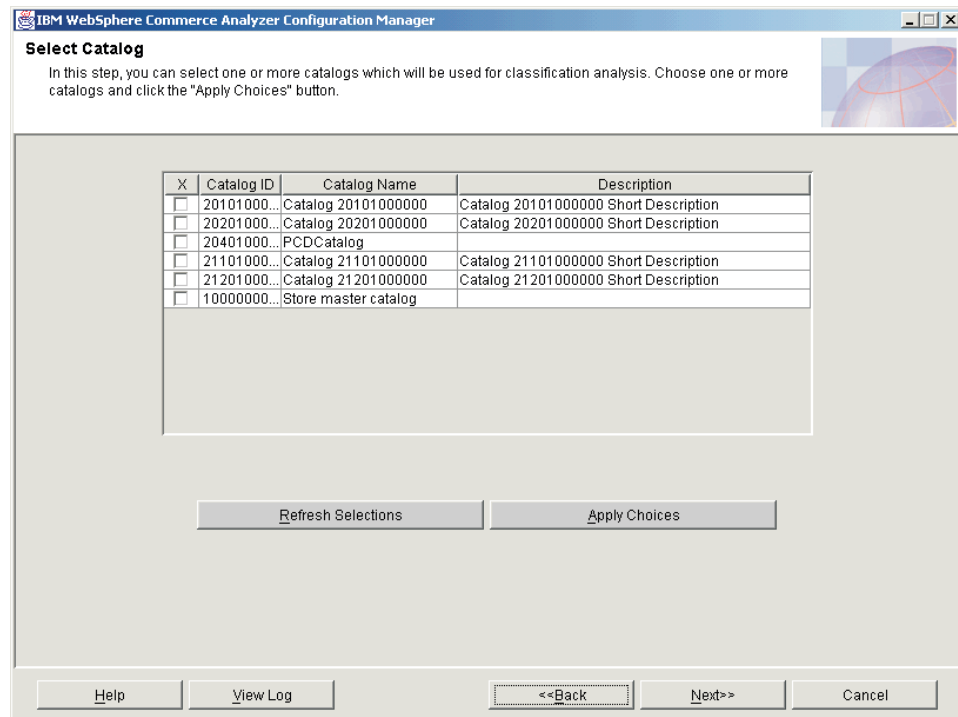


Figure 14. Select Catalogs window

Note: If the fields are empty, then the CATALOGDSC tables have no entries corresponding to the catalog_id entries in the CATALOG table. To overcome this problem insert the appropriate entries into the CATALOGDSC table for all the catalogs defined in the CATALOG table. Ensure that the correct language_id is used when inserting these records. To find the appropriate value refer to the WebSphere Commerce LANGUAGE table and choose the language_id for your install.

1. Select the catalog or catalogs you want to use for reporting.

Note: If you decide that you do not want to use the catalogs you chose, or that you have made a mistake, click **Refresh Selections** to reload the original values in the window.

2. Click **Apply Choices**. A message is displayed indicating whether the configuration step was successful. If the configuration step was unsuccessful, refer to “Select Catalog error messages” on page 82.

3. If the configuration step was successful, click **Next** to display the Load References and Financial Periods window (Figure 15). Follow the steps in “Loading references and financial periods.”

Loading references and financial periods

During this configuration step, you select the start of the fiscal year and the number of periods to load into the PERIOD table for your online store, and load reference texts.

Important: The start of the financial year can only be set for a new configuration. It *cannot* be changed after periods have already been loaded. Only the Load References can be updated later.

Complete the Load References and Financial Periods window (Figure 15).

IBM WebSphere Commerce Analyzer Configuration Manager

Load References and Financial Periods

Select the language, the start of the fiscal year and the number of periods you want to load and press 'Load'.

Language: English (en_US)

Load Financial Periods

Fiscal year starts on day: 1

Fiscal year starts in month: 1

Fiscal Year Backshift:

Load Periods from Year: 2002

Number of Years to load: 4

Reference Texts

Load language-specific texts for the store language plus any additional language selected above.

Load

Help View Log <<Back Next>> Cancel

Figure 15. Load References and Financial Periods window

1. Select a language for Reference and Financial Period texts from the **Languages** list box. English and the default reporting language are loaded automatically. You can select an additional language, if desired.
2. If you are going to load financial periods, click the **Load Financial Periods** check box.

Important: After having loaded financial periods for the first time, the fiscal year start cannot be changed. You can load additional periods by selecting the number of years to load.

- a. Select the day of the month when the fiscal year starts in the **Fiscal year starts on day** list box.

- b. Select a number corresponding with the month in which the fiscal year starts from the **Fiscal year starts in month** list box. (For example, select **4** if the start of the fiscal year is in April.)
- c. If your fiscal year starts in the previous year, check the **Fiscal Year Backshift** check box.
- d. Select a year from which to start loading periods from the **Load Periods from Year** list box.
- e. Select the number of years to load from the **Number of Years to load** list box. (The maximum number of years you can load is nine.)

Note: If you need to load additional languages for period descriptions for pre-existing periods, choose the language and select **0** from the **Number of Years to load** list box.

3. If you are going to load Reference Texts, ensure the **Reference Texts** check box is selected.
4. Click **Load**. A message is displayed indicating whether the configuration step was successful.
5. If the configuration step was successful, click **Next**.
 - If you selected **Limited customization** on the Business Options Configuration Path window (Figure 12 on page 35), the Confirm Business Option Settings window (Figure 16 on page 40) opens. Follow the steps in “Confirming business option settings.”
 - If you selected **Full customization** on the Business Options Configuration Path window (Figure 12 on page 35), click **Next** to display the Select Mining Models window (Figure 17 on page 41). Follow the steps in “Selecting Mining Models” on page 40.

Confirming business option settings

If you chose **Limited customization** on the Business Options Configuration Path window (Figure 12 on page 35), you must confirm the default choices on the Confirm Business Options Settings window (Figure 16 on page 40).

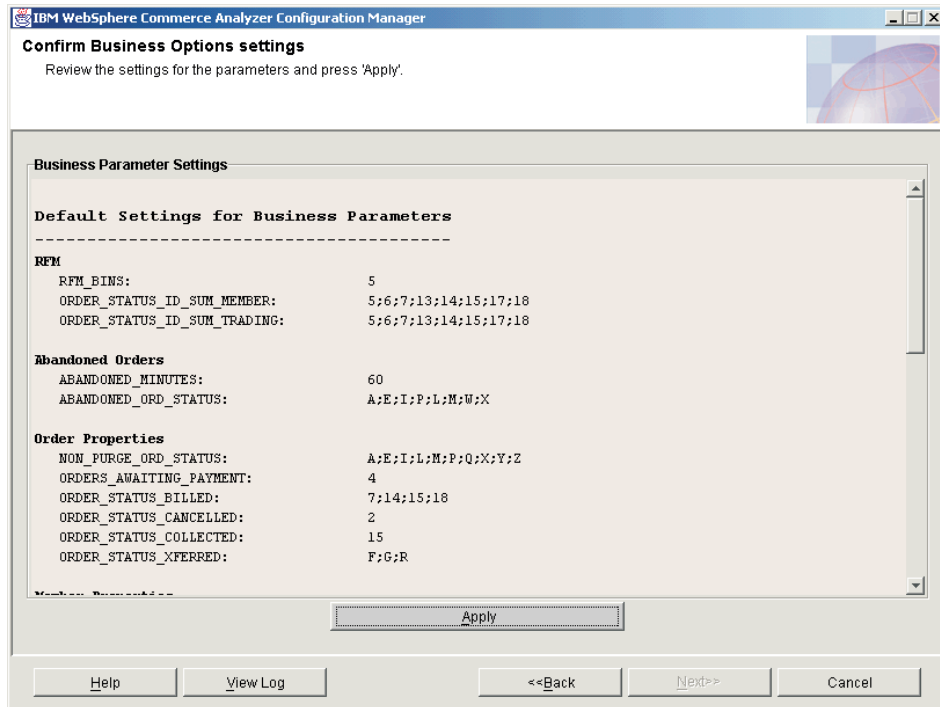


Figure 16. Confirm Business Option Settings window

1. Review the parameter groups on the window.
2. Perform one of the following steps:
 - If you are satisfied with the selections, click **Apply**. Click **Cancel** to return to the IBM WebSphere Commerce Analyzer Configuration Manager window (Figure 3 on page 19).
 - If you are unsatisfied with the selections, click **Back** until you return to the Business Options Configuration Path window (Figure 12 on page 35) and choose a different configuration path.
3. If you selected limited customization and the configuration step was successful, you have finished configuring WCA business options. Click **Cancel** to return to the IBM WebSphere Commerce Analyzer Configuration Manager window. Continue with

Selecting Mining Models

Professional **Business** If you select full customization, during this configuration step, you select the mining models corresponding with your site's business options.

Note: The mining models are used, if Mining was activated on the Schedule Mining window (Figure 8 on page 28). If you are not using mining, click **Next** to display the Configure Order Status Mappings window (Figure 18 on page 42). Follow the steps in "Assigning Order Status Values" on page 41.

To turn on or off mining models, complete the fields on the Select Mining Models window (Figure 17 on page 41).

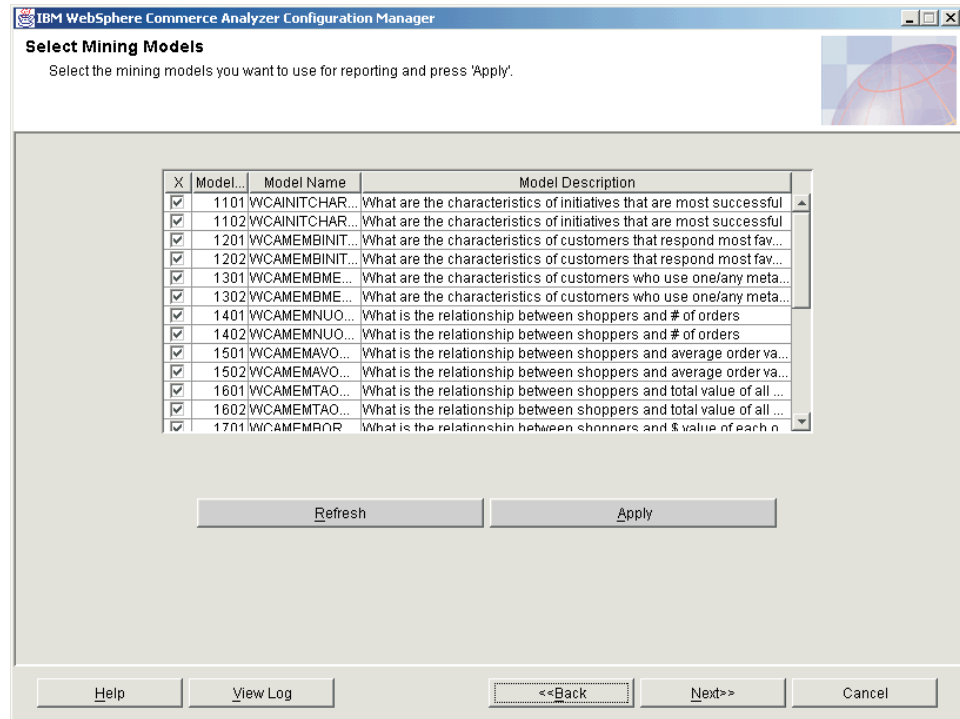


Figure 17. Select Mining Models window

1. Scroll through the list box and review the model descriptions. If you want to turn a model on, select the check box in the corresponding column. A check mark indicates the model is turned on. A blank check box indicates the model is turned off.

Note: If you decide that you do not want to use the mining models you chose, or that you have made a mistake, click **Refresh** to reload the original values in the window.

2. Click **Apply**. A message is displayed indicating whether the configuration step was successful.
3. If the configuration step was successful, click **Next** to display the Configure Order Status Mappings window (Figure 18 on page 42). Follow the steps in “Assigning Order Status Values.”

Assigning Order Status Values

During this configuration step, you assign WCA values to WebSphere Commerce order status values. To do so, complete the Configure Order Status Mappings window (Figure 18 on page 42).

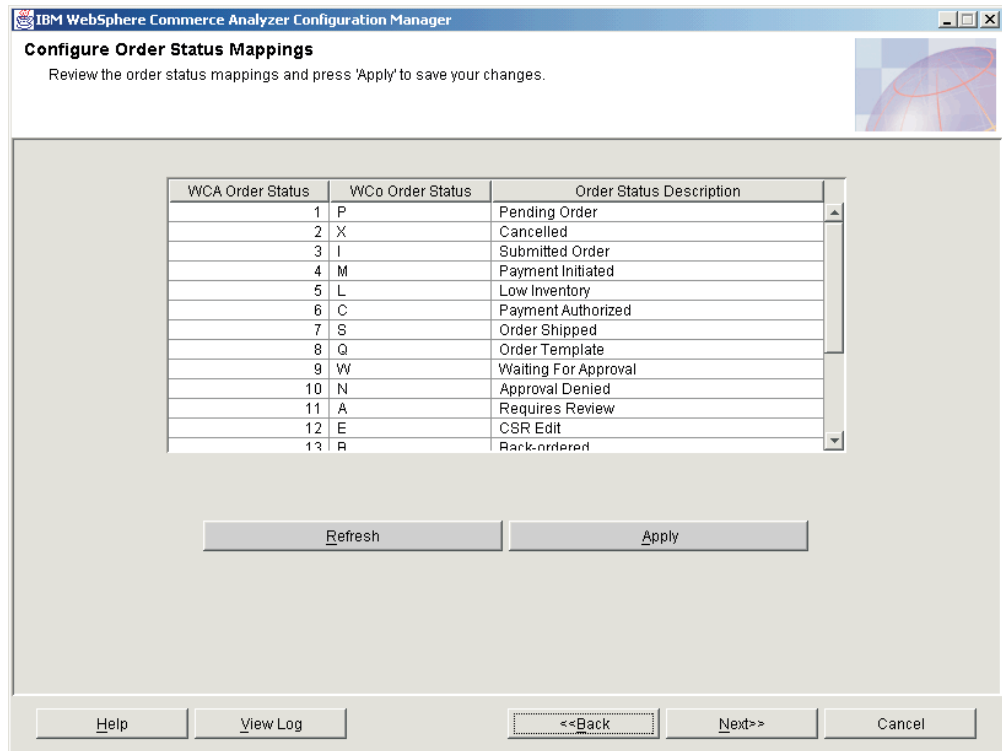


Figure 18. Configure Order Status Mappings window

The following table represents the default WCA/WebSphere Commerce order status values:

Table 2. Default WCA/WebSphere Commerce order status values

WCA Order Status	WCo* Order Status	Order Status
1	P	Pending
2	X	Cancelled
3	I	Submitted
4	M	Payment Initiated
5	L	Low Inventory
6	C	Payment Authorized
7	S	Order Shipped
8	Q	Order Template
9	W	Waiting for Approval
10	N	Approval Denied
11	A	Requires Review
12	E	CSR Edit
13	B	Back-Ordered
14	R	Release for Fulfillment
15	D	Deposited
16	T	Temporary
17	F	Ready for Remote Fulfillment

Table 2. Default WCA/WebSphere Commerce order status values (continued)

WCA Order Status	WCo* Order Status	Order Status
18	G	Waiting for Remote Fulfillment
19	Y	Private Requisition List
20	Z	Sharable Requisition List

*WebSphere Commerce

1. Review the information. Make desired changes to entries in the **Order Status Description** column.

Note: If you decide that you do not want to use the settings you chose, or that you have made a mistake, click **Refresh Selections** to reload the original values in the window.

2. Click **Apply**. A message is displayed indicating whether the configuration step was successful.
3. If the step was successful, click **Next** to display the Select Order Status Attributes window (Figure 19). Follow the steps in “Selecting order status properties.”

Selecting order status properties

During this configuration step, you select the attributes applicable for each order status. To do so, complete the Select Order Status Attributes window.

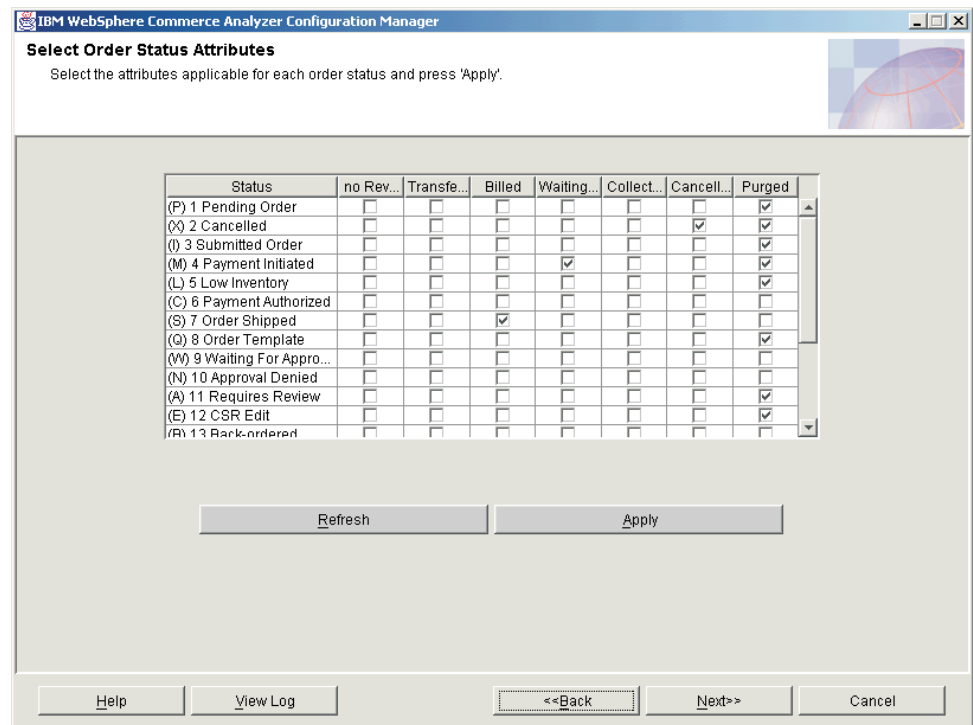


Figure 19. Select Order Status Attributes window

1. Scroll through the list box. For each applicable order status in the **Status** column, click a corresponding attribute in one of the following columns.

Note: For your reference, the parameter and a brief description corresponding to the column name is included. For full descriptions see the *IBM WebSphere Commerce Analyzer Technical Reference*.

No Revenue

ORDER_STATUS_ID_NOREV

This parameter helps WebSphere Commerce Analyzer determine the records in the FACT_ORDERS and FACT_ORDERITEMS tables that represent orders whose currency amount columns might not be populated.

Billed

ORDER_STATUS_BILLED

This parameter determines the ORDER_STATUS_IDs in the FACT_ORDERS and FACT_ORDERITEMS tables that represent billed orders. You can find the descriptions of the status codes in the WCA.ORDER_STATUS_REF table.

Waiting for Payment

ORDERS_AWAITING_PAYMENT

This parameter helps WebSphere Commerce Analyzer determine which ORDERS and ORDERITEMS are still awaiting payment. You can compare this parameter with ORDER_STATUS_ID in the FACT_ORDERS and FACT_ORDERITEMS tables. Reports can use this parameter to show metrics that only apply to orders that are awaiting payment. The default value is 4. This parameter can have multiple values.

Transferred

ORDER_STATUS_XFERRED

The default values are:

R = Read For Remote Fulfillment

G = Waiting For Remote Fulfillment

F = Ready For Remote Fulfillment

Collected

ORDER_STATUS_COLLECTED

This parameter determines the ORDER_STATUS_IDs in the FACT_ORDERS and FACT_ORDERITEMS tables that represent collected orders. You can find the descriptions of the status codes in the WCA.ORDER_STATUS_REF table.

Cancelled

ORDER_STATUS_CANCELLED

This parameter determines the ORDER_STATUS_IDs in the FACT_ORDERS and FACT_ORDERITEMS tables that represent cancelled orders. The descriptions of the status codes are in the WCA.ORDER_STATUS_REF table. The default value is 5. This parameter can have multiple values.

Purged

NON_PURGE_ORD_STATUS

This parameter determines how to process records after their deletion from the ORDER and ORDERITEMS tables.

Note: If you decide that you do not want to use the settings you chose, or that you have made a mistake, click **Refresh** to reload the original values in the window.

2. Click **Apply**.
3. If the step was successful, click **Next** to display the Select Orders to be Totaled for RFM window (Figure 20 on page 46). Follow the steps in "Selecting orders to be totaled for RFM."

Selecting orders to be totaled for RFM

During this configuration step, you select orders to be totaled for RFM (recency, frequency, and monetary).

In WCA RFM is applied to the orders associated with contracts and accounts. The following conditions determine RFM:

- The most recent date of the shopping activity.
- The greatest number of orders placed.
- The most amount of money spent on the orders.

The data is ranked according to each variable and then divided into five equal bins. Each contract or account is assigned a number between one and five, which corresponds to their bin assignment. The contract or account with the most recent

shopping activity, the greatest number of orders, and the most money spent will have an RFM value of 555. The contracts or accounts with the least activity, the smallest number of orders, and the least amount spent have an RFM value of 111. RFM requires a minimum of five records (the number of bins) to run successfully.

To select orders to be totaled for RFM, complete the Select Orders to be Totaled for RFM window (Figure 20).

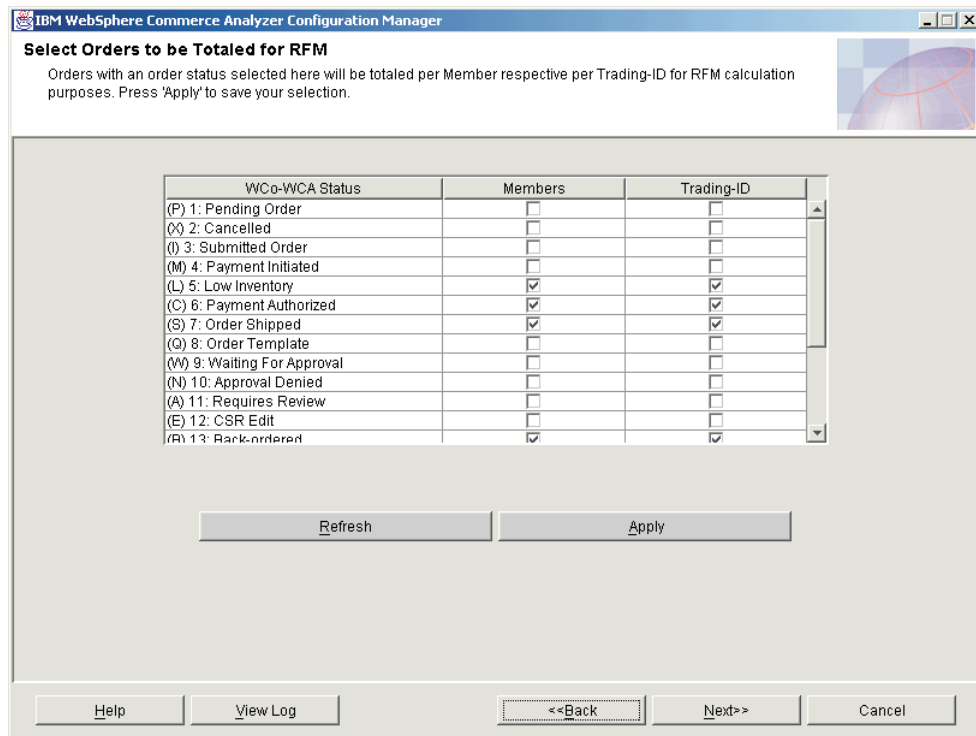


Figure 20. Select Orders to be Totaled for RFM window

1. For each entry in the **WCo-WCA Status** column, click a check box in the corresponding **Members** and **Trading-ID** columns.

Note: For your reference, the parameter and a brief description corresponding to the column name is included. For full descriptions see the *IBM WebSphere Commerce Analyzer Technical Reference*.

Members

ORDER_STATUS_ID_SUM_MEMBER

This parameter determines the set of ORDER_STATUS_ID values that a row in the FACT_ORDERITEMS table must match to populate rows in the SUM_MEMBER table.

Trading-ID

ORDER_STATUS_ID_SUM_TRADING

This parameter determines the set of ORDER_STATUS_ID values that a row in the FACT_ORDERITEMS table must match to populate rows in the SUM_TRADING table.

Note: If you decide that you do not want to use the settings you chose, or that you have made a mistake, click **Refresh** to reload the original values in the window.

2. Click **Apply**. A message is displayed indicating whether the configuration step was successful.
3. If the configuration step was successful, click **Next** to display the Define Associations between Orders and Coupons/Initiatives/Metaphors window (Figure 21 on page 48). Follow the instructions in “Associating orders with coupons, initiatives and metaphors.”

Associating orders with coupons, initiatives and metaphors

In this configuration step, you will define the associations among orders, coupons, initiatives and metaphors. This will support assessing the effectiveness of initiatives and metaphors.

An *initiative* is an applied technique used to encourage a specific behavior such as purchasing a product.

A *metaphor* is a WebSphere Commerce feature provided as part of the Product Advisor component. It provides three usage paradigms (or metaphors) for a shopper to navigate products: Product Explorer, Sales Assistant, and Product Comparison. The Product Explorer metaphor allows the user to set some feature requirements (constraints) for a product (cost, color, type, and so on) and search for matching products. The Sales Assistant metaphor is targeted towards shoppers who are not familiar with the product details and cannot set feature requirements. This metaphor asks a series of questions from which it infers what products the customer wants. The Product Comparison metaphor allows users to compare two or more products. For further information on metaphors, see the WebSphere Commerce documentation.

To associate orders with coupons, initiatives or metaphors, complete the Define Associations between Orders and Coupons/Initiatives/Metaphors window (Figure 21 on page 48).

Note: For your reference, the parameter and a brief description corresponding to the column name is included. For full descriptions see the *IBM WebSphere Commerce Analyzer Technical Reference*.

Initiative

FE_EFFECTIVE_ORD_STATUS

This parameter defines a set of values for the ORDERS.STATUS and ORDERITEMS.STATUS columns in the WebSphere Commerce database.

Metaphor[®]

FM_EFFECTIVE_ORD_STATUS

This parameter defines a set of values for the ORDERS.STATUS and ORDERITEMS.STATUS columns in the WebSphere Commerce database.

Coupons

CPN_REDEEMED_ORDER_STATUS

This parameter defines a set of values for the ORDERS.STATUS and ORDERITEMS.STATUS columns in the WebSphere Commerce database.

Initiative Time Period

FE_EFFECTIVE_MINUTES

This parameter defines the time period in which a Suggestive Sell initiative might affect a decision by buyers to purchase a certain product. If a member does not place the advertised product in the

shopping cart within the time period defined, this initiative is not eligible to claim the revenue for that product even if it is purchased later.

Metaphor Time Period

FM_EFFECTIVE_MINUTES

This parameter defines the number of minutes allowed to elapse between a customer using a metaphor and a customer buying a product pushed by that metaphor and still give credit for the purchase to the metaphor.

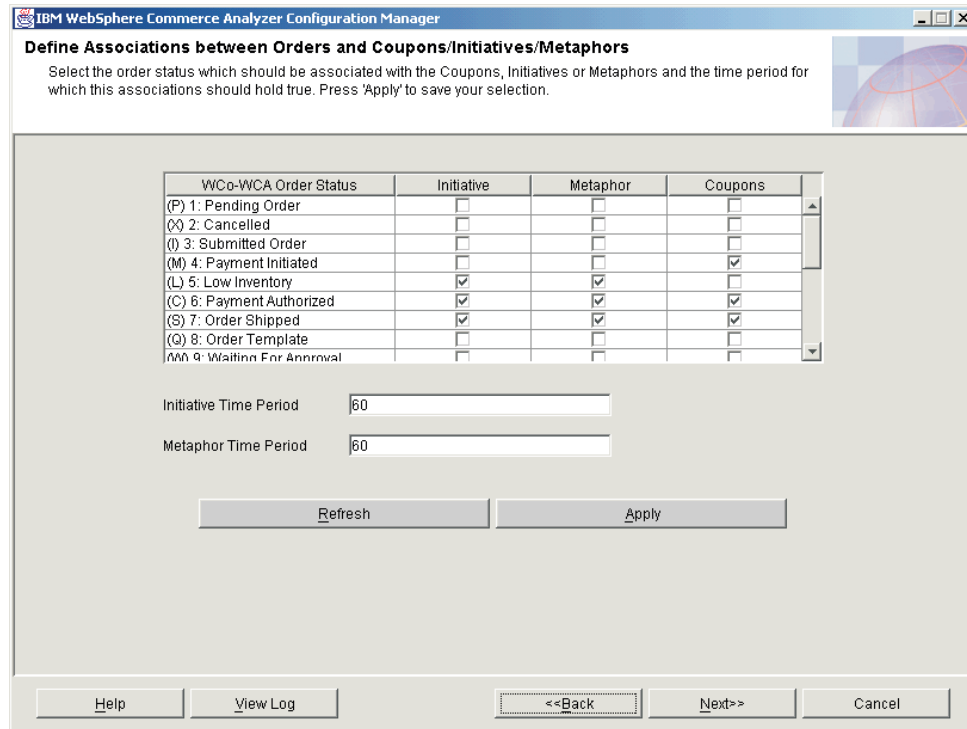


Figure 21. Define Associations between Orders and Coupons/Initiatives/Metaphors window

1. Click the check box in the **Initiative** column corresponding to an entry in the **WCo-WCA Order Status** column to identify the order status as an initiative. A check mark identifies the corresponding order status as an initiative.
2. Click the check box in the **Metaphor** column corresponding to an entry in the **WCo WCA Order Status** column to identify the order status as an metaphor. A check mark identifies the corresponding order status as an metaphor.
3. Click the check box in the **Coupons** column corresponding to an entry in the **WCo WCA Order Status** column to identify the order status as an metaphor. A check mark identifies the corresponding order status as a coupon.
4. In the **Initiative Time Period** field, type the number of days inside which the order status will be identified as an initiative.
5. Type the number of days inside which the order status will be identified as a metaphor in the **Metaphor Time Period** field.

Note: If you decide that you do not want to use the settings you chose, or that you have made a mistake, click **Refresh** to reload the original values in the window.

6. Click **Apply**. A message is displayed indicating whether the configuration step was successful.
7. If the configuration step was successful, click **Next** to display the Select Member Attributes window (Figure 22). Follow the steps in "Selecting member attributes."

Selecting member attributes

During this configuration step, you indicate how a shopper should be classified, as a *Prospect* or *Purchaser*. To do so, select the order status values appropriate to that classification, in the corresponding column of the Select Member Attributes window (Figure 22). If a shopper has at least one order with a status marked for Purchaser, they will be treated as such, and orders with status marked for Prospect are no longer considered for the classification of this shopper.

Note: For your reference, the parameter and a brief description corresponding to the column name is included. For full descriptions see the *IBM WebSphere Commerce Analyzer Technical Reference*.

Prospect

DMT_PROSPECT_ORD_STATUS

This parameter defines a set of values for the ORDERS.STATUS and ORDERITEMS.STATUS columns from the WebSphere Commerce database.

Purchaser

DMT_PURCHASER_ORD_STATUS

This parameter defines a set of values for the ORDERS.STATUS and ORDERITEMS.STATUS columns from the WebSphere Commerce database.

WCo-WCA Order Status	Prospect	Purchaser
(P) 1: Pending Order	<input type="radio"/>	<input type="radio"/>
(X) 2: Cancelled	<input type="radio"/>	<input type="radio"/>
(I) 3: Submitted Order	<input type="radio"/>	<input type="radio"/>
(M) 4: Payment Initiated	<input type="radio"/>	<input type="radio"/>
(L) 5: Low Inventory	<input type="radio"/>	<input type="radio"/>
(C) 6: Payment Authorized	<input type="radio"/>	<input type="radio"/>
(S) 7: Order Shipped	<input type="radio"/>	<input type="radio"/>
(Q) 8: Order Template	<input type="radio"/>	<input type="radio"/>
(W) 9: Waiting For Approval	<input type="radio"/>	<input type="radio"/>

Address Type:

Refresh Apply

Help View Log <<Back Next>> Cancel

Figure 22. Select Member Attributes window

1. Scroll through the list box. For each applicable order status, select a button in either the **Prospect** or **Purchaser** columns to so identify it.
2. Type a number to designate the member's address type in the **Address Type** field. The address type entered here is used to help decide which address records are used to populate the address-based columns in the MEMBER table. See your WebSphere Commerce documentation for a description of the address type.

Note: If you decide that you do not want to use the settings you chose, or that you have made a mistake, click **Refresh** to reload the original values in the window.

3. Click **Apply**. A message is displayed indicating whether the configuration step was successful.
4. If the configuration step was successful, click **Next** to display the Select Abandoned Order Properties window (Figure 23 on page 51). Follow the steps in "Selecting properties for abandoned orders."

Selecting properties for abandoned orders

During this configuration step, you specify the time frame after which an order status is to be identified as Abandoned. To do so, complete the Select Abandoned Order Properties window (Figure 23 on page 51).

Note: For your reference, the parameter and a brief description corresponding to the column name is included. For full descriptions see the *IBM WebSphere Commerce Analyzer Technical Reference*.

Abandoned

ABANDONED_ORD_STATUS

This parameter defines the set of ORDER.STATUS and ORDERITEMS.STATUS values from the WebSphere Commerce database that are considered pending orders. Use this parameter to determine whether to abandon an order or order item.

Time Period

ABANDONED_MINUTES

This parameter defines the time period that must elapse after a member updates a pending order in order to abandon that order. The parameter ABANDONED_ORD_STATUS defines the order status values that are considered pending.

The default value to consider an order abandoned is **60**.

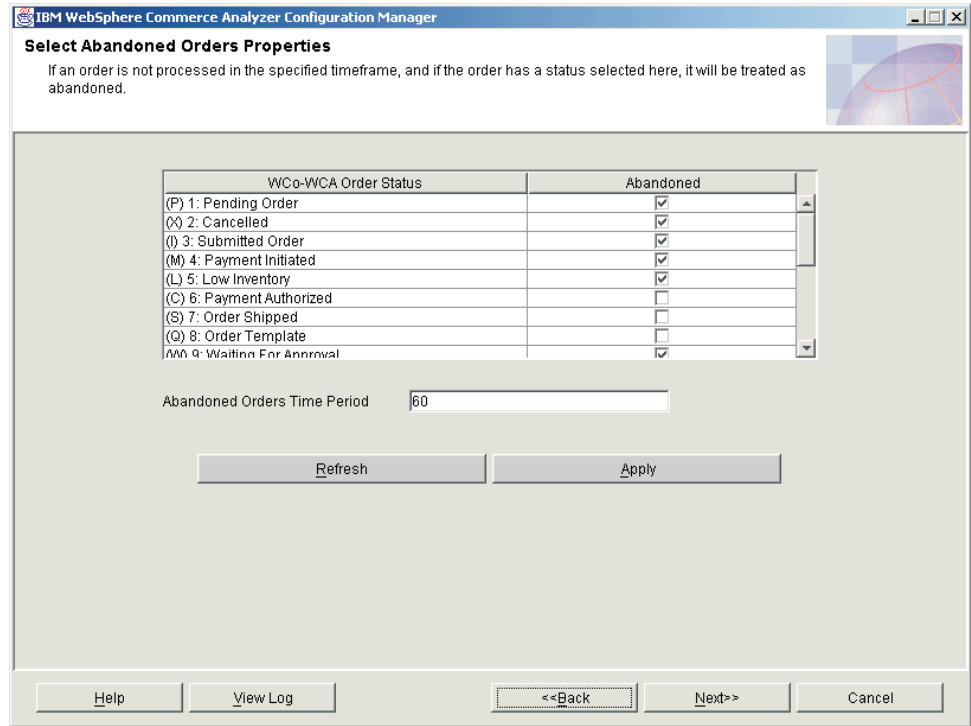


Figure 23. Select Abandoned Order Properties window

1. Click a corresponding check box in the **Abandoned** column for each order status in the **WCo-WCA Order Status** column that is to be considered Abandoned after the period of time you entered in Step 2.
2. Type the number of minutes after which an order status is to be considered Abandoned in the **Abandoned Orders Time Period** field.

Note: If you decide that you do not want to use the settings you chose, or that you have made a mistake, click **Refresh** to reload the original values in the window.

3. Click **Apply**. A message is displayed indicating whether the configuration step was successful.
4. If the configuration step was successful, click **Next** to display the Select Properties for Request for Quotation (RFQ) window (Figure 24 on page 52). Follow the steps in “Defining RFQ properties.”

Defining RFQ properties

In this configuration step, you define Request for Quotation (RFQ) status and RFQ-related order status. To do so, complete the Select Properties for Request for Quotation (RFQ) window (Figure 24 on page 52).

Note: For your reference, the parameter and a brief description corresponding to the column name is included. For full descriptions see the *IBM WebSphere Commerce Analyzer Technical Reference*.

In Preparation

RFQ_RESPONSE_IN_PREPARATION

This parameter helps WebSphere Commerce Analyzer determine which RFQ_RSP records still are in the prepared state. You can compare this multi-valued parameter with the RFQ_RSP.RSP_STATUS_ID field. The default value is 1.

Winning

RFQ_WINNING_RESPONSES

This parameter determines which RSP_STATUS_ID represents RFQ responses that are winning responses. The descriptions of the status codes are in the WCA.RSP_STATUS_REF table.

Outstanding

RFQRSP_OUTSTANDING_ORDERS

This parameter determines the ORDER_STATUS_IDs in the FACT_ORDERS and FACT_ORDERITEMS tables that represent the outstanding orders. You can consider orders related to RFQRSPs with these flags as outstanding because the customer has not initiated payment. The descriptions of the status codes are in the WCA.ORDER_STATUS_REF table.

Select Properties for Request for Quotation(RFQ)
Select the order status for outstanding RFQ's and the RFQ Status and press 'Apply' to save your selections.

RFQ-Status	In Preparation	Winning
(A) 1: RFQ Is Active.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(X) 2: RFQ Is Canceled.	<input type="checkbox"/>	<input type="checkbox"/>
(L) 3: RFQ Is Closed.	<input type="checkbox"/>	<input type="checkbox"/>
(C) 4: RFQ Is Closed.	<input type="checkbox"/>	<input type="checkbox"/>
(D) 5: RFQ Is A Draft.	<input type="checkbox"/>	<input type="checkbox"/>
(F) 6: RFQ Is A Future.	<input type="checkbox"/>	<input type="checkbox"/>

WCA-WCo Order Status	Outstanding
(P) 1: Pending Order	<input type="checkbox"/>
(X) 2: Cancelled	<input type="checkbox"/>
(I) 3: Submitted Order	<input type="checkbox"/>
(M) 4: Payment Initiated	<input type="checkbox"/>
(L) 5: Low Inventory	<input type="checkbox"/>
(C) 6: Payment Authorized	<input type="checkbox"/>
(S) 7: Order Shipped	<input type="checkbox"/>

Buttons: Refresh, Apply, Help, View Log, <<Back, Next>>, Cancel

Figure 24. Select Properties for Request for Quotation (RFQ) window

1. For each entry in the **RFQ-Status** column, click a corresponding button in either the **In Preparation** or **Winning** column. Clicking a button in the **In Preparation** column indicates that the RFQ is being prepared. Clicking a button in the **Winning** column indicates that all responses to the RFQ have been received and the contract has been awarded.
2. In the **RFQ-Related Orders** box, identify whether a status value should be identified as Outstanding. A check mark in the **Outstanding** column indicates the corresponding value in the **WCA-WCo Order Status** column is to be identified as Outstanding.

Note: If you decide that you do not want to use the settings you chose, or that you have made a mistake, click **Refresh** to reload the original values in the window.

3. Click **Apply**. A message is displayed indicating whether the configuration step was successful.

4. If the configuration step was successful, click **Next** to display the Select Contract Properties window (Figure 25 on page 54). Follow the steps in “Defining contract status.”

Defining contract status

In this configuration step, you define how the contract status used by the WebSphere Commerce server is to be interpreted. To do so, complete the Select Contract Properties window (Figure 25 on page 54).

Note: For your reference, the parameter and a brief description corresponding to the column name is included. For full descriptions see the *IBM WebSphere Commerce Analyzer Technical Reference*.

In Preparation

CONTRACT_IN_PREPARATION

This parameter determines which CON_STATUS_ID in the WCA.CONTRACT table indicates that a contract still is being prepared. The descriptions of the status codes are in the WCA.CON_STATUS_REF table. The default value is 0. This parameter can have multiple values.

Active

CONTRACT_ACTIVE

This parameter determines which CON_STATUS_ID in the WCA.CONTRACT table indicates that a contract still is active. The descriptions of the status codes are in the WCA.CON_STATUS_REF table. The default value is 3. This parameter can have multiple values.

Cancelled

CONTRACT_CANCELLED

This parameter determines the CON_STATUS_IDs in the WCA.CONTRACT table that represent cancelled contracts. You can find the descriptions of the status codes in the WCA.CON_STATUS_REF table. The default value is 5. This parameter can have multiple values.

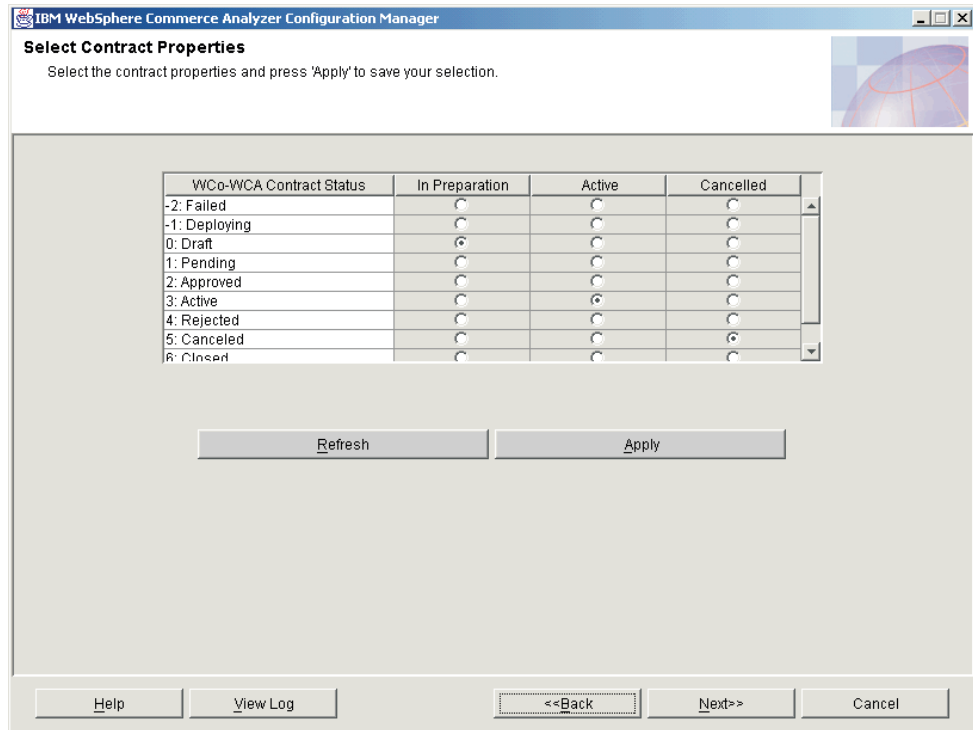


Figure 25. Select Contract Properties window

- For each item in the **WCo-WCA Contract Status** column that is used, click a corresponding radio button in either the **In Preparation**, **Active**, or **Cancelled** columns.

Notes:

 - If the contract status is used, and no selection is made in the **In Preparation**, **Active**, or **Cancelled** columns, a report may miss the information.
 - If you decide that you do not want to use the settings you chose, or that you have made a mistake, click **Refresh** to reload the original values in the window.
- Click **Apply**. A message is displayed indicating whether the configuration step was successful.
- If the configuration step was successful, click **Next** to display the Maintain Parameter window (Figure 26 on page 55). Follow the steps in “Working with parameters.”

Working with parameters

In this configuration step, you can edit the values for parameters, for which no specific maintenance panel is available on the Maintain WCA Parameters window (Figure 26 on page 55). You can select the parameter from the list box, and the corresponding maintenance view is displayed. These parameters either have a single value, for which a text entry field or a box with applicable values is shown, or multiple values, in which case a table is shown.

If you want to add additional parameters to the list, refer to the *IBM WebSphere Commerce Analyzer Technical Reference* for a description how to include your own parameters.

Aside from the predefined parameters it is possible to retrieve ad-hoc parameter values by entering the parameter type in the **Parameter Type** field. If a parameter type is not predefined, and does not yet exist in the parameter table, it will be inserted.

Note: Each parameter is treated separately. That is, if you want to make a change to a parameter value, you need to apply this change before you select another parameter type, otherwise your change is discarded.

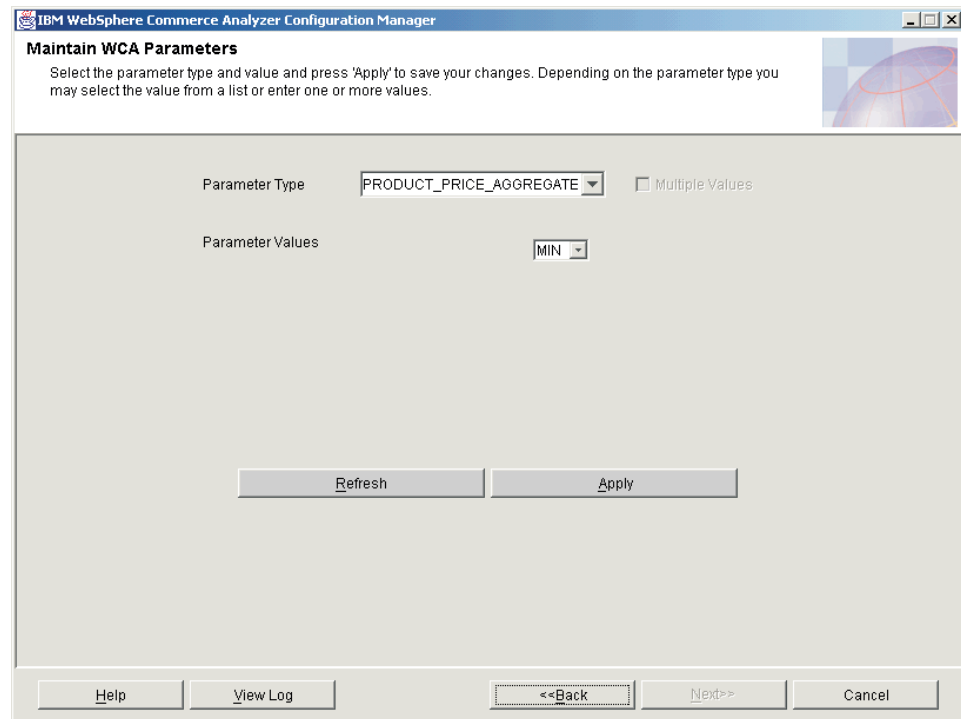


Figure 26. Maintain WCA Parameters window

1. Select a parameter from the **Parameter Type** list box. The corresponding values are listed in the Parameter Values list box.

Note: If the parameter you select has multiple values, all of the values will be shown in the list box and additional buttons are displayed on the window.

2. If desired, make a change to the values listed in the **Values** box.

Notes:

- a. You *cannot* change supplied parameters to have multiple or single values. You can do so with ad-hoc parameters.

- To change a user-defined parameter with multiple values to one with a single value, de-select the **Multiple Values** check box. The top value in the list box is saved and the others are deleted.
- To change a user-defined parameter with a single value to one with multiple values, select the **Multiple Values** check box.
- To add a value, click **Add** and type the value.
- To delete a value, highlight the value and click **Delete**.

- b. If you decide that you do not want to use the settings you chose, or that you have made a mistake, click **Refresh** to reload the original values in the window.

Note: You *cannot* change supplied parameters to have multiple or single values. You can do so with ad-hoc parameters.

- To change a user-defined parameter with multiple values to one with a single value, de-select the **Multiple Values** check box. The top value in the list box is saved and the others are deleted.
- To change a user-defined parameter with a single value to one with multiple values, select the **Multiple Values** check box.
- To add a value, click **Add** and type the value.
- To delete a value, highlight the value and click **Delete**.

Note: If you decide that you do not want to use the settings you chose, or that you have made a mistake, click **Refresh** to reload the original values in the window.

3. Click **Apply**. A message is displayed indicating whether the configuration step was successful.
4. If the configuration step was successful, you have finished configuring WCA business options. Click **Cancel** to return to the IBM WebSphere Commerce Analyzer Configuration Manager window (Figure 3 on page 19).

Viewing the Configuration Manager help and log

If an error occurs during any of the configuration steps, an error message is displayed. Click **Help** or press Alt+H on the Configuration Manager window to view the help information. Click **View Log** or press Alt+V on the Configuration Manager window to view the configuration log.

Changing the configuration

To change the configuration, you can either run Configuration Manager again or use the Parameter Manager. Running Configuration Manager again permits you to change all of the configuration settings. Parameter Manager supports changing the Business Options settings. In addition you can view your DMS settings. Applying changes to the DMS settings will create a script with the new values, but these values are not applied to your database.

Running Configuration Manager again

To start Configuration Manager, see “Starting Configuration Manager” on page 19.

For instructions for using Configuration Manager, see “Completing the configuration steps” on page 20.

Starting Parameter Manager

To start Parameter Manager:

1. Log on as the owner of the WCA datamart.
2. On the Windows desktop, click **Start** → **Programs** → **IBM WCA Edition** → **Parameter Manager**.

Note: This is the correct sequence if you accepted the default Start Menu item name when you installed WCA. If you specified another name, modify the sequence as needed.

The IBM WebSphere Commerce Analyzer Parameter Manager window (Figure 27) opens.

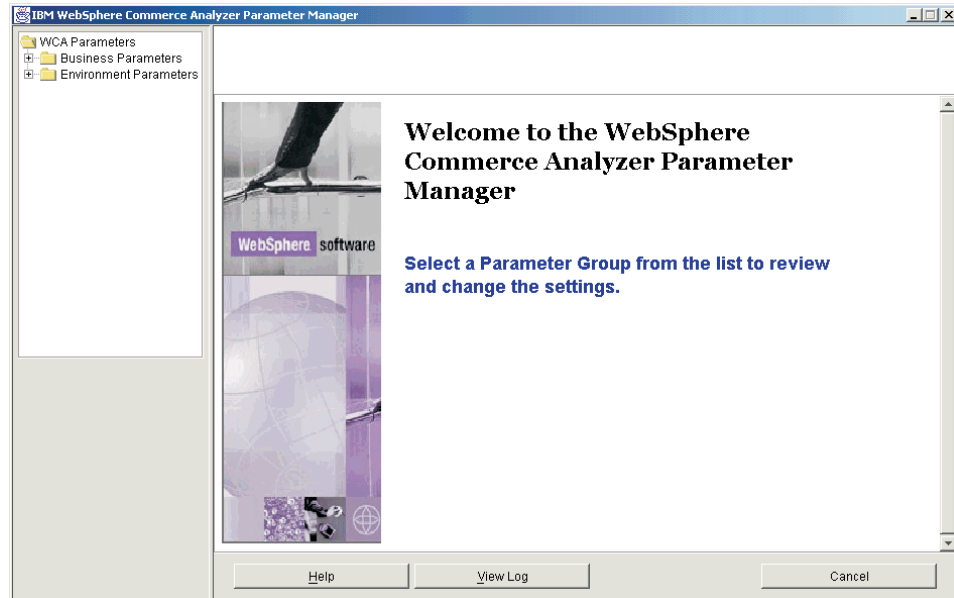


Figure 27. IBM WebSphere Commerce Analyzer Parameter Manager window

Using Parameter Manager

On the left side of the window, expand the **Business Parameters** and **Environment Parameters** folders. If you click Stores under the Business Parameters folder, the right side of the window changes to display your configurations settings (Figure 28).

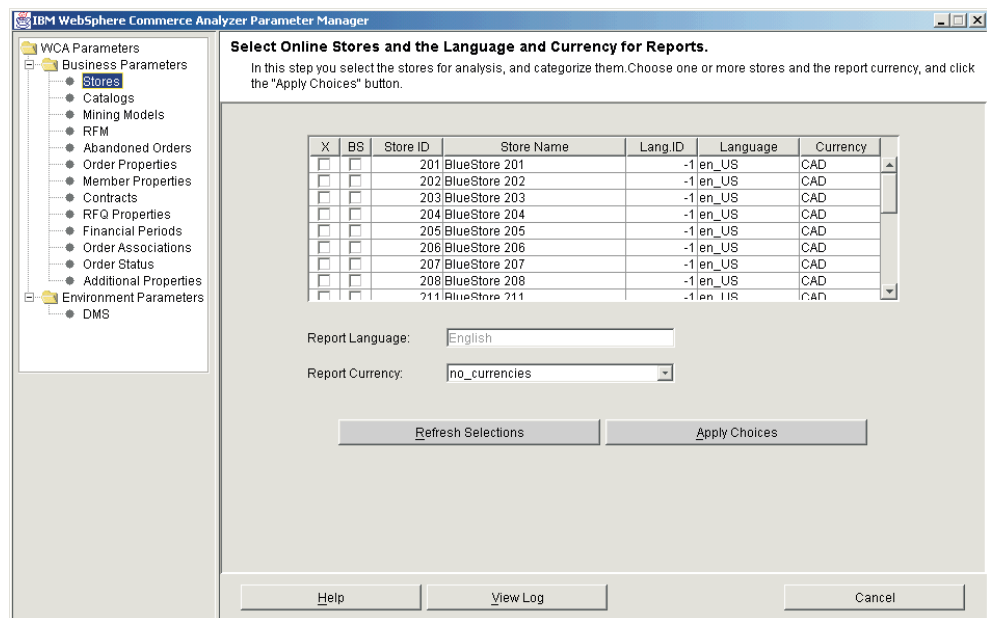



Figure 28. Configuration Settings in Parameter Manager

Follow the instructions for the similar windows in “Configuring WCA databases” on page 21 and “Configuring WCA business options” on page 34.

Chapter 7. Setting up the Capture program on the WebSphere Commerce server

You must set up the Capture program on the WebSphere Commerce server before you can run replication. See “Running Capture” for information about setting up the Capture program.

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Note:  The Capture program is not necessary if you are using an Oracle database.

Detailed information about running the Capture program can be found in the *IBM DB2 Replication Guide and Reference*. For more information on running the Capture program on iSeries, see “Running Capture on an iSeries platform” on page 61.

Running Capture

You can operate the Capture program by using the DB2 command processor.

Before you start Capture

Before you install the replication service, you must check a value on the WebSphere Commerce database.

At a DB2 prompt:

1. Log in to the WebSphere Commerce server using a DB2 administrator user ID.
2. Connect to the WebSphere Commerce database by typing the following command:

```
db2 connect to database_name user user_id using password
```

where

- *database_name* is the name of the WebSphere Commerce database.
 - *user_id* is the user ID of the database user.
 - *password* is the password for the user. The password is case-sensitive.
3. Check the database configuration. Type the following command:

```
db2 get database configuration for database_name
```

A list of variables and corresponding values are displayed.

4. Check that the database configuration variable LOGRETAIN is set to RECOVERY. To change the setting type the following:

```
db2 update database configuration for database_name using LOGRETAIN RECOVERY
```

Important: RECOVERY requires a backup of the database. Refer to the *IBM DB2 UDB Replication Guide and Reference* for further details.

Starting the Capture program

After you start the Capture program, it runs continuously until you stop it or it detects an unrecoverable error.

1. If you created one or more DB2 instances for NT, use the SET command to set the DB2INSTANCE environment variable to the DB2 instance that owns


the WebSphere Commerce database and with which you plan to run the Capture program. Type the following command:



```
SET DB2INSTANCE=database_instance_name
```

While the Capture program is running, a file with the name `<database_instance_name><database_name>.CCP` is created in the directory from which the Capture program is started. This file is a log file for the messages issued by the Capture program; these messages are also recorded in the trace table.





Note: Steps 2 through 7 are required only for the first time you start the Capture program. When you start the program on subsequent occasions, you can skip to step 8.

2. Open the Replication Center. Click **Start Programs**—>**IBM DB2**—>**General Administration Tools**—>**Replication Center**. If the Replication Center Launchpad opens, close it. The Replication Center window is displayed.
3. On the left side of the window, expand **Replication Definitions**.
4. Right-click **Capture Control Servers** and select **Add**. The Add Capture Control Servers window opens.
5. Scroll down the list box until you locate the WebSphere Commerce database name in the **Database Alias** column. Select the corresponding check box in the **Capture Control Server** column.
6. In the corresponding **User ID** and **Password** columns, type your user ID and password.
7. Click **OK**. Add Capture Control Servers window closes.
8. On the left side of the Replication Center window, expand **Operations**.
9. Click **Capture Control Servers**. The right side of the window displays a list of Capture Control servers.
10. On the right side of the window, right-click the WebSphere Commerce database name and select **Start Capture**. The Start Capture Window opens.
11. Type the location of the Capture log and work files.

Note:  If the Capture program is running on OS/400, this step does not apply.

-  If the Capture log and work files reside on an AIX or Solaris platform, type: `location/log`
-  If the Capture log and work files reside on a Windows platform, type: `location\log`

where *location* is the location you want the file to reside on the local machine.

12.   In the **KEYWORD** column, select **STARTMODE**. In the **Type of start** field, select **COLD**.  In the **KEYWORD** column, select **RESTART**. In the **Type of start** field, select **NO**.
13. Click **OK**. The Run Now or Save Command window displays.
14. Select **Run now**. Click **OK**.
15. Verify that the Capture program is running.
 -  If the Capture program is running on an iSeries platform, from an iSeries prompt, type `wrkactjob`. If the Capture program is running, there will be indented processed under the data propagation sub process QZSNDPR.

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- + • **AIX** If the Capture program is running on an AIX platform, type: `ps -ef | grep username`. If the Capture program is running, **asncap** should be listed.
- + • **Windows** If the Capture program is running on a Windows platform:
 - + a. Right-click on an empty space in the Task Bar and select **Task Manager**. The Windows Task Manager window opens.
 - + b. Click the **Processes** tab. If the Capture Program is running, **asncap.exe** should be listed in the **Image Name** column.

Stopping the Capture program

1. Open the Replication Center. Click **Start Programs**—>**IBM DB2**—>**General Administration Tools**—>**Replication Center**. The Replication Center window is displayed.
2. On the left side of the Replication Center window, expand **Operations**.
3. Click **Capture Control Servers**. The right side of the window displays a list of Capture Control servers.
4. On the right side of the window, right-click **WCDATASOURCE** and select **Stop Capture**.

Running Capture on an iSeries platform

Note: Before you run Capture on an iSeries platform, make sure you follow the instructions in “Before configuring replication on an iSeries” on page 17.

At an iSeries prompt, type:

```
QDP4/STRDPRCAP RESTART(*NO)
```

and prompt with the F4 key.

For more information about running the Capture program on iSeries, see Chapter 3 of the *IBM DB2 Universal Database Replication Guide and Reference Version 8 SC27-1121*.

Stopping Capture on an iSeries platform

Use the End DPR Capture (ENDDPRCAP) command to end the Capture program.

Use this command to end the Capture program before shutting down the system. You might also want to end the program during periods of peak system use to increase the performance of other programs that run on the system.

+ To stop the Capture program, type the following at an iSeries prompt:

```
+ ENDDPRCAP OPTION(*CNTRLD) CAPCTLLIB(ASN)
```

+ and prompt with the F4 key.

Chapter 8. After configuration


After you configure the WCA server and make required updates to the WebSphere Commerce server, you must perform the tasks in the following checklist:

- ___ 1. If you want to run data mining, see the *IBM WebSphere Commerce Analyzer, Version 5.5 Technical Reference* for information about training the data mining model and running data mining model apply. Be sure that you do not run data mining until replication and extraction have run at least twice.
- ___ 2. Run replication and extraction for the first time. See “Running replication and extraction” for instructions.

Note: Because the WCA datamart tables are not populated until the second time you run replication and extraction, most reports generated after the initial replication and extraction contain no data. Also, data mining is ineffective until after the second time you run replication and extraction. Therefore, use the following sequence:

- a. Run replication and extraction once
- b. Schedule replication and extraction to run

Reports generated after the scheduled replication and extraction run will then contain data.

- ___ 3. Refer to the Additional Software Guide for instructions on setting up a datasource on the WebSphere Commerce machine which will report against the WebSphere Commerce Analyzer datamart using WebSphere Commerce Accelerator.
- ___ 4. Schedule replication and extraction to run on a regular basis. See “Scheduling replication and extraction” on page 64 for instructions.
- ___ 5. Schedule the RUNSTATS commands to run on a regular basis to ensure that table statistics are kept up-to-date. See “Keeping table statistics up-to-date” on page 65 for instructions.
- ___ 6. Review the datamining sampling rates in  DB2 Intelligent Miner for Data. If they are set too high, reduce them by using the Get Random Sample function in Intelligent Miner for Data. See “Reducing the sampling rate” on page 65 for instructions.





Running replication and extraction

Important: Before you run replication on DB2 systems, be sure that the asncap program is running on the WebSphere Commerce server. See Chapter 7, “Setting up the Capture program on the WebSphere Commerce server,” on page 59 for information. Note that the capture program is not available if you are using an Oracle database.

To run replication and extraction:

- 1. In the Data Warehouse Center, select the **Warehouse** menu, then **Work in Progress**.
- 2. In the Work in Progress window, select the **Work in Progress** menu, then select **Run New Step**. The Run New Step window displays.
- 3. In the Available steps column, click **Name** to sort the steps by name.

4. In the **Available Steps** column of the Run New Step window, select the following step.
 - 1. Start Extraction

Then click > to add this item to the Selected Steps column.
5. Click **OK**.  If you are using DB2 all of the necessary steps will run in sequence without any intervention. If you are using Oracle, you must run each of the following steps manually, one at a time in the following order:
 - 2. Start Replication
 - Replication History
 -  WC - B2B Replication Start
 - Time Cutoff History
 - Check Reference
 -  X WCSb Account
 - X WSc OfferOrderitem
 - Effective Calculation Start
 -  WC - B2B ETL Start

Scheduling replication and extraction

The first time replication and extraction are run, all existing data is replicated and extracted. During subsequent runs, only new data is replicated and extracted. You can schedule the processes to run as frequently as you want, but not more often than once a day.

Important: Before replication runs, be sure that the asncap program is running on the WebSphere Commerce server. See Chapter 7, “Setting up the Capture program on the WebSphere Commerce server,” on page 59 for information.

To schedule replication and extraction:

1. Log in to the Warehouse Center if you are not already logged in. See “Logging in to the DB2 Data Warehouse Center” on page 72 for instructions.
2. In the Data Warehouse Center window, on the left side of the window, expand **Subject Areas**—>**Advanced Start and End**—>**Processes**.
3. Under **Processes**, select **Start Extraction**.
4. On the right side of the window, if **1. Start Extraction** is not in development mode, move it into development mode.
5. Click the right mouse button and select **Schedule** in the window that is displayed.
6. In the Schedule – 1. Start Extraction— window, complete the fields necessary to schedule the processes when you want them to run.

Note: Do not schedule the processes to run more than once a day.

7. After the fields are complete, click **Add**.
8. Click **OK**.
9. Move **1. Start Extraction** back into production mode.

Keeping table statistics up-to-date

Over time the statistics on tables can become out-of-date due to the numerous insertions, deletions, and updates that are performed against the underlying tables. This can result in a degradation of query response times. In order to keep tables statistics up-to-date, you should schedule two commands to run periodically. The commands are:

- ODS RUNSTATS

This command is run so that the optimizer has good statistics when it comes to the initial population of the WCA schema tables.

- WCA RUNSTATS

This command is run so that the optimizer has good statistics on the WCA schema tables to aid the running of reports against the system and executing the effectiveness calculations.

To schedule the commands to run:

1. Log in to the Warehouse Center if you are not already logged in. See “Logging in to the DB2 Data Warehouse Center” on page 72 for instructions.
2. In the Data Warehouse Center window, on the left side of the window, expand **Subject Areas—>Performance—>Processes**.
3. Under **Processes**, right-click **ODS runstats** and select **Schedule**.
4. In the Schedule – ODS runstats window, complete the fields necessary to schedule the command to run.
5. After the fields are complete, click **Add**.
6. Click **OK**.
7. Under **Processes**, right-click **WCA runstats** and select **Schedule**.
8. In the Schedule – WCA runstats window, complete the fields necessary to schedule the command to run.
9. After the fields are complete, click **Add**.
10. Click **OK**.

Manually running the RUNSTATS commands

Follow this procedure to run ODS RUNSTATS or WCA RUNSTATS before they are scheduled to do so.

1. Log in to the Warehouse Center. See “Logging in to the DB2 Data Warehouse Center” on page 72 for instructions.
2. In the Data Warehouse Center window, on the left side of the window, expand **Subject Areas—>Performance—>Processes**.
3. Under **Processes**, double-click **ODS runstats** or **WCA runstats** to manually run the commands.

Reducing the sampling rate

Professional **Business** To reduce the sampling rate, use the Get Random Sample function in Intelligent Miner for Data. Use this function to reduce an input data to a smaller sample by specifying the size of the sample as a percentage of the input data. The output data contains the same fields as the input data, but a smaller number of records.

1. Log on to **Professional** **Business** Intelligent Miner for Data.

2. Expand **Processing** and select **Get Random Sample**. Parameters are displayed on the right side of the window.
3. Double-click a parameter. A window opens displaying the sampling rate for the parameter.
4. If you want to make changes to the sampling rate, type a new value in the **Sample Percentage** field.
5. Click **Apply**.
6. Click **OK**.
7. Repeat for each parameter listed.

For more information on this function refer to your Intelligent Miner for Data documentation.

Chapter 9. Removing WCA

When you uninstall WCA, any software that was installed by WCA is also uninstalled. For example, if the WCA Installation program installed DB2, DB2 is uninstalled when you uninstall WCA. However, if DB2 was already installed on the computer when you installed WCA, DB2 remains on the computer when you uninstall WCA.

If you no longer want to keep the WCA databases:

1. Stop the Warehouse services.
2. Drop the WCA datamart.
3. Drop the Warehouse Center Control database.
4. Uncatalog the WebSphere Commerce database.
5. Remove the ODBC names as follows:
 - a. Click **Start** → **Settings** → **Control Panel** → **Administrative Tools** → **Data Sources (ODBC)**.
 - b. In the ODBC Data Source Administrator notebook, click the **System DSN** tab.
 - c. Remove all the ODBC names you used for WCA, such as the names for the WCA datamart, the Warehouse Center Control database, and the WebSphere Commerce database.

During uninstallation, files in the following subdirectories of the WCA installation directory are removed. (By default, the installation directory is C:\Program Files\IBM\IBM WebSphere Commerce Analyzer Edition.)

- bin
- deinst
- doc
- license
- jre
- lib
- samples
- udf

If you have stored files or installed other products in these subdirectories, be sure to save them in another location before you uninstall WCA.

To uninstall WCA:

1. On the WCA server, on the Windows 2000 desktop, click **Start** → **Settings** → **Control Panel**.
2. Double-click **Add/Remove Programs** on the Control Panel window.
3. On the Add/Remove Programs window, click **IBM WebSphere Commerce Analyzer Edition** in the list, and click **Change/Remove**.
4. Follow the directions on the panels to uninstall WCA.

If you no longer want to keep the WCA installation directory and its subdirectories, which contain data specific to your installation, you can remove them.

After you uninstall WCA

After you uninstall WCA, use the following procedure to restore the WebSphere Commerce server to the state it was in before you prepared it for WCA.

Stopping the Capture program

To stop the Capture program, use the command for the operating system of the WebSphere Commerce server.

On Windows, AIX or Solaris:


At a command prompt, type `asncmd CAPTURE_SERVER=commerce_database STOP`

where *commerce_database* is the name of the database on the WebSphere Commerce server.

On iSeries:

Type `ENDDPRCAP`.

After you stop the Capture program, you can remove the CD tables and the IBMSNAP tables through the DB2 Control Center.

Note:  If the WebSphere Commerce server is running on an Oracle database, drop all the CD_ tables, IBMSNAP tables and related triggers from the WebSphere Commerce database. To remove all of the CD_ tables, IBMSNAP tables and related triggers from the WebSphere Commerce database, do the following:

1. Connect to the WebSphere Commerce server Oracle database from the WCA machine as the Commerce User. To connect, do the following:
 - a. Click **Start** —> **Programs** —> **Oracle - OracleHome92** —> **Application Development** —> **SQL Plus**. The Log On window opens.
 - b. In the Log On window, connect to the WebSphere Commerce database by typing the **User name**, **Password** and **Host String**.
2. Run the `drop_wca.sql` by doing the following:
 - a. At an SQL prompt, run the following command:
`@%IWDA_DIR%\bin\oracle\drop_wca.sql;`

Remove all of the CD_ Nicknames, IBMSNAP_ nicknames and TSNSCA tablespaces from the Federated database that was created during configuration, using the DB2 Control Center. Also drop the Federated database that was created during configuration.

Appendix A. Default parameters

The tables in this section show parameter values that are used when creating the WCA databases. Only parameters that are different from the defaults normally used by DB2 are shown. For more information about the parameters, see the *Administration Guide* in the DB2 Information Center.

WCA datamart parameters

The following table shows configuration parameter values for the WCA datamart. To be sure that these are the most current parameter values, check the file %IWDA_DIR%\bin\db2\DbConfig.BAT.

Table 3. WCA datamart configuration parameter values

Parameter	Variable name	Value used
Application Control Heap Size	APP_CTL_HEAP_SZ	2048
Application Heap Size	APPLHEAPSZ	2048
Buffer Pool Size	BUFFPAGE	4106
Catalog Cache Size	CATALOGCACHE_SZ	938
Changed Pages Threshold	CHNGPGS_THRESH	40
Database Heap	DBHEAP	2048
Maximum Storage for Lock List	LOCKLIST	175
Log Buffer Size	LOGBUFSZ	16
Size of Log Files	LOGFILSZ	4000
Number of Primary Log Files	LOGPRIMARY	20
Number of Secondary Log Files	LOGSECOND	100
Maximum Number of Active Applications	MAXAPPLS	96
Maximum Percent of Lock List before Escalation	MAXLOCKS	8
Number of Commits to Group	MINCOMMIT	1
Number of Asynchronous Page Cleaners	NUM_IOCLEANERS	1
Number of I/O Servers	NUM_IOSERVERS	44
Package Cache Size	PCKCACHESZ	768
Recovery Range and Soft Checkpoint Interval	SOFTMAX	100
Sort Heap Size	SORTHEAP	2048
Statement Heap Size	STMHEAP	9216
Default Degree	DFT_DEGREE	ANY
Default Prefetch Size	DFT_PREFETCH_SZ	64
Utility Heap Size	UTIL_HEAP_SZ	6891

WCA Warehouse Center Control Database parameters

The following table shows configuration parameter values for the WCA Warehouse Center Control Database. To be sure that these are the most current parameter values, check the file %IWDA_DIR%\bin\db2\ctrlConfig.bat.

Table 4. Warehouse Center Control Database configuration parameter values

Parameter	Variable name	Value used
Application Control Heap Size	APP_CTL_HEAP_SZ	2048
Application Heap Size	APPLHEAPSZ	2048
Buffer Pool Size	BUFFPAGE	512
Database Heap	DBHEAP	2048
Log Buffer Size	LOGBUFSZ	16
Size of Log Files	LOGFILSIZ	1000
Number of Primary Log Files	LOGPRIMARY	5
Number of Secondary Log Files	LOGSECOND	115
Sort Heap Size	SORTHEAP	2048

Appendix B. Configuration task details

This appendix offers details about configuration task that you might need to perform.

Expanding the size of a DMS table

To expand the size of a DMS table, use the ALTER TABLESPACE command to add containers; this command allows additional containers to be added to the table space. Containers can be any of the following: files in NT, raw devices, logical volumes or partitions. After the new containers are added, the data is rebalanced across all the containers. During rebalancing, the data can still be accessed.

For information about determining table space sizes, see “Troubleshooting table space size requirements” on page 87.

Initializing the Warehouse Center Control Database

To initialize the Warehouse Center Control Database:

1. From the Desktop, click **Start** —> **Programs** —> **IBM DB2** —> **Set-up Tools**—>**Warehouse Control Database Management**.
2. On the Data Warehouse Center - Control Database Management window, complete the following fields if they do not contain the correct information:

New Control Database

Type the name of the Warehouse Center Control Database you entered during configuration on the Configure DB2 Warehouse Center Control Database window (Figure 9 on page 30).

User ID

Type the administrator user ID you entered during configuration on the Configure DB2 Warehouse Center Control Database window (Figure 9 on page 30).

Password

Type the password for the user ID.

Verify password

Type the password again for verification.

Note: Initially, you must use the default user ID (**ctrluser**) and password (**ctrluser**). To change the default user ID and password:

- a. In the Data Warehouse Center, on the left side of the window, expand **Administration**—>**Warehouse Users and Groups**.
 - b. Click **Warehouse Users**.
 - c. On the right side of the window, right-click **Default DWC User** and select **Properties**.
 - d. Change the user ID and password to reflect the values you used on the Configure DB2 Warehouse Center Control Database window (Figure 9 on page 30).
 - e. Click **OK**.
3. When the process is complete, close the Warehouse Center Database Management tool.

Logging in to the DB2 Data Warehouse Center

To log in to the Warehouse Center:

1. Open the DB2 Control Center. From the desktop, click **Start** —> **Programs** —> **IBM DB2** —> **Business Intelligence Tools**—> **Data Warehouse Center**.
2. Click **Advanced** on the Data Warehouse Center Logon window.
3. In the **Control database** field, type the name of the Warehouse Center Control Database you created during configuration (see “Configuring the DB2 Warehouse Center control database” on page 30).
4. Click **OK**.
5. On the Data Warehouse Center Logon window, type the default DB2 user ID and password. Click **OK**.

Note: Initially, you must use the default user ID (**ctrluser**) and password (**ctrluser**). To change the default user ID and password:

- a. In the Data Warehouse Center, on the left side of the window, expand **Administration**—>**Warehouse Users and Groups**.
- b. Click **Warehouse Users**.
- c. On the right side of the window, right-click **Default DWC User** and select **Properties**.
- d. Change the user ID and password to reflect the values you used on the Configure DB2 Warehouse Center Control Database window (Figure 9 on page 30).
- e. Click **OK**.

Updating information in the Warehouse sources and targets

To change information in the Warehouse Center Control Database:

1. On the WCA server, in the Data Warehouse Center, right-click **Warehouse Control Database** under **Warehouse Sources** and select **Properties**.
2. On the Properties window:
 - a. Click the **Database** tab.
 - b. Complete the following fields:

Database name

Type the name of the Warehouse Center Control Database you entered during configuration.

User ID

Type the administrator user ID you entered during configuration.

Password

Type the password for the user ID.

Verify password

Type the password again for verification.

System name

Accept the default, or type the fully qualified host name of the WebSphere Commerce Analyzer Server.

To change information in the Warehouse sources:

1. On the WCA server, in the Data Warehouse Center, expand **Warehouse Sources**.

2. Right-click **WebSphere Commerce** and select **Properties**.
3. On the Properties - WebSphere Commerce window, click the **Database** tab.
4. Check the following fields to be sure that they contain the correct information:

Database name

The DB2 catalog name of the WebSphere Commerce database on the WCA server

User ID

The user ID of a valid database user on the WebSphere Commerce server

Password


The password for the valid database user on the WebSphere Commerce server

System name


Accept the default, or type the fully qualified host name of the WebSphere Commerce Server.

If these fields do not contain the correct information, change them.

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Note:  If you are using Oracle, enter information for the Federated database.

To change information in the Warehouse targets:

1. On the WCA server, in the Data Warehouse Center, expand **Warehouse targets**.
2. Right-click **Advanced Target Tables** and select **Properties**.
3. On the Properties - Advanced Target Tables window, click the **Database** tab.
4. In the **System name** field, select the system name for the WCA server.  The system name should contain fully qualified host name where the Federated database is located.
5. Check the **Database name**, **User ID**, and **Password** fields. If these fields do not contain the correct information for the WCA server, change them.
6. Repeat this process for any reporting applications listed.

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Changing the schema name for the WebSphere Commerce tables

If you used the Fast Load option during Configuration and the schema name of the WebSphere Commerce database is not wcsadmin, use the following procedure to change the schema name in the source tables:

1. On the WCA server, in the Data Warehouse Center, expand **Warehouse Sources**—>**WebSphere Commerce**.
2. Click **Tables**. A list of tables is displayed.
3. For each table except the IBMSNAP table:
 - a. Right-click the table and select **Properties**.
 - b. In the **Table schema** field, type the name of the schema of the WebSphere Commerce database. (After you change the schema name for the first table, the name is displayed in the drop-down list for the **Table schema** field and you can select it.)

Updating information in the replication steps

Note: If you have previously promoted the replications steps and are attempting to re-configure WCA and promote the steps again, subscriptions may already exist in the WebSphere Commerce database. Before promoting, run the following SQLcommand:

```
db2 connect to mall
db2 delete from asn.ibmnap_prune_set
```

where mall is the cataloged WebSphere Commerce database. If you have already attempted to promote the steps and encountered an error, run the SQL command above and then re-promote the steps. If you continue to get errors, complete the following steps.

If you used Fast Load and have used non-default values for the datamart name, the datamart user or the datamart password, you need to complete the following procedure for all replication steps.

1. Log into the Data Warehouse Center.
2. Right-click the **Subject Areas** folder and select **Locate**.
3. In the Locate - Subject Area window, click the **Locate** tab.
4. Find the row that has the column Name and type R WCS% in the **Values** column.
5. Click **OK**. The Locate Result - Steps window is displayed. This window contains all of the steps that involve replication.
6. Right-click on the first row and select **Properties**. The Properties - WCS address window is displayed.
7. Click the **Processing Options** tab.
8. On the **Processing Options** tab, there is a box labeled **Replication Options**. Verify these fields:

Replication control database

If you used Fast Load, this field reads wcamart. If you used Custom Load, this field contains the name of the database you chose in the **Configure WebSphere Commerce Database Access** step of the WCA configuration program. If this is not the name of the database you chose in the **Configure WebSphere Commerce Database Access** step of the WebSphere Commerce Analyzer configuration program, change it for all of the replication steps.

Database type

This field is not used in the WebSphere Commerce Analyzer environment. This field always reads DB2 UDB for Windows NT.

User ID

If you used Fast Load, this field reads martuser. If you used Custom Load, this field reflects the name of the user who owns the WebSphere Commerce Analyzer database. If this is not the name of the user who owns the WebSphere Commerce Analyzer database, you must change it for all of the replication steps.

Password and verify password

If you used Fast Load, this field reads martuser. If you used Custom Load, this field is the password that you entered in the **Configure WebSphere Commerce Database Access** step of the WebSphere Commerce Analyzer configuration program. If you used Fast Load and if the password is not martuser, change it in all of the replication steps.

Do not change anything else on this tab.

Appendix C. Configuration error messages

This appendix contains possible solutions to error messages you might encounter while running Configuration Manager.

Configure WebSphere Commerce Database Access error messages

The following error message can occur during the Configure WebSphere Commerce Database Access configuration step:

- IWD2002E: Your WebSphere Commerce Server database connection is not working.

If this message is displayed after you click **Connect**, the connection to the WebSphere Commerce database was not successful. Some possible causes are:

- Some of the fields are incorrect. Check for correct spelling and be sure that case-sensitive parameters such as passwords are typed correctly.
- WebSphere Commerce database parameters, such as the user ID and password, have changed.
- You no longer have access to the WebSphere Commerce database.

See also “Common configuration error messages” on page 83.

Create WebSphere Commerce Analyzer Datamart error messages

The following error messages can occur during the Create WebSphere Commerce Analyzer Datamart configuration step:

- IWD2005E: The MAKEMART command failed to properly create the WebSphere Commerce Analyzer Datamart. Please refer to the configuration log for detailed information.

If this message is displayed after you click **Create Datamart**, Configuration Manager was unable to create the WCA datamart. Click **View Log** to view the configuration log. Some possible causes are:

- The **Datamart Name** field contains the name of a database that already exists.
 - The drive specified in the **Datamart Directory** field does not exist on the computer.
 - There is insufficient disk space on the directory to create the datamart.
 - One or more applications are connected to the datamart. If this is the case, the configuration log contains a list of applications that are currently connected to the datamart.
 - The datamart name has more than 8 characters or contains characters that are not in the DB2 character set.
- IWD2007E: The LOADMART command failed to create and populate the Datamart. Please refer to the configuration log for detailed information.

If this message is displayed after you click **Configure**, Configuration Manager was unable to prepare the WCA datamart to contain new information. Click **View Log** to view the configuration log. Some possible causes are:

- There is insufficient disk space on the drive to add information to the datamart.
- The user you specified as the datamart owner does not have access to the datamart.

- One or more applications are connected to the datamart. If this is the case, the configuration log contains a list of applications that are currently connected to the datamart.
- If you selected **DMS** as the Table Space Management option, additional causes may include:
 - Bufferpool names have been changed or removed.
 - The table space names were modified in the DMS script.
 - Table spaces were added or removed from the DMS script.

See also “Common configuration error messages” on page 83.

Replication Setup for Source Databases error messages

The following error messages can occur during the Replication Setup for Source Databases configuration step:

- IWD0902E: A valid datamart name is not available. Check the logfile for successful completion of the previous steps.

The Create WebSphere Commerce Analyzer Datamart configuration step did not complete successfully. Click **View Log** to obtain more information about the error. You can then take an appropriate action based on the information. You probably have an incorrect entry in the **Datamart Name** field on the Create WebSphere Commerce Analyzer Datamart window.

- IWD0903E: The Table Space path is not a valid pathname.

The path you typed in the **Table Space Path** field is incorrect.

- IWD0904E: A valid datasource name is not available. Check the logfile for successful completion of the previous steps.

The Configure WebSphere Commerce Database Access configuration step did not complete successfully. Click **View Log** to obtain more information about the error. You can then take an appropriate action based on the information.

- IWD0905E: A connection to the datasource cannot be established. Check the logfile for successful completion of the previous steps.

The Configure WebSphere Commerce Database Access configuration step did not complete successfully. Click **View Log** to obtain more information about the error. You can then take an appropriate action based on the information.

- IWD0901E: The WebSphere Commerce replication setup has failed.

The following are possible causes and remedies:

- + - The tables do not exist, but the table spaces do.
 - + The replication setup fails to create the table spaces TSSNAP01, TSSNAP02 or
 - + TSASNUOW, because they already exist. But there are no tables with the
 - + schema name ASN. Drop the table spaces, if they are not used by another
 - + application, and run the replication setup again.
- Some tables already exist, some do not.
 - + The replication setup fails to create tables with the schema name ASN. Drop
 - + existing tables with the schema name ASN and table spaces TSSNAP01 and
 - + TSSNAP02, if they are not being used by another application, and run the
 - + replication setup again.
- For each WCA table a corresponding replication table and table space is
 - + created in the database on the WebSphere Commerce server. With each run of
 - + the replication setup, the tables and table spaces are first dropped, and then
 - + created, and a registry entry added for each of the tables. A check is included
 - + at the end of the setup to ensure that all tables are available. If a failure
 - + occurs at this stage, check for the following situations:

- Tables exist, but cannot be dropped. This leads to an error in the creation stage.
You should ensure that there is no application currently using the tables.
- A registry entry was not deleted, causing a failure when trying to insert it again
If the registry entry is not used by another application, delete it manually, and run the replication setup again.
- The following are other general causes and remedies:
 - Bad container path.
The table spaces are created on the commerce server. The pathname for the table spaces must exist on that machine and must be entered as local to the remote machine. For example, for a Windows configuration, the table space directory on the remote commerce server is named D:\websphere\tblspc. The commerce server machine is mapped as drive G: to the WCA machine. The table space path in the replication setup needs to be entered as D:\websphere\tblspc\ .
If the WebSphere Commerce server runs on an AIX machine, check the permissions to the directory.
 - Insufficient space on the file system.
You need to increase the space on the file system.

Note: Oracle If the WebSphere Commerce server is running on an Oracle database, drop all the CD_ tables, IBMSNAP tables and related triggers from the WebSphere Commerce database. To remove all of the CD_ tables, IBMSNAP tables and related triggers from the WebSphere Commerce database, do the following:

1. Connect to the WebSphere Commerce server Oracle database from the WCA machine as the Commerce User. To connect, do the following:
 - a. Click **Start** —> **Programs** —> **Oracle - OracleHome92** —> **Application Development** —> **SQL Plus**. The Log On window opens.
 - b. In the Log On window, connect to the WebSphere Commerce database by typing the **User name**, **Password** and **Host String**.
2. Run the drop_wca.sql by doing the following:
 - a. At an SQL prompt, run the following command:
@%IWDA_DIR%\bin\oracle\drop_wca.sql;

Remove all of the CD_ Nicknames, IBMSNAP_ nicknames and TSNCA tablespaces from the Federated database that was created during configuration, using the DB2 Control Center.

If replication setup persists to fail, contact IBM Support.

See also “Common configuration error messages” on page 83.

Schedule Mining error messages

The following error messages can occur during the Schedule Mining configuration step:

- IWD1002E:Failed to update the mining parameters. Please check table "wca.parameters".

Click **View Log** to view the configuration log and determine the cause. Check the WCA.PARAMETERS table. For more information on the table, see “Parameters” in the “Extraction ” chapter of the *IBM WebSphere Commerce Analyzer, Version 5.5 Technical Reference*.

- IWD1003E:Failed to get the information for *miningbasename* about existing mining bases.

Professional **Business** Check the Intelligent Miner Environment setup to see if the environment variables IDM_MNB_DIR and IDM_RES_DIR are set to the correct directory. The default directory is the \home directory in the Intelligent Miner installation directory.

Click **View Log** to view the configuration log and determine the cause. **Professional**

Business Then check the Intelligent Miner log (loadmb.log).

- IWD1004E:Failed to create new mining base object for *miningbasename*.

Professional **Business** Check the Intelligent Miner Environment setup. Click **View Log** to view the configuration log and determine the cause. Then check the Intelligent Miner log (loadmb.log).

- IWD1005E:The mining base name *miningbasename* already existed.

Professional **Business** The mining base name you tried to use already exists in Intelligent Miner. You should either change the name you specified in the **Mining Base Name** field, or delete the mining base name in Intelligent Miner.

- IWD1006E:Import mining base *miningbasename* failed.

Professional **Business** Check the Intelligent Miner Environment setup. Click **View Log** to view the configuration log and determine the cause. Then check the Intelligent Miner log (loadmb.log).

- IWD1007E:Save mining base *miningbasename* failed.

Professional **Business** Check the Intelligent Miner Environment setup. Click **View Log** to view the configuration log and determine the cause. Then check the WCA log (loadmb.log).

Note: An additional log file you can check if this configuration step fails is updwcamnb.log

See also “Common configuration error messages” on page 83.

Configure DB2 Warehouse Center Control Database error messages

The following error message can occur during the Configure DB2 Warehouse Center Control Database configuration step:

- IWD2009E: The MAKEWCDB command failed to create the IBM DB2 Warehouse Center Control database. Please refer to the configuration log for detailed information.

If this message is displayed after you click **Create Warehouse**, Configuration Manager was unable to create the Warehouse Center Control Database. Click **View Log** to view the configuration log. Some possible causes are:

- The **Warehouse Database Name** field contains the name of a database that already exists.
- There is insufficient disk space on the drive to create the Warehouse Center Control Database.

- One or more applications are connected to the database. If this is the case, the configuration log contains a list of applications that are currently connected to the database.

See also “Common configuration error messages” on page 83.

Promote Steps error messages

The following errors can occur during the Promote Steps configuration step:

- IWD2172: Wrong Hostname - Check the hostname and run again.

Check the hostname. The hostname is retrieved from the DB2 Warehouse Center Control database,

- Schema: iwh
- Table: BUSINESSVIEW
- Field: KERNELHOSTNAME.

- IWD2175: Error in promoting steps. See log for details.

If the whouseprocs program fails to promote any of the extraction steps to production mode, you must manually promote the steps that were not promoted. To find out whether any of the extraction steps were not promoted to production mode:

1. In the Data Warehouse Center, right-click **Subject Areas** and select **Locate**.
2. On the Locate - Subject Areas window, type % in the **Values** column in the first row, and click **OK**. The Locate Result - Steps window opens with a list of the steps.
3. Click **Mode** to sort by the mode. Check to see whether any of the steps are still in development mode.
4. Sort the step names by descent.
5. You must first promote replication steps before you promote extraction steps. The name of replication steps begin with *R WCS*. Right-click the replication steps that are in development mode and select **Mode —> Production**
6. If an extraction step is in development mode, right-click the step and select **Mode —> Production**.
7. If the step moves to production mode, check for any other steps that are still in development mode. If the step does not move to production mode, an error message is displayed.

If an extraction step was not promoted, it might be that the tables associated with that step cannot be accessed because the database name, user name, or password is not correct. For information about how to identify and correct this situation, see the troubleshooting information in the *IBM WebSphere Commerce Analyzer, Version 5.5 Technical Reference*.

- IWD2178: Test failed for promoting steps. See log for details.

Before the bulk of the steps is promoted, one step is singled out to test promoting the steps. The step is defined in the %IWDA_DIR%\lib\wcacfg.properties file.

- IWD7356E:The DB2 Warehouse agent could not process the command (RC=7356)

This error may have several different causes. Do the following:

1. Check that the system classpath is set properly. For more information, see the “Pre-configuration checklist” on page 13. If you make any modifications to the system class path, close all windows in use by WCA and then reopen them.
2. In the WebSphere Commerce Analyzer Configuration Manager, select **Configure Databases**, then click **Next** until you reach the Prepare for

Promotion page. Start reconfiguring from this page forward. For more information, see Chapter 6, “Configuring WCA,” on page 19.

3. If the error occurs again, do the following:
 - a. If this is the first time you are configuring WCA, log in to the DB2 Warehouse Center, locate the step and promote it manually.
 - b. If you have already configured WCA, the WebSphere Commerce database may contain left over subscriptions. Connect to the WebSphere Commerce database and delete the subscriptions by running the following SQL statement:
 - delete from asn.ibmsnap_prune_setPromote the steps.

See also “Common configuration error messages” on page 83.

Select Online Stores and the Language and Currency for Reports error messages

The following error messages can occur during the Select Online Stores and the Language and Currency for Reports configuration step:

- IWD2011E: The REFRESH command failed to access the WebSphere Commerce Server database. Please verify that you still have access to the WebSphere Commerce Server database and the user ID and password combination is correct.

If this message is displayed after you click **Apply Choices**, Configuration Manager was unable to access the database on the WebSphere Commerce transactional database server. Some possible causes are:

- WebSphere Commerce database parameters such as the user ID and password have changed.
- You no longer have access to the WebSphere Commerce database.
- IWD2021E: The SETSTORE command failed to update the datamart with your new values for store, language and currency. Please refer to the configuration log for detailed information.

If this message is displayed after you click **Apply Choices**, Configuration Manager was unable to access the datamart on the WCA server. Click **View Log** to view the configuration log. Some possible causes are:

- The datamart is not operational.
- You no longer have access to the datamart.
- IWD2030W: For store *x*, the default currency (*y*) can not be converted to *z*, the report currency. Please either modify the CURCONVERT table in the server or choose another report currency.

If this message is displayed after you select a report currency, be sure that the appropriate currency conversions are defined. See “Requirements for the WebSphere Commerce server” on page 7 for information.

See also “Common configuration error messages” on page 83.

Select Catalog error messages

The following error messages can occur during the Select Catalog configuration step:

- IWD2012E: The command failed to save the catalog choice. Please refer to the configuration log for detailed information

If this message is displayed after you click **Apply Choices**, your choice of catalogs could not be saved. Click **View Log** to view the configuration log and determine the cause.

- IWD2018E: The REFRESH command failed to access the WebSphere Commerce Server database. Please verify that you still have access to the WebSphere Commerce Server database and the user ID and password combination is correct.

If this message is displayed after you click **Apply Choices**, Configuration Manager was unable to access the database on the WebSphere Commerce database server. Some possible causes are:

- WebSphere Commerce database parameters such as the user ID and password have changed.
- You no longer have access to the WebSphere Commerce database.

See also “Common configuration error messages.”

Common configuration error messages

- IWD2051W:SQL30081N The database *database_name* is not on the hostname you indicated and/or the port number is incorrect. Please uncatalog the database *database_name*, and run Configuration Manager again.

If this error message is displayed, you either typed the wrong hostname or port number on the Create WebSphere Commerce Connections window. You need to uncatalog the database outside of Configuration Manager and then run Configuration Manager again. To uncatalog the database type the following:

```
db2 uncatalog database database_name
```

where *database_name* is the name of the database you are going to uncatalog.

- IWD2049W:No row was found for updating *rowname* on table *tablename*.

If this message is displayed, the Create WebSphere Commerce Analyzer Datamart configuration step failed. Click **View Log** to view the configuration log and determine the cause.

- IWD2050W:The database *database_name* is in use. Make sure you do not have any active connections to this database.

If this message is displayed, ensure that you do not have any active connections to the database named in the message.

Appendix D. Troubleshooting

If you experience problems while using the WCA server, check this section to see if a solution for the problem is described. If the problem is not described, check the WCA Web site:

www.ibm.com/software/data/bi/wca/support.html

Problems during installation

If you encounter the following error message during the silent install of prerequisite software, you can ignore it. It does not affect the functioning of WCA.

EHN0229: The data file *filename* is not found. Check if this file exists. It should be in the path pointed to by the EHNINSTSVR and SMINST environment variable in the instance file.

Problems during Warehouse configuration

This section contains problems you might encounter during Warehouse configuration.

Problems when promoting the replication steps

The subscription information needed for replication is incorrect if you have encountered any of these problems:

- The WCA replication steps are still in development mode after running the Promote Steps configuration task in the Configuration Manager (see “Promoting the Warehouse steps to production mode” on page 32).
- The user is unable to manually move the WCA replication steps into test or production mode.
- The user has received any of these errors in the Data Warehouse Center user interface:
 - DWC07356E
The processing of the agent processing of a command type *command-type* has failed for edition *edition-number* of step *step-name*.
 - SQL1013N
The database alias name or database name *name* could not be found.
 - Another message that indicates that the database name or database is not found; the user name or password for the database is incorrect; or the insert, update, or delete statement would result in duplicate keys.

Complete the procedure in “Updating information in the replication steps” on page 74 to verify that the subscription information is correct.

Changing the password for a table

If a Warehouse step does not move to the Production mode and the error message states that the user name or password is incorrect, use this procedure to change the user name or password:

1. Right-click the **Subject Areas** folder and click **Locate**.

2. In the Locate Result - Steps window, click the right mouse button on the step, and then click **Show Related**.
3. In the Show Related - *step name* window, double-click the process. The Process Model window opens, showing the step and either the source or target tables used in the step.
4. In the Process Model window for each source or target table shown, click the right mouse button on the table, and then click **Properties**.
5. The first line under the title bar of the window shows the folder, which is either **WebSphere Commerce** or **Advanced Target Tables**. (If a reporting application step failed, see the documentation for the reporting application to determine the Warehouse Source or Warehouse Target for the step.)
6. In the Data Warehouse Center window, expand both **Warehouse Sources** and **Warehouse Targets** and find **WebSphere Commerce** or **Advanced Target Tables**. (You might need one or both of these, depending on what was shown for the tables in the Process Model window.)
7. Click the right mouse button and click **WebSphere Commerce** or **Advanced Target Tables** and click **Properties**.
8. In the Properties window, click the **Database** tab.
9. Be sure that the **Database name** and **User ID** fields contain the correct names. Retype the password in the **Password** and **Verify password** fields and click **OK**.
10. Try again to promote the step to production mode.

Problems with replication

After the replication steps are in production mode and you have run the WCA extraction process at least once, do not demote any of the replication steps to development mode. If you demote the replication steps, it might corrupt the replication setup control tables, force you to re-create the WCA database, and reset all of the WCA replication steps.

Problems during extraction

These problems might happen during the extraction process.

Primary key error

This problem can occur during the WCA extraction processing cycle. If you have the following following message in the log, contact IBM Support.

```
DB21034E The command was processed as an SQL statement because it was not a valid Command Line Processor command. During SQL processing it returned: SQL0803N One or more values in the STATEMENT_NAME statement, STATEMENT_NAME statement, or foreign key update caused by a STATEMENT_NAME statement are not valid because the primary key, unique constraint or unique index identified by "2" constrains table "TABLE_NAME" from having duplicate rows for those columns. SQLSTATE=23505
```

The FACT_INTEREST table is not populated

The FACT_INTEREST table is populated when customers add items to their interest list. Using the .jsp in WebSphere Commerce, WebSphere Commerce Analyzer logs information in the query string of the USR_TRAFFIC log for the **OrderItemUpdate**, **OrderItemAdd**, and **InterestItemAdd** commands.

The **InterestItemAdd** command is used to add an item to the interest item list. The **OrderItemUpdate** and **OrderItemAdd** commands are used when a product is moved from the interest item list to the order list. The query string might contain the Store_ID, CatEntry_ID, Attr_Name, and the Attr_Value. For example, the query string might contain the this information for a product in a store that is red:

```
Store_ID=35&CatEntry_ID=1000&Attr_Name=100&AttrValue="Red"
```

For example, the query string might contain this information for a product in a store that has two attributes:

```
Store_ID=35&CatEntry_ID=1000&Attr_Name=100&AttrValue_1="Red"&AttrValue_2="Size 10"
```

Troubleshooting table space size requirements

During the extraction process, you might encounter this DB2 error:

```
SQL0289N
```

```
Unable to allocate new pages in table space "tablespace name".
```

This error appears because either the table space size is too small or the disk space is depleted.

To correct the error, check the cumulative free disk space. If there is sufficient disk space, the table space size can be altered. To alter the table space size, complete these steps:

1. Locate the name of the table that failed the step by looking in the Warehouse Center.
2. Determine the table space name using the DB2 Control Center.
3. Increase the table space size.

Troubleshooting errors during extraction

If an error occurs while the extraction process is running, use this procedure to obtain information about the error:

1. In the Data Warehouse Center, click **Warehouse → Work in Progress**.
2. The Work in Progress window shows all the processes that ran during the extraction process. Find the process or processes that have a **Failed** status. Click the process to select that process.
3. Click the right mouse button and click **Show Log**.
4. In the Log window, in the Message type column, find an error message. Click the message to select that message.
5. Click the right mouse button and click **Show Details**. The Log Details window opens and shows detailed information about the error message.

Use the Message Reference in the IBM DB2 documentation if necessary to decide on a course of action based on the error message.

Problems after initial replication and extraction

After the initial replication and extraction, check to see if **SET INTEGRITY** or **SET CONSTRAINTS** failed. If there are violations with the Foreign Key, Primary Key, or Unique Key, these commands will fail. The offending rows are placed in a mirror tables called *Load Exception tables*. You should check the Load Exception tables to locate any offending rows. To check if the commands failed:

1. Type this command to list the Load Exception tables:

```
list tables for schema wcaexcpt
```

The Load Exception table names are displayed.

2. Type:

```
select count (*) from wcaexcpt.tablename
```

Where *tablename* is one of the Load Exception table names.

A number is displayed. If the number is 0, the table does not have errors. If the number is greater than 0, the table has errors. Open the table and get the name of the offending row from the **MSG** column and correct the error.

3. Repeat step 2 for each Load Exception table.

Working with the datamart

If you encounter difficulties during the extraction process with the datamart, see the *WCA Datamart Reference* for more information.

Altering existing WCA tables

If you alter one or more existing tables in the WCA schema, you must update the associated EXCEPTION tables. WCA provides a script which, when run, updates these tables correctly. The `create_load_exception_tables.sql` script can be found in the `%IWDA_DIR%\bin\db2\wcs_install_dir` directory. Where:

- *IWDA_DIR* is the directory where WCA is installed. You set this directory location during installation.
- *wcs_install_dir* is the directory name for the version of WebSphere Commerce that is installed. For example, `55be_ext`.

If you do not run the script, you will receive a Data Warehouse Center error that says:

```
IWD3250E: IWD3250E Failed to run update script (2nd RC = 3250)
```

Recovering from problems during replication and extraction

During normal operation of the WebSphere Commerce Analyzer server, data is replicated from the WebSphere Commerce database and placed in the WCA datamart. However, several occurrences can cause these processes to fail. The most common of these occurrences, along with a reference to the instructions for correcting them, are:

- WCA datamart runs out of disk space. See “Database runs out of space” on page 89.
- WCA DB2 transaction log fills up. See “WCA DB2 transaction log fills up” on page 89.
- Network outage occurs. See “Network outage occurs” on page 89.
- Windows failure occurs and causes a system restart or DB2 restart. See “Microsoft Windows failure occurs, causing a system or DB2 restart” on page 89.
- After installing ASNCAP as a service, the process stops after some activity. See “ASNCAP program stops” on page 89.
- A step fails during initial replication and extraction. See “A step fails during initial replication and extraction” on page 90.
- A step fails after initial replication and extraction. See “A step fails after initial replication and extraction” on page 90.
- The registration information is not updated in the WebSphere Commerce Analyzer datamart.

Database runs out of space

If the datamart is out of space, take action based on whether you are using Database Managed Storage (DMS) or System Managed Storage (SMS):

If you are using DMS:

If you are using DMS and if the datamart runs out of space, use the **ALTER TABLESPACE** command to add one or more containers to the table space that is full. To accommodate quickly growing data, add a very large container or add more than one container. A container can be any of these files in Windows NT[®], raw devices, or logical volumes or partitions. After the new containers are added, the data is rebalanced across all the containers. During rebalancing, you can still access the data.

If you are using SMS:

If you are using SMS and if the datamart runs out of space, the hard disk is full. In this case, you must perform these tasks:

1. Back up the datamart by archiving the existing data.
2. Use a redirected restore to restore the data onto a larger hard disk.

WCA DB2 transaction log fills up

If the WCA DB2 transaction log fills up, use the DB2 Control Center to extend the size of the DB2 transaction log. Check the size of the **LOGFILSIZ**, **LOGPRIMARY**, and **LOGSECOND** parameters by completing one of these procedures:

- Command line
On a command line, type `DB2 GET DB CFG FOR database_name`
- Graphical user interface (GUI)
 1. Right-click the database name in the Control Center.
 2. Right-click the **Configure** option.
 3. Tab to **Logs** in the Configure Database window that displays.

Network outage occurs

If a network outage occurs, re-establish a network connection to the WebSphere Commerce database.

Microsoft Windows failure occurs, causing a system or DB2 restart

If a Windows failure occurs, causing a system restart or DB2 restart, perform these steps:

1. Stop all processes on the WCA server.
2. Shut down and restart the WCA server.
3. Restart the processes on the WCA server.

ASNCAP program stops

The ASNCAP program stopped after some activity. These explanations and possible solutions are for this problem:

ASNCAP as a service

You installed ASNCAP as a service, which is not recommended. Instead, run the process from the command line. See “Setting up the Capture program on the WebSphere Commerce server” in the *WebSphere Commerce Analyzer Installation and Configuration Guide*.

Time stamp is out of range of the extraction time cutoff

The new shopping data did not get processed because the time stamp is out of range of the extraction time cutoff. To recover the data that is missing, complete these steps:

1. Type db2 connect to *database* where the *database* is the name of your local datamart.
2. Type db2 update wca.parameters set param_value = (select varchar(min(lastsuccess)) from asn.ibmsnap_subs_set) where param_type='TIME_CUT_OFF_PREV'
3. Run ASNCAP in the WebSphere Commerce system.

A step fails during initial replication and extraction

If a replication or extraction step fails *during* the initial replication and extraction, the error displays in the Work in Progress window. Follow these steps to restart the failed step:

1. Check that the network is up.
2. Select the error in the Work in Progress window.
3. Using the right mouse button, click the error and then click **Run Now** from the resulting menu. The failed step is restarted.

A step fails after initial replication and extraction

If a replication or extraction step fails *after* the initial replication and extraction, follow these steps to prevent possible data inconsistency in the WCA datamart.

1. Check the Work in Progress window in the Data Warehouse Center to identify the step where the error occurred.
2. Check the log information for the step that failed.
3. Identify the problem and take the proper measures to correct the problem. Contact the IBM Technical Support team if you cannot fix the problem.

Note: If the problem cannot be fixed in step 3, you must turn off the Data Warehouse Center scheduled daily extraction until the problem is fixed. After the problem is fixed in step 3, you must finish step 4 before replication and extraction can be turned on again.

4. After the problem is corrected, manually start the extraction process from the failed step to finish all of the unfinished steps in the extraction sequence.
 - a. Select the error in the Work in Progress window.
 - b. Using the right mouse button, click the error and then click **Run Now** from the resulting menu. The failed step is restarted.

Other Problems

This sections provides additional support to recover from possible errors.

DBCS or MBCS characters in the reports are corrupted

The following are scenarios and actions used to troubleshoot this problem.

Important: Please read all of the scenarios as multiple scenarios could play a part in the problem.

Scenario 1: DBCS and MBCS character corruption in reports based on the WCA datamart

WCA was designed to accommodate more than one language within the WCA datamart. It is possible, however, that some applications of the data will only expect one language to be in the database and this language is expected to be the same or at least compatible with the locale in which the application is running. This could be the locale of the operating system. The best example is an application that is running on the en_US or English locale on Windows that is connected to a database that contains Japanese characters. More than likely, the application will not understand that the data is in Japanese and will not have the font support to even display the characters if it did understand. Refer to the *DB2 Administration Guide for NLS Support* as well as the particular application's documentation for further information regarding this issue.

Scenario 2: WebSphere Commerce server is installed on a DBCS or SBCS operating system

The following scenario should not cause corruption to MBCS or DBCS characters in the WCA datamart.

The WebSphere Commerce server contains only one language and that language matches the operating system locale. The WebSphere Commerce server is to be installed in the same DBCS or SBCS operating system or locale as WebSphere Commerce. See step "Updating the WCA datamart" for more information.

Updating the WCA datamart

At this point the database instance variable is set correctly and the database has been restarted. This will not change the current data in the WCA datamart and the data will remain corrupted. In order to get the data back, you must do the following:

1. Identify the WCA tables that have the corrupted table.
2. Identify the corresponding WebSphere Commerce tables which are used to populate the WCA tables.
3. Perform an update against the rows in the WCA tables which have DBCS/MBCS data.

Note: The data in the rows does not have to change. The update is to force an update to the WCA datamart.

4. Wait for the next WCA extraction cycle.

Note: This procedure is based on the premise that the updates to the WebSphere Commerce tables will trigger an update to the WCA staging tables. The WCA extraction will then overwrite the corrupted strings with the now non-corrupted strings from the update.

Environment variables set by WebSphere Commerce Analyzer

If you experience problems while using WebSphere Commerce Analyzer, the following information might be needed if you contact IBM Support.

The WebSphere Commerce Analyzer installation program sets the following environment variables :

Environment variable	Value
IWDA_DIR	The program directory where WCA is installed. This directory is set by the user during installation.

Environment variable	Value
IWDA_DATA	The directory where the WCA temporary data is stored. This directory is set by the user during installation.

Problems during nickname creation

If you experience problems while creating a nickname for a database, including an error message similar to the following message,

```
SQL1822N Unexpected error code "0" received from data source <"DATASOURCE">.
Associated text and tokens are "". SQLSTATE=560BD
```

do the following:

1. Check that the following variables are set up correctly in the `sqllib\cfg\db2dj.ini` file.
 - **ORACLE_HOME:** The fully qualified directory path to where the Oracle client software is installed. For example, `ORACLE_HOME=<"oracle_home_directory">`. That is, if the Oracle home directory is `/usr/oracle/8.1.7`, the entry in the `db2dj.ini` file will be `ORACLE_HOME=/usr/oracle/8.1.7`

Note: If an individual user of the federated instance sets the `ORACLE_HOME` environment variable, the federated instance does not use that setting. The federated instance uses only the value of `ORACLE_HOME` that you set in the `db2dj.ini` file.
 - **ORACLE_BASE:** The root of the Oracle client directory tree. If you set the `ORACLE_BASE` variable when you installed the Oracle client software, set the `ORACLE_BASE` environment variable on the federated server. For example, `ORACLE_BASE=<"oracle_root_directory">`
 - **ORA_NLS33:** The `ORA_NLS` environment variable for Oracle 9i. If your system uses multiple versions of Oracle, you must ensure that the locale-specific data is stored in a directory specified by the `ORA_NLS` environment variable. Each version of Oracle has a different `ORA_NLS` data directory. For example, set the `ORA_NLS` environment variable for Windows federated servers that access Oracle 9i data sources to the following: `ORA_NLS33=<"oracle_home_directory">/ocommon/nls/admin/data>`
 - **TNS_ADMIN:** Determines the location of the `tnsnames.ora` file.
 - On Windows, the Oracle client looks for the `tnsnames.ora` file in the `/NETWORK/ADMIN` directory. If the `tnsnames.ora` file is not in the `/NETWORK/ADMIN` directory, set the `TNS_ADMIN` environment variable on the federated server.
 - On UNIX, the client will look for the `tnsnames.ora` file in the `/etc` directory. If the `tnsnames.ora` file is not located in the `/etc` directory, you need to set the `TNS_ADMIN` environment variable in the `db2dj.ini` file. For example: `TNS_ADMIN=<"tnsnames.ora_directory">`
2. Start and stop the DB2 instance, using the following commands `db2stop` and `db2start` commands.
3. Create the wrapper, server mapping, user mapping and the nickname.

Finding the locale of the WCA system

To find the locale:

1. Login to the WCA server as the WCA owner.

2. On the desktop click **Start—>Settings—>Control Panel**. The Control Panel window opens.
3. Double-click the **Regional Options** icon. The Regional Options window opens.
4. Click the **General** tab.
5. The locale is listed in the **Your Locale (location)** list box.

Please refer to the appropriate operating system documentation for more information about NLS Support and locale settings.

Finding the expected languages in the WebSphere Commerce system

Find the LANGUAGE table in the WebSphere Commerce database to learn what locales are available. Run a db2 query by typing `select language_id, localname from language` to get a list of the languages supported by your system. Please note that WebSphere Commerce comes with ten locales already defined. But that *does not* mean that data in all ten languages exists in the WebSphere Commerce server's database.

You can find NLS data in the CATENTDESC table in the WebSphere Commerce database. Run a db2 query by typing: `select distinct language_id from catentdesc`. This query returns all the language IDs that are currently populated. By comparing these language_id fields to the language_id fields, it is possible to determine the most probable set of languages available in the WebSphere Commerce system.

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Glossary

A

ad (or advertisement). A piece of marketing collateral that is published or broadcast to increase awareness about a product or service. On the Web, the most common type is the banner advertisement.

B

business question. A question that is answered in a business report regarding specific information about the success of different campaigns, initiatives, and the customers who are using the store.

C

campaign. A planned series of operations that are pursued to achieve a defined set of business objectives. In retail marketing, an initiative is a common technique used to achieve campaign objectives.

column. In a relational database management system, the name for an attribute. The collection of column values that form the description of a particular entity is called a row. A column is equivalent to a field in a record in a nonrelational file system.

customer session data. Information gathered from customers during the time they visit the online store.

customization. User additions or changes to WCA to more closely fit an individual e-commerce business model.

D

Database Managed Storage (DMS). Type of data storage in which the table space is managed by the database administrator. The size of the table space is specified and the space allocated when the tables are created.

datamart. A subset of a data warehouse that contains data tailored for the specific needs of a department or team. A datamart can be a subset of a warehouse for your entire organization, such as data contained in OLAP tools.

data mining. The process of collecting critical business information from a data warehouse, correlating it and uncovering associations, patterns, and trends.

E

ETL. Extract, Transform, and Load. The functions performed when pulling data out of one database and placing it into another of a different type.

extension. User additions to WCA components (for example, new reports or new datamart tables).

extraction. Pulling data out of a database. For WCA, the process of moving data from temporary tables on the WCA server to the WCA datamart. The data in the temporary tables was replicated from the WebSphere Commerce database.

extraction time window. The window of time between the last time the WCA Extraction was run for this source and the current time. For WebSphere Commerce 5.5 sources, this is indicated by the WCA parameters TIME_CUT_OFF and TIME_CUT_OFF_PREV.

F

fulfillment. The process that occurs when an order is received. Fulfillment processes often include tasks such as order management, shipping management, returns, and status tracking.

I

impression. Represents the collaboration of a campaign, an initiative, and an e-marketing spot on a Web page to provide information to customers and allow customers to take advantage of that information by clicking on a link associated with that collaboration.

initiative. An applied technique used to encourage a specific behavior such as purchasing a product.

M

metaphor. A WebSphere Commerce feature provided as part of the Product Advisor component. It provides three usage paradigms (or metaphors) for a shopper to navigate products: Product Explorer, Sales Assistant, and Product Comparison. The Product Explorer metaphor allows the user to set some feature requirements (constraints) for a product (cost, color, type, and so on) and search for matching products. The Sales Assistant metaphor is targeted towards shoppers who are not familiar with the product details and cannot set feature requirements. This metaphor asks a series of questions from which it infers what products the customer wants. The Product Comparison

metaphor allows users to compare two or more products. For further information on metaphors, see the WebSphere Commerce documentation.

mining base. A repository where all the information about the mining run settings and the corresponding results is stored.

O

ODBC name. The Open Database Connectivity name of the database.

ODS. Operation Data Store. The working area for the ETL processing. The data from WebSphere Commerce is replicated to ODS (_r tables).

P

PMML. Predictive Model Markup Language. An XML-based language defined by the Data Mining Group that provides a way for companies to define predictive models and share models between compliant vendors' applications.

Product Comparison. Product Comparison is a metaphor that allows users to compare two or more products.

Product Explorer. Product Explorer is a metaphor that allows the user to set some feature requirements (constraints) for a product (cost, color, type, and so on) and search for matching products.

R

replication. The process of maintaining a defined set of data in more than one location. It involves copying designated changes for one location to another, and synchronizing the data in both locations. For WCA, the process of moving data from the WebSphere Commerce database into temporary tables on the WCA server.

reporting application. A program that gathers information about the customers and sales transactions of a business.

revision. User changes to existing WCA components (for example, reports or datamart tables).

RFM. Recency, frequency, monetary. A technique used to determine which customers are the best ones by examining how recently a customer has purchased (recency), how often they purchase (frequency), and how much the customer spends (monetary).

RFQ. Request for quotation. An invitation to suppliers to bid on supplying described products or services needed by a company or public agency.

S

Sales Assistant. Sales Assistant is a metaphor that is targeted towards shoppers who are not familiar with the product details and cannot set feature requirements.

System Managed Storage (SMS). The type of data storage in which the operating system manages the tables space, which is limited by the size of the hard disk. Data is stored randomly on the hard disk under the table space's directory container (the directory name in the file system).

T

table. A named data object consisting of a specific number of columns and some unordered rows.

U

User Registration properties file. A file on the WebSphere Commerce server that contains information needed to support the correct language and country for a store.

V

view. An alternative representation of data from one or more tables. A view can include all or some of the columns in the table or tables on which it is defined.

W

Warehouse Center Control Database. The Warehouse Center database that contains the control tables that are required to store Warehouse Center metadata.

WebSphere Application Server. A comprehensive Java 2 Platform, Enterprise Edition (J2EE) 1.3 and Web services technology-based application server that integrates enterprise data and transactions with the e-business world. Through a rich application deployment environment, you can build, manage and deploy dynamic e-business applications, handle high-transaction volumes and extend back-end business data and applications to the Web.

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