

IBM Tivoli License Manager



# Readme File for Fix Pack 1.1.0-TIV-TLM\_WEP-FP0002

*Version 1.1.1*



IBM Tivoli License Manager



# Readme File for Fix Pack 1.1.0-TIV-TLM\_WEP-FP0002

*Version 1.1.1*

**Note**

Before using this information and the product it supports, read the information in "Notices" on page 15.

**First Edition (December 2004)**

This edition applies to Fix Pack 0002 for version 1, release 1 of the Warehouse Enablement Pack for IBM Tivoli License Manager, version 1.1.1 (program number 5724-D33).

IBM welcomes your comments.

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# Readme File for Fix Pack 1.1.0-TIV-TLM\_WEP-FP0002 for the Warehouse Enablement Pack of Tivoli License Manager, version 1.1.1

This readme provides important information about fix pack 1.1.0-TIV-TLM\_WEP-FP0002 for the Warehouse Enablement Pack for IBM® Tivoli® License Manager 1.1.1. The Warehouse Enablement Pack can be installed on either Tivoli Enterprise™ Data Warehouse, version 1.1 or Tivoli Data Warehouse, version 1.2. This readme is the most current information for the fix pack and takes precedence over all other documentation.

*Please review this section thoroughly before installing or using this product.*

This section includes the following topics:

- "About this fix pack"
- "Installation, migration, upgrade, and configuration information" on page 3

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## About this fix pack

This section includes the following topics:

- "Product fix history"
- "Problems fixed"
- "Tips" on page 2
- "Backward compatibility" on page 3
- "Other changes as a result of this fix pack" on page 3

## Product fix history

This fix pack is the second fix pack to be issued for the Warehouse Enablement Pack of Tivoli License Manager, version 1.1.1.

It fixes APAR IY62488.

This fix pack also contains the fix from the previous fix pack 1.1-TLM\_WEP-FP01, including APAR IY51221.

## Problems fixed

The following problems have been fixed:

### APAR IY62488

If the Tivoli Data Warehouse is using enablement packs for more than one product, the step "COD\_m05\_s010\_Populate\_Mart" of the ETL2 of the IBM Tivoli License Manager Warehouse Enablement Pack, version 1.1, ends with the following failure message:

```
SQL0530N: the insert or update value of the FOREIGN KEY
"COD.F_DIVISION_DAY.COD_FK1" is not equal to any value of the parent
key of the parent table. SQLSTATE=23503
```

After you apply the fix pack, the problem does not occur.

### **APAR IY51221**

Tivoli License Manager 1.1 Warehouse Enablement Pack fix fails to install on Tivoli Data Warehouse version 1.2 with the error "CDWIC5066E An error was detected while running the pre-script"

It is not possible to install the interim fix 1.1-TLM\_WEP-0001 on Tivoli Data Warehouse version 1.2.

After you apply the fix pack, the problem does not occur.

### **NLS support**

Some labels used in reports were not correctly translated. After you have installed the fix, the NLS support has been corrected. The resource bundles are loaded within the fix pack and all the strings in all supported languages are correct.

### **Agent name longer than 40 characters**

Running Tivoli License Manager Warehouse Enablement Pack, version 1.1.1, an error occurs if the agent version is 1.1.1.xx (two digits).

After you apply the fix pack, the problem does not occur.

### **Slow extraction of data**

Extraction of the Tivoli License Manager data for Tivoli Enterprise Data Warehouse was slow.

After you apply the fix pack the speed of the process is improved.

### **Agents not included in Tivoli Enterprise Data Warehouse reports**

When a fix pack is applied to the agent code of Tivoli License Manager, the agent version number is changed to reflect the new fix pack level. However, agents with this new version were not being included in Tivoli Enterprise Data Warehouse reports.

After you apply this fix pack, the upgraded agents are included in the reports and are also shown at the GA level. This means that after the installation of this fix pack, the reports will show Tivoli License Manager version 1.1.1, but the agent will be at the maintenance level 1.1.1.xx.

### **Extraction of the Tivoli License Manager data fails**

Extraction of the Tivoli License Manager data for Tivoli Enterprise Data Warehouse fails if the Tivoli License Manager environment in which it was being run had a large number of agents (for example, more than 1000).

After you apply the fix pack, the problem does not occur.

## **Tips**

### **Two versions of reports on Tivoli Data Warehouse 1.2**

If you install Tivoli License Manager Warehouse Enablement Pack and the fix pack 1.1.0-TIV-TLM\_WEP-FP0002 on Tivoli Data Warehouse version 1.2, two versions of reports are displayed in the Crystal Management console. Remove the old version as follows:

1. Connect to the Crystal Management console. Log on as administrator.
2. Click **Manage folders**.
3. Select **Tivoli reports**, then **Tivoli License Manager v1.1.0**.
4. Click **Delete** to remove the Version 1.1.0 reports.

After you perform this task, only Tivoli License Manager Warehouse Enablement Pack reports are shown in the Crystal Management console.



## Backward compatibility

Fix pack 1.1–TLM\_WEP–FP01 and the interim fixes:

- 1.1–TLM\_WEP–0001
- 1.1–TIV-TLM-WEP–LA0010
- 1.1–TIV-TLM-WEP–LA0012

are superseded by this fix pack.

## Dependencies

One of the following:

- Tivoli Enterprise Data Warehouse, version 1.1.
- Tivoli Data Warehouse, version 1.2.

If you are using Tivoli Enterprise Data Warehouse, version 1.1, and you do not want to install the latest fix pack, you must install at least the 1.1–TDW-0010LA interim fix.

The Tivoli License Manager Warehouse Enablement Pack fix pack has been tested using the latest available fix packs, as follows:

- Tivoli Enterprise Data Warehouse, version 1.1  
Fix pack 3
- Tivoli Data Warehouse, version 1.2  
Fix pack 1
- IBM Tivoli License Manager 1.1.1, Warehouse Enablement Pack, version 1.1 with fix pack 1.1–TLM\_WEP–FP01

## Other changes as a result of this fix pack

### Tivoli Enterprise Data Warehouse, version 1.1

On Tivoli Enterprise Data Warehouse, version 1.1, this fix pack creates a new file called `<INSTALL_DIR>/apps/COD/.installed/.twh_cod_v1.1.0.2.marker` (where `<INSTALL_DIR>` is the directory where Tivoli Enterprise Data Warehouse, version 1.1, is installed), which identifies the current product version.

### Tivoli Data Warehouse, version 1.2

On Tivoli Data Warehouse, version 1.2, this fix pack creates a new file called `<INSTALL_DIR>/apps/cod/V1102/instal/logs/wep_install.cfg` (where `<INSTALL_DIR>` is the directory where Tivoli Data Warehouse, version 1.2, is installed), which identifies the current product version.

## Limitations

ETLs must be run only once a day.

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## Installation, migration, upgrade, and configuration information

This section includes the following topics:

- “Hardware and software requirements” on page 4
- “Installing the fix pack on Tivoli Enterprise Data Warehouse, version 1.1” on page 4
- “Installing the fix pack on Tivoli Data Warehouse, version 1.2” on page 6
- “Reverting to the previous version” on page 7

**Note:** This section uses the Windows<sup>®</sup> convention for variables and directory notation, unless the context is specifically a UNIX<sup>®</sup> one. See “Operating system-dependent notation” on page 13 for information about applying the instructions to UNIX environments.

## Hardware and software requirements

Hardware and software prerequisites are detailed in the *IBM Tivoli License Manager, version 1.1.1: Warehouse Enablement Pack Implementation Guide*. There are currently no changes to the information included in the guide.

## Installing the fix pack on Tivoli Enterprise Data Warehouse, version 1.1

The following tells you how to install this fix pack. After you have installed a fix pack, you cannot uninstall it automatically. For details of how to revert to the previous version see “Reverting to the previous version” on page 7.

In addition to the instructions given here, you can also look in the file `wep_patch.txt`, which is included in the file `1.1-TDW-FP03.tar` of the fix `1.1-TDW-FP03` that you can download from the IBM Customer Support Web site, at the following link:

[www.ibm.com/software/sysmgmt/products/support/](http://www.ibm.com/software/sysmgmt/products/support/)

Perform the following steps to install the fix pack:

1. Log on to the system using an account with administrator authority.
2. From the Tivoli Enterprise Data Warehouse console stop the active extract, transform, and load (ETL) processes.
3. Back up the following components before starting the fix pack installation (backup procedures are described in the chapter on maintaining Tivoli Enterprise Data Warehouse in *Installing and Configuring Tivoli Enterprise Data Warehouse, version 1.1*):
  - The Tivoli Enterprise Data Warehouse databases
  - The Tivoli Enterprise Data Warehouse application software on each system in your configuration. This will include the files for the application warehouse enablement packs, so those packs are also backed up.
  - Tivoli Presentation Services on the system where the Tivoli Enterprise Data Warehouse Reporting Interface (RPI) component is installed, if that component has been installed.
4. Copy the fix pack file `1.1.0-TIV-TLM_WEP-FP0002.tar` to a temporary directory or folder.
5. Start a bash shell in the DB2<sup>®</sup> command window.
6. Extract the fix pack files using the following command:

```
tar -xvf 1.1.0-TIV-TLM_WEP-FP0002.tar
```
7. Run the command `%TWH_TOPDIR%/install/bin/tedw_wpack_patchadm.sh` to create the `twh_app_patcher.cfg` configuration file in the temporary directory. Substitute your Tivoli Data Warehouse installation path for `%TWH_TOPDIR%`.
8. Edit the `twh_app_patcher.cfg` configuration file to complete the section marked `USER SUPPLIED SECTION`. These are all the fields that you must fill in:
  - `APP_MEDIA_DIR`

This tag must be assigned the directory path of the source files for the application warehouse enablement pack patch that you are currently installing. This directory must contain a file named `twh_install_props.cfg`

- PS\_HOME

This tag appears only on a system where the Tivoli Enterprise Data Warehouse RPI component is installed. This tag must be assigned a value that is the directory path where Tivoli Presentation Services is installed.

- DB2PASS

This tag must be assigned the password of the user indicated by the DB2USER tag in the AUTO-GENERATED SECTION that appears immediately below the USER SUPPLIED SECTION. This is a DB2 user defined for the current system.

- COPT\_CTRL\_DB2PASS

This tag must be assigned the password of the user indicated by the COPT\_CTRL\_DB2USER tag in the AUTO-GENERATED SECTION that appears immediately below the USER SUPPLIED SECTION. This is a DB2 user defined for the system where the Tivoli Enterprise Data Warehouse Control Server component is installed, as indicated by the COPT\_CTRL\_DB2HOST tag in the AUTO-GENERATED SECTION.

- COPT\_CDW\_DB2PASS

This tag must be assigned the password of the user indicated by the COPT\_CDW\_DB2USER tag in the AUTO-GENERATED SECTION that appears immediately below the USER SUPPLIED SECTION. This is a DB2 user defined for the system where the Tivoli Enterprise Data Warehouse Central Data Warehouse database is installed, as indicated by the COPT\_CDW\_DB2HOST tag in the AUTO-GENERATED SECTION.

- COPT\_MART\_DB2PASS

This tag must be assigned the password of the user indicated by the COPT\_MART\_DB2USER tag in the AUTO-GENERATED SECTION that appears immediately below the USER SUPPLIED SECTION. This is a DB2 user defined for the system where the Tivoli Enterprise Data Warehouse Data Mart database is installed, as indicated by the the COPT\_MART\_DB2HOST tag in the AUTO-GENERATED SECTION.

**Notes:**

- a. PS\_HOME will appear in the list only if the RPI component is installed on this system.
  - b. For APP\_MEDIA\_DIR, indicate the directory where the file `twh_install_props.cfg` is located, in this case the `tedw_apps_et1\cod` directory within the temporary directory.
  - c. For a description of the fields, refer to the `wep_patch.txt` file.
9. Rerun the command  
`%TWH_TOPDIR%/install/bin/tedw_wpack_patchadm.sh` to complete the installation of the fix pack.
  10. Reboot the computer where you installed the fix pack.
  11. Verify that the fix pack has been correctly installed, as follows:
    - a. Navigate to the directory `<INSTALL_DIR>\apps\COD\v110\`.
    - b. Verify that the following files have been upgraded:
      - `etl\sql\COD_c05_s010_extract.db2`
      - `etl\sql\COD_m05_s010_dimension.db2`
      - `etl\sql\COD_m05_s020_dimension.db2`
      - `report\COD_rpi_export1.csv`

```

report\COD_rpi_export2.csv
report\COD_rpi_export3.csv
report\COD_rpi_export4.csv
report\rpi_listmetrics.csv
misc\COD_after.sh
misc\COD_pre.sh (If you have not previously installed the interim fix
1.1-TDW-0010LA, this is a new file.)

```

- c. Verify that the following files have been added:

```

apps\COD\v110\i18n\com.ibm.twh.cod.nls@1.1.0.5.jar
apps\COD\v110\i18n\com.ibm.twh.cod.nls_intl@1.1.0.5.jar

```

## Installing the fix pack on Tivoli Data Warehouse, version 1.2

The following tells you how to install this fix pack. After you have installed a fix pack, you cannot uninstall it automatically. For details of how to revert to the previous version see “Reverting to the previous version” on page 7.

In addition to the instructions given here, you can also refer to *IBM Tivoli Data Warehouse: Installing and Configuring Tivoli Data Warehouse, version 1.2*.

Perform the following steps to install the fix pack:

1. Log on to the system using an account with administrator authority.
2. Back up the following components before starting the fix pack installation (backup procedures are described in the chapter on maintaining Tivoli Data Warehouse in *Installing and Configuring Tivoli Data Warehouse, version 1.2*):
  - The Tivoli Data Warehouse databases
  - The Tivoli Data Warehouse application software on each system in your configuration. This will include the files for the application warehouse enablement packs, so those packs are also backed up.
3. Copy the fix pack file 1.1.0-TIV-TLM\_WEP-FP0002.tar to a temporary directory or folder.
4. Extract the fix pack files using the following command:

```
tar -xvf 1.1.0-TIV-TLM_WEP-FP0002.tar
```
5. From the Windows **Start** menu, select **Programs -> Tivoli Data Warehouse -> Install a Warehouse pack**.
6. A window is displayed. Follow the instruction described in *Installing and Configuring Tivoli Data Warehouse, version 1.2* and select `<TEMP_DIR>\tedw_apps_et1\COD\ twh_install_props.cfg` where `<TEMP_DIR>` is the folder where you extracted the fix pack file 1.1-TIV-TLM-WEP-FP0002.tar
7. Verify that the fix pack has been correctly installed, as follows:
  - a. Verify that the directory `<INSTALL_DIR>\apps\COD\v110\` has been migrated to `<INSTALL_DIR>\apps\COD\v1105\`.

**Note:** If you have already installed Fix Pack 1.1-TLM\_WEP-FP01 on your system, the directory to be migrated is `<INSTALL_DIR>\apps\COD\v1102\`
  - b. Navigate to the directory `<INSTALL_DIR>\apps\COD\v1105\`.
  - c. Verify that the following files have been upgraded:

```

etl\sql\cod_c05_s010_extract.db2
etl\sql\cod_m05_s010_dimension.db2
etl\sql\cod_m05_s020_dimension.db2
report\cod_rpi_export1.csv
report\ cod_rpi_export3.csv

```

```
report\cod_rpi_export2.csv
report\cod_rpi_export4.csv
misc\cod_after.sh
misc\cod_pre.sh
twh_install_props.cfg
```

- d. Verify that the following files have been added:  
apps\COD\v1105\i18n\com.ibm.twh.cod.nls@1.1.0.5.jar  
apps\COD\v1105\i18n\com.ibm.twh.cod.nls\_intl@1.1.0.5.jar

## Reverting to the previous version

To revert to the previous version perform the following steps:

1. Uninstall the Warehouse Enablement Pack for Tivoli License Manager.  
See the chapter on uninstalling warehouse packs in *IBM Tivoli Data Warehouse: Installing and Configuring Tivoli Data Warehouse, version 1.2*.
2. Reinstall the Warehouse Enablement Pack.
3. Restore the Tivoli Data Warehouse Databases that you backed up during the installation.

---

## General information

This section contains the following general information that might have changed since these products were made available:

- “Publications”
- “Accessibility” on page 9
- “Tivoli technical training” on page 9
- “Contacting software support” on page 9
- “Conventions used in this readme file” on page 13

## Publications

This section lists publications in the Tivoli License Manager version 1.1.1 library and related documents. It also describes how to access Tivoli publications online and how to order Tivoli publications.

### Tivoli License Manager library

The Tivoli License Manager version 1.1.1 library comprises the following books:

- *IBM Tivoli License Manager, version 1.1.1: License Administrator’s Guide, GC23-4833*  
Provides support for using the Tivoli License Manager version 1.1.1 Web interfaces.
- *IBM Tivoli License Manager, version 1.1.1: System Administrator’s Guide, GC23-4834*  
Provides information about planning, installing, and managing Tivoli License Manager version 1.1.1 .
- *IBM Tivoli License Manager, version 1.1.1: Data Dictionary, GC23-4835*  
Provides information about the Tivoli License Manager version 1.1.1 database.
- *IBM Tivoli License Manager, version 1.1.1: Warehouse Enablement Pack Implementation Guide, SC32-1244*  
Provides instructions and other information related to enabling the use of the Tivoli Enterprise Data Warehouse with Tivoli License Manager version 1.1.1.
- *IBM Tivoli License Manager, version 1.1.1: Release Notes, SC23-4848*

Provides a summary of changes made in the Tivoli License Manager version 1.1.1, documents known errors and workarounds, and includes information about any product changes that could not be included in the main documentation.

## Related publications

The following document also provides useful information:

- *IBM Tivoli Enterprise Data Warehouse: Release Notes, GI11-0857*  
Provides a summary of changes made in the latest release of Tivoli Data Warehouse, documents known errors and workarounds, and includes information about any product changes that could not be included in the main documentation. *Installing and Configuring Tivoli Data Warehouse, version 1.2, GC32-0744.*
- *Installing and Configuring Tivoli Data Warehouse, version 1.2, GC32-0744*  
Provides instructions about installing and configuring Tivoli Data Warehouse.
- *Installing and Configuring Tivoli Enterprise Data Warehouse, version 1.1, GC32-0744*  
Provides instructions about installing and configuring Tivoli Enterprise Data Warehouse.

The *Tivoli Software Glossary* includes definitions for many of the technical terms related to Tivoli software. The *Tivoli Software Glossary* is available, in English only, at the following Web site:

[www.ibm.com/software/tivoli/library/](http://www.ibm.com/software/tivoli/library/)

Access the glossary by clicking the **Glossary** link on the left pane of the Tivoli software library window.

## Accessing publications online

The Tivoli License Manager documentation CD contains the publications that are in the product library, other than the *IBM Tivoli License Manager, version 1.1.1: Release Notes*, in all supported languages. The format of the publications is PDF, HTML, or both. To access the publications using a Web browser, open the `allpubs.htm` file. The file is in the root directory on the documentation CD. Select the language of your choice, and an Information Center for the product in that language is displayed. Select the publication and the format in which you want to view it.

**Note:** On Windows platforms, an autorun opens the `allpubs.htm` file in your default browser.

IBM posts publications for this and all other Tivoli products, as they become available and whenever they are updated, to the Tivoli Software Information Center Web site. Access the Tivoli Software Information Center by first going to the Tivoli software library at the following Web address:

[www.ibm.com/software/tivoli/library/](http://www.ibm.com/software/tivoli/library/)

Scroll down and click the **Product manuals** link on the left pane of the Tivoli software library window. In the Tivoli Technical Product Documents Alphabetical Listing window, click the IBM Tivoli License Manager version 1.1.1 link to access the product library at the Tivoli Information Center.

**Note:** If you print PDF documents on other than letter-sized paper, set the option in the **File** → **Print** window that allows Adobe Reader to print letter-sized pages on your local paper.

## Ordering publications

You can order many Tivoli publications online at the following Web site:

[www.elink.ibm.com/public/applications/publications/cgibin/pbi.cgi](http://www.elink.ibm.com/public/applications/publications/cgibin/pbi.cgi)

You can also order by telephone by calling one of these numbers:

- In the United States: 800-879-2755
- In Canada: 800-426-4968

In other countries, see the following Web site for a list of telephone numbers:

[www.ibm.com/software/tivoli/order-lit/](http://www.ibm.com/software/tivoli/order-lit/)

## Accessibility

Accessibility features help users with a physical disability, such as restricted mobility or limited vision, to use software products successfully. With this product, you can use assistive technologies to hear and navigate the interface. You can also use the keyboard instead of the mouse to operate all features of the graphical user interface.

This product is operated using a Web browser, which has certain built-in accessibility features, and has been provided with specific shortcut keys for navigating the Web interface, starting tasks, and performing toolbar actions.

## Tivoli technical training

For Tivoli technical training information, refer to the following IBM Tivoli Education Web site:

[www.ibm.com/software/tivoli/education/](http://www.ibm.com/software/tivoli/education/)

## Contacting software support

IBM Software Support provides assistance with product defects.

Before contacting IBM Software Support, your company must have an active IBM software maintenance contract, and you must be authorized to submit problems to IBM. The type of software maintenance contract that you need depends on the type of product you have:

- For IBM distributed software products (including, but not limited to, Tivoli, Lotus<sup>®</sup>, and Rational<sup>®</sup> products, as well as DB2 and WebSphere<sup>®</sup> products that run on Windows or UNIX operating systems), enroll in Passport Advantage<sup>®</sup> in one of the following ways:
  - **Online:** Go to the Passport Advantage Web page and click **How to Enroll**. The Web address is the following:  
[www.lotus.com/services/passport.nsf/WebDocs/Passport\\_Advantage\\_Home](http://www.lotus.com/services/passport.nsf/WebDocs/Passport_Advantage_Home)
  - **By phone:** For the phone number to call in your country, go to the IBM Software Support Web site ([techsupport.services.ibm.com/guides/contacts.html](http://techsupport.services.ibm.com/guides/contacts.html)) and click the name of your geographic region.

- For IBM eServer™ software products (including, but not limited to, DB2 and WebSphere products that run in zSeries®, pSeries®, and iSeries™ environments), you can purchase a software maintenance agreement by working directly with an IBM sales representative or an IBM Business Partner. For more information about support for eServer software products, go to the IBM Technical Support Advantage Web page ([www.ibm.com/servers/eserver/techsupport.html](http://www.ibm.com/servers/eserver/techsupport.html)).

If you are not sure what type of software maintenance contract you need, call 1-800-IBMSERV (1-800-426-7378) in the United States or, from other countries, go to the contacts page of the IBM Software Support Handbook on the Web ([techsupport.services.ibm.com/guides/contacts.html](http://techsupport.services.ibm.com/guides/contacts.html)) and click the name of your geographic region for phone numbers of people who provide support for your location.

Follow the steps in this topic to contact IBM Software Support:

1. “Determine the business impact of your problem”
2. “Describe your problem and gather background information”
3. “Submit your problem to IBM Software Support” on page 11

### Determine the business impact of your problem

When you report a problem to IBM, you are asked to supply a severity level. Therefore, you need to understand and assess the business impact of the problem you are reporting. Use the following criteria:

<b>Severity 1</b>	<b>Critical</b> business impact: You are unable to use the program, resulting in a critical impact on operations. This condition requires an immediate solution.
<b>Severity 2</b>	<b>Significant</b> business impact: The program is usable but is severely limited.
<b>Severity 3</b>	<b>Some</b> business impact: The program is usable with less significant features (not critical to operations) unavailable.
<b>Severity 4</b>	<b>Minimal</b> business impact: The problem causes little impact on operations, or a reasonable circumvention to the problem has been implemented.

### Describe your problem and gather background information

When explaining a problem to IBM, be as specific as possible. Include all relevant background information so that IBM Software Support specialists can help you solve the problem efficiently. To save time, know the answers to these questions:

- What software versions were you running when the problem occurred?
- Do you have logs, traces, and messages that are related to the problem symptoms? IBM Software Support is likely to ask for this information.
- Can the problem be recreated? If so, what steps led to the failure?
- Have any changes been made to the system? (For example, hardware, operating system, networking software, and so on.)
- Are you currently using a workaround for this problem? If so, please be prepared to explain it when you report the problem.



## Submit your problem to IBM Software Support

You can submit your problem in one of two ways:

- **Online:** Go to the "Submit and track problems" page on the IBM Software Support site ([www.ibm.com/software/support/probsub.html](http://www.ibm.com/software/support/probsub.html)). Enter your information into the appropriate problem submission tool.
- **By phone:** For the phone number to call in your country, go to the contacts page of the IBM Software Support Handbook on the Web ([techsupport.services.ibm.com/guides/contacts.html](http://techsupport.services.ibm.com/guides/contacts.html)) and click the name of your geographic region.

If the problem you submit is for a software defect or for missing or inaccurate documentation, IBM Software Support creates an Authorized Program Analysis Report (APAR). The APAR describes the problem in detail. Whenever possible, IBM Software Support provides a workaround for you to implement until the APAR is resolved and a fix is delivered. IBM publishes resolved APARs on the IBM product support Web pages daily, so that other users who experience the same problem can benefit from the same resolutions.

For more information about problem resolution, see "Searching knowledge bases" and "Obtaining fixes" on page 12.

### Searching knowledge bases

If you have a problem with your IBM software, you want it resolved quickly. Begin by searching the available knowledge bases to determine whether the resolution to your problem is already documented.

**Search the information center on your local system or network:** IBM provides extensive documentation that can be installed on your local machine or on an intranet server. You can use the search function of this information center to query conceptual information, instructions for completing tasks, reference information, and support documents.

**Search the Internet:** If you cannot find an answer to your question in the information center, search the Internet for the latest, most complete information that might help you resolve your problem. To search multiple Internet resources for your product, expand the product folder in the navigation frame to the left and select **Support on the Web**. From this topic, you can search a variety of resources including:

- IBM technotes
- IBM downloads
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## Obtaining fixes

A product fix might be available to resolve your problem. You can determine what fixes are available for your IBM software product by checking the product support Web site:

1. Go to the IBM Software Support Web site ([www.ibm.com/software/support](http://www.ibm.com/software/support)).
2. Under **Products A - Z**, select your product name. This opens a product-specific support site.
3. Under **Self help**, follow the link to **Search all Downloads**, where you will find a list of fixes, fix packs, and other service updates for your product. For tips on refining your search, click **Search tips**.
4. Click the name of a fix to read the description and optionally download the fix.

To receive weekly e-mail notifications about fixes and other news about IBM products, follow these steps:

1. From the support page for any IBM product, click **My support** in the upper-right corner of the page.
2. If you have already registered, skip to the next step. If you have not registered, click register in the upper-right corner of the support page to establish your user ID and password.
3. Sign in to **My support**.
4. On the My support page, click **Edit profiles** in the left navigation pane, and scroll to **Select Mail Preferences**. Select a product family and check the appropriate boxes for the type of information you want.
5. Click **Submit**.
6. For e-mail notification for other products, repeat Steps 4 and 5.

For more information about types of fixes, see the *Software Support Handbook* ([techsupport.services.ibm.com/guides/handbook.html](http://techsupport.services.ibm.com/guides/handbook.html)).

## Updating support information

Information centers typically include one or more *support information plug-ins*. These plug-ins add IBM technotes and other support documents to the information center. The following steps describe how to update your support information plug-ins:

1. Go to the IBM Software Support Web site ([www.ibm.com/software/support](http://www.ibm.com/software/support)).
2. Under **Products A - Z**, select your product name. This opens a product-specific support site.
3. Under **Search support for this product**, type the keyword phrase: `com.ibm.support`. Click the **Download** check box, and click **Submit**.
4. Check the search results for updates to support information plug-ins. All support information plug-ins follow the naming convention, "`com.ibm.support.product.doc`." If an update is available, select it from the list and view the download instructions.
5. Save the attached zip file to a temporary location on your hard drive.
6. Unzip the downloaded file, making sure that you retain the subfolders.
7. From the location where you unzipped the file, copy the support information plug-in folder to your Eclipse plug-ins folder. For example, if your IBM software product is installed at `c:\IBM\WebSphere\`, copy the updated plug-in folder (`com.ibm.support.product.doc`) to `c:\IBM\WebSphere\eclipse\plugins`.
8. To see the updated support information, start the information center (or shut it down and restart it), and expand the **Support information** node in the navigation tree.

## Conventions used in this readme file

This readme file uses the following typeface conventions:

### **Bold**

- Lowercase commands and mixed case commands that are otherwise difficult to distinguish from surrounding text
- Interface controls (check boxes, push buttons, radio buttons, spin buttons, fields, folders, icons, list boxes, items inside list boxes, multicolumn lists, containers, menu choices, menu names, tabs, property sheets), labels (such as **Tip:**, and **Operating system considerations:**)
- Column headings in a table
- Keywords and parameters in text

### *Italic*

- Citations (titles of books, diskettes, and CDs)
- Words defined in text
- Variables and values you must provide

### Monospace

- Examples and code examples
- File names, programming keywords, and other elements that are difficult to distinguish from surrounding text
- Message text and prompts addressed to the user
- Text that the user must type
- Values for arguments or command options

### `<text>`

- Indicates a variable in a path name. For example in the path `<INSTALL_DIR>/admin/conf`, `INSTALL_DIR` depends on the location where you have installed the component, while `/admin/conf` is constant.

## **Operating system-dependent notation**

This book uses the Windows convention for environment variables and directory notation.

When using the UNIX command line you should do the following:

### **Environment variables**

First verify the correct value for the UNIX variable name, as many Windows and UNIX variables that perform the same task have different names (for example, `%TEMP%` in Windows is equivalent to `$tmp` in UNIX). Then replace `%Windows_variable%` with `$UNIX_variable`.

### **File and directory paths**

Replace each backslash ( `\` ) with a forward slash ( `/` ).

**Note:** If you are using the bash shell on a Windows computer, you can use the UNIX conventions.



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