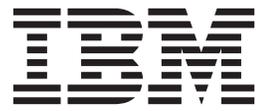


IBM Tivoli Continuous Data Protection for Files  
Version 6.3

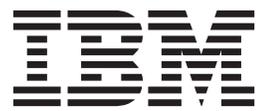
## *Messages*





IBM Tivoli Continuous Data Protection for Files  
Version 6.3

## *Messages*



**Note**

Before using this information and the product it supports, read the information in "Notices" on page 17.

This edition applies to Version 6.3.0 of IBM Tivoli Continuous Data Protection for Files (product numbers 5608-APG, 5724-S64, 5641-FSE) and to all subsequent releases and modification until otherwise indicated in new editions or technical newsletters.

© **Copyright IBM Corporation 2005, 2012.**

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

---

# Contents

<b>Tables</b> . . . . .	<b>v</b>
<b>Preface</b> . . . . .	<b>vii</b>
Who should read this publication . . . . .	vii
Publications . . . . .	vii
Tivoli Continuous Data Protection for Files publications . . . . .	vii
Support information . . . . .	viii
Getting technical training . . . . .	viii
Searching knowledge bases . . . . .	viii
Contacting IBM Software Support . . . . .	x
<b>Tivoli Continuous Data Protection for Files messages</b> . . . . .	<b>1</b>

Tivoli Continuous Data Protection for Files messages format . . . . .	1
Tivoli Continuous Data Protection for Files Version 6.3 messages . . . . .	2
Tivoli Continuous Data Protection for Files Version 6.3.0 messages . . . . .	2

<b>Appendix. Accessibility features for Tivoli Continuous Data Protection for Files.</b> . . . . .	<b>15</b>
--	-----------

<b>Notices</b> . . . . .	<b>17</b>
Trademarks . . . . .	19



---

## Tables

1. Tivoli Continuous Data Protection for Files  
publications . . . . . vii



---

## Preface

IBM® Tivoli® Continuous Data Protection for Files protects computer data continuously and at scheduled intervals. A Tivoli Continuous Data Protection for Files client runs on a computer and protects the computer data. A Tivoli Continuous Data Protection for Files client can use a Tivoli Storage Manager server, but a Tivoli Storage Manager server is not a requirement.

This publication contains explanations and suggested actions for messages issued by Tivoli Continuous Data Protection for Files.

---

## Who should read this publication

This publication is intended for users of Tivoli Continuous Data Protection for Files clients.

---

## Publications

Publications for Tivoli Continuous Data Protection for Files are available online.

Tivoli Continuous Data Protection for Files publications are available at the information center at <http://publib.boulder.ibm.com/infocenter/tivihelp/v12r1/index.jsp>.

You can download PDF versions of publications from the information centers or from the IBM Publications Center at <http://www.ibm.com/shop/publications/order/>.

Go to Tivoli Documentation Central to find information centers that contain official product documentation for current and previous versions of Tivoli products, including Tivoli Continuous Data Protection for Files. You can find Tivoli Documentation Central at <https://www.ibm.com/developerworks/wikis/display/tivolidoccentral/Home>.

You can also order some related publications from the IBM Publications Center website. The website provides information about ordering publications from countries other than the United States. In the United States, you can order publications by calling 1-800-879-2755.

## Tivoli Continuous Data Protection for Files publications

The following table lists the publications that make up the Tivoli Continuous Data Protection for Files library.

*Table 1. Tivoli Continuous Data Protection for Files publications*

<b>Publication title</b>	<b>Order number</b>
<i>IBM Tivoli Continuous Data Protection for Files Installation and User's Guide</i>	SC14-7653-00
<i>IBM Tivoli Continuous Data Protection for Files Messages</i>	SC27-4046-00

---

## Support information

You can find support information for IBM products from various sources.

Start at the IBM Support Portal: <http://www.ibm.com/support/entry/portal/>. You can select the products that you are interested in and search for a wide variety of relevant information.

### Getting technical training

Information about Tivoli technical training courses is available online.

Go to the following websites to sign up for training, ask questions, and to interact with others who use IBM storage products.

#### **Tivoli software training and certification**

Choose from instructor led, online classroom training, self-paced Web classes, Tivoli certification preparation, and other training options at <http://www.ibm.com/software/tivoli/education/>.

#### **Tivoli Support Technical Exchange**

Technical experts share their knowledge and answer your questions in webcasts at [http://www.ibm.com/software/sysmgmt/products/support/supp\\_tech\\_exch.html](http://www.ibm.com/software/sysmgmt/products/support/supp_tech_exch.html).

#### **Storage Management community**

Interact with others who use IBM storage management products at <http://www.ibm.com/developerworks/servicemanagement/sm/index.html>.

#### **Global Tivoli User Community**

Share information and learn from other Tivoli users throughout the world at <http://www.tivoli-ug.org/>.

#### **IBM Education Assistant**

View short "how to" recordings designed to help you use IBM software products more effectively at <http://publib.boulder.ibm.com/infocenter/ieduasst/tivv1r0/index.jsp>.

### Searching knowledge bases

If you have a problem with Tivoli Continuous Data Protection for Files, you can search for information in a knowledge base.

Search the Tivoli Continuous Data Protection for Files V6.3.0 Information Center at <http://publib.boulder.ibm.com/infocenter/tivihelp/v12r1/index.jsp>.

#### **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, go to the Tivoli Continuous Data Protection for Files support Web site at [http://www.ibm.com/software/sysmgmt/products/support/ITCDP\\_Support\\_Options.html](http://www.ibm.com/software/sysmgmt/products/support/ITCDP_Support_Options.html) and search support for the product. From this section, you can search a variety of resources including:

- IBM technotes
- IBM downloads
- IBM Redbooks®

- Forums and newsgroups

## Using IBM Support Assistant

At no additional cost, you can install on any workstation the IBM Support Assistant, a stand-alone application. You can then enhance the application by installing product-specific plug-in modules for the IBM products that you use.

The IBM Support Assistant helps you gather support information when you need to open a problem management record (PMR), which you can then use to track the problem. The product-specific plug-in modules provide you with the following resources:

- Support links
- Education links
- Ability to submit problem management reports

For more information, see the IBM Support Assistant Web site at <http://www.ibm.com/software/support/isa/>.

You can also install the stand-alone IBM Support Assistant application on any workstation. You can then enhance the application by installing product-specific plug-in modules for the IBM products that you use. Find add-ons for specific products at <http://www.ibm.com/support/docview.wss?uid=swg27012689>.

## Finding product fixes

A product fix to resolve your problem might be available from the IBM Support Assistant website.

### About this task

To check what fixes are available for your product, follow these steps:

#### Procedure

- From the IBM Support Assistant Web site at <http://www.ibm.com/support/entry/portal/>, click **Downloads**.
- Click **Search for recommended fixes**.
- Choose content filters to find fixes for your product level and operating system.

## Receiving notification of product fixes

You can receive notifications about fixes, flashes, upgrades, and other news about IBM products.

### About this task

To sign up to receive notifications about IBM products, follow these steps:

#### Procedure

1. From the IBM Support Assistant Web site at <http://www.ibm.com/support/entry/portal/>, click **Sign in to create, manage, or view your subscriptions** in the **Notifications** pane.
2. Sign in using your IBM ID and password. If you do not have an ID and password, click **register now** and complete the registration process.
3. Click **Manage all my subscriptions** in the **Notifications** pane.
4. Click the **Subscribe** tab and then click **Tivoli**.

5. Select the products for which you want to receive notifications and click **Continue**.
6. Specify your notification preferences and click **Submit**.

## Contacting IBM Software Support

You can contact IBM Software Support if you have an active IBM subscription and support contract and if you are authorized to submit problems to IBM.

### About this task

To obtain help from IBM Software Support, complete the following steps:

### Procedure

1. Ensure that you have completed the following prerequisites:
  - a. Set up a subscription and support contract.
  - b. Determine the business impact of your problem.
  - c. Describe your problem and gather background information.
2. Follow the instructions in “Submitting the problem to IBM Software Support” on page xi.

### Setting up a software maintenance contract

Set up a software maintenance contract. The type of contract that you need depends on the type of product you have.

### Procedure

- For IBM distributed software products (including, but not limited to, Tivoli, Lotus®, and Rational® products, as well as IBM DB2® and IBM WebSphere® products that run on Microsoft Windows or UNIX operating systems), enroll in IBM Passport Advantage® in one of the following ways:
  - **Online:** Go to the Passport Advantage Web page at <http://www.ibm.com/software/lotus/passportadvantage/>, click **How to enroll**, and follow the instructions.
  - **By Phone:** For the phone number to call in your country, go to the IBM Software Support Handbook Web page at <http://techsupport.services.ibm.com/guides/contacts.html> and click **Contacts**.
- For server software products, 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 server software products, go to the IBM Technical support advantage Web page at <http://www.ibm.com/servers/eserver/techsupport.html>.

### What to do next

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. For a list of telephone numbers of people who provide support for your location, go to the Software Support Handbook page at <http://www.ibm.com/support/customer/sas/f/handbook/home.html>.

## Determining the business impact

When you report a problem to IBM, you are asked to supply a severity level. Therefore, you must understand and assess the business impact of the problem you are reporting.

<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.

## Describing the problem and gathering background information

When explaining a problem to IBM, it is helpful to 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 re-created? 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 using a workaround for this problem? If so, be prepared to explain it when you report the problem.

## Submitting the problem to IBM Software Support

You can submit the problem to IBM Software Support online or by telephone.

### Online

Go to the IBM Software Support website at [http://www.ibm.com/support/entry/portal/Open\\_service\\_request/Software/Software\\_support\\_\(general\)](http://www.ibm.com/support/entry/portal/Open_service_request/Software/Software_support_(general)). Sign in to access IBM Service Requests and enter your information into the problem submission tool.

### By telephone

For the telephone number to call in your country, go to the IBM Software Support Handbook at <http://www14.software.ibm.com/webapp/set2/sas/f/handbook/home.html> and click **Contacts**.



---

## Tivoli Continuous Data Protection for Files messages

This section contains a description of messages format and Tivoli Continuous Data Protection for Files messages. The messages are documented with explanations and user actions.

---

### Tivoli Continuous Data Protection for Files messages format

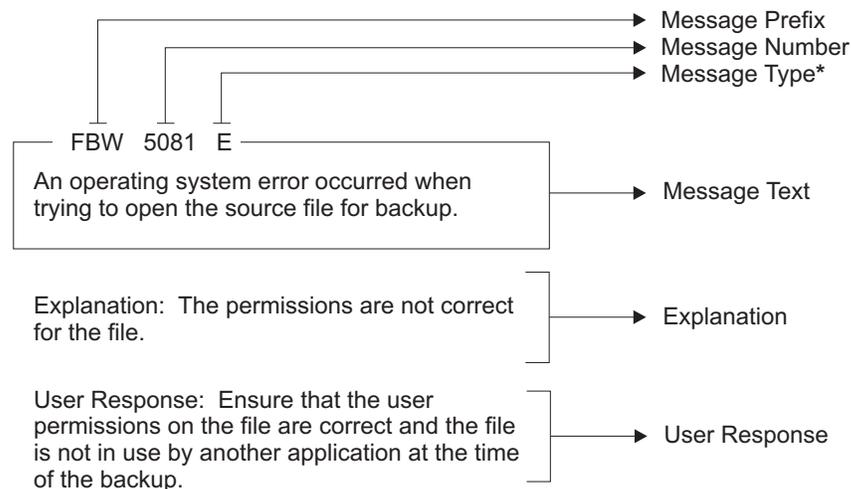
Messages are presented in a consistent format. Each element of a message provides information that can help you understand and fix a problem.

Messages consist of the following elements:

- A three-letter prefix.
- A numeric message identifier.
- A one-letter severity code, also called the message type.
- Message text that is displayed on screen and written to message logs.
- Explanation and User Response texts. These texts elaborate on the message text, and are accessible only in documentation.

The following image presents a typical message.

The callouts identify each element of the message.



I = Information  
\* E = Error  
S = Severe Error  
W = Warning

The severity codes give an indication of the severity of the issue that generated the message. The severity codes and their meanings are as follows:

- S** Severe error. Processing cannot continue.
- E** Error. Processing cannot continue.
- W** Warning. Processing can continue, but problems might occur later.
- I** Information. Processing continues. User response is not necessary.

Message variables in the message text appear in italics.

---

## Tivoli Continuous Data Protection for Files Version 6.3 messages

This section documents the Tivoli Continuous Data Protection for Files Version 6.3 messages.

All messages with FBW prefix are issued by Tivoli Continuous Data Protection for Files.

### Tivoli Continuous Data Protection for Files Version 6.3.0 messages

This section documents the Tivoli Continuous Data Protection for Files Version 6.3.0 messages. The messages are listed in ascending numeric order. The complete message is documented, including message ID, severity code, message text, explanation, and user response.

---

#### FBW5001E No memory available for operation

**Explanation:** The program is low on memory. It is possible that there is a programming flaw that resulted in run-away memory usage, or that the system does not have enough memory.

**User response:** Open the Task Manager and ensure that the application is not using more memory over time. Then add more memory to the computer to resolve the issue.

**Explanation:** The specified tracing level is not known or incorrectly spelled.

**User response:** Ensure the specified tracing level is valid, in the correct format, and spelled correctly.

---

#### FBW5003E The device driver could not be opened.

**Explanation:** In order for a user-mode program to talk to the kernel component driver, it must open a device node to communicate with the kernel. This error could be because the driver is not loaded, the device-node does not exist, or it has insufficient privileges.

**User response:** Reboot the system, if the problem persists contact support.

---

#### FBW5011E The specified logging device is unknown or unsupported on this platform.

**Explanation:** Typically, only the terms SCREEN and FILE are valid logging device key words. Not all platforms can support logging to a screen or terminal device.

**User response:** Ensure the specified device is valid and spelled correctly.

---

#### FBW5004E Unknown IOCTL value

**Explanation:** The user daemon program communicates with the kernel component by sending a binary value (an IOCTL) to the kernel. The kernel then interprets this value as a command. This error means that the kernel is unaware of the meaning of the specified value. This is likely to be caused by a mismatch of the kernel and daemon revision levels or by some non-authorized program sending arbitrary data.

**User response:** Ensure the driver Fp.sys and Filepathsrv.exe are the same version. You could also uninstall and reinstall the product.

---

#### FBW5013E Error creating the HTML listener

**Explanation:** This is typically caused when the default port 9003 is already in use by another product.

**User response:** Change the default port used, refer to the technote: HOW TO MODIFY THE DEFAULT PORT 9003 IF ANOTHER APPLICATION IS CURRENTLY USING IT. This tech note is in the support portal.

---

#### FBW5018E The current operation is denied by the operating system due to permission.

**Explanation:** Some attempted operation such as a mkdir, is refused by the operating system due to insufficient privilege or permission.

**User response:** In a command window attempt the same operation that resulted in the error, this can sometimes give more information for the error. Ensure the user has the correct privileges for the particular directory or file.

---

#### FBW5010E The specified tracing level is not known.

---

#### FBW5019E Queue or queue transaction is corrupted

**Explanation:** The daemon is attempting to read or write to the kernel queue but the data does not validate as a known queue item.

**User response:** Internal error in the application, no action required.

**FBW5022E Unable to access the specified file**

**Explanation:** The file specified is unable to be accessed. Possibly spelled incorrectly, or bad path, or permissions.

**User response:** Ensure the user has the proper permissions for the file and directories involved and that the file and directory exist.

**FBW5028E Specified named object does not exist**

**Explanation:** An operation that is attempted to work on a database object, such as a rule or action, can not find the one specified.

**User response:** Ensure the rule or action name is correct and the database is configured properly.

**FBW5029E The database query for the remote location returned an empty string or remote backup is disabled.**

**Explanation:** The Group1Remote action was not found in the database or is disabled. The database was queried for the value before the initial configuration completed, a remote location was not specified in the GUI, or remote backup is disabled in the GUI.

**User response:** Ensure the remote backup is enabled and the remote location is specified in the GUI.

**FBW5037E Some items in the XML command were not recognized or consumed**

**Explanation:** Not everything in the specified XML message was consumed. Possibly something is misspelled and thus not recognized or some other feature has been added in a newer release and is attempted but not known.

**User response:** No action required

**FBW5040E The server does not have any space available.**

**Explanation:** The storage pool on the server is full.

**User response:** Report to your system administrator to increase the storage pool on the server.

**FBW5047E A system command such as mkdir, system, or unlink resulted in an error.**

**Explanation:** Some intrinsic functions of the native operating system, such as mkdir, rm, or system, resulted in an error that was not anticipated.

**User response:** Ensure that the user has the correct permissions for the operation. Reboot the system if the problem persists.

**FBW5053E File or path does not exist.**

**Explanation:** Files have to be opened for reading or writing. For example database files or files for replication management. This error is because a file cannot be found.

**User response:** Ensure that the file exist, the pathname is valid, and is spelled correctly.

**FBW5056E Value specified for an error value is either missing or invalid**

**Explanation:** These error messages are processed. There must be a val= statement in the XML string. The value must be between 0 and 99999.

**User response:** The message file is corrupted and you need to reinstall the product. Contact support if the problem persists.

**FBW5057E The xml paragraph does not contain the MsgText and /MsgText tags**

**Explanation:** Incorrectly formed expression for an error-message.

**User response:** The message file is corrupted and you need to reinstall the product. Contact support if the problem persists.

**FBW5077E The source file for the backup operation was not found.**

**Explanation:** The file may have been deleted before the backup happened.

**User response:** Ensure that the file being backed up exists and that the path is correct.

**FBW5078E The source file for backup has a permission problem.**

**Explanation:** The permissions are not correct for the file.

**User response:** Ensure that the user has the proper access to the file and that the file exists.

---

**FBW5079E** The destination file for backup has a permission problem.

**Explanation:** The permissions are not correct for the file.

**User response:** Ensure the user has the proper access to the file.

---

**FBW5080E** An operating system error reported trying to open the destination file for backup.

**Explanation:** The permissions are not correct for the file.

**User response:** Ensure that the user permission on the file is correct and that the file is not in use by another application.

---

**FBW5081E** An operating system error occurred when trying to open the source file for backup.

**Explanation:** The permissions are not correct for the file.

**User response:** Ensure that the user permissions on the file are correct and the file is not in use by another application at the time of the backup.

---

**FBW5082E** Backup failed due to the operating system reporting no space.

**Explanation:** Not enough space available for the backup.

**User response:** Increase the storage space available for the backup.

---

**FBW5084I** This replication item is being skipped because the file size or date of the source is different from when the operation was recorded.

**Explanation:** Replication events will be skipped if it appears that the event is older than the source file and thus there should be additional events forthcoming.

**User response:** Informational message no action required.

---

**FBW5088E** A Retention specification did not specify any categories.

**Explanation:** Retain commands must specify at least one category.

**User response:** Ensure that at least one category is used with Retain commands.

---



---

**FBW5089E** The supplied item is not a RETAIN item.

**Explanation:** A incorrectly formed retain command was given.

**User response:** Ensure that the retain command being used is valid.

---

**FBW5090E** The specified retention name is not known.

**Explanation:** An attempt to reference a given Retain is not known.

**User response:** Ensure the retain name being used is valid.

---

**FBW5091E** The replication.retain clause is missing and is required when doing generations.

**Explanation:** Replication actions that specify generations MUST have a Retain clause.

**User response:** Ensure the replication action is formatted correctly.

---

**FBW5092E** The duration value specified for a retention category must be greater than the previous duration value.

**Explanation:** Durations must be specified in increasing duration order.

**User response:** Change the duration for this category to be greater than the duration of the previous category.

---

**FBW5095E** The target file of a skip unset request is not currently in a skipped state.

**Explanation:** This is an internal error during an unset skip operation.

**User response:** No action is required.

---

**FBW5101E** The replication has failed and this may be because of a networking error, so it is possible to try again.

**Explanation:** This may be related to transient network or reliability issues.

**User response:** Make sure the network is connected or authenticate to the remote share.

---

**FBW5103E** The password is not correct for the specified user.

**Explanation:** An incorrect password has been supplied.

**User response:** Enter a correct password then retry the action.

---

---

**FBW5105I** This replication item is being skipped due to the source matching the target.

**Explanation:** The target file is identical to the one that is already at the target. This is based on the file size and the modification time.

**User response:** No action is required.

---

**FBW5114E** All backups in this queue have been cancelled by the user.

**Explanation:** The user has cancelled the operation.

**User response:** No action is required.

---

**FBW5126I** The current file backup was cancelled by the user.

**Explanation:** Backup operation for the file was cancelled.

**User response:** No action is required.

---

**FBW5127I** The backup directory cannot be deleted.

**Explanation:** You cannot delete the target directory because it is not empty.

**User response:** No action is required.

---

**FBW5128I** The backup item is being skipped because the destination does not exist.

**Explanation:** The backup cannot be carried out because the target does not exist.

**User response:** No action is required.

---

**FBW5130E** The file being deleted is a directory.

**Explanation:** Internal error. Attempted to delete a file but encountered a directory.

**User response:** No action is required.

---

**FBW5132E** The operating system is not currently supported.

**Explanation:** The operating system is not supported.

**User response:** See the System Requirements section at <http://www-01.ibm.com/software/tivoli/products/storage-mgr-fastback-workstation/>

---

**FBW5137I** Data field for a rule in fpa.txt is too long and has been truncated.

**Explanation:** Internal error. A truncated data field is detected.

**User response:** No action is required.

---



---

**FBW5138E** The system configuration is locked against changes.

**Explanation:** Cannot change the system configuration because it is locked.

**User response:** Use the Central Administration Console to unlock the configuration.

---

**FBW5139I** The file is being skipped because it is larger than the configured maximum size for backup.

**Explanation:** The file size exceeds the maximum limit in the advanced setting tab.

**User response:** Change the maximum file size limit for this backup type.

---

**FBW5140E** Unexpected error with encryption. Detailed information maybe available in the event log or replication log.

**Explanation:** Internal error. Encryption failed with an error.

**User response:** No action is required.

---

**FBW5143E** The backup failed because the encryption library could not be loaded.

**Explanation:** The encryption library could not be found or was not the expected version.

**User response:** Download a new install image and reinstall the application.

---

**FBW5144E** The header in the encrypted or compressed file is corrupted.

**Explanation:** The header where all the file meta data is kept for the compressed or encrypted file has been corrupted.

**User response:** No action is required.

---

**FBW6001I** Last message repeated *number* times.

**Explanation:** Before the centralized logging system displays a message it checks to see if the message is the same as the previous message. If the messages are the same, the system does not display the new message. It counts the number of similar messages and displays information on how many times the message was repeated.

**User response:** No action is required.

---

---

**FBW6002E** **Function:** *function* failed to open file: [filename] **Reason:** *error*.

**Explanation:** The error may occur if the permissions are incorrect, if file or path does not exist, or if the file is corrupted.

**User response:** No action is required.

---

**FBW6003E** **Failed to start the** *name* **thread. Reason:** *error*.

**Explanation:** An unexpected error occurred when a thread was created.

**User response:** Restart the daemon.

---

**FBW6004E** **Command failed, result:**(*retcode*) *error*.

**Explanation:** A command given to the fpa program or parse a configuration file has failed with the specified result-code and messages.

**User response:** Use the error code to troubleshoot the problem.

---

**FBW6008E** **Socket** *name* **operation failed; Reason:** *error*.

**Explanation:** One of the socket operations between the daemon and the html has failed with the operating system error given. Typically this happens when more than one html listener has been started.

**User response:** No action is required.

---

**FBW6009E** **General error during function** *name*: (*retcode*) *error*.

**Explanation:** An unexpected error occurred from a specified mid-level function. The error and associated message is also specified.

**User response:** No action is required.

---

**FBW6010E** **Memory allocation failed of** *number* **bytes in function** *name*.

**Explanation:** An attempt to allocate memory failed. Either the amount of memory was too high or there was a runaway process. The number of bytes desired and the function needing the memory are specified.

**User response:** No action is required.

---

**FBW6011E** **Unknown or unsupported IOCTL value** *number* **was given.**

**Explanation:** Internal error. It is possible that the driver and the daemon are out of sync.

**User response:** Restart the system or reinstall the software. Then retry the action.

---



---

**FBW6012E** **Failed user exec-command** [*command*] **Result:** *retcode*.

**Explanation:** An exec command resulted in an error. The full exec command is specified along with the operating system result value.

**User response:** No action is required.

---

**FBW6013E** **Backup failed to open the log file:** [filename] **Reason:** *error*.

**Explanation:** The log file for logging every backup transaction could not be opened. It is possible that this is related to a problem with the permissions or the pathname. The result is specified.

**User response:** No action is required.

---

**FBW6018E** **An unexpected error occurred during driver read operation to get next item from work queue, error** (*retcode*) *error*.

**Explanation:** Internal error. The kernel component failed to retrieve the next item from the queue.

**User response:** No action is required.

---

**FBW6019E** **User buffer is too small during driver read operation. User-buffer size:***maxsize* **is not big enough for** *size* **bytes.**

**Explanation:** This is an internal error. The daemon did not supply a large enough buffer to the driver. This should only occur if the driver and the daemon components are out of sync.

**User response:** Reinstall the software then retry the action.

---

**FBW6020E** **Data (0x%x) sent to the driver from the daemon does not match any addresses in the queue.**

**Explanation:** This is an internal error. Data relating to a write operation from the daemon to the kernel is invalid and could not be matched-up to a pending transaction.

**User response:** Reinstall the software then retry the action.

---

**FBW6021E** **Too much data** (*total bytes*) **sent to the driver. The queue item can only hold** *maxsize*.

**Explanation:** This is an internal error. A daemon write operation into the kernel provided too much data. This could be caused by incompatible versions.

**User response:** Reinstall the software then retry the action.

---

---

**FBW6029I** Trying to unload the driver but some files still active. Waiting...

**Explanation:** This is an informational message. When the driver is requested to unload, it tries to do so safely by waiting until all in-process file objects are complete. The driver will wait and periodically generate this message.

**User response:** No action is required.

---

**FBW6030E** The kernel audit buffer overflowed and some audits are lost.

**Explanation:** The kernel puts audit messages into a buffer that the user daemon must periodically drain. This error could be because the daemon is not running correctly, because too many messages are sent too quickly, or because the buffer is too small.

**User response:** Restart the daemon and start a full backup.

---

**FBW6031E** The HTML daemon did not start. Consult system error log.

**Explanation:** The HTML daemon was unable to start and the specific reason is shown in the system log. This could be because the intended port is in use. Another fpa daemon may be running, or some web-process is communicating with the port and keeping it in-use.

**User response:** Make sure that the port is not in use by other applications. Restart the system and retry the action. See the tech note at <http://www-01.ibm.com/support/docview.wss?uid=swg21300055> for more information.

---

**FBW6033I** Driver loaded and ready.

**Explanation:** The driver has successfully completed all of its initialization and is ready to go to work.

**User response:** No action is required.

---

**FBW6035I** Driver unloading.

**Explanation:** The driver has started the processes of unloading. It can not log any messages.

**User response:** No action is required.

---

**FBW6043E** Replication or mirroring resulted in the destination path matching the source file: *filename*. Action name *action* is disabled.

**Explanation:** The destination can not have the same path as the source.

**User response:** No action is required.

---

**FBW6045E** The daemon was unable to unlink *filename*, error: *error*. The application will try again.

**Explanation:** An internal error occurred during an unlink. This happens after a file has been replicated.

**User response:** No action is required.

---

**FBW6046I** The GUI messages file *filename* could not be opened, error: *error*

**Explanation:** The message file may be corrupted or missing from the installation folder. The installation folder may also be corrupted.

**User response:** Look in the installation folder for the message file. If the file exists, verify that the file has read permissions. You can also reinstall the product to fix this error.

---

**FBW6047I** The account must have the "Act as part of the operating system" privilege set.

**Explanation:** The service daemon needs to run with the "Act as part of the operating system" privilege or run as the local system account.

**User response:** Use the Windows Local Security Policy tool to set this privilege in the Local Policies->User Rights Assignment section. You can also change the service to run as the local system account.

---

**FBW6048I** Daemon started successfully.

**Explanation:** This message is for informational purposes only.

**User response:** No action is required.

---

**FBW6049I** HTML listener started successfully and is listening on port *number*.

**Explanation:** This message is for informational purposes only. It indicates the port that the HTML listener is listening on.

**User response:** No action is required.

---

**FBW6051I The Fpa command syntax.**

**Explanation:** This message is for informational purposes only. The Fpa command syntax is as follows:

```
<BACKUP wait='1/0' />
<CONFIG-SET
  GlobalManagementAreaPollRate='minutes' />
<DAV-CONFIG restart-delay='minutes' />
<GET-EXCLUDES />
<GET-INCLUDES type='continuous/scheduled' />
<HELP />
<HOOK file='root directory' />
<IMPORT file='full filename path' />
<LOAD-CONFIG />
<PASSWORDFILE username='username'
  password='password' idstr='idstr' />
<PAUSE [activate='1/0'] />
<SET-BACKUP
  type='disabled/hourly/daily/weekly/monthly'
  time='time' />
<SET-EXCLUDES excludes='path | path | ...' />
<SET-INCLUDES type='continuous/scheduled'
  includes='path | path | ...' />
<SET-VERSIONS type='local/remote'
  versions='number' />
<SYNCHRONIZE list='directory | directory | ...'
  wait='1/0' />
<TRACE [level='FINE/MEDIUM/COARSE']
  [program='programname'] [device='FILE/SCREEN']
  [mode='XML']
  mask= 'BASIC,
    ALL,
    SYS,
    HOOK,
    HOOK_IO,
    FPA,
    REPLQ,
    REPLT,
    REPLK,
    REPLD,
    LOG,
    EXEC,
    AUDIT,
    FPL,
    FPL_OPEN,
    FPL_WRITE,
    FPL_CLOSE,
    FPL_LIST,
    FPL_META,
    HTML,
    HTML_SET,
    HTML_GET,
    HTML_RESTORE,
    DEBUG1,
    XML,
    FPQ,
    METRIC,
    ERR,
    HASH,
    IOCTL,
```

```
PF,
FILE,
LRP,
ANALFS,
ANALFS_XML,
ANALFS_FILES,
EXPUNGE,
FNAME,
WORM,
CAS,
TABULATION,
MIRROR_META,
MIRROR_IO,
MIRROR_IOLIST,
MIRROR_SIZE,
MIRROR_DRAINER'
/>
<TRAY-CONFIG hide_menu='1/0'
  hide_icon='1/0' disable_launch='1/0' />
<VERSION />
```

**User response:** Refer to technical document 1299194 on the support site: <https://www.ibm.com/support/docview.wss?uid=swg21299194>.

**FBW6054I You can not start both the HTML listener and the daemon in interactive mode at the same time.**

**Explanation:** This occurs when the user specifies the -d flag with fpa and also specifies to start both daemons.

**User response:** Start either the HTML listener or the daemon in interactive mode only.

**FBW6057I A special HOLD directory created: *directory***

**Explanation:** A special HOLD directory created for WORM (Write Once Write Many) or Retention. This message is for informational purposes only.

**User response:** No action is required.

**FBW6058E Special WORM/Retention SHRED directory has non-numeric tail: *directory*.**

**Explanation:** The path name must end with a number.

**User response:** Change the path name so that it ends with a number.

**FBW6059I Special WORM/Retention SHRED directory created: *directory*.**

**Explanation:** A SHRED directory or subdirectory was created.

**User response:** No action is required.

---

**FBW6060E** Special WORM/Retention RETAIN directory has improper format: *directory*

**Explanation:** The format of a path name should be 'Retain[nDays nHours nSeconds]'. For example: Retain10Days

**User response:** Use path name in the correct format.

---

**FBW6061I** Special WORM/Retention RETAIN directory created:*directory (number Years, number Days, number Hours, number Minutes, number Seconds)*

**Explanation:** This message is for informational purposes only.

**User response:** No action is required.

---

**FBW6062E** You can not create a RETAIN within a RETAIN tree:*path*

**Explanation:** Nested RETAIN® is not allowed.

**User response:** Create the directory path with one instance of a RETAIN directory only.

---

**FBW6063I** You can not change the base name of a file. **Source:***source filename*  
**Destination:***dest filename*

**Explanation:** This is an internal error. The file name can not be changed.

**User response:** No action is required.

---

**FBW6069I** The daemon has detected a network error that may be resolved easily. The network may be temporarily unavailable or the current logon information is incorrect. Check access to the network. The application will retry the action. **File attempted:** *filename*.

**Explanation:** The client can not connect to the remote server.

**User response:** Verify that there is network access and that the logon information is correct.

---

**FBW6070I** The network appears to be functioning again. Backup resumed for *filename*.

**Explanation:** This message is for informational purposes only.

**User response:** No action is required.

---



---

**FBW6075E** The restore location, *destination*, must be an absolute pathname.

**Explanation:** The restore process requires a full path name to a file or to a directory.

**User response:** Modify the restore destination then retry the action.

---

**FBW6076I** The remote target does not support the native Windows Backup-API for fully capturing file attributes. The application uses an alternative file-copy heuristic.

**Explanation:** This message is for informational purposes only.

**User response:** No action is required.

---

**FBW6077I** The application has detected the target backup device is full. This may be a temporary issue. Create some free space at the target location. The application will retry the action.

**Explanation:** The backup target needs more storage.

**User response:** Delete some files to create free space at the target location. The remote storage state may be out of synch if you delete the backed up files.

---

**FBW6085I** Completed restore request. The client restored *number of files*.

**Explanation:** This message is for informational purposes only.

**User response:** No action is required.

---

**FBW6086E** Fail to do *action string file source filename to dest filename*. **Error:** *error*. **Extra information:** *additional error*

**Explanation:** File can not be backed up.

**User response:** No action is required.

---

**FBW6087I** The application can not reach the network target. This may be a temporary issue. The application will retry the action.

**Explanation:** There is no network connection to the remote server. The computer may not be logged on to the network. This issue may also occur if the remote target was changed and there are files in the queue for backups to the previous remote target.

**User response:** Verify that the remote server is running and that the computer can ping the server. You may need to authenticate through a firewall or to logon to the network. If files are queued to a remote target

that is no longer valid, you need to clear the queue to resolve this error.

---

**FBW6088I**    **The network appears to be functioning again. Backup resumes.**

**Explanation:** This message is for informational purposes only.

**User response:** No action is required.

---

**FBW6089I**    **The application has experienced a problem. Check for details in the View Report link from the Status page. Also check the Windows System Event log and Application log.**

**Explanation:** An error occurred, check the error logs.

**User response:** If View Report link from the Status does not contain any details, check the Windows System Event log and the Application log.

---

**FBW6091I**    **Password information is needed for backup. Acknowledge the prompt or launch the user interface.**

**Explanation:** The application requires password details to perform an action. The TSM server may need a password to perform backups. The WebDav server or the file server may need an encryption password. The Lotus Notes® application may need a password.

**User response:** Enter the password when it is prompted.

---

**FBW6092I**    **A new version of the product is being installed.**

**Explanation:** This message is for informational purposes only.

**User response:** No action is required.

---

**FBW6094I**    **New software has been loaded and you must restart the machine to resume data protection.**

**Explanation:** The machine must be restarted to run the new software.

**User response:** Restart the machine.

---

**FBW6095I**    **Your product trial evaluation period has expired.**

**Explanation:** The trial period has ended.

**User response:** Uninstall the product or install the full product.

---

**FBW6096I**    **Driver was not loaded correctly. Data protection is not functioning.**

**Explanation:** A problem may have occurred during the installation and the driver was not loaded correctly.

**User response:** Uninstall the product then reinstall it.

---

**FBW6097E**    **One or more delta files is missing or was not accessible during the restore operation.**

**Explanation:** The version of the file being restored was corrupted or manually deleted from the remote storage.

**User response:** Restore an earlier version of the file.

---

**FBW6101I**    **The current version of Lotus Notes installed on this machine does not contain full support for this application. An upgrade of Lotus Notes is recommended. If you choose not to upgrade Lotus Notes, the application will still function, but it may need to wait and retry a Lotus Notes database backup if the files are being updated heavily while the backup is being performed.**

**Explanation:** The application does not support the current Lotus Notes version.

**User response:** Upgrade to Lotus Notes 7.0 or later.

---

**FBW6102I**    **Warning: The My Documents folder in the include list does not match the location where the system stores your documents in. Add \folder\ to the include list.**

**Explanation:** The system does not reference My Documents as your document folder. It might be called Documents.

**User response:** Add the specified folder to the include list.

---

**FBW6103I**    *Product version product number is starting. The kernel driver version is kernel version number.*

**Explanation:** This message is logged when the application starts the daemon and reads the version from the driver. This message is used for support purposes.

**User response:** No action is required.

---

**FBW6104E** The driver received a command before the initial configuration was loaded.

**Explanation:** Commands cannot be processed before the initial configuration is loaded.

**User response:** Wait until the initial configuration is loaded then retry the command.

---

**FBW6105E** The connection to the daemon could not be established.

**Explanation:** The commands are not processed.

**User response:** Ensure the daemon is running then retry the command.

---

**FBW6107I** Network '*adapter GUID*' is disconnected.

**Explanation:** The specified network is disconnected.

**User response:** No action is required.

---

**FBW6108I** Setting the maximum backup speed to *number* Kbps.

**Explanation:** This is an informational message showing the throttle value used.

**User response:** No action is required.

---

**FBW6109W** This network rule already exists. Change the rule or click Cancel to exit this dialog.

**Explanation:** The same network rule is already defined for the selected network adapter.

**User response:** Change the rule or click Cancel to exit this dialog.

---

**FBW6111I** The throttle function was disabled because an internal error occurred. View the system error log for more details.

**Explanation:** An internal error disabled the throttle function. As a result, network changes or network rules settings did not update the throttle value.

**User response:** No action is required.

---

**FBW6113W** This network rule already exists or another network rule matches the same criteria. Modify the rule and issue the command again.

**Explanation:** The same network rule or another network rule that matches the criteria is already defined.

**User response:** Modify the rule and issue the command again.

---

**FBW6114I** The daemon has detected a local storage error condition. Check the local storage settings. The application will retry for file: *filename*

**Explanation:** The local backup directory may have been deleted.

**User response:** Check the local storage settings and ensure that the local backup directory exist.

---

**FBW6115I** The local storage is available. Backup resumed for file *filename*

**Explanation:** This message is for informational purposes only.

**User response:** No action is required.

---

**FBW6116I** The application can not access the local storage. Check the local settings and reapply the settings if necessary.

**Explanation:** The local backup directory may have been deleted. The drive letter where the directory resided may have changed.

**User response:** Check the local storage settings and reapply the settings if necessary. Ensure that the local backup directory exist with write permissions.

---

**FBW6117I** The local storage appears to be available again. Backup resumes.

**Explanation:** This message is for informational purposes only.

**User response:** No action is required.

---

**FBW6209E** Errors have occurred.

**Explanation:** Errors have occurred since the last time the replication log was viewed.

**User response:** Check the replication log for errors.

---

**FBW6210W** Warnings have occurred.

**Explanation:** Warnings have occurred since the last time the replication log was viewed.

**User response:** Check the replication log for errors.

---

**FBW6211I** The *fpcommands.xml* file has been copied to the local machine for processing.

**Explanation:** When an administrator publishes a new configuration, the client machine will copy the *fpcommands.xml* file to the clients machines data directory to be processed.

**User response:** No action is required.

---

---

**FBW6212W** Existing configuration can not be restored. Database 'fpa.txt' was not backed up to this remote location *remote location*. The default configuration is used. Use the Settings Notebook to change the default configuration.

**Explanation:** There was an attempt to restore a configuration that was not backed up.

**User response:** Use the Settings Notebook to change the default configuration. Manually update the `dsm.opt` to add other Tivoli Storage Manager client options.

---

**FBW6213W** Restoring database 'fpa.txt' from the remote location *remote location* failed. Error returned: *error*. The default configuration is used. Use the Settings Notebook to change the default configuration.

**Explanation:** Failed to restore the database from the remote location.

**User response:** Use the Settings Notebook to change the default configuration. Manually update the `dsm.opt` to add other Tivoli Storage Manager client options.

---

**FBW6214E** Reset database 'fpa.txt' before the import of the restored database failed. Error returned: *error*. The product must be reinstalled.

**Explanation:** An internal error occurred during the reset of the database. The machine can not be recovered from this error.

**User response:** Uninstall then reinstall the product.

---

**FBW6215E** Import database 'fpa.txt.bk' failed. Error returned: *error*. The default configuration failed to load, error *retcode*. The product must be reinstalled.

**Explanation:** An internal error occurred during the import of the restored database. The second attempt to load the default configuration failed. The machine can not be recovered from this error.

**User response:** Uninstall then reinstall the product.

---

**FBW6216W** Import database 'fpa.txt.bk' failed. Error returned: *error*. The default configuration was loaded. Use the Settings Notebook to change the default configuration.

**Explanation:** An internal error occurred during the import of the restored database. Loading of the default configuration was successful.

**User response:** Use the Settings Notebook to change the default configuration. Manually update the `dsm.opt`

to add other Tivoli Storage Manager client options.

---

**FBW6217E** Import database 'fpa.txt.save' failed. Error returned: *error*. The default configuration failed to load, error *retcode*. The product must be reinstalled.

**Explanation:** An internal error occurred during the import of the restored database. The second attempt to import the installed configuration database prior to recovery failed. The third attempt to load the default configuration also failed. The machine can not be recovered from this error.

**User response:** Uninstall then reinstall the product.

---

**FBW6218W** Import database 'fpa.txt.save' failed. Error returned: *error*. The default configuration was loaded. Use the Settings Notebook to change the default configuration.

**Explanation:** An internal error occurred during the import of the restored database. The second attempt to import the installed configuration database prior to recovery failed. Loading of the default configuration was successful.

**User response:** Use the Settings Notebook to change the default configuration. Manually update the `dsm.opt` to add other Tivoli Storage Manager client options.

---

**FBW6219W** Import database 'fpa.txt.bk' failed. The previous saved configuration is loaded instead.

**Explanation:** An internal error occurred during the import of the restored database. The installed configuration saved before the import is now loaded.

**User response:** Use the Settings Notebook to change the default configuration.

---

**FBW6220I** Restoring 'identifier.txt' from *remote target* failed. Error returned: *error*. The default logon name is used as the identifier.

**Explanation:** An internal error occurred during the restore.

**User response:** Use the Settings Notebook to change the identifier value.

---

**FBW6221I** Restoring 'dsm.opt' from *remote target* failed. Error returned: *error*. The default `dsm.opt` file is used.

**Explanation:** An internal error occurred during the restore.

**User response:** Manually update the `dsm.opt` to add other Tivoli Storage Manager client options.

---

**FBW6222I** Host name was not specified on the restore command. The host name of the machine is used.

**Explanation:** This is an internal error where the host name was not specified on the restore command. The 'machinename.txt' file is not created.

**User response:** If the intent is to back up with a different host name, manually create the 'machinename.txt' file in the data folder with the correct host name.

---

**FBW6223I** Failed to create 'machinename.txt' to store the host name of the machine that the files are recovered from. Host name of the current machine is used.

**Explanation:** The host name of the machine is used as the backup folder for the client unless 'machinename.txt' file exists and contains a different host name.

**User response:** If the intent is to back up with a different host name, manually create the 'machinename.txt' file in the data folder with the correct host name.

---

**FBW6224I** Synchronizing files with the remote server.

**Explanation:** After the configuration files are recovered, the files are synchronized with the remote server.

**User response:** No action is required.

---

**FBW6225I** Finished synchronizing files with the remote server.

**Explanation:** This message is for informational purposes only.

**User response:** No action is required.



---

## Appendix. Accessibility features for Tivoli Continuous Data Protection for Files

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use software products successfully. The major accessibility features of Tivoli Continuous Data Protection for Files are described in this topic.

### Accessibility features

The following list includes the major accessibility features in Tivoli Continuous Data Protection for Files:

- Keyboard-only operation
- Interfaces that are commonly used by screen readers
- Keys that are discernible by touch but do not activate just by touching them
- Industry-standard devices for ports and connectors
- The attachment of alternative input and output devices
- User documentation provided in HTML and PDF format. Descriptive text is provided for all documentation images.

The Tivoli Continuous Data Protection for Files Information Center, and its related publications, are accessibility-enabled.

### Keyboard navigation

Tivoli Continuous Data Protection for Files follows Microsoft conventions for most keyboard navigation and access. Drag and Drop support is managed using the Microsoft Windows Accessibility option known as MouseKeys. For more information about MouseKeys and other Windows accessibility options, please refer to the Windows Online Help (keyword: MouseKeys).

The following access methods differ from Microsoft conventions.

In the Tivoli Continuous Data Protection for Files client, there are several tasks in which you select files:

- Select files to include for continuous protection and to exclude from any protection.
- Select files to include for scheduled protection.
- Select files to vault

Each of these tasks presents a list of file specifications labeled **Folders and Files**. You can add file specifications to the list and remove file specifications. When you add a file specification, you can browse for files in a file tree. The file tree opens when you click **Include**, **Exclude**, or **Vault**. Navigate the file tree with the following method:

1. Press Tab and Shift+Tab to navigate to + (expand folder). Press Enter to expand the folder.
2. Press Down Arrow and Up Arrow to navigate among the objects in the folder.
3. On an expanded folder, press Enter to collapse the folder.

4. As you navigate the file tree, the object that has focus is displayed in the **Folder name (wildcards allowed)** field at the end of the panel.
5. Press Tab to navigate to the text field. Optionally, edit the text field.
6. Press Tab to navigate to **OK**. Click **OK** to add the file specification to the **Folders and Files** list.

To remove file specifications from the list, select a file specification and click **Remove**. Navigate the list of file specifications with this method:

1. Press Tab to move down to the next file specification and Shift+Tab to move up to the previous file specification.
2. Press Spacebar to select a file specification or to clear a selection.
3. Press Shift+Tab to navigate to **Remove**. Click **Remove** to remove the file specification from the **Folders and Files** list.

The **Folders and Files** list is displayed when you navigate the following paths:

- **Settings > Files to Protect > Folders and Files box > Details**
- **Settings > Files to Protect > Vault box > Details**
- **Settings > E-mail Protection > Scheduled Backup Settings**
- **Settings > Advanced > Scheduled Backup Settings**

The **Files to Restore** panel in the restore wizard also allows you to select files from a file tree, and add and remove files from a list. When you select **Folder View**, a panel with a file tree and a list of files is displayed. The restore file tree and files list is similar to other file trees and files lists. The restore controls are different in the following ways:

- The file tree folder items each have a check box.
- The items in the folders and files list each have a check box. If there are more than one versions of a file, the row contains a list of versions in the **Version** column.

Press Spacebar to select or clear a check box. If more than one version of a file is available, select the version this way:

- Press Tab to navigate to the **Version** column.
- Use Up Arrow and Down Arrow to select a version.

## Related accessibility information

You can view the publications for Tivoli Continuous Data Protection for Files in Adobe Portable Document Format (PDF) using the Adobe Acrobat Reader. You can access these or any of the other documentation PDFs at IBM Publications Center at <http://www.ibm.com/shop/publications/order/>.

## IBM and accessibility

For more information about the commitment that IBM has to accessibility, see the IBM Human Ability and Accessibility Center at <http://www.ibm.com/able>.

---

## Notices

This information was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

*IBM Director of Licensing  
IBM Corporation  
North Castle Drive  
Armonk, NY 10504-1785  
U.S.A.*

For license inquiries regarding double-byte character set (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

*Intellectual Property Licensing  
Legal and Intellectual Property Law  
IBM Japan Ltd  
1623-14, Shimotsuruma, Yamato-shi  
Kanagawa 242-8502 Japan*

**The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:**

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licenses of this program who want to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

*IBM Corporation  
2Z4A/101  
11400 Burnet Road  
Austin, TX 78758  
U.S.A.*

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this information and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement, or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

This information is for planning purposes only. The information herein is subject to change before the products described become available.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

#### COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample

programs are provided "AS IS", without warranty of any kind. IBM shall not be liable for any damages arising out of your use of the sample programs.

Each copy or any portion of these sample programs or any derivative work, must include a copyright notice as follows: © (your company name) (year). Portions of this code are derived from IBM Corp. Sample Programs. © Copyright IBM Corp. \_enter the year or years\_.

If you are viewing this information in softcopy, the photographs and color illustrations may not appear.

---

## Trademarks

IBM, the IBM logo, and [ibm.com](http://www.ibm.com)<sup>®</sup> are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at <http://www.ibm.com/legal/copytrade.shtml>.

Adobe is either a registered trademark or a trademark of Adobe Systems Incorporated in the United States, and/or other countries.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

Microsoft and Windows are trademarks of Microsoft Corporation in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Other product and service names might be trademarks of IBM or other companies.







Product Number: 5608-APG 5724-S64 5641-FSE

Printed in USA

SC27-4046-00

