SF99610 C5063610 Cumulative PTF Package Instructions This PSP consists of: Short Version of Installation Instructions, and Detailed Installation Instructions.

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IBM i PTF Shipping Information Letter

IBM I CUMULATIVE PTF PACKAGE INSTALLATION INSTRUCTIONS SF99610 Level 15063 PACKAGE ID: C5063610 VERSION 6 RELEASE 1.0

Cumulative PTF Package Instructions Last Updated: 03/13/2015

Note: Online copy of this document is the master. Any printed copy should be assumed to be obsolete and not used unless the date of last update is verified to match that shown on the online master copy.

The information contained in this document was current at the time this cumulative PTF package was made available. We recommend you get the most current information which can be found via the following URL:

http://www-912.ibm.com/s_dir/sline003.nsf/sline003home

From this Web site, select "All Preventive Service Planning Documents by Release", then select "R610". PSP SF98610 lists HIPER PTFs not included in this cumulative PTF package and any defective PTFs identified since this package was released.

Starting in V5R4M0, you may now receive the cumulative PTF package in one of three different formats:

- * Electronically downloaded as individual PTF save files
- * Electronically downloaded as optical image files
- * Physical optical media (when it cannot be downloaded electronically)

The installation instructions contained in this document will guide you through the install steps needed for each format.

PTF PRE-INSTALLATION INSTRUCTIONS FOR IBM i

As with any PTF order, before you install the PTFs you should review the cover letter of each delivered PTF for any special instructions that may need to be followed. The cumulative PTF package media itself does not have any PTF cover letters because any special instructions that need to be followed for the cumulative package are contained in this document. However, when you ordered your cumulative PTF package, you were automatically sent the latest HIPER and Database PTF groups along with the cumulative PTF package. You should review the cover letters for the PTFs in these groups that are applicable to your system. The commands needed for copying and printing (or displaying) the PTF cover letter(s) are included below.

1. COPYING PTF COVER LETTERS:

- * Mount the PTF media and sign on using a security officer user profile such as QSECOFR.
- * To copy all cover letters from media onto the system for PTFs that are not already applied to your system, enter the following command:

CPYPTFCVR DEV(device_name) LICPGM(*ALL) SELECT(*NOTAPY)

* To copy a specific cover letter from media onto the system, enter the following command:

CPYPTFCVR DEV(device_name) LICPGM(product_id) SELECT(ptf_id)

2. DISPLAYING OR PRINTING PTF COVER LETTERS:

- * The PTF cover letters must be copied from the media first before they can be displayed or printed.
- * To display or print cover letters for all PTFs that are currently not applied on your system, enter one of the following commands:

DSPPTFCVR LICPGM(*ALL) SELECT(*NOTAPY) DSPPTFCVR LICPGM(*ALL) SELECT(*NOTAPY) OUTPUT(*PRINT)

Note: You can also specify CVRATR(*SPCINST) on the DSPPTFCVR command to view all cover letters that have special instructions.

* To display or print a specific cover letter, enter one of the following commands:

DSPPTFCVR LICPGM(product_id) SELECT(ptf_id) DSPPTFCVR LICPGM(product_id) SELECT(ptf_id) OUTPUT(*PRINT)

READ THIS FIRST

Failure to follow these instructions may result in failure of your system to operate. Follow the directions carefully every time you install a cumulative PTF package.

Cumulative PTF packages must be installed delayed for proper PTF installation. Do NOT use any immediate apply install options to install this package; otherwise, unpredictable results may occur.

Vital PTF information: Application of PTFs within this cumulative PTF package may disable or render ineffective programs that use system memory addresses not generated by the IBM® translator, including programs that circumvent control technology designed to limit interactive capacity to purchased levels. These PTFs may be prerequisites for future PTFs. By applying these PTFs you authorize and agree to the foregoing.

Each of these PTFs is subject to the terms of the license agreement which accompanied, or was contained in, the Program for which you are obtaining such PTF. You are not authorized to install or use any such PTF except as part of the Program for which you have a valid Proof of Entitlement.

SUBJECT TO ANY WARRANTIES WHICH CAN NOT BE EXCLUDED OR EXCEPT AS EXPLICITLY AGREED TO IN THE APPLICABLE LICENSE AGREEMENT OR AN APPLICABLE SUPPORT AGREEMENT, IBM MAKES NO WARRANTIES OR CONDITIONS EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON INFRINGEMENT, REGARDING EACH PTF.

The applicable license agreement may have been provided to you in printed form and/or may be viewed using the Work with Software Agreements (WRKSFWAGR) CL command.

If you have Content Manager OnDemand - 5761RD1 - installed, please see http://www.ibm.com/support/docview.wss?uid=swg21427866 for any important special instructions.

Please review the special instructions for the following PTFs in this package (if you have the product installed). The PTF cover letters are available at http://www-912.ibm.com/a_dir/as4ptf.nsf/as4ptfhome

5761DP4-SI36668

To prevent a PTF install failure and automate any extra required IPLs, PTF SI46159 must be active BEFORE installing this cumulative PTF package. Enter the following command to determine if PTF SI46159 is active:

DSPPTF LICPGM(5761SS1) SELECT(SI46159)

If the status is Temporarily applied or Permanently applied, the PTF is active. If the status is Superseded, verify that the superseding PTF is Temporarily applied or Permanently applied. If PTF SI46159 is not found or not active, download and temporarily apply PTF SI46159 BEFORE installing this cumulative PTF package.

This PTF cumulative package contains a special handling ptf (MF58792 for V6R1M0 systems), (MF56484 for V6R1M1 systems) for ensuring that the application of this cumulative ptf package will not cause any unpredictable results as described in APAR MA39373. If after applying this PTF delayed (which happens automatically as a special handling PTF) and then attempting to apply the package you receive message CPF7206 with a return code of X'C0' in the message, then you should contact your provider of software service for further assistance.

If the V5R2M0 version of 5798FAX product is installed on your system make sure the system value QFRCCVNRST is set to 1 when installing this package. You should make note of the original value and set it back to that value after the installation has completed.

The approximate install time for this cumulative PTF package is three to five hours.

You should have a current backup of your system before applying this package. If you have backed up your system since the last time you applied PTFs, that backup is acceptable.

Be sure the IPL mode is set at Normal on the control panel and sign on using a security officer user profile such as QSECOFR.

DO NOT cancel any of the steps once they are started. Allow each step to complete normally.

Select the appropriate INSTALL steps below based on the format in which you received the cumulative PTF package.

The PTF install processing will automatically pre-apply the following PTFs when applicable: 5761SS1 PTFs SI41481, and SI50906; 5761999 V6R1M0 PTFs MF48000, MF58792, MF51906, and MF53679; 5761999 V6R1M1 PTFs MF48001, MF51907, MF53680, MF56191, and MF56484. NOTE: Any PTFs that need to be manually pre-applied are listed earlier in this READ THIS FIRST section.

INSTALL FROM OPTICAL IMAGE FILES

Use these steps when you ordered and received the cumulative PTF package electronically as optical image files:

1. Create your image catalog and add the image files to the catalog. For information on how to create an image catalog,

refer to the IBM Knowledge Center: http://www.ibm.com/support/knowledgecenter/ssw_ibm_i_61/rzam8/rzam8fixinstallimage.htm

(IBM i 6.1>IBM i and related software>Maintaining and managing IBM i and related software>Using software fixes>Installing fixes>Step 3: Choosing your fix installation scenario>Installing IBM i fixes from an image catalog).

 Load the image catalog into the virtual optical device using the following command:

LODIMGCLG IMGCLG(ptfcatalog) DEV(OPTVRTxx) OPTION(*LOAD)

3. Type GO PTF and press the Enter key.

4. Take menu option 8 and press the Enter key.

5. Review the appropriate options and notes which follow, below, then complete the Install Options for Program Temporary Fixes screen and press the Enter key.

```
Device . . . . . OPTVRTxx (for example, OPTVRT01)
Automatic IPL . . Y = Yes or N = No
Prompt for media . 1 or 3
Restart type . . . *SYS
Other options . . Y = Yes
```

Note: If you have received individual and/or PTF groups as save files that you want to install at the same time as the cumulative PTF package, type 3 in the Prompt for media field.

 Review the appropriate options and notes which follow, below, then complete the Other Install Options screen and press the Enter key.

Omit PTFs . . N = No or Y = Yes Apply type . . 1 = Set all PTFs delayed PTF type . . . 1 = All PTFs Copy PTFs . . N = No or Y = Yes

Note: Depending on the previous options specified, some fields above may not be shown.

Note: If you have PTFs to omit, type Y in the Other Options field and follow the directions on the displays which follow. Refer to Appendix A in the detailed installation instructions section on omitting PTFs.

- 7. The display shows the licensed programs for which PTFs are being loaded. All volumes that are loaded in the image catalog are automatically processed.
- 8. Continue with the COMPLETE THE INSTALL PROCESS section.

INSTALL FROM OPTICAL MEDIA

Use these steps when you ordered and received the cumulative PTF package as physical optical media:

1. Enter the following command and press the Enter key.

CHGMSGQ QSYSOPR *BREAK SEV(70)

This step ensures a break message will appear if the system determines you should mount the next volume. IMPORTANT-If there are no PTFs on the other volumes that are applicable to your system, the system will not prompt you for the other volumes.

- Ensure volume one of the cumulative PTF package media, labeled C5063610_01, is loaded in the appropriate drive for the media you are using.
- 3. Type GO PTF and press the Enter key.
- 4. Take menu option 8 and press the Enter key.
- 5. Review the appropriate options and notes which follow, below, then complete the Install Options for Program Temporary Fixes screen and press the Enter key.

```
Device . . . . . OPTxx (for example, OPT01)
Automatic IPL . . Y = Yes or N = No
Prompt for media . 2 or 3
Restart type . . . *SYS
Other options . . Y = Yes
```

Note: Enter a 2 in the Prompt for media field in order to install the HIPER and Database PTF groups along with your cumulative PTF package.

If you have received individual and/or PTF groups as save files that you want to install at the same time as the cumulative PTF package, type 3 in the Prompt for media field.

6. Review the appropriate options and notes which follow, below,

then complete the Other Install Options screen and press the Enter key.

Omit PTFs . . N = No or Y = Yes Apply type . . 1 = Set all PTFs delayed PTF type . . 1 = All PTFs Copy PTFs . . N = No or Y = Yes

Note: Depending on the previous options specified, some fields above may not be shown.

Note: If you have PTFs to omit, type Y in the Other Options field and follow the directions on the displays which follow. Refer to Appendix A in the detailed installation instructions section on omitting PTFs.

- 7. The display shows the licensed programs for which PTFs are being loaded.
 - 7.a. After each volume is processed, you will receive a message to mount the next volume. Load the volume indicated and use the G option to continue.
 - 7.b. After all the applicable volumes for the cumulative PTF package have been processed, you will automatically be prompted to mount the first volume of the next media set in order to install the HIPER and Database PTF groups. Mount the first volume in the set and use the G option to continue.
 - 7.c. Continue mounting any additional volumes. When all your volume sets have been processed, use the X option to complete the PTF installation.

Note: If there are volumes that contain PTFs that are not applicable to your system, the system will not prompt you to mount those volumes.

8. Continue with the COMPLETE THE INSTALL PROCESS section.

COMPLETE THE INSTALL PROCESS

Use these steps to complete the install process.

 If you receive IPL required to complete PTF install processing (escape message CPF362E):

- 1.a. End all jobs on the system and perform a normal mode IPL to the B IPL source.
- 1.b. When the Sign On display is shown, continue with step 4.
- 2. If the PTF install completes, continue with step 3. If the Confirm IPL for Special Handling PTFs display is shown:
 - 2.a. Press F10 to end all jobs on the system and IPL the system.2.b. When the Sign On display is shown, continue with step 4.
- 3. If you entered a Y (Yes) for the Automatic IPL option, the system will be IPLed automatically. If you entered N (No) for the Automatic IPL field, use the PWRDWNSYS command when you are ready to complete the installation of the package.
- 4. After the IPL completes, use the following procedure to verify the cumulative PTF package was properly installed:
 - 4.a. Sign on as QSECOFR.
 - 4.b. Type WRKPTFGRP SF99610 on any command line.
 - 4.c. If the Status field is "Installed" and the Level field is "15063", continue with step 5, otherwise, continue with step 4.d.
 - 4.d. Type GO LICPGM on any command line.
 - 4.e. Press the Enter key. The Work with Licensed Programs display is shown.
 - 4.f. Select option 50.
 - 4.g. Press the Enter key. The Install History display is shown.
 - 4.h. Press the Enter key. The Display History Log Contents display appears.
 - * If the cumulative PTF package was installed successfully, you will see messages indicating the applying of PTFs completed. Continue with step 5.
 - * If the cumulative PTF package was not installed successfully, you will see messages indicating the applying of PTFs failed. Contact your provider of software service for assistance.
 - * If the previous IPL was abnormal, only PTFs for the Licensed Internal Code will be applied (5761999). You can check if the previous IPL was abnormal by typing the following command:

DSPSYSVAL SYSVAL(QABNORMSW)

If the IPL was abnormal and you are installing this package immediately after a system install, perform the IPL again to apply the remaining PTFs.

5. You may be required to perform a server IPL to activate fixes that affect the server firmware portion of the Machine Code.

A server IPL is an IPL whereby all logical partitions on the server are shut down at the same time. This allows a new level of the server firmware to be activated on the server.

If your system is defined as the IBM i service partition and you are not controlling the level of server firmware using a Hardware Management Console, then you may be required to perform a server IPL if any PTFs that were installed affect the server firmware portion of the Machine Code.

To determine if your system is operating as the service partition and has PTFs that require a server IPL perform the following steps:

5.a. To determine if your system is the service partition, enter the following command and press the Enter key:

DSPFMWSTS

5.b. The Display Firmware Status display is shown. If the Service Partition field shows No, then your system is not defined as the service partition.

If the Service Partition field shows Yes, then your system is defined as the service partition.

5.c. If the Server IPL Required field shows YES, then a server IPL must be performed to activate the changes to the server firmware.

If you are required to perform a server IPL, ensure your server IPL field shows Temporary.

For information on how to perform a server IPL, refer to the
IBM Knowledge Center:
http://www.ibm.com/support/knowledgecenter/ssw_ibm_i_61/rzam8/rzam8fixinstallhmc.htm
(IBM i 6.1>IBM i and related software>Maintaining and managing
IBM i and related software>Using software fixes>Installing
fixes>Step 3: Choosing your fix installation
scenario>Installing fixes on systems managed by Hardware
Management Console).

Note: If your server has only one partition defined, no special steps need to be performed. The next IPL will activate the changes to the server firmware.

6. You can resume normal system operation at this time. You should back up your system again at your earliest convenience.

If you have comments or concerns with cumulative PTF packages, contact your provider of software service.

.FO OFF

IBM i PTF Shipping Information Letter

IBM i CUMULATIVE PTF PACKAGE DETAILED INSTALLATION INSTRUCTIONS SF99610 Level 15063 PACKAGE ID: C5063610 VERSION 6 RELEASE 1.0

Cumulative PTF Package Instructions Last Updated: 03/13/2015

Note: Online copy of this document is the master. Any printed copy should be assumed to be obsolete and not used unless the date of last update is verified to match that shown on the online master copy.

This PTF package replaces the following PTF packages for Version 6 Release 1.0. If you have any of the packages listed below, do not spend time installing them. All PTFs from the earlier packages are contained in this package.

C8064610C8127610C8190610C8288610C8365610C9111610C9279610C0047610C0215610C1102610C1256610C2122610C2305610C3058610C3312610C4197610C4197610C4197610C4197610C4197610

Starting in V5R4M0, you may now receive the cumulative PTF package in one of three different formats:

- * Electronically downloaded as individual PTF save files
- * Electronically downloaded as optical image files
- * Physical optical media (when it cannot be downloaded electronically)

The installation instructions contained in this document will guide you through the install steps needed for each format.

READ THIS FIRST

Failure to follow these instructions may result in failure of your system to operate. Follow the directions carefully every time you install a cumulative PTF package.

Cumulative PTF packages must be installed delayed for proper PTF installation. Do NOT use any immediate apply install options to install this package; otherwise, unpredictable results may occur.

Vital PTF information: Application of PTFs within this cumulative PTF package may disable or render ineffective programs that use system memory addresses not generated by the IBM® translator, including programs that circumvent control technology designed to limit interactive capacity to purchased levels. These PTFs may be prerequisites for future PTFs. By applying these PTFs you authorize and agree to the foregoing.

Each of these PTFs is subject to the terms of the license agreement which accompanied, or was contained in, the Program for which you are obtaining such PTF. You are not authorized to install or use any such PTF except as part of the Program for which you have a valid Proof of Entitlement.

SUBJECT TO ANY WARRANTIES WHICH CAN NOT BE EXCLUDED OR EXCEPT AS EXPLICITLY AGREED TO IN THE APPLICABLE LICENSE AGREEMENT OR AN APPLICABLE SUPPORT AGREEMENT, IBM MAKES NO WARRANTIES OR CONDITIONS EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON INFRINGEMENT, REGARDING EACH PTF.

The applicable license agreement may have been provided to you in printed form and/or may be viewed using the Work with Software Agreements (WRKSFWAGR) CL command.

If you have Content Manager OnDemand - 5761RD1 - installed, please see http://www.ibm.com/support/docview.wss?uid=swg21427866 for any important special instructions.

Please review the special instructions for the following PTFs in this package (if you have the product installed). The PTF cover letters are available at http://www-912.ibm.com/a_dir/as4ptf.nsf/as4ptfhome

5761DP4-SI36668

To prevent a PTF install failure and automate any extra required IPLs, PTF SI46159 must be active BEFORE installing this cumulative PTF package. Enter the following command to determine if PTF SI46159 is active:

DSPPTF LICPGM(5761SS1) SELECT(SI46159)

If the status is Temporarily applied or Permanently applied, the PTF is active. If the status is Superseded, verify that the superseding PTF is Temporarily applied or Permanently applied.

If PTF SI46159 is not found or not active, download and temporarily apply PTF SI46159 BEFORE installing this cumulative PTF package.

This PTF cumulative package contains a special handling ptf (MF58792 for V6R1M0 systems), (MF56484 for V6R1M1 systems) for ensuring that the application of this cumulative ptf package will not cause any unpredictable results as described in APAR MA39373. If after applying this PTF delayed (which happens automatically as a special handling PTF) and then attempting to apply the package you receive message CPF7206 with a return code of X'C0' in the message, then you should contact your provider of software service for further assistance.

If the V5R2M0 version of 5798FAX product is installed on your system make sure the system value QFRCCVNRST is set to 1 when installing this package. You should make note of the original value and set it back to that value after the installation has completed.

The PTF install processing will automatically pre-apply the following PTFs when applicable: 5761SS1 PTFs SI41481, and SI50906; 5761999 V6R1M0 PTFs MF48000, MF58792, MF51906, and MF53679; 5761999 V6R1M1 PTFs MF48001, MF51907, MF53680, MF56191, and MF56484. NOTE: Any PTFs that need to be manually pre-applied are listed earlier in this READ THIS FIRST section.

BEFORE YOU BEGIN

- 1. After reading this section, you should continue with the IBM i PTF INSTALLATION INSTRUCTIONS section.
- 2. If any problems have been discovered with the PTFs in this package since it was released, they will be documented in the Preventive Service Planning (PSP) information. The PSP information can be viewed via the Internet at the following URL:

http://www-912.ibm.com/s_dir/sline003.nsf/sline003home

From the above Web site, select "All Preventive Service Planning Documents by Release", select "R610", then select "SF98610" to review the PSP information.

The PSP information can also be ordered from Electronic Customer Support (ECS) using the following command:

SNDPTFORD SF98610

The PSP information can also be obtained by calling your provider of software service and asking for the IBM i Version 6 Release 1.0 PSP information for installing this cumulative PTF package (C5063610).

The PSP information contains information about any high impact or pervasive problems that have been identified since this package was released. It is recommended that you order and install the PTFs for these problems if the USERS AFFECTED area pertains to you.

If any PTFs in this package were found to be in error since this package was released, this information is also included in the PSP information. Users who will be affected by the error in a PTF should follow the RECOMMENDATION provided in the PSP.

3. You should have a current backup of your system before applying this package. If you have backed up your system since the last time you applied PTFs, that backup is acceptable.

Note: If you are installing this PTF package as a part of the Version 6 Release 1.0 installation process, you do not need to back up your system before you install this package.

4. If you specify automatic IPL option "N" to install this package, you must use the following command when you desire to activate the fixes:

PWRDWNSYS OPTION(*IMMED) RESTART(*YES) IPLSRC(B)

5. The approximate install time for this cumulative PTF package is three to five hours.

The actual time required for your system may vary based on the following:

- * Length of time typically required to IPL your system
- * Frequency of cumulative PTF package updates to your system
- * Performance associated with your specific model
- * Number of licensed programs installed on your system

- If you have any problems applying these PTFs, contact your provider of software service.
- 7. It is recommended that you permanently apply the PTFs in this package after you are comfortable that your system has been operating successfully with these PTFs.

This will free up disk space otherwise used by temporary copies of modules in the PTF. The amount of disk space taken up by a cumulative package installation depends on the number of Licensed Programs installed and the frequency with which you install and permanently apply the cumulative PTFs.

- 8. The QALWOBJRST system value determines whether security-sensitive objects may be restored to your system. If it is currently set to a value other than *ALL, this package may fail to install with message identifiers CPD373F or CPD3740. Use the command DSPSYSVAL QALWOBJRST to determine its value. If the value is *ALL, you may proceed with the package installation. If the value is not *ALL, write down the value displayed, and issue the command CHGSYSVAL QALWOBJRST *ALL prior to the package installation. This system value can be changed without an IPL. After the package installation is complete, similarly change the system value back to the initial value you wrote down.
- 9. Appendix B contains some basic troubleshooting information that may help if you experience a failure installing this cumulative PTF package.
- 10. Copying and Displaying Cumulative PTF Package Cover Letter.

Note: The cover letter has been moved to 5761SS1 to provide common access for all users regardless of their installed release of Licensed Internal Code.

10.a. To copy the cumulative PTF package cover letter from media onto the system, load the first volume in the optical drive (the default name is OPT01 for optical devices). Enter the following command:

CPYPTFCVR DEV(xxxxx) LICPGM(5761SS1) SELECT(*ALL) CVROPT(*ALL)

Note: Replace the XXXXX in the CPYPTFCVR command with the media device name (for example OPT01) where you have the cumulative package media loaded.

10.b. After the cumulative PTF package cover letter has been copied from the media, the cover letter can be displayed by entering the following command:

DSPPTFCVR LICPGM(5761SS1) SELECT(TC15063)

IBM i PTF INSTALLATION INSTRUCTIONS

Notify all users to sign off the system prior to any system IPL in these instructions. If you plan to select the option to automatically IPL the system, you should notify all users to sign off now.

DO NOT cancel any of the following steps once they are started. Allow each step to complete normally.

Be sure the IPL mode is set at Normal on the control panel and sign on using a security officer user profile such as QSECOFR.

Select the appropriate INSTALL steps below based on the format in which you received the cumulative PTF package.

INSTALL FROM *SERVICE

Use these steps when you ordered and received the cumulative PTF package electronically as PTF save files:

1. Type GO PTF and press the Enter key.

- 2. Take menu option 8 and press the Enter key.
- 3. Review the appropriate options and notes which follow, below, then complete the Install Options for Program Temporary Fixes screen and press the Enter key.

Device *SERVICE
Automatic IPL . . Y = Yes or N = No
Prompt for media . 1
Restart type . . . *SYS
Other options . . Y = Yes

4. Review the appropriate options and notes which follow, below, then complete the Other Install Options screen and press the Enter key.

Omit PTFs . . N = No or Y = Yes Apply type . . 1 = Set all PTFs delayed PTF type . . . 1 = All PTFs

Note: Depending on the previous options specified, some fields above may not be shown.

Note: If you have PTFs to omit, type Y in the Other Options field and follow the directions on the displays which follow. Refer to Appendix A in the detailed installation instructions section on omitting PTFs.

- 5. The display shows the licensed programs for which PTFs are being loaded.
- 6. Continue with the COMPLETE THE INSTALL PROCESS section.

INSTALL FROM OPTICAL IMAGE FILES

Use these steps when you ordered and received the cumulative PTF package as optical image files:

- 1. Create your image catalog and add the image files to the catalog. For information on how to create an image catalog refer to the IBM Knowledge Center: http://www.ibm.com/support/knowledgecenter/ssw_ibm_i_61/rzam8/rzam8fixinstallimage.htm (IBM i 6.1>IBM i and related software>Maintaining and managing IBM i and related software>Using software fixes>Installing fixes>Step 3: Choosing your fix installation scenario>Installing IBM i fixes from an image catalog).
- 2. Load the image catalog into the virtual optical device using the following command:

LODIMGCLG IMGCLG(ptfcatalog) DEV(OPTVRTxx) OPTION(*LOAD)

3. Read this entire step carefully, as you may be asked to select an option to omit certain PTFs. To install the cumulative package:

3.a. Type GO PTF on any command line and press the Enter key.

- 3.b. On the Program Temporary Fix (PTF) display, select option 8 (Install program temporary fix package) and press the Enter key. Using this option allows you to install all of the PTFs that are applicable to your system.
- 3.c. Type the name of the virtual optical device in the Device field on the Install Options for Program Temporary Fixes display.

3.d. If you do NOT want the system to automatically IPL:

* Enter an N (No) in the Automatic IPL field. The PTFs will not be temporarily applied until after the next unattended IPL.

3.e. If you DO want the system to automatically IPL:

- * Enter a Y (Yes) in the Automatic IPL field.
- 3.f. Enter a 1 in the Prompt for media.

If you have received individual and/or PTF groups as save files that you want to install at the same time as the cumulative PTF package, type 3 in the Prompt for media field.

- 3.g. Enter a Y (Yes) in the Other Options field and press the Enter key.
- 3.h. Enter a 1 in the Apply type field. If you specified Y (Yes) for the Automatic IPL field, the Apply type field is not displayed.

3.i. Enter a 1 in the PTF type field.

- 3.j. If the PSP information lists any PTFs that need to be manually omitted, omit those PTFs. Enter a Y (Yes) in the Omit PTFs field and follow APPENDIX A ("OMITTING A PTF FROM THE PACKAGE") to omit any indicated PTFs. Otherwise, enter an N (No) in the Omit PTFs field.
- 3.k. Press the Enter key.

Note: If (after pressing the Enter key) the Confirm Install of Licensed Internal Code Fixes display is shown, press F10 to automatically IPL. Wait for the system to power down and start an IPL. When the Sign On display is shown, go back to STEP 1 and start the installation of this cumulative PTF package again. (The next time through these instructions, you will not get this display.)

4. The display shows the licensed programs for which PTFs are being loaded. All volumes that are loaded in the image catalog are automatically processed.

5. Continue with the COMPLETE THE INSTALL PROCESS section.

INSTALL FROM OPTICAL MEDIA

Use these steps when you ordered and received the cumulative PTF package as physical optical media:

1. Enter the following command and press the Enter key.

CHGMSGQ QSYSOPR *BREAK SEV(70)

This step ensures a break message will appear if the system determines you should mount the next volume. IMPORTANT -- If there are no PTFs on the other volumes that are applicable to your system, the system will not prompt you for the other volumes.

2. Read this entire step carefully, as you may be asked to select an option to omit certain PTFs. To install the cumulative package:

2.a. Type GO PTF on any command line and press the Enter key.

- 2.b. On the Program Temporary Fix (PTF) display, select option 8 (Install program temporary fix package) and press the Enter key. Using this option allows you to install all of the PTFs that are applicable to your system.
- 2.c. Ensure volume one of the cumulative PTF package media, labeled C5063610_01, is loaded in the appropriate drive for the media you are using, and type the name of the drive in the Device field on the Install Options for Program Temporary Fixes display.
- 2.d. If you do NOT want the system to automatically IPL:
 - * Enter an N (No) in the Automatic IPL field. The PTFs will not be temporarily applied until after the next unattended IPL.
- 2.e. If you DO want the system to automatically IPL:
 - * Enter a Y (Yes) in the Automatic IPL field.
- 2.f. Enter a 2 in the Prompt for media field in order to install the HIPER and Database PTF groups along with your cumulative PTF Package.

If you have received individual and/or PTF groups as save files that you want to install at the same time as the cumulative PTF package, type 3 in the Prompt for media field.

- 2.g. Enter a Y (Yes) in the Other Options field and press the Enter key.
- 2.h. Enter a 1 in the Apply type field. If you specified Y (Yes) for the Automatic IPL field, the Apply type field is not displayed.
- 2.i. Enter a 1 in the PTF type field.
- 2.j. If the PSP information lists any PTFs that need to be manually omitted, omit those PTFs. Enter a Y (Yes) in the

Omit PTFs field and follow APPENDIX A ("OMITTING A PTF FROM THE PACKAGE") to omit any indicated PTFs. Otherwise, enter an N (No) in the Omit PTFs field.

2.k. Press the Enter key.

Note: If (after pressing the Enter key) the Confirm Install of Licensed Internal Code Fixes display is shown, press F10 to automatically IPL. Wait for the system to power down and start an IPL. When the Sign On display is shown, go back to STEP 1 and start the installation of this cumulative PTF package again. (The next time through these instructions, you will not get this display.)

- 3. The display shows the licensed programs for which PTFs are being loaded.
 - 3.a. After each volume is processed, you will receive a message to mount the next volume. Load the volume indicated and use the G option to continue.
 - 3.b. After all the applicable volumes for the cumulative PTF package have been processed, you will automatically be prompted to mount the first volume of the next media set in order to install the HIPER and Database PTF groups. Mount the first volume in the set and use the G option to continue.
 - 3.c. Continue mounting any additional volumes. When all your volume sets have been processed, use the X option to complete the PTF installation.

Note: If there are volumes that contain PTFs that are not applicable to your system, the system will not prompt you to mount those volumes.

4. Continue with the COMPLETE THE INSTALL PROCESS section.

COMPLETE THE INSTALL PROCESS

Use these steps to complete the install process.

- If you receive IPL required to complete PTF install processing (escape message CPF362E):
 - 1.a. End all jobs on the system and perform a normal mode IPL
 to the B IPL source.
 - 1.b. When the Sign On display is shown, continue with step 5.

- 2. If the Confirm IPL for Special Handling PTFs display is shown:
 - 2.a. Press F10 to end all jobs on the system and IPL the system.
 - 2.b. When the Sign On display is shown, continue with step 5 on page 8.
- 3. If you entered a Y (Yes) for the Automatic IPL option, the system will be IPLed automatically.

After the IPL completes, the Sign On display is shown and the new PTFs are active. Read the following NOTEs, then go to STEP 5.

Note: During the power down of your service partition for eServer™ i5, system reference code D6xx430B or D6xx430A could be displayed for an extended amount of time. The "xx" should increment periodically and is a normal part of processing where server firmware code is being updated.

Note: During the IPL, system reference code C9002967 could be displayed for an extended amount of time. This is normal (assuming the processor light flashes periodically). You may also notice two power down sequences, with a change in the IPL side that is displayed.

Note: While applying Licensed Internal Code fixes, it may be necessary for the system to reorganize a portion of the Licensed Internal Code storage. While this reorganization is taking place, system reference codes (SRCs) C600 4400 and C600 4401 are displayed.

- 4. If you entered an N (No) for the Automatic IPL option, the display shows the licensed programs for which PTFs are being loaded and marked to be temporarily applied upon the next unattended IPL. When this procedure completes, the Program Temporary Fix display is shown. When you are ready to complete the installation of the package, do the following:
 - 4.a. Notify all users to sign off the system, then enter the following command to put the system in a restricted state:

ENDSBS *ALL *IMMED

Press the Enter key. The message "ENDSBS SBS(*ALL) in progress" is shown.

4.b. Enter the following command:

DSPMSG QSYSOPR

If the message "System ended to restricted condition" is shown, continue. Otherwise, repeat the above command until the message appears.

- 4.c. Make sure the IPL mode is set at Normal on the control panel.
- 4.d. Enter the following command to perform the IPL:

PWRDWNSYS OPTION(*IMMED) RESTART(*YES) IPLSRC(B)

Press the Enter key.

After the IPL completes, the Sign On display is shown and the new PTFs are active. Continue with STEP 5.

- 5. Use the following procedure to verify the cumulative package was properly installed:
 - 5.a. Sign on using a security officer user profile such as QSECOFR.
 - 5.b. Type WRKPTFGRP SF99610 on any command line.
 - 5.c. If the Status field is "Installed" and the Level field is "15063" continue with step 6, otherwise continue with step 5.d.
 - 5.d. Type GO LICPGM on any command line.
 - 5.e. Press the Enter key. The Work with Licensed Programs display is shown.
 - 5.f. Select option 50.
 - 5.g. Press the Enter key. The Install History display is shown.
 - 5.h. Press the Enter key. The Display History Log Contents display appears.
 - * If the cumulative package was installed successfully, you will see messages indicating the applying of PTFs completed. Continue with STEP 6.
 - * If the cumulative PTF package was not installed successfully, you will see messages indicating the applying of PTFs failed. Contact your provider of software service for assistance.

* If the previous IPL was abnormal, only PTFs for the Licensed Internal Code will be applied (5761999). You can check if the previous IPL was abnormal by typing the following command:

DSPSYSVAL SYSVAL(QABNORMSW)

If the IPL was abnormal and you are installing this package immediately after a system install, perform the IPL again to apply the remaining PTFs.

6. You may be required to perform a server IPL to activate fixes that affect the server firmware portion of the Machine Code.

A server IPL is an IPL whereby all logical partitions on the server are shut down at the same time. This allows a new level of the server firmware to be activated on the server.

If your system is defined as the IBM i service partition and you are not controlling the level of server firmware using a Hardware Management Console, then you may be required to perform a server IPL if any PTFs that were installed affect the server firmware portion of the Machine Code.

To determine if your system is operating as the service partition and has PTFs that require a server IPL perform the following steps:

6.a. To determine if your system is the service partition, enter the following command and press the Enter key:

DSPFMWSTS

6.b. The Display Firmware Status display is shown. If the Service Partition field shows No, then your system is not defined as the service partition.

If the Service Partition field shows Yes, then your system is defined as the service partition.

6.c. If the Server IPL Required field shows Yes, then a server IPL must be performed to activate the changes to the server firmware.

If you are required to perform a server IPL, ensure your server IPL field shows Temporary.

For information on how to perform a server IPL, refer to the
IBM Knowledge Center:
http://www.ibm.com/support/knowledgecenter/ssw_ibm_i_61/rzam8/rzam8fixinstallhmc.htm
(IBM i 6.1>IBM i and related software>Maintaining and managing
IBM i and related software>Using software fixes>Installing
fixes>Step 3: Choosing your fix installation
scenario>Installing fixes on systems managed by Hardware
Management Console).

Note: If your server has only one partition defined, no special steps need to be performed. The next IPL will activate the changes to the server firmware.

7. You can resume normal system operation at this time. You should back up your system again at your earliest convenience.

This concludes the installation of the IBM i cumulative PTF package.

If you have comments or concerns with cumulative PTF packages, contact your provider of software service.

APPENDIX A - OMITTING A PTF FROM THE PACKAGE (IBM i INSTALLED)

Use these steps when the Preventive Service Planning information directs you to omit a PTF from the package. When complete, return to the step following the one which sent you here.

- 1. Enter a Y (Yes) in the Other Options field. Press the Enter key.
- 2. If the Confirm Automatic IPL display is shown, follow the instructions on the display.
- 3. On the Other Install Options display, enter a Y (Yes) in the Omit PTFs field. If the Apply Type field is also shown, enter a 1 (1 = Set all PTFs delayed). Press the Enter key.
- 4. On the Omit Program Temporary Fixes display, select the products for which you wish to omit PTFs and press the Enter key.
- 5. On the PTFs to Omit display, enter a 1 in the option field and the PTF ID of the PTF you wish to omit in the PTF ID field and press the Enter key. The list will be updated.

Repeat this step for each PTF you wish to omit for this product. Pressing the Enter key without any input on the

display will take you to the PTFs to Omit display for the next product, or you will be returned to the Omit Program Temporary Fixes display once all selected products have been processed.

6. Press the Enter key at the Omit Program Temporary Fixes display to go to the Confirm to Omit PTFs display. Confirm that the list is correct and press the Enter key to continue with the package installation.

APPENDIX B - BASIC TROUBLESHOOTING INFORMATION

Q. Why is my IPL taking longer than usual?

A. If you have PTF SI46159 applied and an extra IPL is required for Special Handling pre-apply PTFs, the extra IPL will be performed automatically. During the next normal IPL, the Install PTF command will be run during the "PTF Processing" IPL step in the SCPF job and all PTFs will be set for delayed apply. The partition will then be automatically restarted to apply all PTFs.

Q. My cumulative PTF package did not install. How do I figure out what is wrong?

A. First you need to determine whether the failure occurred during the load or apply phase of the cumulative package installation. If the system did not IPL, then chances are the failure occurred during the load phase. Do a help on the failure message, then press F10 to view the messages in the joblog. Look for escape messages that will indicate what the problem is. Fix these errors and then try the request again.

If the system IPLed but the PTFs did not apply, go through the following steps to determine where the failure occurred:

- 1. Verify that the IPL was a normal unattended IPL. PTFs will not be applied during an abnormal IPL or during an attended IPL.
- 2. Do a GO LICPGM and take option 50 to display the install history log for messages. Look for any messages that indicate that there was a failure during the install. The following messages are what you would expect to see during a successful cumulative PTF package installation:

PTF installation process started. Loading of PTFs started. Loading of PTFs completed successfully. Marking of PTFs for delayed application started. Marking of PTFs for delayed application completed successfully. PTFs installed successfully. Apply PTF started. Applying of PTFs for product 5761999 completed successfully. Applying of PTFs for product 5761SS1 completed successfully. Applying of PTFs completed. PTFs applied or removed during IPL.

If you find any failure messages, then you will need to go to the SCPF joblog to see the detailed messages that indicate what the problem is. To find the SCPF joblog, do the following:

- 2.a. Enter the command: WRKJOB SCPF
- 2.b. You may get a list of jobs. If you just did the IPL, enter a 1 next to the first one that is not active.
- 2.c. Enter a 10 and press enter to look at the spooled files for that job. The detailed error messages should be found in this joblog.
- 2.d. Find the error messages and try to determine what caused the error. If you can fix the problem, do so and then re-IPL the system to apply the remaining PTFs.
- 2.e. If you cannot fix the problem, have the information in the joblog available when you call your provider of software service.

SF99610 C5063610 Cumulative PTF Package Instructions This PSP consists of: Short Version of Installation Instructions, and Detailed Installation Instructions.

.FO OFF

IBM i PTF Shipping Information Letter

IBM i CUMULATIVE PTF PACKAGE INSTALLATION INSTRUCTIONS SF99610 Level 15063 PACKAGE ID: C5063610 VERSION 6 RELEASE 1.0

Cumulative PTF Package Instructions Last Updated: 03/13/2015

Note: Online copy of this document is the master. Any printed copy should be assumed to be obsolete and not used unless the date of last update is verified to match that shown on the online master copy.

The information contained in this document was current at the time this cumulative PTF package was made available. We recommend you get the most current information which can be found via the following URL:

http://www.ibm.com/support/docview.wss?uid=nas8N1021657

From this Web site, select "All Preventive Service Planning Documents by Release", then select "R610". PSP SF98610 lists HIPER PTFs not included in this cumulative PTF package and any defective PTFs identified since this package was released.

Starting in V5R4MO, you may now receive the cumulative PTF package in one of three different formats:

- * Electronically downloaded as individual PTF save files
- * Electronically downloaded as optical image files
- * Physical optical media (when it cannot be downloaded electronically)

The installation instructions contained in this document will guide you through the install steps needed for each format.

PTF PRE-INSTALLATION INSTRUCTIONS FOR IBM i

As with any PTF order, before you install the PTFs you should review the cover letter of each delivered PTF for any special instructions that may need to be followed. The cumulative PTF package media itself does not have any PTF cover letters because any special instructions that need to be followed for the cumulative package are contained in this document. However, when you ordered your cumulative PTF package, you were automatically sent the latest HIPER and Database PTF groups along with the cumulative PTF package. You should review the cover letters for the PTFs in these groups that are applicable to your system. The commands needed for copying and printing (or displaying) the PTF cover letter(s) are included below.

1. COPYING PTF COVER LETTERS:

- Mount the PTF media and sign on using a security officer user profile such as QSECOFR.
- * To copy all cover letters from media onto the system for PTFs that are not already applied to your system, enter the following command:

CPYPTFCVR DEV(device_name) LICPGM(*ALL) SELECT(*NOTAPY)

* To copy a specific cover letter from media onto the system, enter the following command:

CPYPTFCVR DEV(device_name) LICPGM(product_id) SELECT(ptf_id)

2. DISPLAYING OR PRINTING PTF COVER LETTERS:

- * The PTF cover letters must be copied from the media first before they can be displayed or printed.
- * To display or print cover letters for all PTFs that are currently not applied on your system, enter one of the following commands:

DSPPTFCVR LICPGM(*ALL) SELECT(*NOTAPY) DSPPTFCVR LICPGM(*ALL) SELECT(*NOTAPY) OUTPUT(*PRINT)

Note: You can also specify CVRATR(*SPCINST) on the DSPPTFCVR command to view all cover letters that have special instructions.

* To display or print a specific cover letter, enter one of the following commands:

DSPPTFCVR LICPGM(product_id) SELECT(ptf_id) DSPPTFCVR LICPGM(product_id) SELECT(ptf_id) OUTPUT(*PRINT)

READ THIS FIRST

Failure to follow these instructions may result in failure of your system to operate. Follow the directions carefully every time you install a cumulative PTF package.

Cumulative PTF packages must be installed delayed for proper PTF installation. Do NOT use any immediate apply install options to install this package; otherwise, unpredictable results may occur.

Vital PTF information: Application of PTFs within this cumulative PTF package may disable or render ineffective programs that use system memory addresses not generated by the IBM® translator, including programs that circumvent control technology designed to limit interactive capacity to purchased levels. These PTFs may be prerequisites for future PTFs. By applying these PTFs you authorize and agree to the foregoing.

Each of these PTFs is subject to the terms of the license agreement which accompanied, or was contained in, the Program for which you are obtaining such PTF. You are not authorized to install or use any such PTF except as part of the Program for which you have a valid Proof of Entitlement.

SUBJECT TO ANY WARRANTIES WHICH CAN NOT BE EXCLUDED OR EXCEPT AS EXPLICITLY AGREED TO IN THE APPLICABLE LICENSE AGREEMENT OR AN APPLICABLE SUPPORT AGREEMENT, IBM MAKES NO WARRANTIES OR CONDITIONS EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON INFRINGEMENT, REGARDING

EACH PTF.

The applicable license agreement may have been provided to you in printed form and/or may be viewed using the Work with Software Agreements (WRKSFWAGR) CL command.

If you have Content Manager OnDemand - 5761RD1 - installed, please see http://www.ibm.com/support/docview.wss?uid=swg21427866 for any important special instructions.

Please review the special instructions for the following PTFs in this package (if you have the product installed). NOTE: PTF cover letters are available at http://www.ibm.com/support/docview.wss?uid=nas3PPPPPPP where PPPPPPP is the PTF number.

5761DP4-SI36668

To prevent a PTF install failure and automate any extra required IPLs, PTF SI46159 must be active BEFORE installing this cumulative PTF package. Enter the following command to determine if PTF SI46159 is active:

DSPPTF LICPGM(5761SS1) SELECT(SI46159)

If the status is Temporarily applied or Permanently applied, the PTF is active. If the status is Superseded, verify that the superseding PTF is Temporarily applied or Permanently applied. If PTF SI46159 is not found or not active, download and temporarily apply PTF SI46159 BEFORE installing this cumulative PTF package.

This PTF cumulative package contains a special handling ptf (MF58792 for V6R1M0 systems), (MF56484 for V6R1M1 systems) for ensuring that the application of this cumulative ptf package will not cause any unpredictable results as described in APAR MA39373. If after applying this PTF delayed (which happens automatically as a special handling PTF) and then attempting to apply the package you receive message CPF7206 with a return code of X'CO' in the message, then you should contact your provider of software service for further assistance.

If the V5R2M0 version of 5798FAX product is installed on your system make sure the system value QFRCCVNRST is set to 1 when installing this package. You should make note of the original value and set it back to that value after the installation has completed.

The approximate install time for this cumulative PTF package is three to five hours.

You should have a current backup of your system before applying this package. If you have backed up your system since the last time you applied PTFs, that backup is acceptable. Be sure the IPL mode is set at Normal on the control panel and sign on using a security officer user profile such as QSECOFR.

DO NOT cancel any of the steps once they are started. Allow each step to complete normally.

Select the appropriate INSTALL steps below based on the format in which you received the cumulative PTF package.

The PTF install processing will automatically pre-apply the following PTFs when applicable: 5761SS1 PTFs SI41481, and SI50906; 5761999 V6R1M0 PTFs MF48000, MF58792, MF51906, and MF53679; 5761999 V6R1M1 PTFs MF48001, MF51907, MF53680, MF56191, and MF56484. NOTE: Any PTFs that need to be manually pre-applied are listed earlier in this READ THIS FIRST section.

INSTALL FROM OPTICAL IMAGE FILES

Use these steps when you ordered and received the cumulative PTF package electronically as optical image files:

 Create your image catalog and add the image files to the catalog. For information on how to create an image catalog, refer to the IBM Knowledge Center: http://www.ibm.com/support/knowledgecenter/ssw_ibm_i_61/rzam8/rzam8fixinstallimage.htm

(IBM i 6.1>IBM i and related software>Maintaining and managing IBM i and related software>Using software fixes>Installing fixes>Step 3: Choosing your fix installation scenario>Installing IBM i fixes from an image catalog).

2. Load the image catalog into the virtual optical device using the following command:

LODIMGCLG IMGCLG(ptfcatalog) DEV(OPTVRTxx) OPTION(*LOAD)

3. Type GO PTF and press the Enter key.

4. Take menu option 8 and press the Enter key.

5. Review the appropriate options and notes which follow, below, then complete the Install Options for Program Temporary Fixes screen and press the Enter key.

Device OPTVRTxx (for example, OPTVRT01)
Automatic IPL . . Y = Yes or N = No
Prompt for media . 1 or 3
Restart type . . . *SYS
Other options . . Y = Yes

Note: If you have received individual and/or PTF groups as save files that you want to install at the same time as the cumulative PTF package, type 3 in the Prompt for media field.

 Review the appropriate options and notes which follow, below, then complete the Other Install Options screen and press the Enter key.

Omit PTFs . . N = No or Y = Yes Apply type . . 1 = Set all PTFs delayed PTF type . . . 1 = All PTFs Copy PTFs . . N = No or Y = Yes

Note: Depending on the previous options specified, some fields above may not be shown.

Note: If you have PTFs to omit, type Y in the Other Options field and follow the directions on the displays which follow. Refer to Appendix A in the detailed installation instructions section on omitting PTFs.

- 7. The display shows the licensed programs for which PTFs are being loaded. All volumes that are loaded in the image catalog are automatically processed.
- 8. Continue with the COMPLETE THE INSTALL PROCESS section.

INSTALL FROM OPTICAL MEDIA

Use these steps when you ordered and received the cumulative PTF package as physical optical media:

1. Enter the following command and press the Enter key.

```
CHGMSGQ QSYSOPR *BREAK SEV(70)
```

This step ensures a break message will appear if the system determines you should mount the next volume. IMPORTANT-If there are no PTFs on the other volumes that are applicable to your system, the system will not prompt you for the other volumes.

- Ensure volume one of the cumulative PTF package media, labeled C5063610_01, is loaded in the appropriate drive for the media you are using.
- 3. Type GO PTF and press the Enter key.

- 4. Take menu option 8 and press the Enter key.
- 5. Review the appropriate options and notes which follow, below, then complete the Install Options for Program Temporary Fixes screen and press the Enter key.

```
Device . . . . . OPTxx (for example, OPT01)
Automatic IPL . . Y = Yes or N = No
Prompt for media . 2 or 3
Restart type . . *SYS
Other options . . Y = Yes
```

Note: Enter a 2 in the Prompt for media field in order to install the HIPER and Database PTF groups along with your cumulative PTF package.

If you have received individual and/or PTF groups as save files that you want to install at the same time as the cumulative PTF package, type 3 in the Prompt for media field.

 Review the appropriate options and notes which follow, below, then complete the Other Install Options screen and press the Enter key.

Omit PTFs . . N = No or Y = Yes Apply type . . 1 = Set all PTFs delayed PTF type . . 1 = All PTFs Copy PTFs . . N = No or Y = Yes

Note: Depending on the previous options specified, some fields above may not be shown.

Note: If you have PTFs to omit, type Y in the Other Options field and follow the directions on the displays which follow. Refer to Appendix A in the detailed installation instructions section on omitting PTFs.

- 7. The display shows the licensed programs for which PTFs are being loaded.
 - 7.a. After each volume is processed, you will receive a message to mount the next volume. Load the volume indicated and use the G option to continue.
 - 7.b. After all the applicable volumes for the cumulative PTF package have been processed, you will automatically be

prompted to mount the first volume of the next media set in order to install the HIPER and Database PTF groups. Mount the first volume in the set and use the G option to continue.

7.c. Continue mounting any additional volumes. When all your volume sets have been processed, use the X option to complete the PTF installation.

Note: If there are volumes that contain PTFs that are not applicable to your system, the system will not prompt you to mount those volumes.

8. Continue with the COMPLETE THE INSTALL PROCESS section.

COMPLETE THE INSTALL PROCESS

Use these steps to complete the install process.

- If you receive IPL required to complete PTF install processing (escape message CPF362E):
 - 1.a. End all jobs on the system and perform a normal mode IPL
 to the B IPL source.
 - 1.b. When the Sign On display is shown, continue with step 4.
- 2. If the PTF install completes, continue with step 3. If the Confirm IPL for Special Handling PTFs display is shown:
 - 2.a. Press F10 to end all jobs on the system and IPL the system.2.b. When the Sign On display is shown, continue with step 4.
- 3. If you entered a Y (Yes) for the Automatic IPL option, the system will be IPLed automatically. If you entered N (No) for the Automatic IPL field, use the PWRDWNSYS command when you are ready to complete the installation of the package.
- 4. After the IPL completes, use the following procedure to verify the cumulative PTF package was properly installed:

4.a. Sign on as QSECOFR.

- 4.b. Type WRKPTFGRP SF99610 on any command line.
- 4.c. If the Status field is "Installed" and the Level field is "15063", continue with step 5, otherwise, continue with step 4.d.
- 4.d. Type GO LICPGM on any command line.
- 4.e. Press the Enter key. The Work with Licensed Programs display is shown.
- 4.f. Select option 50.
- 4.g. Press the Enter key. The Install History display is

shown.

- Press the Enter key. The Display History Log Contents display appears.
 - * If the cumulative PTF package was installed successfully, you will see messages indicating the applying of PTFs completed. Continue with step 5.
 - * If the cumulative PTF package was not installed successfully, you will see messages indicating the applying of PTFs failed. Contact your provider of software service for assistance.
 - * If the previous IPL was abnormal, only PTFs for the Licensed Internal Code will be applied (5761999). You can check if the previous IPL was abnormal by typing the following command:

DSPSYSVAL SYSVAL(QABNORMSW)

If the IPL was abnormal and you are installing this package immediately after a system install, perform the IPL again to apply the remaining PTFs.

5. You may be required to perform a server IPL to activate fixes that affect the server firmware portion of the Machine Code.

A server IPL is an IPL whereby all logical partitions on the server are shut down at the same time. This allows a new level of the server firmware to be activated on the server.

If your system is defined as the IBM i service partition and you are not controlling the level of server firmware using a Hardware Management Console, then you may be required to perform a server IPL if any PTFs that were installed affect the server firmware portion of the Machine Code.

To determine if your system is operating as the service partition and has PTFs that require a server IPL perform the following steps:

5.a. To determine if your system is the service partition, enter the following command and press the Enter key:

DSPFMWSTS

5.b. The Display Firmware Status display is shown. If the Service Partition field shows No, then your system is not defined as the service partition. If the Service Partition field shows Yes, then your system is defined as the service partition.

5.c. If the Server IPL Required field shows YES, then a server IPL must be performed to activate the changes to the server firmware.

If you are required to perform a server IPL, ensure your server IPL field shows Temporary.

For information on how to perform a server IPL, refer to the
IBM Knowledge Center:
http://www.ibm.com/support/knowledgecenter/ssw_ibm_i_61/rzam8/rzam8fixinstallhmc.htm
(IBM i 6.1>IBM i and related software>Maintaining and managing
IBM i and related software>Using software fixes>Installing
fixes>Step 3: Choosing your fix installation
scenario>Installing fixes on systems managed by Hardware
Management Console).

Note: If your server has only one partition defined, no special steps need to be performed. The next IPL will activate the changes to the server firmware.

6. You can resume normal system operation at this time. You should back up your system again at your earliest convenience.

If you have comments or concerns with cumulative PTF packages, contact your provider of software service.

.FO OFF

IBM i PTF Shipping Information Letter

IBM i CUMULATIVE PTF PACKAGE DETAILED INSTALLATION INSTRUCTIONS SF99610 Level 15063 PACKAGE ID: C5063610 VERSION 6 RELEASE 1.0

Cumulative PTF Package Instructions Last Updated: 03/13/2015

Note: Online copy of this document is the master. Any printed copy should be assumed to be obsolete and not used unless the date of last update is verified to match that shown on the online master copy.

This PTF package replaces the following PTF packages for Version 6 Release 1.0. If you have any of the packages listed below, do not spend time installing them. All PTFs from the earlier packages are contained in this package.

```
C8064610C8127610C8190610C8288610C8365610C9111610C9279610C0047610C0215610C1102610C1256610C2122610C2305610C3058610C3312610C4197610
```

Starting in V5R4M0, you may now receive the cumulative PTF package in one of three different formats:

- * Electronically downloaded as individual PTF save files
- * Electronically downloaded as optical image files
- * Physical optical media (when it cannot be downloaded electronically)

The installation instructions contained in this document will guide you through the install steps needed for each format.

READ THIS FIRST

Failure to follow these instructions may result in failure of your system to operate. Follow the directions carefully every time you install a cumulative PTF package.

Cumulative PTF packages must be installed delayed for proper PTF installation. Do NOT use any immediate apply install options to install this package; otherwise, unpredictable results may occur.

Vital PTF information: Application of PTFs within this cumulative PTF package may disable or render ineffective programs that use system memory addresses not generated by the IBM® translator, including programs that circumvent control technology designed to limit interactive capacity to purchased levels. These PTFs may be prerequisites for future PTFs. By applying these PTFs you authorize and agree to the foregoing.

Each of these PTFs is subject to the terms of the license agreement which accompanied, or was contained in, the Program for which you are obtaining such PTF. You are not authorized to install or use any such PTF except as part of the Program for which you have a valid Proof of Entitlement.

SUBJECT TO ANY WARRANTIES WHICH CAN NOT BE EXCLUDED OR EXCEPT AS EXPLICITLY AGREED TO IN THE APPLICABLE LICENSE AGREEMENT OR AN APPLICABLE SUPPORT AGREEMENT, IBM MAKES NO WARRANTIES OR CONDITIONS EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON INFRINGEMENT, REGARDING EACH PTF.

The applicable license agreement may have been provided to you in printed form and/or may be viewed using the Work with Software Agreements (WRKSFWAGR) CL command.

If you have Content Manager OnDemand - 5761RD1 - installed, please see http://www.ibm.com/support/docview.wss?uid=swg21427866 for any important special instructions.

Please review the special instructions for the following PTFs in this package (if you have the product installed). NOTE: PTF cover letters are available at http://www.ibm.com/support/docview.wss?uid=nas3PPPPPPP where PPPPPPP is the PTF number.

5761DP4-SI36668

To prevent a PTF install failure and automate any extra required IPLs, PTF SI46159 must be active BEFORE installing this cumulative PTF package. Enter the following command to determine if PTF SI46159 is active:

DSPPTF LICPGM(5761SS1) SELECT(SI46159)

If the status is Temporarily applied or Permanently applied, the PTF is active. If the status is Superseded, verify that the superseding PTF is Temporarily applied or Permanently applied.

If PTF SI46159 is not found or not active, download and temporarily apply PTF SI46159 BEFORE installing this cumulative PTF package.

This PTF cumulative package contains a special handling ptf (MF58792 for V6R1M0 systems), (MF56484 for V6R1M1 systems) for ensuring that the application of this cumulative ptf package will not cause any unpredictable results as described in APAR MA39373. If after applying this PTF delayed (which happens automatically as a special handling PTF) and then attempting to apply the package you receive message CPF7206 with a return code of X'CO' in the message, then you should contact your provider of software service for further assistance.

If the V5R2M0 version of 5798FAX product is installed on your system make sure the system value QFRCCVNRST is set to 1 when installing this package. You should make note of the original value and set it back to that value after the installation has completed.

The PTF install processing will automatically pre-apply the following PTFs when applicable: 5761SS1 PTFs SI41481, and

SI50906; 5761999 V6R1M0 PTFs MF48000, MF58792, MF51906, and MF53679; 5761999 V6R1M1 PTFs MF48001, MF51907, MF53680, MF56191, and MF56484. NOTE: Any PTFs that need to be manually pre-applied are listed earlier in this READ THIS FIRST section.

BEFORE YOU BEGIN

- 1. After reading this section, you should continue with the IBM i PTF INSTALLATION INSTRUCTIONS section.
- 2. If any problems have been discovered with the PTFs in this package since it was released, they will be documented in the Preventive Service Planning (PSP) information. The PSP information can be viewed via the Internet at the following URL:

http://www.ibm.com/support/docview.wss?uid=nas8N1021657

From the above Web site, select "All Preventive Service Planning Documents by Release", select "R610", then select "SF98610" to review the PSP information.

The PSP information can also be ordered from Electronic Customer Support (ECS) using the following command:

SNDPTFORD SF98610

The PSP information can also be obtained by calling your provider of software service and asking for the IBM i Version 6 Release 1.0 PSP information for installing this cumulative PTF package (C5063610).

The PSP information contains information about any high impact or pervasive problems that have been identified since this package was released. It is recommended that you order and install the PTFs for these problems if the USERS AFFECTED area pertains to you.

If any PTFs in this package were found to be in error since this package was released, this information is also included in the PSP information. Users who will be affected by the error in a PTF should follow the RECOMMENDATION provided in the PSP. 3. You should have a current backup of your system before applying this package. If you have backed up your system since the last time you applied PTFs, that backup is acceptable.

Note: If you are installing this PTF package as a part of the Version 6 Release 1.0 installation process, you do not need to back up your system before you install this package.

4. If you specify automatic IPL option "N" to install this package, you must use the following command when you desire to activate the fixes:

PWRDWNSYS OPTION(*IMMED) RESTART(*YES) IPLSRC(B)

5. The approximate install time for this cumulative PTF package is three to five hours.

The actual time required for your system may vary based on the following:

- * Length of time typically required to IPL your system
- * Frequency of cumulative PTF package updates to your system
- * Performance associated with your specific model
- * Number of licensed programs installed on your system
- If you have any problems applying these PTFs, contact your provider of software service.
- 7. It is recommended that you permanently apply the PTFs in this package after you are comfortable that your system has been operating successfully with these PTFs.

This will free up disk space otherwise used by temporary copies of modules in the PTF. The amount of disk space taken up by a cumulative package installation depends on the number of Licensed Programs installed and the frequency with which you install and permanently apply the cumulative PTFs.

- 8. The QALWOBJRST system value determines whether security-sensitive objects may be restored to your system. If it is currently set to a value other than *ALL, this package may fail to install with message identifiers CPD373F or CPD3740. Use the command DSPSYSVAL QALWOBJRST to determine its value. If the value is *ALL, you may proceed with the package installation. If the value is not *ALL, write down the value displayed, and issue the command CHGSYSVAL QALWOBJRST *ALL prior to the package installation. This system value can be changed without an IPL. After the package installation is complete, similarly change the system value back to the initial value you wrote down.
- 9. Appendix B contains some basic troubleshooting information

that may help if you experience a failure installing this cumulative PTF package.

10. Copying and Displaying Cumulative PTF Package Cover Letter.

Note: The cover letter has been moved to 5761SS1 to provide common access for all users regardless of their installed release of Licensed Internal Code.

10.a. To copy the cumulative PTF package cover letter from media onto the system, load the first volume in the optical drive (the default name is OPT01 for optical devices). Enter the following command:

CPYPTFCVR DEV(xxxxx) LICPGM(5761SS1) SELECT(*ALL) CVROPT(*ALL)

Note: Replace the XXXXX in the CPYPTFCVR command with the media device name (for example OPT01) where you have the cumulative package media loaded.

10.b. After the cumulative PTF package cover letter has been copied from the media, the cover letter can be displayed by entering the following command:

DSPPTFCVR LICPGM(5761SS1) SELECT(TC15063)

IBM i PTF INSTALLATION INSTRUCTIONS

Notify all users to sign off the system prior to any system IPL in these instructions. If you plan to select the option to automatically IPL the system, you should notify all users to sign off now.

DO NOT cancel any of the following steps once they are started. Allow each step to complete normally.

Be sure the IPL mode is set at Normal on the control panel and sign on using a security officer user profile such as QSECOFR.

Select the appropriate INSTALL steps below based on the format in which you received the cumulative PTF package.

INSTALL FROM *SERVICE

Use these steps when you ordered and received the cumulative PTF package electronically as PTF save files:

1. Type GO PTF and press the Enter key.

- 2. Take menu option 8 and press the Enter key.
- 3. Review the appropriate options and notes which follow, below, then complete the Install Options for Program Temporary Fixes screen and press the Enter key.

```
Device . . . . . *SERVICE
Automatic IPL . . Y = Yes or N = No
Prompt for media . 1
Restart type . . . *SYS
Other options . . Y = Yes
```

4. Review the appropriate options and notes which follow, below, then complete the Other Install Options screen and press the Enter key.

Omit PTFs . . N = No or Y = Yes Apply type . . 1 = Set all PTFs delayed PTF type . . . 1 = All PTFs

Note: Depending on the previous options specified, some fields above may not be shown.

Note: If you have PTFs to omit, type Y in the Other Options field and follow the directions on the displays which follow. Refer to Appendix A in the detailed installation instructions section on omitting PTFs.

- 5. The display shows the licensed programs for which PTFs are being loaded.
- 6. Continue with the COMPLETE THE INSTALL PROCESS section.

INSTALL FROM OPTICAL IMAGE FILES

Use these steps when you ordered and received the cumulative PTF package as optical image files:

 Create your image catalog and add the image files to the catalog. For information on how to create an image catalog refer to the IBM Knowledge Center: http://www.ibm.com/support/knowledgecenter/ssw_ibm_i_61/rzam8/rzam8fixinstallimage.htm