Print Center Repair 3.0

What is this application for?

Print Center Repair is designed to rectify situations where Print Center will not open, printers cannot be added, and numerous other errors that occur before, during and after printing. Although Print Center Repair cannot fix every printing problem, it is capable of resolving most of the common ones.

It is important to read these instructions carefully before attempting to use Print Center Repair. Please note that Print Center Repair will not function correctly if you have moved/renamed Print Center, you do not have administrator privileges or your root user is set up incorrectly. See the **Troubleshooting** section for more information. Print Center Repair version 3.0 is only designed to run on Mac OS X version 10.2 and above. It may cause damage to older versions of Mac OS X. Please use version 1.4.2 for Mac OS X 10.1.2 to 10.1.5, available for download from the Fixamac web site.

How to access the activity log feature:

Print Center Repair creates an activity log that records all repair activity, including error messages. You can view the log from the Print Center Repair menu by choosing: Print Center Repair -->Log-->Open log (or Command-Shift-L). The log, called pcrlogfile.txt, will open up into TextEdit (or your default text application). The log may be cleared or deleted by using either the "Clear log..." (Command-Shift-C) or "Delete log..." (Command-Shift-X) options also under the Print Center Repair -->Log menu.

If you are experiencing difficulties with Print Center Repair, and are requesting tech support, please email the activity log to **techsupport@fixamac.net** for analysis. The file is located in the ~/Library/Preferences directory.

The following steps should be followed to resolve Print Center errors.
Skip any parts that do not relate to your particular problem.

Root User
Verification only.

Note: This step will verify Print Center Repair's ability to function on your system since it uses root level commands for most of the steps.

The root user (sometimes referred to by its long name "System Administrator"), is a critical part of the OS on a computer where the user is setup with administration rights. If the root user is missing, damaged, or incorrectly configured, it will be extremely difficult, if not impossible, to perform root level commands such as sudo, chown, chgrp, chmod, etc.

Print Center Repair, and many other applications that are designed to modify permissions, will not be able to function until the root user is correctly configured.

If there a problem is found with your root user, please follow these steps to recreate the root user with NetInfo Manager:

1) Open NetInfo Manager (located in the /Applications/Utilities directory)

2) Click the padlock in the bottom left side of the window to authenticate. Enter your normal login password when prompted.

3) In the center column of the Directory Browser (top of window), scroll down until you can see "users". Click "users".

4) If you can see the user "root" in the right-hand pane of the Directory Browser, continue with step 5. If not, skip to step 6.

5) Click on the user "root" and click the delete button (red circle with a line through it). Confirm the modification by clicking "Delete".

6) Click on the user "nobody" and click the duplicate button (double folder icon). Confirm the modification by clicking "Duplicate". This will create a new user called "nobody copy". Make sure this new user is selected before moving to the next step.

7) Change the following values for the corresponding property:

Property	Value
realname:	System Administrator
name:	root
uid:	0
gid:	0
shell:	/bin/tcsh
home:	/var/root

and if listed:
_writers_passwd:	root

If the property "_writers_passwd" is missing, just continue on to step 8.

Please make sure you do not confuse the "passwd" property for "_writers_passwd". The "passwd" property will contain the value * (star) and should not be altered. The "_writers_passwd" property is used to store the short names of users who are authorized to change the password for that user, and is not always present for system users in NetInfo. Therefore, Print Center Repair does not check to see if the "_writers_passwd" property exists.

8) Hit Command - S to save the changes. Confirm the modification by clicking "Update this copy".

Note: Try to avoid clicking on the menu bar at this point. If you click on the menu bar, you will receive the following error: "Domain / has no root account. You must log in on the computer named localhost/local (where the master is located) to make changes." You will then have to dismiss this message 4 times before being allowed to save changes to the NetInfo database. Therefore, pressing Command-S is preferable.

The root user is disabled by default. To authenticate the root user, choose Security-->Enable Root User. Enter and confirm a password when prompted.

For security reasons, it is not a good idea to keep the root user enabled. Therefore, you should disable the root user whenever you aren't using it. To do so, select Disable Root User from the Security menu. You may need to authenticate first (see step 2 above). For more information about enabling the root user, read the AppleCare Knowledge Base article <http://kbase.info.apple.com/cgi-bin/WebObjects/kbase.woa/wa/query?searchMode=Assisted&type=id&val=KC.106290>

Verify the root user again to make sure the root user has been created correctly.
If there are still problems with the root user, repeat steps 1 through 8 above.
If the root user is verified successfully, move to the next step.

Daemon User
Verification only.

Problems addressed:

• Print Center launches, the cursor becomes a spinning beach ball for a long while and then Print Center quits (you may or may not see an error message).
• When attempting to print, an alert box with the message, "**Print** Error while printing." appears.
• When you try to add a new printer, an alert box with the message: "An unexpected error has occurred. -30870" appears.

The daemon user is another vital part of the OS. Sometimes referred to by its long name "System Services", the daemon user plays a role in printing under OS X. If the daemon user is missing, damaged, or incorrectly configured, you may experience difficulties, not only with printing, but with many other aspects of the OS. This **Daemon User** option will examine the property values contained within the NetInfo database and report an error if the information is incorrect. If problems are found with the daemon user, the "Repair daemon User" button will become active and you should move to the next step (described immediately below). Please note that changes purposely made to the daemon user will show up as errors during verification. If you are sure that the changes that you have made are correct, you can skip the repair process.

Daemon User
Repair only.

This option will affect all users.

This option will only be available if errors were found with the daemon user during verification. The function of this option is to remove what might be left of the old daemon user and create a fresh, new entry in the NetInfo database. The daemon user will be recreated to UNIX and Mac OS X default specifications.

Once complete, try to open and use Print Center.
If your problem has been resolved, you do not need to perform any other functions. Quit Print Center Repair.
If your problems persist, move to the next step.

Print Center Permissions
Verification and repair.

This option will affect all users.

Problems addressed:

• Print Center launches, the cursor becomes a spinning beach ball for a short while and then Print Center quits.
• When you try to add a new printer, Print Center unexpectedly quits.

Under certain circumstances, the file permissions for the Print Center application can be altered. Print Center may exhibit one of the above errors so the **Print Center Permissions** option will examine the contents of the Print Center application for file permission and ownership discrepancies and, if errors are found, the permissions for the offending files are set back to the factory default settings. If you check the "Skip Localized Language Files" box before running repairs, all localized files will be omitted from the diagnostic which will significantly increase the diagnostic time. If is recommended, however, that the localized files be examined at least once to ensure that they are free from errors. In order for the **Print Center Permissions** option to work correctly, the Print Center application must be in the /Applications/Utilities directory on the boot volume and must be named "Print Center".

Once the operation is complete, try to open and use Print Center.
If your problem has been resolved, you do not need to perform any other functions. Quit Print Center Repair.
If your problem persists, move to the next step.

System Permissions
Verification and repair.

This option will affect all users.

Problems addressed:

• Print Center launches, the cursor becomes a spinning beach ball for a short while and then Print Center quits.
• When you try to add a new printer, Print Center unexpectedly quits.
• When attempting to use IP (LPR) printing, the job is processed but nothing prints.

Under certain circumstances, the file permissions for the /System/Library/Printers directory can be altered. Print Center may exhibit one of the above errors. The **System Permissions** option will examine the contents of the /System/Library/Printers directory for file permission and ownership discrepancies and, if errors are found, the permissions for the offending files are set back to the factory default settings. If the user checks the "Skip Localized Language Files" box before running repairs, all localized files will be omitted from the diagnostic which will significantly increase the diagnostic time. If is recommended, however, that the localized files be examined at least once to ensure that they are free from errors.

Once the operation is complete, try to open and use Print Center.
If your problem has been resolved, you do not need to perform any other functions. Quit Print Center Repair.
If your problem persists, move to the next step.

Certain problems encountered while attempting to print from Classic Mode can also be resolved by repairing the Print Center application and /System/Library/Printers directory permissions.

Reset Print Center

This option will affect all users. It will clear the current printer list, delete the Print Center preference files, clear out the CUPS spool files and restart the cupsd process.

Problem addressed:

• When attempting to print, Print Center unexpectedly quits. (you may or may not see an error message)
• When you try to add a new printer, Print Center unexpectedly quits.
• When attempting to print, an alert box with the message, "**Print** Error while printing." appears.
• Print Center launches, the cursor becomes a spinning beach ball for a short while and then Print Center quits.
• Shared printers cannot be deleted from the Print Center printers list.

In many cases, the errors that can occur with Print Center are a combination of problems. The **Reset Print Center** option attempts to rectify most of the common errors with one simple step. When activated, it will delete the printers.conf and printers.conf.O files from the /private/etc/cups directory, delete the CUPS spool files from the /private/var/spool/cups directory, recreate the /private/var/spool/cups/tmp directory, delete the com.apple.print.PrintCenter.plist file from the Users/<usernames> /Library/Preferences directories, and restart the cupsd background process. If you were attempting to clear shared printers from the Print Center printers list, you will need to restart your computer in order to see the results.

Once complete, try to open and use Print Center.
If your problem has been resolved, you do not need to perform any other functions. Quit Print Center Repair.
If your problems persist, move to the next step.

Spool & Tmp Directories

Spool Directory Permissions
Verification and repair.

This option will affect all users.

Problems addressed:

• When you try to add a new printer, no printers are added to the list.
• When you try to add a new printer, Print Center unexpectedly quits.
• When attempting to print, an alert box with the message, "**Print** Error while printing." appears.

Print Center uses the hidden /private/var/spool directory for storing spool files and printer configuration information. The spool directory is also used by CUPS (Common UNIX Printing System). Under certain conditions, the permissions for this directory can change, causing problems with printing and adding printers. The **Spool Directory Permissions** option will repair the permissions for the /private/var/spool, /private/var/spool/cups, and the /private/var/spool/cups/tmp directories.

Once complete, try to open and use Print Center.
If your problem has been resolved, you do not need to perform any other functions. Quit Print Center Repair.
If your problems persist, move to the next step.

Delete CUPS Temporary Files (not necessary if you have used the Reset Print Center option.)

This option will affect all users.

Problems addressed:

• When attempting to print, an alert box with the message, "**Print** Error while printing." appears.

Under certain circumstances, the CUPS spool files located in the hidden /private/var/spool/cups directory can become corrupted and cause problems with printing. The **Delete CUPS Temporary Files** option will clear out these files.

You can use this option for general maintenance to clear out these files periodically.

Once complete, try to open and use Print Center.
If your problem has been resolved, you do not need to perform any other functions. Quit Print Center Repair.
If your problems persist, move to the next step.

Tmp Directory Permissions
Verification only.

Problems addressed:

• When attempting to print, an alert box with the message, "**Print** Error while printing." appears.

Print Center uses the hidden /private/tmp directory for storing temporary files while printing. There is also a /tmp symbolic link on the root level of the hard drive that points to the /private/tmp directory. If the permissions for either of these items are incorrect, printing errors can occur. This **Tmp Directory Permissions** option will verify the permissions and report any errors found. In this case, the option to recreate the /private/tmp directory and /tmp symbolic link will then be available. Proceed to the next step (described immediately below).

Tmp Directory Permissions
Repair or recreate directory.

This option will affect all users. All open applications, other than Print Center Repair and the Finder, must be quit before running this option. Failure to do so may cause other open applications to fail or behave erratically.

This option will only be available if problems were found during verification of the /private/tmp directory and /tmp symbolic link. This **Tmp Directory Permissions** option will either repair the /private/tmp directory permissions, or, if the directory is missing, recreate it. The /tmp symbolic link will always be deleted and recreated to ensure that the link and permissions are correct.

Once the operation is complete, try to open and use Print Center.
If your problem has been resolved, you do not need to perform any other functions. Quit Print Center Repair.
If your problem persists, move to the next step.

CUPS Directory Permissions
Verification and repair.

This option will affect all users.

Problems addressed:

• Print Center shows no connected printers and informs you that "You have no printers available" but the printers list was previously populated.
• When you try to add a new printer, no printers are added to the list.
• When you try to add a new printer, Print Center displays the error message, "An error occurred while trying to add the selected printers. Error 1280".
• When you try to add a new printer, Print Center displays the error message, "An error occurred while trying to add the selected printers. Error 1282".

Print Center uses the hidden /private/etc/cups and /private/var/log/cups directories for storing printer configuration information used by the CUPS system. The CUPS system also uses the /usr/share/doc/cups and /usr/libexec/cups directories. Under certain conditions, the permissions for these directories can change, causing problems with printing and adding printers. The **CUPS Directory Permissions** option will verify the permissions and repair any errors found. This option will also verify and repair the permissions for the cupsd, cupsaddsmb, and cups-config processes and utilities.

Once complete, try to open and use Print Center.
If your problem has been resolved, you do not need to perform any other functions. Quit Print Center Repair.
If your problems persist, move to the next step.

Cups Daemon Process (cupsd)
Verify the status and adjust as necessary.

This option will affect all users.

Problems addressed:

• Print Center shows no connected printers and informs you that "You have no printers available" but the printers list was previously populated.
• When you try to add a new printer, the printer is not added to the list. Instead, Print Center displays the error message, "An error occurred while trying to add the selected printers. Error 1282".

Print Center relies on a background process called "cupsd" to display the current list of printers and handle many CUPS printing tasks. The **Cups Daemon Process (cupsd)** option will check the current status of the cupsd process and offer options to either, stop, start, or restart it as necessary. If the cupsd process is not running, it may have a permissions related problem or the hostconfig file may be configured in such a way that CUPS is not loaded during system startup.

Look at the CUPS status message in the "CUPS Configuration in hostconfig File" box. If it reads "**The hostconfig file is currently configured to load CUPS at system startup.**" then the problem is likely to be permissions related. Use the **CUPS Directory Permissions** option to check the permissions of the cupsd process.

If the CUPS status message in the "CUPS Configuration in hostconfig File" box reads "**The hostconfig file is currently configured NOT to load CUPS at system startup.**" then the problem is likely to be a badly configured hostconfig file. Use the **Enable CUPS** button in the "CUPS Configuration in hostconfig File" box to change the "CUPS=-NO-" line to "CUPS=-YES-". The next time you restart your computer, the cupsd process will launch. Meanwhile, to launch the cupsd process immediately, click on the **Start** button in the "CUPS Daemon Process (cupsd)" box. You will need to verify the status of the cupsd process first.

Once complete, try to open and use Print Center.
If your problem has been resolved, you do not need to perform any other functions. Quit Print Center Repair.
If your problems persist, move to the next step.

Preferences & Temp Files

Delete Temporary Files (not necessary if you have already used the Reset Print Center option.)

This option will affect all users. All open applications, other than Print Center Repair and the Finder, must be quit before running this option. Failure to do so may cause other open applications to fail or behave erratically.

Problems addressed:

• When attempting to print, Print Center unexpectedly quits. (you may or may not see an error message)
• When you try to add a new printer, Print Center unexpectedly quits.
• When attempting to print, an alert box with the message, "**Print** Error while printing" appears.

Under certain circumstances, the temporary files that are generated by Print Center can become corrupted. These files reside in an invisible directory and must be deleted in order for Print Center to function correctly. A set of preference files are also stored in the temporary files directory. The **Delete Temporary Files** option will remove the contents of the invisible /private/tmp/<usernumber>/Temporary Items directory for either the current user or all users. Since it is possible that some of the temporary files may be in use, it is vitally important that all of the currently active applications (excluding the Finder and Print Center Repair) are quit before using these options.

Once complete, try to open and use Print Center.
If your problem has been resolved, you do not need to perform any other functions. Quit Print Center Repair.
If your problems persist, move to the next step.

Delete Preference Files (not necessary if you have already used the Reset Print Center option.)

This option will delete the Print Center preference file for either the current user or all users.

Problems addressed:

• Print Center launches, the cursor becomes a spinning beach ball for a short while and then Print Center quits.
• When you try to add a new printer, Print Center unexpectedly quits.

Under certain circumstances, the Print Center preference file "com.apple.print.PrintCenter.plist" (located in the ~/Library/Preferences directory) may become corrupted. The **Delete Preference Files** option allows you to delete this file for either the current user or all users.

Once complete, try to open Print Center and add a printer.
If your problem has been resolved, you do not need to perform any other functions. Quit Print Center Repair.
If your problems persist, move to the next step.

Delete Custom Preset Preferences

This option will delete the Print Center custom preset preferences for either the current user or all users.

Problems addressed:

• When attempting to print, an alert box with the message: "**Print** Error while printing" appears.

Under rare circumstances, the Print Center custom preset preference file "com.apple.print.custompresets.plist" (located in the ~/Library/Preferences directory) may become corrupted. The **Delete Custom Presets Preferences** option allows you to delete this file for either the current user or all users. Note: the default printer designation and the current list of printers will not be lost.

Once complete, try to open Print Center and add a printer.
If your problem has been resolved, you do not need to perform any other functions. Quit Print Center Repair.
If your problems persist, move to the next step.

Delete Drivers

These options will delete the selected print drivers in the /Library/Printers directory.

Problem addressed:

• When you try to add a new printer, Print Center unexpectedly quits.

Mac OS X 10.2 automatically installs many printer drivers. This can be a benefit as it may remove the necessity to install the drivers that come with your printer. However, you may not need all of these drivers — which take up hundreds of mgs of hard drive space. Additionally, the pre-installed printer drivers may conflict with user-installed printer drivers. The **Delete Drivers** options gives you the ability to remove either the Canon, Epson, Hewlett Packard or Lexmark drivers from the /Library/Printers directory.

If you choose to delete these drivers, you have two options:

• Reinstall only the specific drivers you need for your printer(s). You will find the OS X pre-installed drivers in the Additional Printer Drivers package within the Optional Installs folder on the Mac OS X 10.2 Install CD 2.
• Download and install the latest printer driver from your printer manufacturer's web site.

Once complete, try to open Print Center and add a printer.

If you are still experiencing problems, you have a problem that Print Center Repair cannot fix. Some printer drivers still do not work correctly in OS X. Contact your printer manufacturer for details about OS X compatibility.

For a selection of CUPS compatible printer drivers, download Gimp-Print from <http://gimp-print.sourceforge.net/>.

Other Print Center Repair Features

CUPS Administration

Mac OS X 10.2 has a built-in CUPS administration interface. This option opens the interface in your default web browser. (FYI, the default address is <http://127.0.0.1:631>.) Print Center Repair provides the option to open the interface on a different port number in case you have changed the default port assignment. If you haven't change the port assignment, you do not need to specify an alternative port number. Full instructions for using the CUPS administration interface can be found at <http://www.cups.org/documentation.php>. The live link is provided at the bottom of the CUPS Tools tab for your convenience. You will need to be connected to the internet to use the link.

CUPS Configuration in hostconfig File

Every version of Mac OS X 10.2 has a hostconfig file located in the /private/etc directory. This file is read by the OS at startup to determine which services to activate and which to ignore. CUPS is one of the services listed in the hostconfig file and will have either a YES or NO designation. The cupsd process activates if the CUPS entry in the hostconfig file is CUPS=-YES-. Print Center Repair can examine your hostconfig file and report whether or not CUPS is set to run when you start your Mac. After learning this, you can turn CUPS off or on with the click of a button. The hostconfig file is also examined when Print Center Repair is launched and a relevant status message is displayed in the "CUPS Configuration in hostconfig File" box.

The message "**The hostconfig file is currently configured to load CUPS at system startup.**" will be displayed if the line CUPS=-YES- is found in the hostconfig file. The cupsd process should be running automatically. If required, use the "Disable CUPS" button to change the line CUPS=-YES- to CUPS=-NO-.

The message "**The hostconfig file is currently configured NOT to load CUPS at system startup.**" will be displayed if the line CUPS=-NO- is found in the hostconfig file. The cupsd process will not be running and Print Center will not be able to display a list of the current printers, or allow the addition of new ones. Use the "Enable CUPS" button to change the line CUPS=-NO- to CUPS=-YES-.

Troubleshooting

Errors can occur for many reasons. The following is a breakdown of the most common ones with an explanation or the error:

During Authentication:

Error type 1 - This error means that the administrator password has been entered incorrectly. This password should be your normal login password NOT the root password (unless they are the same). It is possible that the permissions for enabling root access are incorrect.

Error type -927 - Though not strictly an error, this occurs when you do not enter an administrator password. Unfortunately, the password field cannot be left blank, and, since some users choose not to use a password, a provision has been made for you to use the password "none" instead of leaving the password field blank.

During Repairs:

Error type 1 - This usually means that the file or directory that the application is looking for is either missing or not in the expected location. For example, if you use the **Delete Preference Files** option and then try the same option again, you will see this error. The error will also occur if Print Center is not in the /Applications/Utilities directory on the boot volume.

For an explanation of other errors, please email the Fixamac technical support department with details of the error number and any accompanying message. We will assist you with the steps necessary to remedy the error. You may also attach the pcrlogfile.txt document located in the ~/Library/Preferences directory. This will provide additional information about the error.

There are also other circumstances under which Print Center Repair will not function. Some of these are as follows:

Print Center Repair locks up when you enter a correct login password. This occurs if you do not have administrator privileges on the computer you are using. The first user that is created in OS X has administrator privileges by default. Therefore, you should log in as the main user before running this application. If you do not have administrator rights and are part of a network that is managed by a dedicated systems administrator, please ask him/her for assistance using Print Center Repair.

Print Center Repair will not open. The cursor becomes a spinning beach ball indefinitely requiring a force quit. This occurs if you downloaded Print Center Repair while logged in as one user and are trying to run it while logged in as another. The permissions for any file/application copied in OS X are set to the user who copies the file/application and Print Center Repair is no exception. The work around is to download Print Center Repair while logged in as the admin user who will be doing the repairs.

Print Center Repair will not open at all. It appears briefly in the dock and disappears. This occurs if you try to run Print Center Repair in a version of OS X lower than 10.2. Version 3.0 is for OS X 10.2 only. Version 1.4.2 is designed for OS X 10.1.2 through 10.1.5 and is available for download from the Fixamac web site.

Other circumstances under which printing can be problematic:

You receive communication errors while printing. Under certain conditions, printing will fail if the Classic environment is running. Usually, stopping Classic (from the Classic System Preferences pane) will allow normal printing.

You are unable to see Epson printers under EpsonUSB in Print Center. There is a problem with USB to Parallel adapters and OS X. Switching to a standard USB to USB cable will resolve this issue in most cases.

Print Center unexpectedly quits when trying to add a printer. Early versions of Default Folder X conflict with Print Center in Mac OS X 10.2. Updating Default Folder X to the latest version should resolve this issue.

System Requirements:

Version 3.0

• Mac OS X version 10.2 and above.
• Monitor resolution of 800 x 600 and above.

Version 1.4.2

• Mac OS X version 10.1.2 to 10.1.5.

How much does it cost to use?

Print Center Repair is fully functional shareware. That means you can download it and try it out for free, but if you use it you should register your copy. A great deal of time and trouble went into the research and construction of this application. Please visit <http://www.fixamac.net/software/pcr> for more information on how to register. Your support will help the continued development of this and other useful Mac OS X applications and utilities.

Please keep shareware alive!

Thank you.

John Goodchild
Author of Print Center Repair
www.fixamac.net
(jgoodchild@fixamac.net)

For technical support, please email **techsupport@fixamac.net**

Version History

Version 3.0 - 5/20/03

• Redesigned the entire interface.
• Changed the way the authentication system works so that a single password is required to unlock the application.
•!Changed the way the permission repairs are carried out by verifying files individually instead of in batches and fixing only the errors found.
• Added an option to check the status of the "cupsd" background process and to stop, start or restart it as necessary.
• Added additional startup checks to determine whether or not CUPS is configured to launch during a system boot and offer options to adjust this setting as required.
• Added the option to view the /private/etc/hostconfig file.
• Added OS version detection for better OS specific file checking.
• Added several new options to verify & repair the /private/tmp,
/private/var/spool, CUPS directories, the /tmp symbolic link, and cupsd background process for permission errors.
• Added a new application icon.

Version 2.0.5 - 5/14/03

• Fixed a bug that caused authentication to fail with the error "TERM_PROGRAM: Undefined variable." under certain conditions.
• Modified the authentication dialog to be more compatible with on-screen keyboard software.
• Added the option to repair the /private/tmp directory permissions and recreate the directory if it is missing.
• Removed the ability to delete temporary items for all applications from the "Delete Temporary Items" option as this is now handled by the "Repair Temporary Directory" option.

Version 2.0.4 - 5/5/03

• Fixed a bug that potentially disabled sendmail under certain circumstances.

Version 2.0.3 - 3/18/03

• Minor maintenance release. Reduced the occurrence of incorrect error messages.
• Updated for compatibility with Mac OS X 10.2.4.

Version 2.0.2 - 9/18/02

• Fixed a bug that prevented the creation of temporary spool files during CUPS printing.
• Made improvements to the "Repair Permissions" option to allow the user to continue repairs in the event of an error.

Version 2.0.1 - 9/12/02

• Fixed a bug that prevented the "Repair Permissions" option from running under certain circumstances.

Version 2.0 - 9/12/02

• Made PCR compatible with Mac OS X 10.2.
• Removed the "Reset Print Center" option as it no longer functions under 10.2.
• Added the option to repair the /private/var/spool directory.
• Added the option to repair the /private/etc/cups directory.
• Added the ability to delete specific printer drivers.

Version 1.4.2 - 8/8/02

• Made significant improvements to the "Verify root user" and "Verify daemon user" options so that they now provide more a detailed description of any errors found.
• Improved the overall speed of the application.

Version 1.4.1 - 8/6/02

• Fixed a bug that prevented the use of the "Delete Temporary Files" option for Print Center.

Version 1.4 - 8/6/02

• Added the option to verify the root user.
• Added the option to verify and recreate the daemon user in the NetInfo database.
• Added an activity logging system that is accessible from the menu bar.
• Added an "Options" menu with keyboard shortcuts for quick access to the repair options.
• Combined the "Delete User Printers Library" and "Delete Main Printers Library" options into a new "Delete Printers Libraries" option.
• Closing the main window now quits Print Center Repair.
• Made additional improvements to the error handling system.
• Made small cosmetic adjustments.

Version 1.3 - 7/15/02

• Improved Print Center permissions repairs.
• Made significant improvements to the error handling system.
• Optimized the AppleScript and shell commands for better performance.
• Added the option to rebuild the /private/tmp directory with correct permissions and symbolic links.

Version 1.2 - 6/11/02

• Added the option to reset Print Center by invoking 'PrintingReset'.
• Removed the option to delete spool files as this is now handled by the "Reset Print Center" option.
• Added the option to delete preference files for either the current user or all users.

Version 1.1 - 6/3/02

• Added the option to delete hidden temporary files for either the current user or all users.
• Added the ability to choose either the current user or all users when deleting the contents of the Users/<username>/Library/Printers directory.
• Improved file/folder deletion.
• Improved error handling.

• Made cosmetic improvements to the progress indicators.
• Created a brand new icon.

Version 1.0 - 5/13/02

• Fixed a bug which disabled LPR printing after fixing file permissions.
• Added a progress information panel.
• Redesigned the user interface.

Version 0.5 - 5/9/02

• Fixed a bug which left administrator access temporarily enabled under certain conditions.
• Added a progress indicator.
• Made several cosmetic adjustments.

Version 0.4 - 5/6/02

• Added four new repair options.
• Revised the documentation to include extensive repair instructions.

Version 0.3 - 5/1/02

• Changed the name from "Print Center Fixer" to "Print Center Repair".
• Redesigned the whole package with a simple user interface that no longer needs to open the Terminal.

Version 0.2 - 4/30/02

• Made the initial AppleScript editable.
• Added additional reference information to the manual (thanks Dan Nolen).

Version 0.1 - 4/23/02

• Initial release.

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