



BRITISH MAC

Pacifist



Someone asked me how to reinstall Dashboard without having to reinstall the entire operating system.

The way I would do this is using [Pacifist](#) and it's ability to extract files from packages.



Pacifist is a shareware application that opens Mac OS X .pkg package files, .dmg disk images, and .tar, .tgz, and .tar.gz file archives and allows you to extract individual files and folders out of them.

This is useful, for instance, if an application which is installed by the operating system becomes damaged and needs to be reinstalled without the hassle of reinstalling all of Mac OS X.

Pacifist is also able to verify existing installations and find missing or altered files, and Pacifist can also examine the kernel extensions installed in your system to let you see what installer installed them, and whether the installer was made by Apple or a third-party.

This article includes screenshots using the example of installing Dashboard with Pacifist.

Note: for unregistered copies, you need to wait 15 seconds before you can use the application.

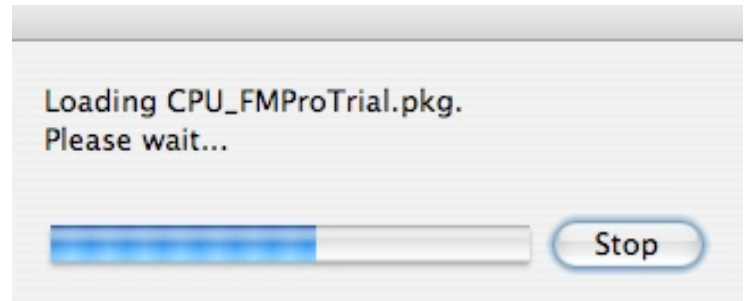
Once that 15 seconds has gone by, you can drag a package file onto Pacifist's window to open it, choose Open Package or Open Apple Install Packages.

In the screenshot above, I selected Open Apple Install Packages).

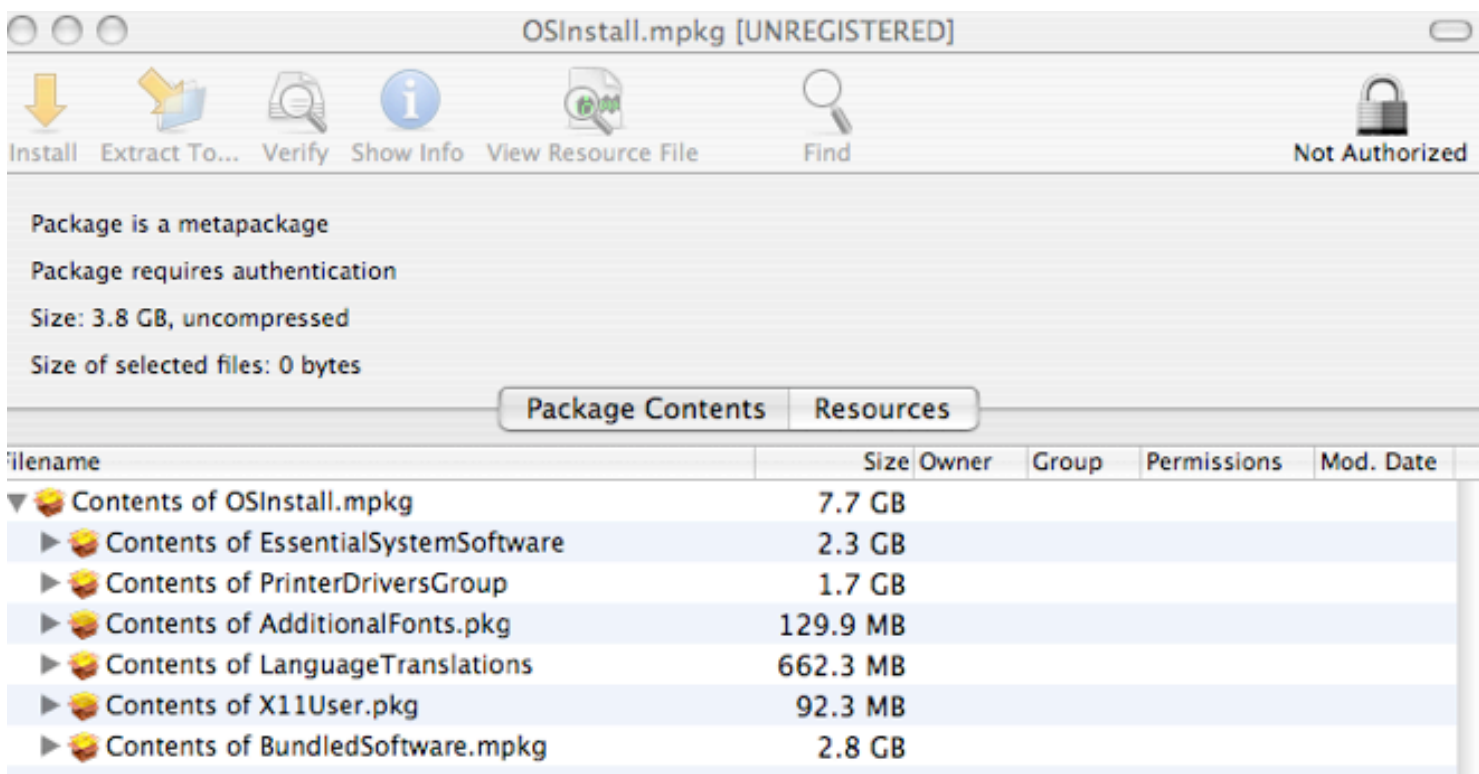
Pacifist will ask you to insert the install disc (or discs).

You will then see Pacifist load the package contents.

You can skip installing the second disc if all you want is to reinstall the Dashboard (as shown below).

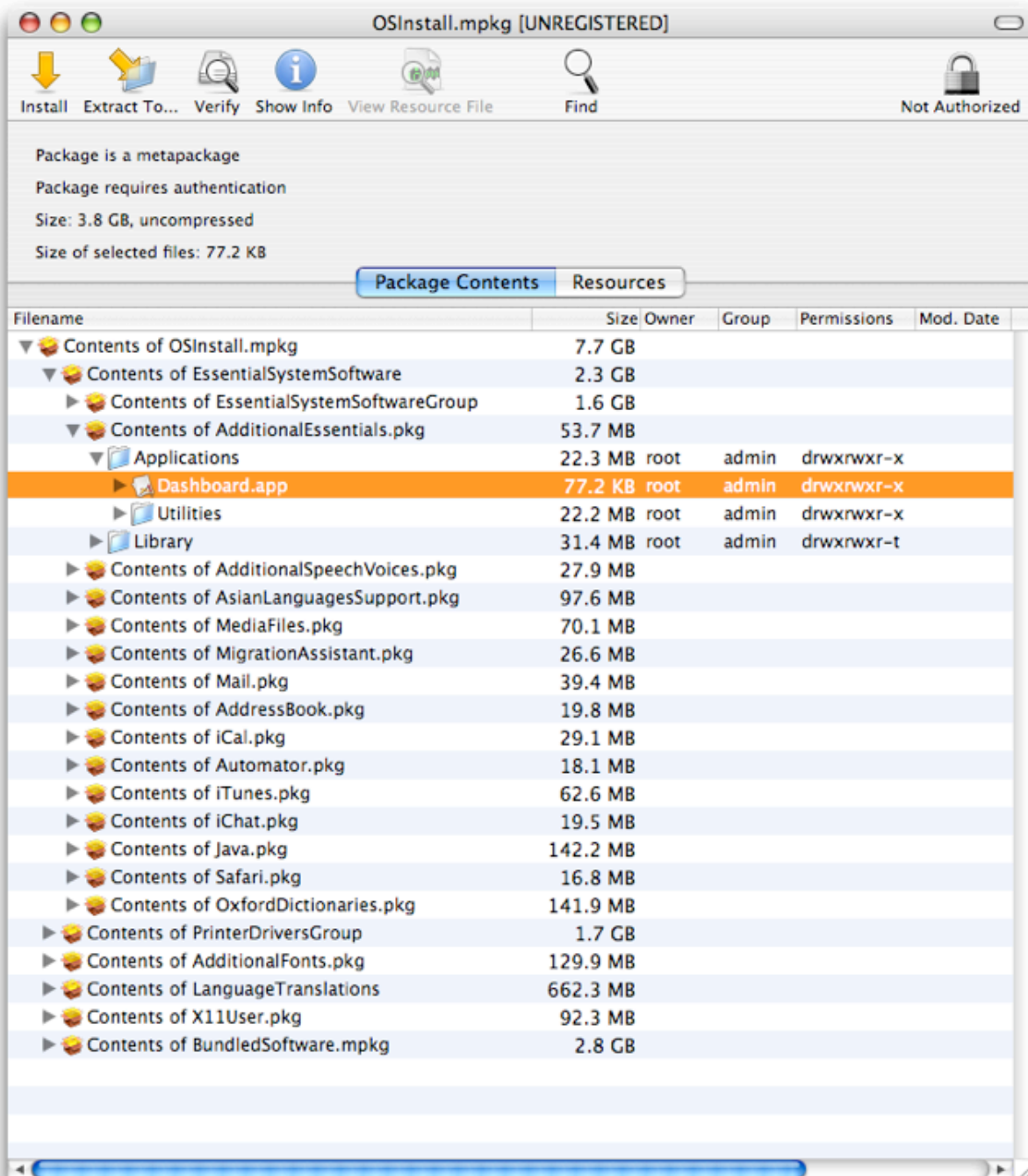
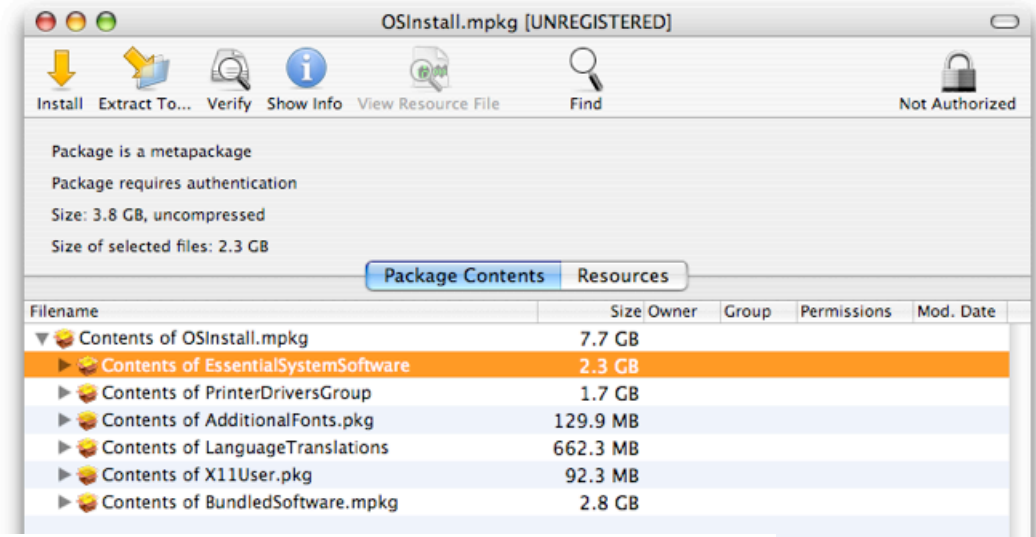


You will then be presented with the following:



Dashboard is hidden away. Here's where to find it... First, go to Contents of EssentialSystemSoftware.

Then go to Contents Of Additional Essentials.pkg and, from there, open up the Applications folder. There you will find Dashboard.app (see below).



Now, highlight Dashboard.app and click on Install. Pacifist will reinstall to the default location for that application.

The screenshot shows the OSInstall.mpkg [UNREGISTERED] window. The 'Install' button in the top-left corner is highlighted with a blue box. A red arrow points from this button to the 'Dashboard.app' file in the file list. The 'Dashboard.app' file is highlighted in the file list with a green arrow. The 'Install' button in the dialog box is circled in orange. The dialog box title is 'Install "Dashboard.app"?'. The dialog box content includes: 'The file will be installed in the following location: /Applications/Dashboard.app', a checked checkbox for 'Use Administrator Privileges', and 'Cancel' and 'Install' buttons. The file list below the dialog box shows the following data:

Filename	Size	Owner	Group	Permissions	Mod. Date
Contents of OSInstall.mpkg	17.1 GB				
Contents of Essential SystemSoftware	2.3 GB				
Contents of Essential SystemSoftwareGroup	1.6 GB				
Contents of AdditionalEssentials.pkg	53.7 MB				
Applications	22.3 MB	root	admin	drwxrwxr-x	
Dashboard.app	77.2 KB	root	admin	drwxrwxr-x	
Utilities	22.2 MB	root	admin	drwxrwxr-x	
Library	31.4 MB	root	admin	drwxrwxr-t	
Contents of AdditionalSpeechVoices.pkg	27.9 MB				
Contents of AsianLanguagesSupport.pkg	97.6 MB				
Contents of MediaFiles.pkg	70.1 MB				
Contents of MigrationAssistant.pkg	26.6 MB				
Contents of Mail.pkg	39.4 MB				
Contents of AddressBook.pkg	19.8 MB				
Contents of iCal.pkg	29.1 MB				
Contents of Automator.pkg	18.1 MB				
Contents of iTunes.pkg	62.6 MB				
Contents of iChat.pkg	19.5 MB				
Contents of Java.pkg	142.2 MB				
Contents of Safari.pkg	16.8 MB				
Contents of OxfordDictionaries.pkg	141.9 MB				
Contents of PrinterDriversGroup	1.7 GB				
Contents of AdditionalFonts.pkg	129.9 MB				
Contents of LanguageTranslations	662.3 MB				
Contents of X11User.pkg	92.3 MB				
Contents of BundledSoftware.mpkg	12.1 GB				

Occasionally, Pacifist may find that a file it is installing already exists on the hard disk. If this is the case, Pacifist will, by default, present you with an alert panel asking you whether to replace the file on the hard disk with the one from the package and proceed, leave the file on the hard disk alone, or stop the installation.

If the file to be replaced is an application, the options are slightly different. The choices to leave the existing file alone and to stop the installation remain, but in the place of the single "Replace" option there are two options: "Replace" and "Update". The default is Update. The reason for this is that most applications in Mac OS X are actually folders called "bundles" which contain many different files that are used by the application. The Update option will install these files, replacing ones that already exist and leaving all other files in the application alone. The Replace option, on the other hand, will delete the existing application bundle altogether and install the files from the package in its place.

Note: the Replace option should only be used on full install packages. When installing applications from update packages or language packages (see below), you should always use the Update option. In fact, since the Update option will be sufficient for most purposes, you should always use it unless you have a specific reason to delete the existing application bundle, for example, if you want to downgrade an application to an older version for which you have a full install package.

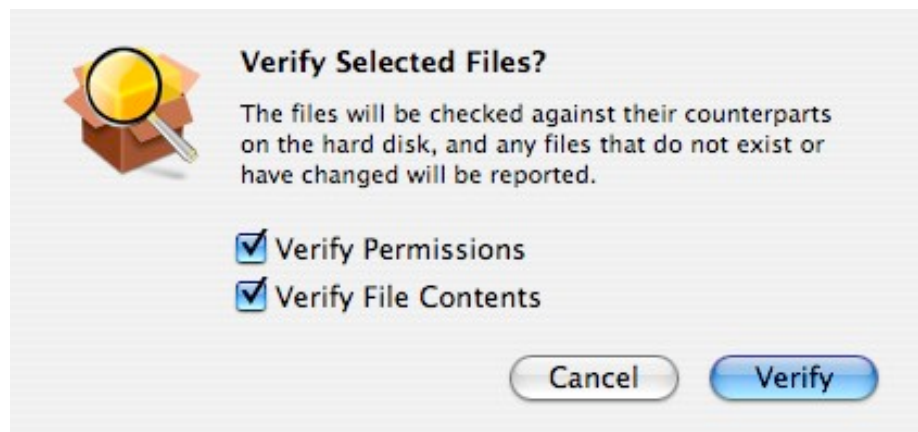
In many of these alert panels that asks you to make a decision about something, a check box entitled "Don't ask again for this installation" may appear. Checking this box will cause the decision you make to automatically apply in any future situations during the installation where the alert panel would normally appear. For example, checking this box and then clicking "Update" would cause Pacifist to automatically choose "Update" for any other applications that already exist instead of asking you.

When working with the OS Install packages, you may encounter several language packages with names such as French.pkg, German.pkg, etc. inside the Languages.mpkg package. These packages do not contain all the files necessary for the applications contained inside them to run, but they can be used to add support for a language to an application. To do this, first verify that the application itself is installed on your hard drive. Next, select the application you wish to update in the language package and install it as usual, being sure to click "Update" when asked whether to update or replace the existing application.

Verifying Existing Installations

Pacifist can verify existing installations, checking the files on your hard disk and seeing how they compare to the files listed in the package, and notifying you of missing files as well as files that have different permissions or checksums than those listed in the package.

To verify an installation, first open the package or receipt containing the files you want to verify. Select the files you would like to verify, or the “Package Contents” item if you would like to verify the entire package. Next, choose “Verify Files...” from the File menu. This will cause the following panel to appear:



The files will always be checked to ensure that they exist on the hard disk. However, you also have the following options:

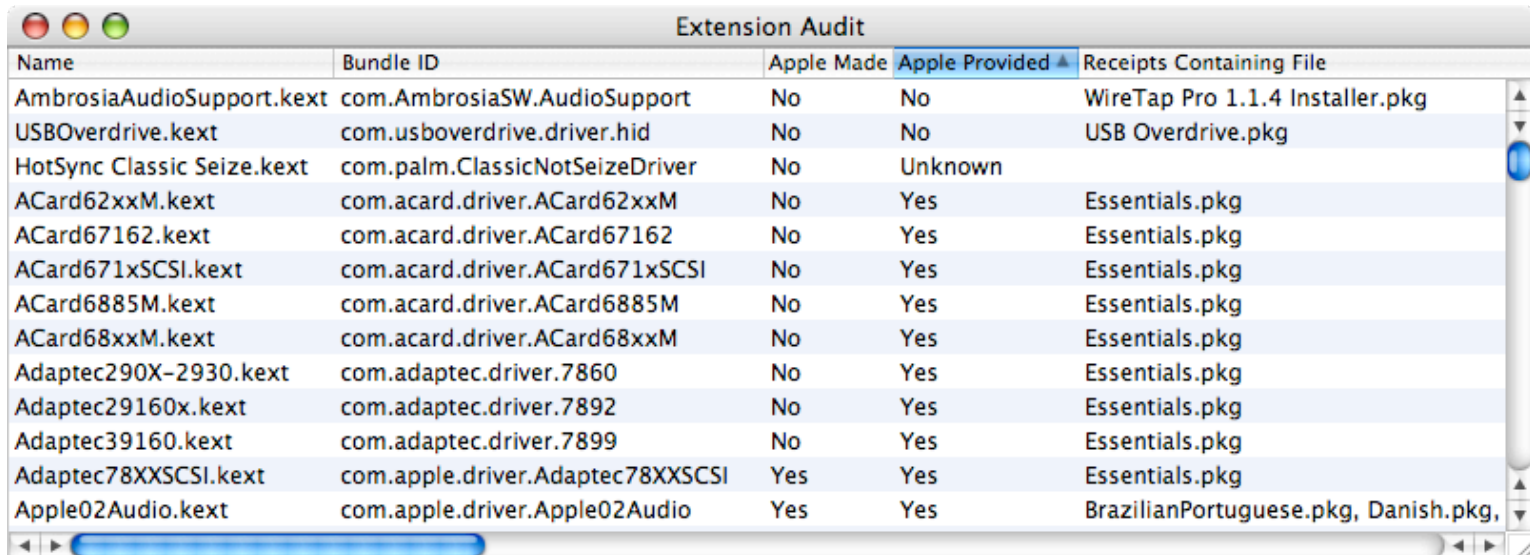
- **Verify Permissions** - if this option is checked, the files' permissions will be checked against the permissions specified in the package, and any differences will be reported.
- **Verify File Contents** - if this option is checked, the files' checksums will be compared with the checksums specified in the package, and any files that have been modified since they were installed will be reported. This option will considerably increase the time required to verify an installation.
- *Note: in Apple's OS Install packages, the checksum information is missing for some files. Pacifist will unfortunately not be able to verify the contents of these files.*

When you start the verification, you will be prompted for an administrator password. Simply type the name and password of an administrator to continue.

After you enter a valid administrator password, Pacifist will verify the files and will afterward present you with a report listing the files that were scanned as well as which ones showed differences from the files in the package. This report can be printed or saved to your hard disk.

Analyzing Kernel Extensions

To take a quick look at the kernel extensions installed on your system, choose “Display Kernel Extension Report” from the Pacifist menu. After Pacifist finishes scanning your receipts, you will see a window similar to below:



Name	Bundle ID	Apple Made	Apple Provided	Receipts Containing File
AmbrosiaAudioSupport.kext	com.AmbrosiaSW.AudioSupport	No	No	WireTap Pro 1.1.4 Installer.pkg
USBOverdrive.kext	com.usboverdrive.driver.hid	No	No	USB Overdrive.pkg
HotSync Classic Seize.kext	com.palm.ClassicNotSeizeDriver	No	Unknown	
ACard62xxM.kext	com.acard.driver.ACard62xxM	No	Yes	Essentials.pkg
ACard67162.kext	com.acard.driver.ACard67162	No	Yes	Essentials.pkg
ACard671xSCSI.kext	com.acard.driver.ACard671xSCSI	No	Yes	Essentials.pkg
ACard6885M.kext	com.acard.driver.ACard6885M	No	Yes	Essentials.pkg
ACard68xxM.kext	com.acard.driver.ACard68xxM	No	Yes	Essentials.pkg
Adaptec290X-2930.kext	com.adaptec.driver.7860	No	Yes	Essentials.pkg
Adaptec29160x.kext	com.adaptec.driver.7892	No	Yes	Essentials.pkg
Adaptec39160.kext	com.adaptec.driver.7899	No	Yes	Essentials.pkg
Adaptec78XXSCSI.kext	com.apple.driver.Adaptec78XXSCSI	Yes	Yes	Essentials.pkg
Apple02Audio.kext	com.apple.driver.Apple02Audio	Yes	Yes	BrazilianPortuguese.pkg, Danish.pkg,

The first two columns display the kernel extension's name and bundle ID. The “Apple Made” column shows whether the extension was made by Apple according to its bundle ID, and the “Apple Provided” column shows whether the kernel extension was found in any Apple-provided receipt. If either of these two columns displays “Yes”, there is a good chance that the kernel extension is an important part of the operating system and should not be removed. If an extension is neither made nor provided by Apple, it is most likely part of a third-party program. If the extension was installed by a standard package installer, the name of the package that installed it will appear in the “Receipts Containing File” column. If you suspect that a third-party kernel extension is causing problems on your system, you should check to see if the application includes an uninstaller. In most cases, an uninstaller will be installed along with the application.

In the example above, there are three non-standard kernel extensions present on the system. Two of them, `AmbrosiaAudioSupport.kext` and `USBOverdrive.kext`, were installed by third-party .pkg installers, so the right-hand column shows that they were installed by WireTap and USB Overdrive. The third kernel extension, `HotSync Classic Seize.kext`, however, was not found in any receipt package, so it is impossible to determine exactly where it came from. In most cases, this is because an application used a non-standard installer type such as Installer VISE instead of a standard .pkg installer to install the kernel extension. However, the bundle ID for this particular extension begins with “com.palm”. This indicates that the kernel extension

was probably installed by something from Palm (in this case, it was the Palm Desktop installer).

NOTE: The “Display Kernel Extension Report” feature will only work if all the Apple receipts are present in the /Library/Receipts folder. If these have been deleted or are otherwise missing, it will not be possible to search them for kernel extensions, and all of the Apple-provided kernel extensions will show up with “Unknown” in the “Apple Provided” column. If this occurs and you see a large number of kernel extensions marked “Unknown”, do not delete the kernel extensions, because deleting Apple-provided kernel extensions could cause your system not to function.

Where does Pacifist's name come from?

Pacifist gets its name from the command-line tool “pax”, which is the tool that Installer.app uses to install files out of the compressed archives in the .pkg files.

Unfortunately, as was pointed out in numerous places on the Internet, most notably stepwise.com, the pax tool is not nearly as peaceful as its name implies, as it has a tendency to march along in a most belligerent manner, destroying symlinks and folder permissions that lie in its path. So one of Pacifist's goals is to tame pax, using it in a way that causes it to be more “peaceful” to existing files on your hard disk.

How much does Pacifist cost?

Pacifist is shareware and costs \$20. The software can be used for as long a trial period as you find necessary to evaluate it, but you will be presented with a “nag screen” at startup until you register.

You can register via Kagi by double-clicking on the URL file included with Pacifist or by clicking the “Register...” button in the register window that appears when Pacifist starts up.

Where can you get Pacifist from?

Pacifist is available from the developer's website:

<http://www.charlessoft.com/>