



Picture Rescue User's Guide

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engineering, inc.

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1 Introduction

Thank you for purchasing Picture Rescue! Prosoft Engineering, Inc.'s Picture Rescue is an easy-to-use utility for recovering your photos and movie clips from digital camera media cards. It can often recover photos which have become inaccessible to your normal programs due to media corruption, or accidental deletion or reformatting. Picture Rescue can recover from most digital camera media types, including SmartMedia, CompactFlash, Memory Sticks, and others. Picture Rescue borrows technology from its big brother -- Prosoft Engineering's highly acclaimed Data Rescue product. Like Data Rescue, Picture Rescue does not alter or attempt to repair your media, but instead recovers data using non-destructive reading.

2 System Requirements

Picture Rescue requires Macintosh OS X version 10.2 or later. 128MB or more of system memory is recommended. You should have free disk space of twice the size of the media card being recovered from, plus room for the recovered images themselves. A USB or FireWire based digital camera card reader, such as those available from Adorama, SanDisk, Fujifilm, Lexar or similar, which is compatible with your camera card format, is recommended. (Note: Certain digital cameras can be attached to the USB or FireWire buses directly. If those cameras appear as a standard disk device to the Macintosh system, then Picture Rescue may be able to recover directly from the camera.

However, if the camera requires a special proprietary program to access the data, Picture Rescue will not be able to scan it; in that case, you will need to use a card reader device.) An internet connection is required to download updates.

3 Installation

To install, simply drag the Picture Rescue icon from the distribution disk into your Applications folder. (To uninstall, drag the Picture Rescue icon from the Applications folder to the Trash.)

4 Running Picture Rescue

When you start an unactivated copy of Picture Rescue, you will be presented with a dialog window such as that in Figure 1. (An activated copy will bypass this dialog.) If you are ready to activate the product, fill in the information and click the Activate button. If you wish to run without registering, click the Demo button. (Note: Unregistered software allows you to scan and display thumbnails of your photos, but does not allow you to view it full size. In addition, it allows you a one-time single recovery of a photo. To recover more than one photo, please register the software. If you do not have a serial number, you may purchase one from Prosoft Engineering, Inc. by visiting our web site at <http://www.prosofteng.com>).

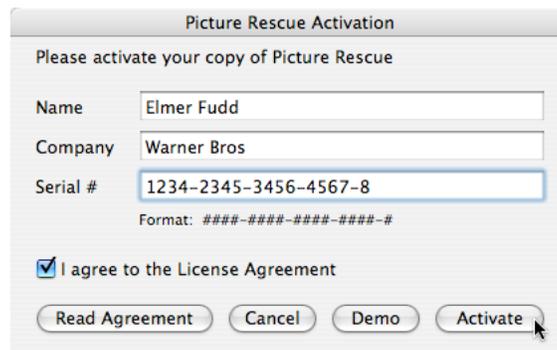


Figure 1. Picture Rescue Activation Window

After this, Picture Rescue displays the scan window, as shown in Figure 2. There may be a short delay while Picture Rescue looks for media storage devices. The devices Picture Rescue finds are displayed in the pull-down menu.



Figure 2. Picture Rescue Scan Window

Choose the media to be scanned using the pull-down menu. Note: If you have plugged in the media card after you started Picture Rescue, you may need to go to the File menu and choose the “Look for media cards and cameras” item, as shown in Figure 3, if your device doesn’t appear there.

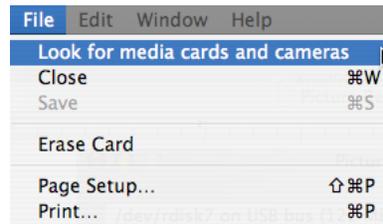


Figure 3. Refreshing the Pull-Down Menu

To start the scan, click the Start button. The Scan Window will show you the progress of the scan, as in Figure 4. You may abort the scan at any time by clicking the Abort button.

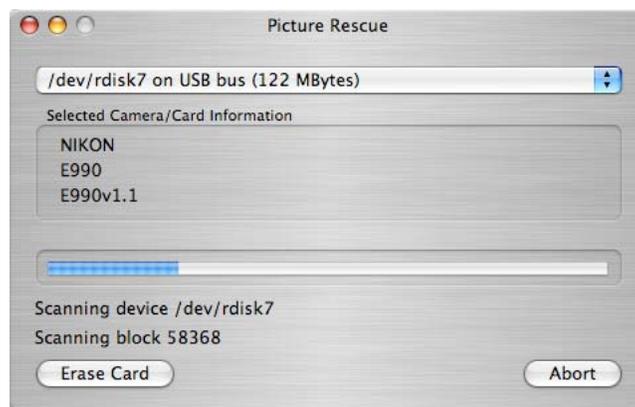


Figure 4. Scan Window during a scan.

The time needed to do a scan depends on a number of factors, including the speed of the reader device, the speed of the bus it is plugged into, how big the digital media card is, and what sort of condition the data is in. During the scan, a blank Image Recovery Window is also visible. After the first scan is completed, some additional processing will occur, as shown in Figure 5.

Note: The status information shown during this processing -- “27=jpeg” for example -- is simply an indication of Picture Rescue’s internal processing steps, and you may normally ignore it. Its purpose is to aid technical support in case you run into any problems with Picture Rescue.

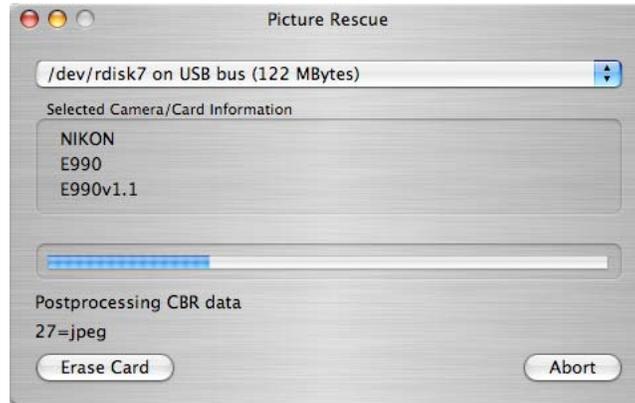


Figure 5. Additional processing after scan

After the scan is completed, some additional processing will occur, and then thumbnail versions of the photos that were found are added to the Image Recovery Window. Figure 6 and Figure 7 show the windows during thumbnail generation.

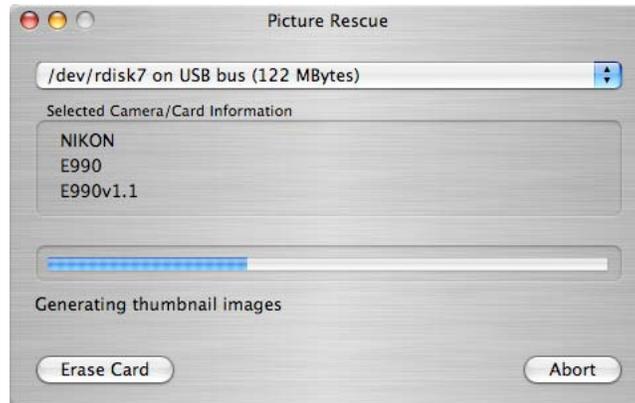


Figure 6. Scan Window during Thumbnail Generation

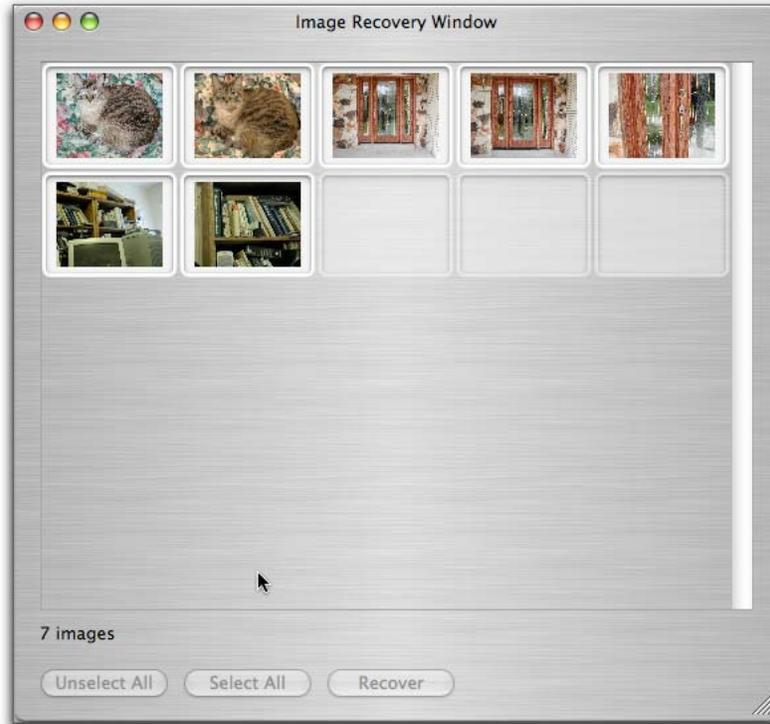


Figure 7. Image Recovery Window during thumbnail generation.

5 Recovering the Files

Figure 8 and Figure 9 show the windows at the completion of the process.

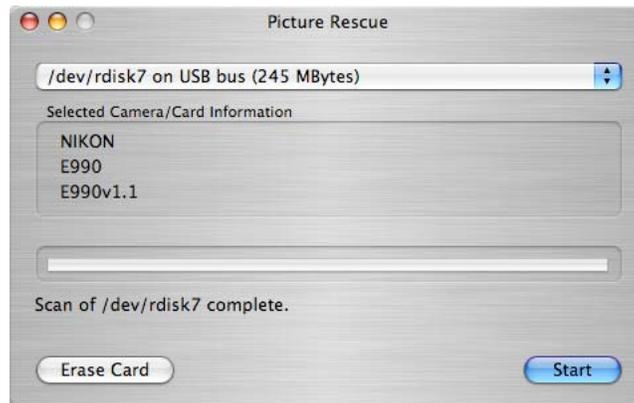


Figure 8. Scan Window after scan.

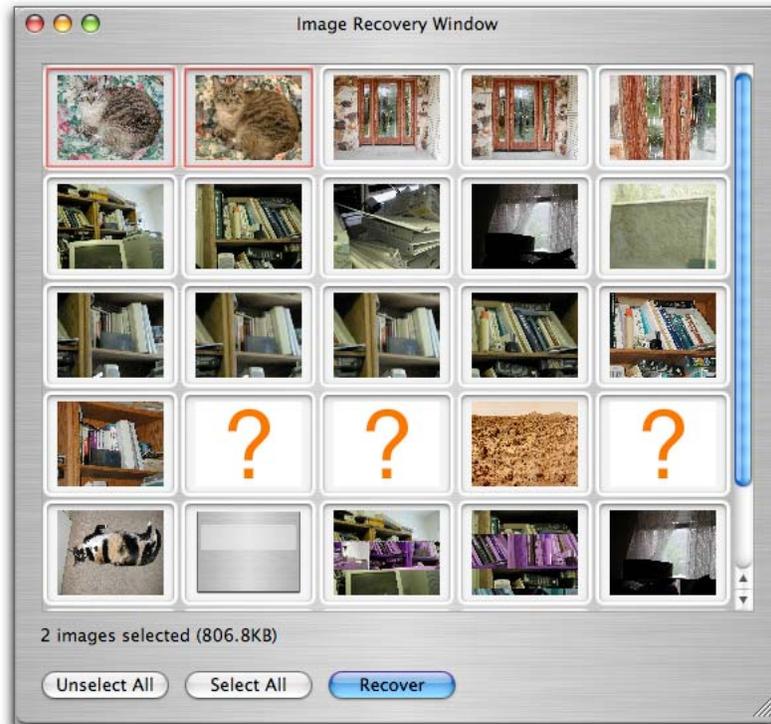


Figure 9. Image Recovery Window after a Scan.

5.1 What's Shown in the Image Recovery Window?

The Image Recovery Window (an example is shown in Figure 9) displays either a thumbnail image, which is a miniaturized version of the photo on the media, or one of several special icons. If a thumbnail is displayed, and if it appears to be intact, then it is highly likely that it represents a good, recoverable photo and that the recovered file will be valid and intact.

If the box is empty (grey) or contains a large question mark, the corresponding file is most likely damaged or incomplete. You may wish to recover these anyway, and try to open them in an application such as Adobe PhotoShop. In some cases, a portion of the image may be visible this way.

Some other special icons are shown in cases where Picture Rescue is unable to generate a thumbnail image, even though the underlying file is good and recoverable. Some examples of formats which Picture Rescue can recover, but not display a thumbnail image for, are movie clips, and various types of raw image formats normally used only by professional photographers. Table 1 shows the icons.

Icon	Meaning
	MPEG movie clip
	Quicktime movie clip

	Raw photo format
	Damaged or incomplete photo
blank	

Table 1. Special Icons in Image Recovery Window

5.2 Viewing and Recovering Images

To view a full-sized image, you can double-click the thumbnail image. Picture Rescue will recover the image to a temporary file, and open your default image viewer on it. (Note: This feature only works if you have activated Picture Rescue.)

To recover the image files to your disk, select the ones you want to recover using the mouse. Selected images are outlined with a red rectangle. You can use normal Macintosh mouse methods such as click and drag to select a group, command-click to select individual ones, etc. As you change your selections, at the bottom of the window you can see the number of images you have selected, and the total size of the files selected.

Once you have selected the images, there are two ways to recover: either click the Recover button, or drag and drop.

If you click the recover button, you will see an Open dialog, as in Figure 10, where you can navigate to the directory where you want the recovered files to go.

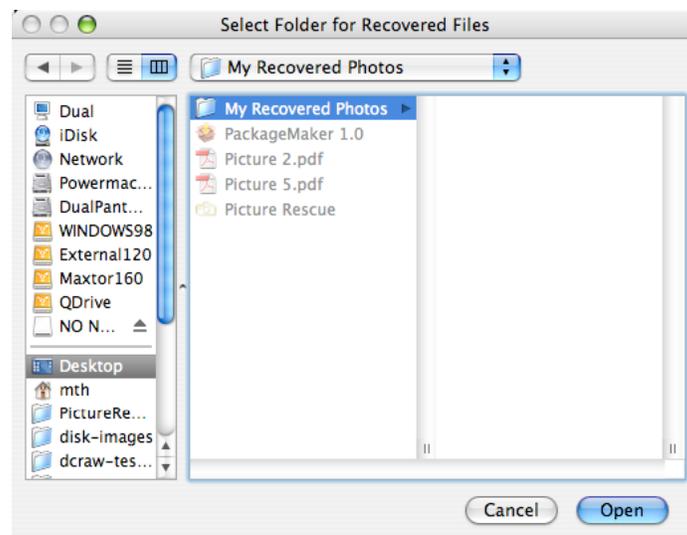


Figure 10. Choosing a Folder for Recovery

To use Drag and Drop recovery, after selecting the images you wish to recover, instead of clicking the Recover button, position the mouse over any one of the selected image thumbnails and drag to the destination folder or desktop.

For each recovered image file, if Picture Rescue could find the original name of the file, that name is used, otherwise Picture Rescue makes up a new name for the file based on

the dimensions of the image and it's type, for example J1024x768-1.jpg for a 1024 by 768 pixel JPEG image.

6 Erasing the Media Card

Disclaimer: Prosoft Engineering, Inc. assumes no liability for damage to the customer's equipment or data caused by the use or misuse of the Erase function.

If you wish to permanently remove all information from your media card, you can use the Erase Card function, either by clicking the Erase Card button on the scan window, or by choosing the Erase Card item under the File menu. **This function will permanently erase all the data on the entire device you have selected with the pulldown menu. Use it with caution.** Make sure that you have the correct device selected in the pulldown menu, and that you have recovered each and every image which you want to keep from the device, as described in the previous section, before erasing.

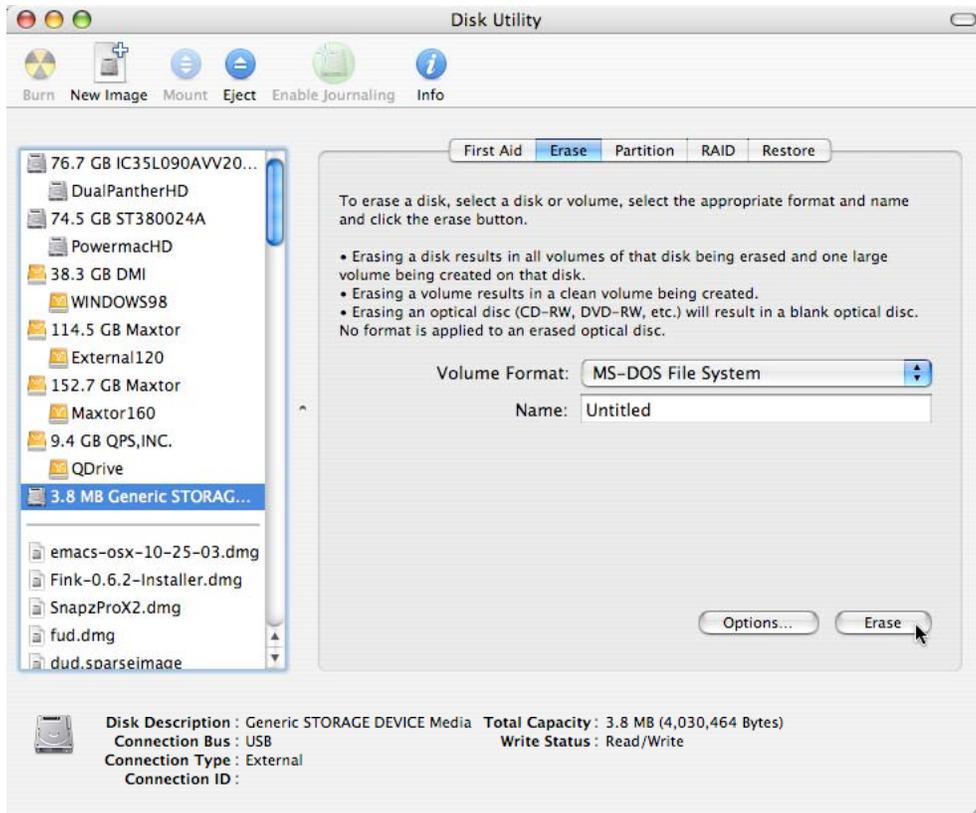
Three levels of erase are supported: 1, 2, and 3. Level 1 overwrites the entire device with zeros, and should be adequate for most users. Level 2 first overwrites the entire device with random data, then with zeros. Level 3 overwrites the device with random data 3 times, then with zeros. Levels 2 and 3 provide a more secure media erase for those worried about someone using very expensive, sophisticated equipment to try and recover data from erased media. Level 1 is the default. This can be changed in the Preferences window.

The erase function leaves the media completely blank (zeroed). In order to use it again for data storage, it will need to be reformatted. We suggest that you use your camera's card format function for this. After erasing the media, you may see a Macintosh alert come up similar to this:



If so, just click Eject. You may then remove the card for formatting in your camera.

You may instead wish to format the media right on your Macintosh. If so, choose Initialize.... This should bring up the Disk Utility program. Select the device to be formatted, and select the Erase tab, then choose the MS-DOS File System in the pulldown menu, then click the Erase button, as shown in the following figure:



7 Preferences

Picture Rescue has a few options which may be set by choosing the Preferences menu item, as shown in Figure 11.

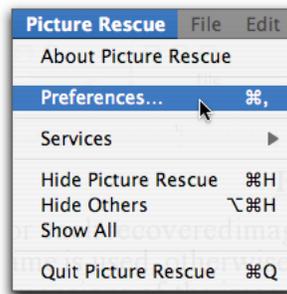


Figure 11. Preferences Menu Item

This will bring up a preference window, as shown in Figure 12.



Figure 12. Picture Rescue Preference Window

7.1 Copy Media to Disk Before Scanning

If this box is checked, the digital media card to be scanned will first be copied to a temporary hard disk file, then Picture Rescue will use that file to do the scanning and recovery. If your computer's USB bus or the device you're trying to scan is USB 1.x, then checking this option may speed up certain parts of the processing, particularly the generation of thumbnail images. The default is unchecked.

7.2 Temporary Folder Location

Picture Rescue needs to create a temporary folder to use during its processing. (The folder is named PictureRescueTemp.) The default location of this folder is in the "/tmp" directory, which is on your boot volume. You can change the place where the folder will be created by either typing in a path to a different folder, or by using the Set... button. If your boot drive is tight on space, you may wish to use this preference to choose a folder on a different volume that has more free space.

7.3 Display thumbnails for corrupted photos

It's normal for Picture Rescue to find some photos which are corrupt and/or incomplete. In some cases, Picture Rescue can determine for itself if a photo is corrupt in this way, and in these cases, there is the option of either displaying a question mark icon as the photo's thumbnail, or not displaying any thumbnail for it. If this option is checked, a question mark thumbnail will be displayed for these corrupt photos, allowing you to choose and recover them you wish. If the option is unchecked, then these corrupt photos will not be included in the thumbnail display at all. The default is unchecked.

7.4 Add custom icons to recovered files

If this option is checked (the default), then as part of the recovery process, after the photo files are recovered, Picture Rescue will create a custom icon for the recovered file, containing a miniature thumbnail of the contents, making it easier for you to see what photo the file contains. Note: The custom icon feature relies on the Macintosh-specific resource fork feature. If you transfer the files to a non-Macintosh system, these custom icons will not appear on the copied files. Creating the custom icons takes additional time, so if you don't care about custom icons and wish to speed up the recovery, you can uncheck this box.

7.5 Erasure Level

This slider is for the Erase Card feature (see Erasing the Media Card). The default is level 1, which also provides the fastest erasing performance. The middle position is level 2, and the rightmost position is level 3. The levels are described in the earlier section.

8 Frequently Asked Questions (FAQ)

Q: Why can't Picture Rescue see my USB camera?

A: USB enabled cameras can be seen by Picture Rescue, if they appear to the Macintosh as an ordinary disk drive. Some cameras with a USB interface, especially older models, use a proprietary protocol that requires a program from the manufacturer to communicate with the camera. Picture Rescue cannot see cameras that use a proprietary protocol. If your camera is one of these, you will need to use a separate reader device and plug your camera card into that in order for Picture Rescue to see the card.

Q: I plugged my camera card into my USB card reader, but Picture Rescue can't see it.

A: Try choosing the "File -> Look for media cards and cameras" menu item to refresh Picture Rescue's list of devices. Make sure your reader device is working by inserting a known good camera card to verify that it can be seen. If that doesn't work, you may try restarting your Macintosh and trying again. If that doesn't work, your card may have physical or electrical damage that prevents it from being read. In this case, Picture Rescue will not be able to recover any pictures from it. Sometimes though a card with a corrupt file system on it can confuse the Macintosh operating system, and prevent applications from reading the card, and even hang the system. A reboot will often clear this situation. If your system becomes hung after plugging a bad camera card into a USB reader device, and you have trouble restarting, you might try removing the reader device altogether to see if that helps.

Q: Some of my thumbnails show up as blank grey icons instead of a picture, even though I have the "Display thumbnails for corrupted photos" preference unchecked. Why is that?

A: The photos represented by icons like this are most likely ones which are incomplete or corrupt in such a way that Picture Rescue can't tell that they are corrupt. You may be able to view a portion of the image if you recover these files and open them in Photoshop, or similar application.

Q: I accidentally formatted my card that had good pictures on it. Will Picture Rescue be able to recover them?

A: That depends on what the camera does when it formats a card. Some camera models just create a new file system on the card, and leave the bulk of the card's storage alone. In this case, Picture Rescue can recover at least some of the files. Other camera models, including Fuji and some Olympus models overwrite all the information on the card when formatting. No program, including Picture Rescue will be able to recover files in these cases. The best thing to do is to download Picture

Rescue and try it in demo mode (free of charge). If it can find any pictures, it will show you their thumbnails; if not, it won't show you any thumbnails.

Q: I recovered a file that Picture Rescue showed as corrupt. When I click on it in the Finder, it shows me a good picture, but when I try to open it, it fails. What's going on?

A: Many photo files contain a small thumbnail image embedded near their beginning. Chances are that the picture you recovered is corrupt or incomplete somewhere past the end of that embedded thumbnail in the file. When you click on that file in Finder, it finds the embedded thumbnail and displays it, without looking at the whole file. But when you try to open the file, the full image is needed, and if that isn't present or is corrupt, the open will fail.

Unlike Finder, Picture Rescue uses the full-sized image to make its thumbnail, rather than using any embedded thumbnail at the start of the file. Picture Rescue is designed this way on purpose; if it shows you a thumbnail with a good image, the chances are excellent that the full sized picture will open properly.

Q: While Picture Rescue is scanning my card, it says it found 98 jpeg files, but when it is through, it only shows me 50 thumbnails. Where did the other ones go?

A: You're probably looking at the processing status that Picture Rescue displays while scanning; items that change rapidly and may look like "98=jpeg". This should not be interpreted as a count of the number of images found. Rather it is an indication of the type of information Picture Rescue is currently processing. The final count of images found is not known until Picture Rescue has completed generating its thumbnail images. This number is displayed at the bottom of the Image Recovery window. Note: If you have the "Display thumbnails for corrupted photos" unchecked (the default), then any images which Picture Rescue detects as corrupt will not be included in the thumbnail display or in the final image count.

Q: Some of the photos Picture Rescue is showing me appear to be corrupt, with partial images, or funny colors, or a mixture of pieces of other images. Is this normal?

A: Yes, it is normal for some of the images Picture Rescue finds on a card to appear corrupt. In some cases, this is due to the image data actually being corrupt, or simply incomplete. In other cases it is due to the algorithms used by Picture Rescue being imperfect. It is not always easy for Picture Rescue to determine when an image it has found is corrupt – your eye is the best judge of that.

Q: Some of my thumbnails say "Raw" instead of showing me a picture. If I recover it, it won't open when I double-click it. Why?

A: All digital cameras use some image hardware to generate image data. This data, whose format is specific to the type of image hardware the manufacturer uses, is then processed by firmware in the camera to a standard JPEG format for storage on the camera card. The conversion process loses a tiny amount of image quality, though this loss is usually not noticeable. Some cameras, in particular high-end ones, have an option for saving their raw image data directly, without the processing. The camera manufacturers have different names for this mode, often something like

“super quality”, etc. Picture Rescue recognizes certain of these raw camera formats, and if it finds (or thinks it found) such an image, it will display a Raw icon for the thumbnail. An actual thumbnail is not displayed for these files, because Picture Rescue relies on the Macintosh image libraries to render the image, and these generally do not support raw camera formats. (Special software is generally needed to display raw formats.) That is also probably the reason why your recovered file will not open when you double-click it. If you don’t believe that you’ve ever taken photos with these super-quality camera settings, then it’s possible that Picture Rescue has just made a mistake, and is erroneously interpreting some of the card data as a raw photo.