

Image rescue Quick Start Guide

Image Recovery - Recovers lost or deleted image files (JPEG, TIFF and RAW), from your memory card, even if you have erased them, reformatted the card, or your card has become corrupted*.

<footnote> ***Image Recovery is not 100% guaranteed.*

Card Test - Scans every sector on your memory card and reports any hardware errors found. Repairs any file system errors detected

Format Card - Formats and deletes all files on your memory card. If your card is showing an error in your digital device this feature will make the card usable again.

Secure Erase - Formats and permanently deletes all files on your memory card. Any file previously stored on your card will no longer be recoverable, not even by Image Rescue.

Card Information - Displays the technical specifications of your Memory card.

Card Update – Allows you to update the firmware on certain Lexar Media memory cards

System Requirements Compatible Operating Systems: Windows2000/XP, Mac OS 10.2 or higher. One Mass Storage Class card reader and one available USB/USB2.0 or FireWire port on your computer to connect the reader, CD-ROM Drive (Retail version only) Available hard drive space equal to twice the capacity of your Memory card. Lexar JumpShot cables can also be used together Lexar USB enabled CompactFlash cards.

Getting Started

1. Connect the JumpShot cable or mass storage class reader your computer
2. Insert the Memory card into the JumpShot cable or reader
3. Double-click on the Image Rescue icon to start the software

Important Notes

- * Always insert the card into the reader before launching Image Rescue
- * Always quit Image Rescue before ejecting or removing your card
- * Access the Help File in Image Rescue for additional instructions

Windows 2000 /XP

- * Before removing the Memory card from the JumpShot cable, go to the system tray (located on the bottom right corner next to the clock) and right click on the UNPLUG OR EJECT HARDWARE icon. Select the memory card and click STOP, select it again and click OK. It's now safe to remove your card.

Macintosh

- * You must eject your Memory card in the Finder before removing it from the reader.
- * Do not access the card using the Finder or any program (such as iPhoto) if Image Rescue is running. Quit any program that may access the card.
- * If the card is not recognized by Mac OS X and the operating system asks to initialize the card, click continue and launch Image Rescue.

Installation from a CD (Windows 2000/XP)

1. Close all programs you may have running before you begin the installation
2. Insert the Image Rescue CD into your CD-Rom drive
3. Double-click on the MY COMPUTER icon, CD-ROM drive icon, and then the setup.exe file
4. Follow the on-screen instructions
5. Plug the JumpShot cable into your computer after completing the installation process

Installation from a Memory Card

1. Double click on the setup.exe file found on your Memory card to begin installation
2. Follow the on-screen instructions
3. Plug the JumpShot cable into your computer after completing the installation process

To Uninstall

1. Click START, SETTINGS and CONTROL PANEL
2. Double click on ADD/REMOVE PROGRAMS
3. Select Image Rescue and then click REMOVE
4. Click YES to confirm files are to be deleted

Installation from a CD (Macintosh 10.2 and higher)

1. Close all programs you may have running before you begin the installation
2. Insert the Image Rescue CD into your CD-Rom drive, and double click on Image Rescue.dmg
3. Follow the on-screen instructions

Installation from a Memory Card

1. Copy the Image Rescue.dmg file from your Memory card to your hard drive
2. Double click on Image Rescue.dmg to mount an Image Rescue disk on your computer
3. Follow the on-screen instructions

To Uninstall

1. Double click on the uninstall Image Rescue file found in the Lexar Image Rescue folder in your Applications folder
2. Follow the onscreen instructions

New Features since version 1.x

Image Rescue 2.0 offers several significant improvements and enhancements over the previous versions including:

- Support for all flash memory form factors from any supplier
- Support for any Mass Storage class reader including high speed USB 2.0 and FireWire readers resulting in a significant performance improvement
- Support for FAT32 formatting of cards larger than 2 GB
- 3 different recovery modes
- Recovers all types of files not only images (High Level Search recovery mode only)
- Tests and automatically repairs file system errors
- De-fragment card feature
- Card Update Feature enables the firmware in certain Lexar USB enabled CF cards to be updated
- Improved usability and interface

Memory Card Basics

If you have lost an image and need to recover the data on a card, it is important to stop using it in a camera, and run use Image Rescue 2.0 to recover it. Data is stored on a card in a similar way to how words are printed in a book. Images are like chapters in a book. The File Allocation Table (FAT) is like a table of contents in a book that contains a list of the beginning and ending points

for each chapter or image. When images are deleted or the card is reformatted, the entries in the table of contents or FAT are removed, and the card tells the file system that the space is now free.

The actual image data however is still on the card, just like all the words are still on the pages of the book when a table of contents is removed. Image Rescue reads the whole book and attempts to identify the beginning and end points of each chapter and recover them as images to your computer's hard disk.

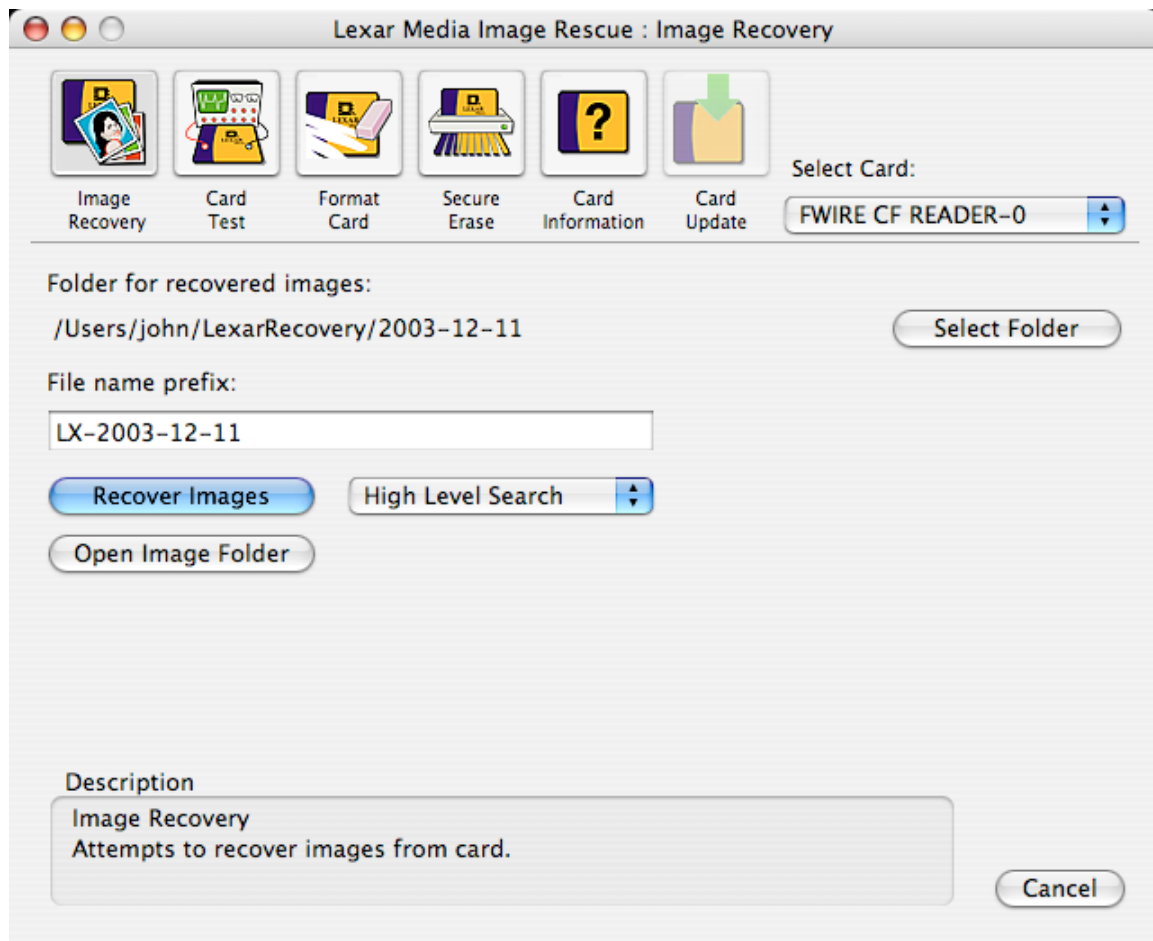
In most case the actual data has not actually been lost until it has been overwritten. The more you continue to use a card after you recognize that you need to recover data on it, the more likely it is that data can be overwritten and the less chance you will be able to recover the lost image.

Data is written to cards in random locations. If you only fill a card up half way before you download the images and delete them you will not always use the same sectors on the card e.g. the first 256MB of a 512MB card. Every time you delete images or reformat the card the file system is updated to show the previously used sections of memory to be free to be used when needed.

Due to the way new data can overwrite old deleted data on the cards some of the older deleted data can contain partial image data. In an attempt to recover "All data" the Exhaustive search mode can also recover small chunks of partial old image data as well as the full images from new data. It is usually fairly easy to distinguish these partial images due to their small size compared to other full images.

The Secure Erase feature of Image Rescue 2.0 actually overwrites every sector on the card with fixed pattern of 1's or 0's and then reformats the card clean. Since all the memory in the card has been overwritten it will be impossible to retrieve any data from the card after a Secure Erase.

IMAGE RECOVERY



Selecting Recovery Mode:

Image Rescue 2.0 offers 3 different recovery modes

High Level Search – Is the fastest and most convenient way to recover data. It uses existing file system information on the card to locate and recover deleted images. This mode can recover all data on the card not just image data. The data will be recovered with original filenames and extensions.

This method will not work if the card has severe file system damage or if the card has been reformatted and thus contains no file system information.

Low Level Search – Scans the card for image data patterns and recovers lost images even if the file system data is corrupted or the card has been reformatted. This method takes more time to complete than the High Level Search. Since it looks for image patterns and the file system data is not available, Image Rescue can not recover the original image names.

JPEG images will be recovered with a .jpg extension. TIFF and RAW files are recovered with a .tif extension. If you are recovering RAW files from a specific camera, you will need to change the extension to the native RAW format such as .NEF, .DCR, .CRW etc.

Extensive Search – performs the most comprehensive search, and scans every block of memory attempting to recover all possible image data on the card. This can often result in leftover image fragments being recovered as well as complete images.

JPEG images will be recovered with a .jpg extension. TIFF and RAW files are recovered with a .tif extension. If you are recovering RAW files from a specific camera, you will need to change the extension to the native RAW format such as .NEF, .DCS, .CRW etc.

To recover images:

- * Click on the IMAGE RECOVERY icon
- * To change where images are saved, click SELECT FOLDER and choose a new location
- * Type in how you want the beginning of your files to be named in the file name prefix box (Optional)
- * Click START to begin the recovery

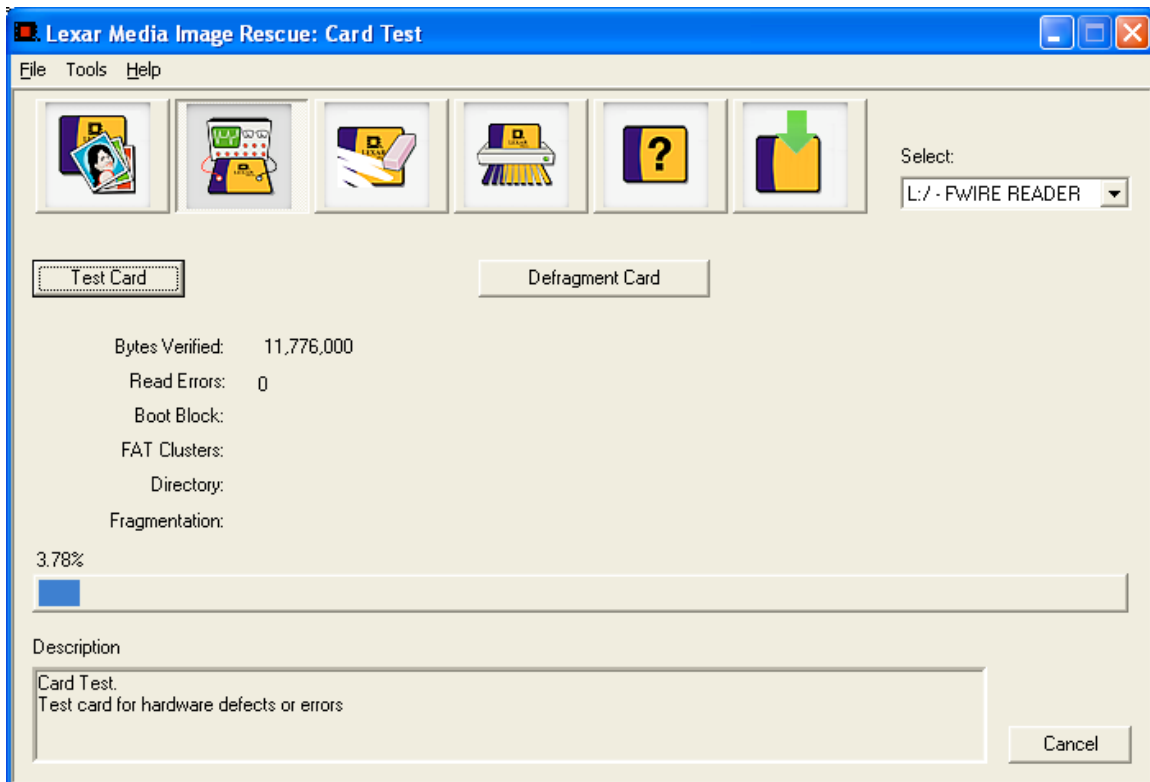
To view recovered images:

- * Click OPEN RECOVERED IMAGE FOLDER to open the folder to access your image files

To change preferences:

- * File format to recover
 - Select the image file format that is to be recovered from your CompactFlash card
 - JPEG and TIFF files are the most common formats in digital cameras
 - RAW files are a camera vendor specific format used in professional digital cameras
- * File name prefix
 - Type in the characters you want displayed at the beginning of each filename for recovered images
 - If this box is left blank, sequential numbers will be used when saving files
 - This can also be modified in the Image Recovery window

CARD TEST



Card test performs a software file system test as well as a hardware test of the card. File system errors will be automatically corrected. Hardware errors will be reported and you will need to contact the card supplier for further support.

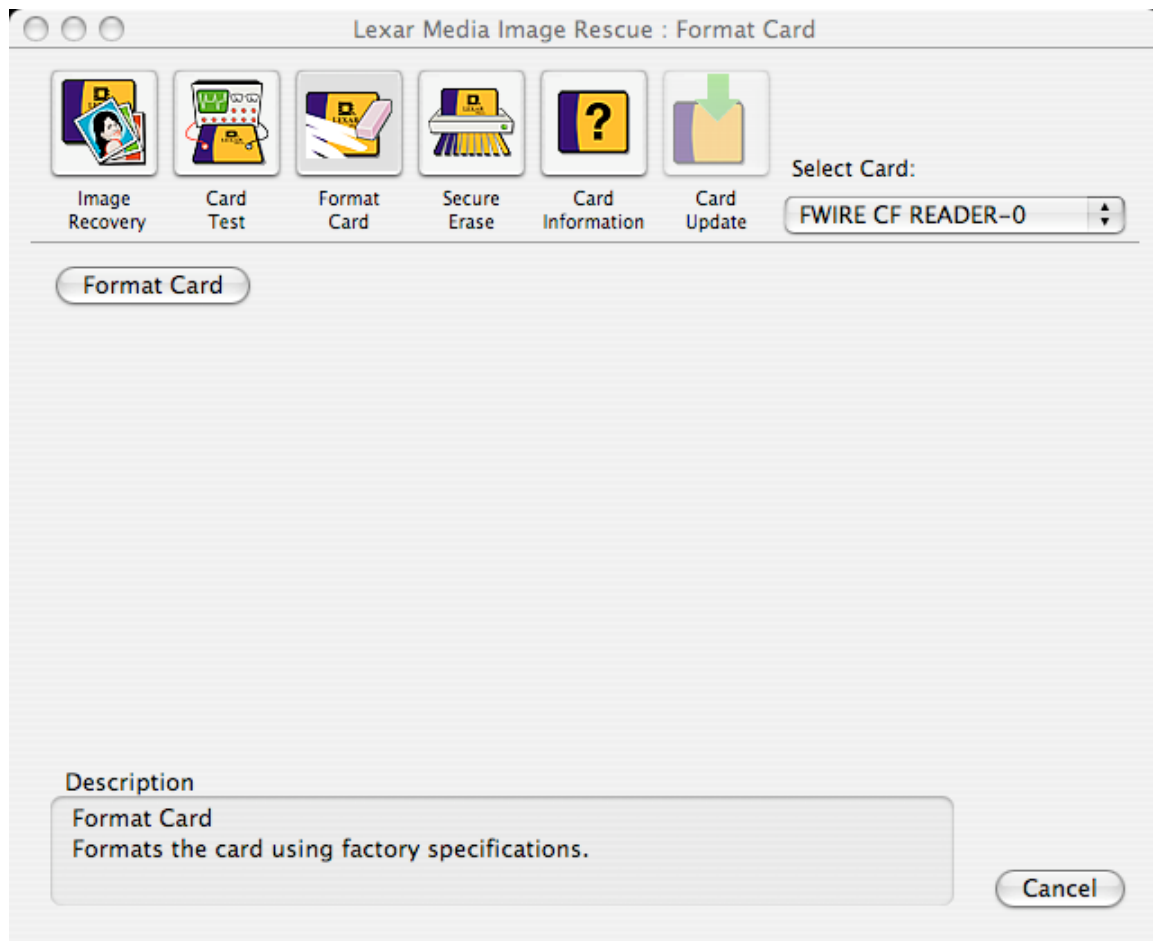
To test your card:

- * Click on the CARD TEST icon, then TEST CARD
- * Errors are reported as the card is scanned
- * If any hardware errors are found, please contact the card supplier for support

To defragment card

- * Click on the defragment card button

FORMAT CARD



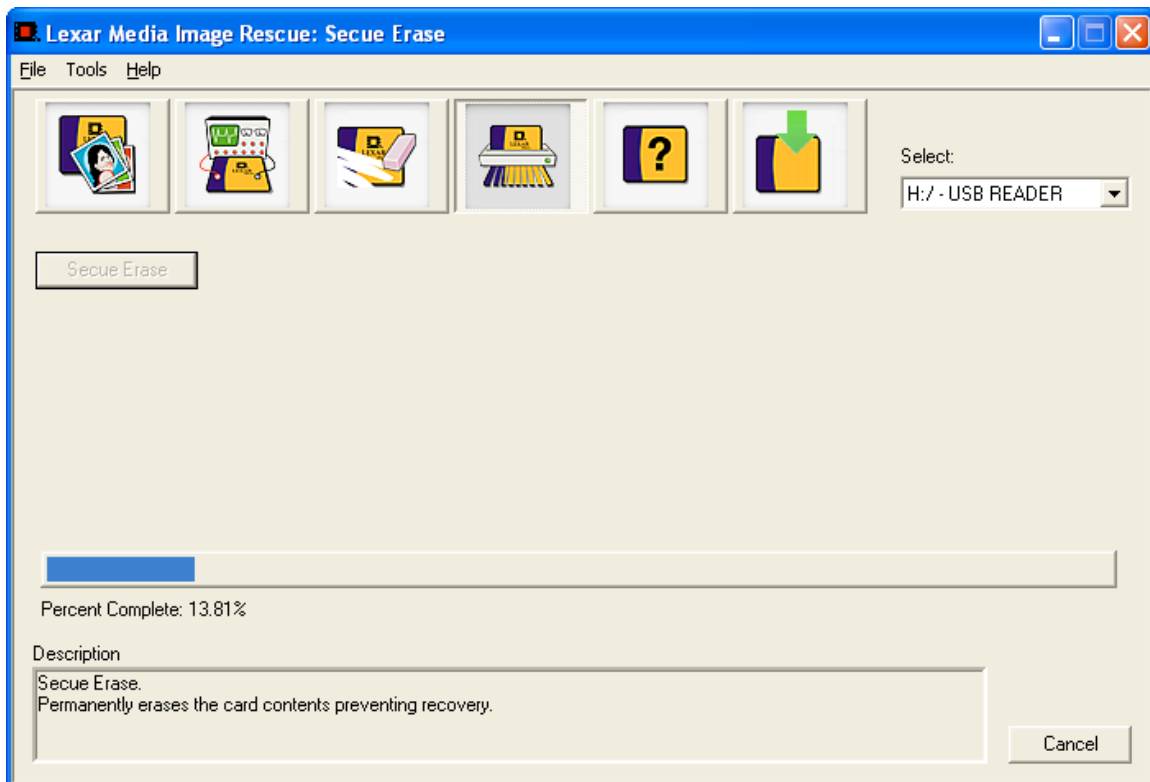
If you experience a card error message on your camera, reformatting the card with Image Rescue can usually fix it. Also use the Format Card command to reliably format cards larger than 2 GB to the original FAT32 specification (for more information on this visit www.lexarmedia.com/fat32)

To format your card:

- * Click on the FORMAT CARD icon, then the FORMAT CARD button

- * NOTE: If you need to remove your card after the process has started, make sure to use the CANCEL button first to avoid any damage to your card.

SECURE ERASE

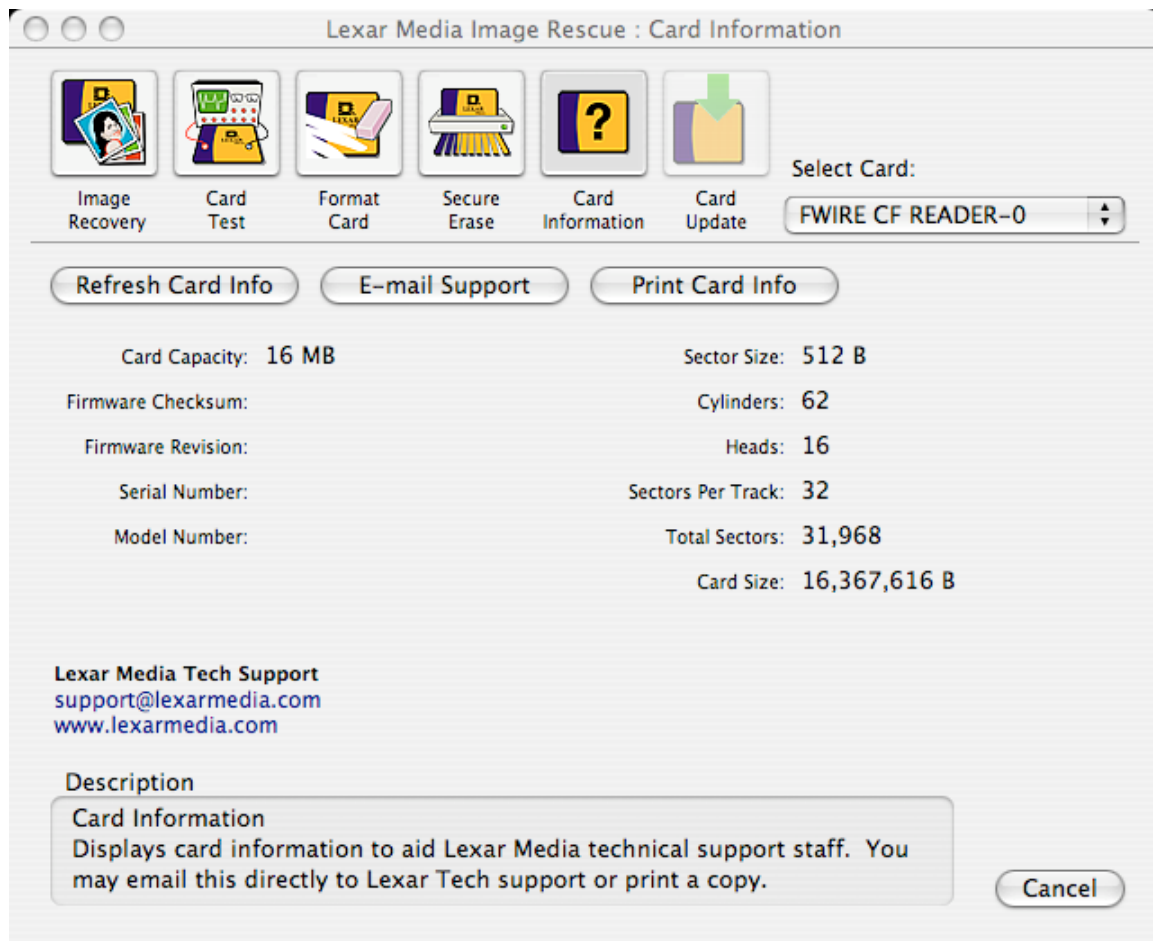


* Note Secure Erase will permanently delete all data on the card so that it can never be recovered.

* Click on the SECURE ERASE icon, then the SECURE ERASE button

* NOTE: If you need to remove your card after the process has started, make sure to use the CANCEL button first to avoid any damage to your card.

CARD INFORMATION



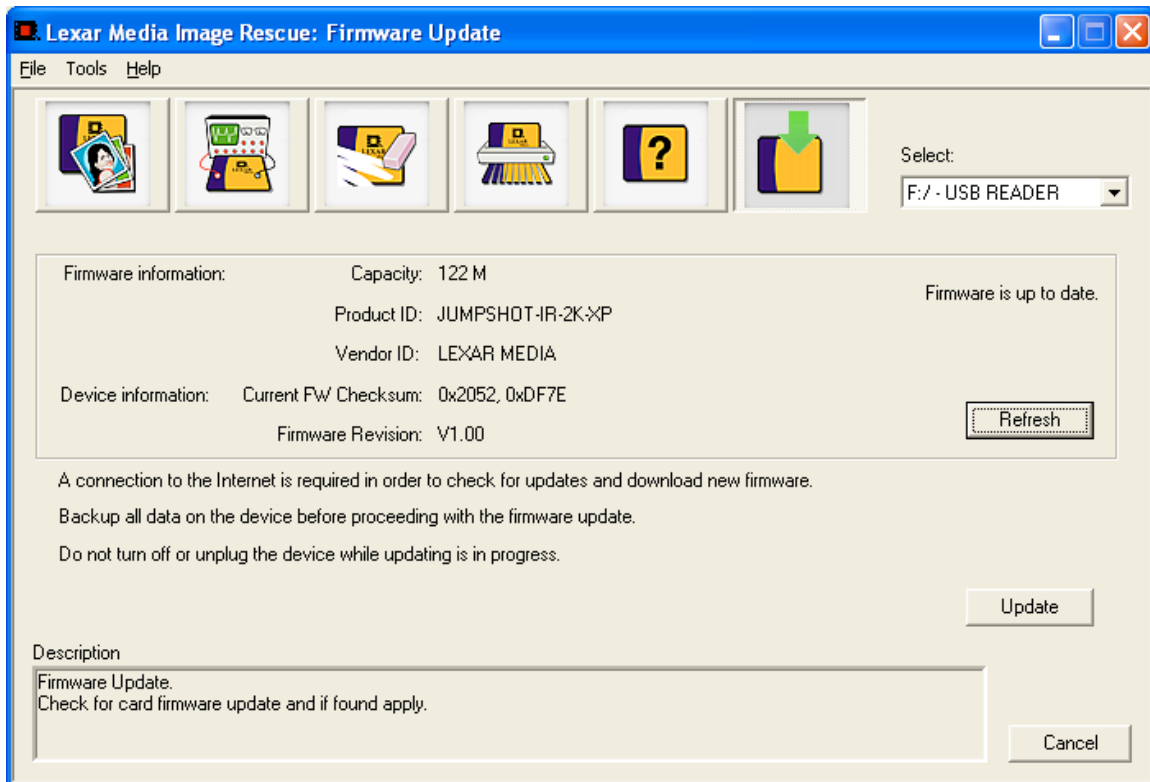
To view the specifications of your card:

- * Click on the CARD INFORMATION icon

- * Use REFRESH CARD INFO if you are switching between Memory cards
- * To send a question directly to Lexar Media technical support, use the E-MAIL SUPPORT button, and your card information will automatically be sent.

- The PRINT CARD INFO prints the information on the screen to the default printer on your computer

Card Update



The Card Update feature is only available for certain Lexar USB enabled CompactFlash cards and readers. Contact Lexar tech support to find out if your card can be updated.

Firmware Update will check for an update to a card's firmware by making a request to Lexar Media's update server via the web. The request will be made using the HTTP protocol so that any firewalls will not block the update. If an update is available a message will be displayed, if there is no update an up-to-date message will be displayed. In the case there is an update the user can request it to be applied to the card. The firmware will be downloaded from the server and the card's firmware will be updated.