

discQuest™

A world of Multimedia for the Apple IIGS!
Version 1.2

by Jawaid Bazyar

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Requirements

discQuest requires an Apple IIGS computer with:

2MB RAM

3.5" floppy disk drive

SCSI Interface Card

CD-ROM Drive & proper cables

System Software 6.0 or higher (only if using a hard disk)

A color monitor is required to view color pictures, but not required if you only use the gray-scale (black and white) imaging features. A hard disk drive is recommended but not required. The System Software provided on the Diskette System is System 6.0.1.

Installation

Hardware Installation

If you are installing a complete discQuest bundle, refer to the RamFAST™ manual that came with your discQuest bundle for information on installing the RamFAST card and attaching the CD-ROM drive to it.

<p>IMPORTANT: If you are adding a CD-ROM to an existing SCSI card, make sure that your boot hard drive's SCSI ID is higher than that of the CD-ROM. The discQuest CD-ROM Drive comes factory preset with SCSI ID #1 so you should not have to modify it, but other CD-ROM drives may be set at #4,#6, or others. Refer to your CD-ROM Drive manual for information on how to change the SCSI ID.</p>

For discQuest users *without a hard disk drive*, you will probably want to make sure that your computer always boots from the 3.5" disk drive. To do this, enter the IIGS Control Panel (press the Control, Apple, and ESC keys simultaneously). Use the arrow keys to highlight "Control Panel" and press the Return key. Use the arrows again to highlight "Slots" and press Return. The bottom of the Control Panel window should now have an item "StartUp". Use the arrow keys to make sure this option is set to "Slot 5" (left and right arrows will change the setting). Once StartUp is "Slot 5", press the Return key. You can now reboot the computer and it will start up from Slot 5 (the IIGS's 3.5 inch floppy disks). This is necessary because the IIGS cannot boot from the types of CD's discQuest works with.

Software Installation

discQuest uses Apple's *Installer* program for trouble-free installation of discQuest on a hard disk drive. If you do not have a hard drive, all you have to do is boot the floppy labelled Diskette System.

To install discQuest on a hard drive, boot your hard drive to the "Finder" program, then insert the Hard Disk Installer disk into any 3.5" drive. A window should open with the contents of the Hard Disk Installer disk. (If a window does not open automatically, double-click on the "discQuest" disk icon to open it). Then run the *Installer* program by double-clicking on its icon.

Once you are in the Installer, choose from the left hand side of the window the installation you wish to perform. There are versions for System Software 6.0, and 6.0.1 (each have slightly different device drivers which can't be mixed). Once you choose which System Software you are installing discQuest into, the right side of the window will allow you to choose a directory to place the actual discQuest application program in.

Clicking the "Install" button will begin the installation. The following files will be copied to your System folder:

Fonts/CoPilot.8	a nice monospace font best suited for displaying text off of CD's
FSTs/HS.FST	a "File System Translator" which helps your IIGS read the ISO 9660 CD-ROM format

IMPORTANT: the Installer does not copy the necessary device drivers for your SCSI card onto your hard drive. If you have a RamFAST, no additional drivers are necessary. For an Apple SCSI card, you need to install the "SCSICD.Driver". Choose "Drive: CD-ROM" in the System Software Installer program.

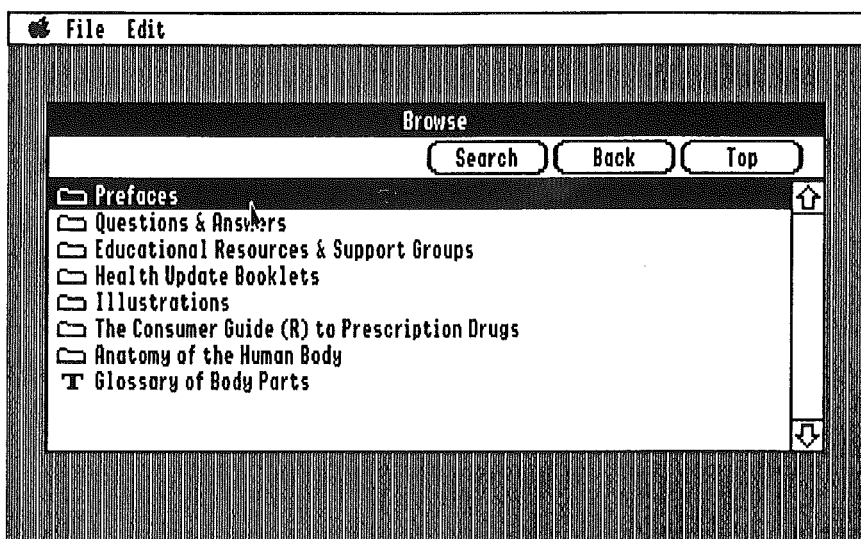
The application will be copied into the directory you specified. You should now reboot your computer to make sure the new System files are loaded and active.

If you run into a problem installing the RamFAST card or CD-ROM drive, call Sequential Systems toll-free technical support and we'll be happy to help you.

Startup and Browsing

When you run discQuest, it scans all available drives for a CD-ROM device. Then it checks to see if the CD-ROM contains a DiscPassage™ or other recognizable CD. When a usable CD has been found, discQuest opens up the "Browse" window.

The Browse window lets you view the contents of the CD in "catalog" or "Table of Contents" format. Since CD-ROMs often contain hundreds of megabytes of data, the information is broken down into categories and sub-categories, much like subdirectories on a hard disk drive. In fact, discQuest represents subcategories with a folder icon just like that used by the Finder™.



Text documents are represented with a 'T' icon, pictures are represented with a 'P' icon, and audio samples are represented by a loudspeaker icon. (Audio playback is not universally supported in discQuest 1.0, see Appendix C for details).

Double-clicking on an item, or selecting the 'Open' menu item will view or play the item.

At the top of the Browse window are three buttons: Search, Back, and Top. If you've opened several categories and want to go back to the previous one, click the 'Back' button. If you want to go all the way back to the main table of contents, click the 'Top' button.

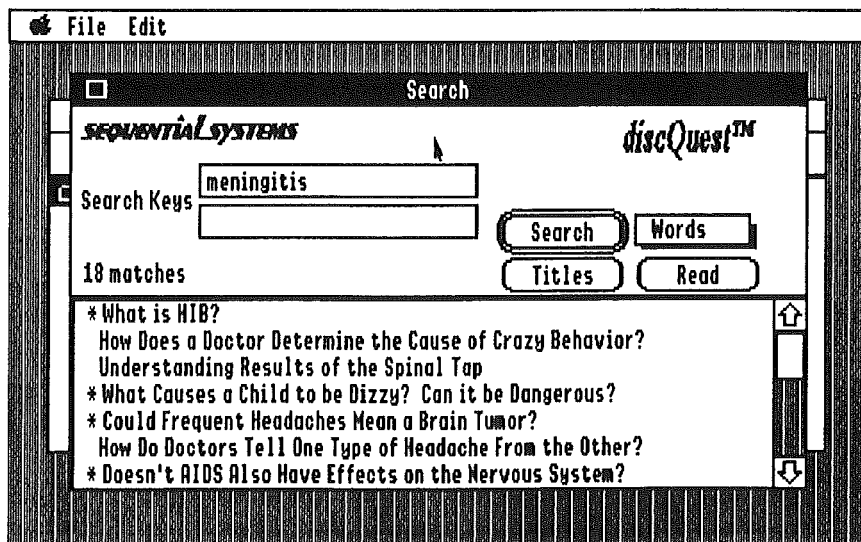
Clicking the 'Search' button will allow you to search one of up to four indexes, in the main category you have selected or opened. Each main category can (but isn't required to) have its own separate index files. For instance, if a CD had main categories of "Novels" and "Poems", selecting "Poems" and clicking "search" would only scan the indexes associated with the Poems, not those with Novels. This separation of indices usually occurs only at the top level of a CD.

The following keypresses can be used to navigate the Browse window:

<Return> Open Item
Apple-O Open Item
<Arrows> Select Item
ESC Go back one level (same as "Back" button)
Apple-ESC Go back to top level (same as "Top" button)

Search

The Search window appears when you click the "Search" button in the Browse window. The Search windows contains the following elements:



Typing a word into one of the Search Key fields and pushing the "Search" button will search the relevant index for all files that contain that word. There are often several indices you can search,

selectable by the square "pop-up" menu (labelled "Words" in the window above):

- Words - searches all words in all documents in this index
- Subjects - searches only the subject summary keywords
- Titles - searches only document titles
- Authors - searches only "author" fields in the documents

Note that not all CD's have all four of these indices. If you search on an index that a particular CD does not have, discQuest will display an error message, cancel the search, and allow you to try a different index.

You choose the index to search by selecting it from the pop-up menu to the right of the "Search" button.

When the search is complete, the number of documents that are selected appears in the middle left of the Search window. If this number is less than twenty (20), the titles of the documents are automatically displayed in the list at the bottom of the Search window. If there are more than twenty, you must manually click the "Titles" button to get a list of matching titles. You may also enter another search word into the second "Search Keys" field to narrow the search. Only documents that contain **both** words will be selected.

Once you have a list of matching titles, you may select a document to view by using the arrow keys or the mouse, and clicking the "Read" button (or pressing the <Return> key).

Viewing Documents

Much of the time, documents that are listed in the Browse and Search windows are "text files"; that is, they contain English text, tables, etc. These documents are displayed with the standard "TextEdit" tool.

To facilitate using data from discQuest in your own work, you can use the items in the Edit menu to copy data from a document into the clipboard. Simply use the mouse to select the data you want to copy, and choose "Copy" in the Edit menu. You may also save the entire document to a text file on disk by using the "Save As..." item in the

File menu. You'll be asked for a filename and to pick the disk and directory where to save the file with a regular Standard File dialog.

Printing a document is as simple as choosing "Page Setup" from the File menu to make sure your printer settings are correct, then choosing "Print" from the File menu. (See Appendix A for information on printer drivers).

When a text document is being viewed, one or both of the following new menus will appear:

Find

Related Items

The Find menu allows you to search the current document for a word or words. For instance, say that you had searched a database for "agrarian" and you had found and opened a large document. To find the particular reference, simply choose "Find", enter the word "agrarian", and press <Return> (or click the "Find" button). The contents will jump to the word (if it is in the text) and highlight it.

To search for further occurrences of the word, use "Find Again" (or Apple-G). Each reference that is found will be highlighted in red.

The Related Items menu often contains pictures, sounds, and tables that relate in some way to the text. On the Audubon's Birds CD, for instance, for each document that contains Audubon's original notes on the bird, the Related Items menu contains the birdsong (CD audio) and a picture of the bird. Related items can be tables of information, can display a picture and play audio at the same time, and any other number of things.

Viewing Pictures

Since the discQuest CD's were originally made for the Macintosh and IBM PC, the pictures on them are large and have many colors. discQuest supports two methods of viewing these pictures: "grayscale", which is the fastest and provides best detail, and a color rendering which provides reasonable color representation on the IIGS monitor. discQuest also allows the user to scroll these large pictures with the mouse. When a picture is viewed, it takes over the entire screen, so scrolling is smooth and quick (especially with an accelerator). Clicking the mouse button once will stop viewing the picture and return to the document you were viewing (or to the Browse window if you selected a picture from there).

Overview/Half Size

You can get an "overview" look at the picture, if it is larger than one screen, by pressing the space bar. The picture will be displayed half-size. Pressing the space bar again will restore the full-size display of the picture. Note that half-sizing a color image results in "color mashing"; i.e., the resultant half-size picture will not have the same colors, and may look odd.

Color/Grayscale

While displaying a picture, you can switch between the two different rendering methods (grayscale, or black and white) by pressing the following keys:

- 'G' - switch to grayscale
- 'C' - switch to color

Color rendering results in a (obviously) colorful image, although some detail is lost. Grayscale rendering produces the most detailed images. Grayscale is automatically chosen whenever you wish to print an image.

Playing Audio

On many of the discQuest CD's, there are Browse directories which contain lists of audio samples. Since these samples are CD-quality audio, to hear them you must have speakers or headphones plugged into the CD-ROM drive itself. You cannot listen to audio samples through the IIGS' built-in speaker.

If you purchased the discQuest bundle, you have a set of external speakers. Unlike many audio speakers, these speakers' magnets are shielded, and are specifically for use on computer systems. (Unshielded magnets can cause permanent distortions on computer monitors and erase disks!).

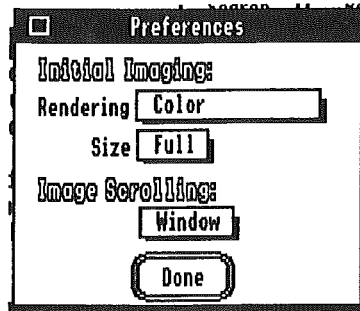
Almost all CD-ROM drives have 1/8" headphone jacks on the front of the case, where you can plug in headphones or amplified speakers such as those shipped with the discQuest bundle. Some CD-ROM drives also have "RCA" audio jacks on the back of the unit, to allow you to connect the CD-ROM to a home stereo amplifier.

Some items will play audio automatically when you bring them up (some pictures). Some audio tracks are played by choosing "Hear XXX" from the Related Items menu or opening an audio item from the Browse window.

On most CD-ROM drives, the audio track will be started and will play to completion unless interrupted. While the audio is playing, you can continue to read documents or look at the list of items in the Search or Browse windows. Generally, opening a new document or moving to a new directory in the Browse window will cancel audio playback. However, on some hardware configurations (Apple SCSI Card and Apple CD-150) audio playback is more restricted as far as "background playing" of the audio is concerned.

Preferences

You can change certain default behaviors of discQuest by editing the discQuest preferences. Choose "Preferences" under the "Edit" menu at any time, and the following window will appear.



Rendering controls whether images are initially displayed in Color or Grayscale. You may still switch between modes with the keyboard commands discussed in "Viewing Pictures". The default is Grayscale.

Size controls whether images initially are displayed half-size or full-size. Again, you can change this with keyboard commands when viewing the picture.

Finally, *Image Scrolling* allows you to choose the method by which mouse movements cause the picture on the screen to move. Window mode is the default, and moving the mouse up (forward) will move the display "window" towards the top of the picture. The other scroll mode is "page" mode; moving the mouse up (forward) causes the 'page' the image is on to move up (resulting in the image moving down on the screen).

Preferences are stored in the file "DQ.Prefs".

Troubleshooting

When I'm in the Finder and I insert a CD-ROM into the drive, nothing appears.

RamFAST: Run the RamFAST utility program (see the RamFAST manual) and choose "SCSI Utilities" from the menu. Make sure that the CD-ROM drive appears in the list of SCSI devices. If it does not:

- Make sure the CD-ROM drive is powered on *before* you turn on your computer.
- Make sure that the CD-ROM's SCSI ID does not conflict with the SCSI ID of another device on your SCSI chain

If the CD-ROM drive does appear in the list of SCSI devices:

- Make sure that your RamFAST has **Version 3.01e** of the RamFAST firmware (the first screen in the utility program will tell you this). If you need a ROM update, you can order one from Sequential Systems' toll-free sales line.

Check Drivers and FSTs:

- Make sure that you properly installed the High Sierra/ISO 9660 FST (File System Translator) onto your hard drive. Look in the "System:FSTs" folder for "HS.FST".
- If you have an Apple SCSI card, make sure the "System:Drivers" folder on your hard disk contains "SCSI.Manager" and "SCSICD.Driver".
- If you have a RamFAST SCSI card, make sure the "System:Drivers" folder contains "RamFAST.Driver".

You can install drivers either by using the discQuest "Hard Disk Installer" diskette, or by using the System Software installer to place the "Drive: CD-ROM" package on your hard drive. If you have an Apple SCSI card, you must use the System Software installer (discQuest does not come with the appropriate Apple SCSI drivers).

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discQuest says "Unable to locate discPassage CD" on startup

- See "In Finder Nothing Appears" above.
- Make sure that the CD you are attempting to use is in fact a "discPassage" CD-ROM. These CD's almost always have the "discPassage" logo on them. discQuest is not needed for CDs that are IIGS-specific or have IIGS-specific files on them (such as the Apple Developer Group CD-ROMs).

The only SCSI device on my SCSI card is the CD-ROM drive, and I have crashes or the CD-ROM is not recognized.

- RamFAST: if you boot straight into GS/OS (with a System Software boot disk other than that provided by Sequential) the RamFAST will crash about half-way through the boot. If you then "warm reboot" (press Control-OpenApple-Reset) the system will boot properly. The only workaround is to first boot directly into ProDOS 8 (which is exactly what our standalone boot disk does).
- Apple HS or Rev C SCSI: the Apple SCSI cards will normally only work with a CD-ROM drive if there is also a hard drive on the SCSI chain. The Apple SCSI card manual discusses a way to work around this by changing the card's SCSI ID.

Appendix A: Printer Drivers

Compatibility

discQuest has been tested with the following printers and drivers:

ImageWriter (I & II)	Apple ImageWriter Driver
	Vitesse <u>Perfect-Image</u>
HP DeskJet Series	Vitesse <u>Harmonie</u> , Seven Hills <u>Independence</u>
StyleWriter	Apple StyleWriter Driver
LaserWriter IIf	Apple LaserWriter Driver

Installing Drivers

The floppy-based version of discQuest comes with the Apple ImageWriter driver pre-installed. If you wish to print to any other type of printer (or to a printer on a network) you will have to run the System Software "Install" disk or the "Install" disk of the third-party drivers you use to copy the proper drivers onto the discQuest disk.

You should do this only to a backup of the discQuest diskette (see Introduction for instructions on how to make a backup disk).

Many of the pictures on supported CD titles are complex images, and do not print well on an ImageWriter with Apple's standard driver. We recommend Vitesse's "Perfect Image" ImageWriter drivers, which allow the user to finely control many aspects of printing color images. Vitesse may be reached at:

Vitesse, Inc.
PO Box 929
La Puente, CA 91747-0929
(818) 813-1274

Appendix B: Supported Graphics Types

discQuest has the capability to display several different types of graphics files that appear on the supported CD's. These are:

Adobe TIFF
Topix '.SCF' (formerly RIX-Works)
Windows .BMP

In all cases except .BMP files, the 640x480 pixel image is read into memory, the 256 entry color palette is converted to a 16-color (or 16-level grayscale) palette, and each pixel in the file is remapped to that new palette. This process is written in assembly language and is very fast, even on an un-accelerated Apple IIGS.

.BMP files are 16-color, and appear on the Family Doctor CD-ROM, but are not currently used by discQuest.

Note that discQuest itself can only display these types of picture files if they are on a discQuest CD-ROM. Sequential may produce a standalone graphics file viewer program in the future.

Appendix C: Supported Hardware

The following combination of SCSI interfaces and CD-ROM drives have been tested and are supported by discQuest.

SCSI Interface

Apple Hi-Speed SCSI

Sequential RamFAST™

CD-ROM Drives

Apple CD-150 & CD-SC+

Pioneer DRM-600 series

Apple CD-300 (no audio)

Apple CD-150 & CD-SC+

Pioneer DRM-600 Series

Sequential discQuest CD-ROM Drive

NEC (any model)

Texel (any model)

"SCSI-II Standard" (includes Sony, Toshiba, Phillips, NEC, Texel; Apple CD-300 & PowerCD)

Glossary

- CD-ROM** "Compact Disc - Read Only Memory". CD-ROMs are based on Sony's compact disc technology and are also "read-only", meaning that one can retrieve data from CDs but cannot change or add information to them, like a floppy disk or hard disk.
- FST** Short for "File System Translator". A GS/OS FST allows GS/OS to access new types of "File Systems". For example, the ProDOS FST allows GS/OS to access Apple II ProDOS disks, and the HFS FST allows GS/OS to access Macintosh disks. See "ISO 9660".
- High Sierra ISO 9660** See "ISO 9660"
ISO 9660 (also known as High Sierra) is the industry-standard file system used on CD-ROMs. While CD-ROMs can be made with any file system (such as ProDOS or Macintosh HFS), most CD-ROMs are ISO format. You must have "HS.FST" installed in your System Software to use these CD-ROMs.
- Multimedia** Meaning "many types media". Generally refers to software that mixes audio, still pictures and text, and movies or other animation. Many CD-ROMs are "Multimedia".
- SCSI** (pronounced 'scuzzy') "Small Computer System Interface"- an industry standard way of connecting fast peripherals to a computer. SCSI adapters or interface boards (like the RamFAST or Apple High Speed SCSI card) are required for an Apple II to use SCSI devices.