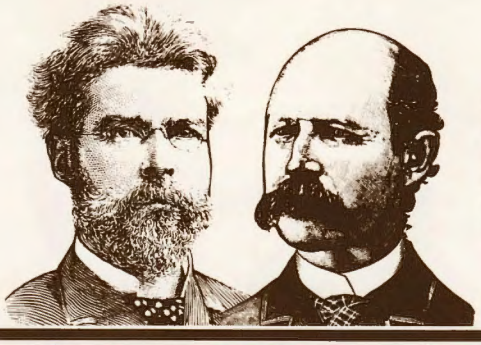


UNLOCKED and UNPROTECTED

Requires APPLE® IIe with Extended 80-Column Card

Beagle Bros™
Micro Software Inc.

DiskQuik

DISK DRIVE EMULATOR
by HARRY BRUCE and GENE HITE

(REQUIRES APPLE IIe WITH EXTENDED 80-COLUMN CARD)

AN IN-MEMORY "DISK DRIVE"

DiskQuik acts like a disk drive connected to Slot 3, but it is much faster, quieter and more reliable. Enjoy the benefits of a 2nd (or 3rd or 4th...) disk drive at less than 1/10 the price.

The Apple IIe's Extended 80-Column Card (required) holds about *half* as much data as a 5¼" floppy disk.

USES NORMAL COMMANDS

All normal Applesoft and DOS commands are in effect once DiskQuik is loaded in your Apple IIe. For example, "CATALOG,S3" catalogs files in RAM Slot 3. "CATALOG,S6" displays your normal disk catalog. Transfer files between RAM and your normal Apple floppy disks with ease.

SILENT AND FAST

Since no moving parts are involved, DiskQuik operates silently and at super-high speeds. See it to believe it.

READY WHEN YOU ARE

DiskQuik has many uses. For example, load often-used files like FID into memory when you boot, so they are always available when you need them. Access these files just as you would from disk ("BRUN FID, S3" for example). Swap files from RAM onto disk and vice versa, just as if a disk drive were connected to Slot #3.

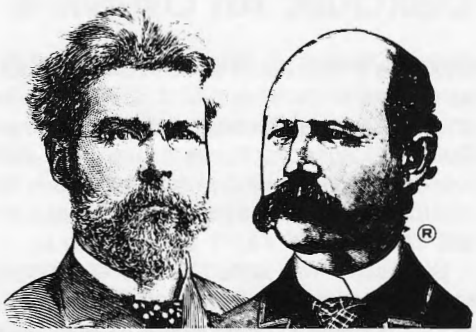
FRIENDLY AND COMPATIBLE:

DiskQuik is compatible with Apple IIe 80-column display, ProntoDOS, GPLE, Double-Take, and all normal Applesoft and DOS commands and procedures. DiskQuik will not interfere with IIe "Double Hi-Res" Graphics.

Free "PEEKS and POKES" 11 x 17 Wall Chart Enclosed.

Apple's PEEKS, POKES, POINTERS and CALLS on one heavy-duty poster. An indispensable Apple programming tool.

INCLUDES PEEKS & POKES CHART



DISKQUIK was written by Harry Bruce and Gene Hite.

7918 Montreal Ct. / Cincinnati, Ohio 45241 / (513) 777-0788

Published by Beagle Bros Micro Software Inc.
4315 Sierra Vista / San Diego, California 92103

T A B L E O F C O N T E N T S

DiskQuik: An Overview

DiskQuik makes your Apple IIe believe an auxiliary disk drive is connected to peripheral Slot 3. You can load and save programs at super-high speeds from and to your Extended 80-Column Card, exactly as if it were a disk drive—with no moving parts! Any kind of data may easily be transferred back and forth between this pseudo drive and normal floppy disks in real drives.

DiskQuik is well-suited for almost anything you would use a spare disk drive for, including "file-swapping" and stand-by storage of often used programs and utilities—now always ready, in memory, when you need them.

A normal Apple 3.3 disk has 496 sectors available for data storage. DiskQuik gives you roughly half that—238 free storage sectors, plus eight more used by the Slot 3 catalog.

AUXILIARY MEMORY REQUIRED

DiskQuik will only work in an APPLE IIe with an EXTENDED 80-COLUMN TEXT CARD installed (see your Extended 80-Column Card Manual regarding installation). Programs and data saved to Slot 3 are stored on this 64K Card's "Auxiliary Memory". Most of DiskQuik's own routines are also located here, so DiskQuik operation will not conflict with Applesoft, Integer Basic and machine language programs which run from Main Memory.

NORMAL COMMANDS AND PROCEDURES

Once loaded, DiskQuik operates with completely normal Apple commands, except for INIT, which is disabled when DiskQuik is in operation. A new command, "WIPE", is used to initialize—or erase—the imaginary disk in Slot 3. Read your Apple Manuals for instructions on using Apple commands. Page 7 of this book tells about WIPE.

Apple's 80-column display, which uses part of Auxiliary Memory, operates normally with DiskQuik. DiskQuik also provides optional protection for the Auxiliary Hi-Resolution Graphics page, so that programs using "Double Hi-Res" (16-color, 560 x 192) graphics will operate normally.

DON'T SAY WE DIDN'T WARN YOU!

Since DiskQuik acts so much like a hardware disk drive, it is entirely possible you will forget that it isn't one. Remember, that any data "saved" onto DiskQuik's Slot 3 will no longer be there if you turn the power off or use Auxiliary Memory for other purposes.

SLOT 3 FILES THAT YOU WANT TO KEEP MUST BE BACKED UP ON DISK. Individual files may be transferred from DiskQuik to disk (and back) using normal DOS commands or FID. The entire contents of Slot 3 may be transferred with the SAVEDQ program (page 11).

There. We warned you.

BACK UP YOUR DISK

Make a copy of your original DiskQuik disk, and store the original in a safe place, away from prying magnetic fields. RUN COPYA from your System Master disk to copy DiskQuik in a minute or two.

The DiskQuik disk is not copy protected (just copy*right*ed), because this makes it easier to use and, therefore, more valuable to you, the purchaser. Please honor our copyrights by not giving copies of our products away. You support us and we'll support you.

DISTRIBUTION LICENSES

If you would like to publish programs that include DiskQuik, a special publisher's version is available for public licensing for a flat $250 per year. Licenses are also available to organizations that would like to include DiskQuik on disks distributed internally. Contact the authors:

Harry Bruce or Gene Hite / HeartWood Designs, Inc.
7918 Montreal Ct. / Cincinnati, Ohio 45241
(513) 777-0788

The DiskQuik Disk Catalog

Here is a brief description of all (or most of) the files on the DiskQuik disk. RUN NOTES to read about any updates since this manual was printed.

HELLO, HELLO.OBJ, DISKQUIK, DQ.OBJ1, DQ.OBJ2, DQ.OBJ3, DQ.OBJ4 and LOADDQ are duplicated on the Track 3 half of DiskQuik's "split catalog". These duplicates are the actual files accessed when DiskQuik is booted. See page 16.

HELLO checks out your system, Bruns DISKQUIK, and transfers certain files from the disk into DiskQuik (page 5).
(**HELLO.OBJ** is machine-language code used by HELLO.)

DISKQUIK installs and connects DiskQuik. If Brun directly, no files will be transferred from disk to DiskQuik (page 5).
(**DQ.OBJ1, DQ.OBJ2, DQ.OBJ3** and **DQ.OBJ4** are machine-language files used by the DISKQUIK program.)

DISKQUIK.DM lets you load DiskQuik with DOS Moved to Auxiliary Memory (page 19).

FID is Apple's file transfer program (page 22).

NOTES tells of any changes or features not covered by this manual. RUN NOTES right now; we'll wait here.

Note: The ".OBJ" files must be ON THE SAME DISK as the file listed above it (or in Slot 3 together) for that file to function.

DQMENU lets you select these Options—

DQOFF* disconnects DiskQuik and restores the INIT command (page 9).
(***OFF.OBJ**** is machine-language code used by DQOFF.)

DQON* reconnects DiskQuik (page 9).
(**ON.OBJ*** is machine-language code used by DQON.)

CLICKOFF disables DiskQuik's speaker click (page 10).

CLICKON re-enables DiskQuik's speaker click (page 10).

SAVEDQ* copies all data from Auxiliary Memory onto disk (page 11).

LOADDQ* copies all data from special disks into Auxiliary Memory (page 12).

LOCKDQ* write-protects DiskQuik (page 13).

UNLOCKDQ* cancels DiskQuik write-protection (page 13).

LOCKHR protects the Auxiliary Hi-Res Page (page 14).

UNLOCKHR un-protects Auxiliary Hi-Res (page 14).

* **.DM** version provided for use with **D**OS **M**oved to Auxiliary Memory (see page 19).

Loading DiskQuik

There are three ways to initially load and activate DiskQuik—

1. BOOT THE DISKQUIK DISK.

This is the simplest method of loading DiskQuik. If you are just learning, boot DiskQuik now and skip to the next page.

Booting will run the HELLO program, which puts DiskQuik and its utility programs into Auxiliary Memory in Slot 3. Immediately after booting, DOS is set to Slot 3, Drive 1.

See page 19 regarding loading DiskQuik with Dos Moved to Auxiliary Memory.

Remember that booting DiskQuik (or booting any disk) will erase certain utilities such as Double-Take™ and GPLE™, which may already have been loaded into memory.

2. RUN HELLO

This has the same effect as booting the DiskQuik disk, except that programs in memory, such as GPLE or Double-Take are not erased. HELLO checks to see that hardware requirements are met (using HELLO.OBJ file). If the computer being used is not an Apple IIe, or if the Extended 80-Column Text Card is not present, DiskQuik can't, and won't, be loaded.

After DiskQuik is activated, HELLO uses the LOADDQ program (page 12) to load Slot 3 with utilities from the DiskQuik disk.

3. BRUN DISKQUIK

"DISKQUIK" is the actual DiskQuik installation program. You can activate it with this direct keyboard (not in a program) command:

BRUN DISKQUIK

Note: DOS may be destroyed if the files DQ.OBJ1, DQ.OBJ2, DQ.OBJ3 and DQ.OBJ4 are not present on the same disk as the DISKQUIK file, making it necessary for you to reboot.

This will set up Slot 3 as a pseudo disk drive without checking your system and without loading any programs or data. After you BRUN DISKQUIK, Slot 3 will appear to have a freshly-initialized disk in it.

"BRUN DISKQUIK" must be a direct keyboard command. If you want to run DiskQuik from within a program, DON'T BRUN IT; instead, use these two commands:

PRINT CHR$(4);"BLOAD DISKQUIK": CALL 543

DISKQUIK requires three available DOS buffers (a normal situation) to do its thing; it will not function if another file is open or if MAXFILES is set less than the normal 3.

Using DiskQuik

Once DiskQuik is loaded, imagine you have a Slot 3, Drive 1, hardware disk drive, to be used just like a real drive.

DiskQuik acknowledges all DOS commands except INIT. For example, type "CATALOG,S3", and you will see a fast catalog of whatever files are stored in Slot 3. The clicking sound acts like an "In Use" signal—if you don't like it, turn it off (see page 8).

To switch from slot to slot, you must specify the appropriate slot numbers. For example, "CATALOG,S6" catalogs a real drive in Slot 6. "CATALOG,S3" catalogs Slot 3, DiskQuik's slot. You will get a delayed (but well-deserved) "I/O ERROR" if you try to access Slot 3, Drive 2; DiskQuik has no Drive 2. Read your DOS Manual for details regarding switching from drive to drive.

Now try some Loading, Saving, Locking, Deleting, and other everyday disk functions. Notice how much faster DiskQuik is than your hardware drive. To illustrate, suppose a program named "SORTFILE" is present on a floppy disk in Slot 6, and you wish to save it to DiskQuik. Simply type:

LOAD SORTFILE,S6
SAVE SORTFILE,S3
LOCK SORTFILE . . . etc.

To RUN the program, simply type:

RUN SORTFILE

Or, if Slot 3 and Drive 1 aren't already selected:

RUN SORTFILE,S3,D1

BRUN FID, from the DiskQuik disk or your Apple System Master disk to transfer all types of files, or groups of files, from disk-to-disk or from disk-to-DiskQuik and back. See your DOS Manual for complete FID instructions.

ONE MORE TIME

SLOT 3 FILES THAT YOU WANT TO KEEP MUST BE BACKED UP ON DISK BEFORE TURNING OFF THE POWER, OR BEFORE USING AUXILIARY MEMORY FOR OTHER PURPOSES.

Initializing DiskQuik: The WIPE Command

To clear DiskQuik of all programs and data, use DiskQuik's "WIPE" command. WIPE will, in effect, "INITialize" the imaginary disk in Slot 3, but save no "greeting" program. WIPE is to DiskQuik as INIT is to a floppy disk (only a thousand times faster) so WIPE with care, because WIPE ERASES ALL DATA IN SLOT 3.

To WIPE, simply type:

WIPE (return), or...

WIPE,S3,D1

(WIPE with other than Slot 3 will produce an "I/O Error".)

Like INIT, WIPE can be used with a specified Volume Number (e.g. WIPE,V123). DOS will check the Volume Number on DiskQuik exactly as it does with disks.

The INIT command is not available while DiskQuik is activated. Therefore, programs like COPYA, which use INIT, will not work. If you need to use INIT to initialize a disk, or if you need to use a program like COPYA, restore DOS (and temporarily disconnect DiskQuik) by booting a normal disk, or by Running the DQMENU program (see page 8) and selecting Option A (or BRUN DQOFF). Restore DiskQuik and WIPE with DQMENU Option B (or BRUN DQON). Programs and data stored on Slot 3 will not normally be disturbed by disconnecting DiskQuik.

Remember, WIPE erases all Slot 3 memory. Think before you WIPE.

DQMENU: The DiskQuik Utilities

For best results, access all DiskQuik utilities by Running DQMENU.

The Applesoft program, DQMENU, may be Run to access DiskQuik's utility programs. DQMENU may be accessed from a floppy disk, or from DiskQuik itself in Slot 3 (the utilities that DQMENU accesses must, of course, be on the same disk, or in Slot 3, with DQMENU).

Access DQMENU with this command:

RUN DQMENU

Then select the letter next to the option you want to execute.

Running DQMENU (or Running any Applesoft program) will, of course, destroy any Applesoft program in memory; be sure to Save your current program before Running DQMENU. You have the option of keeping your program intact by Brunning the DiskQuik utility you want instead. For example, instead of typing "RUN DQMENU" and selecting Option C (Click Off), you could simply BRUN CLICKOFF, or, from a program, BLOAD CLICKOFF: CALL 543.

To play it safe, save any program in memory before accessing another.

DQMENU Option:	**Activates this file:**
A. Disconnect DiskQuik	DQOFF* (page 9)
B. Re-Connect DiskQuik	DQON* (page 9)
C. Silence DiskQuik Click	CLICKOFF (page 10)
D. Activate DiskQuik Click	CLICKON (page 10)
E. Save All Slot 3 Files	SAVEDQ* (page 11)
F. Load DQ-Disk Files	LOADDQ* (page 12)
G. Write-Protect DiskQuik	LOCKDQ* (page 13)
H. Unprotect DiskQuik	UNLOCKDQ* (page 13)
I. Protect Double Hi-Res	LOCKHR (page 14)
J. Unprotect Hi-Res	UNLOCKHR (page 14)

*DOS-MOVED (.DM) UTILITIES

If you are using DOS that has been moved to Auxiliary Memory by ProntoDOS's DOS-UP or GPLE's GPLE DOS MOVER, DQMENU will access the ".DM" versions of certain utilities. See page 19 for more information.

DQMENU OPTION A:
Disconnect DiskQuik

For best results, access all DiskQuik utilities by Running DQMENU.

Utility: DQOFF*
Keyboard Command: **BRUN DQOFF**
Program Command:
PRINT CHR$(4);"BLOAD DQOFF": CALL 543
Files Required: DQOFF* and OFF.OBJ*

DQOFF disconnects DiskQuik and restores the INIT command so you can initialize disks, or so you can use COPYA or other programs that require INIT. The WIPE command will be disabled, but DiskQuik data will not be disturbed. You may access DQOFF from a floppy disk, or from DiskQuik itself, in Slot 3.

Another way to disconnect DiskQuik is to boot a normal disk. DiskQuik data will not be disturbed unless some program goes into Auxiliary Memory and disturbs it. Revive DiskQuik intact with DQON (below).

*or DQOFF.**DM** and OFF.OBJ.**DM** (see page 19).

DQMENU OPTION B:
Re-Connect DiskQuik

Utility: DQON*
Keyboard Command: **BRUN DQON**
Program Command:
PRINT CHR$(4);"BLOAD DQON": CALL 543
Files Required: DQON* and ON.OBJ*

DQON re-connects DiskQuik after it has been loaded and disconnected (see above). The WIPE command will be revived, replacing INIT.

Note: You will never BRUN DQON from DiskQuik itself, only from a floppy disk (you can't connect something that is already connected).

*or DQON.**DM** or ON.OBJ.**DM** (see page 19).

DQMENU OPTION C:
Silence DiskQuik Click

For best results, access all DiskQuik utilities by Running DQMENU.

Utility: CLICKOFF
Keyboard Command: **BRUN CLICKOFF**
Program Command:
PRINT CHR$(4);"BLOAD CLICKOFF": CALL 543
File Required: CLICKOFF

CLICKOFF quiets DiskQuik. DiskQuik normally makes a clicking sound as it operates, analogous to the whirring and clacking (and sometimes choking...) noise a disk drive makes. The sole purpose of this clicking is to serve as an "In Use" indicator. Without it, DiskQuik is totally silent, but totally functional. Turn off the click if it bugs you.

DQMENU OPTION D:
Re-activate DiskQuik's Click

Utility: CLICKON
Keyboard Command: **BRUN CLICKON**
Program Command:
PRINT CHR$(4);"BLOAD CLICKON": CALL 543
File Required: CLICKON

CLICKON turns on DiskQuik's click.

DQMENU OPTION E:
Save all Slot 3 Data Onto Disk

For best results, access all DiskQuik utilities by Running DQMENU.

Utility: SAVEDQ*
Keyboard Command: **BRUN SAVEDQ**
Program Command:
PRINT CHR$(4);"BLOAD SAVEDQ": CALL 543
File Required: SAVEDQ*

SAVEDQ quickly saves the entire contents of DiskQuik—complete with directory, programs and data—to an *initialized* floppy disk in Slot 6, Drive 1 (or Drive 2 or another slot; see Note on page 12). This is useful for saving your work, of course, and for backing up DiskQuik to protect against power failures and other unmentionable mishaps. The disk created by SAVEDQ may be quickly reloaded into Slot 3 using the LOADDQ program (next page).

Warning: Close all files before using SAVEDQ. Open files will produce unexpected (and undoubtedly unpleasant) results.

WARNING! THE PREVIOUS CONTENTS OF A DISK WILL BE COMPLETELY DESTROYED BY SAVEDQ.

Remember, individual files may be saved directly to disk with normal DOS commands—LOAD, SAVE, etc. SAVEDQ is for saving the *entire contents* of Slot 3 onto disk.

*or SAVEDQ.**DM** (see page 19).

DQ-Disks

Disks created with SAVEDQ are unique; you might want to label them accordingly. We call them "DQ-Disks". They will operate as normal DOS 3.3 disks in any slot or drive, but will have only 238 sectors (Slot 3's limit) available for data storage. You may change the contents of a DQ-Disk, just as you would any disk, with normal DOS commands (whether DiskQuik is installed or not). Anything over 238 sectors (not counting the 8 sectors occupied by the Directory and VTOC) will give you a Disk Full error.

DQMENU OPTION F:
Load DiskQuik With Data From Disk

For best results, access all DiskQuik utilities by Running DQMENU.

Utility: LOADDQ*
Keyboard Command: **BRUN LOADDQ**
Program Command:
PRINT CHR$(4);"BLOAD LOADDQ": CALL 543
File Required: LOADDQ*

LOADDQ will quickly load DiskQuik with the contents of a DQ-Disk (previous page) in Slot 6, Drive 1 (or another drive; see Note below). THIS DISK MUST HAVE BEEN CREATED WITH SAVEDQ (page 11). If you try to use LOADDQ with a normal disk, you will be fooled—the DiskQuik catalog will perhaps look normal, and perhaps contain all of the file names from the normal disk, but many of the files may not be accessible (I/O Error). Only files completely in the upper tracks of a disk are copied by LOADDQ.

Warning: Close all files before using LOADDQ. Open files will produce unexpected (and undoubtedly unpleasant) results.

WARNING! THE PREVIOUS CONTENTS OF SLOT 3 WILL BE DESTROYED BY LOADDQ.

Remember, individual files may be loaded directly into Slot 3 from any disk with normal DOS commands—LOAD, SAVE, etc. LOADDQ is used when you want to load *all of the files* from a DQ-Disk.

*or LOADDQ.**DM** (see page 19).

NOTE: USING LOADDQ AND SAVEDQ WITH OTHER SLOTS & DRIVES

LOADDQ and SAVEDQ assume the disk to be used is in Slot 6, Drive 1. These programs can be modified to load or save to or from a different slot or drive with simple pokes—

BLOAD LOADDQ
POKE 696, slot# * 16
POKE 703, drive#
BSAVE LOADDQ,A$21F,L$E0

You may Bsave LOADDQ and SAVEDQ under different names (like "LOADDQ2" and "SAVEDQ2").

BLOAD SAVEDQ
POKE 713, slot# * 16
POKE 720, drive#
BSAVE SAVEDQ,A$21F,L$D3

DQMENU OPTION G:
Write-Protect DiskQuik

For best results, access all DiskQuik utilities by Running DQMENU.

UTILITY: LOCKDQ*
Keyboard Command: **BRUN LOCKDQ**
Program Command:
PRINT CHR$(4);"BLOAD LOCKDQ": CALL 543
Files Required: LOCKDQ*

LOCKDQ will "write protect" DiskQuik, so that it may be read from but not written to. Even the WIPE command will not clear DiskQuik while it is write-protected. Using the SAVEDQ function to store Slot 3's contents on disk will also save Slot 3's write-protect status.

*or LOCKDQ.**DM**

DQMENU OPTION H:
Cancel DiskQuik Write-Protection

Utility: UNLOCKDQ*
Keyboard Command: **BRUN UNLOCKDQ**
Program Command:
PRINT CHR$(4);"BLOAD UNLOCKDQ": CALL 543
File Required: UNLOCKDQ*

UNLOCKDQ will "un-write-protect" DiskQuik, enabling you to write to it. Using the SAVEDQ function to store Slot 3's contents on disk will also save the unprotected status of Slot 3.

*or UNLOCKDQ.**DM**

TECHNICAL NOTES ABOUT SLOT 3 WRITE-PROTECTION

If the motherboard ROM is selected when DiskQuik accesses tracks $1C-$1F, DiskQuik will return with the "language card" RAM Write-*enabled* (unprotected). Otherwise, DiskQuik does not affect Write-Protection.

Write-Enabled RAM is the normal Apple convention. Some machine language programs may wish to keep it Write-Protected, however, and should re-protect after each DiskQuik access.

DQMENU OPTION I:
Protect Double Hi-Res Graphics Memory

For best results, access all DiskQuik utilities by Running DQMENU.

Utility: LOCKHR
Keyboard Command:
BRUN LOCKHR ("WIPE" recommended first)
Program Command:
PRINT CHR$(4);"BLOAD LOCKHR": CALL 543
File Required: LOCKHR

Note: Double Hi-Res cannot be accessed without special software.

LOCKHR will reserve the 32 sectors of Auxiliary Memory used for Double Hi-Res (16-color, 560 x 192) Graphics, allowing simultaneous operation of DiskQuik and Double Hi-Res. This protection reduces the capacity of Slot 3 by 32 sectors.

It is best to use this feature only on a freshly WIPEd DiskQuik, in case any data already occupies the Double Hi-Res memory range. If a file exists in this range when LOCKHR is activated, deleting the file will unprotect its sectors. When in doubt, BRUN LOCKHR again.

Hi-Res protection is not altered by the WIPE command or by DQOFF, DQON, LOCKDQ or UNLOCKDQ. Hi-Res Protection will be saved by SAVEDQ, and reloaded by LOADDQ. Brunning the DISKQUIK program, however, always clears Hi-Res protection.

DQMENU OPTION J:
Un-Protect Double Hi-Res Graphics Memory

Utility: UNLOCKHR
Keyboard Command: **BRUN UNLOCKHR**
Program Command:
PRINT CHR$(4);"BLOAD UNLOCKHR": CALL 543
File Required: UNLOCKHR

UNLOCKHR will unprotect the Double Hi-Res Graphics memory. The 32 sectors will be made available by the next WIPE command.

Creating an Image Disk

For fast, convenient DiskQuik startup, you may want to create an "Image Disk" containing the utilities and programs you normally wish to have available in Slot 3. For example, your Image Disk may contain a copy of FID, SAVEDQ, LOADDQ, and your own INVENTORY program. Remember, any program or file may be part of your image disk.

Here are the steps required to create a custom Image Disk:

1. BRUN DISKQUIK to set up DiskQuik in Slot 3.
2. If Double Hi-Res Graphics are to be used, type "WIPE" (return), then BRUN LOCKHR from the DiskQuik Disk.
3. BRUN FID from a disk.
4. Use FID to transfer the desired files from disk (Slot 6) onto DiskQuik (Slot 3, Drive 1).
5. Place an initialized DOS 3.3 disk into Slot 6, Drive 1, and BRUN SAVEDQ. Note: This will ERASE whatever was on the disk.

To load the image disk's contents into Slot 3, boot DiskQuik, then BRUN LOADDQ with your image disk in Slot 6, Drive 1.

Creating an Autoboot Disk

Note: Inexperienced programmers can skip this topic and still get 98% of DiskQuik's benefits.

A DiskQuik "Autoboot" disk will perform certain operations when it is booted—load programs, run utilities, etc.—and then automatically load DiskQuik and specific files into Auxiliary Memory (Slot 3). This is handy for automatically loading programs like GPLE™ before DiskQuik is installed.

DISKQUIK'S SPLIT CATALOG

Your original DiskQuik Disk is itself an Autoboot disk. You probably didn't know it, but it contains TWO CATALOGS; one visible and one hidden. You need to create a similar disk, so make a copy of the DiskQuik disk, and read along:

Suppose you want a disk that, when booted, does this:

a. RUN HELLO (executes steps b-e)
b. BRUN GPLE.LC
c. BLOAD a file called "MESSAGE"
d. BRUN DISKQUIK
e. BRUN LOADDQ (loads Slot 3 with FID, SAVEDQ, and a file called "SAMPLE")

Note: Some programs can't be loaded in the middle of a sequence. GPLE.48, for example, executes an "**FP**" command when loaded, preventing the program that loaded it from continuing.

We will need to create two separate catalogs:

CATALOG #1:	**CATALOG #2:**
HELLO	FID
HELLO.OBJ	SAVEDQ
DISKQUIK	SAMPLE
DQ.OBJ1	
DQ.OBJ2	
DQ.OBJ3	
DQ.OBJ4	
LOADDQ	
GPLE.LC	
MESSAGE	

Catalog #1's files are accessed first. Its files are NOT loaded into Slot 3.

Catalog #2's files are accessed second. Its files ARE loaded into Slot 3.

Here's what you do—

1. Boot a normal disk, like Apple's System Master, that installs DOS in its normal 48K location.
2. Make a copy of the DiskQuik disk, and CATALOG it. This is the "normal" catalog—Catalog #2 in our example.
3. Delete and add files so this catalog looks like Catalog #2.
4. Access the disk's "hidden" Catalog #1 by typing: **POKE 44033,3** (return), and **CATALOG** (return). The 3 means *Track* 3, the hidden Catalog's track.

Important: You must **POKE 44033,17** before loading and saving files from and to normal (Track 17) catalogs, and you must **POKE 44033,3** before loading and saving from and to the "hidden" (Track 3) catalog.

5. Delete and add files so this catalog looks like Catalog #1. *FID will not work* for transferring files between catalogs on different tracks. **You must use Pokes between commands:** POKE 44033,17 (return) / LOAD PROGRAM (return) / POKE 44033,3 (return) / SAVE PROGRAM... etc.
6. Create a HELLO program that executes the files in Catalog #1. The last command must be POKE 44033,17. (This Poke does not have to be in HELLO, but it must be the last command executed before accessing Catalog #2.)

   Here is HELLO for our example:

```
10 PRINT CHR$(4);"BRUN GPLE.LC"
20 PRINT CHR$(4);"BLOAD MESSAGE"
30 PRINT CHR$(4);"BLOAD DISKQUIK": CALL 543
40 PRINT CHR$(4);"BLOAD LOADDQ": CALL 543
50 POKE 44033,17
```

7. Type "SAVE HELLO" (return). CATALOG Catalog #1 to make sure everything is there.
8. Double-check "normal" Catalog #2 by typing: **POKE 44033,17** (return), and **CATALOG** (return). The 17 means *Track* 17, the normal Catalog track.

As long as 48K DOS is in effect, you may switch between the two catalogs with Pokes:

POKE 44033,3 switches to Autoboot Catalog.
POKE 44033,17 switches to Normal Catalog.

Split-Catalog Map:

Track	Contents
$00-02	DOS (modified to expect VTOC on Track 3)
$03, Sector 0	VTOC for Autoboot Programs
$03, Sectors 1-2	Directory for Autoboot Programs
$03-04	Autoboot Programs (uses Track 3 directory)
$05	Directory Extension for Autoboot Programs
$06-0F	Reserved for User Autoboot Programs
$10-1F	DiskQuik Image, as saved by SAVEDQ
$11, Sector 0	DiskQuik VTOC
$11, Sectors 09-0F	DiskQuik Directory
$20-22	Reserved for User Autoboot Programs

When the DiskQuik disk is booted, it expects the Directory (catalog) to be on Track 3. After DiskQuik is installed and loaded by LOADDQ, DOS in RAM is altered to expect the Directory in its usual location on Track 17 ($11).

Notice that DiskQuik's directory is half normal size. Seven DiskQuik catalog sectors are allocated, allowing a maximum of 49 files, instead of the normal 105.

DiskQuik Compatibility with Other Programs

YES

Some features of some programs will work right with DiskQuik, and some will not. When you experiment, do so with data and BACKED-UP DISKS that you can afford to lose.

DiskQuik is compatible with many popular programs and utilities such as (naturally) Beagle Bros' **ProntoDOS™, DoubleTake™** and **GPLE™**, not to mention Apple's **DOS Tool Kit™** and many others.

Any program which makes multiple disk read/writes will benefit from DiskQuik's speed. For example, both the **DOS Tool Kit** Assembler, and **MicroSoft's TASC™** Compiler will run faster if DiskQuik is used. (Note: The DOS Tool Kit Assembler does not work properly with DOS moved to Auxiliary Memory, whether DiskQuik is installed or not.)

While Pascal cannot access DiskQuik files, it does not destroy them.

You may update your DiskQuik disks with **ProntoDOS** to speed up DiskQuik installation and file access. Or you may boot ProntoDOS and then BRUN DISKQUIK (or from a program, PRINT CHR$(4);"BLOAD DISKQUIK": CALL 543). The DOS-UP patch for FID, etc., on the ProntoDOS disk must be used if DiskQuik is used with DOS-UP.

Some programs cannot be loaded in the middle of a sequence. **GPLE.48**, for example, executes an "**FP**" command when loaded, preventing the program that loaded it from continuing.

You may use DiskQuik with several other utilities at one time, provided that all are mutually compatible. For example:

Boot ProntoDOS
BRUN GPLE.LC
BRUN DISKQUIK

This will give you access to all of these utilities at once. You should install these particular programs in the order given.

NO

DiskQuik will NOT be compatible with programs which—

1. Use the Extended 80-Column Text Card's memory—the IIe versions of **Visicalc™** and **Multiplan™** for example.
2. Modify DOS in the normal INIT area of memory. Some high-performance DOS replacements use this area. (ProntoDOS does not, unless you specify certain options.)
3. Prevent access via copy-protection—**AppleWriter IIe™**, for example. Booting a copy-protected disk will almost always disconnect DiskQuik, and that is that.

(Copy-protection can be a P-A-I-N.)

Using DiskQuik with DOS Moved

DiskQuik does not support other DOS Move programs.

DiskQuik supports the DOS-Move utilities on both ProntoDOS (DOS-UP) and GPLE (GPLE DOS MOVER). These programs load DOS into Auxiliary Memory, freeing more space for your programs in Main Memory. To install DiskQuik with DOS moved, do this:

With ProntoDOS's DOS-UP:

1. Transfer the files DOS-UP, DISKQUIK and DISKQUIK.DM onto an updated ProntoDOS disk.
2. Boot the disk. This will install ProntoDOS.
3. Load DiskQuik (see page 5).
4. EXEC DISKQUIK.DM. This will automatically Bload, change (temporarily), and execute DOS-UP.

With GPLE's GPLE DOS MOVER:

You may want to Rename DiskQuik's HELLO program "DISKQUIK HELLO".

1. Transfer the files GPLE DOS MOVER, DISKQUIK, DISKQUIK.DM and GPLE.DM onto a normal-DOS disk. This disk must also have GPLE's HELLO program on it.
2. Boot normal DOS and load DiskQuik (see page 5).
3. EXEC DISKQUIK.DM. This will automatically Bload, change and execute GPLE DOS MOVER. GPLE DOS MOVER automatically Runs HELLO, which loads GPLE.DM.

THE .DM UTILITIES

If DOS has been moved to Auxiliary Memory by DOS-UP or GPLE DOS MOVER, four of the DiskQuik utilities will not work; you must use the ".DM" version instead. If you use DQMENU to access these files, you won't have a problem, because DQMENU knows which DOS you are using.

DQOFF.DM and DQON.DM require the files OFF.OBJ.DM and ON.OBJ.DM.

Utility:	DOS-Moved Version:
LOADDQ	LOADDQ.DM
SAVEDQ	SAVEDQ.DM
DQOFF	DQOFF.DM
DQON	DQON.DM

Warning: Using the inappropriate utility will cause your Apple to "hang." While you can always re-boot without harming Slot 3 files, we recommend playing it safe—**ALWAYS RUN DQMENU to select DiskQuik utilities.**

THE HI-RES GLITCH

Extended 80-Column Text Card "protocol" requires that Main Memory Hi-Res mode be turned off while accessing Auxiliary Memory Hi-Res pages. DiskQuik uses this area unless LOCKHR is in effect. If Main Memory Hi-Res is being viewed while DiskQuik is accessing this area, the screen will instantaneously switch from Hi-Res to Lo-Res and back, causing a flicker, or, to get technical—a "glitch".

There are a number of ways to cope with the glitch:
1. Run under LOCKHR so that DiskQuik doesn't use the Auxiliary Hi-Res memory areas.
2. Put data in DiskQuik's Tracks $12-13 that isn't used during Hi-Res operation.
3. Avoid using Hi-Res and DiskQuik simultaneously.
4. Learn to live with the glitch.

DISKQUIK MAIN MEMORY USAGE

Since most of DiskQuik's routines run from Auxiliary Memory, very little Main Memory usage is required. DiskQuik utilities run in the keyboard buffer (**$021F-02FF**) and in the DOS buffers so they will not disturb Main Memory programs.

DiskQuik makes extensive use of the Extended 80-Column Text Card's AUXMOVE and XFER routines and DOS's RWTS routine. Both DiskQuik and these routines change and do not restore the following zero-page locations in Main Memory:

$26-$27
$2A-$2B
$3C-$3F

$3ED-$3EE is used as a dynamic routing vector.

SAVEDQ and LOADDQ use zero-page locations **$06-$08**.

DiskQuik's DOS connection is through changed vectors in DOS at **$BD15-$BD17**, plus transfer code in the INIT section of DOS at **$BEAF-$BFB3**. This makes INIT unavailable; any INIT call will result in a ?Syntax Error.

Other DOS memory locations which are modified are:

$A56B
$A884-A887
$A909
$AE96-AE98
$BD7F-BD81

Add $4000 if DOS has been moved to Auxiliary Memory.

DISKQUIK AUXILIARY MEMORY USAGE

DiskQuik makes extensive use of Auxiliary Memory, for both its own code and for pseudo disk sector storage. The Auxiliary Text Page is not used by DiskQuik, so 80-column operation is not disturbed.

Auxiliary Memory Range	Used For (Comment)
$0000-$01FF	Zero Page/Stack (Apple System uses these)
$0200-$02FF	Flags (DiskQuik flags/temps/code)
$0300-$03FF	Buffer (DiskQuik working buffer)
$0400-$07FF	Not Used (Auxiliary Text Page)
$0800-$09FF	Code (DiskQuik Routines)
$0A00-$0FFF	Tr.$10, Sec.0A-0F (Normal DiskQuik Storage)
$1000-$10FF	Track $11, Sec. 00 (DiskQuik VTOC)
$1100-$17FF	Tr.$11, Sec.01-08 (Normal DiskQuik Storage)
$1800-$1FFF	Track $11, Sec. 09-0F (DiskQuik Directory)
$2000-$2FFF	Track $12 (Auxiliary Hi-Res Page)
$3000-$3FFF	Track $13 (Auxiliary Hi-Res Page)
$4000-$4FFF	Track $14 (Normal DiskQuik Storage)
$5000-$5FFF	Track $15 (Normal DiskQuik Storage)
$6000-$6FFF	Track $16 (Normal DiskQuik Storage)
$7000-$7FFF	Track $17 (Normal DiskQuik Storage)
$8000-$8FFF	Track $18 (Normal DiskQuik Storage)
$9000-$9FFF	Track $19 (Normal DiskQuik Storage)
$A000-$AFFF	Track $1A (Normal DiskQuik Storage)
$B000-$BFFF	Track $1B (Normal DiskQuik Storage)
$D000-$DFFF-1	Track $1C (Normal DiskQuik Storage)
$E000-$EFFF	Track $1D (Normal DiskQuik Storage)
$F000-$FFFF	Track $1E (Normal DiskQuik Storage)
$D000-$DFFF-2	Track $1F (Normal DiskQuik Storage)

Track $10 sectors below Sector $0A map into Auxiliary Memory locations $0000-$09FF. These are unavailable to DOS, but sectors 2-9 can be examined via direct sector read/write utilities, such as BYTE ZAP. The Hi-Res Protect Byte and Write Protect byte are located at Track $10, Sector 2, Bytes 0 and 1, respectively. High bit set means protection is activated.

DiskQuik and FID

Apple's FID file transfer program is so appropriate for use with DiskQuik that we licensed it from Apple and put a copy on the DiskQuik disk. FID lets you transfer all types of files (Binary, Text, Applesoft, etc.) from disk-to-disk, or from disk-to-DiskQuik and back without needing to know addresses, lengths, etc.

To run FID, type:

BRUN FID

Read your DOS Manual for FID instructions. The new Apple IIe DOS Manuals are much more clearly written than the old 3.3 Manual. If you didn't get a "DOS User's Manual" and a "DOS Programmer's Manual" with your IIe, see your dealer.

A FEW FID FACTS:

In fiddling around with FID, we have noticed a few things. Maybe you have too...

- You must INIT the Destination Disk before using FID. COPYA does not require this, since it INITializes for you.
- FID lets you Copy, but not Delete, a locked file.
- A locked file will still be locked on the Destination disk.
- You may exit FID with control-Reset. Re-enter with a CALL 2051 command. NEVER press control-Reset while your disk drive's "In Use" light is lit.
- Typing "Q" (return) will sometimes get you back to FID's main menu.
- FID, and many programs, tell you to press "Any Key". Fine, but Reset, Shift, Control, Left-Apple, Right-Apple and Caps-Lock don't count. (Just thought we'd mention it; no charge.)
- Keep FID's Wildcard (=) option in mind when you name your files. That makes for faster transfer of groups of files. Remember, file names may start with any character except CHR$(32) through CHR$(63).
- FID works fast like ProntoDOS; transfer a 34 sector hi-res picture, and you'll see.
- The FILEM program on the new System Master simply Bruns FID for you.

A NEW FID MARQUEE

Don't tell Apple, but here's a way to customize FID's opening frame with your own title. FID's marquee usually looks like this:

```
1. ****************************************
2. *        APPLE ][ FILE DEVELOPER       *
3. *                                      *
4. *              FID VERSION M           *
5. *                                      *
6. * COPYRIGHT APPLE COMPUTER,INC. 1979   *
7. ****************************************
```

Run the program below to replace any of the seven lines except the Copyright message (if you're even *barely* on your toes, you can figure out how to change that too).

BRUN FID* to use your changed FID.

Important: SAVE this program BEFORE you RUN it.

```
100  IF  PEEK (103) +  PEEK (104) * 256 <  > 8193 THEN
      POKE 8192,0: POKE 103,1: POKE 104,32: PRINT
      CHR$ (4);"RUN FIDFIX": REM "FIDFIX" IS THIS PROGRAM'S NAME.
110  PRINT  CHR$ (4);"BLOAD FID"
120  FOR L = 1 TO 7:S(L) = 5729 + 40 * L + (L > 4)
     : NEXT
130  TEXT : HOME : NORMAL : PRINT "CURRENT FID TIT
     LE:"
140  VTAB 2: PRINT : FOR L = 1 TO 7: FOR X = 0 TO
     39: PRINT  CHR$ ( PEEK (S(L) + X));: NEXT X,L
150  VTAB 12: HTAB 1: CALL  - 958
160  PRINT "<1-7> SELECT LINE# TO BE CHANGED": PRINT
     "  <S> SAVE CURRENT TITLE": PRINT "  <R> RE-L
     OAD OLD TITLE": PRINT "  <Q> QUIT": PRINT
170  PRINT : INPUT "SELECT:";LI$: IF LI$ = "Q" THEN
      END
180  IF LI$ = "R" THEN  RUN
190  IF LI$ = "S" THEN  PRINT  CHR$ (4);"BSAVE FID
     *,A2051,L4686": GOTO 150 REM NEW FID TITLE IS "FID*".
200 LI =  VAL (LI$): IF LI < 1 OR LI > 7 THEN 150
205  IF LI = 6 THEN  PRINT : PRINT : PRINT  CHR$ (
     7);"(CAN'T ALTER COPYRIGHT MESSAGE)": FOR X =
     1 TO 2000: NEXT : GOTO 150
210  VTAB 12: HTAB 1: CALL  - 958: PRINT "RE-TYPE
     LINE #";LI;" AND PRESS <RETURN>."
220  VTAB 2 + LI: HTAB 1: INPUT "";C$: IF  LEN (C$
     ) > 40 THEN C$ =  LEFT$ (C$,40)
230  IF  NOT  LEN (C$) THEN 130
240  FOR X = 0 TO  LEN (C$) - 1: POKE S(LI) + X, ASC
     ( MID$ (C$,X + 1,1)) + 128: NEXT : GOTO 130
```

DiskQuik Index

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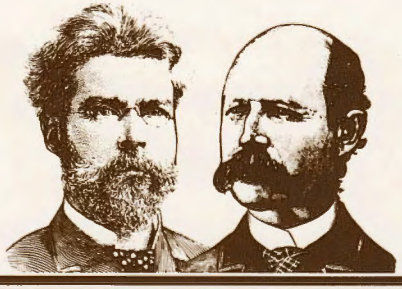
7918 Montreal Ct. / Cincinnati, Ohio 45241
513-777-0788



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