

One of the most useful benefits of networking is the ability to share files electronically—eliminating the “sneaker network” method of copying a file to floppy and carrying it to another workstation. Before the introduction of *DataClub*, there had been two approaches to file sharing: distributed and centralized. *DataClub* takes the best of both worlds and defines a third method.

The distributed approach, which *TOPS* from Sitka Corporation uses, operates by allowing storage on all machines on the network. Users can make their data available to other users by “publishing” folders on their hard drive. Users can access other user’s data by “mounting” their published folders. While no expensive centralized server is required, the software is required for each workstation, and runs \$250 per user.

In a distributed scenario, processing is kept at a fairly even level, but dangers do exist. If a “host” crashes, it may cause their “clients” to crash or to lose their unsaved work. If a “client” needs to access several “hosts”, they will end up with several drive icons on their desktop, creating confusion.

On the other hand, a centralized file server – such as *AppleShare* from Apple Computer – eliminates the host/client problems. A centralized file server rarely crashes. The problem with the centralized approach is that as more users are added, system performance degrades. While no user software is required, a centralized server requires the server software (\$795) plus a dedicated Macintosh (\$1495 for a minimum performance Mac Classic). It should be noted, though, that a dedicated server can also offer other network services, such as electronic mail, print spooling, etc. This helps make the cost more bearable.

As a centralized/distributed server “mutation,” *DataClub* offers the best of both worlds: performance stays high and the pricing is in the middle of the road. *DataClub*, technically speaking, is a distributed system.

Technically, *DataClub* stores files all over the network, as space allows. The amount of storage available to *DataClub* is equal to the amount of free disk space on all *DataClub* users. As the number of *DataClub* users increases, so does the storage capacity of *DataClub*.

If a user will be removing their machine from the network, they can instruct *DataClub* to relocate all shared files from their machine to other machines. *DataClub* will do so, transparently to other users.

On the logical side of the storage issue, *DataClub* presents each user with only one drive icon representing the *DataClub* server. While two files may appear next to each other in the Finder, they may actually be on two different machines, perhaps miles away! This is a great breakthrough for the user: an *AppleShare*-type directory, but with *TOPS*-like distributed storage. *DataClub* always remembers (for the user) where the file is actually located. This feature is called *location transparency*.

Another plus for network managers is that, since the *DataClub* server represents all shared files, the entire network can be backed up from one workstation!

Clients can access files on the server just like they would on *TOPS* or *AppleShare*. They navigate through the normal Finder hierarchy, double-clicking files and applications to open them, and dragging icons between disk icons to copy them.

Copying from a local hard drive to the *DataClub* drive is just as easy. Drag from one drive icon to the other, just as if you had two hard drives. *DataClub* will decide where to physically store the file – perhaps on your machine, perhaps not.

Everytime data is moved, added, or deleted on the *DataClub* server, the Desktop file changes are updated on all user’s machines. It’s as if they all had their own second hard drives that duplicated at once. Users that reconnect to the network after an absence will have their *DataClub* Desktop file updated to the current version, automatically, and in the background.

On the security side, *DataClub* offers nine levels of security. They are equivalent to those that *AppleShare* offers. These security levels are assigned to folders on the hard drive, and a user must have the appropriate clearance before opening a folder. The security levels are divided into three areas: owner, group, and all. For each area, the security levels are See Folders, See Files, and Make Changes.

Like *AppleShare*, the security in *DataClub* will keep a user’s data confidential, regardless of where it is located. (Hackers could access the data, just like they could over *TOPS* or *AppleShare*. It requires some work, though. International Business Software recommends encryption software if high-level security is a concern.)

When a user creates a folder on the *DataClub* drive, they may override *DataClub*’s ability to place the data randomly. The user may force *DataClub* to store the file(s) on any Mac on the network, including their own. A user may also prevent *DataClub* from storing data on their own drive(s).

As far as installing *DataClub*, it’s a snap! In fact, I am quite impressed with *DataClub*’s client software: it’s Apple’s *AppleShare Workstation* software, and it comes free with every Mac! This should also eliminate

upgrade problems.

Every Mac that will be sharing drive space, however, needs *DataClub* software installed. *DataClub* software is serialized and comes packaged in 3 packs for \$295 and 10 packs for \$795. Node for node, *DataClub* is the least expensive file server on the market.

To connect to the *DataClub* server, users open their Chooser desk accessory, select the *DataClub* device, select the server from the list (if there is more than one), and click "OK". In the next window they will be prompted for their user name and password. Their user name will default to their Chooser Name. (It is from this window that *DataClub* determines access rights for files and folders once the user begins navigating the server structure.) Once the password is entered, the user clicks "Connect". Here, the user also has the opportunity to have *DataClub* auto-connect in the future. The *DataClub* drive icon will appear in the Finder.

At the administration end, *DataClub*'s Administration program works remarkable like *AppleShare*'s. So closely, in fact, that a programmer and I had joked over the telephone about potential law suits. The Admin program allows the network administrator to add, modify, and delete users; add, modify, and delete groups; and to create reports on users, file and folder locations, and access privileges.

DataClub is 100% AFP (AppleTalk Filing Protocol) compliant, so it should work with all multi-user databases, e-mail, and other network services that are also AFP compliant.

Personally, I feel that *DataClub* will prove to be the most exciting new network product during 1991. They've got a great approach, one which meets hard technical standards but maintains the "ease of use" Macintosh users demand.

DataClub is, unfortunately, incompatible with a few INITs that I had been using. These incompatibilities are well documented in the manual, and the reasoning was explained through a conversation with one of the programmers. *SAM Intercept* is incompatible due to a failure of Symantec to follow all of Apple's programming conventions. Supposedly, Symantec is working to rectify this. The other INIT was *Directory Assistance*, part of the *Norton Utilities*. This was an unfortunate, but bearable, loss.

Another item of note: *DataClub* will not recognize removeable cartridge drives for shared storage purposes. It does not, however, cause any problems for a user and a removeable drive used for local storage.

Well, off to the LAN races!

My first venture with *DataClub* was an indirect disaster. While *DataClub* didn't cause a problem, directly, it was the only new variable that caused a problem on my disk. The *DataClub* engineers were incredibly helpful in trying to solve the problem—one which other test sites around the country had not encountered. Again, I stress, *DataClub* was the only new variable, and the damage was not directly related to *DataClub*. I later recovered from the damage without any data loss.

My second venture started out differently. I stripped my System Folder of INITs and then installed *DataClub*. It worked fine. I then added back in my INITs, two at a time, until they were all back in. The system continues to work great.

DataClub has my blessing. I wish I had my own office network to install it on! Perhaps CapMUG should consider it for their library use since it doesn't require a dedicated server. [*AppleShare* is used now.]

Reviewed by Jerry Britton
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[Our test network included a Mac IIcx, a Mac SE, and a Mac Plus. All were running system software 6.0.5 or higher and had Suitcase II and MenuClock101 installed. The IIcx also was using DiskDoubler, QuicKeys, and the Adobe Type Manager.]

LATE NOTE: The January 15 issue of MacWEEK magazine carried a similar and favorable review of *DataClub*. The claim that they did not encounter any software conflicts in their tests.