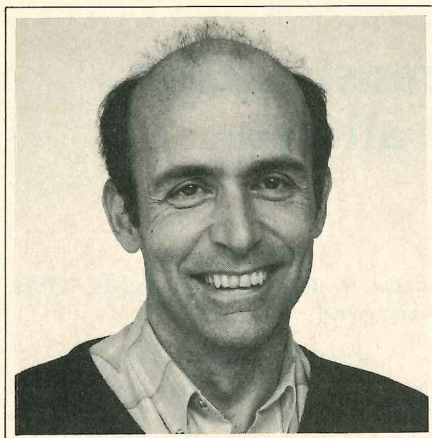


# Flea Market

## Will MS-DOS talk to CP/M?



by Ted Silveira

I had written several chapters of a printer manual and needed to send them to the typesetter. Though I use both CP/M and MS-DOS Kaypros, I'd written these chapters on the CP/M computer using WordStar. Then I found out the typesetter not only wanted the files on an MS-DOS disk but wanted pure ASCII files with printable characters only, no carriage returns except at the ends of paragraphs, and no WordStar funny business with hidden markers.

It could have been a disaster, but it wasn't. Using a slick program called File Mate (more about this later), I converted the WordStar files to exactly the kind of ASCII files the typesetter wanted. Then, using a disk format conversion program called Media Master, I moved the converted files onto an MS-DOS disk. Off they went to the typesetter, who gobbled them up and never knew (or cared) what form they'd started in.

I mention this story because many of you, like me, may find yourselves working with two different computers, one CP/M, the other MS-DOS. You may use one computer at work and the other at

home, or one in the main office and the other in the branch. Or you may be a freelancer who uses CP/M but finds that most clients (and publishers and typesetters) want disks and files in MS-DOS.

Whatever the case, the problem is shuffling information between the two computers. You start a form letter on the MS-DOS computer only to find that your mailing list is in a MailMerge file on the CP/M computer. You're working out a contract on the CP/M computer and realize you could extract sections from some contracts you have stored on the MS-DOS computer. Or you're just putting the finishing touches on that user manual with WordStar when you find out that your client has discovered desktop publishing and wants to use Microsoft Word and a laser printer.

So how do you get the information you need from one computer to another? That question really breaks down into two more specific questions. How do you move your files from a CP/M computer to an MS-DOS computer or vice versa? And once you've moved the files, how do you get them into a form that you can use?

### Transferring files

There are several ways to move files from one computer to another. If the two computers are in the same room, you can use a cable to connect the serial port of the CP/M computer to the serial port of the MS-DOS computer. When connecting a CP/M Kaypro to an MS-DOS Kaypro, you must use a *null modem* cable, which has line 2 from one computer connected to line 3 from the other and vice versa.

Once you have the two computers connected, you can run a communications program on each one and transfer files back and forth at speeds up to 9600 bps (bits per

second). For such transfers, you can use programs such as MITE (which has been bundled with both CP/M and MS-DOS Kaypros), CP/M public domain programs such as MDM740, MEX114, and IMP244, and MS-DOS shareware programs such as QMODEM and PROCOMM.

If the two computers are in different locations, you can still transfer files by using a communications program and a modem together to send files over the telephone lines. While this method allows you to exchange files with people in any part of the country, it has a few disadvantages. First, you have to buy a modem for each computer (prices range from \$100 for the cheapest 1200-bps modem up to \$600 or \$800 for a 2400-bps modem). Next, unless you have access to special phone lines, you're currently limited to speeds of no more than 2400 bps (and that is only if you have a 2400-bps modem on each end), so it takes a while to send files, about an hour to transmit a 360K disk of files at 1200 bps. Finally, you have to pay the telephone bill.

A better solution, if you transfer files regularly, is a disk format conversion program, which will let one computer read and write disks in different formats. With the proper program on your CP/M computer, for example, you can read disks from the MS-DOS computer and copy files onto or off of the MS-DOS disk. And the reverse is also true—with the proper conversion program on your MS-DOS computer, you can copy files onto and off of a Kaypro CP/M disk.

Because it's increasingly an MS-DOS world, it's more important to have a disk conversion program running on your CP/M computer than on your MS-DOS computer, but if you do a lot of disk transfers, as I do, it helps to have both.



There are several disk format conversion programs available. For CP/M, you can choose from Compat (Mycroft Labs), Media Master (Intersecting Concepts), UniForm (MicroSolutions), and possibly others I haven't heard of. (MFDISK, the quasi-public domain program shipped with many CP/M Kaypros, can't read or write MS-DOS disks.) For MS-DOS, you can get Media Master Plus (Intersecting Concepts), UniForm-PC (MicroSolutions), and again, probably others I haven't seen. Personally, I've used UniForm, Compat, and Media Master in CP/M and Media Master Plus in MS-DOS, and all handled the job of transferring files between CP/M and MS-DOS without trouble. For more details on all these programs, see T.F. Chiang's article "Multi-Format Programs" in the July 1986 *PROFILES*.

### Converting files

Transferring files from one computer to another doesn't automatically make them usable. Most word processors, spreadsheets, and data bases will make noises worse than any two-year-old if you try to feed them the wrong kind of file.

The simplest answer to this problem of file compatibility is to have the same program (or a compatible one) on both computers. WordStar 3.3, for example, comes in both CP/M and MS-DOS versions, and its files are interchangeable—a file you start with MS-DOS WordStar you can finish with CP/M WordStar and vice versa. The same is true for other MicroPro products such as MailMerge.

The situation for dBASE II is similar, with some restrictions. dBASE II data files can be used with either the CP/M or MS-DOS versions of dBASE II, and most—but not all—command files are also

interchangeable. But most MS-DOS dBASE users are now using dBASE III or dBASE III Plus, which will present problems, as dBASE III can do things that dBASE II can't. In general, you can expect to transfer dBASE II files to dBASE III, but don't expect the reverse to be true unless you've been careful not to exceed dBASE II's limits. You'll find the same situation with other "crossover" programs that are available in both CP/M and MS-DOS, such as SuperCalc2 and Multiplan.

If you don't have the same program running on both the CP/M and MS-DOS computers, you may still be able to transfer files and use them successfully if the programs you do have on the two computers have compatible file formats. Many programs can read and write files stored in a standard format such as DIF (data interchange format), Microsoft's SYLK format, or the very common CSV (comma-separated variable) format, also known as the comma-delimited format. MailMerge users and many data base users will recognize this last format, in which the data items or fields of a data base record are simply separated by commas. Many programs, such as dBASE II, which don't actually use the CSV format while working, can still write a file into that format and read one written in it.

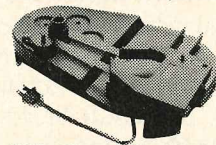
Using such common file formats to transfer information between otherwise incompatible programs takes more time than swapping WordStar files, but if it's your only alternative, the few extra steps required for conversion will be well worth it.

If your program won't write or read files in a format other than its native one, you may still be able to transfer files by using an external file conversion program that will

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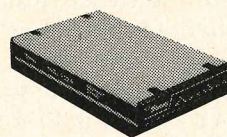


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take one kind of file and turn it into another.

For example, WordStar files contain special marking characters, both print formatting commands like ^S and ^B and also hidden marks that let WordStar keep track of where words end, which carriage returns are soft, and similar things. But other programs—such as Perfect Writer, Microsoft Word, or the MS-DOS TYPE command—don't understand WordStar's hidden marks and may interpret them as graphics or foreign characters, if they don't just refuse to read them.

You can, however, turn the WordStar document file into a *standard ASCII file* (one consisting only of printable characters) by filtering out WordStar's hidden markers and control characters. In CP/M you can simply copy the file using PIP with the [Z] option (though this will remove only the special marks, not the control characters), or you can use one of the public domain filter programs such as FILT7, UNSOFT, or PURETEXT. In MS-DOS, you can use public domain and shareware filters such as WSCLEAN, STRIP, and WS2ASC to do the same job.

If you want to take an ASCII file that has a hard carriage return at the end of every line and turn it into a WordStar document file (with soft carriage returns), you can use a different filter program—the public domain programs ENSOFT (CP/M) and FIXTXT (MS-DOS). These will do a fairly good job of conversion, but they can be confused by some files (ones with complicated tables or other tricky formatting).

There are also programs that will do both conversions, WordStar to ASCII and ASCII to WordStar. In CP/M, you can use the public domain HARDSOFT, and in MS-DOS, you can use the public domain and shareware programs WSASCII and WSCONV.

For MS-DOS, you can also find two other shareware programs, XWORD and TEXTCON, that can handle conversions for several different word processors. XWORD

claims to handle conversions to and from ASCII, WordStar, WordStar 2000, SideKick, MultiMate, XYWrite, and Word Perfect. TEXTCON basically converts all files to ASCII files, but it has many flexible formatting options that make it possible to import those ASCII files into different word processors.

Finally, File Mate, which I mentioned earlier, is a commercial program from Intersecting Concepts that is a generalized program for converting files to ASCII formats. Several things set File Mate above the public domain and shareware ASCII filters that I've mentioned so

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### *File Mate is a generalized program for converting files to ASCII formats.*

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far. For one thing, it handles the conversion from WordStar document to "long line" ASCII file (carriage returns only at the ends of paragraphs) better than any other program I've tried. It doesn't get confused by WordStar's "soft" spaces and other tricks that occasionally cause filter programs to run words together or make other mistakes. (It also has other options besides this long-line format.)

For another thing, File Mate has some nice options for setting line-ending markers, checking for end-of-file markers, and filtering out control characters and such. And finally, File Mate has some very useful "debugging" options that let you examine a foreign file to find out how it's constructed and marked and then convert any unusual characters into a readable form. I like File Mate a lot.

### **How much compatibility do you need?**

If the job you're doing absolutely demands that you use a particular program—an accounting program

or a spreadsheet or whatever—that runs only on a CP/M computer or only on an MS-DOS computer, then there's no substitute. You'll have to use that particular computer.

But if you really only need to worry about getting your final results into the right file format and getting the file onto the right disk, then you'll probably find you can do your work wherever it suits you and move your files from CP/M to MS-DOS, or vice versa, after the fact. In particular, you freelance writers and other independent contractors who use CP/M computers will find that it's not always necessary to have an MS-DOS computer just to be "IBM compatible."

I've only been able to cover these various techniques for transferring and converting files in the most general way here, so if any of you have come up with a solution to some specific compatibility problem, write to me c/o *PROFILES*, and tell me about it.

The public domain and shareware programs mentioned this month can be found on most major CP/M and MS-DOS bulletin boards and on the KUG ROS board (619/259-4437). For more information on the commercial programs mentioned, contact:

Compat (CP/M)  
MITE (CP/M or MS-DOS)  
Mycroft Labs, Inc.  
P.O. Box 4106  
Dept. PND  
Tallahassee, FL 32315  
(904) 385-1141

File Mate (CP/M or MS-DOS)  
Media Master (CP/M or MS-DOS)  
Media Master Plus (MS-DOS)  
Intersecting Concepts  
4573 Heatherglen Ct.  
Moorpark, CA 93021  
(805) 529-5073

UniForm (CP/M)  
UniForm-PC (MS-DOS)  
MicroSolutions, Inc.  
125 South Fourth St.  
DeKalb, IL 60115  
(815) 756-3411