In the last issue we made our strongest plea yet for more letters from you, our readers, and specifically asked for more information from anyone running the Model 16 with Xenix. Well, we've gotten some of the best letters we've ever received for a MOD II/12/16 NEWSLETTER. And sure enough, several Mod 16 users who've been getting day-by-day, practical experience with Multi-User Xenix have written with stories that should be of interest to all II/12/16 users. (Send letters or any other information to The Editor, MOD II/12/16 NEWSLETTER, H & E Computronics, Inc., 50 North Pascack Road, Spring Valley NY 10977.)

*** BITS & PIECES ***

The H & E Computronics Software Catalog #14 is now on its way to all of our customers, and to introduce it, we'd like to make a special offer to all MOD-II/12/16 Newsletter subscribers. We are now carrying **TDK diskettes** as our new top-quality line of diskettes, and MOD II/12/16 Newsletter subscribers can take $12 per box off the regular price of $59. Just tell the order taker that you are a subscriber, and we'll charge just $47 per box of 10 diskettes (limit 2 boxes per customer). Our Toll-Free order line is (800) 431-2818 (inside NY State, call 914-425-1535).

We are still selling the most powerful operating system available for your II/12/16 at a special price to subscribers: **DOSPLUS II** is available to MOD II/12/16 subscribers for only $199.95 (that's $50 off the regular price!). Remember, DOSPLUS II is fully compatible with TRSDOS programs, and gives you tons of great utilities and features unavailable in TRSDOS (see the last issue for a full review of DOSPLUS).

D.S.C. Publishing, of Danbury Connecticut, has named H & E Computronics as the exclusive distributor of The Complete Book of Random Access and Data File Programming, Volumes 1 and 2 -- and they have also released companion program diskettes for both volumes, available in Model II TRSDOS or 8-inch CP/M format, which let you use every program in each book without typing the programs in from your keyboard.

These books are the last word on disk random access and file handling techniques, and the series is intended for everyone -- beginning programmers, businessmen and professionals will learn how to create custom programs to handle inventories, mailing lists, work scheduling, record keeping, and many other tasks, while experienced programmers will learn advanced, professional programming techniques for faster, more efficient data storage and retrieval. Although random access file handling is a matter of some complexity, the subject has been treated in a simple and down-to-earth fashion, so that anyone with some

small familiarity with programming in Microsoft BASIC will be able to cope with
the material. Each stage of learning uses a sample program as a starting point.
The programs grow in capability and complexity as the books progress into all of
the various aspects of file handling and record manipulation. An extensive
effort has been made to keep the material coherent and every program line is
explained in detail. The books (Volume I and II) are each priced at $29.95 --
the Volume I program disk (TRSDOS or CP/M) sells for $32.50, the Volume II disk
is priced at $49.95.

*** A WARNING: DON'T USE TRSDOS 2.0a ON THE MODEL 12! ***

There is a potentially dangerous situation that you should be aware of if you
use both a Model II and a Model 12 -- the incompatibility of TRSDOS 2.0a and
2.0b. We found out about this one the hard way.

TRSDOS 2.0a is TRSDOS for the Model II. TRSDOS 2.0b is Mod II TRSDOS for use on
Models 12 and 16.

On the Model II, TRSDOS 2.0b will not boot up at all, but you can read files
from a 2.0b disk if you put it in one of the expansion drives. No problem here.

Also, on the Model 12, you can read a 2.0a disk from drive 1 of a Mod 12, as
long as you have 2.0b in drive 0. No problem here either.

Here's the problem: TRSDOS 2.0a will appear to boot and run on the Model 12, but
it cannot be trusted -- it does not work properly on the Model 12, and you
should never make the mistake of using it if you have both systems! If you use
2.0a to run the Mod 12, it will look OK at first, but we guarantee you'll get at
least five I/O errors for every ten disk access attempts! We lost a couple of
disks figuring this out -- don't lose any of yours!

*** EASY TRANSFERS FROM TRSDOS TO CP/M, ONE CP/M COMPUTER TO ANOTHER ***

We have recently moved a lot of files back and forth between different
computers, and we found a couple of utility programs that have made short work
of much of our file-tranfer problems. This was especially true when we had to
transfer a lot of files from 8" TRSDOS 2.0a diskettes to 5-1/4" IBM MSDOS
diskettes.

First, we needed to transfer a large number of files -- quite a few diskettes
full of data -- from TRSDOS diskettes to CP/M-formatted diskettes. There is a
utility supplied with Pickles & Trout CP/M called "TRS2CPM." We found this
utility to be by far the most efficient method for this transfer. Here's how it
works: you boot your TRSDOS, format a data diskette, and place the files you
want to transfer onto that diskette (the disk should not have a system on it --
this utility won't work right if you try to use a TRSDOS system disk as the
source disk). Then you reboot the system under P & T CP/M, and call up the
TRS2CPM utility. The utility will ask which drive is to be used as the TRSDOS
source drive and which drive will be the CP/M destination drive for the TRSDOS
files. Then the program will read the TRSDOS disk and display a directory of it.
All you have to do is move a cursor to the name of the file you want to transfer
and press <T> to transfer the file. You can easily pick out just the files you
need to tranfer out of an otherwise full directory. (Pickles & Trout CP/M for

Models II, 12 and 16 is available from H & E Computronics for $200 -- $250 for Pickles & Trout Hard Disk CP/M).

Next we used MOVE-IT, which is a new CP/M and MSDOS serial communications utility that makes it incredibly easy to move files from one computer to another. We have MOVE-IT running on both the Model II and our IBM PC. When we connect their serial ports, we can ask for a Mod II disk directory from the IBM's keyboard, or an IBM disk directory from the Mod II! Then it takes just one command to move every file on a disk in one computer and store them all on a disk in the other computer! If you fill up the destination disk, the utility even halts and asks if you want to switch diskettes and continue! (This was very helpful, because IBM disks don't hold as much as Mod II disks). Created by Woolf Software Systems, MOVE-IT is available from H & E Computronics, for virtually any CP/M or MSDOS-based computer. It is priced at $125 ($150 for the 8086 version).

*** THE MOD 16, MULTI-USER WORD PROCESSING, AND MORE ***

This is a good letter from Robert L. Cummings (614 Blaney Street, Clinton, NC 28328.) We think you'll find his story an interesting one:

"We purchased our Mod 16 at a time when the Mod 12 had not yet been introduced. We have been running it exclusively with Z80 software, primarily with Scripsit. Our local Radio Shack representative was very fair with us and warned us that Mod 16 software would not be available for some time, but we decided to go with the larger machine for the primary reason that the Mod 16 offered double-sided drives with much more capacity in less space.

At first we used Scripsit 2.0 with TRSDOS patched for thinline. When the first double-sided Scripsit became available as an upgrade (Scripsit HD) for a price of $50 we purchased that and moved to TRSDOS 4.1. Although Scripsit HD (which works perfectly well without a hard drive) is somewhat slower at times, it offers many more features and much more flexibility than Scripsit 2.0. Scripsit HD has a disk spooler that saves the file to disk before printing begins in a temporary file. This allows the operator to begin printing a large document being printed, and make revisions, while printing is taking place. Backup of a double sided-disk is almost twice as fast as a backup of a single sided disk under TRSDOS 2.0.

And now for a hint to users of Scripsit 2.0: If you have a data disk to be backed up with two drives, an error message will be received when attempting a backup to a disk formatted under TRSDOS. Apparently, Scripsit 2.0 uses its own special format and that format is incompatible with TRSDOS. If one first formats a blank disk under Scripsit, one may then use the TRSDOS backup utility to duplicate the data disk without problems.

My recommendation is for all users of Scripsit 2.0 who are using the Mod 12 or Mod 16 to buy the upgrade. I understand that there is now a version specifically for these models, using the double-sided disks, that is not specifically for the hard disk users. We will stay where we are, at least until Xenix comes along with a Multi-User Word Processing package.

One further note. We have used the Mod 16 and Daisy Wheel II for more than a year with no breakdowns or problems whatsoever.

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Does anyone know of a program that will sort a merge file created under any of the Scripsit programs?

I am not using the Mod 16 at the office to write this letter, but am writing from home with the Mod 4 (in the Mod III mode with SuperScripsit). It is simple for me to transfer files from work to the house using HOST on the Mod 16 and the COMM program supplied with the Mod 4. But that is a story for another time.

If you are interested in some more tips, etc., about using the Mod 16 or Mod II Scripsit, I'll put together a list and send some more."

We'd love to hear more about communications between the Mod 16 and Mod 4, and any other tips you have for us.

About sorting Scripsit files: although we don't know of any sort utilities that are specifically designed for Scripsit merge files, it is possible to sort those files if you also own Radio Shack's Profile, which interfaces with Scripsit files. If any other readers know of a general utility sort that will handle the job, we hope you'll write us with the answer.

Did I hear someone mention multi-user word processing . . . ?

*** MULTI-USER SCRIPSIT FOR XENIX SYSTEMS ***

Radio Shack will soon deliver **MULTI-USER SCRIPSIT FOR XENIX** on the Model 16, to sell for $499 (Catalog #26-6431). It will allow multiple users to access the same files and printer(s), although -- of course -- two people can't edit the same file at the same time.

*** A WORKING MULTI-USER XENIX SYSTEM ***

Here's one from John Anderson, Vice President of The Well-Bred Loaf, Inc., 432 East 91st Street, New York NY 10028:

"In response to your question of whether anyone had a Model 16 Hard-disk based system with one or two DT-1 terminals and Xenix Multi-User System, well, we have such a system!

Our experience in using the Model 16, Model III and the Model II combination has been pleasant. The Xenix system is by far the most secure operating system that I have personally worked with.

However, we've been experiencing problems with the DT Terminals. The keyboard layout is extremely difficult to use (you have to use the control key to move the cursor). Another problem is when you have three people working on the system with a 512K capacity, the operation will slow down. This has caused a problem with the print function. (Someone will wish to print data and when immediate results are not apparent, they will hit the key three or four times and because of the slowness in the operation, it will print the data repeatedly.

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A problem in using the Xenix system is that the book supplied by Radio Shack, Tandy Corp, does not have a great number of the commands. You have to call Tandy Corp in Texas in order to know what they are. Also one of the features we wished to modify was the BANNERS feature. To keep the work separate, it prints information on every other page. It places the file name on a separate piece of paper and to print one page it uses 4 pieces of paper. I called Tandy to have this feature removed, however it is possible through several commands to remove this function.

Overall, I enjoy working with the Xenix system and if I have any information, I'll be glad to pass it on to this newsletter."

*** ANOTHER MULTI-USER XENIX SYSTEM UP AND RUNNING ***

From Blaine A. Brownell, Dean and Co-Director, The University of Alabama in Birmingham, The Graduate School, University Station, Birmingham AL 35294:

"Your request for information from anyone with a Model 16 and Xenix operating in a multi-user mode elicits this reply.

In late Spring 1983, we converted our Mod II to a Mod 16, with 256K, an 8.4Mb hard disk, and one DT-1 Terminal, with a Daisy Wheel II printer (all RS equipment) and the full Xenix system. The timing of this conversion was dependent on the availability of DBMS software for a multi-user system. Our desired application was to maintain considerable data on all applicants to the Graduate School and on currently enrolled students (about 1500-2000 at any one time) and to transfer these data (in both directions) between our system and the university's central student information management system (on an IBM mainframe).

On the Mod II we had attempted the development of a suitable database management system with MDBS Ver. 1 (Micro Data Base Systems, Inc.) in BASIC. This was a pretty good system, with some fine features; but it had no multi-user capability, would not operate on the hard disk, and support from Micro Data Base Systems was not, frankly, very helpful or forthcoming. They didn't even have a Mod II available to test the software on!

We considered a number of possible DBMS programs for the Unix/Xenix environment, and finally decided on INFORMIX (The Santa Cruz Operation, Inc., P.O. Box 1900, Santa Cruz, CA 95061). This system, written in C and designed for Unix, was very quickly made available for the Mod 16 and RS/Microsoft Xenix. It is an excellent piece of software, with a multitude of features, plain English commands, and with full interface to all the many utilities and features of Xenix.

We are now maintaining two major databases on the system -- one with six full entry screens and the other with two -- and we have been generally delighted with the performance of Xenix, Informix, and with the support we have received from Santa Cruz.

The only problem we encountered was hardware-related (a connection between the keyboard and the CPU board). This caused the system to completely freeze up. While searching for the cause of the problem, we were forced to do many resets of the system (i.e., shutting it down improperly). We were delighted

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that we never lost one bit of stored data. The only other problem at the moment is that 256K is simply not enough memory to insure acceptable operating speeds with more than one user. The entry of data can be a very slow process.

According to Radio Shack, additions of memory above 256K have a dramatic impact on the operating speed. We will soon expand the system by adding another 256K (up to the 512K maximum for the Mod II converted to a Mod 16), another 8.4Mb hard disk, another printer (this one a fast dot-matrix), and another remote terminal.

The Xenix system comes with the capability to read and write IBM disk formats, and we are now writing programs in C which will enable us to dump data via disk to and from the IBM mainframe and the main student information management system.

Based on our experience, I think we can recommend the following:

1. A multi-user Xenix system really requires 512K for maximum efficiency in operating speed.
2. TRS-80 Xenix is a remarkable and powerful package, and a marvellous working environment for advanced applications programs, marred only by its difficulty of use for those unfamiliar with computers.
3. Informix is an excellent and very reasonably priced DBMS, with almost unlimited potential, at least for all the applications we envision. It can be used effectively by anyone familiar with the basic conventions and requirements of database management programs.
4. The Radio Shack DT-1 data terminal is adequate, but others especially configured for Xenix may be better (a list of acceptable terminals and their configurations is available in the TERMCAP file in Xenix).

The beauty of Xenix (and C) is, of course, transportability. The Informix DBMS, written for Unix, was configured for the Mod 16 Xenix in about 2-3 months. Thus, Mod 16 Xenix users should see an avalanche of applications programs in the coming year.

I hope this information is of some use to your readers. We would, of course, be happy to talk to anyone about our experience, if we can be of help."

*** PRINTER PROBLEMS: UNWANTED FORM FEEDS AND LINE FEEDS ***

Here's a letter from Cris C. Cris of B.M.A. Financial Services, 7561 Center Avenue #29, Huntington Beach, CA 92646

"I have a Model II and I am using an Epson MX100 printer with it. I am experiencing a form feed control problem. I understand that it is not a unique problem and there is both a mechanical and software solution. Understand, I am not an accomplished programmer. I have inserted some forms control programming into a couple of my programs with a modicum of success.

The problem: after the first sheet has passed through the printer I begin to get an SOP at about twenty lines of print and then a five line space about twenty lines later. If others have found the proper fix for the problem, I would appreciate finding out about it."

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We're not exactly sure what you mean by "SOP," but we figure that you're probably getting extra form feeds from the TRSDOS forms control feature. If you haven't already disabled the automatic form feed that TRSDOS will do, and you are running an applications program that takes care of its own form feeds, then you will usually get two form feeds during the course of printing one page, often in very different places. You can disable the TRSDOS form feed with the FORMS command. From TRSDOS READY, just type: FORMS L=66 <ENTER> and the forms control will be disabled. When you are prompted by FORMS for "Top, Repeat or Quit" type "Q" <ENTER> to exit back to TRSDOS. Then you can run your applications program, and TRSDOS will no longer generate its own form feeds.

*** GETTING AROUND THE DATE PROMPT & ENHANCEMENTS TO RS PAYROLL ***

From Custom Software Services, P.O. Box 150, Porterville CA 93258; Phone: (209) 784-7966:

"The enclosed patch may be of use to readers of the Mod II/12/16 Newsletter. With this patch installed, the user has the option of defaulting the date on power-up by pressing ENTER or entering the date as always. For some applications, this option might be better than not having the option of entering the date at all, as with previous patches:

PATCH SYSRES/SYS A=2386,F=E2,C=08

I also want to inform your readers of a set of enhancements for Radio Shack's Model II Payroll (Cat. # 26-4503) that add the following features:

1. Up to 999 employees for users with a hard disk, or approximately 450 employees for users with a second disk drive.
2. Machine language sort to replace the original BASIC sort. It is now possible to sort 999 employees in almost 45 minutes!
3. The user may press ESC while viewing an employee's check during payroll processing, thus allowing an exit without creating the displayed check. (Previously, the only way to exit was to press F1, which created the check).
4. It is no longer possible to accidently create a check for a terminated employee.
5. Check printing has been improved by the addition of the amount of the check spelled out (i.e., ONE THOUSAND DOLLARS AND 10/100).
6. The date of the ending pay period is now printed on the check stub, as required in some states.
7. The name is now printed last name first on W-2 forms.

Of course, if a user wishes to use these enhancements and will not be exceeding 200 employees, the program will run as before on a single drive system. It is very easy to expand at a later time to a second disk drive, increasing capacity to 450 employees, or to a hard disk for maximum capacity.

The price for the above enhancements is $100, and any order must be accompanied by a copy of the user's working payroll master or a copy of Radio Shack's distribution disk. (Please DO NOT SEND RADIO SHACK'S DISTRIBUTION DISK!). The user's disk will be returned with the new programs

installed." Order from Custom Software Services (209) 784-7966.

Robert C. Stockler (President, Gates, Stockler & Lenz, Inc., 608 Fourth Avenue, Lincoln Federal Building, Louisville NY 40202) writes about his Model II:

"Though I bought a Mod II (64K, 3-bay x-drives, LP-V) for my business about two years ago, I had to have it at another location, inconvenient to me, until about five months ago, so I've really only been able to get 'hands-on' since then.

Even so, I subscribed to your newsletter as soon as I learned of it, got all the back issues, and continue to re-read them all from time to time. Each does, as you say, have something in it that is worth the price of the whole subscription. I recommend the re-reading to everyone . . . some nuggets may have slipped by the first time (or two).

I am not a programmer, but am learning to understand more about it all the time -- especially with the help of playing around with the programs on your User Programs Disk. (By the way, I just the other night re-read an old Newsletter and saw that I should enter BASIC with BASIC EXEC -F:5. That's part of what I mean by "nuggets slipping by.")

I have just completed a successful translation of a 500+ line program from another dialect of Microsoft BASIC (which uses variables longer than two characters). That was simplified by making it a SCRIPSIT document and using global search and replace to get rid of ambiguous varibles, and to change the syntax of numerous INPUT statements.

In working on this project, I learned a little trick that was of help to me, and may be to others. That program contained a lot of LPRINT statements that got in my way when I was making sample runs or partial runs debugging it. My strategy was to put SPOOL ON and put my printer off-line, letting the program think it was printing, but not make me have to wait while it did.

And that brings me to my next subject: waiting. I imagine that most other are like me -- they appreciate the speed of the computer they have, but resent it whenever they have to wait for it (or its peripherals) to do something. Processing several applications on VISICALC, involving many large-sheet printouts (a number using VISI/BRIDGE/REPORT, which is a handy program itself, by the way) made me get quite restless many times. Later, learning to use SCRIPSIT, I learned to appreciate its thoughtfulness in allowing me to do printing as a background chore while I was free to continue to use the computer. I often wished that VISICALC would let me do that.

Then came the answer to my prayers: the MICROFAZER printer buffer from Quadraam. I got a 64K model and am now in computer heaven. It will accept more than I'll ever give it in ten or fifteen seconds, let me get back to work on the CPU with my application, and feed my LP-V for ten or fifteen or twenty minutes -- time I otherwise would have had to constructively waste.

Another device I just bought also gives me much pleasure: a SEE-BEE interface between my CPU and my disk expansion bay. It lets me boot up without turning the bay on, and turn the bay on and off during my session, without destroying my diskette in drive :0 (which I otherwise couldn't seem

to learn not to do now and again). I especially appreciate the quieter and
cooler conditions when I'm working on an application that only uses drive 0,
and can have the expansion bay turned off.

Finally, I also second the recommendation for Bob Snapp's DOS-FIXES to speed
up disk access, most of which have appeared in your Newsletter. Besides
making my machine run faster, I like the sound of most of the disk accesses
better -- with my particular hearing loss, it seems substantially quieter.

I also have SNAPPWARE's Extended BASIC, Extended Built-in Functions,
Extended File Mapping Support, and College Educated Garbage Collector. I
originally bought these because I had some custom programming done by a
programmer who used these features in his products, and I wanted them
available in case he disappeared sometime.

Even at the novice level I now occupy, I find a substantial amount of use
for many of the features contained in these items. The single keystroke and
abbreviated commands are a delight, and the single step trace and his X-
utilities are all helpful. I can recommend these software products to you
and to your readers, knowing that _real_ programmers will truly find them a
blessing.

And one more favorable comment: I bought _The TRS-80 Means Business_ (by Ted
G. Lewis, published by John Wiley & Sons) from you, also on your
recommendation. I have found that be perhaps the _best_ single source for all
sorts of information about computing with the Mod II. Also on your
recommendation, I bought David A. Lien's _Learning TRS-80 BASIC_ (Compusoft
Publishing), which I like equally well. But Lewis's book is the most helpful
to me. The weakest parts of _The TRS-80 Means Business_ are the rather
frivoulous stories upon which he hangs the needs for various types of
programs. But the =logic developed thereby as the basis for the programs,
and the logic of the programs and their formats is very instructive indeed.
My owners' manual, with Lien's and Lewis's books (and Snapp's documentation)
are my resources for learning about computing with the Mod II, and I refer
to each of them daily. Of them all, the one that "means business" does so
because it is raw meat on a logical skeleton, stripped of skin and fat and
fluff. Most 'experts' I know of could learn a lot by reading this book
thorough a few times!"

*** UNIVERSAL SUBROUTINE LIBRARY FOR TRS-80 II/12/16 ***

A BASIC language subroutine library of over 200 subroutines has just been
published by Ramona Enterprises, Inc. (1133 Taft Street, Rockville MD 20850
(301) 340-8100). It makes available to II/12/16 users the kind of subroutine
library that has only been available on mainframe computers. The library,
entitled "USS: Universal Subroutine System," has subroutines that create menus,
format screens and subscreens, produce graphs, accept and check various inputs;
do benchmark timing, calculate mathematical functions not available in BASIC,
perform conversions, and many other operations. In fact, the over 200
subroutines perform more than 2000 different functions.

This system is intended to allow the novice programmer to obtain professional
results easily. It saves the advanced programmer up to 80% of normal programming
time. USS is not simply a set of subroutines. It even has its own extraction

program whereby the user can select only those subroutines desired, automatically extract them from the USS library, and merge them into his program. Additional subroutines can be extracted and added to an application program at a later time. No machine language programming skill is needed. No modifications are made to the operating system or the BASIC language interpreter. Many programs can be written by sequencing USS subroutines. USS has over 200 pages of documentation which includes complete instructions, indices of the subroutines, and specification sheets for each subroutine. Each specification sheet contains instructions for use, examples and restrictions.

A single instruction line will, for example, accept a 6-byte date entry from the keyboard, check the entry for a valid date, formate the date, and display the date written out. The entry will terminate on control or function key inputs to allow exiting and branching. Another subroutine will convert any linear, area or volume measure to any other. Then there is a subroutine that will convert a numerical dollar amount to a written string for check writing. Another will convert a person's name from last name first to first name first. Mathematical functions available include all inverse trig functions, hyperbolic (and inverse) functions, descriptive statistics, gamma function, normal ordinate & area, integrals, combinations & permutations. Utility subroutines will count the occurance of substrings within a string, replace substrings, round numbers up or down to any number of decimals, center strings on a line, left & right justify, etc., etc.

The retail price of USS: Universal Subroutine System is $125, and a full brochure with more information is available for the asking. Another interesting feature of USS is the provision that is made for using USS to produce programs for resale. There is a license program whereby a programmer can incorporate USS subroutines in published available programs by registering the newly created program with Ramona Enterprises, Inc., the USS publisher, and paying a nominal registration fee. The license and registration process is even computerized, and is available as an option of the USS menu.

*** HOW TO GO FROM ELECTRIC PENCIL TO SCRIPSIT, TRSDOS 1.2 TO 2.0 ***

Another terrific letter, from Ted Bremer of Technical Business Analysts, Inc., 2383 Hunterbrook Road, Yorktown NY 10598.

"Your newsletter is one of the best things that has happened to Tandy computer users since floppies replaced cassettes. My only complaint is that it doesn't come out often enough.

I have, for several years, written specialized single-user BASIC programs, as a part time endeavor. I hear constantly of users who feel "trapped" in TRSDOS 1.2 because they are using an early version of Electric Pencil. I just went through some new frustrations when I bought RS's Scripsit 2.0 for my Model II. I had been an Electric Pencil user for several years and had composed volumes of letters, documents and data using Electric Pencil. I was assured by RS sales personnel that I would, with no difficulty, be able to access all these Electric Pencil files with Scripsit, but discovered the Electric Pencil files were all saved in compressed format, and Scripsit can only access files saved in ASCII. All I had to do was find out how to convert compressed format to ASCII. My inquiries as to how to accomplish this met with polite letters of "we don't know" or "we don't support

software by independent vendors," etc. The whiz kids with Doctorates in Computer Science mumbled vague suggestions about writing some complex machine language program for the conversion of compressed files to ASCII that was far beyond my dabblings in BASIC. So I devised the following rudimentary method to accomplish what seemed an impossible task, to me.

First, let me explain that Electric Pencil can work with compressed files, or if patched according to the Electric Pencil manual instruction, with ASCII files. But it's one or the other at a time, not both simultaneously. I found I could load a document which had been created and stored in compressed format, go to DEBUG, modify the Electric Pencil and Jump back to Electric Pencil, where my document still resided in memory, and re-store the document, in ASCII. Voila! Here's how it's done, right from scratch:

1. Insert a backup copy of your TRSDOS 1.2 diskette that has Electric Pencil and the files you want to convert, answer the date and time prompts, and type PENCIL <ENTER>. Electric Pencil will load and run.
2. Hit CTRL-K for the system menu and LOAD the letter or document you want to convert. (To save time, you can LOAD as many documents as fit in memory to convert them all at once as one long file -- you can separate them out later.)
3. Press <ESC> and scroll through the text to see that you got all the text you wanted.
4. Now that all your documents are loaded into memory, CTRL-O will give you the "All text secure?" prompt which you answer by typing "Y" and press <ENTER>. Now you're back at TRSDOS READY. (Don't worry, you haven't lost anything.) Type DEBUG ON <ENTER>
5. Type: DEBUG <ENTER>
6. When in DEBUG, type: M3003
7. Press the F1 key (this will cause the cursor to move up to the hexadecimal byte at address 3003, which is 00). Type 01, then press the F2 key, which will modify this byte from 00 to 01.
8. The cursor will leave this area, and the modification which will enable you to SAVE your document in ASCII will have been accomplished. Now type: J3000 (this will cause you to jump back to your document in Electric Pencil).
9. Press CTRL-K for the system menu and SAVE your document to a diskette in another drive, which will save you some COPY time later on.

Your document is now saved in ASCII. To access any other compressed format files, you must re-modify your Electric Pencil as follows: return to DEBUG, type M3003, press the F1 key, type 00, press the F2 key, and then type J3000 which will return you to the text in the Electric Pencil program. Now your Electric Pencil program is back in its original form. To convert any other files, repeat from step 2 on, except you don't have to turn DEBUG ON because you never turned it off.

When finished, return to the TRSDOS READY mode and turn DEBUG OFF. If you didn't SAVE your ASCII files onto another disk, then COPY all the ASCII files to another 1.2 disk which doesn't contain anything you need in 1.2. Now XFERSYS this disk to 2.0. When complete, these ASCII files can be accessed by the Scripsit utility CONVERT.

This all sounds like a lot of work, but it's the only way I know to save retyping tons of documentation written in Electric Pencil compressed format.

If anyone conversant in machine language knows how to do this easier, I'd be
glad to hear how. Meantime, I hope I've helped someone with my solution. I'd
be very happy to answer any inquiries if any readers write to me at the
above address.

Also, I am using Scripsit 2.1.0 on my Model II, with a DMP 410 printer. Has
anyone found the patch that will cause this printer to back up one space so
I can get a slash (/) in the zero??"

*** HOOKING UP YOUR MOD 12 TO THE MODEL 100 PORTABLE COMPUTER ***

From Eric E. Coe, Collegiate Association for the Research of Principles, 481 8th
Avenue, New York NY 10001:

I am writing this letter to express my inspiration upon receiving your
newsletter. When I read of your desire for user feedback I felt that I might
be able to provide some information of use to you.

I am the sole programmer/operator of our Mod 12 computer in our HQ in New
York. We bought our system from a mail-order outfit at a savings of about
$1,000. I am a fan of RS equipment, but I think that they are overpriced and
the applications software packages leave a lot to be desired. The new
TRSDOS-II 4.2 operating system seems to be much better than the older
versions of TRSDOS. It is a lot faster than the 2.0 version I used on a Mod
II a couple of years ago. It allows drive configuration for faster I/O and a
lot of other commands that were mentioned in your plug for DOSPLUS. At first
the only thing that bothered me was the slowness of the directory listing,
however, there were these (undocumented in the manual) DO files called
FASTDIR and SLOWDIR on the supplied system disk. I DID the FASTDIR one and
the patches to the system speeded up the DIR command a lot (but I still
don't understand why there was no mention at all in any of the supplied
documentation).

You mentioned having some problems with direct-connecting a Mod 100 to a Mod
12. Let me tell you, I have been through the wringer with this one!! We got
a Mod 100 with this very purpose in mind, and when this problem came up it
took us almost a month to get RS to figure out what was wrong. First they
thought it was a software timing problem in the Mod 100, then that the
serial ports in the Mod 12 were backwards, or broken (all wrong). Actually
the problem is solvable and divides into two parts:

1. The Mod 100 has a minor hardware fault. Its RS232C port did not hold up
   the DSR and DTR lines. is why the TERMINAL program would say "** DATA
   CARRIER LOST **". RS fixed this by installing two resistors on warranty
   repair (but the M100 manual says they are supported --
2. There seems to be something wrong with the parity bit in either the
   TELECOM or TERMINAL programs. The resolution I found is to fake out the
   parity check on the Mod 12. On the Mod 100 you set the STAT to 37I1E
   (or M7I1E for the telephone), and on the Mod 12 you SETCOM A=(,8,N,).
   This works fine.

I want to thank you for producing your newsletter. It is so hard to find
anything of interest on the Mod II family in the regular computer magazines.