4/7/93

Texas Instrument 99/4A and Myarc 9640 Computers

Spirit of 99

CENTRAL OHIO NINETY NINERS INC.

THE OFFICIAL NEWSLETTER OF THE CENTRAL OHIO NINETY-NINERS INC.

PUBLISHED IN COLUMBUS OHIO

IT'S EASTER ALREADY?

HAPPY EASTER

FROM LJP

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Central Ohio Ninety Niners Inc. is a non-profit organization comprised of MEMBERS who own or use the TI99/4A computer and it's related products and have paid a yearly membership fee of $20 and whose main objectine is the exchange of Educational and Scientific information for the purpose of computer literacy.
C.O.N.N.I. meetings are held the 3rd saturday of each month at Chemical Abstract, 2540 Olentangy River Road Columbus, OH. Meeting time is 8:30 AM til 2:30PM, Meetings are open to the public. Membership dues ($20.00) are payable yearly to C.O.N.N.I. and cover the immediate family of the member. Please send check to our membership registerar and join C.O.N.N.I.
Please address it to:
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C.O.N.N.I. MINUTES
Saturday, March 20, 1993
Wednesday, March 24,1993

Both these meetings were loosely organized and much of the discussion was on general topics rather than specifically about the 4A or 9640.

The Saturday meeting had more members present (13-9) and a bit more structure. The treasurer's report was given by Dick Beery, substitute treasurer. (As soon as Everett Wade returns from vacation he will train his replacement, Bill Sheppard, and will then return to being membership registrar, a position he has held in the past). Chuck Grimes reported details on the March D.O.M. President John Parkins read, and Chuck reflected upon, several letters we have received either in praise or complaint. The Question and Answer session was lively and covered such diverse topics as uploading problems, line noise (modem), blocking solicitation calls, caller I.D., etc. The business meeting had opened at a little after ten a.m. and was adjourned at approximately 12:30 p.m. There were no demonstrations.

Also at the Saturday meeting it was announced that a long-time member of C.O.N.N.I., Stephen Krug, was recently hospitalized for three heart attacks that occured in rapid succession. The writer spoke to Steve on the telephone following the meeting. He is now at home resting and recuperating with return to the job not anticipated for some weeks. Best wishes to you, Steve, and our wishes and prayers for your speedy recovery.

Wednesday, March 24,1993

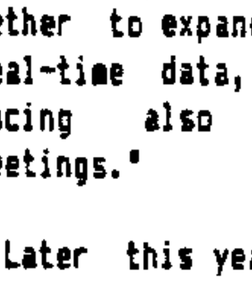
The Wednesday meeting had no really formal aspects--really no business meeting, no treasurer's report, no report on the D.O.M. Line-noise problems were again discussed (see article by Chuck Grimes, this issue). Problems with ROS 8.14 for the Horizon ramdisk were discussed. version 8.14C is now available from Bud Mills for those who are using the Corcomp disk controller. It reportedly solves the problems that have plagued those users. Chuck mentioned that either version 7.3B or 8.14 can be apportioned into two or more virtual drives. Idiosyncracies of the Triple Tech card were also commented upon briefly. Jack Montag reported that some (and eventually all) Columbus police cruisers are equipped with computers (the better to run your license plate, etc.) A very interesting freewheeling discussion followed concerning various scientific gadgets that members had known and worked/played with. Following an equally-interesting debate over the programming of word-jumble puzzles, the meeting was adjourned at approximately 9:45 p.m. There were no demonstrations.

Respectfully submitted,
Dick Beery, co-secretary

END

C.O.N.N.I. CALENDAR

April 1993

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
DAYLIGHT SAVINGS SET AHEAD 1 HOUR	5	6	7	8	9	10
	12	13	14	15	16	CONNI MEETING
18	19	20	21	22	23	24
25	26	27	CONNI MEETING	29	30	

****

PC TELECONFERENCING

Ameritech and Bell Atlantic have signed separate agreements in principle with Intel Corp. to intergrate standard PCs and phones, the two most common tools in a typical office.

The companies have agreed to work together to expand on the capabilities of real-time data, audio and video conferencing also known as "electronic meetings."

Later this year, Intel will introduce PC enhancement products that will enable data conferencing over standard telephone lines and real-time video conferencing over integrated service digital network (ISDN) lines provided by Ameritech and Bell Atlantic. With these capabilities, workers at remote locations could see eachother as they work on the same document, and therefore increase their productivity.

ISDN, which is an integral component of the proposed products and services, carries simultaneous voice, data, graphics and video over a single telephone line nearly 27 times faster than regular telephone service.

Ameritech and Bell Aatlantic have been leaders in implementation of ISDN.

Ameritech was the first regional telephone company to offer ISDN service commercially. All Ameritech customers in the company's six major metropolitan areas will have access to ISDN by the end of 1993.

Bell Atlantic has made its ISDN technology available to nearly 50 percent of its customers already. By the end of 1994, that number will grow to nearly 90 percent.

The linkage of these two technologies, telecommunications and personal coputting will result in new capabilities which meet the needs of customers as they use communications to solve their business problems.

This alliance with Intel corp. will add the best features of today's phones to standard personal computers, so users can use integrated services digital network (ISDN) lines to share data and see and talk to eachother without leaving their homes or offices.

Six years ago Ameritech was the first company to offer ISDN commercially. But until now, availability of the service has been limited, and users had to purchase expensive phones to enjoy ISDN's benefits. Intel's plan will help address equipment cost, for exaaple, a special Intel produced software and hardware, called "add-on" boards, will enable PC users to read and edit documents over standard phone lines. They also will be able to see and talk to eachother via the PC screens if they upgrade their phone line to an ISDN line.

The new hardware will let people plug an ISDN line directly into their PC without having to buy any special ISDN phones and computer modems. The PC will become ISDN ready, just like TV sets have become "cable-ready."

Intel is the world's largest semi conductor company and the leading supplier PC enhancement products. It is an international manufacturer of microcomputer components,modules and systems.

END

MANAGING YOUR MONEY - 2
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Author's Note: This series of articles dealing with personal finance based solely upon my own opinions and my own experiences. I am not a trained financial advisor nor am I an investment counsellor. You are cautioned to always seek the advice of a finance professional before making any decision or taking any action that would involve what to you is a significant amount of money.

NET WORTH:

While budgets are the best tools to assess your financial situation from month to month, a Net Worth statement allows you to see where you are from year to year. Assuming that your ultimate goal(s) are established, an accurate assessment of Net Worth is perhaps the most reliable means you have to determine current financial position on a long-term basis. This is because net worth is simply your assets minus your liabilities. If your net worth increases from year-to-year, then you must be doing something right.

When setting out to determine your net worth for the first time, take a little extra time and effort to make the figures as accurate as possible. Once you have established a solid basis of fact in your net worth data, keep good records of the kinds of things that affect your net worth. Accuracy is important to your net worth and an accurate net worth statement is important in guaging your annual progress towards long-term goals.

In order to determine your net worth you will first need to list what you own and what you owe (your assets and your liabilities). After making a list , the key to putting together an accurate Net Worth Statement is to determine the value of each item. Value should be determined based upon the market in which the item would be sold if you decided to liquidate it. Generally this means in the local market if one exists. If not, then the market would be wherever a market for the item existed. If the item is one of universal appeal, meaning that it would be marketable anywhere, then the "fair market value" should be determined. If the item that you wish appraised is exotic or unusual you may be able to determine its worth by locating a book on collectibles at the library. If you can't determine the value of an item you may simply have to estimate its worth to you, based upon what you paid for it, or some other logical criteria.

Help in dereraining local values and/or fair market values for an item may generally be gained from appraisers in the field that is relevant to the item you wish to determine the value of. For example, the value of a piece of jewlery would be appraised by a jewler or by a certified geanologist. The house that you own would be appraised by a local real estate appraiser.

The value of Investment assets should be listed as the Net Asset Value of the investment on the day that you made the investment. This way you will be able to determine how much the investment has grown or has been reduced in value over time.

Liabilities are easier to determine since the person or firm that you have the liability with is sure to be able to tell you exactly how much your liability is. Income taxes owed are an exception however. There really is no easy way of determining that figure that I am aware of, unless you sit down with a worksheet and simply project out your tax scenario. An estimate based upon previous years is probably the easiest way to deal with that liability item, except that the Tax Reform Act of 1986 throws a monkey wrench into the plan.I wish that I had a better answer for that one.

Utilities liabilities such as electricity., heating, telephone, water, etcetera, are rather easy to determine. Simply sum up last year's utility bills as a starting point and use those figures as a "projected" liability for the coming year. They will almost certainly change, but that's OK. The amounts can be adjusted for greater accuracy as the year progresses.

When you have determined the value for your assets and for your liabilities, add both columns up and then subtract the liabilities from the assets. The remainder is your net worth. If the figure seems rather low, or even if it is a negative number, you don't need to panic. It simply means that it is time to make some adjustments to bring the amount up so that it is in line with your goals. More on this later.

GOALS:

All of us have goals, though not necessarily financial goals. Goals are simply things that we create in our own mind now that are to be realized in the future. Financial goals are things that we want from our money or amounts of money that we want so that we can do future things. Retirement is a financial goal, being able to put the kids through college is a financial goal, dreaming of a vacation in Mazatlan is a financial goal. Goals are a desired state of future affairs and they are also the basis for personal finance management efforts. Without goals to work towards, it is often difficult to see the reason for personal finance management. It is also difficult if not impossible to determine how good a job you are doing in your finance management efforts. You manage your finances so that you can optimize the use of your dollars and hopefully attain goals at the earliest possible time, or at least in order to ensure that you will realize a goal in the time you have set for its attainment.

A FINANCIAL PLAN:

Now that I have loaded your thoughts up with all this philosophy about the rigors of personal finance management, you are probably wondering how one is supposed to go about accomplishing it all. Read on and we'll discuss just that.

You will recall from the previous discussion that my opinion on the areas of concern in creating a personal finance management program are:

1. Setting goals,
2. Creating and managing a budget,
3. Planning for income taxes,
4. Looking into investment alternatives,
5. Determining Net Worth and

NEXT PAGE

6. Saving money.

Each of these areas is important, but they do not necessarily take place in the order listed. Although GOAL SETTING might seem to be a logical place to start, you will soon discover that you need to have a handle on your current net worth before you can set any kind of realistic goal(s) for the future. So before tackling goals, go back and re-read NET WORTH, then put the actual figures together as best you can. Now, on to goal setting.

GOAL SETTING:

We said previously that a goal is a desired state of future affairs. As such, it is created today, for use as a vehicle to help drive us towards tomorrow. How you actually go about seting a goal(s) is determined by what you want in the future years. As simple and as common sense as this may sound, goal setting is simply a matter of determining what you want tomorrow. Looking at how close you are to it today, and then measuring the difference. The difference is the objective that you use to measure progress towards the goal.

For purposes of illustration, I am going to assume that creating a retirement fund to live on is the goal that you are aiming towards. In this example, we'll assume that you have determined that you and your spouse will need $30,00 after-tax retirement income each rear, in order to live in the life-style you are currently accustomed to. You can calculate that amount by adding up all of your current expenses minus any costs associated with work and rasising of children, along with any other expense items that you know are going to be paid-off by retirement age. Now you must add up post-retirement income from all known sources. We'll say that you determine that your known income will take care of about $20,00 of that need per year. Thus you must supplement known retirement income with another source that guarantees an additional $10,000 per year. That amount is the objective to be attained if your goal of having a retirement fund to count on is to be realized.

When computing your post-retirement expenses it is always a safe bet to build in an inflation factor. In other words, inflate your expenses enough to compensate for the loss in buying power of post-retirement dollars. This will increase the amount of money you need to live comfortably, but now is the time to take that eventuality into consideration, not after you are already living on a fixed income.

You can begin projecting your known post-retirement income by looking at the income-producing assets that you have now and those that you expect to have at retirement. This includes things like;

-annuity-generating insurance policies,
-bonds,
-pensions/social security,
-real estate
-stocks,
-supplemental retirement plans and the like.

As I said, you can project the amount of money that you will need to live on by calculating what it cost you to live annually now, minus any work expenses like union dues, commuting cost, professional dues etcetera, since you won't be working any expenses associated with raising children, since it assumed that they are now on their own, and minus those "big-ticket" expenses such as your home, if your home will be paid off. You should probably figure on at least a 100% increase in health insurance cost though, since you probably won't be a member of a group plan that provides lower rates anymore.

When you have determined your annual post-retirement income, subtract the annual living expenses. If the amount left over is a positive number then you are probably in pretty good shape. But remember that you have no way of knowing how many years you will be needing the retirement income, so it is best to always aim high when projecting an annual amount of money needed to live on. That way you will have a higher retirement goal, meaning you will need to save more now, but it's better than having one higher than too low.

We'll assume that you have calculated a need to have that $10,000 a year, for 20 years. The question then becomes, "how much do you have to save each year (between now and retirement) to ensure that you will have $10,000 of after-tax income each year after retirement?" Here's how it's done:

1. Load your Home Financial Decisions module and press 4 to to enter the SAVINGS work area.
2. Press 4 again to determine "Amount needed for regular withdrawal".
3. Type in the number 10000 at the "Amount of regular withdrawal" prompt
4. Type in the number one (1) at the "Number of withdrawals per year" prompt.
5. Type in number 20 at the "Number of withdrawals in this analysis" prompt.
6. Enter 8 as an average rate of return for your savings at "Annual % interest rate on your savings" prompt.
7. Type in the number four (4) for the number of compounding periods per year.
8. Type <ENTER> and the program will tell you that you need to have $104,378.53 in your retirement fund to be able to $10,000 each year

Before we go on, a point to keep in mind is that this amount does not take taxes or inflation into account. Rather than taking the space to explain how "best" to deal with these two items. I am going to take the easy way out and tell you that you can simply "pad" the amount of your objective so that it is a little higher than it would be. In other words, make the $10,000 amount a little more than $10,000 so that you are dealing with a gross amount not a net of taxes and inflation amount. The degree to which you pad the amount would be the $104,378.53 times your tax rate times the projected inflation rate that your crystal ball gives you. For example, $104,378.53 times 28% tax bracket rate would be $29,225.98. Add that to the $104,378.53 and you have a goal of $133,604.52. Now multiply that by 5% inflation rate (or whatever your crystal ball tells you to do) and the amount needed to have $10,000 each year becomes $104,284.75.

Now press <ENTER> and then 1 to continue using the SAVINGS

NEXT PAGE

work area.

1. Press 2 for "Size of deposit to reach a goal".
2. Enter a zero for "Present amount in account:.
3. Type in 140285 as the "Amount of savings goal".
4. Enter 8% as the average interest rate you expect from your savings vehicles.
5. Enter a 4 at the "Number of compounding periods..." prompt.
6. Answer Yes to the "Do you make regular deposits" prompt.
7. Type in 12 at the "Number per year" prompt
8. Enter the number 240 at the "Number of deposits in this analysis" prompt.

The results should be what you will need to make 239 deposits of $238.15 each and one final deposit of $240.95. Thus your objective of having $140,285 in a retirement fund will be attained by making monthly deposits of approximately $239 a month, every month for the next 20 years.

The 8% interest rate, the quarterly (4) compounding and the 240 deposits in this analysis are all arbitrary numbers that I used for this illustration. The 28% tax bracket is a "guesstimate" of your post-retirement tax bracket. You should use those figures that most accurately reflect your situation. The point to this illustration though is to show you how to determine your objective and then to show what it is going to take to attain that objective.

The first operation determines the future value of a present amount and the second operation determines the present value of a future amount. Just basic finance mathematics if you have the tools for the job, but a cumbersome calculation if you had to do it by hand.

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END PART-2

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SAD NEWS

On December 26,1992 the computer world mourned the loss of John G. Kemeny, 66 a former president of Dartmouth College and co-creator of the widley used computer language BASIC. He died of an apparent hearet attack. A distinguished mathematician, Mr. Kemeny was a research assistant to Albert Einstein while studying at Prinston University. Before that, he worked on the Manhattan Project that developed the atomic bomb. Mr Kemeny and a collegue at Dartmouth, Thomas Kurtz invented BASIC in 1964.

END

NOISY CONNECTIONS?

By Chuck Grimes

(Minimum Line Testing Requirements as set by the FCC.)

Portion taken from: "The CPC Newsletter"
A monthly publication of:
The Connecticut IBM Personal Computer Users Group.

In the last few months I have heard many talking about telephone line noise causing problems with their modem communications and the use of BBS services. Some have experienced minor problems by just seeing weird characters pop up on the screen to lots of characters, some have experienced up/down loading problems of cancellations because of noise, and others have been forced to give up in the middle of long distance calls. What ever you have experienced, this article is intended to help you understand and end the problems with line noise.

First be aware that everyone may experience some line noise at times. This should only be temporary and may be considered normal. Also you should not attempt to use your modem when the weather is stormy. If it is lighting out it may hit the line and come in and destroy your modem, computer, and anything else hooked to the phone line. In high winds, and other storms, tree branches or polls may cause electric lines to come in contact with phone lines. While I must admit the latter is rare, it only takes once to reek havoc on computers or other electronic equipment. I once saw the results of a CB antenna tower that was blown over in the wind. It came done on the power and phone lines. This person lost all his CB equipment including three radios, his computer, TV, Micro wave, Organ, Model Train components, Stereo system, and it also did damage to his house, breaker box and other wiring in the house. If he had not been home at the time, he would also have lost his house to fire. If this sounds scary to you, let me assure you it is true and did happen just three years ago this June.

Now lets look at what we can do to prevent some of the problems. First, when not using your modem, disconnect the phone line from it and allow the phone cable to drop to the floor not just lay behind or on top of your modem. I do not recommend that you plug a phone in the modem out jack, as then the phone cable must be in the modem just to use the phone. Get a splitter and plug the phone into the jack direct. Also don't set the phone on top of you modem or computer, lighting tends to jump what it must to get to earth ground. Second, unplug your computer when you are not using it. That "surge protector" strip may not protect you at all times from surges or lighting strikes to the electric line, but my thoughts on that is another story. And don't use either when the weather is bad as you too could be the best path to earth ground.

Now lets look at that noise problem. Again remember that you may experience line noise at times due to things like bad weather in the part of the country you are calling. This you can not do much about. Only the noise that is there all the time or most of the time can be looked into further. First, and this is the big one, remove all other phones, answering machines, portable phone base units, and any other equipment of any kind that you have on your phone line in your home. Also, check all the connections you can find to make sure they are good, (bright and shinney). Also you should try a different modem (borrow one if you have to) and don't forget the cable from the jack to the modem and even a different jack if possible. If all this fails and you feel the problem is the phone line itself then proceed by calling the phone company. If they do not seem interested in helping, do not hesitate to ask for a supervisor.

Remember that your local telephone company is required by the FCC to provide a minimum level of quality on the lines it maintains for your use. Many lines do not meet these standards, and therefore is a source of considerable noise in transfer of data between computers. A noisy line can make it very difficult to upload messages and files to a BBS. If a SYSOP complains to the telephone company about line noise, there is usually only one option offered, i.e. line conditioning. This is an extra cost item that they would like to sell you. However, if their line to your computer meets the minimum standards, there is no reason you cannot have error-free transfers at 2400 bps and, if an error-correcting protocol is used, reliable operation at 9600 bps is the norm.

If the telephone company seems reluctant to test your line and assure that it meets the minimum requirements (and they will), request that they run the following tests and provide you with the results. Let them understand that if they do not comply, you will refer the matter to the FCC. They will not be happy.

The following tests should be run:

1. Frequency sweep; 300 to 3000 hertz.
2. Roll off 5 to 2500 hz with -2 to +8 range.
   300 to 3000 hz: -3 to +12 range.
   1000 hz tone loss -16, 1% either direction.
3. Signal to noise: 24db.
4. White noise C, message Dbrnco.
5. Envelope delay measurement.
6. Phase jitter, not to exceed 10%.
7. Impulse noise test. Min. 15 minute test.

Don't worry if you do not understand what all these tests mean, the telephone company knows. There standards are all available from the FCC upon request. When the lines provided to you meet these minimums, you will experience reliable, accurate, and noise free data.

Happy Modeming

END

HELP WITH D.O.M.

By Chuck Grimes

Our D.O.M. has been very successful over the past 5 years,(69 volumes) so far. We have received many many comments from those who have enjoyed them. We have received many submissions also for the D.O.M. and have even made the first release of several programs. Once in a while I receive a request for help with the use of the files on the D.O.M. The following is a example of several questions that have been asked over the years. This is a combination of the typical questions asked and is not one letter. The name is fictional.

Dear Chuck:

I need help. It is not a rush, when you get time to answer will be ok. THE TI 99/4A is one of my retirement hobby activities. I have started to use the TI again after several years, to help fill in my time and activities.

The two enclosed discs (a D.O.M. and a new user disk), are returned since I am having a problem with them. When I tried to run a "label" for side A of disc D.O.M. 06/92A I get the following error on the screen "Bad Subscript in 360."

I have a small program from the MicroPendium magazine I use for running and reading DV80 programs. When I ran the B "D.O.M. free" side of the one disk to read the DV 80 files, I got I/O Error 25 in 160 for "Read-This", and I/O error 01 in 150 for "ARC/DOC.

When I ran the DV80 "read-This on D.O.M. 06/92B I got "10 Error 25 in 160.

I tried to run the programs on side A of the D.O.M. disk, and for ARC303b I got "I/O Error 02", and on Tips/Load on part 1 "Error in 7", and on part 2 "Error in 8," by using Old Dsk1.--------.

I do not have a program, May, or knowledge to run INTERNAL FIX 128, and need information on how to do that?

I have receved several disks that I ordered from Jim Peterson that have the same INTERNAL FIX 128 files that I can't use.

Again, your help, when you can get around to it, will be appreciated.

Thanks.
Thomas

HERE IS MY REPLY

Dear Thomas:

Sorry you are having trouble with the D.O.M.. I will try to give you some tips that will help you get started with the D.O.M. and most programs that are available for the TI in libraries and BBS's. Today because of costs related to phone service to the BBS's and the pay services and also the fact that it's much easier to keep track of files that go to a related program, most files are archived. This method puts several files into an archive or packed format that is much smaller then the several individual files or smaller than the unpacked file. The most common program used to pack or archive files, is by Barry Boon called archiver. The version of this program most used is version 3.03g. This program is easy to use and works on both the TI and the GENEVE 9640.

For the D.O.M. we use archiver so that we can get more files and programs on the disk. We also use SSSD (single sided single density) format so that anyone that has a disk drive, can use our disk. It is punched to be a flippy. That means that both sides are used. Read one side then flip the disk over to read the other side. Again this gives us more space for files and programs to send you.

On almost all D.O.M.'s, everything except the READ--THIS file is in archived format. You cannot "RUN" any file direct from the D.O.M.. You can "READ" the D/V-80 file called READ--THIS, and you can UNARC or UNPACK the other files to another disk and then run them from the new disk.

I have checked the disks you returned and found them still ok, just the presence of a added file called READ--THIS you had added. When you get these back, please use your disk manager to check out the names on each disk so you know what files are where. List one side then turn it over to list the other side. Next use a D/V-80 file reader like most disk managers, Fun-L-Web, Boot, TI-Writer, BA-Writer, or the editor in the E/A cartridge. The READ--THIS file will tell you which files are archived, and what computer you can run them on, (TI or 9640 GENEVE). I would suggest you unpack each file to a separate disk. Once you have the files unpacked you can run them per the instructions in the READ--THIS file. It will tell you if it is a X/B file, X/B auto-load file, E/A-5 file, E/A-3 file, or if it requires some other cartridge. Also it would be a good idea to always add write protects so you cannot hurt your originals.

The program you need to unark or unpack the archived files is called archiver 3.03g and is on the D.O.M. FREE disk side A. It is called "ARC303G". It runs from the EDITOR ASSEMBLER cartridge menu selection #5 (E/A-5). The program is very easy to use. Chose 2 to unpack a file, tell it which disk the source file is on (which disk to unpack from), what the source file name is, where to unpack to (which drive to put the new files on), and weather to unpack all files (or just some from a list it will display) and then press return to start the program. If you have only one disk drive, the program will tell you when to put which disk in. You must use a formatted disk as the "to" disk for the program files as archiver will not format a blank disk for you.

END

The old way of marking files that were archived, was to add a suffix like /pak, /arc, or /q. The new way is by adding a ^ to the file name. This is now widely used because it only takes a single character to indicate an archived file. There are two file formats that a archived file may have. The most common is, as you found, internal fix 128. This indicated that the archive is also packed or smashed to it's smallest size. You may also find some that are internal variable 128. This is an archived file (several files put together into one) but not packed into the smallest possible size. One other thing I will say here is, don't try to archived an archived file. It will always turn out to be larger than it was.

I hope this information will help you use the D.O.M. files and also others you may come across. If you have a user group near by, I would like to encourage you to join and attend that group. We need to support the TI-99/4A and the people who are still writing software for it. Also the people who are still making new hardware for the TI. And last but not least, the people in the user group have access to a lot of information from newsletters, BBS's, and other users knowledge. This can sometimes mean the difference between putting the computer in the closest and getting the enjoyment from it that a little instruction can help you obtain.

If you have any other questions please don't hesitate to write as I do enjoy helping others with questions about the TI as still others did for me in my first years with the machine. And if you are ever out this way, give me a call. Also if you can make it, try to attend either the LIMA computer fair in the spring, or the CHICAGO computer fair in the fall. They both are for the TI and are a wealth of information, programs, hardware, and many new and exciting things for the TI-99/4A computer, and a chance to talk to many TI users.

HOPE THE ABOVE HELPS
SINCERELY

CHUCK GRIMES

AND HERE IS A REPLY FROM THOMAS

Dear Chuck:

Thanks so much for your very informational letter of July 19. I have printed out all the "Read--This" files on the three (3) disks and have an excellent idea of their contents now. Used TIWriter. I have also been able to unpack several files from the disks and some others that I received for other sources that I had not been able to use before. I have even been able to unpack files from the disks I received from Jim Peterson. Thanks every so much for the instructions and as you said I found archiver to be very easy to understand and use. I will send a contribution to Barry Boon for that fine program. As I get time intend to unpack all the files to new disks with ARC3035.

Enclosed is $5.00 cash, to cover the cost of the second mailing of the My disks.

I do appreciate the help!

Very truly yours,
Thomas

END

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FRACTURED FILES
by Bob DeVilbiss

I was reading a article in "Sunbury 99er's March 1993 newsletter" about fractured files. The author explained that you can determine your file is fractured by using Funnelweb (SD). This will print an asterick between the file size and type:

FILENAME	SIZE	TYPE	REC	P
VTNEFEB93	76	* DVS/VAR	80	

I am not sure what program he was using to copy the files, but I know the Disk Manager 1000 will copy the fractured files and they will remain fractured.

There are two programs I use that do a very nice job of copying files, one after the other, and any file that is fractured will be copied un-fractured. They are DISK UTILITIES by John Birdwell and the other one is M-COPIER by Mike Dodd. They both copy all files onto a disk quite quickley. To use DISK UTILITIES, you can have the program initialize your disk if it is not already initialized. If the program initializes the disk it will initialize the new disk with the same format as the master you want to copy from.

M-COPIER is also quite fast. I think faster than DISK UTILITIES, but it will copy all the files on the disk, where DISK UTILITIES will only copy the files you select to be copied. I think this is a plus because you can copy files to an existing disk containing programs if you have available space to accomodate the file(s) you want to copy or de-fragment. Just be sure to answer NO to the prompt asking you if you want to initialize the disk.

M-COPIER requires a disk to be initialized. If the disk has data stored on it Fctn 6 will cause the disk to be initialized and then proceed to copy all files.

There is another popular program called Redisket by James Schroeder that is very fast at copying a disk, but it WILL NOT de-fragment a file.

END

CRYSTAL SOFTWARE ANNOUNCEMENTS
by Michael MaKsimik
January 24,1993
reprint BLUEGRASS 99 Comp.
Computer Society

Calument City, IL _ Crystal Software is hereby dissolved. My brother and I decided to discontinue operation as a limited partnership for tax purposes. We anticipated massive restructuring of the tax laws, of no benefit to our small outfit. As an alternative, I will be continuing all my work on MIDI Master 99 v 3.0 and other projects such as Tape Backup and UniManager. I will sell these projects personally, and my brother will still make the MIDI cables, but we will sell them at fairs only. No more mail orders will be taken. It is illegal to operate a mail order service without at least a proprietorship, so only correspondence will be accepted.

Naturally, if you are in town, you can see me at the Chicago or Milwaukee fair meetings, make an appointment to visit personally, or arrange a demo to purchase them garage sale style.

Events have been developing to this end for some time, and it is final. This, by no means, indicates a personal disruption between my brother and me. Chris is just too busy to continue any active part in Crystal Software, and I cannot afford the tax accountant fees! Again, all software written by myself will be supported as before, just under my name and not the "Crystal Software" label. Most likely, I will find a dealer to handle the cable distribution.

Any and all correspondence with regard to Crystal Softeare should be sent to the same address: 635 Mackinaw Ave., Calument City, IL 60409-4014. Any checks made out to Crystal Software over the last few months will be returned.

Work will continue on MIDI Master 99 ver 3.0: however, standard 32K architecture will NOT be supported. After consulting with my brother on this, I have decided that version 3.0 will only be available as 3.06 and the prior versions 3.0E and 3.0EX. There will be no 3.0S! The minimum system memory requirement is 128K.

The best way to cope with this is to have a RAMBO installed on your ramdisk and allocate 128K for use with programs. Or purchase a Horizon 4000 ramdisk. I apologize to version 2.3 owners who anticipated a miracle for their 32K, 90K disk systems, but the project is unrealisitically being held because of consistent memory problems.

To avoid conflicts on this issue, I will extend a full refund to all owners of v2.3 who are not willing to upgrade, and who are completely dissatisfied with MM99 v 2.3. Only registered owners of the software will be refunded, and it must be sent by written request no later than May 1,1993 to the above address. Allow 30 days for the refund.

If you do not wish a refund but would rather upgrade, please note: to run version 3.0E, you will need a TI with 32K memory card, 128K RAMBO compatible memory expansion, a double-sided disk system (not two single-sided drives!),, and an RS232 port. THERE ARE NO EXCEPTIONS TO THESE SPECIFICATIONS! THE AS6ARD AMS WILL NOT BE SUPPORTED!! To run version 3.0EX, you will need all of the above, an 80 column adapter with 192K video RAM, a serial mouse, and a DSDD controller (hard disk preferred but not required). Version 3.06 will require a Geneve with a hard disk system. There is no exception to this rule, either; there is more than 1.44 meg of files in the 3.06 package. Running from floppy is too slow. I don't wish to lower the boom so severely on anyone's head, but after serious soul-searching and contemplation, these are the only ways to make the 3.0 package available anytime soon. I believe the hardware exists and is available to interested users of MIDI to operate 3.0.

You can still operate under 3.0. as 3.0 will EXPORT SNF files to disk, allowing you to still play music generated by version 3.0. I believe that the average TI user will neither appreciate nor care for this upgrade. That is fine; I don't wish to push them into a corner. It is your choice. You may choose to operate a TI under a 32K system, or you can choose to upgrade.

Imagine, if you have at least a 256K Horizon ramdisk with the RAMBO add-on, a Horizon 4000, or a 4A Nemex, you will be compatible! Why not make that choice? Most users I confer with already have a ramdisk. The upgrade is not difficult and will make your system more versatile. Again, I don't plan on making a million with this product. But, on the other hand, I don't want to get stuck with a software version that I will NEVER use, and in all actuality,
NO correspondence of registered owners of version 2.3 has expressed an interest in 3.0S. Please understand that the program is just too large to alow only two minutes of music to play and only a minute to record. To me, it is a waste of programing effort to pursue the issue any further.

END

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POTPOURRI
by Bill Sheridan
K-Town

In one of my past POTPOURRI articles I mentioned that I couldn't get SPELL-IT or TELCO to work with my Horizon Ramdisk. I also remembered reading in one of the newsletters we receive, that someone else was having the same proble. Well, thanks to Art Gibson, our local guru, the fix is simple. Pull the ramdisk out of the PE box and set the CRU address to >1000 (switch #1 on, all others off). That is all there is to it. Don't need to reload the Ramdisk. Just be sure that the Horizon Menue program and the LOAD program have the right address (example - DSK5.LOAD, DSK5.SPELLIT) to the files you have stored on your ramdisk.

I checked the time using SPELL-IT on ramdisk and on two DDSD disk. Using a text I had that had 472 unique words, the ramdisk took 3 minutes and 7 seconds to complete the program without changing any of the words. The two DSSD disk took 5 minutes and 19 seconds to do the same.

ABOUT THE DOM . . .

Our last column dealt with the December and January issues. There is no February D.O.M. for 1993 (We only promised you 10 issues a year, right?) so we are right up to date this month with the March '93 issue, No. 69.

Music and Fun! The new Funnelweb version 5.0 appears, part on side A and part on B. Unpack the docs and read them FIRST. You may not need/want to unpack all the files--just pick and choose according to your needs and tastes. Incidentally, I (and some other people I know) do not use FW in its total form. We use the Horizon ramdisk, and copy to it only the editor, formatter and assembly-file loader portions. The HRD menu takes care of the rest (so does Bootmenu, which you can use in this manner in lieu of a HRD). For information about this new version from the talented McGoverns, turn to the excellent article by the likewise-talented Charlie Good (Lima UG) which appears elsewhere in this issue.

On side A, other than the 1/2 FW already mentioned, is the READ--THIS file, in ready-to-run form (DV80). Use TI-Writer, FW or your favorite word processor for the 4A or Geneve.

Music: (Side B): EM&F^--by now you know that the "^" says that the file is archived, so you must use Archiver 3.03 or 3.036 to unpack it to a clean separate disk. It then loads from Extended Basic. This is Harold Timmons' latest entry in the TI music world--music by Earth, Wind and Fire. Anybody can use and enjoy this. On the same side is MIDI/M^--music for which you will need the Midimaster99 program and cables from Mike Maksimik (Chicago UG) and a midi-compatible electronic keyboard or other midi-compatible device. (The music was originally written for the 4A by Sam Moore, Jr. and you may already have the original version that anyone can play on the 4A). The songs in this file have been converted for MIDI from the 4A version by Jim Peterson.

Fun (and games!): This is the Honey Hunt game from Milton Bradley Inc. for the T.I. (originally a cartridge). Plays the same as the original. Has been released to the public domain. Even if you bought the cartridge you may want to play this version as you can avoid jerking cartridges in and out of the slot with resultant wear and tear. I haven't personally played this game but understand that it is highly enjoyable. Try it! (I plan to!).

Last, also on side B, is BITREMOVR^. I can't load this or use it, so can't explain it, but what it does is to reset the archive bit on hard drive files for those who have either the Geneve or the 4A with a hard drive.

And now, a plea: please write to the editor and let me know if/how these articles are of help to you, or what you would prefer that I substitute. I began the series with several columns that were very explicit on loading techniques for different types of files. Since then, I have either had to repeat the information from the first three columns (boring if you are already past that) or merely try to explain in some detail the files themselves--which is what I have chosen to do. Would a better choice be a concise listing of file loading techniques that would appear identically in every issue? (Sure would save me a lot of time and trouble if that is what is needed!!). Could you take the time (and stamp) to let us know how you feel about this? Thanks!

END

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BEGINNER PRINTER
by
Jim Lesher
taken from KANARTHA
99ers USER GROUP

These programs are written for a Star Gemini printer and may not work on another brand.

This little program will print out all the keyboard (printable characters) on your 99/4A. You should see the ASCII number beside each character also. You will notice we have incorporated the comma at the end of the PRINT line so as to give it a nice neat spacing so that it looks like a chart.

```
100 REM PRINT KEYBOARD CHARA
CTERS
110 CALL CLEAR
120 OPEN #1:"PIO"
130 PRINT #1:"TI99/4A KEYBOA
RD CHARACTERS.":
140 FOR CHAR=32 TO 128
150 PRINT CHAR;CHR$(CHAR);""
;
160 PRINT #1:CHAR;CHR$(CHAR)
;"",
170 NEXT CHAR
```

Should you go to a sidewalk sale or a Super Basement sale and see a good used printer you just can't live without, and when you get home and realize you have no manual for it, you can run this program and it will spit out all the characters you can access. Of course it will not tell you the commands, particular to that printer, but you will know its normal font and (special character set).

```
100 CALL CLEAR
110 PRINT "STAR,SPECIAL CHAR
ACTER TABLE"
120 OPEN#1:"PIO"
130 PRINT #1:"STAR SPECIAL C
HARACTER TABLE"
140 FOR I=32 TO 128
150 PRINT #1:I;CHR$(I),
160 NEXT I
170 CLOSE #1
180 OPEN #1:"PIO"
190 FOR I=160 TO 255
200 PRINT #1:I;CHR$(I),
210 NEXT I
```

END

THE NEW FUNNELWEB v5 TEXT EDITOR
described by Charles Good
Lima Ohio User Group

Tony McGovern has released a "completely rewritten from source code" Funnelweb version 5 80 column editor dated Dec 15, 1992. A similar 40 column version will follow soon. These v5 editors are designed to run from the Funnelweb v4.4 environment. So far, the only "version 5" parts of Funnelweb are the text editors. They are fully multi-lingual and compare favorably with Asgard's new FIRST DRAFT word processor. New features, added or revised since the v4.4 editor are summarized below.

HELP SCREENS AND MULTIPLE FILES IN MEMORY:

FIRST text in memory - the edit buffer:

SECOND text in memory - the help screens:

When the 80 column editor first boots it loads into memory up to four help screens. These can be viewed from the command line by pressing H(elp). Each screen is 26 lines by 80 columns and they pop up on screen immediately because they are already in VDP memory. The Program Editor loads one set of help screens relating to assembly language coding. The Word Processing editor loads another set of screens more appropriate for help with text editing and formatting. You can move back and forth from one help screen to another by pressing the B and A keys. FCTN/9 returns you back to the edit buffer. Sets of useful help screens are provided, and the user can also create personalized help screens. A utility is provided to convert the first 26 lines of any DV80 file into an 80 column help screen. (The 40 column editor will have 28 line by 40 column help screens. An unlimited number of these screens can be loaded into memory one at a time from disk by pressing H(elp) from the 40 column command line.)

THIRD text in memory - screen viewing:

As in the v4.4 text editor, one can do a S(how) D(irectory), move the cursor next to a DV80 file name, press a key, and display a screen of that file. Subsequent presses of the same key window down through the entire file. There is no limit to the size of the file that can be viewed one screen at a time in this manner. This file isn't really stored in memory, just displayed on screen.

FOURTH text in memory - the V(iew) buffer:

From S(how) D(irectory) you can put the cursor next to the name of a DV80 file, press CTRL/V and load the whole file (or any part of it) into a 64K memory buffer for instant recall any time during the editing process. Once loaded into the V(iew) buffer the file can be scrolled one line at a time or windowed up and down very rapidly. Pressing <enter> from within S(how) D(irectory) or V from the editor command line pops this text into view. This V(iew) buffer can hold very large text files. It is in fact the same memory area as Funnelweb's Disk Review "V" text buffer. You can load some text into the 80 column editor's V(iew) buffer, exit the editor to a central menu, and from there go to Disk Review. After performing some disk management functions from Disk Review, you can go back to the 80 column text editor and the V(iew) buffer text will still be there! You can also load ANY KIND OF FILE into Disk Review's V(iew) buffer. Then if you exit Disk Review and go to the 80 column v5 text editor this text will be waiting for you in the editor's view buffer. Just press "V" from the editor's command line to see the text you loaded into Disk Review! (Because 40 column systems have only a limited amount of VDP memory, this V(iew) buffer feature is not available from the 40 column v5 editor.)

FIFTH text in memory - the ST(ore) buffer:

From the editor command line you can press ST(ore) and move the contents of the edit buffer into temporary storage in VDP RAM. You can then load another file into the edit buffer, edit the second file and save it back to disk, then press RE from the command line to RE(call) the ST(ore)d text back into the edit buffer. The ST(ore) buffer acts as a temporary ramdisk, but is much faster. Text files are saved and loaded to horizon ramdisks one record (line of text) at a time. This is fast but definately not instantaneous. Large files take 10s of seconds to load and save with a horizon. The ST(ore) buffer response time is immediate! It is too bad you can't exchange text between the edit and store buffers. Tony says this trick would eat up lots of memory and that's why such a featurehas not been included. (ST and RC to and from VDP RAM is not available from the 40 column v5 editor. There isn't enough memory.)

NEW FILE SAVING AND PRINTING OPTIONS:

These are available in both the 40 and 80 column editors and are accessed via the P(rint)F(ile) command. You can configure the editor with printer codes. Then every time you insert a "P" in front of the printer name (such as PF <enter>, P PIO) the editor will send these preconfigured codes to the printer before any text. I have my v5 editor set up to send the "print all the following in 'emphasized print' command. If I also use a "B" with PF the editor will send a printer reset code to the printer after all text has been printed (PF <enter>, P B PIO).

You can append the contents of the text buffer to the end of an existing disk file by specifying the disk file as the printer device preceeed by an "A" (PF <enter>, A DSKx.FILENAME). DV80 files of unlimited size can be created this way. I build multiple choice exams for my students this way, one question at a time taken from question lists I have stored as DV80 files.

You can also use PF to create DF128 text files readable directly by MS-DOS and Unix software.

NEW POWERUP OPTIONS:

Normally the v5 editor boots in either Word Processing or Program Editing mode depending upon which of Funnelweb's central menus is used to select the editor. However, if you hold the space bar down as the editor loads you get a list of choces. The editor can be pre-configured to always give you this list of choices without pressing the space bar or to automatically boot as any one of the choices unless you press the space bar.

1. Word Processing
2. Program Editor

Then you get these choices:
1. Default 7-bit

NEXT PAGE

2. National 7-bit
3. TI Euro Writer
4. All Chars.

If you want the resulting disk file of your document to be readable by someone else on another computer using anything except Funnelweb v5 (such as an earlier version of Funnelweb, or TI Writer) then select items 1 or 2 from this menu. Items 3 and 4 from the above menu do some fancy stuff (more about this later), but produce disk files that can only be read and displayed on screen properly with Funnelweb v5.

After you chose one of these options, you are given the following choice of languages, comparable to what is suggested by the TI Writer module:

1. Australia---My 40 column beta test editor lists this as "default". This is the one USA English users would choose. It uses character sets C1 or C2, the same character sets used by the rest of Funnelweb. This is the only option that does not load in additional character and command sets from disk.

2. British---Choosing this loads in a separate character set that redefines SHIFT/3 as the British pound sterling symbol. In all other respects "2. British" is the same as "1. Australia".

3. France
4. Deutschland
5. Italia
6. Sverge
7. Nederland
8. Espania

Choosing a non English language loads in foreign language character sets that redefine little used keyboard characters such as FCTN/A, FCTN/F, FCTN/W, etc as appropriate foreign characters. Most of these foreign characters are vouls with accent symbols over thee such as umlaut, grave, acute, or circumflex. These character sets and their ASCII values correspond to some of the international character sets 1-9 found on most modern printers. This means that if you send the a control code to set your printer for the appropriate foreign character set then the foreign characters you see on screen will be printed properly. From the editor the epson compatible printer key sequence with no spaces between keypresses is CTRL/U FCTN/R CTRL/U R CTRL/U SHIFT/A thru I CTRL/U where A-I specify the particular character set (1-9) desired. For Genimi 10X and S610 printers substitute 7 for R in the above key sequence.

Non-English languages also load appropriate foreign text into the command line and change the command abbreviations to reflect the foreign language. For example, in French "Imprimer Fichier" means Print File, and you use the command IF, not PF, to print stuff. The Swedish version has "Lagra Filer" for Save File. The command LF in the Swedish text editor will save (not load) a file. This can be disasterous for English speakers who don't know Swedish.

Not all the foreign commands and command line text are finished. English, German, and Swedish are complete. French and Dutch are almost complete. Spanish hasn't been started. Sample source code and a utility that creates foreign commands and command line text are included for those interested in expanding Funnelweb v5's multilingual capabilities.

EURO-WRITER:

In Europe, TI released a multilinual version of TI Writer (TIW v2) with some special features. By selecting EURO-WRITER from the powerup menus, the Funnelweb v5 editor provides all the features of the TI Writer v2 editor: specifically an intuitive way of adding accent marks to vouls.

When in Funnelweb's EuroWriter mode you have access to the foreign character set of the language you select from the powerup menus, and these character sets include some, but not all, accented vouls. But there is another intuitive way to create accented vouls that lets you put ANY ACCENT over ANY VOUL. Type a voul, either upper or lower case. Then backspace to put the cursor back over the voul, type any of four FCTN/key or CTRL/key combinations, and an umlaut grave acute or circumflex mark will appear on screen over the voul! The only problem is that these voul/backspace/accent screen displays are coded with high ASCII numbers above 127 and don't normally print properly. You need to print text files with these accented vouls using the European formatter (also multingual), the formatter that TI included with TI Writer v2. You need to use special transliteration files that redefine ASCII codes greater than 127 as accented vouls. This formatter with its auxiliary language and transliteration files is not part of the Funnelweb v5 editer package, but the files can be obtained by anyone from the Lima user group. Unfortunately, the European formatter REQUIRES use of the TI Writer module. It hasn't yet been modified to run easily out of the Funnelweb environment using something other than the TIW module to boot Funnelweb. Also, transliterations to print some of the accented vouls are less than ideal. Accentd vouls you see clearly on screen with Funnelweb's Eurowriter mode may look strange when printed.

ALL CHARS MODE:

Our 99/4As normally can directly type ASCII 0-127 with ASCII characters below 32 accessed from CTRL/U "special character mode". But our 8 bit computer is capable of generating codes 0-255. When high ASCII codes <127 are sent to a printer during text printing the printer will print graphic symbols. A common standard for these high ASCII graphics is the IBM character set #2 found on most printers. High ASCII codes sent to a printer with IBM graphics #2 enabled print line shapes somewhat comparable to the "lines" font of Page Pro that prints those neat borders and page dividing lines. Check your printer's manual to see what these graphics look like.

[SPECIAL NOTE FOR STAR S610 PRINTER OWNERS: There is an undocumented software method of switching from STAR mode to the IBM character set #2. You don't need to use a dip switch. The code with no spaces between keypresses is CTRL/U FCTN/R CTRL/U w CTRL/U SHIFT/A CTRL/U. To switch from IBM set #2 back to STAR mode use this code: CTRL/U FCTN/R CTRL/U w CTRL/U SHIFT/2 CTRL/U. The w in these codes is lower case.]

Selecting All Chars mode with the Funnelweb v5 editor allows you to directly type on screen and print to the printer ASCII 0-254 of the IBM character set #2. This includes all the normal upper and lower case letters numbers and keyboard symbols, plus

the graphic symbols coded by high ASCII numbers. To type the graphic symbols type CTRL/, (control and comma simultaneously) and then each keypress will produce a graphic symbol. To return to the keyboard normal letters type CTRL/, again. Normal letters and graphic symbols remain on screen as you use CTRL/, to toggle the keyboard back and forth beteen graphics and normal. Graphics and text print normally using PF (PrintFile). You don't need a formatter to print these graphic symbols.

SOME OF THE OTHER NEW FEATURES:

--You can move text up and down from within the command line. This is very handy for M(ove lines)), D(elete lines), and C(opy lines) operations. You don't have to remember line numbers. Go to the command line and type M, D, or C. Then use the arrow or up/down screen keys to display the first line number and last line number so that you will enter the proper numbers to M, D, or C.

--From the various fixed modes with an open box cursor (Program editor or WP with word wrap off) you can break lines at the cursor, insert text, then rejoin with the next text line. This means you can insert text into the middle of a paragraph from a fixed mode without losing existing test off the end of the right margin, something no other version of TI Writer will allow.

--Typing a number in a blank command line followed by <enter> will put that line at the top of the screen and return to edit mode (S before line number not necessary). <Enter> from a blank command line returns to edit mode (E prior to <enter> not necessary).

--You can freeze the display beginning with the line below the cursor while continuing to scroll, window, and edit from the cursor line to the top of the screen. This means you can simultaneously display two parts of the edit buffer with full editing capabilities for one of these displayed parts.

--You can put a bookmark (mark the text) at any line number from either command mode or edit mode. Later you can put the cursor on this text with FCTN/= even if the text has been edited since marking.

--You can display the contents of any hard drive path from the command line similar to doing a SD. Enter "HD" from the command line, then type a path name and press enter. The resulting display of that directory's file names resembles the SD display, and you can mark DV80 files for loading into the editor. This should be great for hard drive users who have trouble cataloging their hard drives with existing software.

--From SD or HD two diffent files can be marked, the regular and "temporary" file. These can be loaded into the editor with LF (regular) and LT (loads the "temporary" file).

--A user definable wild card character can be used the string searches with FS and RS.

--The SD display shows the number of bytes remaining in the edit buffer.

--When you load, print, or save files an incrementing number in the upper right of the screen shows the current line being loaded into or out of memory.

CONFIGURING THE EDITOR -WHICH v5 EDITOR FILES ARE REQUIRED?

Just the 80 column editor, without other parts of Funnelweb, comes on an almost full unarchived DSSD. There are lots of files, mostly foreign char sets and command line text. This disk as distributed by the Lima User Group has DSKU comments added by me to each of the files. These comments should aid in figuring out the purpose of each v5 editor file.

If you want only word processing in English then put ED, EE, and HELP00 10 20 and 30 on your Funnelweb v4.4 working disk or directory. If you want to play around with All Chars graphics add file CHAR@1 to this list.

You should use INSTALL/ED and a modified CONFIG/ED to configure the Print File "P" and "D" printer codes into your ED file, but these two files don't have to be kept on the Funnelweb work disk. Funnelweb's v5 editor can be configured with CONFIG/ED to immediately boot to any of the available languages, or to boot to the powerup menu selections. No matter how the editor is configured, if you hold down the space bar as the editor boots you will get the powerup menu selections.

If you want use the full multilingual capabilities of the v5 editor then you need all the CHARxx and FBTXxx files on your Funnelweb work disk.

The various utilities for configuring the editor, making your own help screens, making your own character sets, etc have an undocumented feature. They respond to FCTN/7 (AID) by invoking the Quick Directory if files QD and QF from Funnelweb v4.4 are on the Funnelweb work disk.

This upgraded editor is fairware. If you try it and like it you should send Tony McGovern some indication of your appreciation.

END

```
!!!!!!!!!!!!!!!!
! WHAT VIRUS? !
!!!!!!!!!!!!!!!!
```

In the March issue of SPIRIT of 99 we published an article authored by Bill Gaskill who wrote about his monumental time consuming experiences with the "!I GOTCHA!" problem. This was quite a scare among the TI user groups. Well forget about there beeing a "VIRUS". The problem lies in the hardware of the Horizon RAMdisk. The !I GOTCHA! is a message in the ROS (RAMdisk Operating System) software. The problem is generated by the MRD hardware and could go on to destroy more disks if left in the system without repairs. This message was programmed into the Horizon ROSS by Gary Bowers of OPA. I understand that Bud Mills will repair these units. Bud can be contacted thusly:

Bud Mills Services, 166 Dartmouth Dr.
Toledo OH 43614.

419-395-5946 (voice)
419-385-7484 (BBS)

END

```
##################################
#                                #
#        DISK DRIVES             #
#                                #
# Origin: The Chicago U6 BBS     #
#                                #
# Ar: Hardware SIG               #
# To: ALL                        #
# Fr: Michael Maksimik           #
# On: 02/01/93                   #
#                                #
##################################
```

Here are a few reminders on hooking up disk drives: If you own a TI:

1) Any 40 track drive will work, regardless of disk controller. Choose double-sided, double density diskettes to get the most online storage
2) The TI disk controller will operate in single density mode only. This can give up to 180k per diskette. Use 9 sectors per track, and 9 sectors per track and use an interlace 2 factor,if applicable to your formatter.
3) The CorComp disk controlelr will operate in single and double density modes. So, you can get up to 360k per diskette. also faster head step settings are possible, to allow faster track to track movement of the read/write heads on drives that support them. All double sided drives on the market today with few exceptions, operate at a 6ms head step, quitely, and at 20 or 12 ms head step, noisily.
4) The Myarc FDC equipped with the new 80 track EPROM will control:
   360k 5 1/4"
   720k 5 1/4"
   720k 3 1/2" (or 1.44 meg drives, but only in 720 k mode)
   The conroller's software can format and read 16-and 18-sector per track disks.
5) The TI double density controller (rare). This one will format singlele and double density diskettes, which it and the Myarc controle can read. The CorComp controller cannot read 16-sector disks
6) The Myarc HFDC. This can control all above mentioned drives, plus 1.44 meg drives in true high density mode,with proper software. It can read all other disk formats and can format to 16/18 sectors per track with MDM V, and can format to 36 sectors per track with the HFDC144 program.

On a geneve, the master DSR program can make your current disk controller more versatile:

1) A TI disk controller on a geneve can control 80 track drives in single density mode, giving true 630k storage.
2) A corcomp controller on a geneve can control 80 track drives in double density mode, at 18 sectors per track only, giving 360k storage
3) A Myarc FDC on a geneve does not change: it retains all features that are present with the card on present with the card on the TI. Ideal for making disk media interchanging between a TI system and a geneve. Both computers can share The same media, with no problem converting between either computer
4) A TI double density controller is currently not supported on the geneve. Due to lack of architect- and schematic diagrams, plus software support it is unlikely that this controller will work on a geneve.
5) A Myarc HFDC on on a geneve operates as on a TI, with greater speed. Currently, you can operate the device in EPROM mode, or in MASTER DSR mode.

Operating the HFDC on a geneve in EPROM mode ensures
compatibility with previous TI programs that addressed the attached hard disk drives as MDS1.filename. Choosing MASTER DSR mode will enable most of the features of the floppy and hard disk drives. Currently, software can operate on the HFDC to the extent of "Level 3 routines", e.g. OLD, SAVE, OPEN, CLOSE, DELETE, etc. from TI BASIC or whatever. Software does not operate properly with the low-level routines to access sectors directly on the hard disk through MDOS. This means that current software must be intelligent enough to switch to EPROM mode for these operations. Most new software, like HARDBACK, FILEZAP, etc. does this. Other operations, called the "level 2 routines", or referred to as the >2x routines are being worked on. Also, the eprom on the geneve does not recognize the floppies connected to the HFDC as "bootable" floppies, or drives where MDOS can be loaded if it cannot be found on RAMDISK or hard drive.

A new eprom for the geneve is forthcoming from Cecure electronics, with MDOS burned into it, permanently, so it is unnecessary to load MDOS from any device, although with a keypress, it can be loaded if need be from ANY device.

Currently, the only hard disk controller for a TI or geneve is the Myarc HFDC. The WHT SCSI card is near completion, so that more TI and geneve users can enter the world of mass storage. The HFDC uses MFM hard disk drives. Most drives for PC's nowadays will NOT work with the HFDC. MFM drives, however, can be picked up quite cheaply now that prio-owners of MFM drives are upgrading to the AT-style IDE hard drives for PC's only. MFM drives are most likely to be seen for sale in good working condition at computer faires, or on the bargain tables in computer specialty stores, or in ads in computer shopper magazine for MFM drives. Some can be had for a good price. the WHT SCSI card will interface the SCSI hard drives and peripherals. SCSI peripherals are popular on IBM midrange computers (AS/400's) and also Apple Macintosh computers. SCSI cards are available for PC's and are a close, high-end power-user oriented peripheral upgrade to IDE systems. Much programming support for the SCSI card is being done, and it is truly the card of the '90s for the TI and geneve. It is well designed, and will operate nicely. Currently, sources for low-cost SCSI peripherals is being sought, to envelope the TI market. Commercial support of SCSI is mostly high-end, with drives of less than 150 mbyte seldom seen advertised.

In addition to hard disks, SCSI can support Tape drives, optical or magnetico-optical, "floptical" media, Hand scanners, printers and plotters, CD ROM drives, and even floppy disk drives. The WHT SCSI card can even operate in a shared mode, allowing two computers (a TI and a PC) to share the same peripherals. Or a TI and a geneve, or whatever.

These notes on disk drives have been posted for the benefit of our BBS's new callers. Many of these TI'ers have been out of the community for years, and needed some type of update (at their request) on the status of mass storage for the TI.

END

MEETING DATES FOR 1993

3RD SATURDAY

17 APR 1993
--15 MAY 1993--(NO MEETING)
19 JUN 1993 LIMA FAIR)
17 JUL 1993
21 AUG 1993
18 SEP 1993
16 OCT 1993
20 NOV 1993
18 DEC 1993

4TH WEDNESDAY

28 APR 1993
26 MAY 1993
23 JUN 1993
28 JUL 1993

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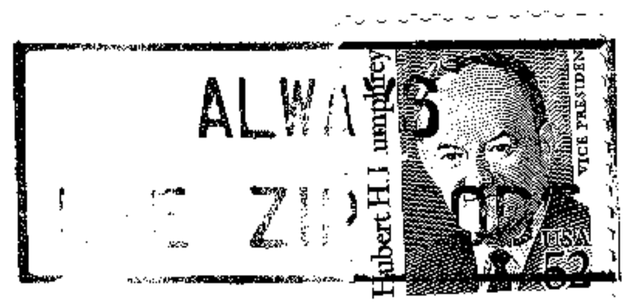
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