

This newsjetter is produced through the effortm of individuals who are members of the

CALGARY 99.ERS USER'S GROUP

BOX 935 STATION T CALGARY ALBERTA.

CANADA, 128-284

The opinions are purely the writery. The club does not assume responsibility for these opinions. The sole purpose is to obtain information, from any source, to further the knowledge of its' readers with regards to the 9000 based computers or compatibles. We the 9000 based computers or compatibles. We the sources of information, We will identify sources of information who originated the information found barein.

CALGARY 99'ERS

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99/4 ASSEMBLER
VERSION 1.2
                                                               PAGE 0001
                  * MODIFY YOUR TI CONTROLLER CARD FOR 80 TRACK DRIVES
 0001
  0002
  0003 4100
                         AORG >4100
                                            The sector read/write routine in
 0004 4100 0460
                         B 3>5F52
                                            the DSR must be modified to make
       4102 5F52
 0005
                                            use of 80 track drives.
                                                                      The ver
 0006
                                            no of the DSR that I changed is
  0007 5F52
                         AORG >5F52
                                                The version no is located at
 0008 5F52 9829
                         CB 2>004C(R9),2>4BA6 address >4001 of the DSR
       5F54 004C
       5F56 4BA6
 0009 5F58 1316
                         JEQ DRVE3
                                            make sure yours is the same before
 0010 5F5A 0280
                         CI RO,>AFOO
                                            before attempting these modifi-
       5F5C AF00
 0011 5F5E 1B03
                         JH SKPRST
                                            cations.
                                                      I have made a patch in
 0012 5F60 06A0
                         BL 3>4524
                                            the code at
                                                        >4100. It branches
       5F62 4524
 0013 5F64 0700
                         SETO RO
                                            to >5F52 a previously unused
 0014 5F66 D800
                  SKPRST MOVB R0,2>5FFA
                                            space at the end of the DSR. This
       5F68 5FFA
 0015 5F6A C069
                         MOV 3>004A(R9),R1 code changes drives 1 and 2 to 80
       5F6C 004A
 0016 5F6E 1E07
                         SBZ 7
                                            track drives and leaves drive 3
 0017 5F70 04C7
                                            as a normal 40 track drive. The
                         CLR R7
 0018 5F72 0281
                         CI R1,>05A0
                                            code will work with either single
       5F74 05A0
 0019 5F76 1410
                         JHE L41B6
                                            or double side drives. The way to
 0020 5F78 0281
                                            get this code in the disk control-
                         CI R1,>02D0
       5F7A 02D0
                         JL
 0021 5F7C 1A0B
                             L413E
                                            er card is to substitute eproms
 0022 SF7E 0221
                         AI R1,>FA61
                                            for the two roms in the card.
       5F80 FA61
 0023 5F82 0460
                         B 3>4128
                                            These roms have the same pinout as
       5F84 4128
 0024 5F86 0280
                  DRVE3
                         CI RO,>D700
                                            2532 eproms but 2732 eproms can
       5F88 D700
 0025 5F8A 1B02
                         JH L410C
                                            be used if jumpers are installed
 0026 5F8C 0460
                         B 2>4106
                                            on two pins. I recommend instal-
       5F8E 4106
 0027 5F90 0460
                  L410C
                         B 2>410C
                                            ling sockets on the card. If 2732
       5F92 410C
 0028 5F94 0460
                  L413E
                         B 2>413E
                                            eproms are used wrap and solder a
       5F96 413E
 0029 5F98 0460
                  L41B6
                         B 3>4186
                                            short length of very fine wire
       5F9A 41B6
 0030
                                            around pin 18 and pin 12 near the
 0031
                                            base of one of the sockets before
                    The space reserved
 0032
                    for file headers
                                            installing them on the board. Pin
 0033
                  * can be increased by
                                            21 and pin 18 on each eprom should
 0034
                  * changing the byte at
                                            be bent at right angles before in-
                  * >4F09 from >21 to >40.
 0035
                                            serting them in the sockets. Connect
 0036
                                            the wire from pin 18 on the socket
                  * This is not required
 0037
                  * for the system to work to pin 21 on the eprom them connect
                    but it might make it
 0038
                                            pin 21 on one eprom to pin 21 on
 0039
                  * work more efficiently.
                                            the other eprom. Connect pin 12 on
 0040
                  * The speed of the
                                            the socket to pin 18 on the eprom
 0041
                  * eproms I used was 350
                                            then connect pin 18 on one eprom to
 0042
                  * nano seconds.
                                            pin 18 on the other eprom.
 0043
                         END
 0000 ERRORS
```

BREAKTHROUGH!!

For November, we have succeeded in making our disk controller cards do more than they were originally designed for! I now nave double sided to 80 tracks, which gives me 1440 sectors per disk. And I won't be buying those high-cost disks, that other computer users are being fooled into buying. I won't be buying disks for a long time, for that matter. I figure we just paid ourselves \$100.00 each doing this mod to our systems. (I have about 200 disks) It was through the efforts of Reg Young and Ron Zakariasen, (I helped) our systems now have twice the DSSD 40 Tracks, to 80 tracks. How was this done?

tracks. How was this done?

Some of the club members bought, including myself, the Mitsubishi 4853 80 TPI disk drives from Saratoga Electronics in California, this past fall Reg Young ordered the Eproms from Ryte-Data in April, with a money order for \$60.00 (CDN\$). He ordered his 80 TPI drives in June. RYTE-DATA, after 6 months, still has not sent the Eproms. So Ron Zakariasen got interested, and looked at the Poor Man's Double Density program. Which was the first to suggest 80 track drive use. Ron, having experience with his own programs to look at track reading, and having purchased an Eprom burner, for his IBM clone, ported his software modifications, of the PMDD from his TI to the clone's system. He used 2732's, as he states in his write-up in this newsletter. A wire-wrap mod was required, suggested by the Chicago U.G. for faster head stepping modification, because the chips aren't completely pin compatible. I found a private source in Calgary, who had some 2532's which are pin compatible, to the Proms of "U26 U27", but they are rare as hen's teeth. The Chicago UG, made available a faster head step modification, using 2732's, with the wire wrap mod, and some small changes to the original Disk Controller Prom program. But Ron did them several steps better! INCLUDING, get this, causing the DCC to read 60+ fileheaders at the beginning of the disk, instead of the 30 or so. Makes better access when using a catalog, with less searching around for the other fileheaders. Does it work, well, Reg ran a program to load pictures from a disk full, without any problems.

The cause of all this was that Reg Young ordered the Eproms for 80 track drives from Ryte-Data, and after 6 months, decided to give up, having sent the \$60 CDN and nearly \$40 in phone calls, each time continually getting reassurances that the Eproms where on the way. Perhaps Ryte-Data's excuse was we would simply have copied them, and therefore cheat Ryte-Data and their source out of income!? Let's get the horse before the cart. None of us had 80 track drives, and Ron Z, does not have a Eprom Burner for 2532's. One of Ryte-Data's excuses was they couldn't get 2532's. After finding a source they did send Eproms that didn't work. And there excuse was they used a Myarc Disk Controller to send the code to the eproms which resulted in scrambled data?? 2532 Eproms requires 25 VAC to program, the 2732's require 21 VAC, and the Chicago group made the head-step mod, after Reg ordered, on good faith from Ryte-Data.

They did not deliver, so with an accumulation of knowledge, our club members did it themselves!

This is not the first time Ryte-Data has not delivered. Gary Snow of our club, had ordered software from them in November 1986. Ryte-Data cashed the money order, and after inquiries from the CIBC bank authorities, which was passed to Gary Snow, that that is "just tough". So you can bet that we aren't going to be ordering anything from Ryte-Data, anymore!

For that matter, we of the 99'ers will supply any information required to help other Tl'ers to do the mod to their systems, and for a fee, do the mod, if it is beyond your hardware hacking/programming etc.

I keep my 40 track drive as drive 3, and two 80 TPI drives in the PEBox. Ron made the Disk Controller Card do this so we can read and write to standard 40 TPI disks, for other users. Of course, you could go to Myarc and get their disk controller card, which will have the double density to either 40 or 80 track drives. Which is the maximum. I repeat, there is no such thing as QUAD DENSITY. We selected the Mitsubishi 4853's due to the price of \$69.00 U.S. MAKE SURE YOU ORDER THE FLIP HANDLES, since the drives are old stock. I asked, and got flip handle drives, dated 1985, others got older drives (not used, mind you), that have a dove-tailed door, that only an out of this world Alien could appreciate! ALSO, the company Saratoga, listed in the Computer Shopper, treated us all well, and reasonably fast. Some had their drives in 7-8 days. My order was handled very well, in fact, they had to call me, due to their phone sales rep. getting my credit card number wrong. (Always use Credit Cards: Read Stan Veit's write-up in the November Computer Shopper -you have recourse through the credit-card company, that is not available via money-orders!) And after I got my drives, they, Saratoga, sent a follow-up invoice so if the mails hadn't delivered, or if it had gotten ripped off, I would have known that the drives had been mailed, and I could have started tracing them.

I would like to continue support to Ryte-Data, and any other supplier for 4A's, but the writing is not good, that I see, on the wall. I know they have been ripped off, through, credit-card cancellations of orders, when the order had been filled, it's just too bad, Ryte-Data feels they have to recoup their loses through others, who aren't responsible.

Read about a company who is making a card to cause the screen to go blank, if the keys are not pressed. This is for the IBM type computers. "HUH?" The Thompson EGA Ultra Version, is mentioned in the latest Family (HOME/OFFICE) Computing Magazine. Now how long have we had that with the TI-99/4A?

Family Computing is no longer outputting programs for the 4A, and Adam. Wah-wah-wah-wah! One more reason not to buy it continued next page>>>>

Glad I didn't subscribe! Now I will read from the newstand, if there is anything to complain about, then, maybe, buy it. They report on the Amiga 500, saying the Amiga 1000, is "floundering" (their words), in sales. And those computers do nasty things, like quit, in the middle of a program, with an error routine something like, "The Guru is out to lunch".(Not quite, but...) Had my hands on one, with the "Echelon" game. It had a micro-phone to yell fire, and you could spit at it to get it to fire, as well. Nothing new there, that the MBX system couldn't do, except the program "Echelon" didn't have any better graphics than the TI, with that memory slurping program! There's always a trade-off, when jamming graphics into a computer. Usually color loses, and resolution levels! Asked a C64 user what GEOS was. It is a Graphics Environment O/S. He said it is available on disk to the common C64, and leaves about 39k left of ram. The 64C, has rom based GEOS, and still only has the 39k left. Looks like they turned it into their version of a TI-99/4A. How about that, a TI clone!?

The HORIZON RAM DISK is now capable of One Million bytes. It can be partitioned into 10 718 sector sized drives. So what? you say. Well that's all those other biggie computers do! They bank switch to the memory on the mother board. Now we have the memory space for BIG "chunk-of-fudge", uh, programs. And we can treat them like as if they are disk drives!? So you programmers do not have any more excuses about memory. How about porting some of those "hot shot" programs over to our computer. "Huh - Sublogic, Microprose etcetera." "HUH HUH"
GET THE PROGRAM "PICASSO" FROM OUR BBS (403) 282-8230. It came from a guy, all the way, from Aurora Ontario, authored by another good Aussie! It LOADS TI-Writer text and those RLE pics TOGETHER, just like GEO-WRITE!?
I keep saying it, we have it all, NOW!, let's not, one day, say, we "HAD" it all, after throwing it away?!

Dave Lovering Calgary 99'ers NOVEMBER '87

During the summer I posted a message about how pleased I was with TPA (The Printer's Aprentice) and how fast it worked from a ramdisk. At that time I was also waiting for FontWriter II, here after called FWII, to make a comparison of the two pieces of software. In the previous message I said that a page (8 1/2 x 11) could be printed from the Foundation ramdisk in 6 min 30 sec and from the Horizon in 5 min 50 sec. FWII formatter will not work with either ramdisk using the IP command to print pictures so I had to make my comparison using floppy drives. The ability of a formatter to a desktop publishing program to eliminate disk drive wear which could be substantial because of the long printing times from floppy drive. FWII would only print 1/2 of the page vertically so I had to make two passes to print the same page as TPA did in one pass. Total printing time from DSK1 not counting the time to roll back the page was 23 min with FWII. Using the same printing procedure took 17 min 10 sec with TPA. The FWII formatter is also very limited compared to TPA.

FWII disk dump is something TPA does not have and this feature alone may be worth the cost of the software. This feature comes in very handy when when converting Art-fonts to CSGD fonts to be used with the BANNER program because the percentage of fonts that convert correctly was very small in my experience. The disk dump will allow one to see which conversions will work OK with the BANNER program. The ability of BANNER to print 9 different sizes only

holds true if the font being used is very small. Most ART-fonts or CSGD fonts only allow 2 or 3 sizes. FWII disk dump DOES WORK from ramdisk and generates a batchfile which will print fonts and instances using the formatter from ramdisk. TPA does not have a BANNER program either so TPA and FWII compliment each other. Another feature of TPA that is outstanding is the C-pixel option. This is not easy to explain but I will try. As we know a computer or printer picture is made up of dots. Imagine each dot being expanded by multiplying it in size. TPA can expand a single dot to any proportion in a 8 x 8 pixel block. In this way the fonts or graphics can be made any size or proportion one wishes within this 8 x 8 block. A square or rectangular block is the logical choice, but any shape is possible.

Another excellant feature of TPA is the ability to define up to 77 boxes (print areas). FWII only allows 8 and these must have a frame around them. Have you ever seen a magazine or newsletter with frames around every item? TPA and FWII have many more features, but the ones described interested me the most at this time. With exception of BANNER and DISK DUMP TPA is superior in speed and vesatility in my estimation.

Notice that Micropendiums review on FWII does not mention some of the things I commented on. TPA is excellent trouble free software but requires some time to learn like TI-Writer or Multiplan. Seems like with FWII you are always running problems that can't be solved.

Genial Computerware is pleased to announce the release of five new programs just in time for the annual Chicago TI Faire. Included are new programs by John Johnson, Mike Dodd, and J. Peter Hoddie, as well as two new astonishing sets of fonts.

Remind Me! By John Johnson

Remind Me! is a program designed to help manage a monthly schedule. Traditionally, the problem with calendar style programs was that they were slow and cumbersome to use. Because Remind Me! is written entirely in assembly language it is extremely fast, while maintaining a very user friendly interface. John Johnson, creator of Remind Me!, is the author of the extremely popular Menu program for the Horizon RAM disk.

The program presents a graphic view of a calendar where you can load in one month at a time to work with. By using the arrow keys you can select a particular date and open its window. Each day's window may contain up to 12 lines of text which is entered and updated with a scaled down TI-Writer style editor. All dates that contain reminders are dates that contain reminders are highlighted to make checking your calendar easy. Furthermore, a fast search feature is included which ignores the case of letters and allows for multiple searches.

Remind Me! has two different print options. At any time you can print out the contents of a given day with a single key stroke. Using the Print function, you can print out a two column calendar for the entire month, or any range of days in a month. You can even print to disk and then load your calendar into TI-Writer!

Remind Me! may be customized for your own particular system configuration. You can choose screen colors, printer codes, printer device, and more. All of the configuration data is saved with the program so that it is automatically available each time you load Remind Me!, avoiding the hassle of keeping a separate defaults file on disk.

If you have a CorComp Clock Peripheral, a CorComp Triple Tech Card, a MBP Clock Card, the John Clulow Clock board, or a MYARC 9640, Remind Me! will display the current time while you are working. It will also provide the current month as the default when you beginning a session. A clock is NOT required to use Remind Me!. A version of Remind Me! that runs out of Super Space Cartridge is included so that you can have the program as an option on your main TI menu.

Remind Me! runs on a TI-99/4A or the MYARC 9640, and requires Editor/Assembler, TI-Writer, a Super Cart, or Extended BASIC. Retail price \$15.

By Mike Dodd

PC-Transfer is the fastest and most convenient method available to transfer data between a TI-99/4A or MYARC 9640, and an MS-DOS based machine. Simply place an MS-DOS disk in one disk drive and a TI disk in another and PC-Transfer goes to work.

PC-Transfer allows you to catalog the MS-DOS disk and select the files you wish to copy to the TI disk. You can even search for files in sub-directories. All file selection is performed with a Disk Manager 1000 style screen, so you can look through all the file names before making your choices. You then enter a TI filename for each of the files, and PC-Transfer converts all selected MS-DOS text files into Display Variable 80 files that can be used in TI-Writer or MY-Word! Similarly, PC-Transfer also allows you to catalog a PC-Transfer also allows you to catalog a TI disk. select files, and write them out as text files on the MS-DOS disk.

Because you might not have an MS-DOS disk initialized when you need it, PC-Transfer provides an initialize function, supporting four MS-DOS disk formats. And PC-Transfer is prepared for the future. A special loader feature allows for new conversion routines to be added - conversions that could allow transfer of graphics routines to be added - conversions that could allow transfer of graphics, spreadsheets, and more. Mike Dodd, author of PC-Transfer, made signifigant contributions to Triton's Super Extended BASIC and is the monthly 9640 columnist in MICPOpagains. in MICROpendium.

PC Transfer will run on both the TI-99/4A and MYARC 9640 computers. It requires either a CorComp or MYARC disk controller, two disk drives, and either an Extended BASIC. TI-Writer. or Editor Assembler cartridge. Retail price \$25.

Genial Font Packs

Genial Computerware's Font Packs are collections of 19 different fonts stored in TI-Artist format. These fonts are of very high quality, and most include complete upper and lower case letters along with numbers and symbols. These fonts cover a variety of sizes ranging from tiny to large. Perhaps most importantly, these fonts are designed to be exceptionally readable. All fonts have been tested with Font Writer II. Because some of the fonts are to large to load into TI-Artist, a special program has been included on disk that will allow you to load in a TI-Artist or GRAPHX picture along with any TI-Artist font and type on the picture in any color. The picture may then be saved for use in TI-Artist or GRAPHX. All of these fonts may be converted to CSGD format using either Genial Computerware's Graphic Expander, or Font Writer II also by J. Peter Hoddie (available through Asgard). Each Font Pack comes with a manual which includes complete printouts of each font for easy reference. Each Genial Font Pack retails for \$10.

Contents of Genial Font Pack 1: Alice, Andover, Berlin, Bubbles, Cartoon, Cream, Hanford, LED, Mars. MGX. Old English, Park Avenue, Poughkeepsie, Schematic, Spokane, Tile, Tiny, Tucson, and Western.

Contents of Genial Font Pack 2: Akashi, Apple, ASCII, Callisto, Canterbury, Chicago Gothic, Electronic, Eon, Franklin, Gangster, Genoa, Hood River, Ivy League, Long Island, Lilliput, Los Angeles, Moseisly, Pleasant Plain, and Saturn.

Graphics Expander By J. Peter Hoddie

If you use graphics programs, have you ever found just the font you wanted to use, but it was too small for your use? Have you ever wanted to print a vertical banner? Have you ever wanted to use letters that were rotated 90 degrees so that a line of text can run up or down the page? Have you ever wished you had an upside down font for upside down text? If you wanted any of these special applications in the past, you had to create a whole new font to do the job. With Graphics Expander, you can quickly and easily enlarge a font, rotate the characters, create mirror images, or invert them. No drawing is required. You can also perform the same operations on small graphic instances. This

program will save you hours of work and give you many more possibilities for your graphics and artwork.

Graphics Expander is written entirely in assembly language for speed and is compatible with fonts and graphics from both TI Artist and CSGD. You can also use Graphics Expander to convert fonts and graphics back and forth between CSGD and TI Artist formats. All graphics are displayed on the screen. Images and fonts may be scaled horizontally and/or vertically by factors from 1 to 9. For your convenience a full catalog routine is included as well as the ability to delete files. Complete documentation by Walt Howe is included.

Graphics Expander runs on the TI-99/4A and MYARC 9640 computers. Extended BASIC, Editor/Assembler, or TI-Writer is required along with 32K of memory. Retail price \$10.

Ordering Information

All of these programs may be ordered by sending a check or money order to Genial Computerware, P.O. Box 183, Grafton, MA 01519. Please include \$1 for shipping and handling. For a complete Genial Computerware catalog send a self addressed stamped envelope to the above address.

