bemyvalentinebemyvalentinebemyvalentinebemyvalentin
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 *     *   #   #   +     +   %%%   $   $
 ** **   #   #   ++    +   %   %   $   $
 *   *   #   #   + +  +   %       $   $
 *   *   #   #   +  ++    %   %   $$$$$
 *   *   #   #   +     +   %   %   $   $
 *     *  ###     +     +   %%%   $   $
```
ebemyvalentinebemyvalentinebemyvalentinebemyvalentin

Mass Users of the Ninety-nine and Computer Hobbyists

FEBRUARY 1988 Monthly Newsletter Version 7.02
>>>>>>>>>>>>>>>>NEW LOCATION!!!!!<<<<<<<<<<<<<<<<<<

JOIN THE CROWD AT OUR FEB. 9 MEETING!

M.U.N.C.H.
P.O. Box 7193
560 LINCOLN STREET
WORCESTER, MA. 01605

***Next Meeting: FEB 9th

FIRST CLASS

Happy VALENTINE's Day!

EDMONTON
P.O. BOX
EDMONTON ALBERTA CN T5J3L1

NEW LOCATION
SUNDERLAND RD
COMMUNITY CTR
ROUTE 20

2nd
TUES
of the
Month

Map labels:
LIQUOR STORE
RT. 122
TUX
MASS MED. CTR. (OLD PLACE)
WEST RT. 9 EAST
SUNDERLAND HOUSE COMMUNITY HOUSE
SUNDERLAND RD.
THIS IS IT
POLLY'S RESTAURANT LOUNGE
P=PARKING
(P)=NO PARKING

```
**********************************************   H  V
         MUNCH OFFICERS AND NUMBERS (all in 617 area)   A  A
         **********************************************   P  L
         President/Mail    W.C. Wyman       839-4134      P  E
         Vice President    Hector Beaudreau              Y  N
         Secretary         Al Cecchini                       T
         Treasurer         Jim Cox          869-2704         I
         Editor/Lugger     Jack Sughrue     476-7630         N
         Adv Prog. Chair   Dan Rogers       248-5502         E
         Losers            TI Leavers       123-4567         '
       . Library           Al / Lisa Cecchini               S
         Software Library  Don Mason        754-6630
                           Hector Beaudreau                 D
         99/4A Sensuality  D.H. Lawrence                  A
         BBS Hostess       Helen Holmes                   Y
         Best Guys/Gals    Our Remaining Members
```

LIBRARY NOTICE

PLEASE RETURN ANY ITEMS BORROWED FROM OUR LIBRARY. We are still missing a considerable number of books, tapes, disks, and so on belonging to YOUR CLUB. Do a little clearing around your computer area (or any places you'd be apt to set things aside). If you locate any library materials (or if you'd like to donate any you no longer use) please come with them to the next meeting. We don't care how long you've had them out. There is no fine. But it would be fine if other members could have a chance to borrow these things. King Kong is watching you!

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ADVERTISING RATES:

Double Page   (10.5" by 8") $25.00 per insertion
Full Page   (5" by 8") $13.00 per insertion
Half Page   (5" by 4") $ 7.00 per insertion
Quarter Page   (5" by 2" or
*   (2.5" by 4") $ 5.00 per insertion*
Classified (non-commercial) ads are FREE for MUNCH members.

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....RAFFLE....

We're going to continue with the large number of donated items to our monthly raffles. Thanks again to the generosity of many members: all kinds of items such as cartridges, tapes, disks of all kinds of things: educational, fun, utility. Get ready for good New Year beginning by winning your presents this month at the new clubhouse. Donations happily accepted. Remember: YOU MUST BE PRESENT TO WIN!

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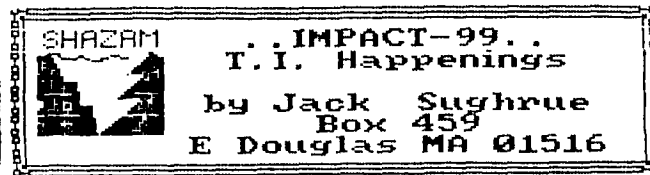## FEBRUARY SALE [Get something for the whole family!]

Another chance to sell any used consoles, P/Boxes, cards, tape recorders, interface cables, ANYTHING related to your computer system. Also bring any original tapes, cartridges, disks, texts, or other soft/textware. Be prepared to buy a lot and sell a lot. Please come with prices marked on the items. Call Jack Sughrue to let him know what you will be selling. AND BE THINKING ABOUT THE APRIL FAIRE IN LEXINGTON!

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NEWSLETTER

Become Immortal! We are looking for articles, cartoons, love letters, programs, lists, old banana peels: in short, anything from the members which can be printed in our newsletter. Text items preferred on SSSD disk through TIW. Printed items also accepted. Share your interest or expertise with other members. Mail all items by the 3rd Tuesday of each month to Jack Sughrue, Box 459, E.Douglas MA 01516. Disks will be returned at the next meeting.

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NEWALS + RENEWALS

NEWALS are $15/year plus a one-time $10 inititation fee (which includes a choice of ANY club disk free); RENEWALS are $15/year. Members have full use of disk/text libraries, free workshops + assistance, 12 full issues of M.U.N.C.H., voting privileges + more! Subscription alone is $10/year. Mail check to address on cover.

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***************************************************
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SHAZAM    ..IMPACT-99..
          T.I. Happenings
          by Jack  Sughrue
                Box 459
          E Douglas MA 01516
```

1988 BLUE RIBBON WINNER

The first annual IMPACT/99 Blue Ribbon Software Winner is given this year to Asgard Software!

Asgard continues to provide unusual and exciting programs and specialty files for the TI owner, while moving right into the Geneve upgrading. This software house has provided some peculiar - if not downright eccentric - pieces of software for many years now. Just when you think nothing new can possibly come out for our little marvel, Asgard leaps to the fore with something new, at the least, and mind-boggling, at the best.

There are a lot of excellent software companies out there - most Mom 'n Pop type (even though run, usually, by VERY YOUNG people)- who are producing or distributing wonderful things for the wonderful TI; companies like TIGERCUB (the granddaddy of the TOP QUALITY FOR LOW PRICE companies), Databiotics, Genial Computerware (a branch of the GENIAL TRAVelER diskazine, one of the best buys in the industry), DOS (Disk Only Software), and many others. So coming to this choice with this award was not an easy matter. The idea to even CREATE such an award came from John Zittrain and Ron Albright. Last year they named Asgard "Computer Software Company of the Year." I thought a lot about the idea of giving an award as a way of announcing to the software companies that WE'RE STILL HERE and we still appreciate all that is being done to support the 99. Too often these companies (and the long-suffering Fairware authors) hear only the complaints and none of the accolades.

Thus, "The IMPACT/99 Blue Ribbon for 1988!"

Asgard Software (P.D. Box 10306, Rockville, MD 20850) is owned and operated by Chris Bobbitt. He is also one of the programmer/artists among a large stable of programmer/artists. He actively seeks programmers to create and develop materials for his company, contracts with the authors, packages and promotes the finished products always in a professional way. There is nothing slipshod or amateurish about anything put out by Asgard. Mr. Bobbitt has maintained one of the highest standards of professional excellence of any software company in the orphaned industry.

But it is not just the packaging and distribution that make for a successful software company. Without good-quality software, all else is gesture. It is here - providing that consistent quality - that Bobbitt and Asgard shine.

The latest catalog (free) is as ecletic a collection as would please the most demanding connoisseur. The 34 disks include a good share of games (or programmer's dream of utilities to change or create games), a collection of graphics programs that is second to no one, some incredible utilities (EZ-KEYS being one of the most unbelievable I've ever encountered), and some peculiar miscellaneous programs that are for a more discriminating audience. With regard to the latter, Asgard is the only company I know of that would publish such esoteric stuff as a RECIPE WRITER (and follow it up with a series of specialized recipes called ELECTRONIC GOURMET), a STAMP MANAGER, and a freeform database which has nothing like it for any computer I've ever used (TOTAL FILER). I mean, there has to be a very small audience for these specialty items. How many gourmet computer freaks are there? Yet, for those few (Maybe there ARE many!) who are out there, it's really nice to have a company that makes stuff for you and continues to add updates and support disks.

Although I look forward to getting catalogs from ANY company that supports TI - (Anybody out there know what ever happened to PILGRIM'S PRIDE?) -, I really love opening up the latest one from Asgard. I never know what to expect. I DO know, however, that I'm not going to be ripped off. Of the 34 disks, more than 20 are under $10. Those are Fairware prices! And all the programs have warranties and exchange and upgrade policies. Bobbitt says he continues to keep the low prices as his way of trying to keep the market viable and to thwart pirates. (It's hardly worth pirating a $5.95 disk, particularly if you miss the excellent manuals that come with the programs.). I like that philosophy.

But I particularly like Bobbitt's consistent policy of not putting protections on the disks or files. Hooray! I make backups of everything and salt the originals away. No problem. Then I enjoy peeking and probing the programs, learning all the while and customizing when it suits me. And playing with the thing. This is how many of us learn from the experts. (Almost all I know about computing, for example, came from Jim Peterson of TIGERCUB Software. His programs, too, are all unprotected. His NUTS 'n BOLTS series is the single biggest influence on TI XB programmers that has EVER existed. And like Bobbitt and Asgard, it has always been a policy of Peterson and TIGERCUB to sell only top quality stuff at very low prices.) I almost never buy anything that has super protections on it, like the GS stuff. I know it's a way of looking at the piracy thing to be on one side of the fence or another, and I can appreciate other

points of view. For me, I buy lots and lots of hardware and software every year and encourage lots of other people to do the same directly, by mail, and by these reviews. I don't give anybody commercial software. But if I can't get inside, I personally do not want it.

Anyway, I particularly like the Asgard policy.

The PROGRAMS!!!!

Yes, the programs. That is, after all, how my decision finally came to be made. There are six games listed (plus some that come with the Tunnel of Doom Editor) and they are superb. And quite different from one another. BALLOON WARS is an old favorite that has been updated. You fly a balloon across enemy lines in WWI Europe. It's very tricky business, this balloon version of the flying programs (for airplanes) making the rounds these days. Ingenious. Missile Wars (by the great programmer John Behnke) is an alien-attack game that is VERY fast and very well designed. It is tough, fun, and a little frantic. The manual is a model of philosophy. Kirkegard might have approved.

HIGH GRAVITY was, until very recently, my very favorite game of all time after DIABLO. The former is as wonderfully ingenious as anything I can think of. It is not spectacular, has no special effects, is simple in concept, has the added feature of incredible cleverness. Is addictive. I keep it right on my PLUS! disk to automatically sit in my RAM disk for any time I need a fix. Then along comes Donn Granros and Ed Johnson to put out the remarkable LEGENDS. This is a graphic/text adventure. More in the slash and hack style of D & D than in the ruminating style of Infocom. I've never seen a D & D type of game for the TI that was anywhere nearly in the same class. LEGENDS is simply teriffic! I love it. It is addictive. I'm one of these people who plays a lot of games. A game freak. No matter how hard I try to be a grownup, responsible person, I am doomed to failure. Thank goodness. I have all sorts of work to do. Papers need correcting. Articles need writing. Letters, too. All kinds of things NEED to be done on my computer. And time is scarce, as it is for everyone.

But before I do anything worthwhile, I decide to play LEGENDS "for just a few minutes to unwind." It doesn't work. I don't work. I don't care! LEGENDS is more fun.

This fast (and fast-paced) two-disk game is colorful and animated. You (and up to three others) visit a strange island. It has inns, a training area for experiened war-party members, a store for weapons, another for magic items. When you travel this land of forests and rivers and inns and mountains you will need to be constantly on the alert. For much awaits you.

So after you and your party explore and experience the island, hopefully gaining much wealth along the way, stopping at inns for a much-deserved break, you might hop the nearest teleporting rock to a reasonable facsimile of civilization where you may train and develop and prepare yourself for...

THE DUNGEONS!

twist in this maze-like atmosphere: friendly encounters.

All along the way - on island or under island - you'll encounter weird creatures. The graphics are exceptional. The patience you'll need to get through them must also be exceptional. You must fight, cast spells, negotiate, and run at the right times. The better you get at this game, the more the challenge.

LEGENDS is one of the few superior games that came out for the TI this year. It is a game for many.

There are two other games listed in the Asgard catalog (THE HAUNTED MINE II and THE VOLCANO FORTRESS). I've never played either of them, but I wouldn't hesitate getting them, as I've never gotten anything from this company that didn't exceed my expectations.

Next IMPACT/99 I'll review three of the best (and, for me, most-used) programs I own. They are all Asgard and all exceptional: EZ-KEYS, FONTWRITER II, and TOTAL FILER - lest you think life is all fun and games for me.

CONGRATULATIONS, ASGARD! Keep up the great TI efforts!

PICASSO

There are some exciting new things (as always) going on in the TI World. Arto Heno, the programming genius who developed *PICASSO* for the 99, will be releasing commercially this extraordinary graphics package very soon. This is an example of yet another ingenious Australian providing the world with some pretty powerful tools for the 4A and the GENEVE.

This has not been hassle free for Arto, however. Apparently, an earlier, incomplete release which was supposed to have been beta-tested got released in this country from a BBS source. It was claimed (without anyone checking with Arto) to be Fairware. This was not the case, however, as was clearly marked with appropriate copyright information. It was meant to be a commercially-released program. Then a rumor started that some user groups had exclusive sales rights to *PICASSO* to raise money for the clubs. Again, no one thought to check this out with the author, who had written this program while unemployed to make some money.

It's a work of genius. From what I've see of the earlier version and have learned about the upcoming version, *PICASSO* may be the most exciting piece of software out for the TI in 1988!

I can only hope that the bad experience will not sour Arto on the 4A and that the persons who gained the illegal copies unknowingly will support this man's efforts when the complete, final copies containing all the debugs as well as all the new improvements and features is finally released in this country.

GENEVE

Support is growing for the GENEVE from Myarc. More and more people are buying this remarkable machine, as new releases and adaptations of existing software are made. MY-ART (with a mouse) has been very favorably reviewed in many newsletters. Peter Hoddie will eventually be updating the excellent MY-WORD software. And Mike Dodd has begun a monthly column in MICROpendium exclusively dealing with the 9640. (Recently he told how to make the chess module into GENEVE disk software by a few assembly changes, for example.)

As the GENEVE market grows, so do the uses for the machine that has such incredible speed and graphics, while maintaining the full range of processing for the 99/4A software.

With so many options now available for 99 upgrading, many people are getting multi-upgradings:

512 cards (which can make a GENEVE over 1 megabyte!), RAM disks, hard drives, GRAM cards, built-in speech cards, advanced XB, full keyboard, upgraded disk controlling, advanced disk managing, numerous quad drives, and so on. There seem to be no end to the possibilities.

MEMBERS

Last month's issue included a complete mailing list of all members in M.U.N.C.H. This inclusion was ONLY in the issues that went to the members listed on the sheet and was for the convenience of all the members. Keeping in touch is important in an orphaned community.

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MORE PROGRAMS!

We are looking for programs from books and magazines and newsletters (old but new to the club is okay) for typing in to add to our library.

Last year this project was very successful and all of us benefitted.

Here is how this group project works:

Those people who agree to type in the xeroxed programs that are brought in will receive a tape or disk of all the programs that are done by each participant that month. Most people type in a good-sized program or two smaller programs. This is a good way to develop your typing skills and, by the process of osmosis, some programming skills. It's fun. It's frustrating. It's free.

After typing and debugging, send the program on tape or disk to Jack Sughrue (Box 459, E.Douglas MA 01516). If it needs further debugging, mention the problem on a note and Jack will attempt to correct the problem.

Then on your tape or disk Jack will load all the other programs also typed in during the month and return your disk at the next meeting.

Identify the source in a beginning REM statement and put YOUR name as typist in a second and/or third REM at the start of each program. Date would be good, too.

    Example:
    10 REM MICROpendium 1/88
    20 REM Typed beautifully by
    30 REM Lobelia Rugwet 3/88

Help us to add to our library's extensive files and help yourself at the same time.

Every contributor is, after all, a beneficiary.

If you have programs you can share please bring copies to the meetings. We'll begin our Typing Trek NEXT MONTH. Please let Jack know if you will participate and the kinds of programs you would like: children's, utilities, games, home applications, whatever; or something very specific like a program that lets you keep track of your video library.

Let US know what YOU want. That's what MUNCHing is!
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

WORKSHOPS

Now that spring is on its way, thoughts turn once again to computing. We have a wonderful clubhouse for workshops, displays, sharing. We need volunteers who will teach some workshops for a few months: XBASIC, Assembly, Graphics, whatever. Whatever YOU know, the club members would like to learn. Jack will be giving a workshop this month and next on word processing through the new FUNNELWEB. Helen will keep on with her LOGO adventures. Corson continues to keep us updated on the latest software his company has to offer and on the latest GENEVE materials. Let us know what kinds of workshops you'd like and how long you'd like them to run. We will do our best to accomodate you.
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

A ONE-LINER DISK CATALOGER!
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

by John Martin [SNUGLETter; Southern Nevada]

I know from the underwhelming response to my last one-line program that it's time to bore you once again with another one. This one is a disk catalog routine. Since I only had one line to work with, I had to make some changes from the standard catalog you are used to seeing. In this catalog, the first line tells you the disk name, number of sectors formatted, and the number of sectors still available. The rest of the lines will look pretty much standard except that the file types are abbreviated and protection is indicated by a -1 while an unprotected file will show a 0. you will also notice that the PG (program) files have the program length in bytes indicated. This is in the same column where the logical record length would be for a file. This was somewhat by accident, but it looked good so I left it there (didn't really have any choice anyway).

When typing in this program (as with most ALL one liners) you type the first 5 lines first. When the cursor stops, press ENTER. Now, press FCTN 8. This will bring the line up for editing again. Now move the cursor back to the end of the fifth line. You will find that you can now type PAST the end of it. Just type in the rest of the program and press ENTER again. Now, save it to disk and then RUN it. You will be prompted with "DSK". Just type in the number of the drive you want to catalog. When the program has finished cataloging your disk, it will run itself again and prompt you with "DSK". If you want to catalog another disk, just enter the drive number and away you go again. To end the program, press FCTN 4. If you don't like having the program recycle endlessly, just replace the word RUN in the 5th screen line with the word END. If you make this modification, you will have to type RUN each time you want to catalog a different disk.

Here is the program. This is printed from an actual listing and is in 28 column format, so if you type it EXACTLY as listed, it should work fine. *

```
1 IF F THEN INPUT #1:A$,A,J,
K :: IF J THEN PRINT A$;TAB(
12);J;TAB(18);SEG$(B$,ABS(A$
2)+1,2);K;TAB(27);A<0 :: GOT
0 1 ELSE RUN ELSE B$="AVDFDV
IFIVPG" :: INPUT "DSK":F ::
OPEN #1:"DSK"&STR$(F)&".",IN
TERNAL,RELATIVE,INPUT :: GOT
0 1 ! BY JOHN M
```
                    * It does! JS.

The noises -4 and -8 vary the tone of the third tone specified in a sound statement. I have noticed that by use of -4 and -8, any noise can be created. Where -4 can create noises -1,-2, and -3 and where -8 can create noises -5,-6, and -7. The following program demonstrates this by using 129 different noises created by -4 to form the sound of an aeroplane taking off.

```
100 FOR T=110 TO 4000 STEP 30
110 CALL SOUND(-100,110,30,1
10,30,T,30,-4,0)
120 NEXT T
130 CALL SOUND(-100,110,30,1
```

Hence 89246 noises (not tones) are available on the TI, and you can hear them all. None are out of range of hearing. 44623 of the noises are generated by -4 and another 44623 are generated by -8.

                 (*)(*)(*)(*)(*)(*)

Here are some interesting codes that I ran across this month:

IF N/2=INT(N/2) THEN PRINT...

This code has been around a long time. It let's you know if N is even or not. But try this one. It accomplishes same thing, but runs faster.

IF NOT N AND 1 THEN PRINT...

    (*) (*) (*) (*) (*)

The code IF X THEN really means:

IF X<>0 THEN

With this logic we can come up with a neat flag toggle.

IF X THEN X=0 ELSE X=1

from LA Topics

Helen's Corner....
617-322-1562

This month I've brought the game SEGREGATION to show the members. I plan to continue with TI LOGO II next month with a review of what we have done and continue on to further chapters. I have plans to do a spreadsheet using LOGO. I have lots of programs available to MUNCH members so give me a call if you are looking for a program. If I have it I will bring it to the next meeting. Soon we hope to get the entire MUNCH library and bring it to the meetings with us. Corson says if you have a bad disk and need help bring it to the meeting.

Font Writer II

Pizzazz for your layouts

By HARRY BRASHEAR

Font Writer, and now Font Writer II. Asgard and Peter Hoddie have gotten together again to better what was already an excellent piece of software.

I had a nodding acquaintance with the original Font Writer and was impressed with its capabilities but had never used it much. Now I have version 2, and it's slated to become one of my most used disks. User group newsletter editors had better listen up because this program could add pizzazz to otherwise dull layouts.

FWII consists of five major programs, any one of which is innovative enough to warrant at least half the $24.95 price tag. They are the Editor, the Formatter, the Manager, the Disk Dump, and the Banner maker. Asgard has also included on the main menu the TI-Writer editor and formatter, a utility loader and, of course, a file to keep your system defaults in. This latter group is put there for your convenience and it is assumed that you are acquainted with their use. For this review it's enough to know that they are there.

When you get a new piece of software, you always want to get right into it and DO something. Because of this I am going to tell you about the simple stuff first, Banner and Disk Dump.

Banner does exactly what it says it does, makes banners just like CSGD. You can use any CSGD font you may have to print with and you can also combine CSGD graphics. Nothing new in that, but how about the ability to do the letters in nine different sizes and put it where you want on the page? Looks like the "man just bit the dog," right?

While they were at it they also gave you a "stretch" factor that allows you make the letters as wide as you want. I selected a "one high" font and tried the banner out with the defaults of 1 and 1. The letters came out just slightly less than an inch tall and perfectly formed. Setting the height at two added another inch, three added one more inch, etc. Using this one font, I could have set the size at four and the column half way up the page, printed a message, backed the paper up, set the size at two, and printed a second smaller line on the

Review

Report Card

Performance................A+
Ease of Use................B
Documentation..............A
Value.....................A+
Final Grade.................A

Cost: $24.95
Manufacturer: Asgard Software, P.O. Box 10306, Rockville MD 20850
Requirements: Console, Extended BASIC, 32K, RS232, printer

bottom of the banner.

Graphics are not affected by the size inputs so a little placement planning is needed for them. Also, you can mix graphics and text by doing parts of a message. The format is... TESTING(DSK1.FLOWER/GR). The word TESTING would be printed, then the program would go to drive one and get the FLOWER graphic and print that. When
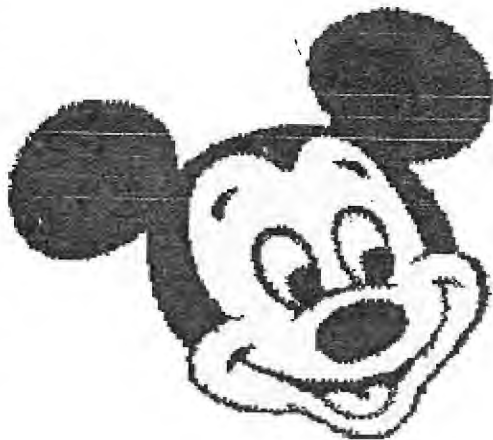
finished, you are returned to the input area for further instructions.

The DISK DUMP could be voted your "most valuable utility for the week," if you're a graphics freak like me. I have scads of pictures, fonts, and instances from Graphx, Artist and CSGD all thrown together on orange colored disks. (See, I'm slightly organized by the fact that orange means something graphic.) I have gotten to the point where finding which disk a font is on takes more time than the use of the font. Well, the Disk Dump was the answer to all my problems.

You are presented with a menu that looks like this:

1. CSGD FONTS	ON
2. TI-ARTIST FONTS	ON
3. TI-ARTIST INSTANCES	ON
4. TI-ARTIST PICTURES	ON
5. GRAPHX PICTURES	ON
6. SINGLE DENSITY	ON
7. FRAME PICTURES	ON

By pressing the corresponding number the "ON" becomes a "OFF" and vice versa, giving instructions to the program. Once you tell the program what you want,

FONTWRITER II—

press ENTER and it prepares a DV/80 text file "program" based on your needs. (More on this miracle later).

To make a long story short, at this point, you will receive a printout of everything you have asked for. That is to say, the fonts are printed out completely as they should appear in your programs. All of the instances are printed as is, and all of the pictures are printed with a frame around them if you selected that option. You have a complete encyclopedia of your fonts and pictures with their file names to refer to from now on.

Before moving on here, I should make one important point. One thing that has always bothered me about TI-Artist printer dumps is that they are almost always pulled, stretched or not dark enough. FWII prints in double-density in what appears to be perfect proportion. The size is equal to the single-density, single-size Artist output. I would buy FWII just for this option.

The Editor is one of the main items that you want to buy the program for. It would remind you of a giant sprite editor but is infinitely more complex. The editing area you have to work with represents a 7 by 7 character segment good for fonts, graphics and instances. The larger part of the screen is taken up by the editing grid and there is a smaller "life-sized" area below so you can see what your graphics will really look like.

All of the typical commands are available by different names. Pen up, pen down, white ink, black ink ... it's all pretty much

the same except for the large final area you are working with. What really sets it apart is that you can load whole fonts into memory with the font Manager and work on the letters one at a time. Pull a letter into the working area, edit it, save it, and go on to the next. This can be a real time-saver for those little changes that personalize your fonts.

There is one thing that I didn't care for in the Fonts area. I never thought I would see the day I'd say it but Macros, one of the Font options, is the most labor-intensive piece of work I've ever seen, both on the part of the author and the end user. (Remember that this is an option and that this review reflects personal observations.)

Macros are designed to eliminate drawing work. For instance, you can press "A" and the cursor will draw a three-character long line that is three pixels wide. A "B" press could get you six pixels down, three diagonal, four across, etc., all automatically. That's nice, and you are allowed to make up your own but, frankly, for the time involved in doing it, no thanks. If you plan on becoming a professional font maker, it's probably worth the effort, but otherwise, I would rather that the programming space had been used for something else.

The Fonts area will also load parts of an image if it's too big to fit the 7 by 7 grid area. (In Fontwriter, (I)nstances are known as (I)mages.) It would seem that every graphic possibility has been accounted for. Even sprites can be created, defined and saved as data statements for merge use. Also inside of the Fonts area is a complete disk management area for deletion, file copy, cataloging, etc.

Finally there is the Formatter area, and here is where you find the meaning of FWII. It's the bottom line where everything comes together to produce a finished product.

Lets assume that you are completely familiar with TI-Writer. If you know all the dot commands, such as .LM, .CE, .FI and .AD, fine! Now try some new ones on for size:

LF = Load Font
II = Include image
IM = Image merge
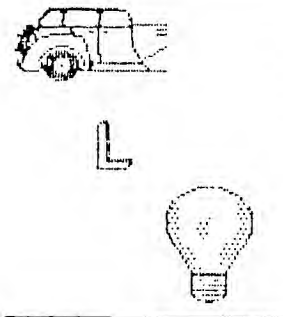BB = Begin box
BE = Box end
DF = Dump file

KB = Keyboard entry
EL = Elite type
DS ON/OFF = Double-density on/off
DB ON/OFF = Double-width on/off
FR ON/OFF = Frame image on/off

That's not all of them by a long shot, but it gives you an idea of the new commands that can be used in a Writer DV/80 text file to produce some fantastic output. By using such commands you can mix any font in with normal text for titles and such. You can include pictures with the text at any given margin and, if you like you can use various one-high fonts to fancy up the entire text file. Artist pictures slide onto the page as nice as can be and in double-density mode that makes your pages camera ready for the printer.

Using all of the new dot commands, and most of the old ones, there is an area of the Formatter where you can do everything right from the keyboard. I used this section as a practice area to learn proper sequencing of the commands and to quickly find out how they reacted. If you needed to make up a quick sign for some reason, this would be the spot. Perfect for the retailer. It was a joy to use and, for the most part, I found the speed reasonable. Even though the programming is in Extended BASIC, there are assembly links to help out where needed.
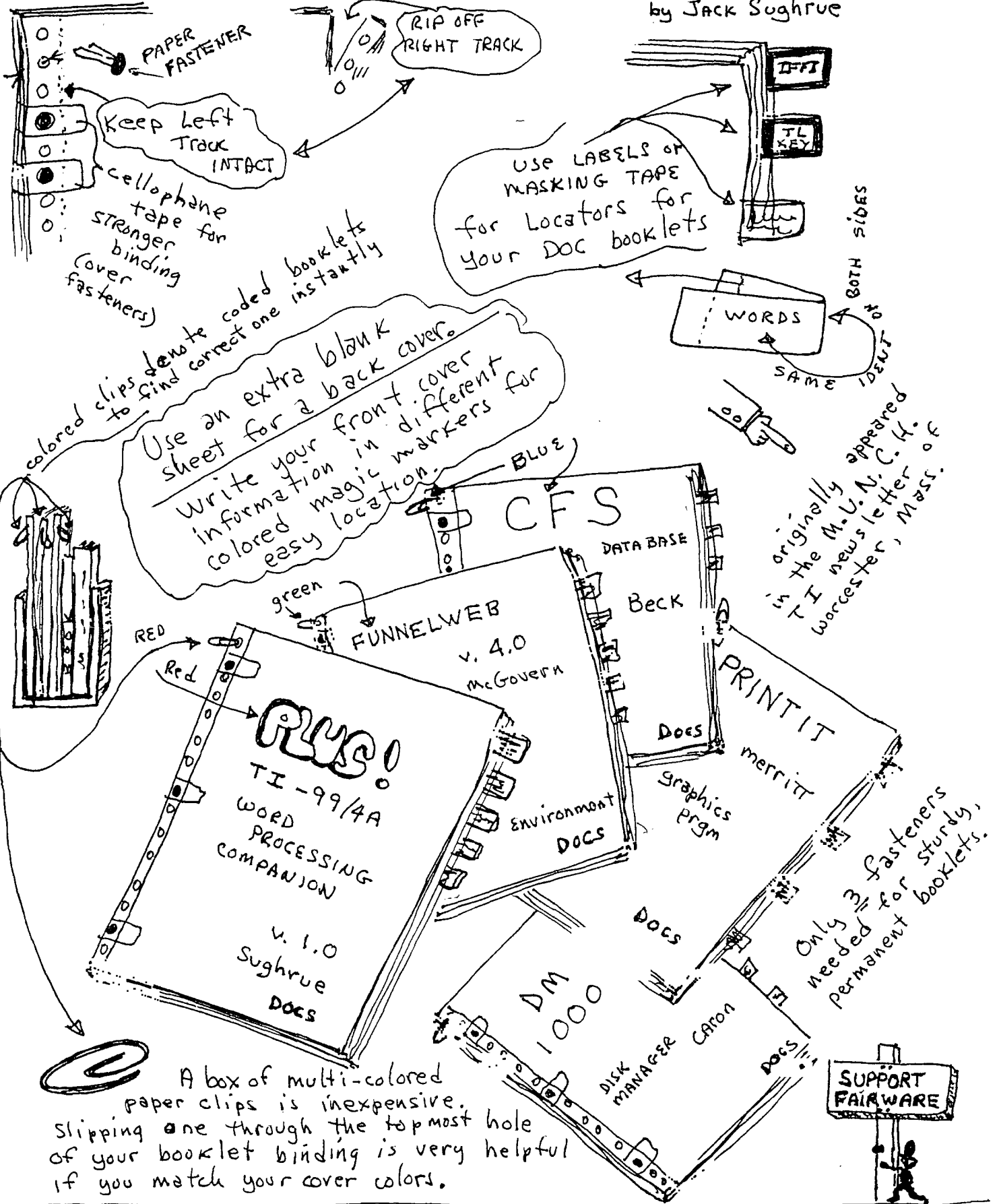
I had some problems here and there but nothing I didn't eventually work out. The documentation is pretty good and tells you everything you need to know, but it can't supply you with the imagination to get everything out of the program. I had the feeling as I worked with it that, like TI-Writer, it would take some time to discover all of its potential. While there are a few formatted files to play with, none of them really shows what the program can do. It desperately needs example files that will produce whole pages of complicated structure, something that you can copy from or use as reference.

There are a couple of items that wouldn't work on my old Gemini but I got around them. They weren't that big a deal. All in all, Fontwriter II has great value to me. The TI community needs good desktop publishing programs, but no single one to date has completely filled that order. Fontwriter is no exception. It doesn't do everything but it's a giant step toward filling the need.

by Jack Sughrue

PAPER FASTENER

RIP OFF RIGHT TRACK

Keep Left Track INTACT

cellophane tape for stronger binding (cover fasteners)

USE LABELS OR MASKING TAPE for Locators for your DOC booklets

TI-FT

TL KEY

BOTH SIDES

WORDS

SAME IDENT

NO

colored clips denote coded booklets to find correct one instantly

Use an extra blank sheet for a back cover. Write your front cover information in different colored magic markers for easy location.

originally appeared in the M.U.N.C.H. T I newsletter of Worcester, Mass.

BLUE

CFS

DATA BASE

Beck

green

FUNNELWEB

v. 4.0 McGovern

RED

Red

PLUS!

TI-99/4A WORD PROCESSING COMPANION

v. 1.0 Sughrue

DOCS

Environment DOCS

PRINT IT

merritt

graphics prgm

DOCS

DOCS

DM 1000

DISK MANAGER Caron

DOCS

Only 3 fasteners needed for sturdy, permanent booklets.

SUPPORT FAIRWARE

A box of multi-colored paper clips is inexpensive. Slipping one through the topmost hole of your booklet binding is very helpful if you match your cover colors.

A PERMANENT SOLUTION TO YOUR GROWING DOCS LIBRARY PROBLEMS

TI BASIC ERROR CODES PERTAINING TO THE DISK SYSTEM

#: First Digit   Second Digit

#	First Digit	Second Digit
0:	OPEN	Can't find specified disk drive
1:	CLOSE	Disk or Program is write protected
2:	INPUT	Bad Open Attribute
3:	PRINT	Illegal Operation
4:	RESTORE	Disk Full or too many files open
5:	OLD	Attempt to read past EOF
6:	SAVE	Device Error
7:	DELETE	File Error
8:	NIL	
9:	EOF	

EXTENDED BASIC ERROR CODES

10	Numeric Overflow
14	Syntax Error
16	Illegal After Subroutine
19	Name Too Long
20	Unrecognized Character
24	$/# Mismatch
28	Improperly Used Name
36	Image Error
39	Memory Full
40	Stack Overflow
43	NEXT Without FOR
44	FOR-NEXT Nesting
47	Must Be In Subroutine
48	Recursive Subroutine CALL
49	Missing SUBEND
51	RETURN without GOSUB
54	String Truncated
56	Speech $ Too Long
57	Bad Subscript
60	Line Not Found
61	Bad Line #
62	Line Too Long
67	Can't CONtinue
69	Command Illegal In Program
70	Only Legal In Program
74	Bad Argument
78	No Program Present
79	Bad Value
80	Nil
81	Incorrect Argument List
82	Nil
83	Input Error
84	Data Error
97	Protection Violation
109	File Error
138	I/O Error
135	Subroutine Not Found

I/O ERRORS

#: First Digit   Second Digit

#	First Digit	Second Digit
0:	OPEN	Device Not Found
1:	CLOSE	Write Protected
2:	INPUT	Bad Open Attribute
3:	PRINT	Invalid I/O Command
4:	RESTORE	Out of Space
5:	OLD	End Of File
6:	SAVE	Device Error
7:	DELETE	File/Data Mismatch

DISK MANAGER ERROR CODES

#: First Digit   Second Digit

#	First Digit	Second Digit
1:	OTHER	Rec not found
2:	SEEK/STEP	Cyclic Redundancy
3:	INPUT	Lost Data
4:	PRINT	Write Protect
5:	Nil	Write Fault
6:	Nil	No Disk Drive
7:	Nil	Invalid Input
8:	Nil	
9:	Special error code for Comprehensive tests.	

EDITOR/ASSEMBLER ERROR CODES
X/B ERROR EQUATES

Name	Code	#	Description
ERRNO	>0200	2	Numeric Overflow
ERRSYN	>0300	3	Syntax Error
ERRIBS	>0400	4	Illegal after Subprgm
ERRNQS	>0500	5	Unmatched Quotes
ERRNTL	>0600	6	Name too long
ERRNM	>0700	7	$/# Mismatch
ERRPDB	>0800	8	Option Base Error
ERRMUV	>0900	9	Improperly Used Name
ERRIM	>0A00	10	Image Error
ERRMEM	>0B00	11	Memory Full
ERRSO	>0C00	12	Stack Overflow
ERRNWF	>0D00	13	NEXT without FOR
ERRFNN	>0E00	14	FOR-NEXT Nesting
ERRNS	>0F00	15	Must be In Subprogram
ERRRSC	>1000	16	Recursive Subprogram
ERRM	>1100	17	Missing SUBEND
ERRWJ	>1200	18	RETURN without GOSUB
ERRT	>1300	19	String Truncated
VRRS	>1400	20	Bad Subscript
ERRSL	>1500	21	Speech $ Too Long
ERRLNF	>1600	22	Line Not Found
ERRBLN	>1700	23	Bad Line Number
ERRLTL	>1800	24	Line Too Long
ERRCC	>1900	25	Can't CONtinue
ERRCIP	>1A00	26	Illegal in Program
ERROLP	>1B00	27	Only Legal In Program
ERRBA	>1C00	28	Bad Argument
ERRNPP	>1D00	29	No Program Present
ERRBV	>1E00	30	Bad Value
ERRIAL	>1F00	31	Incorrect ArgumentList
ERRINP	>2000	32	Input Error
ERRDAT	>2100	33	Data Error
ERRFE	>2200	34	File Error
ERRIO	>2400	36	I/O Error
ERRSNF	>2500	37	Subprogram Not Found
ERRPV	>2700	39	Protection Violation
ERRINV	>2800	40	Unrecognized Character
VRNNO	>2900	41	Numeric Overflow
VRNST	>2A00	42	String Truncated
VRNNPP	>2B00	43	No Program Present
VRNINP	>2C00	44	Input Error
VRNIO	>2D00	45	I/O Error

TI-WRITER ERROR CODES

0:	Indicates Disk Controller not on; or that Diskette is not Initialized
6:	No Disk In Drive; or disk is upside down; or Drive is Not on.
7:	No Disk In Drive
00:	Illegal use of LoadF, PrintF, or an error in using those commands
02:	No file on Diskette with Filename as Used
04:	Diskette is Full
06:	PrintF Command in progress was interrupted, or: Disk Door Was Opened while red light was on
07:	Invalid Filename (I.E., Name too long or using invalid characters)
15:	Invalid Disk Drive Number, or Device

LOADER ERROR CODES

#: First Digit   Second Digit

#	First Digit	Second Digit
0:	OPEN	Device Not Found
1:	CLOSE	Write Protected
2:	INPUT	Bad Open Attribute
3:	PRINT	Invalid I/O Command
4:	RESTORE	Out of Space
5:	OLD	End Of File
6:	SAVE	Device Error
7:	DELETE	File/Data Mismatch
8:		Memory Overflow
9:		Not Used
10:		Illegal Tag
11:		Checksum Error
12:		Unresolved Reference

from 9T9 —

9

Program Design

How many times have you heard this? 'I wish I had a program that would. . .' Even though there are many talented programmers out there writing good programs for your TI, you still might someday need a program that is particularly suited to your need.

You can write that program if you are willing to expend a little effort. The best program for any need is one that works efficiently for that need without giving you information that is unimportant.

The main thing in writing any program is to first sit down and decide what you want the program to do. Supose you wanted to know how much it costs to own and operate an automobile for a year. You would need to start out with the initial cost, determine how much the monthly payments are, find out what the insurance figures are and then consider the trade in value after a stated period of years. Other expenses would include gas, oil, regular maintenance costs, etc.

In programming there a number of ways to approach any problem. In the case of the car you could sequentially add the cost of the car and then the expenses and divide the total by the number of years involved. In other words you could build your program on logical steps one after the other.

If some of the expenses were repeated over and over again you might resort to looping or subroutins to save memory and avoid repeated instructions. If you needed to compare cost to some other vehicle or criteria then branching would come into play. A combination of these processes would produce a program suited to your needs.

The language that you use for your program is up to you but you might consider who has to use and understand the instructions. Good plain instructions would make it easier for a less experienced person to use.

Another technique used by not a few programmers is the modular concept. In other words determine the different tasks that are needed and write a series of small routines that fill each need. This allows you to check and debug each small segment and make sure it runs. Then when you have each routine working you put them all together and you have your completed program.

Now I don't mean to imply that anyone who has never written a line can go right to his keyboard and write an award winning program. What I'm saying is that you start a program first with a need and then plan it in a logical manner.

If you've always wanted to get into programming, try starting out this way. Determine a need and decide just what needs to be accomplished to fill this need. Then in steps you can program each segment in order before combining the whole thing.

Before starting a review of your User Guide might help by refreshing you with what each command accomplishes.

I guarantee that once you design your own program, you'll be on your way to more advanced programming.

How to Clean Modules

Dirty contacts can screw-up any electrical device and the TA is not an exception. The only place you are fairly likely to run into this problem is in using command modules. Both the module contacts and the port itself can become dirty but cleaning the port itself is a big job as you have to disassemble the console The good news is that cleaning the cartridge will almost always suffice and can be done quickly without any special tools or cleaners. All you need is a regular screwdriver, some sort of rag, a standard pencil eraser, and in some cases a medium phillips screwdriver

Remove the screw from "C" if there is one. Then pry the clips in slots "A" and "B" outward to pop open the cartridge. If there is a clip in "C" pry it back after "A" and "B" are loose. If it should bend off, don't worry, it won't affect the performance of your module.

The module board can now be removed. Do this carefully and note how the spring-loaded "door" is assembled if there is one so that you can put it back together if it pops out. Once you have the board removed take your rag (a kleenex will work but a cloth is better) and rub off any residue from the contacts "D". Remember to do the contacts on each if the particular module has them. Once the worst is removed take any soft pencil eraser and rub the contact gently to remove any remaing contaminant. When you have finished reassemble the cartridge and you are back in business. Some symtoms of a dirty contact are the console locking-up, strange errors and display on your screen and a syntax error. Don't jump to clean a cartridge on your first error though, it could be a number of other things. But if you find that you have a continuing problem cleaning the contacts is quick and may correct what was wrong.