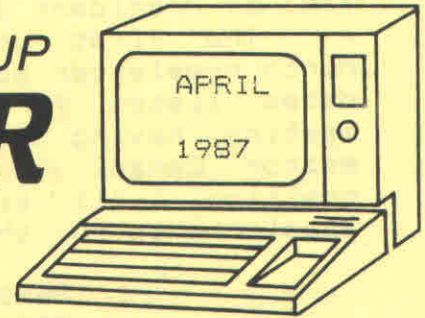


# CEDAR VALLEY 99'ER USER GROUP NEWSLETTER



CEDAR RAPIDS/MARION, IOWA

\*\*\*\*\*

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### \*\*\*\*NEWSLETTER TOPICS\*\*\*\*

1. Future Meeting Dates
2. Next Meeting Notes
3. Minutes From April Meeting
4. For Sale/Trade/Wanted
5. Genie Information Service
6. Corcomp/Myarc Compatibility
7. TI-Writer Tip
8. Jim Peterson Going Strong
9. From the Mailbox

### \*\*\*\*FUTURE MEETING DATES\*\*\*\*

Please mark the following dates on your calendar for future meetings:  
MAY 11, JUNE 8, JULY 13.

### \*\*\*\*\*NEXT MEETING\*\*\*\*\*

Monday, May 11, 7:00 PM at the JA building, 330 Collins Rd. NE.  
Special Interests continued.  
Library will be available for your use; if you bring your system, you will be assured of time to copy a program or show off your latest!



## \*\*\*\*MINUTES FROM APRIL MEETING\*\*\*\*

The CV 99'ers UG meeting was called to order at 7:03 PM on April 13, 1987 by President Jim Green. Fifteen members were present.

The first order of business was a spirited group discussion of the March newsletter goofs. Specifically mentioned were the three different dates listed for the April meeting. The membership present at the April meeting, having correctly deciphered the meeting date, agreed to demote editor Canady to president and to elevate president Green to the editor position. All kidding aside, president-elect Canady announced his appointments for the committee heads. They are:

NEWSLETTER EDITOR-----JIM GREEN  
 PROGRAM-----ED EDWARDS  
 PUBLICITY-----PAUL MORTENSEN  
 EDUCATION-----JOHN JOHNSON

The minutes for the previous month were approved as printed in the March 87 newsletter.

The treasurer's report as compiled by Treasurer Ed Hayek was presented by Treasurer-elect Jim Harrington. Jim reported one new membership this month. The treasurer's report was approved as read.

Comments and questions by the membership--

"We have lots of room in the newsletter for all the articles you wish to contribute." All that is needed is to get them to Jim Green at work, at home, or directly to his TI via modem.

Several flyers from Great Lakes Software were passed out by Ed Edwards. Programs included were Joy Paint 99, Banners!!, and Business Graphs.

Jim Green reported that he had been in touch with our newest member. Sister Pat Taylor of Dubuque is trying to get acquainted with her TI99/4A. The user group has donated a 32K memory expansion kit to her (thanks, Gary!) and is on the lookout for other hardware items or software to fill out her system. A disk drive was offered provided we can get it aligned and supply power to it. Further investigation is needed. Welcome to the Cedar Valley 99ers, Sister Pat!

A procedural question by Bill Paeth on exceeding the 5 line limit per instruction was answered. In order to type more than 5 lines on a line number, simply enter the line, then edit the line, and add the rest of the command while in the edit mode.

Correspondence notes by Bruce Winter: A Texas U.G. has been added to the C.V.U.G. mail list. Bruce had written the Quad Cities U.G. for more info. on the availability of quad density chips.

L.A. computer fair. Anyone who might be in Los Angeles over the May 15-16 weekend should stop by the LA-Fest West. See Jim G. for directions.

"C" language is now in our club library, a shareware program. Bruce and Ed are trying to use it. If more would like to learn "C", Jim Trainor is willing to teach a class. Talk to Jerry.

Programs of the evening.

Jim Green related his experiences with Genie data base service. He also demonstrated a form of solitaire he downloaded from Genie. Jim showed a printed list of more than 600 files available for downloading from the service.

Ed Edwards then demonstrated the artist program "Joy Paint".

-Submitted by Bill Paeth acting secretary.



## FOR SALE/TRADE/WANTED:

This section of the newsletter is available at no charge for your classified advertisements. I would appreciate a call if you have completed a transaction or wish your item listed for more than one month.

FOR SALE: Volksmodem, 300 Baud direct connect modem with TI cable. \$40.00.

Bruce Winter (319) 393-0610.

FOR SALE: TI 99/4A, PE Box with 32k & RS232.

CARTRIDGES: Hangman, Personal Record Keeping, Adventure, Minus Mission, Securities Analysis, Percents, Parsec, Terminal Emulator II and TI Extended Basic.

TAPES: Pirate Adventure, Extended Basic 1-7 learning tape, Basic 1-10 learning tape, 3-D Maze, Artillery, Tic-Tac-Toe and Extended Hangman.

MISC: Speech Synthesizer, TI Joysticks;, Large box of books all to do with TI 99/4A, Two storage cases for tapes and cartridges.

\$500.00 CASH NO CHECKS.

Also one key board with out books \$35.00.

Charles A Rohm, 711 Cole Rd., Coralville, IA., 52241.

8-5 (319) 399-7515/6-10 PM (319) 354-4822.

FOR SALE: P Box with; 32K, TI controller, SSSD drive; Good shape. \$400 delivered or \$375 if you pick up. Kevin Sagan (319) 583-0488 after 5 PM.

WANTED: Mini-Memory, Statistics, QUME 142 drive manual. Jerry Canady (319) 377-9382.

FOR SALE: A used GORILLA BANANA printer in excellent working condition without cable. Good for a second printer or for just starting out. Has new chip for descenders. Will also give you the old chip. \$50. John Johnson 366-4541 at home.

## GENIE INFORMATION SERVICE

I talked at the last meeting about the newer national telecommunications service that I recently joined, GENIE. I think we ran the information about signing up in an earlier issue of the newsletter, but just to make sure that you all got the info, I am printing it again.

In order to get a sample of what Genie has to offer, and also for those who want to sign on, you may call 1-800-638-8369 without charge. General Electric's computer will answer the phone, so you must have a modem and a terminal emulator program before you call. When Genie answers, switch on your modem and type "HHH" and Enter. Genie will then ask for your user number with the prompt 'U#-'. Type "SJM11999,GENIE" and then Enter. Genie will then describe its features and offer you the chance to sign on. You may choose not to join, and the call will still be free.

Before calling, set your terminal emulator program for 7 data bits, even parity, 1 stop bit, and half duplex. If this last instruction doesn't make sense to you, then you need to re-read your TE software documentation before you call Genie!

Jim Green



\*\*\*\*LOW PRICED MODEM\*\*\*\*

The last few months of the Computer Shopper has had an ad for a direct connect modem for \$18 (plus shipping) #10005. It has originate/answer, full duplex, Bell 103 compatible, 300 BAUD and comes with an AC adapter! It does not include a cable which would have to be purchased for around \$10-\$15.

The modem is available from: THE WHOLESALE OUTLET, Dept CS, 1 Interstate Avenue, Albany, NY 12205. For information call them at (518) 459-7883 or call to order at 1-800-344-4387 (Minimum order of \$25!)  
Dave Dalton

\*\*\*\*LOAD INTERRUPT SWITCH\*\*\*\*

The following is from Gary Cox--editor of the MID-South 99er U.G.:

Several programs on the market require the use of a load interrupt switch in order to operate. Screen Dump (in our library) by Danny Michael is one of these programs. These programs are loaded into low 32K memory from where they are executed by pressing the load interrupt switch. For example, the Screen Dump is first loaded into memory then you can place a cartridge in the computer and when you press the load interrupt switch the other program is executed which in this case - it dumps all the graphics on the screen to a printer. You can buy this switch from CorComp for about \$12. Ed Hayek is the only person that I am aware of that has the load interrupt switch and we were going to do a demonstration of it at the February meeting but did not have a printer, so he showed us some of the Cartridge Screen Dumps with the Danny Michael shareware program. You can buy it or make your own using the following instructions:

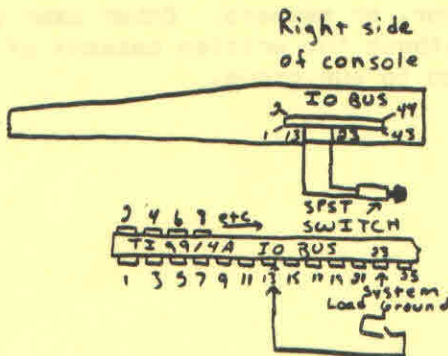
Have someone competent with computers and electronics (Gary Bishop ?) wire this if you want to use it and don't want to do it yourself. Carefully count the pins when making the connections. TRIPLE CHECK YOUR WORK!!!!!! The switch and its connections may be placed anywhere on the IO bus. (Inside the console, PEB or speech synthesizer as we have done with the memory expansion!) The speech synthesizer is the most convenient and the switch can be glued down or mounted under the cover that tilts up and away from small children and other accidental use. (If you are going to have memory expansion and speech inside your computer, then save your speech synthesizer box if you want to put your load interrupt switch in there.)

The best to use is a microswitch such as Radio Shack #275-016. However, for console mounting a push button switch of high quality will do. MAKE SURE YOU GET THE SWITCH WITH NORMALLY OPEN CONTACTS!! Use of the switch when a program that used it is not loaded into memory will lock up the computer in which case you will have to reset.... However, you install this switch AT YOUR OWN RISK!... Refer to the TI 99/4A Technical Data Manual for further details if desired. The schematic for the load interrupt switch is on another page.

-Gary Cox, MID SOUTH 99er U.G. and Dave Dalton (See drawing below for the Load Interrupt Switch Schematic)

LOAD INTERRUPT SWITCH Schematic

By Gary Cox





## FROM THE MAILBOX

The Cedar Valley 99ers exchange newsletters with many other user groups from North America. The officers have continually tried to establish a method whereby each member would have access to the valuable information received with the monthly collection of newsletters. The goal has been to dispense the information while maintaining the integrity of our newsletter library; in other words, how can we lend the collection and still ensure that we get all the newsletters back? How do you other groups handle this?

Since I now have the chance to make a change in our newsletter (being a new editor), I will try to use this column to let you, our members, know about the topics discussed in the exchange newsletters. If you see a topic that you would like to know more about, please let one of the officers know soon. He will see that you have access to the newsletter you are interested in.

The mailman has brought us the following this month:

A C99 tutorial and two programs written in C language (Edmonton 99'ers, April 1987).

An explanation of the coding on disk sectors 000 and 001 (Penn Ohio UG, February, 1987).

Equivalent string handling commands, to convert programs from other computer types to TI's Extended Basic (Penn Ohio, Feb. '87) Also step-by-step instructions to beef up your PE box power supply for dual disk operation (Penn Ohio, March '87).

99/4A memory architecture diagram. A series of articles on an Introduction to Telecommunications. Another series on Getting the Most From Your Cassette System. (West Penn 99'ers, April, 1987).

An article explaining how to use TI-Artist instances in your Extended Basic programs (Pittsburgh User Group, April, 1987).

An assembly language program that provides a disk catalog (LA 99ers TopIcs, April, 1987).

Software reviews of Fontwriter and The Printer's Apprentice; an article on transferring basic program data for use in Multiplan. A program that will print mailing labels using the Personal Record Keeping cartridge (Cleveland Area 99/4a Users, April, 1987)

You can see from this brief summary that the mailman is one of our group's best friends. We value the exchange newsletters we receive, and we hope by listing the highlights of a few each month, our members will have better access to the current news that interests each of them.



The modern dot-matrix printer is an ingenious, flexible and fascinating accessory to our II's. Since most of our members have this type of printer, I thought I might devote a short article to the ASCII codes that control the printer when working in BASIC. Your printer manual will give you all the information you need but this information often becomes confusing because there are so many variations of BASIC, that they frequently overlook II-BASIC. The following disk of programs to set up your printer is in our club library. The most comprehensive program to do the job is Paul Kemp's "PRINTERSET". The other programs on the disk were written to do specific setups as indicated by the title of the program. These programs generally have a REM statement which explains the program in more detail. In using these programs remember to turn off your printer between setups or the results will be cumulative.

PRINTERSET				FREE 191				USED 167			
FILENAME	SIZE	FORMAT	P	FILENAME	SIZE	FORMAT	P	FILENAME	SIZE	FORMAT	P
1/8FEED	2	PROGRAM		MARGINS	2	PROGRAM					
COND1/8FDD8	NNNN	PROGRAM		PI/DBL	NNNN	PROGRAM					
COND	NNNN	PROGRAM		PI/DBL/ENL	NNNN	PROGRAM					
COND/88/EX	NNNN	PROGRAM		PI/EN	NNNN	PROGRAM					
COND/DBL	NNNN	PROGRAM		PI/EN/DBL	NNNN	PROGRAM					
COND1/8FD	NNNN	PROGRAM		PIDS/EN/IT	NNNN	PROGRAM					
EL/DBL	NNNN	PROGRAM		PIDSENER	NNNN	PROGRAM					
EL/DBL/EXP	NNNN	PROGRAM		PIDSENERIT	NNNN	PROGRAM					
EL/IT	NNNN	PROGRAM		PIEN1/3FD	NNNN	PROGRAM					
EL/IT/DBL	NNNN	PROGRAM		PRINTERSET	50	1/V-254 Y					
ELITE	NNNN	PROGRAM		PROSLIST	3	PROGRAMOV					
ELITE/MARS	NNNN	PROGRAM		SUB/DBL	NNNN	PROGRAM					
FILEPRINTR	25	PROGRAM		SUB/DBL/XP	NNNN	PROGRAM					
FILEPRINTR2	25	PROGRAM		TEST	NNNN	PROGRAMOV					
LOAD	6	PROGRAM									

The fun begins when you start incorporating these printer commands into your XBASIC programs or your II-WRITER files. In my experience, one of the most challenging jobs was to write a program to print a message that would fit fan-fold cards where the message required various styles of type and variable line spacing. The most frustrating part was to control linefeeds that seemed to pop up at most unwanted points. Here are some suggestions that I have:

1. Try to combine all of your printstyle instructions into one program line using semicolons between commands. This will limit the linefeeds to one per program line.

2. Place linefeed commands into subprograms and involk them as needed by the GOSUB command.

3. Keep careful track of your linefeed math! Remember, the normal linefeed is 1/6 inch (12/72 inch). If you find it necessary to alter this to provide a more pleasing spacing at some point in your printout, be sure to compensate at another point in the program to bring the total linefeeds to an even multiple of 1/6 (6 lines per inch). This is important because fanfold cards, address labels and computer paper all measure to even inches.

Let's take a program I wrote to set the printer to Pica, emphasized and double spaced for use in program alteration:

Original program

```

120 OPEN #1: "PIO"
130 PRINT #1:CHR$(27);CHR$(53)
140 PRINT #1:CHR4(27);CHR$(69)
150 PRINT #1:CHR$(27);CHR$(65);
CHR$(24)
160 CLOSE #1::END
    
```

When you "RUN" this program to set up your printer, you will notice that the printer will advance three linefeeds during the run.

Now, if you wanted to incorporate the same setup into an XBASIC program with only one linefeed, write it this way:

Revised program

```

130 PRINT #1:CHR$(27);CHR$(53);
CHR$(27);CHR$(69);CHR$(27);
CHR$(65);CHR$(24)
    
```

To set up the type style for your II-WRITER printouts, use the same set of programs and run them to the printer before you go to the Formatter. Margins, centering and similar commands are best handled by using the FORMAT COMMANDS incorporated into the document as you prepare it with the Text Editor. Changing type style within the text printout by using a transliteration file or your own, custom-made transliteration commands is a fascinating subject which I hope to delve into in our next newsletter.



## TEN STEPS FOR TYPING IN AND RUNNING ASSEMBLY PROGRAMS

By L.R. Livergood, Decatur 99er UG, 9/86

Many consider assembly language programming to be more difficult to learn than BASIC; however, you don't have to become an expert assembly programmer in order to take advantage of it. If one just learns how to enter and assemble the code, then he or she can begin to utilize the expanded capabilities that this language has to offer.

If you are familiar with only the BASIC language, then the concept of "compiling", or in the case of assembly language, "assembling" a program may not be clear to you. With either a high-level language such as BASIC or an intermediate-level language like assembly, a program must be translated into machine language before it can be executed by the computer. TI's BASIC uses an interpreter rather than a separate compiler which allows the "writing" and "running" of BASIC code to be done at the same time without the need to first "edit" and then "compile" the program--a two step process in other languages.

In the case of TI 994/A Assembly Language, you must first enter the program with the EDITOR (provided with the E/A module) and then assemble it with the ASSEMBLER. The key to doing this is to familiarize yourself with the following words:

SOURCE PROGRAM  
OBJECT PROGRAM  
LISTING

where the SOURCE PROGRAM is the collection of assembly language statements typed in by you that are translated by the assembler into the OBJECT PROGRAM. Also produced is a LISTING that includes the assembly language statements typed in by you that are translated by the assembler into the OBJECT PROGRAM. Also produced is a LISTING that includes the assembly language statements, the resulting machine code produced by these statements, the machine code memory locations, as well as other information.

With this in mind, it is fairly easy to get assembly programs typed in and running by doing the following:

CREATE A SOURCE PROGRAM WITH THE EDITOR  
ASSEMBLE THE SOURCE PROGRAM INTO AN OBJECT PROGRAM WITH  
THE ASSEMBLER  
RUN THE OBJECT PROGRAM AFTER CORRECTING ANY  
ERRORS APPEARING IN THE LISTING

Both the EDITOR and ASSEMBLER programs can be found on the disk supplied with the E/A module called PART A. Place this diskette in drive #1 before beginning the 10 steps below:

### CREATING THE SOURCE FILE

1) Bring up the EDITOR Selection List menu on the E/A module. This is done by pressing 1 to EDIT from the Editor/Assembler Selection List.

2) Making sure you have the Editor/Assembler diskette in drive #1, press 2 to EDIT. The Computer should automatically load the EDITOR from the system diskette. If it is already present in memory, then the screen is cleared so that you can begin typing in a new program.

3) Enter the program using the editor functions. It operates similar to the TI-WRITER editor which you are probably familiar with. If you are having trouble, then read 2.1.2.1 of the E/A Manual which explains the editing features. It should be easy to see that the listing you

are about to type in is divided roughly into four fields or columns. It is important to make sure that the information is being entered into the appropriate columns. For reference they are described as the LABEL FIELD, INSTRUCTION OPERATION CODE or ASSEMBLER DIRECTIVE FIELD, OPERAND FIELD, and COMMENT FIELD. Note that by placing an asterisk in the first column, the whole line becomes a comment.

The tab positions of the EDITOR default to the beginning of each of these fields. It is important to keep the columns separated. However, it is not necessary for all columns to contain information on each line.

4) After you have entered the program, you must save it. Press FCTN 9 (or escape key) twice to return to the Editor Selection Screen. The press SAVE and answer (Y)es to the VARIABLE 80 FORMAT (Y/N)? question. Next place a formatted diskette in another drive or replace the system diskette if you have only one drive and type in a file name for the program. The saved program is the source file (not runnable as is) and should be coded as such when you type in the file name.

### ASSEMBLING THE SOURCE FILE

5) Next, bring up the Editor/Assembler Selection List (press the escape key if you are in the Editor) and press 2 to ASSEMBLE. You should have the system diskette in the appropriate drive again before answering the LOAD ASSEMBLER (y/n) question. After pressing (Y)es, you will be asked for the source file name which should be the name given above. Next, you will be prompted for the object file name. This will be the location of the file created by the assembler and should be coded as such.

6) Give a file name for the List File which will contain a listing of the errors encountered along with other information such as line numbers, memory locations, machine code and source program statements. You can use a printer name or disk name, but a name is required even if you don't want a listing.

7) The next prompt is for the OPTIONS. They are R for prefixes to be included, L to produce a listing (if you really do want it), S for a symbol table, and C to save the object file in compressed format. If you aren't sure what to use then type in RLSC and see what happens.

8) Next, you should get the message ASSEMBLER EXECUTING at the bottom of the screen and will have to wait for the PRESS ENTER TO CONTINUE message to appear. If you selected a printer for the listing then you should have that in front of you by now. If you chose to send the listing to a disk instead, then you can examine it now by calling up the EDITOR (see above) and loading the listing into it.

9) If you have any errors in your source program, they will appear in the listing. You must go back and correct these by loading the source program into the EDITOR and re-saving with the corrections. In turn, you must now reassemble the source program. Continue this procedure until you get an error-free listing.

10) Finally, go back to the Editor/Assembler Selection List and select 3 for the LOAD AND RUN option. Give the object program file name at the prompt. If everything is as it should be, then the program should be up and running.

Some additional points to remember. Unless your program includes a way to terminate, you will have to shut off the computer to stop the program. Additionally, just because the listing is free of errors, does not mean the program will run error free. There may be logistical errors in addition to syntax errors which the assembler might not pick up.



**NEXT MEETING**

**MAY 11**

**7:00 PM --- JA BUILDING**

**NEW PROGRAM REVIEW - ETC.**

**JOIN THE FUN!!!!!!!**

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