

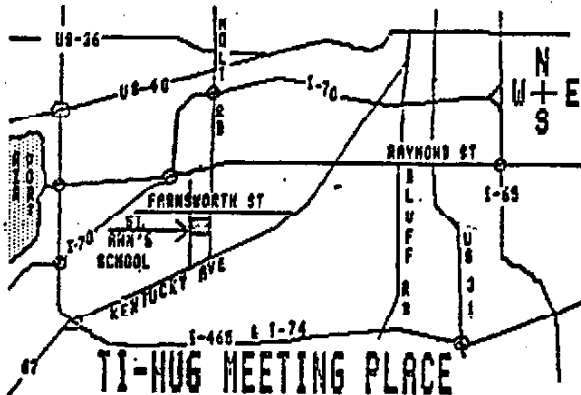
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This newsletter will be real short. No one has contributed any news. I have taken articles from other newsletters that we received, and tried to put something together. So here goes!

First things first. Last month we held the elections. The new officers are:

- PRESEDENT: Gary McQuade
- VICE PRESEDENT/LIB.: Bryant Pedigo
- SECRETARY: Jeff Overton
- TREASURER: Walter Farmer
- EDITOR:

**MONTHLY MEETING LOCATION**  
**LITTLE HOUSE NEXT TO THE**  
**ST. ANN'S SCHOOL**  
**2839 S. McCLURE**  
**INDIANAPOLIS, IN**  
**MEETING STARTS**  
**AT 2:00 P.M.**  
**MARCH 17, 1991**



### BITS AND PIECES

This will be a new section in your HUG NEWSLETTER. It is intended mainly for those of you that do not have access to the BBS.

It will be items taken from the message base, but if you wish to send something that you think would be of interest to the members you can mail it. I pick up the mail daily.

There will be a deadline for items mailed, of ten days before the meeting. If you wish, (and you have a modem) you can call me and we will do a computer to computer download. My number is 299-2333.

Jeff Overton

From : DELBERT WRIGHT <026>  
 TO : ALL  
 Re : PRINTER CABLES  
 Date : 02/12/91 @ 10:31:19  
 "SORRY ABOUT THAT!!"  
 TO ALL WHO HAVE PURCHASED PRINTER CABLES FROM ME:

I just found out that the cables you purchased from me have a logic chip in the cable to invert the "strobe", or the "timing pulse" for the data bits and therefore probably will NOT work with MOST printers. I think this cable originally sold for \$35 so they really are a bargain, but not worth a cent if it won't make your printer go! If you will contact me @ 895-1765, or bring your cables to the next meeting, I will exchange them for NORMAL cables.

Delbert

## SOME NOTES ON VIDEO

By - Delbert Wright

These articles are being written using Sams a Howard W Sams & Co. book "COMPUTER CONNECTION MYSTERIES SOLVED" by Graham Wideman, as a reference. I HIGHLY recomend this book to all persons who have an interest in how to connect computer stuff & make it work properly. This includes installing & repairing as well as just wanting to know how it works.

The last article ended stating that a composite monochrome video signal had three parts on 1 wire. The signals were the HORIZONTAL sync (to move the beam across the screen), the VERTICAL sync (to move the beam down to the next line), and LUMINANCE (to vary the brightness of each phosphor struck by the electron beam).

In television this signal has to be mixed with the frequency of the broadcasting station's carrier signal & transmitted to our TV. We select which of the many signals are in the air by using the channel selector of our TV. In many home computers we use a Radio Frequency Modulator or RF MODULATOR to "broadcast" to our TV. There is a switch to select channel 3 or channel 4 so we may choose the best choice at our location. One common misconception is that if one of those channels is operating in your area, then it can't be used for our computers. The fact is that many times that channel gives better computer reception than the unused one. The signal from the RF Modulator will be much stronger & over ride the broadcasting TV station.

For COLOR video a picture tube with pixels of 3 colors (Red, Green, & Blue) must be used. These are arranged in VERY close proximity to each other, but a perforated metal mask and adjustments by a technician will allow each dot to be only hit by electrons from 1 of 3 "guns". There are 3 seperate "guns" in a color tube & each generates 1 of the R,G,orB beams in response to signals called CHROMA and SATURATION. Chroma

picks the combination of guns to be on, so any color can be made. Saturation determines how much color. The brightness signal varies the intensity of all guns at the same time. The Chroma and Saturation signals are added to the Composite Monochrome signal and now we have a COMPOSITE COLOR signal.

This system is ok for movies & pictures, but is pretty bad for viewing color characters and graphics from a computer. The technical reason is that the color signals are so slow that details tend to blur. This a fault of the METHOD used to transmit the COLOR information, not the CRT or picture tube itself.

If we replace the 9918A chip in our 99/4A computers with a 9928 chip, then with absolutely no, (none, 0, zero ), other modifications we have a composite monochrome output (no color) that has startling resolution, even when using an RF modulator & a color TV. If you use your 99/4A for mostly text, then you maybe interested in this change. I'll tell you a secret in another installment on how with this chip, you can increase the COLOR output of your 99/4A too. Actually you will EITHER have better color, or better monochrome video. The monochrome change is "do it yourself, but the color change is more complicated and expensive.(but worth it!!)

I believe 9928 chips can still be purchased from:

L.L.Conner Enterprise  
1521 Ferry Street  
Lafayette, IN 47904  
317-742-8146

*Resolution* is what determines how much detail is displayed, but *how is resolution measured?* Resolution is sometimes stated in lines and some times in pixels. To some people, it means how close can 2 paralell lines be displayed to each other without appearing to touch each other. This is used in photography and not in computer displays, because to not touch we need a blank line between each displayed line,so our raster that cosists of 240 displayed lines is only 120 using this method.

(CONTINUED FROM PAGE 2)

THE measurement that IS used is the number of PIXELS or individual dots horizontally and vertically that COULD BE displayed. (Remember the entire surface is not used to display characters.) The vertical resolution of composite monitors is limited to 240 lines by standard circuitry, but the horizontal direction is limited by how fast the beam can be turned off and on.

Ok, if you are still here this part is both the most confusing and the part that will make sense of all that follows.

### BANDWIDTH

Bandwidth is a term that can be used to indicate resolution. It is a measure of how fast the controller can turn the scanning electron beam ON and OFF and is expressed in millions of times per second, or Megahertz.

You can see that to display an 80 character line with each character being 8 pixels wide would require 8 times 80 pixels, or 640 pixels. If we only wanted to have every other dot on (as in some graphic characters), and the dots must be clearly on or off, then the maximum number of on/off cycles is 320 per line. It takes 64 microseconds for 1 line, but only about 45 microseconds is used to display information. So to find the speed needed to switch on/off 320 times in 45 microseconds, we divide 320 by about 7 Megahertz. This is the absolute MINIMUM for 80 column display!

The FCC and the National Television Standards Committee or NTSC has set the bandwidth of color TV at 3 Megahertz and 3.5 Megahertz for black and white TV. From the above calculations you can see that 40 columns of characters that are 8 pixels wide is the maximum that could be clearly displayed with these bandwidth restrictions. Actually with the 3 Megahertz bandwidth of a color TV, 32 is the maximum for a clear display of 8 pixel wide characters.

If the display is set at 240 lines, and we are using a character that was 10 pixels high, then we would have 24 rows of characters, but they would all touch,

so...if there were no dots used in the top or bottom row, we would have 24 rows of characters that were 8 pixels high and there would be 2 blank rows of pixels between each row of characters. This is how the TI came to have an 8x8 size character set as the standard.

In TI basic the display is 24 rows of 32 characters of 8x8 pixels. In other programs that have 40 column displays the CHARA1 file is a replacement character set that has been changed to squeeze the character into a smaller space & provide 8 more characters per line.

\*\*\*\*\*Next time will be about differences between TV & monitors, RGB & RGBI, RGB TTI, & RGB analog, CGA/EGA/VGA/Super VGA.

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This is a reprint of an article that appeared in the FEB.91 newletter for: SOUTHERN CALIFORNIA COMPUTER GROUP. "THE COMPUTER VOICE"

TI-WRITER AND PRINTER GRAPHICS.  
by Woody Wilson

Many articles have been written in regard to using graphics with TI-WRITER, but here comes another one. This project on my part came about from conversations with two of our members. In one case the individual wished to use some transliterated Spanish characters in a letter and the other person desired to make a chart and use check marks to indicate where certain things were applicable.

Before we get too far into this, let me make one thing perfectly clear, this article is written for EPSON compatible 9-pin dot matrix printers. Prowriter printers were covered quite adequately in the Chicago User's Group TI-WRITER Supplement. (An excellent book to have in your library!)

You should also be aware that there are programs that will do most of the work that you will be doing here. This article is for those of you that do not have ready access to such programs as J.Peter Hoddie's FONT WRITER II, FRONTMAKER, ARTCONVERT by TRIO+ SOFTWARE, and many other fine programs.

(CONTINUED FROM PAGE 3)

In order to print graphics via TI-WRITER, we must be able by means of software commands to put the printer in "bit image mode". In that mode we can control the firing of each pin of the print head. For the purposes of this description, we will consider only using the upper eight pins of the print head. (If you can figure this out you should be able to go on to nine pin printing!).

It is helpful to make a grid, 8 squares by 8 squares.

It is customary to assign certain powers of 2 to each square like this:  
1 2 4 8 16 32 64 128

Notice that the lowest square has a value of 1, the next 2, on up to 128 for the top square. These values are the same for all squares that are in the same row. If we draw a figure in the 8 by 8 grid and then get the total of filled squares in each column, we will come up with eight numbers. Jot those numbers down reading from left to right. Put a comma between each set of numbers, but do not put one after the last number. It could look some thing like this: 0,4,2,1,2,4,8,16

(CONTINUED ON PAGE 5)

HUG OFFICERS		
President	Gary McQuade	888-5654
V. President	Bryant Pedigo	255-7381
Secretary	Jeff Overton	299-2333
Treasurer	Walter Farmer	539-2679
Librarian	Bryant Pedigo	255-7381

### PROGRAMS ON THE BBS

If you don't have a MODEM and ever wondered what you are missing, here is a list of all the programs that are available to you on our bulletin board at this time. New files are being added all the time.

I find the MODEM very easy to use and they are not as expensive as they once were. You might check prices with Larry Conner or one of our officers.

### [O] TEXT

#### DOWNLOADS AVAILABLE

Name	Size	Description
800LDOC	037	80 COL ASSEMBLY DOCS.
BOTRACKTID	028	ti disk cntrler 80 trk
96400RTI	009	assembly code to tell.
ASSEMBLY	158	ASSEMBLY tutorial exa
BBS/FILCS	146	Help/full files number
BOBARC	082	ASGARD CONFERENCE
BOXFIX	040	Switching power supply
BUDCONF	056	BUD MILLS CONF - ARCED
CHARSO-255	018	chars 0 to 255
CRISCON	051	asgard conference
DIGITIZER	039	Text file on Imagewise.
DM-SOURCEA	142	HUG LIBRARY DISK
DM-SOURCEB	086	HUG LIBRARY DISK
FORSALE	146	HARDWARE SOFTWARE
GARYBOWSER	056	LU FROM GENIE
HD-DATA	057	DATA SETTINGS FOR HDS
HD-STUFF	090	MORE INFO ON HD'S ARC'D
HELP	028	HELP file for this bbs.
HUMOR	054	TEXT FILE
JOYSTKMEP	047	MEP ANALOG SOURCE CODE
LOCALBBS	138	BBS PHONE number list.
MIDIARCC!	056	conf on TI midi.
OFFICERS	003	NEW GROUP OFFICERS FOR
OPACONFER	091	OPA CONFERENCE FRM DELP
OPACONARC	153	ZOPA CON DELPHI
PAULCONF	048	paulc conference
PERCOM	041	minutes of a hard sig
PHONE	018	LONG DISTANCE phone #s.
RSZ32	106	Assembly notes prog.
RTELAPR8	032	R. TABLE, GENIE APR 8
SWITCHING	039	add a switching power s
TI/W/HELP	131	HUG LIBRARY DISK
TIBOOKS	059	TI BOOKS reference.
TI_WR/TUT	101	TI WRITER TUTORIAL
VGA-CABLE	059	VGA to 9640, Digit, etc
WINDOW-TXT	020	descript of 9640 GUI
XBUTUTOR	208	XB TUTORIAL
TI-FEST	006	TEXT CHICAGO
TIB/TEXT	082	Updated TI bbs listing
HEXBUSMANU	071	4a hex-bus interface us
BERRYARC	058	berry miller conference
C4000ARC	015	CODE4000 DOCS
BUSINESS	022	REVIEW OF BUSINESS GRAP
ESD-CONF	102	ESD conf - new HFDC 1/9
4A-NEWS	008	New publication for 4A

(CONTINUED ON PAGE 6)

Now that you have these values, what can we do with them? Well, to make this simple, we have limited our graphic (part of a font, really) to an 8 by 8 grid. Since the maximum width of our graphic is going to be 8 columns, the formula we have to use to give the printer commands is very easy to use. Here is what we will need to provide:

1. What character will we transliterate in TI-WRITER?
2. What density of print should we use?
3. How many columns of dots are to be printed?

Let us fill in a few answers:

1. We can use the tilde (FCNT W) which has an ASCII value of 126.
2. For this trial we will use Single Density Printing which on the Panasonic printer is "K" or ASCII 75.
3. We have arbitrarily set the maximum number of columns of dots to

We can write our transliteration as follows:

(NOTE: We have to place an exclamation mark (or something) ahead of the .TL since we can NOT print (in the newsletter) a line beginning with a period. You should NOT do this in the actual program.)

1.TL 126:27,75,8,0,0,4,2,1,2,4,8,16

The 126 is the ASCII value for the tilde; the 27 is the escape code that is used to tell the printer that the following numbers are printer codes; the 8 tells the printer that there are 8 columns of bit image graphics; the 0 says that there are less than 256 columns; and the following group of 8 are the powers of 2 values of the pins the printer will operate.

OK, we have our little font(?) transliterated so let us use it in TI-WRITER. For test purposes write a few lines such as these:

1.TL 126:27,75,8,0,0,4,2,1,2,4,8,16

I find it necessary- at this point to break into my article to insert a note of explanation in regard to some items Roland Anderson and I ran into tonight. We found that a CR can be used at the end of a .TL line or nothing at all will also work. However, text lines with or without graphics included in them MUST have a LF at the end. Another thing to watch out for is the difference in size of

the transliterated character and the regular printed Pica letter. If you try to put the check mark we developed in this program into a box made using Function A (1), you will find that 12 boxes with check marks inside them will take up more space than 12 boxes with regular letters or number. Roland Anderson and I ran in to this problem tonight as we tried to put check marks into a grid he had made. Everything shifted to the right several spaces so we were forced to make a slight change in the design of the check mark. Here is what we came up with:

1.TL126:27,75,6,0,4,21,2,4,8

Notice that we changed the 8 column width to 6, and we also dropped the first 0 and the last 16 from the formula we used above. The result was a smaller check mark that did not move the boxes to the right.

Now to get back to the rest of the article:....

You may use either of two methods that I used to place LF's symbols after the end of lines where needed. 1) Use the special character mode as follows: Press Control U, Shift J, Control U with the cursor at the end of the line on which you need the LF. You can remain in the special mode and use the FCTN X key to go to the next line and then press Shift J to place LF. 2) The second method is a little longer but works very well for long letters or documents. Save your letter to disk in the ordinary way, then go to the formatter and print the file to Disk, not to your printer. Be sure you use a different filename to save it or you could possibly write over your master file if it is on the disk to which you are writing. Saving this way puts LF's after every line. You then should load that file back into the TI-WRITER Editor and use FCTN 3 to eliminate any extraneous lines. I HIGHLY recommend that you go into TI-WRITER IN Fixed mode (press Control 0 (zero) and note that the cursor changes to a hollow shape.) before you do anything to your document after changing the CR's to LF's. The slightest error on your part can cause the document to reformat in to one big mess. You may want to save a back-up copy before you experiment with your text/graphic file.

CONTUNED ON NEXT PAGE

Since each line in your document ends with a LF, you must print it through the formatter with your print command changed from PIO.LF to PIO.CR. Do the same thing if you use a serial printer; change the LF to CR.

(CONTINUED FROM PAGE 4)

[1] GAMES

DOWNLOADS AVAILABLE

Name	Size	Description
*CATALOG	142	HUG LIBRARY DISK
5GAMES	126	5 GAMES
ALIENRAIN	025	TI GAME
ARGRDIDS	017	TI GAME
AUSSIE1	225	GAMES FROM AUSTRALIA
BAGOFFGAMES	158	TI GAMES
BASIC-1	231	HUG LIBRARY DISK
BASIC-10	224	HUG LIBRARY DISK
BASIC-11	232	HUG LIBRARY DISK
BASIC-12	224	HUG LIBRARY DISK
BASIC-13	062	HUG LIBRARY DISK
BASIC-2	240	HUG LIBRARY DISK
BASIC-3	242	HUG LIBRARY DISK
BASIC-4	204	HUG LIBRARY DISK
BASIC-5	234	HUG LIBRARY DISK
BASIC-6	247	HUG LIBRARY DISK
BASIC-7	248	HUG LIBRARY DISK
BASIC-8	232	HUG LIBRARY DISK
BASIC-9	211	HUG LIBRARY DISK
BHXP1	125	TI FLIGHT SIMULATOR
BREAKOUT	020	GREAT GAME, TRY IT!!
COREWAR-C	078	a c game ported by cp.
E/A-1	170	HUG LIBRARY DISK
E/A-3	180	HUG LIBRARY DISK
FREDDY/ARC	125	FRED - Keep On Climbin'
G/K/NOTES1	146	HUG LIBRARY DISK
GAMES	205	TI GAMES
GOLFTI	075	GOLF FOR THE TI
HOCKEY	145	HOCKEY GAME
HONEYHUNT	102	TI GAME
LOGO-1	051	HUG LIBRARY DISK
MANCALC	029	A LOGIC GAME
MBF-1	086	HUG LIBRARY DISK
MINIMEN-1	174	HUG LIBRARY DISK
MP4BUS/Q1	144	HUG LIBRARY DISK
MP4BUS/Q2	168	HUG LIBRARY DISK
MULTIPLAN1	225	HUG LIBRARY DISK
MULTIPLAN2	091	HUG LIBRARY DISK
MUMMY/E	041	ENG. VER OF A GERMAN

FRISON	038	Use ADVENTURE Cartridge
FRK-1	024	HUG LIBRARY DISK
QUEST	215	TI QUEST
SPACEINMAD	037	SPACE INVADERS GAME
SPECHSYN-1	215	HUG LIBRARY DISK
TE'S-1	164	HUG LIBRARY DISK
TE'S-2	062	HUG LIBRARY DISK
TE'S-3	119	HUG LIBRARY DISK
TE'S-4	200	HUG LIBRARY DISK
TE'S-5	194	HUG LIBRARY DISK
TETRIS	069	tetris, one of the best
TEXAS-1	102	HUG LIBRARY DISK
TEXAS 2	211	HUG LIBRARY DISK
TEXAS-3	106	HUG LIBRARY DISK
TEXAS-4	108	HUG LIBRARY DISK
TEXAS-5	078	HUG LIBRARY DISK
TEXAS-6	260	HUG LIBRARY DISK
TEXAS-7	135	HUG LIBRARY DISK
TEXAS-8	138	HUG LIBRARY DISK
TEXAS-9	081	HUG LIBRARY DISK
THE/MINE	066	SMELL GAME! XB Loader
VALENTINE	131	VALENTINE CARD
WORDPLAY	040	Good Word Game try it!
XBGAMES	143	XB GAMES
XTENDED-1	215	HUG LIBRARY DISK
XTENDED-10	229	HUG LIBRARY DISK
XTENDED-11	202	HUG LIBRARY DISK
XTENDED-12	113	HUG LIBRARY DISK
XTENDED-14	222	HUG LIBRARY DISK
XTENDED-2	212	HUG LIBRARY DISK
XTENDED-3	193	HUG LIBRARY DISK
XTENDED-4	212	HUG LIBRARY DISK
XTENDED-5	209	HUG LIBRARY DISK
XTENDED-6	214	HUG LIBRARY DISK
XTENDED-7	231	HUG LIBRARY DISK
XTENDED-8	218	HUG LIBRARY DISK
XTENDED-9	217	HUG LIBRARY DISK
LOTTO/PICK	006	PICK LOTTO NUMBERS ON "
BUZZAROBAT	026	TI GAME
BASEBALL	047	BASEBALL GAME
CF/ABBEY	142	A GAME FROM ENGLAND
GUARDIAN	037	TI GAME
HONEYBEES	096	COLLECT THE HONEY
NIBBLE	029	LIKE PAC MAN
PHETA	105	SPACE STATION PHETA
TRADE	073	GAME OF TRADE WARS
HRT-N-SOUL	006	2 PLAYERS BY M. MOORE

[2] UTILITIES

DOWNLOADS AVAILABLE

Name	Size	Description
!TOOLKIT	208	Assembly routines.
*5BUG	190	FREWARE SUPERBUG II
1000WORDS	064	TI-WRITER UTILITY

(CONTINUED FROM PAGE 6)

BOCCELD 141 BOCOL ADDINS FOR FWEB  
ALIGN/ARC 056 Alignment of disk drive  
AMORTIZATN 048 Three Amortization Prog  
ARC303 050 LATEST VER 3.03 ARCHIVE  
ARCHIVER 033 3.03g FOR 9640 HFDC  
BANKING3 024 CHECKING PROGRAM  
BAUD 008 Gives u/load d/l time  
BOOT1289 090 BOOT v.12/13/89 - Great  
BOTH-ARC 022 Print on both sides of  
CARTDUMP 216 DUMP CARTS TO DISK  
COPY-C 225 Track copier, TI,Corcom  
CS1-DSK-EA 008 Transfer adventure game  
DL99V2 104 DISK CATALOG PRINT LABE  
DM1000/4 052 DM1000 Version 4.0  
FAST-TERM 116 FAST-TERM JPH archived.  
FUN1 166 FWEB 4.21 PARTA  
FUN2 248 FWEB 4.21 PARTB  
FUNDOC 153 DOCS FOR FWEB 4.21  
FWEB4\*3-1 209 1 OF 4 FWEB 4.3 DISKS  
FWEB4\*3-2 173 2 OF 4 FWEB 4.3 DISKS  
FWEB4\*3-3 244 3 OF 4 FWEB 4.3 DISKS  
FWEB4\*3-4 248 4 OF 4 FWEB4.3 DISKS  
FWEBFIX 149 FIXES FOR FWEB 4.21  
GENP 069 E/A GENEALOGY PROGRAM  
GIFVIEW 025 gif viewer mdos only  
HOTBUG 253 PROGRAM DEBUGGER  
LABEL 113 LABEL PROGRAM  
LABELER\_V3 064 GRAPHIC LABEL MAKER v3  
LETTERHEAD 053 SGW1\*1 does letterheads  
MAC-CONVT 071 MacInt. text file conve  
MASS\_4/1 158 HUG LIBRARY DISK  
MEP;C 017 C SOURCE CODE PROG.  
MDMS129 210 HFDC VER 1.29  
MENU7 035 MENU for Horizon RD  
MENU-V73 150 HORIZON MENU VER 7.3  
MG 033 DM1000 Version 3.8  
MH 031 Part II DM1000 Ver. 3.8  
MFLANBUD 151 MULTIPLAN HOME BUDGET  
MYARC-DM 094 MYARC-DMIII  
NOLAN 202 HANDY UTILITIES ARC'D  
PRINTER 019 Prowriter commands 8510  
FR\_BASE 145 FR BASE  
RAGASMV7P1 182 macro asm v7 part1  
RAGASMV7P2 112 macro asm v7 p2  
RAGASMV7P3 150 macro asm v7 p3  
RAGLNKv2 220 rag linker ver 2.0  
RAMTODISK 041 HUG LIBRARY DISK  
ROS814 206 HRD ROS VER 8.14  
SCAN#IT 040 SCAN YOUR CRU ADDRESSES  
SECONE20 028 7vz7uF50 dNHL!>thh,Fc+  
T-SHELL 036 adds DSK commands to XB  
TIDIAG1 161 TI/DIAGNOSTIC PART 1  
TIDIAG2 303 TI/DIAGNOSTICS-PART 2  
TIDIAG3 301 TI/DIAGNOSTICS PART 3  
TRACK 080 French track copier.  
TRACKER 011 Myarc FDC track copier.  
VIDEODISP 009 VIDED BULLITEN BOARD  
VOTE-ARC 058 Ballot for elections.

WINDYXB 170 Name WINDYXB this is a  
FWEB4\*3A-1 531 NEWEST FUNNELWEB DISK1  
FWEB4\*3A-2 377 LATEST FUNNELWEB DISK2  
4CHANGE 271 CHANGESFW4.30 TO 4.3A  
ARCHY 019 ARCHIE - EA5 loader  
MODEARC 009 SET VDP MODES - 9938  
MDMV\_130 216 for HFDC, last version  
PARK\_146 019 for HFDC - arc.  
XXB15 174 MORE XB COMMANDS  
TIDEMD 304 DEMO OF TI  
CFS1 171 CREATIVE FILING SYS 1  
CFS2 213 CREATIVE FILING SYS 2  
CFS3 135 CREATIVE FILING SYS 3  
GEN/DOC 137 GENEALOGY DOCS  
GENEALOGY 069 GENEALOGY PROGRAM  
CATCHAT 027 CATALOG AND ADD COMMENT

### [3] MUSIC

#### DOWNLOADS AVAILABLE

Name	Size	Description
BOJANGLES	008	GOODBYE SAMMY
CHITMUSIC	049	Dueling Banjos OK!
CHRISTMAS	179	HUG LIBRARY DISK
MUSIC-1	083	HUG LIBRARY DISK
MUSIC-2	127	HUG LIBRARY DISK
POPPLUS/ARC	077	A DEMO OF MUSIC AND GRA
XEMUSIC	173	C
S_MOORE_1	161	Sam Moore Jr. Music 1
S_MOORE_2	193	Sam Moore Jr. Music 2
S_MOORE_3	153	Sam Moore Jr. Music 3
S_MOORE_4	099	Sam Moore Jr. Music 4
S_MOORE_5	120	Sam Moore Jr. Music 5

### [4] GRAPHICS

#### DOWNLOADS AVAILABLE

Name	Size	Description
ANIMATEM	207	ANIMATE TI-ARTIST PICS
ARTCON	208	Converts Frintshop to P
ARTIST_1	184	HUG LIBRARY DISK
ARTIST_2	145	HUG LIBRARY DISK
ARTIST_3	165	HUG LIBRARY DISK
ARTIST_4	159	HUG LIBRARY DISK
EASEL	121	DRAWING PROGRAM
ELFGIF	046	picture of she elf.
GIF99	071	AD BARRY BOONE GIF
MAX	025	RLE PICTURE UTILITY
M_LINK	131	MISSING LINK DEMO DISK
FP-HIRESOL	083	PagePro Printer Util.
SLIDE	292	SLIDE SHOW
TRSSHOW	033	DISPLAY TRS HR GRAPHICS

(CONTINUED FROM PAGE 7)

TC-ARC 050 TIPS catalog printer ut  
PP-FONTS1 071 ARC new for PagePro

[5] 9640

DOWNLOADS AVAILABLE

Name	Size	Description
9640HELP	039	from MIAMI USERS GROUP
BDEND	009	3 MYBasic demo programs
CONFERENCE	025	DELPHI CON. 13TH JUNE
DMARK	065	9640 DIRECTORY MGR
EXEC	028	MDOS E/A 5 loader v1.3
FRACTALS	030	fortran fractal generat
GMNL	026	ADD REAL LOWER CASE
GRADEREPOR	041	grade report generator
MDOS	481	SEE 9640 MESSA. BASE!!!
MATHPAD	067	Mdos calculator prog by
MDOS_114	358	rename as SYSTEM/SYS
MDOS_114F	358	latest SYSTEM/SYS
MDOS_97H	481	unmodified Hard version
MOUSE	017	modify a bus mouse
MYBASIC	182	MYBASIC 2.99A Archived
PATCH_97V2	002	MDOS .97 patch, ver. 2
PAULCARC	049	CONFERENCE WITH PAUL C.
QDE21/ARC	032	QUICK DIRTY EDITOR
XBCLK9640	009	INTERUPT DRIVEN CLOCK
DM_12	072	DISK MGR VER 1.2
DM_13	077	DISK MANAGER VER 1.3
MDOS_97M	388	FULL floppy support!
MDOS_115	291	PAUL CHARLTON LATEST

[6] 9640 UTILITIES

DOWNLOADS AVAILABLE

Name	Size	Description
SETDISK-ARC	009	nf2[<m=ab4g<rAi{>xU
SETDISKARC	018	SET HD STP AND TRACKS
RSEBUG	044	RS232 DEBUGGER 4 9640
VJ-MYART	023	MYArt utility prog.
MATHPADVA	054	Mdos Calculator prog.

[7] FREEMWARE

DOWNLOADS AVAILABLE

Name	Size	Description
FREEMWARE22	241	HUG LIBRARY DISK
FREEMWARE23	218	HUG LIBRARY DISK
FREEMWARE24	186	HUG LIBRARY DISK
FREEMWARE25	144	HUG LIBRARY DISK

FREEMWARE26	198	HUG LIBRARY DISK
FREEMWARE27	187	HUG LIBRARY DISK
FREEMWARE28	144	HUG LIBRARY DISK
FREEMWARE29	194	HUG LIBRARY DISK
FREEMWARE30	188	HUG LIBRARY DISK
FREEMWARE50	161	HUG LIBRARY DISK
FREEMWARE51	186	HUG LIBRARY DISK
FREEMWARE52	089	HUG LIBRARY DISK
FREEMWARE53	172	HUG LIBRARY DISK
FREEMWARE54	098	HUG LIBRARY DISK
FREEMWARE55	143	HUG LIBRARY DISK
FREEMWARE56	098	HUG LIBRARY DISK
FREEMWARE57	232	HUG LIBRARY DISK
FREEMWARE58	218	HUG LIBRARY DISK
FREEMWARE59	116	HUG LIBRARY DISK
FREEMWARE60	143	HUG LIBRARY DISK
FREEMWARE61	157	HUG LIBRARY DISK
FREEMWARE62	207	HUG LIBRARY DISK
FREEMWARE63	181	HUG LIBRARY DISK
FREEMWARE-1	206	HUG LIBRARY DISK
FREEMWARE-1	206	HUG LIBRARY DISK
FREEMWARE-10	109	HUG LIBRARY DISK
FREEMWARE-11	143	HUG LIBRARY DISK
FREEMWARE-12	186	HUG LIBRARY DISK
FREEMWARE-13	093	HUG LIBRARY DISK
FREEMWARE-14	124	HUG LIBRARY DISK
FREEMWARE-15	134	HUG LIBRARY DISK
FREEMWARE-16	136	HUG LIBRARY DISK
FREEMWARE-17	187	HUG LIBRARY DISK
FREEMWARE-18	204	HUG LIBRARY DISK
FREEMWARE-19	047	HUG LIBRARY DISK
FREEMWARE-2	167	HUG LIBRARY DISK
FREEMWARE-20	257	HUG LIBRARY DISK
FREEMWARE-21	135	HUG LIBRARY DISK
FREEMWARE-31	168	HUG LIBRARY DISK
FREEMWARE-33	111	HUG LIBRARY DISK
FREEMWARE-34	174	HUG LIBRARY DISK
FREEMWARE-35	171	HUG LIBRARY DISK
FREEMWARE-36	168	HUG LIBRARY DISK
FREEMWARE-37	193	HUG LIBRARY DISK
FREEMWARE-38	188	HUG LIBRARY DISK
FREEMWARE-39	200	HUG LIBRARY DISK
FREEMWARE-4	170	HUG LIBRARY DISK
FREEMWARE-40	171	HUG LIBRARY DISK
FREEMWARE-41	103	HUG LIBRARY DISK
FREEMWARE-42	121	HUG LIBRARY DISK
FREEMWARE-43	185	HUG LIBRARY DISK
FREEMWARE-44	195	HUG LIBRARY DISK
FREEMWARE-45	167	HUG LIBRARY DISK
FREEMWARE-46	182	HUG LIBRARY DISK
FREEMWARE-47	148	HUG LIBRARY DISK
FREEMWARE-48	264	HUG LIBRARY DISK
FREEMWARE-49	176	HUG LIBRARY DISK
FREEMWARE-5	129	HUG LIBRARY DISK
FREEMWARE-6	165	HUG LIBRARY DISK
FREEMWARE-7	151	HUG LIBRARY DISK
FREEMWARE-8	102	HUG LIBRARY DISK
FREEMWARE-9	172	hug library disk



(CONTINUED FROM PAGE 8)

FREWARE 017 FREWARE disk descrip.  
FREE/CAT: 058 FREWARE DISK CATALOG 1-  
FREE\*CAT 078 FULL FREWARE CATALOG

[8] MAC GIF PICS

DOWNLOADS AVAILABLE

Name	Size	Description
EAGLE	030	GIF picture of an EAGLE
F-15	030	GIF PICTURE OF F-15

FROM COMPUTER BRIDGE (VOLUME 7, NUMBER 2, FEBRUARY 1988)

THE NEW CURSOR  
+++++  
By Rich Renth

In this short little routine that follows, you can change your cursor to whatever character you please. The routine is an old but useful one. To change the character simply change the 8 numbers after the 12288 in line 110. These numbers must be in decimal form not hex. To convert your 16 character pattern identifier (used in CALL CHAR) to decimal, split it up into 8 pairs for the 8 rows. The first number of the pair should be multiplied by 16 and added to the second. The letters in hex to decimal are A=10 B=11 C=12 D=13 E=14 F=15. Here is a small example of a pair -E7 = 14 X 16 + 7 or just 231. When this program is run, your new cursor will stay this way until you exit extended basic. Cursor below is small underline. HAVE FUN !!!!!

```

100 CALL INIT :: CALL LOAD(8
196,63,248):: CALL LOAD(1637
6,67,72,65,78,71,69,48,8
)
110 CALL LOAD(12288,0,0,0,0,
0,0,0,124)
120 CALL LOAD(12296,2,0,3,24
0,2,1,48,0,2,2,0,8,4,32,32,3
6,4,91):: CALL LINK("CHA
NGE")

```

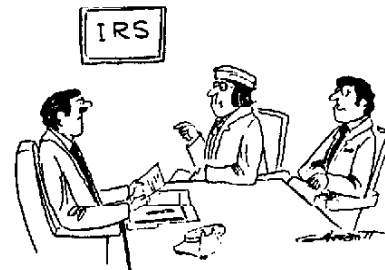
DISCLAIMER

This newsletter is brought to you through the efforts of the officers and members of the HOOSIER USERS GROUP. Every member is encouraged to submit articles.

If you have an article you would like to share with the other members mail it to:

Bryant Pedigo  
6461 N. Sherman Drive  
Indianapolis, IN 46220

Opinions expressed are those of the author and not necessarily those of the HOOSIER USERS GROUP.



"I'm his mother. I've been helping Jimmy with his math since the third grade."

```

*****
*
* SOUTH SIDERS MEETING
* SECOND-----THURSDAY
* AFTER THE MEETING
* MONTHLY
* CALL 888-5654
* FOR LOCATION
*
*****

```

```

=====
"
" BBS
" Hoosier Users Group
" Baud rate 300,1200 & 2400
" On Line 24 Hours Daily
" 782-994A
"
=====

```

```

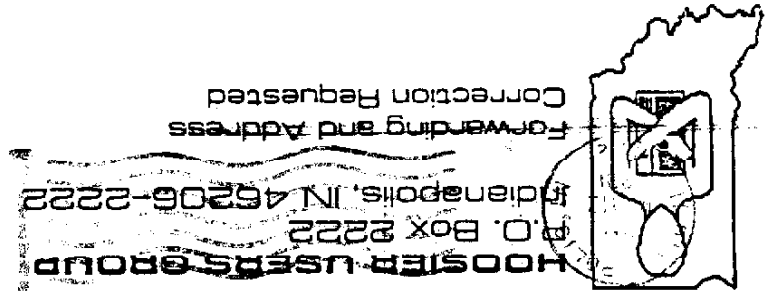
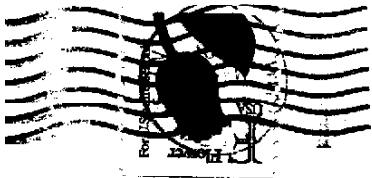
#####
#
# PASTE UP PARTY
# HELP GET THE NEWSLETTER
# OUT
# LAST FRIDAY OF MARCH
# AT BOB STAHLHUT'S HOUSE
# CALL 856-4962
#
#####

```

**TIME DATED**  
March 17 1991  
**MATERIAL**

Dan H. Eicher  
P.O. Box 605  
Mooreville, IN 46158

A91/10



### APPLICATION FOR MEMBERSHIP

Below you will find an application for membership to the Hoosier Users Group. Active membership entitles you to the Newsletter, up and download on the HUGbbs, attendance and voting rights at regular club meetings, access to the HUGger Library of Programs, special club activities and special guest speakers for one year.

Make check or money order payable to Hoosier Users Group. Send completed application to:

**HOOSIER USERS GROUP**  
P.O. Box 2222  
Indianapolis, IN 46206-2222

(Cut on dotted line)

Check One:

**Active Member**

New: \$20 \_\_\_\_\_

Renewal: \$17 \_\_\_\_\_

Amount Enclosed: \$ \_\_\_\_\_

# \_\_\_\_\_ D \_\_\_\_\_  
S \_\_\_\_\_

Name: \_\_\_\_\_ Today's Date: \_\_\_\_\_

Address: \_\_\_\_\_ Apt. # \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

Interests/Comments: \_\_\_\_\_