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**THE HUGger's**  
**HOOSIER USERS GROUP**  
 People Helping People

November 1989

THE HUGger's NEWLETTER

Volume 8, Number 9

### NEWS & SUCH!

Perhaps the biggest news item for this month concerns the 7th annual TI-99/4A FAIRE put on by the Chicago Users Group on November 4. As usual the Faire was well attended - including ten members from the Hoosier Users Group. There were about two dozen vendors including representatives of other user's groups, software and hardware manufactures and distributors. Many of the TI community's best known figures were present, including Chris Bobbit of Asgard, Bud Mills of Horizon Ramdisk fame, Rev. Barry Traver of Genial TRAVEIER Diskazine, J. Peter Hoddie, Paul Charlton and Warren Agee representing JP Software (formerly Genial Computerware). Jim Horn was representing Compuserve's TI FORUM. Comprodine's Roger Merritt was there with Formshop and a host of new programs. Myarc was represented by Lou Phillips. And of course our own Larry Conner was present.

#### New Products

A number of interesting new products were being marketed. These include: from Asgard - several new programs including Hard Master a utility program for Myarc's HFDC card, several new games including Ledends II and Oliver's Twist, and Doom Games III for the Tunnels of Doom cartridge. Productivity offerings include: Pix Pro a sort of "Super Converter" for any picture format into any format available to the TI world including MacPaint, Page Pro 99 Fonts and Page Pro Pics. They also have several new disks of borders, fonts and instances for TI-Artist; and for Picasso are Picasso Enlarger, Picasso Utilities and "Using Picasso" by Harry Brashear. The long awaited Press unfortunately still is not available.

JP Software has several new programs of interest, including: AV-Index, Identifile, Chainlink, Graphics Expander, MacFlix Professional, and PC-Transfer Utilities. AV-Index is a really impressive table making and indexing program for audio and video cassettes. Identifile creates floppy, hard and RAM disk catalogs

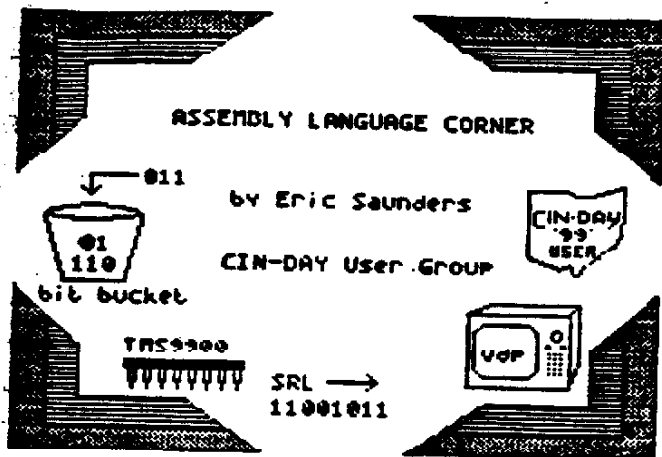
that tells you EXACTLY what each file is - it actually identifies file or program type. Chainlink is an impressive assembly language Solitaire card game. MacFlix Professional is a considerably enhanced version of MacFlix allowing access to and manipulation of Macintosh MacPaint graphics and Graphics Expander is for manipulating graphics and fonts from TI-Artist and CSGD. PC-Transfer Utilities provides conversion routines for MultiPlan SYLK files, ability to use TI files downloaded with an IBM and allows access to any file from a PC disk.

Comprodine has a new Artist Print Shop program for making signs, banners etc., and Color Card and Color Flyer - these are color printer versions of Jiffy Card and Jiffy Flyer. They also have two new Assembly Language games - Living Tomb and War Zone.

Bruce Harrison of Harrison Software has a new word processing program that sells for \$20 and offers some interesting and useful features not found on any of the TI-Writer clones, and also some very good music software (his address is: 5705 40th Place Hyattsville, MD 20781).

For Geneve 9640 users there are a number of new programs that take much fuller advantage of that computers enhanced abilities. Most of these run from MDOS. McCann Software has greatly enhanced and very impressive MDOS versions of "The Printer's Apprentice" and "The Geometer's Apprentice" for instance, and JP Software has released GenPROG which is a full featured MDOS development package, they also have an MDOS version of Miller Graphics' Diskassembler - called DISKASSEMBLER 9640. With these available good 9640 software should start appearing much more rapidly. Myarc has announced that they are definately working on GEME their graphical interface program, MYArt Pro which will be more like a mini-cad type program, and two types of Basic compilers. Also Bud Mills Services has a new memory expansion card called Memex that can expand the Geneves memory to 2 megs at a reasonable price.

(CONTINUED ON PAGE 2)



single digit to represent all the numbers from decimal 0 to 15. Hex uses 0 thru 9 and then A to mean 10, B for 11, C for 12, D for 13, E for 14, and F for 15. To convert a binary number into hex, merely start at the right side of the number and group the digits four at a time. Each four digit group represents 1 hex number. So our example would be grouped as 1000 and 0110, or >86.

Note I used a ">" to represent a hex number. This is so you don't confuse it with the decimal number 86, which is actually >56! See the next page for a listing of all the numbers from 0 to 255 in all the number systems.

Primarily, we will be working in decimal and hex. Now that we have a little of the basics down, next time we will write a mini routine or two. See you next month!

Source: CIN-DAY USER GROUP newsletter June, 1988

(CONTINUED ON PAGE 3)

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(CONTINUED FROM PAGE 1)

New hardware for the 99/4A includes the Chicago Ramdisk from Midwest Engineering, in versions up to 1 meg for \$575, and more importantly, there is a modification from Gary Bowser, out of Toronto called "RAMBO" that allows a Chicago or Horizon Ramdisk to extend the directly addressable memory of the 99/4A by 8k banks of bank switched memory.

- B.C.P.

## ALC #2: NUMBER SYSTEMS

All right, I hear that collective moan out there. Everyone wants to know why the devil should they be interested in number systems. Let's face it, subjects don't set much dryer than this! However, you must want to unleash the power within your TI (or you would not have bothered reading ALC #1) and to do so requires at least a little understanding of three different number systems.

The first one you already know decimal. I think it would be best if we chose a number as an example. How about 134. This number represents 1 times 100, 3 times 10, and 4 times 1. (Notice each position is a power of ten: 10x10, 10x1, and 10x0). Sound familiar. We work every day in base ten (as decimal is known) because we have ten fingers. Now let's examine a computer.

When we first designed a computer we based it around the situation that there were only two possibilities in the world. On or off. All your computer really is is a large number of on/off switches. Therefore, so we use a base 2 number system in computerese. The above number would be 10000110 in binary (base 2). This means 1 times 128, 0 times 64, 0 times 32, 0 times 16, 0 times 8, 1 times 4, 1 times 2, and 0 times 1. (All numbers are powers of 2). Just add them up and you get 134.

Finally, since you get very tired and bored staring at a series of 1's and 0's, the only numbers your computer really understands, we've developed a sort of short hand for binary. It's called hexadecimal, or hex for short. Hex is base 16, which means we need a

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## APPENDIX B. DECIMAL-HEXADECIMAL - BINARY CONVERSION TABLE

Dec	Hex	Binary	Dec	Hex	Binary	Dec	Hex	Binary	Dec	Hex	Binary
0	00	0000 0000	84	40	0100 0000	128	80	1000 0000	192	C0	1100 0000
1	01	0000 0001	85	41	0100 0001	129	81	1000 0001	193	C1	1100 0001
2	02	0000 0010	86	42	0100 0010	130	82	1000 0010	194	C2	1100 0010
3	03	0000 0011	87	43	0100 0011	131	83	1000 0011	195	C3	1100 0011
4	04	0000 0100	88	44	0100 0100	132	84	1000 0100	196	C4	1100 0100
5	05	0000 0101	89	45	0100 0101	133	85	1000 0101	197	C5	1100 0101
6	06	0000 0110	90	46	0100 0110	134	86	1000 0110	198	C6	1100 0110
7	07	0000 0111	91	47	0100 0111	135	87	1000 0111	199	C7	1100 0111
8	08	0000 1000	92	48	0100 1000	136	88	1000 1000	200	C8	1100 1000
9	09	0000 1001	93	49	0100 1001	137	89	1000 1001	201	C9	1100 1001
10	0A	0000 1010	94	4A	0100 1010	138	8A	1000 1010	202	CA	1100 1010
11	0B	0000 1011	95	4B	0100 1011	139	8B	1000 1011	203	CB	1100 1011
12	0C	0000 1100	96	4C	0100 1100	140	8C	1000 1100	204	CC	1100 1100
13	0D	0000 1101	97	4D	0100 1101	141	8D	1000 1101	205	CD	1100 1101
14	0E	0000 1110	98	4E	0100 1110	142	8E	1000 1110	206	CE	1100 1110
15	0F	0000 1111	99	4F	0100 1111	143	8F	1000 1111	207	CF	1100 1111
16	10	0001 0000	100	50	0101 0000	144	90	1001 0000	208	D0	1101 0000
17	11	0001 0001	101	51	0101 0001	145	91	1001 0001	209	D1	1101 0001
18	12	0001 0010	102	52	0101 0010	146	92	1001 0010	210	D2	1101 0010
19	13	0001 0011	103	53	0101 0011	147	93	1001 0011	211	D3	1101 0011
20	14	0001 0100	104	54	0101 0100	148	94	1001 0100	212	D4	1101 0100
21	15	0001 0101	105	55	0101 0101	149	95	1001 0101	213	D5	1101 0101
22	16	0001 0110	106	56	0101 0110	150	96	1001 0110	214	D6	1101 0110
23	17	0001 0111	107	57	0101 0111	151	97	1001 0111	215	D7	1101 0111
24	18	0001 1000	108	58	0101 1000	152	98	1001 1000	216	D8	1101 1000
25	19	0001 1001	109	59	0101 1001	153	99	1001 1001	217	D9	1101 1001
26	1A	0001 1010	110	5A	0101 1010	154	9A	1001 1010	218	DA	1101 1010
27	1B	0001 1011	111	5B	0101 1011	155	9B	1001 1011	219	DB	1101 1011
28	1C	0001 1100	112	5C	0101 1100	156	9C	1001 1100	220	DC	1101 1100
29	1D	0001 1101	113	5D	0101 1101	157	9D	1001 1101	221	DD	1101 1101
30	1E	0001 1110	114	5E	0101 1110	158	9E	1001 1110	222	DE	1101 1110
31	1F	0001 1111	115	5F	0101 1111	159	9F	1001 1111	223	DF	1101 1111
32	20	0010 0000	116	60	0110 0000	160	A0	1010 0000	224	E0	1110 0000
33	21	0010 0001	117	61	0110 0001	161	A1	1010 0001	225	E1	1110 0001
34	22	0010 0010	118	62	0110 0010	162	A2	1010 0010	226	E2	1110 0010
35	23	0010 0011	119	63	0110 0011	163	A3	1010 0011	227	E3	1110 0011
36	24	0010 0100	120	64	0110 0100	164	A4	1010 0100	228	E4	1110 0100
37	25	0010 0101	121	65	0110 0101	165	A5	1010 0101	229	E5	1110 0101
38	26	0010 0110	122	66	0110 0110	166	A6	1010 0110	230	E6	1110 0110
39	27	0010 0111	123	67	0110 0111	167	A7	1010 0111	231	E7	1110 0111
40	28	0010 1000	124	68	0110 1000	168	A8	1010 1000	232	E8	1110 1000
41	29	0010 1001	125	69	0110 1001	169	A9	1010 1001	233	E9	1110 1001
42	2A	0010 1010	126	6A	0110 1010	170	AA	1010 1010	234	EA	1110 1010
43	2B	0010 1011	127	6B	0110 1011	171	AB	1010 1011	235	EB	1110 1011
44	2C	0010 1100	128	6C	0110 1100	172	AC	1010 1100	236	EC	1110 1100
45	2D	0010 1101	129	6D	0110 1101	173	AD	1010 1101	237	ED	1110 1101
46	2E	0010 1110	130	6E	0110 1110	174	AE	1010 1110	238	EE	1110 1110
47	2F	0010 1111	131	6F	0110 1111	175	AF	1010 1111	239	EF	1110 1111
48	30	0011 0000	132	70	0111 0000	176	B0	1011 0000	240	F0	1111 0000
49	31	0011 0001	133	71	0111 0001	177	B1	1011 0001	241	F1	1111 0001
50	32	0011 0010	134	72	0111 0010	178	B2	1011 0010	242	F2	1111 0010
51	33	0011 0011	135	73	0111 0011	179	B3	1011 0011	243	F3	1111 0011
52	34	0011 0100	136	74	0111 0100	180	B4	1011 0100	244	F4	1111 0100
53	35	0011 0101	137	75	0111 0101	181	B5	1011 0101	245	F5	1111 0101
54	36	0011 0110	138	76	0111 0110	182	B6	1011 0110	246	F6	1111 0110
55	37	0011 0111	139	77	0111 0111	183	B7	1011 0111	247	F7	1111 0111
56	38	0011 1000	140	78	0111 1000	184	B8	1011 1000	248	F8	1111 1000
57	39	0011 1001	141	79	0111 1001	185	B9	1011 1001	249	F9	1111 1001
58	3A	0011 1010	142	7A	0111 1010	186	BA	1011 1010	250	FA	1111 1010
59	3B	0011 1011	143	7B	0111 1011	187	BB	1011 1011	251	FB	1111 1011
60	3C	0011 1100	144	7C	0111 1100	188	BC	1011 1100	252	FC	1111 1100
61	3D	0011 1101	145	7D	0111 1101	189	BD	1011 1101	253	FD	1111 1101
62	3E	0011 1110	146	7E	0111 1110	190	BE	1011 1110	254	FE	1111 1110
63	3F	0011 1111	147	7F	0111 1111	191	BF	1011 1111	255	FF	1111 1111

Figure B-1. Decimal-Hexadecimal-Binary Conversion Table

# MEMBER BENEFITS

HELLO.

LAST FEBRUARY, I JOINED THE TI-HUG GROUP IN INDIANAPOLIS. BEFORE THIS I WAS THINKING THAT THE TI-99 COMPUTER WAS ABOUT FINISHED FOR USEFULNESS SINCE I WAS GETTING VERY FEW NEW PROGRAMS ADVERTISED. SINCE JOINING THE CLUB, I HAVE FOUND SO MANY PROGRAMS IT WILL TAKE A LONG TIME TO MANAGE THRU THEM TO SEE WHAT I HAVE AND TO GET THE MOST OUT OF EACH PROGRAM. BESIDES PROGRAMS, I ALSO FOUND OUT THRU THE CLUB THAT THERE IS ANOTHER MEMBER IN MARION, IND. THAT KEEPS THE DUST OFF OF HIS TI-99. HE ALSO HAS A GENEVE 9640. MY CLUB MEMBERSHIP BREATHED NEW LIFE INTO MY HOBBY. I BELIEVE THAT IT IS BENEFICIAL TO MEMBERS TO MAINTAIN A CLUB MEMBERSHIP IF THEY HAVE ANY INTEREST AT ALL IN THEIR COMPUTER, EVEN IF THEY FIND IT DIFFICULT TO ATTEND THE MEETINGS. LIVING IN MARION SOMETIMES MAKES IT DIFFICULT OR IMPOSSIBLE TO ATTEND THE MEETINGS IN INDIANAPOLIS. I DO GO OFTEN AND I TAKE MY COMPLETE UNIT WHEN I DO. I AM WILLING TO HELP ANYONE WITH WADING THRU A PROGRAM. IF SOMEONE WANTS TO COPY OFF SOME OF THE EXTENDED BASIC PROGRAMS THEY SHOULD TAKE THEIR TAPE RECORDERS AS I DON'T. THE CLUB DOES HAVE SEVERAL EXTENDED BASIC PROGRAMS AND GAMES THAT COULD BE PUT ON TAPE.

I RECENTLY PURCHASED PAGE PRO 99 AND PLAN TO HAVE IT FOR DEMONSTRATION AT THE NEXT MEETING IN NOVEMBER FOR ANYONE WHO CANNOT DECIDE IF THEY WANT TO BUY IT OR NOT. I AM USING THE COLUMNIZER TO DO THIS ARTICLE INTO TWO COLUMNS. I AM STARTING THE TEXT FILES WITH THE EDITOR OF EDITOR/ASSEMBLER TO AVOID THE PITFALLS I MAY GET WITH TI-WRITER. EDITOR FILES ALSO WORK WELL WITH CSGD III WITH NO HASSLE LIKE YOU GET WITH TI-WRITER. LIKE MANY PROGRAMS, YOU MUST KEEP THE

BOOK AT HAND TO GET THRU THE FIRST FEW TIMES UNTIL YOU LEARN THE COMMANDS. I DO LIKE THE HELPER SCREEN AT THE BOTTOM. I THINK THE EDITOR IN FUNNELWEB WILL ALSO WORK TO CREATE THE TEXT FILE BETTER THAN TI-WRITER. A STRING OF 26 TO 27 X'S WILL HOLD A LINE OR INDENTATION AND CAN BE REMOVED LATER AFTER THE COLUMNIZER DOES THE FILE. YOU CANNOT CHANGE A COLUMNIZED FILE AND THEN RE-COLUMNIZE IT AS YOU GET POOR RESULTS. I HAVE A GENEVE 9640 ORDERED BUT AS OF THIS WRITING HAVE NOT YET RECEIVED IT. I HOPE THAT I WILL BE ABLE TO SPEED UP SOME OF THE UTILITY PROGRAMS AND CONVERSIONS. I HOPE I HAVE IT BY THE NEXT MEETING. ONE PROGRAM THAT WILL NOT RUN ON IT IS PICASSO V1.1 OR 2.0. I WOULD LIKE TO SEE A VERSION OF PICASSO THAT WOULD RUN ON IT. PAGE PRO 99 HAS TWO VERSIONS ON THE DISK. ONE FOR TI-99/4A AND ONE FOR 9640. THE TI VERSION WILL RUN ON THE 9640 BUT THE 9640 VERSION HAS BETTER SPEED.

I HAVE SOME ITEMS FOR SALE AND THERE WILL NEVER BE A BETTER TIME THAN NOW TO UPGRADE YOUR UNIT. ASKING \$75 FOR A TI-DISK CONTROLLER CARD, A TEAC 64A 1/2 HT SS/DD DISK DRIVE \$39, A TANDON TM-100 FULL HT SS/DD DISK DRIVE \$49, ALL A-1 AND WILL SHIP UPS OR PARCEL POST ADD \$2.50 SHIPPING AND IF C.O.D. ADD ANOTHER \$3.

I RECENTLY PICKED UP AN ACOUSTIC TI-MODEM AND DID NOT GET THE INSTRUCTIONS WITH IT. IF SOMEONE WOULD GET ME A COPY IT WOULD BE VERY HELPFULL. I WOULD ALSO LIKE TO KNOW IF SOMEONE OUT THERE KNOWS WHERE A KUBIKS CUBE PROGRAM CAN BE FOUND? PRINTED WITH CSGD III & FONT2 LPI-8 YOURS TRULY,

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# CREATE YOUR OWN CURSER

By Bob Turner

New Horizons-Northwest Ohio 99'ers

I don't quite know how to give the proper credit to this routine, but whoever discovered this way to modify the cursor is an unsung hero.

While I have experimented with TI Extended Basic, I have learned many ways to make it do the things about which the manual never told you. Also, I have learned not to forget the clever programmers who offered their information and discoveries to the TI community.

Creating a cursor is rather easy, and once done, the cursor routine can always be used in other programs. If you understand how to define a character then understanding how to create a cursor is just as easy.

First, here is the TI Extended basic code to re-define the cursor:

```

100 CALL CLEAR :: CALL INIT
110 CALL LOAD(8196,63,248)
120 CALL LOAD(16376,67,85,82,83,79,82,48,8)
130 CALL LOAD(12289,255,129,129,129,129,129,255)
140 CALL LOAD(12296,2,0,3,24,0,2,1,48,0,2,2,0,8,4,32,32,36,4,91)
150 CALL LINK("CURSOR")

```

Line 130 defines the cursor description (what it looks like). Defining the cursor is made rather easy because you are not using HEX but decimal.

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```

Decimal>|128|64|32|16|08|04|02|01|
-----+-----+-----+-----+-----+-----+-----+-----+
ROW 1   | X | X| X| X| X| X| X| X|=255
-----+-----+-----+-----+-----+-----+-----+
ROW 2   | X | | | | | | | | X|=129
-----+-----+-----+-----+-----+-----+
ROW 3   | X | | | | | | | | X|=129
-----+-----+-----+-----+-----+-----+
ROW 4   | X | | | | | | | | X|=129
-----+-----+-----+-----+-----+-----+
ROW 5   | X | | | | | | | | X|=129
-----+-----+-----+-----+-----+-----+
ROW 6   | X | | | | | | | | X|=129
-----+-----+-----+-----+-----+-----+
ROW 7   | X | | | | | | | | X|=129
-----+-----+-----+-----+-----+-----+
ROW 8   | X | X| X| X| X| X| X| X|=255
-----+-----+-----+-----+-----+-----+

```

As you can see, the values come from adding the total value across each row to define the segments in the cursor. (Note X's in the figure and the weighted value that was totaled.)

After defining your custom made cursor, save it to disk and you are ready for your first run.

Run your program and look at your cursor. If you don't like it merely make some changes and run again. repeat this process until you are satisfied with your new cursor. The new cursor will stay until you turn off the console.

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### 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:

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 New: \$20  
 Renewal: 15  
**Active Member**  
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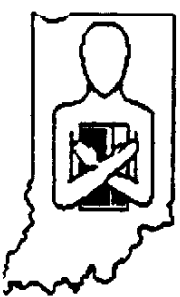
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Below, you will find an application for membership to the Hoosier Users Group. Active membership entitles you to the Newsletter, up and download on the HUGBs, attendance and voting rights at regular club meetings, access to the HUGger Library of Programs, special club activities and special guest speakers for one year. Subscribing members will receive the NEWSLETTER only.

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