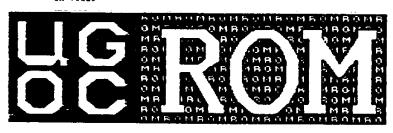
THE R O M NEWSLETTER USERS GROUP OF ORANGE COUNTY 17161 EDWARDS STREET HUNTINGTON BEACH, CA 92647



01/91
Dallas TI Computer Group (DTIHCG)
PO Box 29863
Dallas,
TX 75229



MR 1991

SERVING THE TI +3/4A HOME COMPUTER COMMUNITY

WE MEET AT FIDELITY FEDERAL

THIS IS AN ALL NEW LOACTION. SEE INSIDE STORY

TIME AND PLACE OF MEETING

The <u>SECOND</u> Monday of each month at Fidelity Federal Savings

7:30 PM

North of Westminster Ave. at the corner of Seal Beach Blvd and St. Andrews at 13828 Seal Beach Blvd. Parking is availabel west of the building off St. Andrews with additional parking assross the street.

u	. G	. α	. c .	OFF	ICERS
_	, •			U I I	

	YAMBHTAH NBG.			
VICE-PRES	EARL RAGUSE.			347-5975
SECRETARY	HTI ME BUBBUB.			347-3961
TREASURER	JERRY RASH			631-6579
	JUN SHEDLOW			227-2252

COMMITTEE CHAIRMEN

BILL NELSON	. 性工 山を外頭を付達性.	
NEWT ARMSTRONG		
BEN HATHENAY, BUI		
BILL NELSONH	all of Fame .	750-6425

SOFTWARE LIBRARY

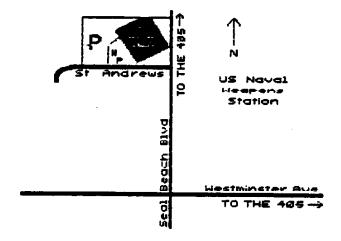
KNUTE ERSLAND	•	٠	٠				٠	٠				•	•		842-6859
---------------	---	---	---	--	--	--	---	---	--	--	--	---	---	--	----------

NEWSLETTER LIBRARY EARL RAGUSE (PHONE FOR TIME) 847-5875

PUBLICATION NOTICE

The ROM is published by the Users Group of Orange County, a non-profit organization. Permission is granted to similar groups to reproduce articles published in the ROM provided author and source credits are included. Opinions expressed in this publication are those of the author and do not necessarily represent those of the ROM. It's Editor. or the UGOC, it's officers or members.

We solicit letters and articles of interest to the TI-39/4m wer community. Material accepted may be edited for fit and formet. No payment is offered nor intended (other than your byline).



SEE PAGE THO FOR FULL PAGE MAP

NEWSLETTER	CONTRIBUTORS
EARL RAGUSE	TI FORTH
ADRIAN ROBINSON	· · · · · · · · · · · · ASSEMBLY
EARL RAGUSE ,	CIRCULAT ION
JIM SWEDLOW	AT LARGE
BILL NELSON	(日本日山 7/4)
SILES BAZERMAN	

	TI CLUB ACTI	VITIES	
CLUB	ACTION	DATE	INFO
8UG	GENERAL MEETING		871-3495
UGOC	GENERAL MEETING	CALL	662-2957
UGOC	BOARD MEETING		662-2957
UGOC	NSLETTER LIBRARY	CALL	847-5875
	GRAPHICS SIG	NONE	750-6425
UGOC	LIBRARY, FTNULY	NONE	842-0859

NOTE: NO GRAPHICS SIG

R O N NEWSLETTER MAR91

THE PRESIDENT SPEAKS

Those of you who missed Fest West 91 really missed something. A good time was had by all, and those of us who attended came away with the belief that the TI does have life left in it and the Geneve does have a future ahead.

The Fest West '91 committee did a superhuman job coordinating everything and coming up with ideas to help further the Fest (including, but not limited to Fest West ball point pens). They are to be congratulated. Erwin Metz told me that he had attended professionally run conventions that were not as well done as the Fest.

I'm sure that there will be plenty of stories to share from all who attended and I hope that all of you had as good a time as I had.

See you at the meeting. BEN

TI BITS * Number 34 by Jim Swedlow

FEST WEST 91 WRAP UP REPORT

Fest West 91 can be added to the record book as another in a series of highly successful Fest Wests. Attendance exceeded expectations at over 250. Every one seemed to have a great time. Most major Tl software and hardware dealers and authors were represented along with Tl owners from across the country.

The Fest, which was hosted by the User Group of Orange County (UGOC) and Pomona User Group, was held at the Ramada Maingate, just across the street from Disney land. Included in the Fest Guide was a map of all the attractions, restaurants and other facilities that were within walking distance. This was very helpful to visitors from out-of-town.

The Fest honored the tenth anniversary of the TI with banners, balloons and a special retrospect by Bill Gaskill.

Software and Hardware Dealers
There were representatives from the 964Ø
News, Asgard, Bill Gaskill, Comprodine,
Bud Mills Services, Genial Computerware,
JP Software. Ken Hamai Hardware. Notung
Software, MS Express, LA Marketplace, TJ
Software, Pomona User Group, Rave 99, TI
Tax, Regina, Southwest 99ers, TAPE, TexComp, and UGOC.

There was a wealth of items to purchase and many happy 4A owners walked out with new merchandise or with something from the overflowing consignment table.

Major Winners

There were three types of drawings at Fest West 91. Hourly drawings included items kindly contributed by the dealers present. The winners were too numerous to name. Two major winners, however, deserve special mention:

- o Ted Whomsley won the free night at the Ramada Maingate.
- o Mary Phillips from the Ozarks User Group in Missouri won a fully assembled and tested Horizon RAMdisk, that the Fest West committee purchased from Bud Mills Services. Mary was overjoyed at her good fortune.
- H. R. Jeffery won the door prize; an Asgard Mouse.

The Best of TI
To honor the tenth anniversary of the
TI, everyone who came was asked to vote
for the "Best of TI". Ballots were
collected on noon Sunday and the winners
announced at the Fest. They were:

- o HARDWARE: Bud Mills Services and RAVE 99 tied as the best sources of hardware.
- o PUBLICATION: Far and away, the clear winner of the best TI publication was MICROpendium.
- o WRITER: Regina was picked as the best TI writer of all time. Honorable mention went to Barry Traver and Beery Miller.
- o SOFTWARE: There was no winner in the software category because so many fine items were mentioned.

During the Fest, Club 99 of Covina, California presented Jerry Price of Tex-Compwith a plaque to recognize his service to the TI community over the years. Jerry was surprised and touched.

Speakers

Many fine luminaries in the TI community spoke at the Fest. They included:

- o Ken Hamai on Disk Drives
- o Berry Miller on 9640 Programming
- o Ken Gilliland on new items from Notung Software
- o Bud Mills on RAMdisks and new offer ings from Bud Mills Services and OPA
- o Regina on Programming in BASIC
- o Bill Gaskill on TI Base

PAGE 2

REASIC MISCELLARY #1 By Earl Raguse

One of the things I learned while reworking TIPS 1.6, to 1.6/ER and writing TIPSLABEL was that TI didn't tell us in the XB Manual, or the later addendums, all we should know about XB. At least in what I could find. You may recall in my article on TIPS 1.6, that I found that after I had converted TIPS to using CALL KEY(3,K,S), DISPLAY AT, and ACCEPT AT, I could not enter lower case in ACCEPT AT.

I had some recollection that I had done it once upon a time, but I was not sure about it. Then I remembered that IB does not have a command to restore the lower case character set once they have been redefined. CHARSET does not do it, it only restores the uppercase set. I that presumably was because early IB did not have a lowercase set. I then reasoned that since that was true, it made sense that ACCEPT AT would only take uppercase.

I had plans for writing an assembly routine to LINK that would do it. I had once written an assembly program to take keyboard text input, and further I knew that Adrian Robinson had written in the ROM, a very detailed ACCEPT AT routine in assembly. My problem was that I didn't know how to get into Irwin Hott's LOADER program for TIPS. That is where there assembly routines are hidden, submerged below the XB.

How wrong I was! I did not know until I got a call from Adrian (Robbie) Robinson, that the problem was not with ACCEPT AT, but the fact that I had used CALL REY(S,K,S) to insure that all entrys to CALL REY would be upper case, instead of running them all through Ron Wolcott's assembly routine for converting inputs to upper case. I

didn't recall where I learned that CALL IKY(3) did that, surely not in the IB manual, but I knew it. It turns out, it was the Users Referece Guide.

What I didn't know was that once you do a CALL KEY(3,x,y) all, and I mean ALL, keyboard input thereafter, for CALL KKY. IMPUT, LIMPUT, ACCEPT AT, ect, etc, is restricted to upper case. I had used that fact for CALL KEY in my DIRectory programs. I didn't know that it stayed that way until you returned to the Title Screen. Or that you must do a CALL KRY (5,x,y), to restore normal upper and lower case, before any statement that calls for keyboard input. It matters not what x & y are so long as they are legal numeric variables. Lower case character redefinition has nothing to do with this. That is another story, later alligator, where again Robbie used his assembly knowledge to help me out of an of an XB problem with CHARSET.

After that phone call, I searched everything I had on XB, to no avail, I could find nothing to tell me this. The best source on the keyboard is the User's Reference Guide (the "Green Book"), but it does not even imply that it works that way. About two days later, I got a letter from Australia, from the Hunter Valley Assembly Guru, Ross Mudie, telling me the same thing Robbie did. I then got suspicious, why are the only people who know this the Assembly guys. I then scoured the TI Editor Assembler Manual. Firstly, I found a reference to the User's Reference Guide. There was however, a discussion, see page 250, about the fact that the Leyboard "device" was selected by placing a number, they discuss only numbers 0-3, into >8374. (Hex numbers are indicated by preceding with > as in >8374). Now this discussion makes no reference to CALL IKY, it is generic. and therefore refers to all keyboard

input. Also, once a number is loaded into location >8374, it stays there until changed. I can now assume that the IB CALL IEY does among other things, a CALL LOAD of the key number into >8374 which requires a new CALL REY or CALL LOAD statement to change >8374 to a new number. I have tried to test this theory in XB, but to no avail, Robbie says it works, but it won't for me. If I were working in assembly this would be rather understandable, but to the average IB Manual reader, II left it quite totally unexplained. I wrote a very interesting program called LOAD/PERK to test CALL LOAD and CALL PERK. Next time I may publish it, you could use it to learn a lot about how this II computer works.

So what does this all mean? If you wish IB to return upper case only, do a CALL KEY(3,x,y); to restore lower case, do a CALL KEY(5,x,y); and to keep the previous state (ie don't disturb the keyboard device previously selected) use CALL KEY(0,x,y). I note that most IB programmers use CALL KEY(0,x,y) almost exclusively. They are then not taking advantage of the computer's (and IB's) capabilities. I hope after this you will.

In the following months I plan to write about some of the other things I have learned about XB in recent days. Also including the above program LOAD/PEEK. One thing I have looked into is error trapping, and some things I have thus learned are not documented in the XB Manual. I have also learned some some other helpful things which I will get around to talking about. I will have something to say about the power of ACCEPT AT, that even my High Priced Spread computer does not have. Until next time, may your 99/4A's never do a hang-up in 1991.

XBASIC MISCRLLAMY #2

By Rarl Raguse

My son Richard had been staying at my house temporarily while his family is getting settled in Oregon. He had decided to move up there, but here is where he made his money. He is an IRM clone user. (mine while he was here) and is a fan of Microsoft Quick Basic. is very much like (actually compatible) IBM Basica or GW Basic, except it can be compiled into machine language when you are finished. That, of course, makes it It can be run as an very fast. interpretive language via its editor while you are writing and testing it. Very slick, and I would like it except I am addicted to the 99/4A.

I have done some programming in both Basica and GW Basic. also Radio Shack Basic, and UGH! Comodore Basic, and each have something one can say for them in some way, line and circle drawing, for instance. However, II XB has it all over them, and any other Basic I have ever used or heard of, when it comes to text handling. We have DISPLAY AT and ACCEPT AT that allows us to display and/or accept, or edit with a full editor, what we display on the screen at a specified location. Very powerful, and very friendly.

The best Quick Basic can do is use LOCATE, and PRINT to put a message on the screen at a specific location. Then it is possible to read it, using some kind of a loop, with X-SCREEN(R,C,Flag), which is the equivalent of TI XB's CCHAR(R,C,X), except that 'f Flag is true, SCREEN reads the character's color instead of its ASCII value.

Now the difficulty here is that there is no way to edit the text you read from the screen, short of writing a very complex program, I am not even sure how I would go about it. What programmers normally do is make you completely re-enter text that needs to be edited. Now, I know you would just love it, if FW were to put up a default file name, and all you wanted was to change the last character, or add a 1 or something, and you had to completely re-type it all over. You would if you where using some of the bigger and BETTER? computers.

OK, down off my scap box. Admittedly, one of the things I always did like about Basica, or GW Basic, was that you didn't have to write all commands in uppercase. IBM understands in lower case also. When I was typing lower case text with DISPLAY AT statements, I usually forgot to go back to UPPER case before typing the next DISPLAY AT. I was always looking at the keyboard, not the screen, I never learned touch typing. When I discovered what I was doing, I would say a few swear words and

Page 8
type it over, in upper case. I used to
think about how nice it was that it
didn't matter in IBM Basica.

Then I found out that it doesn't matter on the TI 99/4A either. Did you know that? Somehow I didn't. I knew the the 99/4A understood certain commands in either case, like RUM and LIST and RES. I have now found out that unless you use the REM (!) or quotes (") in front of statements, or if it is a legitimate variable name. IB will convert all lower case to upper case. If you enter a statment in lower case, and then FCTN 8, REDO. it will still be lower case, but if you enter the line number and FCTN X or LIST it you will find that it is changed to upper case. Very nice, it saves me a lot of trouble if I just stay in lower case, and use the Shift key when I want a capital letters in text. or a variable name.

One of the other things that tends to

make programming in Basica easy is the fact that the function keys are, or can be, programmed to give you commands. like PRIMT by just pressing one function key. Very Nice, but the 99/4A does even better, there is a key stroke (actually a two key stroke) for most the IB commands. This is because everything is stored as tokens, one for each key stroke code. If you press (CTRL ;) after a line number, while in the progresaming mode, you will not see anything but a space, but if you list the line, you will see PRINT, big as life. I will give you a few of the codes, just to titillate you, but the complete list has been printed in the newsletters several times. Just come to the Library, and I will find it for you.

TOKEN CODE SAMPLE

Command	Key	Stroke(w/CTRL)				
PRINT		;	(Semi-easy)			
IF		D	(Dead)			
THEN		0	(On)			
ELSE		A	(Arrival)			
GOTO		ŗ	(F			
INPUT		R	r			
RANDOMIZE		Ū	ų			
DEF		Ī	i			
RESTORE		Ī	t?)			

I was told there there was only one catch, you must do CALL INIT first before this works. Well, I have found that even that is not required. I checked, I did a simple program, without CALL INIT, like this. I first did NUM 100 to get automatic line numbers, then did! A CTRL A, after the 100 etc, on through the alphabet, numbers and punctuation. The Shift key doesn't count. Then I listed it, what do you suppose I got? The whole token list. I will print it next time. Its been fun, see you next time.

	1 2 3 .HHH H 2 5HH. 6 7HH. 8 9HH H 1Ø 11HH. 12 13HH. 14 15 .HHH H 16 QUADRANTS
FOUR CHARACTERS	DOUBLESIZE

the program listed uses the PI\$ as a basis for defining the four characters needed for double size letters.

Statements 110 and 120 result in a 16-element array (Z-string) containing information for making PI\$s for the double size letter. Remember, each quadrant now becomes a standard size character.

Statement 130 sets up the screen to display the double size letters. The CALL COLOR changes character group 12 to black foreground and grey background; CALL CHAR changes character 123 to a blank; and the CALL HCAR in the FOR/NEXT loop uses this blank to put a 4x4 square of grey in the center of the screen.

Statement 140 gets the letter to be made double sized. The IF-THEN-ELSE statement routes the program through CALL KEY until a key is pressed. Then CHARPAT fetches the PI\$ for that character, and puts it into B-string.

Statements 150-180 livide the PI\$ among the quadrants for use in subroutine 200. Statement 150 identifies PI\$ positions 1, 3, 5, and 7 as controlling left blocks, rows 1-4. Statement 160 identifies 2, 4, 6, and 8, right block, rows 1-4; statement 170, 9, 11, 13, and 15, left block. rows 5-8; statement 180, 10,12,14, and 16, right block, rows 5-8.

PAGE 4

By arrainging PI\$ positions so they are in their respective quadrants and each is shown relative to the character grid block it controls, we can see approximately what the computer is doing.

On successive iterations through subroutine 200, SEG\$ and POS functions and the LET statement build a 64-character P!\$ from the original 10-character P!\$. Variable I identifies a position from the original P!\$, B\$. SEG\$ assigns to C\$ the hex number stored in that position, and PUS assigns to P the decimal value of that hex number. (As used here, POS is a 1-digit hex to decimal converter.) Finally, P is used to designate which element of the Z\$ array is to be concatenated with L1\$.

Statements 210 and 220 display the double size letter. In XB, the CALL CHAR subprogram will define up to four characters if the pattern identifier is sufficiently long (read pages 55-58 in the XB user's manual). The DISPLAY AT statements place the four, newly defined characters in the correct quadrant positions.

All the ingrediants are in this program. Just adapt them to title your programs with BIG LETTERS.

*** BYE NEWT ***

```
SIZE BY NEWT ARMSTRONG (C)1986 HOME
BREW COMPUTING
118 DATA 8888,8383,8080,878F,3838,3333,3030,3F3F,0808,0303,0000,070F
FØFØ, F3F3, FCFC, FFFF
120 DIM Z$(16):: FOR Z=1 TO 16 :
: READ Z$(Z):: NEXT Z
130 CALL CLEAR :: CALL COLOR (12, 2, 15)
:: CALL CHAR(123, "Ø Ø"):
: FOR !=1 TO 4 :: CALL H CHAR(10+1
,14,123,4):: NEXT |
140 CALL KEY(0,K,S):
: IF S=0 THEN 140 ELSE CALL CHARPAT
(K,B$)
150 FOR I=1 TO 7 STEP 2 :: GOSUB 200 :
: NEXT I
160 FOR I=2 TO 8 STEP 2 :: GOSUB 200 :
: NEXT I
170 FOR I=9 TO LEN(B$)STEP 2 :
: GOSUB 200 :: NEXT 1
180 FOR I=10 TO LEN(B$)STEP 2 :
: GOSUB 200 :: NEXT I :: GOTO 210 190 REM SUBROUTINE
200 C$=SEG$(B$, I, 1):: P=POS ("0123456789ABCDEF", C$, 1):
 L1$=L1$&Z$(P):: RETURN
210 CALL CHAR(124,L1$):: DISPLAY AT
(12,13)SIZE(-2):"*&"
220 DISPLAY AT(13,13)SIZE(-2 )
:"^"&CHR$(127):: L1$="" :: GOTO 140
```

*Reprint from ROM MAR 86

- o Bill Chavanne on Multiplan and TI-Tax
- o Barry Traver on Programming
- o John McDevitt on new items from RAVE 99
- o Rodger Merritt on graphics and new items from Comprodine

The speaker sessions were well attended and received.

Many Thank You's
There are so many people and
organizations that helped make Fest West
91 successful that the list could go on
and on. A few, however, deserve special
mention:

- o The Riverside User Group (RUG), Southern California Computer Group (SCCG) and the Pomona User Group, all of California, helped some TI notables attend by partially defraying their expenses.
- All of the dealers who kindly contributed merchandise and discounts for the drawings.
- MICROpendium sent 100 catalogs for distribution to those present.
- O Southwest 99ers ran the registration process.
- o Southern California Computer Group provided a major assistance in running the consignment table.
- o Cris Van Allen created the giant Fest poster, made the vendor banners, designed the official Fest West 91 Tee Shirt, was our official photographer and much more.
- TM Direct, the new TI vendor, sent us catalogs and items for the drawings.
- o Special thanks also to Gloria Anders, Stan Corbin, George Dearmin, Eugene Gibson, Daniel Hatheway, Steve Luest, Howard McDonald, Erwin Metz, Bill Mooney, Earl Raguse, Janice Shafer, Shirley Swedlow, and everyone else who helped out.

FEST WEST 91 Committee
A .ecap of Fest West 91 cannot be
complete without mention of the
Organizing Committee who spent a year
bringing this event from concept to
reality.

o Siles Bazerman coordinated the Speakers and the Friday night get together.

- o Gene Bohot took care of promos, printing and keeping us on track.
- o Bill Harms was in charge of user group relations, the tenth anniversary celebration and running the front table.
- Bill Nelson hosted uncounted meetings coordinated with the hotel, and made the outstanding graphics.
- o Jerry Rash served as treasurer and found volunteers and loaner systems.
- Jim Swedlow coordinated with vendors, served as secretary and announced all of the drawings.

Truly, Fest West 91 lived up to its slogan as the HAPPIEST FEST ON EARTH!

Enjoy

BASICALLY BASIC*

Double sized letters can be defined in TI, plain vanilla, console basic --- but it takes a lot of hard work. You have to find how to make the letters, (read pages II-76, -79 in the User's Guide for starters) and redefine each one into four characters. (Space requirements expand geometrically.) For instance:

PI\$ (pattern identifier) for B is #0078242438242478*. To represent the letter, pixels in the 64-dot character matrix are turned on (H) and off (.) as shown below.

To make the letter double size, the 8x8 matrix is divided into quadrants.

And each quadrant is redefined into a full sized character. Notice that for every pixel that was turned on in the quadrant, four are turned on in the character.

Then, the charcters are placed in the proper order on the screen with a PRINT, CALL HCHAR, or CALL VCHAR statement.

And you have to do this for each letter you want to use; a lot of pencil work.

But in XB, using sprites with CALL MAGNIFY(2) and the proper ASCII code, you can get double sized letters -- no problem, unless you want to use five or more on the same line. Then the higher numbered sprites disappear. Hence, back to the designing table.

However, XB also has the subprogram CHARPAT which returns the pattern identifier as a string variable. And