

## - Luman Turbo Basic: The Key By Eb Foerster

The Kaiwa Music Midi Story: Not a lota dough for the note By Jeff Golden

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## Newsletter Submissions

Submissions are welcome in any form. It is requested of any 8 -bit user that she upload articles to the club BBS or furnish a disk or hard copy to the editor.

Meeting Information<br>10:00-11:00 8-bit SIG<br>11:00-11:30 .....Disk Sales<br>11:30-12:00 .....Main Meeting<br>12:08-12:30 .....New users SIG<br>............................Newsletter Exchange SIG<br>12:30-2:00........ST SIG

## Infomart Directions

From North Dallas, take either Stemmons (1-35E) or the Dallas North Tollway south. From Stemmons, take the Oak Lawn exit, turn east, and park at the Infomart. If you are using the tollway, exit right on Wycliff, go left on Harry Hines Blvd. to Oak lawn, and turn right. From the south, take Stemmons north, then fallow above directions. Infomart is the big, white, steel and glass building south of the other 'marts. GUESTS ARE WELCOME!!

## Minute Man

by Sandra Hanna
(for Harold Lewis)
Sandra Hanna read the miruites for the August meeting from the club newsletter for August. Rene Tucker gave the report on expenser. John Saunders announced meeting changes for the November and December dates as November 10 and December B. Jay Wimmers reported that the BBS seemed to be going well. Bill Hanna mentioned problems with Daisy Dot II club disk-no documentation. John said he would get Bill the missing information. Jim called the meeting to order and introduced Mike Riordan, the interim president and Paula Riordan, the interim secretary as well as Jim the newsletter editor, and Rich Knott, their resident 'answer man'. Mike told the Dal-Ace membership that he had the OK from the ALNT membership to go ahead with anything Dal-Ace saw fit. Sandra Hanna, our newsletter editor complained of the lack of submissions compared to th abundance of 'feed back' on the BBS. Jeff Golden said he had submitted one. Jay and Sandra decided that his article may have gotten inadvertently 'swept' while getting rid of
'old' articles. Jeff said he would resubmit.

There was a vote taken to have an auction at our Dctober meet-to complement ALNT's auction. Ronking told the membrship that. Startext Home Banking was ending. NCNB will do it. for $\$ 4.95$ a month.

8-bit Sig

## September

Marc Salas called the meeting to order and asked for any comments from the membership. Jeff Golden said that the Antic Magazine problem continues. He called the circulation department and was told that the mag was "skipping an issue." Doesn't look good.

Target has quit selling Commodore machines-from Debbie Wimmers.

Marc mentioned that Software ETc. had 8-bit consignment items. Then turned the meeting over to our MC for the Day, Jeff Golden who opened the Kawai demonstration with, "This is your favorite MIDI station, wonderful KDAL-ACE coming to you from the top of the Infomart in Big D, Texas!" His review follows these articles, so we won't print the information twice. Jeff was using a 1 -meg ST and double sided drives- -720 disks. Two disk drives are preferable. Software was "Editracks" and "Ezyscore". Jeff said custom sounds could be created with "GenEdit."

October: Oil's Well demo, a multi-level oil search game.

KAWAI K1 II Synthesizer Review by Jeff Golden

Before you rush out and buy one of those $\$ 300$ Casios or Yamahas, I think you owe it to yourself to take a hard look at the K1. For a discounted \$699, the K1 offers a comprehensive list of features that you might not find, even on a instrument that costs more than $\$ 2000$.

If you have a child, or if you yourself, are just getting started, then the K1 is an affordable beginner's instrument that will not become obsolete once the learning phase is over. The K1 is a professional instrument.

Even after acquiring more expensive equipment, a professional can be expected to retain the K1 as a supplementary source of sound. While most synthesizers can emulate hundreds of instruments, many of the synthesizers in the $\$ 2000$ class, can only play one instrument at a time. With the addition of a MIDI sequencer, the K1 has the capability of playing up to eight instruments at the same time, a welcome addition to a one man band. The K1 is an orchestra by itself.

The K1 comes with a 5 octave keyboard. The full-size keys are an important advantage over
the $\$ 300$ mini keyboards. In addition the keys have after-touch and velocity sensing mechanisms, that allow you to put some feeling into your music, and serve to eliminate one of the major complaints about electronic music, the mechanical sound. These features are often lacking on even the $\$ 2000$ keyboards and place the K1 in the same class as the better electronic pianos.

The 64 internal factory patches, called "Single Patches", include emulations of many different individual instruments and several emulations of groups of instruments, such as orchestral and brass sections. A memory card can be installed to provide 64 additional single patches, bringing the total sounds available at any given time to 128. The memory cards can be swapped in and out to give you an unlimited number of additional sounds.

Blank cards provide a place where you can store the patches you program yourself, or they can also be used to backup the internal factory sounds. Since the synth is completely programmable, you can replace, alter and tweak the factory sounds to suit yourself. It should be possible to emulate
almost any sound that you want, including sounds that have never been heard before.

In addition to the 128
Single Patches, the instrument provides for 32 "Multi Patches", (64 with a memory card installed). Multi Patches are programmable combinations of up to eight of the single patches.

The single patches within a multi patch can be assigned to the left or right speakers, or both. They can be assigned a receiving MIDI channel, allowing you to control each of the eight possible instrument sounds that can be played at the same time, on eight separate channels. They can be assigned a split section of the keyboard. The keyboard can be split eight ways, and at any key. It is even possible to play two different instruments using the same keys with the split controlled by velocity or after touch.

In addition, (you can grow tired of hearing "in addition" because the list of features goes on and on), the K1 has a complete drum section of 32 percussion sounds. The drums are controlled by a separate MIDI channel, giving you a total of mine chanmels that the instrument is capable of receiving at the same time. With a

MIDI sequencer, the drum feature can be used to replace a drum machine. Some of the miscellaneaus features are: a mod wheel, a pitch bend wheel, a volume slider, a stereo headphone jack for those late night practice sessions, a eustain pedal jack, and an analog joystick which is very useful when programming your own patches.

You can connect the K1 to your home stereo system, or to one or two standard keyboard amplifiers. If the left speaker jack is not connected, then both speaker outputs are channeled through the right jack, so you can get along quite nicely with only a single amplifier.

The K1 is available from Murphy's Music, Route 183 at Beltline, next to the Target, in Irving. I strongly recommend this dealer because of the very personal and patient service they have provided, the low-key salesmanship, the willingness to answer questions and demo the products, and for their fair prices.

Books have been written describing the features of the K1, and if I do not stop writing soon, that is what this review will turn into. Let me wind it up by
saying that, even though my musical abilities are very limited, I am throughly delighted with my K1, and I find the time almrst every day to turn it on for a few moments of relaxation.

## THE CONTINUING SAGA OF SAM SHOVEL by I. wont Admitiwrotethis

To bring those of you up to date, who may have missed the meeting, we are reprinting the original story about our hero Sam, who was first introduced during a demo of the K1 synthesizer. If any of you has had any further contact with our hero Sam, please feel free to add your version of Sam's exploits to this continuing Saga, (complete with sound effects of course).

It was a dark and foreboding night, SSSSSSSTBOOMBAMZAP, when we first met up with our hero Sam as he crept noiselessly, TROMP TROMP TROMP TROMP, along the streets of the warehouse district. Sam Shovel's regular job, you see, is to rid our streets of the filth that plagues them, particularly after a passing parade. OM-PAH OM-PAH OM-PAH SPLAT. It's a dirty job, but somebody has to do it. However, on this dismal
night, Sam is on a special assignment, and he is after a far more dangerous menace.

With the rain dripping from the brim of his hat, SPLISH SPLASH GLRGLE, Sam hunkers down in his trench coat. Actually he is being weighted down by his best friend Betsy, who snuggles close to his left side, hidden from view under the trench coat. Betsy, you see, is a massive .44-cal. Magnum, with a six inch barrel, and a 13 shot cylinder.

As Sam glides noiselessly along the alleyway, TROMP TROMP, one can see that he is scared, very scared. To reassure himself, Sam slips his hand inside the trench coat and pats Betsy on the butt, PAT PAT, BLAMMMM, Duch!. Nevermind, Sam continues to slip along the alleyway, TROMP SCRAPE TROMP SCRAPE, leaving a crimson trail behind him.

SSSSSSTBOOMBAMZAP, What was that? In the momentary flash of lightning, Sam spots a furtive figure dashing across the street and dissappearing into the shadows under the eaves of the building on the other side.
SSSSSSTBCOMBAMZAP, Sam spots another figure dashing across the street. Could it be, yes it is, Sam has found the hardened criminals he is looking for. Betsy leaps instantly into his outstretched hand, and Sam, forgetting how heavy
she is, falls flat on his face. POW BLAM BOOM BANG CLICK POW BLAM BOOM BANG PDN BLAM.

Even before the smoke clears and the mighty voice of the .44 stops echoing through the streets, the police are on their way. WHIRRRRRRRRRWH-IIRRRFWHIRRR TROMPETYTROMP TROMP TROMP TROMP.
"Howdy Chief, boy I am sure glad to see you folks. It has been a long and very difficult night, but I'm happy to report that me and Betsy here, PAT PAT, BLAMMM, Ouch! Oh, er, sorry about that Chief. Here's a used hanky, it will help to stem the flow. As I was saying chief, Betsy and I have accomplished our mission. Those outlaws in the warehouse district will never J-walk again...".

Stay tuned for the continuing episodes in the life and times of Sam Shovel. TROMP SCRAFE TROMP SCRAPE CLICK.

# Turbo BASIC III <br> An 8-bit tutorial by Eb Foerster 

This month, we will start examining some of the individual commands of Turbo Basic. We will try to present some ideas on how to use the commands along with some illustrative examples.

The documentation describes the "TEXT $\mathrm{x}, \mathrm{y}, \mathrm{a} \$$ " command as "bit-blocks text in a\$ at $x, y$ ". What does that mean? In plain English, this means that you can print text to a graphics screen. If you look real close at the characters on one of the text mode screens, you will notice that each character consists of an 8*8 block of dots. Actually, most characters are limited to a block of 6*6 dots since the outer layer of dots are left blank to allow for space between characters. These dots are transferred to the screen with each dot being displayed as one pixel of the current graphics mode. Try this to print a sample in each of the graphics modes:

## 10 COLOR 1

20 FOR A=3 TO 15:IF A=9 THEN A=14
30 GRAPHICS A:PRINT "GRAPHICS '";A
40 TEXT 0,0,''1234567890'"
50 GET KEY:REM MUST PRESS ANY KEY TO CONTINUE
60 NEXT A

The results are summarized in the following table:

| GRAPHICS | ..CHARACTER |
| :---: | :---: |
| 3......... | Quadruple GR. 2 characters |
| 4. | Double GR. 2 characters |
| 5. | Double GR. 2 characters |
| 6......... | GR. 2 characters |
| 7......... | GR. 2 characters |
| 8.......... | GR. 0 characters |
| 14......... | GR. 1 characters |
| 15......... | GR. 1 characters |

The text command may be used with text modes but are not very useful because the 8 times normal size of each character limits the information that can be displayed. In graphics mode 0 you are limited to two lines of five characters each. Here is an example:

```
100 CLS
110 DIM A$(5),B$(5)
120 A$=''TURBO''
130 B$=''BASIC''
140 FOR A=1 TO 5
150 COLOR ASC(A$(A))
160 TEXT (A-1)*8,(A-1)*1,A$(A,A)
170 COLOR ASC(B$(A))
180 TEXT (A-1)*8,10+(A-1)*1,B$(A,A)
190 NEXT A
```


## 200 GOTO 200

Notice that letters may be offset vertically from each other as they are in the display from the above program. Furthermore, in the text modes, the color statement defines the character that will be used for plotting each pixel. In the example above, the color is set to the ASCII value of each character before the TEXT command is issued for that character. Thus each character will be displayed as a set of pixels composed of its own character.

The full power of the TEXT statement becomes evident with the graphics modes. In games for example, it is easy to display prompts and scores in the middle of graphics. Normally, this is accomplished by changing the display list and inserting a text mode line into the graphics screen. Here is an example in Graphics 7 mode:

100 DIM A(2,2),P\$(1)
110 DO
120 GRAPHICS 23:COLOR 1
130 RESTORE :FOR A=1 TO 4:READ B,C,D,B
140 PLOT B,C:DRAWTO D,E
150 NEXT A
160 DATA $75,24,75,57,86,24,86,57,64,35$, 97, $35,64,46,97,46$
170 FOR $X=0$ TO 2:FOR Y $=0$ TO 2:A(X,Y) $=0$ : NEXT Y:NEXT X
$180 \mathrm{X}=1: \mathrm{Y}=1: \mathrm{X1}=1: \mathrm{X1}=1$
190 PLY $=0:$ CHR $=88$
200 EXBC CURSOR
210 TEXT 20,5,' NEXT TURN: "
220 TEXT 5,80,'START: NEW GAME"
230 DO
240 T=STRIG(PLY):S=STICK(PLY)
$250 \mathrm{X}=\mathrm{X}+(\mathrm{S}=7)^{*}(\mathrm{X}<2)-(\mathrm{S}=11)^{*}(\mathrm{X}>0)$
$260 \mathrm{Y}=\mathrm{Y}+(\mathrm{S}=13) *(\mathrm{Y}<2)-(\mathrm{S}=14) *(\mathrm{Y}>0)$
270 IF X $\varsigma X 1$ OR Y $\triangle$ Y1 THEN EXEC
CURSOR:X1=X:Y1=Y
280 IF NOT T AND NOT A(X,Y)
290 A(X,Y) $=1$
300 TEXT $66+\mathrm{X}^{*} 11,26+\mathrm{Y}^{*} 11, \mathrm{CHR} \$(\mathrm{CHR})$
310 IF PLY $=0:$ PLY $=1:$ CHR $=79:$ ELSE $: P L Y=0$ : CHR=88:ENDIF
320 ENDIF
330 TEXT 110,5,CHR\$(CHR)
340 IF PEEK(53279)=6 THEN EXIT
350 LOOP
360 LOOP
370 PROC CURSOR
380 X2=65+11*X1:Y2=25+11*Y1:COLOR 0: EXEC DRAW
390 X2=65+11*X:Y2=25+11*Y:COLOR 1: EXEC DRAW

10 CONSOLE=53279
20 START=6: SELECT=5: OPTION=3
$30 \mathrm{KEY}=\mathrm{PEEK}(\mathrm{CONSOLE})$
40 IF KEY=START THEN GOTO 1000
Looking through the Keyhole,
I know which program you would like others to write; but you can do yourself a favor if you use the same procedure in your own programs. The extra time it takes to write clear code or add a few REMark statements is time well spent.

Turbo BASIC has a couple of features that I would encourage you to use because they enhance the ability to decipher programs. Use a named procedure whenever possible. For example, the command EXEC INITIALIZE is much easier to decipher than a nondescript GOSUB 10000. You immediately know what the named PROCedure does and if you want to examine its code. However, the GOSUB code will have to be examined unless a REM statement was included indicating the purpose of the GOSUB statement.

The line indent option for listing program lines is a neat printer to compressed mode ( 138 characters/line) and list your program to the printer - LIST '"P:'. In compressed mode, even those lines that occupy three physical lines on the TV monitor will appear as a single line on the printed listing. You can now see the structure of a program quite easily as the contents of PROCedures, loops, and IF-ELSE-ENDIF statements are indented from the remainder of the code. If for example, you leave out one ENDIF in multiple nested IP-ELSE-ENDIF statements, the error will become quite obvious just by looking at the listing.

## Programming tip: Logical expressions.

Look at lines 250 and 260 of the Tic-Tac-Toe listing above. You will find terms such as ( $\mathrm{S}=7$ ) and ( $\mathrm{X}<2$ ). These expressions are called logical expressions because the term within the parentheses evaluates to either a true or false value. In Atari BASIC, the true expression receives a value of 1 and the false expression receives a value of 0 . Expressions containing logical expressions can sometimes replace several IF statements. Line 250 for example, increments the value of $X$ if the joystick is pushed to the right $(S=7)$ and if the current value of $X$ is less than 2 $(X<2)$ and similarly decrements $X$ if the joystick is pushed to the left $(X=11)$ and $X$ is greater than $0 \notin(X>0)$. This produces compact code but also goes against the advice I gave above for writing clear code.

Well, it's time to close and leave you with another problem. In the listing for the Tic-Tac-Toe game, the variable PLY is toggled between 0 and 1 and the variable CHR is toggled between 79 and 88 in line 310 . Find a way to perform this toggle by replacing the IF statement with an arithmetic expression.
by Sandra Higgins Hanna
The Dal-Ace/AUNT issue has brought forth much club interaction that I have found interesting, and thought-provoking. My quick read through some of the bases on the BBS has shown me that some of you out there are darn near poets! Some of us others, well, we get down to business pretty quick, not mincing nice phrases. Just the same, no matter which camp you fall into, the issue of what to do with the two clubs and how to do it has stirred many of you to heights and depths, I have not witnessed before.

The majority of the comments that I scanned, seemed to call for caution, conservatism, and compassion. The middle-road, middle-earth stance. There were some who were still bleeding from past wounds. Many of the comments were questions about why the animosity between the Clubs.

The history of Aunt, according to
what I surveyed was this, omitting names, of course: A past president of Dal-Ace became upset when the board voted to install a BBS (at extreme cost in those old days of $\$ 400$ modems) and left, taking many members (ST-users) with him. Thus the birth of AUNT.

My question is this: Should we punish the sons and daughters for the crimes (?) of the father? Especially since the father is AUNT-history now. Having met several of the AUNT members, and officers, they seem like a pretty fair bunch to me. For now, let's keep the dialog going, lets party and get to know these guys and gals from AUNT and watch as things develop. Let's all show AUNT-ies the courtesy they have so far shown us, exchange ideas and information. Us Atarians are all in this thing together. We must support each other ink our quest for knowledge and fun. We know we are on the ritht track, or we would have other machines, right! Right. So continue to keep them comments coming. I'll be looking, maybe even commenting, sometimes. I would like several of you (you know how low the door knobs are!) to write an essay on the issue, your thoughts--moderately and courtesly put--for the newsletter.


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