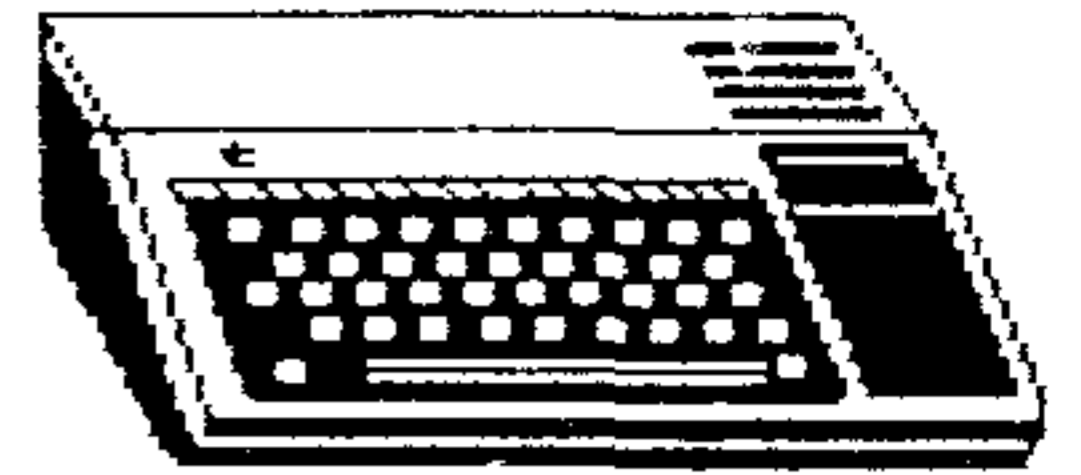


CENTRAL OHIO

Spirit of 99



NINETY-NINERS INC.

THE OFFICIAL NEWSLETTER OF THE CENTRAL OHIO NINETY-NINERS INC.

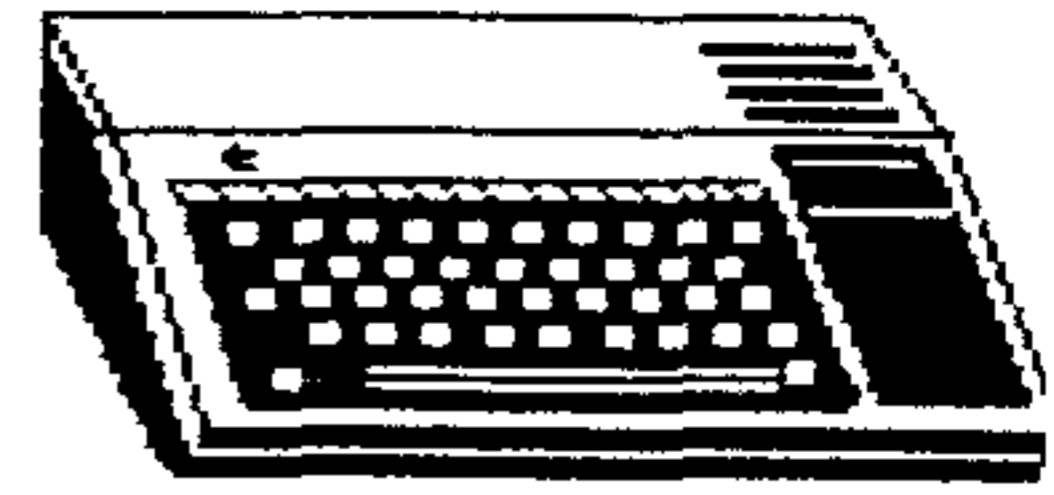
PUBLISHED MONTHLY IN COLUMBUS OHIO



HAPPY ST. PATRICK'S DAY

Spirit of 99

THE OFFICIAL NEWSLETTER OF CENTRAL OHIO NINETY NINERS



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Editorial, advertising and subscription address is:
 181 HEISCHMAN AVE
 WORTHINGTON, OH 43085

Subscription rate (USA) \$30.00 /1 year for newsletter and Disk of the Month: \$15.00/1 year, newsletter only. Third class postage paid at Columbus, Ohio.

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Central Ohio Ninety Niners Inc. is a non profit organization comprised of MEMBERS who own or use the TI99/4A computer and it's related products and have paid a yearly membership fee of \$28.00 and whose main objective is the exchange of Educational and Scientific information for the purpose of computer literacy.

C.O.N.N.I. meetings are held the 3rd Saturday of each month at Chemical Abstracts, 2540 Olentangy River Road Columbus, OH. Meeting time is 8:30 AM til 2:30PM. Meetings are open to the public. Membership dues (\$28.00) are payable yearly to C.O.N.N.I. and cover the immed-

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 Business Card(2x3.5): \$5.00/issue
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 Write this newsletter for other size arrangements.

All ads should be submitted (camera ready) to advertising address above, payment enclosed. Members ads are published at no cost. (Limit of 25 words and must not be commercial please.)

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NEW MEMBERS

Thomas P. Lehre
 S. Affias



DUES ARE DUE!

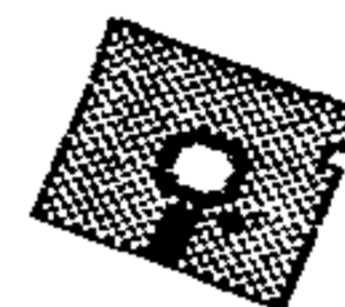
DUES ANNOUNCEMENT

Dues are usually paid at or before the March meeting, and are \$28 per year for full membership, library and voting privileges, plus the newsletter. You may also pay your dues in two installments if desired: \$14 in March and \$14 in September. If only the newsletter is desired, then payment is \$15 per year. Those who join during other months of the year pay a lesser, pro-rated amount:

MAR---28.00	APR---25.75	MAY---23.50	JUN---21.00	JUL---18.75
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Keep up to date on the latest news from
the TI-99/4A world with a subscription to
the Spirit of 99 Newsletter AND get an
up-to-date collection of new public domain
and shareware programs with the Disk of
the Month--both brought to you by the
Central Ohio Ninety-Niners, Inc.
No newsletter published in August.
January newsletter is an index of all
articles published during the previous year.
10-SSSD "flippy" DOM's published annually.
At times, two diskettes depending on
availability of new material.

DOM is mailed about the middle of the month.

SUBSCRIPTION RATES

Newsletter only---\$15/yr. (Continental U.S.)
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 and Union Counties, Ohio)
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membership

CONTACT

HARLEY RYAN, Membership
Central Ohio Ninety-Niners, Inc
4178 Chandler Dr, Whitehall, OH 43213
(614) 231-1497

C. O. M. N. I. MINUTES

SATURDAY 18 JAN. 1992

President Chuck Grimes conducted the business meeting. In the absence of the treasurer, Dick Beery gave the treasurer's report. He also discussed arrangements to have the Saturday meetings in October and November at the Martin Janis Senior Center (Chemical Abstract will not be available due to football parking).

Jim Peterson discussed the necessity of insuring that our group remains a leader among the dwindling number of user groups, and the importance of promoting the Clearing House. He has already uploaded several hundred sectors of his own articles and many more from the English and Swedish groups, and has promoted the DOM and the Clearing House in a mailing to 150 user groups. Dick Beery reported that he had sent an announcement concerning the Clearing House to MICROpendium. Jean Hall agreed to check her disk files for articles that could be uploaded. Bob DeVilbiss suggested articles in the newsletter describing new uploads. Ken Marshall suggested a promotion in the DOM.

Harry Ryan brought up the need to revise the DOM promotion in the newsletter, to clarify the number of newsletters and disks that will be received annually. Dick Beery suggested further clarifications.

Chuck Grimes described the contents of the DOM. Jim Peterson described some new programs uploaded to the BBS, and Dick Beery discussed GIF files being added to the disk library.

Dick Beery introduced a visitor, Jim Hayes, who was present with his children, and suggested having a system with cartridges set up at meetings to entertain children.

Chuck Grimes and Dick Beery mentioned offers of equipment for sale being received from various users. Mike Ballman announced that he is leaving us again to return to Florida. SYSOP Irwin Hott described the recent improvements to the BBS. Chuck Grimes announced that current membership is 94, of whom 50 are out-of-town subscribers to the newsletter and DOM.

Dick Beery asked for nominations for officers. Chuck Grimes nominated John Parkins for president and Harold Timmons for vice president.

It was decided that next month's demonstrations will be on programs to create music, the March meeting will be devoted to graphics, and the April meeting to bulletin boards.

After the business meeting, Jean Hall demonstrated the Harrison Word Processor.

Respectfully submitted by co-secretary Jim Peterson

Saturday 15 Feb. 1992

President Chuck Grimes conducted the business meeting. Dick Beery presented the Treasurer's report in the absence of the Treasurer who is on vacation, and read a letter from him. Newsletter Editor Robert DeVilbiss announced an increase in the price of printing the newsletter. Chuck and others read letters which have been received. Chuck described the contents of the Disk of the Month, and Harley Ryan received a round of applause for keying in numerous programs from MICROpendium. Chuck announced that the March meeting will be devoted to graphics programs, and the April program will feature BBS's.

Dick Beery conducted the election. John Parkins was nominated for president and Chuck Grimes for vice-president. Jim Peterson was nominated for secretary of Saturday meetings and Dick Beery for secretary of Wednesday evening meetings. Everett Wade was nominated for treasurer and Chuck Grimes was nominated for librarian. There being no other nominations, the candidates were elected by acclamation.

Following the business meeting, Chuck Grimes and Dick Beery demonstrated music programs written from the early days to the present, including music in Basic and in assembly, music for the FORTI card and MIDI music. Jim Peterson demonstrated methods of easily creating music.

Respectfully submitted - co-secretary Jim Peterson

C.O.N.N.I. CALENDAR

March 1992

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	ASH WEDNESDAY	5	6	7
8	9	10	11	12	13	14
15	16	ST. PAT'S DAY	18	19	20	CONN MEETING
22	23	24	CONN MEETING	26	27	28
29	30	31				

SATURDAY MEETING 21 MAR 1992
Chemical Abstracts Building -- Columbus

8:30AM Setup, coffee, and doughnuts

9:00AM Disk of Month,
MICROpendium,
Beginners help,
Libraries open

9:30AM Question and
Answer Period

10:30AM Business
Meeting

11:15AM Demos:
GRAPHICS:
Each person
to bring
graphics to
demonstrate

1:30PM Tear down
and go home

WEDNESDAY MEETING -- 25 MAR 1992
McDONALD'S -- Cleveland and Main -- Westerville

7:30PM MEETING TIME

Demos:
GRAPHICS:



FROM THE PRESIDENT

JOHN PARKINS

To past President Chuck Grimes, Vice President, Bill Sheppard, both of our Secretaries, Jim Peterson Dick Beery (Saturday & Wednesday meetings respectively), the members of the nominating committee, and the entire membership of our C.O.N.N.I. Group, I wish to convey my sincere thanks and gratitude for expressing their confidence in me as their new President for the coming year ahead. It is a tremendous honor to have bestowed upon any person. Many thanks to all for the opportunity to serve you in this capacity.

In the past years I have enjoyed the positions of Secretary and Membership Chairperson. I will attempt to do my best in all of my endeavors to serve you well during this term in office. This I feel confident in saying, as I know that I will have the support of a superb team of all officers and appointed officials with which to work.

I can still remember when I joined this group in early March, 1982, when the total membership listed at 389 members, if my memory serves me correctly. I have seen many things change since that time when we had nothing more than a cassette recorder with which to work. The list of new devices that have extended the life of our 99/4A seems never to end. It has certainly been an amazing life for an abandoned instrument.

By continued working together we cannot and will not let this club and its membership gather dust and atrophy from lack of support. From the proven determination of our membership, I know that we will continue to survive and prosper in the years ahead as we have done so well in the past. It takes only a little bit of teamwork and effort to overcome anything involved, and we will survive.

As we continue this term together, may I call upon each or any one of you to lend a helping hand in some special project or other subject of interest that we might pursue?

When one looks back and remembers all of the amazing encounters that this machine has been taken through with the help of not only our country, but, as a matter of fact, the rest of the world, including Australia, Germany, and Canada, it only proves what can be accomplished if there is a concerted effort applied towards a goal. After all, whether one calls it a goal or a vision, if there hadn't been world contributions for it's advancement, there would not have been any more good things coming in the life of this computer.

Thank you for giving me this opportunity.

WHO'S OBSOLETE NOW?

An essay by Chris Bobbitt

The concept of obsolescence in computers is in itself controversial - by some definitions every computer in production is obsolete the moment it is introduced. To most people a computer is obsolete the moment it's discontinued or the manufacturer or its competitors introduce more capable models. However, in technical terms the only difference between computers produced in 1975 and 1991 is speed and memory.

Speed is surprisingly a highly relative concept - even the fastest computer in the world does nothing while waiting for the user to push a button. The speed a computer actually processes information is often more dependent on the efficiency of its software than the base speed for the electronics. Virtually all computer software today, even operating systems, is written in relatively inefficient and slow high-level languages. The inherent inefficiency of this drives computer manufacturers to continually increase the speed and memory of each succeeding generation. As the amount of memory and basic speed of each generation is increased, the pressure on software designers to produce small and quick code is correspondingly reduced.

Hence we have a continual cycle where new machines are designed to run the software of today faster, and soon have to be replaced to run the software of tomorrow, which functionally does little that couldn't be done with the previous generation of software.

This perverse equation encourages software manufacturers to constantly increase the complexity of their software.

The last major revision of WordPerfect, for instance, added hundreds of features, of which the majority were only of interest to a tiny handful

of users. The average user of this software will simply note that the program is slower after upgrading and, funds permitting, will soon purchase a more powerful computer simply to do what he did with the previous version.

This continued cycle of "manufactured obsolescence" is currently the major source of income for many computer product manufacturers. This is distinguished from "planned obsolescence" in that the product itself doesn't cease to function (as a car or washing machine would) but instead becomes merely superseded by a new model.

Instead of computers becoming simpler to use, increasing their capacity seems to result in them becoming more difficult. Whole careers are now being built on learning and explaining the intricacies of a single computer program. If this trend continues, in the future people will collect salaries by becoming experts on the operation of a specific function of a program.

The needs of the average user have become irrelevant to the majority of computer manufacturers.

If you view "obsolescence" this way, the fact that the TI-99/4A was discontinued was probably the greatest thing that could have happened to it. Because the limitations of the machine are for the most part accepted by programmers and hardware designers are encouraged to find ways to work around the limitations and do more with less. The software for the TI-99/4A is for the most part hundreds of times more efficient than comparable software for other machines - both in terms of data storage and software implementation. For this reason, it still meets the needs of the vast majority of its users - both now and most likely into the near future.

"A true friend is one who thinks you're a good egg ever though you're slightly cracked."

Compiled by Jim Peterson

The Long Island UG newsletter for Jan. 1992 reproduces an ad for the ImageWise Serial Video System, in kit form, consisting of the digitizer/transmitter and the receiver/display. It is stated to capture an image in 1/60 of a second from monochrome or color video cameras, camcorders, VCRs, etc. According to the ad, with additional software it will digitize images for display on IBM PC, Apple Macintosh, Commodore Amiga, Atari ST and other popular computer systems. A handwritten note indicates that it is compatible with the TI-99/4A with 80 column card, or the Geneve 9640. The address is Micromint, Inc., 4 Park St., Vernon CT 06066, phone (203) 875-2751. Price is not mentioned.

The same newsletter contains ads for TI-99/4A software to be used with the ImageWise system. These include a \$9.95 disk (plus \$1.50 S&H) containing the programs GRAB, SHOW and CONVERT (for use with the TI-99/4A; no mention that an 80-column card is required); ImageWise Portrait Print (\$4.95 + \$1.50 S&H) to print a 17"x22" poster from a digitized file; ImageWise Display Routine (\$4.95 + \$1.50 S&H) for a TI-99/4A equipped with the Yamaha 9938 VDP, or the Geneve 9640; ImageWise pictures in two volumes; all available from R.F.W. Enterprises, 111 Oakridge Street, Chicopee MA 01020.

And, available from Joseph M. Syzdek, 99 Highland Ave., West Springfield MA 01089-1017 for \$14.95 plus \$1.50 S&H, is IWD Plus for the Geneve 9640 and ImageWise Video Digitizer, to capture digitized video data over the RS232 port and display the image on a monitor in 256x212 or 512x212 resolution. It can be saved to disk in ImageWise or MyArt format and provides some editing capability.

Harrison Software is now offering a 45-minute stereo cassette of their MIDI-Master music, containing the 20 pieces from Magdalena's Notebook by J.S. Bach and Bach's Italian Concerto. Except for the last, all were produced on a CASIO CT-650 keyboard using a TI-99/4A with MIDI-Master 99. The price is \$10 and the address is 5705 40th Place, Hyattsville MD 20781.

Harrison Software has announced that they are removing their assembly music disks from their software catalog, and placed them in the public domain. User groups may distribute them as they wish. They will also be available from Tiger-

Software, 156 Collingwood Ave., Columbus OH 43213 (\$1.50 per disk, plus \$1.50 shipping and handling if less than 8 disks are ordered).

I have a letter from Francisco T. Molina, a really isolated TI enthusiast in Argentina, who is trying to organize a local user group to be called T.I.G.R.E.S. de Argentina, which stands for Texas Instruments (99/4A) Grupo Recalcitrante y Empernado de Sobrevivientes, meaning "group of everlasting, recalcitrant survivors". He reports that his local mail service is quite unreliable but he has now found a friend in Virginia who apparently makes frequent trips to Argentina and can carry software to him.

For those who like "brain games", Asgard Software (P.O. Box 10306, Rockville MD 20849) has released TI PEI, a mahjonn game by William Reiss, and Classic Checkers by Chris Bobbitt. They load from disk and require XBasic and 32k; a Mouse is optional. The price of each is \$14.95 plus \$3 per order for S&H (\$3.50 in Canada).

Rave 99 (112 Rambling Rd, Vernon CT 06066) is offering a new kit form of its Speech Synthesizer Adapter, including all parts and instructions, for \$35 plus 5% S&H.

Paul Coleman (3971 S.E. Lincoln, Portland OR 97214), the author of Artist Printshop, has now released Artist Cardshop, a 2-disk package for \$20 plus \$1.50 S&H. This is an advanced all-assembly program to create greeting cards, using TI-Artist fonts and instances. It is also available at the same price from Comrodine (1949 Evergreen Ave., Fullerton CA 92635).

Don Shorock (P.O. Box 501, Great Bend KS 67530-0501), the author of Air Taxi, has now released Son of Air Taxi, using the same game format but with maps of Europe, Africa, South America, the West Indies, the Far East and Australia. The entire set is available for \$10.

As of 1 Feb., the Clearing House BBS (614) 263-3412 held 320 text articles in 7000 sectors archived, which would print out to a very large book of TI-related articles. More articles are being added continually. These files are available for download by any user group (or individual) who becomes an associate member of the Central Ohio Ninety-Niners.

PART 4

by Jim Peterson

The first three parts of this series were written and published some time ago, so I had better review.

In Part 1, I showed you this one-line routine to set up a musical scale.

```
100 DIM N(36):: F=110 :: FOR
  J=1 TO 36 :: N(J)=INT(F*1.0
59463094^(J-1)+.5):: NEXT J
:: N(0)=40000 ::GOTO 110
101 D,T,A,B,C,V1,V2,V3,J,X,V
102 CALL SOUND
103 !@P-
```

That sets up a scale of three octaves beginning with A. If you decide to change the music to a higher key, just change the 110 to 117, 123, 131, 139, 147, 156, 165, 175, 185, 196, 208 or 220. In fact, for some music you will have to change it, if the program crashes with a BAD VALUE error message.

If you have programmed the music with high notes, you can lower the key by changing 110 to 104, 98, 92, 87, 82, 78, 73, 69 or 65. Again, if you try to go too low you will get that BAD VALUE message.

I have given N(0) a value of 40000, which creates a tone too high to be heard. This can be used to silence a note, but it can also cause a crash when used with some of the following routines. If you are programming three voices and want to play a single note, the easiest way is to give all three notes the same number, such as A,B,C=10. If you need a silent rest, play all the notes at an inaudible volume by V1,V2,V3=30 and then, after the GOSUB, restore their original volume by V1=(whatever is in line 110) and the same for V2 and V3.

Lines 101-103 are a pre-scan routine to start the music playing sooner. There will still be a few seconds delay while that array is set up in line 100. You can perhaps shorten that delay slightly by changing the 36 to the highest note number you have used in programming your piece.

However, Bruce Harrison wrote for me an assembly link which eliminates any

delay; this also makes it possible to change key while the music is playing. I won't list the source code here, because everyone is afraid to key in source code anyway, but it is available on my TI-PD disk #1143 and will also be on a tutorial disk on this type of music programming.

Part 2 of this series contained a listing of a program to easily give you the numbers you would need in order to key in a particular piece of sheet music. If you don't have that, you can just take a piece a paper and list the scale A Bf B C C# D Ef etc., on through as many as you will need, and then number them consecutively. For the length of the notes, give the shortest note a value of 1 unless it also appears as a dotted note, in which case it must be 2, and then number the others according to their relative length - for example, 2 for a quarter note, 3 for a dotted quarter, 4 for a half note, 8 for a whole note.

Part 2 showed you how to key in single-note music, and Part 3 showed how to do 3-part harmony. To recap briefly -

First, save yourself a lot of work by identifying any groups of notes in the sheet music that are repeated two or more times. Mark them off wherever they appear. Key them in first, starting with line number 500; at the end, put RETURN. If you find another such series, label it 600 and do the same; you may find several such series. Just stay below line number 1000, which is reserved for mergeable routines. Then, while you are programming the music and come to such a series of notes, just put in GOSUB 500 or whatever.

Start keying in your music in line 120; line 110 is reserved for a line to be merged in. To key in the music, just give T the number for the length of the first note, and give A, B and C the numbers for the melody and first and second part harmony. Then GOSUB 1000. For instance, T=1 :: A=23 :: B=18 :: C=12 :: GOSUB 1000 .

And for each succeeding note, give a new value to whatever changes; if T is still 1 and B and C are still the same, all you need is, for instance, A=19 :: GOSUB 1000.

Merge in one of the following routines, put in a line 999 STOP, and after

NEXT PAGE

every several notes enter RUN and listen to what you have done so far, to catch any errors while it is still easier to find them.

You can merge in any of the following routines to create many different musical effects. The D in line 110 controls the tempo of the music; change it as you wish. V1, V2 and V3 are the volume (loudness) of the three voices; adjust them as you like.

Key this in and save it by SAVE DSK1.
.PLAY1, MERGE

```
110 D=500 :: V1=1 :: V2=5 ::  
V3=7  
CALL SOUND(D*T,N(A),V,N(B),V  
,N(C),V):: RETURN
```

That plays simple 3-part music, all at the same volume, which may sound rather harsh to your ears. Try changing the second V to V2 and the 3rd one to V3. Save that as PLAY2.

For a bass accompaniment in the 3rd voice, change that to
CALL SOUND(D*T,N(A),V1,N(B),
V2,N(C)*3.75,40,-4,V3)

For a bass melody with accompaniment, change the A to C, V1 to V3, C to A and V3 to V1.

For the melody in two voices two octaves apart, change the C back to A and the V3 back to V1. Are you beginning to see how many different effects can be created by making changes in just this one line? Save any ones you like in merge format with a different name for each.

Perhaps those bass notes sound too deep. Try changing the 3.75 in any of those routines to 7.5. Better yet, change it to X and add :: X=3.75 to line 110. Then you can switch back and forth in your music by simply X=7.5 or X=3.75. Getting interesting, no?

Music played in that way has a strong throbbing beat, so try this method -

```
110 D=4 :: V1=1 :: V2=5 :: V  
3=7  
1000 FOR J=1 TO T*D :: CALL  
SOUND(-4250,N(A),V1,N(B),V2,  
N(C),V3):: NEXT J :: RETURN
```

I'll be referring back to this one as the negative duration method. Again, you

can change the tempo by changing the value of D, but sometimes not as exactly as I would like. With this method, you will find that a series of the same note runs together into a single long note. To avoid this, use different harmony notes each time, or different volumes for V2 and V3.

There's no law that says the harmony has to be lower than the melody, so try changing N(B) to N(B)*2 or even N(B)*4 or do the same with N(C), or both. Or, use *X, add X=1 to line 110, and then in the middle of your music program you can switch by X=2 or X=4 (don't try 3!)

For a vibrato effect, we alternate a note with the same note multiplied by 1.01 -

```
1000 FOR J=1 TO T*D :: CALL  
SOUND(-4250,N(A),V1,N(B),V2,  
N(C),V3):: CALL SOUND(-4250,  
N(A)*1.01,V1,N(B),V2,N(C),V3  
):: NEXT J :: RETURN
```

For vibrato in the harmony rather than the melody, multiply N(C) or N(B), or both, by 1.01 instead - or multiply all three.

For a stronger vibrato, change the 1.01 to 1.02 or even 1.03. Of course, you can also multiply the harmony notes in both CALL SOUNDS by 2 or 4, as above. Or for a "chop" effect, multiply them in one CALL SOUND but not the other. The possibilities are almost endless!

For a tremolo, we alternate the volume rather than the frequency. Add X=3 to line 110 and use this routine -

```
1000 FOR J=1 TO T*D :: CALL  
SOUND(-4250,N(A),V1,N(B),V2,  
N(C),V3):: CALL SOUND(-4250,  
N(A),V1+X,N(B),V2,N(C),V3)::  
NEXT J :: RETURN
```

You can vary the value of X as much as you want (V3+X can't total more than 30) for any amount of tremolo from a flutter to a wobble or a stutter, and you can put the +X after V1 or V2 or all three. You can even change it in the middle of your music, by X= whatever you want.

And you can multiply any or all by 1.01 for different combinations of vibrato and tremolo.

NEXT PAGE

To enhance a note, play it twice in the CALL SOUND but multiply one of its voices by 1.01 -

```
110 D=4 :: V1=1 :: V2=5 :: V
3=7
1000 FOR J=1 TO T*D :: CALL
SOUND(-4250,N(A),V1,N(A)*1.0
1,V1,N(B),V2):: NEXT J :: RE
TURN
```

Of course, with this trick you can only have 2-part harmony, but you can choose to enhance the harmony rather than the melody.

Now, try combining the enhanced note with the vibrato and/or tremolo, for many more effects. For enriched vibrato, use N(A),V1,N(A)*1.01,V1 in the first CALL SOUND and N(A)*1.01,V1,N(A)*1.02,V1 in the second.

The bass notes do not go well with this method because interrupting them through a loop introduces a rattle, but the baritone works well and gives a unique reedy sound. To do this, place the note you want in the 3rd position, multiply it by 7.5, give it a volume of 30, and add the -4 noise at whatever volume you want. You can also combine this with other effects, for instance with vibrato

```
1000 FOR J=1 TO T*D :: CALL
SOUND(-4250,N(A),V1,N(B),V2,
N(C)*7.5,30,-4,V3)
1010 CALL SOUND(-4250,N(A)*1
.01,V1,N(B),V2,N(C)*7.5,30,-
4,V3):: NEXT J :: RETURN
```

Now for the real fun - the "piano" effects that we get by decreasing the volume gradually. This is the basic routine -

```
1000 FOR J=1 TO T*D :: CALL
SOUND(-4250,N(A),J+V1,N(B),J
+V2,N(C),J+V3):: NEXT J :: R
ETURN
```

Of course, with all of these you must also have that line 110 to define the duration and volume.

If you want a little more percussion in your piano, try this -

```
1000 FOR J=1 TO T*D :: CALL
SOUND(-4250,N(A),J*1.5,N(B),
J*1.5,N(C),J*1.5):: NEXT J :
: CALL SOUND(-4250,N(A),15,N
(B),15,N(C),15):: RETURN
```

And, of course, all those tricks we learned above - vibrato, tremolo, baritone, enhanced, high harmony, chop - can also be used with piano. This will give you the vibrato -

```
1000 FOR J=1 TO T*D :: CALL
SOUND(-4250,N(A),J+V1,N(B),J
+V2,N(C),J+V3):: CALL SOUND(
-4250,N(A)*1.01,J+V1,N(B),J+
V2,N(C),J+V3):: NEXT J :: RE
TURN
```

And an increasing tremolo -

```
1000 FOR J=1 TO T*D :: V=J*2
:: CALL SOUND(-4250,N(A),J,
N(B),J,N(C),J):: CALL SOUND(
-4250,N(A),V,N(B),V,N(C),V):
: NEXT J :: RETURN
```

And just one more, the "reverse piano" with an increasing volume -

```
1000 FOR J=T*D TO 1 STEP -1
:: CALL SOUND(-4250,N(A),J+V
1,N(B),J+V2,N(C),J+V3):: CAL
L SOUND(-4250,N(A),J+V1,N(B)
,J+V2,N(C),J+V3):: NEXT J ::
RETURN
```

By the time you get through exploring all the possible combinations of those, you should have a hundred ways of making music. Save each one you like, complete with line 110, in merge format, so you can try them all with each piece of music you create.

I had intended this to be the last part of this series, but I still haven't told you about autochording, so there will have to be one more.

END

WHAT A SHOCK!

by

Allan Cox

Several years ago I had a real head-scratcher trying to figure out what had happened to my computer equipment after a thunderstorm, and you will hardly believe it.

Lightning had hit my TV antennae, went thru the TV in the living room, where we found the plug burned, into the power wiring to the fusebox. It then went into the wiring to the den, then into the 6 outlet surge suppressor, then into the P-box. It then jumped the P-box switch, which was OFF, and then into the RS232 card. It then went to the printer, where it ruined one of the printer cards.

Thanks to my son, who is a skilled electronics technician, who checked my system, and found that the RS232 card and the printer card were the only thing damaged. He had a spare RS232 card that he gave me, and ordered the printer card, and later installed it for me. I was back in operation again. I sure did miss not being able to use my printer during that time.

Ever since this happened I have always unplugged the cord to my system when I am thru using it, and do not use it when there is any chance of rain. I learned that I could not depend on a suppressor or switch being OFF to protect my system. I consider myself lucky that nothing else was damaged. Wild, huh?

SAVING PAPER WHILE USING TI-WRITER

The March (1990) MICROpendium had a very useful tip from Marjorie Mountjoy, Columbia, MD. It has to do with preventing the TI-W Formatter from ejecting the paper at the end of the document. It has the big advantage of allowing one to print two or more short documents on the same sheet of paper. It also makes it easier to add a graphics file (picture) after your text. You can also automatically duplicate the same short text on the same sheet by telling the Formatter how many copies to make in response to one of its prompts. The procedure is as follows:

1. Start each document with CTRL-U, SHIFT-Q, CTRL-U. This selects the printer, enabling the printing of the document.
2. End each document with CTRL-U, SHILT-S, CTRL-U. This deselects the printer, thereby disabling the form feeds supplied by the Formatter. When you are done, your printer will be off-line. It can be brought back on by turning the power off and then on or by asking it to print CHR\$(17) (which tells the printer the same thing as the Special Character described above in Item 1).

We, at JUG, have tested this on several printers and have the following reservations. It works IF your printer accepts DC1 (ASCII 17) command to set printer on-line and DC3 (ASCII 19) command to set it off-line. The MX-80 (and probably the TI Impact Printer) will not recognize these two Device Control codes. However, it works fine for the Gemini 10 and Star NX-1000. One other observation is that the indicator light on the printer does not show that these commands were invoked. -Phil Nordstrand

PROGRAM LISTINGS:

REPRINTED FROM
THE HUGGER 10/91

Have you ever tried listing a Basic or XB program with the printer? It prints out in 80 columns. This saves paper but it doesn't look like the screen display. And if you want to publish a program, the 28 column format is the only way to go. But, I keep forgetting the printer commands for getting a 28-column listing so when I saw an article with the printer commands spelled out, I decided to put them in a short program and let the disk do the remembering for me. The printer has to be turned on first, then run this short program to set the printer, then load the program that you want to list (OLD DSKn.File_name). Then enter the standard command LIST "PIO".

Here is the program:

```
100 REM PROG-LSTER
110 OPEN #6:"PIO"
120 PRINT #6:CHR$(27);CHR$(
81);CHR$(28)
130 END
```

Line 120 may be different for some printers. Also, the last number, 28, could be changed to another value such as 40 if that is your preferred column width.

P.S.: I experimented first with trying to save a program to disk in a D/V28 file but the computer wouldn't "list" anything but a D/V80 file, even if I opened the file ahead of time as a D/V28 file. The command is: LIST "DSK1.File_name", and adding any file specifications resulted in a syntax error message.

-Phil Van Nordstrand, JSC Users Group

A QUIETER PE BOX:

Thanks to John F. Willforth

REPRINTED FROM
LA 99ers 10/91

One of the annoying things about the TI ,at least to me, is the sound of the fan in the PE box. There are several ways around this. One is to install a super quiet fan, but they cost about twenty bucks. There is a cheaper way as explained by John Wilforth . The following is taken from an article he wrote about modifying a PE box. The first step is to remove all the cards from the box. The PE box will be easier to handle if you also remove the disk drive(s). Next the case must be removed by removing 16 Phillips head screws from the sides and bottom of the PE box. With this done the fan is accessible. The object of this exercise is to reverse the direction of the fan, causing it to blow air in instead of sucking air out. To do this you must do two things: reverse the plastic fan blades (a very hard pull) and reverse the field of the motor. To accomplish the latter remove the two screws that hold the fan's main parts together. It would be smart to mark the parts so that you KNOW that you actually did turn the field 180 degrees. All other parts remain in the same position. Watch for the small washers on each end of the armature shaft and be sure not to lose any!

You may want to lubricate the two brass bushings on the fan while you have the PEB apart.



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SOME RECENT PRODUCTS REVIEWED

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DIGI-PORT-digital sound adaptor and player; a cable that plugs into your 4A or Geneve; lets you play 8 bit digitized sound from the IBM, MAC, AMIGA, ATARI ST, etc. Software is supplied with the PIO adaptor cable and 10 disks configured for your particular drive.
\$39.95 US dollars

OPA 432 Jarvis St, Suite 501-502
Toronto, Ontario, Canada M4Y 2H3

TIM (TI Image Maker)-80 column device, produces printout of GIF pictures \$179

OPA--see above and
Bud Mills Services 166 Dartmouth Drive
Toledo OH 43614-2911 \$39.95 US dollars

LinEditor-a text editing program for 4A and Geneve; allows loading and editing of a text file larger than can be fitted into the computer's memory. \$14.95 + \$3 s&h

Asgard Software PO Box 10306 Rockville MD 20849

Asgard Mouse Developers Package-extensively documented routines with source code for Assembly, c99, Fortran, XB programmers. Requires an Asgard Mouse. \$14.95 + \$3 s&h

Asgard-see above.

Thumbnails-organize, catalog and convert MacPaint pictures

Starbase Raiders-arcade style game

Gofer-a utility for use with Page Pro 99

Each is \$12.95 & \$3 s&h

Each is from Asgard-see above

Bride of Disk of Dinosaurs-TI Artist format \$12 & \$1 s&h

Fonts and Borders

Disk of Horrors

Each is by Ken Gilliland

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Tujunga CA 91042

Scud Buster-uses joystick

Code Breaker

Harrison Software 5705 40th Place
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Smart Connect-transfers files between TI and PC computers; automatically splits large PC files into increments small enough to be loaded into TI Writer. \$10 includes s&h

Harrison Software--see above

NEXT PAGE

Sound F/X-by Barry Boone-plays true digital sound through the 4A
or Geneve without additional equipment; disk comes with several
sound files \$14.95

Texaments 53 Center St. Patchogue NY 11772

Sound Bytes-disks with F/X Sound files; 2 SSSD each(sounds of
President Bush, cartoon characters, etc. 1 pkg \$2.95

Texaments--see above

The Organizer for TI Base by Bill Gaskill-an informative management
system, completely menu driven; is designed to work as part of TI
Base, but is also a good way to learn TIBase itself. \$14.95

Texaments--see above

DM1000 version 5.0-extensively revised by Jack Mathis of Southwest
99ers; has 10 major changes. \$2.00

Southwest Ninety Niners PO Box 17831
Tucson AZ 85730

(Donations should be sent to Ottawa Users Group)

Fairware Author-Ray Kazmer (famous for his Woodstock's Christmas)
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All above-Ray Kazmer 8614 Foothill Blvd Apt.#221
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Jerry Coffey 9119 Tetterton Ave.
Vienna VA 22182

Chainlink Solitaire-by Wayne Stith and Walt Howe \$12

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Note: Jerry Coffey is now the distributor for J P Software

Not responsible for prices as shown here. Check with vendor.

END

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If you want quality service and merchandise (we sell only the best) and every major brand under one roof the Ramcharged is the place for you. We carry many original TI games and educational items, A full line of Asgard Software, a full line of Texaments software, PC transfer, Identifile, a full line of Notung software (IE: TI Casino), 9640 NEWS software for the GENEVE and the list goes on. We also have fairware at a nominal duplication charge and a full line of hardware such as 3.5" and 5.25" disk drives (all with a full 1 yr. warranty), printers, cables for practically every application (all lifetime warranty)

And the most important thing is, you don't have to call long distance and if you do get my answering machine I WILL return your call. Usually same day or next day latest. Ron

CLEARING HOUSE

What's a means of sharing text files between clubs and to cut down on newsletter costs.

Who: Any T.I. users group (or individual) may participate.

Costs: \$30 the first year; \$15 each succeeding year. Mail check to CONNI membership registrar (see page 3).

Free trial: For those who want to see what the service offers, call: Spirit of '99 BBS (614)263-3412 24 hrs. ONI 300-1200-2400 baud. (direct access or through Starlink or PC-Pursuit).

C.O.N.N.I. CLEARINGHOUSE AND BBS

Here is a brief look at what's new on the Spirit of 99 BBS. A reminder that the "^" character at the end of a file name indicates that the file is archived with Archiver 303G.

These files are on library 1 on the main board. Telephone # 614-263-3412.

Note from Irwin: GENIE file Number: 4647
Name: AL-BEARD.TI-RT-CO
Address: GENIAL.AL Date: 920226
A new hard drive backup program for the 9640, GenBench, SHELL, ForTran, ... these and other topics are discussed in the recent TI RT Conference with Al Beard on Monday, February 24, 1992. Here's the transcript. Enjoy! 160 sectors.

Note from Irwin: GENIE file Number: 4646
Name: TRAVELLING
Address: W.DUNNELLS Date: 920223
ADVENTURE GAME, REQUIRES ADVENTURE MODULE

Note from Irwin: GENIE file Number: 4639
Name: PP_PICS
Address: W.DUNNELLS Date: 920223
50 SPECIAL EVENT PICTURES (ie...NEW YEARS, FATHERS DAY, etc.) FOR PAGE PRO 99

DRAWMASTR^ 165 sectors INT/FIX 128
From JIM PETERSON on 03/01/92
THE DRAWING MASTER V1.3 in assembly by Peron Laurent. This is the latest version of the new graphics program from France. Maybe someone could try it out and demo it at our next Saturday meeting, which is supposed to be on graphics programs?

GOLF 56 sectors INT/VAR 254
From JIM PETERSON on 03/01/92
Extended Basic Golf by John Seager, from England, a fairly simple but enjoyable golf game.

MACSPLIT 12 sectors PROGRAM
From LARRY ADAMSON on 03/01/92
PROGRAM TO SPLIT LARGE MAC FILES INTO SMALLER FILES FOR EASY VIEWING...

SEVENTIES^ 72 sectors INT/FIX 128
From HAROLD TIMMONS on 02/11/92
The 1970's was a super decade for new musical compositions. This file contains a few of my (and hopefully your) favorites which include ALONE AGAIN, DO THAT TO ME ONE MORE TIME, I'D REALLY LOVE TO SEE YOU TONIGHT, WE'RE ALL ALONE, SAVE IT FOR A RAINY DAY, and FEEL LIKE MAKING LOVE. Here's hoping you enjoy!!!!
--HAROLD TIMMONS--

UNARK120^ 41 sectors DIS/FIX 128
From Irwin Hott on 02/11/92
Note from Irwin: GENIE file Number: 4620
Name: UNARK120.ZIP
Address: BW.MILLER Date: 920206
This is a MS-DOS program that UN-Archives the Int/Fix 128 files that are created by Barry Boone's Archiver. Good for BBS's that use an IBM where the operator can unarchive TI-Files to verify the files that are contained. The program does NOT archive TI files on IBM compatibles. Note from Irwin: Youa may have to remove the TI file header before unzipping.

DVM301^ 133 sectors INT/FIX 128
From JIM PETERSON on 02/02/92
DV MANAGER Vers. 3.01 by Andy Frueh, a very professionally written XBasic utility using the 40-Column Screen Utility. Catalogs disks, reads files, edits files, writes files, deletes files, runs E/A programs, etc.

Have fun on the BBS.



- By - **Inscebot, Inc.**
P.O.Box 291610, Ft.Orange, FL 32129

Version 3.01 Tutorial 25.1.1 By **Martin A. Smoley**
NorthCoast 99'ers User Group - Dec. 21, 1991

This is a re-hash of the tutorial information I did around April, May and June of 1990, which I added to and updated. If you read my tutorials word for word, some of the information will be familiar. It is a very, very useful part of TIB.

The INSTALL Memory Area of TI-Base Macros

filename \MC
MODIFY COMMAND

filename \DS
DISPLAY STRUCTURE

filename \DST
DISPLAY STATUS

filename \IC
INSTALL CATALOG

filename \RES
SET DATDISK=DSK6.
SET PRGDISK=DSK5.
SET PRINTER=PIO.CR.LF
SET PAGE=000
SET HEADING ON
SET TALK ON
SET SPACES=01
SET RECNUM ON
SET LSPACE=256
CLEAR LOCAL
SET CURSOR=02
SET CRLF ON
CLEAR
DISPLAY STATUS
INSTALL CATALOG

filename \DSPA
PRINT (Drft),(E)
DISPLAY STRUCTURE
SNAP
PRINT (Drft),(f)
PRINT ALL

filename \D1
SET DATDISK=DSK1.

filename \D6
SET DATDISK=DSK6.

filename \D7
SET DATDISK=DSK7.

filename \D8
SET DATDISK=DSK8.

filename \D9
SET DATDISK=DSK9.

Macro Instructions have got to be one of the big new features in TI-Base. A Macro, or Macro Instruction, is roughly the ability to execute a large command, or a large group of commands, with a single keystroke or a very short key input. TI-Base Version 3.0 or later has that capability. It's a little repetitive to set up a large number of Macros, but once you've done it the rewards are great. Dennis has set up a usable area in VDP RAM, which is handled by the phrase INSTALL, for TIBs use. You should think of the word INSTALL more as the name of the area and not as a command. The things which you can do to the INSTALL area are CLEAR, ADD, REMOVE, CATALOG, LOAD and SAVE. You must create a command file on disk for each Macro Phrase you want to use. For example, I entered MODIFY COMMAND DSK1.\MC. This created the CF named "\MC" on disk drive #1. When the Edit screen appeared I entered two words "MODIFY COMMAND" and I pressed <FCTN 8> to save the CF. I did not enter any comments or place RETURN at the end of the CF. Then, at the dot prompt I entered INSTALL ADD DSK1.\MC. TIB retrieved the CF named "\MC" from DSK1 and placed its contents (MODIFY COMMAND) in the INSTALL area under the name "\MC". This allows me to execute that command by simply typing \MC at the dot prompt. This may not seem like much at first, but here's the big picture. TIB can execute many individual commands from VDP by their names and a Macro can be as large as a Command File. I created each of the Command Files you see on this page under their individual filenames and used the ADD directive to place them all in VDP at the same time. After that I entered INSTALL SAVE DSK6.INST2. TIB SAVED the complete INSTALL group to DSK6.INST2, with the suffix "/I". Next, I added the line "INSTALL LOAD DSK6.INST2. to my SETUP CF. This tells TIB to automatically LOAD all the commands when TIB is powered up. I haven't tried it yet, but I think that you should be able to stack up your ADD commands in a CF to make it easier to modify the overall INSTALL package. The number and size of Macros placed in VDP are only limited by space, which is currently 2546 Bytes. With everything you see to the left loaded into INSTALL I still have 1879 Bytes left. "Not Bad!" This Macro package means a lot to non-ramdisk users, because the execution is very fast compared to disk access. You could load several large CFs, which you use often, into INSTALL and execute them when needed. I wanted to demonstrate this idea, so I loaded the complete CF named 1LBL91 from Tutorial 24.1.2 (Sept. 14, 1991) into INSTALL. I already had the CF on DSK7 of my RAM Disk. I merely typed INSTALL ADD DSK7.1LBL91 at the Dot prompt (Dp) and pressed ENTER (<E>). This would be a good test because 1LBL91 contained a wide variety of TIB commands, including RETURNS and COMMENT lines. After TIB ADDED 1LBL91 to the INSTALL area I typed \IC <E>. This runs the INSTALL CATALOG Macro you see to the upper left. This told me that the 1LBL91 CF used 1471 Bytes of INSTALL memory space and that I still had 405 Bytes remaining to use. "That's great!" At that moment I had placed twelve Macros in INSTALL, the eleven on the left of this page and 1LBL91. INSTALL contained the twelve Macro names and one hundred and three lines of commands and comments, and I still had 405 Bytes left. Next I typed 1LBL91 at the Dp and <E>. 1LBL91 ran just fine. It opened the Database (Db), set my printer, asked me for the record number, found the name I wanted, printed some labels (using my special printer control commands), reset my printer and TIB commands and RETURNed me to the Dp. "And I think it's a little faster than my RAM Disk. I love it." If you manage this space well, the speed advantages over regular disk drives will be enormous.

Next Page.

1LBL91 is a great example of a large CF which can be stored and run from the INSTALL area, but I normally run small CFs as Macros. I always seem to be using the wrong disk for my DATDISK when an idea strikes me for something to do. This led me to the creation of the last five Macros on 25.1.1 (\D1...D9). "DSK6, 7, 8 and 9 relate to my Bud Mills Horizon RAM Disk." If I want to access a bunch of stuff on drive #7, I type \D7 <E> at the Dp, and TIB processes the command SET DATDISK=DSK7. The key stroke savings are not much for one Macro use, but if you do this ten times during one computer session it means a lot. A Macro that means even more to me is \DSPA. I make a lot of changes to several small Dbs on a frequent schedule. Whenever I do, I like a printout I can use to check my work while I'm away from the computer. I might type \D7 <E>, USE CLUB91 <E> and then \DSPA <E>. These three short Macros would switch my DATDISK to DSK7, USE CLUB91 located on drive #7 and \DSPA would set my printer to Emphasized mode, DISPLAY the Dbs STRUCTURE to my screen and then SNAP the screen to my printer, next it changes my printer to Condensed and prints the whole Db.

SETUP/Command File

```
SET TALK OFF
WRITE 22,4,"Welcome to TI-Base Ver. ;
3.01"
*                SETUP/C
*                Ver. 3.01  04/14/90
*  INSTALL LOAD DSK5.INST2
*
COLOR WHITE DARK-BLUE
PRINTER EPSON
DO \RES
*
*                Version 3.01
*
*  Type QUIT to terminate TI-Base
*
*  \MC    = Modify Command
*  \DS    = Display Structure
*  \DST   = Display SStatus
*  \IC    = Install Catalog
*  \RES   = RESet TIB Options
*  \DSPA  = \DS, SNAP, PRINT ALL
*  \EDIT  = EDIT
*  \MS    = Modify Structure
*  \D1    = SET DATDISK=DSK1.
*  \D6    = SET DATDISK=DSK6.
*  \D7    = SET DATDISK=DSK7.
*  \D8    = SET DATDISK=DSK8.
*  \D9    = SET DATDISK=DSK9.
*
RETURN <FCTN 7> help not available
```

After \DSPA is finished I type CLOSE <E> and go on to the next job. I have included another listing of my SETUP CF in the lower left corner of this page because I want to run through parts of it again. SETUP is the CF that automatically runs right after you type in the current date when TIB is loading. The first important line is INSTALL LOAD DSK5.INST2. This line takes the one file that holds all 11 Macros from 25.1.1 and loads them into INSTALL. As soon as that is done the 11 Macros are ready to use. Next I set the screen colors I like. The third thing I do is load up the printer commands from my personalized Db as I tried to demo in TUT 24.1.1. The last command I issue from SETUP is DO \RES, which runs the RESET Macro that should now be in the INSTALL area. You should take special notice that you must include the [DO] when running a Macro from a CF. If you run a Macro from the Dp the [DO] is not used. The last 20 lines of SETUP are all comments. By my positioning, these lines will remain on the screen after SETUP is finished. This allows me to refresh my memory as to the Macros which I have loaded into INSTALL and to possibly print out a copy of this screen, using SNAP, if need be. This whole job was a lot of work the first time, but now that it's done, and runs itself each time I start TIB, it's a great little tool. I need to throw in another important note. INSTALL works like a stack with the last item you put in being the top of the stack. This means that you cannot remove and/or replace an item in the middle of the stack without extracting and replacing all the items above it in the stack. For example, if I want to remove \D1 from INSTALL, I must enter INSTALL REMOVE \D9 <E>, INSTALL REMOVE \D8 <E>, INSTALL REMOVE \D7 <E>, INSTALL REMOVE \D6 <E> and finally INSTALL REMOVE \D1 <E> to accomplish my goal. You would then need to replace, using ADD, any of the Macros you did not want removed with \D1. For this reason you need to place the most temporary Macros at the end, or closest to the top, of the stack, as I did with 1LBL91. If you need to REMOVE something that is more than half way into the stack, you should consider using INSTALL CLEAR to CLEAR everything out of the INSTALL area and then put back what is needed. There is a little more information on ADDing CFs to the INSTALL area, using those CFs and then REMOVE(ing) them from the INSTALL area, from another CF in the April, May and June 1990 Newsletters, if you're interested. This is something that you must be determined about, plus you must start small and expand the number and size of your Macros slowly. As a matter of fact you could say that about TI-Base in general.

A special note from Marty

I do not anticipate doing any more TI-Base Tutorials. If I find the time I may try and write something, but I do not expect that right now.

*Good luck.
Marty.*



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