

BITS, BYTES & PIXELS
 LIMA AREA 99/4A USER GROUP
 VOLUME III NO 1
 JANUARY 1987



COMMENTARY

Happy New Year! we hope that the New Year brings you fulfilment, good health and good hacking.

This issue of the B.B&P is almost an embaesment of riches in that we have more material than we can fit in the space. We should be so lucky! We also have a new contributor to this issue. Mike Martinko sends us his first contribution. Mike, wher he is not hacking is a pastor of his chruch. We hope this is a portent of the things to come in 1987 and that other members will submit their contirbutions. After all, this is what makes for an excellent newsletter

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EDITOR'S NOTE

Because of the plethora of information on technical matters we are leaving out the cartoon, Miscellany and the Brain Teaser this month. They will be back next month.

FOR SALE

Gorilla-Bannana Serial Printer. Made by Leading Edge it has a ribbon wire and new ribbons. Price \$100.00 Call Bob Harche 228 2777. Editor's note: Bring a cage for the Gorilla!

REVIEW OF "SCREEN DUMP II"

There are a number of screen dump programs available written in extended basic or in assembly. The extended basic dump programs are usually quite slow and only work with extended basic programs. Assembly language programs are quite fast, but most will still only work from within an extended basic program.

SCREEN DUMP II from Quality 99 software, is one of the most versatile screen dump programs I know. It can be loaded into memory expansion with Mini Memory, E/A, or Extended Basic modules and then can be executed any time from within a program from command mode, or from the keyboard. Keyboard activation (you see a screen you want to dump and press the right keys to dump it) is one of SDUMP II's most useful features. The program will dump screens from TI BASIC programs (if Mini Memory or E/A modules are in use), Extended Basic programs, or (if a load interrupt switch is installed) from many modules. The documentation provides a partial list of modules for which SDUMP II will and will not work.

Once SDUMP II is loaded it is invisible to any TI BASIC or EXTENDED BASIC program that is subsequently loaded. Small or large size dumps are possible. Small dumps are about 1/2 the width of an 8.5 inch page. Normally small dumps are centered on the page. However, the left margin of the picture can be set otherwise with CALL LINK("TAB", column). Large dumps take up a whole page and are printed sideways.

What I like most about SDUMP II is the ability to select a screen dump with the press of a button. The other screen dump programs in our user group library require entering code into a program in order to initiate a dump.

What I like the least about SDUMP II is the unnecessarily long time it takes to load SDUMP itself. It loads from a BASIC loader program. First you see the title screen slowly scroll onto the screen. Then you are asked what kind of printer you have (EPSON compatible or PROWRITER), and then you are asked the output name of your printer (PIO, RS232, etc). Having to wait for the title screen and then input the name of my printer name each and every time is a big pain. It should be easy to rewrite the BASIC loader program to automatically include your printer name. Unfortunately the loader program is heavily protected. The usual CALL LOAD's for unprotecting protected extended basic programs don't work. I was finally able to break the protection and rewrite the BASIC loader so that SDUMP II loads for my PIO printer in about half the previous time. This is just one more example of why protected programs are often not liked by those who purchase them.

SDUMP II is available for \$29.95 from TRITON (800-227-6900) in a combination package that includes the CorComp load interrupt switch. By itself SDUMP II is listed for \$14.95 in the TENEX catalog (800-348-2778). The program can also be purchased directly from the distributor Quality 99 Software, 1884 Columbia Rd. #1021, Washington DC 20009 (202-667-3574)

DONE

CHARLIE SAYS:

CONSOLE CLEANING:
A SOLUTION TO MANY CONSOLE PROBLEMS

Do modules (particularly EXTENDED BASIC) refuse to work when inserted into your console? Does your EXTENDED BASIC frequently crash while in use? Do some of the keyboard keys fail to respond every now and then? All of these problems are usually caused by dirty connections within the console, not by bad modules. Taking the console apart and cleaning the places where things plug together will do away with all of the above problems. I know from first hand experience.

Cleaning the inside connections of the console is a job any idiot can do successfully. There are three major components inside, the power supply, the main circuit board, and the keyboard. These all easily unplug from one another once the screws holding them to the plastic console enclosure are removed. The only tools needed to clean the inside of the console are a phillips screwdriver, some isopropyl (rubbing) alcohol, a few cotton swabs, and a cereal box. No soldering is required.

- Turn the console upside down and remove the 7 screws. Gently separate the bottom from the rest of the console. With a little wiggle, the on/off switch will fall out.
- Remove the two corner screws that hold the power supply in place. This is the green circuit board. Gently remove the power supply and unplug it from the main circuit board (the one with the metal covering). With some alcohol and a swab scrub the exposed pins of this plug that are on the green circuit board.
- Remove the three screws (two corner and one recessed inside a hole in the metal cover) holding the main circuit board in place. Unless you have a good reason to, leave the metal cover (the heat sink) attached.
- Remove the 4 screws that hold the keyboard to the console housing. Lift the main circuit board and the keyboard from the computer. Then unplug the keyboard from the main circuit board. Use a swab and alcohol to scrub (yes, really work at scrubbing them) the pins to this plug on the main circuit board. This cleaning should solve any irregular keyboard problems you may have had.
- Remove the "L" shaped grom extender from the main circuit board. This is the thing that modules plug into. It may now be in the console housing instead of the circuit board. Cut a piece of a cereal box so it is just wide enough to fit into the connector in the main circuit board where the "L" shaped grom extender was. Dip this cardboard in some alcohol. Insert it into the grom extender plug in the main circuit board and move it in and out as well as sideways to clean this connector.

NEXT PAGE PLEASE

-- Using your fingers lift up both ends of the plastic end of the "L" shaped grow extender. This plastic piece is located where modules plug into the computer and has a felt pad inside. Throw the plastic piece and its felt pad away, or remove the felt pad and replace the plastic without the pad. This pad coats modules with accumulated dirt each time a module is inserted into the computer. Use alcohol and a swab to scrub (really scrub hard) both sides of the flat connectors on the grow extender that plug into the main circuit board. Then use cardboard soaked in alcohol to thoroughly scrub the place where modules are inserted.

-- Reassemble the console. Connect the keyboard to the main circuit board and lay these in the upside down top of the console. Screw in the keyboard and then the main circuit board. Connect the power supply, lay it in position and screw it in. Route the power input jack to its proper position in the back of the console and then screw on the bottom of the console. Finally push in the loose external on/off switch. It should pop right in.

The entire procedure outlined above takes about 15-20 minutes, less if you are more experienced. You may be amazed at the improvement in performance. Your EXTENDED BASIC should now load first time every time.

This may be a good time to consider replacing the black & silver console power supply with a "switching power supply". These switching supplies run MUCH cooler than the original since they only deliver power output when it is required. At other times they do not deliver unwanted heat producing power. Switching power supplies were used by TI in the later model grey consoles and work fine as exact replacements in silver consoles. Some RADIO SHACK stores have them in stock (part #277-1016) for \$4.95 and they are also advertised in the Computer Shopper for about the same price.

The Lima User Group will have a demonstration of console disassembly and cleaning in our February 97 meeting. Be there!!

Charles Good

DONE

TI-ARTIST

By Michael J. Martinko

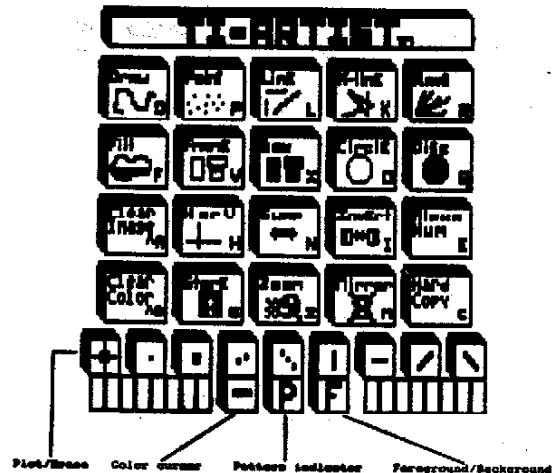
I had ordered TI-ARTIST from Tenex for \$20.00, along with some other material. In two weeks I was notified that TI-ARTIST was backordered. In two more weeks it arrived. Upon opening the package I saw an instruction manual that was poorly printed and brief (compared to Bit-Mac). On first sight, therefore I was not impressed. Placing the disk in the drive I heard a rough scratching noise which told me this was the cheapest disk I had ever come across. The manual suggests making a backup copy, which I did immediately for the sake of my diskdrive!

The program began with a beautiful demo of what the TI-ARTIST can do! Pressing enter, after about another 20-30 seconds, gave me the following options:

1. TI-ARTIST
2. ENHANCEMENT
3. INPUT DEVICE
4. CONVERSIONS
5. INDEX FILES
6. EXIT

I will only be dealing in this article with the first two options.

TI-ARTIST



Choosing (1) TI-ARTIST.

After loading TI-ARTIST I was greeted by a sharply designed selection screen (illustrated above). The desired options can be chosen by placing the cursor over the desired box and pressing enter, or by using the keyboard. To alternate between the option list and the drawing screen (blank at first, except for the cursor) one only needs to press the spacebar. Upon memorizing which key to press, it becomes almost unnecessary to return to the option screen. (The keys are operative in the drawing mode.) It is necessary, however, to return to the option screen to change colors or shape of the item to be drawn. The speed and ease with which TI-ARTIST runs, quickly changed my mind about its quality. Let us examine a few of the options. The appropriate key to be pressed is illustrated by the large letters.

H It has several drawing options.

One of the most useful and ingenious is the Horizontal Or Vertical Line. When forming boxes I always had problems making the last corner meet squarely. With this option, when drawing a parallel line, as we do in boxes and rectangles, my cursor can leave the line WHILE I AM DRAWING to see if it matches in length with the parallel line!

F The fill option is extremely smart. No matter how complicated I made the area to be filled I was not able to fool it. It filled every nook and cranny! Another surprise is that by using the pattern indicator [P], found at the bottom of the option screen (above), I am able to vary the pattern that fills the designated area! Turning the cursor off, by placing the cursor over the cursor box, or by pressing function period, will invert the pattern BEFORE I fill the designated area.

Z The zoom feature allows portions of the screen to be enlarged for detailed work. It may then be reduced and placed back into the picture. The enlarged picture may be printed or saved to disk if desired.

A The Alpha/Numeric option is one way of placing text on the screen. This text will replace any graphics it covers, it does not overlay. The size of text, however, can be controlled from very small to gigantic. Pressing control 1 thru control 9 and function 1 thru function 9 will vary the height and width of the characters respectively.

C Hardcopy works with any printer, and allows a variety of print height, depth, and density. It is easy and interesting to work with. A different graphic program I had used produced distorted hard copies with no way to alter the results.

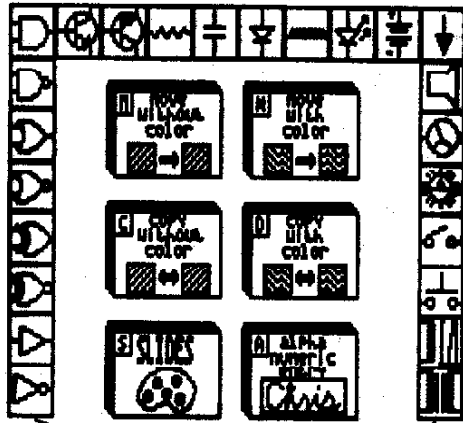
COLORS (foreground and background) may be chosen before producing a picture, or be filled in, or changed later by using the color cursor.

ERASING is accomplished by turning the cursor off (described above). Fill, box, and disk are particularly useful in erasing large areas. **NOTE:** If a background color had been chosen for the area drawn that same color will show up when that portion of the picture has been erased. Not to worry, the background color can be also be changed by the color cursor. **CONTROL A** will clear the screen of all images. **CONTROL B** will remove all colors (foreground becomes black, and background becomes light blue). Pressing both clears the entire screen of everything.

The **CURSOR SPEED** is determined by how long the joystick (or arrow keys) is depressed. The longer it is depressed the faster the cursor moves. This is a unique and effective way of controlling the cursor speed without the use of additional keys!

FUNCTION QUIT returns to the first selection list while saving the picture somewhere in the computer's memory.

ENHANCEMENT



Choosing (2) ENHANCEMENT

A whole new set of options are now available. One can now move anything on the screen, an option missing on some other programs for the TI. These objects can either be moved, or copied (reproduced) with or without color. They can be moved or copied rightside up, upside down, forward, backward, or any combination of the above. By pressing "T", one can TRY OUT the location of the image before permanently setting it on the screen!

The SLIDE OPTION allows one to either select predetermined slides and place them on the screen, or create slides of their own to save and/or use.

The disk contains two fonts that can be chosen through ENHANCEMENT. Its own ALPHA/NUMERIC entry will overlay any graphics already on the screen. The text can be printed in regular or outline fashion. Once again "T" will allow you to test its location before setting text in place. Other fonts can be purchased or created.

Pressing function quit will store the picture in computer memory and return to the first menu screen.

ANY REGRETS?

The only possible improvements that could be hoped for is a faster transfer from TI-ARTIST to ENHANCEMENT and back, and a zoom feature that would allow a portion of the screen to be enlarged or reduced in degrees and inserted as such into the main picture. This I must confess I have not seen in any TI graphics program.

The program is very professional, a real utility. Though it is not an entertainment program it is real nice "having fun" working!

DONE

SAVAGE ISLAND 2" WORD LIST

Many adventure game fans have never played the Scott Adams SAVAGE ISLAND 2 adventure because they could never get past the "Vocalize password" prompt that starts the game. This password is given at the successful end of SAVAGE ISLAND 1. Well gang, here it is. The pass word is either "123" or "474" depending upon what you were carrying when you left SAVAGE ISLAND 1. Both passwords will start you off on game 2, but each has you carrying a different list of goodies. To vocalize the password, you need to enter SAY 123, or SAY 474. The computer responds to only the first four letters of each word. Below are the words which are accepted as input in SAVAGE ISLAND 2.

FIRST WORD (usually a verb)	SECOND WORD (usually a noun)
ASK	ANY
AUTO	ARGH
BREAthe	ATOM
break	BAG
CATCH	BALL
CLOSE	BANDanna
CRAWL	BLOCK
CRUMble	BLUE
CRUSH	BOX

DESCRibe	BOXEs
descend	BREAthe
DRAG	BUtTon
DROP	CASE
EAT	CAVE
ENTER	CENTurY
EXAMine	CLOTh
EXHAle	CONSOle
exhaust	CONTRol
FEEL	CORPse
GET	CRATes
GIVE	DEEP
GO	DEVIL
GRAB	DIALs
HELP	DISPlay case
HIT	DOWN
HOLD	EAST
HYPerspace	END
INVENtory	ENGInes
JUMP	FAST
KICK	FIELD
LEAVE	FLOWer
LOOK	FREE
MOVE	GAME
OPEN	HANDle
PICK	HANG
PRESS	HOLE
PULL	HYDRoPonics
PUNCH	IN
PUSH	INVENtory
PUI	ITSELF
QUIT	LEVER
READ	LIFE
RELEase	LIGHT
REMOVE	LOOP
RIP	MACHinery
RUN	machine
SAVE	METAL
SAY	MY
SCORE	NEANderthal
SEE	NORTH
SHUT	ON
SMASH	OUT
SMELL	OUTER space
SMIFF	PASSAge
SPEAK	PICTure
TAKE	PIRAtE
TALK	PLANTs
TASTE	PLATForm
TEAR	RAILing

THINK
TIE
TO
TOUCH
UNDO
UNRAvel
UNTIe
USE
WALK
WEAR
WITH
WORK

RED
ROOM
SCRIPT
SEE
 seed
SELF
SIGN
SLIDE
SLOW
SOUTH
SPACeship
THREAd
TREAd mill
TUNNEL
UP
VIEW screen
WAFER
WEST
YES

* DONE *

Editor's note: We owe ourselves a pat on the back. Everything in this newsletter was generated by our own members. We haven't had to extract material from other newsletters to fill space. For such a small user group this is quite an accomplishment. It looks like the next issue will also contain material entirely from our own membership. Keep up the good work!!