

BYTE BANDITS
OF AMERICA

NEWSLETTER

October 1986

MEETING NOTICE:

October's Meeting for the 4th Wednesday will be held at 780 Manx Ave., in Campbell. It will start at 7 PM sharp!!!

NEW CLUB MEMBERS:

Les BLEND
Phillip WILLS

Rose ANZURES
Al NETCKE

The Club would like to extend a great BIG WELCOME to these new members and the "oldtimers" look forward to meeting them personally at the meetings. See you there.

COPYRIGHT LOOPHOLE EXPOSED:

Did you know how it was manipulated so that stores could legally rent softwares? Did you know it was always legal? The copyright law "FIRST SALE DOCTRINE" of the U.S. Copyright Laws allows buyers of copyrighted works to dispose of them in anyway they choose. This "loophole" is the reason softwares are rentable. The same rules govern all buyers of softwares. You should note that laws are being introduced to eliminate this loophole. You will know when the new laws become effective - it will be when the rental store disappears.

GILL CABLE SERVICE "X-PRESS":

This is a one-way electronic news, financial and information service delivered via satellite and cable directly to home or office personal computers. "X-PRESS" carries live, unedited news, stocks, and information from over 30 of the world's foremost news sources 24 hours a day, stock quotations from sources such as "New York Stock Exchange-Business Week", and United Press and Tass. "X-PRESS" tracks up to 128 individual stocks through each trading day, plus all other stocks. Just ask club member Jerry BEIN. He connected to it with his MS-DOS computer, but he could have also used his Apple computer. It works great and is easy to use. Is he richer for using the service? I'm sure it was beneficial in many ways. The unit and the connection cost less than "COMPUSERVE" and you use it at your leisure. I had him demo it for me. I wish I had a use for it but I'm too broke to use it. If you have Gill Cable TV Services it would cost you an installation line to your computer and a monthly rental fee. If you belong to other cable services, you're out of luck. This is a Gill Cable TV Service only.

NEW TANDY PRODUCTS:

Did you see the new computers that Tandy has created? The MS world will not be the same. The machines are going to control the MS-DOS world quickly. Their development of these machines are targeted to take over the IBM machines and their clones too! Come to our meetings and look at the articles describing them in PCW magazine. The book and the new Tandy computer catalogs are at my home during the month too!

SCREEN CODES

A screen control program for the Model 100, Tandy 200 and NEC 8201.

```

1 REM ... "PRGNAM.BA"
2 REM ... last revised: mm/dd/yy
3 REM ... by James R. Avoli, C.D.P.
4 REM ... comments go here
5 ES$=CHR$(27): REM ... <ESC> escape
6 WB$=ES$+"p": REM ... White-on-black
7 BW$=ES$+"q": REM ... Black-on-white
8 CN$=ES$+"P": REM ... Cursor on
9 EL$=ES$+"I": REM ... Erase cursor's entire line
10 CL$=ES$+"K": REM ... Clear to end of cursor's line
11 CD$=ES$+"J": REM ... Clear to end of display
12 CS$=ES$+"E": REM ... (CLS) Clear screen
13 BL$=CHR$(7): REM ... sound the bell
    
```

Screen Control Codes for the Model 100, Tandy 200 and NEC 8201

<ESC> +	CHAR\$(27) +CHR\$(##)	MEANING/ FUNCTION
j	106	Clear Screen
l	108	Erase cursor's entire line
p	112	Reverse video
q	113	Normal video
A	65	Move cursor up 1 line
B	66	Move cursor down 1 line
C	67	Move cursor right 1 column
D	68	Move cursor left 1 column
E	29	Clear screen & HOME cursor
J	74	Erase from cursor to end of display
K	75	Erase from cursor to end of line
L	76	Insert from a line
M	77	Delete cursor's line
P	80	Display cursor
Q	81	Erase cursor
T	84	Display function keys
U	85	Erase function keys
V	86	Inhibit scrolling
W	87	Enable scrolling
Y	x,y	Position the cursor at the location codes computed for X and Y.

Note that the last item is difficult to implement because it codes for row and column locations, not the actual location addresses. Therefore, it's much easier to use the PRINT@ command, and let BASIC do all the computational work for you.

```

100 PRINT@120,"Continue with
    default
    of ";X;"(Y/N)? ";CLS;CN$;:IS=""
200 IS=INKEYS
    :IF IS="" THEN 200
    ELSE IF IS=ES$ THEN STOP
    ELSE PRINT IS;
300 IF IS="Y" OR IS="Y" THEN 600
400 IF IS="N" OR IS="N" THEN 500
    ELSE BEEP
    :GOTO 100
    
```

It's a big advantage to highlight important text or data as part of the prompt, and reversing the colors is a simple task when you already have the means established to insert the reverse and normal control codes:

```

100 PRINT@120,"Continue with
    default of ";WB$;X;BW$;"(Y/N)? ";
    CL$;CN$;
    :IS=""
    
```

It's also a nice touch to plant the date and time in a "standard" heading subroutine for each screen:

```

5000 SCREEN 0,0
    :PRINT CS$;WB$;TAB(14);
    "Program Title";TAB(40);DATES
    "@ ";TIME$" J. Avoli
    <ESC>-QUIT";BW$;BL$ : RETURN
    
```

Note that in this instance, it's more efficient to add BL\$ to the PRINT command than it is to tack a separate BEEP command onto the end.

For those less-used control codes, a complete list is given in the accompanying table. Keep in mind that most of today's computers and modern display terminals use this type of control code mechanism. Except for the complex X,Y position codes (I've been told that this is one of the less famous ANSI standards), they're almost guaranteed to be different for each manufacturer; the Tandy and NEC machines are the exception to this rule. Even so, all you have to do is edit a clone of this source code to match the codes of whatever computer or terminal that you're going to use, and you can transport this technique to any version of BASIC to run on any computer to support any display device.

So there you have it — easy enhancements of displays in all your programs if you begin each new program with the immediate command:

```
MERGE "LCDCTL
```

or whatever file name you used. Good luck! □

CLUB SERVICES

FOR THOSE WHO ARE CONTEMPLATING MEMBERSHIP OR RENEWAL MEMBERSHIP, THESE SERVICES ARE YOURS TO USE THROUGHOUT THE YEAR. DUES OF \$25.00 PER YEAR IN THIS CLOSED MEMBERSHIP CLUB ARE REQUIRED.

MONTHLY NEWSLETTER

The articles are selected from the many publications the club receives plus commentaries from the club director and the membership.

BULLETIN BOARD SERVICE

Messages and programs transfer along with postings of other club services and events, free to everyone, for learning the modem system or selling or buying of equipment. The bbs is designed for all types of equipment. It is on-line 24 hours-7days 300-1200 baud.

BOOK OF THE MONTH

The club is active in a computer book club in which each month a hard cover book is obtained for the club membership. These books are checked out for 30 days. Monthly magazines are also included in this category..

80 MICRO	MODEL I-III-IV-IVp
P.M.C.	MODEL 1000-2000-3000
PORTABLES	MODEL 100-200-600
CODEWORKS	ALL BASIC PROGRAMING
COMPUTER SHOPPER	ALL MACHINES NATIONAL PRICING ECT.
P.C. WORLD	ALL M.S. DOS APPLICATIONS
P.C. MAGAZINE	ALL P.C. CLONE M.S. MACHINES
COMPUTER CURRENTS	ALL LOCAL BI-WEEKLY MAGAZINE
MICRO TIMES	ALL LOCAL MONTHLY MAGAZINE
ASSORTED RETAIL CATALOGS	MONTHLY

CLUB'S I.B.M. CLONE

This machine runs the club bbs system. it contains an assortment(cards) for modifying M.S. dos programs and storage of public domain programs. It is available for club members (by appointment) for special purposes. The machine stays at my home always, but individuals may use it there.

PROGRAM OF THE MONTH

Each month the club buys a program (less than \$50.00) for all the machines in the club. It is evaluated by members that have an interest in that program. This program is usually shown at the 4th wed. meeting.

DISK SALES

quantities The club stocks 100 disks monthly that members may buy at they need. Cost per disk is not the lowest, but the quality is the best for the cost.

5 1/4 disk d.s.d.d. \$10.00 per box of 10 disks
3.5 inch disks s.s. \$22.00 per box of 10 disks

ARCHIVES LIBRARY

The club maintains a library of programs and documentations for the trs-80 machines. These may be used by request. As this is a private collection it's not programs to be sold or bartered.

REPAIR SERVICES

The club's membership contains repair oriented personal capable of repairing-modifying-or up-grading all the club's assortment of machines. These repair personal do quality work at a very modest cost. Each is reliable and knowledgeable in the earliest-latest computers.

INFORMATIONAL SERVICES

The club headquarters is available every day for those who require help in programming-hardware installation-or just gossip. Each person's problems are a priority and are treated with care..

NOTORIETY

Our club has obtained FAME nationally-internationally-as well as locally. This in itself is an HONOR for all of us. Our HELP to others is well known throughout the world.

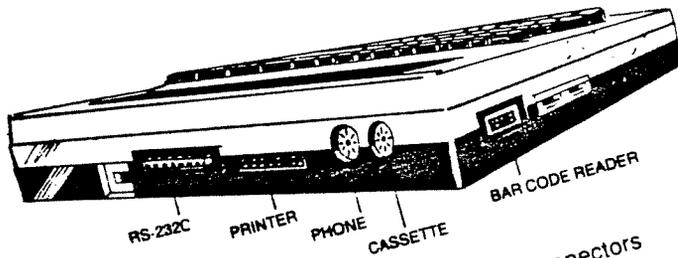


Figure 1 The TRS-80 MODEL 100 input/output connectors

Parallel Printer Interface (Centronics)		
Pin No.	Symbol	Description
1	STROBE	Strobe pulse from Computer to printer.
2	GND	Ground
3	PD0	Bit 0 (1 sb) of output data byte
4	GND	Ground
5	PD1	Bit 1 of output data byte
6	GND	Ground
7	PD2	Bit 2 of output data byte
8	GND	Ground
9	PD3	Bit 3 of output data byte
10	GND	Ground
11	PD4	Bit 4 of output data byte
12	GND	Ground
13	PD5	Bit 5 of output data byte
14	GND	Ground
15	PD6	Bit 6 of output data byte
16	GND	Ground
17	PD7	Bit 7 of output data byte
18	GND	Ground
19	NC	Ground
20	GND	Input to Computer from Printer
21	BUSY	Ground
22	GND	Ground
23	NC	Ground
24	GND	Input to Computer from Printer, high indicates device selected.
25	BUSY	Ground
26	NC	Ground

RS-232C Interface		
Pin No.	Symbol	Description
1	GND	Transmit Data
2	TXR	Receive Data
3	DSR	Request to send
4	RTS	Clear to send
5	CTS	Data set ready
6	DSR	
7	GND	
8	NC	
9	NC	
10	NC	
11	NC	
12	NC	
13	NC	
14	NC	
15	NC	
16	NC	
17	NC	
18	NC	
19	NC	Data termi
20	DTR	
21	NC	
22	NC	
23	NC	
24	NC	
25	NC	

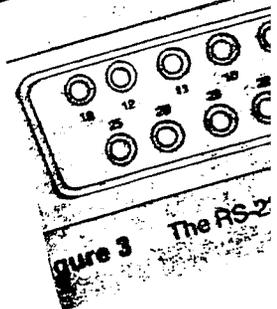


Figure 3 The RS-232C

COLOR COMPUTER 3

It is called the "elegant" machine of the Tandy world. It is truly worthy of the Tandy Logo "BETTER AGAIN". What does it have to offer? It beats me. We don't support it in our Club. Why not? Simply because it has too many incompatibilities with its own hardware peripherals and it's too specialized - sort of in its own world.

THANKS TO COMPUTER CURRENTS:

The Club is very thankful to our local magazine for obtaining a Computer Club Booth at the Silicon Valley EXPO. The 12th, 13th, and 14th of September were our days to shine here in the Valley. We have given the "TRASH-80's" a big push forward. We also want to thank Bart, at our Special "Radio Shack" for his donation of the equipment. Also, to all you who donated your time and effort to make this EXPO a BIG splash. THANKS!!!

EXPO POWER:

What did our Club gain at the EXPO? How did it enhance us? Was it worth all the time and effort? These questions require answers each time the Club rallies to an EXPO or a SWAP meet. Did we meet our objectives at the EXPO? The answer is YES! We gained a lot of exposure to the Public, to our Vendors, and to our members and potential members; as well as to other Clubs. Our being at the EXPO gave support to the Tandy machines and to those who sell them locally. In return, they should be more willing to assist our Club and its individual problems (more than they are required to). This is a big PLUS for our Club.

Unity between members, who normally don't come in contact with each other during the month, also happens, and we get to show off our knowledge to those who need problems solved. Being at the EXPO proved to our members, as well as to strangers, that our Club is filled with people who know the machines and have the correct information to help solve many problems, both with the Software and with the Hardware. Also, with the types of equipment shown, it shows that our resident repair people can create and maintain all configurations of Tandy equipment. Finally, it should provide new Club memberships for our time spent at the EXPO. Being there allows us the publicity to gain new Tandy users and some veteran TRS-80 owners. Our advertising in this manner keeps our Club active and enhances us with the Vendors as well as other Tandy owners, and those who are considering buying new or used equipment.

We did gain a lot at this EXPO '86. Our being there was worth everyone's effort and time.

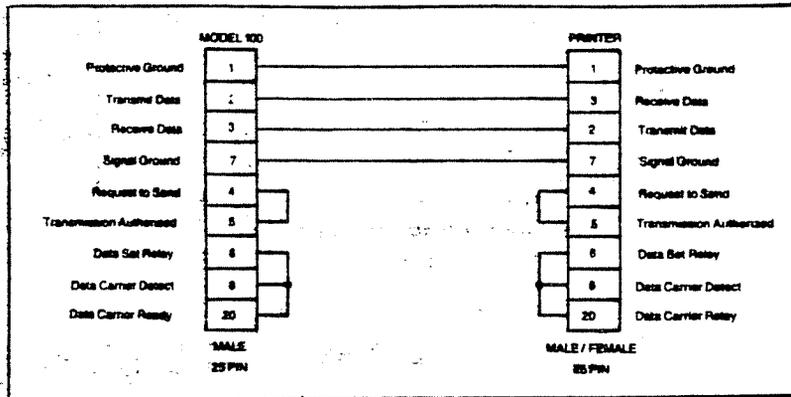


Figure 4 Typical RS-232C serial printer cable connections

Bar Code Reader		
Pin No.	Symbol	Description
1	NC	
2	R x DB	Receive data from bar code reader
3	NC	
4	NC	
5	GND	Ground
6	NC	
7	GND	Ground
8	NC	
9	VDD	

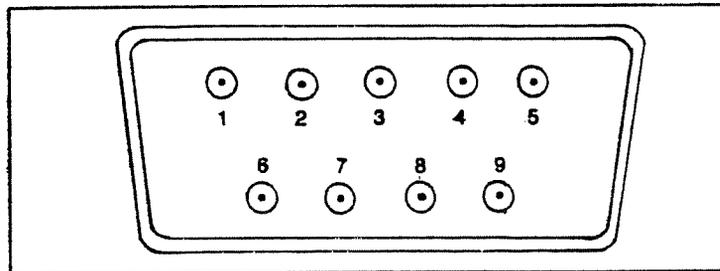


Figure 5 The bar code reader port

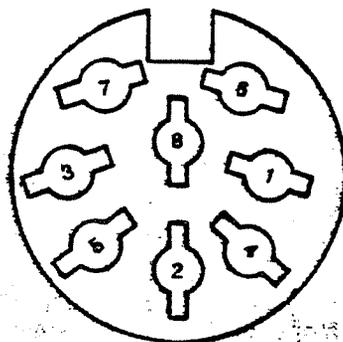


Figure 6 The cassette port

Cassette Interface		
Pin No.	Symbol	Description
1	REM1	Remote
2	GND	
3	REM2	Remote
4	R x C	Receive data for CMT
5	T x C	Transmit data for CMT
6	GND	GND
7	NC	
8	NC	

Input Level: Impedance 100ohm(800,mV-5Vpp)
 Output Level: Impedance 3.3Kohm (650m Vpp)
 REMote: 6 VDC 0.5A max.

TO WHOM THE BELL TOLLS:

The IRS recently issued this warning: "Software companies and others who prepare and sell computer programs for use in preparing Income Tax returns may be considered Return Preparers and therefore subject to certain penalties." This admonishment, which has the force of Law, affects programs that provide "substantive" Tax instruction rather than merely "mechanical" assistance. I'm not sure that you could reap benefits from this warning, but, the Software Policy in the Warranty disclaimer won't stop Software companies from being penalized. I'm sure that you would have it rough being between a major Software firm and the IRS, should it ever happen.

PACKET RADIO:

A new addition at the house this month is \$600.00 of packet radio. What is that? Well, if you were a Ham radio hobbist, you would want this connected from the radio set to your computer for a neat quick transfer system. It replaces your Modem and the telephone. The only catch is that you must obtain a Ham Radio License of Technician Level, or higher, to use it. It offers all the frills of radio and the computer. The effort in obtaining the Ham Radio License is worth the value of the packet system, plus, you will learn about all the Electronics that spins this world of ours. You may even end up fixing that old toaster too!

SCRIPSIT PRO:

This is the latest, and best, word processor for the Model 4. You have to have the 128K Memory capacity machine. This new word processor program seems to have corrected all the original SuperScripsit (Model 4) problems. It has also added a HELP file, a spelling checker, and a window system. For \$250.00 you can continue the quest for a more perfect word processing program. It contains printer drivers for all the Radio Shack printers, but none for the other more popular printers. The spelling checker contains 53,000 words and you can add about 1,300 words of your own design. The manual is easy to understand and sectioned so you read what you need for your own applications. Switching from the other word processors isn't going to gain you anything, but if you plan to stick to Tandy products, it is worth buying.

TRANSFER M 100 TO MS MACHINES:

The transfer is easy if it's a Basic Program. If it is a Machine Language Program, it's nearly impossible. Here is how it's done:

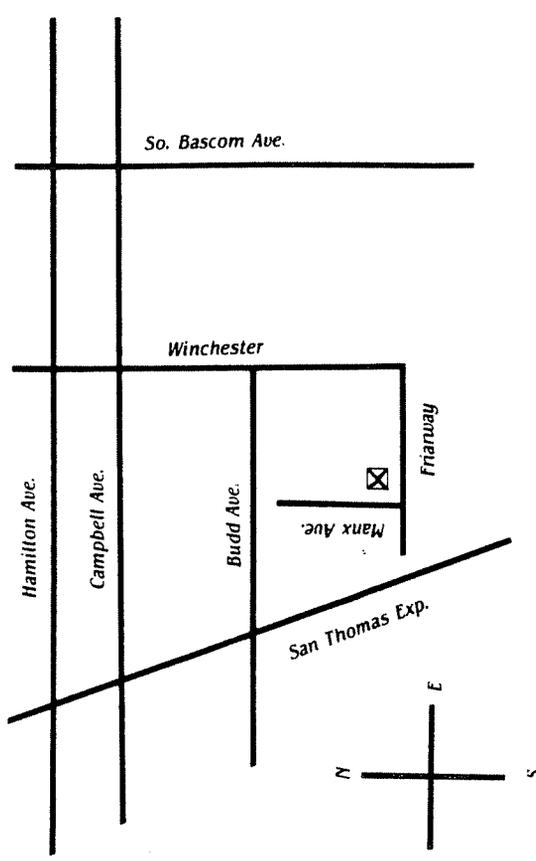
1st: Connect a Null Modem cable between the two machines. Enter "BASIC" on both machines. On the transmitting M 100 machine, press F3 and then type in "COM:98NLE". On the other machine, press F2 and type in "COM:98NLE". Then press ENTER on both machines. The cursor on both machines should then disappear. When the transfer is complete, the "OK" prompt should appear on both machines. On the receiving machine, press F3 - type the name you are calling the program.

Should you want to read about the Machine Binary File Exchange, see me and ask to read the information.

JAN. PROGRAM " OPERATING SYSTEMS"
 FOR YOUR COMPUTERS
 FEB. BASIC PROGRAMMING
 MARCH PROGRAMS " INSTALLATION" IN YOUR
 COMPUTER
 APRIL CARE AND CLEANING OF COMPUTER
 ACCESSORIES
 MAY COMPUTER BOOKS AND MAGAZINES
 JUNE TELECOMMUNICATIONS AND YOU
 JULY COMPUTER SCHOOLS
 -COURSES-CLASSES
 AUG. COMPUTER UTILITY PROGRAMS
 SEPT. COPY PROTECTION-COPYING
 PROGRAMS
 OCT. PROGRAMMING ERRORS AND REPAIRS
 NOV. COMPUTER CLUB REVIEW
 DEC. PRINTERS-PATCHES-PROTOCOLS

MEETINGS:
 2ND SAT.....1PM WORKSHOP
 4TH WED.....7PM LECTURE

NOTES:
 1. MEMBERSHIP REQUIRED
 2. GUESTS..BY APPOINTMENT ONLY
 INFORMATION...CALL 408-379-2774
 B.B.S.....CALL 408-374-3974



This club has been established to provide its members total computer knowledge using "hands-on" application during the meetings. For better understanding of existing hardware and software in an informal—social club atmosphere.
 We hope to provide members close contact between novice and amateur home computer enthusiasts; young and old, male and female, school, home, business and hobbyist.

OF AMERICA
7-15-84
BDBVANS



BYTE BANDITS CLUB

SAN FRANCISCO
OCT 3 1984
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New England Neptune

Byte Bandits of Amer.
TRS-80's Computer Clb
780 Marx Ave.
Campbell, CA 95008

