Sydney, New South Wales, Australia

TIsHUG News Digest

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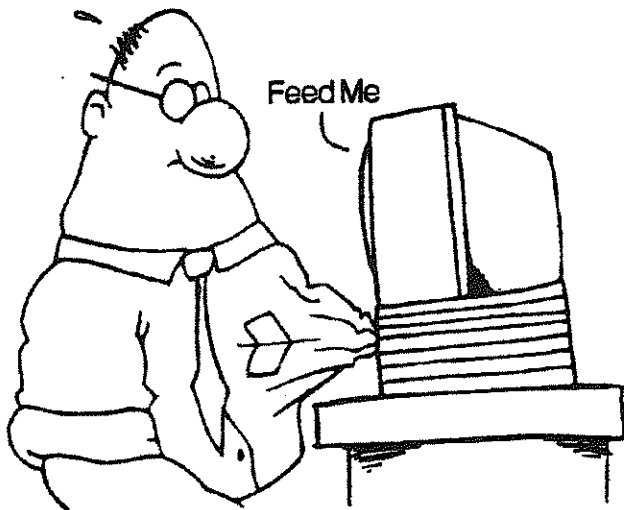Peter Young   (02) 9528 8775

Membership and Subscriptions

Annual Family Dues $35.00
Associate membership $10.00
Overseas Airmail Dues   A$65.00
Overseas Surface Dues   A$50.00

TIsHUG Sydney Meeting

The May Meeting will start at
2.0 pm on the 3rd May 1997
at Ryde East Primary School,
Twin Road Nth. Ryde.

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EDITORS COMMENTS

by Loren West

Our member strength seems to be getting stronger all the time, I think this would be a good time to ask for some articles, this magazine that you are now reading is our club magazine and needs your support in the way of articles, your view points and anything else that you may think that other members would like to know about.

Also we're introducing to the magazine the opportunity of **free** business adverts, for club members, designed to let club members know who and what business contacts we have in our club. So please get those ads along to the editor for publication.

If you re-ink ribbons, make personalised calendars, clean computer screens, whatever you do, privately or commercially, let us know.

Look elsewhere for more details.

See you at the next meeting.

Letter to the Editor

By Daniel Norman Harris

My fellow TISHUG members;

I find myself with a couple of gripes!

The first is billing in April. This hits the winter bills plus the Easter Show and other expenses of a seasonal nature. It would make more sense to bill about August, between the crunch of Winter expenses and the run up to Christmas. The second is letting the BBS fold by non-usage. A club like this really cannot be disciplined, after all we are supposed to be enthusiastic participants and volunteers.

It is our own money we are wasting by not using our BBS, which we pay for out of our annual dues! If we make the BBS a public service and allow non-members usage for say $10 a year registration plus some extra privileges for an extra $30 or optional full club membership for the usual rate, there is no reason it won't pay for itself!

The fault is not with Ross Mudie, but our narrowness and selfishness in keeping the BBS to ourselves rather than making it more of a public service, with the potential to reach isolated people and offer more online services, valuable for instance to night workers and convalescents.

I have used the BBS mainly to download programs for the Texas Instruments 99/4a and got a lot of "good" stuff, mainly games. It makes a convenient method to send letters to the Editor also, who will now have to scan or copy this letter before publication. While I am more and more busy and cannot find the time to steal the telephone for a MODEM connection, this surely does not apply to everybody, so going back to my time doing lots of telecommunication, I found most of the chatters were growing youths, the problem with decline in the BBS could be a basically greying club membership!

That will probably do for commentary. The BBS could be revived not as an exclusively club thing but more of a public service for a low registration fee, encouraging the night worker, shut in, convalescent thing for a lot less thing for a lot less than INTERNET fees, and recirculate some of that expertise and experience we all have in the form of tutorials, which again need not be that voluntary, if we market the BBS there ought to be some reward, e.g. free membership for those who regularly contribute!

Knowledge, contacts, entertainment, saving money. But you have to get off your bum now and then, and have an occasional idea, and bring it up, maybe get rubbished and come back, fight, connive, collude, plot, all those fun nasties that go into being a member! If you can't think of something nice to do, maybe insult somebody. Start a "one-up" contest. Stack meetings to get yourself elected Treasurer, or whatever.

If you have been coming to a lot of meetings, is there any reason you want to be forgotten by other members? Are we a loony bin, or a jail? If there is something to be ashamed of, how much of it have you done (or not bothered doing?) for there is now some risk of that part of your identity, TISHUG membership, ceasing to be relevant with the folding of the club, thus taking into oblivion all those dates of attendance, your friendships

(and interesting feuds) and other facilities so cheaply and conveniently available... so now think of what other people might like and have a go at bringing it!

D.N.Harris

THE TI 99/8 COMPUTER

ORIGINALLY PUBLISHED IN LIMA NEWSLETTER
OCTOBER 1991

notes by Charles Good
Lima Ohio User Group

We have all heard of the legendary never released 99/8 computer. Probably the best published description of this computer to date are found in the December 1984 issue of MICROPENDIUM, where it is stated that the suggested retail price of the 99/8 would have been about $600. Photos of this computer in the article show the nameplate "Texas Instruments Computer 99/8" just above the left side of the keyboard. Several working 99/8s are known by me to be in private hands, and I have seen some on display, but not operating, at a couple of TI shows. I have, however, until recently never really been clear what this machine could do. Certainly the best way to judge the capabilities of computer is to use it. I have never had the opportunity play with a 99/8, but I have done the next best thing.

I have obtained a copy of the "Final Draft" of the 99/8 user documentation "GETTING STARTED" (dated 8/30/83 with the code number "0811P") and "PROGRAMMER'S GUIDE" (the p-System part dated 8/22/83 and the rest dated 9/15/83; with the code numbers "1511P, formally 2183L", "2117L", and "1248P"). These books give an excellent description of the capabilities of the 99/8 computer and interesting insights about the very rare Hexbus Disk Drive/Controller peripheral. I know of no working examples of the Hexbus Disk Drive/Controller peripheral. Sources tell me that it was made for TI in Germany by Mechatronics. In my opinion, after reading these books, the greatest shortcomings of the 99/8 are the lack of an 80 column display and the inability to generate unlimited speech using its internal speech capabilities coupled with the TEII module.

In order to inform the TI community about "what might have been if TI had only....." I am publishing the follow 99/8 user documentation. Text below in brackets {} are my own words interjected among these quotes.

"Features of the Texas Instruments Computer 99/8:
"KEYBOARD--The 99/8 computer has a full size, easy to use 54 key keyboard.
"DISPLAY--The 99/8 displays program lines in a 24 row, 40 column format (text mode) using a handsome character set with true lower case letters.
"SOUND AND SPEECH--The 99/8 can generate sound from 110 cycles per second to beyond the highest range of human hearing. Built-in SOLID STATE SPEECH synthesis reproduces human speech electronically, accurately, and realistically.

"MEMORY--The 99/8 has 220 kilobytes of built in ROM. In addition, the computer has 80 kilobytes of RAM (64K of CPU RAM, 16K of VDP RAM), which eliminates the need for memory expansion for most applications. If you need more memory, the 99/8 can access up to 15 megabytes (approximately 15 million bytes) of total random access memory. {CG note: One 99/8 owner I talked to has working TI 128K and 512K PE box RAM cards specifically designed for use with the 99/8.} TI Extended BASIc II, a versatile and powerful version of the BASIC programming language, is resident in the computer console.

"ADDITIONAL PROGRAMMING LANGUAGES-- The built in p-System, the Universal Operating System (both these names are trademarks of SofTech Microsystems, Inc.), allows other programming languages, such as UCSD Pascal and TI PILOT (both on diskette, sold separately), to be used.

"JOYSTICKS--An outlet is provided for Wired Remote Controllers.

"EXPANDABILITY--The built in HEXBUS Interface enables you to use the low cost HEX-BUS peripherals; outlets for connecting a cassette recorder and future peripheral devices are also included. {CG note: Apparently the Hexbus port was to be the main expansion port, at least initially. There is a 50 pin expansion for "future devices" on the side of the computer. This 50 pin 99/8 port is NOT the same as the side expansion port on 99/4A consoles. Some current 99/8 owners have a TI cable that connects between this 50 pin port and the "fire hose" cable of the PE box. This is the only existing device I know of for the 50 pin expansion port.}

"TECHNOLOGY--The Computer 99/8 uses the 16 bit TMS9995 microprocessor for fast program execution. {This is the same 10+ MHz CPU used today in the Geneve. The 9995 is also found in TIs 99/2 computer.}

"When you turn the computer on, the master title screen appears.

(TI BUG)
TEXAS INSTRUMENTS
COMPUTER

READY-PRESS ANY KEY TO BEGIN

| | | | | | | | | | | | | | | |
(c)1983 TEXAS INSTRUMENTS 3.0

"Press any key to proceed to the next screen. This is the main selection list or the main "menu".

TEXAS INSTRUMENTS
COMPUTER

PRESS
[A] FOR TI EXTENDED BASIC II
[B] FOR P-SYSTEM
[C] FOR SET SPEED

If you have a Solid State Cartridge plugged into the slot at the top of the computer console, the name of that program usually appears as selection D on this screen.

"TI Extended BASIC II--This option enables you to access the programming language built into the Computer 99/8. When you select TI Extended BASIC II, the computer automatically executes at full speed.

"SET SPEED--This option enables you to change the speed at which the computer "runs" programs contained in certain preprogrammed software packages. When the computer is turned on, it is automatically set to run at 99/4A speed.

If this option is selected, this screen will appear:
SET SPEED
[A] SLOW
[B] 99/4A SPEED FOR GAMES
[C] FULL SPEED

"To proceed to the next section, "A tour of the keyboard," select TI Extended BASIC II by pressing the A key.

TI EXTENDED BASIC II ready 62720 Bytes free

"[Illustration of stacked HEX-BUS peripherals]
"DISK DRIVE/CONTROLLER 5102-A HexBus peripheral that uses 5 1/4 inch diskettes, finds files quickly, and allows either sequential or random file access. With its double-sided, double density capabilities, the Disk Drive/Controller can store up to 320K of information on one diskette.

"Disk Drive 5202--Up to three additional disk drives can be used with the Disk Drive/Controller {CG note: up to a total of 4 DSDD drives. Since the Hexbus has

only 4 data lines data transfer is in nibbles rather than bytes. I suspect that the data transfer rate between Hexbus Disk Drive/Controller and the 99/8 or other computer would be significantly SLOWER than that obtained with the TI disk controller and a 99/4A.}

"FEATURES OF TI EXTENDED BASIC II:

"DATA TYPES--TI Extended BASIC II allows both integer and real data types for numeric variables. Because the integer data type uses less storage space and requires less processing time, using this data type when applicable (for example, with FOR NEXT loops) facilitates faster program execution. To be stored as an integer a number must be a whole number within the range -32768 to 32767.

"SIX DIFFERENT GRAPHIC MODES--These are accessed using CALL GRAPHICS(x). A wide variety of display techniques and applications, including dividing graphics and text, are available with the six graphics modes:

"PATTERN MODE--The default mode when using TI Extended BASIC II is selected. Characters are in 24 rows and 32 columns with each character defined by an 8x8 pixel configuration.

"TEXT MODE--Characters are in 24 rows and 40 columns, with each character defined by an 8x6 pixel configuration.

"SPLIT SCREEN MODE: TEXT HIGH--The screen is split into two portions: the text portion (the top one third of the screen) and a graphics portion. Text is 8 rows by 32 columns; the graphics portion is 128 pixels by 256 pixels.

"SPLIT SCREEN MODE: TEXT LOW-- The same as Split Screen: Text High except that the text is at the bottom one third of the screen, with graphics at the top.

"HIGH RESOLUTION MODE--A full screen graphics mode with 192x256 pixels.

"MULTICOLOR MODE--Rather than in characters or pixels, the screen displays in blocks, with 48 x 64 blocks.

"Screen Margins--CALL MARGINS enables you to redefine the screen margins and thus define a text "window" on the screen.

"FREESPACE(0) returns the amount of unused memory space.

"VALHEX returns the decimal (base 10) value of a hexadecimal (base 16) number.

"TERMCHAR returns the key code of the key combination (such as ENTER, PROC'D, BACK, BEGIN) that terminated the last INPUT, LINPUT, or ACCEPT statement.

"ASSEMBLY LANGUAGE SUPPORT--TMS9995 (of which TMS9900 code is a subset) assembly language subprograms may be loaded and run. The subprograms INIT, LOAD, LINK, PEEK, PEEKV, and POKEV are used to access assembly language subprograms. Relocatable assembly language programs created for TI BASIC will execute correctly, although NUMREF may return an integer value instead of a floating point value. In addition, a string reference error may occur with STRREF because STRREF {in TI BASIC} only allows strings up to 255 characters. All POKEs and PEEKs as used in previous BASICs fail in TI Extended BASIC II. The INIT subprogram with no parameter allocates 8K bytes of memory for assembly language subprograms. If a parameter is specified, more or less (up to 24366 bytes) may be allocated. Examples:

CALL INIT allocates 8K bytes of memory space.
   CALL INIT(200) allocates 200 bytes of memory space.
   CALL INIT(0) releases all memory previously allocated.

"DISPLAY VARIABLE 80 FORMAT--Files in DV80 format, created by the LIST command or a text editing or word processing program, may be loaded with the OLD command. {CG Note: Does this mean that you can just display DV80 on screen, or can you OLD and RUN BASIC code created with a word processor? I don't know.}

"KEY CHIRP--TI Extended BASIC II enables you to turn on an audible "chirp" that sounds whenever a key is pressed. Enter the following command to turn on the key chirp: CALL LOAD(VALHEX("84BD"),1). Enter the following command to turn the key chirp off: CALL LOAD(VALHEX("84BD"),0).

"STRING LENGTH--BASIC II permits strings up to 4090 characters in length. TI BASIC and TI Extended BASIC permit stings of up to {only} 255 characters in length.

"RECORD LENGTH--TI Extended BASIC II allows diskette data files created on the Drive/Controller to have VARIABLE records with lengths up to 4090 bytes. TI BASIC and TI Extended BASIC allow VARIABLE records to be only 254 bytes long. Diskette data files with FIXED length records are limited to 255 bytes

{same as TI BASIC}. TI Extended BASIC II allows cassette data files to have FIXED length records up to 4032 bytes. TI BASIC and TI Extended BASIC limit cassette data files to 192 bytes or less.

"SOFTWARE CARTRIDGES--CALL to routines contained in a plug in cartridge are not accessible in TI Extended BASIC II. Thus, programs that use the Personal Record Keeping cartridge will not execute properly. Text to Speech cannot be accessed from TI Extended BASIC II with the Terminal Emulator II cartridge. Otherwise the Terminal Emulator II cartridge functions normally.

"RESERVED WORDS--The following reserved words are additions to the TI Extended BASIC reserved word list: ALPHA, FREESPACE, INTEGER, LALPHA, REAL, TERMCHAR, and VALHEX.

"CALL DRAW, CALL DRAWTO, CALL FILL, and CALL DCOLOR--These are graphics subprograms which enable you to plot graphics and add color to them on the screen {in graphics mode and in the graphics portion of a split screen}. CALL DRAW and CALL DRAWTO draw or erase lines between specified pixels, thus making elaborate figures or drawings possible. (The screen is comprised of a grid of 256x192 individual pixels.) CALL FILL colors the area surrounding a specified pixel. CALL DCOLOR sets the graphics colors that are used by CALL DRAW, CALL DRAWTO, CALL FILL, CALL HCHAR, and CALL VCHAR.

"Some HexBus peripherals can be accessed by using the general format for file specification described earlier. {This is the method we are all familiar with in BASIC file access with the 99/4A.) Hexbus peripherals that may be accessed with this alternate method of addressing are the Disk Drive/Controller, the RS232, and the HexBus Modem.

Alternate Device name	Hexbus Number
DSK.DISKNAME.........	100.DISKNAME
DSK1................	101
DSK2................	102
DSK3................	103
DSK4................	104
RS232................	20

"HEXBUS SUBCOMMANDS--The CA (catalog) command cannot be used with the Hexbus Disk Drive/Controller peripheral. {CG note: CA is supposed to generate a catalog of programs stored by the 99/8 on a wafertape. On my 99/2 computer CA does generate a catalog of files on a Wafertape or Mechatronic Quickdisk,

and is supposed to work similarly with TI's never released Hexbus Interface for the 99/4A.}

"The available characters {ASCII 0-255} and character sets {32 character sets numbered 0-31} in Pattern Mode are listed.

"The p-System:
"The P-code interpreter, which is built into your computer, enables you to execute existing p-System programs. To develop your own programs you must have a TI disk system (sold separately). Also necessary are some or all of the following TI products (sold separately):

- 1. p-System Editor/Filer/Utilities.
- 2. UCSD Pascal Compiler.
- 3. p-System Assembler/Linker.
"Note: These products are designed specifically for use with the 99/8. Software designed for use with the TI 99/4A Home Computer may not work when used with the 99/8.

"With the p-System you can execute high-level language programs such as UCSD Pascal and TI PILOT. UCSD Pascal is compiled and TI PILOT is interpreted to an intermediate language called "P-code" or "pseudo-code." The p-system interprets the P-code and instructs the computer to execute the appropriate machine language instructions.

"The built in MINI FILER program in the Operating System (unit #14) file named SYSTEM.TI.FILER provides many of the file management capabilities of the p-System Filer program. {MINI FILER is in ROM. The p-System Filer program is extra cost disk software.} Use the "G"o command from the system command level to access the MINI FILER.

"When you enter the MINI FILER, a menu of "Special p-System Commands" is displayed. To select a menu option, press the letter that precedes it.

- A. Run a program
- B. Copy a disk
- C. Copy a file
- D. Delete a file.
- E. List files on a disk.
- F. Format a new disk.
- G. Clear a disk directory.
- H. Combine free disk space.
- I. Change name.
- Q. Return to standard p-System menu.
- ?. Help

- S. Set single disk system.{Toggles to "multiple" disk}

"APPENDIX O: ASSEMBLY LANGUAGE SUPPORT ROUTINES
"The TI Computer 99/8 provides several utilities that enable you to access special capabilities of the computer through TMS9900 assembly language. With these utilities, you can change the values of the VDP chip, access the DSR for peripheral devices, scan the keyboard, kink a program to GPL routines, and link to the Editor/Assembler loader. Remember that these can only be used in TI assembly language programs.

"The following list gives each of the utilities predefined in the REF/DEF table: VSBW VMBW VSBR VWBR KSCAN GPLLNK XMLLNK DSRLNK LOADER.

"The TI Computer 99/8 has more utilities available through the Editor/Assembler than did the TI 99/4A Home Computer. As a result, the XMLLINK tables have been changed, so old assembly language programs may need to be updated

W.W.W. WANDERINGS

with thanks to DAVE CLARK

From FAIAZMC@hsd.utc.comThu Feb 13 19:34:44 1997
Date: Tue, 11 Feb 1997 09:42:00 -0500
From: "Faiaz, Michael C. HSD"
<FAIAZMC@hsd.utc.com>
Reply to: ti99@TheRiver.com
To: ti99 <ti99@TheRiver.com>
Subject: FW: TI99: Personal Identification

Name is Michael Faiaz
14 Putnam Lane
Avon, CT 06001
No user group!

From: MICROPENDIUM@delphi.COM
To: ti99@theriver.COM
Subject: Re: TI99: Personal Identification
Date: Monday, February 10, 1997 8:42PM

Name is Laura Burns
Address POB 1343
Round Rock TX 78680
No user group

From tommyb@tapscan.comThu Feb 13 19:34:52 1997
Date: 11 Feb 1997 11:14:38 CST
From: tommyb@tapscan.com
Reply to: ti99@TheRiver.com
To: ti99@TheRiver.com
Subject: Re: TI99: Atarisoft Joust?

Hi Jim,

TI>Need someone to come up with the graphics/sprite
code?
TI>I volunteer for the job!

I also love doing the graphics/sprite work, but I would be
happy to share source code with you so that our fellow
TI'ers get two great new games instead of one.

My first effort will be put into porting several titles
originally created for the Colecovision game system to the
TI. I don't know how many of you realize it, but the
Colecovision game console (and Adam computer) are
very close relatives to the TI-99. Both platforms use the
same TI graphics and sound chips. However, the
Colecovision systems use a Z80 for their main processor.

There are tons of classic arcade games that were created
for the CV system that never saw the light of day on the
TI. There are also some titles that are far superior on the
CV compared to their TI counterparts. If you have access
to a Colecovision and can compare the Atarisoft
"Defender" and "Jungle Hunt" games, you'll see what I
mean.

I've been collecting technical data on the TI and CV
systems as my time has allowed. I've already dumped
some of the CV cart images and disassembled the Z80
object code to determine how difficult the porting would
be. I'm sure the first title will be tough, but that it will be
much easier for subsequent ones. And, when I'm
finished, I'll have a fine set of graphics and sound
routines for use in creating original games.

Whatever I come up with will be made freely available to
everyone, including the source code. I will be much more
satisfied knowing that the games I create are being played
and enjoyed by fellow TI'ers than being able to put the
$12 in shareware fees I collected on a tax return.

The downside to all this is being able to find any serious
amount of time to put into it for several more months. So,
like I said, don't get too excited just yet.

Sorry for the lengthy message. Just hoping to spark a
little interest! :)

Tom Baggett - tommyb@tapscan.com

From bsnyder@enter.netThu Feb 13 19:34:56 1997
Date: Tue, 11 Feb 1997 17:28:44 4
From: Brad Snyder <bsnyder@enter.net>
Reply to: ti99@TheRiver.com
To: ti99@TheRiver.com
Subject: Re: TI99: Database growing

On 10 Feb 97 at 2:02, Larry Waldron wrote:
Just to let you know that I have received messages from
about thirty subscribers to the list. It will take time, but I
will do as promised and enter all data into T.I. Base
(Yeah!) and provide all responders with a copy provided
you send me a self stamped addressed envelope.

Any chance of this being available on-line somewhere?
Later. . . . . . . Brad

Brad Snyder -- bsnyder@enter.net
TI bbs: 610-760-0527
TI Web Page - http://www.enter.net/~bsnyder/
http://www.lehigh.edu/~bls3/bls3.html

From bsnyder@enter.netThu Feb 13 19:35:00 1997

Date: Tue, 11 Feb 1997 17:31:41 4
From: Brad Snyder <bsnyder@enter.net>
Reply to: ti99@TheRiver.com
To: Larry Waldron <bi336@scn.org>, ti99@TheRiver.com
Subject: Re: TI99: Personal Identification

On 8 Feb 97 at 13:11, Larry Waldron wrote:
I would like to build a data base of all subscribers to the list serv with personal information such as:

    Name :
    Snail Mail address:
    E-mail Address:
    User Group Name:
    User Group Snail Mail address

Brad Snyder
4260 Cedar Drive
Walmutport, PA 18088
bsnyder@enter.net

No user group any more. Used to be the Lehigh 99'ers before we disbanded.
Later. . . . . Brad
--

Brad Snyder -- bsnyder@enter.net
TI bbs: 610-760-0527
TI Web Page - http://www.enter.net/~bsnyder/
http://www.lehigh.edu/~bls3/bls3.html

From cgood@im3.comThu Feb 13 19:35:05 1997
Date: Tue, 11 Feb 1997 18:57:59 -0500
From: Charles Good <cgood@im3.com>
Reply to: ti99@TheRiver.com
To: ti99@TheRiver.com
Subject: TI99: Personal information

Name: Charles Good
Snail mail address P.O. Box 647
            Venedocia OH 45894
Voice phone 419-667-3131
Email address good.6@osu.edu
Web   page   address
www.geocities.com/Heartland/Hills/2761/

User group affiliation: Lima User Group

From tedzychowicz@juno.comThu Feb 13 19:35:10 1997
Date: Tue, 11 Feb 1997 21:35:02 EST
From: Theodore J Zychowicz <tedzychowicz@juno.com>
Reply to: ti99@TheRiver.com
To: ti99@TheRiver.com
Subject: Re: TI99: Atarisoft Joust?

Tom
    You write it and I will try it.
    Ted

On 10 Feb 1997 23:37:04 CST tommyb@tapscan.com writes:
Hi everyone,

Sorry to break up the mailing list... ;)

I've heard that Atari developed/ported the Joust arcade game for the TI-99, but never released it. Has ANYONE ever seen a copy of this game? If so, I'd love to check it out!

BTW, while we're on the subject, I'd like to hear your opinion...Are people that are still active in the TI community interested in new games being produced for the TI, assuming they're better than games that are currently available?

I know everyone's hankering for TCP/IP, SCSI CD-ROM, and other system utility stuff, but I really just want to have some fun with my ol' TI. I write more than enough 32-bit multithreaded C++ code (yatta yatta yatta) in my day job.

I'd give anything I do away for everyone to enjoy, but would like to make sure there will be some takers if I proceed. Don't get too excited yet, though. It's going to be sometime next year ('98!) before I have a chance to get seriously started.
Hope to hear from you...
Tom Baggett - tommyb@tapscan.com

From tommyb@tapscan.comThu Feb 13 19:35:20 1997
Date: 11 Feb 1997 21:48:34 CST
From: tommyb@tapscan.com
Reply to: ti99@TheRiver.com
To: ti99@TheRiver.com
Subject: Re: TI99: Atarisoft Joust?

Hi Ted,
TI>   You write it and I will try it.

Great! One anxious user already...I better get started! :)
Seriously, it'll still be a little while, but I will be working on gathering additional into in the meantime. Right now, I've got to track down a few Z80 manuals so I can start figuring more out on the Colecovision side.

Tom Baggett - tommyb@tapscan.com

From tommyb@tapscan.comThu Feb 13 19:35:27 1997
Date: 11 Feb 1997 21:58:52 CST

From: tommyb@tapscan.com
Reply to: ti99@TheRiver.com
To: ti99@TheRiver.com
Subject: TI99: Another burning question

Hello again everyone,
I just spoke to a friend that is setting up an Internet Service Provider company and it sounds as though I'll be able to swing some high-bandwidth web and FTP space for free in two or three months. In the meantime, I'd like to gather some stuff together.

Can anyone tell me how much data is on Beery Miller's CD-ROM? I'll try to make it available online (with his permission of course). I'd also like to consider making old TI magazines, such as 99er magazine, mail order catalogs and assorted screen/packaging shots from TI software and accessories available. Does anyone know who (if?) I'd have to get authorization from to do this?

By the way, kudos to Bill Gaskill for his efforts in providing scans of TI literature to everyone. It's what got me to thinking about this in the first place.

Look forward to hearing from ya'll...
Tom Baggett - tommyb@tapscan.com

From zapf@vsb.informatik.uni-frankfurt.deThu Feb 13 19:35:32 1997
Date: Wed, 12 Feb 1997 08:12:53 +0100
From: Michael Zapf <zapf@vsb.informatik.uni-frankfurt.de>
Reply to: ti99@TheRiver.com
To: ti99@TheRiver.com
Subject: TI99: CD online?

Hello Tom,
> Can anyone tell me how much data is on Beery Miller's CD-ROM? I'll try to make it available online (with his permission of course).

Hey, this sounds good. So if there are the MDOS sources on the CD, please make them online, too, so that everybody who's interested can download them (the next step to an 'Open MDOS'). I could also 'mirror' the sources and other stuff on our FTP site (however, my space is limited).

Michael
Michael Zapf --- J.W.Goethe-Universitaet, Informatik (Comp. Sci.)
Besucht mich/Visit me: http://www.uni-frankfurt.de/~zapf/
PGP-Schluessel verfuegbar / PGP key available|
TI-99/4A & Geneve 9640: ...tigen.html (tigene.html)

From tommyb@tapscan.comThu Feb 13 19:35:36 1997
Date: 12 Feb 1997 02:37:34 CST
From: tommyb@tapscan.com
Reply to: ti99@TheRiver.com
To: ti99@TheRiver.com
Subject: TI99: CD online?

Hi Michael,
Can anyone tell me how much data is on Beery Miller's CD-ROM? I'll try to make it available online (with his permission of course).

Hey, this sounds good. So if there are the MDOS sources on the CD, please ma them online, too, so that everybody who's interested can download them (the step to an 'OpenMDOS'). I could also 'mirror' the sources and other stuff on FTP site (however, my space is limited).

I won't be limiting my online material to the CD contents. If the MDOS source can be made available, I would be happy to put it up there. It's my understanding the CD contains every known share/fair/free-ware program available. I thought this would be a good (and easy) starting point.

I'm excited about the idea! Hopefully, we'll be able to insure that valuable resources and technical information aren't lost as people move on to other things (or other astral planes, as the case may be). I'm hoping the TCP/IP support will be completed for the TI, so people could actually access my FTP site on their TI's.

Tom Baggett - tommyb@tapscan.com

From ab453@cleveland.Freenet.EduThu Feb 13 19:35:41 1997
Date: Wed, 12 Feb 1997 06:54:47 -0500 (EST)
From: Jim Krych <ab453@cleveland.Freenet.Edu>
Reply to: ti99@TheRiver.com
To: ti99@TheRiver.com
Subject: Re: TI99: Atarisoft Joust?

Alas,
A programer I am not. But there are others I know who are quite good. Hmmm. Imagine if a SuperAMS card were used too......

Regards,
Jim

"As iron sharpens iron, so one man sharpens another."
Proverbs 27:17

From TWills@TheRiver.comThu Feb 13 19:35:49 1997

Date: Wed, 12 Feb 1997 09:01:24
From: Tom Wills <TWills@TheRiver.com>
Reply to: ti99@TheRiver.com
To: Tucson Computer Society <tcs@rtd.com>, snooze-l@rtd.com,
    ti99@TheRiver.com
Subject: TI99: Packard Bell Monitors

I have a catalog in front of me that lists a "factory refurbished" 15" Packard bell monitor for $260. First of all, I'm not sure if this is a good price, and secondly I'm unfamiliar with the quality of a P.B. monitor. I'd appreciate some feedback on the subject.

Tom Wills

```
*****************************************
* Tom Wills
* Information Systems Coordinator
* Pima County WWM - TSS/IMU
* (520) 579-6014 / (520) 579-6002 (Fax)
*****************************************
```

From tommyb@tapscan.comThu Feb 13 19:35:57 1997
Date: 12 Feb 1997 10:35:40 CST
From: tommyb@tapscan.com
Reply to: ti99@TheRiver.com
To: ti99@TheRiver.com
Subject: Re: TI99: Atarisoft Joust?

Hi Jim,
TI>A programer I am not. But there are others I know who are quite good. I will almost certainly be able to use some pointers once I get started.   I'm sure you'll be hearing from me!

TI>Hmmm. Imagine if a SuperAMS card were used too......
My initial plans were to stick with a stock console/PEB system, allowing for the largest possible userbase. The 32K RAM would cover the largest Colecovision game, at least. However, I intend to do some animation stuff that could benefit from the extra RAM, assuming the bank-switching wouldn't present any problems, i.e., "hiccuping" when bank switching occurs. Maybe we could have extended/deluxe versions of the games for the SuperAMS card?

By the way, how much is the SuperAMS card?
Regards,
Tom Baggett - tommyb@tapscan.com

From landers@azstarnet.comThu Feb 13 19:36:02 1997
Date: Wed, 12 Feb 1997 09:50:52 -0700 (MST)

From: "L.   A.   {Andy}   Anderson"
<landers@azstarnet.com>
Reply to: ti99@TheRiver.com
To: Tom   Wills   <TWills@TheRiver.com>,   Tucson
Computer Society <tcs@rtd.com>,
    snooze-l@rtd.com, ti99@TheRiver.com
Subject: TI99: Re: Packard Bell Monitors

>I have a catalog in front of me that lists a "factory refurbished" 15" Packard bell monitor for $260. First of all, I'm not sure if this is a good price, and secondly I'm unfamiliar with the quality of a P.B. monitor. I'd appreciate some feedback on the subject.
Tom,

My experience with PB monitors is... poor quality...
Andy

From TWills@TheRiver.comThu Feb 13 19:36:06 1997
Date: Wed, 12 Feb 1997 10:05:31
From: Tom Wills <TWills@TheRiver.com>
Reply to: ti99@TheRiver.com
To: ti99@TheRiver.com
Subject: Re: TI99: Atarisoft Joust?

At 10:35 AM 2/12/97 CST, you wrote:
By the way, how much is the SuperAMS card?
Regards,
Tom Baggett - tommyb@tapscan.com

The 256k version is $85 and the 512k version is $100 (plus S&H) and is sold through the SouthWest Ninety Niners user group.
Tom Wills

```
*****************************************
* Tom Wills
* Information Systems Coordinator
* Pima County WWM - TSS/IMU
* (520) 579-6014 / (520) 579-6002 (Fax)
*****************************************
```

From twb@azstarnet.comThu Feb 13 19:36:10 1997
Date: Wed, 12 Feb 1997 10:13:14 -0700
From: Tom Beachboard <twb@azstarnet.com>
Reply to: ti99@TheRiver.com
To: Tom Wills <TWills@TheRiver.com>
Cc: Tucson Computer Society <tcs@rtd.com>, snooze-l@rtd.com,
    ti99@TheRiver.com
Subject: TI99: Re: Packard Bell Monitors

Tom Wills wrote:

I have a catalog in front of me that lists a "factory refurbished" 15" Packard bell monitor for $260. First of all, I'm not sure if this is a good price,

I bought a PB monitor with my computer it was barely used. It has performed as prescribed but the screen is more grainy than another monitor I have. I personally would not buy another PB of any type.

Thought for the day;

What would be here, if the Universe wasn't?

From jc_williams@mindspring.comThu Feb 13 19:36:42 1997
Date: Wed, 12 Feb 1997 12:49:23
From: JC Williams <jc_williams@mindspring.com>
Reply to: ti99@TheRiver.com
To: ti99@TheRiver.com
Subject: TI99: Internet Surcharges

Following is a message I got from my Novell Netware User Group about the
Internet surcharge. I thought you'd all like to see it too.

Tom Wills

Here is a message sent to me from Flash Net, thought you should be aware.

Also let me know how long this e-mail address will be good for and if there is a new one available? & your new phone number.

From: <Herb>deltabio@flash.net
....
FCC Internet Access Charge Reform (FlashNet Communications, Tue 15:00)

Dear FlashNet customer,

We are writing you this to inform you of a very important matter currently under review by the FCC. Your local telephone company has filed a proposal with the FCC to impose per minute charges for your Internet service. They contend that your usage has or will hinder the operation of the telephone network.

It is our belief that internet usage will diminish if users were required to pay additional per minute charges. The FCC has created an email box for your comments; responses must be received by February 13, 1997. Send your comments to isp@fcc.gov and tell them what you think.

Alert everyone in your addressbook, and most importantly the subject line should have "CC Docket No 6-263". FULL NAME AND ADDRESS SHOULD ACCOMPANY THE EMAIL otherwise it will be deleted. Again, the email to FCC is isp@fcc.gov

More information can be found at the FCC website:
    http://www.fcc.gov/isp.html

Please forward this email to all your friends on the internet so all our voices may be heard.

Thanks for your time.

```
*********************************************
            M. Scott Leslie
     President - FlashNet Communications
      a division of WebSite Management Co., Inc.
*********************************************
```

```
*********************************************
        * Tom Wills, President
     * SouthWest Ninety Niners User Group
      * Sponsors of the TI99 List Server
     * (520) 579-6014 / (520) 579-6002 (Fax)
*********************************************
```
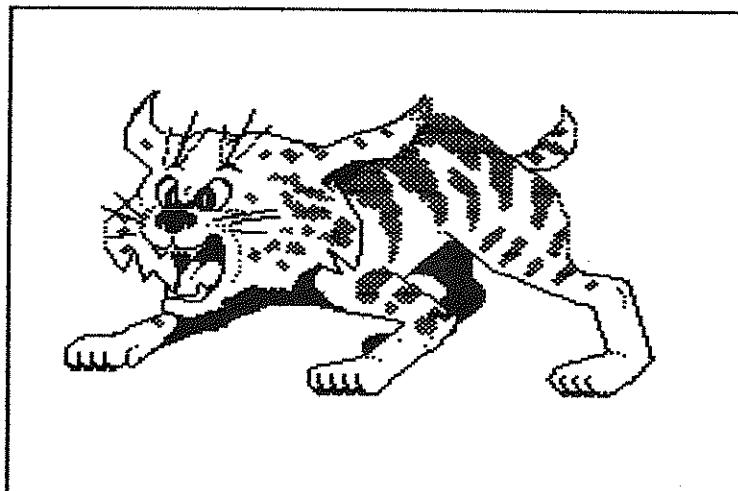
BOOT SECTOR BACKUP

By John Paine

Any experienced computer user can tell you real-life horror stories to illustrate the importance of backing up data. However, your data isn't the only important information on your hard disk. Perhaps the most critical 512 bytes on any hard disk reside in the very first sector on the disk, more commonly known as the boot sector. If an errant or malicious program erases or alters the data in the boot sector, your entire hard disk can become inaccessible. When this occurs, you'll see one of the following horrifying messages:

No boot partition
Invalid drive designation
No boot sector on hard disk

Once you realise your boot sector is gone, your first instinct may be to run FDISK to recreate the boot sector data. Unfortunately, most versions of FDISK initialise not only the boot sector, but also the primary partition's root directory and file allocation table (FAT). As a result, FDISK allows you to gain access to your hard disk but wipes out all references to the files and subdirectories that once contained your data. At that point, your data's as good as gone.

Corrupted boot sectors used to happen more frequently in the days before PCs had self-parking hard disks. Indeed, most of today's DOS users will probably never have the displeasure of encountering a corrupted boot sector--unless their computers contract a virus that decides to make the hard disk inaccessible by erasing the partition table.

In this article, I will present two simple programs that let you back up and restore your hard disk's boot sector. I will explain the benefits and dangers of using these programs, and I will also describe any situations in which using these programs is appropriate or inappropriate.

What is the boot sector?

As mentioned, the boot sector is the first sector on every hard disk. The official address of the boot sector (in terms of drive head positioning) is cylinder 0, head 0, sector 1. The boot sector holds two very important, but distinct, pieces of information--the bootstrap code and the partition table.

When you boot from your hard disk, the first instructions your computer executes are in the bootstrap code. The bootstrap code begins with the first byte of the boot sector. This code instructs the CPU to load the operating system into memory from the hard disk and then jump to the entry point in the operating system code.

The partition table resides at the end of the boot sector and describes where on the disk the operating system code resides. In addition, it describes how much disk space you've allocated to each logical partition on the hard disk. The bootstrap code uses information from the partition table to locate the operating system code on the hard disk during the boot process.

If the partition table becomes damaged, neither the bootstrap code nor any other program will be able to locate data on your hard disk. In contrast, if only the bootstrap code becomes damaged and the partition table remains intact, you won't be able to boot from the drive, but you can still access all your data by booting from drive A.

Incidentally, some disk utility programs, such as PC Tools and Norton Utilities, can rebuild a damaged partition table by thoroughly examining the hard disk and deducing what the table's contents must have been. The programs presented aren't nearly this robust, but they're just as valuable when a crisis strikes.

WARNING: PROCEED with caution

Before going any further, I need to lay a few ground rules because saving and restoring boot sectors is an extremely dangerous process. If you mistype a command in one of the Debug scripts or restore someone else's boot sector onto your computer, you may lose all the data on your hard disk.

Because of the risks involved, you should back up all files in all partitions on all your hard disks before creating or testing the programs presented here. Furthermore, although I have tested these programs on many computers, I can't guarantee the programs will work as stated on all computers--all the more reason to back up your hard disk.

TISHUG doesn't warrant the accuracy or validity of the Debug script files SAVEBOOT.SCR and RESTBOOT.SCR or the programs they create for any purpose, expressed or implied. The person executing these programs takes sole responsibility for any damage resulting from their use or misuse.

Saving the boot sector

Now, let's return to the business at hand. Writing a program to save the contents of the boot sector is a simple, if risky, process. The program must perform three tasks--use BIOS interrupt 13h to read the boot sector, create a file, and write the boot sector's contents to the file. Figure A shows the Debug script file SAVEBOOT.SCR for generating SAVEBOOT.COM, a program that performs those three steps.

To create SAVEBOOT.COM, use Edlin, DOS 6's Edit, or another text editor to create the file SAVEBOOT.SCR. Then, enter into the file all the commands exactly as they appear in Figure A. (Note: You don't need to enter the semicolons or

the comments immediately to their right.) Be sure to leave a blank line before the RCX command.

Once you've finally created SAVEBOOT.SCR, use the following command to generate the executable file SAVEBOOT.COM:

DEBUG<SAVEBOOT.SCR

SAVEBOOT.COM reads the boot sector from the first hard drive on your system and then places a copy of the boot sector's 512 bytes in the BOOTSECT.DAT file that's located in the current directory.

Verifying the data in BOOTSECT.DAT

The first time you run SAVEBOOT.COM (after backing up your hard disk, of course), you should verify that BOOTSECT.DAT does indeed contain data from the boot sector. You can do this by using Debug to examine the file's contents. Use the command:

DEBUG BOOTSECT.DAT

to instruct Debug to load the file into memory. In response, Debug displays its standard prompt--a single dash--and then waits for your command.

The partition table is the easiest data structure to identify inside the boot sector. At Debug's dash prompt, type the command :

D 02BE 02FF

to display the final 66 bytes of the boot sector. You should see a display similar to that in Figure B.

The first identifying mark you should look for consists of the hexadecimal values 55 and AA in the final two bytes. These values are not part of the partition table (which extends only from offset 02BE through offset 02FD)--they comprise a signature word identifying the sector as a boot sector. If you don't see this signature, either SAVEBOOT.COM contains an error or there's something wrong with the hard drive's boot sector.

The second identifying mark is the value 80 in the first (highlighted) byte of the partition table. (Figure B shows this byte at offset 02BE.) This value indicates a bootable partition. Alternatively, you may find the value 80 in one of the other highlighted bytes appearing directly below the value 80 in Figure B. If you don't see an 80 in any of these four positions, the hard disk doesn't contain a bootable partition.

Restoring the boot sector

To restore the the boot sector, you need to transfer the 512 bytes in BOOTSECT.DAT to the first sector on the hard disk.

Figure C shows the Debug script file RESTBOOT.SCR, which generates the executable file that's named RESTBOOT.COM.

You use the procedure described for creating SAVEBOOT.COM to create RESTBOOT.COM from this Debug script. RESTBOOT.COM reads 512 bytes from the file BOOTSECT.DAT in the current directory and writes them to the first sector of the first hard disk on your computer.

Verifying that RESTBOOT.COM works

The only way to test RESTBOOT.COM is to run it and then see if the computer can still boot from the hard disk. Unfortunately, if it doesn't work, it may trash your hard disk. If that occurs, you'll have to run FDISK to rebuild your partitions, reformat all the logical drives, and restore your data to the hard disk.

For this reason, you should check and re-check the Debug script file RESTBOOT.SCR several times for accuracy before running the resulting program. In addition, if you have an old PC or AT sitting around that nobody uses, you may want to test the SAVEBOOT.COM and RESTBOOT.COM programs on it so you're not jeopardising live data.

Before you test RESTBOOT.COM, you need to make a bootable floppy diskette—an emergency diskette--in case the program doesn't work. Copy the DOS programs FDISK, FORMAT, EDLIN, DEBUG, and CHKDSK to this bootable diskette. Also, copy SAVEBOOT.COM, RESTBOOT.COM, RESTBOOT.SCR, and BOOTSECT.DAT to the diskette. In addition, the diskette should contain the DOS RESTORE program if you used BACKUP to back up the files on your hard disk. Test this diskette to ensure you really can boot from it before moving to the next step.

Once you've verified that you can boot from the floppy diskette, insert the diskette in drive A, change the current drive to drive A by typing A: and pressing [Enter]. Drive A must be the current working drive, since RESTBOOT.COM will always look for BOOTSECT.DAT in the current directory.

Finally, you're now prepared to test RESTBOOT.COM, so type the command RESTBOOT. Then, remove the diskette from drive A, press [Ctrl][Alt][Del], and pray. If anything went wrong and the computer fails to boot, you'll have to reboot from the floppy diskette, using the FDISK, FORMAT, and RESTORE programs to restore your hard disk. Luckily, the odds that something will go wrong are small. It's more likely that your computer will boot from the hard disk just as it has always done in the past.

Testing RESTBOOT.COM by purposely trashing your boot sector

Just because your computer boots after performing the above test doesn't mean that RESTBOOT.COM worked correctly.

For instance, if it failed to write to your hard disk at all, your computer will boot just fine. As the final step in the test sequence, you need to purposely trash your boot sector to ensure that RESTBOOT.COM can restore the boot sector to its original state.

Save the real boot sector in a file named BOOTSECT.SAV on the floppy diskette by typing the command:

COPY A:BOOTSECT.DAT A:BOOTSECT.SAV

Just to be safe, make another copy of the file by typing the command:

COPY A:BOOTSECT.DAT A:BOOTSECT.XXX

Then, create on drive A a fake BOOTSECT.DAT file containing garbage by typing the command:

DIR > A:BOOTSECT.DAT

Now, change to drive A, type RESTBOOT, open the door to the drive, and then press [Ctrl][Alt][Del]. Your computer should fail to boot and should display a warning message regarding the lack of valid boot sector on the hard drive.

To restore your hard disk to its former condition, reboot from the diskette in drive A and copy the boot sector's original 512 bytes into the BOOTSECT.DAT file by using the command:

COPY BOOTSECT.SAV BOOTSECT.DAT

Then, type RESTBOOT to copy the boot sector to the hard drive, open the door to drive A, and reboot. If, after all this, your computer still reboots properly from the hard drive, you can rest assured that SAVEBOOT.COM and RESTBOOT.COM are working perfectly.

WHEN and how TO USE SAVEBOOT.COM AND RESTBOOT.COM

Once you've backed up your computer and verified that SAVEBOOT.COM and RESTBOOT.COM work correctly, it's a good idea to always keep a copy of your emergency diskette nearby. However, if one day your computer fails to boot, you should attempt rewriting the boot sector with RESTBOOT.COM only as an absolute last resort.

When your computer fails to boot, or if you're unable to access drive C after booting from drive A, a corrupted boot sector is only one of several possible causes. Here are several other possible causes with the same symptoms:

A loose or defective hard drive controller cable
Bad or corrupt hardware configuration information in your computer's CMOS memory
A mechanical failure, such as a hard disk crash

RESTBOOT.COM won't solve any of those other hard disk problems and, in fact, could make matters worse by writing to the hard disk while it's improperly configured. Therefore, only use RESTBOOT.COM after you've ruled out the other possibilities.

In organisations having many identically configured machines, SAVEBOOT.COM and RESTBOOT.COM can be helpful in restoring a machine's boot sector, even if you never ran SAVEBOOT.COM on the machine. You can borrow the boot sector from an identical machine and write that boot sector to the problem machine. However, for this trick to work, the machines must be identical in hardware, partition size, and DOS version.

Even so, before copying the boot sector from one machine to another, always use SAVEBOOT.COM to save a copy of the problem machine's boot sector. That way, if the problem turns out to be something else, you can restore the machine's boot sector to its original state.

Finally, if you use SAVEBOOT.COM to make copies of the boot sectors from multiple machines, don't leave all the boot sectors in files named BOOTSECT.DAT. Use descriptive filenames to keep track of the boot sectors and rename them to BOOTSECT.DAT whenever you need to use them.

Figure A

This Debug script generates SAVEBOOT.COM.

```
N SAVEBOOT.COM
A 100
ORG 100    ; =====READ BOOT SECTOR=====
MOV AX,CS  ; Place code segment address
MOV DS,AX  ; ...into both DS
MOV ES,AX  ; ...and ES registers
MOV AX,0201 ; BIOS Func - Read 1 sector
MOV BX,0200 ; Offset of memory buffer
MOV CX,0001 ; Cylinder 0, sector 1
MOV DX,0080 ; Head 1, Hard drive 0, (0081 Hard drive 1)
INT 13     ; Call BIOS to read sector
JNC 011B   ; Jump to next step on success
MOV AL,01   ; If failure, ERRORLEVEL=1
JMP 013E   ; ...and terminate program
NOP        ; =====OPEN BOOTSECT.DAT=====
MOV AH,3C   ; Function 3Ch - Create File
MOV CX,0000 ; No special file attributes
MOV DX,0142 ; Offset of filename
INT 21     ; Call DOS to create file
JNC 012C   ; Jump to next step on success
MOV AL,02   ; If failure, ERRORLEVEL=2
JMP 013E   ; ...and terminate program
NOP        ; =====WRITE DATA TO FILE=====
MOV BX,AX  ; Move file handle to BX
MOV AH,40   ; Function 40h - Write to file
MOV CX,0200 ; Number of bytes to write: 512
```

```
MOV  DX,0200  ; Offset of memory buffer
INT  21     ; Call DOS to write to file
MOV  AL,00   ; Clear ERRORLEVEL
JNC  013E   ; Jump to exit on success
MOV  AL,03   ; If failure, ERRORLEVEL=3
MOV  AH,4C   ; Function 4Ch - Terminate
INT  21     ; Call DOS to end program
DB   'BOOTSECT.DAT',0

RCX
4F
W
Q
```

FIGURE B

Use Debug to examine BOOTSECT.DAT.

-D 02BE 02FF

```
150C:02B0                          80 01         ..
150C:02C0  01 00 06 0F 91 F0 11 00-00 00 FF 1F 03 00 00 00
..............
150C:02D0  00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 00
..............
150C:02E0  00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 00
..............
150C:02F0  00 00 00 00 00 00 00 00-00 00 00 00 00 00 55 AA
..............U.
```

FIGURE C

This Debug script generates RESTBOOT.COM.

```
N RESTBOOT.COM
A 100
ORG  100    ; ====OPEN BOOTSECT.DAT====
MOV  AX,CS   ; Place code segment address
MOV  DS,AX   ; ...into both DS
MOV  ES,AX   ; ...and ES registers
MOV  AX,3D00 ; Function 3Dh - Open File
MOV  DX,0140 ; Offset of filename
INT  21      ; Call DOS to open BOOTSECT.DAT
JNC  0115    ; Jump to next step on success
MOV  AL,02   ; If failure, ERRORLEVEL=2
JMP  013C    ; ...and terminate program
NOP          ; ====READ DATA FROM FILE====
MOV  BX,AX   ; Move file handle to BX
MOV  AH,3F   ; Function 3Fh - Read from file
MOV  CX,0200 ; Number of bytes to read: 512
MOV  DX,0200 ; Offset of memory buffer
INT  21      ; Call DOS to read from file
JNC  0128    ; Jump to next step on success
MOV  AL,03   ; If failure, ERRORLEVEL=3
JMP  013C    ; ...and terminate program
NOP          ; ====WRITE BOOT SECTOR====
MOV  AX,0301 ; BIOS Func - Write 1 sector
MOV  BX,0200 ; Offset of memory buffer
```

```
MOV  CX,0001 ; Cylinder 0, sector 1
MOV  DX,0080 ; Head 1, Hard drive 0 ,( 0081 for Hard drive
1)
INT  13     ; Call BIOS to write sector
MOV  AL,00   ; Clear ERRORLEVEL
JNC  013C    ; Jump to exit on success
MOV  AL,01   ; If failure, ERRORLEVEL=1
MOV  AH,4C   ; Function 4Ch - Terminate
INT  21      ; Call DOS to end program
DB   'BOOTSECT.DAT',0

RCX
4D
W
Q
```

Conclusion

Although you may never need them, the SAVEBOOT and RESTBOOT programs can be life savers when disaster strikes. Whether you manage one or 1,000 computers, the time it takes to save a copy of your boot sector is trivial compared to the time it can take to recreate several megabytes of lost data.

THE FAMILY PC

edited by Stefan. Milloy .

Does your household have the following scenario. The man of the house just loves using his currently installed windows 95, unfortunately the wife doesn't feel the same, she preferred the old windows 3.11 . The teenage children wont use anything else except UNIX.

Why not install all of them on a single primary DOS partition. Well there is a way !. The program is called **" SYSTEM COMMANDER "**
The program will allow you to have up to 32 operating systems into a single primary DOS partition. When your system boots up system commander will display a menu allowing you to choose a operating system from those you have installed.

The program is compatible with Windows 3.x , Windows 95 , Windows NT.,OS/2 ,NetWare
MS DOS 3.x and later, PC-DOS 3.x and later, DR-DOS 5.0 and later ,
Novell DOS 7 .
These are just a few of the possibilities.

HOW DOES IT WORK ?
Will from what I can make out from the information I read System Commander loads its own Master Boot Record(MBR) saving the old one for future uninstall option.
The next time you start up your system your BIOS loads System Commander .
System Commander then collects information about each operating system installed. These operating systems are then displayed in menu form on the screen. On making a selection from the menu System Commander installs the necessary configuration files , and loads the particular boot record. This then in turn overwriting the memory taken up by System Commander .Your current operating system there-fore has no knowledge of System Commander.

Other features include :-

Default operating system , with optional time out.

Sound effects when System Commanders menu appears .

DOS boot sector virus protection.

passwords , disk information , help ,etc.
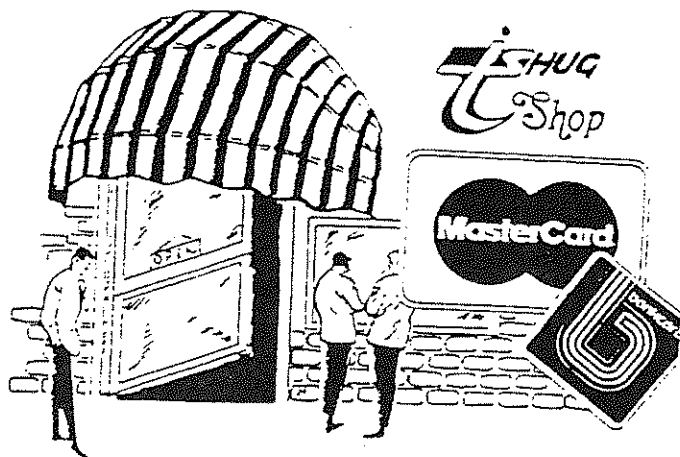
System Commander
is supplied from CheckMARK Technologies.
Contact:- (02) 9957 6970

Many thanks must go to Rachel Sydenham from CheckMARK Technologies for her quick and pleasant response in faxing me the information on System Commander.

In the two pictures above there are 11 obvious mistakes see if you can find them

486 PCI mother board (NEW) $ 60.00
486 VL Buss mother board S/H $ 20.00
386 Mother board with DX40 CPU $ 30.00
Microsoft Encarta 96 Encyclopedia $ 30.00
Windows 3.1 sofware & book $ 30.00
Windows 3.1 book only $ 5.00

For current pricing of items not listed please contact Cyril Bohlsen at the general meetings or Phone (02) 639 5847

NOTE : All prices listed are at time of printing, and may change at any time. Prices do not cover posting and packaging.

The IBM SHOP
with Cyril Bohlsen

60mb 'NEC' hard dsk   S/H $ 50.00
115mb 'SEAGATE' hard disk S/H $ 80.00
3.5" Disk storage box   (100 cap) $ 10.00
5.25" Disk storage box   (100 cap) $ 10.00
Parallel printer cable   1.8M $ 5.00
3 Button mouse $ 14.00
Mouse pad $ 1.50
WIN95 Keyboard 104 keys $ 20.00
3.5" Mitsumi floppy disk drive $ 35.00
12 spd. CD-ROM drive 'Mitsumi' IDE $ 170.00
16 bit 'KTX' ESS sound card $ 45.00
3.5" power adaptor cable $ 6.00
3.5"-5.25" FDD mounting kit $ 8.00
3.5"-5.25" H/disk mounting bracket $ 8.00
15-9 pin "D" adaptor for Monitor $ 6.00
Auto Print Switch Agilier AGX-201P $ 20.00
CPU fan & heat sink (for 486) $ 6.00
CPU fan & heat sink (for 686) $ 7.50
Heat sink for 486 CPU's $ 2.00
Intel 386DX-20 CPU $ 5.00
Intel 486SX-33 CPU $ 22.00
AMD 486DX-40 CPU $ 40.00
16mb Simm 72 pin 60ns N/P $ 135.00
1. 8mb Simm 72 pin 60ns N/P $ 70.00
4mb Simm 72 pin 70ns N/P $ 38.00
4mb Simm 30 pin 70ns W/Polarity $ 48.00
1mb Simm 30 pin 70ns with Parity $ 12.00
1mb Simm 30 pin 100ns with Parity $ 8.00
256k Simm 30 pin with Parity $ 8.00
30-72 pin Simm adaptor $ 25.00

Hints for THE NEVERHOOD

By Larry Saunders

The NeverHood is a Adventure game for kids to adults. It is a adventure in a world made out off clay. You point your mouse at a item, door, window, fountain, water, etc. When you travel around you will find things that seem to do nothing, e.g. Button that makes a sound when pressed and a different sound when pressed again. 100 percent of the time the first sound unlocks something in another place and the second re-locks it.

There is a section in the game with a door with three locks on it. To unlock it find the three buttons that make the matching sounds.

Another section has a fountain, a door with five pipes above it and to the side. The pipes on the side you must get the sound to match the pipes above the door. But before you can do that you must turn on fountain water. Find a glass. And drink a glass of water. The pipes change sounds with each spit of water added to them.

HINT.... Each pipe has a different amount in it. 0 - 4. When inside there is a ladder going up. If you cannot climb it THINK what looked the same as it and go back and close it. Them you will be able to climb the ladder.

The Making of the Neverhood

It all started in 1955 at a collection of artworks by Douglas TenNapel. "A Beautiful Day in the Neverhood" was the title of 17 pieces of art depicting a whimsical clay town. On a sunny day 7 years later, Douglas and his team pitched "The Neverhood, An All-Clay Video Game" to Steven Spielberg and his gang. Steven liked it and the rest is history.

MOOCOOBOOLA COMPUTER CLUB FOR SENIORS

44 GLADESVILLE RD HUNTERS HILL
CONTACTS   M. Taplin (02)98172755
              B. Benjamin (02)98170101

The club enables older men and woman to sit at a computer and learn how to use it.
All in a friendly environment in the company of others of their own age group.
Costs are kept low and within the means of those on retirement incomes.
All retirees are welcome to join as are other computer wise persons who are willing and able to instruct.
It is the computer age. Catch up to the language that your children and grand children use. Have fun. Type letters. Play games. Keep your records. Write your story. Follow your own interests. Keep your mind active.
There is a surprising number of things that you can do on a computer.
The club meets at the Gladesville Road Community Centre 44 Gladesville Rd Hunter's Hill on Tuesday evenings from 7pm to 9 pm and on Wednesdays and Thursdays from 10am to 12 noon.

END OF ARTICLE

Basic skills lacking at school in computer age

By LOUISA HATFIELD

With thanks to the Sydney Morning Herald.

More schoolchildren are finding basic skills, such as using a pencil or pair of scissors, difficult because of the amount of time they spend in front of computers, university researchers claim.

Children as old as 14 years can have problems with the mechanics of using a pen, according to the Centre for Movement Education and Research at Griffith University in Brisbane.

And although much of the experts' information is only anecdotal, the rise in passive forms of recreation including the "virtual" activities offered by computers is, they believe, one of the major causes.

"Using a keyboard or mouse is a completely different skill to using a pen to write or draw," said the centre's program coordinator, Mr. Shayne Ostwald.

People often thought holding a pen was all about using fingers - as with a keyboard - but although grip was important it was good wrist rotation skills that were vital, Mr. Ostwald said.

"We gets lots of kids as old as 14 years who find it difficult to write because they haven't learnt the biomechanics of it.

"And that is a by-product of the kind of things kids do today.

"I am a firm believer in computer technology at school, but we need to strike a balance," Mr. Ostwald said.

Five years ago the centre, which hopes to start up in Sydney in about 12 months, saw only 50 children annually: now it sees 1,000 children. Its staff arrange with schools to develop programs aimed at improving students' postural control, fine motor skills and gross motor skills.

There were three aspects to a child's education: cognitive, developmental and motor, Mr. Ostwald said.

"The motor aspect has only become recognised as really important in the last couple of years," he said.

"Now it is realised that if you don't have the necessary motor skills it can create problems with the other two."

Although motor skills have always been nurtured during early childhood it is now seen as important to keep nurturing them through the school years.

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END OF ARTICLE

Life. Be in it.

Taking a small look at Windows 95

Start button and taskbar
At the bottom of your screen is the taskbar. It contains the Start button, which you can use to quickly start a program or to find a file. It's also the fastest way to get Help.
When you open a program, document, or window, a button appears on the taskbar. You can use this button to quickly switch between the windows you have open.

My Computer
You can use My Computer to quickly and easily see everything on your computer. Double-click the My Computer icon on the desktop to browse through your files and folders.

Windows Explorer
In Windows Explorer, you can see both the hierarchy of folders on your computer and all the files and folders in each selected folder. This is especially useful for copying and moving files. You can open the folder that contains the file you want to move or copy, and then drag it to the folder you want to put it in.
To find Windows Explorer, click the Start button, and then point to Programs.

Network Neighborhood
If you are using a network, the Network Neighborhood icon appears on your desktop.
Double-click it to browse through the computers in your workgroup and the computers on your entire network.

Long filenames
You can now give any name to a file; you are not limited to eight characters with a three-character extension. You can even use spaces!

The desktop
When you start Windows, the large area you see is called the desktop. You can customize the desktop by adding shortcuts to your favorite programs, documents, and printers, and by changing its look to fit your mood and personality.
To adjust settings such as desktop color and background, use your right mouse button to click anywhere on the desktop, and then click Properties.

Properties
When you want to view or change information about any item, such as a document, program, folder, disk drive, or printer, you can look at its properties. Use the right mouse button to click the item, and then click Properties on the menu.
For MS-DOS-based programs, you no longer need to create and modify .pif files; you just modify the properties for the program.

Folders
Your documents and programs are stored in folders, which you can see in My Computer and Windows Explorer. In previous versions of Windows, folders were called directories.

Shortcut menus
You can use your right mouse button to click any item and see a shortcut menu. This menu contains common commands that you can use on the item you clicked. For example, by clicking a file with your right mouse button, you can choose to open, copy, or delete it.

Close, Minimize, and Maximize buttons
Every window has an   (Close button) in the upper-right corner that you can click to close the window and quit the program.
The Minimize and Maximize buttons also have a new look.

What's This?
In dialog boxes, you can easily get Help on an option or area by clicking in the upper-right corner of the window and then clicking the item you want Help on. A pop-up window appears containing an explanation of the item.
Another way to get Help is to use your right mouse button to click an item, and then click What's This? on the menu that appears.

Faster ways to get your work done
Windows includes more ways to help you get your work done faster.

Find command Run command Documents command Open With command AutoPlay for CDs Quick View Add New Hardware wizard Faster printing Improved multitasking and performance

Find command
You can now locate files and folders easily by using the Find command on the Start menu. The tabs in the Find dialog box make it easier to fully define your search criteria, which you can then save instead of having to re-create common searches.
You can also use the Find command to quickly find other computers on your network.

Run command

You can use the Run command on the Start menu to start any program or to open any folder, whether it is on your computer or on another computer on the network.

The commands you run are saved, so you can easily run a command again by selecting it from the list in the Run dialog box.

Documents command

You can quickly open a document you've worked on recently by using the Documents command on the Start menu.

Open With command

When you double-click a file and Windows doesn't know which program to use to open it, the Open With dialog box appears and you can specify the program you want to use.

AutoPlay for CDs

Just insert your audio CD into the CD-ROM drive, and it will start playing.

Quick View

You can now view documents that were created with popular Windows-based programs without starting the program. Just click a document you would like to view in My Computer or Windows Explorer, and then click Quick View on the File menu.

If Quick View is not available, either your program doesn't support it, or it is not installed on your computer. Look up "installing, Windows components" in the Help Index.

Add New Hardware wizard

The Add New Hardware icon in Control Panel opens a "wizard" that helps you install new hardware devices on your computer. Windows uses Plug and Play technology to make this process easier, even for devices that do not support Plug and Play.

Faster printing

Windows prints your documents "in the background," so you can get back to work quickly after you send your document to the printer.

Windows also has a new Add Printer wizard that makes setting up new printers fast and easy. Click the Start menu, point to Settings, and then click Printers.
Improved multitasking and performance

You will notice big performance improvements throughout Windows. Smoother multitasking lets you use many programs at once; if you are doing something in a program and see an hourglass cursor, just move your mouse to a different window, and you'll be able to work in another program!

Also, Windows checks to make sure that it is running at the optimal performance level for your computer.

PUZZLE

The subject of this puzzle is based around the colour "Brown".

```
E V B U S G X C Z E O B T C S
P T E H M M O Z T M R C W H R
Z R A D S F W T U N O C O C O
K I R L F E E D N W J N Y Y G
R D K E O N V G T O Z F K A Y
A B E R U C U A S R Y V A E F
B U S R K O O K E B O Y N Y Y
H P B I Q C C H H L V K I W V
A W M U U O T Y C A N L K C N
O H D Q R A U A O L Z J W B L
U O F S E N N F M U I E E V W
L Z A L F O L Y R A J W L S B
H L M S M I A I N H X N J X O
H F Y I C P W K E Z R A U J A
```

There are 22 words below, see if you can find them in the jumbled letters above, GOOD LUCK!

Auburn	Dirt
Bark	Hair
Bear	Hazel
Brown	Leather
Brunette	Leaves
Chestnut	Monkey
Chocolate	Oak
Cocoa	Rocks
Coconut	Squirrel
Coffee	Volcano
Cow	Walnut

Review of WinHog.

By **Michael D. Price**

Specifications and Requirements
Software Title: WinHog Version 4.0

Author or Company: Michael D. Price, CSP
P.O. Box 149
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Availability: Windows Magazine Software Library (AOL)
Filename: WINHOG.ZIP

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Filesize (unZIPped): 182,682 bytes

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