BOB TERM v1.0 Documentation
A ShareWare Terminal Program

by

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INTRODUCTION

BobTerm is a fully featured Multi-Tasking terminal program for ANY Atari 8 bit machine with at least 48K of memory. BobTerm has been fully tested under MYDOS, SpartaDOS, SpartaDOS X, TopDos, and Atari DOS 2, along with many others.

BobTerm supports XModem, XModem-CRC, 1K-XModem, CIS Fast XModem, YModem (batch) and FModem (batch) protocols. Also supported are floating buffer size (depending on your machine and DOS), chat window recall, online/real-time clock, RTime8 support, and a dialing system, and much more!

SETTING UP BOBTERM

BobTerm is compatible with all known RS-232 interfaces, and most direct-connect modems. If your modem is connected to a Black Box or MIO, no set-up is necessary. If you are using an 850 interface or P:R: Connection, BobTerm will automatically load the handler from the interface, and no disk handler should be used. When using any other type of interface (or a modem designed to be connected up directly to the SIO bus, such as the SX-212), a disk-based handler is necessary. Either load the handler prior to running BobTerm, or name it "RS232.COM," and place it in your "default directory," which is drive 1 for most DOSes. There are handlers available for the SX-212, MPP, and 1030/XM-301 modems: I have not checked to see if they work with BobTerm or not, so use at your own risk.

BobTerm looks to the "default" drive for all support files, so MYDOS and SpartaDOS X users can place all files for the term in a separate subdirectory, for convenience. All other DOSes will look to drive 1 for these files.

SpartaDos X users please see the file called "SDX.DOC" for more information.

BobTerm loads right from DOS as a binary file. Be sure to DISABLE BASIC if using SpartaDOS. Use the [L]oad Binary File option of your DOS menu, or consult your DOS manual for the correct command.

FEATURES OF BOBTERM

Modem Parameters

Note: Unless otherwise stated, the command within the [] brackets is the toggle for the command parameters.

[A] TRANSLATION

Changes your translation between ASCII, ATASCII, and VIDTEX. ASCII is the universal text standard, and should be used on most national

telecommunications networks, and non-Atari 8 bit Bulletin Boards (When in doubt, use ASCII). ATASCII is the Atari-specific text mode only usable on boards which support it. (Typically, only Atari 8 Bit Bulletin Boards) The VIDTEX mode is actually a combination of CompuServe's VIDTEX mode and VT-52 emulation. The ESC I sequence is the only VT-52 command not supported (because VIDTEX uses this for a different function). When logging onto CIS, it is best to be in VIDTEX translation. Do a "GO TERMINAL" and set your page length to 23 and your columns to 40. Then make the settings permanent.

[B] BAUD RATE

The speed at which your modem and the other system's modem can receive information. Rates supported are from 300 baud to 19.2K BAUD, but of course you cannot go any higher than your modem is capable. Note that some modem interfaces (namely the 850 and P:R: Connection) will not support 19.2K BAUD. Baud rates like 9600 and 19.2K are used mostly for "null-modem" transfers, where you hook up the output of your RS-232 interface to another computer's RS-232 port, through a special cable or adaptor.

[D] DUPLEX

Duplex controls how characters appear on your screen, that is, whether they are put on your screen by the terminal program, or echoed back from the host computer. Full Duplex means that the characters are echoed from the host. Half Duplex means the characters are sent from your keyboard to the screen. Full Duplex is usually the default of most online services (except GEnie), so unless otherwise stated, try Full Duplex first. If you can not see what you are typing, go into Half Duplex. If you see double of each character you type, you should use full. BobTerm also supports "Echoplex". This is enabled by holding [START] while pressing [D]. This will cause everything to be reflected, just as a BBS does. Echoplex is handy for answering a call, when the other person is in full duplex. Remember to switch into echo mode ONLY after connecting, and out of it after disconnecting.

[I] DIALING TYPE

This toggles the dialing mode of your modem. PULSE dialing is supported by all telephone companies, but TONE dialing is MUCH faster. If your call does not go through using tone dialing, switch to pulse.

Dialing Commands

[E] DIALING MENU

Provides you with various lists from which you pick the phone number(s) you wish to call. See "The Autodialer and Entries" below.

[F] ORIGINATE

Allows your terminal program and modem to send a carrier to be answered by

another modem. An example of this is if you originally connected using a voice line, then wished to use your modem. Use this command to connect to a BBS if you are dialing manually (with a telephone).

[G] SEND CARRIER

Known on other terminal programs as "ANSWER MODE," this will send an answering carrier to the other computer. If connecting to another person also using a term, one should Originate, and the other should "Answer," or send carrier.

[H] HANG UP

This will hang up your modem. If your modem does not support the DTR line signal, it may not respond to this command. Some modems require configuration commands sent to the modem to allow this function to work. See the section on "Setting up BOOTUP.BTM".

System Commands

[C] CAPTURE BUFFER

The "Capture Buffer" is a feature that lets you record whatever you are receiving. If there is a special message or something you want to save, simply enable your capture ahead of time. When you type [C], it will ask you for the destination filename. Capture will then be turned on; characterized by the screen's border color turning red. You may toggle the capturing by pressing [OPTION]. To close the capture (ending it), use this same option. It will ask you "Close Capture?". Press [Y]. While you are capturing data, you will see the buffer count on the top status line slowly decrease. When it gets to around 256 bytes left, it will pause the other end, save the buffer to disk, and resume operation. You cannot change the disk in the drive you are capturing to, until the capture is closed.

You may also start capturing by simply pressing [OPTION] (without first setting it up). When the buffer fills, it will prompt you for the filename to save it as. If you want to cancel the save, simply press [ESC].

[Q] QUIT TO DOS

This will exit to DOS WITHOUT dropping carrier, allowing you to copy files, run other programs, such as ARC or UNARC, all without hanging up! To return to online, just reload BOBTERM (you may need to change translation, baud rate and duplex). It is not necessary to reload your modem handler. If capturing was enabled, it will be saved before exiting.

[R] RECEIVE FILE

Use this when Downloading, or receiving a file or files from the host computer using a transfer protocol of XModem, XModem-CRC, 1K-Xmodem, YModem, CIS Fast XModem, and FModem. See below for "Send and Receive files explained".

[S] SEND FILE

This is the entry point for Uploading, or sending files TO the host computer. In addition to the protocols listed above, you may also do a simple text upload (the exact opposite of capturing). See below for "Send and Receive files explained."

[J] SYSTEM CONFIGURATION

This sets your bootup terminal and system defaults, as well as macro editing. See "[J] System Configuration Explained" below.

[K] DOS FUNCTIONS

This takes you to a menu which supports the most common DOS functions. Use them just as you would from your DOS menu. Note that the subdirectory commands may not be supported in your DOS (they work under MYDOS and SpartaDOS). These are the options:

[1] Rename File: Format is: OLDNAME.EXT,NEWNAME.EXT
[2] Delete a File: Asks for a filename.
[3] Lock a File: Asks for a filename.
[4] Unlock a File: Asks for a filename.
[5] Format Disk: Prompts for device number to format. It will format under the current DOS. SpartaDos X users are taken to the SDX format menu. This will format a disk in DOS 2 format if using SpartaDOS disk based.
[6] Load a File: Use this to load the Sparta XINIT file to format disks. This may also be used in the future to load utility programs for BobTerm.
[7] Set Directory: Used to set a working directory under a DOS that supports subdirectories.
[8] Create Directory: Creates a new subdirectory under a DOS that supports them.
[9] View a File: Allows you to view TEXT files. Use the SpaceBar to pause, and ESC to quit.

[1-9] DISK DIRECTORIES

Pressing the appropriate disk device number will prompt you for a "PATH NAME or RETURN". Simply pressing [RETURN] will display the main directory of the drive. If your DOS supports subdirectories, you may enter the subdirectory name, followed by a [>]. If you just wanted to look at all files ending with .BAS, you could enter "*.BAS". This function pauses at each page: pressing [RETURN] will continue, [ESC] will abort.

[J] System Configuration Explained

This area allows to set such things as macros, screen colors, etc., and optionally save them so that they will be loaded each time you use BobTerm. There are two sub-menus that you encounter when you select this option. The first sub-menu allows you to select from:

[1] EDIT MACROS, ETC.: Takes you to the second menu area.
[2] RELOAD DEFAULT PARMETERS: Lets you reload the way
BobTerm was set up by your BOBTERM.CNF file.
[3] SAVE DEFAULT PARAMETERS: Saves your settings to a
file called BOBTERM.CNF on the DEFAULT drive.

The second sub-menu is entered by pressing the [1] key above. This menu is the one that actually allows you to edit your macros and screen colors.

To modify your screen colors, use the arrow keys (CONTROL is not needed) until the screen color and intensity is pleasing to you.

BobTerm supports a total of 16 macros. A macro is a series of keys which, when pressed, will send out a pre-defined message. The macros in BobTerm are grouped by size and type of access.

[A]-[H] Allows you to set the "Large Macros" of BobTerm. These macros may be up to 31 characters long. Large Macros are accessed by pressing the SHIFT, CONTROL, and a number key (from 1 to 8) all at the same time. (In these docs, holding SHIFT and CONTROL while typing another character will be referred to as 'SHIFT CONTROL x', where x is the character.) To define a large macro, just press the letter from A-H and type in the macro that you wish to store. Note that you can use the standard Atari editing keys; use [SHIFT] [DELETE] to clear out whatever is on the line. Press [RETURN] when you are finished entering the macro text. One special note about Large Macros A, B, and C: These macros are updated by the dialing list. Any macros set by your BOBTERM.CNF file will be over-written by the dialing list, if used. You may, however, reload the defaults AFTER dialing, and restore these three macros.

[I]-[P] Allows you to define the "Small Macros" of BobTerm. These macros are limited to 15 characters and are accessed by pressing the CONTROL and a number key (from 3 to 0) at the same time. Entering these macros is the same as the Large Macros.

[Q]-[U] Allows you to define five special one character macros that are controlled by the joystick in port #1 of the computer. Typical uses for this would be the CONTROL-S or CONTROL-Q character to stop and start text flow on most BBSes. To execute these macros, simply move the joystick or press the fire button.

SPECIAL MACRO CHARACTERS

There are three "special" characters that may be included in the Large and Small Macros. These are:

CONTROL-P will cause a 3 second delay in the sending of the macro, then resume. You may stack as many of these characters as you need.

CONTROL-, (little heart) will cause the macro to execute as normal, but it will NOT send a RETURN at the end of it. (Normally a RETURN is sent at the end.)

CONTROL-M will send a RETURN, but still continue with the rest of the macro.

An example of using the special macro characters might be to call a BBS, send a RETURN, wait, send your password, wait, and send your name without a RETURN at the end. This would be coded in a macro as:

^M^P^Ppassword^M^P^Pmy name

(note that the ^P means CONTROL-P, and ^M means CONTROL-M.)

[S] Send Files and [R] Receive Files Explained

The first thing you will be asked for is the protocol that you wish to use to transfer a file. This choice is based totally on what the other computer or system supports. When in doubt, try standard XMODEM, since almost all hosts support this.

The choices you have and a brief description of each are:

[1] STANDARD XMODEM

This is a 128 byte block size with a mathematical checksum for error detection and correction. It is supported by almost all BBSes and telecommunications networks.

[2] XMODEM-CRC

A 128 byte block size with a cyclic checksum for error detection and correction. This protocol is supported by the vast majority of BBSes and telecommunications networks. Whenever possible, you should use XModem-CRC over Standard XModem because the CRC option will catch almost all errors.

[3] CIS FAST XMODEM

This is a BobTerm exclusive: when uploading or downloading from CompuServe, use this protocol; yet tell CIS that you are using XModem. I developed a modification to the XModem protocol that dramatically increases the transfer speed for the CIS host. Its almost as fast as their own Quick B! This protocol should be used ONLY on CIS, as it will not work correctly on any other system.

[4] 1K-XMODEM

This protocol is basically XModem-CRC with a 1K (1024 bytes) block size. The advantage to 1K XModem is that there are fewer "header" bytes sent per file, therefore, making 1K-XModem about 15% faster than XModem-CRC. Note that some systems incorrectly call this "YModem"; the difference being YModem is 1k XModem with batch capabilities.

[5] YMODEM (batch)

YModem is a modified 1K-XModem that allows the transfer of multiple files at one time. The file name and size are sent in a header block that BobTerm decodes for you. This way, you can set up a transfer of as many files as you like, and the filenames will be automatically saved for you! You only set up the transfer once, and there are no limits (except your disk space) to the number of files you can receive!

[6] FMODEM

This protocol is used on some ST BBS programs and in the Puff BBS. It is basically YModem with a 4K block size. Note that this protocol is also capable of batch file transfers, as is YMODEM. This is best used for null-modem transfers, because it gives the highest throughput of all protocols.

[7] SEND ASCII (XON/XOFF)

This is a send ONLY protocol (use "Capture Buffer" to receive) that simply dumps ASCII text to the other computer. Since this is not an actual protocol, there is no error checking that can be done. Use this to upload messages while in the BBSes message editor, etc... You can specify a delay rate of 0 through 9; 0 is no delay, and 9 is the largest. A value of 3 should be sufficient for most purposes. XON/XOFF control is supported (^S to pause, ^Q to resume).

HOW TO SEND/RECEIVE FILES

For transfers using XMODEM, XMODEM-CRC, CIS FAST XMODEM, and 1K-XMODEM, the following applies:

RECEIVE or DOWNLOAD

1. Instruct the host to send (download) a file with the appropriate protocol.
2. Press [R] from the BobTerm main menu.
3. Select the appropriate protocol on BobTerm.
4. Type the entire filename for the file, as you want it to appear on your disk, and press [RETURN].
   You will be returned then to terminal mode.
5. Press [SELECT] to begin the transfer.

SEND or UPLOAD

1. Instruct the host to receive (upload) a file with the appropriate protocol.
2. Press [S] from the BobTerm main menu.
3. Select the appropriate protocol on BobTerm.
4. Enter the source filemask and filename, if you know what it is. If not, you can enter "*.*". Bobterm will prompt you for each file it finds. Type [Y] to send that

file, [N] to keep looking, or [ESC] to re-enter the source filemask. Once you have selected a file, you will be returned to terminal mode.
5. Press [SELECT] to begin the transfer.

For transfers using YMODEM and FMODEM protocols, the following applies:

RECEIVE or DOWNLOAD

1. Instruct the host to send a file in the appropriate protocol. For batch transfers, see the host documentation for how to specify more than one file. Most often it is done by "marking" the files you want to download, then issuing the command to download.
2. Press [R] from the BobTerm main menu.
3. Select the appropriate protocol on BobTerm.
4. Provide the device name, and path name ONLY. BobTerm will take care of the filenames. (An example of a pathname is "D1:" or "D2:DLS>".) You will be returned then to terminal mode.
5. Press [SELECT] to begin the transfer.

SEND or UPLOAD

1. Instruct the host to receive a file in the appropriate protocol. For batch transfers, see the host documentation for how to specify more than one file. Batch sending is rarely used on a BBS; it is meant more for term-to-term communications.
2. Press [S] from the BobTerm main menu.
3. Select the appropriate protocol on BobTerm.
4. Provide the pathname (and filename, if known) for the files that you wish to send, one at a time. If you used wildcards, BobTerm will display each file found and query you if you wish to send it. Press [Y] to add it to the list, [N] to skip it, or [ESC] to enter a new pathname. Depending on the size of your path and filenames, you may be able to mark up to 100 or more files to be sent all at once! Note that the memory used to hold the dialing list is used for this list of files, so you will have to reload the dialing list to dial a new number. To end entering filenames, simply press [RETURN] at the "Enter filemask" prompt. You will be returned to terminal mode.
5. Press [SELECT] to begin the transfer.

The following applies to ASCII sends:

1. Instruct the host to receive ASCII text.
2. Press [S] from the BobTerm menu.
3. Select item 7 for SEND ASCII.
4. Provide path and filename to send.
5. Provide a delay rate. The delay rate determines the time between each character sent. You will need to experiment

with different BBSes and telecommunications services to determine what the delay rate should be. A delay of 0 is none, 9 is the greatest. You will then be returned to terminal mode.

6. Press [SELECT] to begin the transfer.

FEATURES COMMON TO ALL TRANSFERS

BobTerm is the ONLY 8 bit terminal to remove the excess double-padding added to files by the online services. The timing used in the protocols should be loose enough for any system, yet tight enough to maintain fast transfers.

To abort any transfer, hold down the [START] key. To retry an aborted transfer, press [SELECT]. This will try the exact same transfer again. Note: if the transfer aborted because of an error on your end (like a wrong protocol, disk error, etc...) that has not been corrected, the transfer will simply abort again.

Once you begin a transfer, you will see the BobTerm transfer display. The top line of the file transfer window displays the file name including path, followed by the file size (for batch receives only). The line under that shows the status of the transfer, the block number being transferred, and the number of tries for the current block. The only time you will not see this display is when you are doing an ASCII send (you will stay in term mode for ASCII sends).

BobTerm will accept input from the keyboard (as well as the modem) when waiting for an ACK or NAK in file transfer, so be careful to not press any of the keys while a transfer is in progress.

Holding [SHIFT] when entering the protocol number will select the ASCII <-> ATASCII translation mode. This is used for text files only! When sending files, ATASCII files will be converted to ASCII format (CR/LF). When receiving, ASCII will be converted back to ATASCII (CR, CR/LF, or just LF). This allows you to let BobTerm handle the translations so you do not have run separate translation programs! Just be sure you don't accidentally enable the translation on a file that is NOT a text file, else your file will be corrupted.

Setting up BOOTUP.BTM

Some Hayes-compatible modems default to some parameters that are not what you want for standard terminal use. For this reason, BobTerm will send whatever is in a file called BOOTUP.BTM on the default drive (drive 1 for most users) to the modem at the default baud rate, when the term first loads. It will input a line, send it to the modem, wait 1 second, then input again, etc., until it reaches the end of file. A control M is not needed at the end of each line. My suggestion might be to have something like this in your BOOTUP.BTM file:

```
ATX3 V1 L2 M1 E1 S7=30 &C1 &D2
```

You could change S registers to perhaps increase dialing speed, etc... Remember it is not necessary at all to have this file present; it's just there in case you have need of it.

Keyboard Command Summary

CONTROL 3-0: 15 byte macros. (All the rest are SHIFT CONTROL:)

1-8: 31 byte macros (1-3 are the ones the Dialer updates)

SHIFT CONTROL:

Q: Recalls last two chat buffers (alternates between the 3).
E: Toggle the chat window in and out.
R: Reset the online time counter.
T: Start/stop the online time counter.
Y: Swap the online counter/real time on the top status line.
O: Takes a snapshot of the term screen, and saves it in the buffer.
P: Does a screen dump of the term mode screen to your printer, replacing any non-printable characters with a period.
9: Toggles the key click sound.

Items Saved in BOBTERM.CNF

Default Drive (for any filename input)
Phone List Filename
Last Number Dialed
Long Distance Code
Tone/Pulse Dialing Mode
Term Translation
Term Duplex
Term Baud Rate
Default File Transfer Protocol
Delay Rate Used in ASCII Send Protocol
Status of the Keyboard (in upper case or lower)
Which Type of Time is Being Displayed (On=Online, Rt=Real Time)
Screen Colors
Key Click Flag
Chat Buffer Status (on or off)
Joystick Characters
All 16 Macros

[E] The Autodialer and Entries

Pressing [E] from the BobTerm main menu will take you to the Dialing Menu. The dialing menu has a number of choices as follows:

[A] ADD AN ENTRY

This option allows you to add a telephone number to your dialing

menu. You will be prompted for the name of the entry, the telephone number, 3 macros (See section on System Configuration), the Baud Rate, the Translation, the Duplex, and the wait (amount of time to wait for the other computer to answer - should be 15-20 for average local calls).

[D] DIAL TAGGED

This option will continuously scan the "tagged" entries looking for a terminal connection. To tag an entry, use the arrow keys to move to the entry, and press the SPACEBAR to tag it. You will see a ">" in front of each tagged entry. To clear the tag, press the SPACEBAR again.

[K] DELETE AN ENTRY

To delete an entry from your phone list, use the arrow keys to move to the entry, and press [K].

[M] DIAL MANUALLY

By pressing [M], you may enter a phone number to dial from the keyboard. Note, the current system configuration will be used for this number (ie: baud rate, translation), and a wait time of 30 seconds will be used.

[S] SAVE LIST

This option will save your phone list to disk. You will be prompted for a device and filename, or you may use the last name used (by simply pressing [RETURN]).

[V] VIEW ENTRY

This option will allow you to just look at the entry.

[X] LONG DISTANCE CODE

This is the code that is used by long distance dialing services such as MCI, Sprint, etc... Although it is not needed much anymore because of "equal access," some long distance telcos still have special numbers to call and require a special code. Use this feature for those cases. To execute the long distance code, simply insert an exclamation point (!) in the phone number at the appropriate place (normally in the very beginning). When you enter your long distance code from the dialing menu, it is saved as part of your configuration file. For example:

```
LD code: 950-1111,,,,123456781
Dial: !716-247-8355
```

would do the following:

Dial 950-1111, wait 4 seconds, dial 123456781 (your LD code would be here), followed by 716-247-8355.

Another use for the LD code is for those who have call waiting.

Insert an [!] before every number in your list, and make the LD code be the numbers you have to dial to disable the call waiting feature. If you ever want to dial the number without disabling the call waiting, simply erase the LD code.

[C] CLEAR LIST

This will erase the current list from memory.

[E] EDIT ENTRY

This option allows you to make changes to any of the entries in the dialing menu. First, select the entry to edit (by using the arrow keys), then hit [E]. Each item will be available for editing; press [RETURN] when done, or [ESC] to exit.

[L] LOAD LIST

Use this to load a new phone list from your disk. This may be used to load something other than the default (if you have more than 1 list), or if you have batch sent some files (since the batch send function will wipe out the list in memory).

[P] PRINT LIST

Sends the current list to your printer.

[ESC]

Exits back to the main BobTerm menu.

[RETURN]

Dials the entry highlighted. (Use the arrow keys to move the bar to the desired entry.)

To interrupt the dialing process at any time, press the SPACEBAR.

The Terminal Mode Status Line

While in terminal mode, the upper line of your screen is being used as follows:

DUPLEX:TRANSLATION:BAUD RATE:BUFFER TOTAL:ONLINE/REAL-TIME CLOCK

The second line in the header is the changing status, which tells you if there are transfers pending, errors have occurred, etc...

Miscellaneous Notes

One of the unique features of BobTerm is its multi-tasking. You are

ALWAYS in term mode; that is, any modem input is being printed to the term screen, even if you are not viewing that screen. The only exceptions to this are disk I/O and file transfer. You can be capturing, go do a disk directory, and come back to term mode all without losing any data (assuming the other end supports XON/XOFF)!

Another feature is the extremely fast text screen handler. Term mode can keep up with text at 19.2K baud, even while capturing!

In any operation that BobTerm expects input from the user, [RETURN] will accept whatever is on the screen, and [ESC] will abort.

The edit window is another unique feature. Used mostly for the "conference" section on the online services, this buffer is actually 3 buffers in one. When you press SHIFT CONTROL E, you will see three lines at the bottom. You may now type away in the buffer. Nothing will be sent out until you hit [RETURN]; then the whole buffer will be dumped. The only exception to this is control characters. CONTROL A through CONTROL Z will be sent when you type them; this is to allow you to pause the sender, etc... By pressing SHIFT CONTROL Q, BobTerm will cycle through the last two "buffers" you typed and the current one. Once you press [RETURN], the current buffer gets copied into buffer 2, buffer 2 into 3, and buffer 1 is cleared.

Another feature that might come in handy is the buffer screen command. Let's say you are on a BBS, and you're viewing a file that you just decided you want to capture, yet you don't have the capture turned on. Simply press [OPTION], then press SHIFT CONTROL O. That last keypress will take a "snapshot" of the screen, placing it in the buffer. Pressing [OPTION] turned the buffer on, so now you will have saved everything that was on your screen, plus everything that will be coming, till you disable the capture (by hitting [OPTION] again). When you [C]lose the capture or if the buffer fills, you will be prompted for the filename to save the buffer.

Support Shareware

BobTerm has taken a fair chunk of my time, but its been very rewarding. It started out to be just a transfer utility for null-modeming files between an 8 bit and ST, but it kept growing!

I am releasing this program as "shareware," which means this: You are encouraged to pass it around to your friends. What I ask is that if you like the program, consider the time that went into such a program, and send a donation to the address listed at the top. If you have any questions/comments, please feel free to write, or leave a message on one of the support boards. Thank you! Enjoy the term.

Bob Puff

Support BBSes for BobTerm

Computer World (716) 247-8355
The Moose BBS (716) 381-5139
The Breakfast Club BBS (916) 331-2219

Many thanks to all those who helped in getting all those nasty bugs out! Special thanks to Marty & Gayle Albert for the documentation & testing, the CompuServe 8 bit sysops Keith Joins, Don Lebow and Bill Aycock for their many hours of testing and suggestions, and Jeff "Alfred" Williams for the dialer code.

SPARTADOS X ADDENDUM
to
Bob Term v1.00
Documentation

May 1989
by
Marty Albert

First of all, I would like to thank Bob Puff for all his efforts to get BobTerm to its present finished form. It is indeed one of the best, if not THE best, terminal programs that I have ever had the pleasure of using. Thanks also, Bob, for allowing me to help with the beta testing of BobTerm from the start. It has been a learning experience for us both!

Looking back through the notes and letters that Bob and I have exchanged about BobTerm, it seems that many, if not a majority, of the problems were directly related to SpartaDOS X. This is not surprising when you realize that Bob does not have a SpartaDOS X cartridge. In other words, he did all his programming "blind" and left it to me, a mere 3000 miles away, to do the testing, find the bugs, and send the reports back to him. A difficult programming project at best.

At any rate, we made it to this point.

I shall cover the SDX questions and concerns in the order of:

- How to make it run
- Known problems
- Possible problems

At the end of this section, you will find my own "editorial" comments about the use of SDX with BobTerm and in general.

If you don't have the SpartaDOS X cartridge from ICD, Inc. and have no plans to get one, you need not read the rest of this section. That is, unless you just want to know. I will not be addressing anything with any other DOS than SpartaDOS X here.

How To Make It Run

The first thing that you will need to do is to check your CONFIG.SYS file. If you are USEing NONE, make sure that you have not LOADed any external modules into RAM. This is not a problem if you are USEing BANKED or USEing OSRAM.

If you are USEing NONE and have LOADed a module in, just type LOAD before you run BobTerm. This will fix the problem. This is due simply to memory needs.

Next, look at the line that should read DEVICE SPARTA. You MUST have at least 4 sector buffers and 5 files open. This is the default SDX setting. More won't hurt, but less won't work.

Before you run BobTerm, as noted in the main part of the documentation, you must load a device handler. I have tested BobTerm with the SDX RS232 handler, and it works just fine. The MIO handler also works well.

If you have the SDX cart and an ATR8000, you may be in for a few problems. The driver for the ATR8000 that is on the SpartaDOS 3.2d disk <AT_RS232.COM> works well, as does the one that is on the MyDOS 4.5 disk <available on GEnie>. The handler that came with the ATR8000 won't cut it for whatever reason.

The tests that I have done used an MIO, a P:R: Connection, and an Atari 850.

Once you have the above all done, you are ready to load the actual BobTerm program. The correct SpartaDOS X command line input is:

X BOBTERM

<assuming that the program is named BOBTERM.COM>

Note that the X command is REQUIRED. If you don't use that, BobTerm simply will not run for you.

After BobTerm is running, all else is just like the rest of the documentation, with one small exception...

The FORMAT DISKS command from the DOS functions menu. Instead of just taking off and formatting your disk, you will go to the SDX Format menu. When you are done formatting, just press ESC and you will be taken back to Bob Term. No muss, no fuss.

Known Problems

As of this writing, there are no known problems between BobTerm and SpartaDOS X.

This was NOT always the case, however.

Possible Problems

Due to the complexity of the interface between BobTerm and SpartaDOS X, there may be a few problems that we have missed. See my editorial comment at the end of this section for a few reasons why.

One problem that seemed to die a slow and hard death, and may very well still be kicking in there someplace, is screen flickering. Normally, this takes the form of control characters being flashed rapidly on the screen, as a whole or in just one area. I think that Bob has tracked down all of these pesky things, but is more that slightly possible that we have both missed one.

Another problem that seems to be totally fixed is an inability to read drives that have been reassigned via the MIO. <this is here because it never did happen with SpartaDOS 3.2d>

This manifests itself as a failure to read a directory or access in any other way a drive that has been reassigned through the MIO menu and that persists after you exit to DOS until you do a cold start.

Again, this problem appears to be gone.

Editorial Comments

It should be noted that the comments that follow are my own and in no way reflect the opinion of Bob Puff or any other person.

In other words, if you don't like what you read here, yell at me.

As I said above, there were many problems along the way to BobTerm, especially when it came to making it work with SpartaDOS X. These were compounded by the fact that Bob lives in New York and I live in California and that Bob doesn't have an SDX cart.

But, these facts don't account for all the problems that we ran into.

SpartaDOS X is, by far, the most complex DOS ever written for the Atari 8-bit computers. Perhaps the complex DOS for ANY 8-bit machine. It has abilities and versatility far beyond that of any other DOS and is rivaled in speed of operation only by MyDOS. All this power and ease of user interface has a price, however.

The price is complexity in programming.

To be able to effectively access the abilities of SpartaDOS X and make it do the things that it can do, the programmer needs to be able to find out what is going on with the DOS.

The manual that comes with SDX is not much help there, nor should it contain volumes of technical information. The manual is for users, not programmers.

But, if the information is not in the manual, just where is it?

Simply put, it is not.

The standard response that I have seen given to programmers on GEnie is, "We'll get to some tech notes soon."

Sorry, ICD, but that just doesn't cut it.

You've done a GREAT job with SpartaDOS X, but don't leave it half done. Get a technical programmer's manual out soon so that the programmers can start to make use of SpartaDOS X and it's abilities. If you don't, SpartaDOS X has no advantages over SpartaDOS 3.2d or Atari DOS.

The single biggest problem that Bob had was finding the information needed to make his program work with SpartaDOS X. To make a programmer search to the ends of the earth to get the details he needs to use your product is totally unreasonable.

In the words of my former Master Chief Petty Officer, "Get with the program!"

Credits for this Section

Again, thanks to Bob Puff for BobTerm, as well as his other many fine programs for the Atari 8-bits. Keep on codin', Bob!

All beta testing of BobTerm and SpartaDOS X was done on the following system:

Atari 800XL with 256K via RAMBO XL upgrade
R-Time 8 clock
SpartaDOS X cartridge, version 4.20
1 megabyte MIO
ATR8000, 64K
Atari 1050 drive with US Doubler chips
Twin DSDD drives via ATR8000
Star NX1000 printer via ATR8000
Atari SX212 modem via MIO or ATR8000
Avatex 1200 modem via MIO or ATR8000
Atari 850 interface <for modem tests>
ICD P:R: Connection <for modem tests>
Magnavox Color Monitor 40
Action! cartridge for debugging
Text Pro 3.2r for all letters

Also I would like to thank my wife, Gayle, for her help in testing and for her ideas and for just listening to me scream at SpartaDOS X, Bob, the modem, and computing in general.

Between Gayle and I, we have downloaded about 4000 files totalling well over 10 megabytes and uploaded about 2800 files totalling over 5 megabytes, all with BobTerm. Other than a few problems when, due to an oversight, the protocol code was goofy, we have had NO problems. Thanks to the local Sacramento BBSs of The Breakfast Club <(916)331-4722>, ACCESS <(916)423-2544>, and SELECT <(916)392-7279> for putting up with all the transfers.

If you have any problems with BobTerm and SpartaDOS X, please contact Bob with a COMPLETE description of the problem. If you can't reach Bob, drop me a note and I can pass it on to him.

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