

C*BASE V3.1 HOLY MOSES MOD

GUIDE FOR SYSOPS

CONTENT

Introduction	3
This Guide is divided into five main Sections:	3
A brief History of C*BASE and the "Holy Moses Mod" and what's it all about.	4
Differences between Cyborg Mod and Standard C*BASE 3.1.....	5
Differences between Cyborg Mod and (new) Holy Moses Mod	6
Additional Bugfixes and Features:.....	7
Chapter 1: Installing a new BBS from scratch	9
Necessary Hardware	10
Installing the system	13
Disk formatting	14
Initial system creation	15
"STATS" SETUP	16
userlog	21
configure.....	22
Modem setup.....	23
Copy system Files.....	25
edit settings	26
What time is it ? it's time for a house.....	29
Expanding userlog.....	30
Exporting USERLOG	30
ACCESS groups – du kommst hier net rein.....	32
United colors of C*BASE.....	34
Radical Nudists On Mars – RANDOM	36
Password: Swordfish: The REMP File	37
In the Midnight Hour, She cries more, more, more.....	38
The Purge: Removal Day.....	40

T(w)o Be(er) On Top: Userrank Customizing	42
Safety First ! – The Automatic System Backup.....	43
Das Boot – Booting your system for the first time	44
Chapter 2: Exodus – movement of jah sysops or how to migrate to holy moses mod.....	47
Holy termination – migrate from cyborg modded c*base 3.1.....	47
From hell to heaven or the other way around ? – migrate from 3.1 villain mod	48
Chapter 3: C/TERM - the small but mighty terminal within c*base.....	49
Chapter 4: RAMBOOT - Ramfloppy support c*base with Commodore reu	56
Chapter 5: HM 4 President: Yea or Nea – Voting System in C*BASE 3.1 Cyborg / HM	58
How to setup Surveys ?	58
How to setup Mag Voting ?	59
Chapter 6: We have Contact – Setup BBS Server to use with C*ABSE	60
Known bugs	69
Appendix a: the files in alphabetical order.....	70
Appendix b: the commands	85
Appendix c: useful sheets.....	91
Appendix d: Technical details of important system files.....	94
The configure file	94
The stats file.....	96
The text file	97
The userlog file.....	102
Appendix E: (not) Supported hardware.....	104
Computers:	104
Disk Drives:	104
Userport Devices:.....	104
Expansion Port Devices:	104
Not recommended :	105
Not supported :	105
Not tested (may work or not):	105
Thank you !	106
Legal stuff.....	107

INTRODUCTION

With this copy of "C*BASE V3.1 Holy Moses Mod" you should have received three Disk Images in .d64 Format (1541 / 35 Tracks) or one .d81 (1851 / 80 Tracks) Disk Image.

.d64 Image #1 contains Tools to help you preparing your System for setup / installation
.d64 Image #2 contains the Main System Files needed to start and run the BBS
.d64 Image #3 contains mandatory and optional Files like PETSCII Menus, Welcome and Good Bye Screen and Files not essential for a very rudimentary C*BASE BBS.
.d81 Image contains all Files

With the Content of these Images you should be able to setup a Commodore C64 BBS using real Hardware. Although for testing you can use this Software also in Emulators like VICE.

THIS GUIDE IS DIVIDED INTO FIVE MAIN SECTIONS:

1. Installing the Holy Moses Mod from scratch, if you don't run a BBS yet or want to switch from another Bulletin Board System Software like Image BBS, Color64 etc.
2. Migration of an existing C*BASE V3.x System like original C*Base V3.1, Cyborg mod, TAO mod, Villain mod etc. assuming you already have more knowledge on things like needed Hardware, Setup Process, and generally running a C*BASE System.
3. C/TERM the Terminal Program that comes with Holy Moses Mod
4. BBS Server 1.4a Setup
5. Appendices with useful Information and Templates

Not covered by this document is the description of the Main BBS itself. But if you made it through the Setup process and have the "Wait Screen" on your Monitor, most things are self-explaining. Online Helpfiles are included and all commands are explained here in Appendix B.

A BRIEF HISTORY OF C*BASE AND THE "HOLY MOSES MOD" AND WHAT'S IT ALL ABOUT.

In 1988 Gunther Birznieks released the first Version of C*BASE, influenced by CMBBS, Color64 and C-Net. The last Version was V3.1 introducing Message Networking to C*BASE and some other Features.

In the early 1990ies "Cyborg" did some major modifications to the original Version, which made his Mod and BBS Dream Park unique and unforgotten till today.

The main modifications, that the Users recognized, were the integration of the most used Modules into the main BBS file, so that no BBS Program parts had to be loaded from disk, while the User was online, thus reducing waiting times for the Users massively. And he was the first to add the Cursor driven Main Menu instead of a simple Command prompt.

There are more modifications to the original C*BASE Version. But I won't bore you with going to deep into these details here.

In the mid 90ies from around 1995, Holy Moses made his first "Moses Modded" C*BASE Version using the Cyborg Mod as Basis for further improvements, f.e. the support for new Hardware like the CMD HD or CMD SuperCPU, Bugfixes and some new and necessary features, that weren't included yet. This Mod wasn't widely spread. Boards that ran Holy Moses Mod in the old days were f.e. Sanitarium (Holy Moses own BBS) and Raveolution (Larry's BBS), The Pirate Island (Chotaire's BBS with the Hard- and Software from Raveolution after going offline) and AFAIK The Hidden (L.A.Style's BBS).

This Mod is still not available for the public, means you won't find it on CSDB at the time of writing.

If you are really interested in a copy of this old Version, you can contact me, Larry / R.O.L.E, for a copy. I still have it on my disks (somewhere)....

In 2017 Holy Moses decided to do it all again from scratch, meaning to use Cyborg modded C*BASE as Basis for his new Mod and to provide an alternative to the nowadays used TAO modded C*BASE V3.3.x. First BBS to use Holy Moses Mod again was The Hidden, being the only Major BBS and long time running System yet to use this Mod instead.

DIFFERENCES BETWEEN CYBORG MOD AND STANDARD C*BASE 3.1

Cyborg did the following modifications to the original C*BASE System:

- More colors available
- Added Voting System
- Added Post Warning if User didn't post on his call
- Added multiple Screens randomly chosen
- Subject Prompt is loaded from Disk as PETSCII Picture in a SEQ File
- Added blacklist
- Included C/APP Module into C/BBS
- SysOp Status editable in Wait Screen
- Added Module C/MIDNIGHT
- Delete Screen is loaded as PETSCII Picture from Disk
- Added Autologoff option after Up- / Download
- Added Autopost Uploads Option after Uploading
- Made Last Callers Display pretty
- Added optional Cursor Menu
- Added Graffity Wall
- Added Parameter Menu
- Login Prompt is loaded as PETSCII Picture from Disk
- Textprompts modified see Appendix D for a List of used Textprompts
- Removed Autopause

DIFFERENCES BETWEEN CYBORG MOD AND (NEW) HOLY MOSES MOD

At the time of writing the "Cyborg Mod +18 improved" aka. "Holy Moses Mod" has the following Changes and Bugfixes to Cyborg Mod C*BASE V3.1 **Main BBS File**:

- Directory Bug fixed ! That means the BBS won't crash anymore by viewing DIRs with more than 255 Files. So big File Archives are no Problem anymore
- The maximum connect Speed was screwed up to 230.400 bps ! With Cyborg Mod only 2400 bps connects were possible.
- The \$ command in the U/D Section got improved. Use * as wildcard f.e. \$summer* or \$1!* This makes life easier when searching for files in big dirs. >255 files
- Optional U/D Title Screens are supported. Name them like "UD TITLE x" where x is the Number of the corresponding Dir
- A ":" is supported in the BBS List, taking care of Telnet "IP:Port" BBS Addresses
- Added remote password support. Create from wait screen or with System Create
- Clock bugfix when BBS runs with a SuperCPU. This requires a CMD RTC!
- BBS Info Screen added. Press "I" in Main Menu / Cursor Menu
- Customizable BBS Colors through the Files Colors 1 – 4
- Advanced flexible Cursor Menus
- "L" in Mail Menu and "\$" at Login Prompt shows the Userlist
- Swiftlink NMI.ML @1MHz with SCPU endless loop Bugfix
- Textprompts modified from Cyborg Mod -> see Appendix D
- Various other Bug- and SCPU Fixes in the Modules around C/BBS
- Test Prompts in Remote Mode with "tx" and "tall"
- Userport WIFI Modem support
- "Last Callers" Screen and CALLERS Log Delimiter get colors from the COLORS Files
- Autopause Function reimplemented + Autopause in DIRs and Userlist
- Un-/Join Sub removed, Time/Date toggle in U/Ds removed
- X-ModemCRC and X-Modem1K support
- CMD Turbo232 Support @57.600 Baud (115.200 and 230.400 possible)
- Upload Index only viewable for Users with remote Access
- Last used Transferprotocol is stored in Userlog

ADDITIONAL BUGFIXES AND FEATURES:

Following Changes and Improvements have been made to the Midnight Module:

- Leap Year Bug removed. Works now until Year 2100
- Userrank now works with less than 10 Users in Userlog, but will be skipped if Sysop is the only User
- Customizable Userrank Header
- Customizable “Press Key” Prompt from TEXT File Prompt#7
- Customizable automatic Userpurge Function
- Customizable BBS Backup Function
- Userpurge and Backup Info written to Callers Logfile
- various Bug fixes and removal of redundant Code
- Custom Settings loaded from own midnight.stats File

Following Changes and Improvements have been made to the Terminal Module:

- Added X-ModemCRC and X-Modem1K Transferprotocol
- Removed support for Codes
- Works with SCPU in 20MHz
- Added support for Swiftlink and Turbo232
- various Bug fixes and removal of redundant Code

Following Changes and Improvements have been made to the BBS Boot File:

- New Colors
- Text Prompts, Access Groups Editor and other Configuration removed. Use System Setup instead
- Support for old Modem Types removed, instead added support for Swiftlink and Turbo232
- Removed support for HD-9060 Disks
- Time Setting now taken from STATS File if User doesn't enter Time and no CMD Clock available
- BBS booting without SysOp interaction. So the BBS can completely boot up from Power-up if Autoboot function of a RamLink is used and a RTC is available. Otherwise only the Clock has to be set manually at Bootup.
- Better REU detection Routine, SCPU and JiffyDOS detection
- Added more Infos to BBS Boot Screen.
- various Bug fixes and removal of redundant and dead Code

Following Changes and Improvements have been made to the System Create Tool:

- removed support for C*BASE 2.0 conversion
- added Userlog export into a SEQ File
- added setup for Remote Password, BBS Colors Files, Userrank Header, Backup Function, Userpurge, CMD CLOCK Device, amount of Random BBS Screens
- included Configure File and STATS File Setup
- System Create now goes through all necessary steps
- various Bug fixes and removal of redundant Code
- Dir Names for U/D Prompt and Dir List can be edited separately
- Autopost Setting for DIR 1 – 14

So you downloaded the Holy Moses Mod from the Internet or a Telnet BBS, stored it on Disk. But what's next ?

At first you should put some time in thinking about what Hardware you need to let a Bulletin Board System run 24 / 7. Following aspects should be taken care of:

- **Stability of the Hardware !** If you do not want to run your BBS with an Emulation Software, you should remember that most of our precious Commodore Hardware is at least 25 years old now. That means electronic components tend to fail, or even worse, blow off. So you should make sure your PSUs are stable and provide enough (and not too much) Power for your Hardware components. And also take care about Fuses, Caps etc. on the C64 and Floppy Mainboard. They sooner or later will fail and make unwanted troubles if the BBS is online.

There are replacement PSU on the market, maybe try these. There are also new C64 Boards available (C64 reloaded MK1 and MK2 from Individual Computers). If you are familiar with a soldering Iron, you surely can refresh your C64 Mainboard with new Caps, replace faulty PLAs, CIA, RAM Chips etc. It's a good Idea to have the chips socketed and not soldered on the Mainboard.

- **Amount of Diskspace available !**

For a very rudimentary BBS System or for testing purposes a C64, a Modem Card and a 1541 Floppy Drive will do. But this is NOT RECOMMENDED for running a *real* BBS. You should at least provide the Diskspace of a 1581 Drive. If you want to have DIRs for Users to Upload their Programs you should at least provide a pile of Disk Drives. Or better a (CMD) Hard Disk or a good SD2IEC.

- **Speed !!**

In the days where people are used to get Information instantly with a Mouse Click, BBSing on a 8-Bit Machine is for sure meant for people with patience. No one awaits to have a C64 Game uploaded in 0.3 sec. But you shouldn't exceed the User's patience. Noone likes to connect to a BBS with 300 Baud or with unacceptable loading times between Messages f.e. If you run such a System don't wonder to have only a few callers a week or less. So what can be done to improve the Speed of your System?

The Holy Moses Mod is already fast due to its design. Once connected no additional Modules have to be loaded. It's all there. But it won't provide a Floppy Speeder. So with a slow Disk Drive this is all worthless ! **JiffyDos** is recommended. Some special Functionalities of the Holy Moses Mod require JiffyDos to work, like the Clock Auto Setup with a CMD RTC Device. If you don't have JiffyDos ROMs installed in your Hardware, you can still buy them for a few bucks, officially licensed. It's worth the money.

Best speed performance can be archived using a CMD SuperCPU, CMD RamLink, maybe with a CMD HD connected via parallel cable and a CMD Swiftlink or Turbo232 Cartridge (or Clones). But remember these are hard to find Devices and pretty expensive (except for the Swiftlink Clones Link232, GLINK232 etc.). If you don't get your Hands on that Hardware consider to use a Commodore REU, if possible a 1750 Model with 512K or more for your System Drive. Yes it's a risk to do so. In case of power loss, your BBS is gone ! So make Backups ! At least once a day. (C/MIDNIGHT Module will help you there). U/D Area can still be run without JiffyDOS accelerated Floppy Drives. They usually will be fast enough at Baudrates 1200 – 9600.

- **Energy Consumption**

The best way to save energy and still running a BBS is using a Device like a Raspberry Pi and run your BBS with Emulation Software. Yes it is possible with some restrictions. But using REAL Hardware is the REAL thing ! So the more Hardware you use, the more Energy is needed. Use modern components instead to save energy. A SD2IEC needs much less Power than a 1541. A C64reloaded need less Power than a stock xxxx425 Mainboard. And a small LCD or LED Monitor will need less than a 1084 CRT Monitor. SuperCPU and REU and Harddisk need Power.

So you'll have to make your choice between Speed, Hardware costs and Energy consumption, and decide what fits your personal needs best.

NECESSARY HARDWARE

In the old days, all you need was a C64 a few Disk Drives and a Modem connected to your Phoneline. Users called your BBS Number with their Terminal Programs and the fun was perfect until end of the Month when it came to pay the bill. OK to be honest, some of us had their tools.....

Today no one seriously would call a Dial-up BBS. There may be a few Hardcore Freaks doing it the old way, but 99% of all C64 related BBS are reachable via Telnet Protocol over the Internet.

So what do you need to get the C64 online ? If you already connected to existing BBS with your Hardware, you most likely have all you need. However, some WIFI Modems still seem to have Issues using them for running a BBS.

If you are new to BBSing you will need:

- C64 or C128 in C64 mode. It will **not** work in C128 mode with this Software.

- RS-232 Adapter ! There are several Adapters available for the C64. They can be divided between Userport Adapters and Expansion Port Adapters (Cartridges). To name a few: 1670 Modem, WIFI Modem, Swiftlink, Turbo232, Link232, LT-USB, Strikelink Modem and so on. Userport Modems can provide up to 2400 bps connections. With the UP9600 Hack (WIFI / Strikelink Modem f.e.) max. 9600 can be provided at the time of writing. Rumors say that people are working on faster WIFI Connections.

Cartridges like Swiftlink can provide max. 38.400 bps, Turbo232 max. 230k bps. However Holy Moses Mod, as released to the public, can be used with 38.4k bps using a Swiftlink or Clone. Raveolution BBS, WHQ of R.O.L.E., uses the latest Version of Holy Moses Mod making the full Power of a Swiftlink available plus support for the Turbo232 Cartridge. Thus 115.2K bps connections on Raveolution were possible. Connect and see the difference ☺

- With cabled connections: Ethernet Bridge ! The Ethernet Bridge is needed to connect your classic 8-Bit Machine to the world. It's your choice which Hard and Software you will use for bridging. Here are a few common Examples:

I. Windows PC with the Program "BBSServer" from Leif Bloomquist.

II. Linux PC (incl. RasPi and alike) with tcpser (maybe use the "FOZZTEXX" Fork)

III. Apple PC with tcpser4j (Java Version of tcpser)

IV. Dedicated Hardware like Lantronix MSS 100 or Lantronix UD-S10

- Using a cabled connection you'll need a cable or two. Means you'll need a Null-Modem cable (Crossover, Pin6 not connected) and, if f.e. using the USB Port of your PC / RasPi a RS-232 <-> USB Adapter. You'll get both in your favorite Online Shop.

With the Lantronix Devices you may need a DB9 to DB25 Adapter and / or a gender changer.

- With wireless connections: a WIFI Modem connected to the Userport of the Commodore might do the job. However, people reported Problems that Users cannot connect (Modem gives no ATA, or doesn't recognize end of connection). Maybe it works for you, maybe not. Maybe the Firmware of these Modems get an update to work in BBS mode. Who knows. The BBS "Dead Zone" is a good example for a working System running a Userport WIFI Modem.

Detailed Information is available on the Internet. Do a search and read. It's all there.

- A Disk Drive that suits your needs. That could be a pile of Commodore Floppies, a Hard Drive, SD2IEC, Ram Disks, maybe MMC Replay and Carts like that.

INSTALLING THE SYSTEM

Assuming you use ***the real thing*** and you have your Hardware connected and powered up, let's start installing your BBS.

The BBS Software is distributed in .d64 or .d81 images on the Internet. Check out CSDB and search for "ROLE" or "Holy Moses" or "CBASE". If you downloaded from a BBS you most likely have Zip-Code Files like "1!cbasemoses", "2!cbasemoses", "3!cbasemoses" and so on. Or maybe someone made a LYNX Archive so you got 1 "xxx.LNX" File.

I won't explain here in detail how to put these Archive files onto real Disks. There is enough Information available elsewhere. And there are so many ways to do so. If you intend to start an own BBS, this should belong to your Basic knowledge anyway.

For System Creation you should at least have the following file on disk to get started with an initial setup:

c/system create!

Load it with *LOAD*"c/system create!",8,1 (adjust to your Device Number!) and start it with *RUN*.

To avoid destroying your disk accidentally with the FORMATTING option within the System Create Program, remove the Floppy (-image) from your drive. You are asked which Device Number and Drive your BBS System will run on. The Device Number you enter here will later be used to format the Disk (and then copy necessary files on it).

The main SETUP Menu:



DISK FORMATTING

At first you should create a clean Disk to install the System Files on. It is no good idea to do this with a 1541 Drive, because the Diskspace is too small to run a BBS with. Remember that only the USERLOG File will need about 1 Block Diskspace per User. So if you'll create a USERLOG for 600 Users, there is almost no space left on disk !

The Boot process in Holy Moses Mod is completely automated, except for setting the clock if no CMD RTC Module is available. There are no interactions like Disk swapping or other user inputs.

Minimum to run a small BBS is a 1571 double sided Disk. Recommended is a 1581 or native Partition on HD / RamLink, or a Ram Floppy (REU, RamDrive etc.)

Use "FORMAT Disk for System creation" from the Main Menu to do so. Make sure a disk is inserted in your drive.

Disk Formatting

```
Device #      (8-30):8
Drive #      (0-255):0:
Are you sure? [Y/N]:
```

There is no Fast Format routine included to give a maximum of compatibility with different Device types, but with the cost of slowness. So be patient while the Floppy does its job.

Disk Formatting

```
Device #      (8-30):8
Drive #      (0-255):0:
Are you sure? [Y/N]:
Formatting Disk now...
Done...
Press any key to continue
```

INITIAL SYSTEM CREATION

With a blank disk in the Drive we can start the initial System Creation process. Use "System Create / Holy Moses Mod" from Main Menu to go to the Setup Process and create the important, individual System Files: CONFIGURE, STATS, USERLOG etc.

These files are essential for the BBS. Make regular Backups ! Especially the USERLOG File which contains all User Data. Without USERLOG no visitors can logon to your System !

"STATS" SETUP

At first you must input some Information that is later used in the File "STATS".

That is: Alias of the Sysop, his Status (seen on Wait Screen, and when a User logs in), the current Date in Format month.day.year and where you want to store the Sub Board Message Files and Mail Files. Here you can use separate Drives or Partitions like you want. These settings can be changed later on if you want.

```
Alias of Sysop:Larry
Sysop's Status:working.....
Current date [MM.DD.VV]:09.01.18

Drive Configuration:
Subs Device #      (7-30):8
Subs Drive #       (0-255):0:
Subs DOS init command :i0:

Mails Device #     (7-30):8
Mails Drive #      (0-255):0:
Mails DOS Init Command :i0:

Drive Configuration
Config for SUBS   : 8 ; 0: ; i0:
Config for MAILS  : 8 ; 0: ; i0:
Are you sure? [Y/N]:
```

Press "n" to start over, if you accidentally made a mistake in these settings.

After that System Setup asks you for an important Setting. "How many posts stored per SEQ file packet".

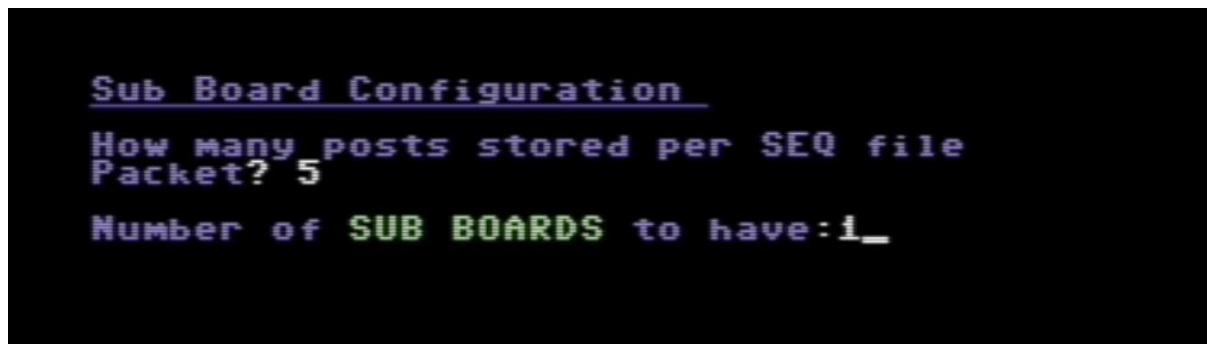
Messages that are posted in the Sub Boards are stored in SEQ Files. Each Sub Board stores its messages in own SEQ Files. These SEQ Files are named "S #ofSub M#packet", f.e. "S 1 M 30" -> Packetfile for Sub #1 with Messages from x to 30. So if you use the default Setting of 5 Messages per File, this would be the 6th File from Sub #1, starting with "S 1 M 5".

This Setting is defined only once and counts for all Subs you'll setup.

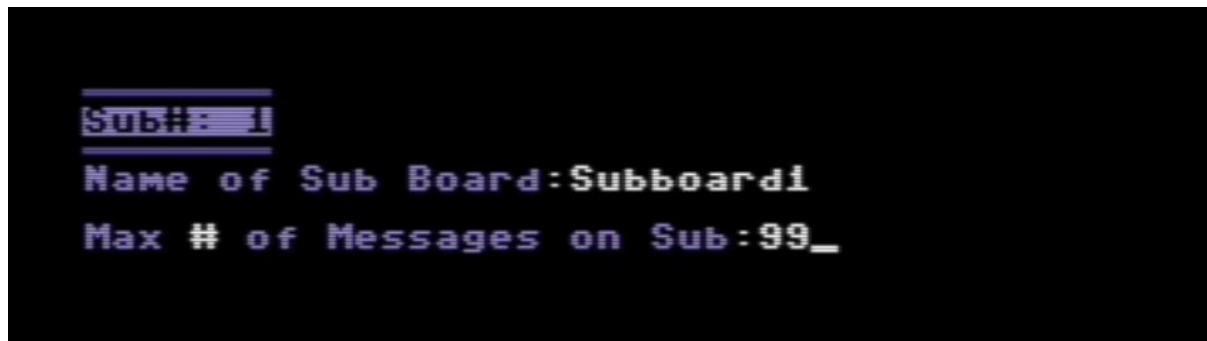
But what is the best setting to use ? This depends on the Drive you use (Speed, Diskspace, amount of Files that the DIR can handle) and the Speed of your BBS Hardware (Baudrate,

MHz, Parallel Drive etc.) The smaller each Package File, the less loading time, but more Files are created and with a growing BBS the longer the searching time for the File to load.

5 is good for a stock C64 at 2400 Baud or less. 10 or more, for Systems with a smaller Drive (1581 or less). More than 10 with Systems with f.e. HD connected via RamLink and Speeds above 2400 Baud. But try yourself and test before going live with your BBS. It's work to change that later on !



Now setup your Sub Boards. You should at least have two Sub Boards, one for the general Bulletin and the 2nd that is used for (Auto-)Posting the Uploads in.



If the Sub Board exceeds the max. Messages, the oldest Message will be deleted. First in, first out.

Select the User Accessgroups that should have read and write access to the Sub Board.

Cursor keys move Selection Pointer
SPACE toggles Group's access
~~REVERSE~~ indicates group given access

Press RETURN
when done

Sub # 1
Read access

```
>Group 0 <
Group 1
Group 2
Group 3
Group 4
Group 5
Group 6
Group 7
Group 8
Group 9
Group 10
Group 11
Group 12
Group 13
Group 14
```

Cursor keys move Selection Pointer
SPACE toggles Group's access
~~REVERSE~~ indicates group given access

Press RETURN
when done

Sub # 1
Write access

```
>Group 0 <
Group 1
Group 2
Group 3
Group 4
Group 5
Group 6
Group 7
Group 8
Group 9
Group 10
Group 11
Group 12
Group 13
Group 14
```

Proceed with all Subs that you want to setup.

Now continue with the Upload / Download Directories you want to have on your BBS.

Multiple Directory Configure:

Amount of DIRs to create:1

Directory: 1

Name of Directory:DIR 1

Enter Device and Drive Number for your U/D DIR. Each U/D Dir can be defined separately.

Directory: 1

Name of Directory:DIR 1

Device # (8-30) :8

Drive # (0-255) :0:

DOS command :i0:

And give READ, WRITE and unlimited Credits access.

**Cursor keys move Selection Pointer
SPACE toggles Group's access
REVERSE indicates group given access**

**Press RETURN
when done**

**UD # 1
Upload access**

>Group 0 <
Group 1
Group 2
Group 3
Group 4
Group 5
Group 6
Group 7
Group 8
Group 9
Group 10
Group 11
Group 12
Group 13
Group 14

Like the Sub Boards, these Settings can be also changed later on.
If you are done with the U/D settings continue with creating the USERLOG.

USERLOG

Decide how many Users your System should be prepared for. All Users will be stored in a single REL File. More Users means more free Diskspace needed. As a rule of thumb 1 User means 1 Diskblock. So 700 Users won't fit on a 1541 Drive or Partition ! 200 – 300 Users is a good Number to start with. You can expand the USERLOG with the System Setup later if needed. To be honest, you'll probably won't find more than 300 active (!) Users anyway...

```
How Many Users maximum to store on
Userlog :100_
```

Setup the first User, the Sysop, on the System.

```
Your Alias      :Mighty Sysop
Your Location   :console
Your Phone #    :999
Your Password   :secret
Your Real Name  :God
Birthdate       :01.01.0001
Computer Type   :8bit
```

```
■■■Creating Userlog■■■
```

```
Your Alias      :Mighty Sysop
Your Location   :console
Your Phone #    :999
Your Password   :secret
Your Real Name  :God
Birthdate       :01.01.0001
Computer Type   :8bit
```

```
■■■Creating Userlog■■■
```

Done!!

```
■■■Press any key to continue■■■
```

CONFIGURE

We are close to the end now. Only a few settings have to be done.

Most of the following settings are self explaining. We sadly could not test with a Lt. Kernal HD, simply because noone of us has the Hardware. But no relevant Code Parts that could affect the HD have been changed or removed. If it worked with Cyborg Mod, it'll probably will still work here. **Take care about the DIM values ! Too low dimensioned Variables cause System crashes !**

```
Lt Kernel Device # (Default=0):  
Number of UD Dirs To Dimension?  
[Return=45]:1  
Number of SubBoards To Dimension  
[Return=15]:1  
Number of Application Questions To Dim?  
[Return=20]:20  
Number of Macros To Dimension?  
[Return=7]:10  
# Of credits a post is worth?  
[Return=100]:  
Max # of Downloads Per Call?  
[Return=Unlimited]:  
Print Disk Status On File Opens?  
[RETURN=No]:  
Device # to Store System Disk?  
[RETURN=8]:  
Drive # To Store System Disk?  
[RETURN=0]:  
DOS Command For Init System Disk:  
[RETURN=-]:i0:  
What Device # For Term Module?  
[RETURN=8]:_
```

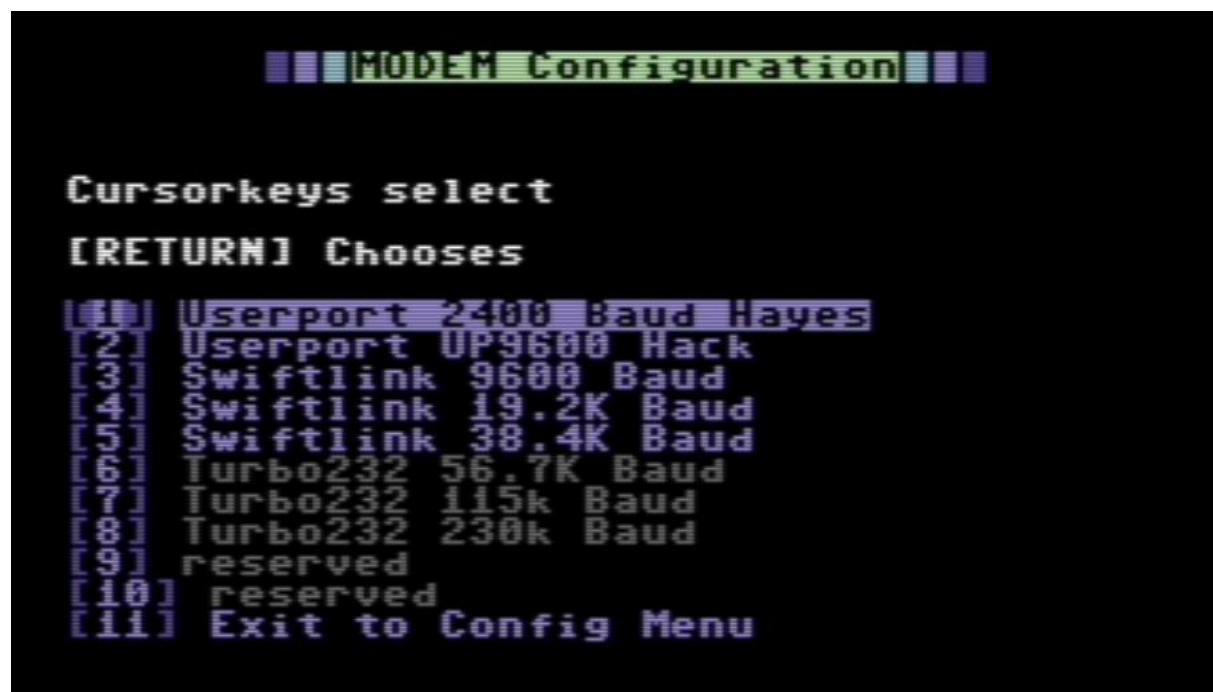
```
What Device # For Term Module?  
[RETURN=8]:8  
What Device # For Main Board?  
[RETURN=8]:8  
What Device # For UD Protocols?  
[RETURN=8]:8  
What LOGICAL UNIT For UD- Dir Files?  
[RETURN=0:]:  
Keyboard Lockout Mode On? [No]:-
```

Use the Keyboard Lockout mode to prevent Keypresses doing “unwanted things” while you are not behind the keys. With Lockout Mode set to ON (Yes), no Cat, little Brother, Kids or People cleaning the Desk will accidentally confuse callers or do nasty things 😊

Be warned: Once the Keyboard Lockout mode is set, there is no Option within the BBS to turn on Keyboard again. Run/stop Restore and a POKE 842,0 followed by RUN will turn it on until next BBS Bootup. To change it permanently in the CONFIGURE File, use System Setup Tool or change the CONFIGURE File with the Texteditor in your BBS and change the last of the Numbers value from 1 to 0 and save.

MODEM SETUP

At last one of the most important things to configure, is the Modem Setup.

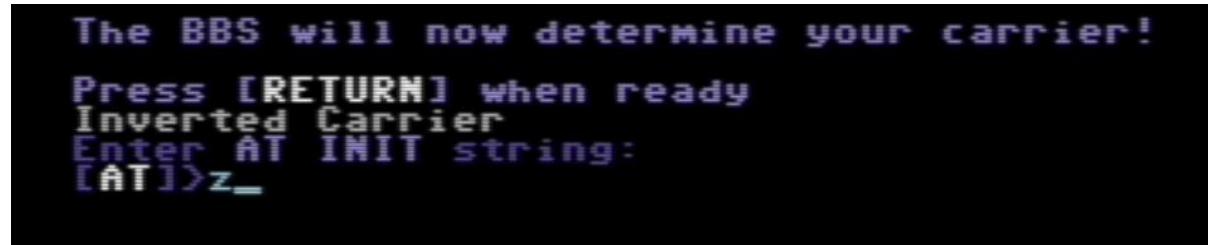
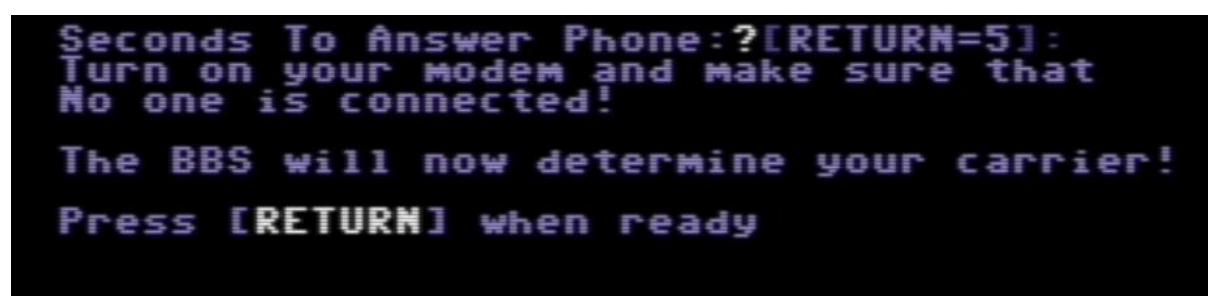
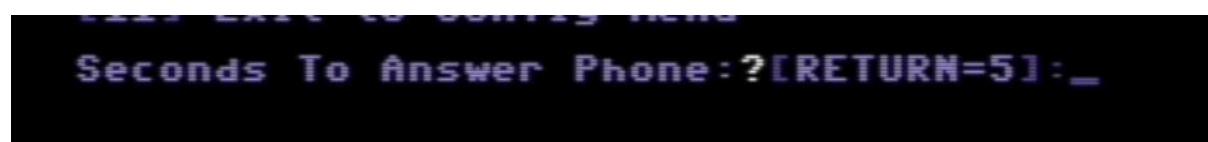


Most old Modem Configs like 1670 Modem, Aprotek etc. have been removed. If you still use a classic Modem with a Dial-Up connection, try the "Userport 2400 Baud Hayes" setting and set your AT Initstring to your needs.

At the time of writing, the UP9600 Hack, useful for Wifi Modems is under development. If the Driver is not on the Release Disk, don't use this setting !

However, WIFI will work with the 2400 Baud Hayes Setting.

CMD Swiftlink and Clones like LINK232, GLINK232 are supported and should work at full speed (38.400 Baud). CMD Turbo232 is not yet supported beyond 38.400 Baud!



Usually the BBS is connected to the World via Telnet, so you need a Device that connects your C64 Userport or Expansionport device with the Internet. There are many ways to do so. I don't want to go too deep into detail here, because all you need to know is just a Google search away.

The most easy way (in my Opinion) is using a Swiftlink, with a DB9 to 25 converter and a LANTRONIX UD-S10 or MSS100 (f.e.). But there are also BBSserver and tcpser.... and others.

COPY SYSTEM FILES

Hurra !! That's it for an initial Setup. There are some configuration steps left. But now let's give it a first try.

To start your BBS now, make sure you have the following Files (minimum) on your System Boot Disk or Partition:

```
c/boot  
ml 0.0 – ml 3.0  
sprite ml
```

nmi.ml... (choose the NMI.ML that suits your Hardware)

The NMI.ML Files are named with a suffix like "-UP2400" or "-SWIFT-DE". NMI Files with the UP Suffix are those needed for Userport Devices, the others are for Expansion Port Devices Swiftlink / Turbo232. "DE" means \$DE00, "DF" and "D7" to the corresponding Base Addresses. Make sure your BBS Bootdisk contains only **one NMI* File**. Renaming the File is not necessary. The Bootfile uses "*" wildcard and will load "**nmi.ml***" !

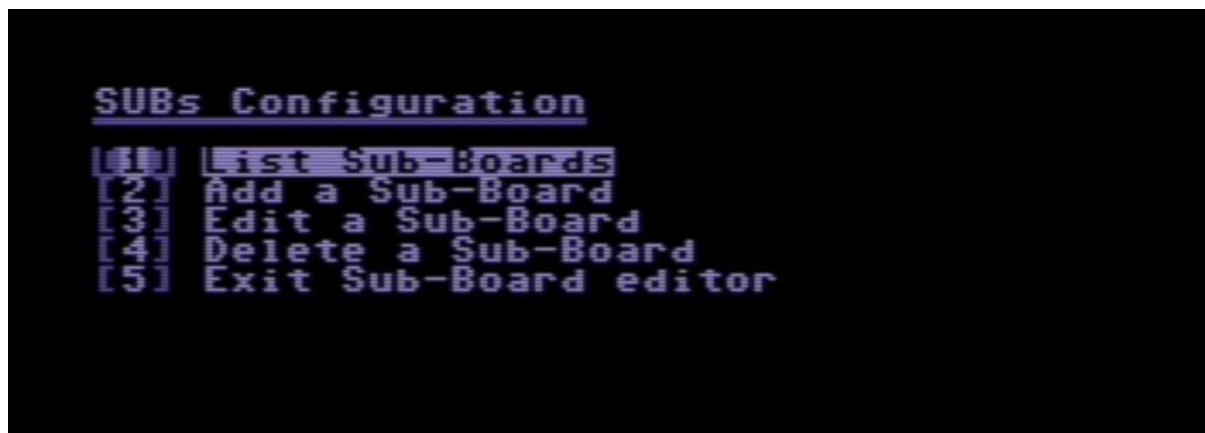
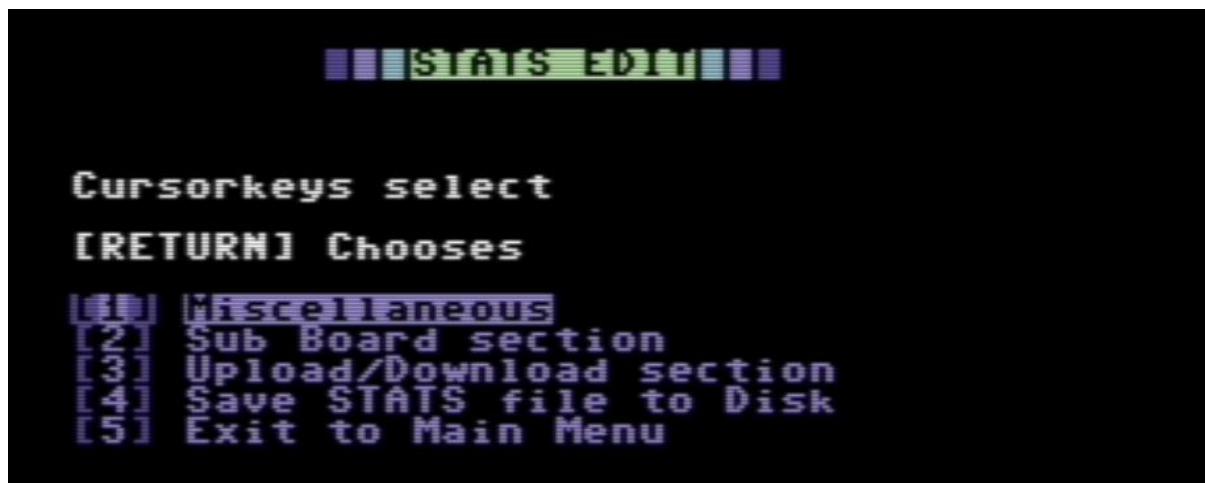
```
ascii tab  
punter  
ag  
text  
random  
configure  
stats  
userlog  
wait  
last  
last callers  
macro  
colors 1 – colors 4  
c/bbs  
c/midnight
```

This will take you into the wait screen. For running the BBS you'll also need the Files from Disk #3. Otherwise all BBS GFX are missing, and the User won't see any Welcome screen or Login Prompts f.e.

EDIT SETTINGS

Settings can be changed after initial Setup with the System Setup Tool. You can change settings from STATS File, CONFIGURE File, AG (Access Groups) File, CMDCLOCK Setup, BBS COLORS setup, the Number of randomly shown Screens and expand the USERLOG and so on...

These are the same Settings Dialogs as on System Creation. List, Edit, Add, Delete, I guess you know what is meant....



U-Ds Configuration

- [1] List Directories
- [2] Add a Directory
- [3] Edit a Directory
- [4] Delete a Directory
- [5] Exit Directory editor

At CONFIGURE Edit you can change the same values, that where given at System Creation. "Show complete Config" will display all Values that are stored in the CONFIGURE File on Screen. Most of them are not editable with this Tool, some might be double or not used by the System at all. Don't worry about this ☺

Cursorkeys select

[RETURN] Chooses

- [6] Miscellaneous
- [2] Modem Settings
- [3] Show complete Config
- [4] Save CONFIGURE file to Disk
- [5] Exit to Main Menu

Cursorkeys select

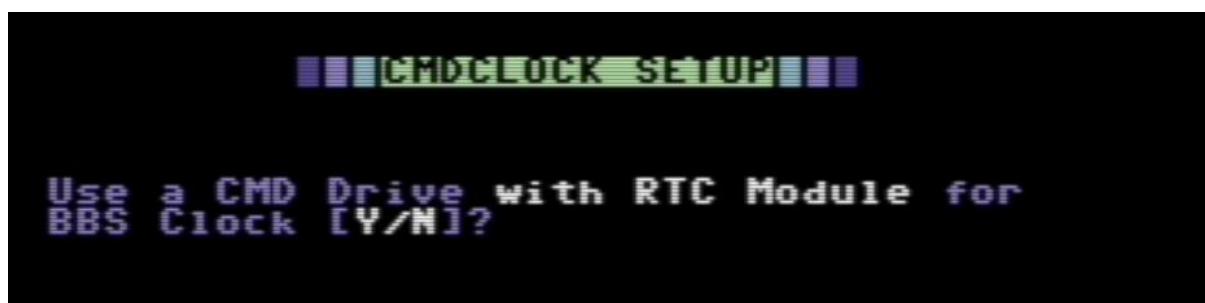
[RETURN] Chooses

- [1] Miscellaneous
- [2] Modem Settings
- [3] Show complete Config
- [4] Save CONFIGURE file to Disk
- [5] Exit to Main Menu

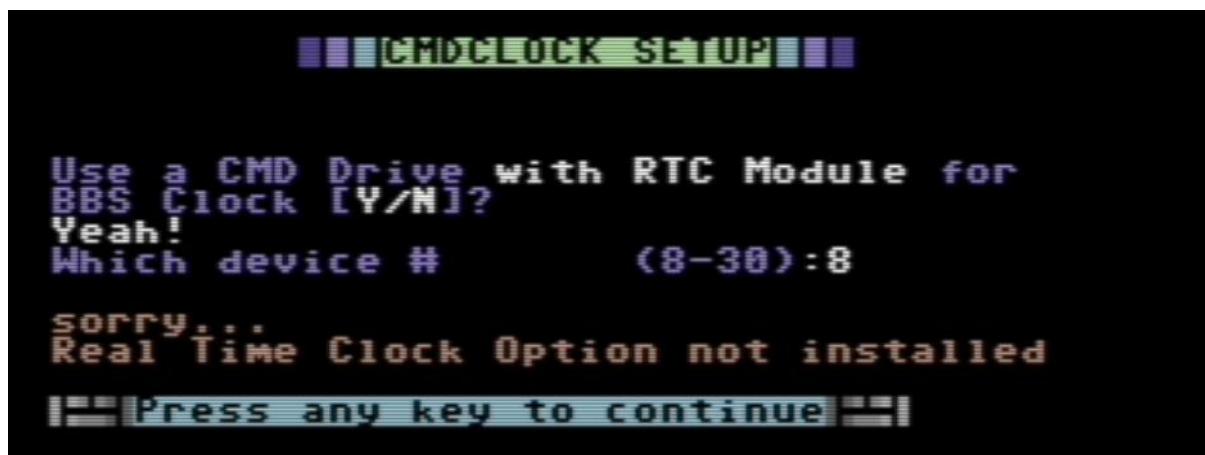
WHAT TIME IS IT ? IT'S TIME FOR A HOUSE...

If you own CMD Hardware Drives with a Real Time Clock built in (FD, HD, RL), you can use that RTC for your BBS. System Setup checks, if it can read your Hardware's clock and create a SEQ File named "CMDCLOCK" on Disk. The Devicenumber is stored in that File. CMDCLOCK will be read during booting if present, and sets the System Clock automatically.

Without a CMD RTC you'll have to enter the System Time by Hand, or it is read from STATS File, the last entry there.



If no RTC Hardware is detected here, an existing CMDCLOCK File will be **scratched**, so that C/BOOT will work without Errors.

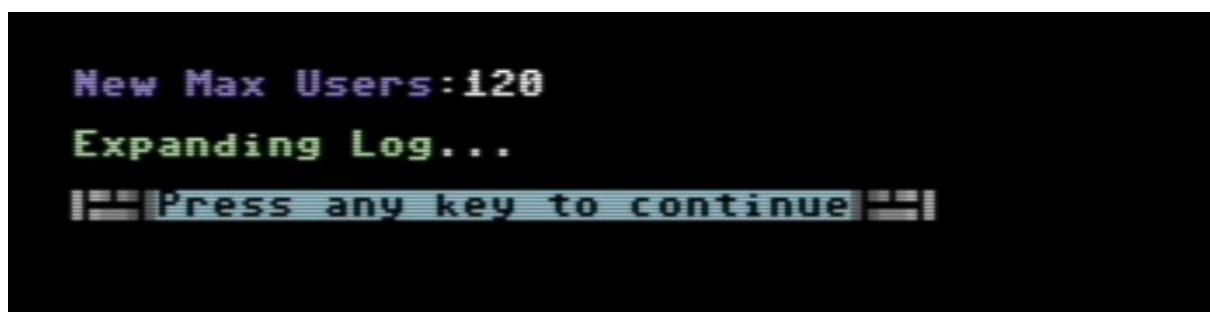
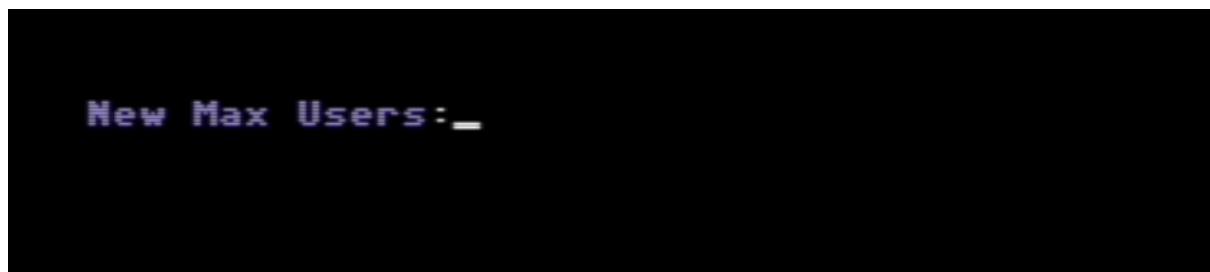


EXPANDING USERLOG

If you run your BBS for a while, it may happen that your Userlog is full. New Users won't get an account. They get a message on applying, that the Userlog is full.

If you have Diskspace left and want new Users to be able to get access to your BBS, you can expand the Userlog, with System Creation Tool.

Simply enter the new Number of maximum Users and hit RETURN. The USERLOG REL File and the STATS File will be changed to your new Settings.



EXPORTING USERLOG

On special request we have added a USERLOG Export Function into the System Create Tool. With the recent Version (2018-11-15 or later) of System Create Tool, you get the chance to export your existing Userlog into a SEQ File. This can be useful for backup, editing with external Tools or with export / import into a new Userlog File for Holy Moses Mod f.e. However there are not importing Options yet, only export.

Enter Source Device and Drive where the USERLOG File is and Destination Device and Drive where to store the SEQ File called "EXPORTLOG". Make sure you have enough free Diskspace for your Data.

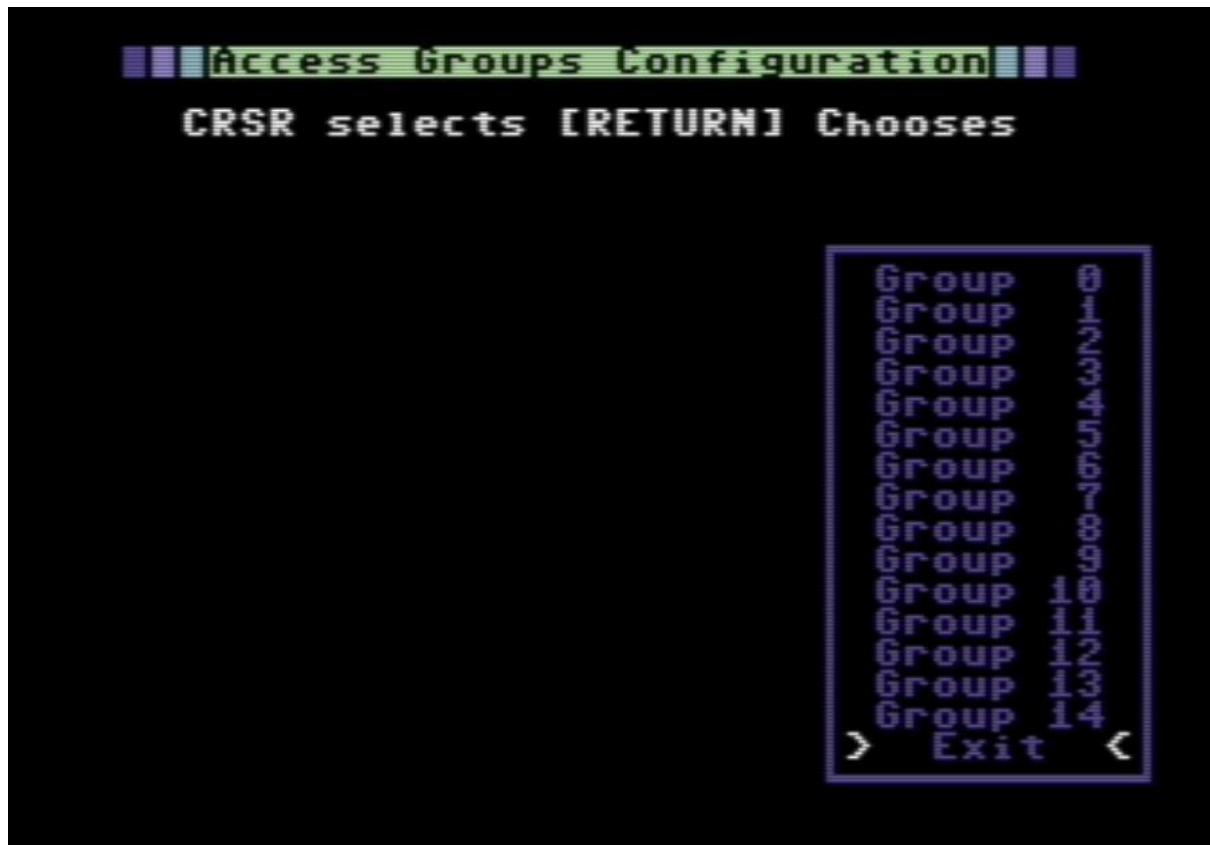
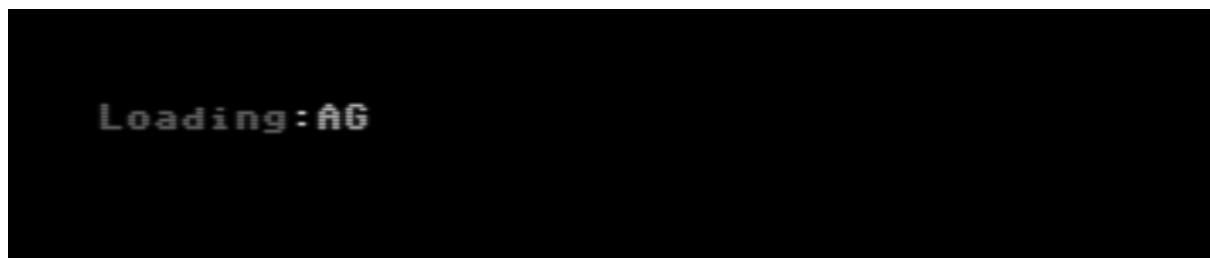
```
Source Device #      (8-30): 8
Source Drive #      (0-255):0:

Dest. Device #      (8-30): 9
Dest. Drive #      (0-255):0:

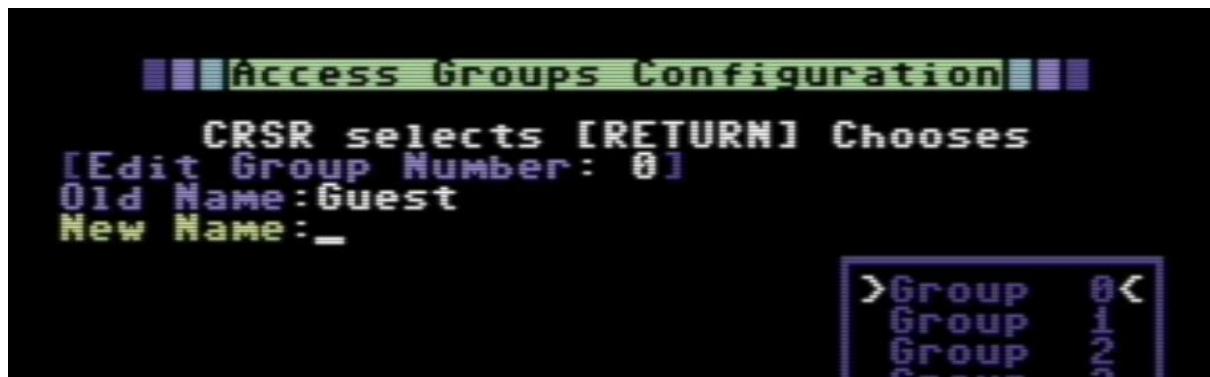
Exporting Userlog...
```

ACCESS GROUPS – DU KOMMST HIER NET REIN

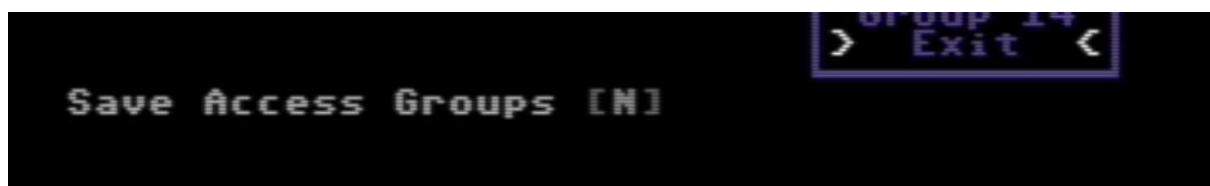
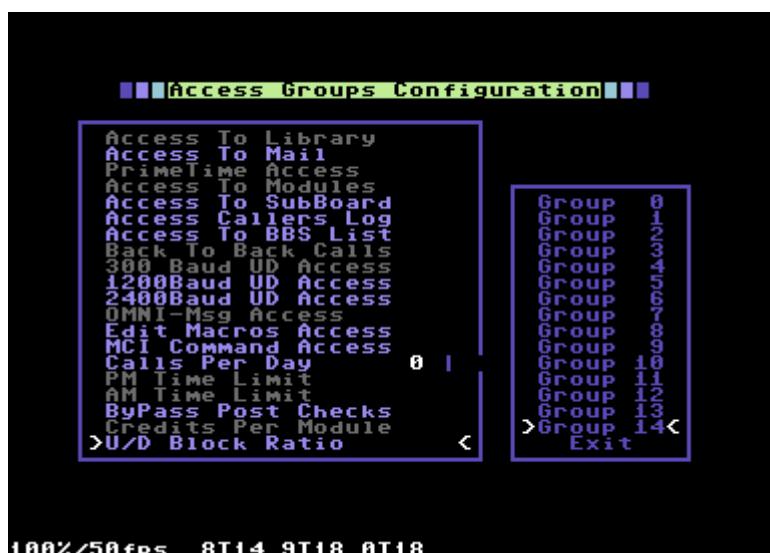
C*BASE 3.1 has 15 Access Groups. Each Group can have individual access rights defined. Group 0 is used for Users, that are just applying for a new account on your System, Group 1 for new Users after apply (Guests). Group 2-14 can be edited like you want. Usually the Sysop Account belongs to Access Group 14.



The Group Name can be max. 29 Chars or better Bytes long ! 29 including Color codes and "PETSCII Artwork". Anything longer than 29 will be cut off !



Use the Cursor Keys to select an Entry. <SPACE> toggles Access rights on or off. Reversed text means access granted. Press <RETURN> if you finished the configuration of that group. Entries colored in GREY are not editable. They are not used in Holy Moses mod.



Save your changes on Exit by pressing <Y>. Press <N> to dismiss the changes.

UNITED COLORS OF C*BASE

With the recent Holy Moses mod you are able to customize your BBS Colors instead of getting Random "Rainbow Colors". C*BASE is now equipped with four "COLOR x" files. You can edit 8 Colors per File. If you don't need four different color schemes, copy the one or two files you want, so that you get four files in total. Make sure you have "COLORS 1", "COLORS 2", "COLORS 3" and "COLORS 4" on your System Disk !!

System Creation Tool lets you edit the colors schemes. The four Color Schemes will be loaded randomly in C/BBS. So if you f.e. view a Directory at the U/D Prompt and have created four different Schemes, you'll get different colors each time you view the Directory.

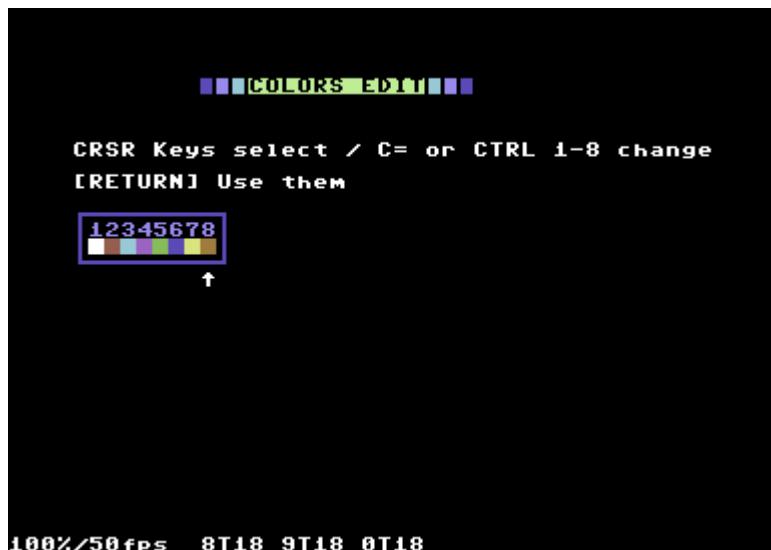
To create and edit the color schemes, use "Edit BBS Colors" from Main Menu.



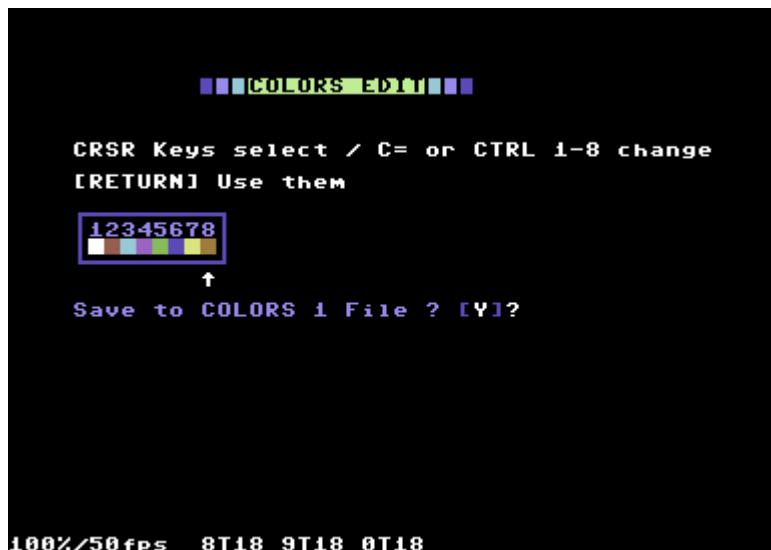
In the Edit Colors Menu you can create new COLORS files / edit COLORS files or simply view them. Use Exit to Main Menu to leave this section.



On create / edit / view you are asked, which one of the four Files to use.



To change the eight colors use Cursor Keys to move the selection Pointer and enter your colors by pressing <CONTROL> + <2> till <8> or <CBM> + <1> till <8> for the built in colors. Press <RETURN> to quit editing and save the file to disk afterwards. Keep in mind the Background Color is always set to Black. To avoid Textlines that the User can't see in his Terminal Program, the use of CTRL+1 (black) is denied in this Editor.



Remember C/BBS needs 4 COLORS Files on your System Disk !!

RADICAL NUISTS ON MARS – RANDOM

No we are not talking about futuristic fetish people 😊

From the Main Menu you are able to edit the RANDOM file on your System Disk. The RANDOM File is used to configure the amount of various BBS Screens, that will be displayed randomly. The following Screens and Prompts can be configured:

OPEN, END, DELETE, LOGON, PROMPT, CMENU, USER, SUBJECT and CHAT.

If there is no RANDOM File on your Disks, you can also create a brand new File with the System Creation Tool.



The minimum amount of screens is 1, maximum 255 ! Make sure the file RANDOM is on your Boot Disk. It will only be loaded once when the System is booting. Ofcourse you can also edit this File with the Texteditor from C*BASE BBS.

```
# of OPEN Files? (1-255) [ 1]:1
# of END Files? (1-255) [ 1]:2
# of DELETE Files? (1-255) [ 1]:3
# of LOGON Files? (1-255) [ 1]:4
# of PROMPT Files? (1-255) [ 1]:5
# of CMENU Files? (1-255) [ 1]:6
# of USER Files? (1-255) [ 1]:7
# of SUBJECT Files? (1-255) [ 1]:8
# of CHAT Files? (1-255) [ 1]:9_
```

PASSWORD: SWORDFISH: THE REMP FILE

When entering the Remote Mode from Wait Screen or from within the BBS, you are asked to enter a Password to get access to Remote Mode. The Password is saved in the File "REMP". The Version of C*BASE should be shipped with a REMP File including a standard Password. If this file is missing, you can simply create a new one with the System Creation Tool or alternatively by pressing "P" in BBS Wait Screen.

After entering the new Password twice, to make sure you don't save a Password with typos, the old REMP File will be scratched if existent, and a new REMP will be saved on your System Disk.

```
Write new REMP File

Enter New Password:new
Re-Enter Password:new_
```

IN THE MIDNIGHT HOUR, SHE CRIES MORE, MORE, MORE.....

The Midnight Module got some Updates to the initial Release from us. We implemented customizable Userrank Header Lines, the Press a Key in Userrank is now taken from the TEXT File Prompt#7 and last not least, automatic Userpurge was implemented. And if that ain't enough, it has a BBS Backup Function on top if your System is JiffyDOS equipped ! All of this with its own Config File: MIDNIGHT.STATS.

MIDNIGHT.STATS can be created / edited with the recent Version on C/SYSTEM CREATE ! This File consists of 11 Lines in a SEQ File.

1st Line: 0 means OFF, 1 means ON. Options separated by comma.

	Options
Start Userpurge	0 / 1
Days since last call	1 -x Days
AG Bits Filter	0 - 32767
Purge Mails	0 / 1
Recreate Namelog	0 / 1
write Purgeing into Log	0 / 1

Number of days must be integer. 3.5 days will lead into errors !

2nd Line: Top List Header Line 1 (Top)

3rd Line: Top List Header Line2 left Part

4th Line: Top List Header Line2 right Part

5th Line: Top List Header Line 3 (Bottom)

If selected, purging will be logged into the callers Log. Set "AG Bits Filter" with System Create Tool, or calculate by Hand (see Appendix C for AG Bits). Add up Values of Groups that should be purged.

Example: 1,365,16383,1,1,1

Purge is ON, purge Users inactive since 365 days or more, purge over all Access Groups except AG 14, scratch Mails, recreate Namelog, write Log into "callers" Logfile.

Line	Function	Options
6	Backup run	0 / 1
6	Backup Cycle	1 -x Days
6	Last Backup	Date (set by BBS)
7	Backup System Files	0 / 1
7	Backup changeing Files	0 / 1
7	Backup PETSCII Files	0 / 1
7	Backup User Mails	0 / 1
7	Backup SUBs Pakets	0 / 1

7	Backup UD- DIRs	0 / 1
7	Use Backup DIRs No / Yes / Yes new DIR each Date	0 / 1 / 2
8	Destination for BBS Files	Device;Drive:
9	Destination for Mails	Device;Drive:
10	Destination for SUBs	Device;Drive:
11	Destination for UDs	Device;Drive:

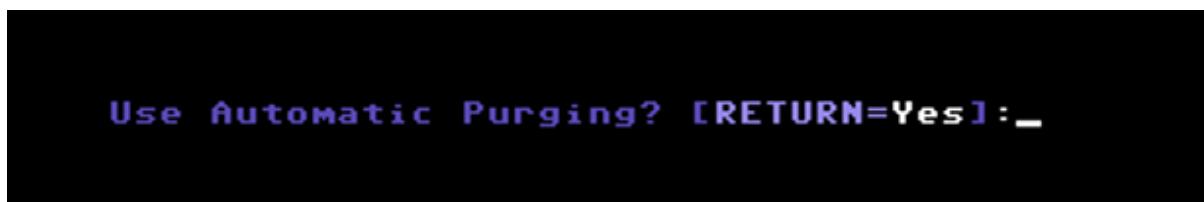
Example:

```
;----> Line 6: 1, 14, 11.01.18
;----> Line 7: 1, 1, 1, 1, 1, 1, 2
;----> Line 8: 8;o:
;----> Line 9: 8;o:
;----> Line 10: 8;o:
;----> Line 11: 8;o:
```

Backup **into Directories** only works with CMD Drives and "SD2IEC like" Devices ! Don't try this with an 1581 which works with Subpartitions. Setting "o" will copy onto a given Device / Drive or Partition. "1" will copy into Directories that must be created before by yourself. Copy will replace the BBS Files BSS in these Backup Dirs. "2" will create a Backup Dir with Date in Dirname, and create the "Subdirs" and then backup the BBS Files into these SubDirs or whatever you defined as Backup Destination. Due to JiffyDOS Copy Command Limitation, Source and Destination have to be **on different Devicenumbers**. Copy from one Partition to another does **not** work.

THE PURGE: REMOVAL DAY

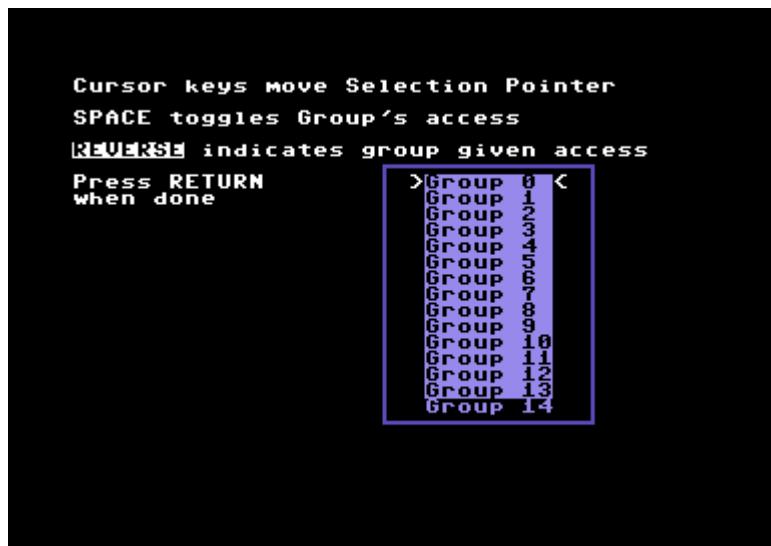
With the updated Version if C/MIDNIGHT Module you are able to automatically keep your Userlog clean from dead Accounts. You only have to activate Autopurging with System Create Tool.



You can filter the User's Access Groups that should be purged or not. The "PurgeBits" are calculated as follows:

AG	Purge Filter Bits
0	1
1	2
2	4
3	8
4	16
5	32
6	64
7	128
8	256
9	512
10	1024
11	2048
12	4096
13	8192
14	16384

Add the Filter Bits Values. Activating all AGs gives a total of 32767, which you will see as 3rd Value in Line 1 of MIDNIGHT.STATUS File.



```
Days since last call? [RETURN=365]:  
Trash Mails? [RETURN=Yes!]:  
Recreate Namelog? [RETURN=Yes]:  
Use PurgeLog? [RETURN=Yes]:_
```

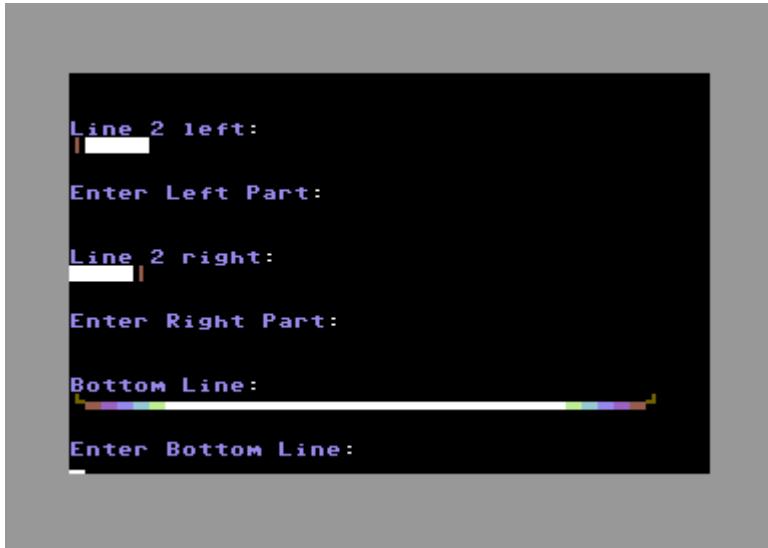
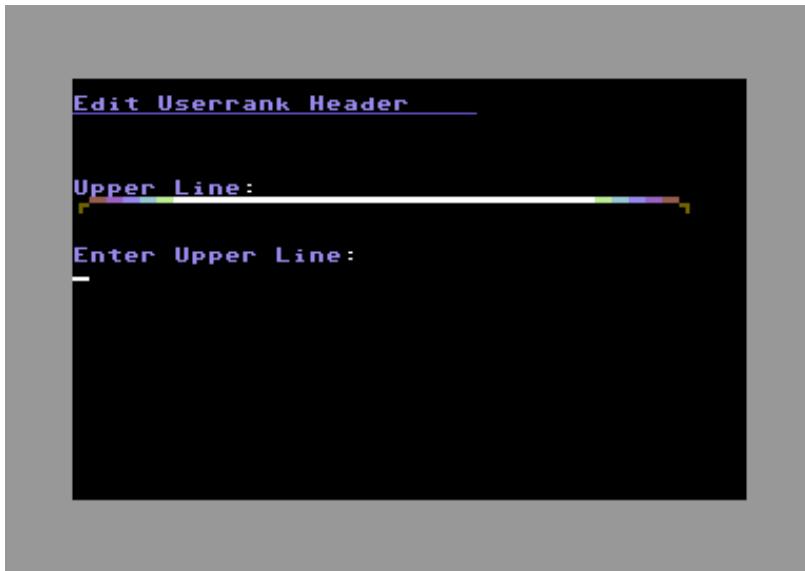
Set the amount of Days a User did not connect before purging. The Account will be wiped out in the Userlog. That's the same as deleting a User from Remote Mode. You should always enable Trash Mails. Otherwise a new User, that gets the Account Number of a purged User will get his old Mails !

Namelog can also be automatically updated if enabled. If you want Purge Logging, Information is added into "CALLERS" Log File.

You also can use the external Userpurge Tool, which is basically the same thing, but with User Interaction and a "Double Check" Function that lets you check and confirm each User by Hand before removing the Account from Userlog.

T(W)O BE(ER) ON TOP: USERRANK CUSTOMIZING

You changed the TEXT Prompts, made own PETSCII Screens and Prompts. But the Top10 Lists still look the same? That's history ! Now you are able to change the Top10 Header to your BBS Design. Even the "PRESS A KEY" Prompt is now taken from Prompt#7 from your TEXT File and not hardcoded in the compiled Midnight Module anymore.



SAFETY FIRST ! – THE AUTOMATIC SYSTEM BACKUP

With System Backup enabled, the BBS System Files will be copied to a Destination Drive or Directory in a cycle of x days. X can be from 1 (daily backup) to whatever you want. Choose which type of Files will be copied. F.e. if you don't want to backup your PETSCII Screens every Time, choose "NO".

You have 3 choices how to store the Files at Destination. Answering "NO" or "N" at the question "Backup into DIR(s)" will copy the Files onto a "normal" Diskdrive or a Partition on HD. Copy into DIRs will copy the Files into DIRECTORIES of your choice. These have to be on the Destination Drive already, or copy might fail.

```
Use Automatic Backup? [RETURN=Yes]:  
Backup every x Days? [RETURN=?]:  
Backup System Files? [RETURN=Yes]:  
Backup changeing Files? [RETURN=Yes]:  
Backup PETSCII Files? [RETURN=Yes]:  
Backup Mail Files? [RETURN=Yes]:  
Backup SUBs Packets? [RETURN=Yes]:  
Backup UD- DIR Files? [RETURN=Yes]:  
Backup into DIR(s) on Device?  
[RETURN=No]:yes  
Make new BackupDIR each Run?  
[RETURN=No]:yes
```

Files at Destination will be replaced by the new Files.

Choosing "Make new BackupDIR" will create a new Directory named "Backup-Date". Within this DIR, the BackupDIRs will be created and then Copy starts.

Make sure there is enough free Diskspace left, if you create new DIRs on each Backup run.

```
Enter Destination for BBS Files [8;0:]  
:  
Enter Destination for Mail Files [8;0:]  
:  
Enter Destination for SUBs Files [8;0:]  
:  
Enter Destination for UD- Files [8;0:]  
:_
```

Backup will NOT copy any Files, that are no BBS System Files. Backup will NOT copy Files from your U/D Storage (except the UD- DIR Files).

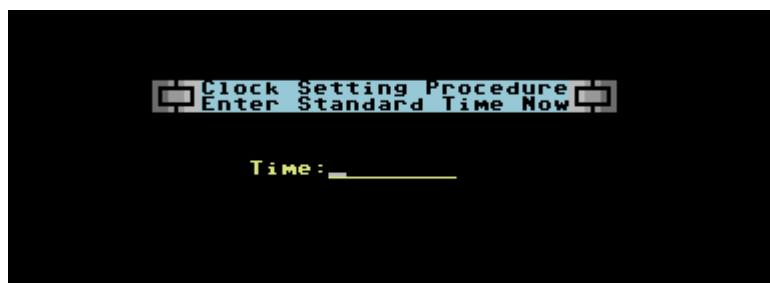
You can Backup your Files to a REU, if you loaded REU.ML at System Boot with Ram-Boot. See Chapter 4.

DAS BOOT – BOOTING YOUR SYSTEM FOR THE FIRST TIME

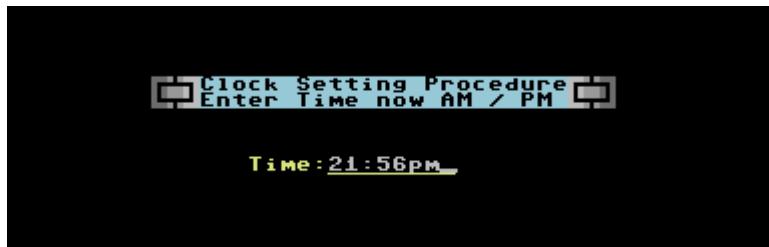
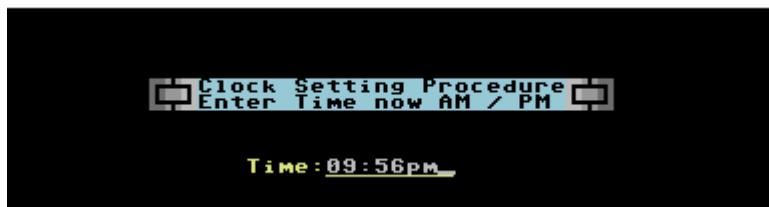
OK, you have setup the System, copied all necessary Files on your System Disk / Partition now give it a first try. LOAD“c/boot”,8 or the device number your System Files are on and start it with RUN.



The Boot File will load all Core Files, Punter as the default Transfer Protocol and so on. Without a (preconfigured) CMD RTC, you will be asked to enter the "Standard Time".

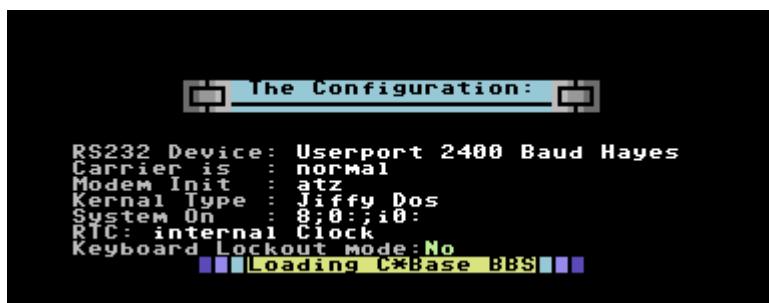


Enter the current time in “12h format” like hh:mm am / pm. No seconds needed ! 24h format like 15:39 will however work, that means translated to am / pm Format, if you enter it **with the am suffix in the morning and the pm suffix from 12:01 – 23:59**.



The Boot Program waits a while for a User input. If nothing is entered at the Time Prompt, Boot tries to get Time information from the STATS File instead.

With a configured CMD RTC the boot process runs completely automated with no User input. Perfect if you enable the Autoboot Function of your RamLink.



Boot will load the main BBS Program c/bbs and send the Modem Init String.

If your Modem setup is correct and you have the corresponding NMI.ML File loaded, the BBS will receive an "OK" Message from your Modem (or TCP/IP Bridge like tcpser etc.). After that the BBS will continue and go into the "Wait Screen" waiting for calls 😊 That's it.



Congrats: you made it ! (Don't mind the "tax err" here in this Hardcopy)



CHAPTER 2: EXODUS – MOVEMENT OF JAH SYSOPS OR HOW TO MIGRATE TO HOLY MOSES MOD

HOLY TERMINATION – MIGRATE FROM CYBORG MODDED C*BASE 3.1

The easiest way to migrate to Holy Moses mod is, if you already run a Cyborg modded C*BASE BBS. You only have to exchange some files on your System and have to make some tweaks to the CONFIGURE File and the TEXT File and your CMENU x File(s). That's it.

You're ready to run Holy Moses mod 😊

Files that have to be exchanged are:

- c/boot
- c/bbs
- c/midnight
- wait
- c/term
- ramboot
- nmi.ml

Modify:

- configure
- cmenu 1 -x (see Appendix 1)
- text (see Appendix 4)
- mail

Copy:

- x-modem1k
- colors 1 – colors 4

Create a new Password File REMP from the "WAIT Screen" or System Create Tool. Setup MIDNIGHT.STATS !

FROM HELL TO HEAVEN OR THE OTHER WAY AROUND ? – MIGRATE FROM 3.1 VILLAIN MOD

Like the Cyborg Mod, Villain Mod is based on C*BASE 3.1. Villain made a much better Cursor Menu, like we have now in Holy Moses Mod. And the main BBS Code wasn't stripped down, so there is still the support for Modules, Message Networking etc.

So if you plan to change your System to Holy Moses Mod, keep in mind, that some things are not supported anymore. On the other hand you'll gain more stability of the BBS and the support for higher Baud rates.

Files that have to be exchanged are:

- c/boot
- c/bbs
- c/midnight
- wait
- c/term
- ramboot
- nmi.ml

Modify:

- configure
- cmenu 1 -x (see Appendix 1)
- text (see Appendix 4)

Copy:

- x-modem1k
- colors 1 – colors 4

Remove / Unused:

- omni
- C/xxxx Module Files
- Mlog

Some PETSCII Files have to be renamed !

Create a new Password File REMP from the WAIT Screen.

C/TERM is the Terminal Module for C*BASE since Version 2.0, originally written by Cybersage. Holy Moses did some Modifications in the mid goies. The Version you'll get with this package is bugfixed and enhanced in 2018 by Holy Moses, with X-Modem1k Transfer Protocol support by Larry.

C/TERM can be started by pressing "F1" in the SysOp Waitscreen. The BBS searches for that file in your System path, as defined in your CONFIGURE File.

C/TERM needs two own Files for configuration:

term.phone

term.stats

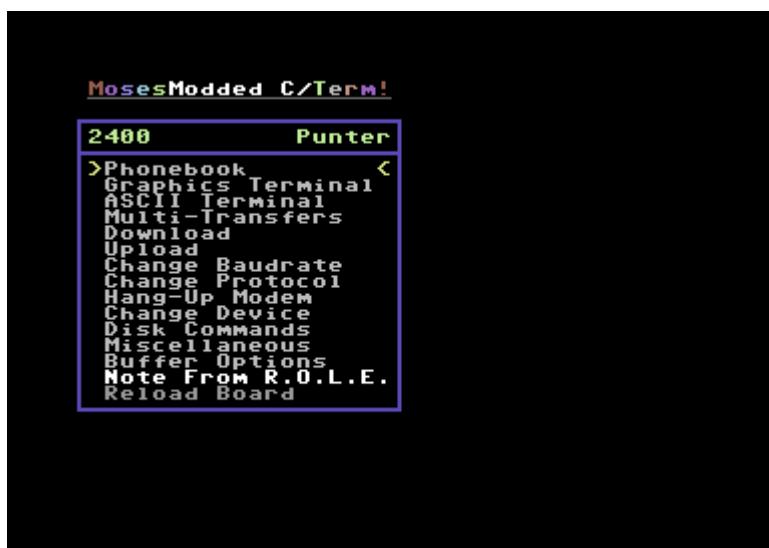
term.phone contains your Phonebook, which is modified to work with IP Addresses instead of Phone Numbers.

term.stats contains your Terminal Settings.

If C/TERM doesn't find these two files after loading, they will be automatically created.

The C/TERM Main Menu is Cursor driven. Use <CRSR UP> and <CRSR DOWN> to move through the Menu, <RETURN> selects.

Baudrate setting is taken from the BBS settings and don't need to be configured separately

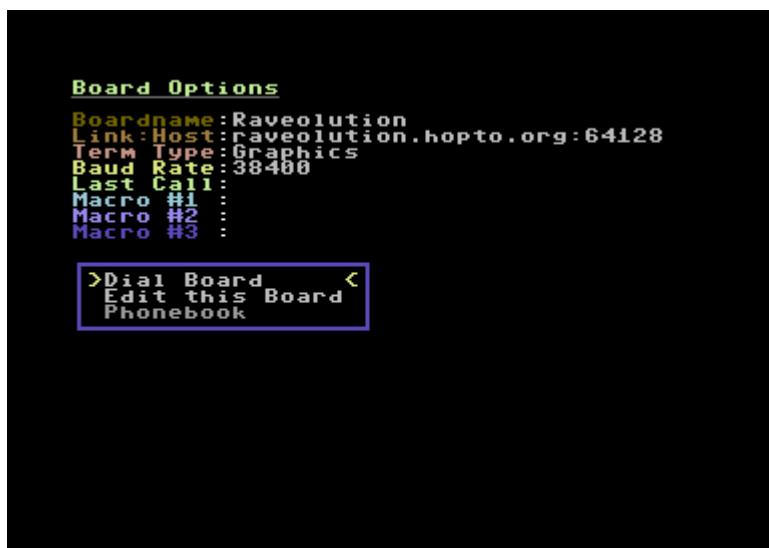


The Phonebook was rewritten to use it with IP:Port Addresses. There are 2 pages that should provide enough space for all the BBS Addresses you need. Switch between the two Phonebook pages with <N>.



Press <RETRUN> to select an entry. You can now edit or dial the selected entry. Edit an empty entry to add a new Board to your Phonebook.

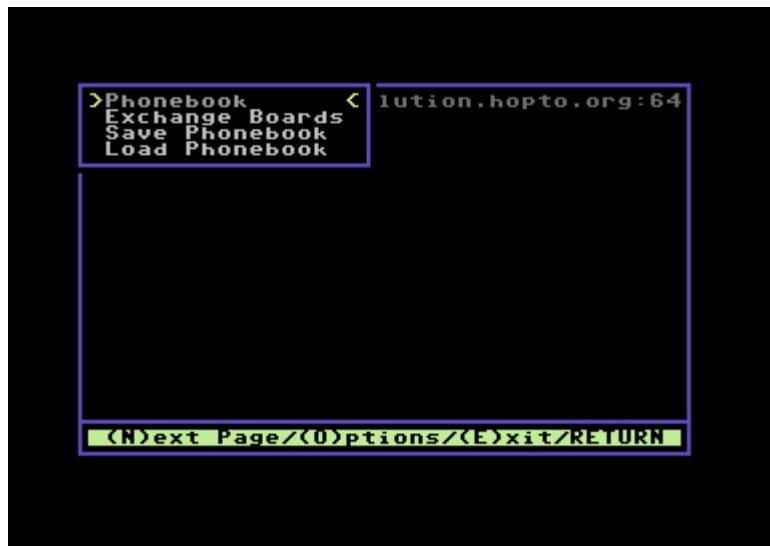
Hint: If you use a Telnet Bridge, use the Baud rate setting, that is configured for your BBS. Don't enter the foreign Boards max. Baud rate. That caused Problems at Tests.



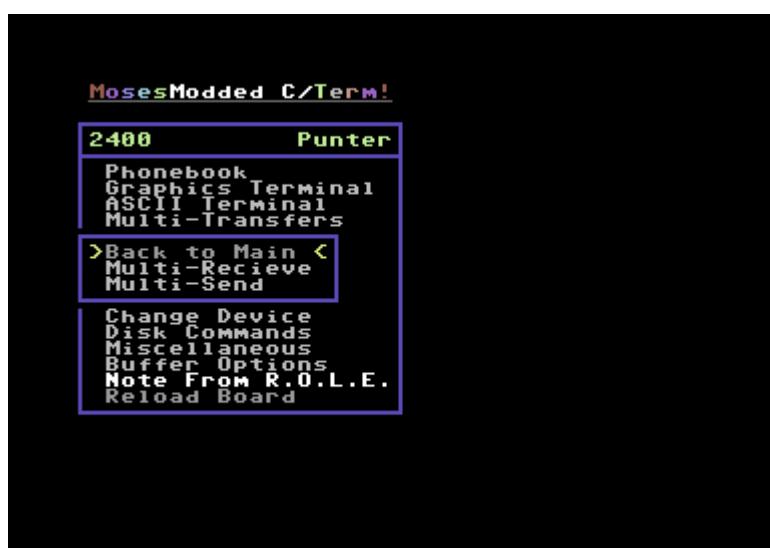
You can define 3 individual Macros per Phonebook entry. In Terminal Mode send them with <F1> + <1> - <3>.

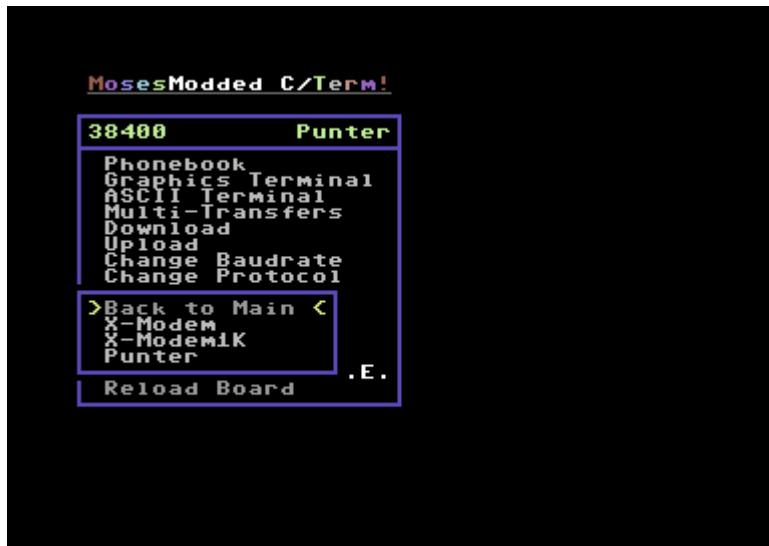
Press <O> to reach the Options Window, where you can sort your Phonebook entries, save the Phonebook, or load (import) from a different C/TERM Phonebook file on Disk.

Press <E> to exit to Main Menu.



With this Version of C/TERM you can Upload and Download Files using the Protocols X-Modem, X-Modem1K for fast single File Transfers and Punter including single and multi Transfers. Change the Protocols in Main Menu.





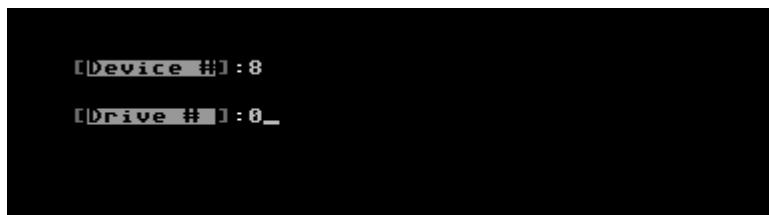
Change your Baud rate setting. Valid Baud rates are:

300, 1200, 2400, 4800, 9600, 19200, 38400

Higher Baud rates (f.e. with a CMD Turbo232) are not yet supported !



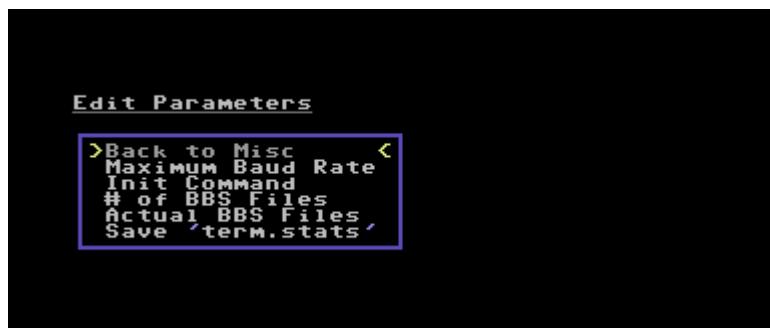
Change your Device Number and Drive / Partition, if you want to Upload / Download from another Drive.

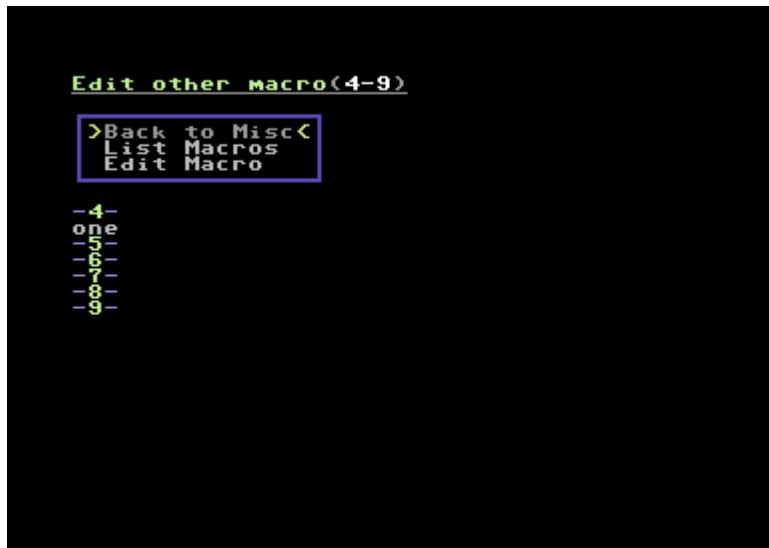


Use the Disk Commands menu entry to View the Directory from the current Device, or validate, scratch Files etc.



At "Miscellaneous Commands" you can edit various Terminal settings and define global Macros 4 - 9. Most of it should be self explaining. You can reboot into the BBS using a different C/BBS File. That is useful for testing new Versions of the Main BBS File. The Number of BBS Files configured here, will show up on C/TERM exit.





Use Buffer Function within C/TERM to transfer Texts or PETSCII Artwork or whatever to the Board you are calling. Useful if you are spreading your Files to the BBS and give the same Infotext. No need to type it again and again.

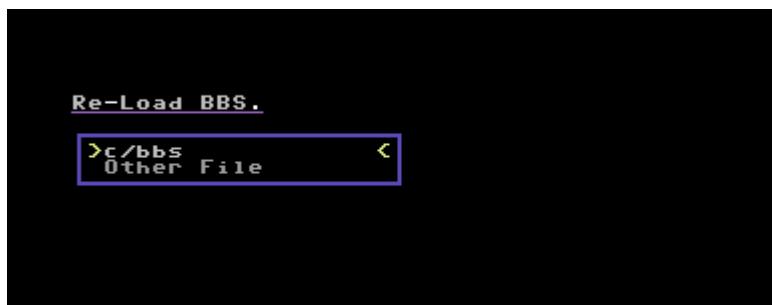
C/TERM has no capture function ! So you cannot record the screen into buffer !



Press **<F1> + <?>** in Terminal Mode to enter the "F1 – Help Screen". This is an overview of the short-cut to most Terminal Functions without the need to go back to the Main Menu. F.e. if you want to download a single File, press **<F1>** followed by **<F3>**. Double press **<F1>** to go back to Main Menu.



If you exit C/TERM you can choose to reboot into a different C/BBS File if you want. You'll see the list of preconfigured Files (see Misc Settings), but you also can enter the Filename you want, besides the configured setting. Usually you should have only one C/BBS file on your System Disk.



Imagine you want really fast Disk access for loading Parts of the BBS, but have no CMD RamLink or RamDrive available. Here is a *possible* Solution for you.
RAMBOOT can be used with Commodore's Ram Expansion Units 1700, 1764 or 1750. The Driver code is in the File REU.ML. RAMBOOT let' you copy Files from Disk or HD to the REU so they can be accessed by the BBS System.

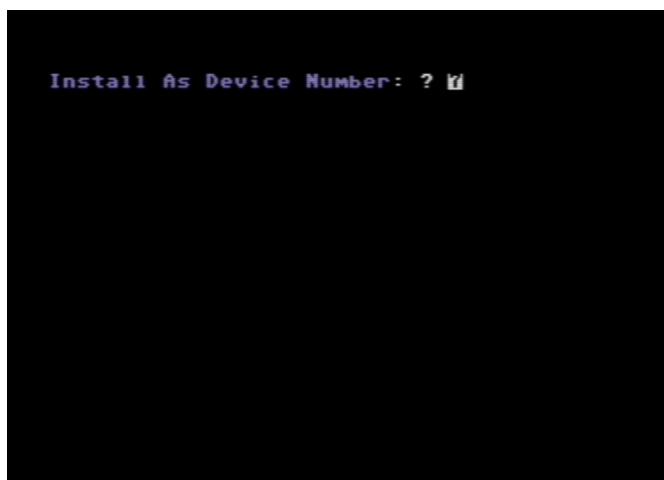
Load RAMBOOT with:

LOAD"RAMBOOT",8 (adjust to your Device Number!) and start it with *RUN*.

Change the Devicenumber to your needs.

First RAMBOOT tries to detect a connected REU. If no REU could be found, a Warning message appears. Make sure the REU is detected properly, to avoid Problems while copying Data.

After detection the REU Driver will be installed. Make sure you use Device #7 for your REU. Other Devicenumbers will probably fail.



Now RAMBOOT asks you for the Source Devicenumber you want to copy from. Enter your setup here and continue selecting the Files to be copied from that Diskdrive.



Use <Y>es / <N>o on each File from Dir or <D>one if all Files are selected for copying.
After pressing D or if the last Dir Entry was reached, RAMBOOT copies the File to the REU.

```
Directory Reading:  
  
Modules Device #      (8-15):8  
Modules Drive #      (0-255):0:  
Modules DOS Init Command :i0:  
  
Pattern: ? *  
  
Reading:nmpatched.prg      [Y/N/D]: No.  
Reading:c/bbs.prg          [Y/N/D]: Yes  
Reading:rel-copy.prg        [Y/N/D]: No.  
Reading:mosboot4.prg        [Y/N/D]: Yes  
Reading:ml 0.0.prg          [Y/N/D]: Yes  
Reading:ml 1.0.prg          [Y/N/D]: Yes  
Reading:ml 2.0.prg          [Y/N/D]: Yes  
Reading:ml 3.0.prg          [Y/N/D]: Yes  
Reading:sprite ml.prg       [Y/N/D]:
```

When finished, you'll be asked if you want to continue copying from another Disk.

```
Transfer Modules From Disk To Ram  
Transfer 15 Of 15:ag,p  
  
.....00000aCittaooooooooONEMANCE SPECIAL  
LEVEL =>M,0,deeeeeeeae_ittaeeeeeeeWONEMSt  
LCAMVeGHTw,zzzzzzzzzzzzzzzzzzzzzzzzzzzzzz  
eeeeeeez00Tez130 z8 zvezMOBFRXEEzGRE&Smee  
deccaaaaaaaaaaaaaaaaM0-SYSOPmONLY! MM.....  
.....0000gaaa,j,faceeeeeeeeSYSOPmtALSSOE e  
G10xDm;:::::::  
  
Another Disk [N]:
```

If not, the File "C/BOOT" will be loaded and started, to boot up your BBS.

Remember: The REU has no Battery. If not used with ab BBU, or if you didn't install a Power Source to that Device, you'll have a high Risk of losing DATA. So it is no good Idea, to use the REU for Messages, Mails, U/D Area and Data / Files that change.
Use it on your own Risk !

CHAPTER 5: HM 4 PRESIDENT: YEA OR NEA – VOTING SYSTEM IN C*BASE 3.1 CYBORG / HM

C*BASE 3.1 Cyborg Mod comes with two Voting Systems that can be used for different purposes / surveys. The first one may be known to you already, the Voting via TOPIC and RESULTS file. The 2nd System is made especially to cover the needs for Magazine Votings in the goies.

HOW TO SETUP SURVEYS ?

You have three Files that have to be created / edited for your surveys:

1. The "VOTE HEADER" File which can be used for some nice PETSCII LOGO Artwork and or Text with Information. The Vote Header, if existent, will be displayed for each Topic you setup.
2. The "TOPIC x" File(s) ,where x is a Number from 1 to n. In the Topic File you'll enter your Question and the possible answers the Caller can choose from. The First row / value has to contain the Call Number from when the TOPIC will be displayed.
Example: current amount of calls in your STATS File is 100, 1st Value in TOPIC File is 105, so Caller Number 105 will be the 1st one to see the TOPIC.
3. The "RESULTS x" File, where x is the corresponding Number to the TOPIC x File.
The answers will be stored here.

See Appendix A for technical details to these Files.

Vote Results can be displayed within the BBS Main Menu and in Wait Screen. If a User already had the chance to Vote on that Topic he **won't be asked twice** (on next calls).

HOW TO SETUP MAG VOTING ?

Mag Voting is a bit different. It is made to replace the classical Paper Votesheet, where People were asked to vote for the Top 5 Demo Group, Top5 Swapper etc. The following Files have to be created / edited to get Mag Voting running:

1. The STATS File. Last Value in the STATS File is usually "-1". To turn on Mag Voting, change this value to the Call Number until Mag Voting is possible. F.e. you had 100 calls since today. 100 is the 1st Value in your STATS File. You want people to be able to Vote until Call 200, then set the last Value in your STATS File to "200". Caller 201 won't be able to place a Vote in your Mag.
2. Only Callers with Access Group 3 or higher will be able to Vote ! The "MAG 1" File will be loaded and displayed. Place a Logo or Text or whatever you want here. After this File is displayed, the System will send Prompt#12 (Place Vote in Mag?). Answering "n" will abort the Mag Voting.
3. After that "MAG 2" will be loaded. This File contains the amount of Voting Categories, the Categories to Vote for and some Text that will be displayed before voting. See Appendix A for technical details.
While voting, Prompt#14 will be displayed with the category attached.
When the User finished voting, he will be asked for his Birthday with Prompt#72.
4. After voting "MAG 3" will be displayed. Write some nice Text like "Thanks for voting" or whatever you like.
5. The Vote Results will be stored in the File "MAG RESULTS". To view the results, go into Remote Mode and press "r".

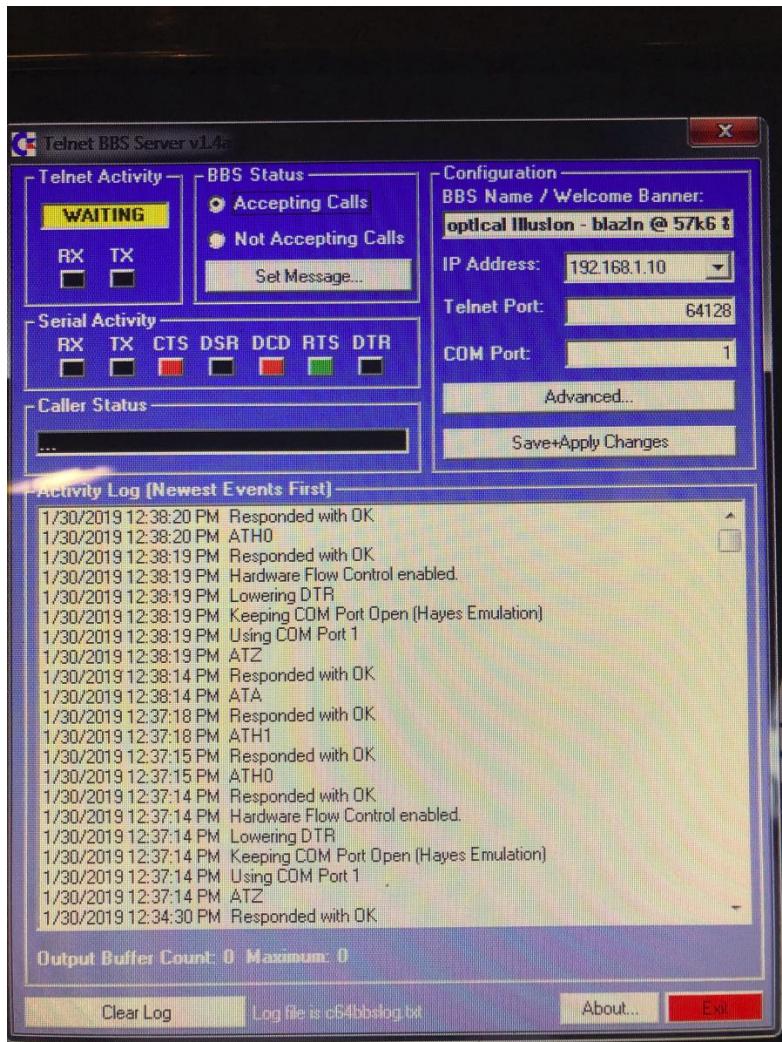
Make sure you don't mess up the MAG 2 File. Giving the wrong Parameters can crash your System! Don't mess up RESULTS File. Same as above !

Each caller with Access Group 3 or higher will be asked **every call** to vote until the "max. Mag Call" Number in STATS File (last value) is reached.

CHAPTER 6: WE HAVE CONTACT – SETUP BBS SERVER TO USE WITH C*ABSE

To get your C64 connected to the World, you need an TCP Bridge. One Windows based Software TCP Bridge is BBS Server 1.4a. The Following Description how to Setup BBS Server to work with C*BASE was donated by Optic Freeze. Thanks again !

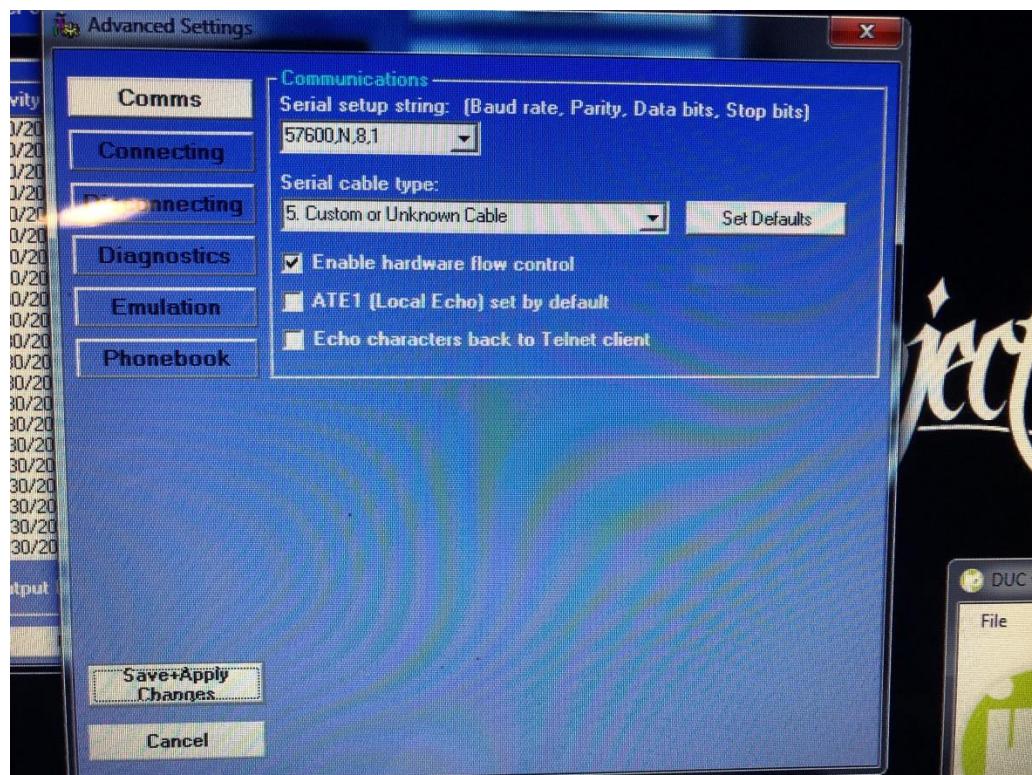
BBS Server v1.4a Settings for C*Base 3.1 Moses Mod by Optic Freeze/G*P



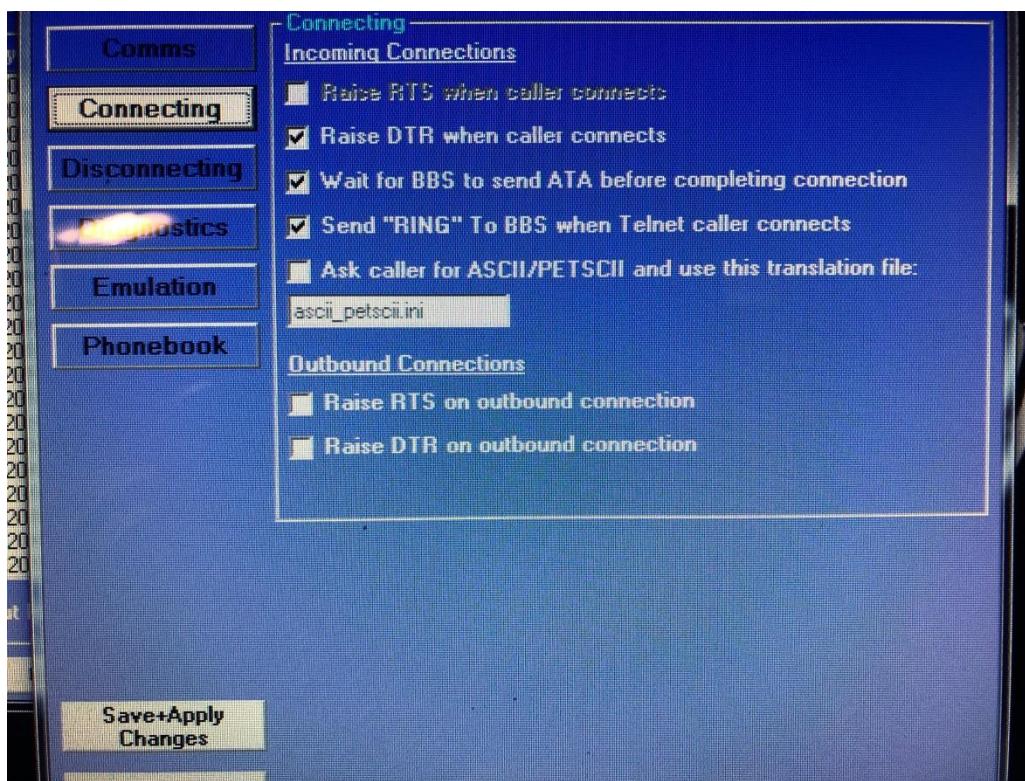
MAIN SCREEN – This is the main screen for BBS Server. From here, you can see a portion of the log as shown on the lower part of the image. To clear the log, click on the button in the lower left.

On the top right, the text in the BBS Name / Welcome Banner is what the caller will see when they first connect to your BBS. For Commodore CG terminals, this text will be inverted.

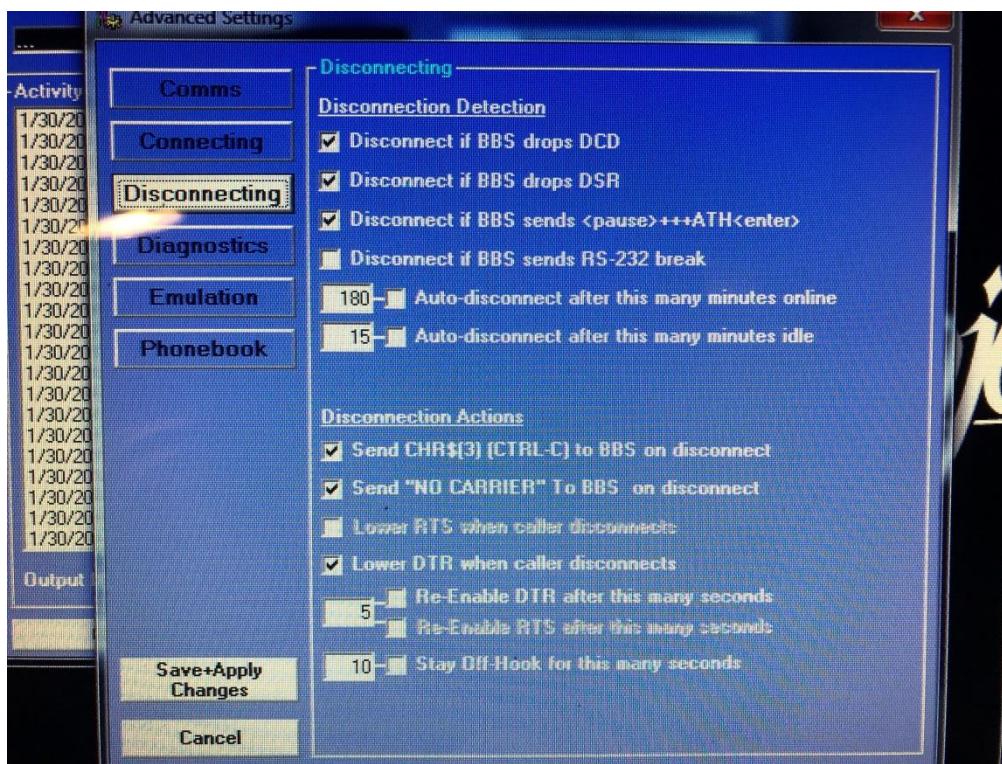
With your Commodore on and Swiftlink connected to your PC's serial port, your router will automatically assign an internal IP to your COM port and is shown in the IP Address window. Be sure to configure this as a static IP, as your port forwarding settings will be pointed towards this IP. Enter the correct port in the Telnet Port box. This is the same port that you assigned in the Port Forwarding settings in the Advanced Settings option in your router settings menu. The COM Port is the number of the serial port you will be using for your BBS. More on your port config later. The Advanced button will direct you to the specific settings you will need for BBS Server.



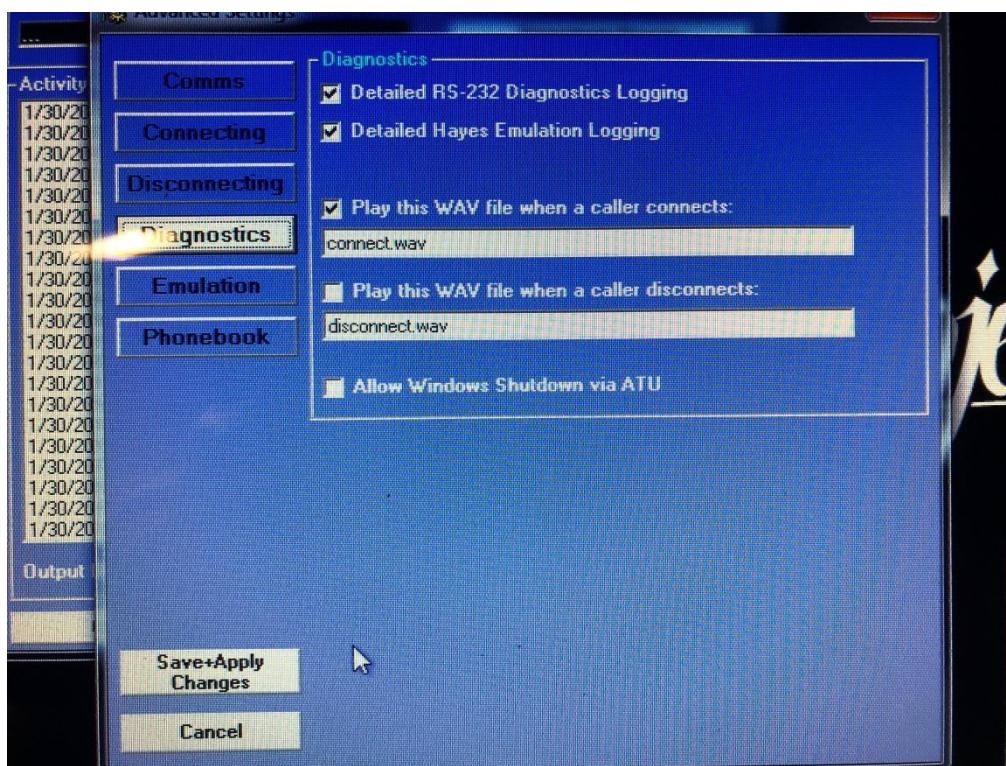
COMMS SETTINGS



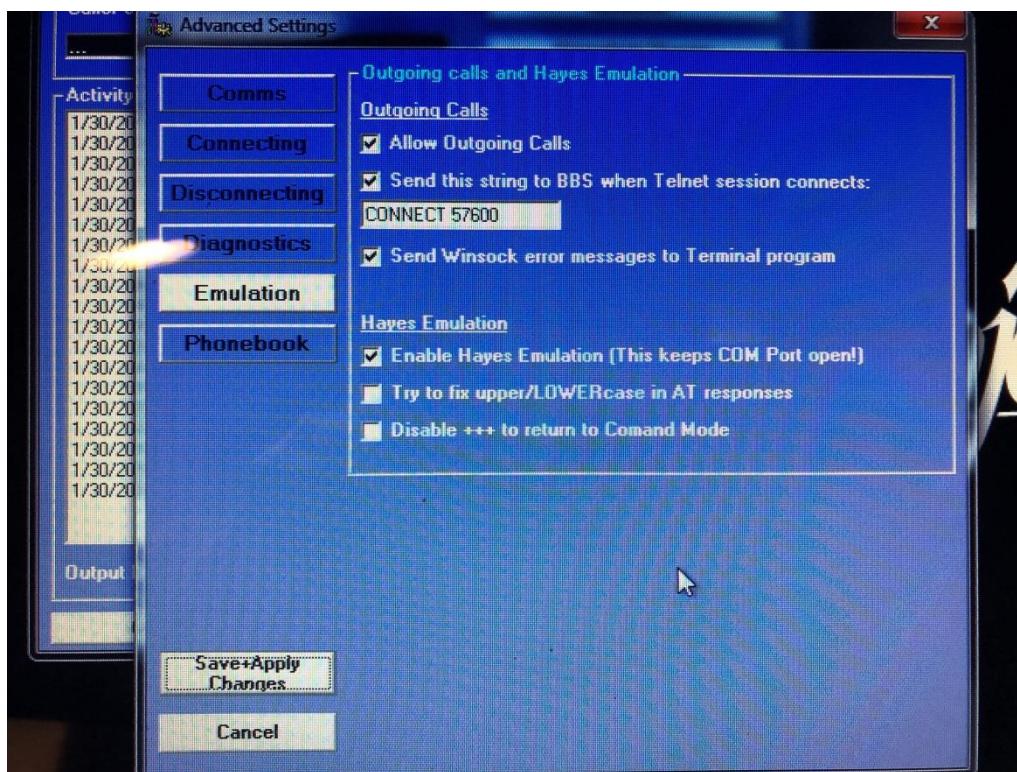
CONNECTING SETTINGS



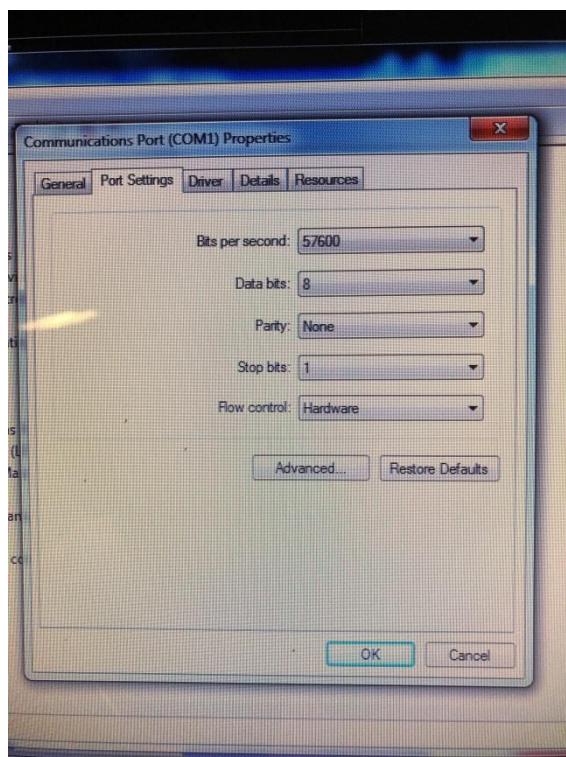
DISCONNECTING SETTINGS



DIAGNOSTICS SETTINGS



EMULATION SETTINGS



CONTROL PANEL -> DEVICE MANAGER -> PORTS -> COMMUNICATIONS PORT (COM1)

```
[BBS]
BBSName=OPTICAL ILLUSION - blazin @ 57k6 & 20mhz
TelnetPort=64128
IPAddress=192.168.1.10
COMPort=1

[Connecting]
RTSONConnect=0
DTRONConnect=1
WaitForATA=1
UsecharTranslation=0
TranslationFile=ascii_petscii.ini
RTSOutbound=0
DTROUTbound=0

[disconnecting]
SendCtrlC=1
CheckDCD=1
CheckDSR=1
HangupOnATH=1
OnlineAutoDisconnect=0
OnlineDisconnectTime=180
IdleAutoConnect=0
IdleDisconnectTime=15
LowerRTSonDisconnect=0
LowerDTRonDisconnect=1
ReEnableDTR=0
ReEnableRTS=0
CarrierDropDelayTime=5
StayOffHook=0
StayOffHookTime=10
HangupOnBreak=0

[Comms]
SerialSetup=57600,N,8,1
EchoTelnetChars=0
EnableFlowControl=1
EchoCommandchars=0
CableType=5. Custom or Unknown Cable

[Diagnostics]
DetailedDiagnostics=1
LogHayes=1
PlayWAVonConnect=1
ConnectionWAV=connect.wav
PlayWAVonDisconnect=0
DisconnectWAV=disconnect.wav
AllowShutdown=0

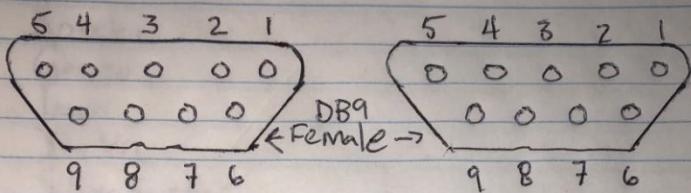
[Emulation]
EnableHayes=1
AllowOutgoing=1
SendRing=1
SendConnectionString=1
ConnectionString=CONNECT 57600
SendNoCarrier=1
SendWinsockErrors=1
GuessResponseCase=0
DisablePlusPlusPlus=0

[EOF]
```

TELNETBBS.ini FILE – This file is found in the BBS Server 1.4a folder. In order for C*Base to properly hang up and reset after a call, please mirror these settings for your BBS after you have saved everything in the Advanced menu.

Swift Link

PC



PURPLE 4 ①

1 RED

BLUE 3 ②

2 ORANGE

ORANGE 2 ③

3 BLUE

RED 1 ④

4 PURPLE

GREEN 5 ⑤

5 GREEN

BLACK NC X

6 BLACK

BROWN 8 ⑦

7 GREY

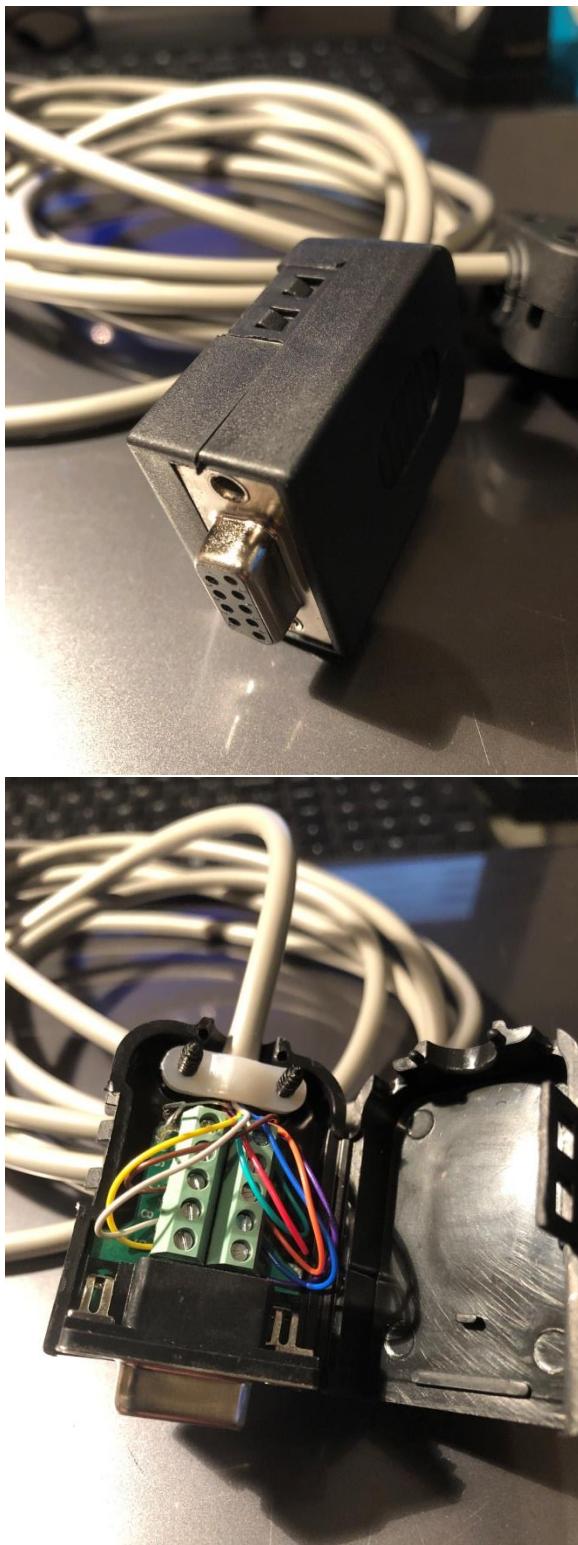
GREY 7 ⑧

8 BROWN

YELLOW 9 ⑨

9 YELLOW

NULL MODEM CABLE PINOUT – This was a big problem when setting up my BBS! I had settings and all configuration was CORRECT for weeks on end, and I still could not get C*Base to communicate with BBS Server. One day in a messenger chat, LA Style/G*P said, "It's your cable... something is wrong". At that point, moop/G*P told me that Chris537 from Anarchy Underground had helped him with this very problem a few years ago when Frozen Floppy was being configured. I contacted Chris via Facebook, and he sent me an image of the proper NULL MODEM pinout for C*Base. I looked at this and scratched my head... no connection on wire 6?? Really? Keep reading my soon-to-be SysOp friend... we're going to make this shit easy for you.....



DB9 FEMALE TO FEMALE SOLDERLESS CONNECTORS

So I ordered about 8 cables... different lengths, from different manufacturers, etc etc... NONE of them worked... so I looked online and found these ends on Amazon.com:

https://www.amazon.com/Twinkle-Bay-Connector-Terminal-Solderless/dp/B07437GS66/ref=sr_1_1_sspa?ie=UTF8&qid=1548892991&sr=8-1-spons&keywords=db9+solderless+connector&psc=1

Since finding shielded 9-pin wire in this day and age is impossible, I cut the ends off of a \$4 null modem cable that I had purchased from ebay.... Using some 28 gauge wire strippers, I carefully stripped each end and connected each one into the appropriate solderless connection. Be sure to connect the exposed ground wire in addition to the 9 pin wires! Each connection is numbered on the internal plug pcb, and locks the wire in with a screw that you can see in the picture above. I remember thinking to myself... THIS ISN'T GOING to work, but I connected everything up and booted the BBS... I almost fell out of my chair when C*Base finally got an "OK" from BBS Server after an ATZ init command and was now at the wait for call screen! YES!! SUCCESS!! What would have only taken days with this information, took me weeks and weeks. So in a nutshell, YOU'RE WELCOME! Haha! Good luck, and if you need help along the way, I'm always available at opticalbbs.c64bbs.nu:64128.

- One other helpful hint... I had trouble with Windows Firewall allowing incoming connections to the BBS, even when "allowing" the BBS Server program to accept connections in the firewall settings. Best option in my opinion is to use a PC with nothing else on it and exclusively as your bridge for the BBS, and turn Windows firewall OFF.

Cheers, and good luck!

Optic Freeze / Genesis*Project 1/30/2019

KNOWN BUGS

Although uncounted hours of research, coding and debugging went into the Holy Moses Mod there are still some Bugs left, that will be fixed in future Release Versions. The following Bugs are known:

- X-Modem Protocol provided with C*BASE is the “old” X-Modem. That means if you Upload or Download a File, it will be up to 127 Bytes longer than the original File. This is a well known Problem with X-Modem on all Platforms. On C64 the File at Destination will be filled up with #\$00 at the end, so it most likely won’t cause Problems. But remember that the File might get up to 1 Disk Block larger than expected.
- If you press F7 in Wait Screen to check the Upload Index and stay there, C/BBS will perform an inactivity “Logout” after a few Minutes. This causes the SysOp to appear in the Last Callers, even if you chose not to Log SysOp calls during System Setup
- There is still a Problem with the System Clock, when a CMD SuperCPU is used at 20MHz. The Clock sometimes doesn’t count correctly.
Reset and Reboot solves this.
- Access Group Edit in System Create Tool wasn’t bugfree at deadline, so it was therefore deactivated. We encourage you to use the Access Group Editor Tool from TRIAD instead until we release a bugfixed Version.
- Avoid TEXT File sizes beyond 4400 Bytes if you don’t use a SuperCPU. Some Prompts may get corrupted if you exceed this limitation !
- Punter currently works only with max. 57.600 Baud, x-Modem1K Uploads fail on 115K2 and more

Feel free to post Problems and Bug Reports on the BBS Raveolution reachable at:

raveolution.hopto.org:64128

APPENDIX A: THE FILES IN ALPHABETHICAL ORDER

<i>Filename</i>	AG
<i>TYPE</i>	PRG / necessary
<i>Description</i>	Access Groups File, created with System Create

<i>Filename</i>	ANSI TAB
<i>TYPE</i>	PRG / necessary
<i>Description</i>	BBS Kernel File ANSI to PETSCII Character Translation Table

<i>Filename</i>	APP1
<i>TYPE</i>	SEQ / necessary
<i>Description</i>	<p>Application File #1 for new Users It contains all Options to get all the New User Data. For example:</p> <p>X Username: Location: Phonenumber: Real Name: Password: Computer: Birthdate: Info#1: Info#2: Info #3:</p> <p>After the Options you can write any Text for the new User X = Total Number of Options (10 in this case)</p>

<i>Filename</i>	APP2
<i>TYPE</i>	SEQ / necessary
<i>Description</i>	This is just an Infofile for the new User. Write any Text like Infos, Rules etc.

<i>Filename</i>	ASCII TAB
<i>TYPE</i>	PRG / necessary
<i>Description</i>	BBS Kernel File ASCII to PETSCII Character Translation Table

<i>Filename</i>	BACKUP
<i>TYPE</i>	SEQ / created by BBS
<i>Description</i>	Copy of STATS File created during Midnight run.

<i>Filename</i>	BLACKLIST
<i>TYPE</i>	SEQ / optional
<i>Description</i>	User with blacklisted Handle will be kicked as fast as he popped in....

<i>Filename</i>	BUL x (x = 1 to n)
<i>TYPE</i>	SEQ / optional
<i>Description</i>	<p>Message that will be shown after User has logged in Example: 127 Yeahhh you are caller Number 127</p> <p>Date and User who wrote BUL File will be added in Line 2 by the System</p>

<i>Filename</i>	C/BBS
<i>TYPE</i>	PRG / necessary
<i>Description</i>	Main BBS File

<i>Filename</i>	C/BOOT
<i>TYPE</i>	PRG / necessary
<i>Description</i>	BBS Boot File

<i>Filename</i>	C/MIDNIGHT
<i>TYPE</i>	PRG / necessary
<i>Description</i>	BBS Module for Routines running after midnight (Date Change, Backup, Top10 Ten creation etc.)

<i>Filename</i>	C/SYSTEM CREATE
<i>TYPE</i>	PRG / necessary
<i>Description</i>	BBS Creation / Setup and Config Tool

<i>Filename</i>	C/TERM
<i>TYPE</i>	PRG / optional
<i>Description</i>	BBS Mini Term Module. Start from Wait Screen with F1 key.

<i>Filename</i>	CALLERS
<i>TYPE</i>	SEQ / created by BBS
<i>Description</i>	Caller Log File

<i>Filename</i>	CAT
<i>TYPE</i>	SEQ / created by BBS
<i>Description</i>	Login Handle Catalog

<i>Filename</i>	CHAT PROMPT x (x = Number from 1 to n. See RANDOM File)
<i>TYPE</i>	SEQ / necessary
<i>Description</i>	Topic Logo for Chatting Sysop

<i>Filename</i>	CHAT
<i>TYPE</i>	SEQ / optional
<i>Description</i>	Logo or Text that SysOp is not available after Chat request

<i>Filename</i>	CMDCLOCK
<i>TYPE</i>	SEQ / optional
<i>Description</i>	File used for automatic Clock Setting during Boot. File contains Devicenumber of the Drive with a CMD RTC Module. RTC itself has to be set via CMD Software.

<i>Filename</i>	CMENU x (x = Number from 1 to n. See RANDOM File)
<i>TYPE</i>	SEQ / necessary
<i>Description</i>	<p>Cursor Menu Screen ! 1st Line has to be like: W, X, Y, Z, W\$, X\$, Y\$, Z\$ W = Y Coordinate X = X Coordinate for left Cursor Field Y = X Coordinate for right Cursor Field Z = Number of visible Chars your Cursor will be wide W\$ = Chars for left Cursor x\$ = Chars for left Background (to redraw after Cursor move) y\$ = Chars for right Cursor Z\$ = Chars for right Background (to redraw after Cursor move) 2nd Line has to be <CLR/HOME> Max. 8 lines on top for a Logo to avoid Problems with some Terminals. Max 39 columns width to avoid Linefeed !</p>

<i>Filename</i>	COLORS 1 – 4
<i>TYPE</i>	SEQ / necessary
<i>Description</i>	The main BBS colors are editable through these files. 4 Files with 8 colors each. Color codes are <CTRL> / <CBM> 1 – 8. If you don't want different colors, then copy one File 3 times so that files COLORS 1 – COLORS 4 are the same.

<i>Filename</i>	CONFIGURE
<i>TYPE</i>	SEQ / necessary
<i>Description</i>	Main Config File Created with System Create

<i>Filename</i>	DELETE x (x = Number from 1 to n. See RANDOM File)
<i>TYPE</i>	SEQ / necessary
<i>Description</i>	Delete Screen (LOGO) after connect (press DEL / BACKSPACE)

<i>Filename</i>	END x (x = Number from 1 to n. See RANDOM File)
<i>TYPE</i>	SEQ / optional
<i>Description</i>	LOGOUT Screen (LOGO)

<i>Filename</i>	FORCE x (x = Number of User the Force Mail Message is for)
<i>TYPE</i>	SEQ / optional
<i>Description</i>	Write with "Wy" in Remote mode. y codes are: 1 = kick user off after reading -> W1 2= erase forced mail after reading -> W2 4= delete user after reading. -> W4 Combinations of the Codes are possible. Add the values like 4+2 -> W6

<i>Filename</i>	INDEX
<i>TYPE</i>	SEQ / created by BBS
<i>Description</i>	File Upload Index. Created by the BBS after successful File Upload.

<i>Filename</i>	LAST
<i>TYPE</i>	SEQ / necessary
<i>Description</i>	Last Caller Screen. Updated after User Logoff

<i>Filename</i>	LAST DATA
<i>TYPE</i>	SEQ / created by BBS
<i>Description</i>	Buffer File created by the C/BBS to generate the very nice "Last Caller File" LAST

<i>Filename</i>	LOGON x (x = Number from 1 to n. See RANDOM File)
<i>TYPE</i>	SEQ / necessary
<i>Description</i>	User Status ("STATS" Logo)

<i>Filename</i>	MAG 1
<i>TYPE</i>	SEQ / optional
<i>Description</i>	Magazine "Top 5" Voting System LOGO or introducing Text. After that Prompt 12 will be shown (Place Vote in Mag?). Mag Voting will start as long as #of calls in STATS File (last Value) is not reached yet.

<i>Filename</i>	MAG 2
<i>TYPE</i>	SEQ / necessary if Mag Voting used
<i>Description</i>	Amount of Voting categories Category1 Category2 etc. Textlines that will be shown before voting Example: 3 Cracker Coder Swapper Place your Top5 Votes. Please don't vote for yourself.

<i>Filename</i>	MAG 3
<i>TYPE</i>	SEQ / optional
<i>Description</i>	LOGO or Text displayed after voting.

<i>Filename</i>	MAG RESULTS
<i>TYPE</i>	SEQ / created by BBS
<i>Description</i>	Magazine Voting System. Vote Results File. Can be viewed with "r" in Remote Mode.

<i>Filename</i>	MACROS
<i>TYPE</i>	SEQ
<i>Description</i>	Macros File (Oneliners)

<i>Filename</i>	MAIL
<i>TYPE</i>	SEQ
<i>Description</i>	Mail Area Logo Screen

<i>Filename</i>	MENU
<i>TYPE</i>	SEQ / optional
<i>Description</i>	Help Screen shown when entering "?" while Cursor Menu is OFF

<i>Filename</i>	MF
<i>TYPE</i>	SEQ
<i>Description</i>	Feedback Logo Screen

<i>Filename</i>	MIDNIGHT.STATS
<i>TYPE</i>	SEQ / necessary
<i>Description</i>	C/MIDNIGHT Module Config File. Created with System Create

<i>Filename</i>	MLo.O – ML3.O
<i>TYPE</i>	PRG / necessary
<i>Description</i>	BBS Kernel Files

<i>Filename</i>	MSGHELP
<i>TYPE</i>	SEQ / optional
<i>Description</i>	Help Screen when writing Messages

<i>Filename</i>	NAMELOG
<i>TYPE</i>	SEQ / created by BBS
<i>Description</i>	Created by the BBS. List of Handles used on System. Used to make sure that Handle cannot be used twice.

<i>Filename</i>	NMI.ML (-SWFT-DE / -57K6-DE....)
<i>TYPE</i>	PRG / necessary
<i>Description</i>	BBS Kernel File Modem. Save only one File on System Disk !

<i>Filename</i>	OPEN x (x = Number from 1 to n. See RANDOM File)
<i>TYPE</i>	SEQ / optional
<i>Description</i>	Opening Screen Logo

<i>Filename</i>	PARA
<i>TYPE</i>	SEQ / necessary
<i>Description</i>	Parameter Menu Screen

<i>Filename</i>	POST WARNING
<i>TYPE</i>	SEQ / necessary
<i>Description</i>	PETSCII File that is shown when User Logs In and didn't post a Message on last Call

<i>Filename</i>	PROMPT x (x = Number from 1 to n. See RANDOM File)
<i>TYPE</i>	SEQ / necessary
<i>Description</i>	<p>Login Prompt</p> <p>Example:</p> <p>X (Number of total lines, would be 3 in this example)</p> <p>Handle or ID:</p> <p>Loading:</p> <p>Password:</p>

<i>Filename</i>	PUNTER
<i>TYPE</i>	PRG / necessary
<i>Description</i>	File Transfer Protocol

<i>Filename</i>	RAMBOOT
<i>TYPE</i>	PRG / optional
<i>Description</i>	Boot File / Copy Tool for Use with a 17xx REU

<i>Filename</i>	RANDOM
<i>TYPE</i>	SEQ / necessary
<i>Description</i>	<p>Loading of Screens randomly if value is > 1 Example: 1, OPEN x 5, END x 8, DELETE x 1, LOGON x 1, PROMPT x 1, CMENU x 1, USER x 1, SUBJECT x 1, CHAT x</p> <p>Means: using 1 OPEN Screen, 5 different END Screens, 8 different DELETE Screens etc. Max. 255 Screens per Entry possible</p>

<i>Filename</i>	REMP
<i>TYPE</i>	SEQ / necessary -> created by BBS on Wait Screen or C/SYSTEM CREATE
<i>Description</i>	File with Remote Access Password. Created on Wait Screen with "P" or System Create. Shipped with "2018" as initial Password ! Change it !!

<i>Filename</i>	RESULTS x (x = Number of Topic -> See TOPIC File)
<i>TYPE</i>	SEQ / created by BBS
<i>Description</i>	<p>Results to Vote x</p> <p>Example:</p> <p>Y o o o</p> <p>X = Number of Poll Y = Number of total Options +1 o = one "o" (Zero) for each Option</p>

<i>Filename</i>	REU.ML
<i>TYPE</i>	PRG / necessary in combination with RAMBOOT. Else optional
<i>Description</i>	BBS Kernel File REU Driver

<i>Filename</i>	S x M y
<i>TYPE</i>	SEQ / created by BBS
<i>Description</i>	Subs Message Files. Created by System. x = Number of Sub, y = Number of Packet

<i>Filename</i>	SPRITE ML
<i>TYPE</i>	PRG / necessary
<i>Description</i>	BBS Kernel File (Sprite Design for C*BASE Cursor)

<i>Filename</i>	STATS
<i>TYPE</i>	SEQ / necessary
<i>Description</i>	BBS STATUS and Config File. Created with System Create

<i>Filename</i>	SUBJECT x (x = Number from 1 to n. See RANDOM File)
<i>TYPE</i>	SEQ / necessary
<i>Description</i>	Topic Logo for Posting

<i>Filename</i>	SUBS
<i>TYPE</i>	SEQ / optional
<i>Description</i>	Help File for Users in Subs Area

<i>Filename</i>	SUBOP
<i>TYPE</i>	SEQ / optional
<i>Description</i>	Help File for Users with Subs Operator Access

<i>Filename</i>	SWIFT64 (obsolete ! Use nmi.ml instead !!)
<i>TYPE</i>	PRG / optional depending on used RS232 device
<i>Description</i>	BBS Kernel File Modem (Swiftlink)

<i>Filename</i>	SYSOP
<i>TYPE</i>	SEQ / optional
<i>Description</i>	Help Screen for Remote Mode

<i>Filename</i>	TEMP
<i>TYPE</i>	SEQ / created by System
<i>Description</i>	Temporary File used in various BBS Areas

<i>Filename</i>	TERM.CODES
<i>TYPE</i>	SEQ / obsolete (from Cyborg Mod C/TERM)
<i>Description</i>	Terminal Module Codes File

<i>Filename</i>	TERM.PHONE
<i>TYPE</i>	SEQ / necessary when C/TERM is used
<i>Description</i>	Terminal Module Phonebook

<i>Filename</i>	TERM STATS
<i>TYPE</i>	SEQ / necessary when C/TERM is used
<i>Description</i>	Term Module Status File. Includes Macros that were in the now obsolete File TERM.MACRO

<i>Filename</i>	TEXT
<i>TYPE</i>	PRG / necessary
<i>Description</i>	BBS Textprompts File

<i>Filename</i>	TOP MENU
<i>TYPE</i>	SEQ / necessary
<i>Description</i>	PETSCII Graphics Logo for Top10 Menu

<i>Filename</i>	TOP TEN
<i>TYPE</i>	SEQ / created by BBS
<i>Description</i>	User Top 10 created automatically by Module C/MIDNIGHT

<i>Filename</i>	TOP USERS x (x = 1 – 5)
<i>TYPE</i>	SEQ / created by BBS
<i>Description</i>	User Top 10 created automatically by Module C/MIDNIGHT

<i>Filename</i>	TOPIC x (x = Number from 1 to n. See RESULTS File)
<i>TYPE</i>	SEQ / optional
<i>Description</i>	<p>Voting Question and Answers for example:</p> <p>Y Z Option #1 Option #2 Option #3 etc. Question</p> <p>X = Number of Poll. Multiple Polls are possible. Y = Number of total calls to start this Poll (from STATS File) Z = Number of Options</p>

<i>Filename</i>	UDOP
<i>TYPE</i>	SEQ / optional
<i>Description</i>	Help Screen for Users with U/D Operator Access

<i>Filename</i>	UD TITLE x (x = Number of Directory)
<i>TYPE</i>	SEQ / optional
<i>Description</i>	DIR Header Logo. Displayed before U/D Command Prompt

<i>Filename</i>	UD- x (x = Number of Directory)
<i>TYPE</i>	SEQ / created by BBS
<i>Description</i>	Created by the BBS. Contains a List of Files available in the Directory. Will be displayed after entering \$ at U/D Command Prompt

<i>Filename</i>	UL/DL
<i>TYPE</i>	SEQ / optional
<i>Description</i>	Help Screen for U/D Area

<i>Filename</i>	USERLOG
<i>TYPE</i>	REL / necessary
<i>Description</i>	BBS System File with all Userdata. Created with System Create.

<i>Filename</i>	VOTE HEADER
<i>TYPE</i>	SEQ / optional
<i>Description</i>	PETSCII Graphics File (Logo) for Voting (see TOPIC / RESULTS)

<i>Filename</i>	WAIT
<i>TYPE</i>	SEQ / necessary
<i>Description</i>	PETSCII Graphics Wait Screen ("SysOp Cockpit")

<i>Filename</i>	WALL
<i>TYPE</i>	SEQ / created by BBS
<i>Description</i>	Graffitty Wall entries

<i>Filename</i>	WALL HEADER
<i>TYPE</i>	SEQ / optional
<i>Description</i>	PETSCII Graphics LOGO for Graffitty Wall

<i>Filename</i>	X-MODEM
<i>TYPE</i>	PRG / necessary
<i>Description</i>	File Transfer Protocol (old X-Modem without CRC)

<i>Filename</i>	X-MODEM1K
<i>TYPE</i>	PRG / necessary
<i>Description</i>	File Transfer Protocol

<i>Filename</i>	X-MODEMCRC
<i>TYPE</i>	PRG / necessary
<i>Description</i>	File Transfer Protocol

APPENDIX B: THE COMMANDS

If a User is online, the SysOp can do the following things with the F-Keys:

<i>Key</i>	<i>Action</i>
F ₁	Increase Userlevel +1 / Timelimit +10 / Download Limit +100
F ₂	Decrease Userlevel -1 / Timelimit -10 / Download Limit -100
F ₃	Take User to Main Prompt
F ₄	Take User to Remote Mode
F ₅	Switch Area from left to right for F ₁ / F ₂
F ₆	Put User on hold / put him back to BBS. If the User is set "on hold" he cannot see what the SysOp is doing.
F ₇	Chat Mode ON / OFF
F ₈	KICK User out of the BBS !

Commands that can be used within the BBS, User and SysOp:

Main Menu (**WITHOUT** Remote Access!): Main Menu (**WITH** Remote Access!):

<i>Key</i>	<i>Action</i>
S	Goto Subs
F	Feedback
O	Goto Oneliners
M	Goto Mail
L	List Users
N	Show Bulletin Msgs
G / Q	Logoff
X	Exchange Term
U	Goto U/D
C	Chat Request
W	Goto Wall
T	Goto Top Ten
B	Board Lister
Y	Your Stats
E	Parameter Menu
V	View Votes
I	Info
?	Show Help

<i>Key</i>	<i>Action</i>
R	Enter Remote Mode
/	View Callers Log

SUBS (**WITHOUT** Remote Access):

<i>Command</i>	<i>Action</i>
UD or ^ (Arrow up)	Goto U/D
> or +	Goto next Sub
< or -	Goto previous Sub
x	Goto Sub #x
L or V	List Subs
S	Scroll through Msgs
Q	Quit to Main Menu
R	Read
Rx (x = Number of Message)	Read Message Number x
RETURN	Read next Message
?	Show Subs Help Screen
M	Mail to Poster
Y	Your Status
C	Chat SysOp
P or W	Post a Message
O	???
*	Reply to Message

SUBS (**WITH** Remote Access):

<i>Command</i>	<i>Action</i>
Ex	Edit User x
K	Kill last Message
+yZ	Grant Access to Group
-yZ	Revoke Access from Group
£	List Access Groups
£y	List Groups with read / write access
#	???
?	Show SubOp Help Screen

X = ID Number of User

Y = W(rite) or R(ead)

Z = Access Group Level Number to give or take away Access

U/Ds (**WITHOUT** Remote Access):

<i>Command</i>	<i>Action</i>
SB or ^ (Arrow up)	Goto Subs
> or +	Goto next Dir
< or -	Goto previous Dir
Q	Quit to Main Menu
P	???
M	Multi Transfer
S	Select Files from Dir
N	Scan new Files
MD	Multi Download (Puner only)
MU	Multi Upload (Punter only)
CS	Clear Selection
LS	List Selection
D	Download selected Files
Dx	Download File Number x
U	Upload one File
\$	View Directory
\$x	View Dir from Entry Number x
\$x*	View DIR with Pattern x*
C	Chat SysOp
*	Toggle Auto Dir
T	Toggle Transfer Protocol
Rx	Read SEQFile Number x
?	View U/D Help Screen
Y	Your Status
L	List Dirs
#	Select Dir
V	Show BBS Version

U/Ds (**WITH** Remote Access):

<i>Command</i>	<i>Action</i>
?	View U/D Operator Help
A	???
I	Show Upload Index
!	Recreate Dir File (UD-x)
£	List Access Groups
£y	List Groups with read / write access
&	Regenerate DIR of selected Files
< (Arrow left)x	Remove File Number x from Dir List
@	Send Diskcommand
-yz	Revoke R/W Access for Group z
+yz	Grant R/W Access for Group z
/x	Remove File Number x from Drive
X	Toggle Exchange Mode

X = ID Number of User

Y = W(rite) or R(ead)

Z = Access Group Level Number to give or take away Access

Parameter Menu:

<i>Command</i>	<i>Action</i>
H	Handle change
L	Location change
P	Password change
C	Toggle 40 / 80 Column Mode
M	Cursor Menu on / off
T	Toggle Autopause on / off
Return	Quit to Main Menu

Mail Menu:

<i>Command</i>	<i>Action</i>
R	Read Mail
S	Send Mail
C	Copy Mail
L	List Users
Return	Quit to Main Menu

Commands that can be used in Remote mode:

<i>Command</i>	<i>Action</i>
RETURN	Quit Remote Mode
Q	Quit Remote Mode
\$	View Directory
\$x	View Dir of Logical Drive x
P	Set Pattern ?blah* Default: *
£	List Access Groups
W	Write a Message
WO	Continue writing last Message
Wx	Write BUL or FORCE Msg for Access Group(s) x (add AG Bits Numbers like 4+8=12 for AG 2 and 3) Wrong usage results in illegal quantity errors !!
S	Scan SEQ Files
R	View Votes
?	Show Help Screen
L	List Users
A	Add User
Dx	Delete User Number x
> or +	Edit next User
< or -	Edit previous User
Ey	Edit User Number y
@	Send DOS Command
Cz	Copy File z
X	Set Logical Drive
.x	Set Logical Unit Destination
!	Recreate Namelog
Tx	Display Prompt Number x (good for testing!)

Commands that can be used in Wait Screen:

<i>Command</i>	<i>Action</i>
F1	Load C*BASE Terminal C/TERM
F2	View Callers Log
F3	Change SysOp Status
F4	Local Logon
F5	Enter Remote Mode
F6	Send „ATA“ to Modem
F7	View Upload Index
F8	View Top 10
C	View „CAT“ File
P	Set Remote Password
U	Create Top 10
RETURN	Local Sysop Logon
SPACE	Reload Wait Screen
M	Goto Mail Area
T	Toggle Show Filename ON / OFF
V	View Vote Results

APPENDIX C: USEFUL SHEETS

Access Groups:

Group #	Access Group Bit	Name
Group 0	1	New User after Login
Group 1	2	New User after Application (Guest)
Group 2	4	User Group 2 (define to your needs)
Group 3	8	User Group 3 (define to your needs)
Group 4	16	User Group 4 (define to your needs)
Group 5	32	User Group 5 (define to your needs)
Group 6	64	User Group 6 (define to your needs)
Group 7	128	User Group 7 (define to your needs)
Group 8	256	User Group 8 (define to your needs)
Group 9	512	User Group 9 (define to your needs)
Group 10	1024	User Group 10 (define to your needs)
Group 11	2048	User Group 11 (define to your needs)
Group 12	4096	User Group 12 (define to your needs)
Group 13	8192	User Group 13 (define to your needs, usually Co-SysOps)
Group 14	16384	User Group 14 (define to your needs, usually SysOp)

Subs:

Sub Board Number	Sub Board Name
Sub #1	
Sub #2	
Sub #3	
Sub #4	
Sub #5	
Sub #6	
Sub #7	
Sub #8	
Sub #9	
Sub #10	
Sub #11	
Sub #12	
Sub #13	
Sub #14	
Sub #15	
Sub #16	

U/D Directories:

DIR Number	DIR Name
Dir #1	
Dir #2	
Dir #3	
Dir #4	
Dir #5	
Dir #6	
Dir #7	
Dir #8	
Dir #9	
Dir #10	
Dir #11	
Dir #12	
Dir #13	
Dir #14	
Dir #15	
Dir #16	
Dir #17	
Dir #18	
Dir #19	
Dir #20	
Dir #21	
Dir #22	
Dir #23	
Dir #24	
Dir #25	
Dir #26	
Dir #27	
Dir #28	
Dir #29	
Dir #30	

APPENDIX D: TECHNICAL DETAILS OF IMPORTANT SYSTEM FILES

Below you will find some useful Information about important Files needed by C*BASE to operate.

THE CONFIGURE FILE

The CONFIGURE File is a SEQ File. It is initially created through System Creation and loaded during Boot Process. The Values are poked into the corresponding Zeropage Addresses.

#	Zero Page Adress	Meaning	Value
1	838	Modem Selection from Modem Configuration	5
2	958	(double 62)	155
3	844	Credits a Post is worth (double!! 49)	100
4	858	Number of hours to wait for Network (n/a!)	0
5	829		1
6	932		0
7	933		0
8	934		0
9	935		0
10	936		0
11	937		0
12	938		0
13	939		0
14	940		0
15	941		0
16	942		0
17	943		0
18	944		0
19	945		0
20	843		0
21	841		0
22	873		1
23	830	Print Diskstatus on File open (show Filename)	8
24	787	Carrier inverted (16) or normal (0)	16
25	922		40
26	832		0
27	925		0

28	926		0
29	927	Max # of Downloads per Call (0 or 255 =unlimited)	255
30	929		0
31	931		0
32	886		0
33	902		0
34	903		0
35	904		0
36	905		0
37	906		0
38	907	Device for C/TERM Module	8
39	948	Device for Main Board (BBS System)	8
40	949	Device for U/D Protocols	8
41	946		0
42	846		1
43	910		0
44	911		0
45	912		0
46	947		8
47	950	Xetec Lt. Kernal Device Number (default 0)	0
48	917	(double 55)	0
49	844	Credits a Post is worth (double!! 3)	100
50	847		5
51	913	Number of Libraries to Dimension (n/a)	5
52	914	Number of U/D Directories	17
53	915	Number of Sub Boards	4
54	916	Number of APP Questions (max.18)	18
55	917	Hour to start Networking (n/a ! in Holy Moses Mod) (double 48)	0
56	918	Number of Posts before U/D access	0
57	919	Number of Posts before Module access (n/a!)	0
58	920	Flag if regular Midnight run (0) or Top10 only (1)	0
59	921		0
60	923		0
61	924	Number of Macros (Oneliners)	10
62	958	(Double 2)	155
63	883	Logical Unit for UD- DIR Files	1
64	999	Time to answer phone in seconds	5
65	920	(double 58)	0
66	893		0
67	870		0
68	871		0
69	842	Keyboard Lockout Mode (0=off / 1=on)	0
70		Modem Init String	atz
71		Device / Drive / Init for Main BBS	8;o;;io:

THE STATS FILE

This is how a virgin STATS File looks like just after its creation with System Create. Given Parameters: 2 Subs, 3 Dirs, max. 50 Users

Keep the STATS File as short as possible. Remove unused entries, to avoid lags while the System performs a Garbage Collection.

Line	Value	Info
1	0	Total number of calls
2	Mighty SysOp,Outa Space...	Name of SysOp, Status of SysOp
3	03.16.93, 0 , 1 , 50 , 5 , 2 , 3	Current Date, Autopost Bits, Users in Userlog, max. Users possible, Amount of Msgs per Packet, Amount of Subs, Amount of Dirs
4	8 ;o::io:	Device, Drive, Init of last used Device
5	9 ;o::io:	Device, Drive, Init of Subs
6	10 ;o::io:	Device, Drive, Init of E-Mail Storage
7	11 ;o::io:	<i>Device, Drive, Init of Libraries (n/a -> legacy)</i>
8	12 ;o::io:	<i>Device, Drive, Init of Modules (n/a -> legacy)</i>
9	Sub1	Name of 1st Sub
10	0 , 189 , 0 , 32764 , 32764	Current amount of Posts, max. Posts, highest Msg Number, Read access, write access
11	Sub2	Name of 2nd Sub
12	0 , 189 , 0 , 32764 , 32764	...
13	8 ;o::io:	Dir #1 Device, Drive, Init
14	8 ;o::io:	Dir #2 Device, Drive, Init
15	8 ;o::io:	Dir #3 Device, Drive, Init
16	32764 , 32764 , 32764 , Dir1,Dir1	UL Access, DL Access, Unl.DL Access, Name of Dir, ???
17	32764 , 32764 , 32764 , Dir2,Dir2	...
18	32764 , 32764 , 32764 , Dir3,Dir3	...
19	Last User	Last Caller
20	Time	Time Last Caller logged off
21	-1	Max. call# Mag voting will start

The Value for Accesslevel is calculated as follows:

15 Bits (Group 0 - 14), selected = turned on = display in Reverse Text

0-1-2-3-4-5-6-7-8-9-10-11-12-13-14

X-X-X-X-X-X-X-X

$0+2+4+8+16+32+64+128 = 190$

The Support for Libraries was already removed in Cyborg Mod. The Support for external Modules was removed in Cyborg Mod because the necessary Code was implemented in C/BBS. There are only two external Modules left (C/MIDNIGHT + C/TERM). C/MIDNIGHT is expected to be always on the Main BBS Device. No Support for UD Ops or SubOps !

THE TEXT FILE

This is the List of Prompts available in the TEXT File. Unused Prompts are marked with a "-". Check your TEXT Prompts File and remove unused content. This will free precious memory. Memory is rare but leave at least one Byte in each Prompt (the "-"). Don't delete it completely. **Be careful to not exceed 4400 Bytes with this File !**

<i>Prompt</i>	<i>Function</i>
1	-
2	x Blocks free
3	*NEW* Handle / Location Change
4	Directory Header
5	Correct ?
6	Select:
7	Press Return
8	Erase x
9	Sub x when listed
10	Dir x when listed
11	Continue
12	Place Vote in Mag
13	Out of x Votes
14	Voter
15	Locating user x
16	Write on Wall ?
17	Sub Prompt
18	*NEW* Autopost Uploads Y/N
19	*NEW* Auto Logoff enganged
20	Multi Up- / Download
21	*NEW* Up- or Download Multiple ?
22	Header List Subs / Directories

23	Autologoff after Up- / Download
24	Subs Commands when pressing "N" in Subs
25	Edit after .e
26	View / Reply after reading Mail
27	Erase Mail ?
28	Input User-ID or Handle
29	Mailing !
30	*NEW* Try "N" for new User Or "\$" for Userlist (\$ since Build 121)
31	Leave BBS ?
32	*NEW* Checking User Data
33	*NEW* You are lame. Goodbye
34	*NEW* OK you are clear
35	Read Mails ?
36	Logoff Prompt
37	- Old: Change Location *REMOVED* !! Now unused !
38	Shorten something !
39	*NEW* No Cursor Movements!
40	Main Prompt when Cursor Menu is off
41	Enter Oneliner
42	SysOp Chatmode ON
43	SysOp Chatmode OFF
44	Prompt after "." Or "/" in Texteditor (MCI)
45	Vote Result
46	Vote Result
47	Do you Understand? (when logging out without prior posting)
48	Texteditor Header
49	Texteditor Header additional Info
50	Word Wrap ON
51	Word Wrap OFF
52	View Textlines (in Texteditor after .v)
53	*NEW* Userlister
54	Type in Macro

55	Texteditor Memory full
56	SysOp Private mode ON
57	SysOp Private mode OFF
58	".i" (Texteditor: INSERT)
59	".r" (Texteditor: READ)
60	".s" (Texteditor: SAVE)
61	".e" (Texteditor: EDIT)
62	".d" (Texteditor: DELETE)
63	".v" (Texteditor: VIEW WITH LINENUMBERS)
64	".a" (Texteditor: ABORT)
65	".h" (Texteditor: HELP)
66	".l" (Texteditor: LOAD)
67	".m" (Texteditor: MCI-READ)
68	Maximum Downloads
69	Automatic Directory ON / OFF
70	Enough Room left ?
71	Prompt Remote mode
72	Birthday? (Mag-Voter)
73	Entering ux-Mode
74	Header Message in Subs
75	*NEW* Hit a Key (Autopause in Subs)
76	Quiet toggled
77	*NEW* View Directory
78	*NEW* Autopause in DIRs and Userlist
79	Password in Usereditor Remote
80	- Old: Change Password *REMOVED* !!! Now unused !
81	*NEW* Cursor Menu on? (after new User apply)
82	-
83	*NEW* Download Blocks/Time Prompt
84	U/D Main Prompt
85	*NEW* Enter new Info (Remote)
86	*NEW* Enter Remote Bit (Remote)

87	Handle exists
88	*NEW* Usereditor (Remote)
89	Prompt Userlister
90	*NEW* Access Lister
91	Yes
92	No
93	*NEW* Need more Credits !
94	Leave Feedback ?
95	Add or View BBS-List
96	Enter Device:
97	Enter Drive:
98	Enter DOS-Command:
99	-
100	Userlog full
101	Scanning Account x Log In
102	Sending Mail to
103	*NEW* List Oneliner
104	*NEW* Write new Oneliner?
105	X Blocks free Dir Foot Line
106	Copying x
107	-
108	Input Command if select Files
109	Scratched File x
110	Upload Filename:
111	Your new User ID
112	x Mails for you
113	-
114	Invalid Command
115	Sub x new Messages y
116	Scroll from Message x
117	Saving
118	Upload PRG / SEQ

119	-
120	-
121	-
122	-
123	-

Make sure that the Prompts you change work correctly. Wrong Strings will fuck up the BBS! CBM-M and CBM-N may look the same, but using the wrong Char causes crashes !

Test all Prompts in Remote Mode with the Tx Command !

If it crashes, the Prompt has to be corrected. You don't want the BBS to crash while a User is online.

THE USERLOG FILE

The REL File USERLOG is the BBS storage file for all User Data. Take care about this File and do regular Backups ! You really don't want a broken USERLOG.

Now some technical Info about this File:

Record length: 98

Fields:

0 – Username	11 – Messages posted
1 – real Name	12 – 39 / 79 Columns
2 – Access Group	13 – Last Call Number
3 – Location	14 – Blocks uploaded
4 – Phone Number	15 – Blocks downloaded
5 – Computer	16 – Subs AG Codes *2
6 – Birthday	17 – last used Transfer Protocol
7 – Date of last Call	18 – Amount of Files Downloaded
8 – Password	19 – Amount of Files uploaded
9 – Boolean 16Bit *1	20 – Pause mode (n/a on Cyborg Mod)
10 – Amount of Mails left on System	21 – Remote Bits *4

*1) 8 Bit Value, Bit set 1 means ON, Bit set 0 means OFF

Bit 0: Auto DIR On/Off ("*" in U/D Area)

Bit 1: Cursormenu On/Off ("M" in Parameter Menu)

Bit 2: Did not post on last call (Used for "Did not post twice" – Warning in Caller Log)

Bits 4 – 7 are unused in Cyborg and Holy Moses Mod (yet)

*2) String is used in Subs for new Posts. Seems to be Access Group Code

*3) 16 Bit Value of SUBs joined / unjoined. Bit set 1 means Joined, set 0 means UnJoined
So in theory 16 SUBs max. possible.

*4) 8 Bit Value for Remote Access Level, Bit set to 1 means Access given, 0 means no Access.

Remote access levels explained in detail:

When you edit a user's security there are 2 numbers you need to look at. The 1st Number is the actual access group that the user belongs to. The 2nd is the remote bit. This is configured for the user independent of the access group given. The remote bit should never total more than 255 otherwise you'll get an illegal quantity error. Each remote part of the BBS has its own remote access code. If you want to give a user remote access to several remote parts of the BBS, then you must add together the code numbers (Bits) to get the correct code value.

0 – no remote access

1 – Access to udup and subop commands

2 – Access to DOS Commands in remote and U/D

4 – Access to format disks, this access is normally filtered out

8 – Access to exchange mode in U/D

16 – Access to enter exchange in system drives as well as long as "X" has the BBS logical drive number as its suffix

32 – Access to viewing passwords

64 – reserved

128 – reserved

Remote Bit can only be set by a User who has a remote bit of 255 or in local mode. 255 means all the remote bit access are turned on already. As an example the remote bit value a sysop would give each user if he wishes this user to have remote access, exchange mode without system drive access, dos commands without format and no ability to read or edit passwords, the result would be add codes 1+2+8 which would equal 11 giving this user a remote bit of 11.

APPENDIX E: (NOT) SUPPORTED HARDWARE

This is an incomplete List of Hardware known to work with C*BASE 3.1 Holy Moses Mod. There are for sure dozens of Devices that will also work, but weren't tested by us, mainly due to the lack of time and for sure because we don't own this Hardware.

COMPUTERS:

C64 (C, G, SX, reloaded MK 1 + 2) PAL Version. NTSC should also work.

C128 (CR / D / DCR) in C64 Mode.

36in1 Kernal

DISK DRIVES:

All Commodore Disk Drives and Clones that work with a stock Sixtyfour. We encourage you to use JiffyDos equipped Devices. Floppy Speeders with parallel Cable to the Userport are not tested. To use build in Backup function during Midnight Run. JiffyDOS is obligatory!

CMD HD and Clones, FD-2000 / 4000 and Clones (Thunderdrive / Hyperdrive)

Anything that is connected via CMD HD SCSII Port (CD-Rom / ZIP Drive f.e.).

SD2IEC, uIEC etc. Keep in mind, that REL File Support in these Devices is not 100% implemented. It works but keep in mind that it may cause Problems if you want to use SD Cards as Main BBS Drive. Better use Devices, that support proper 1541 Emulation or Oldschool Hardware for your System Drive.

USERPORT DEVICES:

Userport RS-232 Devices with 2400 baud. 300 Baud are not supported anymore. But hey, no one really wants that at all.

WIFI Modems (UP9600 Hack support is under development).

EXPANSION PORT DEVICES:

CMD Swiftlink / Turbo232 and Clones, RamLink, SuperCPU, REU 17xx, Retro Replay

NOT RECOMMENDED :

Not recommended are Freezer Cartridges like Action Replay, Nordic Power etc.

They cause Problems with the BBS Software. Try if you want.

NOT SUPPORTED :

Not supported are all kind of Ethernet Devices, like 64NIC+, RR-Net and so on. C*BASE only works with "Modem like" stuff. WIFI will work, if used as so called WIFI Modem for the Userport or as Modem connected via *LINK / Turbo232 Cartridges.

Printers are not supported. There is no printing Option within Cyborg / Holy Moses Mod.

Joystick and Mouse etc. are not supported. C*BASE needs a Keyboard. That's why the C64GS is also not supported. Maybe with some hacking it *could* work....

RAM Cards like GeoRam, NeoRam, GRAM, REX Ramfloppy...

Tape drives are not supported. They don't make much sense on a BBS anyway.

C128 in 128 Mode.

NOT TESTED (MAY WORK OR NOT):

Not explicitly supported, but may work for you, are Turbo Cards like Turbo Master, Flash-8. The only 100% supported Turbo Card is the CMD SuperCPU !

IDE64 is not supported, but may work -> untested ! Try and use at own Risk. Feedback and Bugfixes are appreciated.

1541 Ultimate, Turbo Chameleon, MMC Replay etc.

17xx REU and Clones. There are two Files coming with Holy Moses Mod: RAMBOOT and REU.ML. The use of the RAMDOS and the REU as RamFloppy is not 100% tested yet. Several Versions of C*BASE 3.x support it, but usage on Holy Moses Mod may cause Problems. Try and use at own Risk. Feedback and Bugfixes are very much appreciated !

Ultimate64, hacked DTV, C64GS, The C64mini

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LEGAL STUFF

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Parts of this Documentation are based on C*BASE 3.0 Docs.

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This is Version 1.1.