C*BASE V3.1 HOLY MOSES MOD GUIDE FOR SYSOPS

CONTENT

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 FOUR 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. 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

At the time of writing the "Cyborg Mod +13 improved" aka. "Holy Moses Mod" has the following Changes and Bugfixes to Cyborg Mod C*BASE V3.1:

- 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 38.400 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 $1!* This makes life easier when searching for files in big dirs. >255 files
- Optional U/D Title Screens are supported. Name them like "UD TITLE x" where x is the Number of the corresponding Dir
- A ":" is supported in the BBS List, taking care of Telnet "IP:Port" BBS Addresses
- Added remote password support. Create from wait screen or with System Create
- Clock bugfix when BBS runs with a SuperCPU. This requires a CMD RTC !
- BBS Info Screen added. Press "I" in Main Menu / Cursor Menu
- BBS booting without SysOp interaction. So the BBS can completely boot up from Power-up if Autoboot function of a RamLink is used and a RTC is available. Otherwise only the Clock has to be set manually at Bootup.
- Customizable BBS Colors through the Files Colors 1 – 4
- Advanced flexible Cursor Menus
- "L" in Mail Menu and "$" 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

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 <u>require</u> 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 Swiftink 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 in future Versions).

U/D Area can still be run with JiffyDos accelerated Floppy Drives. They usually will be fast enough.

- **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 safe energy. A SD2IEC needs much less Power than a 1541. A C64reloaded need less Power than a stock xxxxx425 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 al 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 the 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. Thus 38.4K bps connections on Raveolution are 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. RaspPi 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 Zipped 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.
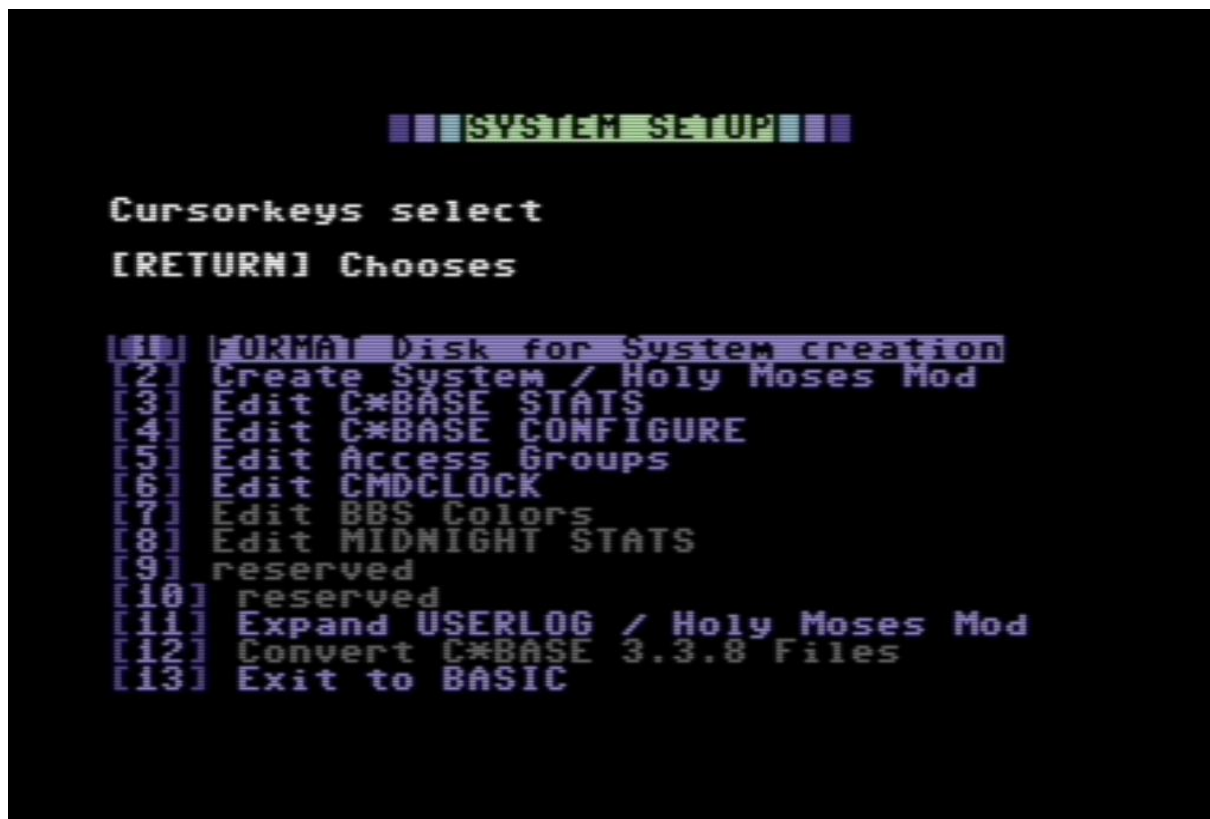
For System Creation you should at least have the following file on disk to get started with an initial setup:

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 accidently 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:

```
■■■SYSTEM SETUP■■■

Cursorkeys select

[RETURN] Chooses

[1] FORMAT Disk for System creation
[2] Create System / Holy Moses Mod
[3] Edit C*BASE STATS
[4] Edit C*BASE CONFIGURE
[5] Edit Access Groups
[6] Edit CMDCLOCK
[7] Edit BBS Colors
[8] Edit MIDNIGHT STATS
[9] reserved
[10] reserved
[11] Expand USERLOG / Holy Moses Mod
[12] Convert C*BASE 3.3.8 Files
[13] Exit to BASIC
```

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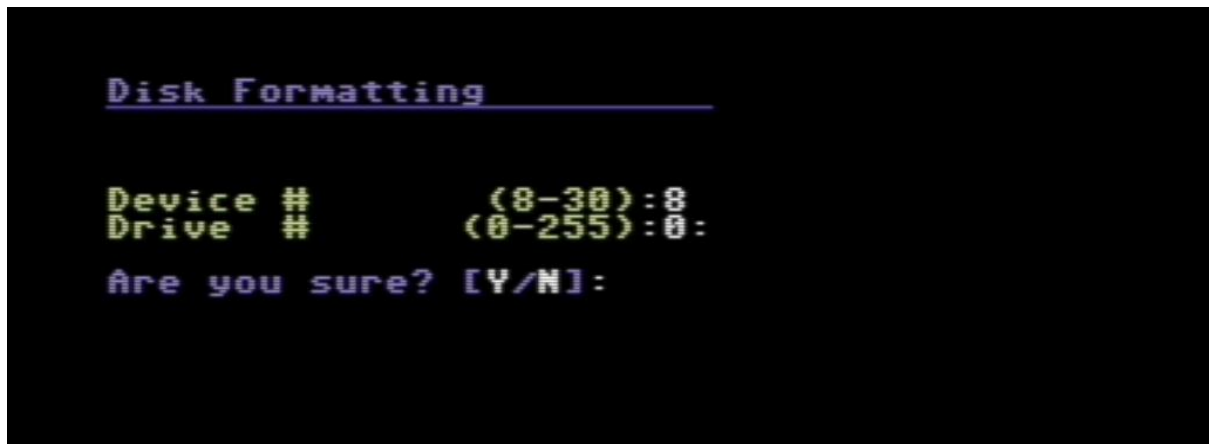
There is no Fast Format routine included to give a maximum of compatibility with different Device types, but with the cost of slowness. So be patient while the Floppy does its job.
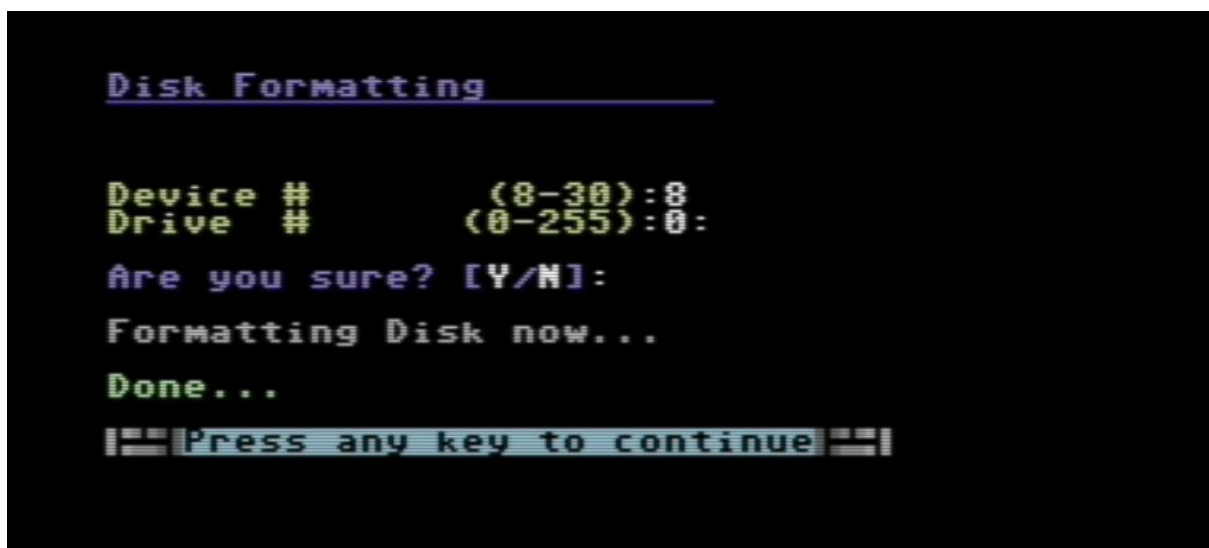
INITIAL SYSTEM CREATION

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

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 !

At first you must input some Information that are later used in the file "STATS".

That is: Name 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.

Press "n" to start over, if you accidently 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.
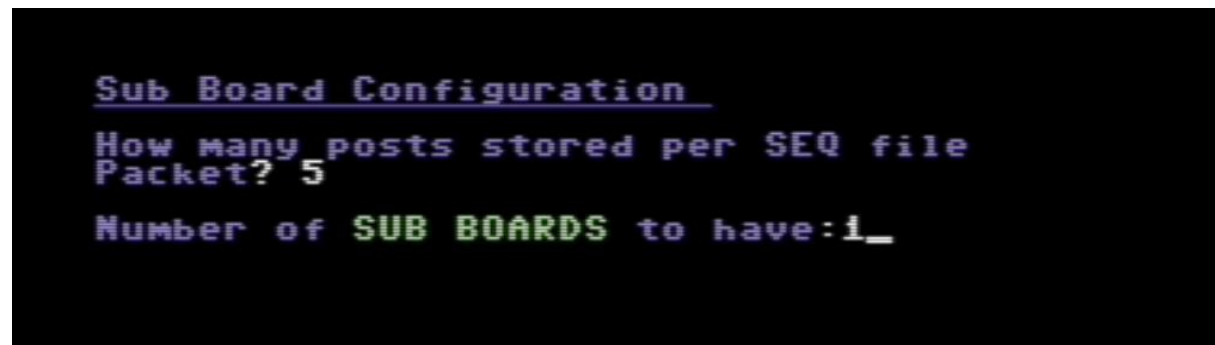"S 1 M 30" -> Packetfile for Sub #1 with Messages from x to 30. So if you use the default Setting of 5 Messages per File, this would be the 6th File from Sub #1, starting with
"S 1 M 5".
This Setting is defined only once and counts for all Subs you'll setup.
But what is the best setting to use ? This 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 with a HD and native Partition. 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 !

```
Sub Board Configuration
How many posts stored per SEQ file
Packet? 5

Number of SUB BOARDS to have:1_
```

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.

```
SubB: 1

Name of Sub Board:Subboard1

Max # of Messages on Sub:99_
```
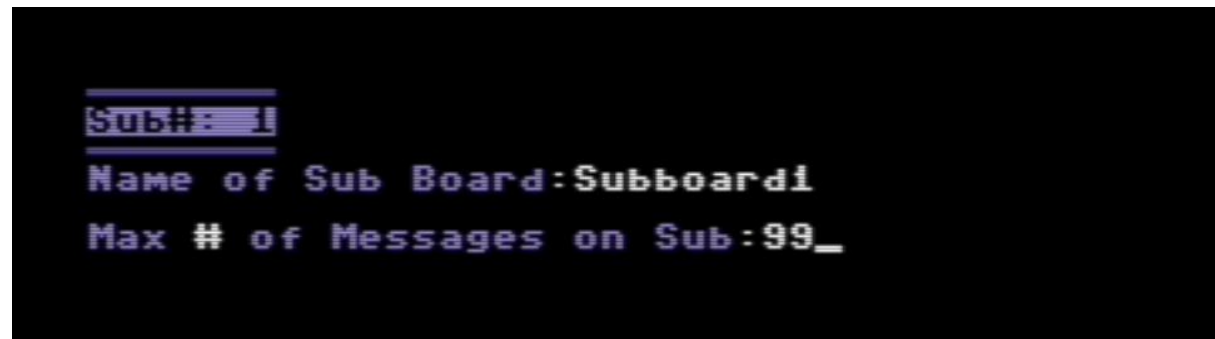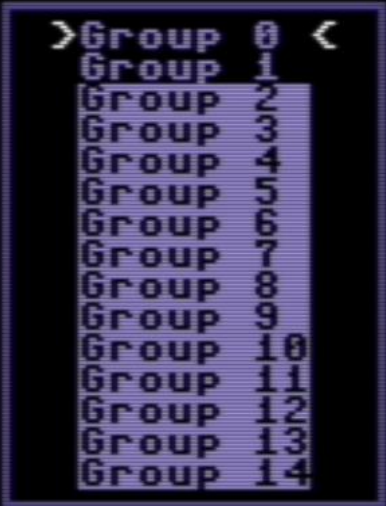
If the Sub Board exceeds the max. Messages, the oldest Message will be deleted. First in, first out.

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

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         >Group 0 <
when done             Group 1
                      Group 2
UD # 1                Group 3
Upload access         Group 4
                      Group 5
                      Group 6
                      Group 7
                      Group 8
                      Group 9
                      Group 10
                      Group 11
                      Group 12
                      Group 13
                      Group 14
```
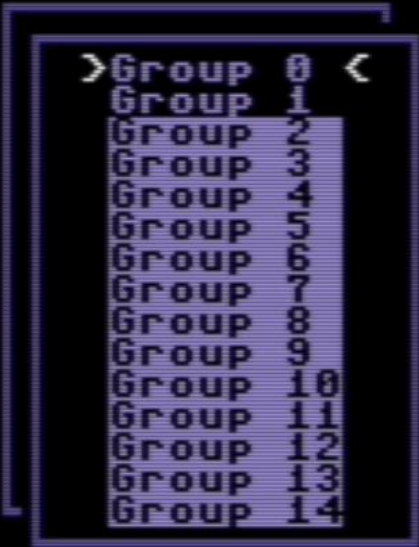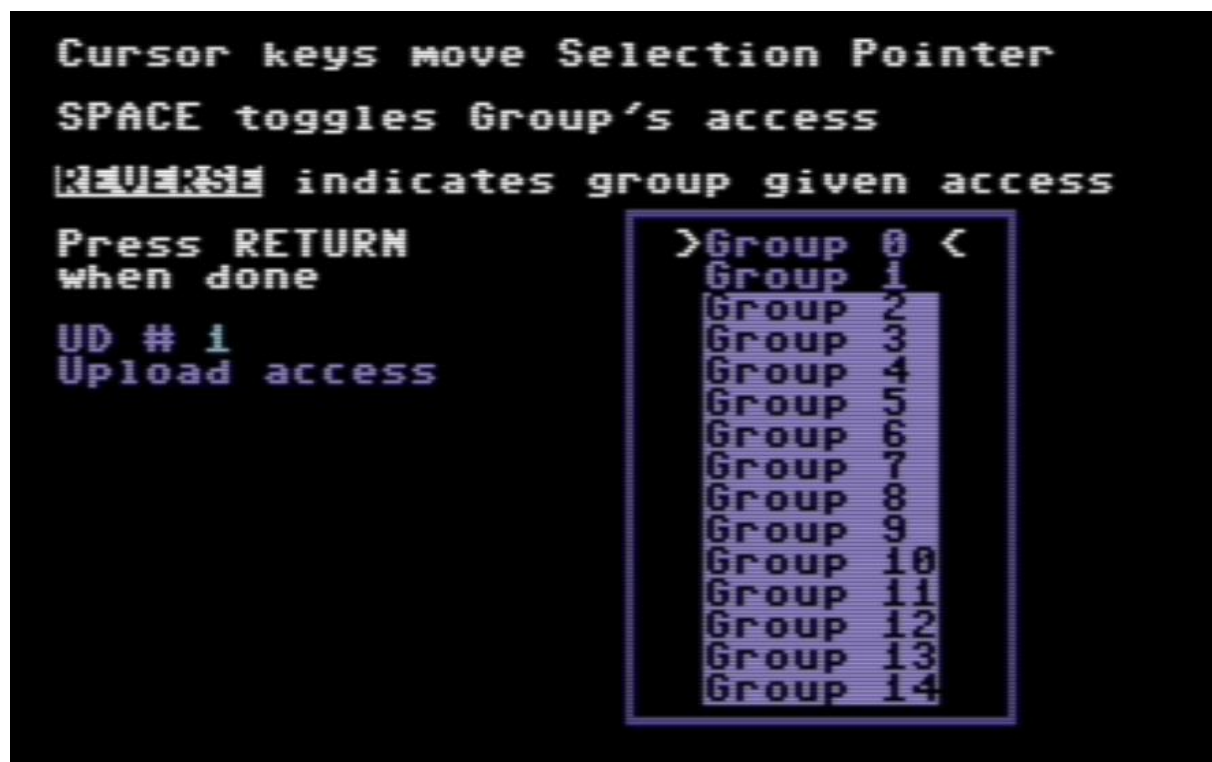
Like the Sub Boards, these Settings can be also changed later on.
If you are done with the U/D settings continue with creating the USERLOG.

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 that 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|═══|
```

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 Kernal 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:]:
Keyborad 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 accidently 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 Number values from 1 to 0 and save.

MODEM SETUP

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

```
███MODEM Configuration███

Cursorkeys select

[RETURN] Chooses

[1]  Userport 2400 Baud Hayes
[2]  Userport UP9600 Hack
[3]  Swiftlink 9600 Baud
[4]  Swiftlink 19.2K Baud
[5]  Swiftlink 38.4K Baud
[6]  Turbo232 56.7K Baud
[7]  Turbo232 115k Baud
[8]  Turbo232 230k Baud
[9]  reserved
[10] reserved
[11] Exit to Config Menu
```

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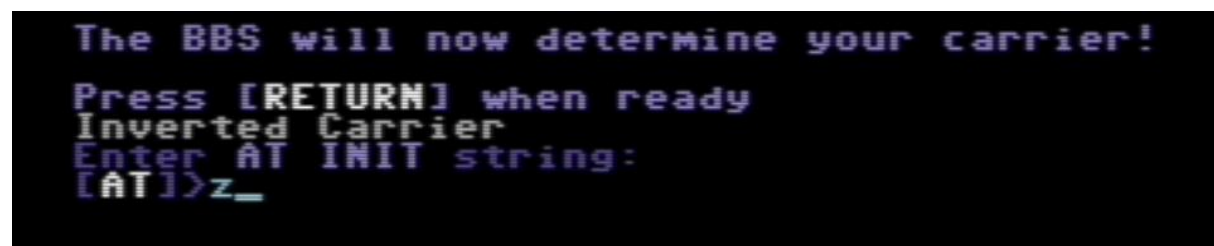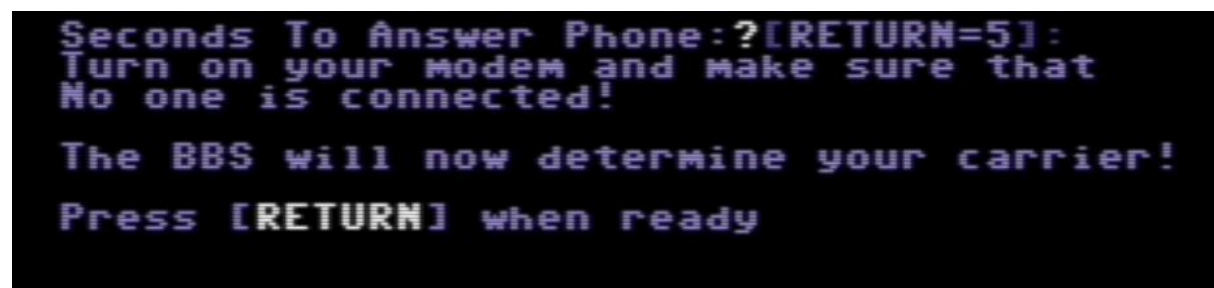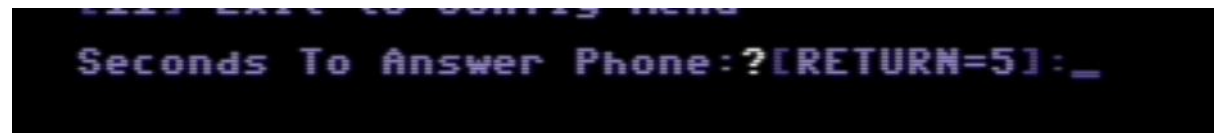
Usually the BBS is connected to the World via Telnet, so you need a Device that connects your C64 Userport or Expansionport device with the Internet. There are many ways to do so. I don't want to go too deep into detail here, because all you need to know is just a Google search away.

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.

Hurra !! That's it for an initial Setup.

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

24

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 and expand the USERLOG.

The "MIDNIGHT Settings" will come with a later Version of the C/MIDNIGHT Module.

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

```
▊▊▊STATS EDIT▊▊▊


Cursorkeys select

[RETURN] Chooses

[1] Miscellaneous
[2] Sub Board section
[3] Upload/Download section
[4] Save STATS file to Disk
[5] Exit to Main Menu
```

```
SUBs Configuration

[1] List Sub-Boards
[2] Add a Sub-Board
[3] Edit a Sub-Board
[4] Delete a Sub-Board
[5] Exit Sub-Board editor
```

```
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 😊
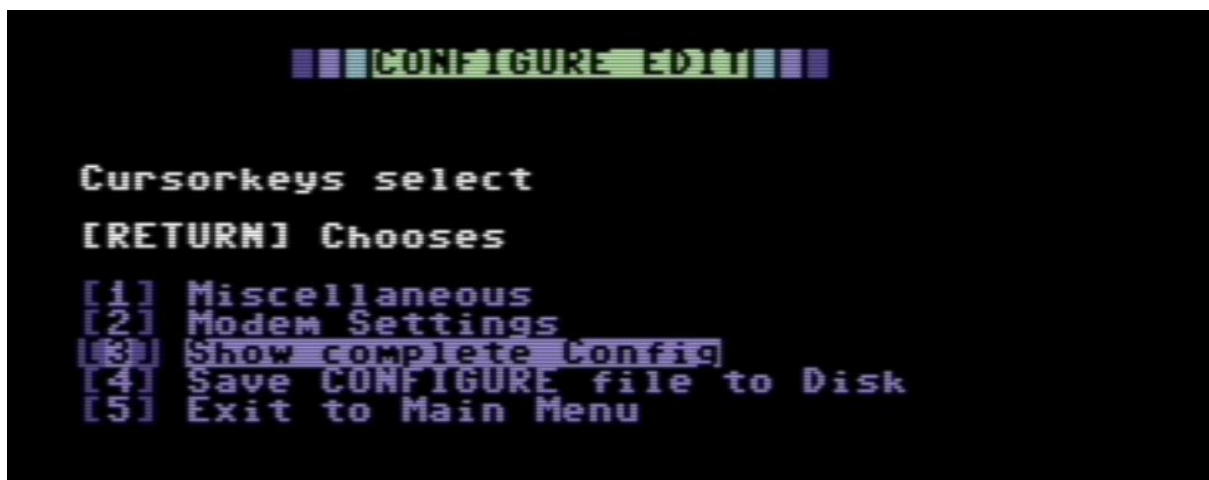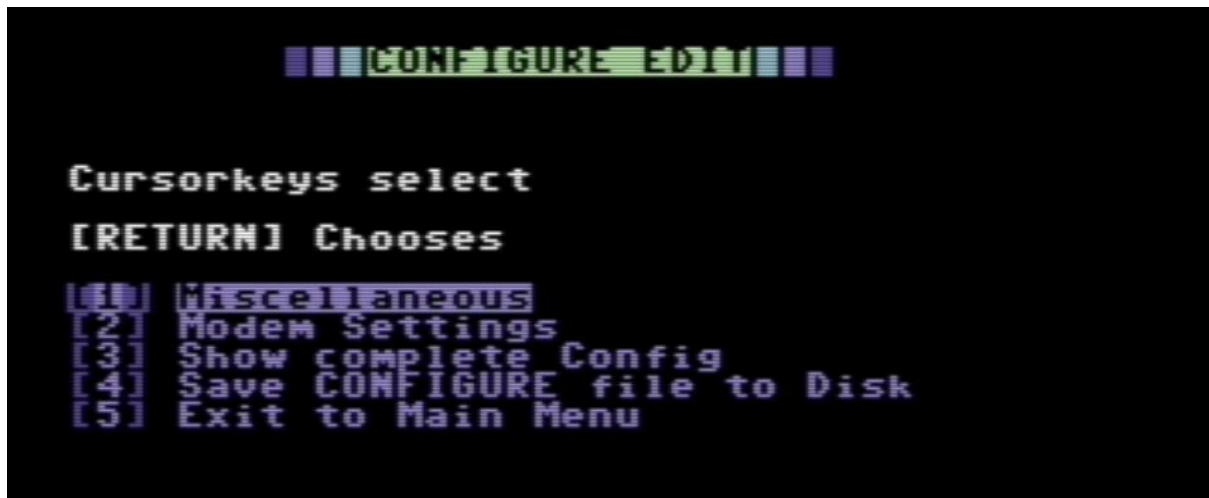
```
936: 0          937: 0          938: 0
939: 0          940: 0          941: 0
942: 0          943: 0          944: 0
945: 0          843: 0          841: 1
873: 1          830: 8          787: 16
922: 40         832: 0          925: 0
926: 0          927: 255        929: 0
931: 0          886: 0          902: 0
903: 8          904: 0          905: 0
906: 0          907: 8          948: 8
949: 8          946: 0          846: 1
910: 0          911: 0          912: 0
947: 8          950: 0          917: 0
844: 100        847: 10         913: 10
914: 1          915: 1          916: 20
917: 0          918: 0          919: 0
920: 0          921: 0          923: 0
924: 10         958: 155        883: 0
999: 5          920: 0          893: 0
870: 0          871: 0          842: 0
atz
8;0:;i0:
```

Press any key to continue

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 at Boot 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.
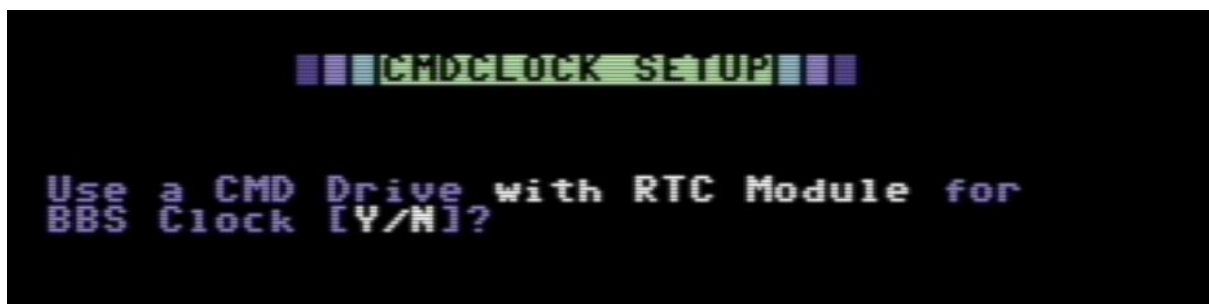
If no RTC Hardware is detected here, an existing CMDCLOCK File will be scratched, so that C/BOOT will work without Errors.
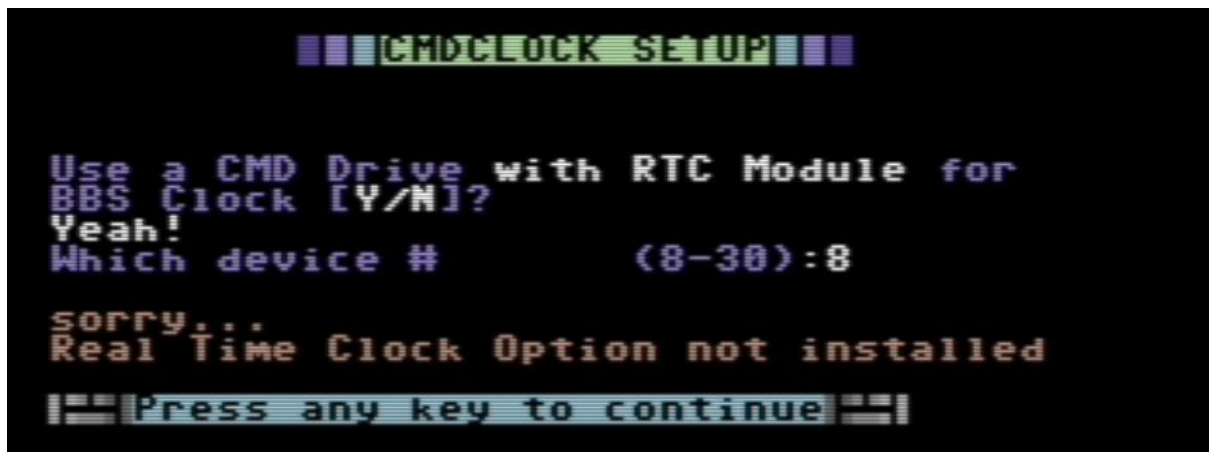
If you run your BBS for a while, it may happen that your Userlog is full. New Users won't get an account. They get a message on applying, that the Userlog is full.
If you have Diskspace left and want new Users to be able to get access to your BBS, you can expand the Userlog, with System Creation Tool.
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.

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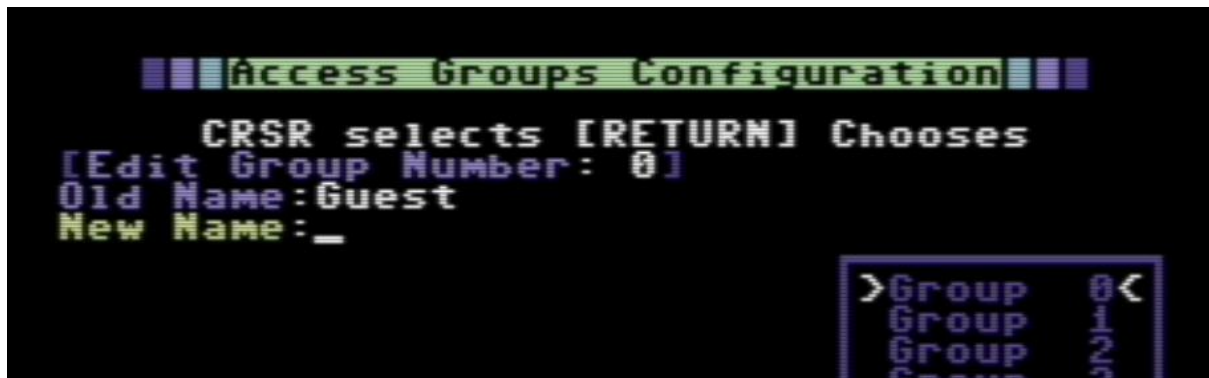
Use the Cursor Keys to select an Entry. <SPACE> toggles Access rights on or off. Reversed text means access granted. Press <RETURN> if you finished the configuration of that group. Entries colored in GREY are not editable. They are not used in Holy Moses mod.
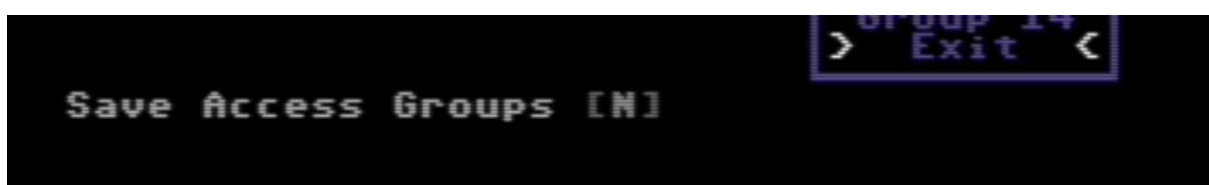
Save your changes on Exit by pressing <Y>. Press <N> to dismiss the changes.

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.
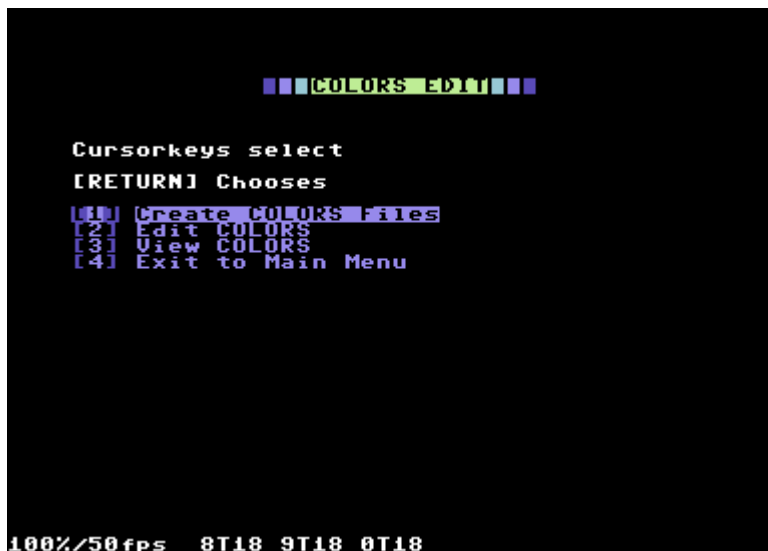
In the Edit Colors Menu you can create new COLORS files / edit COLORS files or simply view them. Use Exit to Main Menu to leave this section.
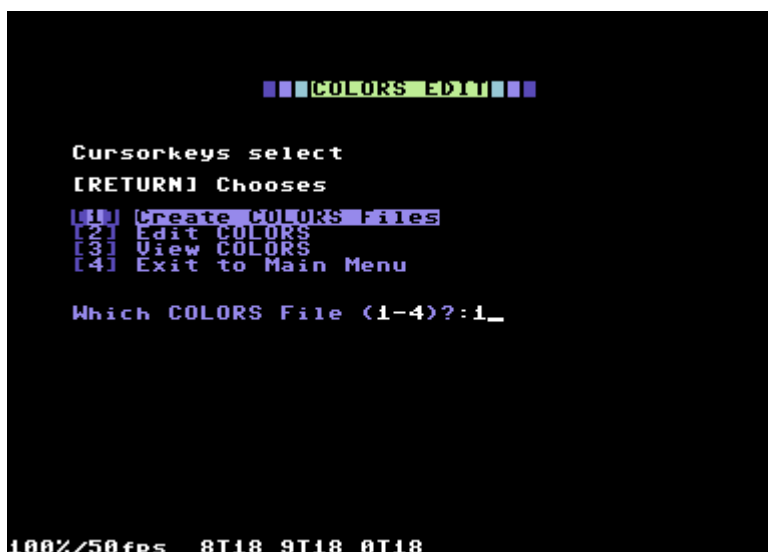
On create / edit / view you are asked, which one of the four Files to use.

```
███COLORS EDIT███

CRSR Keys select / C= or CTRL 1-8 change
[RETURN] Use them

12345678

↑
```

```
100%/50fps   8T18 9T18 0T18
```
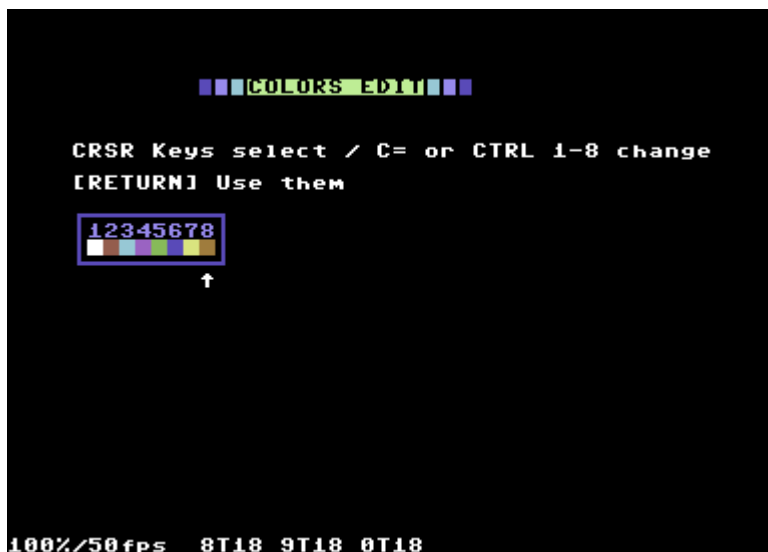
To change the eight colors use Cursor Keys to move the selection Pointer and enter your colors by pressing <CONTROL> + <1> till <8> or <CBM> + <1> till <8> for the 16 built in colors. Press <RETURN> to quit editing and save the file to disk afterwards. Keep in mind the Background Color is always set to Black, so avoid using CTRL+1 (black). It will result in a Textline the User can't see in his Terminal Program.

```
███COLORS EDIT███

CRSR Keys select / C= or CTRL 1-8 change
[RETURN] Use them

12345678

↑
Save to COLORS 1 File ? [Y]?
```

```
100%/50fps   8T18 9T18 0T18
```
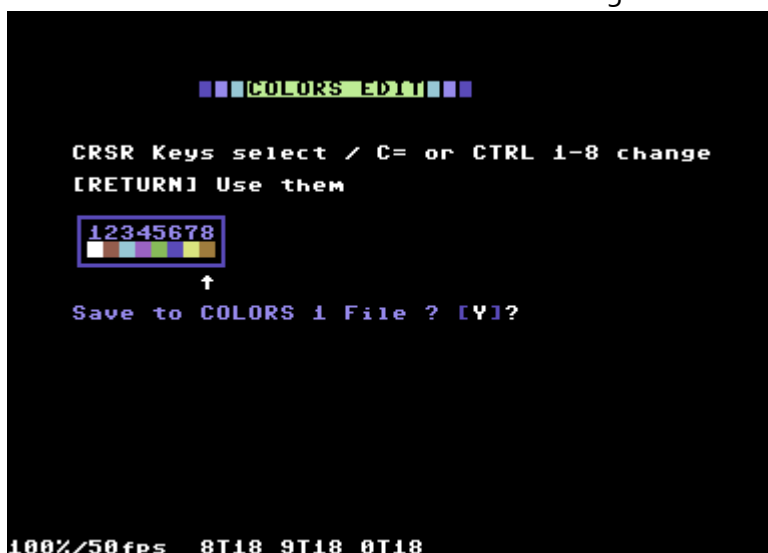
Remember C/BBS needs 4 COLORS Files on your System Disk !!

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.
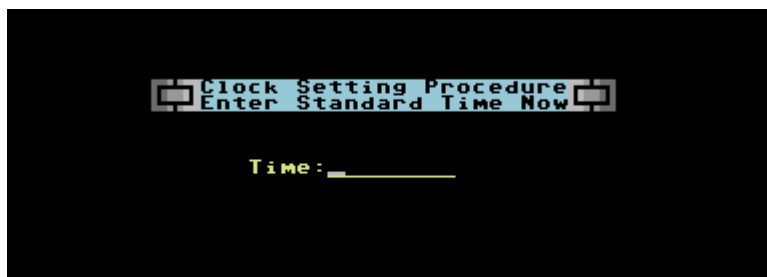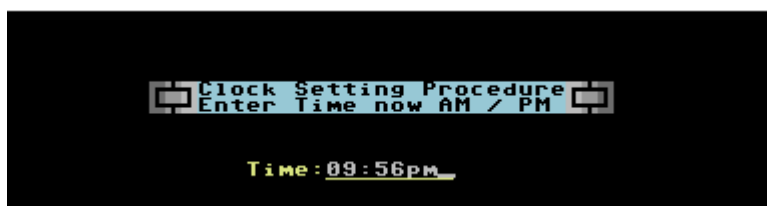
The Boot File will load all Core Files, Punter as the default Transfer Protocol and so on. Without a (preconfigured) CMD RTC, you will be asked to enter the "Standard Time".
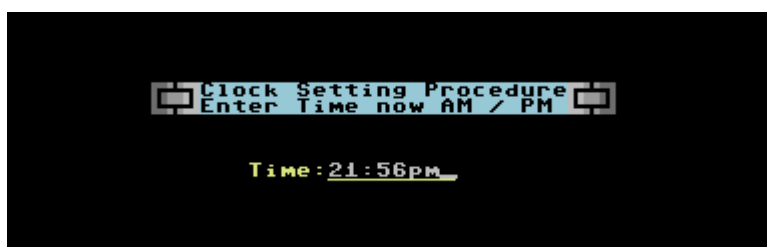
Enter the current time in "12h format" like hh:mm am / pm. No seconds needed !
24h format like 15:39 will however work, that means translated to am / pm Format, if you enter it **with the pm suffix**.

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.

Your'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.

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 90ies. 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.
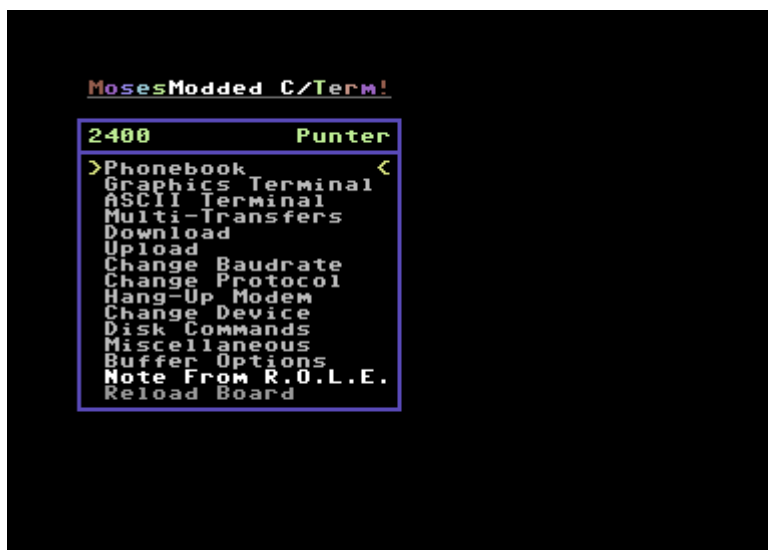
The Phonebook was rewritten to use it with IP:Port Adresses. There are 2 pages that should provide enough space for all the BBS Adresses you need. Switch between the two Phonebook pages with <N>.

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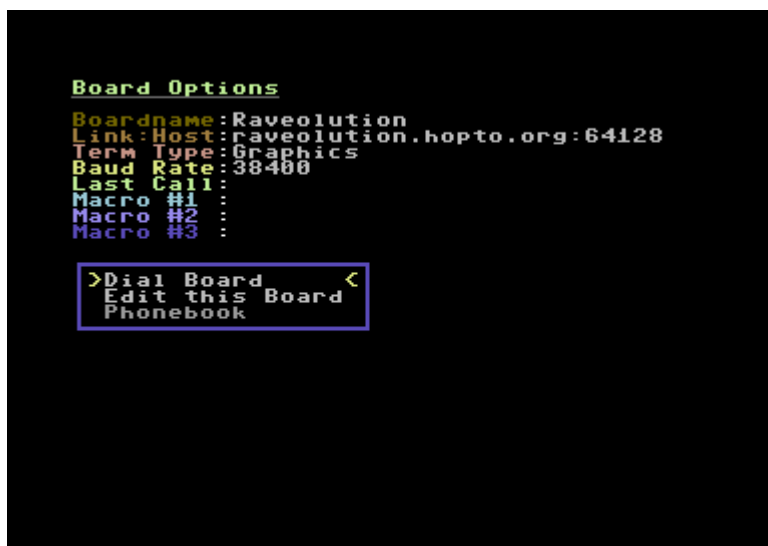
You can define 3 individual Macros per Phonebook entry. In Terminal Mode send them with <F1> + <1> - <3>.

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.
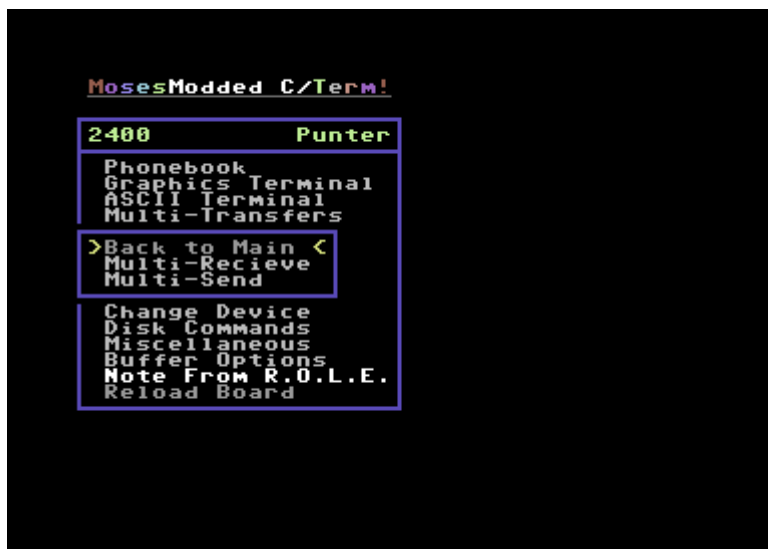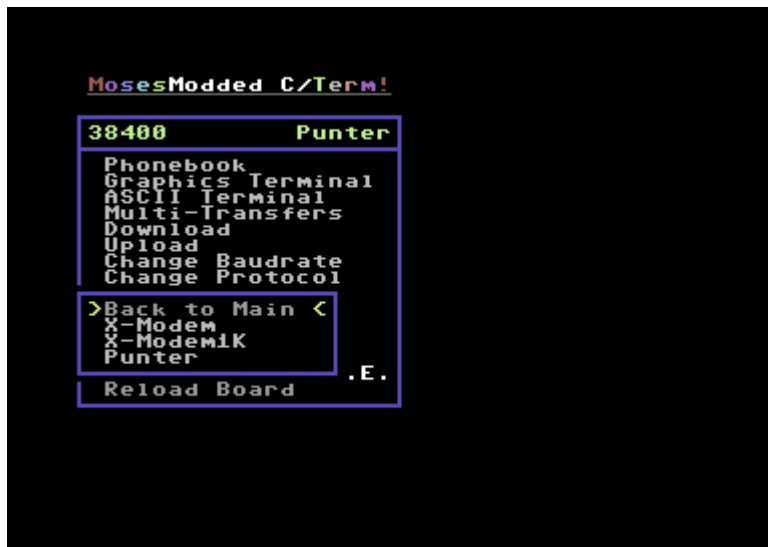
Change your Baud rate setting. Valid Baud rates are:
300, 1200, 2400, 4800, 9600, 19200, 38400
Higher Baud rates (f.e. with a CMD Turbo232) are not yet supported !
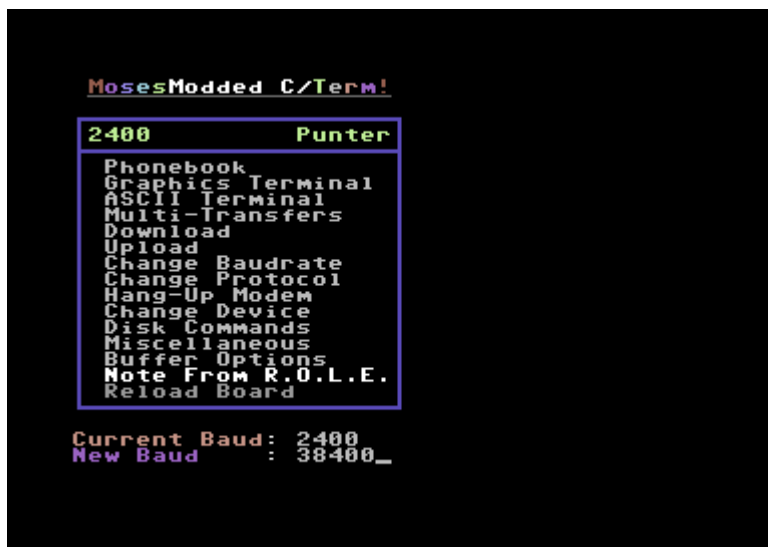
Change your Device Number and Drive / Partition, if you want to Upload / Download from another Drive.
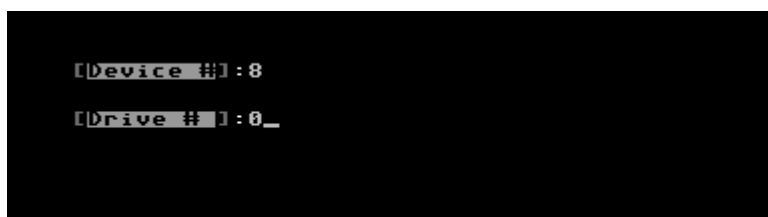
Use the Disk Commands menu entry to View the Directory from the current Device, or validate, scratch Files etc.

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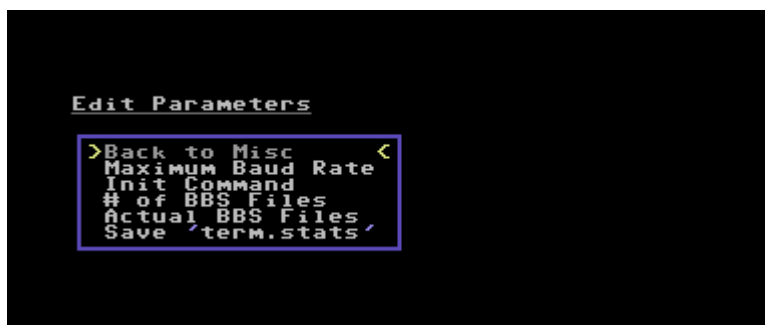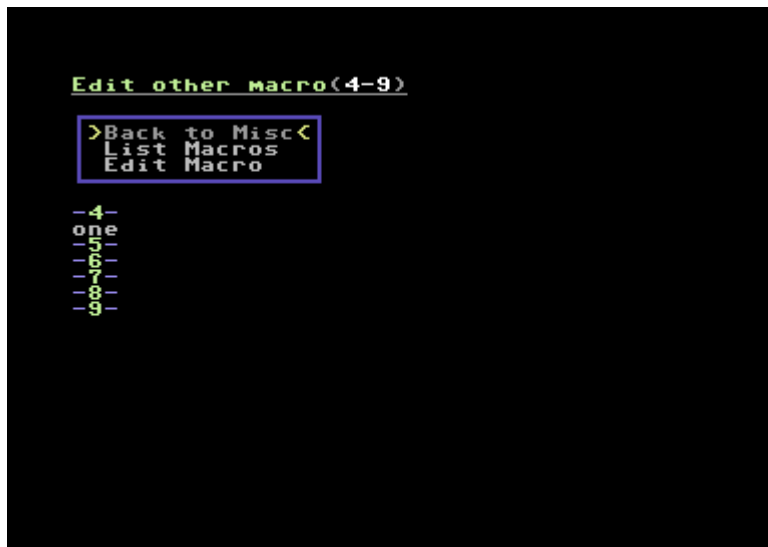
Use Buffer Function within C/TERM to transfer Texts or PETSCII Artwork or whatever to the Board you are calling. Useful if you are spreading your Files to the BBS and give the same Infotext. No need to type it again and again.

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.

45
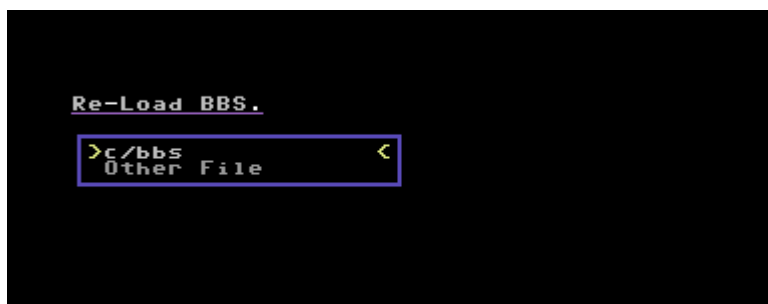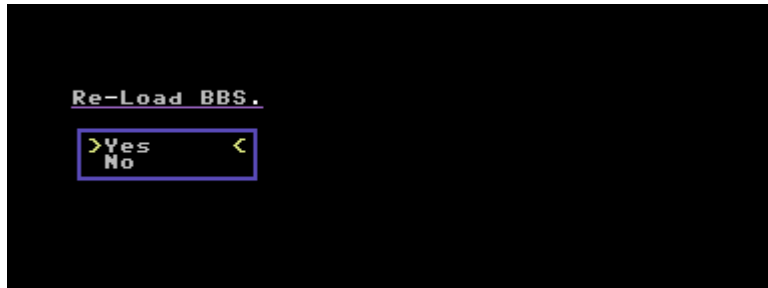
Imagine you want really fast Disk access for loading Parts of the BBS, but have no CMD RamLink or RamDrive available. Here is a *possible* Solution for you.
RAMBOOT can be used with Commodore's Ram Expansion Units 1700, 1764 or 1750. The Driver code is in the File REU.ML. RAMBOOT let' you copy Files 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.
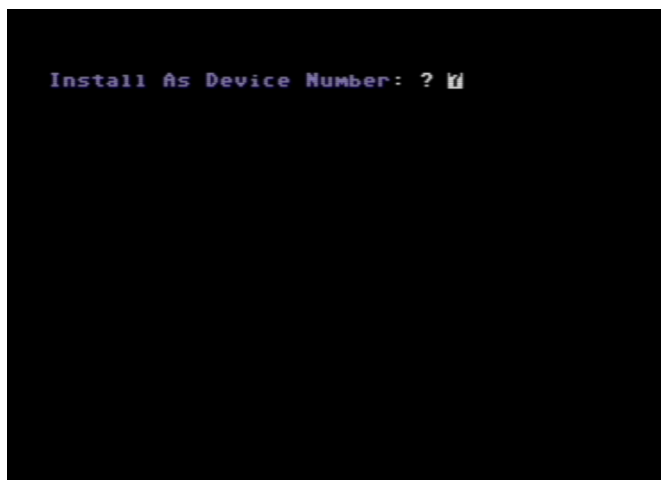
Now RAMBOOT asks you for the Source Devicenumber you want to copy from. Enter your setup here and continue selecting the Files to be copied from that Diskdrive.

Use <Y>es / <N>o on etc. 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.

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

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 !

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 !

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

raveolution.hopto.org:64128

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

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

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

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

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

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

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

Filename	C/BBS
TYPE	PRG / necessary
Description	Main BBS File

Filename	C/BOOT
TYPE	PRG / necessary
Description	BBS Boot File

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

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

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

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

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

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

Filename	CHAT x (x = Number from 1 to n. See RANDOM File)
TYPE	SEQ / optional
Description	Logo or Text that SysOp is not available after Chat request

Filename	CMDCLOCK
TYPE	SEQ / optional
Description	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.

Filename	CMENU x (x = Number from 1 to n. See RANDOM File)
TYPE	SEQ / necessary
Description	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>

Filename	COLORS 1 – 4
TYPE	SEQ / necessary
Description	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.

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

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

Filename	FORCE x (x = Number of User the Force Mail Message is for)
TYPE	SEQ / optional
Description	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

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

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

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

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

Filename	MAG RESULTS
TYPE	SEQ / created by BBS
Description	Voting System

Filename	MACROS
TYPE	SEQ
Description	Macros File (Oneliners)

Filename	MAIL
TYPE	SEQ
Description	Mail Area Logo Screen

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

Filename	MF
TYPE	SEQ
Description	Feedback Logo Screen

Filename	ML0.O – ML3.O
TYPE	PRG / necessary
Description	BBS Kernel Files

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

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

Filename	NMI.ML
TYPE	PRG / necessary
Description	BBS Kernel File Modem. Save only one File on System Disk !

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

Filename	PARA
TYPE	SEQ / necessary
Description	Parameter Menu Screen

Filename	POST WARNING
TYPE	SEQ / necessary
Description	PETSCII File that is shown when User Logs In and didn´t post a Message on last Call

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

Filename	PUNTER
TYPE	PRG / necessary
Description	File Transfer Protocol

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

Filename	RANDOM
TYPE	SEQ / necessary
Description	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 Means: using 1 OPEN Screen, 5 different END Screens, 8 different DELETE Screens etc. Max. 255 Screens per Entry possible

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

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

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

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

Filename	SPRITE ML
TYPE	PRG / necessary
Description	BBS Kernel File

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

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

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

Filename	SUBOP
TYPE	SEQ / optional
Description	Help File for Users with Subs Operator Access
Filename	SWIFT64 (obsolete ! Use nmi.ml instead !!)
TYPE	~~PRG / optional depending on used RS232 device~~
Description	~~BBS Kernel File Modem (Swiftlink)~~

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

Filename	TERM.PHONE
TYPE	SEQ / necessary when C/TERM is used
Description	Mini Term Phonebook

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

Filename	TEXT
TYPE	PRG / necessary
Description	BBS Textprompts File

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

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

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

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

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

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

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

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

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

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

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

Filename	WALL
TYPE	SEQ / optional
Description	PETSCII Graphics File (Logo) for Wall

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

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

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

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

Key	Action
F1	Increase Userlevel +1 / Timelimit +10 / Download Limit +100
F2	Decrease Userlevel -1 / Timelimit -10 / Download Limit -100
F3	Take User to Main Prompt
F4	Take User to Remote Mode
F5	Switch Area from left to right for F1 / F2
F6	Put User on hold / put him back to BBS. If the User is set "on hold" he cannot see what the SysOp is doing.
F7	Chat Mode ON / OFF
F8	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!):

Key	Action
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

Key	Action
R	Enter Remote Mode
/	View Callers Log

SUBS (**WITHOUT** Remote Access):

Command	Action
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
J	Join / Unjoin Sub

SUBS (**WITH** Remote Access):

Command	Action
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):

Command	Action
SB or ^ (Arrow up)	Goto Subs
> or +	Goto next Dir
< or -	Goto previous Dir
Q	Quit to Main Menu
=	Toggle Date / Time
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
I	Show Upload Index
C	Chat SysOp
*	Toggle Auto Dir
T	Toggle Transfer Protocol
R	???
?	View U/D Help Screen
Y	Your Status
L	List Dirs
#	Select Dir

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

Command	Action
?	View U/D Operator Help
A	???
!	Recreate Dir File (UD- x)
£	List Access Groups
£y	List Groups with read / write access
&	Regenereate 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:

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

Mail Menu:

Command	Action
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:

Command	Action
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
!	Recreate Namelog
Tx	Display Prompt Number x (good for testing!)
.x	Set Logical Unit Destination

Commands that can be used in Wait Screen:

Command	Action
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

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	

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	(double 65)	0
59	921		0
60	923		0
61	924	Number of Macros (Oneliners)	10
62	958	(Double 2)	155
63	883	Logical Unit for U/D Protocols	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;0:;i0:

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, # of Mail files, Users in Userlog, max. Users possible, Amount of Msgs per Packet, Amount of Subs, Amount of Dirs
4	8 ;0:;io:	Device, Drive, Init of Main BBS
5	9 ;0:;io:	Device, Drive, Init of Subs
6	10 ;0:;io:	Device, Drive, Init of E-Mail Storage
7	*11 ;0:;io:*	*Device, Drive, Init of Libraries (n/a -> legacy)*
8	*12 ;0:;io:*	*Device, Drive, Init of Modules (n/a -> legacy)*
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 ;0:;io:	Dir #1 Device, Drive, Init
14	8 ;0:;io:	Dir #2 Device, Drive, Init
15	8 ;0:;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	Endmark

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 !**

Prompt	Function
1	*NEW* X Columns Mode (x=40 or 80)
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
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	-
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 "." 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? (Voter)
73	Entering ux-Mode
74	Header Message in Subs
75	Up- or Download Multiple ?
76	Quiet toggled
77	*NEW* View Directory
78	Directory Time / Date activated
79	Password in Usereditor Remote
80	- Old: Change Password **REMOVED** !!! Now unused !
81	*NEW* Cursor Menu on? (in Application)
82	Cursor Menu ON / OFF
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	-

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
1 – real Name
2 – Access Group
3 – Location
4 – Phone Number
5 – Computer
6 – Birthday
7 – Date of last Call
8 – Password
9 – Boolean 16Bit *1
10 – Amount of Mails left on System

11 – Messages posted
12 – 39 / 79 Columns
13 – Last Call Number
14 – Blocks uploaded
15 – Blocks downloaded
16 – Subs AG Codes *2
17 – Joined Sub-Bits *3
18 – Amount of Files Downloaded
19 – Amount of Files uploaded
20 – Pause mode (n/a on Cyborg Mod)
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)
Bit 3: DIR Time / Date Setting 1 / 0 ("=" in U/D Area)
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 udop and subop commands

2 – access to DOS Commands in remote and ud

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

8 – access to exchange mode in uds

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 in already. As a 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.

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.

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.

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

NOT RECOMMENDED :

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

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

36in1 Kernel is reported not to work with C*BASE !

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, Retro 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

THANK YOU !

Special thanks must go to the following Persons for their support, to make this package possible:

Commodore Business Machines for their great Hardware, that bring us joy since our childhood.

Gunther Birznieks for coding C*BASE, one of the best, if not THE BEST, BBS Program ever done for the C64.

Cyborg for his great Mod of C*BASE 3.1, which is the Starting Point for this Version

L.A. Style /G*P, pcollins / Excess for Feature Wishlists, support and testing and testing and testing....

Special Thanks to pcollins for Hardware donation, which makes further development possible !

Taper / TRIAD for giving the initial Idea of creating a Document like this

David Weinehall (TAO) for releasing the Source of his C*BASE as Freeware under the GNU GPL V2 and for his detailed Documentation of TAO Mod, which gave me the final reason, to do so for the Holy Moses Mod (maybe not as detailed as he did, but at least good enough for you to be useful).

Our wifes Sabine and Diane for letting us do what we do for hours and days with our 8-Bit Hobby

Mirkosoft for selling me his SuperCPU 128, which helped me a lot with compiling and Disk speedup on my C128DCR

Alwyz / UDI for providing me C*BASE Games and Doors, for future projects

Jens Schönfeld / Individual Computers for developing new C64 Hardware which gives me a safe feeling running a BBS 24 / 7 on real Hardware !

The C64 Scene People that still support the Sixtyfour with their activity, Software Releases, new fantastic Hardware, knowledge, Partys and competition.

Holy Moses / R.O.L.E. for bringing C*BASE 3.1 to a whole new level

Larry / R.O.L.E. (me, myself and I) for testing, additional modding of BBS Files, this Document, compiling the Release Pack and running this fine piece of Software 24 / 7 as World HQ (and Crashtest dummy 😊) for Raiders of the lost Empire

LEGAL STUFF