

# Installing Image BBS 3.0 in Vice

## Preface:

A little background into this file, and why it has been written. Back in December of 2018 I created what I called the BBS on a Stick for Image BBS 2.0. I tested the files on a number of different computers. Everything tested fine and worked perfectly. The one thing missed was every computer I tested it on never had a copy of WinVice ever installed on it. This turned out to be a problem for some who had already installed WinVice and played with it. Their systems had remnants of the config files and for some reason their system would not read the config file I had included in the file package. Thus, every time they would try to boot the BBS from the runme.bat file it wouldn't find the files on the disks. The only way around it was to delete a file hidden deep in the Windows User directory, then once that was done, they would have to load then save the config file I included. A lot of work for something that should have just been a couple of clicks and done. When we released Image v3.0, I was not going to update the BBS on a stick, but had a change of heart right before Christmas, I updated it for 3.0 and changed how it loaded the config file and how it handled the loading of the files from the PC. Once again, I tested it on numerous different computers, and it worked perfect. In fact, it worked great on computers which already had Vice installed on it! Recently though, some have had issues getting it running so on 3/12/2021 I decided to pull it from downloads and write this documentation to help YOU the new SysOp create your own BBS on a stick OR just install Image with Vice and take advantage of the great software that was written by many different people.

A little about me. I have been a BBS SysOp since 1986, I ran C-Net C64 software from 1986 till 1988 when I made the move over to Image BBS. In 1989 along with Bruce Hammond took over NISSA (New Image SysOp Support Association) I have released more Image files then I even remember! In 1992 I started negotiating a deal which would bring Image v2.0 over to the hands of NISSA and myself and a few choice programmers would finish the software and get it into SysOp's hands instead of sitting on a HD in Michigan. The deal fell through. In 1993 after 8 years running a BBS I was burnt out, and not very happy with the state of Commodore and Commodore BBS' I gave full control of the NISSA Network to my partner and Co-Leader of NISSA Larry Hedman and took my board down. I got the bug again about 6 months later and decided not to run Image again only because I wanted to run something different and ran an Amiga BBS called Excelsior! I ran that for about 2 years and moved over to Windows 95 and the brand-new WildCat! 5. After about a year Fred Dart contacted me and asked if I wanted to help finish v2.0. I jumped at it and took down the WC5 board and went full tilt into programming the v2.0 of Image. After about 6 months of nonstop programming my LT Kernal Hard Drive went bad and I just didn't have the heart anymore to continue being a SysOp. I gave it up. Fast forward to 2015 I was moving to a new home and sent Larry Hedman my backup disks of my BBS' which included v2.0, he took that software and cultivated it over the next 3 years into a full working BBS which was released in 2018 to the public. In May of 2018 I got the bug to start a BBS again and chose a PC BBS (Mystic BBS) over the next 4 months I started a C-Net Amiga BBS and another PC BBS (SynchroNet). During this time, I kept reading how no one could get Image BBS to run in Vice, it wouldn't answer and if it did, it would immediately

hang up. If it answered and it stayed connected it wouldn't disconnect. I decided I would sit down one Saturday night and troubleshoot it and see what I could do. 2 Hours later, The Wrong Number V BBS running Image BBS v2.0 was running in Vice solidly! 2 Months later I released Image BBS v2.0 on a Stick and that is why this documentation is being written, to help you the new SysOp or the seasoned pro get a BBS running in Vice with no issues. So, let's start diving in and getting your BBS running!

# Chapter 1: Getting all of the Prerequisites needed

Ok we all should be running on Windows software, as much as I want to include Linux in this documentation, I am going to hold off on that for now. In the future I may write up a Linux setup or add it to this file. Ok let's get the files going.

We're going to need the latest release copy of WinVice. This can be downloaded from:

<https://vice-emu.sourceforge.io/>

Download the latest release version. As of the time of this writing that was v3.5

You will also need either TCPSER or BBS Server, TCPSER is available at:

<https://github.com/go4retro/tcpser>

The Latest version as of this writing is v1.1.4

You will need Cygwin.dll also for TCPSER to work properly that can be found at

<https://sourceforge.net/projects/cygwin1-dll/>

BBS Server can be gotten from:

<https://github.com/LeifBloomquist/BBServer>

The latest version is 1.4a.

Couple of notes about TCPSER and BBS Server, TCPSER is all in one and works well with Vice. In fact, if you are not going to be joining the NISSA Network, I recommend you use TCPSER, TCPSER will work with the NISSA Network but it is not fool proof. BBS Server will need other files to run with Vice. You can run BBS Server 2 different ways; you can use a special null modem cable between 2 PC's with BBS Server or you can use a program like Virtual Serial Port Emulation (VSPE) to create virtual com ports and a TCP Server to connect Vice to a Virtual Com Port. I will not be including docs on how to set up a null modem cable setup between 2 PC's but I will include instructions on using VSPE and BBS Server. Here is the link for VSPE. A word of caution this is a pay program if you use Windows 64-bit versions. Buy it if you are going to use it.

<http://www.eterlogic.com/Products.VSPE.html>

Now the following files are pay files. If you intend to run your BBS with the fastest available Emulated C64 setup you will need to buy a few items from Jim Brain. If you want to run a CMD SCPU/RamLink/HD setup like I do, you will need to purchase the ROM's for these items from Jim. If you want speed and super-fast BBS this is the way to go. If you intend on doing a lot of programming and super-fast speed is not needed then run a Emulated Lt Kernal HD setup. Which is built into Vice. You just need to download the cartridge for it, from the following Link:

<https://sourceforge.net/p/vice-emu/patches/242/?limit=25&page=1>

The file is in a response from Roberto Muscedere who is the writer of the HD emulations. The name of the file is ltk-testfiles.zip

To purchase the CMD Roms you can get them from Jim Brain at the following Link:

<http://store.go4retro.com/categories/Commodore/Firmware/>

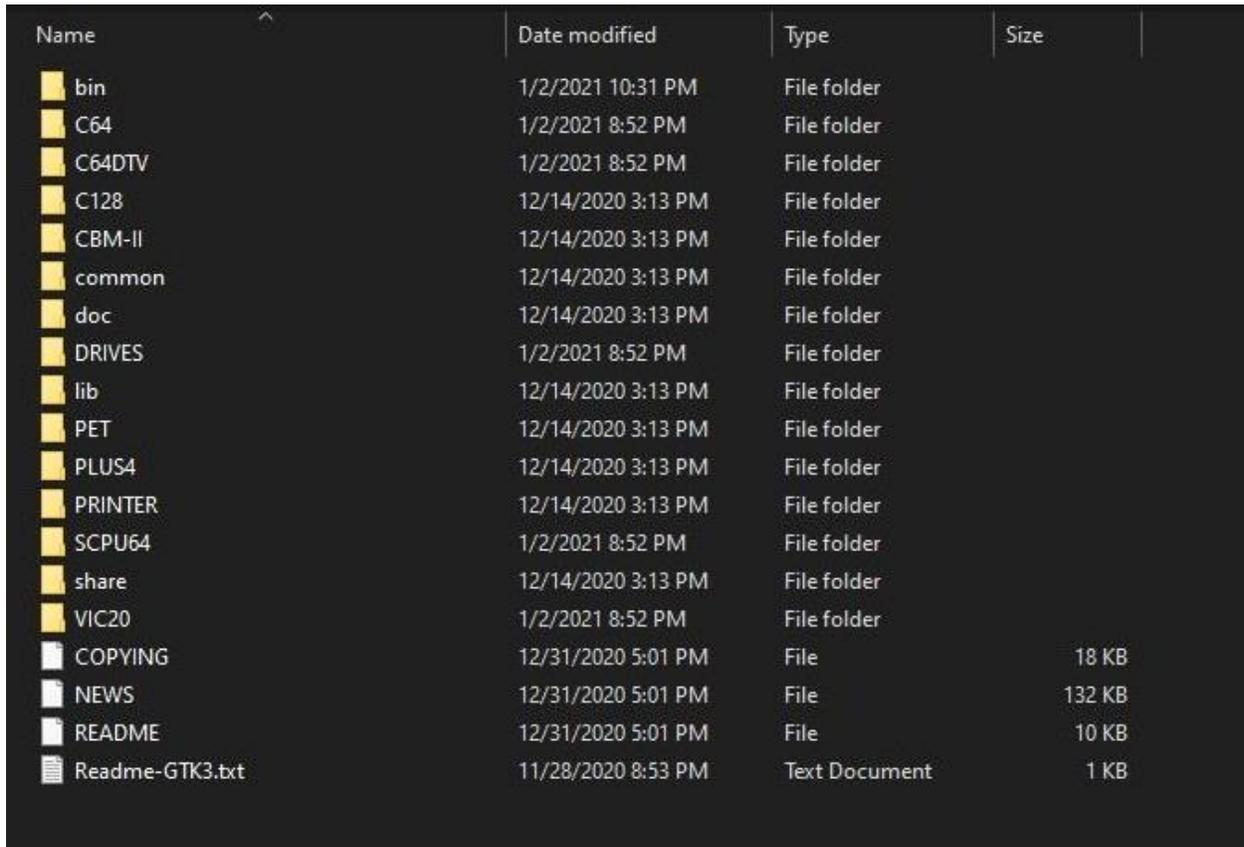
They are really not that expensive, \$8-\$20 max for each ROM. You would need the SCPU Rom, CMD HD BootRom, optional CMD FD4000 Rom so you can run FD4000 disks also. The Ramlink cartridge can be gotten with WinVice software. The RamLink cartridge is NOT needed as the BBS will run fine on the SCPU and HD Roms. A side note about Jim Brain, this man when everyone else was giving up on Commodore he stayed with it and has continued to support the Commodore world with his hardware and software for years! Buy the ROMS, you are supporting him and keeping him creating new hardware and writing new software for the Commodore computers.

That is about all the software you will need. In the next chapters I will explain how to install each piece of software.

## Chapter 2: Installing and setting up all files in Windows

### WINVICE: Install and Setup

Ok let's start with WinVice first, first unzip the file and create a folder on your C:\ Drive called Vice, copy the files you unzip into this directory. Once copied it should look like the following:



Name	Date modified	Type	Size
bin	1/2/2021 10:31 PM	File folder	
C64	1/2/2021 8:52 PM	File folder	
C64DTV	1/2/2021 8:52 PM	File folder	
C128	12/14/2020 3:13 PM	File folder	
CBM-II	12/14/2020 3:13 PM	File folder	
common	12/14/2020 3:13 PM	File folder	
doc	12/14/2020 3:13 PM	File folder	
DRIVES	1/2/2021 8:52 PM	File folder	
lib	12/14/2020 3:13 PM	File folder	
PET	12/14/2020 3:13 PM	File folder	
PLUS4	12/14/2020 3:13 PM	File folder	
PRINTER	12/14/2020 3:13 PM	File folder	
SCPU64	1/2/2021 8:52 PM	File folder	
share	12/14/2020 3:13 PM	File folder	
VIC20	1/2/2021 8:52 PM	File folder	
COPYING	12/31/2020 5:01 PM	File	18 KB
NEWS	12/31/2020 5:01 PM	File	132 KB
README	12/31/2020 5:01 PM	File	10 KB
Readme-GTK3.txt	11/28/2020 8:53 PM	Text Document	1 KB

Pretty straight forward. The next item on the list is create a folder called WinVice and add the following directories to it.

DiskImages – This directory will hold ALL disks whether they are Hard Drive or Floppy Images.

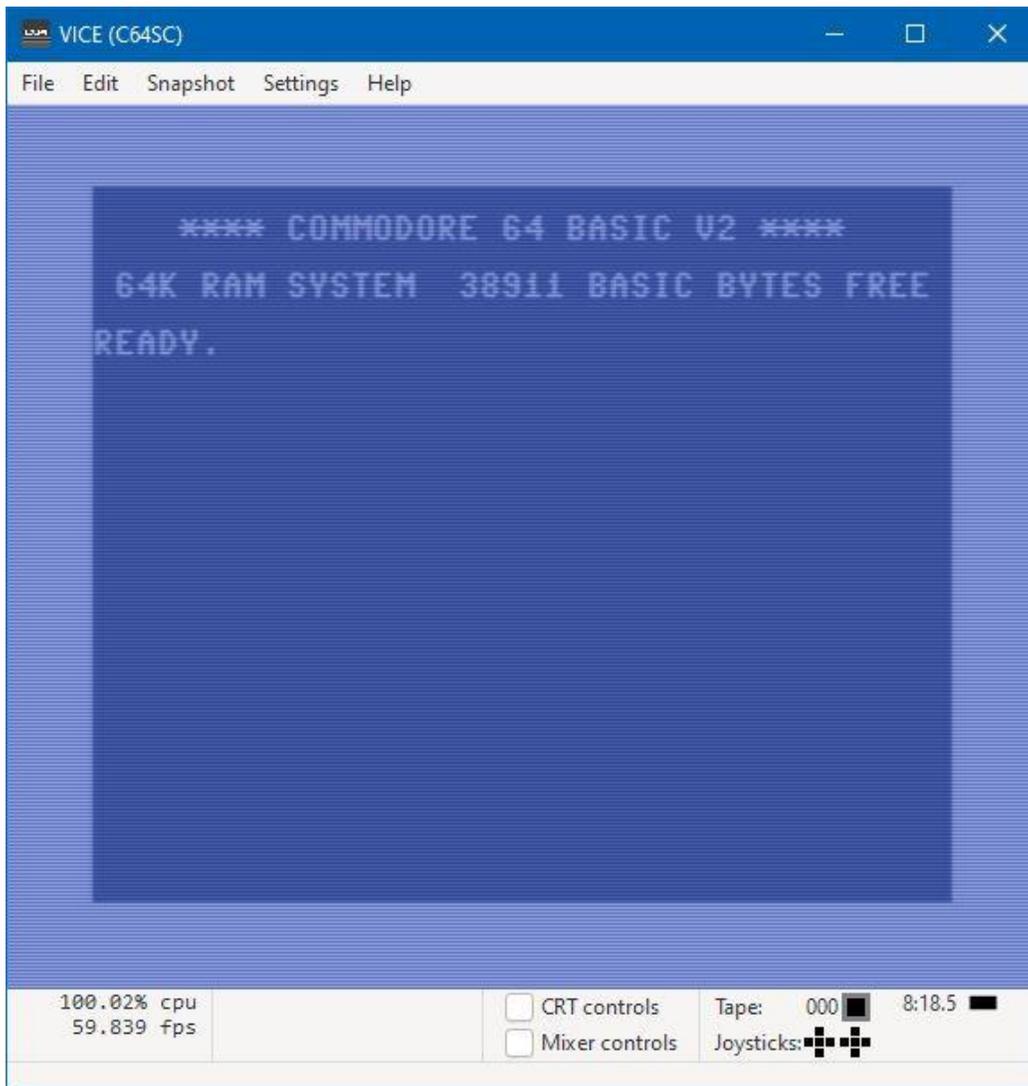
Bin – This directory will hold the ROM's and any Bin files created for Vice

Configs – This directory will hold your config file for Vice.

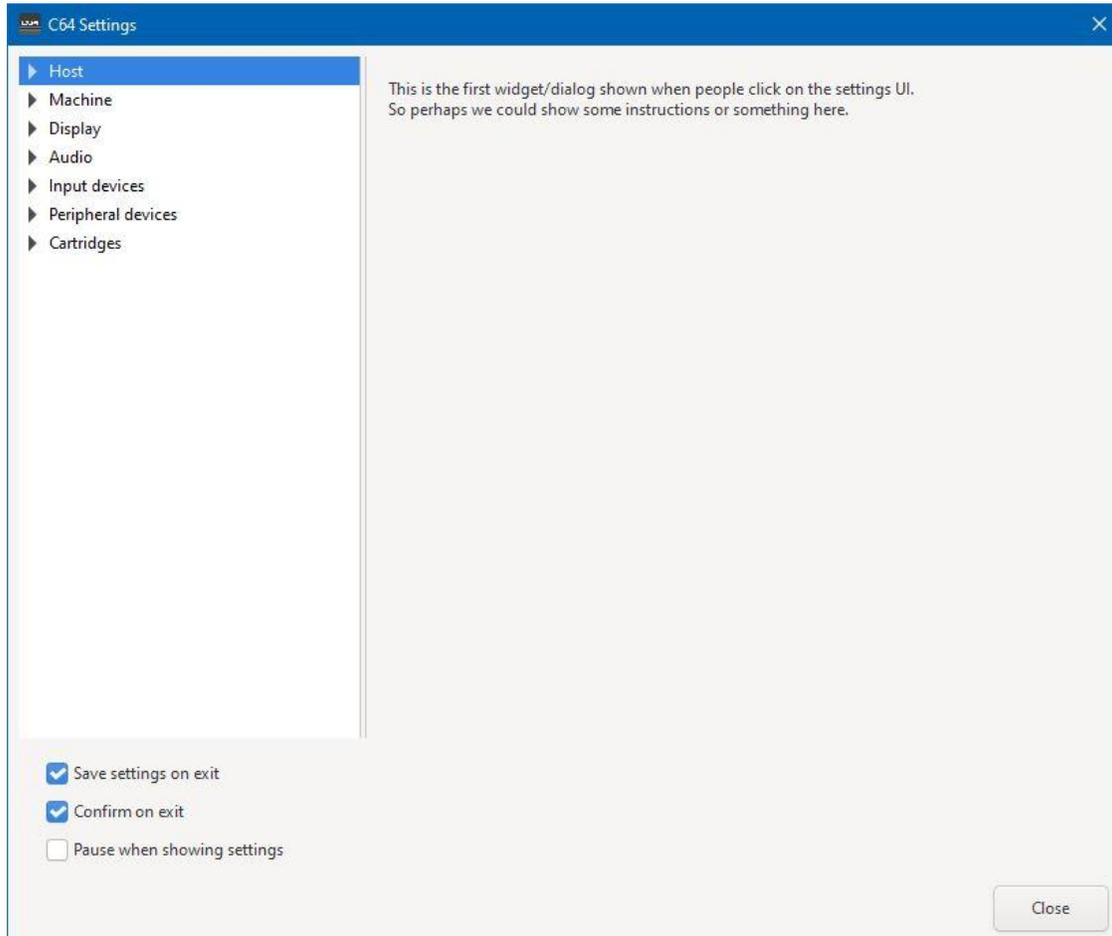
Running WinVice:

- 1) Copy all of the BIN / ROM files to C:\WinVice\Bin
- 2) Open a CMD prompt
- 3) For SCPU mode: Type xscpu64 for regular C64 mode: type x64sc

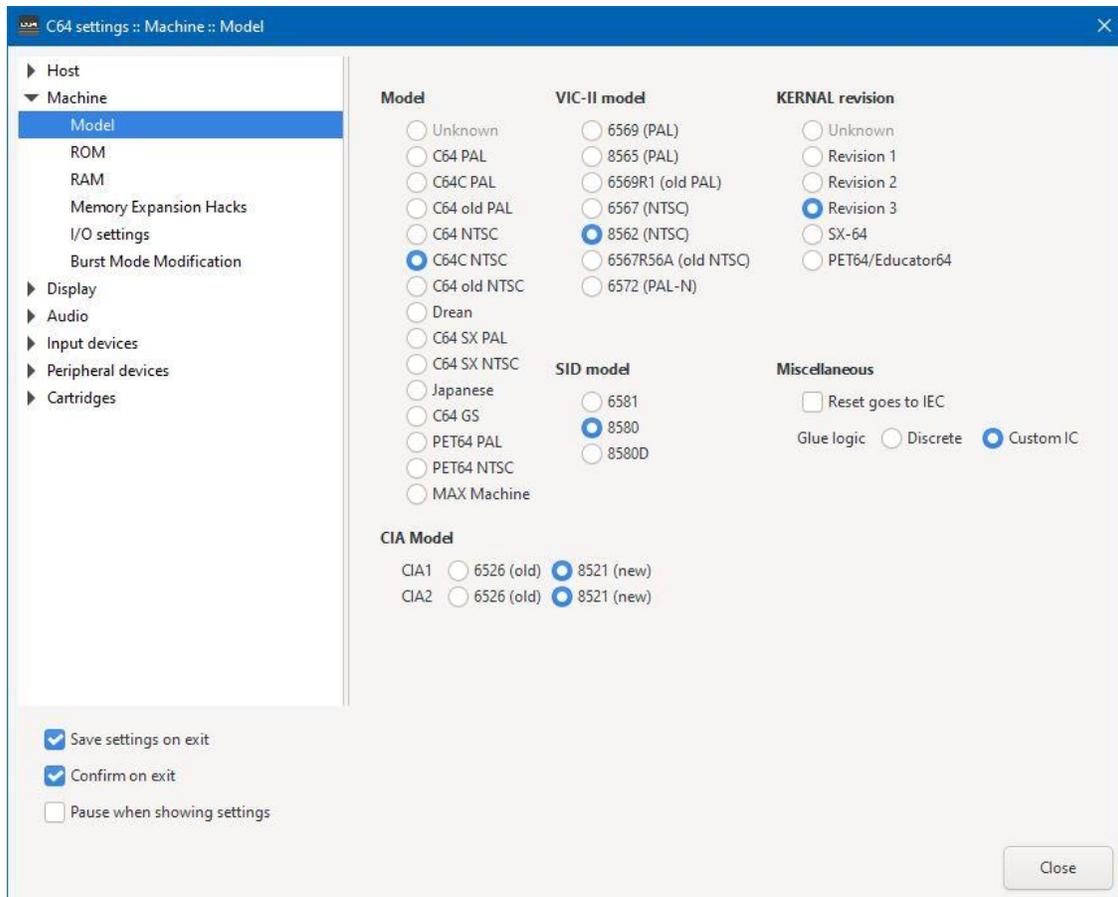
4) WinVice should boot to a familiar C64 Screen



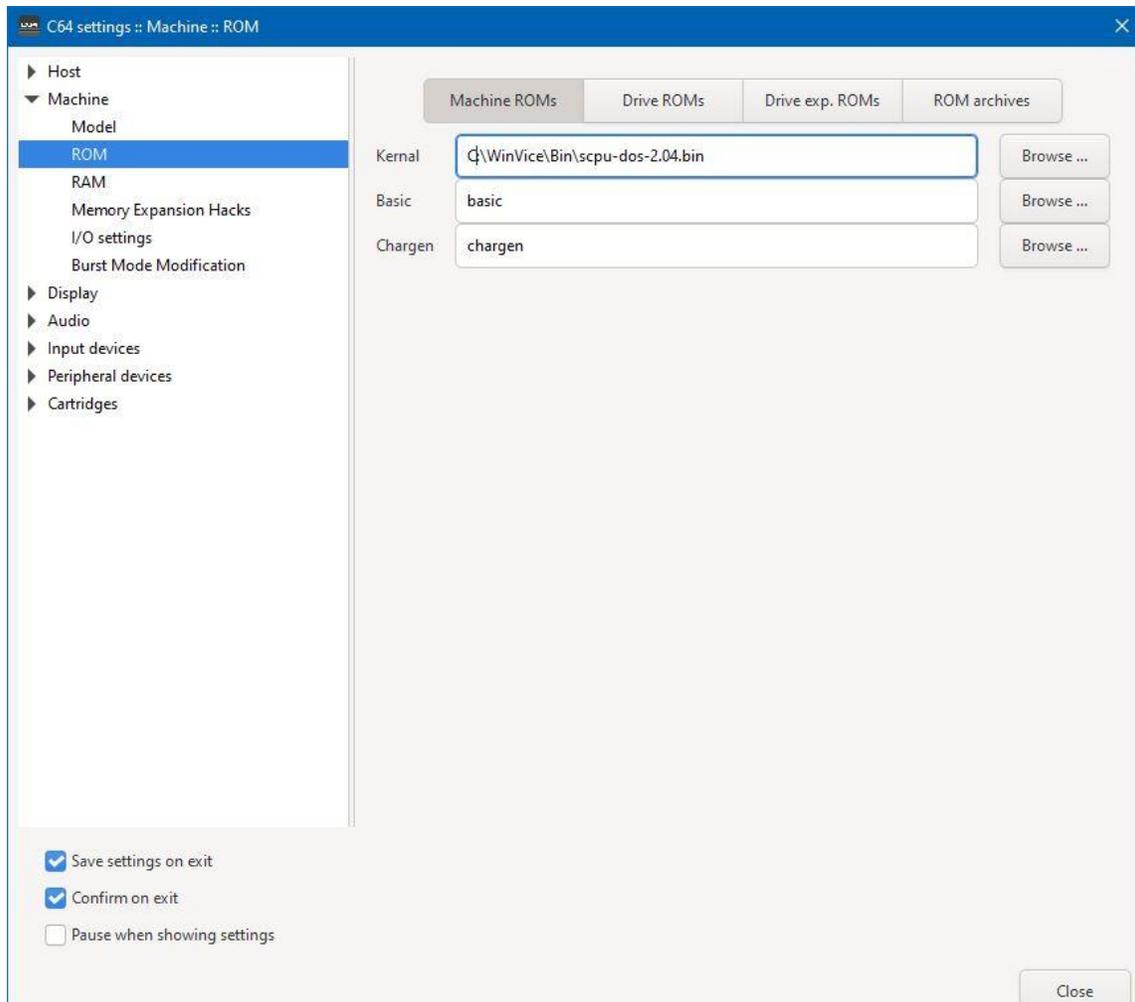
5) At this point we want to configure WinVice to how we want the C64 to be setup. Click Settings and come down to Settings



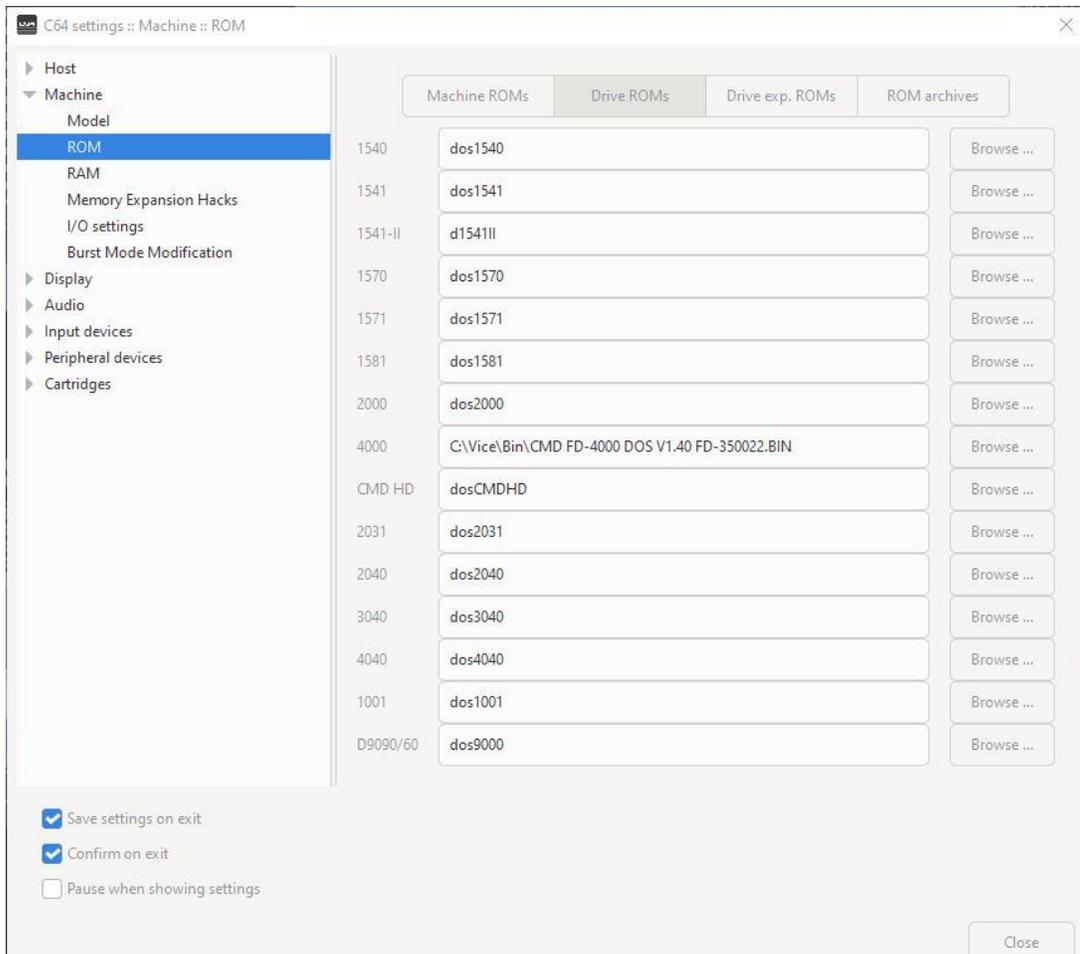
Make sure Save settings on exit is check marked and choose Machine, in this section we will setup a SCPU C64 on the next screen choose Model and choose all of the options in the next screen:



The next step is to choose ROM and install your SCPU Rom there as laid out in the next picture



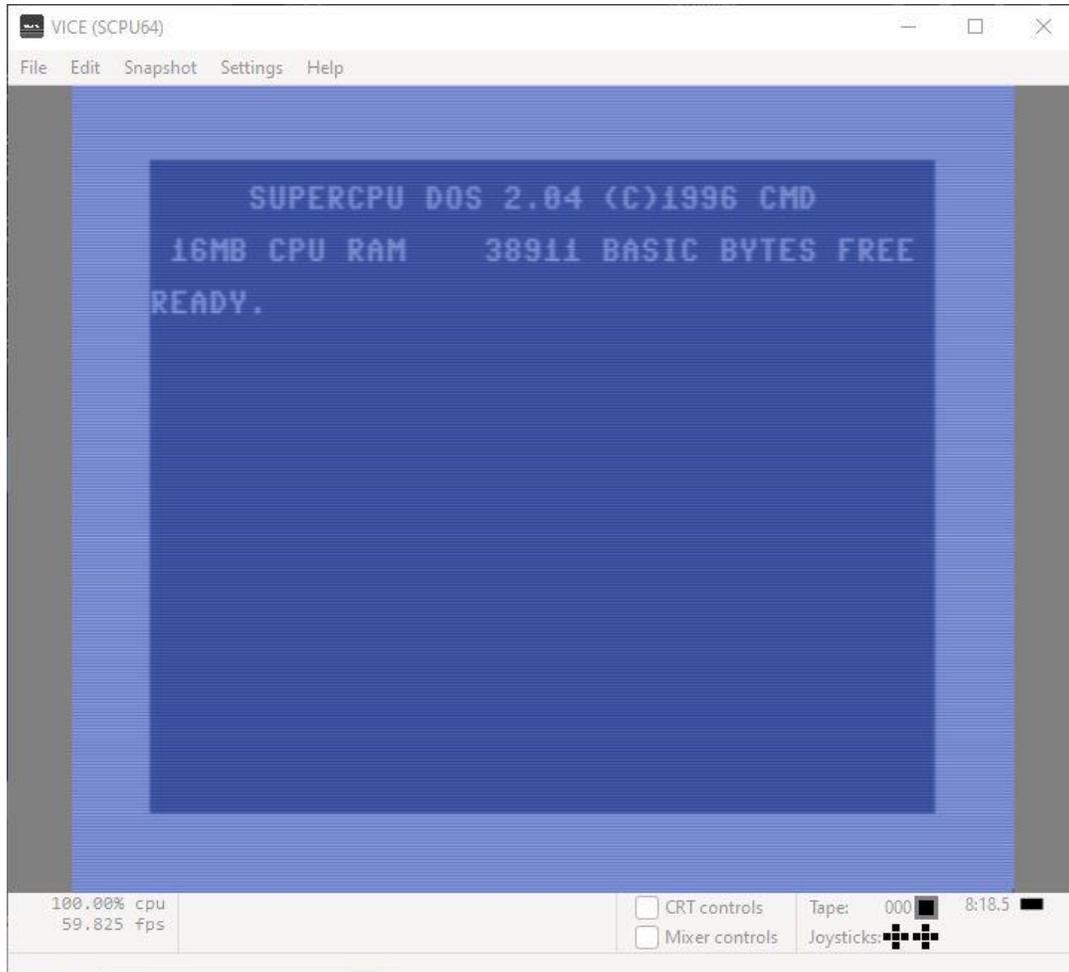
We're going to use 1581 Floppy Disks on this setup. If you want to install a CMD Hard Drive then you would install the ROM in the CMD HD entry of the following picture, as you can see, I have only installed the FD4000 ROM for this setup.



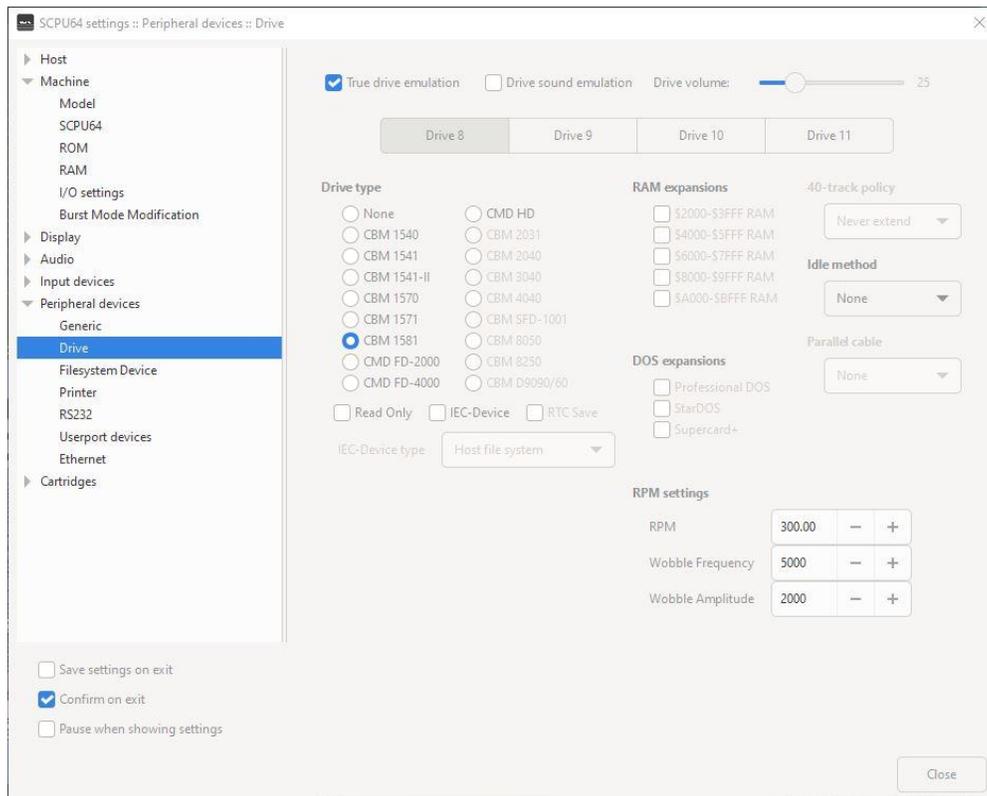
Ok all the ROMS/BINS are installed now.

6) Reboot WinVice, you can X out of it and type xscpu64 again at the Command Prompt or just hit ALT-F12 key combination and it will reboot.

At this point you should see the following C64 Screen:



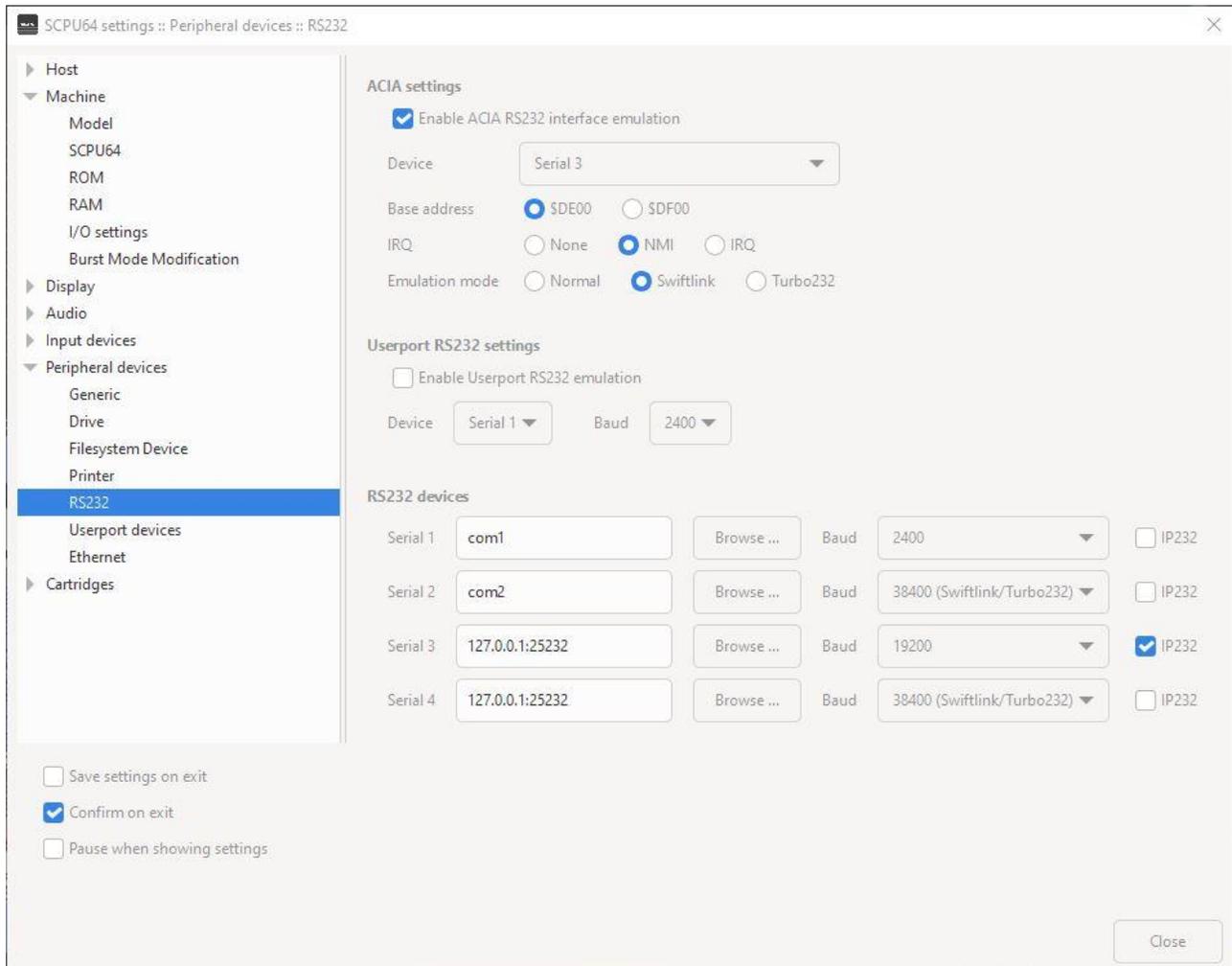
7) We are going to go back into Settings and Choose Peripheral Devices Choose Drive then click Drive 8



We're going to choose CBM 1581 and also click Drive 9 and do the same thing. What this will do is give us 2 1581 drives hooked up to our SCPU equipped C64

Pretty simple stuff, right? Let's setup the RS232 connection

8) Choose RS232 under Peripheral Devices and set up the settings as I have shown in the following Picture:



What this sets up is a Swiftlink running at 19.2k make a note of the option settings for Serial 3 127.0.0.1:25232 is going to be important when we setup TCPSEr or BBS Server

9) Last item, close out of the settings boxes and go back to the C64 blue screen and click Settings then Save settings to. At this point a box will pop choose your C:\ Drive from the left pane, then choose WinVice\Configs and save the file as config.ini

That is all to setup WinVice! You can now reboot and you will have a fully working SCPU Equipped C64 with 2 1581 floppy drives and a Swiftlink to handle modem speeds up to 38.4k. Moving on to setting up TCPSEr.

# TCPSER: Install and Setup

## Chapter 3: Installing TCPSER In Windows

Installing TCPSER in Windows is very simple. All you really need to do is download the file from Jim Brain's GitHub take the tcpser.exe out of the zip file and toss it into a folder called TCPSER or whatever you want to name it.

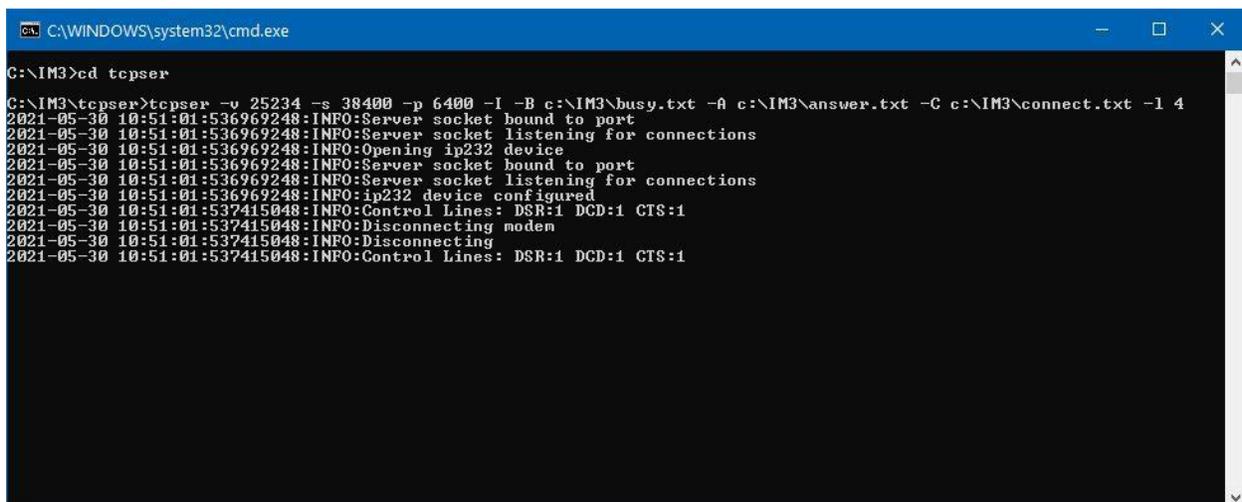
Setting up TCPSER is just as simple. Here is a picture of my startup bat file I use to boot TCPSER, I won't go into what every switch mean, you can type TCPSER from a command prompt and it will explain every switch.

```
cd tcpser
```

```
tcpser -v 25234 -s 38400 -p 6400 -I -B c:\IM3\busy.txt -A c:\IM3\answer.txt -C c:\IM3\connect.txt -l 4
```

The busy.txt, answer.txt, and connect.txt is optional and they are just text files that will show to the user upon a connection, busy signal, and answer.

Upon typing this out or creating a .bat file it will load TCPSER. If you get the loaded screen which should look like this:



```
C:\WINDOWS\system32\cmd.exe
C:\IM3>cd tcpser
C:\IM3\tcpser>tcpser -v 25234 -s 38400 -p 6400 -I -B c:\IM3\busy.txt -A c:\IM3\answer.txt -C c:\IM3\connect.txt -l 4
2021-05-30 10:51:01:536969248:INFO:Server socket bound to port
2021-05-30 10:51:01:536969248:INFO:Server socket listening for connections
2021-05-30 10:51:01:536969248:INFO:Opening ip232 device
2021-05-30 10:51:01:536969248:INFO:Server socket bound to port
2021-05-30 10:51:01:536969248:INFO:Server socket listening for connections
2021-05-30 10:51:01:536969248:INFO:ip232 device configured
2021-05-30 10:51:01:537415048:INFO:Control Lines: DSR:1 DCD:1 CTS:1
2021-05-30 10:51:01:537415048:INFO:Disconnecting modem
2021-05-30 10:51:01:537415048:INFO:Disconnecting
2021-05-30 10:51:01:537415048:INFO:Control Lines: DSR:1 DCD:1 CTS:1
```

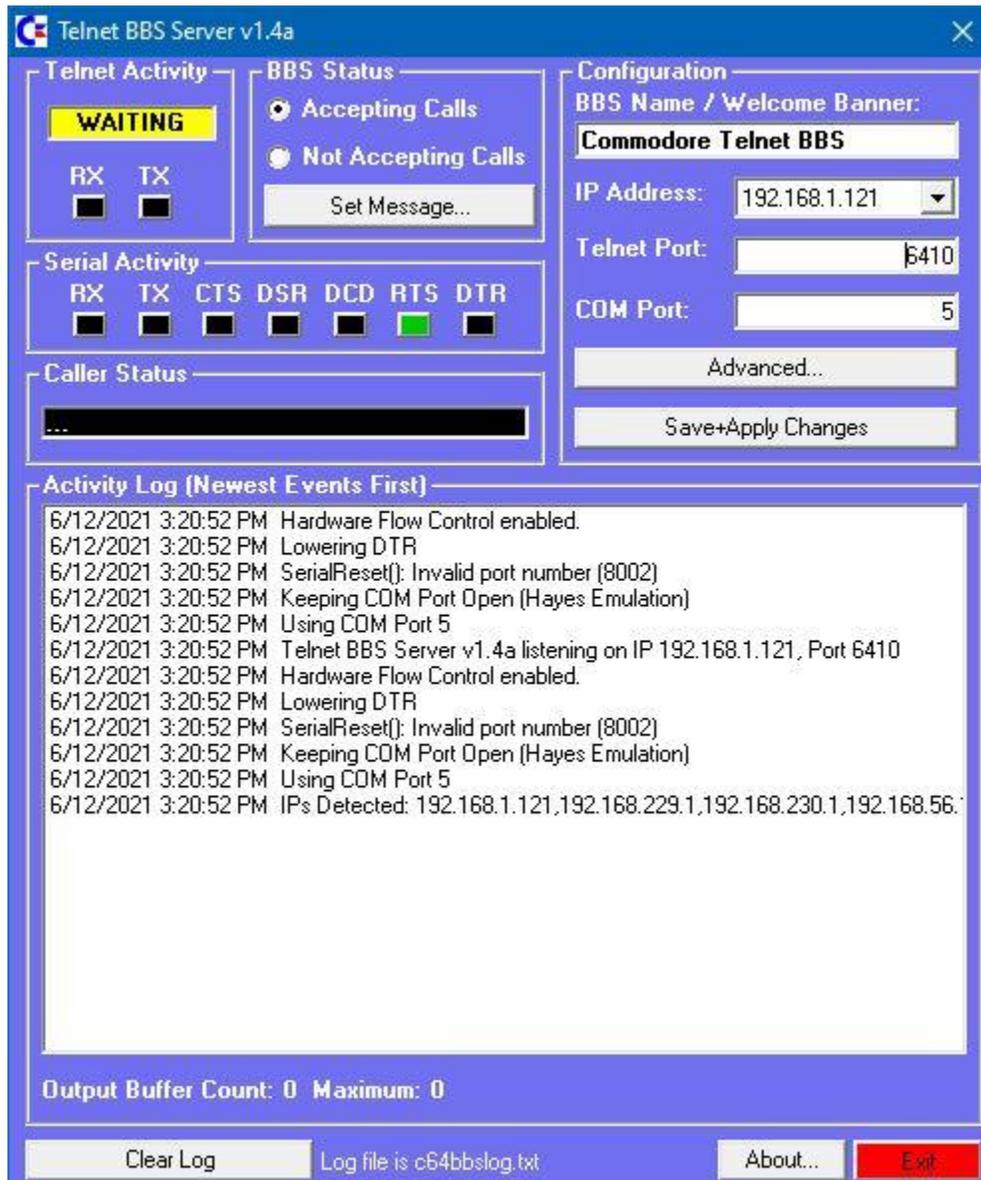
You are all setup and ready to move on to booting Vice. In my opinion TCPSER works best with Vice 3.5 allowing full Data Carrier Detect and DTR something previous versions of Vice did not support.

# BBS Server v1.4a: Install and Setup

## Chapter 4: Installing BBS Server v1.4a In Windows

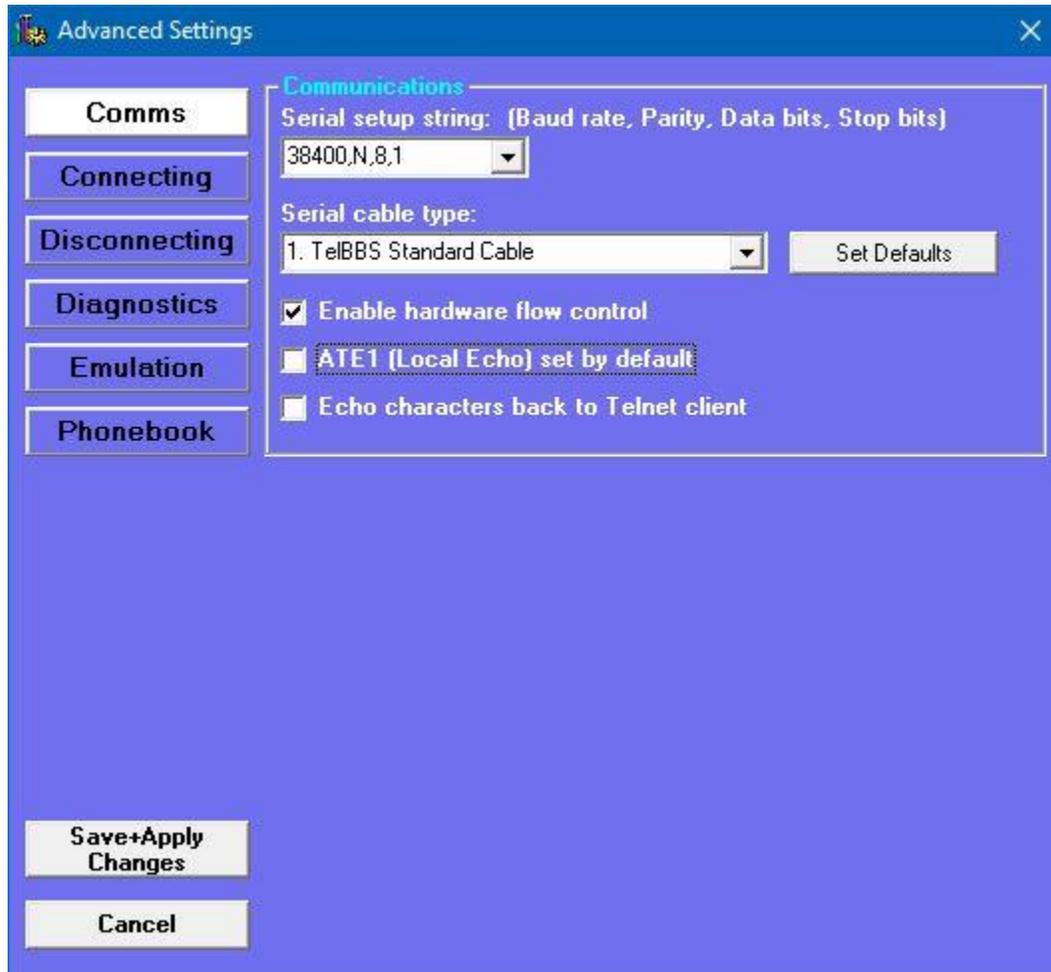
BBS Server is extremely easy to install, setup though is a bit on the tougher side. Once downloaded just install it with the install file included in the downloaded package. First time running it you MUST start it in Administrator mode. It will create a couple of files to allow it to be run normally from that point on. Create a Shortcut on your desktop to make it easier to boot in the future.

After installation is complete, it is time to setup the main program.



The above picture is just an idea of what it looks like when booted the information is not valid.

The next pictures will show how it should be configured without comments. Set up BBS Server with the following settings and then we will move on to VSPE.



Advanced Settings

Comms

**Connecting**

Disconnecting

Diagnostics

Emulation

Phonebook

**Connecting**

**Incoming Connections**

- Raise RTS when caller connects
- Raise DTR when caller connects
- Wait for BBS to send ATA before completing connection
- Send "RING" To BBS when Telnet caller connects
- Ask caller for ASCII/PETSCII and use this translation file:

**Outbound Connections**

- Raise RTS on outbound connection
- Raise DTR on outbound connection

Save+Apply Changes

Cancel

Advanced Settings

Comms

Connecting

**Disconnecting**

Diagnostics

Emulation

Phonebook

Save+Apply Changes

Cancel

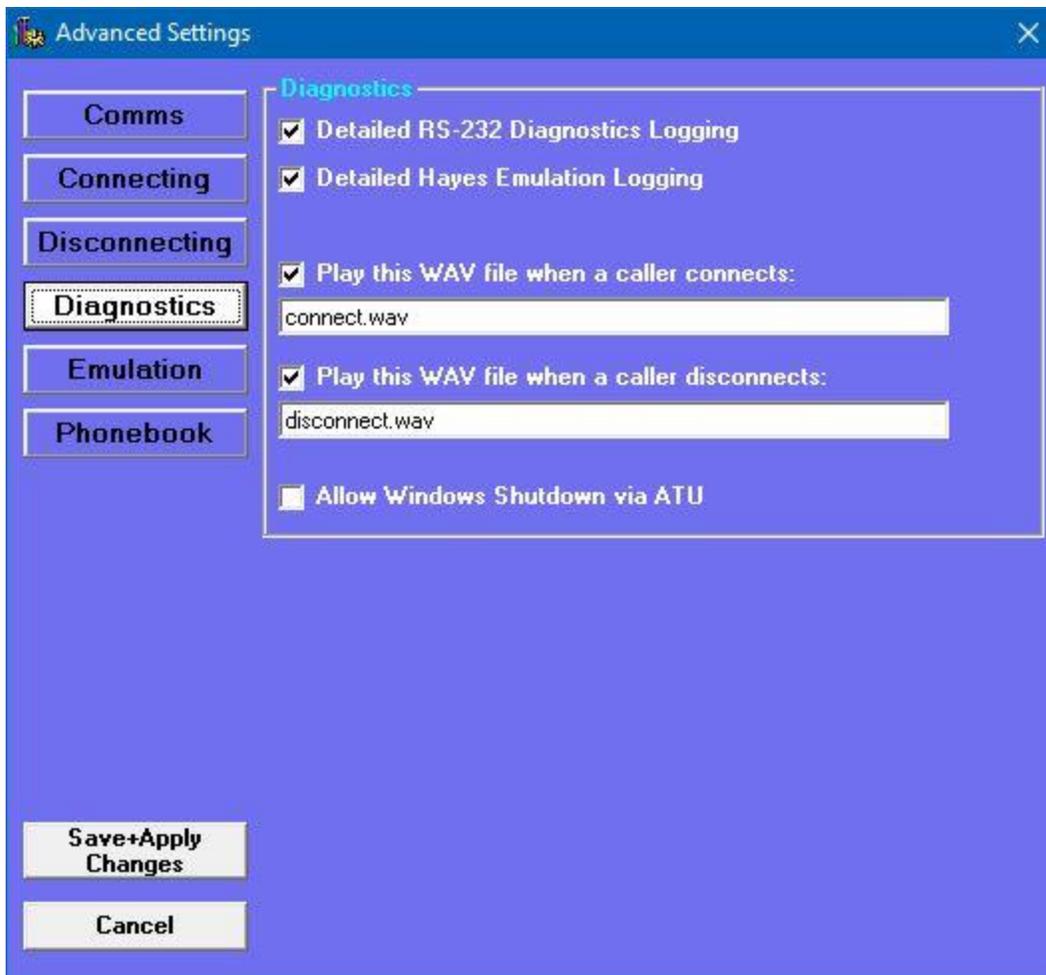
**Disconnecting**

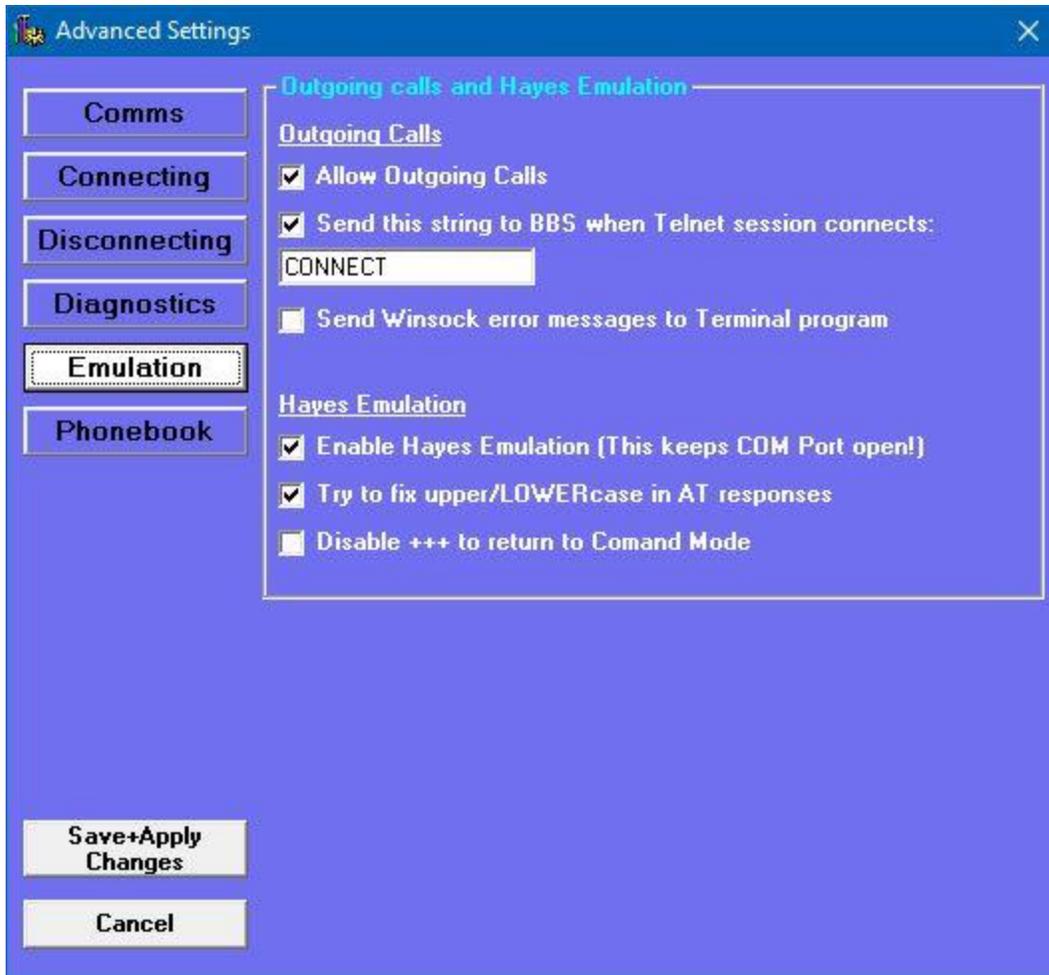
**Disconnection Detection**

- Disconnect if BBS drops DCD
- Disconnect if BBS drops DSR
- Disconnect if BBS sends <pause>+++ATH<enter>
- Disconnect if BBS sends RS-232 break
- Auto-disconnect after this many minutes online
- Auto-disconnect after this many minutes idle

**Disconnection Actions**

- Send CHR\$(3) (CTRL-C) to BBS on disconnect
- Send "NO CARRIER" To BBS on disconnect
- Lower RTS when caller disconnects
- Lower DTR when caller disconnects
- Re-Enable DTR after this many seconds
- Re-Enable RTS after this many seconds
- Stay Off-Hook for this many seconds



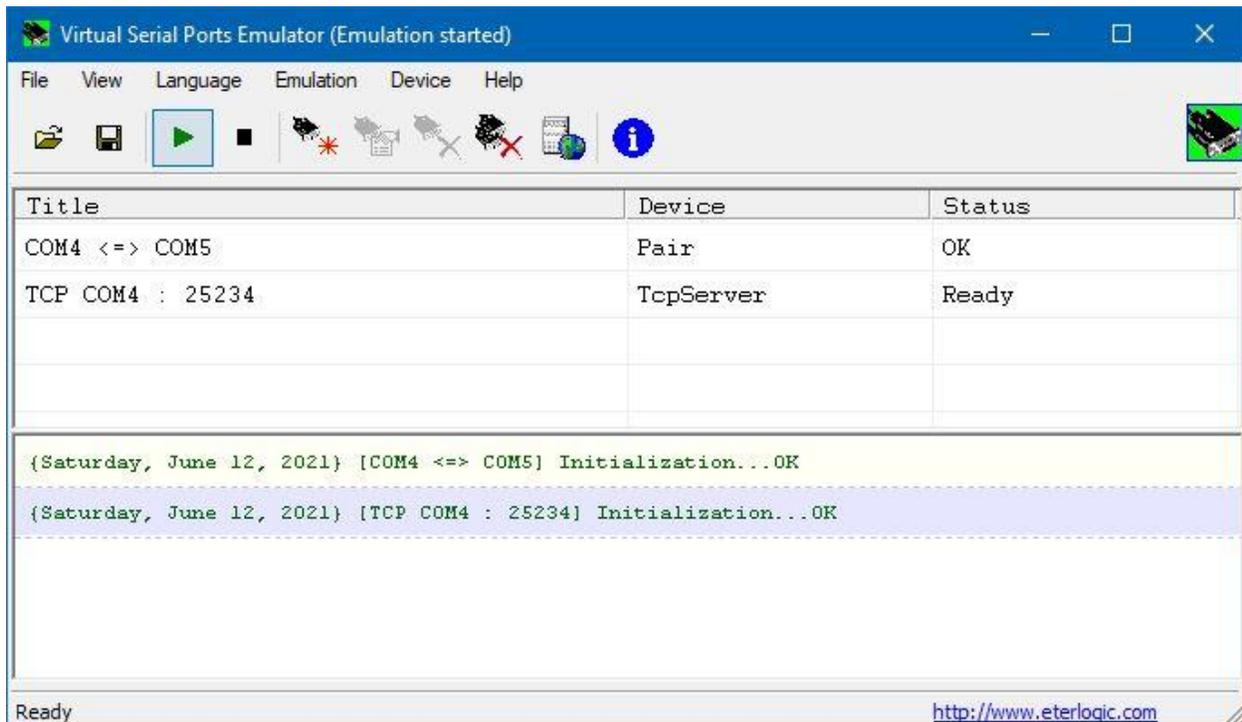


That is pretty much all there is to setting up BBS Server, the Com Port setting will have to be changed to the setting we choose in VSPE in the next chapter. Once configured click save apply and BBS Server is setup.

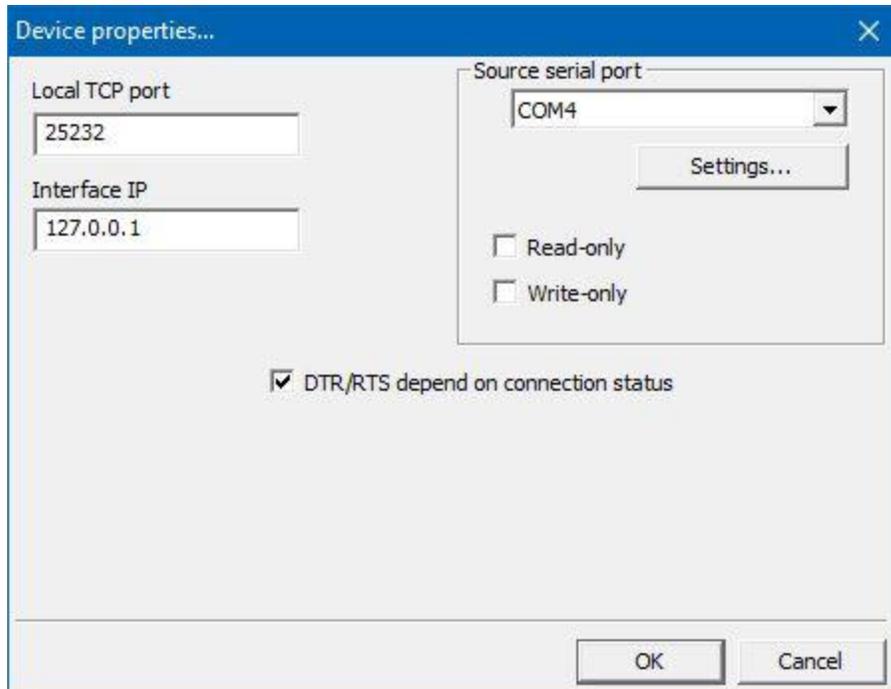
# VSPE: Install and Setup

## Chapter 5: Installing VSPE In Windows

One note before we start with this chapter, VSPE (Virtual Serial Port Emulator) by Eterlogic is a Pay program for 64-bit versions of Windows, but free for 32-bit versions. When I ran it, I ran a 32-bit version of Windows 10 as I only had 4gigs of RAM on the machine and I didn't need the 64-bit version, so I never purchased it. I will say though if you are going to run it in a Windows 64-bit environment buy it, this way they will keep up programming on it, and maybe write the modifications I have asked for (being able to disconnect the Pin 6 on the Emulated Null Cable, as to be able to take advantage of the DCD that Vice and Image needs to properly detect carrier). I am going to do the same thing as I did in the last chapter and just show pictures as it makes it easier then trying to explain each setting.



**Note:** This is what my main screen looks like, I have 2 items, I have a pair of Com Ports 4 and 5 Connected together, and a TCP Server on Com Port 4 with the local TCP Port set to 25232. Remember when we set up Vice? We chose 25232 as the Serial IP. Here is where that is setup.



As I said in Vice we set Serial Port 3 to 127.0.0.1:25232, this is where it connects...

Now set up your pair of Com ports I chose 4 and 5. Once your main screen is populated with your pair of com ports and TCPServer you can then save your settings to a file name of your choice. I save it to a folder then create a shortcut on my desktop to the config file.

# Putting It All Together

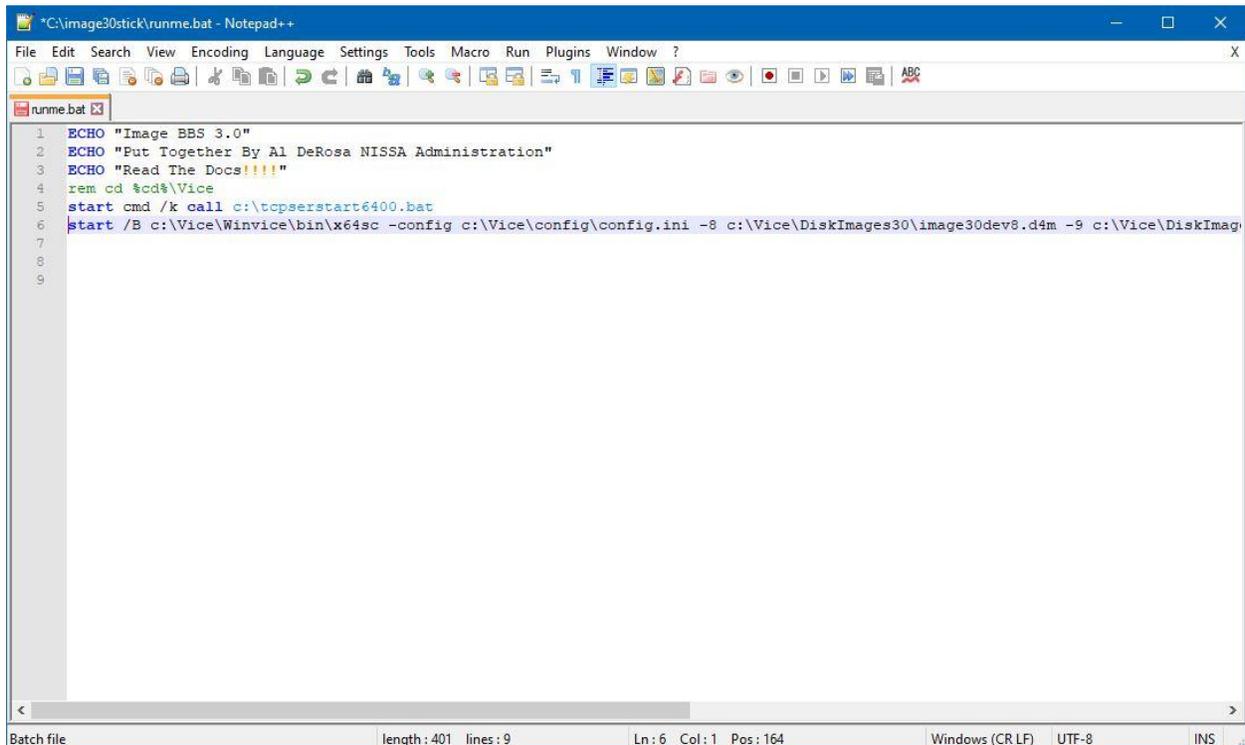
## Chapter 6: Finalizing Everything

At this point everything should be configured and ready to go. The following is how I boot into Vice with first TCPSER, then BBS Server.

### TCPSER:

I have written a .bat file which does all the work for me. I just double click a shortcut to the .bat file and everything boots up automatically.

This is my startup .bat file:



```
*C:\image30stick\runme.bat - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
runme.bat x3
1 ECHO "Image BBS 3.0"
2 ECHO "Put Together By Al DeRosa NISSA Administration"
3 ECHO "Read The Docs!!!!"
4 rem cd %cd%\Vice
5 start cmd /k call c:\tcpserstart6400.bat
6 start /B c:\Vice\Winvice\bin\x64sc -config c:\Vice\config\config.ini -8 c:\Vice\DiskImages30\image30dev8.d4m -9 c:\Vice\DiskImag
7
8
9
Batch file length: 401 lines: 9 Ln: 6 Col: 1 Pos: 164 Windows (CR LF) UTF-8 INS
```

What this .bat file does is first start a .bat file called tcpserstart6400.bat (which is shown below) then start Vice with command line arguments. It automatically loads up 4 disks which contain in this instance Image BBS 3.0 and the config file we created when configuring Vice.

```
*C:\image30stick\tcpserstart6400.bat - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
tcpserstart6400.bat
1 cd \\Vice\tcpser
2 tcpser -v 25232 -s 19200 -p 6400 -I -B c:\Vice\busy.txt -A c:\Vice\answer.txt -C c:\Vice\connect.txt -l 4
3
Batch file length: 124 lines: 3 Ln: 2 Col: 16 Pos: 33 Windows (CR LF) UTF-8 INS
```

At this point, you should have a running copy of Vice and TCPSER on the screen. If you don't then go back over the docs and see what is different.

As for VSPE, and BBS Server, it is not all automatic. Follow the following list and you should be up and running in a couple of seconds.

- 1) First boot VSPE from the shortcut I suggested of the config file. You will get VSPE running and looking like the screenshot I showed above.
- 2) Boot BBS Server, again from the Shortcut I suggested above. You will be presented with BBS Server looking like the above picture of the main BBS Server program.
- 3) Now boot Vice using the above command line arguments, you can build a .bat file to do this, you can also combine the BBS Server and Vice command lines to create 1 .bat file to boot both. I no longer have a copy of the one I used when I was running my BBS' with BBS Server, VSPE and Vice.

## Final Words:

This Documentation file took a lot longer for me to write then I had hoped. I know I missed some items, and glossed over others. This is by far not the END ALL of documentation for setting up Vice/TCPSER/VSPE/BBS Server, you will find other short cuts or better ways of doing it. This is just a basic down and dirty way of doing it. It worked for me, it should work for you. If you need help you can reach me on my BBS' which I will list at the end or by email at [wrgnbr2@gmail.com](mailto:wrgnbr2@gmail.com)

Thanks for taking the time to read this and I hope it works out well for you, if anything you will learn how to use all of the programs I have written about and will become much more proficient in using them.

## My BBS':

The Wrong Number ][ BBS	Mystic BBS	wn2.duckdns.org:23
The Wrong Number ][ BBS	C-Net Amiga	wn3.duckdns.org:6400
The Wrong Number IV BBS	Image BBS v3.0	wn4.duckdns.org:3000
Bucko's Den BBS	C-Net 128 v7.2+	bdbbs.duckdns.org:6428
Bucko's Den II BBS	Enigma .5 BBS	bd2.duckdns.org:6800

Leaving me feedback or mail on any of the above BBS' will get an answer within 24 hours, if you need help faster email is better...