Purpose: Provide a walkthrough in creating a very stable WinUAE setup in preparation for installing and running the C-Net Amiga BBS. This should be not be considered an exhaustive setup of WinUAE nor will it tweak all the cool whistles and bells of WinUAE. It is simply the setup that over the years I have found that creates a system that at times has run for months between reboots even with many callers pers day.

Requirements: In this guide we will be setting up an Amiga 4000 machine capable of running Amiga Workbench 3.1. Therefor you will need the following items:

Amiga Kickstart 3.1 rom files for an Amiga 4000 Amiga Workbench ADF or DMS disk files Amiga Installer version 43.3 – available from AmiNet Amiga Iha.run – available from AmiNet C-Net Install Package C-Net BBSLicense File

Disclaimer: There are many factors that will affect WinUAE stability some of those include, the host machine, the WinUAE options selected, how the AmigaOS is setup, and the install/setup of C-Net Amiga BBS. Any one of those can contribute and create an unstable system. This guide should not be considered the only way to setup WinUAE to work with C-Net Amiga BBS. I am sure there are many other settings and adjustments that work just fine. This is just how I setup my system and when I find something that works, I generally stick with it. So here we go...

 Download a copy of WinUAE. Ever few years I test the most current versions of WinUAE. In the last 6 months or so I just finished testing WinUAE for stability while running C-Net Amiga BBS and found that WinUAE v3.4.0 (32 bit) seems to work best given the setup I deploy.

NOTE: There is one caveat to v3.4.0 in that you should never minimize the window. It will cause the WinUAE to go into an infinite loop of displaying an error message of hpos: #####.

2) Simply run the installer and accept all the default settings.

NOTE: Steps 3-8 are needed as this guide as well as the AmigaOS install guide will be written to save various datafiles within the C:\Program Files (x86)\WinUAE\ folder. I know for some of you this may be considered an issue but my preference is to install all WinUAE files and folders in a single location and not scatter them throughout the hard drive.

- 3) Using file explorer go to your C:\Program Files (x86)\ and right click on the WinUAE program folder and select the **Properties** menu option.
- 4) Change to the Security tab and click on Edit and then Add. This will present you with the "Select Users or Groups" dialog window.
- 5) Type in **Everyone** in the "Enter the object names to select" and click on the **Check Name** button followed by clicking on **OK**. This will close the current dialog and put you back on the "Permissions for WinUAE" dialog.

- 6) Within the "Group or user names" list, **Everyone** should be selected (i.e. grey) and if not click it to select it. Once selected, then check **Full control** within the "Permissions for Everyone" list.
- 7) Click on the OK button. This will close the dialog and place you back on the "WinUAE Properties" Security tab dialog.
- 8) With all the setting make you only need to click on the **OK** button to close the dialog and apply the security changes.
- 9) Using file explorer open the folder C:\Program Files (x86)\WinUAE\ and create the following Folders:
 - a. ROMs
 - b. Screenshots
 - c. State Files
 - d. Videos
 - e. Save Images
 - f. Rips
 - g. Machines
 - h. Floppy Disks

10) Using file explorer open the folder C:\Program Files (x86)\WinUAE\Machines\ and create the following folders:

- a. [DH3] Grid I prefer to label the drive-based folders and use the "[]" characters to push the drive above all the other machines as this NOT a machine. It's a windows directory drive for WinUAE and serves as a networked drive between all the WinUAE machines. This makes it easy to move files between various Amiga machines within WinUAE.
- b. C-Net Amiga BBS or what ever you want to call the machine running C-Net.

11) Using file explorer open the C-Net Amiga BBS folder or (what ever you name it) and create the following folder:

- a. [DH2] Host This is a *machine specific* windows directory drive to make it easy to move files into this Amiga machine.
- b. Copy the files lha.run, installer-43_3.lha, BBSLicense file (########.key) and C-Net Install package (i.e. CNet521b.lha) into the [DH2] Host folder.
- c. Rename the BBSLicense file (########.key) to BBSLicense
- **12)** Using file explorer open the folder C:\Program Files (x86)\WinUAE\ROMs\ and copy your rom files into this folder.

NOTE: We will be configuring an Amiga 4000 machine and installing AmigaOS 3.1 so you will need a rom file for Amiga 4000 that supports AmigaOS 3.1. The best and easiest way to get the rom files is to purchase a copy of Amiga Forever as it will come with a whole package of rom files.

- **13)** Using file explorer open the folder C:\Program Files (x86)\WinUAE\Floppy Disks\ and copy your Amiga Workbench disks to this folder.
- 14) Close the file explorer.
- **15)** Find the WinUAE icon and start WinUAE for the first time.
- 16) Under Settings (on the left) click on Paths
 - a. For System ROMs click on the "..." button to the right and select the C:\Program Files
 (x86)\WinUAE\ROMs\ folder. This will cause the system to scan the folder and display the roms that it
 discovers.
 - b. For each of the paths, select the "..." and select the appropriate folder you created in step 9.
 - c. Quit WinUAE and restart it this saves the path settings as they are saved on a clean shutdown.
- 17) Under Setting (on the left) click on Configurations and then type a name (such as "C-Net Amiga BBS") into the Name edit box and change the description to something appropriate (perhaps the name of the BBS). Then click on the Save Button.
- 18) Click on Hardware \ CPU and FPU (on the left) and set the following:
 - a. CPU: 68040
 - b. CPU: JIT Checked
 - c. FPU: CPU internal
 - d. FPU: More compatible
 - e. CPU Emulation Speed: Fastest possible
 - f. CPU Emulation Speed: CPU Idle = Third tic from the left

19) Click on Hardware \ Chipset (on the left) and set the following:

- a. Chipset: AGA
- b. Chipset: NTSC
- c. Chipset: Chipset Extra = A4000
- d. Options: Immediate Blitter
- e. Collision: None

20) Nothing to set on Hardware \ Adv. Chipset (on the left)

21) Click on Hardware \ ROM (on the left) and set the following:

 a. System ROM Settings: Main ROM File = Your Amiga 4000 Kickstart for 3.1 My preferred version is KS ROM v3.1 (A4000)(Cloanto) rev 40.68 (512k)

22) Click on Hardware \ RAM (on the left) and set the following:

- a. Memory Settings: Chip = 2MB
- b. Memory Settings: Slow = none
- c. Memory Settings: Z3 Fast = 16MB

23) Click on Hardware \ Floppy drives (on the left) and set the following:

- a. Floppy Drives: DF0 = Checked
- b. Floppy Drives: DF1-3 = Unchecked
- c. Floppy Drive Emulation Speed = 800%

24) Click on Hardware \ CD & Hard drives (on the left) and set the following:

- a. Options: Don't use Windows Recycle Bin
- b. Options: Limit size of directory drives to 1G

25) Click on Add Hardfile... to open the Hardfile Settings dialog

- a. Within the New hard disk image file section enter 225 into the MB edit box and click on the Create button
- b. Change into the C:\Program Files (x86)\WinUAE\Machiones\C-Net Amiga BBS\ folder (or whatever you name your machine folder and save the HDF file with the name of "System".
- c. Click on OK to add the HDF file to the machine.

26) Click on Add Hardfile... to open the Hardfile Settings dialog

- a. Within the New hard disk image file section enter 450 into the MB edit box and click on the Create button.
- b. Change into the C:\Program Files (x86)\WinUAE\Machiones\C-Net Amiga BBS\ folder (or whatever you name your machine folder and save the HDF file with the name of "Work".
- c. Uncheck the Bootable checkbox and then click on OK to add the HDF file to the machine.

27) Click on "Add Direcotry or Archive..." button

- a. Enter "DH2" in the Device Name edit box
- b. Enter "Host" in the Volume label edit box
- c. Uncheck the Bootable check box
- d. Click on Select Directory and select C:\Program Files (x86)\WinUAE\Machiones\C-Net Amiga BBS\Host or what ever path the Host folder is located within your machine.
- e. Click OK to add the Directory as a drive to the machine.

28) Click on "Add Direcotry or Archive..." button

- a. Enter "DH3" in the Device Name edit box
- b. Enter "Grid" in the Volume label edit box
- c. Uncheck the Bootable check box
- d. Click on Select Directory and select "C:\Program Files (x86)\WinUAE\Machiones\[DH3] Grid" or whatever path the Grid folder is located.
- e. Click OK to add the Directory as a drive to the machine.
- **29)** Click on Hardware \ Expansion (on the left) and set the following:
 - a. Miscellaneous Expansions: bsdsocket.library = Checked
- **30)** Nothing on Hardware \ RTG board to change or set.
- 31) Nothing on Hardware \ Hardware info to change or set.
- **32)** Click on Host \ Display (on the left) and set the following:
 - a. Screen: Windowed = 752 x 488
- **33)** Nothing on Host \ Sound to change or set.
- **34)** Click on Host \ Game ports (on the left) and set the following:
 - a. Mouse extra settings: Install virtual mouse driver = Checked
- **35)** Nothing on Host \ IO ports to change or set.
- **36)** Nothing on Host \ Input to change or set.
- **37)** Nothing on Host \ Output to change or set.
- **38)** Nothing on Host \ Filter to change or set.
- **39)** Nothing on Host \ Disk swapper to change or set.
- **40)** Click on Miscellaneous (on the left) and set the following:
 - a. Synchronize clock = Checked

41) Click on Pri. & Extensions (on the left) and set the following:

- a. When Inactive: Run at priority = Normal
- b. When Inactive: Disable game controllers = Unchecked
- c. When Minimized: Run at priority = Normal
- d. When Minimized: Pause emulation = Unchecked
- e. When Minimized: Disable sound = Unchecked
- f. When Minimized: Disable game controllers = Unchecked
- 42) Click on Configuration (on the left)
 - a. Click on your configuration you already have saved.
 - b. Click on Save
- **43)** Click on Hardware \ Floppy drives (on the left)
 - a. Click on the "..." for DF0 (located on the right)
 - b. Browse to C:\Program Files (x86)\WinUAE\Floppy Disks\ and select your Amiga Workbench 3.1 Install ADF or DMS file.
- 44) Click on the Start button If all goes well you should see a stock Workbech Amiga boot up with the following:
 - a. Ram Disk
 - b. Grid
 - c. Host
 - d. Workbench3.1
 - e. DH0:NDOS
 - f. DH1:NDOS

NOTE1: Using this configuration WinUAE will start the Amiga 4000 and capture the mouse (meaning it will trap it inside the Amiga machine). To release the mouse click on the wheel button or use ALT+Tab

NOTE2: To re-connect the mouse to the Amiga machine just click anywhere within the Amiga window and it will re-capture the mouse. However, the Amiga will NOT register the click that causes the mouse to be re-captured so if your trying to click on button, the first click with not register the mouse event to Intuition (Amiga Workbench GUI).

- **45)** Click on DH0:NDOS so that it's selected, then right click and select the use the Workbench menu option of Icons->Format Disk...
- **46)** Confirm the Current Information is Device DH0.
- 47) Set the New Volume Name to "System" and uncheck Put Trashcan
- 48) Check the Fast File System

- **49)** Click on Format button, then click on the Format button once again, and for the third time click on the Format button.
- **50)** Click on DH1:NDOS so that it's selected, then right click and select the use the Workbench menu option of Icons->Format Disk...
- **51)** Confirm the Current Information is Device DH1.
- 52) Set the New Volume Name to "Work" and uncheck Put Trashcan
- 53) Check the Fast File System
- **54)** Click on Format button, then click on the Format button once again, and for the third time click on the Format button.
- 55) Double click on Install3.1 and then again on the Install Drawer, and finally on your preferred language.
- 56) Click on Proceed and then Install Release 3.1
- 57) Select Expert User and then click on Proceed With Install
- 58) Ensure Install for Real is selected and Log actions is set to None, then click on Proceed
- 59) Confirm the Install to the System: partition, and click Yes
- 60) Select your preferred language and click Proceed
- 61) Click on any printers you need then click on Proceed
- 62) Click on your preferred keyboard layout/map, then click on Proceed
- 63) Press F12, then click on Hardware \ Floppy drives (on the left)
- 64) Click on the Eject button, then the click on the "..." button for DF0
- 65) Select the Amiga Workbench disk requested and click OK
- 66) Repeat step 63 65 until Install is 100% complete.
- 67) Press F12, then click on Eject button.
- 68) Click on Restart button and then Start button to reboot the Amiga Machine
- 69) Right Click and use the Workbench Menu Workbench -> Backdrop

- 70) Right Click and use the Workbench Menu Window -> Snapshot -> All
- 71) Right Click and use the Workbench Menu Workbench -> Execute Command, enter "cli" and click on OK to open a CLI window.
- 72) Type the following in the CLI window and hit enter:
 - a. makedir sys:lcons
 - b. copy sys:disk.info work:
 - c. copy sys:disk.info host:
 - d. copy sys:disk.info grid:
 - e. copy sys:disk.info sys:icons/ram.info
 - f. ed s:user-startup
- 73) Enter the following commands into the Ed 2.0 window
 - a. Copy sys:icons/ram.info ram:disk.info
- 74) Use the close icons in the top left of the Ed 2.0 window and type Y to save and exit.
- **75)** Arrange the drive Icons to where you would like them
- 76) Use the Workbench Menu Window -> Snapshot -> All
- 77) Enter the following commands into the CLI window:
 - a. copy ram:disk.info sys:icons/ram.info
 - b. host:
 - c. copy lha.run ram:
 - d. ram:
 - e. lha.run
 - f. copy lha_68040 c:lha
 - g. host:
 - h. copy installer-43_3.lha ram:
 - i. lha x installer-43_3.lha
 - j. installer43_3
 - k. copy installer c:
 - I. host:
 - m. copy cnet521b.lha ram:
 - NOTE: Change cnet521b.lha to current install package name
 - n. ram:
 - o. Iha x cnet521b.lha NOTE: Change cnet521b.lha to current install package name
 - p. Install
 - q. Installer cnetinstall

- 78) Select Expert User and click on Proceed With Install
- 79) Ensure Install for Real and Log action of None are both selected, then click on Proceed
- 80) Click on Proceed to open the EULA pressing space to page down until done.
- 81) Select I Agree and click on Proceed
- 82) Click on Proceed to install C-Net for the first time on the machine.
- 83) Read the install notice and click on Proceed
- 84) Click on Proceed to select Work: as the base location for the CNet root directory
- 85) Click on Proceed to select CNet: as the location for the UDBase0 directory
- 86) Click on Proceed to select CNet: as the location for the SysText directory
- 87) Click on Proceed to select CNet: as the location for the SysData directory
- 88) Click on Proceed to select CNet: as the location for the PFiles directory
- 89) Click on Proceed to select CNet: as the location for the News directory
- 90) Click on Proceed to select CNet: as the location for the Mail directory
- 91) Click on Proceed to select CNet: as the location for the GFiles directory
- 92) Click on Proceed to select CNet: as the location for the Doors directory
- 93) Click on Proceed to select CNet: as the location for the BaseO directory
- 94) Ensure RAM Drive is selected and click on Proceed
- 95) Ensure Start when system boots is selected and click on Proceed
- 96) Click on Proceed to confirm the S:User-Statup change
- 97) Click on Proceed to confirm the Assignments that will be made to the machine
- 98) Click on No when asked to run C-Net's Config program.
- 99) Click on Proceed to confirm the need to install the BBSLicense

100) Click on Proceed to finish the install.

101) Enter the following commands into the CLI windows:

- a. host:
- b. copy bbslicense cnet:
- c. endcli

102) Press F12, then click on Restart and then Start.

If everything went well, you should have the equivalent of an extremely fast Amiga 4000 68040 + FPU w/2GB Graphics Memory and 16GB of Zorro3 Fast Memory running C-Net Amiga BBS.

I hope that you found this guide helpful as I tried to make sure that I did not leave anything out for those of us that are a bit rusty on the Amiga side of the house. If you did fine some error, please do not hesitate to let me know so that I can update the guide. Please telnet to Future World II BBS (telnet: fw2.cnetbbs.net:6800) and leave me feedback with the information and I will be sure to update the guide.

Finally, I would like to ask that you not download and re-post this document. If you feel someone else could use it, please direct them to <u>www.cnetbbs.net</u> where they can get the most up to date version of the guide as I will strive to keep it updated as needed.