

## **AMPC 5.0 Release Notes**

These *Release Notes* describe the installation process for AMPC 5.0, as well as describing the changes between AMPC 5.0 and the previous version 4.2A, PR 10/98. This document assumes you are already familiar with the AMPC software and want a brief description of the changes in AMPC 5.0. We do not include a full description of AMPC; if you are not familiar with AMPC, see the *Falcon Owner's Manual* or *SuperFalcon Owner's Manual*.

A README file containing any changes made after these *Release Notes* were printed may be included on the AMPC release. Please see that file for important installation or operator information.

### **Fully Windows Compatible**

AMPC 5.0 is a complete rewrite of the AMPC ISA Bus Falcon board driver software for Windows. Functionally, it is a superset of the previous DOS-based software. Most of the concepts have been preserved and expanded upon. AMPC 5.0 has been tested under Windows 98, ME, NT 4.0 (SP6a), 2000, and XP. AMPC 5.0 will not work under Windows 95, 3.x or DOS.

### **Native Windows Networking and SCSI Support**

AMPC 5.0 supports AlphaTCP and AlphaNET via true Windows networking. AlphaTCP has its own IP address, distinct from the Windows IP address. You no longer need to rely on Clarkson drivers, NDIS3PKT, or be inconvenienced by any other issues to get the old DOS networking working.

SCSI devices such as streamer, DAT, and CD-ROM drives are supported via native Windows SCSI. You can access ATAPI compatible CD-ROMs as well.

### **Supports Up To 16 COM Ports**

You are no longer restricted to only four COM ports. AMPC 5.0 works with up to 16 COM port devices. Any device that Windows sees as a COM port can be accessed by AMPC. This includes PCI COM port boards, certain proprietary "Digiboard®-like" multi-port boards, and USB-to-COM port adapters.

### **Supports Any Printer Seen By Windows**

You are no longer restricted to only three LPT ports. AMPC 5.0 works with up to sixteen printers - any printer that is defined in Windows. This includes PCI LPT port devices, USB, and network printers. You can set up different fonts and page layouts for a physical printer and assign LPT ports to these different printer configurations.

### **Improved Console Software**

Special versions of ZTERM and AlphaLAN LiTE called AMPCTERM and AMPCLITE, respectively, are included with AMPC 5.0 to serve as the console for the user running AMOS on the PC containing

the Falcon. They take the place of the built-in console software in previous versions of AMPC. Both of them support the virtual terminal feature present in the previous console software, although each virtual terminal in use is counted in the AMOS user license calculation. On-line help is provided for each type of terminal emulator.

If you are using the same PC that contains the Falcon to connect to another Alpha Micro system, you will also need the “regular” versions of AlphaLAN/LiTE or ZTERM for that purpose. “Regular” AlphaLAN/LiTE and ZTERM install in different directories and use separate registry entries to track their settings. For all practical purposes, they are distinct and separate products.

AMPCTERM and AMPCLITE communicate with AMPC 5.0 through Windows’ network loopback mechanism. Consequently, you need to have the Windows TCP/IP protocol installed on a PC running AMPC 5.0, even if you do not intend to use other network functions on that PC.

## **New GENDSK “Wizard”**

On the AMOS Disks configuration tab in the diagnostic program, you can click on the “Create” button and be stepped through a new, more user-friendly “Wizard” that will create a new AMOS .DSK file (maximum 2GB file size). See Figure 2.

## **Simpler, More Reliable, Unified Shutdown**

Exiting the console terminal emulator, AMPCTERM or AMPCLITE, automatically shuts down the diagnostic window. Conversely, exiting the diagnostic window automatically shuts down the console terminal emulator.

## **Simplified Installation**

All of AMPC 5.0, including the networking interface, automatically installs from CD-ROM (or a CD-ROM image download from our ftp site: [ftp.alphamicro.com](ftp://ftp.alphamicro.com)), via a typical InstallShield® routine. Configuration of AMPC 5.0 is via a Windows setup program. The DOS configuration file, AMPC.INI, no longer exists.

## **Create Your Own Installation CD**

One of the most significant features of AMPC 5.0 is the ability to create your own installation CD. You can create your own installation routine, so that AMPC installs pre-loaded with your own application. You simply include your own pre-configured .DSK file containing AMOS, your programs, and data files. You can even include your own bitmap logo to display during the installation process. This routine can be burned onto a CD or made into a downloadable installation file.

To create your own installation routine, first copy the entire contents of the AMPC 5.0 CD release into a new directory on your PC. Every file you place in the \AMPC\Data Files directory will be copied to the destination directory (usually C:\AMPC). This is the place to put your pre-configured .DSK file(s).

You can replace the Falcon jet logo that displays at installation time with an image of your choosing. Just replace the Falcon.bmp file in the root directory with a different image with the same file name.

Default settings for each AMPCTERM based virtual terminal can be saved as file name `\AMPC\AmpcTerm\Virtual Terminal X.zsc`.

Default settings for AMPC 5.0 itself can be saved as file name `\AMPC\Data Files\Install.cfg`.

Burn a CD with all of these files set in place, and you will have yourself a custom, pre-configured AMOS environment on a CD. AMOS has never been easier to install: Just pop in a Falcon board, install a CD, and in under half an hour your client is running your application!

## New Version and PIC Code for AMOS

AMPC 5.0 includes an updated version of AMOS 2.3A. Once installed, it will require a new PIC code. Call your dealer to obtain this latest PIC code if you did not receive it with the product.

## Installing AMPC



If you are reinstalling AMPC 5.0 over a previous installation of AMPC 5.0, your .dsk file will be overwritten. Make a back up copy of this file prior to reinstalling AMPC 5.0 if you want to save this existing .dsk file.

1. As you would with installing any new hardware and / or software, make sure you have a current backup of the software presently contained on your hard disk drives.
2. If you are upgrading from a previous version of AMPC, have a printed copy of the AMOSL.INI file (or the .INI file that normally boots your application) handy to assist you in configuring AMPC 5.0. In addition, rename your existing AMPC directory to AMPC42 to insure that these files are not overwritten by the AMPC 5.0 installation process.
3. If not already installed, install the Falcon board into a spare bus slot in your PC, following the installation instructions that came with the Falcon board.
4. Have at your disposal the new AMOS PIC code for AMPC 5.0.
5. Put the AMPC 5.0 / 6.0 CD in your CD-ROM drive, or download and expand the AMPC5.0 CD-ROM image from [ftp.alphamicro.com](ftp://ftp.alphamicro.com). Open the AMPC 5.0 folder and run SETUP.EXE. Use the default settings for the installation. Proceed with the AMPC 5.0 installation, following the instructions on the screen.



If you are using Windows 98 or Windows ME, you may see a message indicating that you need to update your Adaptec ASPI software. Simply click *Yes* and proceed with the instructions.

6. Once the installation program is complete, you will see the AMPC 5.0 shortcut on your desktop. Before executing the shortcut to launch AMPC in the normal fashion, you will need to configure AMPC to your specifications. To do that, go to the Task bar, Start button, Programs, and locate AMPC 5.0 in the Program list. Choose *Configure* to bring up the AMPC 5.0 Configuration Window. You will step through each tab in the remainder of this section to initially configure the AMPC 5.0 product.
7. Click on the *General* tab, as shown in Figure 1. Set up the parameters as indicated in Figure 1.

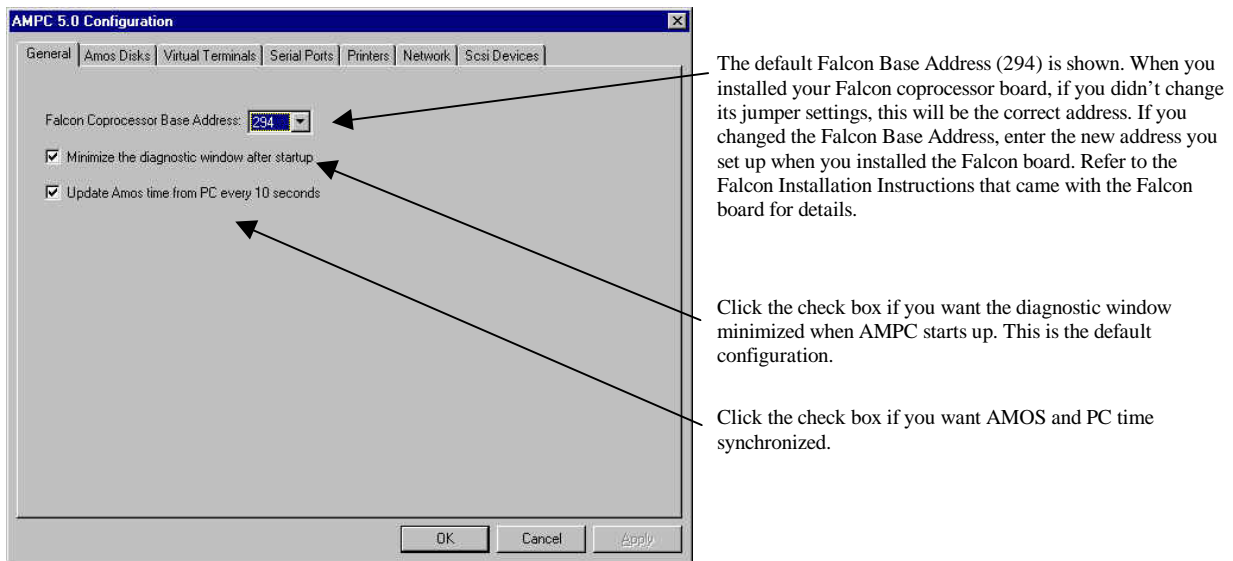


Figure 1 – AMPC 5.0 Configuration – General tab

8. Now click on the AMOS Disks tab. When AMPC 5.0 was installed, the standard system disk (DSK) was created as a three logical dynamic disk structure, initially about 32 MB each in size. The size of the physical disk file grows only as required as data is written to the disk. Additional disk subsystems may be defined, as shown in Figure 2.

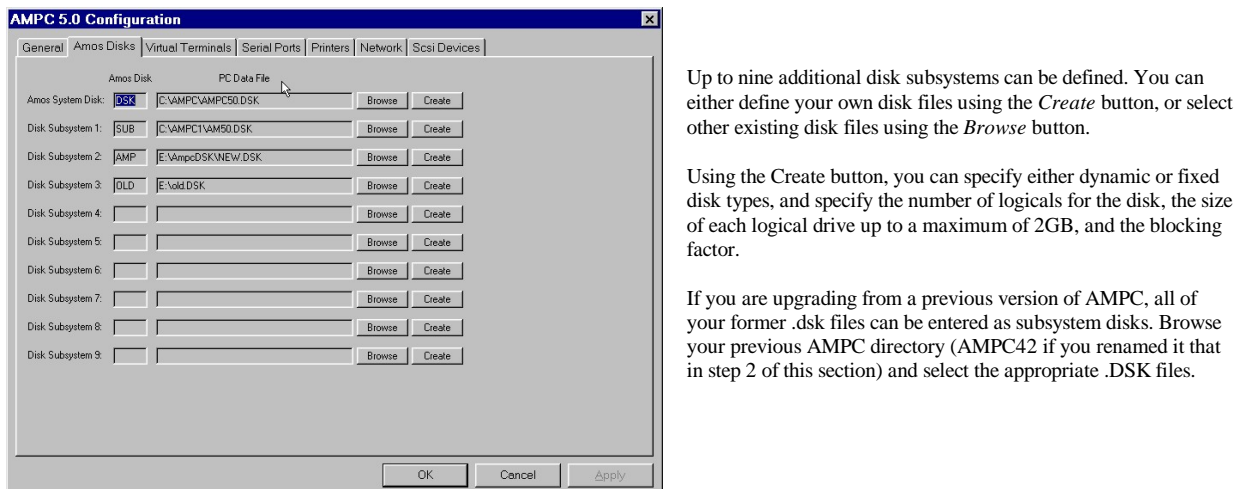
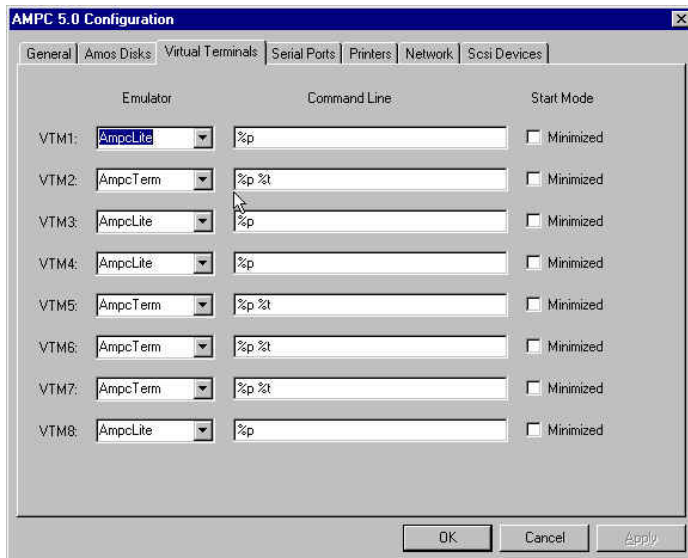


Figure 2 – AMOS Disks tab

- Next, click on the Virtual Terminals tab. You can define up to eight virtual terminal windows, depending upon your software license, using either terminal emulator that comes with AMPC 5.0. Figure 3 shows the screen used to set up these virtual terminals.



AmpcLite is a version of the AlphaLAN LiTE terminal emulator

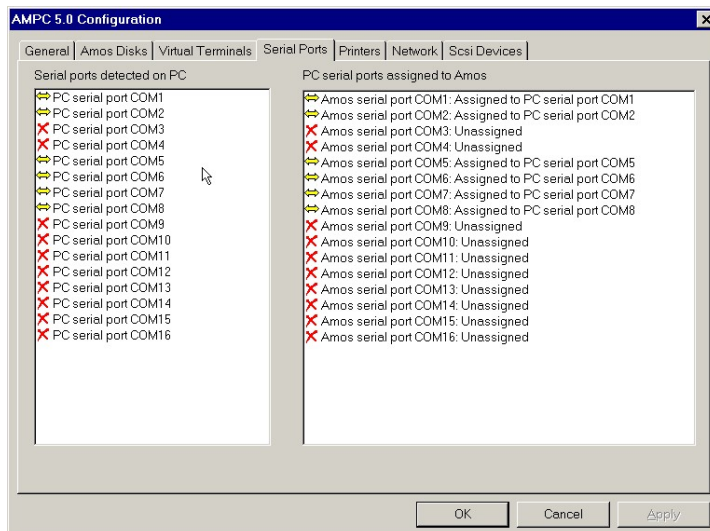
AmpcTERM is a version of the ZTERM terminal emulator

On-line help is available for both terminal emulators

**Note: Each virtual terminal counts as a user pertaining to your AMOS license.**

Figure 3 – Virtual Terminals tab

- Define the serial ports by clicking on the Serial Ports tab. When AMPC 5.0 is installed, the serial ports present on your PC should be identified in the left portion of the Serial Ports tab screen, as shown in Figure 4. A red x in the left window indicate these ports were not detected on your PC. The detected ports can be associated with AMOS serial ports 1 through 16 by dragging the selected PC serial port to the AMOS serial port desired.



**Note: Each serial port counts as a user pertaining to your AMOS license.**

Note that when a PC serial port is mapped to an AMOS serial port, a yellow double-headed arrow replaces the green check and /or red x.

To unassign an AMOS serial port, simply drag and drop the AMOS serial port assignment back to the left Windows box

Figure 4 – Serial Ports tab

- Clicking on the Printers tab, you can define up to sixteen printers to the AMOS system as shown in Figure 5. All printers must be installed as Windows printers prior to setting them up for use under AMOS. See the section, *Adding A Printer*, later in this document.

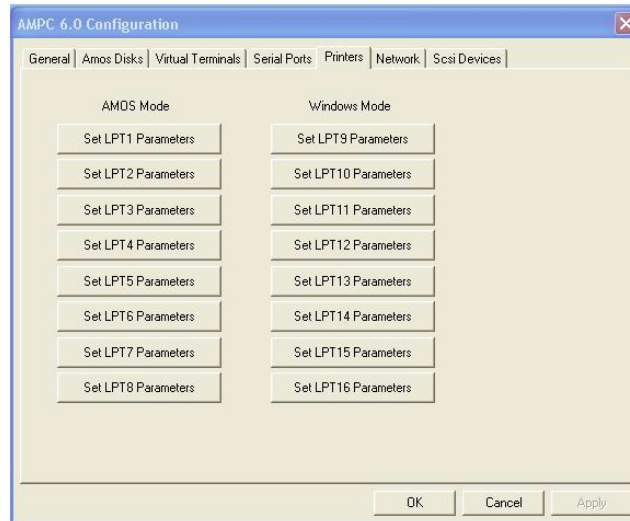


Figure 5 – Printers tab

- When AMPC 5.0 is installed, the communication / network adapters present on your PC should be identified in the Network tab screen, as shown in Figure 6. If none are displayed, try displaying another tab and then go back to the Network tab. If more than one adapter is displayed on the screen, select the one you want to use with AMOS. The selected network adapter should be indicated by a yellow double-headed arrow.

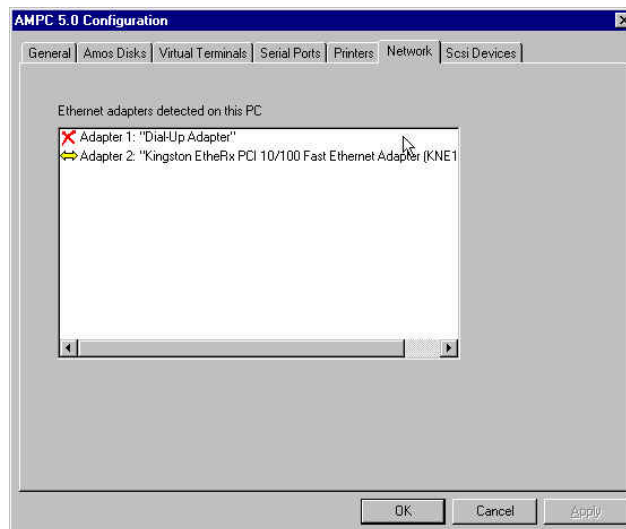
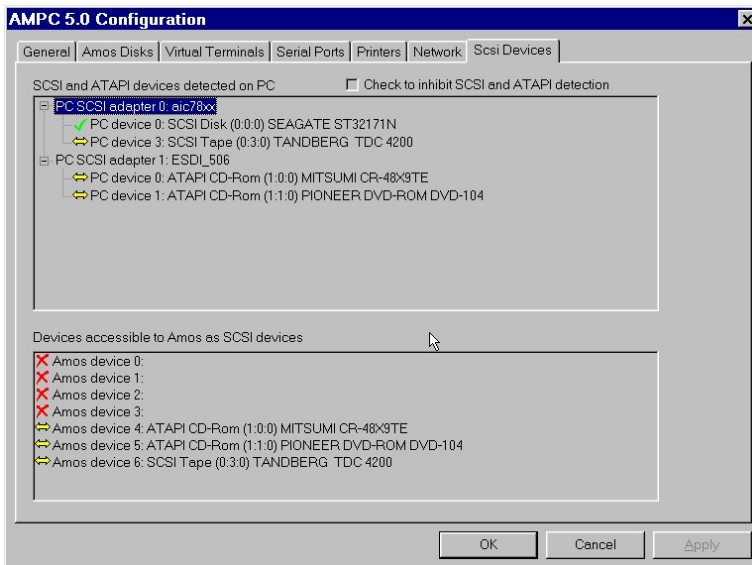


Figure 6 – Network tab

- When AMPC 5.0 is installed, the SCSI and ATAPI compatible devices present on your PC should be identified in the upper portion of the SCSI Devices tab screen, as shown in Figure 7.

The detected devices can be associated with AMOS SCSI device numbers 0 through 6 by dragging the selected PC device to the AMOS SCSI device number desired.



Note that ATAPI compatible IDE CD-ROM drives are listed as SCSI devices, even though they are not actually on the SCSI chain.

Even though other ATAPI compatible devices, such as disk drives and Tape Backup drives, may appear in the SCSI and ATAPI devices listed, only the ATAPI compatible CD-ROM device is supported.

To unassign a device, simply drag and drop the AMOS device assignment back to the upper Windows box

The devices do not need to have the same addresses in AMOS as they do in Windows.

Figure 7 – SCSI Devices tab

14. After setting up all the above configuration screens, click OK. You will need to shut down and restart AMPC in order for the new settings to be activated.
15. Double click the AMPC 5.0 icon on the desktop to re-launch AMPC. This should boot AMOS on the Falcon board, using the AMOSL.INI, in the local host window on the console with the new settings you have established.
16. Enter the new AMOS PIC code, supplied with the product, by typing **INSTPC** at the AMOS prompt. The screen should appear as shown in Figure 8.

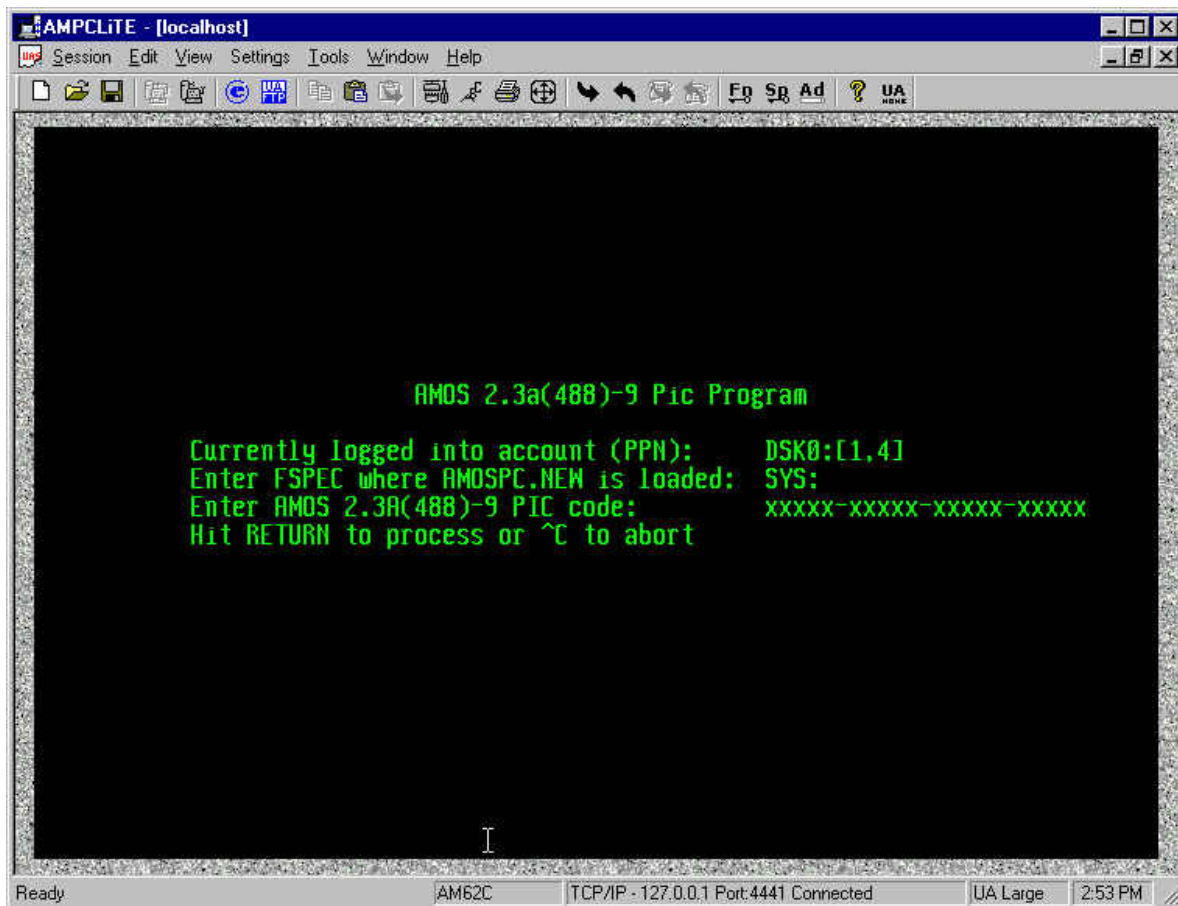


Figure 8 – PIC Code Installation Screen

17. Reboot to verify that the new PIC code properly comes up with the proper amount of port licenses. At the AMOS dot prompt, log into SYS: and type **INSTPC/P** to determine the number of simultaneous AMOS users authorized.
18. Edit the AMOSL.INI file (or your old .INI file or one of the pre-canned .INI files supplied with the AMPC release) as necessary to make further modifications to your installed AMOS system. See the next section for additional details on booting AMOS from alternate .INI files.
19. For network operation, you will need to change the network ID and IP addresses to match your specific network configuration and parameters. See the section on modifying pre-configured network configuration files.

## Booting AMOS from Alternate .INI Files and / or .MON Files

You can boot AMOS on the Falcon board utilizing other .INI files and / or .MON files that you have generated simply by creating additional icons on your Windows desktop.



Several pre-configured .INI files are included in the AMPC 5.0 release, and you can easily create your own versions by modifying any of these pre-configured .INI files.



The .INI files can reside in the AMOS file structure in SYS:, or in the Windows file structure in the AMPC50 folder. Use the following procedure to create the additional desktop icons:

1. Right click your mouse on the Windows desktop, and select *New* and *Shortcut*.
2. Click the browse button and locate your AMPC50 folder. Within that folder, click on *AMPC50.exe*, then click *Open*. Depending upon how you installed AMPC 5.0, your shortcut command line should read something like **C:\AMPC50\AMPC50.EXE**.
3. To specify an alternate .INI file to boot AMOS from, edit the command line to add either a /I or /L switch followed by the name of the .INI file. A typical shortcut command line to boot AMOS from TEST.INI would appear as:

**C:\AMPC50\AMPC50.EXE /I:TEST.INI**

where: /I indicates the .INI file is on DSK0:[1,4] under AMOS, or  
/L indicates the .INI file in the AMPC5.0 folder in the Windows disk structure, or  
/T enables trace in the trace window for diagnostic purposes.

test.ini is the name of the file you want to use to boot AMOS.

To specify an alternate .MON file that you have already created on the AMOS side and want to use in the booting process, use the /M switch as follows:

**C:\AMPC50\AMPC50.EXE /M:AMOS2.MON /I:TEST.INI**



Make sure you put a space before each /, as shown in the example above.

4. Click *Next*, then specify the icon name for your desktop icon to launch AMOS using your new .INI file.
5. Click *Finish* and your new icon should appear on your desktop.

If you want to change the appearance of the icon, right click on the icon, click on *Properties*, then click on *Change Icon*. Click the Browse button in the Change Icon window, and navigate to the AMPC50 folder. Open the AMPC50 folder and double click on *Ampc32.exe*. Several AMPC icons should appear. Select one, click OK and your new icon should be set up.

6. Simply double click this icon each time you want to boot AMOS using your specified .INI file and / or .MON file.

## Disk Drivers For Building A New Monitor

When building a new monitor using the MONGEN program, you need to provide the proper disk driver. For AMPC, the selection of the disk driver is different than for other AMOS based systems.

Make sure you specify the AMPC.DVR when using MONGEN with both AMPC 5.0 and AMPC 4.2. See the AMOS System Commands Reference Manual for details about using the MONGEN program.

Disk subsystem drivers should be created using the COPY command, NOT FIXLOG as shown in the following example:

```
COPY SUB=PCDSK.DVR
```

## Easy Configuration Screen Changes

You can create a desktop icon to bring up the AMOS configuration screen, if you want to be able to easily change AMOS configuration settings without booting AMOS. Use the same procedure from the previous section, but create a shortcut command as follows:

```
C:\AMPC50\AMPC50.EXE /C
```



The /C switch brings up the AMPC configuration window, allowing you to easily change any configuration information contained in the configuration tabs without booting AMOS.

## Modifying Pre-configured Network Configuration Files

AMPC 5.0 comes configured for network operation, but the network parameters must be modified for your specific network. If you do not already have your network configuration files set up, we recommend you use the MIKE.INI, FULNET.INI, or ABTCP.INI (Metropolis users) or a modified version of one of these to boot AMPC and then make the following changes to the network configuration files contained in the TCP: account:

Depending upon your complete network configuration, other AMOS files may need to be updated, in addition to the files listed below. Consult the AMOS TCP documentation for additional details.

1. After booting AMPC 5.0 using a full network compatible .INI such as MIKE.INI, log to TCP: from the AMOS prompt.
2. Using VUE, update the following files as indicated below:
  - a. NETWRK. update the Ethernet entry to reflect your network IP address. This IP address must be distinct from the Windows IP address.
  - b. CONFIG. update the route IP address at the end of the file to reflect your router IP address.
  - c. MYNAME. update the entry to reflect your company name.
  - d. RESOLV. update the domain and nameserver entries to your particular configuration.
  - e. FTPUSR. change the pre-configured user names and passwords for FTP access.
  - f. HOSTS. change the hostname information to reflect your particular installation.
3. Log to SYS: and VUE the ETH101.ERZ file. Add any ersatz names for your installation.
4. Shut down the system and then reboot for the new parameters to become effective.

## Adding a Printer

With AMPC, it is possible to use any printer that Windows uses, as well as most traditional AMOS printers. Traditional AMOS serial and AlphaTCP LPR network printers are defined as on any other AMOS system and are NOT covered in this section.

### **Using Windows Printers**

Windows printers include any printer Windows can use: Windows network printers, USB printer, parallel, serial, etc. These printers can be used for AMOS in two different modes (up to 8 each): AMOS Mode and Windows Mode. As AMPC uses the Windows printing facilities for access, these printers can usually be transparently shared between AMOS applications and Windows applications.

Before a Windows printer can be used by AMPC, it must be fully installed and tested from the Windows side. If it will not work for Windows applications, it cannot be used by AMPC as a Windows printer.

A large number of processes must work together for this printing to work correctly. These are tied together by logical names, link by link. Many installations use the same logical name for all of the links, thus reducing installation issues, and we have done so in the actual examples in AMPC release. An example of this is using the name "lpt1" for all of the links. Others use names that seem appropriate for that specific process in the chain, such as the printer model, application, location, etc. In these examples we have used different names for each of these logical links so that you can see the name (and functional) interdependencies and trouble-shoot problems.

This LPT is *NOT* the same as the host PC's parallel ports, usually referenced as LPT. (DO NOT GET THE TWO CONFUSED!)

### **AMOS Mode Printers (LPT1 through LPT8)**

In traditional AMOS printing, each and only each character in the spooled print file is transmitted to the physical printer. When an application prepares that file, either directly or using an AMOS printer driver (.PDV), printer hardware specific codes are put into the file.

To do this with Windows printers, AMPC must let Windows handle the printer (so it can be used for other things) but keep Windows from changing any byte of data. The first 8 printers, labeled "AMOS Mode" do this task. You still must define such things as the Windows printer and font information (which is ignored for the AMOS Mode: LPT1 through LPT8) in the AMPC Configuration, Printers section (Figure 6).

### **Windows Mode Printers (LPT9 through LPT16)**

"Windows Mode" printers use the Windows printer settings defined in the AMPC Configuration, Printers section (Figure 6). When defining these, the font, point size, etc. must be defined. The defined font, point size, etc. will be used for all text sent from AMOS.

Because each AMPC LPT9-LPT16 configuration also includes the Windows font, the SAME Windows printer could have multiple LPTx references. For example, AMPC might be configured to

use a network laser printer as LPT9 for Times Roman 10 for letter printing and the same printer as LPT10 for Arial 8 for condensed printing (and again as LPT1 for "AMOS Mode" printing).

### **Defining Windows Printers in the AMOS .INI file**

For each Windows printer configured for AMPC, activate (or add) the appropriate TRMDEF in the line in the TEST.INI file:

```
TRMDEF ptr1,PCLPT=1,TELTYP,100,100,100
```

The "PCLPT=1" matches the LPT1 in the AMPC Configuration, Printers section. PCLPT=2 matches LPT2, etc. The name given on the TRMDEF line, such as "ptr1" above could be replaced with "Times" and a "ptr10" with "Conden". Just keep it at six or less characters.

### **Your Input Is Valued**

We value and look forward to hearing your thoughts about the AMPC 5.0 software. Whether they are bug reports, requests for new features, or just ideas, please let us know at [support@alphamicro.com](mailto:support@alphamicro.com). We want to make AMPC serve your needs properly and completely.

### **Related Documents**

Documentation for the ISA Bus Falcon board is found in the *Falcon AMOS Application Processor Installation* manual, part number PDI-00113-10.

Complete documentation on the AMPC software is found in the *Falcon Owner's Manual*, part number DSO-00190-00 or the *SuperFalcon Owner's Manual*, part number DSO-00224-00.