AlphaLAN Release Notes

Version 6.0

Date: March 13, 1995

Rev: A03

Table of Contents

Introduction

AlphaLAN version 6.0 comes with various new features, offering many major additions to AlphaLAN version 5.0. It includes a new set of programs that offer new terminal emulations and file transfer functions through file exchange protocols, e.g., XMODEM, YMODEM, ZMODEM, KERMIT and ASCII, both for DOS and Windows.

These release notes describe the changes between version 5.0 and the current release. The following table gives the dates and version numbers for the previous three major releases of this software.

Version	Date
5.0	Oct. 10, 1993
4.3	April 9, 1993
4.2	May 27, 1992

1. New Features

For Windows Connectivity:

1. Modem file transfer

AlphaLAN supports file transfer using standard file transfer protocols, such as ASCII, XMODEM, YMODEM, ZMODEM and KERMIT. Variations of XMODEM protocol, i.e. XMODEM-1k and of YMODEM protocol, i.e. YMODEM-G are also supported. In all the protocols, CRC checks (8 bit, 16bit or 32bit, whichever applicable) are also allowed.

2. Terminal Emulation

AlphaLAN provides two new emulations — AM62C and PCFM. AM62C allows you to use AM62A emulation (field attributes) with mode colors. The new Terminal Driver, called PCFM is the "native" AlphaLAN emulation with field attributes and mode colors. Improved ANSI emulation now supports 8 bit graphics characters and ESPRIT III emulation provides support for 4 pages. The Wyse50 emulation provides bi-directional port support.

3. Fast Field Emulation

There has been a significant improvement in the speed of field terminal emulations. With AlphaLAN 6.0 for Windows, a new logic for emulating field terminal is incorporated. This resulted in performance improvement of about 50% for field emulations.

4. Tool Bar

Tool bars are provided for quick access to commonly used commands like open and save configuration, clipboard operations, dial, hang-up, etc.. You can add, delete, move or regroup buttons on the tool bar as per your requirements.

5. Improved User Definable Keys

You can assign your own labels and multiple character sequences to 64 mouse selectable keys, which are not associated with any key on your key-board. You can even select these keys to execute any local Windows program.

6. PicLan Protocol support

AlphaLAN 6.0 also supports PicLan protocol for connecting to a host.

7. Selectable foreground color on AM70/WYCOL emulation

On color field terminals(such as AM70, ESPRIT III etc.), whenever you set the background color the foreground color always switches to Black, as field terminals can hold only one attribute at a time. With AlphaLAN/FW 6.0 you can define the foreground color to be a color other than black.

8. Destination file name in Native file transfer (CPC/CALF)

You can now specify the destination file name(s) during file transfers over an AlphaMicro host (using CPC.LIT or CALF.LIT).

9. Finger

The “Finger” application allows you to query any host system that is on the network for information about the users currently logged on to the host. It allows you to get more detailed information about a particular user or all the users.

10. New HASH program

The new hash program provides an improved user interface and better file handling. Also, you can invoke this utility for calculating hashes from the File Manager’s menu bar. An item called “Hash” is now available in the File Manager’s Menu Bar.

11. A whole new keyboard remapper

A new user interface is provided for customizing the keyboard according to your need. A dialog box would appear with the layout of an extended 101 key PC keyboard. This feature allows you to easily change key settings and save them in a file. Multiple sets of settings can be defined, saved in different files and then loaded.

12. Auto dial on startup

You can select an entry in the Phone Book to be “Auto Dialed”. If you check on the “Auto dial on startup” option in the Phone Book dialog box, the selected number is dialed automatically when you start AlphaLAN.

13. AlphaLAN Drag and Drop FTP

AlphaLAN FTP provides a drag and drop user interface to the ARPANET standard File Transfer Protocol (FTP). It allows users to log onto remote systems, transfer files / directories to and from a remote system. Additionally, it allows some basic file management functions like looking into the contents of remote directories, creating and removing directories etc..

14. Graph for Windows

Graph for Windows is an optional feature for AlphaLAN/FW 6.0. Using this feature and Graph functions of AMIGOS, you can display various graphs and charts in Windows environment. It provides a high level of graphing and charting functions. This feature is available only if you purchase PEG option with AlphaLAN.

15. Status line

Shows help for Menu items, toolbar icons and displays status information for various AlphaLAN functions.

16. Host program control for loading user defined keys and screens

You can now load the user defined keys from your AMOS program by using special Escape codes. Similarly you can ask AlphaLAN to display previously captured screens from your host program control.

17. Other Miscellaneous Improvements/Features

Various other features that have been added in this release are as follows:

- Shut off printer option through configuration file.
- Editable save/restore pages.
- Convert UA fonts to ANSI fonts for compatibility.
- Improved installation program with new user interface, improved destination filename handling, etc..
- Improved modem command handling.
- Improved menu handling.
- Improved Native file transfer handling. It is more robust, now.
- Added Confirm if loading a new configuration file.

- Changed column selection from “right” mouse button to “Alt left” mouse button.
- Added a warning if a new AlphaLAN session is invoked on the same serial port where a previous one is already running.
- Launch AlphaLAN in minimized state if it is specified in the properties of the AlphaLAN icon.
- Setting directories: The current working directory, and file transfer directories for upload/dnload can all be selected by the user in AlphaLAN 6.0
- Menu locking to prevent others from changing your setup.
- Improved TELNET/Rlogin protocol handling.
- Improved TCP/IP connect dialog box handling to allow you to type in the host address. If there is no “hosts” file or no list of host address/names in that file in your PC, AlphaLAN would show a connect box and allow you to type in the host name/address.
- Added 42/49 row support in WYCOL emulation.
- Larger than 32 mega bytes file transfer support in native file transfer with an AMOS host.
- Support for taking inputs from a secondary port. If a secondary port is defined in the configuration file, AlphaLAN can take inputs from this port and relay it to the host.
- Replay host log file.
- On line help for dialog boxes.
- Full screen Window.
- Modified terminal emulation
  - Erase to end-of-line,
  - Split screen/ cursor positioning,
  - Box fill with attribute,
  - Top status line.
- Bi-directional support in WYSE50 emulation (Windows only).
- 3-D controls in dialog boxes.
- AlphaNET 2.4 support has been added.

For DOS Connectivity:

18. Modem file transfer

AlphaLAN 6.0 supports file transfer over modems using standard file transfer protocols. The protocols supported are ASCII, XMODEM, YMODEM, ZMODEM and KERMIT. Variations like XMODEM-1k and YMODEM-G are also supported.

19. Selectable foreground color on AM70/WYCOL emulation

On color field terminals(such as AM70, ESPRIT III etc.), whenever you set the background color the foreground color always switches to Black, as field terminals can hold only one attribute at a time. With AlphaLAN/FW 6.0 you can define the foreground color to be a color other than black.

20. New installation program

With this new installation program, ALINSTALL, you can select all the basic communication parameters and set the terminal type you want to emulate. As a result, you will need to execute the setup program, SETPC, only if you need to change other settings.

21. Modified setup program, SETPC

The setup program, SETPC, allows you to change/modify modem dialing command and modem initialization string. If you change any parameter and then select "Quit" from the main menu, SETPC will ask for confirmation. AlphaNET settings interface has also been improved.

22. Destination file name in Native file transfer (CPC/CALF)

You can now specify the destination file name(s) during file transfers to an AlphaMicro host (using CPC.LIT or CALF.LIT).

23. Phone Book

AlphaLAN offers you a new feature, namely Phone Book, for maintaining phone directories through the program - PB.EXE. You can maintain different Phone Book files. You can also add, edit or delete an entry and directly dial any entry from the currently selected Phone Book file. Phone Book entries may have different communication parameters associated with them.

24. Other Miscellaneous Improvements/Features

The new features which have been added are:

- Shut off printer option. If you select the “Disable Printing” under the “Preference” sub-menu of the “Terminal” menu item as “YES”, then all the printing sequences would be ignored by AlphaLAN and all the incoming characters/data would be displayed on the terminal
- 42/49 row support in WYCOL emulation.
- Improved cursor positioning on TCRT calls.
- Improved CTRM program (to connect to an AMOS system over AlphaNET) for better error and message handling. AlphaNET 2.4 support has been added.
- Improved FRCTRM. It now returns a DOS ERRORLEVEL if there is any error during NATIVE file transfers (CPC/CALF executed with “/G” option).
- “OPEN” program to open communication has been improved to handle errors and to retry opening communication.

- Improved security checking on AMOS system in open communication mode during breakdown cases, such as sudden power failure, switching off the PC without closing the communication, etc..

2. Installation instructions

2.1 Before Installing AlphaLAN 6.0

What is AlphaLAN 6.0?

AlphaLAN 6.0 consists of two sets of program, one for DOS and another for Windows. The windows set of AlphaLAN programs is called AlphaLAN For Windows or AlphaLAN/FW, henceforth. The DOS set of AlphaLAN programs is called AlphaLAN for DOS or simply AlphaLAN. **Both AlphaLAN for DOS and AlphaLAN for Windows are combined into one product, AlphaLAN 6.0**. You can "encode" AlphaLAN 6.0 to run under "DOS only" (like previous versions) or for an "incremental cost", encode it to run "Both DOS and Windows" programs.

The DOS set of programs provide Print and Disk server functions for both DOS and Windows users. These programs also provide Terminal Emulation and File Transfers for DOS users. AlphaLAN program "ORBIT" provides all the above features. The program "MINOR" provides Print and Disk server functions only. MINOR is used by Windows users for providing the Print and Disk Server functions, while AlphaLAN/FW program 'WINORBIT' performs the Terminal Emulation and File Transfer functions.

Minimum System Requirements

	AMOS	AlphaNET	DOS	Windows
AlphaLAN (DOS)				
Serial:	*AMOS/L 1.2A or AMOS/32 1.0*	*N/A*	*2.0*	*N/A*
AlphaNET				
Type 1	*AMOS/L 1.3D or AMOS/32 1.0D*	*2.1*	*3.3*	*N/A*
Type 2	*AMOS 2.2*	*2.2A*	*3.3*	*N/A*
AlphaLAN/FW				
Serial	*AMOS/L 1.2A*	*N/A*	*3.3*	*3.1*
AlphaNET				
Type 1	*AMOS/L 1.3D or AMOS/32 1.0D*	*2.1*	*3.3*	*3.1*
Type 2	*AMOS 2.2*	*2.2A*	*3.3*	*3.1*
AlphaLAN/FW with Insight/am				
Serial	*AMOS 1.3*	*N/A*	*3.3*	*3.1*
AlphaNET	*AMOS 1.4 or 2.2*	*2.2A*	*3.3*	*3.1*

*For **AlphaLAN/FW**, you will need a PC running Windows 3.1 in Enhanced mode. We recommend 80386SX or better, 4MB RAM, VGA monitor, display card and a mouse.*

Can I mix both DOS and Windows workstations on the same Alpha Micro?

Yes! You can mix the two, if you have configured AlphaLAN 6.0 to run with both DOS and Windows. For those users who do not wish to use Windows at all, AlphaLAN can also be configured to run with DOS only.

Differences Between AlphaLAN for DOS and AlphaLAN/FW

While AlphaLAN/FW is a full feature product offering most of the functions available in earlier versions of AlphaLAN, there are slight differences between the two products, due to the inherent nature of the underlying operating environment and the product design. While the following table lists most of these differences, you may find some other subtle differences.

	AlphaLAN (DOS)	AlphaLAN/FW
Terminal Emulations		
AM62A	YES	YES
AM62C	YES	YES
AM65	YES	YES
AM70	YES	YES
ANSI	YES	YES
ESPRIT III	YES	YES
PC/PCFD	YES	YES
PCFM	YES	YES
TVI925	YES	YES
VT100	YES	YES
WYSE50	YES	YES
WYSE350	YES	NO
WYSE370	YES	YES
WYCOL	YES	YES
TCP/IP Support		
PC/TCP Kernel from FTP Inc.	N/A	YES
Other Kernels supporting Windows Socket API	N/A	YES
Rlogin (for UNIX hosts only)	N/A	YES
TELNET	N/A	YES
File Transfers (Rlogin on UNIX hosts only)	N/A	YES
Print/Disk server on TCP/IP	N/A	N/A
FTP	N/A	YES
FINGER	N/A	YES

	AlphaLAN (DOS)	AlphaLAN/FW
TERMINAL EMULATION FEATURES		
Color Palette through (TCRT 157)	YES	NO
Color Palette through menu	NO	YES
Select Primary/Secondary Printer (TCRT 189/190)	YES	NO
Top Status Line (TCRT 63)	NO	YES
Non Blinking Cursor (TCRT 121/123)	NO	YES
MISCELLANEOUS		
Multiple Sessions on Ethernet	NO	YES
PEG - GRAPH.SYS support	YES	YES
PEG - Full AMIGOS support	YES	NO
FRCDOS and FRCTRM programs	YES	NO
FORCPC and KILLPC programs	YES	NO
Screen Saver	YES	NO**

** Available through Windows Control Panel

2.1.1 AlphaLAN 6.0 and Windows for Workgroup

AlphaLAN 6.0 is compatible with Windows for Workgroup. You will need to use the new Clarkson compatible AlphaNET packet driver, called ETHERNDV, if you connect your PCs to AlphaMicro using ethernet. EtherNDV requires a faster 386 or a 486 system in order to work properly.

When using AlphaLAN's print server function, you will need to use AlphaLAN's Minor program on each Windows Workstation. You will not be able to redirect printing to AlphaMicro printers from a non-AlphaLAN Workstation.

If you want to use AlphaLAN 6.0 over AlphaNET on an existing Windows for Workgroups network see **Appendix A** for installation instructions of AlphaNET on Windows for Workgroups.

2.1.2 Multiple Concurrent Sessions

Does AlphaLAN/FW support multiple sessions?

Yes, it does (but read on). This means that you have multiple connections to the same host, or multiple connections to multiple hosts, or connections to Alpha Micro hosts while connecting to other hosts, such as bulletin boards. But you do need to have the right configuration.

Using network protocols like AlphaNET and TCP/IP over Ethernet, AlphaLAN/FW can support multiple sessions to multiple hosts, limited only by the memory and performance of the PC and, of course, the amount of room on the PC screen. You also need to have enough resources (jobs, VTSER memory, AMOS port licenses, etc.) on the AMOS host. Remember that AlphaBASE, MetropoliS and FLiP users may not be able to use AlphaNET/Ethernet connections.

AlphaLAN/FW provides multiple sessions support on AlphaNET by using a program called ANDVR. It also supports any TCP/IP kernel that follows Windows Socket API. Multiple sessions support over TCP/IP is provided by most TCP/IP kernel.

A serial connection can only support a single session to a single host, but you can have multiple sessions, but only one over each cable. AlphaLAN/FW supports COM1: through COM8: at the standard PC interrupt levels and memory addresses. Therefore, you can have multiple sessions by using multiple cables connected to different ports on your host. And, yes, you can mix a single Ethernet connection with one or more serial connections, if you know what you are doing.

With multiple serial connections , you need to be aware of Window's performance limitations. It is your responsibility to ensure that your PC can handle multiple connections.

How does the user choose which session to start up?

You can set up one Windows icon to drive each connection, or each choice of connection parameters. Therefore, the user just needs to click on the appropriate icon, and he or she is connected to the appropriate system using the desired parameters.

So, are there multiple configurations I can set up?

Yes. That's the idea behind the multiple icons. Each icon refers to a setup that's stored in its own unique configuration file on the PC. The setup stores not only the starting sequence to fire off at the host on establishing connection, but also the configuration that the user last saved during the last time that icon was used. That is, the "user preferences" such as font selection and size, port used, baud rate used, function key template visibility, user defined key definitions, etc. are also stored behind the icon.

Thus, the system can be configured in a myriad of ways. The fact that you are running on a host system can be hidden from the PC user if you take the time to set up "things" on both the host and the PC side to achieve the seamless integration that's possible. Look in the end-user documentation for more details.

How many workstations can I connect to one AMOS host?

As with any type of terminal connection, the number of workstations that can be effectively supported depends on many factors, including the performance level of the host system hardware, the amount of activity on each connection, and the particular application in use. Since we're all used to configuring systems taking this

into account, perhaps it's best to characterize the number of connections by comparing them to traditional serial connections.

When connecting a workstation via serial ports, the loading on the system should be little different than when using a traditional character terminal. When connecting via a network connection, you must take into account the type of AlphaNET connection in use. Using Type 1 connections limits the number of workstation connections you can sustain to around ten active workstations. If the workstations are not busy, you may be able to attach more, but generally Type 1 connections should be treated as high overhead connections.

When using Type 2 connections you can treat the workstations as if they were connected via serial lines; the overhead of the Type 2 network connection is actually slightly lower than with traditional character terminals connected via serial ports.

So, are AMOS 1.x systems more limited than AMOS 2.x systems?

Yes, they are. Type 2 connections, which can only be established with systems running AMOS 2.2 or later, were created specifically to reduce the overhead of the older Type 1 connections. For those systems that need large numbers of network virtual terminal connections, AMOS 2.2 offers significant performance advantages in addition to many other enhancements.

You can start up multiple copies of AlphaLAN/FW and get connected to different hosts over RS232 or network protocols. Multiple copies of AlphaLAN/FW over RS232 can function if you have more than one COM port available on your PC. AlphaNET users will require as many copies of ANDVR's loaded in DOS memory before loading Windows as the required number of sessions.

F **Note:** AlphaLAN will count each session on RS232 connection as a separate node. However, all AlphaNET sessions from a single PC will be considered as one single node of AlphaLAN. However, the actual number of sessions may be restricted by the number of AMOS user licenses for a given host, as AMOS counts each of these sessions as a separate user license.

2.2 If you are upgrading an existing installation

Please go through the following important upgrade information before installing your upgrade.

2.2.1 Important Installation information about version 6.0

❶ AlphaLAN 6.0 is a major new upgrade and has many substantial changes from previous versions. Therefore, PC side programs of AlphaLAN 6.0 may not work with Alpha side programs of earlier versions of AlphaLAN and vice-versa. **You must install Alpha side software of AlphaLAN 6.0 first, before updating PCs.**

❷ If you are upgrading from AlphaLAN version prior to 5.0, a new program ANSER.LIT will need to be added to your system INI file on Alpha Micro. Therefore, you must install Alpha side software of AlphaLAN 6.0 **first**, before installing PC side software.

Please note that AlphaLAN 6.0 PC side software will not communicate over AlphaNET, unless you load the new Alpha side programs on your Alpha Micro and modify the INI file to include the ANSER.LIT installation.

- AlphaLAN 6.0 for Windows has a whole new keyboard remapper which is not compatible to the one in 5.0. If you had remapped your PC keyboard using AlphaLAN 5.0 keyboard remapping function, this information would be lost and you will need to reenter this information in 6.0. This incompatibility applies to AlphaLAN for Windows, only.

2.2.2 Installing the 6.0 update on Alpha

Save your current installed files on the Alpha system.

If your current update has been supplied to you on a VCR / Streamer tape, you can go to the section **"Installing Alpha side software from VCR / Streamer tape"**. If your update is supplied on a DOS diskette, then the Alpha side software needs to be transferred from the floppy diskette to your Alpha system using the previous version of AlphaLAN.

Installing Alpha side software from PC diskette

Do not update the PC side software first as it may prevent you from transferring the Alpha side files. Insert AlphaLAN 6.0 "Alpha" disk in drive A. Make sure you are on a PC that is connected to the Alpha system using AlphaLAN software. Press the hot key to go to AMOS prompt. Create a new temporary account on Alpha. If you use an existing account, make sure that there are no existing files in that account. Now, enter:

CALF A:\ALPHA*.* <CR>

at the AMOS prompt. This will transfer all the Alpha side files to the Alpha account you are logged in.

After all the files are successfully transferred, log to OPR: account. From this account, invoke ALUPD command file to copy various AlphaLAN files from the temporary account to the respective accounts on DSK0:. The syntax for invoking ALUPD command is:
DO devn:[p,pn]ALUPD devn:[p,pn] <CR>

For example, if your temporary account (having AlphaLAN update files) is DSK1:[25,10], you should give the following command:

DO DSK1:[25,10]ALUPD DSK1:[25,10] <CR>

Next, give the command VERIFY ALFLAN from the OPR: account. This will verify that your AlphaLAN update has been copied correctly. Please go to the section named "PIC encoding your new software".

Loading Alpha side software from VCR / Streamer tape

If your software has been supplied to you on VCR / Streamer tape, you will need to restore all the files from it to the Alpha disk by giving the following command from OPR: account:

VCRRES/T DSK0:[]=ALL:[] <CR> ; for VCR
MTURES DSK0:[]=ALL:[] <CR> ; for Streamer

Next, give the command VERIFY ALFLAN from OPR: account. This will verify that your AlphaLAN update has been copied correctly.

PIC encoding your new software

To PIC encode your software run IPLAN program from OPR: account. You will need a new PIC to install the new software. Re-encode your Alpha side software using this PIC.

Product: AlphaLAN ____ O "DOS Only"

SSD: O "Both DOS and Windows"

ID:

PIC for IPLAN (for ___ PCs) :

PIC for IPEG (for ___ PCs) :

F You will need a PIC code for "Both DOS and Windows" to use the AlphaLAN programs for Windows.

Modifying the System INI file to include ANSER

If you are using AlphaLAN to communicate **via AlphaNET** protocol over network connections, you may need to modify your System INI file to include ANSER (in case you were using AlphaLAN version prior to version 5.0). This is required even if you do not plan to use the new AlphaLAN programs for Windows. You should **not** include ANSER and skip this part of the installation, if you do not have AlphaNET installed on your AlphaMicro.

Log into DSK0:[1,4] and make a copy of your system INI file. A sample command for doing so would be :

COPY TEST.INI=AMOSL.INI

or

COPY TEST.INI=AMOS32.INI

After creating TEST.INI, edit it using AlphaVUE and make the changes as described below.

Increase the number of AMOS jobs by incrementing the number in the JOBS statement. Add **ANSER** in the JOBALC statement of your INI file. Add a TRMDEF statement for ANSER in your INI file. A typical TRMDEF statement would be:

TRMDEF ANSER, PSEUDO, NULL, 100,100,100

Insert the following line before the last SYSTEM command,

SYSTEM ANSER/N

Now you will need to attach ANSER.LIT to the ANSER job. Add the following lines in the section of the INI file where you have other ATTACH statements. **Please make sure that NETSER is attached and running before attaching ANSER to ANSER job.**

```
ATTACH ANSER, ANSER
KILL  ANSER
FORCE ANSER
MEMORY 10K
LOG DEMO
ANSER

WAIT ANSER
```

Reboot your Alpha Micro with this INI file. After the system boots up properly, run STAT from your console. The status of the ANSER program should be "**Rn Ms**". If everything is OK, you can copy the TEST.INI file as your system INI file. This completes the installation of the update on your Alpha system.

Refer to section 2.4, for installation of the update on your PC.

2.3 Installing AlphaLAN for the first time

Follow these instructions please:

- Files from the VCR Tape have to be copied in the respective accounts on DSK0: on the Alpha system. To restore files from the VCR Tape, give the following command from the OPR: account:

  VCRRES/T DSK0:[ ]=ALL:[ ] <CR>

  After restoring the VCR Tape, give the command VERIFY ALFLAN to verify all AlphaLAN files.

- After this, you have to install the cable, PIC encode the Alpha Side software using the IPLAN program and modify the system INI file. **If you want to use AlphaNET, you must also install ANSER.LIT as per instructions given in the previous section under the heading Modifying the system INI file**. **If you are using AlphaLAN 6.0 Windows program for terminal emulation then you also need to change the terminal driver for your job to PCI or PCFDI (these drivers are *in*Sight/am compatible).** For detailed instructions on other modifications, please refer to Chapter 2 of the AlphaLAN Installation Manual. If you are using AlphaLAN's Terminal Emulation and File Transfer Functions only, skip the next step.

- The files LOGNAM.PC[1,4], DEVNAM.PC[1,4] and JOBNAM.PC[1,4] should be created according to need. The files LOGNAM.PC and DEVNAM.PC define six character names for different accounts on Alpha, which are used by PC users as the Login names for logging in their accounts on the Alpha (through the DOS side command of AlphaLAN - OPEN), and for creating the DOS remote devices (on the Alpha disk) in various accounts, respectively. These files can also be created or modified by using AlphaLAN commands, LOGNAM and DEVNAM (from the OPR: account). Sample files (LOGNAM.SMP and DEVNAM.SMP) are also supplied and may be renamed (to LOGNAM.PC and DEVNAM.PC) and then modified as per your needs.

- Ø The file JOBNAM.PC in DSK0:[1,4], defines four character names for identifying different PCs and terminals connected to various jobs attached to the Alpha system. The names defined in JOBNAM.PC are used by AlphaLAN commands (like SENDPC, FORCPC, etc.) to send messages to or force and kill commands on various PCs or terminals. These names need to be defined only if you are going to use the above commands. Also note that you can use the AMOS job names directly, without having to define them in this file. This file may be modified using VUE from SYS: account. Care should be taken to start the job names immediately following the ":" (without leaving any blanks) and to retain the last character in the file, i.e. the DOT.

  The instructions for PIC encoding (given in the Manual) should be followed carefully for configuring the AlphaLAN software to run on your Alpha system.

2.4 Installation of AlphaLAN software on PC

AlphaLAN software on PC includes two set of programs - Windows programs and DOS programs. If you are installing AlphaLAN EL, you can decide whether you want to use it under DOS or Windows, or both, and then install the programs accordingly. If you are installing AlphaLAN EC or EP then you must install the DOS programs in addition to the optional Windows programs.

AlphaLAN comes with two install programs, the ALINSTAL program and a new Windows program INSTALL. If you want to install only the DOS programs of AlphaLAN 6.0 then refer to section "**Installing AlphaLAN 6.0 from DOS**". If you wish to install both DOS and Windows programs then you can use INSTALL program. In this case, please refer to section on "**Installing AlphaLAN 6.0 from Windows**".

Important Note for users updating from a version of AlphaLAN prior to 5.0

1. ❶ If you are an AlphaLAN EL user and use Windows, you may wish to delete the "old" ORBIT.COM program from your PC's hard disk (do not forget to take the backup of the old software on a floppy). You can also remove the ORBIT command from the AUTOEXEC.BAT file, if any.

2. ❷ ORBIT.COM/MINOR.COM should be deleted and the new ORBIT.EXE/MINOR.EXE files should be used. Installation program will delete these .COM files, if found in the installation directory.

Loading AlphaNET Drivers

Before we proceed with the installation, we would like to talk about setting up your PC with AlphaNET drivers, in case you are using Ethernet connection. You should be using the Clarkson AlphaNET driver ETHERNDV.EXE (and not the old WD.EXE driver).

The following diagram explains AlphaLAN/AlphaNET configuration under Clarkson packet drivers.

Clarkson Driver with its parameters
(e.g. WD8003E 0x61 0x05 0x280 0xD000)
|
|
ETHERNDV <int. no.>("int no." is the interrupt with which ETHERNDV
| communicates with ORBIT, ANDVR. Default is
0x5C)
|
ORBIT, ANDVR /A=<ETHERNDV int no.> /I=<WINORBIT interface interrupt>
|
| (Default ETHERNDV interrupt is 5C if /A option
is not specified and WinORBIT interrupt is 60(H)
if /I option is not specified)
|
WINORBIT.EXE (Communicates with ANDVR)

The following set of commands load WD8003E with its interface to ETHERNDV set at 0x61, ETHERNDV with its interface to ORBIT/MINOR or ANDVR set at 0x62 and ANDVR with its interface to WINORBIT set at 0x60

WD8003E **0x61** 0x05 0x280 0xD000
ETHERNDV **0x62**
ANDVR /A=**62**

F Please ensure that the interrupt numbers specified in WD8003E and ETHERNDV do not have the same value.

2.4.1 Installing AlphaLAN 6.0 from DOS

Please go to section 2.4.2 directly, if you are installing AlphaLAN for Windows. The Windows installation program will install AlphaLAN for both DOS and Windows.

To begin installing AlphaLAN 6.0 DOS programs only, enter the following commands at the DOS prompt, with AlphaLAN 6.0 Disk# 1 in drive A.

A: <CR>

ALINSTAL <CR>

The ALINSTAL program will ask you about host type and the AlphaLAN product (EL, EC or EP) that you are installing. Enter this information from the software license card supplied with the software. Next, it will ask you about the mode of communication that you shall be using. It then copies the files from AlphaLAN disk to the specified directory. Next, it will ask you to specify emulation and connection parameters. ALINSTAL allows you to set up the environment variable (ORB). If you set this variable, the DOS version of AlphaLAN will load its configuration file from the specified directory. For EC+EP users ALINSTAL now prompts for a user name, which is the user name under which you are logged into the AlphaMicro system. It can also add a PATH statement to the existing AUTOEXEC.BAT file so that the AlphaLAN programs can be loaded even if your current directory is not the AlphaLAN directory.

If you had selected the protocol as AlphaNET, you should also specify the correct AlphaNET interrupt number from the SETPC program. SETPC program can also define the hosts on your network if you are using AlphaNET protocol. After you have

finished configuring AlphaLAN, you can save the settings from the "File" menu and exit using the "Quit" menu of SETPC program.

The ALINSTAL program can also install AlphaNET software on your PC from the AlphaNET diskette supplied by Alpha Micro. AlphaLAN 6.0 supports the new AlphaNET PC software, called AlphaNET/PC 3.0. The drivers included with AlphaNET/PC 3.0 are recommended when you need to run multiple protocols on your PC workstation. For details, refer to "Using AlphaNET drivers" described earlier in this section.

Notes for AlphaLAN 6.0 RS232 installations:

The 'ALINSTAL' program generates the following BAT files during the installation process for RS232 installations:

GOALAN.BAT: This file can be used to start up DOS version of AlphaLAN 6.0.

STOPALAN.BAT: This file is used to stop the DOS version of AlphaLAN 6.0.

The contents of these files vary, depending upon the selections you make during the installation process. The following sample GOALAN.BAT and STOPALAN.BAT files show the typical contents of these files for RS-232 installations.

GOALAN.BAT

```
SET ORB=C:\ALPHALAN      ; Set ORB environment variable to installation
                         ; directory
ORBIT
OPEN demo                ; For EC+EP users, “demo” is user name on
                         ; the host system
```

STOPALAN.BAT

```
ORBIT/D
```

To start AlphaLAN 6.0 in SERIAL mode, just type 'GOALAN <enter>'. This command loads the main AlphaLAN program ORBIT.EXE in memory. Now, press the HOT key "Alt+F10" to switch to the terminal mode. Pressing "Return" or "Control-C" gives you the AMOS prompt.

To stop AlphaLAN, press the hot key "Alt+F10" again to switch to the DOS prompt and type 'STOPALAN <enter>' . The STOPALAN command unloads the ORBIT program from memory.

F If you are using RS232 connection, please select the correct Baud rate, the terminal type etc. from SETPC program. Refer to "Installation manual" for details.

Notes for AlphaLAN 6.0 AlphaNET installations:

The 'ALINSTAL' program generates the following BAT files during the installation process for AlphaNET installations:

GOANET.BAT
GOALAN.BAT
CALAN.BAT
STOPALAN.BAT

The contents of these files vary, depending upon the selections you make during the installation process. The following sample GOANET.BAT, GOALAN.BAT, CALAN.BAT and STOPALAN.BAT files show the typical contents of these files for AlphaNET installations.

GOANET.BAT

This file is created in the AlphaNET installation directory and loads various drivers required for the proper functioning of AlphaLAN 6.0 over AlphaNET. A sample GOANET.BAT file is described below:

```
WD8003E 0x61 0x5 0x280 0xD000     ; The Clarkson packet driver gets
                                  ; loaded
ETHERNDV 0x62                     ; Load the AlphaNET driver with
                                  ; interface set at INT 0x62
CD \ALPHALAN                      ; Change directory to AlphaLAN
GOALAN                            ; run GOALAN.BAT file
```

GOALAN.BAT

This file is used to start up DOS version of AlphaLAN 6.0. A typical GOALAN.BAT file would contain:

```
SET ORB=C:\ALPHALAN               ; Set ORB environment variable to
                                  ;  installation directory
ORBIT /A=62
CALAN                             ; for AlphaNET users only
```

CALAN.BAT

This file contains the CTRM command. A typical CALAN.BAT would contain a line like:

```
CTRM W=1 G=1 N=1 M=128 T=PC       ; Connects your PC to AlphaMicro host.
OPEN demo                         ; For EC+EP users, “demo” is user name on
                                  ; the host system
```

STOPALAN.BAT

This file is used to stop the DOS version of AlphaLAN 6.0. A typical STOPALAN.BAT file would contain:

```
ORBIT /A=62/D
```

To start AlphaLAN 6.0 over AlphaNET, type 'GOANET <enter>'. This command loads the packet driver (WD8003E.COM in this case). Then the AlphaNET protocol driver ETHERNDV. GOANET.BAT shows the packet driver loaded at interrupt number 0x61 in the above example. ETHERNDV automatically detects this interrupt. The number specified along with ETHERNDV statement is the interrupt number,

which AlphaLAN 6.0 uses to communicate with ETHERNDV. This interrupt is 0x62 in the above example.

After GOANET.BAT loads the AlphaNET drivers, it executes the 'GOALAN.BAT' file to load ORBIT program and execute CALAN command to connect your PC to your AlphaMicro host. Now, you can use the HOT key 'ALT+F10' to switch to the terminal mode.

To stop AlphaLAN, switch back to the DOS command prompt by pressing the hot key "ALT+F10" and type 'STOPALAN <enter>' . The STOPALAN command disconnects the AlphaNET session and downloads the ORBIT program from memory.

F ETHERNDV is the new 'Clarkson packet driver' compatible AlphaNET/PC 3.0 driver. Unlike the old AlphaNET driver, this new driver can be used, if you are running multiple protocols on your PC. The new driver is also compatible with Windows for Workgroups.

If you want to use AlphaLAN 6.0 over AlphaNET on an existing Windows for Workgroups network see **Appendix A** for installation instructions of AlphaNET on Windows for Workgroups.

F If you are using AlphaNET protocol, please use SETPC program to select AlphaNET under port/protocol. Also select the AlphaNET interrupt number from SETPC, if you are using the new AlphaNET/ PC 3.0 driver (ETHERNDV.EXE). Therefore, in the above example, you should use SETPC command and set this interrupt to "62". Finally select the correct terminal type. Refer to installation manual for details.

2.4.2 Installing AlphaLAN 6.0 from Windows

The INSTALL program on Windows installs both DOS and Windows programs of AlphaLAN 6.0.

To run AlphaLAN 6.0 Windows install program you can give the following command after inserting AlphaLAN 6.0 DISK #1 in drive A:

WIN A:\INSTALL <CR>

If you were already in Windows go to the Program Manager and choose "Run..." from its "File" menu. Type "A:\INSTALL" and press the "OK" button.

The INSTALL program will ask you about the product you wish to install. AlphaLAN 6.0 can be installed for any of the following configurations.

*in*Front	: the terminal emulation function only.
AlphaLAN EL	: the terminal emulation and file transfer functions.
AlphaLAN EC	: AlphaLAN EL + Print server function.

AlphaLAN EP : AlphaLAN EC + Disk server function.

INSTALL next asks you whether you want to install AlphaNET software. Select “Yes” if you wish to install AlphaNET software also or if you want to re-configure the existing .BAT files. INSTALL then displays the “System Settings” box, which asks for BOOT drive of PC, and whether AUTOEXEC.BAT should be modified. Additionally EC and EP users should enter the "User Name” which points to the login name on the host system. After copying DOS and Windows programs, INSTALL program will load the basic parameters from an existing WINORBIT.INI file (if present) or SETPC.OVR file (AlphaLAN DOS configuration file), if it exists in the current installation directory. If none of these are found INSTALL loads the default parameters. Next it will ask you to setup parameters like protocol, terminal emulation, etc.. If you selected AlphaNET protocol, it lets you create or modify an existing ALANHOST file. The install program will create a Program Group and Program Items in Program Manager. The Program group for AlphaLAN is called "AlphaLAN". The INSTALL program creates the configuration file "WINORBIT.INI". Finally, you can run WINORBIT from the Install program itself, if you are using SERIAL RS232 connection. If you select a protocol other than SERIAL, then you must load appropriate drivers before starting AlphaLAN windows program.

Notes for AlphaLAN 6.0 RS232 installations:

If you have an AlphaLAN EL installation and wish to use AlphaLAN for Windows, you can go directly into Windows and double click on 'AlphaLAN' icon in AlphaLAN group to start your terminal window.

The 'INSTALL' program generates the following BAT files during the installation process for RS232 installation. These files can be used by AlphaLAN EC and AlphaLAN EP users to start AlphaLAN server program before going into Windows.

GOALAN.BAT To start AlphaLAN server programs,

STOPALAN.BAT To stop AlphaLAN server program

The contents of these files vary, depending upon the selections you make during the installation process. The following sample of GOALAN.BAT and STOPALAN.BAT files show the typical contents of these files for an RS232 installation.

GOALAN.BAT

```
SET ORB=C:\ALPHALAN          ; Set ORB environment variable to
                             ; installation directory
MINOR                        ; For EC+EP users
OPEN demo                    ; For EC+EP users, “demo” is user name on
                             ; the host system
```

STOPALAN.BAT

```
MINOR/D                      ; For EC+EP users
```

If selected during installation, the MINOR command in GOALAN.BAT and STOPALAN.BAT is replaced by the ORBIT command. ORBIT will provide terminal emulation under DOS, but takes much more memory as compared to MINOR. ORBIT is not required if you are using AlphaLAN for Windows.

To start AlphaLAN just type 'GOALAN <enter>'. This command loads the AlphaLAN program MINOR.EXE in memory, and “opens communication” with the AlphaMicro host.

Once you have loaded the MINOR program, you can go into Windows and run WINORBIT program by double clicking the 'AlphaLAN' icon WINORBIT program from the "AlphaLAN" group. This will start your terminal window by temporarily closing communication on the same SERIAL port as MINOR is using. Please note that DISK/PRINT serving will be disabled as long as the terminal window “WINORBIT” is running. To start Print and Disk server functions again, you should exit your AMOS application and type DOS at AMOS prompt. Please refer to Chapter on 'Utilities' in AlphaLAN for Windows 'Users Manual'. You can use the WINALAN program to select remote printers and “open/close communication” with the AlphaMicro host. (For details on WINALAN program, please refer to the AlphaLAN for Windows Users manual).

F Please make sure that you have a "PCI" terminal specified in your system INI file on the AMOS side. This driver is required for your *in*Sight compatible programs.

To unload MINOR, quit Windows and at the DOS prompt, type 'STOPALAN <enter>'. The STOPALAN command unloads the MINOR program from memory.

F If you are using RS232 connection, please select the correct Baud rate etc. from the SETPC program.

Notes for AlphaLAN 6.0 AlphaNET installations:

The 'INSTALL' program generates the following BAT files during the installation process for AlphaNET installations:

GOANET.BAT
GOALAN.BAT
CALAN.BAT
STOPALAN.BAT

The contents of these files vary, depending upon the selections you make during the installation process. The following sample GOANET.BAT, GOALAN.BAT, CALAN.BAT and STOPALAN.BAT files show the typical contents of these files for AlphaNET installations.

GOANET.BAT

This file is created in the AlphaNET installation directory and loads various drivers required for proper functioning of AlphaLAN 6.0 over AlphaNET. A sample GOANET.BAT file is described below :

```
WD8003E 0x61 0x5 0x280 0xD000     ; The Clarkson packet driver gets
                                  ; loaded
ETHERNDV 0x62                     ; Load the AlphaNET driver with
                                  ; interface set at INT 0x62
```

```
ANDVR /A=62                 ; Load AlphaLAN's Windows interface
                            ; driver for one AlphaNET session. /A=62
                            ; specifies that ETHERNDV is loaded at
                            ; INT 0x62
C:                          ; Change drive to installation drive.
CD \ALPHALAN                ; Change directory to AlphaLAN
GOALAN                      ; For EC+EP users, run GOALAN.BAT file
```

GOALAN.BAT

This file is used to start up DOS version of AlphaLAN 6.0. A typical GOALAN.BAT file is shown below.

```
Set ORB=C:\ALPHALAN         ; set ORB environment variable to
                            ; installation directory
MINOR /A=62                 ; For EC+EP users
CALL CALAN                  ; for AlphaNET users only
OPEN demo                   ; For EC+EP users, “demo” is user name on
                            ; the host system
```

CALAN.BAT

This file contains a single line CTRM command:

```
CTRM H=am400                ; am4000 is the host name defined in the
                            ; ALANHOST file
```

STOPALAN.BAT

This file is used to stop the DOS version of AlphaLAN 6.0. A typical STOPALAN.BAT file may contain:

```
MINOR /A=62/D               ; For EC+EP users
```

To start AlphaLAN 6.0 type 'GOANET <enter>'. This command loads the packet driver (WD8003E.COM, in our case), and also AlphaNET protocol driver ETHERNDV. The above sample of GOANET.BAT shows the packet driver loaded at interrupt number 0x61. The ETHERNDV automatically detects this interrupt. The number specified along with ETHERNDV statement is the interrupt number that AlphaLAN uses to communicate with ETHERNDV.

If you are an AlphaLAN EL user, go directly to Windows. For AlphaLAN EC and EP users, GOANET.BAT file executes 'GOALAN'. This loads MINOR.EXE program in memory connects your PC to your AlphaMicro host, and for EC+EP users starts the server functions.

Now, you can go into Windows and run AlphaLAN icon to start your terminal window. To modify AlphaLAN server functions double click on WINALAN icon from the "AlphaLAN" group. Using this program, you can open/close communication with the AlphaMicro host and select remote printers (For details on WINALAN program, please refer to the AlphaLAN for Windows Users manual).

When you quit Windows, type 'STOPALAN <enter>' at DOS prompt to stop AlphaLAN. The STOPALAN command disconnects the AlphaNET session and unloads MINOR program from memory.

F If you wish to use terminal emulation from DOS, you will need to change GOALAN and STOPALAN files (change the line containing MINOR to ORBIT in these files). If you are using AlphaLAN EL, you will also need to modify GOALAN file. Please note that using ORBIT.EXE in place of MINOR.EXE takes up much more memory under DOS.

F ETHERNDV is the new 'Clarkson packet driver' compatible AlphaNET/PC 3.0 driver. Unlike the old AlphaNET driver this new driver can be used if you are running multiple protocols on your PC. The new driver is also compatible with Windows for Workgroups.

F The AlphaNET interrupt number should be specified from SETPC if you are using the new AlphaNET/ PC 3.0 (ETHERNDV.EXE) with the Clarkson packet interface. The AlphaNET interrupt 0x60 should only be used if ORBIT.EXE is loaded with the /I=nn option and "nn" is not 60. The /I=nn option is used to specify the interrupt number between ORBIT.EXE or ANDVR.COM and AlphaLAN windows programs. By default ORBIT.EXE or ANDVR.COM uses the interrupt 60H.

Notes for AlphaLAN 6.0 SCO IPX/SPX installations (Windows Only)

SCO IPX/SPX provides interoperability between DOS Workstation NetWare clients and SCO UNIX Version 4.0 or Open Desktop Release 2.0 over the NetWare network. AlphaLAN 6.0's Windows programs supports this IPX/SPX interface on PCs connected in a Novell network to communicate with SCO UNIX hosts.

This interface eliminates the need for multiple protocol stacks in a Novell network. It consists of three components:

- Kernel component, comprising of three stream drivers for supporting Novell's Internetwork Packet Exchange (IPX), Sequenced Packet Exchange (SPX) and Novell Virtual Terminal (NVT) protocol.
- User component, including a NetWare Protocol Stack daemon, a Novell Virtual Terminal daemon and a Service Advertising Protocol daemon.
- DOS component, consisting of a DOS TSR (NVT.EXE) which acts as a network redirector allowing a DOS user to establish a connection with an NVT server. It requires IPX.COM (shipped with Novell server) to be loaded on DOS, in addition to the device driver for the LAN card.

Installation instructions

- Make sure that the required LAN adapters and corresponding Link Level Interface (LLI) drivers have already been installed and configured on the SCO UNIX system. Install the UNIX component on the system (running SCO UNIX Version 4), by using

the "custom", "netconfig" and "ipx start" commands. Please refer to SCO IPX/SPX manuals and release notes for details.

- Please refer to Novell-distributed installation and configuration notes to configure IPX for the chosen LAN adapter and network type. Copy NVT.EXE (from SCO IPX/SPX diskette) to your hard disk and add the NVT command in the AUTOEXEC.BAT file, after issuing the IPX command.

  If you are using AlphaLAN 6.0 Windows programs over IPX/SPX then you need to load the IPX/SPX driver and then from Windows, double click on the 'AlphaLAN' icon in the 'AlphaLAN' group. Only terminal emulation is available over IPX/SPX interface.

Notes for AlphaLAN 6.0 TCP/IP installations (Windows Only)

AlphaLAN 6.0 Windows programs allows you to perform remote login (through "RLOGIN" and TELNET) on multi-user host systems over TCP/IP. The host system should have TCP/IP run time system installed on it. On the PC side, a TCP/IP kernel providing standard Windows Socket API interface to Windows programs, e.g. FTP Software Inc.'s PC/TCP network software should be installed. To be able to perform remote login on a host system over TCP/IP, you should be connected to the host directly through Ethernet or indirectly through gateways.

Appendix B lists the various WINSOCK complaint TCP/IP stacks supported by AlphaLAN 6.0.

To get a list of hostnames in the “Connection Setup..” dialog box, you should have the “HOSTS=“ entry in your WINORBIT.INI (or any other AlphaLAN INI file) point to the HOSTS file (or table) of your TCP/IP stack. For example if you have FTP’s TCP/IP stack, and its host file (specified in “host-table=“ entry in its .INI file) has an entry like:

host-table=c:\pctcp\hosts

then, the “HOSTS=“ entry in AlphaLAN .INI file should be:

HOSTS=c:\pctcp\hosts

Please note that this entry is required only to allow AlphaLAN to get a list of pre-defined host names. If you want to add any new host names, you should add them to the above file.

This file should be in the format specified below and should contain the name and internet addresses of the machines on your network. Following is the script of a sample HOSTS file:

```
127.0.0.1       Loopback
20.0.70.1       bigalpha.com    bigalpha
20.0.70.2       pc1.uas.com     pc1
20.0.70.3       pc2.uas.com     pc2
20.0.70.10      runix.com       runix
```

First field specifies the internet address, second field specifies the canonical name and the third field specifies the symbolic name of various hosts on the network.

After loading the TCP/IP kernel, double click on the 'AlphaLAN' icon in the 'AlphaLAN' group.

Notes for AlphaLAN 6.0 INT 14 installations (Windows Only):

This interface allows you to use AlphaLAN 6.0 with IBM ROM BIOS INT 14H based network redirector on a wide range of networks. To use AlphaLAN 6.0 with INT 14H, install the INT 14H network redirector on the PC for COM1 or COM2 and from Windows, double click on the 'AlphaLAN' icon in 'AlphaLAN' group. Select the proper ports and parameters for INT 14H interface. Only terminal emulation is available over INT 14H interface.

3. Description of New Features

3.1 File transfer over various modem protocols

The modem file transfer protocols supported are ASCII, XMODEM, YMODEM, ZMODEM and KERMIT. The large packet variation of XMODEM often called XMODEM-1k and the reliable link option of YMODEM called YMODEM-g are also supported.

ASCII

This protocol consists of reading each byte of data from a file and transmitting it. It is used for readable text files only. Data is sent on a character by character basis and to the receiver it appears as though data has been entered from a keyboard. The receiver can save, display or discard the data.

XMODEM

In this protocol the sender and the receiver synchronize by sending a fixed size of data at a time. XMODEM is a simple send and wait, automatic repeat request (ARQ) flow control protocol. The packet contains header fields, a data field and an error check trailer. Using the header fields and the trailer, each packet is verified before the next packet is transmitted. The data field is of 128 bytes but padding bytes are inserted if the file size is not an exact multiple of 128. Therefore, the file size on the sender and receiver sides may not match.

Since, both sender and receiver wait for specified characters in order to synchronize their actions, time-outs and retry limits are required. Both binary and text files can be transferred using this protocol.

XMODEM-1k

This protocol is an extension of the standard XMODEM protocol. But instead of the 128 bytes data field, 1024 bytes data field is used. However, as in the case of XMODEM, padding bytes are inserted if the file size is not an exact multiple of 1024. If line conditions are poor, the sender may step down to a smaller packet size.

YMODEM

Multiple files can be transferred using the YMODEM protocol. Unlike ASCII, XMODEM and XMODEM-1k, the file length is also transmitted. Large packet (data size 1024 bytes) are supported. This protocol can be used for both binary and text files.

YMODEM-g

It is a derivation of the standard YMODEM protocol in which the sender sends data continuously (or blocks one after the other) without stopping. Therefore, it is also referred to as a full streaming protocol. YMODEM-g assumes that the link is error free and any error cancels the transfer.

ZMODEM

ZMODEM is a packeted, full streaming protocol with failed transfer recovery features. It can also configure its streaming techniques to accommodate systems which are incapable of the full streaming throughput. The sender in this case can shorten the packet size to 512 or 128 bytes. Furthermore, ZMODEM can emulate YMODEM, thereby providing compatibility with many systems. Besides the general transfer options of other protocols, ZMODEM provides certain "Advanced Options". Both binary and text files can be transferred using this protocol.

KERMIT

This protocol has the feature of supporting file transfers in a 7 bit format. Since all the data is transmitted within the range of printable ASCII characters, data encoding and decoding is required, which allows KERMIT transfers to work without errors under a variety of operating systems and terminal types. Using this protocol you can transfer both binary and text files.

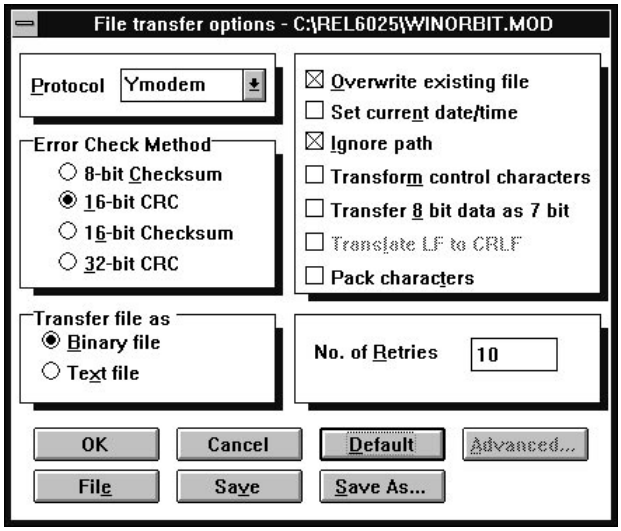
3.1.1 File transfer on AlphaLAN for Windows

3.1.1.1 Selecting File transfer protocols

For file transfer to/from the other machine you can select a particular protocol from the File Transfer Protocol sub-menu of "Settings" menu.

3.1.1.2 File transfer options

You can modify options for file transfer from the Transfer Options" sub-menu of Transfer menu. A dialog box appears as shown:



If you want to set default values for all the fields, click on the Default button. The various options in this dialog box are explained below:

Protocol

Use this option to change the currently selected protocol. After you have changed the currently selected protocol, the settings for that protocol will appear in the dialog box. Some options will be disabled (grayed) for some protocols.

Error Check Method

Using this option, you can change the error checking method used for file transfer. The error checking methods supported are:

1 byte Checksum
2 byte CRC(CRC-16)
16 bit Checksum
32 bit CRC

Please note that some of these error checking options are not available for all the protocols.

File Type

Two types of files can be transferred. These files are:

Text files
Binary files

In case of text files only printable ASCII characters can be transferred. But in binary files printable characters, control characters and binary characters can also be transferred. In binary file LF to CRLF conversion is not valid.

General Options

These options are :

- *Overwrite existing file*
  If this option is selected and a file which already exists on the receiver side is transferred by the sender, then that file will be overwritten. This option is disabled in ZMODEM and the advanced options dialog box shows the overwriting options in this case.

- *Set current date/time*
  If this option is selected, the date and time of file are set from the system. In order to leave the date and time unchanged when the files are received, deselect this option.

- *Ignore path*
  This option causes the received file(s) to be placed in the current working directory regardless of any transmitted file path. While transmitting file(s), any path specifier is removed from the file information block before it is sent, if this option is selected.

- *Transform control characters*
  This option is used to encode control characters (ASCII characters whose values are less than 32). When this option is specified, all control characters are transformed (escaped).

- *Transfer 8 bit data as 7 bit*

This option allows to transfer binary files (those with 8 significant data bits per character) using just 7 data bits. It is a standard KERMIT option. If selected, it encodes 8 bit characters to 7 bit.

- *Translate LF to CRLF*
  This option translates single line feed characters into a line feed and carriage return combination. It is valid for text files only and can be specified for all the protocols.

- *Pack characters*
  If this option is selected, then a group of repetitive characters can be sent more quickly by marking them with a special escape character. It can be specified for all the protocols.

F **Note**: *Transform control characters, Transfer 8 bit data as 7 bit, Translate LF to CRLF and Pack characters* options will work only if sender and receiver both have selected these options.

Retries

Number of retries specifies the number of times the packet is to be sent, if acknowledgment is not received.

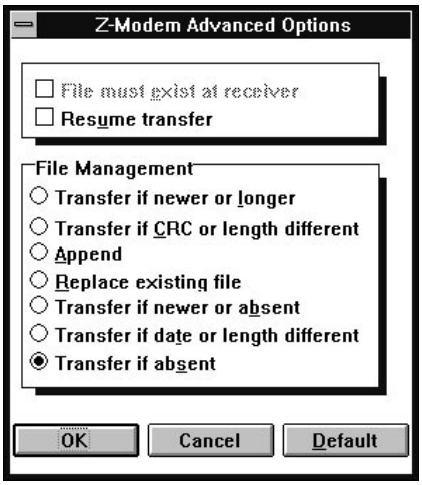
3.1.1.3 Saving/Changing file transfer options

You can save file transfer options by selecting "Save" or "Save As" buttons in the "Transfer Options" dialog box. The "Save" option updates the current options file, while the "Save As" option prompts you for a separate file name.

If you want to load options saved in some other file, you can choose "File" button. A dialog box will be displayed with a list of file names (with extension .MOD) in current working directory, from which you can select any file.

3.1.1.4 Advanced options for ZMODEM

In addition to the file transfer options explained above, ZMODEM protocol allows you to set certain other options. Use "Advanced" button in "Transfer Options" dialog box to set certain advanced options available in case of ZMODEM protocol. The following dialog box appears on clicking this button:



Clicking on the default button will set all the fields to their default values. Following are the various options available.

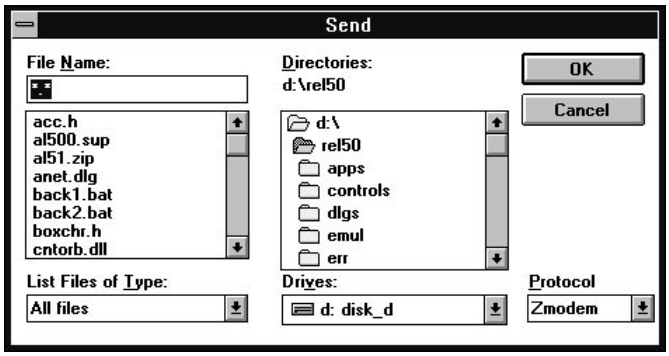
- *File must exist at receiver*
  The transfer will take place only when the file exists on receiver side. This option is useful for transferring a file only if a previous version of that file exists on the receiver side.

- *Resume transfer*
  This option helps to resume an interrupted transfer. You cannot use this option for transferring file for the first time. This option is to be used only when you want to resume the last unsuccessful transfer of the same file.

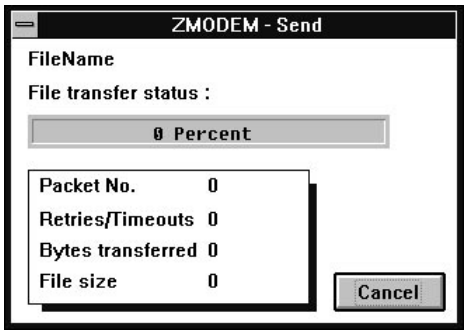
- *File Management option*
  These options allow the conditional transfer of files. *Transfer if absent* option and *File must exist at receiver* options are mutually exclusive.

3.1.1.5 Sending Files

To send a file, select the "Send" item from the "Transfer" menu. A dialog box appears as shown below:



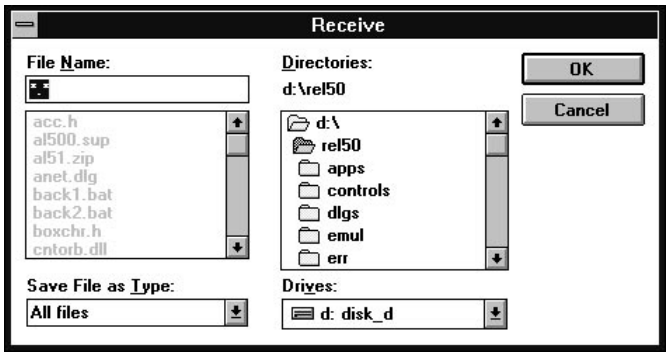
Using this dialog box, you can select a single file or multiple files to be transferred. You can also specify wild card options in the wild card edit box. Multiple files are not allowed in ASCII and XMODEM file transfer protocols. To send the file(s), click on the OK button. A dialog box showing the file transfer status appears as shown:



The progress bar shows the percentage of file transferred. To cancel file transfer, click on the "Cancel" button.

3.1.1.6 Receiving Files

To receive a file, select the "Receive" item from the "Transfer" menu. In case of XMODEM and ASCII file transfers, a dialog box appears as shown below:



You can select the name of the file that is going to store the received data(file). After this, a dialog box showing the status of file transfer will appear (like the one in case of "Send").

3.1.2 File transfer on AlphaLAN for DOS

3.1.2.1 Getting started

Before starting file transfer, make sure that ORBIT is loaded in memory and configured for the correct port. Start file transfer program by giving the following command at the DOS prompt.

XFER filename <cr>

where *filename* (default XFER.INI) is the configuration file that initializes XFER on startup.

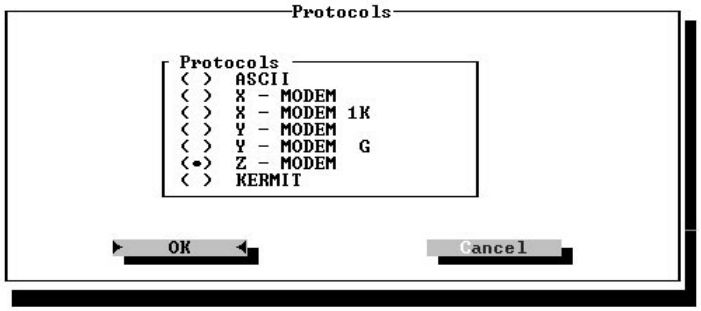
A word about Configuration file

Customized configuration file can be created for file transfer. "Open ..." option in the "File" menu allows you to load the configuration from the specified file. The "Save ..." option updates the current configuration file while the "Save As..." option prompts

you for a file name to save the configuration. Different configuration files for different communicating sides prevents repeated settings of protocol, options etc..

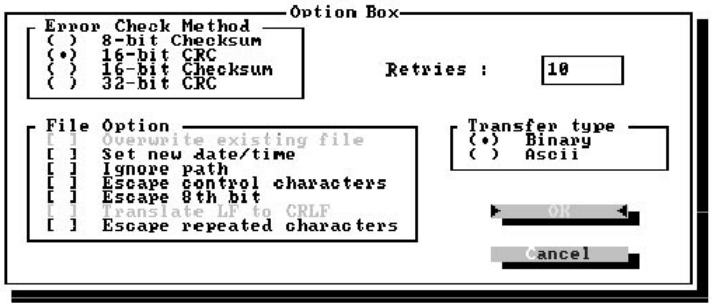
3.1.2.2 Protocol selection

You can select a particular protocol by selecting the "Protocol ..." option of "Transfer" menu. A dialog box would appear whereby you can select the desired protocol. The protocols supported are ASCII, XMODEM, YMODEM, ZMODEM and KERMIT. The large packet variation of XMODEM often called XMODEM-1k and the reliable link option of YMODEM called YMODEM-g are also supported.



3.1.2.3 File Transfer Options

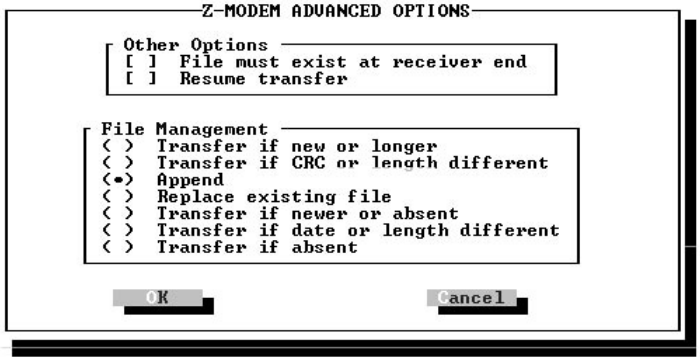
Select "Option" in the main menu bar to set file transfer options. The Option dialog box appears as shown below.



The above options work exactly as in AlphaLAN for Windows. Please refer to section 3.1.1 for a detailed description.

3.1.2.4 Advanced Options for ZMODEM

In addition to the above mentioned file transfer options, ZMODEM protocol allows certain other options to be set. Select the "Advanced Option..." item in "Transfer" menu to change ZMODEM advanced options. A dialog box displaying the file management and other options pops up.



The various options available are same as in AlphaLAN for Windows and are described in section 3.1.1.4.

3.1.2.5 Port Parameter settings

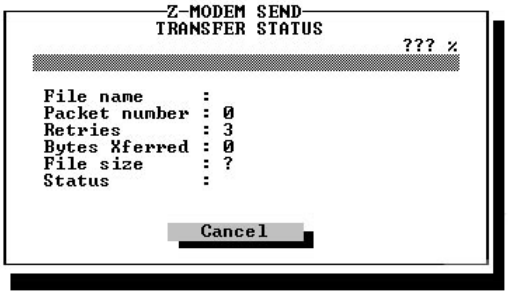
Port settings can be changed by selecting the "Port Parameter" option in the main menu. A dialog box appears, which allows you to change the following parameters:

- Baud rate
- Data bits
- Parity bits
- Stop bits

Checking the "**Restore ORBIT parameters**" in the dialog box causes the port to be restored to the configuration that existed prior to the execution of XFER.

3.1.2.6 Sending file(s)

To send a file, select the "Send..." item from the "Transfer" menu. The dialog box which appears, prompts you for a file name. Using this dialog box, you can select the file to be transferred. To send the file click on the "OK" button. A dialog box showing the file transfer status appears as shown:



3.1.2.7 Receiving file(s)

To receive a file, select the "Receive" item from the "Transfer" menu. In case of XMODEM, X MODEM -1K protocols and ASCII protocols, a dialog box appears, prompting you for a file name.

You can select the name of the file that is going to store the incoming data(file). After this, a dialog box showing the status of file transfer will appear like the one in case of "Send".

The progress bar shows the percentage of file transferred. To cancel file transfer, click on the "Cancel" button.

3.2 Selectable foreground color in AM70/WYCOL emulation

3.2.1 In AlphaLAN for DOS

On color field terminals such as AM70/ESPRIT III, whenever you set the background color the foreground color always switches to black, as it can hold only one attribute at a time. If you set an environment variable, FDCOL, before loading ORBIT (by giving the DOS command, SET as explained below), you can define the foreground color to be something other than black.

The FDCOL variable is defined as follows

SET FDCOL=01234567

The eight positions in FDCOL variable correspond to the eight background colors, as follows:

position #	Corresponding background color
0	green
1	cyan
2	yellow
3	white
4	black
5	blue
6	red
7	magenta

Following are the codes assigned to different foreground colors.

color code	color
0	black
1	blue
2	green
3	cyan
4	red
5	magenta
6	yellow
7	white

To select a particular foreground color for a specific background color, you may specify the foreground color code at the FDCOL variable position corresponding to that background color. After this FDCOL variable is set, whenever you change the color through your host program to that specific background color, the foreground letters will appear according to the foreground color specified in the FDCOL variable.

For example, if you would like white foreground letters on blue background, FDCOL variable can be set as:

set FDCOL=0000070 or,
set FDCOL=000007

Similarly, for Yellow on black and white on blue, you can define

set FDCOL=0000670 or,
set FDCOL=000067

This variable has to be defined in the environment before ORBIT is loaded. Best way to do this is to place this statement in your AUTOEXEC.BAT file before you load ORBIT.

3.2.2 In AlphaLAN for Windows

As in the case of AlphaLAN for DOS, you have to set the ***FDCOL*** variable (user editable only) in .INI file for any foreground color on any background color. For example, if you want white on blue color you can define the FDCOL (in the initialization file) as follows:

FDCOL=0000070 or,
FDCOL=000007

3.3 New Terminal emulations/features in AlphaLAN/FW

AlphaLAN/FW 6.0 now emulates two new terminals, AM62C and PCFM. ANSI emulation has been improved to provide support for 8 bit graphic characters. ESPRIT III emulation now supports 4 pages. bi-directional port support has been added to WYSE50 emulation.

PCFM - Native "Field" Terminal Emulation with "Mode" colors

The various features supported by this new emulation are field attributes, mode colors, and standard TCRT support (in case of AMOS). You also have support for save/restore screen area, alternate page, 132 column and 42/49 row screens, protected fields, window style boxes, set date/time, horizontal split, top and bottom status lines, ANSI color commands, mouse, etc.. To select this emulation you have to use our new terminal driver PCFM.TDV on the AMOS side and select NATIVE on the Windows side.

AM62C Emulation

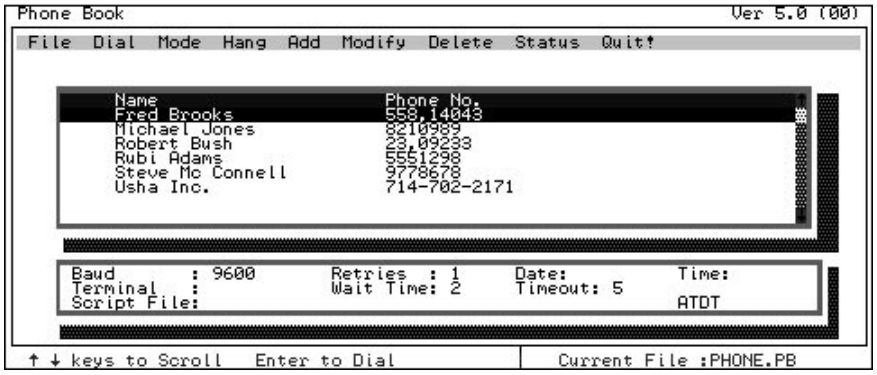
This emulation allows your AMOS programs to use AM62A emulation (field attributes) with AM72/AM75 style mode colors.

3.4 Phone Book for DOS

Phone Book can be executed from the command line by giving the command :

PB filename <cr>

where *<filename>* is the Phone Book file. PHONE.PB is the default Phone Book file. This causes the following screen to appear:



A number can be dialed using **Dial** option on the menu, or by pressing Enter at the desired phone record.

The main functions provided by the phone book are:

Œ Allow the user to Add/Modify/Delete a Phone Book record.

- Dial a number (highlighted entry in the *Records list*), at the specified time and date(delayed dialing).

- The user can switch between the *Menu bar* and the *Records list* by using the Alt key (plus the highlighted key in the menu bar) combination, or just the Alt key.

- In the records list the entries are displayed in a sorted order (ignores case of the characters), and the user can search through the list by pressing the first character of any name.

The menu options available are:

File

"Open" item in the "FILE" menu allows you to load phone records from an existing Phone Book file. The "New" item allows you to create a new Phone Book file. The "Save" item updates the current Phone Book file, while "Save As" item prompts you for a file name to save the records.

Dial

This option dials the number from the currently selected record in the Phone Book *Records list*. If any value is specified for the time and/or date (displayed in the *information window*), the number is dialed at that time, otherwise it is dialed immediately. The user can exit out of the dialing sequence by pressing **Esc**.

F **Note:** The following baud rates are supported - 300, 600, 1200, 2400, 4800, 9600, 19200, 38400 and 57600.

Mode

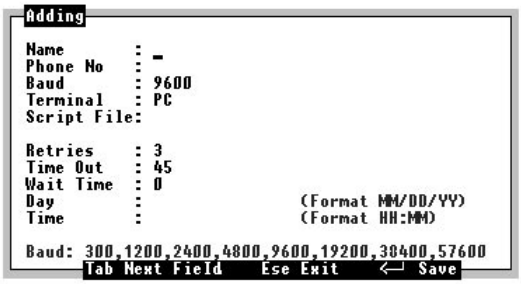
The user can select between ATDT / ATDP (Tone Modem / Pulse Modem) by using this option. Currently selected option is displayed in the *information window.* The default mode is ATDT.

Hang

To terminate the dialed connection, select this option.

Add

This option adds a new entry in the Phone Book. Unless both the name and phone number are not specified, the new entry is not added to the Phone Book.



Modify

This option allows the user to modify an existing entry. If the record is changed, the file is marked as modified (an asterisk(*****) appears along the file name in the *status bar*).

Note: If a previous value for date and/or time is specified, and the user wants to dial immediately, he can erase the old values by entering all 0's in those fields.

Delete

This option deletes the selected record, without any confirmation.

Status

The user can view the last connected numbers (day and time), connection time and other information using this option.

Quit

This option quits the Phone Book. In case the file has been modified, the user is prompted to save the modified file.

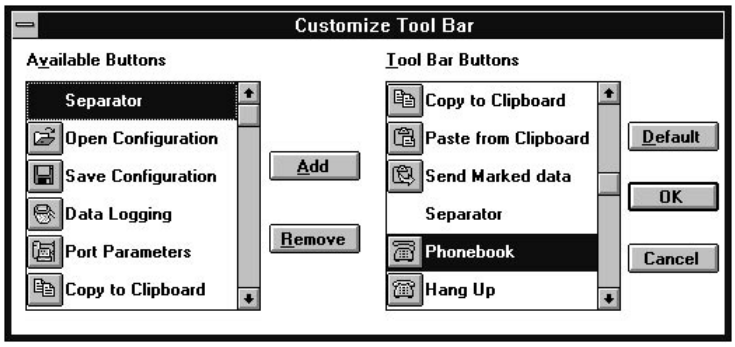
3.5 Tool Bar

You can use the tool bar for quick access to commonly used commands of AlphaLAN/FW like open and save configuration, clipboard operations, dial, hang-up, etc.. The tool bar, just below the menu bar of terminal window displays the buttons for some commonly used commands. Clicking on the button will perform the function assigned to the button. The status bar displays the function associated with each tool bar button. You can display or hide the tool bar from the "Tool Bar" option of "View" menu.

You can display or hide the tool bar from the "Tool Bar" option of "View" menu.

Customize Tool Bar

You can add, delete, move or regroup buttons on the tool bar to best suit the way you work. A dialog box will be displayed when you select "Customize Tool Bar" from "Tools" menu.



Current tool bar buttons and available buttons are listed separately in the dialog box. To add a button, select the button to be added in "Available Buttons" list and select its position in "Tool Bar Buttons" where it is to be added and then choose the "Add" button. You can remove any button from "Tool Bar Buttons" by selecting it and clicking on "Remove" button. Separators can be used to adjust spacing between buttons. You can restore the default tool bar by choosing the "Default" button.

3.6 Border Color and Pattern

In AlphaLAN/FW, font size is selected so that the entire text on the page fits into your window. If the text displayed in the selected font size does not fill the entire window, the application text is centrally placed within the window. The pattern and color of the surrounding "border area" is user selectable. Selection can be made through the "Border Color" item of "Display Options" sub-menu in "Settings" menu.

"Border Color" displays the Windows standard color selection dialog box from which color can be chosen and created. Pattern can also be selected from this dialog box. To define a color of your own, click the "Define Custom Colors" button. It displays custom colors. You can select one of the 16 rectangles in this control and then create a new color by using one of the following methods:

❶ Specifying red, green, and blue (RGB) values by using the Red, Green, and Blue edit controls.

❷ Moving the cursor in the color spectrum control (at the upper-right of the dialog box) to select hue and saturation values.

❸ Specifying hue, saturation, and luminosity (HSL) values by using the Hue, Sat, and Lum edit controls.

To display a newly created color in the selected rectangular box, click on "Add to Custom Colors". You can select any of the colors (basic or custom) to fill the border area.

3.7 Status Line

The status line shows a single line help for the currently selected menu item. Also, if you move the cursor on a Tool Bar icon, the corresponding help text would be shown on the status line. AlphaLAN looks for its initialization files in the current working directory. By default, the installation directory is the working directory. Similarly, all the file transfer is done either from the “upload” directory (for sending files to a remote system) or to the “dnload” directory (for receiving files on your PC). You can set the current directory, the upload directory and the download directory to any directory of your choice. If you select the option “Directories...” from the “File” menu bar item, a dialog box appears, showing you the current selections for these directories. You may change them according to your need.

3.8 User Defined Keys

You can assign your own labels and multiple character sequences (maximum 20 characters) to as many as 64 user definable keys. These keys are displayed in four groups of sixteen keys each, either at the top or at the bottom of the terminal window. Choose "Top" or "Bottom" after selecting the "User Defined Keys" sub-menu of the "View" menu. Choose "None" from the same sub-menu to hide the template.

For example, you can define a template for UNIX commands which may look like the following:

3.8.1 Using the UD Keys

At a time, 16 buttons for 16 keys of one level along with a master button showing the name of level will be displayed on the screen. If you have not specified any name for level then the master button will show "LEVEL 1" for first level and "LEVEL 2", "LEVEL 3", "LEVEL 4" for second, third and fourth levels respectively. You can click on the master button (level name button) to switch between different levels.

You can select any key in the current level by clicking on the corresponding button. For selecting a key from other levels, you can either change the level using master button and then click on that button or you can click on the corresponding button in the current level along with pressing the modifier key for that level. The modifier keys for different levels are :

Level	Modifier key to be pressed
1	none
2	shift
3	control
4	alt

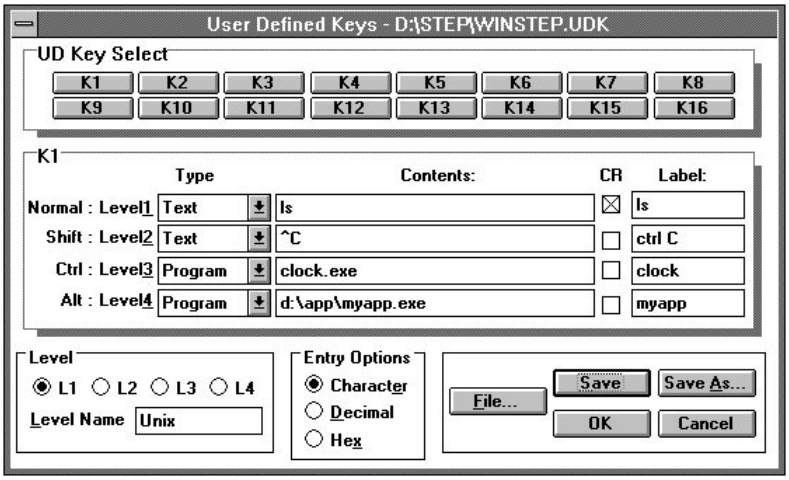
Suppose you have defined the command for key1 as "ls" in first level and "clear" in second level, you can send the "clear" command from the first level by pressing the "shift" key and clicking on the first button.

F **Note**: You cannot select a key of LEVEL1 from other levels, i.e. you can select a key from LEVEL1 only when master button is set to LEVEL1.

3.8.2 Programming of UD Keys

The user defined keys can be programmed using the dialog box that appears on the screen when you select the "Define User Keys..." option from the "Tools" menu.

This dialog box (shown below) has 16 keys which you can define for 4 levels. Select the key that you wish to define. The labels and contents of the selected key for all four levels will be displayed in corresponding boxes and the group box will show the selected key number. For example, the above dialog box shows the information of K1 key and the title of group box is set to "K1".



You can define the key to perform one of the following two functions.

❶ TEXT - for sending the contents of the key to host.
❷ PROGRAM - for executing the program whose name is specified in contents of the key.

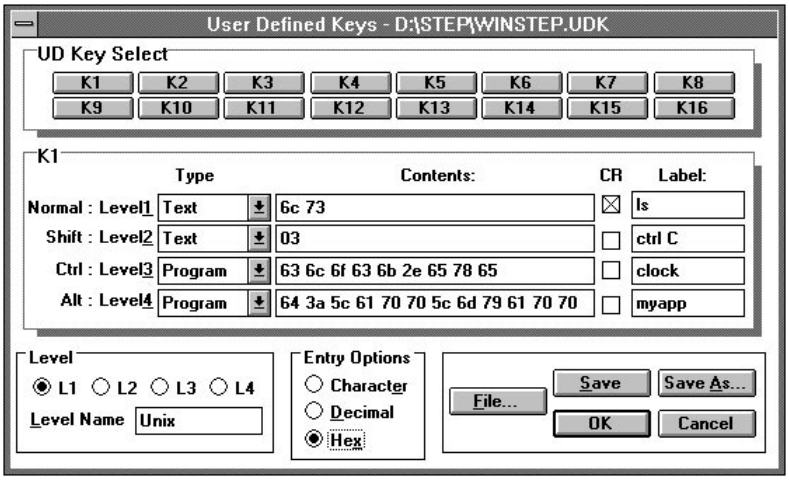
The field "CR" specifies whether a carriage return is to be sent to the host along with the command sequence. In case of UNIX, sending carriage return may be useful in commands like "ls", "vi" etc.. However, this field is irrelevant in case you have specified the type of key as PROGRAM.

You can assign a label to the key in the "Label" field. This label will appear on the top of the button in the terminal window.

The names of the levels can be entered in the "Level Name" field.

For TEXT type of keys, you can enter the string to be sent to host in the ‘Content’ field. For Program type of keys, enter the name of the executable. Full path has to be specified, if the executable is not in the current directory.

The contents of key can be entered in three modes — character, hex or decimal. In hex and decimal modes, the characters are separated by spaces. The valid range for hex is 00 to FF and for decimal it is 000 to 255. You can enter non alpha-numeric characters in hex and decimal mode only. The control characters entered in hex or decimal mode are displayed as control character when you are back in character mode. For example, the control-C of LEVEL2 in the above dialog box will be shown as 03 in Hex mode. The Hex mode display of the previously displayed dialog box is shown below:



Saving and loading of UD Keys data

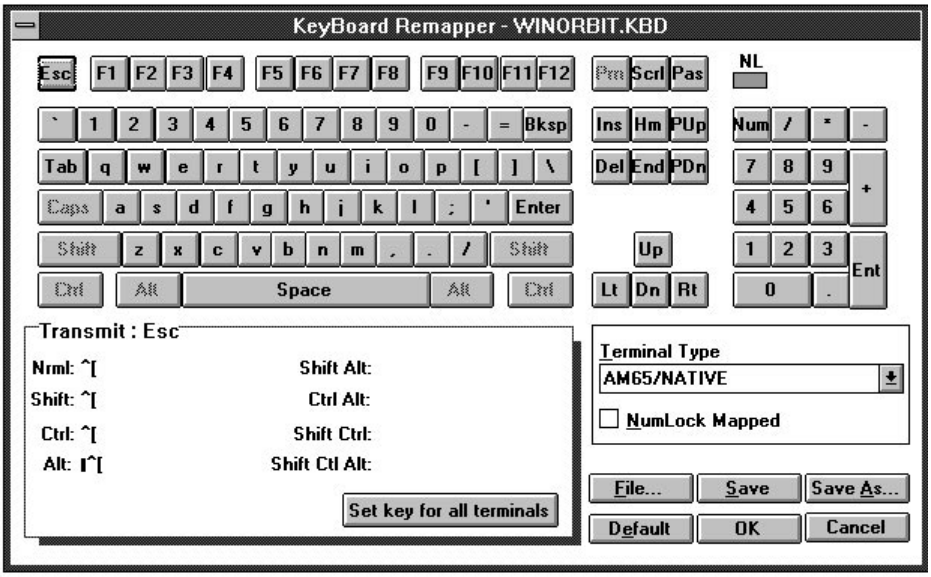
You can save the settings of user defined keys using the "Save" and "Save As" options. The "Save" option allows you to save settings in the current file and the "Save As" option allows you to save the settings in some other file. By default the user defined keys are stored in the WINORBIT.UDK file, but you can specify any name.

Use "File" option to open some other .UDK file. You can also use "File" option to create a new file.

The name of the UDK file which is currently active will be saved in the current .INI file when you save AlphaLAN configuration. To see the name of the currently active .UDK file, go to “Customize Keyboard” in “Tools” menu. The name of the current UDK file is displayed in the Window title.

3.8.3 Keyboard Remapping

You can customize the PC keyboard to match the keyboard layout of the terminal you are familiar with. To do this “Keyboard Remapping”, use the "Customize Keyboard" option of "Tools" menu. It displays the following dialog box:



Codes for the selected key are displayed in "Transmit - Key" group box. These key codes can be different for different terminals. You can select the desired terminal from "Terminal Type" list. Key codes for a selected key can be set for all the terminals using the "Set for all terminals" button. To map the Num lock key, you have to check "NumLock Mapped" check box. If it is checked, “Num Lock” key can no longer be used for toggling numpad keys.

You can change the codes for any key in the Edit Key dialog box which appears when you double click on that key (or press space bar on the selected key). In this dialog box you can enter the codes in any of the three modes - character, decimal or hex. Maximum length of a key code (sequence) can be 19 bytes.

You can set the default codes using the "Default" button in the dialog box. Mapped sequences can be saved using the "Save" and "Save As" options. The "Save" option allows you to save settings in the current file and the "Save As" option lets you save the codes in some other file. By default, the user keyboard re-mapper file is named as WINORBIT.KBD but you may specify any other name. We recommend that you use the .KBD extension for all your keyboard re-mapper files.

Use "File" option to open some other .KBD file. You can use "File" option to create a new file also.

Clicking on ‘OK’ will save the changes, if any, in the current file, and also activate it for current use. The name of the currently active keyboard re-mapper file will be saved in the current .INI file, when you save the AlphaLAN configuration.

To enable the current mapping of the keyboard, select "Enable Keyboard Mapping" option from the "Preferences" menu.

F **Note**: The new enhanced 6.0 keyboard remapper is not compatible with the keyboard remapping functions of earlier versions of AlphaLAN. Therefore you will need to re-map your keyboard once again in AlphaLAN 6.0 as your previous “settings” would be “lost”.

3.9 Advanced Configuration Options

There are certain special ".INI" settings that can be modified using a text editor. The format of the ".INI" file is like any other Windows ".INI" file. The ".INI" file is divided into three sections.

Œ [USERPREF]
- [COMMPREF]
- [MENUPREF]

Each of the sections has relevant settings that can be modified from the Menu bar of AlphaLAN/FW. Appendix A of the user manual describes each of these settings. There are some new settings that cannot be modified from the menu bar but may be changed using any text editor to suit your specific needs. These settings are as follows.

3.9.1 Fast Field Emulation

Under [USERPREF]

FFE=<TRUE/FALSE>

This specifies whether to use fast screen drawing logic in case of field terminals. By default it is TRUE. Normally, this setting should not be changed.

3.9.2 Scan rate for incoming data

Under [USERPREF]

DATASCAN=<N (integer greater than or equal to 0)>

Non zero value of DATASCAN specifies the time delay for polling the port for data coming from the host. Scan rate is fastest with DATASCAN set to zero. The default value is 10.

3.9.3 Shut off printer

Under [USERPREF]

SHUTOFFPRINTER=<TRUE/FALSE>

All the printing sequences from the host will get ignored if this entry is set to TRUE, i.e. printing will not be possible. By default it is FALSE. You can change it to TRUE, if you do not wish AlphaLAN to print any host data to your PC printer. This may be useful if you are connected over the modem and AlphaLAN keeps sending data to your PC printer whenever there is a disturbance on the phone line. Please note that if you change this setting to TRUE all printing including Transparent / Bi-directional print and printing through “ALP” driver will stop.

3.9.4 Save/Restore pages

Under [USERPREF]

SAVRESTPGS=<# of pages>

The default value is 4.

3.9.5 Secondary Port for Bi-directional mode

Secondary port for bi-directional mode can be defined in .INI under the section [SECONDARY].

[SECONDARY]

BAUD=<300/600/1200/2400/4800/9600/19200>
PORT=<COM1/COM2/..../COM8>
PARITY=<ODD/EVEN/NONE>
STOPBITS=<1/1.5/2>
BYTESIZE=<5/6/7/8>

These port parameters should match with those on the device connected to the secondary port. AlphaLAN can take input from this secondary port and relay it to the host system. This can be used to attach devices like “weighing scale” etc. to your PC.

3.10 FRCTRM to return DOS ERRORLEVEL

If you specify /E parameter with the new FRCTRM, it will return error code to DOS applications calling FRCTRM. For example, if a file could not be transferred successfully (using CPC/CALF commands), and "Remote not responding" error occurs, FRCTRM will return the ERRORLEVEL 1 to DOS. This could further be used in a batch file and the appropriate action may be taken. A sample batch file is shown below:

```
@echo off
frctrm /e /calf /g orbit.exe
if ERRORLEVEL 1 goto END
frctrm /e /cpc /g test.bas
if ERRORLEVEL 1 goto END
echo No Error
goto over
:END
echo Error Occured
:over
```

The second line forces the command "calf /g orbit.exe" on AMOS. The "/g" option of CALF returns you to the DOS prompt after the file transfer. If the transfer is successful, the fourth line would be executed and a file (TEST.BAS) will be transferred to your PC. If there is no error, you will see the "No Error" message. In case, an error occurs in either of the two transfer commands, a "Remote not responding" error is generated and the value of ERRORLEVEL becomes 1. This will terminate the batch file after giving the message "Error Occured".

You can do without the "/g" option in the above example as explained below:

Select "Switch to DOS on screen saver time-out" from the SETPC program [execute SETPC, select "Terminal", go to "Preferences" and select "Switch to DOS on screen saver time out" as "ON" by pressing the space bar. Then select a small value (say 5 seconds or 10 seconds) for the Screen Saver Time-out from the "Screen Saver..." option of SETPC]. Now save the file. Reload ORBIT. Change the sample batch file as shown below:

```
@echo off
frctrm /e /calf orbit.exe
if ERRORLEVEL 1 goto END
frctrm /e /cpc cpc.m68
if ERRORLEVEL 1 goto END
echo No Error
goto over
:END
echo Error Occured
:over
```

3.11 Destination file name in Native file transfer (CPC/CALF)

You can now specify the destination file name(s) during file transfers over an AlphaMicro host (using CPC.LIT or CALF.LIT).

The destination file name could be any valid DOS file name (while transferring files to PC), or any valid AMOS file spec (while transferring files to the AMOS system).

For example, If you want to transfer all the files with “CMD” extension from the AMOS host to the PC as files with the extension “BAT”, give the following command:

CPC *.CMD *.BAT

Similarly, for transferring files to an AMOS host from your PC, give the following command:

CALF AUTOEXEC.BAT AUTOEX.CMD

3.12 Auto Dial on Startup

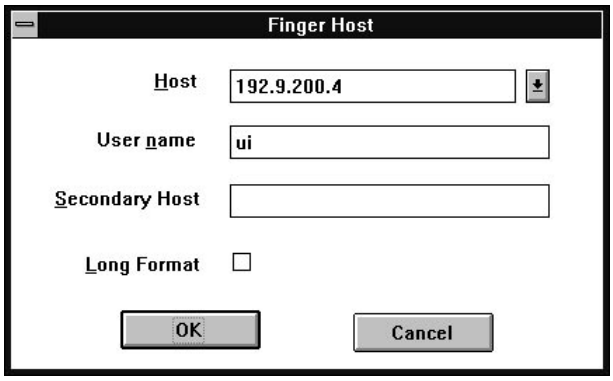
The Winorbit program can automatically dial out a selected number whenever it is started. This number can be set from the Phone Book dialog box that appears on the screen when you select the "Phone Book" menu item from the "Modem" sub-menu of "Tools" menu. For setting a number for auto dial, select the entry for that number from the listbox and then click on the "Set for Auto Dial" button. The name and the current phone file name would appear in the "Auto Dial" group box. After that check the "Auto Dial on Startup" button. This number would now be dialed automatically every time you start AlphaLAN/FW. Uncheck the “Auto Dial on Startup” button to disable “Auto Dialing on Startup”.

3.13 Finger

The Finger application allows you to query any host system that is on the network for information about the users currently logged on to the host. It allows you to get more detailed information about a particular user or all the users. You can also request the host to redirect the query to another host system. This can be used to get information about a host that is not directly connected to your network.

3.13.1 Using Finger

To Finger a host connected to your network, be it an internal network or Internet, double click the Finger icon to start the program. Select the “Finger Host” option from the “File” menu item or press F2 key and the following dialog box will pop up.



Enter the name or IP address of the host system you wish to query in the “Host” edit box, or use the pull down list box to choose from a list of systems that have been already queried. When only the host address is specified, Finger will display information about all currently logged in users. Finger is

likely to show user's login name, the full name, the terminal, the login time, the idle time registered since the last command executed, the office location, etc. depending on the, settings of the Finger Server running on the host system.

If you specify the user name along with the host name, Finger will attempt to display detailed information about the remote user. This information may contain the phone number and the contents of the user's profile and plan files, if any.

When "Long Format" is selected, the remote host is requested to perform a long listing of relevant users. If you select a Secondary Host, the remote host is requested to get the listing from the secondary host.

You may clear the buffer by selecting "Clear Screen" from the "Option" menu item. For help, press F1 key. You may also select the "Help" option from the "Help" menu to get help.

3.14 Using GRAPH with AlphaLAN for Windows

AlphaLAN 6.0 provides you a new GRAPH.SYS program that supports both the traditional graph functions for "non-Windows" workstations like AM72 and PC's with AlphaLAN for DOS and PEG and the "Windows" workstations using AlphaLAN for Windows and PEG. It provides graphing and charting functions without any change required in the user programs on Alpha Micro side. This function is active only when the Infront terminal driver (PCI.TDV) is selected on AMOS side and PEG option of AlphaLAN has been installed on your Alpha Micro. PEGINI should be loaded in the system's memory.

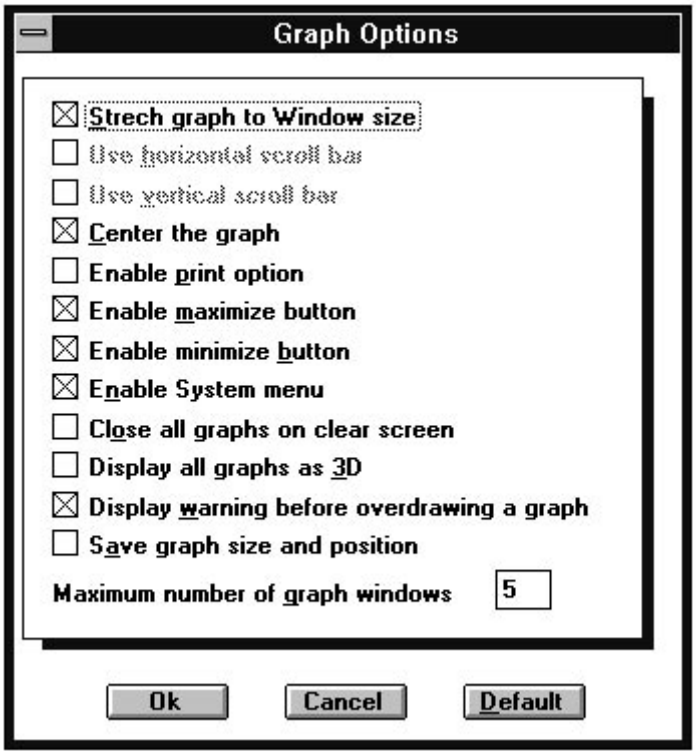
The seamless integration of a charting facility into AlphaLAN for Windows (AlphaLAN/FW) is due to the presence of Graphics Device Interface (GDI). Graphics Server, which is visible only as an icon, responds to requests from AlphaLAN/FW to generate graphs from data passed to it. All the software is automatically installed on your desktop, when you install AlphaLAN for Windows on your PC.

To test the Graph for Windows:

- Make sure that AlphaLAN 6..0 and PEG is installed on your AlphaMicro.
- Make sure that AMIGOS.SYS, GRAPH.SYS and PCI.GDV are loaded in system or user memory.
- Make sure that you are suing PCI driver on your PC job.
- **Log** to **IMG:**. Type "DSPGRF energy". AlphaLAN should display the graph.

Setting Graph Options

Graph options can be selected from "Graph Options" dialog box, in the "Tools" menu. The following dialog box will appear :



All the options are described below :

(i) **Stretch graph to Window size :** If this option is selected, the graph will be stretched to the window size. The horizontal and vertical scroll bars will remain disabled. However, if this option is unchecked, the graph size will remain same, irrespective of the window size.

(ii) **Use horizontal scroll bar :** This option can be enabled only when “Stretch graph to Window size” is unchecked. When the window is re-sized, the horizontal scroll bar can be used to view the graph horizontally.

(iii) **Use vertical scroll bar :** Similar to the horizontal scroll bar option mentioned above, the vertical scroll bar is enabled, only when the “Stretch graph to Window size” option is unchecked. When the window is re-sized, the vertical scroll bar can be used to view the graph vertically.

(iv) **Center the graph :** Select this option, if you wish the graph to be centered in the window.

(v) **Enable print option :** The "File" menu in AlphaLAN/FW provides an option to print graphs on the printer. However, this option is enabled only when the "Enable print option" is checked in the graph options dialog box.

(vi) **Enable maximize button :** The maximize button in the graph window will be enabled, if this option is checked.

(vii) **Enable minimize button :** The minimize button in the graph window will be enabled, if this option is checked.

(viii) **Enable system menu :** The system menu in the graph window will be enabled, if this option is checked.

(ix) **Close all graphs on clear screen :** If this option is checked and "clear screen" sequence is received from Alpha Micro, all the graph windows that are currently displayed will be closed. The maximize button in the graph window will be enabled, if this option is checked.

(x) **Display all graphs as 3D :** To view graphs in 3 dimensional form, you may select this option. Otherwise, the graphs will be displayed in 2 dimensional form.

(xi) **Display warning before displaying a graph :** If the graph number to be drawn, exceeds the maximum no. that can be drawn at a time, the next graph will overdraw the first one and so on. But a warning that a particular graph will be overdrawn will be displayed, if the above option is checked. It is advisable to keep this option checked always, in order to avoid unwanted overdrawing.

(xii) **Save graph size and position :** The size and position of the last graph drawn can be saved, if this option is selected. The new graph will be displayed in the same size and position as the previous graph. If this option is not selected, the graph window will be displayed in the default size irrespective of the size and position of the last graph.

(xiii) **Maximum number of graph windows :** The maximum number. of graphs that can be drawn at a time, is given in this option. If the graph to be drawn exceeds this number., the existing graphs will be overdrawn one by one.

After selecting the options, select the Ok button, or else, Cancel the modifications, if any. For default settings in the "Graph options" dialog box, select the Default button.

Displaying the graph(s)

To display a particular graph, you can give the command DSPGRF <GDF FILENAME> on the Alpha prompt. The data that is collected and analyzed by AlphaLAN/FW will be handled by Graphics Server to render it in graphical and charting form.

The .GDF (graph definition file) on Alpha side, consists of a series of single line definitions that define both the content and format of the graph to be generated. For details, please refer to the AMOS Terminal System User's Guide.

The various types of graphs available are :

- Line graphs
- Pie graphs
- Clustered Bar graphs
- Stacked Bar graphs
- Area graphs
- X-Y graphs.

These graphs are drawn on the basis of the data that is read from the .GDF file.

Printing the graph(s)

The contents of the graph windows and views can be printed on any Printer connected to your “Windows” workstation that supports graphics printing. For this, the "Print Graph" option should be selected from the "File" menu. The graph to be printed can be selected from the list of graphs that are displayed in this dialog box.

Otherwise, multiple graphs can also be selected. If only one graph is displayed, that graph will be printed and the dialog box will not pop up.

F **Note:** The print option will be enabled only if the "Enable print option" is selected from the "Graph Options" dialog box.

Closing the graph(s)

The graph(s) that are displayed, can also be closed by selecting the "Close Graph" option in "File" menu. If only one graph is displayed, that graph will be closed, otherwise one or more graphs to be closed can be selected from the "Close Graph" option's dialog box. If all the graphs are closed, the Graphics Server will also be closed. However, on the next DSPGRF <GDF FILENAME>, the Graphics Server will be re-opened.

F **Note:** Graphics Server should not be closed while the application is still active. If this is done, then all the active clients of Graphics Server will lose their graphics services.

Limitations of using Graph with AlphaLAN for Windows

- Only vertical bar graphs are supported in AlphaLAN/FW. If the legend names are very long, use <SP> as a delimiter to display the legend names.
- Graphics text attribute and fonts are not supported.

3.15 AlphaLAN FTP

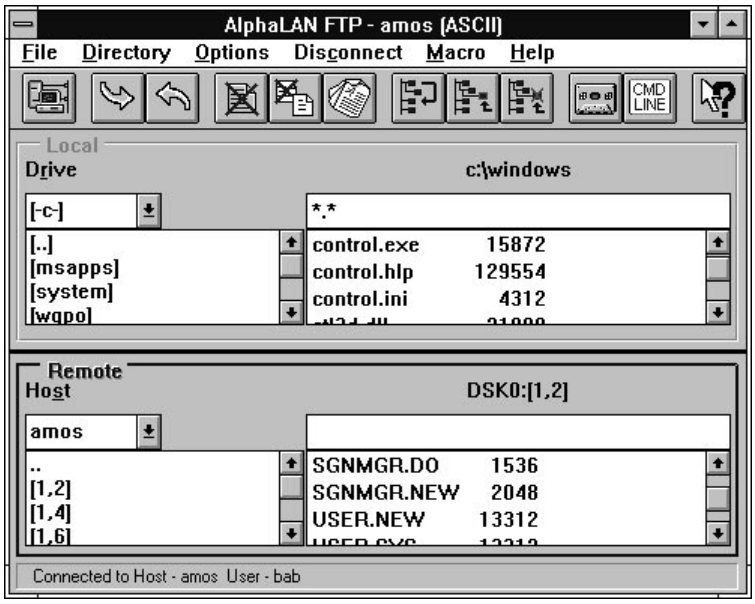
AlphaLAN FTP uses the Windows Socket, thus allowing you to use it over various Windows TCP/IP stacks compliant with Windows Sockets Version 1.1 and above. It consists of a File Manager like drag and drop front end, for local and remote files. In addition it supports the command line interface to automate file transfer using macros.

3.15.1 Starting FTP

The install program of AlphaLAN adds an icon named "FTP" in the program group "AlphaLAN". You can start FTP by clicking on this icon. FTP may also be launched by clicking the corresponding toolbar button or by selecting the menu item "Launch FTP" from the "Transfer" menu in AlphaLAN for Windows.

3.15.2 The FTP Window

The FTP screen is divided into two main regions with each region further divided into small windows. The top region shows the directory structure of Local side and the bottom region shows the one for Remote side. The currently selected region is the one shown as highlighted and you can select a region by clicking on any point inside that region.



Toolbar

A toolbar is provided below the menu bar to allow easy access to the commonly used commands. All commands available on the Toolbar are also available in the menu. You can hide this toolbar by deselecting the "Tool Bar" item of "Options" menu. The functionality of each toolbar button is shown in the status bar when the mouse points to that button.

Status bar

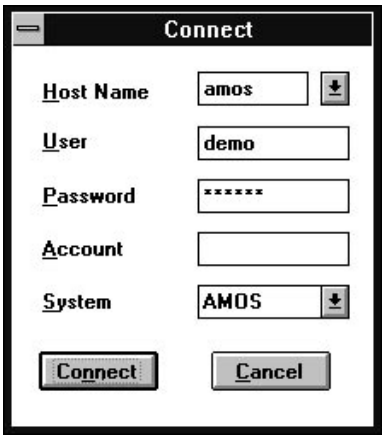
The bottom area of FTP window has a status bar. The various messages displayed on this status bar are :

1. The reply strings coming from the remote in response to various commands sent to it.
2. The on line help of the currently selected menu item.
3. The functionality of toolbar buttons when mouse is moved on them.
4. The file transfer information like total no. of files, files transferred successfully, rate of transfer etc..

When none of the above listed messages is shown, the status bar shows the information about the remote side connection.

3.15.3 Connecting to remote system

When AlphaLAN FTP is started the connect box appears on the screen asking for the host name to connect to. You can also use the, the "Connect" menu item, the toolbar button or the host box in the remote region to connect onto remote system. The connection dialog box that appears on the screen is shown below.



To log into a remote host:

- Enter the host name, user login name, password and account name, if required of the remote system. The "Host Name" drop down box shows a list of previously accessed hosts. You can choose a name from this list or type in a new name. You can also enter the IP address of remote system in this box. If you specify the host name, make sure that you have defined this name in the hosts table of the underlying TCP/IP kernel.

- The "System" drop down box shows a list of system types supported by AlphaLAN FTP. They are **Windows**, **UNIX**, **Macintosh** and **AMOS**. You can select any one of them depending upon the system at remote side. **By default System shows UNIX host, change it to AMOS while connecting to AlphaMicro hosts**. If the system on remote side is none of these, or you are not sure about the file structure of remote system, select **Other**. If you choose “Other”, you can perform file and directory operations but with certain limitations. Please note that the selection of the correct system type is very important for parsing the file list into directories and files, as the file and directory representation differs for different Operating Systems. FTP is able to recognize the remote side system to a limited extent, but a wrong selection may display a strange directory structure.

  Select "Connect" when you have entered all parameters. FTP will try to connect to the remote system. On successful connection all the windows in the bottom region (remote side) will be filled with the relevant details.

  The **Host** drop down box of the remote region displays a list of previously accessed hosts. The currently selected host is the one you are connected to. You can also change your connection by selecting another host name from this drop down list box. You are prompted to confirm the disconnection from the current host. Select "Yes" to connect to the next host. If you want to re-establish your connection with the same host just double click on this box.

Disconnecting from remote system

While you are connected to an FTP server, the **Connect** menu changes to **Disconnect**. The toolbar button also changes to a connected one. You can either click on this button or select the **Disconnect** menu to close your connection with the host.

3.15.4 Using FTP

Once the connection is established, the file transfer buttons on the toolbar are enabled. You can now execute any of the commands that are available to you. All of these commands are explained in this section.

F **Note:** If the currently selected region is **Local,** then commands like rename files, delete files, change directory etc. would be performed on local files and if the selected region is **Remote** these commands would be performed on remote side. Just make sure that you have selected the correct region before using these commands.

3.15.4.1 Selecting files

Select local region if you want to send files and remote if you want to receive files. First move to the directory from which you want to transfer files. The drive on local side can be changed by Drive drop down box. You can also use the Change directory option to move to a specific directory.

For selecting a single file just select that file from the list box or type in the name in the text boxes provided in both regions.

For selecting multiple files press the "SHIFT" or "CONTROL" key and use mouse click to select files. You can also use the "UP" or "DOWN" keys from the keyboard in place of mouse. Please note that since the mouse is being used for Drag and Drop, you would not be able to select files by dragging the mouse in the file list box. As you keep on selecting files, the status bar will show the number of files selected and the total size of all the files.

You can move around FTP using the TAB key, although the mouse is recommended. Pressing TAB key will move the selection to the next window of the same or different region. The Hot key "ALT S" can be used to select the Host dropdown box of remote region and "ALT R" to select the Drive dropdown box.

Drag and Drop

The AlphaLAN FTP supports drag and drop interface for transferring files from one region to other. For multiple file selection and drag and drop, you need to keep the mouse button pressed while tagging the last file you want to transfer. The cursor changes to a document cursor, if you are in a valid area for a drop, else it changes to an invalid cursor. **Please note that when selecting multiple files, remember not to release the mouse button if you want to drag and drop the selected files, since doing this would change your selection.**

Selecting an entire directory

To transfer all the files from a directory click on the directory name and keeping the mouse button pressed, drag the folder shaped cursor to the destination side. You can also drop on the directory list box to transfer files in the particular sub-directory of the current directory.

Selecting files for an unrecognized system

In case the remote system is not recognized by AlphaLAN FTP, the file list box will only show the file listing received from the remote. The directory list box will remain empty. In this case the sizes are not shown along with names. However, to view the complete listing you can still use the information box, explained later in this section.

Selecting multiple files from different sub-directories

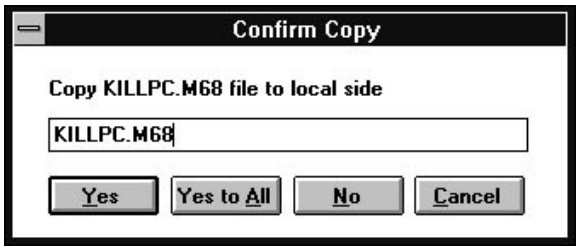
FTP provides a unique feature of selecting multiple files from different sub-directories of local or remote side. For this select file(s) from one directory and then keeping the CONTROL key pressed change the directory, and select more files. This way keeping the CONTROL key pressed you can select files from different sub-directories. The status bar will show a count of the currently selected files.

3.15.4.2 Receiving / Sending Files or Directory

Select the files, to be sent / received using the above mentioned methods. If using drag and drop, drop the selected files on the local / remote side file or directory list box. Dropping on a particular directory name in the directory list box will receive the files in that directory. If the drop is on the directory list box but not on any directory name, then the files will be received in the current directory (the one which is opened on local side). You can use the "Receive" menu item of "File" menu to receive the selected files and "Send" to send the selected files. The toolbar buttons for send and receive can also be used. Double clicking on a file in the file list box, will also start the send / receive session of that file.

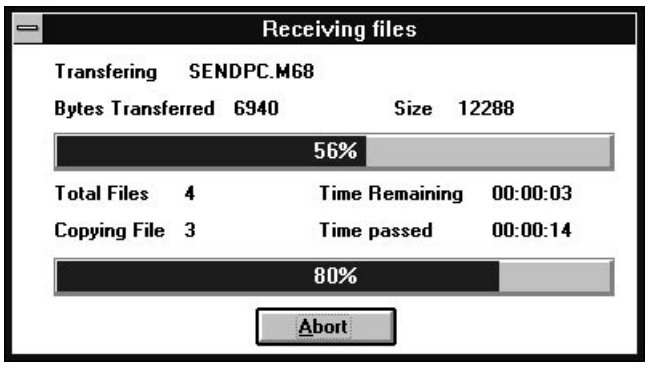
Before starting transfer, just make sure that you have selected the proper mode ASCII or BINARY from the Settings dialog box of "Options" menu. The confirmations for overwrite etc. should also be ON, if needed. Moreover, check that append option is OFF if you do not want to append files to the existing files.

If the confirmation for “File copy” is ON, before starting the transfer a dialog box shown below will appear asking for the confirmation.



You can specify a different destination file name in this dialog box.

When the file transfer, is in progress, a dialog box appears on the screen showing the current status of transfer. The display shows the progress for the current file being transferred and the progress for the total file transfer (useful for multiple file transfer) in two progress bars. A display of number of files to be transferred and the number of files already transferred are also displayed. The total time passed and the time remaining is also shown.



While transfer is in progress, most command buttons are disabled (grayed). You can still perform informative operations, such as viewing directory and file information, and checking help. On completion of transfer a message is displayed on the status bar showing the information like total files transferred, success and failure, speed of transfer etc.. The same information you can get from the "Transfer Status" item of "Options" menu.

The name of the receiving file is truncated if the original file name has a primary name longer than eight characters and extension longer than three characters. Also, if the file name on the remote side contains any characters which are not valid for the local side, all such offending characters are removed from the file name.

Aborting file transfer

The file transfer can be aborted in between by pressing the "Abort" button from the dialog box showing the status of transfer. However, the abort of receiving file will depend upon whether the remote system supports "ABOR" command or not. If the remote system does not support abort command then the current file will be received completely, even if you press "Abort" button.

Auto Sensing of Binary mode

If you try to transfer a binary file in ASCII mode, a message box will appear, asking for the continuation of transfer. You can either continue the transfer or abort it. You can reset this option from the "Settings" dialog box.

3.15.4.3 Renaming Files or Directory

You can rename the currently selected file or directory on your local or remote system. For renaming files select one or more files from the file list box, and select the rename button on the toolbar or select "Rename" from the "File" menu. For renaming directory, select the directory to be renamed from the directory list box of remote or local side.

A dialog box appears prompting for new name. Enter the new name and select "Rename". If you want to skip the renaming of current file select "No", and select "Cancel" if you want to cancel the renaming of all the remaining files.

3.15.4.4 Deleting Files or Directory

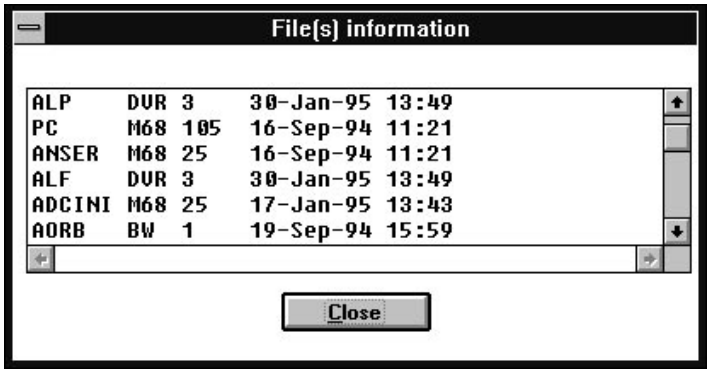
You can delete one or more files from any local or remote directory. You can also remove an empty directory. For deleting files, select the files from file list box of local or remote side, and then select the delete button of toolbar or select the "Delete" item from the "File" menu. Similarly, select the directory to be removed and then select the remove button from toolbar or select "Remove" item from the "Directory" menu. You can press the "DELETE" key from the keyboard to perform the delete operation.

It is advisable to have the confirmation of delete always ON. This would avoid the inadvertent deletion of files. This confirmation can be made ON from the Settings dialog box of "Options" menu.

3.15.4.5 Information about files

You can get the information about the selected files or all files of a directory from the "Information" item of "File" menu. The information of the selected file in the current

region will be shown in a dialog box. If no file is selected the complete file listing of the current directory will be shown.



The detailed information like file size, creation time, attributes etc. would be shown in this dialog box. This dialog box can be kept on the screen for further reference. The same dialog box will show the information about both local and remote files.

You can view the contents of a local text file, by double clicking the right mouse button on it in the file list box of FTP window. This will open the file in the Notepad for editing.

3.15.4.6 Creating Directories

New directory can be created on both local and remote systems. To create a directory, first move to the directory in which you want to create this new directory. Then select the "Create" item of "Directory" menu or click on the corresponding button in the toolbar. You can enter any name valid for the system.

3.15.4.7 Changing Directories

You can move to any path by using the "Change" menu item of "Directory" menu. This helps you to switch to a specified path without using the directory tree, particularly for an unrecognized remote system for which the directory tree is not shown.

3.15.4.8 Updating Directories

The "Update" menu item of "Directory" menu updates the directory structure of both local as well as remote side. This option can be used to get the latest directory information of remote side, particularly when a number of users are accessing the same host.

F **Note:** The execution of all the above mentioned commands like renaming, deleting etc. would depend upon the access permission of the client and if that command is supported by server or not.

3.15.5 Options

AlphaLAN FTP allows you to set certain options useful for file transfer. These options are explained in this section.

3.15.5.1 Data Logging

Data logging can be started by selecting "Start Log" option of "Options" menu. Selecting this option would start the logging in the "LOG.TXT" file in the current directory on local side. Logging allows you to record the File Transfer Protocol messages exchanged between the client and the server. The log file is very useful for debugging, tracing interoperability issues, and the like. It is not intended as a tool for the desk user, but rather, it is intended to be used by a networking professional.

It is advisable to make the logging ON while transferring a large no. of files. This would help you in finding out the reasons of file transfer failures.

You can stop the logging by selecting the option "Stop Log" from the "Options" menu.

3.15.5.2 Settings

A dialog box appears on the screen when you select "Settings" option from "Options" menu. This allows you to select the mode of transfer as **ASCII** or **Binary**. Before transferring files you should make sure that binary transfer is ON, for binary files. Transferring a binary file in ASCII transfer mode would lead to the data corruption. You can set the option "Auto Sensing of Binary mode" to detect any binary file being transfer in ASCII mode.

You can select the "Append" option if you want to append the data to the existing file. If the file doesn't exist on the destination side, a new file will be created. By default the "Copy" option is ON which will overwrite the existing file or create a new file.

The "Use ALLO command" can be set if you want to send an ALLO command before sending the APPE or STOR command. The ALLO is the standard FTP command used by some servers to reserve sufficient storage to accommodate the new file to be transferred. **For AMOS the ALLO command is used to store the next file as random file**.

Along with this, you are asked for some confirmations. The "Directory remove" option will confirm the deletion of directory and the "File Delete" will confirm before deleting any files. The "File Overwrite" and "File Append" options will ask before overwriting and appending to an existing file. The “File Copy” option will confirm for destination file name before starting transfer. It is strongly suggested that you leave these confirmations ON to avoid any accidental loss of files.

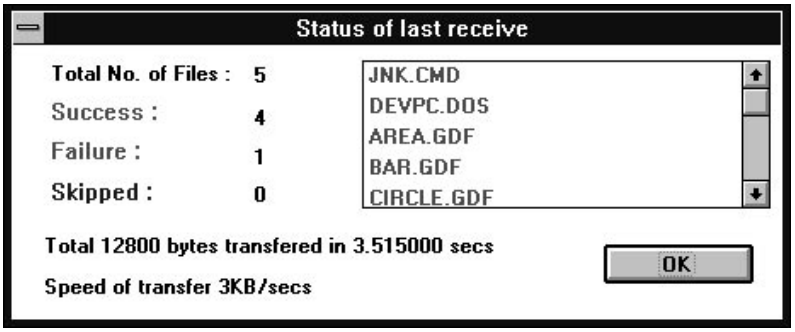
The remote directory update options allow you to stop updating of remote side directory after every transfer and after every connect. This would be useful when connecting to a system with large number of files.

The macro file option allows you to set the execution of a macro file on start of FTP. When this option is set the FTP will execute the macro file whose name is written in FTP.INI file. This name can be set from the file selection dialog box that appears on the screen when you select "Run" option from "Macro" menu. If you want to stop the execution of FTP, once the macro file execution is over, select the button "Exit FTP after macro execution".

3.15.5.3 Transfer Status

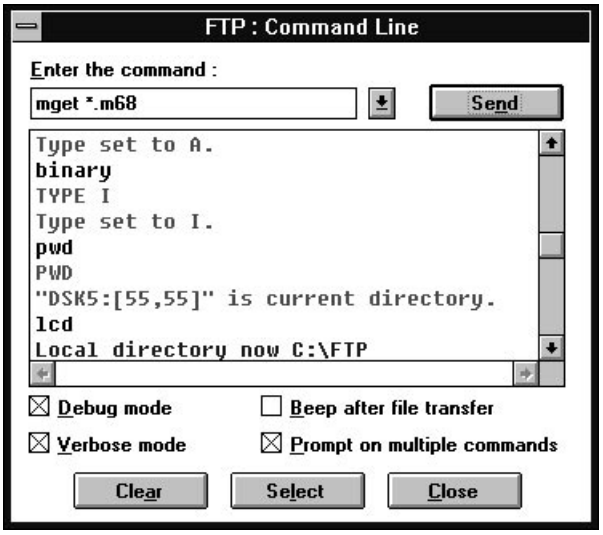
The "Transfer Status" option allows you to get the information about the last transfer you performed. This option is very useful if you want to transfer a large number of files. After the transfer, this option will give you an update of all the files which were transferred successfully, all those files which were skipped along with those files

which were not transferred due to some errors. This also gives you some statistics like the total bytes transferred, total time taken and the speed of transfer.



3.15.6 Command Line

In addition to the Drag and Drop interface the FTP provides a command line interface. The following dialog box will appear when you select "Command Line" option from "File" menu.



The combo box will show a list of valid commands, you can select any command from that. After writing the required arguments you can send that command by either selecting the "Send" button or pressing the "ENTER" key. The commands that you have entered will appear in the list box below.

If the Debug mode is ON, the actual FTP commands sent to remote machine would be added in the list box. The replies received from the remote in response to individual commands would also be added, if the Verbose mode is ON. Setting the "Beep after file transfer" option will cause a beep to sound after each file transfer command is completed. "Prompt on multiple commands" option is used for interactive prompting. Interactive prompting occurs during multiple file transfers to allow the user to retrieve or store files selectively. If prompting is turned OFF (default is ON), any **mget** or **mput** will transfer all files, and any **mdelete** will delete all files.

The "Clear" button will clear the list box and the "Select" button will make the selected entry of list box to appear in the command box.

The following is the list of all those commands recognized by FTP. Commands may be abbreviated.

account	<account>	send account command to remote server
append	<local file> <remote file>	append to a file
ascii		set ascii transfer type
binary		set binary transfer type
bye		terminate FTP session
cd	<remote directory>	change remote working directory
cdup		change remote working directory to parent directory
close		terminate FTP session
delete	<remote file>	delete remote file
dir	<remote directory>	list contents of remote directory
disconnect		terminate FTP session
form		set file transfer format
get	<remote file> <local file>	receive file
help	<command>	shows the one line help of command
idle		get (set) idle timer on remote side
image		set binary transfer type
lcd	<local directory>	change local working directory
ls	<remote directory>	list contents of remote directory
mdelete	<remote files>	delete multiple files
mdir	<remote files>	list contents of multiple remote directories
mget	<remote files>	get multiple files
mkdir	<directory name>	make directory on the remote machine
mls	<remote files>	list contents of multiple remote directories
mode		set file transfer mode
mput	<local files>	send multiple files
nlist	<remote directory>	nlist contents of remote directory
open	<host>	connect to remote host
put	<local file> <remote file>	send one file
pwd		print working directory on remote machine
quit		terminate FTP session
quote	<command>	send arbitrary FTP command
recv	<remote file> <local file>	receive file
reget	<remote file> <local file>	get file restarting at end of local file
rstatus		show status of remote machine
rhelp		get help from remote server
rename	<old name> <new name>	rename file
rmdir	<directory>	remove directory on the remote machine
send	<local file> <remote file>	send one file
site		send site specific command to remote server
struct		set file transfer structure
system		show remote system type
user	<user name> <password>	send new user information

The command line interface provides the send, receive and deletion of multiple files using wild cards. The dir listing of selected files can also be viewed using the **dir** or **nlist** commands. Some of the FTP commands which are not available otherwise are also provided in command line interface.

3.15.6.1 Macro file

The "Macro" menu options allows you to automate file transfer by making macro files. The "Record" option will prompt for a file name and will start recording (writing) of FTP commands in the specified file. The commands that would be written are those listed above in the section "command line". The "Stop" option will stop the recording. You can create a macro file by using the record mode and performing the

simple drag and drop operations to transfer the files. Later on you can edit this file to change it accordingly.

The "Edit" option will ask for the macro file name and will open the file in Notepad for editing.

On selecting the "Run" option, a file selection dialog box would appear asking for the name of file to execute. In this dialog box you can also set the option "Set for Autostartup" to make the file run automatically on starting of FTP. The specified macro file would be executed by sending the each FTP command written in the file. The errors encountered would be stored in the ERROR.LOG file.

3.15.7 Initialization file

All those options set by you are saved in the FTP.INI file along with the hosts list. You can edit this file with any editor, although it is not recommended.

3.15.8 Getting Help on FTP

The "Help" menu will provide the on line help. This menu also shows the about box which gives the version information about AlphaLAN FTP. A button is provided in toolbar to get the context sensitive help.

3.16 Other Miscellaneous functions

3.16.1 Changing Directory

This option can be used to change the working directory as well as the file transfer upload/download directories on your PC. If the “Directories...” option is selected from the “File” menu bar, a dialog box would pop up and the Current Working Directory and the file transfer upload/download directories would be shown. You can select these directories as per your choice. By default, UPLOAD and DNLOAD sub-directories in the AlphaLAN directory would be used for file transfers.

3.16.2 Menu hide and lock

An option, “Lock Menu” is added in three menu bar items: “File”, “Settings” and “Preferences”. These menu bar items can be locked by checking the “Lock Menu” option provided in their respective submenus. Once a menu item is locked, all the options in that menu item will become inaccessible to the users. You may lock the required menu option to prevent change of settings accidently. Once locked, the menu item can not be unlocked from any menu bar or toolbar option. **You can unlock the menu item only by editing the corresponding configuration (.INI) file**.

The three parameters associated with locking/unlocking of menu items in the configuration file are LOCKFILE, LOCKSETTINGS and LOCKPREF. To unlock the menu item, edit the .INI file and change the above parameter values from TRUE to FALSE and restart the application.

3.16.3 42/49 row support in WYCOL emulation

You can now have 42 or 49 rows in the WYCOL emulation. So, the host applications can take advantage of this new feature and can display more lines on the screen. The following escape sequences may be used to switch to the desired mode:

24 rows (Normal) : Esc c (
42 rows : Esc c *
49 rows : Esc c 1

3.16.4 Full-screen window

If you select the “Full Screen” option from the “View”, the menu bar, tool bar, status bar, etc. will all disappear and the Terminal Window would occupy the full screen. To get back to the standard Window, double click the mouse or press “Shift” and “Esc” keys simultaneously. You can also click on the “Full Screen” icon in the tool bar to switch to full screen mode.

3.16.5 Special purpose Escape sequences

You may use escape sequences to perform functions like data logging and invoking your customized “.UDK” file.

By giving the escape sequences, you can play a log file which may contain Escape codes to paint your screen. This will make painting of screens very fast especially at lower baud rates.

You can also load a “.UDK” file by sending the corresponding sequence. This can be used by AMOS programs to display different user defined keys for different screens.

The corresponding escape sequences are:

Data Logging :

Start : Esc~+2<filename>;
Stop : Esc~+3
Replay : Esc~+0<filename>;

Invoking “.UDK” file :

Load UDK file : Esc~+1<filename>;

3.16.6 3-D controls

All dialog boxes of Winorbit now have a new 3-Dimensional look.

3.16.7 Replay host log file

Replay host log file. If you select the “Replay...” option from the “Data Logging” submenu of the “File” menu item, the captured log file would be replayed locally on your PC. You do not have to transfer the host log file on to the host system and type it.

3.16.8 On-line help for dialog boxes

You can get help on the opened dialog box by pressing F1.

4. List of changes/improvements/modifications

Changes/Improvements	New/Changed files (PC side).
1. File transfer over various modem file transfer protocols.	WINORBIT.EXE, MODEM.DLL, ORBIT.EXE, SETPC.EXE, XFER.EXE.
2. Improved speed of Field Emulation in AlphaLAN/FW (Fast Field Emulation).	WINORBIT.EXE.
3. Improved PhoneBook for DOS (PB.EXE) to work with Modem file transfer program, XFER.EXE	PB.EXE
4. Added AM62C and PCFM emulation.	WINORBIT.EXE
5. Tool Bar.	WINORBIT.EXE, TOOLBAR.DLL.
7. Improved UD keys.	WINORBIT.EXE.
8. PicLan protocol support.	WINORBIT.EXE.
9. Selectable foreground color on AM70/WYCOL emulation.	WINORBIT.EXE. ORBIT.EXE.
10. Shut off printing.	WINORBIT.EXE, ORBIT.EXE, SETPC.EXE
11. Editable Save/Restore pages.	WINORBIT.EXE
12. Upload/Download directory.	WINORBIT.EXE, MODEM.DLL, INSTALL.EXE
13. Status line help.	WINORBIT.EXE
14. UA fonts to ANSI fonts.	WINORBIT.EXE
15. Improved installation programs.	INSTALL.EXE (Windows), ALINSTAL.EXE (DOS)
16. Improved modem command handling.	MODEM.DLL, WINORBIT.EXE
17. Improved Menu bar and Toolbar.	WINORBIT.EXE, TOOLBAR.DLL
18. Confirm if loading a new .INI file.	WINORBIT.INI
19. Column selection from “right mouse” to “Alt Left mouse button”.	WINORBIT.EXE
20. Warn if loading another session on the same serial/modem port.	WINORBIT.EXE
21. Auto startup in Z-Modem file receive.	WINORBIT.EXE
22. Launch AlphaLAN in minimised state.	WINORBIT.EXE
23. Menu locking.	WINORBIT.EXE
24. Improved TELNET/Rlogin support.	WINORBIT.EXE
25. Improved TCP/IP connect box.	WINORBIT.EXE
26. Improved Fast Field Emulation.	WINORBIT.EXE
27. 42/49 row in WYCOL	WINORBIT.EXE, ORBIT.EXE
28. Get input from Secondary port and pass it on to the host (Bi-directional mode).	WINORBIT.EXE
29. Replay captured host log file.	WINORBIT.EXE
30. Border Patterns.	WINORBIT.EXE

31. On line help from Dialog box.	WINORBIT.EXE.
32. Full screen Window.	WINORBIT.EXE
33. Improved DOS setup program with modem menu setup options and confirmation on exit.	SETPC.EXE
34. FRCTRM to return DOS ERRORLEVEL.	ORBIT.EXE, FRCTRM.COM
35. Destination filename support in NATIVE file transfer (CPC/CALF).	WINORBIT.EXE, ORBIT.EXE, **CPC.LIT, CALF.LIT (AMOS side)**
36. Larger than 32 MB files transfer in Native mode (CALF).	WINORBIT.EXE, ORBIT.EXE. **CALF.LIT (AMOS side)**
37. Improved cursor positioning TCRT calls handling.	ORBIT.EXE
38. Improved spawned job handling in open comm. mode (problems with MULTI).	ORBIT.EXE, CTRM.COM
39. Improved error handling by CTRM.	CTRM.COM
40. Improved switching to open comm. mode.	OPEN.EXE
41. Improved security handling in open comm. mode.	ORBIT.EXE, PCRST.COM
42. Robust file transfers in Native mode.	ORBIT.EXE, CPC.LIT, CALF.LIT
43. Keyboard Remapper.	SELORB.DLL, WINORBIT.EXE
44. Bi-directional support in WYSE50 emulation (Windows only).	WINORBIT.EXE
45. Modified terminal emulation (erase to end-of-line, split screen/cursor positioning, box fill with attribute, top status line (Windows only)).	WINORBIT.EXE
46. Graph in Windows.	SELORB.DLL, WINORBIT.EXE
47. FTP over TCP/IP.	FTP.EXE
48. FINGER over TCP/IP.	FINGER.EXE
49. 3-D controls.	WINORBIT.EXE, CNTORB.DLL

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Appendix A

Windows for Workgroups 3.11 and AlphaNET

To install AlphaNET in a Windows for Workgroups network, you will need to make sure that Windows for Workgroups is up and running using “MICROSOFT WINDOWS NETWORK” over a NDIS2/NDIS3 compatible Ethernet card. If this is not installed, you can do so by starting Windows for Workgroups and opening “Network” group. Click on “Network Setup” icon, then on: “Network” and finally on “INSTALL MICROSOFT WINDOWS NETWORK”. Now follow the installation instructions provided by your card manufacturer to install the Ethernet card.

Make changes to the following files, if necessary:

CONFIG.SYS

If you had installed AlphaNET for NDIS previously, you may have entries in the config.sys for files like -protman.dos, an NIC driver, and dis_pkt.dos. Since WFW3.11 loads these devices from the SYSTEM.INI file, comment out the aforementioned device statements if they are present. Some of these programs could have been loaded from AUTOEXEC.BAT file or any other BAT file called from AUTOEXEC.BAT. Please comment out all such references.

Check that the following entry is present in this file. If not add it:

```
DEVICE=C:\WINDOWS\IFSHLP.SYS
```

AUTOEXEC.BAT

Check that the following entry is present in this file. If not add it:

```
C:\WINDOWS\net start
```

PROTOCOL.INI

Once your Windows for Workgroups network is running, add the **[PKTDRV]** section shown below to your PROTOCOL.INI. The following is a sample for an Compex ENET card. You would replace “MS$ENET” with the name of the network adapter driver name defined in the **netcard=** entry in the **[network.setup]** section.

```
[PKTDRV]
BINDINGS=MS$ENET
INTVEC=0X66
DRIVERNAME=PKTDRV$
```

The 0X66 is the interrupt number used by the packet driver.

In the **transport=** entry under the **[network drivers]** section add an entry for *dis_pkt.dos* or *dis_pkt.gup*. Do not delete any existing entry, just add this at the end of the **transport=** line. Also under the same section check that the **LoadRMDrivers=** entry is set to “Yes”. An example entry for these two entries under the **[network drivers]** section would be:

```
transport=ndishlp.sys,*netbeui,c:\alphanet\dis_pkt.dos
LoadRMDrivers=Yes
```

where the entry “c:\alphanet\dis_pkt.dos” is the additional change done to the existing **transport=** entry. The dis_pkt.dos or dis_pkt.gup files are provided as part of your AlphaNET software.

Appendix B

WINSOCK compliant TCP/IP stacks supported by AlphaLAN 6.0

AlphaLAN 6.0 has been tested on the following TCP/IP stacks :

- Distinct TCP/IP
- Lan WorkPlace
- Microsoft TCP/IP 16-bit - Works with Windows for Workgroups 3.11
- *****Microsoft TCP/IP 32-bit (Wolverine) - Works with Windows for Workgroups 3.11
- PC/TCP OnNet 1.1
- PC/TCP Network Software 3.0 for DOS and Windows
- PC/TCP Network Software 2.x
- Trumpet
- WRQ Reflection 2

***** AlphaLAN FTP has some limitations when used over Microsoft TCP/IP 32 bit stack.

This information is constantly being updated. If your TCP/IP stack is not present in the above list, call your local dealer or U.A. Systems to get additional information.