

BLAST[®]

Professional DOS Installation Guide

BLAST[®]

SOFTWARE

The File Transfer Authority

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Introduction

Welcome to BLAST Professional DOS! You have chosen fast, reliable communications software for your PC. BLAST offers terminal emulation, remote control, file transfer across LANs and telephone circuits, and a powerful scripting language for automating your communications.

BLAST Install, the installation utility, copies the BLAST files from your distribution diskette and customizes them for your system. If you choose, you may also use this utility to edit your CONFIG.SYS and AUTOEXEC.BAT files for maximum efficiency.

You will have the opportunity to approve all changes before they are made, or quit the installation process at any point. You can also run BLAST Install at your convenience to reconfigure BLAST.

BLAST requires approximately 1.4 megabytes of disk space, and can be installed on a hard drive or a single 1.44 megabyte diskette.

LAN Users: For your convenience, special LAN topics are highlighted throughout this manual. Be sure to read “Network Settings” on page 9 of this manual, for more network-specific information.

What You Need To Know

BLAST Install is easy to use. You will need to know:

- ◇ The type of modem you are using and its top speed. BLAST recognizes many specific modem brands, however, you can select the generic type “AT”, which specifies modems compatible with the AT command set.
- ◇ Your modem’s communications port. This is usually COM1: or COM2:. For LAN users, shared modems use a defined name that is recognized by your communications server.

IMPORTANT: The communications ports of many PCs share a common Interrupt Request (IRQ) and base address. Often, COM1: and COM3: share IRQ 4, while COM2: and COM4: share IRQ 3. BLAST cannot assure an error-free transfer if two devices are sharing an IRQ. Please see “Choosing the Communications Port or LAN Driver” on page 6 of this manual for details.

- ◇ The terminal emulator that you will use most often. For most users, this is either VT320 or TTY.

LAN Users: In addition to the above items, you will also need to know:

- ◇ The type of network software you are using, and the names of the “drivers” already installed on your PC. For example, Novell networks typically use the IPX driver. A complete list of supported drivers appears on page 4 of this manual.

If you are not sure about one of these settings, use the default that BLAST Install suggests. You can easily change the settings later.

Running the BLAST Install Program

Insert the BLAST diskette into your disk drive. The following example specifies disk drive A; if you are using a different drive, substitute your drive letter for A. At the DOS prompt, type:

```
A : BINSTALL
```

and press the ENTER key on your PC. BLAST Install automatically determines the video mode of your PC and adjusts itself. To force monochrome mode, add the MONO switch to the command line:

```
A : BINSTALL MONO
```

From this point on, the BLAST Install program will prompt you with easy-to-understand instructions. For detailed descriptions of each step in the installation process, refer to the following sections.

Remember that you can easily change the settings later. Most can be changed by modifying the default setup file within BLAST. See Chapter 5 in the User Manual for more information on modifying the default setup.

You can also change these settings by running BLAST Install again. See “Changing BLAST After Installation” on page 11 of this manual for complete details.

LAN Users: After you have installed BLAST, you will need to make some changes to your network setup to ensure that users can access the BLAST executable files. See “Network Settings” on page 9 of this manual.

The BLAST Files

First, choose the directories in which to install BLAST. BLAST Install will copy all files to the directory C:\BLAST by default, but you may choose another directory name. BLAST Install will create the directory if it does not already exist.

If you are not sure where to put the BLAST files, choose the default settings by pressing ENTER. You can easily move these files later and reconfigure BLAST. Many users store all of their BLAST files in one subdirectory. Optionally, you can store the BLAST files in as many as three separate directories of your choice. The BLAST files are divided into three categories:

1. The BLAST program files (such as BLAST.EXE and BLAST-KBD.EXE) can be put into any directory that you choose. This directory must be in your search PATH.
2. The online help file BLAST.HLP and the BLASTscript libraries MODEMS.SCR and SYSTEMS.SCR, which automate remote system logins and control your modem, can be stored together in a specific directory. You can change the directory where BLAST looks for these files by reconfiguring BLAST or by setting the DOS environment variable BLASTDIR to the new directory path. See ““Changing BLAST After Installation” on page 11 of this manual for more information.
3. The BLAST setup files, which describe the remote system and communications parameters for a session, can be stored in the directory of your choice. These setups might contain private information, therefore, for security reasons, you may want to store these files in a separate directory. You can change the directory where BLAST looks for Setup files by reconfiguring BLAST or by setting the DOS environment variable SETUPDIR to the new directory path. See ““Changing BLAST After Installation” on page 11 of this manual.

LAN Users: Be sure to read “Network Settings” on page x of this manual for information on network paths and user security.

Choosing the Default Colors

BLAST uses different colors to represent normal, bold, reverse, and underscore video attributes. The default color combinations correspond to several popular display types. Highlight your display type to view its default color combination.

You can accept the default combination or custom configure the colors for your system. The custom configuration screen allows you to pick both the foreground and background colors for the video attributes.

LAN Users: Remember that your choice will be the default for all users on the network. You can later customize the color defaults for each user, if desired. See “Network Settings” on page 9 of this manual.

Selecting LAN Drivers

If you do not want to set up BLAST for LAN operations, select NO to skip the network questions.

If you plan to transfer files between PCs on your LAN (node-to-node transfers), or if you want to use a communications server to access a shared modem or login service, you will need to install LAN drivers which correspond to your network software.

You do not need to select network drivers if you simply want to give LAN users the ability to run BLAST with modems attached to their individual PCs.

LAN Drivers

LAN drivers are small programs that handle the communications between your PC and the rest of the network. BLAST uses its own drivers to communicate with the existing LAN drivers.

A LAN driver is roughly analogous to a communications port—it tells BLAST where data enters and leaves your PC.

Select the LAN driver that corresponds to your network software:

<u>Driver</u>	<u>Network Type</u>
ACS	IBM LAN ACS, AT&T AGS
NMP	Novell NACS, Network Products' ACS2
IPX	Novell Netware
NETBIOS	IBM PC Net, AT&T StarLan
NETBIOSC	Character-mode NETBIOS, for login services
TCP/IP	Internet Protocol Suite

Network Destinations

Network Destinations are the names used by the LAN drivers to identify different PCs or other devices on the network. Network Destinations are like phone numbers—they tell BLAST where to call on the network, using a LAN driver.

For node-to-node file transfers, the Destination name is arbitrary, and can be any name on which you and the remote user agree.

A communications server (such as a modem pool) requires a predetermined Destination name. Consult your network or communications server manual to determine what name to use for your setup.

TCP/IP Considerations

Because of the great variety of LAN hardware, BLAST is not distributed with LAN interface software. Instead, BLAST assumes that independently-developed LAN interface software has been previously loaded.

In particular, when using TCP/IP as a Connection method, you must first load a driver conforming to the Clarkson packet driver specification.

Check with your network administrator to see if a packet driver is available for your LAN hardware. If not, you can obtain a library of packet drivers by downloading CLARKSON.ZIP from the BLAST online computer (called “Blaster”). Please see Chapter 3 of the User’s manual for a description of how to log onto Blaster and download files.

NOTE: You must have BLAST version 10.5.2 or later in order to make a TCP/IP connection. Earlier versions of BLAST cannot be upgraded by copying the BLASTTCP.EXE file.

Choosing the Modem Type

BLAST Install automatically configures BLAST to work with your modem. Choose the generic “AT” modem type to indicate that your modem is compatible with the AT command set, or choose one of the specific modem types from the list provided by BLAST Install.

You can also create your own modem type by modifying the BLAST script file MODEMS.SCR. Refer to Chapter 14 in your User Manual for more information on modifying MODEMS.SCR.

LAN Users: If you are using a communications server to access a shared modem, and the server software rather than BLAST makes the actual dial-up connection, you may need to choose NONE as your modem type. Consult your communications server manual to determine whether you should set the modem type to NONE. If you are transferring files node-to-node across the network, you do not need a modem and the modem setting will be ignored.

Choosing the Baud Rate

Your modem's communication rate is the speed at which it transfers data. Choose a baud rate that equals or exceeds your modem's highest rated speed; see your modem manual for this information.

LAN Users: This setting will be ignored if you are transferring files node-to-node across the network. If you are using a communications server, this setting is required only if BLAST, rather than the communications server, is actually making the connection.

Choosing the Communications Port or LAN Driver

BLAST Install needs to know the name of the serial communications port where your modem is connected. Most external modems use either COM1: or COM2:. Refer to your PC user manual to determine the correct communications port.

Conflicts commonly arise with internal modems that are identified as COM3: or COM4:, but actually use the IRQ and base address assigned to COM1: or COM2:. Often, COM1: and COM3: share IRQ 4, while COM2: and COM4: share IRQ 3. To reassign the IRQ and base address for COM3: or COM4:, you must:

1. Determine unique IRQ and base address values for your serial device. This may require that you read the documentation for the serial device and change a switch setting on the device itself.
2. Tell BLAST about the new setting with a COMMPORT assignment statement in the BLAST.OPT file. For complete information on editing the BLAST.OPT file, see Chapter 2 of the User Manual. The format for the COMMPORT statement is:

```
COMMPORT=portname, IRQ, BaseAddress
```

For example,

```
COMMPORT=COM3:, 4, 3E8
```

is the default value for COM3:.

LAN Users: If your PC uses a network card and redirection software for access to a modem, choose BIOS1: or BIOS2: instead of COM1: or COM2: as your communications port. BIOS1: and BIOS2: support standard INT 14 functions.

Choosing the Terminal Emulator

BLAST Install automatically configures BLAST for your terminal emulation settings. Choose VT320 to emulate a DEC VT-320 or compatible terminal, or choose one of the listed emulators:

TTY	Standard terminal
VT320	DEC VT 320
VT220	DEC VT 220
VT100	DEC VT 100
VT52	DEC VT 52
PC ANSI	PC ANSI Color
D461	Data General D461
D411	Data General D411
D410	Data General D410
D200	Data General D200
TV920	Teletext 920
D80	Ampex Dialog 80
ADM3A	Lear-Siegler ADM 3A
WYSE50	Wyse 50
WYSE60	Wyse 60
HP2392	Hewlett Packard 2392
IBM3101	IBM 3101

If your emulator is not listed here, choose VT320 or TTY as these settings work with the majority of remote systems.

Specifying the Video Card

If your video adapter and monitor are EGA or VGA compatible and you plan to use 132-column compressed video mode in the VT or Wyse emulators, BLAST will need additional information about your video hardware.

If you do not plan to use 132-column compressed video mode, select “No” and skip the rest of this section.

BLAST Install will attempt to identify your video adapter’s 132-column mode, then display 132-column mode on your monitor. Confirm that your monitor is displaying 132-column mode, and press any key to reset your monitor to its normal display mode.

If BLAST Install does not recognize your video adapter, or if 132-column mode does not appear properly, you will need to specify your video adapter’s mode number for 132-column by 25 line (132x25) display. Check your video adapter manual for this number.

When you set your video mode by typing in your video adapter's mode number, BLAST Install creates a BLAST.OPT file or modifies your existing BLAST.OPT.

If you specify a video mode during installation and want to change it later, you can modify the VIDEOMODE field in BLAST.OPT. Note that BLAST.OPT requires a hexadecimal value; most video adapters list mode numbers in hexadecimal. See Chapter 2 in your User Manual for details on BLAST.OPT and video mode.

LAN Users: If you plan to use 132-column compressed video mode, and the PCs from which you will be running BLAST have different video adapter types, you may need to specify a videomode setting in the BLAST.OPT of each individual PC.

Changing the AUTOEXEC.BAT and CONFIG.SYS

Your PC uses two files called autoexec.bat and config.sys to set basic system configuration each time that you turn on the PC. BLAST Install automatically checks the contents of these files to make sure that they contain the settings BLAST requires, then makes backups of these files before making any changes.

You have the option to skip this process and not change either file, to change only one of these files, or to make all changes to copies of these files, leaving the originals untouched. If either of these files does not exist, BLAST Install will create it with the proper settings.

BLAST Install saves your original files (or the modified files, depending on your choice) as AUTOEXEC.USR and CONFIG.USR. The settings that BLAST requires are:

AUTOEXEC.BAT

PATH=(add the name of the directory where you have installed BLAST to your existing path)

CONFIG.SYS

FILES = 20 (or greater)

BUFFERS = 30 (or greater)

Please note that any changes to AUTOEXEC.BAT and CONFIG.SYS will take effect only after your PC is rebooted.

LAN Users: Each PC from which BLAST will be run requires these settings. To easily update these files from network nodes, run BINSTALL with the CUSTOM switch. See "Changing BLAST After Installation" on page 11 of this manual.

When You Are Finished

After you have successfully installed BLAST, read the README.DOC file on your distribution disk and take note of the list of sample files available.

README.DOC

Please take a few moments to read through the README.DOC file—it contains last-minute information about BLAST, plus a list of the sample files available from your distribution diskettes. To display the README.DOC file, use the DOS “TYPE” command, your text editor, or run BINSTALL with the README switch:

```
BINSTALL README
```

Sample Files

BLAST includes a number of sample scripts and other useful files. These files have been compressed to save space on the distribution diskette, and are not copied to your hard drive during installation. README.DOC contains complete instructions for uncompressing, copying, and using your sample files.

Where to Go from Here

Turn to Chapter 3 in your User Manual for a complete introduction to the features and operation of BLAST.

Network Settings

If you will be using BLAST in a LAN environment, you will need to adjust your network settings to insure smooth communications sessions.

Directories and Permissions

As with any network program, you should install the BLAST files in directories that are accessible to users.

<u>Directories</u>	<u>Permissions</u>	<u>Contains</u>
BLAST	R, EXECUTE	BLAST Executables
BLASTDIR	R, O, S	BLAST.HLP, MODEMS.SCR, SYSTEMS.SCR
SETUPDIR	R, O, S	Setup files
OPTDIR	R, O, S	BLAST.OPT
TMP	Full permissions	Temporary files

Users should have READ and EXECUTE (if supported) permission levels for the directory containing the BLAST executables; and READ, OPEN, and SEARCH permission for the BLASTDIR directory, the SETUPDIR directory, and the OPTDIR directory. Users must have full access to the TMP directory, where BLAST stores temporary files.

In order to allow users to save their own setups, you should also assign each user a personal directory (with full permissions), and set the SETUPDIR environment variable to this directory.

Specifying the Temporary Directory

The DOS environment variable TMP specifies the directory where BLAST and BHOST store temporary files. To set TMP to "C:\BLAST", for example, type the following line at the DOS prompt:

```
SET TMP=C:\BLAST
```

You can also include this command in your AUTOEXEC.BAT.

If TMP is not defined, BLAST will save temporary screens in the directory from which BLAST was executed, which may significantly degrade performance.

Users, especially those with 8-bit network cards, should set TMP to a local (non-server) directory or RAM drive. Setting TMP to a RAM drive greatly improves performance. Note that the size of the file to be saved varies widely with the active video mode. Text screens require about 4K of space, while VGA screens require up to 256K.

For more information on the TMP environment variable, see Chapter 2 in your User Manual.

Customizing BLAST for Network Nodes

To customize settings for each LAN user, run the BLAST Install program with the LOCAL option from each user's PC:

```
A: BINSTALL LOCAL
```

BLAST Install automatically determines the PC's video mode and adjusts itself. To force monochrome mode, add the MONO switch to the command line:

```
A: BINSTALL LOCAL MONO
```

BLAST Install will create a BLAST.OPT file in the directory that you specify, if one does not already exist. You will also be given the opportunity to customize BLAST's colors, to save the current directory name in your AUTOEXEC.BAT as the OPTDIR, and to add Network Destination names to previously installed LAN drivers.

You may want to edit the new BLAST.OPT manually to reflect your personal SETUPDIR and BLASTDIR directories.

Modem Settings

For optimum performance, BLAST requires a standard serial modem cable, available from most computer and software outlets. Note that computer-to-computer connections (without modems) require a serial null modem cable. Internal modems do not require cables.

Switch Settings

Here are suggested modem settings for most AT command-compatible modems. If your modem does not have switches to make these settings, please refer to your modem manual for instructions on configuring the modem.

- ◇ Result codes are in English
- ◇ Result codes are sent
- ◇ Modem echoes commands
- ◇ Auto-answer is enabled
- ◇ Carrier Detect follows signal
- ◇ Single-line RJ-11 installation
- ◇ Command recognition is enabled
- ◇ DTE/DCE speed is locked
- ◇ Modem reverts to command state on DTR transition
- ◇ Hardware flow control is enabled

Changing BLAST After Installation

Many of the values set during installation can be changed within BLAST. For instance, you can change your modem type, baud rate, communications port, and terminal emulation settings by modifying BLAST setups. Please refer to Chapter 5 in your User Manual for more information on setups.

If you want to change the default values you selected during installation, you can modify BLAST with the BLAST Install program, which is copied to your hard disk as part of the installation process. Type:

```
BINSTALL CUSTOM
```

BLAST Install will prompt you for the information it needs. BLAST Install will not copy the BLAST files to your hard disk when you use the CUSTOM command. If you want to change the location of your BLAST files, you must either manually copy them to their new location before running the custom installation, or re-install BLAST from your distribution diskette.

If you change your modem type, baud rate, communications port, or terminal emulation settings with Install Custom, you will need to delete your default setup (DEFAULT.SU) before these changes will take effect. BLAST Install will prompt you before automatically deleting it.