# Supermax LAN Manager/X

## Client Installation Guide

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# CONTENTS

# 1. Introduction

## 1.1. Scope

This manual describes how to install the LAN Manager client software on DOS workstations.

The procedure for the installation of LAN Manager server software on a Supermax computer is described in a separate document *Supermax LAN Manager/X - Client Installation Guide*.

The installation of NetBIOS interface and underlying protocol software and network adapter, which is a prerequisite for using the LAN Manager client software, is outside the scope of this manual.

## 1.2. Related Manuals

The following Manuals provide additional information:

*Supermax LAN Manager/X - User's Guide*
*Supermax LAN Manager/X - System Administrator's Guide*
*Supermax LAN Manager/X - Hints*

## 1.3. What is LAN Manager client software?

LAN Manager is a software product that allows a number of computers to be organized as Workstations on a local-area network. The goal of LAN Manager client software is to help people find and use the resources they need quickly and easily. There are two types of LAN Manager clients: Basic DOS clients and Enhanced DOS clients.

**About the Basic DOS client**

With the Basic DOS client, you can:

- Add your personal computer to an existing LAN Manager network
- Use resources (such as printers or disks on other computers that are designated as Servers on the local-area network)
- Examine printer queues and local workstation characteristics
- Get on-line help
- Read, revise, and create files on other computers
- Access centrally located data
- Use applications (like WordPerfect) with files on other computers
- Select Messenger and Netpopup services. This allows you to send and receive messages to other users on the local-area network.

**About the Enhanced DOS client**

With the Enhanced DOS client, you have the same opportunities as the Basic DOS client, plus you can:

- Establish a standard set of connections (called a *profile*) so that you can connect to many resources with one command.
- Use the *Full-Screen Network Interface* and run the *enhanced* network commands.
- Select centralized logon capability. (This means that one or more servers will validate usernames and provide scripts for users.)
- Select support for the Application Program Interface (*API*) functions and use API's to communicate between processes, such as named pipes.
- Select the *Mailslots* capability. (This capability allows processes to communicate with each other, whether or not they are running on the same computer. If you want this capability, you must select API support.)

**Important**

The current release of Supermax LAN Manager/X does not support OS/2 clients.

# 2. Installing the DOS LAN Manager Client Software

## 2.1. Prerequitsites

The use of LAN Manager client software requires a NetBIOS interface and an underlying network protocol (e.g. TCP/IP or the OSI protocols) and network adapter to be installed on the workstation. The network software must be loaded and started before the LAN Manager client software will function.

## 2.2. The Client Software Floppy Disks

The DOS LAN Manager client software is delivered on four floppy disks:

Supermax LAN Manager/X - DOS Enhanced Client. 1.2 Mb, 5¼"
Supermax LAN Manager/X - DOS Enhanced Client. 1.44 Mb, 3½"
Supermax LAN Manager/X - DOS Basic Client. 360 kb, 5¼"
Supermax LAN Manager/X - DOS Basic Client. 720 kb, 3½"

In addition both the Basic and Enhanced software is also found on the Supermax LAN Manager/X server under the sharename *util*.

## 2.3. Selecting Basic or Enhanced Client Software?

Most users should install the Basic Client. This will be adequate for sharing files and printers on the servers and sending and receiving messages. Only in following cases should you consider installing the Enhanced version:

- You are complete newcomer to the Supermax LAN Manager/X and want to get the feel and look of it, using the full-screen interface.
- You are a network administrator.

You should be aware that the Enhanced version uses considerably more memory than the Basic version.

## 2.4. Installation Procedure

In order to install the LAN Manager client software insert any of the floppies in the disk drive, change to this drive and type **`Install`**. For example, if you insert the floppy in drive A:, type:

```
a: install
```

and then follow the instructions outlined below:

1. The following text is displayed:

```
Install Basic (B) or Enhanced (E) version ? b
```

Press RETURN to select *b* (for Basic client version), which is the default choice, or type `e:` to select the Enhanced client version. Refer to Section 2.3, *Selecting Basic or Enhanced Client Software?* for advice.

2. You are then asked, if you want to change the configuration, and nothing else:

```
Change configuration only (Y/N) ? N
```

Select the default choice *NO*, when you are installing the client software. The choice *YES* is used when you want to change the configuration for client software already installed.

3. You must now specify a drive:

```
Enter drive to install on ('A'..'Z') : C:
```

Press RETURN to select C: (default), unless you are detemined to install the client software on another drive.

4. The following instruction is displayed:

```
Enter directory to install on : \LANMAN.DOS\BASIC
```

Press RETURN to select the default choice, unless you are determined to install the client software in another directory.

The default choice for the Basic client is the *\LANMAN.DOS\BASIC* directory and the default choice for the Enhanced client is *\LANMAN.DOS* directory, where the subdirectories *NETPROG* and *SERVICES* are created.

5. If you have inserted the DOS Basic client disk but have selected to install the Enhanced client or vice versa, you will now be asked to insert the floppy disk with the selected version of the LAN Manager client software:

```
DOS version (3.xx .. 4.xx): 3.30
```

The default DOS version is the DOS version running on you computer. Select the default version unless you are going to use the installed LAN Manager client software on another PC using a different DOS version. For installation on a PC with MS-DOS 5.0 refer to the section later in this chapter, *MS-DOS 5.0*.

6. When asked the following question:

```
Enable the message pop-up facility (Y/N) ? N
```

select the default choice *NO* in order to save RAM. Select *YES* when you want to be able to send and receive network messages. Eg. you may want to receive the message sent by the server, when a print job is completed.

7. You are now prompted to enter a PC name:

```
Enter PC name (must be unique):
```

The PC name must be unique among the PCs using LAN Manager on the same local area network. In order to make system administration simple and consistent with DDE standard, you should use the initials or the first name of the user of the PC followed by *.pc*. Eg. the PC name for the user David Hamilton with the initials dha should be *dha.pc*.

When assigning PC names, use the following guidelines:

* Names should include only alphanumeric characters (a-z, A-Z or 0-9) and other characters acceptable to DOS such as periods ( . ) and underscores ( _ ).

* Names are case insensitive: *dha.pc* and *DHA.PC* are recognized as identical names.

* Names can be up to 15 characters long

8. Finally, you are asked to choose a user name:

```
Enter user name: USER
```

The user name is typically the initials or the first name of the user of the PC. The user name must be identical to the user identification the user is given on the Supermax LAN Manager/X server. The user name should be consistent with the PC name given above exept, of course, for the *.pc* extension. This will keep the system administration simple and consistent with DDE standard.

The use of characters for user names follow the same guidelines as PC names.

The installation of the LAN Manager client software is now completed.

To start the LAN Manager client software, the NetBIOS interface, underlying protocol software and network adapter must be installed and running. When this is the case, the LAN Manager client software is started by typing `LMXB` for starting the Basic client or `LMXE` for starting the Enhanced client. And you proceed to access resources by attaching to the Supermax LAN Manager server as described in the *Supermax LAN Manager/X - User's Guide*.

## 2.5. Installing from the Supermax Server.

Since both the Basic and Enhanced software is found on the Supermax LAN Manager/X server, re-installation from the server can be performed from the server's directory with the sharename *UTIL*. Installing from a server is necessary if you want to install the Enhanced version on a PC only capable of reading small size floppies (360 Kb or 720 Kb floppy drives), or if the server is already installed with a newer version of the Client Program than the floppy-version.

The procedure for installing from the Supermax is:

1. Install the Basic client from floppy as desribed in Section 2.4., *Installation procedure* and run the *LMXB* command to start the client software.

2. Establish a connection to the Supermax server's directory with the *UTIL* sharename using the command

   **NET USE** <drive> \\<servername>**UTIL**

   where <drive> and <servername> are replaced by their appropriate values.

3. Run the INSTALL program from <drive> and you are again prompted to follow a procedure identical to the one described in *Installation procedure* earlier in this chapter.

## 2.6. Optional Utilities.

The Supermax LAN Manager/X server contains some optional utility programs, which are helpful but not necessary for performing basic networking with file and printer sharing. They are:

SYNCTM.EXE - Synchronizes date and time on the PC with the server's.
UCHMOD.EXE - Changes UNIX access rights on a file located on the server.
UD.EXE - Converts text file between UNIX and DOS format.
UDIR.EXE - List files on the server in UNIX format.
UEXEC.EXE - Execute non-interactive commands on the Supermax.
UKILL.EXE - Terminate processes running on the Supermax.
UPSTAT.EXE - Get status of processes running on the Supermax.
UREN.EXE - Rename file located on the server.
UWAIT.EXE - Wait for processes running on the server to terminate.
WNETMSG.EXE - Display received messages when running Microsoft Windows V.3.0 or later.

Note: These utility programs are found on the Supermax LAN Manager/X server in the subdirectory *LMXUTIL* under the shared directory *UTIL*. The LAN Manager client software must be installed and running in order to access the utilities from the PC.

Access is gained by attaching the PC to the Supermax LAN Manager/X server using the command

```
NET USE <drive> \\<servername>\UTIL.
```

where <drive> is an unused drive, and <servername> is the name of the Supermax LAN Manager/X server. For example if your server is named *DEP1.SERVE*, type

```
NET USE G: \\DEP1.SERVE\UTIL
```

and the utilities will be accessible in *G:\LMXUTIL*.

## 2.7. DOS Version

Note: The LAN Manager client setup depends on the DOS version used. Therefore you should run the INSTALL program if you change the DOS version.

## 2.8. Fine Tuning the Configuration

The INSTALL program will only perform a basic setup of the LAN Manager client software enabling you to run. For details of how to tune the configuration, you should refer to one of the chapters *Configuring the Basic Client* or *Configuring the Enhanced Client*, depending on the client type you are using.

## 2.9. MS-DOS 5.0

It is possible - but not recommended - to select DOS 4.0 during installation, and actually run MS-DOS 5.0 on the client.

However, a better solution is to use the redirector program distributed together with MS-DOS 5.0. How to do this is described in detail in the DOS 5.0 documentation. It is essential that the following programs shold be replaced with MS-DOS 5.0 versions: *redir.exe*, *netwksta.exe* and *setname.exe*.

In general, it is recommended to use MS-DOS 5.0 together with Supermax LAN Manager/X due to the increased amount of memory available to applications. This is especially true when using a 386 based PC.

# 3. Configuring the Basic Client

## 3.1. How to Configure

Configuration of the Basic client is carried out by adding parameters to the redirector program. The redirector program is normally started by using the **lmxb** command, which runs the batch file *lmxb.bat* created by the client installation program. The redirector may also be started by using the **net** command **net start rdr**.

Using the **lmxb** command, the redirector program *redir.exe* is started directly by the *lmxb.bat* batch file and takes the optional parameters from this batch file. The *lmxb.bat* file is created by the installation program. The default location is in the *c:\lanman.dos\basic* directory and one of the lines in the file contains the following default values:

*redir.exe /l:10 /himem:yes*

This is the line where the redirector is started with the appropriate parameters, when using the **lmxb** command.

Using the **net start rdr** command, the redirector program *redir.exe* is started indirectly and takes the optional parameters from the *msnet.ini* configuration file. The *msnet.ini* file is created by the installation program. The default location is in the *c:\lanman.dos\basic* directory and some of the lines in the file is per default:

```
start rdr $1
  chknet
  minses
  redir /himem:no /L:10
```

It is this last line that starts the redirector with the appropriate parameters, when the **net start rdr** command is being used.

The configuration parameters described in Section 3.2., *Parameters for the Basic Client Redirector* is added to, deleted from or changed in the *redir.exe* line in the *lmxb.bat* file and/or in the *redir* line in the *msnet.ini* file in order to reconfigure the Basic client. Use a flat file editor to modify the line to include the appropriate parameters. Eg. is the number of possible concurrent LAN Manager servers to be increased from the default of 2 to 3 and is the number of simultaneous links to resources on the servers to be changed from 10 to 12, the *redir.exe* line should be changed to:

*redir.exe /l:12 /himem:yes /s:3*

## 3.2. Parameters for the Basic Client Redirector

The parameters are case insensitive, which means that */S:3* are */s:3* are identical.

***Number of workbuffers - option B***

Sets the number of workbuffers the client can use to store data for transmission. See the description in *numworkbuffers* in Chapter 4, *Configuring the Enhanced DOS and OS/2 Client* for a more detailed description of this parameter.

*Default value:* 3
*Minimum value:* 1
*Maximum value:* 32

***Use of high memory - option HIMEM***

This parameter applies to LAN Manager client PCs equipped with at least a 80286 CPU and more than 1 Mbyte of RAM. The use of high memory (also known as extended memory) must be made available in the client PC's *config.sys* file. (See Chapter 5, *Using and Installing HIMEM.SYS* for details.) Loading the redirector into high memory reduces the amount of conventional memory used by the redirector by approximately 37 Kbytes. The loading of the redirector into high memory is enabled or disabled by the *HIMEM* parameter.

*Default value:* no
*Enabled: yes*
*Disabled: no*

The use of high memory is not available for clients running DOS 4.0.

***Number of links - option L***

Sets the number of simultaneous links that the client can establish. The default value of 8 is adequate for eg. 6 virtual drives and two networked printers. Use this parameter if more than 8 links are necessary. See Chapter 4, *Configuring the Enhanced DOS and OS/2 Client* for a more detailed description of the *numresources* parameter.

*Default value:* 8
*Minimum value:* 1
*Maximum value:* 32

***Printerbuffer size - option P1, P2 and P3***

Specifies the size of the printer buffers used for port ids LPT1, LPT2 and LPT3, respectively. The size of these buffers may be increased to improve printing performance. These parameters serves the same purpose as *pr1buffsize*, *pr2buffsize* and *pr3buffsize* used by enhanced clients as described in Chapter 4.

*P1 Default value:* 256
*Minimum value:* 80
*Maximum value:* 10240

*P2 Default value:*128
*Minimum value:* 80
*Maximum value:* 10240

*P3 Default value:*128
*Minimum value:* 80
*Maximum value:* 10240

***Number of server - option S***
Sets the maximum number of servers that the client can connect to simultaniously.

*Default value:* 2
*Minimum value:* 1
*Maximum value:* 16

***Single receive buffer size - option SB***
Sets the size of the single receive buffer size. This buffer is used when receiving data from a server. It can be used to eliminate retransmission problems caused by some types the network protocols.

*Default value:* 0

***Size of workbuffers - option Z***
Sets the size in bytes of workbuffers that the client can use to store data for transmission. See Chapter 4, *Configuring the Enhanced DOS and OS/2 Client* for a more detailed description of the *sizworkbuf* parameter.

*Default value:* 2048
*Minimum value:* 1024
*Maximum value:* memory dependent

# 4. Configuring the Enhanced DOS and OS/2 Client

The *lanman.ini* file can be used to configure the client's network operation and performance. This chapter provides the following information about the client's *lanman.ini* file:

* Using the *lanman.ini* File
* The File Syntax
* File Sections
* File Parameter Descriptions
* Overriding Parameter Settings

## 4.1. Using the *lanman.ini* File

Many of the Client Program's parameter settings (configuration information) are stored in the *lanman.ini* file. When you start the client, it reads its *lanman.ini* file for parameter settings. These parameter settings help determine the client's network operation and performance.

Note: This section is relevant for Enhanced DOS clients and OS/2 clients. The configuration of Basic DOS clients is described in Chapter 3, *Configuring the Basic Client*.

### 4.1.1. Location of the File

The location of the *lanman.ini* file depends upon the type of client. For Enhanced DOS clients, this file is located in the client's *lanman.dos* directory. For OS/2 clients, this file is located in the client's *lanman* directory.

### 4.1.2. Changes to the File

You can edit the *lanman.ini* file to customize the client's performance. However, it is best to start with the default *lanman.ini* file as it exists at installation. If you find the client lacking in performance or running out of memory, change the *lanman.ini* file to readjust the client's use of buffers and processes. This way, you can give more memory and better performance to the tasks performed most often.

When tuning the client's performance, remember that there is a trade-off between operating speed and amount of memory used. Faster operation requires more and larger buffers. Buffers and processes require more memory.

The *lanman.ini* file can be modified directly using a text editor, such as *edlin*.

Note: Only experienced network users and administrators should attempt to change parameter settings.

To learn the effects of changing a particular parameter setting, see *File Parameter Descriptions*). Remember that, except where noted, you must reboot and restart the client for changes to the *lanman.ini* file's parameters to take effect.

Note: You can temporarily override some parameters in the *lanman.ini* file by using the **net start** and the **net config** commands at the system prompt. Further information is provided in Section 4.3.6., *Overriding Parameter Settings*.

## 4.2. The File Syntax

The *lanman.ini* file uses the following syntax:

* The title of each section is enclosed in brackets (for example, [*title*]).

* The name of each parameter is at the beginning of a line, followed by an equal sign and the actual value assigned to the parameter (for example, *parameter=value*). There can be a space before and after the equal sign.

* Parameter values that are expressed as lists must be separated by commas.

* If a parameter has no assigned value (nothing to the right of the equal sign), the value is 0 for parameters that require a number and a null (blank) for parameters that require a character string.

* Comments start with a semicolon (;), and must be the first non-blank character on the line.

* Any text specified in the *lanman.ini* file is changed to uppercase by Supermax LAN Manager/X.

* In some cases, the value for a parameter setting may consist of a pathname. Some parameters use *relative pathnames* (the pathname begins at an agreed upon directory located somewhere in the client's directory hierarchy). Parameters using relative pathnames follow the convention that the relative pathname is assumed to be relative to either *lanman.dos* (for Enhanced DOS clients) or *lanman* (for OS/2 clients).

  The following is an example of the *lanman.ini* file syntax:

```
[workstation]
; default name of this Workstation
computername=mis
```

### 4.2.1. File Sections

The *lanman.ini* file consists of several sections, each containing parameters related to a part of the Client Program. For example, the *[messenger]* section contains parameters for running the Messenger service.

The *lanman.ini* sections are as follows:

* `[networks]`
  Specifies which LAN the computer is able to use.

* `[workstation]`
  Specifies the default configuration values for the principal component of the Client Program.

* `[messenger]`
  (OS/2 clients only.) Specifies the size of the buffer used in receiving messages.

* `[netshell]`
  Defines the username, as well as parameters for the Full Screen Net Interface.

* `[services]`
  Lists the pathnames to some of the Supermax LAN Manager/X services available on this computer. Services are the main components of Supermax LAN Manager/X, (for example, the Messenger and Netpopup services). The services listed are common to other vendors' LAN Manager clients.

## 4.3. File Parameter Descriptions

The following is an explanation of each *lanman.ini* file section, including a description of the function of each parameter within that file section. Parameters are listed alphabetically.

### 4.3.1. The [networks] Section

For Enhanced DOS clients, the `[networks]` section specifies the programs necessary to install the interfaces used by NetBIOS applications. The DOS client's *lanman.ini* file does not contain any parameters related to network drivers.

For OS/2 clients, the `[networks]` section specifies which protocol or NetBIOS device driver the computer is able to use.

| Parameter | Function |
|---|---|
| netn= | (OS/2 clients only.) Specifies the name of the network device driver and the number of the network interface board that the computer uses when working on the LAN.<br><br>The complete entry should follow this format:<br><br>`netn=driver$,m`<br><br>where<br><br>* `n` identifies the number of the LAN. (Typically, a client is connected to one LAN, so this number is usually 1.)<br><br>* `driver` specifies the filename of the protocol or NetBIOS device driver in the *lanman\drivers* directory. Do not include the filename extension.<br><br>* `m` identifies the lan (network interface board) number. If the driver is set up to handle more than one of the same kind of network interface board, may be used to specify which board to access.<br><br>For example, the following entry identifies the protocol driver as *attiso.os2*:<br><br>`net1=attiso$,0`<br><br>If there is more than one network interface board installed in the computer, include one *netn=* line for each board.<br><br>If you change or add a protocol or NetBIOS device driver for a client, you also must change the entries in the *config.sys* file to reflect the filename of the new driver. |
| netservices= | (Enhanced DOS clients only.) Specifies the programs necessary to install the interfaces used by NetBIOS applications. |

## 4.3.2. The [workstation] Section

The `[workstation]` section specifies the default configuration values for the client, including the following:

* the name of the computer
* services to start along with the Workstation service
* the name of the LAN group with which this client works
* the name of a server that can verify logon requests from this client
* memory allocation and other controls for tuning the computer's performance on the LAN.

Often the only parameter you will need to change is *computername=*.

Table 3-2, later in this chapter, summarizes the minimum, maximum, and default values for each of the parameters in the `[workstation]` section of the *lanman.ini* file.

| **Parameter** | **Function** |
|---|---|
| charcount= | Sets the number of characters, in bytes, bound for a pipe that this client will store before actually sending the characters. Increase this number if you need to keep traffic down on your LAN. You can change this value at any time with immediate effect.<br><br>*Minimum value:* 0<br>*Maximum value:* 65535<br>*Default value:* 16 |
| chartime= | Sets the amount of time, in milliseconds, that this client will collect data to send to a pipe before actually sending the information. Increase this number if you need to limit traffic on the LAN. Setting this number too low will decrease the performance of the local area network by generating more local area network activity. You can change this value at any time with immediate effect.<br><br>*Minimum value:* -1<br>*Maximum value:* a long value<br>*Default value:* 250 |

| Parameter | Function |
|---|---|
| charwait= | Sets the amount of time, in seconds, that this client will wait for a requested pipe to be available. When you first try to use a pipe, it may be busy. This parameter controls how long the client will wait for the pipe to become available. Increase this number if you have heavy traffic on your local area network or heavy use of pipes, and you are willing to wait for pipes. You can change this parameter at any time with immediate effect.<br><br>*Minimum value:* 0<br>*Maximum value:* a long value<br>*Default value:* 128 for Enhanced DOS clients<br>3600 for OS/2 clients |
| computername= | Specifies the name for this clients. The computername must be unique on the local area network. If the computername matches any other name (computername, username, LAN group name, or alias) currently in use on the local area network when you start the Clients Program, you will be prompted to change the computername. The Client Program will not load successfully if the computername is not unique. Specifically, this means that the computername must not be the same as these other *lanman.ini* parameters:<br><br>* `computername=` on anyone else's computer<br><br>* `langroup=` on your computer or anyone else's computer<br><br>Computernames can be up to 15 characters in length, composed of alphanumeric characters (a-z, A-Z, or 0-9) and other characters acceptable to DOS or OS/2, such as periods ( . ) and underscores ( _ ).<br><br>When possible, use letters, numbers, and the hyphen. Lowercase letters will be converted to uppercase letters.<br><br>*Minimum value:* 1 character<br>*Maximum value:* 15 characters |

| Parameter | Function |
|---|---|
| himem= | (Only for Enhanced DOS clients with 80286 or 80386 CPUs and more than 1 MByte of RAM.) Specifies whether or not to load the redirector into high (extended) memory. If you choose to load the redirector in high memory, you must edit the client's *config.sys* file for the high memory option. For more information, see Chapter 5, *Using and Installing HIMEM.SYS*.<br><br>*Default value: no*<br>*Other choices: yes* |
| keepapis= | (Enhanced DOS clients only.) Determines whether or not to give this client access to certain Supermax LAN Manager/X API functions. The default setting is *yes*, which provides access to these API functions. It is recommended that you do not change this parameter setting. Removing access to these API functions would significantly reduce the clients functionality. For example, you would not be able to perform administrative functions from this clients.<br><br>*Default value: yes*<br>*Other choices: no* |
| keepconn= | (OS/2 clients only.) Sets the amount of time, in seconds, that this client is to maintain an inactive connection to a shared resource.<br><br>*Minimum value:* 1<br>*Maximum value:* 65535<br>*Default value:* 600 |
| keepsearch= | (OS/2 clients only.) Sets the amount of time, in seconds, that this client is to maintain an inactive file search request.<br><br>*Minimum value:* 1<br>*Maximum value:* 65535<br>*Default value:* 600 |

| Parameter | Function |
|---|---|
| langroup= | Sets the default LAN group name for this client. This is not a group of users, but the group of computers that is shown in the **net view** command and various dialog boxes of the Full Screen Net Interface.<br><br>The LAN group name cannot be the same as any computername on the local area network, including this client's computername. The possible character set for a LAN group name is the same as for the `computername=` parameter.<br><br>*Minimum value:* 1 character<br>*Maximum value:* 15 characters<br>*Default value:* langroup |
| lanroot= | (Enhanced DOS clients only.) Specifies the location of this client's *lanman.ini* file.<br><br>*Default value: c:\lanman.dos* |
| logonserver= | Specifies the servername of the server that can validate logon requests from this client. Any requests to log on to the local area network at this client will be validated by the server named by this parameter.<br><br>The `logonserver=` parameter has three possible values:<br><br>* a null (blank) value means that the client will not send logon validation requests.<br><br>* *servername* is the servername of the server that you want to validate logon requests for this client. If the user of this client does not have an account on that server, or if logon validation is disabled for the account at that server, the user cannot log on to the local area network.<br><br>* * causes the client to broadcast logon requests to all available servers. Any logon validator server with an enabled account for the requesting user can respond.<br><br>For more information about logon validation, see *Supermax LAN Manager/X - System Administrator's Guide.*<br><br>*Default value:* null<br>*Other choices:* \\servername<br>* |

| Parameter | Function |
|---|---|
| mailslots= | Specifies whether or not to perform non-guaranteed mailslot delivery. This is used in receiving alert messages sent from servers.<br><br>*Default value:* yes<br>*Other choices:* no |
| maxcmds= | (OS/2 clients only.) Sets the maximum number of NetBIOS commands the Client Program can send to all of this client's network interface boards simultaneously. Increase the number if you have multiple applications using Supermax LAN Manager/X simultaneously. Command processing takes up memory, so don't specify a higher number of simultaneous commands that you need. The recommended value is 1.6 times the value specified for the `maxthreads=` parameter. If you change this parameter setting, you must reboot the computer to make the change effective.<br><br>*Minimum value:* 5<br>*Maximum value:* 255<br>*Default value:* 16 |
| maxerrorlog= | (OS/2 clients only.) Sets the maximum size, in KBytes, of this client's error log. This parameter keeps the error log from filling up the hard disk. Reduce this number if you need disk space more than you need extensive error information. You can change this parameter at any time with immediate effect.<br><br>*Minimum value:* 3<br>*Maximum size:* disk size<br>*Default value:* 100 |
| maxpipes= | (OS/2 clients only.) Sets the maximum number of named pipes. Increase this number if you have multiple applications using named pipes or one application, such as a database program, that uses many named pipes. Each pipe takes up memory, so don't allocate more than you need. If you change this parameter, you must reboot the computer to make the change effective.<br><br>*Minimum value:* 5<br>*Maximum value:* 255<br>*Default value:* 10 |

| Parameter | Function |
|---|---|
| maxthreads= | (OS/2 clients only.) Sets the maximum number of execution threads that can use the local area network by means of the Clients Program. Increase this number if you have multiple applications using Supermax LAN Manager/X simultaneously. Each thread takes up memory, so don't allocate more than you need. If you change this parameter, you must reboot the computer to make the change effective.<br><br>*Minimum value:* 10<br>*Maximum value:* 254<br>*Default value:* 10 |
| maxwrkcache= | (OS/2 clients only.) Sets the size limits, in KBytes, of this client's large-transfer buffers. Increase this number if the client is used for file-intensive projects (for example, copying large files) and better performance is needed. This number must be a multiple of 64 KBytes.<br><br>*Minimum value:* 0<br>*Maximum value:* 640<br>*Default value:* 64 |
| numalerts= | (OS/2 clients only.) Sets the number of program tasks that can be waiting on an alert condition. Increase this number only if this client uses a server-based application whose accompanying documenation directs you to do so. A larger table takes up memory, so don't allocate more space than you need.<br><br>*Minumum value:* 3<br>*Maximum value:* 256<br>*Default value:* 12 |
| numcharbuf= | Sets the number of pipe buffers. Increase this number if you are using several pipes, or you need to transmit large amounts of data across the local area network to such devices. Each buffer takes up memory, so don't allocate more than you need.<br><br>*Minimum value:* 0<br>*Maximum value:* 15<br>*Default value:*<br>2 for Enhanced DOS clients<br>10 for OS/2 clients |

| Parameter | Function |
|---|---|
| nummailslots= | (Enhanced DOS clients only.) Sets the number of mailslots to use locally. You may need to increase this parameter if your network applications require additional mailslots.<br><br>*Default value:* 2 |
| numresources= | (Enhanced DOS clients only.) Specifies the maximum number of simultaneous links this client can establish. Do not assign a greater number of client links than is necessary for the client to perform its normal functions. Note that the number of different servers to which a client can link is determined by the `numservers=` parameter.<br><br>*Minimum value:* 2<br>*Maximum value:* 32<br>*Default value:* 8 |
| numservers= | (Enhanced DOS clients only.) Specifies the maximum number of sessions that the Client Program can use. This parameter setting should always be 2 greater than the `numresources=` parameter setting.<br><br>*Minimum value:* 4<br>*Maximum value:* 34<br>*Default value:* 10 |
| numservices= | (OS/2 clients only.) Sets the size of the internal service table. Increase this number if this client will be running many Supermax LAN Manager/X services. A larger table takes up memory, so don't allocate more than you need. The names of the available services are kept in the `[services]` section of the *lanman.ini* file. The `numservices=` parameter setting should be less than or equal to the number of parameters in the `[services]` section of the file.<br><br>*Minimum value:* 4<br>*Maximum value:* 256<br>*Default value:* 8 |
| numviewbuffers= | Determines the number of receive buffers for mailsots.<br><br>*Default value:* 2 |
| numviewedservers= | Sets the number of receive buffers for mailslots.<br><br>*Default value:* 50 |

| Parameter | Function |
|---|---|
| numworkbuf= | Sets the number of buffers this client can use to store data for transmission, thereby increasing local area network efficiency. Each buffer takes up memory, so don't allocate more than you need. On DOS clients, the product of this value and the value of the `sizworkbuf=` parameter must be less than 32768. On OS/2 clients, the maximum value for this product varies, depending on the client's configuration; however, in no case may this product exceed 65534.<br><br>*Minimum value:*<br>1 for DOS clients<br>3 for OS/2 clients<br>*Maximum value:*<br>32 for DOS clients<br>64 for OS/2 clients<br>*Default value:* 3 |
| pr1buffsize=<br>pr2buffsize=<br>pr3buffsize= | (Enhanced DOS clients only.) Specifies the size of the printer buffers used for port-id's LPT1, LPT2, and LPT3, respectively. The size of these buffers may be increased to improve printing performance.<br><br>*Minimum value:* 80<br>*Maximum value:* 10240<br>*Default value:*<br>256 for pr1buffsize<br>128 for pr2buffsize and pr3buffsize |
| printbuftime= | (OS/2 clients only.) Sets the amount of time, in seconds, after which compatibility-mode printer requests will be printed. Most applications that work in the OS/2 compatibility mode do not explicitly close the *prm:* print device to tell OS/2 to send the contents of the printer buffers to the printer. This parameter limits how long the *prm:* print device will be kept open. You can change this parameter at any time with immediate effect.<br><br>*Minimum value:* 0<br>*Maximum value:* 65535<br>*Default value:* 90 |
| sesstimeout= | (OS/2 clients only.) Specifies the time, in seconds, that this client is to wait before disconnecting a session from a server that is no longer responding.<br><br>*Minimum value:* 10<br>*Maximum value:* 65535<br>*Default value:* 45 |

| Parameter | Function |
|---|---|
| singlercvbuf= | (Enhanced DOS clients only.) Sets the single receive buffer size. This buffer is used when receiving data from a server. It can be used to eliminate retransmission problems caused by various network transports.<br><br>*Minimum value:* 0<br>*Maximum value:* 64000<br>*Default value:* 0 |
| sizcharbuf= | Sets the size, in bytes, of character pipe buffers. Increase this number if you need better performance when using pipes. Each buffer takes up memory, so don't allocate more than you need.<br><br>*Minimum value:* 64<br>*Maximum value:* 4096<br>*Default value:*<br>128 for Enhanced DOS clients<br>512 for OS/2 clients |
| sizerror= | (OS/2 clients only.) Sets the size of the client internal error buffer. Reduce this number if you need more available memory and you don't have frequent local area network errors.<br><br>*Minimum value:* 256<br>*Maximum value:* 4096<br>*Default value:* 1024 |
| sizworkbuf= | Sets the size in bytes of client buffers. Increase this number if you need to handle large chunks of data, like database records, across the local area network. The value of this parameter setting should be a multiple of 512. Also, this parameter setting should be the same for every client on the local area network. On DOS clients, the product of the `numworkbuf=` and `sizworkbuf=` parameters must be less than 32768. On OS/2 clients, the maximum value for this product varies, depending on the clients configuration; however, in no case may this product exceed 65534.<br><br>*Minimum value:* 1024<br>*Maximum value:* memory-dependent<br>*Default value:* 2048 |

| Parameter | Function |
|---|---|
| wrkheuristics= | (OS/2 clients only.) Sets a wide variety of client fine-tuning options. This parameter setting consists of a field of 32 characters. Each of the 32 characters has an independent meaning. If any characters are missing, they are assumed to be their default as described. Except where noted, each character is a binary digit where *0* means *off* or *inactive*, and *1* means *on* or *active*. The list of characters and allowed values are as shown in Table 3-1. |

**Table 3-1 wrkheuristics= Character Values**

| Character | Description and Allowed Values |
|---|---|
| 0 | Request opportunistic locking of files. This opens files on the server with *deny none* rights, allowing faster buffering. If another client requests access to the same file, the server lets the first client flush data before granting the second access. *Default = 1.* |
| 1 | Do performance optimization for batch files. Heuristic character 0, opportunistic locking, must be set to 1. *Default = 1.* |
| 2 | Do asynchronous Unlock and WriteUnlock as follows:<br>0 = never<br>1 = always (default)<br>2 = only on a virtual circuit |
| 3 | Do asynchronous Close and WriteClose as follows:<br>*0* = never<br>*1* = always (default)<br>*2* = only on a virtual circuit |
| 4 | Buffer named pipes. *Default = 1.* |
| 5 | Do LockRead and WriteUnlock as follows:<br>*0* = never<br>*1* = always (default)<br>*2* = only on a virtual circuit |
| 6 | Use *Open And Read. Default = 1.* |
| 7 | Do read-ahead to sector boundary. *Default = 1.* |
| 8 | Use the *chain send* NetBIOS NCB as follows:<br>*0* = never<br>*1* = do if the server's buffer is larger than the client's<br>*2* = always - to avoid copy (default) |

**Table 3-1 wrkheuristics= Character Values**

| Character | Description and Allowed Values |
|---|---|
| 9 | Buffer small read/write requests (reading and writing a full buffer) as follows:<br>*0* = never<br>*1* = always (default)<br>*2* = only on a virtual circuit |
| 10 | Use buffer mode (assuming that shared access is granted) as follows:<br>*0* = always read bufsize if request is smaller than bufsize<br>*1* = use full buffer if file is open for read/write<br>*2* = use full buffer if reading/writing sequentially<br>*3* = buffer all requests that are smaller than buffer size (default) |
| 11 | Use RAW read/write SMB protocols. *Default = 1.* |
| 12 | Use large RAW read-ahead buffer. *Default = 1.* |
| 13 | Use large RAW write-behind buffer. *Default = 1.* |
| 14 | Use read MPX SMB protocols. *Default = 1.* |
| 15 | Use write MPX SMB protocols. *Default = 1.* |
| 16 | Use big buffer for large core reads. *Default = 1.* |
| 17 | Use same size small read-ahead or to sector boundary. *Default = 1.* |
| 18 | Use same size small write-behind or to sector boundary. *Default = 0.* |
| 19 | Force 512 byte maximum transfers to and from core. *Default = 0.* |
| 20 | Flush pipes and devices on DosBufReset or DosClose as follows:<br>*0* = only files/devices opened by caller; spin until flushed (default)<br>*1* = only files/devices opened by caller; flush only once<br>*2* = all files, all short-term pipe/device I/O; spin until flushed<br>*3* = all files, all short-term pipe/device I/O; flush only once<br>*4* = all files and pipe/device I/O; spin until flushed<br>*5* = all files and pipe/device I/O; flush only once |
| 21 | Use encryption if the server supports it. *Default = 1.* |

**Table 3-1 wrkheuristics= Character Values**

| Character | Description and Allowed Values |
|---|---|
| 22 | Control log entries for multiple occurrences of an error. A recurring error can fill up the client's error log; use this heuristic to keep down the number of log entries. If the value is other than 0, Supermax LAN Manager/X logs the 1st, 4th, 8th, 16th, and 32nd occurrences of an error. After that, every 32nd further occurrence is logged.<br><br>If the value is other than 0, it also defines the size of an error table. The table is a record of what errors have occurred. If an error does not match an existing entry in the table, it replaces the entry with the lowest number of occurrences.<br><br>Set the heuristic as follows:<br>*0* = log all occurrences (default)<br>*1* = use error table, size 1<br>*2* = use error table, size 2<br>*3* = use error table, size 3<br>*4* = use error table, size 4<br>*5* = use error table, size 5<br>*6* = use error table, size 6<br>*7* = use error table, size 7<br>*8* = use error table, size 8<br>*9* = use error table, size 9 |
| 23 | Buffer all files opened with deny write. *Default = 1.* |
| 24 | Buffer all files opened with *R* (read only) attribute. *Default = 1.* |
| 25 | Read ahead when opening for execution. Sometimes reading an executable file can appear sequential when it is not. *Default = 0.* |
| 26 | Handle CTRL-C as follows:<br>*0* = no interrupts allowed<br>*1* = only allow interrupts on long-term operations<br>*2* = always allow interrupts (default) |
| 27 | Force correct open mode when creating files on a core server. A core server opens a new file in compatibility mode, which is not ordinarily a problem. This heuristic forces the server to close the file and re-open it in the proper mode for a protected-mode client. *Default = 0.* |

**Table 3-1 wrkheuristics= Character Values**

| Character | Description and Allowed Values |
|---|---|
| 28 | Use the NetBIOS *NoAck* mode (transferring data without an immediate acknowledgement) as follows:<br>*0* = never<br>*1* = NoAck on send only (default)<br>*2* = NoAck on receive only<br>*3* = NoAck on send and receive |
| 29 | Send data along with SMB write block RAW requests. This can save time, though not in all cases. *Default = 1.* |
| 30 | Send a popup message to the screen when the client logs an error, as follows:<br>*0* = never<br>*1* = on write fault error only - no timeout (default)<br>*2* = on write fault and internal errors only - no timeout<br>*3* = on all errors - no timeout<br>*4* = (reserved)<br>*5* = on write fault errors only - timeout<br>*6* = on write fault and internal errors only - timeout<br>*7* = on all errors - timeout |
| 31 | Reserved |

| Parameter | Function |
|---|---|
| wrknets= | (OS/2 clients only.) Lists the names of the local area networks to which this client belongs. The names of available local area networks are listed in the `[networks]` section of the *lanman.ini* file.<br><br>*Default value: net1* |

| Parameter | Function |
|---|---|
| wrkservices= | Specifies Supermax LAN Manager/X services to start when the Client Program is started. The Messenger service, which receives local area network messages, is an example of a service that can be started with the client. The names of all the services that can potentially be started with this parameter are listed in the `[services]` section of the *lanman.ini* file.<br><br>*Default value:* null<br>*Other choices:* from `[services]` |

Table 3-2 summarizes the possible values of parameters in the `[workstation]` section.

**Table 3-2. Values for the `[workstation]` Section Parameters**

| Parameter | Minimum | Maximum | Default | Client |
|---|---|---|---|---|
| charcount= | 0 bytes | 65535 bytes (forever) | 16 bytes | |
| chartime= | -1 millisec | (a long value) | 250 millisec. | |
| charwait= | 0 secs | (a long value) | 128 secs (E)<br>3600 secs (O) | |
| computername= | 1 character | 15 characters | - | |
| himem= | - | - | no | E |
| kepapis= | - | - | yes | E |
| keepconn= | 1 second | 65535 secs (forever) | 600 secs | O |
| keepsearch= | 1 second | 65535 secs (forever) | 600 secs | O |
| langroup= | 1 character | 15 characters | langroup | |
| lanroot= | - | - | c:\lanman.dos | E |
| logonserver= | - | - | null | |
| mailslots= | - | - | yes | |
| maxcmds= | 5 | 255 | 16 | O |
| maxerrorlog= | 2 KBytes | (disk size) | 100 KBytes | O |
| maxpipes= | 5 | 255 | 10 | O |
| maxthreads= | 10 | 254 | 10 | O |
| maxwrkcache= | 0 KBytes | 640 KBytes | 64 kbYTES | O |
| numalerts= | 3 | 256 | 12 | O |
| numcharbuf= | 0 | 15 | 2(E)<br>10(O) | |
| nummailslots= | - | - | 2 | E |
| numresources= | 2 | 32 | 8 | E |
| numservers= | 4 | 34 | 10 | E |
| numservices= | 4 | 256 | 8 | O |
| numviewbuffers= | - | - | 2 | |
| numviewedservers= | - | - | 50 | |
| numworkbuf= | 1 (E)<br>3 (O) | 32 (E)<br>64 (O) | 3 | |
| pr1buffsize= | 80 bytes | 10240 bytes | 256 bytes | E |
| pr2buffsize= | 80 bytes | 10240 bytes | 128 bytes | E |
| pr3buffsize= | 80 bytes | 10240 bytes | 128 bytes | E |
| printbuftime= | 0 secs | 65535 secs (forever) | 90 secs | O |
| sesstimeout= | 10 secs | 65535 secs (forever) | 45 secs | O |
| singlercvbr= | - | - | 0 | E |
| sizcharbuf= | 64 bytes | 4096 bytes | 128 bytes (E)<br>512 bytes (O) | |

**Table 3-2. Values for the `[workstation]` Section Parameter**

| | | | | |
|---|---|---|---|---|
| sizerror= | 256 bytes | 4096 bytes | 1024 bytes | O |
| sizworkbuf= | 1024 bytes | memory-dependent | 2048 bytes | |
| wrkheuristics= | - | - | - | O |
| wrknets= | - | - | net1 | O |
| wrkservices= | - | - | null | |

## 4.3.3. The [messenger] Section

The `[messenger]` section applies to OS/2 clients only. This section specifies the default pathname of the log file used for received messages and the size of the buffer used in sending and receiving messages.

| Parameter | Function |
|---|---|
| logfile= | (OS/2 clients only.) Specifies a default pathname for the messages log. If the value of this parameter is a relative pathname, it is relative to the *lanman\logs* directory. The recommended value for this parameter is the filename *messages.log*, which specifies the pathname *lanman\logs\messages.log*.<br><br>*Default value: messages.log* |
| sizmessbuf= | (OS/2 clients only.) Sets the size, in bytes, of the buffers for sending and receiving local area network messages. You cannot receive messages larger than the value of this parameter. Increase this number if you will be sending or receiving long messages. Larger buffers take more memory, so don't allocate larger buffers than you need.<br><br>*Minimum value:* 512<br>*Maximum value:* 62000<br>*Default value:* 4096 |

Table 3-3 summarizes the possible values of parameters in the `[messenger]` section.

**Table 3-3. Values for the `[messenger]` Section Parameters**

| Parameter | Minimum | Maximum | Default | Client |
|---|---|---|---|---|
| logfile= | - | - | messages.log | O |
| sizmessbuf= | 512 bytes | 62000 bytes | 4096 bytes | O |

## 4.3.4. The [netshell] Section

This section defines the default username for the client and the default colour scheme for the Full Screen Net Interface. For OS/2 clients, this section defines the colour scheme for the Full Screen Net Interface, specifies the default servername, and indicates the rate for updating the information in dialog boxes.

Table 3-5, later in this chapter, summarizes the minimum, maximum, and default values for each of the parameters in the `[netshell]` section of the *lanman.ini* file.

| Parameter | Function |
|---|---|
| colours= | A total of 60 characters define the colours to be used for the Full Screen Net Interface. There are 20 items that can be set; each item requires 3 characters to set its colour.<br><br>Two default colour schemes are supplied when you install Supermax LAN Manager/X.<br><br>The 20 items that can be set for colour are shown in Table 3-4. |

**Table 3-4. Colour Items for the Full Screen Net Interface**

| Item/Device | Description |
|---|---|
| 1 Background | Unselected part of a dialog box's edit items. |
| 2 Hilite | Selected item in text box, list box, or menu. |
| 3 Greyed | Inactive (grey) items. |
| 4 Enabled | Enabled items. |
| 5 Disabled | Disabled items for monochrome. Same as if enabled. The only way to distinguish is by noting that no accelerator appears. |
| 6 Alert | For message box alerts. |
| 7 Dialog Box | For dialog boxes. |
| 8 Pushbutton | Pushbutton colour. |
| 9 ButtonDown | Pushed button colour. |
| 10 List box | List box background. |
| 11 Scrollbar | Scroll bar arrows and shafts. |
| 12 Elevator | Scroll bar elevator. Also used for Exit. |
| 13 MenuBox | Box around dropdown menu. |
| 14 Menu | Menu bar colour. |

**Table 3-4. Colour Items for the Full Screen Net Interface**

| Item/Device | Description |
|---|---|
| 15 MenuSelected | Sets the colour for non-highlighted text when the menu is selected, but is not used for the menu item. |
| 16 MenuHilite | For single character accelerator. Becomes active when you press ALT. As soon as you release ALT, the attribute changes to MenuHiliteSel, since that is the menu selected. This also controls the attribute of the menu item's accelerator when not selected. |
| 17 MenuHiliteSel | For single character (under selection), sets the colour for accelerator when the menu is selected. |
| 18 ItemHiliteSel | For single character (under selection), sets the colour for accelerator when the item is selected. The other characters in the item are set to Hilite. |
| 19 DialogAccel | Dialog accelerators. |
| 20 Shadow | Shadows. Monochrome uses dithered character for shadow. Black-on-black totally blots out the shadowed text; black-on-white makes it stand out in inverse; white-on-black effectively makes no shadow. |

Each item requires 3 characters to set its colour. The first character represents the foreground colour, the second represents the background colour, and the third represents the intensity of the foreground and background. Use the following information when entering values:

| Value | First/Second Characters Foreground/Background Colours |
|---|---|
| 0 | black |
| 1 | blue |
| 2 | green |
| 3 | cyan |
| 4 | red |
| 5 | magenta |
| 6 | orange |
| 7 | light grey (or ordinary white) |
| 8 | dark grey (black on some screens) |
| 9 | light blue |
| a | light green |
| b | light cyan |
| c | light red |
| d | light magenta |
| e | yellow |
| f | bright white |

| Value | Third Character Foreground/Background Intensity |
|---|---|
| 0 | no highlight |
| 1 | highlight foreground only |
| 2 | highlight background only |
| 3 | highlight foreground and background |

| Parameter | Function |
|---|---|
| refresh= | (OS/2 clients only.) Sets the rate, in seconds, at which the information in dialog boxes is to be updated. This parameter applies only to the Full Screen Net Interface.<br><br>*Minimum value:* 0<br>*Maximum value:* 65535<br>*Default value:* 15 |
| remote= | (OS/2 clients only.) The servername of the default server to administer using the **net admin** command.<br><br>*Default value:* null |

| Parameter | Function |
|---|---|
| username= | Sets the default username, used when logging on to the local area network (unless you specify another username when logging on). The maximum length for a username is 20 characters; acceptable characters are similar to those for the `computername=` parameter, except that periods ( . ) must not be used.<br><br>This value can be changed through the Reconfiguration Program.<br><br>*Minimum value:* 1 character<br>*Maximum value:* 20 characters<br>*Default value:* user |

Table 3-5 summarizes the possible values of parameters in the `[netshell]` section.

**Table 3-5. Values for the `[netshell]` Section Parameters**

| Entry | Minimum | Maximum | Default | Client |
|---|---|---|---|---|
| colours= | - | - | - | |
| refresh= | 0 secs | 65535 secs (forever) | 15 secs | O |
| remote= | - | - | null | O |
| username= | 1 character | 20 characters | user | |

## 4.3.5. The [services] Section

The [services] section lists the pathnames to some of the Supermax LAN Manager/X services available on this computer. The services listed in this section are common to other LAN Manager vendors' clients.

If a pathname used in this section does not start with a drive name or a backslash, it is assumed to be relative to the *lanman.dos* directory (for Basic DOS and Enhanced DOS clients) or to the *lanman* directory (for OS/2 clients).

| **Parameter** | **Function** |
|---|---|
| messenger= | (OS/2 clients only.) Specifies the pathname of the Messenger Program.<br><br>*Recommended value: services\msrvinit.exe* |
| minses= | (Enhanced DOS clients only.) Specifies the pathname of the *minses.exe* program. This program installs the INT 2A interface used by NetBIOS applications.<br><br>*Default value: netprog\minses.exe* |
| netbind= | Specifies the pathname of the *netbind.exe* program. This program causes the Protocol Manager to bind the protocol and MAC drivers together.<br><br>*Default value: drivers\netbind.exe* |
| netpopup= | (OS/2 clients only.) Specifies the pathname of the message popup program.<br><br>*Recommended value: services\netpopup.exe* |
| vertbl= | (Enhanced DOS clients only.) Specifies the pathname of the *vertbl.exe* program. This program installs the INT 2F interface used by NetBIOS applications.<br><br>*Default value: netprog\vertbl.exe* |
| workstation= | Specifies the pathname of the client initialization program.<br><br>*Recommended value:*<br>*netprog\netwksta.exe* for Enhanced DOS clients<br>*services\wksta.exe* for OS/2 clients |

## 4.3.6. Overriding Parameter Settings

Some of the entries in the *lanman.ini* file can be overridden. When you override a *lanman.ini* file entry, the value that you specify is effective only for as long as the affected Supermax LAN Manager/X service is running. You have not changed the entry in the *lanman.ini* file.

Entries from the *lanman.ini* file can be overridden from the command line with the **net start** and **net config** commands. For more information on the **net start** and **net config** commands, see *Supermax LAN Manager/X - User's Guide.*

For example, if you want to temporarily increase the size of the message service buffer on an OS/2 client to receive longer messages, type:

```
net start messenger /sizmessbuf: #
```

Replace # with the new size of the message buffer in bytes.

The following list shows all the command-line equivalents for *lanman.ini* entries:

| To override | Use |
|---|---|
| charcount= | `net config wksta /charcount:` |
| chartime= | `net config wksta /chartime:` |
| charwait= | `net config wksta /charwait:` |
| logfile= | `net start messenger /logfile:` |
| sizmessbuf= | `net start messenger /sizmessbuf:` |

# 5. Using and Installing *HIMEM.SYS*

*HIMEM.SYS* is a high memory (also known as extended memory) manager, a utility that *administrates* the use of the PC's extended memory so that two or more applications can share the use of extended memory. This saves the use of conventional memory (the standard 640 Kbytes of memory).

The use of *HIMEM.SYS* applies to PCs equipped with at least a 80286 CPU and more than 1 Mbyte of RAM. *HIMEM.SYS* is not available on PCs using DOS 4.0.

With the *HIMEM.SYS* installed the LAN Manager client software will automatically use the *HIMEM.SYS* if the redirector is used with the parameter */himem:yes*. See Chapter 3, *Configuring the Basic Client*, or Chapter 4, *Configuring the Enhanced Client* for more information on parameters for the redirector.

When you are using MS-Windows 3.0 or MS-DOS 5.0 you may already have installed the *HIMEM.SYS* on your PC because the *HIMEM.SYS* is included in these packages. It is recommended that you use this *HIMEM.SYS*.

Use the MS-Windows 3.0 or the MS-DOS 5.0 installation procedure to install the *HIMEM.SYS* if it is not already done.

If *HIMEM.SYS* is not already available, you should use the *HIMEM.SYS* which is included on the LAN Manager client software floppies. This *HIMEM.SYS* is also accessible on the Supermax LAN Manager server on the shared disk named *UTIL*.

Copy the *himem.sys* file from the floppy or the shared disk to the directory with the LAN Manager client software. The default directory is *C:\LANMAN.DOS*.

Then add the *HIMEM.SYS* command line to the *config.sys* file. The *HIMEM.SYS* command line must be placed before any command lines for applications or device drivers that will make use of the high memory. The *HIMEM.SYS* command line has the following form:
8

*device=pathname\himem.sys*

Eg. if the *himem.sys* file is placed in the default LAN Manager client software directory *C:\LANMAN.DOS*, the *HIMEM.SYS* command line must be:

*device=c:\lanman.dos\himem.sys*

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