LANDesk®
Client Manager

Administrator's Manual

Contents

W Welcome to Intel LANDesk® Client Manager

As the computer industry grows, PC systems have become more complex and harder to manage. Historically, only experts have been able to fully understand and control these complex systems. Today's users want manageable systems that interact automatically with the user. Client Manager is the answer, enabling both administrators and clients to manage computer systems.

Client Manager enables you to:

- Review system inventory.
- View DMI-compliant component information.
- Back up and restore system configuration files.
- Troubleshoot.
- Receive notifications for system events.
- Transfer files to and from client workstations.
- Remotely reboot client workstations.

Note: The client version of LANDesk Client Manager doesn't enable clients to select remote workstations (which encompasses file transfer and remote reboot functionality). Clients can set the level of access you have to their workstation (for more information, see the "Security" section in chapter 2).

Review system inventory

Client Manager enables you to view hundreds of inventoried items. Some of these items are software related, while many others are hardware related.

View DMI-compliant component information

Client Manager enables you to view component information that is compliant with the Desktop Management Interface (DMI). This means you can manage third-party DMI-compliant components not included with Client Manager. For more information on DMI, see chapter 4.

Back up and restore system configuration files

Client Manager enables you to back up and restore system configuration files. Whenever you plan on changing the system configuration, you can make a backup set. If the system no longer works correctly, after you change the system configuration, you can simply restore the system configuration with the backup set.

Note: By default the Windows* 95 and Windows NT* registry files aren't part of the snapshot file list. This means the restoration of a snapshot may not be effective.

Troubleshoot

Since Client Manager enables you to view the system inventory, you can easily troubleshoot system problems.

Receive notifications for system events

Client Manager enables you to receive notification of certain system events. For example, if the system is running low on virtual memory, you are notified of the potential problem.

Transfer files to and from client workstations

As an administrator, you have the ability to transfer files to and from client workstations. This is helpful, for example, when you need to update a client workstation driver.

Remotely reboot client workstations

Administrators also have the ability to remotely reboot a workstation. This is helpful when you want system configuration changes to take effect.

In this package

The following components are included in your LANDesk Client Manager package:

- *LANDesk Client Manager CD-ROM.*
- *LANDesk Client Manager Help* (online).
- *LANDesk Client Manager User's Guide* (online). This document is in Adobe Acrobat* format.

1 Installing Client Manager

This chapter contains information on:

- System requirements.
- Licensing.
- Running Setup.
- Changes made to system files.

System requirements

- Windows[*] 95 or Windows NT[*].

- 486 processor or higher.

- 12 MB of RAM for Windows 95 or 16 MB of RAM for Windows NT.

- 20 MB of available hard drive space.

Note: The client version of Client Manager can run on Windows 3.x, Windows 95, or Windows NT, whereas the administrator version of Client Manager can only run on Windows 95 or Windows NT.

Licensing

You can only install Client Manager on one machine per license.

Running Setup

Client Manager uses a simple setup program to install the administrator functionality. Setup installs the LANDesk Client Manager console, DMI Control Panel, and the Notification Monitor.

To run Setup on Windows NT

1 Log in as Administrator or equivalent.
2 Run SETUP.EXE from the Client Manager CD-ROM and follow the instructions on your monitor.

To run Setup on Windows 95

- Run SETUP.EXE from the Client Manager CD-ROM and follow the instructions on your monitor.

Changes made to the system

Depending on the platform you install Client Manager on, Setup makes several changes to your system.

Changes made to a Windows NT workstation

Setup installs the following services:

Service	Description
win32fxos	File transfer and 32-bit OS support.
win32inst	Instrumentation service.
win32nm	Notification Monitor service.
win32pds	Discovery service. Allows clients to be discovered by the administrator installation of Client Manager.
win32rap	Remote Access software. Allows Client Manager to be used remotely.
win32scan	Performs LANDesk Inventory Scanning at boot time and once a week if the machine is left running. Runs the scan, removes the old LDISCAN.MIF from the Service Layer database, and installs the new LDISCAN.MIF into the database.
win32sl	32-bit Windows Service Layer.

The following environment variables are added:

```
WIN32DMIPATH
DMI_SIA_PATH
```

Setup installs the following devices:

Service	Description
Heceta	Allows Heceta instrumentation to communicate with the Heceta chip on the baseboard.
DMIBios	Allows BIOS instrumentation to get information from the BIOS under Windows NT.

Changes made to a Windows 95 workstation

Setup adds the following lines to the [386enh] section of the SYSTEM.INI file:

```
device=vdmibiod.386
```

Note: <LDCM_ROOT> stands for the drive and directory that you chose to install Client Manager to.

Setup adds the following lines to the AUTOEXEC.BAT file:

```
SET DMI_SIA_PATH=<LDCM_ROOT>\SIA\BIN

SET WIN32DMIPATH=<LDCM_ROOT>\WIN32

C:\DMI\WIN32\LDISCAN\LDISCAN.EXE /M

PATH=%PATH%;%DMI_SIA_PATH%;%WIN32DMIPATH%\BIN
```

Note: <LDCM_ROOT> stands for the drive and directory that you chose to install Client Manager to.

2 Using Client Manager

Client Manager enables you to manage workstations by:

- Using the PC Health meter.
- Using the inventory.
- Transferring files.
- Rebooting.

The ability to manage a workstation depends on the level of access each end-user client gives you. File transfer and remote reboot require the client to grant administrators full access. For more information on access, see "Security" later in this chapter.

The Client Manager user interface has two main parts:

- The PC health indicator, which consists of the PC Health meter, PC health description, and suggestions for improving unhealthy workstations.

- The inventory, which consists of numerous categories of information. This information helps you troubleshoot system problems, audit system components (hardware and software), and even change, back up, and recover system configurations.

The PC health indicator consists of the:

1. PC health description

2. PC Health meter

Workstation inventory
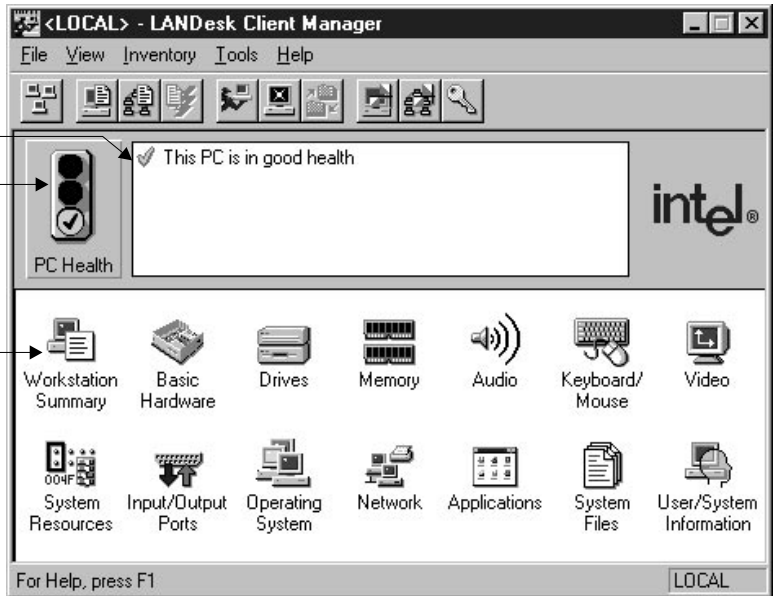
Managing workstations

The first time you run Client Manager, it searches your network for Client Manager workstations. Client Manager creates a list and saves it to the LDCM.INI file, located in the DMI\LDCM\SECURE directory by default. From this point on, when you run Client Manager or open the Select Workstation dialog, Client Manager queries the network to see if these workstations are currently on and Client Manager is running. If a workstation isn't on, it won't appear in the Select Workstation dialog; however, it remains in the file.

Before you can manage a workstation, you must first select one from the list of available workstations. Every time you run Client Manager, the Select Workstation dialog prompts you to select a workstation.

To select a workstation

• Double-click the workstation you want to view.

Or

Click the workstation and then click the Select button.

To select a workstation from within the main Client Manager dialog

• Click File | Select Workstation and follow the step above.

If you add workstations (with Client Manager installed) to the network, Client Manager doesn't know about them until you discover all workstations on the network. When you discover workstations, Client Manager searches the entire network for workstations (with Client Manager installed) just as it did the first time you ran Client Manager.

The Select Workstation dialog enables you to view the current PC health for all the workstations in the workstation list. If you fix a problem, you must refresh the screen in order to view the correct PC health. You can also set Client Manager to display only unhealthy workstations.

To select a workstation, double-click the workstation name.

To discover workstations on the network, click the Discover button.

To view only unhealthy workstations, click the Only Unhealthy Workstations option.

To automatically view PC health, click the Show option.

To refresh the PC health, click the Refresh PC

Select Workstation

<LOCAL>	VENUS 2
BUBB	VINCINI
GO	
KA	
LOKI1	
NEWPORT	
NEWPORT4	
SHERE	
SW	

Select

Discover

Cancel

Help

PC Health

☑ Show   ☐ Only Unhealthy Workstations   Refresh PC Health

Total Workstations: 11

Using the PC Health meter

The PC Health meter indicates the current health status of a workstation. For example, if the internal fan has stopped, the PC Health meter displays a red light. You can view the PC Health meter in two different places. You first see the meter as an icon when you initially select a workstation from the Select Workstation dialog. Secondly, you view the meter as a traffic light after you select the workstation and the main Client Manager dialog appears.

After you select a workstation, if the PC health is in a yellow or red state, Client Manager describes the current health and suggests solutions to any problems. The description and suggestions are located next to the PC Health meter.

The three health levels are explained below.

Health level	Description
Red light	A critical system event occurred. For example, the temperature exceeded the critical threshold. You should fix this problem immediately.
Yellow light	A noncritical system event occurred. For example, the temperature exceeded the warning threshold. This problem doesn't necessarily have to be fixed, but it may get worse and cause a critical system event to occur.
Green light	Everything is OK.

Red and yellow lights appear whenever a set threshold is crossed. For example, if you change the default critical value for hard drive utilization, then a red light appears whenever the new threshold is exceeded. For more information, see "Configuring notifications" later in this chapter.

Determining PC health

The PC health is determined using numerous pieces of information, which the table below explains.

Information	Description
Drive Space Available	MB or percent of drive space available.
Hard Drive Failure Predicted	Smart drive failure prediction. Windows 3.x and some hard drives don't support this feature.
Free Virtual Memory	Percent of virtual memory free.
GDI Used	Percent of GDI used. If running Client Manager on Windows NT this attribute doesn't appear.
Recoverable Parity Errors	Parity errors that don't halt the system. Some motherboards don't support this feature.
Temperatures	Various internal temperatures throughout the workstation. Some motherboards don't support this feature.
Power Supplies	Various power supplies throughout the workstation. Some motherboards don't support this feature.
Fans	Various fans throughout the workstation. Some motherboards don't support this feature.
Chassis Opened	Whether the chassis has been opened. Some motherboards don't support this feature.
Non-Critical Boot Failures	Boot failures that don't cause the system to halt. Some motherboards don't support this feature.
Boot Virus Detected	Viruses detected during the boot process. Some motherboards don't support this feature.

Note: If the motherboard doesn't support a feature, then the feature either disappears or is grayed out from the Configure Notifications and PC Health dialogs.

Client Manager enables you to view PC health information in detail.

To view detailed PC health information

• Click the PC Health (traffic light) button.

 Or

 Click Tools | PC Health.

When you click the PC Health button, current information about the workstation appears. The information updates whenever the dialog is opened. If the PC health is in a yellow or red state, an icon appears next to the problem areas.

To view solutions for any problems

• Click the Suggestions button.

To clear the chassis opened indicator

• Click the Clear button.

Note: Make sure the chassis is closed or else the indication will occur again.

Configuring Notifications

You can configure Client Manager to generate notifications when specific system events occur. When a notification occurs, Client Manager updates the PC health and always writes a description of the problem to a log file (for more information on log files, see "Using the log files" later in this chapter). You also have the option of displaying a message on the screen that notifies you of the problem.

Client notifications

As an administrator, you can configure which notifications each client receives. For example, if you only want a client to receive a critical notification for hard drive use, you can turn off the warning notification.

To configure notifications the client receives

1   Select the client workstation you want to configure.
2   Click Tools | Configure Notifications.
3   Click the tab dialog category you're interested in.
4   Disable or enable the Display Message option.
5   Click OK.

Notification thresholds

You can configure thresholds for some notifications. Changing thresholds enables you to receive tailored notifications from each client. Every workstation has its own thresholds that you must configure individually.

To configure notification thresholds

1   Select the client workstation you want to configure.
2   Click Tools | Configure Notifications.
3   Click the tab dialog category you're interested in.
4   Increase or decrease notification thresholds.
5   Use the drop-down list boxes to select whether the threshold value is expressed in percent or MB.
6   Click OK.

1 Select the category you are interested in.

2 Increase or decrease the notification threshold values.

3 Use the drop-down list box to select whether the threshold value is expressed in percent or MB.

4 To disable messaging on the selected client workstation, select the appropriate options.

Configure Notifications   ☒

Hard Drive | Memory | Basic Hardware | Boot Process |

⚠ Warning
                                                        Display
Notification   Less than   Message

Free space   20 ▲▼   Megabytes (MB) ▼   ......   ☑

❌ Critical
                                                        Display
Notification   Less than   Message

Free space   5 ▲▼   Megabytes (MB) ▼   ......   ☑

Drive predictive failure ....   ☑

Notifications apply to all drives.

                                OK   Cancel   Help
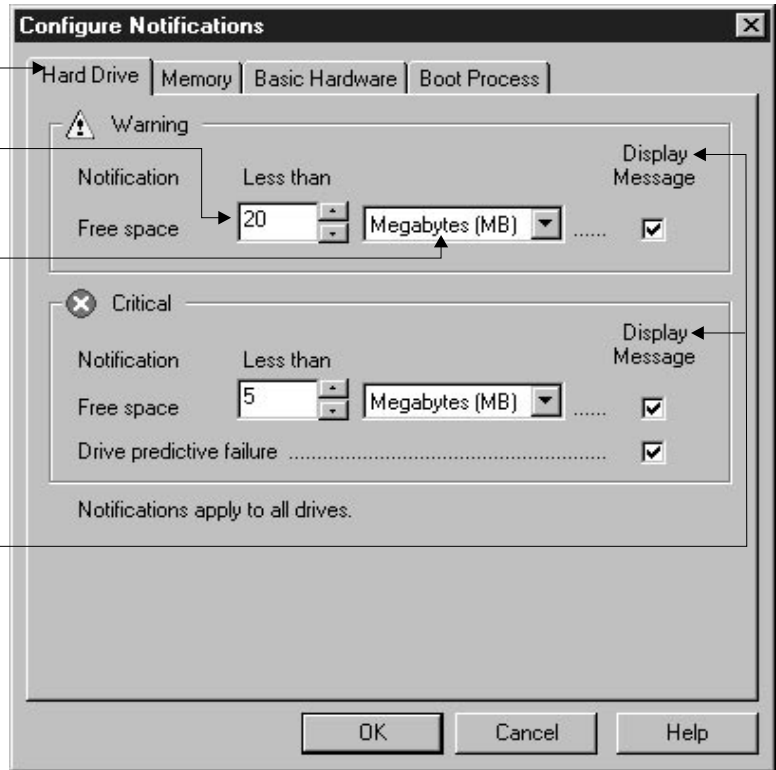
Global notifications

Whenever a client workstation generates a notification, you have the option of writing the notification to a log file stored on your workstation, as well as receiving a message on your screen. In some instances, you may not want to be notified. For example, you may want to shut off all global warning notifications for drive space available. Turning off global logging and/or messaging doesn't effect what happens at client workstations. This way clients can still receive the notification but you don't.

To configure notifications the administrator receives

1   Click Tools | Configure Global Notifications.

2   Click the tab dialog category you're interested in.

3   Click the Log Notification option to disable or enable log capability on your workstation.

4   Click the Display Message option to disable or enable the message capability on your workstation.

5   Click OK.

Using notifications

If you've configured a notification to display a message box, you can view more information. If you choose to view more information, you have the option of viewing suggestions for any possible problems and/or running Client Manager.

To view suggestions

1 Click the Yes button.
2 Click the Suggestions button.

To run Client Manager

1 Click the Yes button.
2 Click the Client Manager button.

Note: If you have Client Manager installed on Windows NT and you aren't logged in, you can still receive notifications; however, you can't view suggestions or access the Client Manager interface.

Using the log files

When a workstation generates a notification, Client Manager logs the notification to client workstations and optionally to your workstation (or any other administrators running Client Manager). If your workstation is off when the notification is sent, Client Manager only writes the notification to the client's log file. The client notification log file, LOCAL.LOG, is located in the DMI\LDCM\SECURE directory by default on the client's workstation. Your notification log file, GLOBAL.LOG, is located in the DMI\LDCM\SECURE directory by default on your workstation.

Whenever you transfer a file or reboot a client workstation, a message box appears on the client workstation communicating that you have done so. This message is also written to the remote access log file, RACCESS.LOG, located on the client workstation in the DMI\LDCM\SECURE directory by default.

Viewing the log files

Log files facilitate troubleshooting by listing a history of system events. For example, if a certain application that previously worked fine suddenly can't get enough memory to run, you might look in the log file to see what notifications were sent prior to the problem. Suppose one of the logged notifications states that a configuration file was changed, and the date in the log is prior to the date your application first failed. If you think the configuration file is the problem, you could manually fix the file, or you could use a Client Manager snapshot to restore the file to an earlier version. For more information on snapshots, see "Managing system files" later in this chapter.

To view the administrator log file
• Click View | Global Notification Log.

To view the client log file
• Click View | Notification Log.

To view the remote access log file
• Click View | Remote Access Log.

Configuring the log files

Client Manager enables you to set the size of each log file. The maximum file size that Client Manager supports is 1,024 KB. The log files are circular, which means when the maximum file size is reached, the oldest entries are overwritten by the latest entries. You can also clear and copy the log file contents.

To configure the maximum log file size

1   Click View | Global Notification Log, Notification Log, or Remote Access Log.
2   Click File | Properties.
3   Increase or decrease the maximum size of the log file.

To edit the log file

•   Click Edit | Clear Log to remove the contents of the log file.
•   Click Edit | Copy to copy the contents to the clipboard. Copying the contents to the clipboard enables you to create your own log file in a third-party application.

Note: If an end-user client only gives you limited access rights, you can't set the maximum file size or clear the log. For more information on access rights, see "Security" later in this chapter.

Using the inventory

You can use the Client Manager inventory to view the hardware and software components of a workstation. You can also view the current system configuration, edit user information, and create or restore snapshots (see "Managing system files" later in this chapter for more information on snapshots). The Client Manager inventory consists of the following categories.

Component	Description
Workstation Summary	Key pieces of information from numerous categories.
Basic Hardware	System, motherboard, processor, cache, BIOS, system slots, and chassis information.
Drives	Logical and physical drive information.
Memory	Logical memory and physical memory information. Memory upgrade options are also offered.
Audio	Audio settings.
Keyboard/Mouse	Keyboard and mouse information.
Video	Video card and video BIOS information.
System Resources	DMA, IRQ, I/O, and memory assignments.
I/O Ports	Serial and parallel ports information.
Operating System	Operating system and drivers running.
Network	Network card, TCP/IP[*], and printer connections.
Applications	Software applications installed.
System Files	Configuration snapshots. Snapshots are created, edited, deleted, and assigned from this dialog.
User Information	Editable information about the user.

To view the inventory

• Double-click the icon that contains the type of information you're interested in.

Or

Click Inventory | and the menu item you're interested in.

Using Client Manager to upgrade system memory

Client Manager enables you to easily obtain information on upgrading your memory (some motherboards don't support this feature). Client Manager knows the types of memory and memory sizes the system can upgrade with. For instance, if you want to add 16 MB of RAM to your workstation, Client Manager can tell you your different memory configuration options.

To view the memory options

1   Click Inventory | Memory.
2   Click Upgrade Options tab.

Managing system files

System files consist of those files that configure a computer system. Below is a list of the default system files for the various Windows operating systems as defined in the LDCM.INI file (located in DMI\LDCM\SECURE by default):

Windows NT:

> BOOT.INI

Windows 95 and Windows 3.x:

> AUTOEXEC.BAT
>
> CONFIG.SYS
>
> PROTOCOL.INI
>
> SYSTEM.INI
>
> WIN.INI

You can edit these files within Client Manager as well as create, restore, and delete snapshots, which consists of copies of the system files. For information on customizing which files the snapshot is comprised of, see "Customizing the snapshot file list" later in this chapter.

Note: If the system file you want to edit has read-only attributes, you can't edit the file within Client Manager. An example is the BOOT.INI file.

You may want to take a snapshot of the system configuration before you make changes to the system. For example, if you install an application that modifies the AUTOEXEC.BAT file and your workstation doesn't reboot properly, you can simply restore the previous system configuration.

To manage system files

• Click Inventory | System Files.

The System Files dialog appears, enabling you to view/edit the system files. You can also create, restore, and delete snapshots.

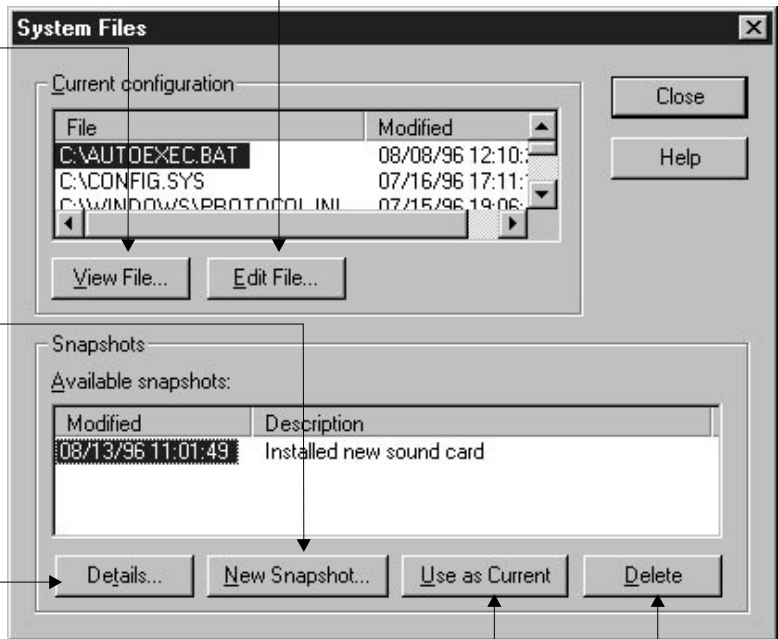To edit a configuration file, select a file and click the Edit File button.

To view a configuration file, select a file and click the View File button.

To create a new snapshot:
1 Click the New Snapshot button.
2 In the New Snapshot dialog, type in a description.

To view details about a snapshot:
1 Select the snapshot and click the Details button.
2 In the Snapshot Details dialog, select a file and click the View button to view the file.

To restore a snapshot, select the snapshot and click the Use As Current button.

To delete a snapshot, select the snapshot and click the Delete button.

System Files

Current configuration

File	Modified
C:\AUTOEXEC.BAT	08/08/96 12:10:
C:\CONFIG.SYS	07/16/96 17:11:
C:\WINDOWS\PROTOCOL.INI	07/15/96 19:06:

View File...   Edit File...

Close

Help

Snapshots

Available snapshots:

Modified	Description
08/13/96 11:01:49	Installed new sound card

Details...   New Snapshot...   Use as Current   Delete

Customizing the snapshot file list

Client Manager enables you to customize the list of files that are saved in a snapshot. The LDCM.INI file, located in the DMI\LDCM\SECURE directory by default, can be edited to include or exclude files. The default files are listed at the beginning of this section.

Note: When accessing a remote workstation the SECURE directory isn't visible. To edit the LDCM.INI file you need to physically go to the workstation and edit the file.

To change the list of system files

1   Open DMI\LDCM\SECURE\LDCM.INI in the text editor of your choice.

2   Add or remove files from the Files= line.

3   Save the file.

Viewing and editing user information

Client Manager can store user-specific information. This information may help you identify who a workstation belongs to and how to contact the user. Below is a list of all the available information you can set.

Information	Description
User name	The primary user's name.
Phone number	The primary user's phone number.
Location	The primary user's location.
Department	The primary user's department.
Position	The primary user's job title.
System name	The workstation system name. This should be set to the actual system name found in Windows.
Asset number	The workstation's company asset number. This should be set to the actual asset number assigned by the company.

To view and edit user information

1 Click Inventory | User/System Information.

2 To edit any field, place the cursor in the edit box and enter the new text.

3 Click OK.

Transferring files

Client Manager enables you to transfer files to and from client workstations. This is helpful when, for example, you want to update a driver on a client workstation. To transfer files, you must have full access rights to the workstation. For more information on access rights, see "Security" later in this chapter.
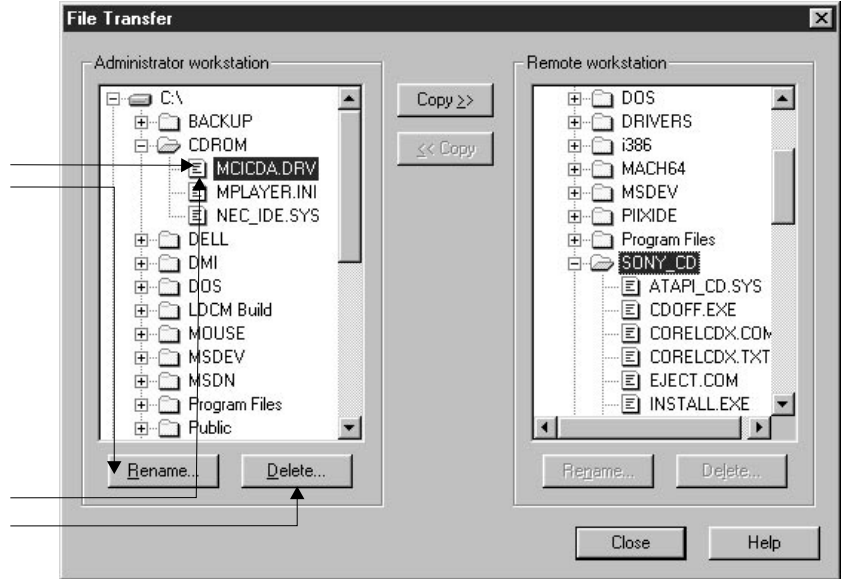
To transfer files to a client from your workstation

1 Click Tools | Transfer files.

2 In the Administrator Workstation group box, click the file to transfer.

3 In the Remote Workstation group box, click the directory to transfer the file to.

4 Click the Copy >> button.

5 Click the Close button.

To transfer files from a client to your workstation

1 Click Tools | Transfer files.

2 In the Administrator Workstation group box, click the directory to transfer the file to.

3 In the Remote Workstation group box, click the file to transfer.

4 Click the << Copy button.

5 Click the Close button.

To rename a file:
1 Select the file.
2 Click the Rename button.

To delete a file:
1 Select the file.
2 Click the Delete button.

File Transfer

Administrator workstation

C:\
  BACKUP
  CDROM
    MCICDA.DRV
    MPLAYER.INI
    NEC_IDE.SYS
  DELL
  DMI
  DOS
  LDCM Build
  MOUSE
  MSDEV
  MSDN
  Program Files
  Public

Copy >>

<< Copy

Remote workstation

DOS
DRIVERS
i386
MACH64
MSDEV
PIIXIDE
Program Files
SONY_CD
  ATAPI_CD.SYS
  CDOFF.EXE
  CORELCDX.COM
  CORELCDX.TXT
  EJECT.COM
  INSTALL.EXE

Rename...   Delete...

Rename...   Delete...

Close   Help

Rebooting

Client Manager enables you to reboot a client workstation remotely. This is helpful after you change a workstation's inventory and want the changes to take effect immediately.

To reboot the currently selected workstation

• Click Tools | Reboot.

Security

Client Manager enables clients to set three levels of security or access rights. You can't set security levels for clients and clients can't access other client workstations. These access rights are explained in the following table.

Access rights	Description
Full	Allows read/write capability. If you access a client that gives you full rights, you can change settings and transfer files.
Limited	Allows read capability. If you access a client that gives you limited rights, you can only view settings and can't transfer files.
None	Doesn't allow read or write capability. You can't access the workstation or transfer files.

Viewing the remote access log

Whenever you transfer a file or reboot a client workstation, a message box appears on the client workstation communicating that you have done so. This message is also written to the remote access log file, RACCESS.LOG, located on the client workstation in the DMI\LDCM\SECURE directory by default.

To view the remote access log

• Click View | Remote Access Log.

3 Using Desktop Management Interface

Desktop Management Interface (DMI) is a standard, created and managed by the Desktop Management Task Force (DMTF), for managing PC system components. Examples of components are network interface cards, printers, and software applications. Components must provide a Management Information Format (MIF) file to be DMI compliant. MIF files describe a component's manageable attributes. For example, the paper size for a printer is an attribute that could be listed in a MIF file.

Management applications (in this case Client Manager) enable users to "get" and "set" attribute values. A "get" function enables Client Manager to retrieve an attribute value (such as user name) from the component. A "set" function enables you to change an attribute value.

Optimally, DMI-compliant components also provide instrumentation. Instrumentation enables you to "get" and "set" attribute values in real-time. For example, if a DMI-compliant component provides instrumentation to query system resource information, you can use Client Manager to "get" the information. You can also "set" values via instrumentation. For example, if a component provides instrumentation to reset the printer, you can use Client Manager to reset the printer.

For more information about MIF files, instrumentation, and DMI, visit the following site on the World Wide Web: http://www.dmtf.org.

How Client Manager uses DMI

To manage PC components, Client Manager uses a Windows-based Service Layer. This Service Layer manages the MIF database (the MIF database is originally created from the contents of the MIF files). The Service Layer manages component information provided by the MIF database, component instrumentation, and Client Manager. Any changes made by Client Manager are set via the Service Layer. The Service Layer either writes changes to the MIF database or changes attribute values via instrumentation. Instrumentation is also used by Client Manager to send notification to the user when a specified threshold is crossed.
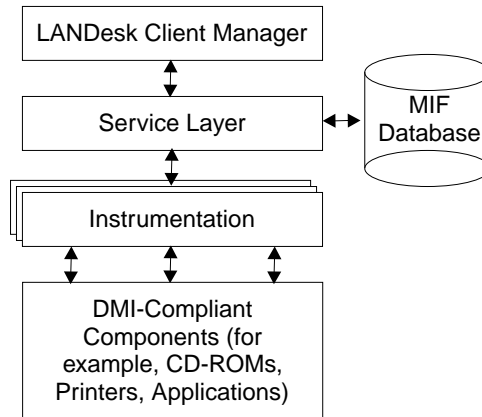
Using DMI Control Panel

Client Manager's DMI Control Panel enables you to view and modify DMI-compliant component information. This means that if you purchase a third-party component that is DMI-compliant and install the supplied MIF file into DMI Control Panel, you can manage the component via DMI Control Panel.

The information you can manage consists of attributes organized in groups and/or tables. You can choose each component and see its associated attributes and attribute values. The different levels of component information are listed in the following table.

Information	Description
Group	A collection of similar component attributes. Tab dialogs display various groups and their attributes. The Component ID tab in the Intel LANDesk Inventory PC MIF component is an example of a group.
Attribute	A characteristic or setting, such as a workstation's screen saver or the IRQ number for a LAN adapter.
Attribute Value	The actual value for an attribute, such as the screen saver or IRQ number selected.
Table	An array of a group. Each instance of a group is a row in a table. For example, installed software packages appear in a table. Each software package is a row in the table.

You access the DMI Control Panel from within the main Client Manager dialog.

To access DMI Control Panel from the main Client Manager dialog

• Click Tools | DMI Control Panel.

Viewing attribute values

DMI Control Panel enables you to view attribute values for each DMI-compliant component.

To view attributes

1   From the DMI Compliant Component list box, click the component to view.

2   Click the tabs to view groups of information.
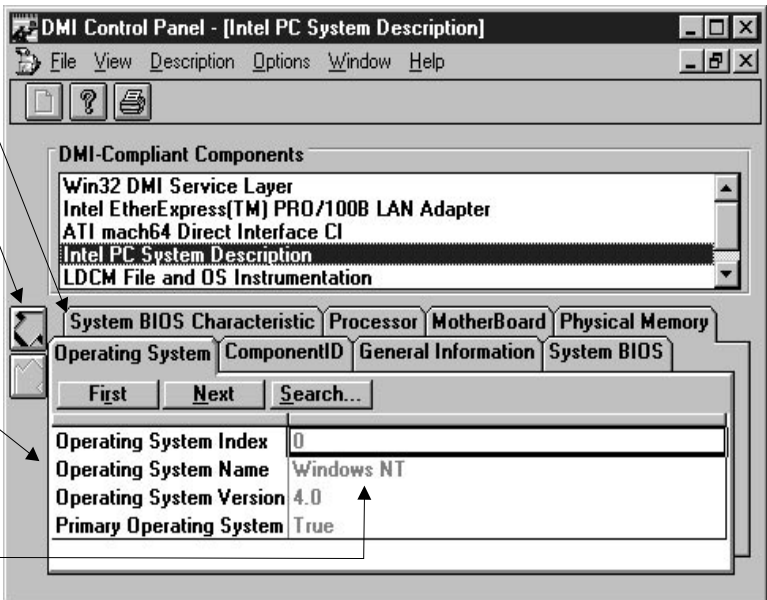
To navigate through a table of attribute values

*   Click the Next button to move through rows in a table.

*   Click the First button to move to the first row in a table.

*   Click the Search button to search the table for a specific row.

Click on a tab to select a group.

Click here to see available rows not visible.

Attributes are settings or characteristics such as Operating System Name.

Attribute values are the values associated with the attribute such as Windows NT.

DMI Control Panel - [Intel PC System Description]

File   View   Description   Options   Window   Help

DMI-Compliant Components

Win32 DMI Service Layer
Intel EtherExpress(TM) PRO/100B LAN Adapter
ATI mach64 Direct Interface CI
Intel PC System Description
LDCM File and OS Instrumentation

System BIOS Characteristic | Processor | MotherBoard | Physical Memory
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Operating System Name	Windows NT
Operating System Version	4.0
Primary Operating System	True

Viewing options

While you're viewing attributes in DMI Control Panel, you can adjust view options according to your preferences.

To view only the groups for a particular component

• Click View | Groups Only.

To view all available components and their groups

• Click View | Components and Groups.

To view two component groups at the same time

• Click Window | New.

Setting the refresh rate

Attribute values may change. Updated attribute values display whenever you select a group; however, you may want to view the changes as they happen. To do this, you must modify the refresh rate.

To update the refresh rate for attribute values

• Click Options | Refresh Rate and enter a value of zero or between 5 and 60 seconds. If you enter zero, the automatic refresh is disabled.

Viewing descriptions

Client Manager enables you to view descriptions for components, groups, and attributes.

To display a description of the selected component

• Click Description | Component Description.

To display a description of the selected group

• Click Description | Group Description.

To display a description of the selected attribute

• Click Description | Attribute Description.

Modifying attribute values

Attribute values for DMI components either reside in the MIF database or are calculated by instrumentation. Instrumentation consists of executable or overlay files used to obtain and/or change attribute values. You can modify values for read/write or write-only attributes. Write-only attribute values appear in blue, while read-only attributes appear in gray. When you change a writable value, the DMI Control Panel retrieves and displays it.

Sometimes the attribute value displayed may differ from the actual value you set. For example, you may set the Received Frames Counter of a communication card to zero. Suppose that between the time you set the counter and the time the DMI Control Panel retrieves it, a packet is received. In this case, the DMI Control Panel displays the value 1.

There are two possible views when editing attribute values. You can edit values directly if the attribute is a single-line display string type and the Multi-line Edit Box option is not selected (for more information on string type, see to the DMI Control Panel online help). You can also edit values in the Multi-line Edit Box. If a value has multiple lines or the attribute is octet string type, the Multi-line Edit Box is automatically used.

To change the view of the edit box

• Click Options | Multi-line Edit Box.

To modify an attribute with the Multi-line Edit Box selected

1   Double-click the attribute value.
2   Place the cursor in the edit box and enter the new attribute value.
3   Click OK to set the attribute or click Cancel to cancel the change.

To modify an attribute with a specific value

1   Click the attribute value drop-down list box.
2   Click a new attribute value.

Adding and removing components

Client Manager enables you to manage third-party DMI-compliant components. To do this, you must install the third-party MIF file. When you install a MIF file, a component is added to the DMI-Compliant Components list. Components can only be installed locally.

To add a component

• Click File | Install Component.

When you no longer want to manage a component using DMI Control Panel, you uninstall it. This removes the component MIF file from the MIF Database and the DMI-Compliant Components list.

To remove a component

• Click File | Uninstall Component.

Printing MIF information

The print options depend on whether the selected group is a table. If the current group is not a table, you can print:

• Group contents: The contents of the group.

• Screen dump: Everything displayed on the screen.

If the current group is a table, you can print:

• From the first record: A specified number of rows from the first row. The default number of rows to print is 1. Use the edit boxes to modify the number of rows to print. When the records are printed, the first row of the table is displayed.

• Current record: The contents of the current row in the table displayed.

• Screen dump: Everything displayed on the screen.

To set up your printer

1 Click File | Print Setup.
2 Click the printing options you want.
3 Click OK.

To print DMI information

1   Click File | Print.

2   Click either Screen Dump or Group Contents.

To print multiple rows from a table

1   Click File | Print.

2   Click From First Record.

3   Type in the number of rows you want to print. If you don't know how many rows are available, just type in a large number, such as 1000.

Saving configuration settings

You can save the configuration of your desktop, such as window positions and sizes.

To save configuration settings

•   Click Options | Save Configuration on Exit.

4 Scanning workstations

When using Client Manager with Windows 3.x or Windows 95, LDISCAN.EXE is used to discover hardware and software information. When using Client Manager with Windows NT, LDISCNNT.EXE takes this role. LDISCAN.EXE/LDISCNNT.EXE save the gathered information in the MIF file LDISCAN.MIF. Depending on the operating system either LDISCAN.EXE or LDISCNNT.EXE is stored locally and runs on all workstations Client Manager is installed on.

LDAPPL.INI lists applications LDISCAN.EXE/LDISCNNT.EXE detects and ignores. You can edit LDAPPL.INI to include or exclude applications.

Using LDISCAN.EXE and LDISCNNT.EXE

When using Client Manager with Windows 3.x or Windows 95, LDISCAN.EXE is used to discover hardware and software information. When using Client Manager with Windows NT, LDISCNNT.EXE takes this role. LDISCAN.EXE/LDISCNNT.EXE save the gathered information in the MIF file LDISCAN.MIF. Depending on the operating system either LDISCAN.EXE or LDISCNNT.EXE is stored locally and runs on all workstations Client Manager is installed on.

LDISCAN.EXE/LDISCNNT.EXE runs each time you reboot the workstation. When using Client Manager with Windows NT LDISCNNT.EXE runs as a service which scans the workstation once a day and each time the user reboots.

Disabling LDISCAN.EXE and LDISCNNT.EXE

If you have hundreds of applications on your hard drive, you may want to disable LDISCAN.EXE/LDISCNNT.EXE. The more applications you have, the longer the scanning process takes.

If you disable LDISCAN.EXE/LDISCNNT.EXE, then LDISCAN.MIF isn't updated. This means that incorrect information could appear in the LDISCAN.MIF file, which in turn means Client Manager displays incorrect information.

To disable LDISCAN.EXE on Windows NT

• Disable the win32scan service, located in the Windows NT Control Panel under Services.

To disable LDISCAN.EXE on Windows 95

1   Open DMISTART.INI, located in the in WINDOWS directory (by default), with any text editor.

2   REM out the line as shown below (to remark out, place a ";" at the beginning of the line):

```
;<LDCM_ROOT>LDCM\SCINST32.EXE, -1
```

3   Open AUTOEXEC.BAT, located in the root directory, with any text editor.

4   REM out the line as shown below (to remark out, type "REM" at the beginning of the line).

```
REM <LDCM_ROOT>WIN32\LDISCAN.EXE /M
```

To disable LDISCAN.EXE on Windows 3.x

1   Open AUTOEXEC.BAT, located in the root directory, with any text editor.

2   REM out the line as shown below (to remark out, type "REM" at the beginning of the line).

```
REM %DMIDIR%\DOS\LDISCAN\LDISCAN.EXE /M /V

REM %DMIDIR%\DOS\BIN\DMICOMP.EXE /R
```

2   Save the changes

4   Open DMISTART.IN, located in the in WINDOWS directory (by default), with any text editor.

5   REM out the line as shown below (to remark out, place a ";" at the beginning of the line):

```
;<LDCM_ROOT>LDCM\SCANINST.EXE
```

6   Save the changes and reboot the computer so the changes can take effect.

Editing LDAPPL.INI

LDAPPL.INI lists applications LDISCAN.EXE/LDISCNNT.EXE
detects and ignores. You can edit LDAPPL.INI to include or exclude
applications. For example, if you're not interested in one of the
applications listed, you can delete the application reference from this
file. This means Client Manager can't report the application in the
inventory. LDAPPL.INI is located in the DMI\WIN32\LDISCAN
directory (by default).

The LDAPPL.INI file contains three main sections: [LANDesk
Inventory], [Applications], and [Ignore].

Editing the [LANDesk Inventory] section

The [LANDesk Inventory] section contains the following sections:

Option	Description
Mode	Determines how LDISCAN.EXE/ LDISCNNT.EXE uses the software list. There are three possible settings: Listed, Unlisted, and All.
	The listed mode discovers only the files listed in LDAPPL.INI.
	The unlisted mode lists the names and dates of all files discovered that have extensions listed under ScanExtensions but are not defined in the LDAPPL.INI. This mode can be used to help discover unauthorized software on the network.
	The all mode discovers listed and unlisted files.
Duplicate	Allows multiple instances of files to be recorded in the MIF file. Set the value to OFF to record only the first instance, or ON to record all detected instances.
ScanExtensions	Sets the file extensions (.EXE, .COM, .CFG, etc.) LDISCAN.EXE/LDISCNNT.EXE looks for during a scan. File extensions are separated by a space in the .INI file.
Version	Helps ensure future compatibility.
CfgFiles1-4	Uploads specified files to the server if you're using LANDesk Management Suite and you remark out or remove this statement.

	Records the date, time, file size, and contents of the files specified. The database also stores as many revisions of these files as you specify in the Software Scanning dialog. You can leave out the drive letter if you want to search all local drives.
	You can specify more than one file on each of the four lines, but the line length is limited to 80 characters. Path names on the same line are separated by a space.
MifPath	Specifies where MIF files are to be stored on a station's local drive. By default, this value is set to DMI\WIN32\LDISCAN or DMI\WIN16\LDISCAN depending on the operating system.

Editing the [Applications] section

The [Applications] section defines how LDISCAN.EXE/ LDISCNT.EXE recognizes an application, in the following syntax:

```
<Method>, filename, size, application, version
```

The following table explains of the three possible methods of discovery.

Method	Description
<F>	Uses the file description from .EXE file headers for Windows applications.
<P>	Uses the product descriptions from .EXE file headers for Windows applications.
<I>	Uses the file and product description from LDAPPL.INI or the current software description .INI file. The filename and size must match exactly to record the file's application name and version number to the LDISCAN.MIF.

Editing the [Ignore] section

The [Ignore] section lists specific filenames LDISCAN.EXE/ LDISCNNT.EXE ignores, regardless of file type. Add files to this section to reduce the number of files scanned and speed up database processing.

Rebuilding the MIF database

Client Manager uses a Windows-based DMI Service Layer that stores the various MIF files in a MIF database for easier access. The Service Layer manages component information via the MIF database and component instrumentation. The information is then passed to Client Manager upon request.

All workstations that have Client Manager installed contain a MIF database. If the MIF database becomes corrupt, you must rebuild it.

To rebuild the MIF database on Windows NT

1 Shut down the win32sl service, located in the Windows NT Control Panel under Services; all dependent services will automatically shutdown as well.

2 Copy all MIF files from DMI\WIN32\MIFS\BACKUP (by default) to DMI\WIN32\MIFS. For example:

```
COPY C:\DMI\WIN32\MIFS\BACKUP\*.MIF
C:\DMI\WIN32\MIFS
```

3 Delete the file DMI\WIN32\MIFDB\SLDB.DMI (this is the Service Layer database). For example:

```
DELETE C:\DMI\WIN32\MIFDB\SLDB.DMI
```

4 Restart Windows NT, or start the following services:

```
win32fxos
```

```
win32inst
```

```
win32nm
```

```
win32pds
```

```
win32rap
```

```
win32scan
```

```
win32sl
```

When the Service Layer loads, it will build a new SLDB.DMI file using the MIF files that you moved to the DMI\WIN32\MIFS directory.

To rebuild the MIF database on Windows 95

1   Open DMISTART.INI, located in the in WINDOWS directory (by default), with any text editor.

2   REM out all lines (to remark out, type "REM" at the beginning of each line).

3   Save the changes.

4   Copy all MIF files from the DMI\WIN32\MIFS\BACKUP directory (by default) to DMI\WIN32\MIFS. For example:

    ```
    COPY C:\DMI\WIN32\MIFS\BACKUP\*.MIF
    C:\DMI\WIN32\MIFS
    ```

5   Delete the file DMI\WIN32\MIFDB\SLDB.DMI (this is the Service Layer database). For example:

    ```
    DELETE C:\DMI\WIN32\MIFDB\SLDB.DMI
    ```

6   Reboot the workstation. When the Service Layer loads, it will build a new SLDB.DMI file using the MIF files that you moved to the DMI\WIN32\MIFS directory.

Note: When you reboot the workstation, two error messages appear; click OK to continue the boot process. After the workstation finishes booting, remove the REM statements in the DMISTART.INI file and reboot one more time.

To rebuild the MIF database on Windows 3.x

1   Exit Windows to shut down the Service Layer.

2   Copy all MIF files from the DMI\DOS\MIFS\BACKUP directory to the DMI\DOS\MIFS directory (by default). For example:

    ```
    COPY C:\DMI\DOS\MIFS\BACKUP\*.MIF C:\DMI\DOS\MIFS
    ```

3   Delete the file DMI\DOS\BIN\SLDB.DMI (this is the Service Layer database). For example:

    ```
    DELETE C:\ DMI\DOS\BIN\SLDB.DMI
    ```

4   Restart Windows. When the Service Layer loads, it will build a new SLDB.DMI file using the MIF files that you moved to the DMI\DOS\MIFS directory.

G Glossary

attribute

A setting or characteristic of a PC component, such as a PC's screen saver or the IRQ number for a LAN adapter.

attribute value

The actual setting or characteristic for a PC's component. An example is the name of the screen saver, like "Mystify," or the actual IRQ number, like "3," for a LAN adapter.

component

Any hardware, software, or firmware element contained in (or primarily attached to) a computer system.

Desktop Management Interface (DMI)

Industry standard for managing the components of hardware and logical devices.

discover

When workstations are added to a network, Client Manager must search or discover the entire network so it can add the workstation to the available workstation list.

group

A collection of similar component attributes. These are displayed in a tab. An example is "System Resources."

instrumentation

The executable code that provides DMI management functionality for a particular component. The instrumentation code is provided by the component manufacturer.

Management Information Format (MIF)

The file format used by DMI for describing components.

MIF database

The collection of known MIF files, stored by the Service Layer (in an implementation-specific format) for fast access.

MIF file

A text file that describes a component.

notification

A message that is sent when a specific system event occurs. The message consists of a description of the problem.

Service Layer

The code that arbitrates access to component instrumentation and manages the MIF database.

snapshot

A backup set of essential system files.

table

An array of a group. Each instance of a group is a row in a table. Since there are multiple software packages on a system, they are displayed in a table. Each software package is a row in the table.

thresholds

Values that, when crossed, generate notifications. You can set the thresholds for some system events.

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