



LANClient Control Manager

G05L-1904-1

**Training and Procedures Guide
Supplement for ThinkPad 770**



LANClient Control Manager

G05L-1904-1

**Training and Procedures Guide
Supplement for ThinkPad 770**

Note

Before using this information and the product it supports, be sure to read the information in Appendix A, "Notices and Trademarks" on page 9.

Second Edition (October 1997)

The following paragraph does not apply to the United Kingdom or any country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This publication could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time.

This publication was developed for products and services offered in the United States of America. IBM may not offer the products, services, or features discussed in this document in other countries, and the information is subject to change without notice. Consult your local IBM representative for information on the products, services, and features available in your area.

Requests for technical information about IBM products should be made to your IBM reseller or IBM marketing representative.

© Copyright International Business Machines Corporation 1997. All rights reserved.

Note to U.S. Government Users — Documentation related to restricted rights — Use, duplication or disclosure is subject to restrictions set forth in GSA ADP Schedule Contract with IBM Corp.

Contents

Chapter 1. Minimum Requirements	1
Supported Versions of LCCM	1
LCCM Functions Not Supported on ThinkPad 770	1
Docking Station Requirements	1
Terminology Used by LCCM	1
Chapter 2. Setting Up a ThinkPad 770 as an LCCM Client	3
Setting Up the Docking Station	3
Setting Up the ThinkPad	4
Chapter 3. Creating a Custom Hybrid RPL Image on a Donor Workstation	7
Appendix A. Notices and Trademarks	9
Notices	9
Trademarks	9
Index	11

About This Supplement

This document supplements the information in the LANClient Control Manager *Training and Procedures Guides*. It provides important information about using an IBM ThinkPad 770 computer (Type 9548 and 9549) with IBM LANClient Control Manager (LCCM). Read this supplement in its entirety before attempting to use a ThinkPad 770 as either a donor or client workstation.

Topics in this supplement include:

- Minimum Requirements
- LCCM Functions Not Supported on ThinkPad 770
- Terminology Used by LCCM
- Setting up a ThinkPad 770 as an LCCM Client
- Creating a Custom Hybrid RPL Image on a Donor Workstation

Chapter 1. Minimum Requirements

This section describes the minimum hardware and software requirements to use LCCM with ThinkPad 770 models.

Supported Versions of LCCM

The following versions of LCCM have been tested to operate with ThinkPad 770 models:

- LCCM Version 1.1 for Windows NT
- LCCM Version 1.1 for Novell NetWare

LCCM version 1.0 does not support ThinkPad 770 models.

LCCM Functions Not Supported on ThinkPad 770

You cannot use LCCM to set, change, or delete a BIOS administrator password over the network. If you attempt to do so, you will receive an error message in the LCCM Progress and Errors window.

LCCM does not support updating the CMOS settings on ThinkPad 770 models. When LCCM detects that the client is a ThinkPad 770, the Update CMOS check box on the Maintenance page of the Individual Client Details notebook is not a selectable field.

Docking Station Requirements

You can use the ThinkPad 770 with LCCM if it is installed in a SelectaDock III docking station that contains a supported network adapter. You cannot use earlier versions of the docking station.

At the time this document was written, the following are the only supported network adapters:

- IBM Auto Wake Token-Ring ISA Adapter
- IBM 100/10 EtherJet PCI Adapter with Wake on LAN

For the latest list of supported adapters, see the LCCM compatibility report. You can access the report through the LCCM World Wide Web site at:

<http://www.us.pc.ibm.com/desktop/lccm/index.html>

Terminology Used by LCCM

The following are terms used in the LCCM documentation for which the ThinkPad 770 uses different terms.

BIOS Flash Diskette or Flash BIOS Update Diskette: This is the "ThinkPad System Program Service Diskette." The "ThinkPad System Program Service Diskette" is not provided with the ThinkPad models nor can you create it from the Diskette Factory. As updated versions of BIOS are developed, this diskette will be made available from the ThinkPad World Wide Web site at:

http://www.us.pc.ibm.com/support/thinkpad/thinkpad_support.html

For information about creating a BIOS image and updating BIOS, see the *Training and Procedures Guide*

Configuration/Setup Utility: This is the ThinkPad Easy-Setup program. To access the Easy-Setup program:

1. Shut down the operating system and power off the computer.
2. Power on the computer, then immediately press and hold the **F1** key.
3. When the Easy-Setup program screen appears, release the **F1** key.

Automatic Power On sequence: This is the Network power-on sequence that is set through the Easy-Setup program. If network sends a wake-up packet to start a ThinkPad that is currently powered off, the ThinkPad uses this sequence to determine where to look for an operating system.

Chapter 2. Setting Up a ThinkPad 770 as an LCCM Client

The process of setting up a ThinkPad 770 as an LCCM client or donor, is slightly different from the process documented in the LCCM documentation for standard desktop computers. In order to set up a ThinkPad 770, you must meet two conditions:

- The ThinkPad itself must be set up correctly. See "Setting Up the ThinkPad" on page 4 for details.
- The docking station must have a supported network adapter and that adapter must be enabled for remote program load (RPL). See "Setting Up the Docking Station" for details.

Setting Up the Docking Station

Install the network adapter in the SelectaDock III docking station using the procedures in the SelectaDock users documentation.

- If you are installing an IBM 100/10 EtherJet PCI Adapter with Wake on LAN, no further configuration is required for this unit. Continue with "Setting Up the ThinkPad" on page 4.
- If you are installing an IBM Auto Wake Token-Ring ISA Adapter, you must use the LANAID program to configure the adapter. The LANAID program is shipped with the IBM Auto Wake Token Ring ISA Adapter. To configure the adapter,
 1. Insert the ThinkPad into the docking station.
 2. If LANAID is not already installed, follow the instructions provided with the adapter to install LANAID.
 3. Start the LANAID program.
 4. On the "Plug and Play" page of "Change Configuration Parameters" dialog, do the following:
 - a. Select "Manual configuration" instead of "Plug and Play automatic configuration."
 - b. Select "9" from "Interrupt" list box,

Notes:

- 1) DO NOT check the "Override BIOS" check box if it appears. If the adapter was previously configured using "Manual configuration," selecting interrupt 9 might cause a warning message to be displayed and the setting will be marked as "In Conflict." However, after you store the setting, turn off the ThinkPad, then turn it on again, the conflict will be resolved.
- 2) You can also configure the ThinkPad using LANAIDC. The latest version is available from the World Wide Web at:

<http://www.networking.ibm.com/nes/nestoken.htm>

To use LANAIDC:

- a) Start the LANAID diskette.

b) At the LANAIDC> prompt, type

```
/CONFIG=LOCKED /INT=9
```

Then, press **Enter**.

If the adapter is not configured correctly using this procedure, the following problems will occur:

- The RPL function of the ThinkPad 770 hangs if interrupt level 9 is not assigned to the adapter.
- When LCCM scans the ThinkPad, the Network Adapter type is shown as **Unknown** on the Hardware page of the Individual Client Details notebook if the BIOS Override box is checked during LANAID configuration, or if the adapter is configured as CONFIG=LEGACY using LANAIDC.

Setting Up the ThinkPad

To set up your ThinkPad 770 for LCCM:

1. Verify that the SelectaDock III docking station you will be using contains a supported network adapter. For the latest list of supported adapters, see the LCCM compatibility report, which is accessible from the LCCM Web site at:

<http://www.us.pc.ibm.com/desktop/lccm/index.html>

Make a note as to whether a Token-Ring or Ethernet adapter is installed in the docking station. You will need this information later in this procedure.

2. Verify that all docking station cables (power, network, and so on) are properly connected.
3. Turn on the ThinkPad and immediately press and hold the **F1** key. When the Easy-Setup main screen appears, release the **F1** key.
4. Click on the Start up icon. A screen appears with a Power-on icon and a Network icon.
5. Click on the Power-on icon.
6. Verify that the power-on startup sequence is in the following order:
 - Device 1: FDD-1
 - Device 2: Network
 - Device 3: HDD-1
 - Device 4: CDROM (optional)

Note: This is the order in which the computer looks for an operating system when it is started from the computer power switch.

If you need to change the power-on startup sequence, do the following:

- a. Click on the Reset icon. The four boxes at the top become empty.
- b. Click on the FDD-1 icon.
- c. Click on the Network icon. The Token Ring Screen appears.
 - If you are using a Token Ring adapter in the docking station, click on the appropriate speed selection, then click on OK.
 - If you are using an Ethernet adapter, click on Cancel.

- d. Click on the HDD-1 icon.
 - e. If you have a CD-ROM installed, click on the CDROM icon.
 - f. Click on **OK**.
7. Click on the Network icon.
 8. Make sure the Enable Icon radio button is highlighted (dark).
 9. Verify that the network startup sequence is in the following order:
 - Device 1: Network
 - Device 2: FDD-1
 - Device 3: HDD-1
 - Device 4: CDROM (optional)

Note: This is the order in which the computer looks for an operating system when it is started remotely through the network using the Wake on LAN feature.

If you need to change the startup sequence, do the following:

- a. Click on the Reset icon. The four boxes at the top become empty.
 - b. Click on the Network icon. The Token Ring Screen appears.
 - If you are using a Token Ring adapter in the docking station, click on the appropriate speed selection, then click on **OK**.
 - If you are using an Ethernet adapter, click on **Cancel**.
 - c. Click on the FDD-1 icon.
 - d. Click on the HDD-1 icon.
 - e. If you have a CD-ROM installed, click on the CDROM icon.
 - f. Click on **OK**.
 - g. Click on **Exit**. You are returned to the Easy-Setup main screen.
10. Set up the network configuration features:
 - a. Click on the Config icon. The Configuration screen appears containing five icons.
 - b. Click on the Network icon. A screen appears that allows you enable or disable the Wake (Wake on LAN) feature and the Flash (Flash System BIOS) feature.
 - c. Click on the Enable Icon for Wake.
 - d. Click on the Enable icon for Flash.
 - e. Click on **OK**. You are returned to the Configuration screen.
 - f. Click on the Initialize icon. An **OK** screen appears.
 - g. Click on **OK**. You are returned to the Configuration screen.
 - h. Click on **Exit**. The Easy-Setup main screen appears.
 11. Restart the computer:
 - a. Click on the Restart icon. An **OK** screen appears.
 - b. Click on **OK**. The computer restarts and the RPL screen appears.

The RPL screen will continue to be displayed until one of the following occurs:

- LANClient Control Manager scans in the ThinkPad and assigns it an image.
- The ThinkPad is removed from the docking station.

Note: If the docking station is not connected to an active network, a 107 error is displayed and you cannot cancel RPL. In order to bypass this condition and start an operating system from the ThinkPad's hard disk, you must either remove the ThinkPad from the docking station, or temporarily change the power-on startup sequence to remove the network as a startup device.

Chapter 3. Creating a Custom Hybrid RPL Image on a Donor Workstation

Because of the large number of device drivers required for all of the ThinkPad 770 features, the easiest method of setting up a donor workstation is to use the ThinkPad 770 preinstalled software package as a starting point. You can delete any unwanted applications by using the "Remove Programs" selection in the Control Panel, then install any additional applications. This method keeps all of your device drivers in tact, and allows you to keep only those preinstalled applications that you want, including the ThinkPad 770 Online Book.

You can use the preinstalled software package as a starting point for Windows 95 donors and still use the exercises and batch files in the *Training and Procedures Guide*. Pay particular attention to the questions asked by the Windows 95 setup program when you start your ThinkPad for the first time (for example, product ID and user name). These values will have to be changed to variables when you edit the registry file.

Due the nature of Hybrid-NT RPL, the exercises and batch files in the *Training and Procedures Guide* do not support using the preinstalled software package as a starting point for Windows NT donors. If a procedure is developed, this supplement will be updated to include it.

If you install the operating system onto the donor from diskette or CD as described in the LCCM *Training and Procedures Guide*, you will have to install the necessary device drivers and applications to support the ThinkPad features.

Note: Not all of the applications that are preinstalled on a ThinkPad 770 are available in the Diskette Factory, and you cannot selectively install individual programs from the Recovery CD. Therefore, if you install an operating system from an installation diskette or installation CD, you will not be able to reinstall the online User's Guide and might not be able to reinstall some of the applications that were originally preinstalled.

Before taking any actions that might modify or erase the preinstalled software on a ThinkPad 770 that you intend to use as a donor workstation, do one of the following:

- Make copies of all device drivers using the Diskette Factory feature provided as part of the ThinkPad preinstalled software package.

-OR-

- Download the device driver diskettes from the ThinkPad World Wide Web site at:
http://www.us.pc.ibm.com/support/thinkpad/thinkpad_support.html

Also, if you plan to install the operating system from installation diskettes or an installation CD, do the following:

- Print the ThinkPad 770 Online Book. The book is accessible through ThinkPad 770 Information icon on the desktop. You will need the "Installing Software" section to reinstall the appropriate device drivers.
- Scan the Diskette Factory and make backup diskettes of any of the available programs that you want to reinstall.

Appendix A. Notices and Trademarks

Notices

References in this publication to IBM products, programs, or services do not imply that IBM intends to make these available in all countries in which IBM operates. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Subject to IBM's valid intellectual property or other legally protectable rights, any functionally equivalent product, program, or service may be used instead of the IBM product, program, or service. The evaluation and verification of operation in conjunction with other products, except those expressly designated by IBM, are the responsibility of the user.

IBM may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
500 Columbus Avenue
Thornwood, NY 10594
U.S.A.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact IBM Corporation, Department 80D, P.O. Box 12195, 3039 Cornwallis, Research Triangle Park, NC 27709, U.S.A. Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

Trademarks

The following terms are trademarks of the IBM Corporation in the United States or other countries or both:

IBM
ThinkPad
Wake on LAN

The following terms are trademarks of other companies:

Microsoft, Windows, Windows NT, and MS are trademarks or registered trademarks of Microsoft Corporation.

Other company, product, and service names may be trademarks or service marks of others.

Index

B

BIOS, updating 2

C

Configuration/Setup utility
 See Easy-Setup program

D

device drivers 7
diskette factory 7
docking station
 requirements 1
 setting up 3

E

Easy-Setup program
 accessing 2
 setting up for LCCM 4

F

functions not supported
 BIOS administrator password 1
 updating CMOS settings 1

H

hybrid RPL image, creating 7

L

LANAID 3
LCCM
 functions not supported 1
 supported versions 1
 World Wide Web site 1

N

network configuration 5
network power-on sequence 2, 5
notices 9

P

power-on startup sequence 4
preinstalled software 7

R

recovery CD 7

S

SelectaDock III 1
setting up
 docking station 3
 ThinkPad, as donor or client 4
startup sequence
 network 2, 5
 power-on 4
supported LCCM versions 1
supported network adapters 1

T

ThinkPad online book 7
ThinkPad System Program Diskette 1
ThinkPad World Wide Web site 1
trademarks 9

W

World Wide Web sites
 LCCM 1
 ThinkPad 1



G05L-1904-1

