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# LoopView User's Manual

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# 1 Introduction

LoopView is a graphical management tool for the centralized management of Loop Telecommunication International, Inc. (Loop) products that are connected via LAN networks, and by extension WAN networks.

LoopView runs on Windows 98 or Windows NT, 2000. It is based on Castle Rock Computing's network management tool, SNMPc Workgroup Manager. It utilizes SNMP protocol to monitor and manage the Loop products.

## 1.1 Features

LoopView Manager features include the following.

- Runs under Microsoft Windows 98 or Windows NT, 2000. Has the standard features of windows application programs.
- Scalable to 10,000 devices.
- Includes multi-level login security.
- Groups network elements into a hierarchical structure to represent cities, buildings, rooms. Etc.
- Supports multiple simultaneous views of map levels, or log files in real time.
- Has two methods to create a network map: manually creates nodes, or automatically discovers nodes.
- Starts graphic device display when you double click on a device node icon, which provides friendly interface to inquire and configure Loop Telecommunication International Inc.'s products, including front panel, connectors, and LEDs.
- [Long term statistics polling.](#)
- Polls nodes at user-specified polling intervals. Displays node, port, and network status using different colors.
- Graphs or lists node statistic counters in real time.
- [Custom MIB Tables with Derived MIB Expressions.](#)
- Supports a complete Applications Programming Interface using the WinSNMP DLL API and the Windows Dynamic Data Exchange (DDE).
- Executes commands from user-defined menus to display tables, edit table entries, display real-time lists or graphs, and start API programs.
- [Scheduled WEB and Printed Trend Reports](#)
- Prints map and log file reports.
- Automatically discovers all IP and IPX nodes and creates a network map.
- [Automatic statistic baselines and threshold alarms.](#)
- Supports SNMP Proxy agents using different community strings and custom polling variables.
- [Automatic statistic baselines and threshold alarms.](#)
- [GUI Device support for dozens of vendors.](#)
- [Event forwarding email/pager notifications.](#)
- [Full RMON-I user interface application.](#)
- [Web access with a JAVA Console.](#)

## 2 Installation

The installation has two parts: Castle Rock software installation and LoopView software installation. The Castle Rock software should be installed first.

### 2.1 Castle Rock Software Installation

#### 2.1.1 Introduction

This chapter describes the software and hardware required to use SNMPc, and the installation process.

#### 2.1.2 Requirements

The following hardware and software components must be installed before SNMPc. These components are not included with SNMPc and must be purchased separately.

1. Pentium III or compatible with 256MB memory (for WIN 98).
2. Pentium III or compatible with 512MB memory (for NT or 2000).
3. Hard disk drive with at least 2 G free space.
4. 3.5" high density diskette drive.
5. VGA color adapter, CD ROM drive and monitor.
6. Mouse.
7. Network card. Please refer to protocol software documentation for a list of supported Network cards.
8. Windows Sockets compliant TCP/IP stack.
9. SNMP Agent software for each node.

#### 2.1.3 Software Copy Protection

SNMPc uses a serial number to protect against unauthorized duplication. SNMPc checks the validity of the serial number each time it is started, and it also communicates with other copies of SNMPc running on your network. If a duplicate serial number is detected, both copies of SNMPc will display a message and stop network access.

The serial number is printed on the License Agreement card. You must not lose this card as it is your proof of purchase. You will be asked to enter the serial number when SNMPc is installed. Note that the TCP/IP stack you use may also have a separate serial number and key which is used when installing the TCP/IP stack.

#### 2.1.4 Installing TCP/IP Software

SNMPc requires a Windows Sockets compliant TCP/IP stack. Windows/95 and Windows/NT both include a free TCP/IP stack. The TCP/IP protocol software must be installed and functional before SNMPc can be used.

You must assign an internet (IP) address for the PC, and for each node that will be managed by SNMPc. Refer to the protocol software documentation for instructions on how to set the IP addresses. Once you have completed this step, you should be able to use the protocol Ping command for the PC host name. You should also test the network interface configuration by Pinging another TCP/IP device that is connected to the network.

## 2.1.5 SNMPc Product Options

SNMPc 5.0 includes the three product options described below.

### 2.1.5.1 SNMPc Enterprise Edition

This is the base system for a scalable multi-user environment. Enterprise Edition includes the SNMPc Server license, one Remote Console license, and one Remote Poller license. This system can be used simultaneously by one user at the server system and by another user at a Remote Console system. The Remote Poller can be used to extend the polling capabilities to a remote polling site.

### 2.1.5.2 SNMPc Remote Access Extension

This is a license only option for the Enterprise Edition. This option allows an unlimited number of Remote Console users and Remote Polling agents. It also provides JAVA Console support. When using this option, you must **install the server under Windows NT or 2000 only**.

### 2.1.5.3 SNMPc Workgroup Edition

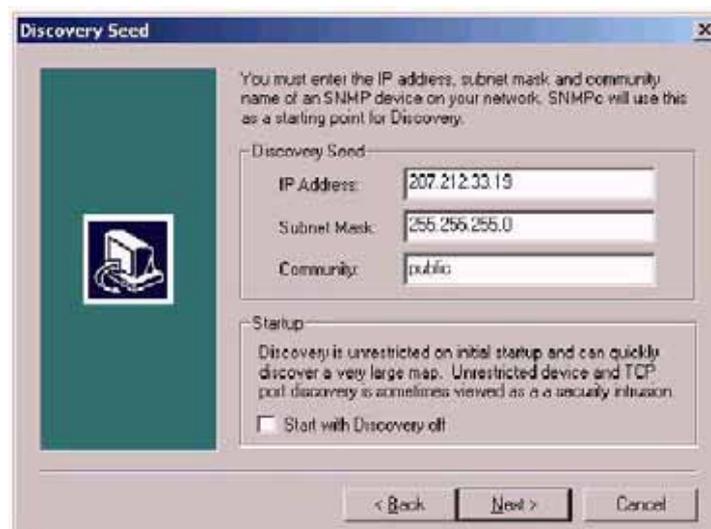
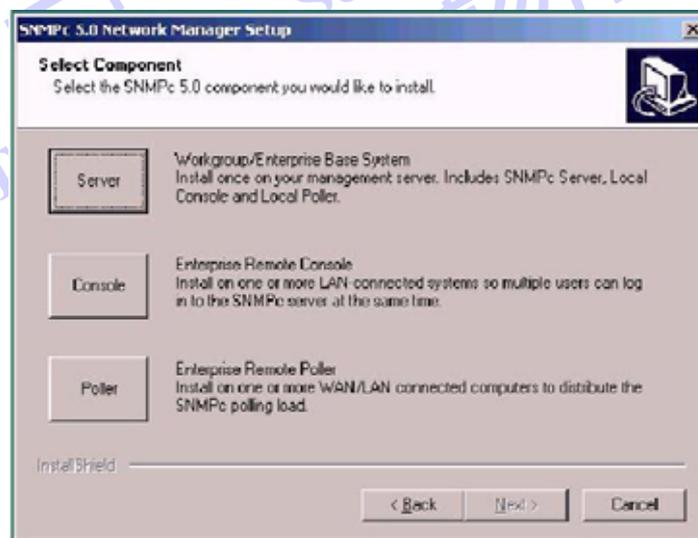
This is a single user version for managing small to medium sized networks. The Workgroup Edition can be used on Windows 2000, NT, and 98 systems. All components run on a single system and support one user. The map database size is limited to 1000 objects. The Workgroup Edition does not include advanced reporting functions. The following table shows the differences between the three product options:

Feature	Enterprise	Remote Extension	WorkGroup
Win32 Application	Yes		Yes
Device Limit	10,000		1000
Distributed Scalable Architecture	Yes		No
Server/Poller Operating Systems	Win 2000, NT, 98	Win NT, 2000	Win 2000, NT, 98
Console Operating Systems	Win 2000, NT, 98	Win NT, 2000, 98	
Remote Poller Included	Yes (1)	Unlimited	
Remote Console Included	Yes (1)	Unlimited	
JAVA Console Included	No	Yes	
Scheduled WEB Trend Reports	Yes		
Scheduled Printed Trend Reports	Yes		
Automatic ODBC Export	Yes		

## Chapter 2 Installation

### 2.1.6 Installing the SNMPc Server and Local Console

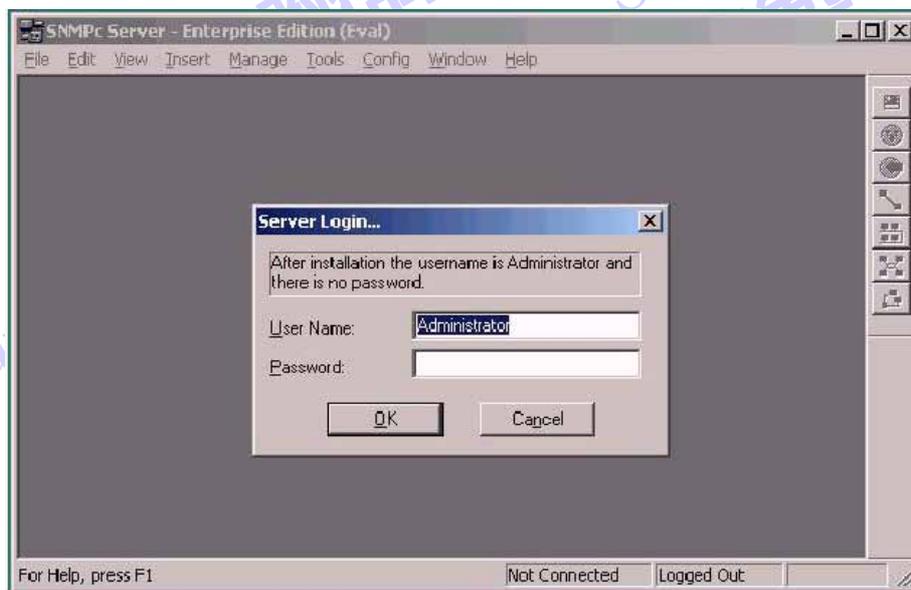
- Insert the SNMPc CDROM into the CDROM drive.
- Use the **Windows Start/Run** menu and enter d:\setup, where d: is the CDROM drive.
- The install program will show a dialog with three buttons for the installable SNMPc options. On your main SNMPc system, you only need to install the Server component, as this includes a local console and polling agent.
- Press the **Server** button.
- You will be prompted for the installation directory next, and then the **Discovery Seed** dialog will be displayed. You must enter valid information at this dialog or network discovery will not work properly.
- Enter the IP Address of an SNMP Seed Device on your network, preferably a router.
- Enter the Subnet mask for the Seed Device.
- Enter the SNMP **Get Community** for the seed device.
- The install program will proceed to install SNMPc on your hard drive. After the installation is complete, logoff Windows and restart your computer.



## Chapter 2 Installation

### 2.1.7 Starting the Server and Getting Logged On

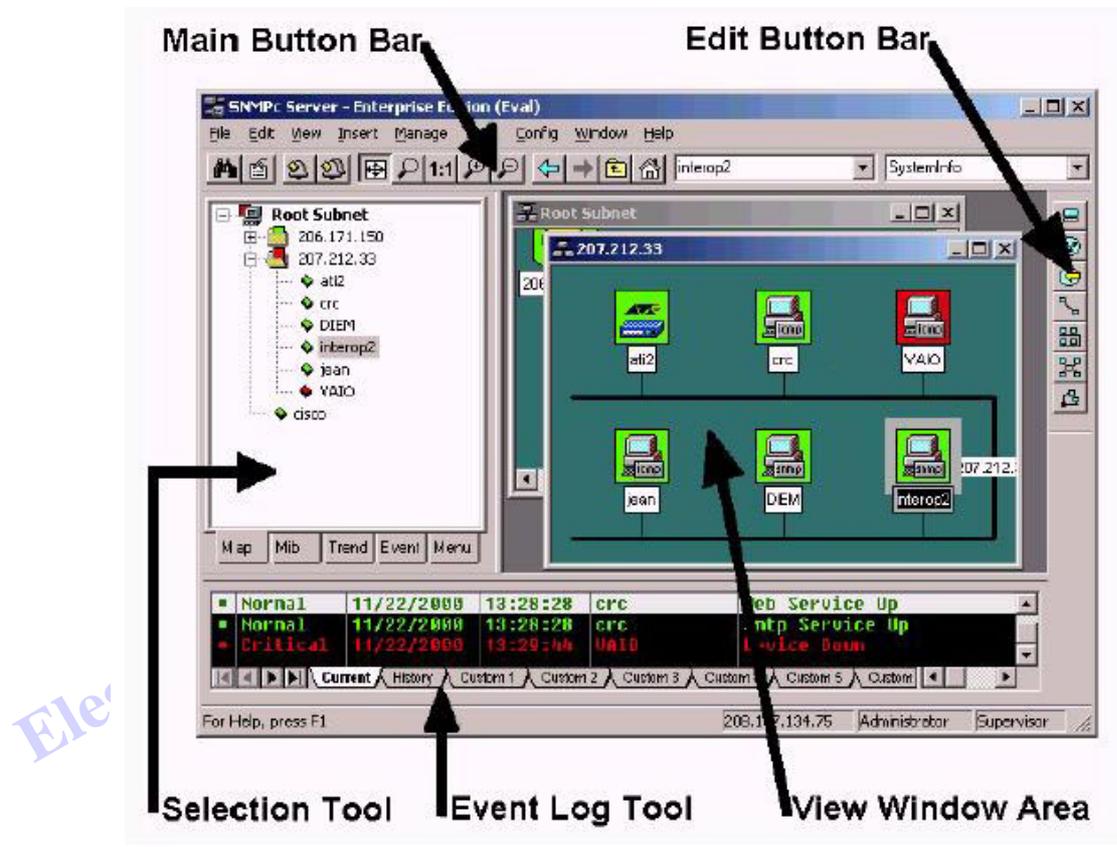
- After you reboot the system and logon to Windows, SNMPc will be started automatically.
- Move your mouse to the bottom of the screen and locate the **SNMPc Server** icon. It may take a moment after logging on to Windows before the icon is displayed.
- Press the **SNMPc Server** icon.
- The SNMPc Frame Window and logon prompt will be displayed.
- After first installing SNMPc there is one user named Administrator with no password. So you only need to press the **OK** button to logon.



## Chapter 2 Installation

### 2.1.8 Using Console Elements

The following diagram and table below show the main elements of the SNMPC console.

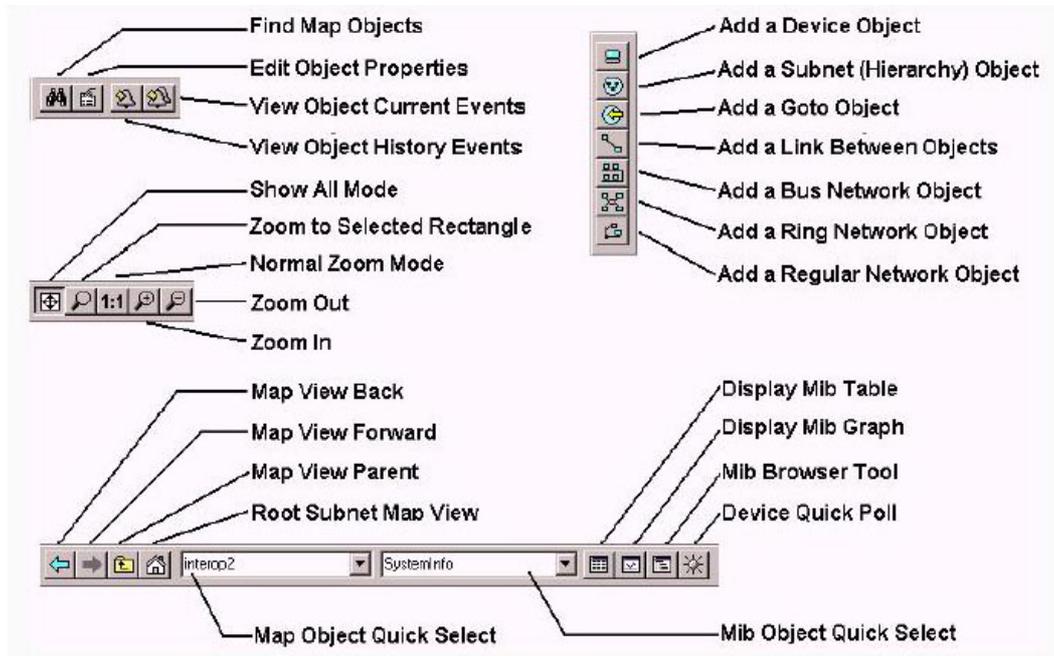


Element	Function
Main Button Bar	Buttons and controls to execute common commands quickly
Edit Button Bar	Buttons to quickly insert map elements
Selection Tool	Tabbed control for selection of objects within different SNMPC functional modules
Event Log Tool	Tabbed control for display of filtered event log entries
View Window Area	Map View, Mib Tables, and Mib Graph windows are shown here.

## Chapter 2 Installation

### 2.1.9 Console Button Commands

The following diagram shows the function of each button in the Main Button Bar and Edit Button Bar. Each of these buttons has a corresponding main menu item.



### 2.1.10 Selection Tool

If you can't see the selection tool, use the **View/Selection Tool** menu to show it. Use the Selection Tool to manipulate objects from one of several databases. Use the drag control at the right of the Selection Tool to change its size. Select one of the Selection Tool tabs to display a tree control for the database. Use the **right-click** menu inside a selection tree for database-specific commands.

Selection Tab	Description
Map	Map Object database, including devices and subnets.
Mib	Compiled SNMP Mibs, Custom Tables and Custom Mib Expressions.
Trend	Report profiles that define long term polling procedures and scheduled reports.
Event	Event filters used to determine what happens when an event is received.
Menu	Custom menus that appear in the Manage, Tools, and Help SNMPc menus.

### 2.1.11 Event Log Tool

The Event Log Tool displays different filtered views of the SNMPc event log. If you can't see the Event Log Tool, use the **View/Event Log Tool** menu to show it.

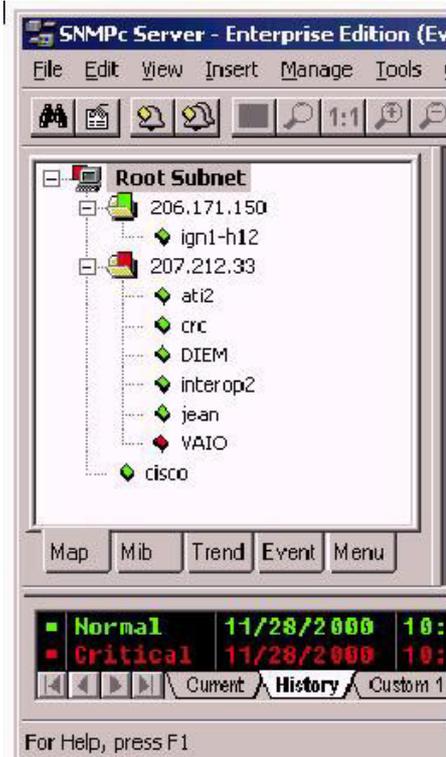
- Select the **Current** tab to show unacknowledged (current) events. These events have a colored box at the left side of the log entry. The color of map objects is determined by the highest priority unacknowledged event for that object.
- Select the **History** tab to show all events, including acknowledged and unacknowledged events.
- Select one of the **Custom** tabs and use the right-click **Filter View** menu to specify what events should be displayed for that tab.
- **Double-click** an event entry to display a Map View window with the corresponding device icon visible.
- To quickly view events for a particular device, first select the device and then use one of the **View Events** buttons (or the **View/Active Events** and **View/History Events** menus). This will show the device events in a separate window in the View Windows area.
- To remove one or more events, select the events and press the **Delete** key.
- To acknowledge (remove current status of) an event, select the event and use the right-click **Acknowledge** menu.
- To completely clear the event log, use the **File/Clear Events** menu.

## 2.1.12 Working with the Map Database

### 2.1.12.1 Using the Map Selection Tree

Locate the **Selection Tool** on the right side of the console. If you can't see the Selection Tool, use the **View/Selection Tool** menu to show it. Select the first tab marked **Map**. The displayed Map Selection tree shows all icon objects in the map. This includes subnets (which contain lower map levels), devices, and goto icons. Networks and links are not shown in the map selection tree. Each icon in the Map Selection Tree is colored according to the status of the represented object. Subnet icons (and the top level Root Subnet icon) show the highest priority color of all underlying objects.

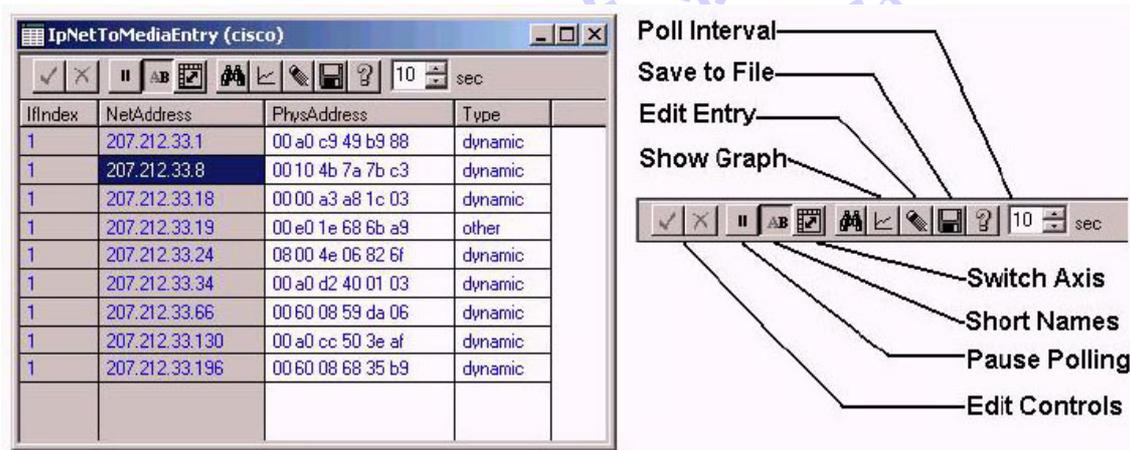
- **Single-click** on the small box to the left of a subnet icon (folder icon) to open or close that sublevel in the selection tree.
- **Double-click** on a subnet name (right of folder icon) to open that subnet level as a Map View window (see below).
- **Left-click** on any object name to select that object. Use the shift and ctrl keys to select multiple objects.
- Use the **Delete** key to remove selected objects.
- After opening two subnet levels, select multiple device names and **drag the mouse** to move them from one subnet to another. Note that any attached links and networks are not moved, and links will be deleted during the move (you can re-add them manually later).
- **Right-click** on a device icon (colored rectangle) or name to see the available **Right-Click Menus**. Use these menus to edit the selected object properties, display tables, and run other custom menus.
- Open a subnet tree and use the **Insert/Map Object** menus or **Edit Button Bar** buttons to add icon objects to the subnet tree.



### 2.1.13 Table Display Elements

The following diagram shows a sample table display and describes the function of table controls.

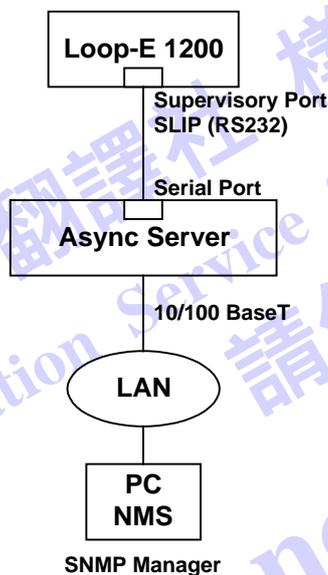
- To start a graph display, first select one or more cells (rows, columns, or individual cells), then use the **Show Graph** button.
- To change a table cell and do a **Set Operation** to the device, first locate settable cells (those displayed in blue). **Double-click** the cell to move into the *Edit Mode*. Enter the new value directly into the cell (or select from the pull-down if it is displayed). Then press the **Check Edit Control** button. To cancel a Set operation in progress, press the **Cross Edit Control** button.



### 2.2 LoopView Software Installation

Installation of LoopView is straightforward. Follow the procedure described below. Although the procedure below refers to Loop-E 1200, the process is similar for other Loop products.

1. Connect Loop-E 1200 devices' supervision port to local Ethernet network by using async server. Choose a PC is able to access Loop-E devices to work as Loop-E manager. The HW/SW requirements refer to "SNMPc Network Management Reference Guide".



2. Installing SNMPc Network Manager

Follow the instructions of "SNMPc Network Management Reference guide", Section 2.1, "Castle Rock Software Installation".

3. Adding Loop Support

#### 3.1 Adding Files

Enter SNMPc working directory. SNMPc's default working directory is \SNMPc. Insert the CD-ROM "LoopView" into CD-ROM drive. From the START menu, execute D:\Lvrun.bat (Changing the device drive D according to your CD-ROM drive).

#### 3.2 Compiling MIB

MIB files are distributed with each piece of equipment which can be supported by SNMPc/LoopView. In order to use the MIB file, and manage the device, the MIB must be added and compiled to work within the software.

Start SNMPc from the program manager.

It will prompt for a user name and password. The initial user is "admin", and the initial password is an empty string. You can create new users and their passwords by using the Config/Edit Users Command.

From main menu, select Config/MIB database. Click "Add" button, select mib file, "loope.mib", from the list, then click "OK".

Select "standard.mib" and "loope.mib", then click "Compile" button. When compiling is finished, click the button "Done".

## Chapter 2 Installation

### 4. Loop Device Configuration

Connect Loop-E 1200 devices and the corresponding remote units to network. Set one IP address to one Loop-E 1200 device. Please refer to "LOOP-E USER'S MANUAL".

