



1 Overview

Track and monitor mission critical system data such as voltage values, temperature, and component speeds to maximize system life and minimize downtime caused by system overloads and failure. MissionControl features remote system management capabilities as well as local management.

1.1 Local operation

MissionControl's default mode monitors the system information of the machine itself.

1.2 Remote operation

MissionControl allows the monitoring of machine status of a remote system, for example from another remote system on the same network. There is a MissionControl manager and a MissionControl client in such a configuration. Both MissionControl manager and MissionControl client must have the "Simple Network Management Protocol" (SNMP) protocol installed and activated.

1.2.1 MissionControl client

When a system has the SNMP service activated and its SNMP community name and trap destination IP address properly set up (see below), it is then capable of sending MissionControl data out to the trap destination. This system is a MissionControl client and the trap destination is the MissionControl manager.

1.2.2 MissionControl manager

In addition to the SNMP service being properly set up, a MissionControl manager must have the "SNMP" monitor type turned on in the "Setting" page of the MissionControl window, and the corresponding MissionControl client IP address entered.

2 Install SNMP services

MissionControl requires SNMP to work properly. Please follow the procedures here to correctly install SNMP, and have the SNMP services start automatically when the system boots up.

There are two methods to install the SNMP service:

2.1 Install automatically

The installation program completes the installation of the SNMP Service automatically. All the user needs to do is simply input the required settings information. After installation, the installation program will let the user input the settings of the SNMP. Please follow these steps.



2.1.1 Trap settings

The input page is shown in Figure 1:

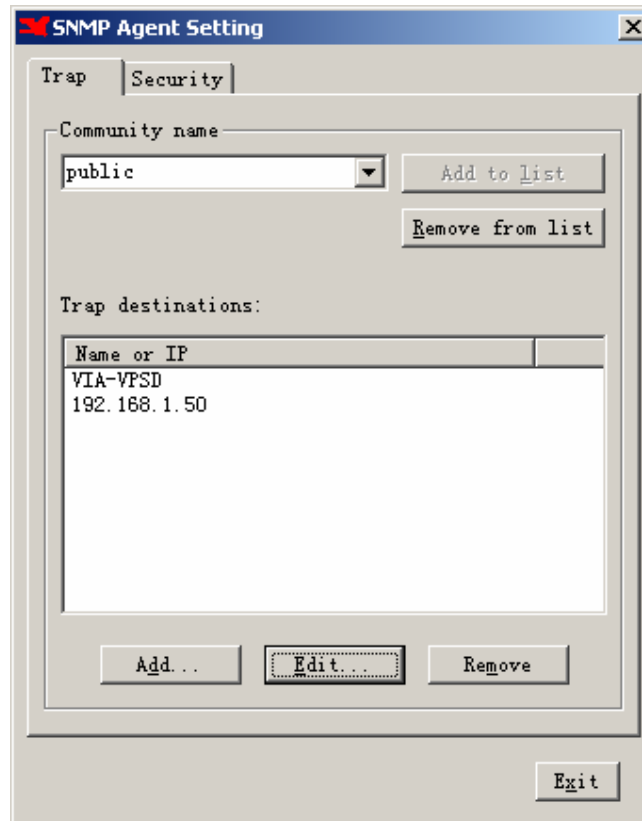


Figure 1: Trap input page

The trap settings input page lets user set which community can access the traps, and which clients (represented in host name or IP address) are included in the communities.

Click the "Add to list" button to add a community, and the community name is added in a list-box. After adding the community, the user can add the client (represented in host name or IP address) to the community. The input page is shown in figure 2. Click the "Add" button to add clients. Select a client and click the "Edit" button to edit the client information, and click the "Remove" button to delete the client.

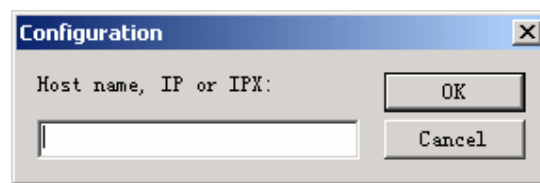


Figure 2: client add page

2.1.2 Security settings

The security settings page is shown in Figure 3 as it would appear in Windows 2000, and in Figure 4 as it would appear in Windows 98.

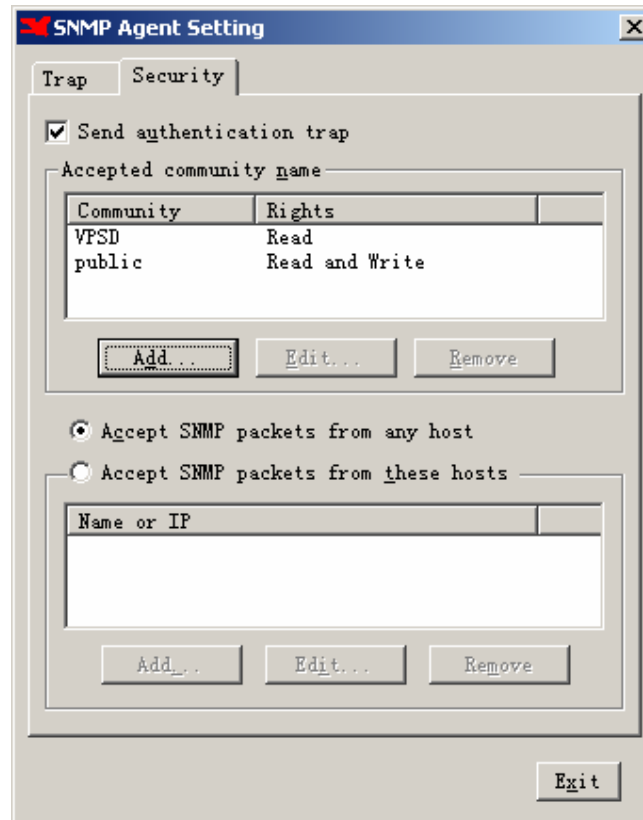


Figure 3: Security settings page (Windows2000)

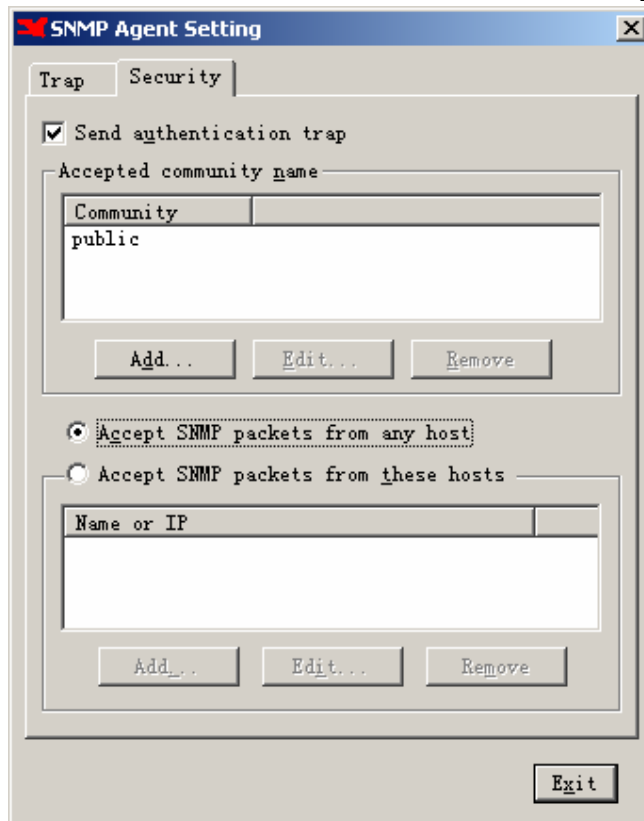


Figure 4: Security settings page (Windows 98)

2.1.2.1 Authentication Trap

If you check the "Send authentication trap" box, you will receive trap information only if you are a client after authentication.

2.1.2.2 Accepted community name



Figure 5 (Windows 2000)

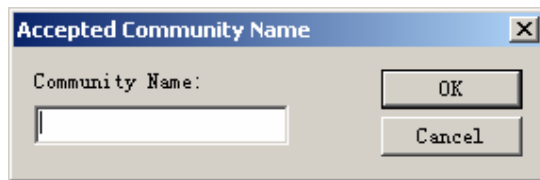


Figure 6 (Windows 98)

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In this page you can set the community to access SNMP and the proper rights. Clicking the "Add" button will bring up a dialog box (shown as Figure 5 in Windows 2000, and as Figure 6 in Windows 98). You can then input the name of the community and in Windows 2000 select the rights. The choice of rights include: None, Notify, Read, Read and Write, Read and Create (Windows 2000). After selecting the community name, click the "Edit" button to edit the community, or click the "Remove" button to delete the community.

2.1.3 Accept SNMP packets

This allows you to select the clients which have the rights to access SNMP.

If you select "Accept SNMP packets from any host", any client can access SNMP; if you select "Accept SNMP packets from these hosts", a box will appear as shown as figure 7, in which the user can select a client.



Figure 7

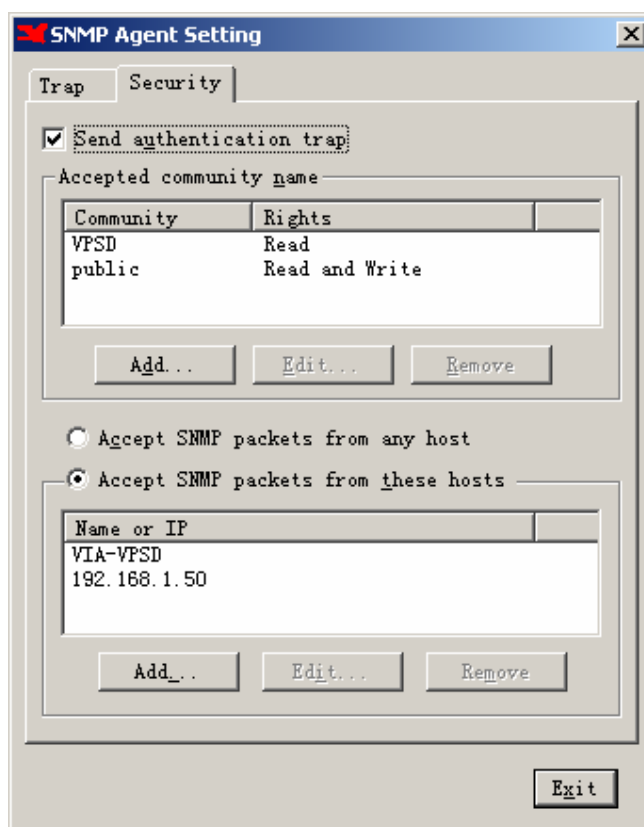


Figure 8

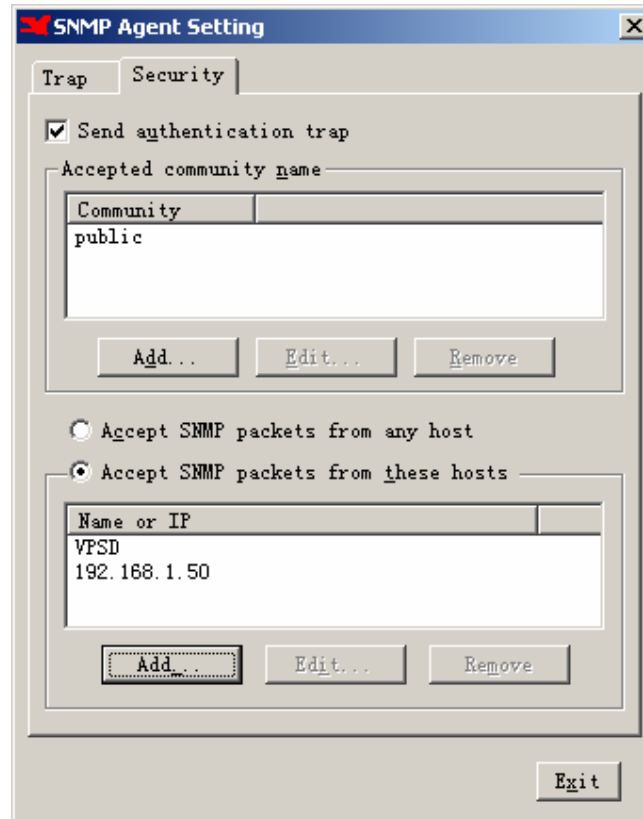


Figure 9

Only the client you have appointed can access SNMP. Click the "Add" button to add clients, and click the "Edit" button to edit the client. Clicking the "Remove" button will delete the selected clients. After you have completed the settings, the settings page will be shown as in Figure 8 in Windows 2000, and shown as in Figure 9 in Windows 98.

After completion, click the "Exit" button to exit. NOTE: If running Windows 98, you need to restart the computer to start the SNMP service.

The following installation is for Windows 2000 Server. The procedures are similar to other versions of Windows.

2.2 Install startup and set SNMP protocol manually

This program allows you to install startup and set the SNMP protocol manually. Select the "Start menu", then "Settings" and then "Control Panel". The control panel will open as in Figure 1.

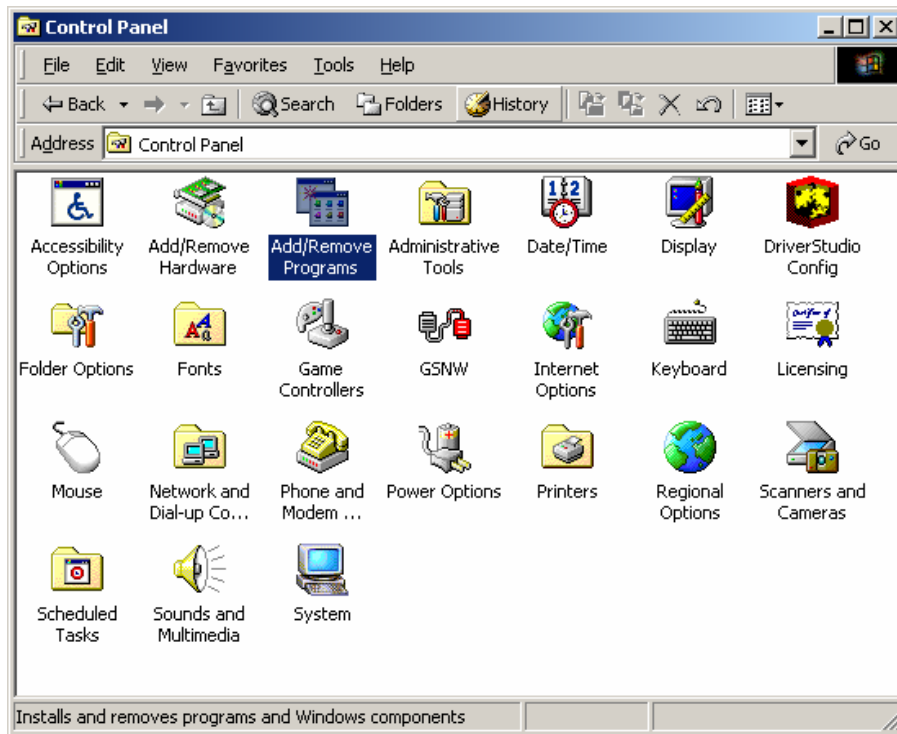


Figure 1: Control Panel

2.2.1 Double click "Add/Remove Programs"

Double click the "Add/Remove Programs" icon in Control Panel. The "Add/Remove Programs" window will appear as shown in Figure 2.

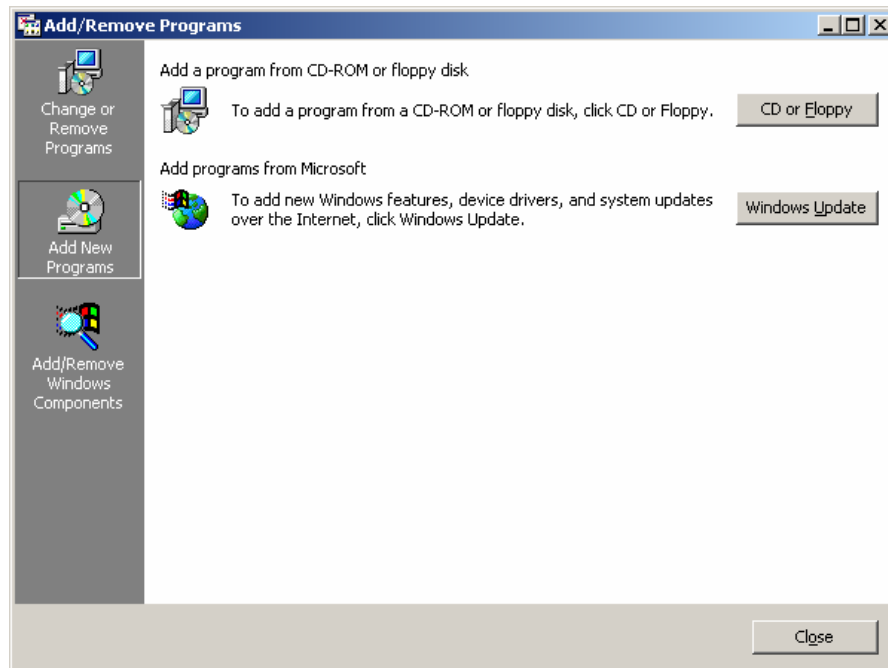


Figure 2: Add/Remove programs window

2.2.2 Select "Add/Remove Windows Components"

Selecting the "Add/Remove Windows Components" button in the "Add/Remove Programs" window will prompt a Windows Components Wizard to appear.

2.2.3 Select "Management and Monitoring Tools"

In the Windows Components Wizard, check the "Management and Monitoring Tools" option, then press the "Next" button (See Figure 3).

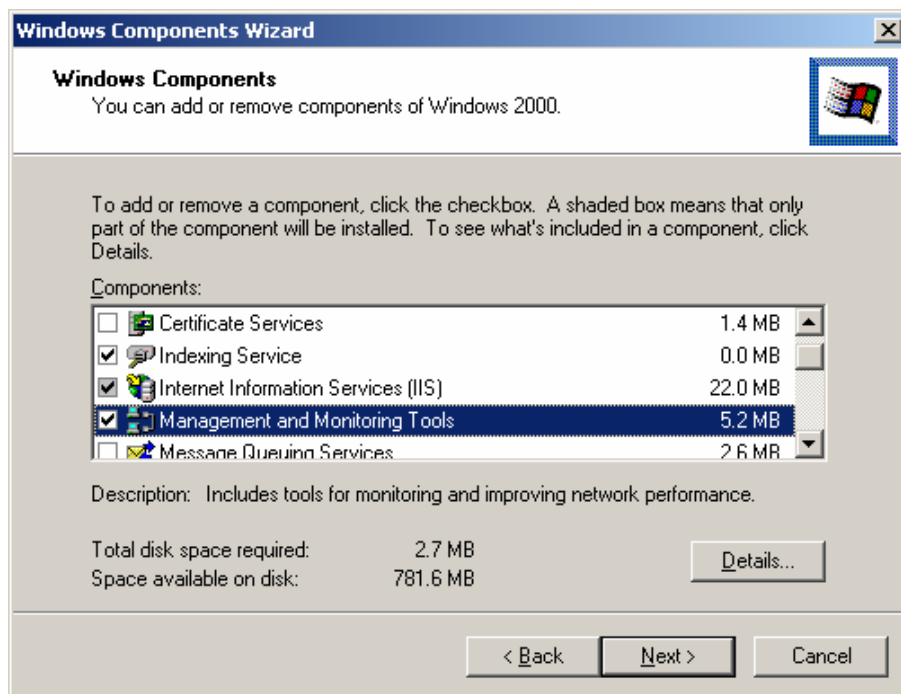


Figure 3: Windows Components Wizard window

2.2.4 Select "Simple Network Management Protocol"

Select the "Simple Network Management Protocol" in the Management and Monitoring Tools window, and then press the OK button. Follow the instructions to install the protocol (See Figure 4).

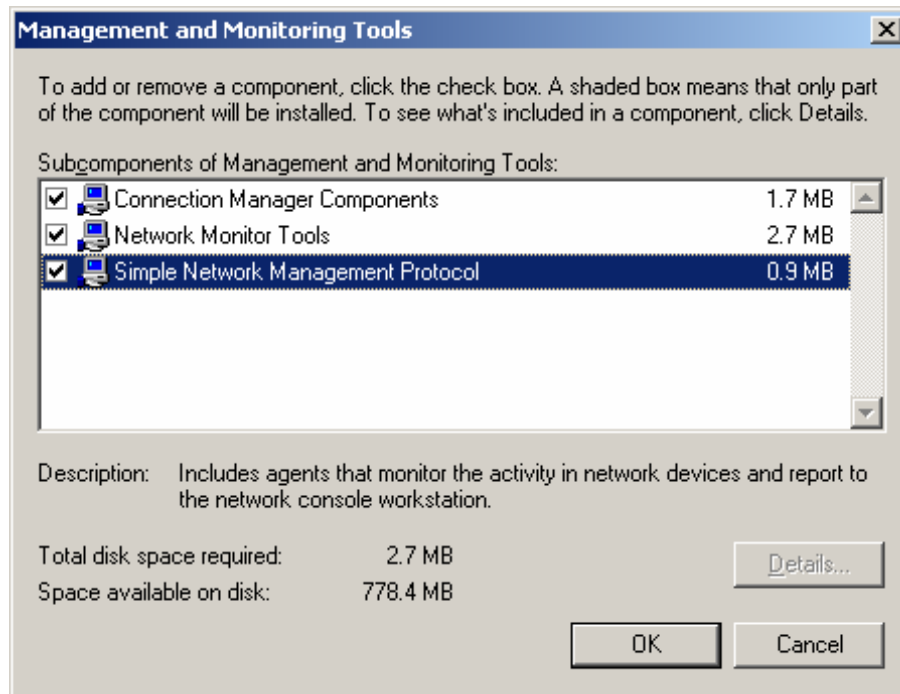


Figure 4: Management and Monitoring Tools window

2.3 Start the SNMP service

After SNMP is installed, you need to activate the SNMP service. Please follow the procedures indicated below to activate SNMP services.

2.3.1 Bring up administrative tools.

From the "Start" menu, select "Programs", then select "Administrative tools".

2.3.2 Select "Services"

On opening "Services", you will see a window as appears in Figure 5.

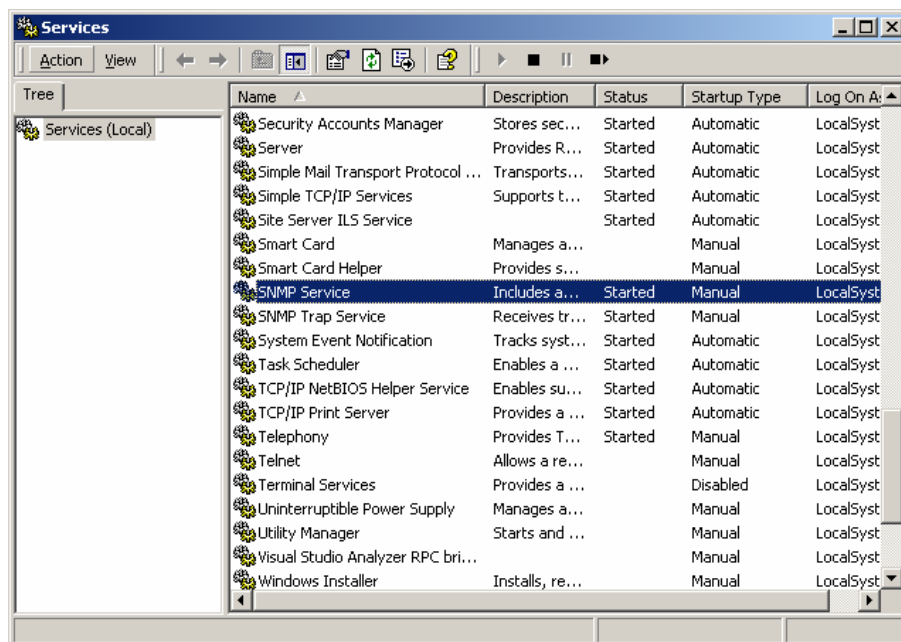


Figure 5: Services window

2.3.3 Setup SNMP trap service

This step only applies to client systems to be managed remotely. Please skip this step for the MissionControl management system. Double click the "SNMP Trap Service" option in the Services Window. Make sure the Startup type in the "General" tab is set to "Automatic". Leave other settings to the default values.

2.3.4 Setup SNMP service

Double click the "SNMP Service" option in the Services Window and select the "General" tab. Set the Startup type to "Automatic" or "Manual", as required. If set to "Manual" the SNMP service will need to be activated manually after the machine is booted. Then select the "Traps" tab and enter a Community name. This allows other systems with the same community name too see each other. For security reasons keep this name to yourself. Enter the IP address of Trap destinations or computer name (See Figure 6).

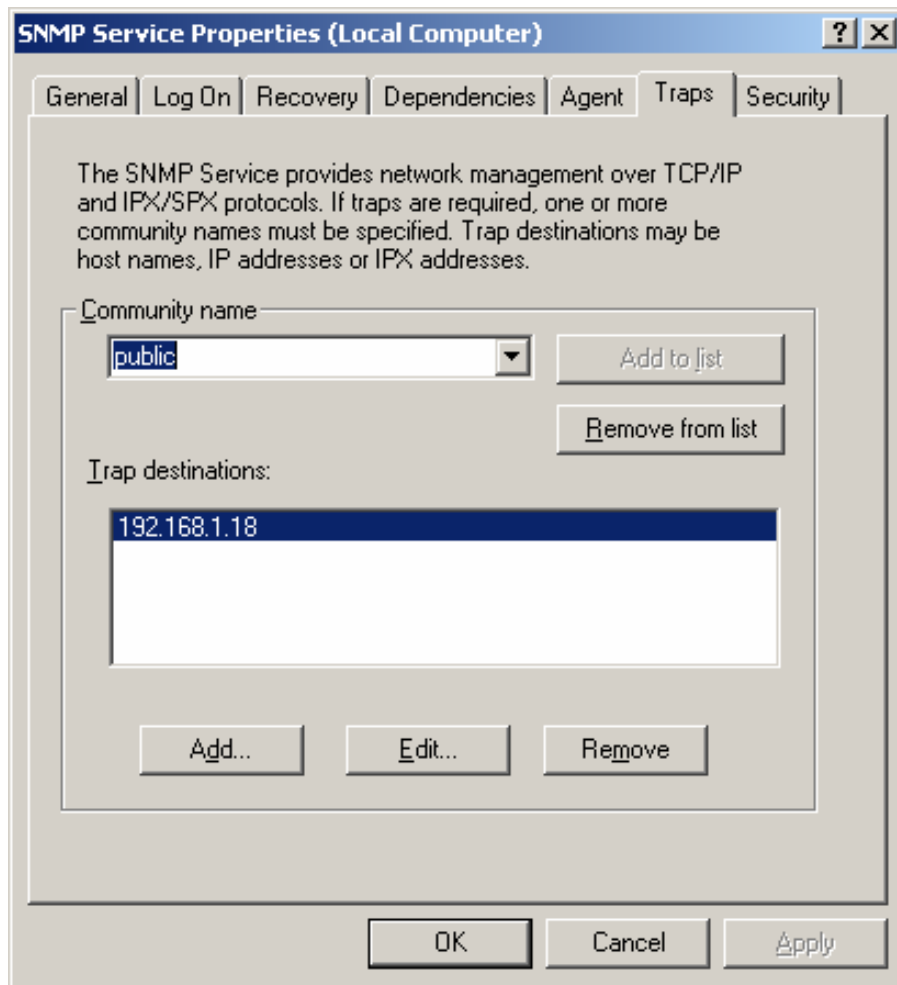


Figure 6: Traps tab in SNMP service setup window

Then select the "Security" tab and check the "Send authentication trap" option. Enter the community name the machine belongs to. Check the "Accept SNMP packets from these hosts" and enter the proper IP address you expect to receive SNMP packets (See Figure 7).

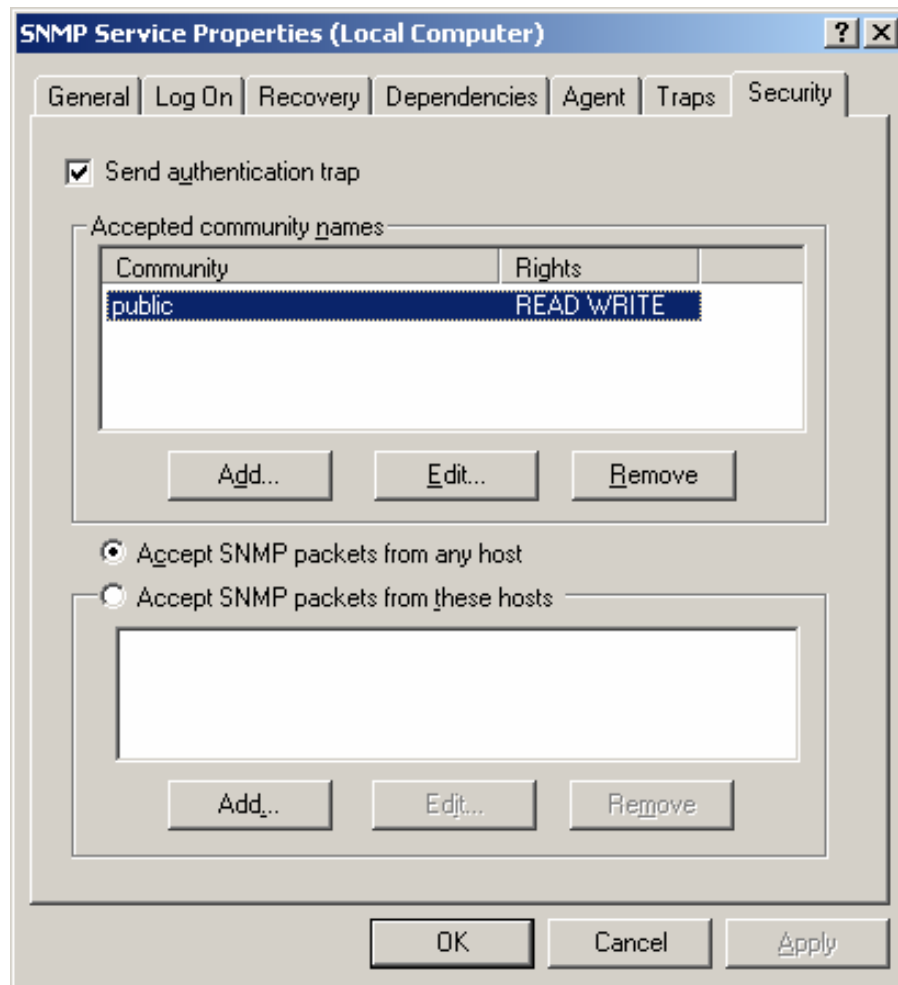


Figure 7. Security tab in SNMP setup window

3 Operation Instructions for MissionControl

There are six functions in this program: Voltage, Fan/Temperature, CPU/Memory, HDD, Limit/Alert and Setting.

3.1 Voltage/Case (see Figure 8)

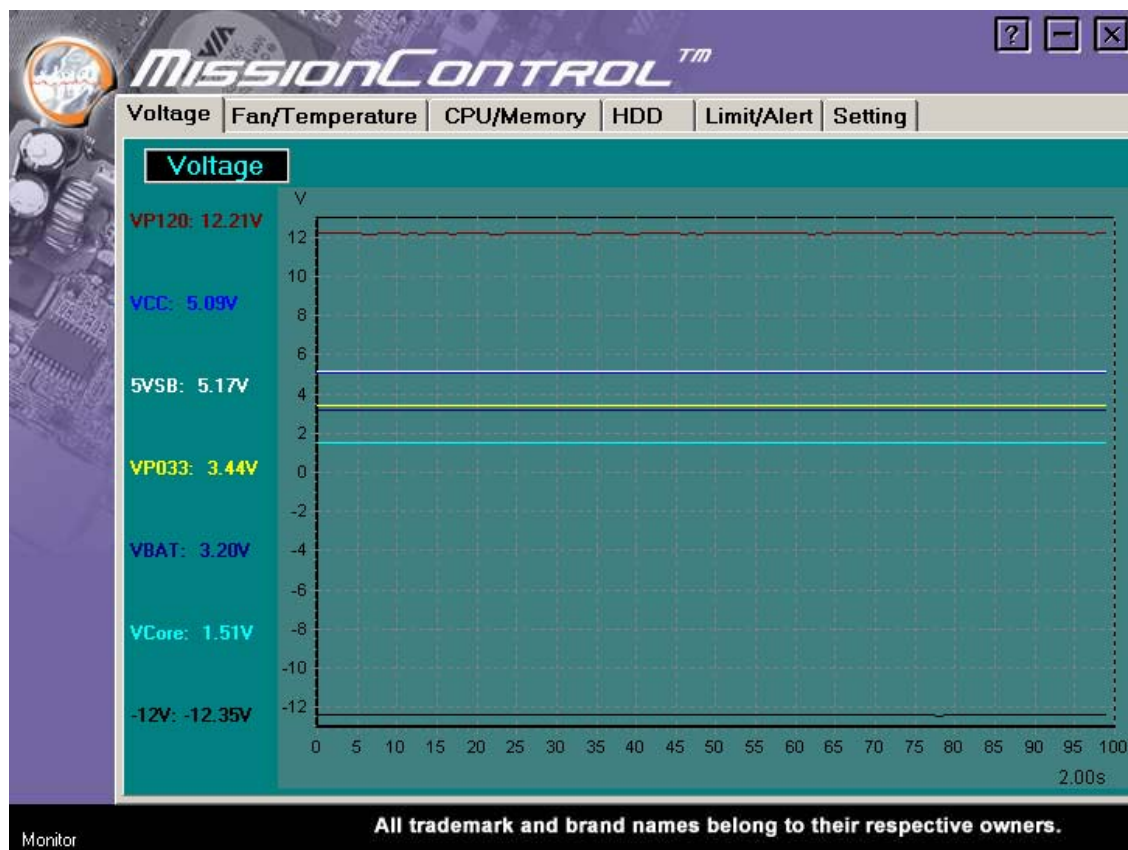


Figure 8: Voltage and Case page

This page displays actual voltage values and the condition within the system case/chassis.

+12V, -12V	Current voltage of the +12V, -12V power supply.
VSB	Standby voltage (the system voltage when it is in suspend mode.)
+5V	Current voltage of the 5V power supply. (The PCI bus supplies 5V to PCI devices.)
+3.3V	Current voltage of the 3.3V power supply to chipsets and the clock generator.
VBAT	Battery voltage, the normal value is between 2.7V to 3.3V. The battery may need to be replaced if the voltage is too low.
Vcore	CPU working voltage.

3.2 Fan/Temperature (see Figure 9)

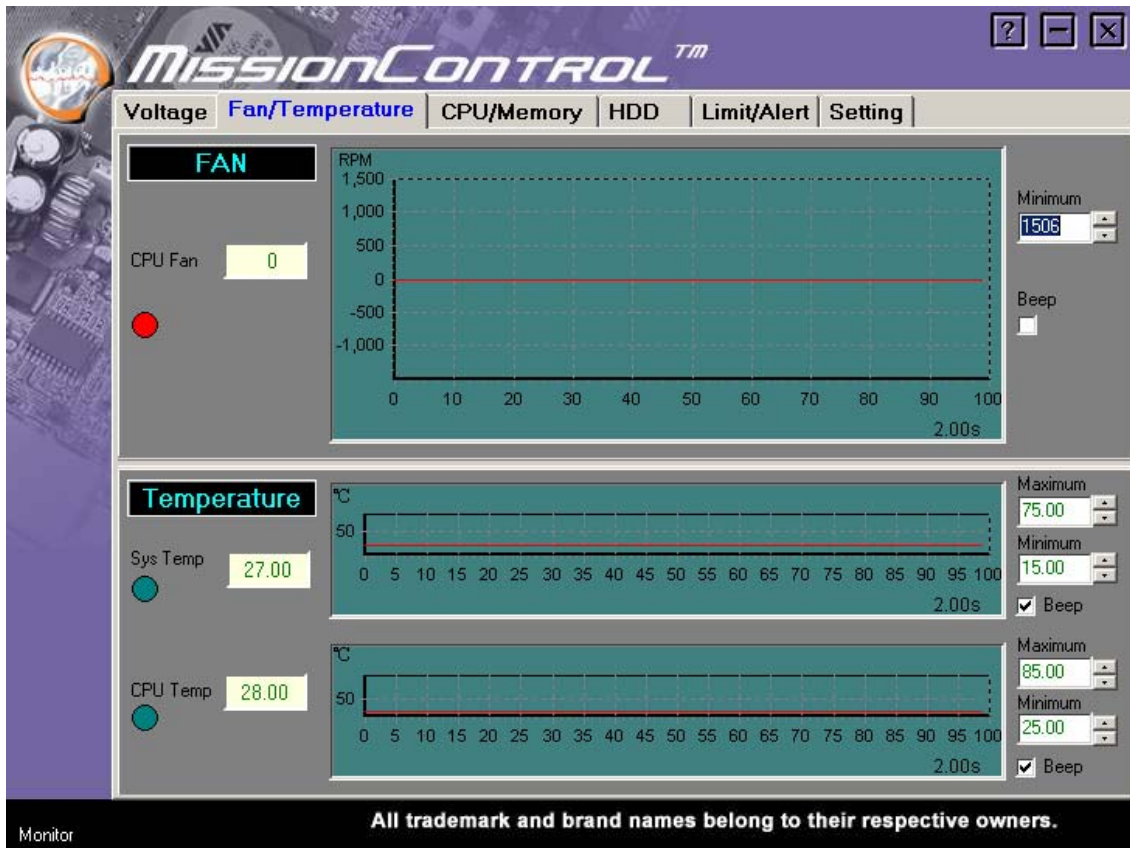


Figure 9: Fan and Temperature page

This page displays CPU temperature, CPU fan speed and system fan speed. Boxes on the right side of the interface allow the minimum and maximum values to be set. When the actual values rise above the maximum value, or drop below the minimum value, MissionControl will set off an alarm. MissionControl will alert you via a red indicator, message box or audio beeper.

Note: The user may find that the displayed maximum and minimum values are different from the previous set values because the set values will be transformed into practicable values and stored in an 8bit register. The practicable values are not successive.

3.3 CPU/Memory (See Figure 10)

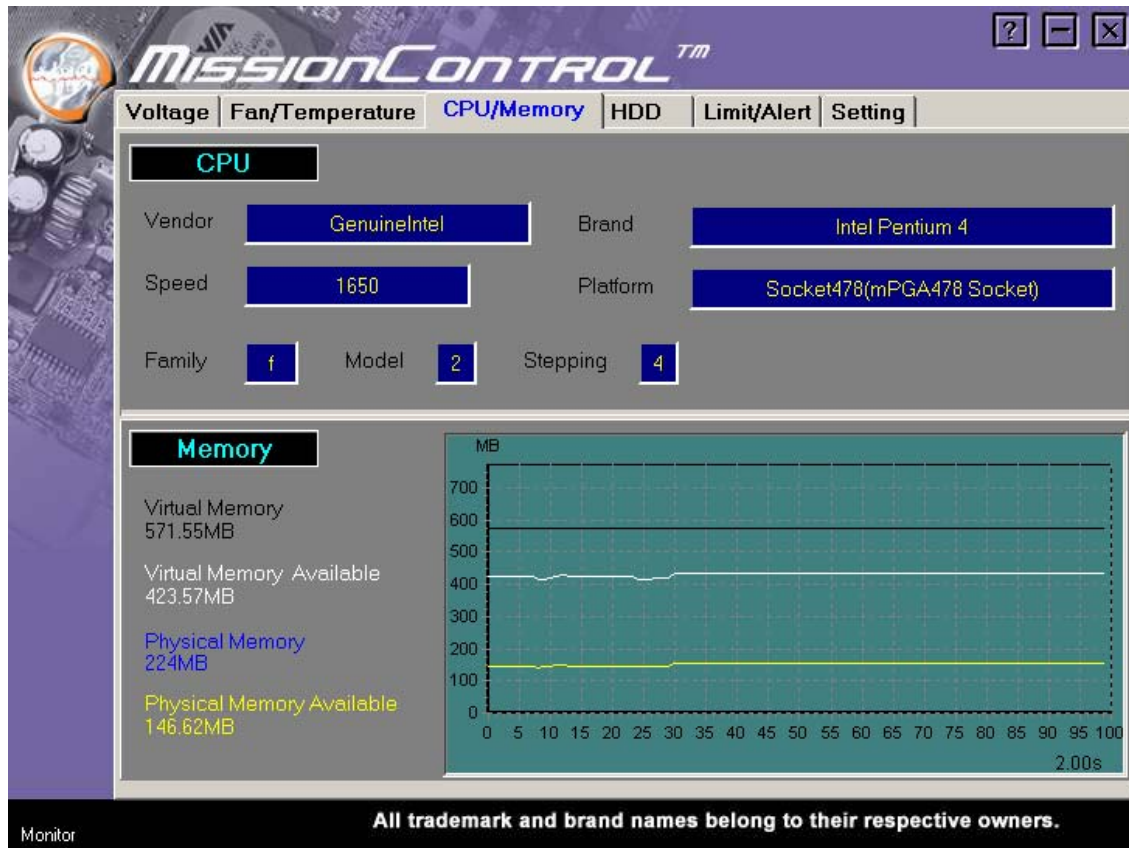


Figure 10. CPU and Memory page

This page displays CPU and memory information.

CPU information

- Vendor
- Brand
- Speed
- Platform
- Type
- Family
- Model
- Stepping
- CPU Vcore reference

Memory information

- Available physical memory size
- Virtual memory size
- Available virtual memory size



This page displays hard disk partition information, volume name, size, available space and file system format (See Figure 11).

Figure 11. Hard disk information

3.5 Limit/Alert (See Figure 12)

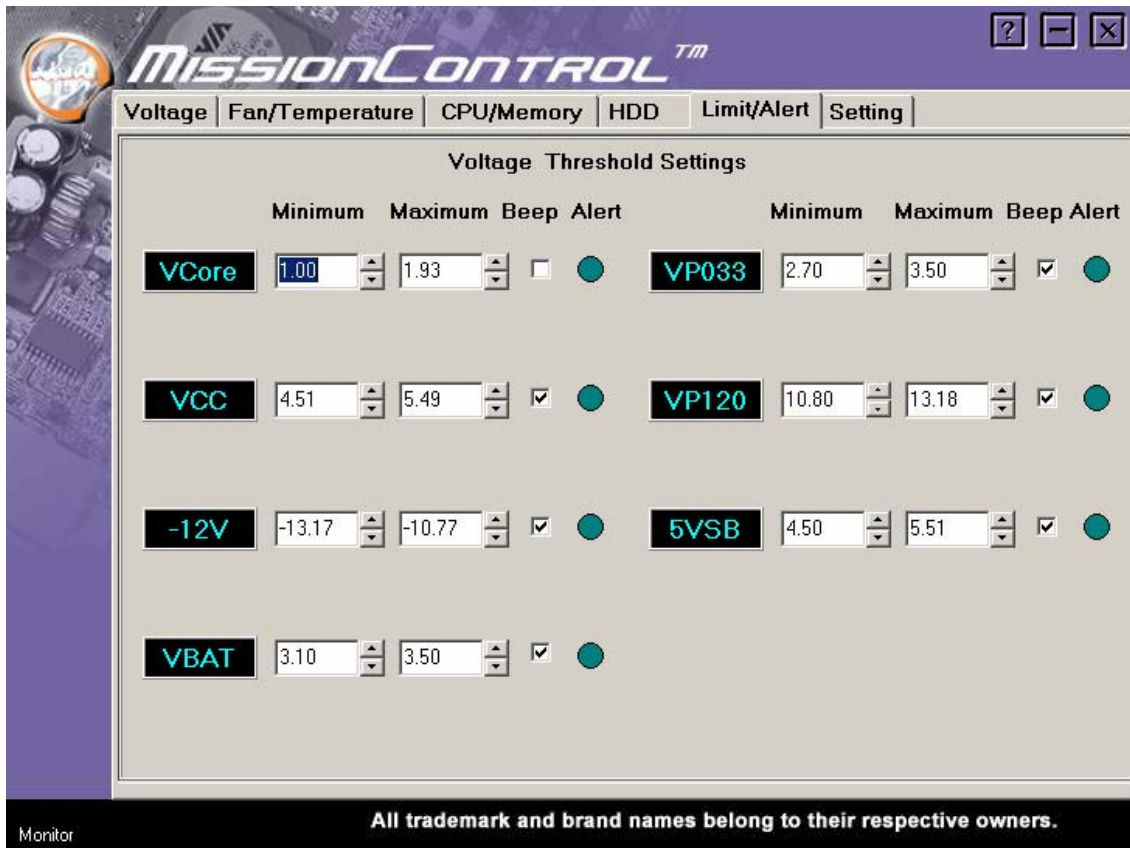
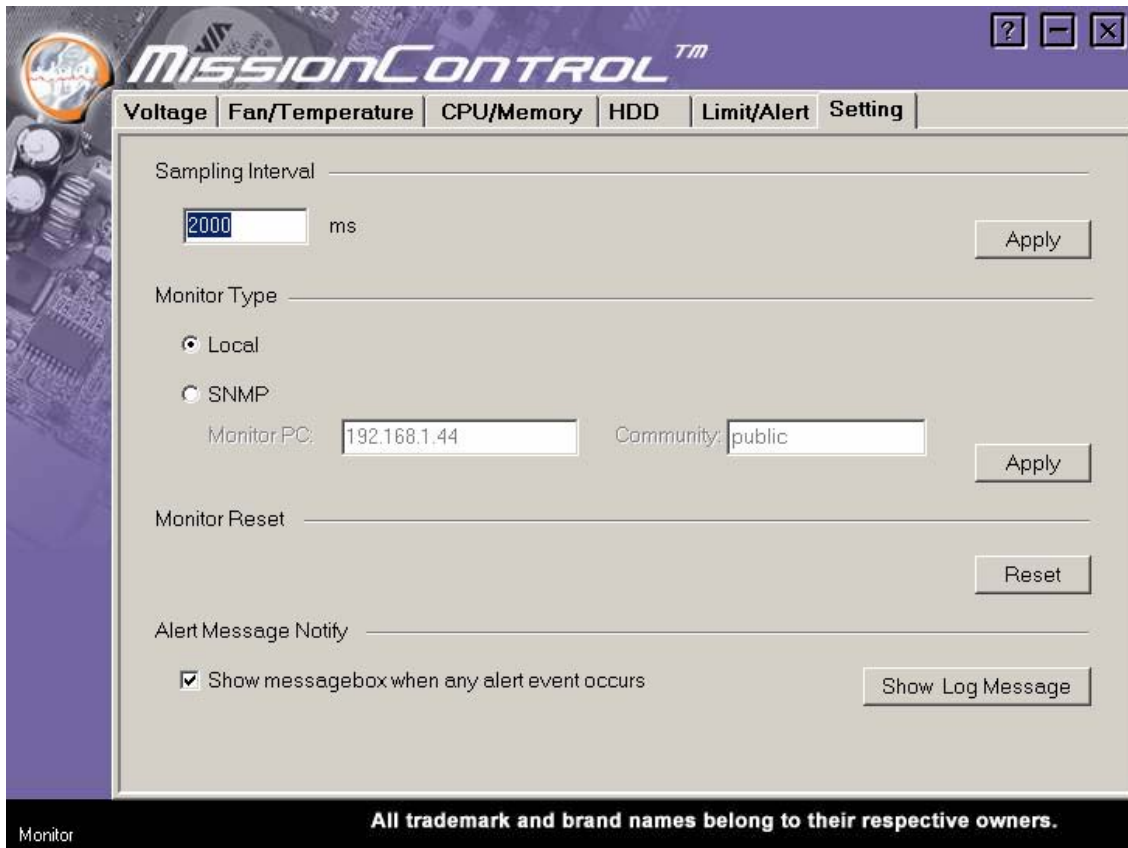


Figure 12. Limitation/Alarm

This page allows you to set the minimum and maximum values for all the voltage measurements. When the actual values rise above the maximum value, or drop below the minimum value, MissionControl will alert users by using a red indicator and message box.

Note: The user may find that the displayed maximum and minimum values are different from the previous set values because the set values will be transformed into practicable values and stored in an 8bit register. The practicable values are not successive.

3.6 Settings (See Figure 13)**Figure 13: Settings**

This function is for setting the sampling interval for MissionControl to retrieve hardware status. It also specifies if the system is working as a MissionControl manager. Please refer to section 1.2 for more detailed information on this function. An IP address or the name of the MissionControl client is entered in the "Monitor PC" box.

Please note that in the trap destination of the MissionControl client system you need to enter the IP address or computer name of this MissionControl manager. The MissionControl client community must be consistent with MissionControl manager community; otherwise the manager will be unable to access information from the SNMP data from client.

Important! The setting will only become activated after restarting the computer under the Windows 9X operating system.



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