
SNMPListener v2.0

User Guide



NotificationWorksTM
Universal Notification Solutions

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Thank you for choosing SNMPListener v2.0 from Atlantis Software. SNMPListener is a 32-bit application that runs on Windows NT/2000 and XP. This product is part of Atlantis Software's NotificationWorks, which provides a low cost advanced alarm monitoring and notification utility.

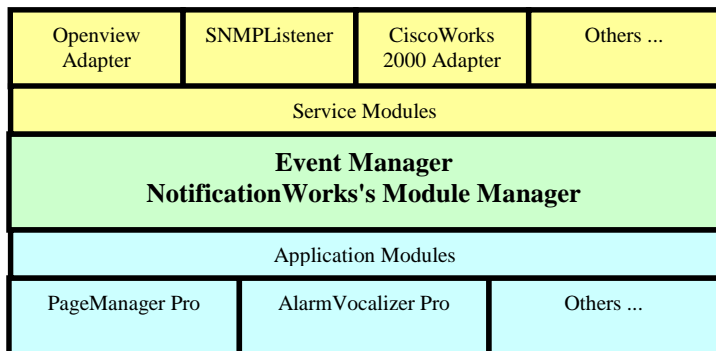
The SNMPListener v2.0 will receive and process SNMP traps and forward them to the NotificationWorks system. The built in MIB compile supports SNMP v1 and v2 compliant MIBs.

MIB is an acronym that means Management Information Base. It is really just a document written in a specific format that defines the possible alarms (Traps or Notifications) and/or variables that are supported by a specific device or software.

SNMP means Simple Network Management Protocol and is a specific network packet format for sending and receive network management information. One of the changes from SNMP v1 to v2 is Traps have been renamed to Notifications

Operation

SNMPListener module requires the Event Manager, which comes with NotificationWorks. There are two types of modules, Application modules and Service modules. Service modules are modules that connect to diverse environments and forwards received messages/alarms to the Event Manager program. Event Manager will then forward these messages/alarms to the installed Application modules (like PMPro). Application modules process and perform an action based on the type of Application module. We have many Service and Application modules that do many things.



Preparing for Installation

This user guide assumes you have knowledge of

- Windows NT, 2000 or XP

System requirements are

- Windows NT, 2000 or XP
- 800 x 600 minimum desktop size
- Enable Microsoft's SNMP service

File Layout

After the installation has been completed, there should be a directory called, SNMPListener, in your NotificationSuite directory (Due to programming issues it hasn't been changed to NotificationWorks as of yet), in which, most of the SNMPListener's files will be kept. Here are all the files that are installed or created at runtime:

File	Purpose	Location
eventman.ini	NotificationWorks settings file	windows
Snmpllistener.exe	The main program	SNMPListener
TrapDb.*	Trap/Alarm databases	SNMPListener
Private.id	Enterprises assigned ids	EvantMan
Snmplog.txt	Log file containing errors, etc...	SNMPListener

Getting Help

You can enable to SNMPListener logging system and all errors will be saved into snmplog.txt in it's directory. If you need help see "Contacting Atlantis Software" in the "Trouble Shooting" section of this user guide.

New Features

SNMPListener v2.0 has several new features and concepts.

New database engine.

Database ODBC Compatible.

Database FoxPro compatible.

GUI support for modifying Trap information (the message).

Supports SNMP v1 and v2 MIB standards.

Tree View displaying of compiled MIBs

GUI support for modifying trap severities

Performing the Installation

Installing SNMPListener

1. Run the setup program.
2. After answering the usual questions the setup will finally asked you want modules you want to install. You will need at least one service module and one application module. Make sure that you have checked the SNMPListener module and any others you also want to install, then click next.
3. Setup complete.

Uninstalling SNMPListener

To uninstall ANY NotificationWorks module, click on the “Remove Module” from the Event Manager screen and just following the onscreen instructions.

NOTE: If the module is licensed then you will also need to remove the licenses, which will create a file that you will need to email to asinfo@atlantissoftware.com. This process will “unlock” that license account so you can reuse it somewhere else. Full licensing instructions can be found at: <http://www.atlantissoftware.com/lichelp.shtml>

Configuring SNMPListener v2.0

Items to Configure

This section will explain how to start SNMPListener, compile and configure SNMP MIBs and traps

1. Enable Microsoft's SNMP service
2. Create a MIB collection
4. Compile MIBs
5. Customize Trap (alarm) messages
6. Configure other devices trap targets

Quick Start

The quick start will only describe those steps needed to get you up and running as quick as possible. For a more in-depth description of the SNMPListener controls see later in this section.

1 Starting SNMPListener v2.0:

- 1.1 By default SNMPListener will be started when Event Manager (NotificationWorks) is launched. If this is disabled, select SNMPListener from the service module list in event manager screen and press the startup button.

2 Compile MIBs:

- 2.1 Create a subdirectory under the SNMPListener called MIBs then gather all the MIBs that support the devices that you want to receive traps from and copy them into this new directory.

Note: A good MIB resource is:

<http://www.mibCentral.com>

- 2.2 From SNMPListener's menu click Configure->Compile MIBs

NOTE: Any MIBs that are highlighted in red have failed to load and if they contain traps then they should be fixed and recompiled.

3 Done.

As stated previously, this just provides only the necessary steps needed to get SNMPListener up and running as quickly as possible. The rest of the guide goes into great detail of each SNMPListener feature, which is divided, by sections.

Compiler Dialog Screen

The “MIB Compiler” screen provides the ability to compile and see the results of each compiled MIB.

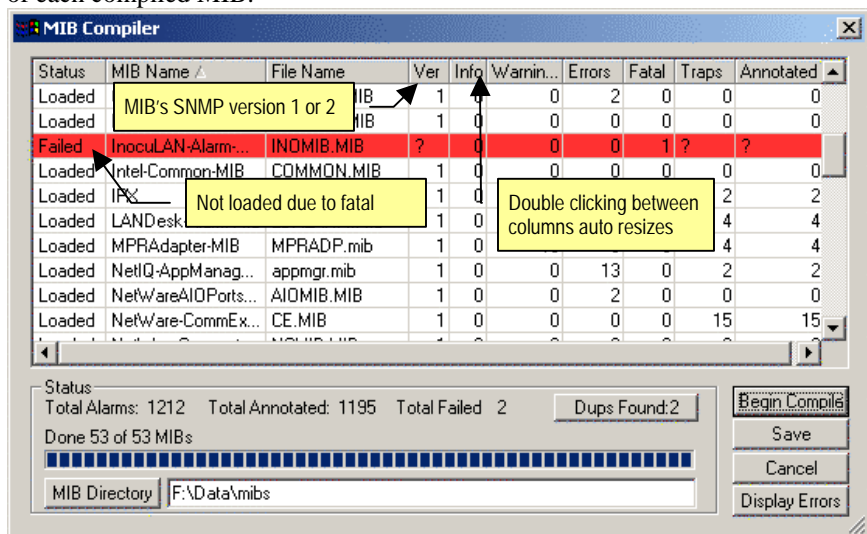


Figure 1


This screen shows the results of a compile session from clicking the “Begin Compile” button. This shows the results divided into 10 columns as well as grand totals displayed below this grid in the Status section.

Rows displayed in red indicate a MIB with at least one fatal error and could not be loaded. If that MIB does not contain the symbol TYPE-TYPE or NOTIFICATION-TYPE AND is not trying to be imported by another MIB file then just remove it from the MIB directory. Our SNMPListener is ONLY concerned about traps/notifications, so if that MIB doesn't contain any then SNMPListener doesn't need it as long as it is not also trying to be imported by another MIB file.

Sorting

ALL of Atlantis Software products that show a grid can have it's contents sorted just by left clicking on the column name you want sorted. Clicking on the same column name will reverse the sort order. The sort order will be indicated via an up or down arrow shown next to the column name.

Resizing

You can resize each column in the grid by placing the mouse pointer between two columns and when the mouse pointer changes to:  click and hold down the left mouse button and drag the column left or right to adjust the column width or double clicking the left mouse button will auto size the column to fit the longest text in that column.

The dialog box can also be resized, just hold down the left mouse button on the bottom right side of the dialog and drag it to the new size you would like.

Column Names

The column names and their meanings are:

- **Status:** This is the current status of that row's MIB. During compiling this will change based on what is happening at that moment.
- **MIB Name:** Shows the name of the MIB which is not necessarily the name of it's file. Some MIBs files will define more then just one MIB
- **MIB File:** Shows the name of the file that defines the MIB. This file name can appear more then once if that file defines more then one MIB
- **Ver:** The version of the MIB, which currently can be 1 or 2
- **Info:** The number of problems found of severity Informational
- **Warning:** The number of problems found of severity Warning
- **Errors:** The number of problems found of severity Errors
- **Fatal:** The number of problems found of severity Fatal. A problem of fatal severity will prevent the MIB from being loading.
- **Traps:** The number of alarms (traps/notifications) found in this MIB.
- **Annotated:** The number of alarms that have custom messages

Editing MIBs

You can edit the MIB in notepad just by double clicking on any MIB row. That file will then be loaded into Microsoft's NotePad.

Dup Found Button

The total duplicate MIBs found in the choosing MIB directory will be listed on this button. Duplicate MIBs are those files that define that same MIB name even through their file names may be different. Clicking on this button will cycle through their names and locations. Duplicate MIBs will not be compiled, meaning that the first occurrence will be but not the found duplicate.

MIB Directory Button

Clicking this button brings up a file dialog that allows you to choose where you have placed your MIB files. We recommend creating a subdirectory under the SNMPListener directory called MIBs and copy all your MIB files into there.

Begin Compile Button

Clicking this button will start the compiler. Each row's status field will be updated with process information during the compile.

Save Button

Do not forget to click this Save button when you have completed your compiling session. This will save the compiled information in to the alarms database and will be used to process received SNMP alarms.

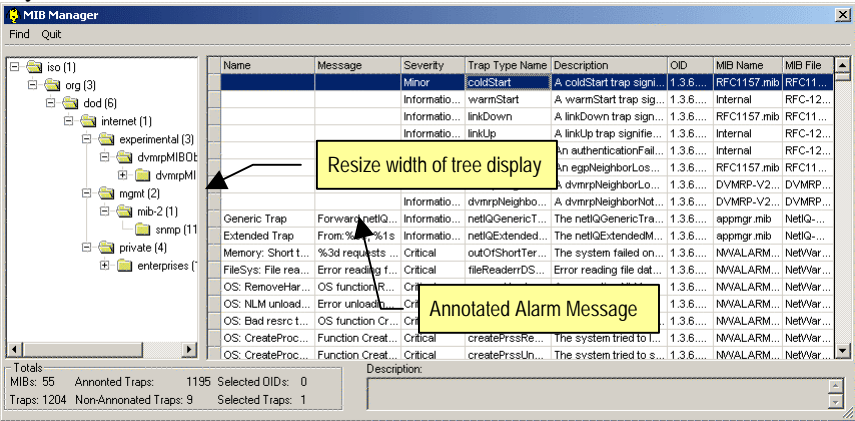
Also note that clicking this button will bring up a replace dialog. This will provide you will the ability to select what to replace. This is a good option when you have done a previous compile and have added custom messages to the database and do not want them overwritten.

Display Errors Button

You can display any found MIB problems by selecting that MIB's row (highlighting it) then clicking the Display error button.

MIB Manager Dialog Screen

This is where you are able to modify the alarm that is sent by “annotating” the alarm message and it’s severity. The alarm description will be used instead for any non-annotated alarms.



This screen has two parts. The left side is the MIB tree showing the OID (Global naming object identifier) and the left, showing the alarms belonging to the selected branch on the left.

You can click on any branch of the MIB tree and the alarm list will show all alarms for the branch and below. This is a good way to see what alarms are available to what company’s MIB you have currently compiled

Resizing

You can resize the left and right screens placing the mouse between both screens and when the mouse pointer changes click and hold down the left mouse button and drag it to the left or right to resize.

To resize the dialog box just do the same but on the outside edge of the dialog. The alarm list columns can also be resized by clicking between the column names. To resize the row to fit more then one line of text per row, click between the rows and move the mouse up or down.

NOTE: if the column width becomes to wide you can resize it back to defaults by double clicking between it’s name and the one next to it.

Searching for Alarms

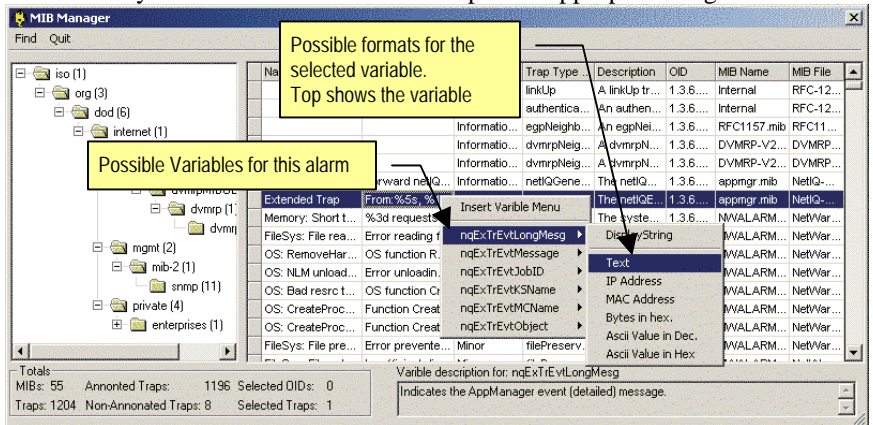
You can locate alarms quickly by using the Find command from the menu.

Customizing Alarms

This is perhaps the best feature. This allows you to change what the SNMPListener will forward to NotificationWorks., i.e. Shown on you pager. You can change the name of the alarm, which is what you use to schedule alarms for instance in PageManager Pro. You can change the message it sends and the severity, even the description, but we don't recommend changing it.

To Change/Customize (Annotate) the Alarm:

Double click in the message field and enter the text you want to send. To imbed a variable into the message, right click and the Variable List will appear. Select the variable you want to insert and it will input the appropriate flags.



For instance you could enter:

The server is down.

Let say that the selected alarm has a variable called serverName you could have it imbedded into the message by putting the mouse between “server” and “is” then right click and the Variable List like the one shown above will appear, and if serverName is one of the variables then select it then select the format, in this case the “Text” format. The message will then look like:

The server %1s is down

When this alarm occurs the “%1s” will be replaced by the first variable (1), which is our variable value for serverName.

NOTE: Don't change the number manually. If you change the 1 in the above example to a number higher then the available variables then unexpected results could occur.

Make sure that you try to match the format to the variable's purpose. For instance in the above example using IP Address instead of Text would cause the server name to be displayed in decimal with dots, i.e. 232.43.53.23 which is not it's IP address but it's name in decimal form.

If when you right click on message field and no list appears then that means that the selected alarm does not contain any variables.

To Change the Severity

Select the alarm or multiple alarms then right click in the Severity column, then select the new severity from the popup list.

To Change the Alarm Name

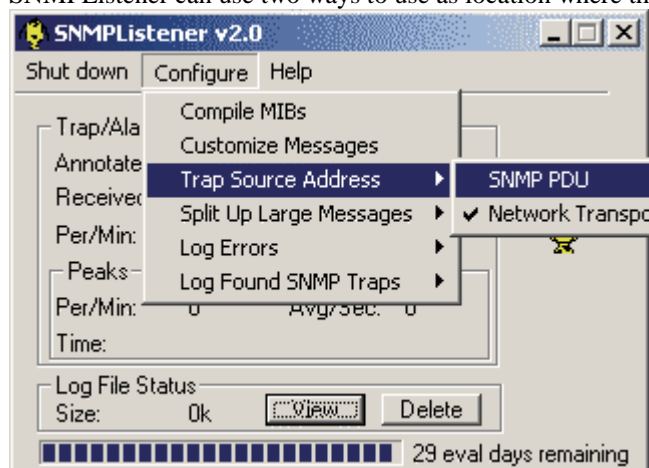
Double click in the Name field and enter what you want to name it.

5

Main Dialog:

Changing Trap Source

SNMPListener can use two ways to use as location where the alarm came from.



1 is the SNMP PDU and that means it will use the source address field that is part of the SNMP packet This is the default

2 is the Network Transport source address field.

Split Up Large Messages

On by default, this splits up alarms messages that are longer then 255 characters into multiple alarms. If off then messages will be truncated to 255 in length.

Trouble Shooting:

Contacting Atlantis Software

You can contact Atlantis Software at:

Atlantis Software

34740 Blackstone Way

Fremont, Ca. 94555-3209

Email: asinfo@atlantissoftware.com Fax: 510-796-8476 Voice: 510-796-2180

www.AtlantisSoftware.com