PAESSLER
the network monitoring company

MIB Importer
User Manual

MIB Importer

Printed: Mai 2013 in Nuremberg

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Part 1

Introduction

1 Introduction

Welcome to MIB Importer, a free network tool for PRTG Network Monitor! This tool enables you to import MIB files in order to monitor specific devices with your PRTG installation. The present document describes the underlying concepts and reasons for using the MIB Importer, and indicates how to use it in detail.

Why MIB Importer?

Many device manufacturers offer so-called **MIB files** along with their network-enabled devices. MIB stands for **Management Information Base**. It is used for managing the entities in a communications network. These files describe the parameters and readings which are available for monitoring devices via **Simple Network Management Protocol** (SNMP). MIBs are supplied by the vendors of the devices or of specific software products.

The definition language of MIB files is highly abstract, so Paessler developed the **MIB Importer** for you to make use of these files. In order to make the information in these files readable for PRTG Network Monitor, it is necessary to convert MIB definitions, this is, importing MIBs for PRTG.

Importing SNMP-MIB Files Into PRTG Network Monitor

With MIB Importer v3 you can import MIB files and convert them into **Paessler SNMP Library** files (ending with **.oidlib**) for PRTG. You can use the created SNMP libraries to setup **SNMP Library** sensors. With these you are able to monitor SNMP-enabled devices with PRTG.

1.1 About MIB Files

Management Information Base (MIB) files are hardware and operating system independent information files. They tell network management systems how to retrieve in-depth data from network devices using the SNMP protocol. These devices can be, for example, routers, switches, network printers, disk arrays, even air conditioners, as well as many server software products (for example, database servers). MIB files describe the available readings in tables, values, and registers, using the special text format Abstract Syntax Notation One (ASN.1).

MIBs and PRTG

MIB files need to be converted into a more software compliant form, because they are written in this highly abstract definition language. This is necessary for PRTG to work fast and seamless with the data. The MIB importer translates the MIB files into PRTG's XML-based SNMP Library format, containing the OIDs of MIB files.

Usually, the manufacturers of network devices and software provide MIB files. To get MIB files for your specific products, please visit the website or contact the support of the responsible vendor. For more information about how to find MIB files, please see section **More**.

#	SMI	v1 Top OID/v2 MIB OID	MIB Name (File Name)	Traps	TCs	OIDs	Scalars	Tables	Tabulars
121	v2	**1.3.6.1.4.1.351.150.80**	BASIS-ONLINE-DIAG-MIB (BASIS-ONLINE-DIAG-MIB.my)	0	0	4	3	0	0
122	v1	1.3.6.1.4.1.351.110.6.2	BASIS-RAS-DISK-MIB (BASIS-RAS-DISK-MIB-V1SMI.my)	0	0	1	8	0	0
123	v1	1.3.6.1.4.1.351.110.6.2	BASIS-RAS-DISK-MIB (BASIS-RAS-DISK-MIB.my)	0	0	1	8	0	0
124	v1	1.3.6.1.4.1.351.110.4.1	BASIS-SERIAL-MIB (BASIS-SERIAL-MIB-V1SMI.my)	0	0	7	1	1	4
125	v2	**1.3.6.1.4.1.351.150.69**	BASIS-SERIAL-MIB (BASIS-SERIAL-MIB.my)	0	0	4	1	1	4
126	v1	1.3.6.1.4.1.351.110.1.1	BASIS-SHELF-MIB (BASIS-SHELF-MIB-V1SMI.my)	0	0	0	21	3	19
127	v1	1.3.6.1.4.1.351.110.1.1	BASIS-SHELF-MIB (BASIS-SHELF-MIB.my)	0	0	0	21	3	19
128	v1	1.3.6.1.2.1.15	BGP4-MIB (BGP4-MIB-V1SMI.my)	2	0	2	3	3	44
129	v2	**1.3.6.1.2.1.15**	BGP4-MIB (BGP4-MIB.my)	2	0	1	3	3	44
130	v1	1.3.6.1.2.1.17.1	BRIDGE-MIB (BRIDGE-MIB-V1SMI.my)	2	2	23	19	5	28
131	v2	**1.3.6.1.2.1.17**	BRIDGE-MIB (BRIDGE-MIB.my)	2	2	9	19	5	28
132	v1	1.3.6.1.4.1.7505.1.1	CALISTA-DPA-MIB (CALISTA-DPA-MIB-V1SMI.my)	0	1	3	14	2	15
133	v1	1.3.6.1.4.1.7505.1.1	CALISTA-DPA-MIB (CALISTA-DPA-MIB.my)	0	1	3	14	2	15
134	v1	1.3.6.1.4.1.9.1.111.1.2.1.1	CAT2600-MIB (CAT2600-MIB.my)	0	1	18	29	10	83
135	v1	1.3.6.1.4.1.9.10.28.1	CISCO-5800-HEALTH-MON-MIB (CISCO-5800-HEALTH-MON-MIB-V1SMI.my)	1	0	10	9	2	22
136	v2	**1.3.6.1.4.1.9.10.28**	CISCO-5800-HEALTH-MON-MIB (CISCO-5800-HEALTH-MON-MIB.my)	1	0	7	9	2	22
137	v1	1.3.6.1.4.1.9.10.26.1.1	CISCO-6200-MIB (CISCO-C6200-MIB-V1SMI.my)	0	6	28	11	7	66
138	v2	**1.3.6.1.4.1.9.10.26**	CISCO-6200-MIB (CISCO-6200-MIB.my)	0	6	9	11	7	66
139	v2	**1.3.6.1.4.1.9.10.26**	CISCO-6200-MIB (CISCO-C6200-MIB.my)	0	6	9	11	7	66
140	v1	1.3.6.1.4.1.9.10.27.1.1	CISCO-6400-CHASSIS-MIB (CISCO-6400-CHASSIS-MIB-V1SMI.my)	1	1	15	9	6	56

Selection of Cisco MIB Files in mibDepot.com

What Are OIDs?

In order to access values on a network device, the managing software needs to know their addresses. These addresses are called **OIDs** (Object Identifiers). They are organized in a hierarchical tree structure. The nodes are defined by decimal numbers, separated by dots. A typical OID looks like this: 1.3.6.1.2.1.10.20.1.3.1; this is an example value from an ISDN-MIB.

Note: An OID always starts with the numbers **1.3.6.1**. If you encounter any OID not starting with **1.3.6.1**, then this is incorrect. See section **Trouble Shooting**.

Example

This code snippet demonstrates how an OID definition in an MIB file looks like (taken from Cisco's BRIDGE-MIB):

```
dot1dStpHelloTime OBJECT-TYPE
       SYNTAX Timeout
       ACCESS read-only
       STATUS mandatory
       DESCRIPTION
              "The amount of time between the transmission of
              Configuration bridge PDUs by this node on any port
              when it is the root of the spanning tree or trying
              to become so, in units of hundredths of a second.
              This is the actual value that this bridge is
              currently using."
       REFERENCE
              "IEEE 802.1D-1990: Section 4.5.3.5"
       ::= { dot1dStp 10 }
```

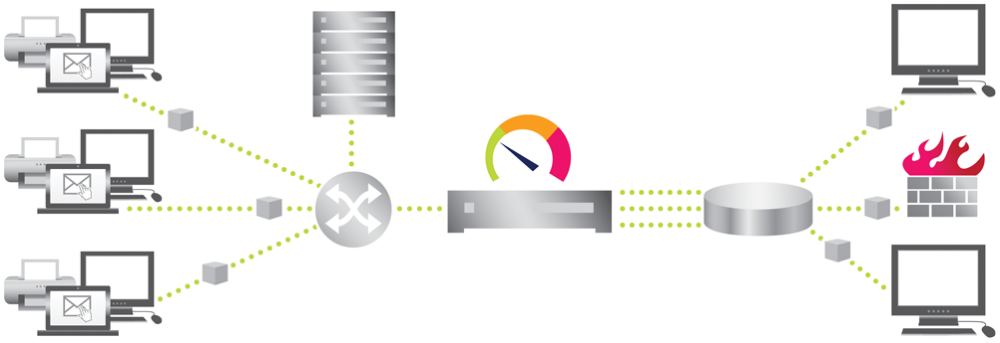
More

Knowledge Base: Where can I find MIB files for my device?

- http://www.paessler.com/knowledgebase/en/topic/743

1.2 SNMP—The Simple Network Management Protocol

SNMP stands for **Simple Network Management Protocol**. Monitoring with this technology is the most basic method of gathering bandwidth and network usage data. Using SNMP, PRTG sends small data packages to devices—for example, routers, switches, and servers—to query for traffic counters of each port. Furthermore, SNMP makes PRTG able to monitor other network parameters, including CPU load, disk usage, temperature, and many other readings, depending on your device.



Network Monitoring via SNMP

Introduction to SNMP

The Simple Network Management Protocol (SNMP) was developed to get a standard for monitoring various devices. This was necessary because of the huge amount of these devices on the market, supplied by many different manufacturers. For monitoring, all available SNMP objects must have clear addresses to be accessible—stored in the MIBs. In order to make it possible to monitor various devices via SNMP, PRTG uses converted MIB files.

For detailed information about SNMP and PRTG, please see section **More**.

More

Knowledge Base: SNMP, MIBs and OIDs — an Overview

- http://www.paessler.com/knowledgebase/en/topic/653

Knowledge Base: General Introduction to SNMP and PRTG

- http://www.paessler.com/knowledgebase/en/topic/46863

PRTG Manual: Monitoring via SNMP

- http://www.paessler.com/manuals/prtg/snmp_monitoring.htm

White Paper: Quo Vadis SNMP?

- http://www.paessler.com/press/whitepapers/introducing_snmp

1.3 Supported MIB Files

There are some limitations to the use of MIB file with PRTG.

- Often MIB files are very huge. They might include thousands of different OIDs. Putting them into one SNMP library would lead to very long scanning times during the process of creating new sensors from them. Thus, using the MIB Importer, you can individually choose the OIDs you actually need for monitoring a specific device using a **Partial Selection**.

- Often MIB files are written in a non-standard definition language, not fully compliant to the syntax defined by the RFCs. Errors in syntax are not uncommon. Thus, using the MIB Importer, the syntax of MIB files is checked in advance while importing. The MIB Importer tries to automatically correct any errors. However, for some MIB files a manual correction will be necessary to convert them into a standard compliant format. For details, please see section **Trouble Shooting**.

- In general, the MIB Importer only imports objects which return an integer value. Please see below which device values and organization units of these are supported. The MIB Importer can import SNMP V1, SNMP V2, and SNMP V3 MIB files.

Supported Value Types

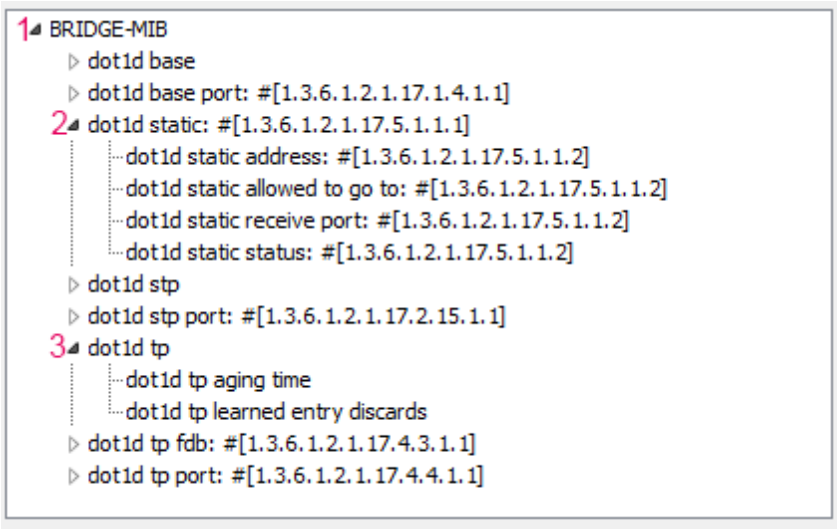
PRTG can work with the following value types on a network device:

- **Gauges**: Gauge values show the current reading of a monitored parameter as integer number—for example, temperature values, the number of free bytes on a disk, or the number of current processes.
- **Counters (Diffs)**: Counter values are used for strictly monotonic increasing numbers—for example, page count of a printer, the number of bytes transferred via a switch port, or the number of emails received. In most cases a counter is related to the time—for example, printed pages per hour, bytes per second, or emails per minute.
- **Strings**: PRTG supports display strings (NVT ASCII) and octet strings as returned by a specific OID—for example, system info, host name, or strings containing specific information like the temperature of a device. These strings can be checked for keywords with the **SNMP Custom String Sensor**, for example, to extract a value like temperature via regular expression to monitor it.

Supported Organization of Values

PRTG can process MIB files where readings are organized the following way:

- **Single values**: Every OID denotes a specific value. The values are grouped by their direct parental OID. You can identify single values in the MIB Importer this way: they have no OID attached to their group name.
- **Tables**: The OIDs describe rows in a table. You can identify tables in the MIB Importer this way: they have an OID in square parentheses attached to their group (table) name.



Tree View of OIDs Organized in Agents (1), Tables (2), and Groups of Single Values (3)

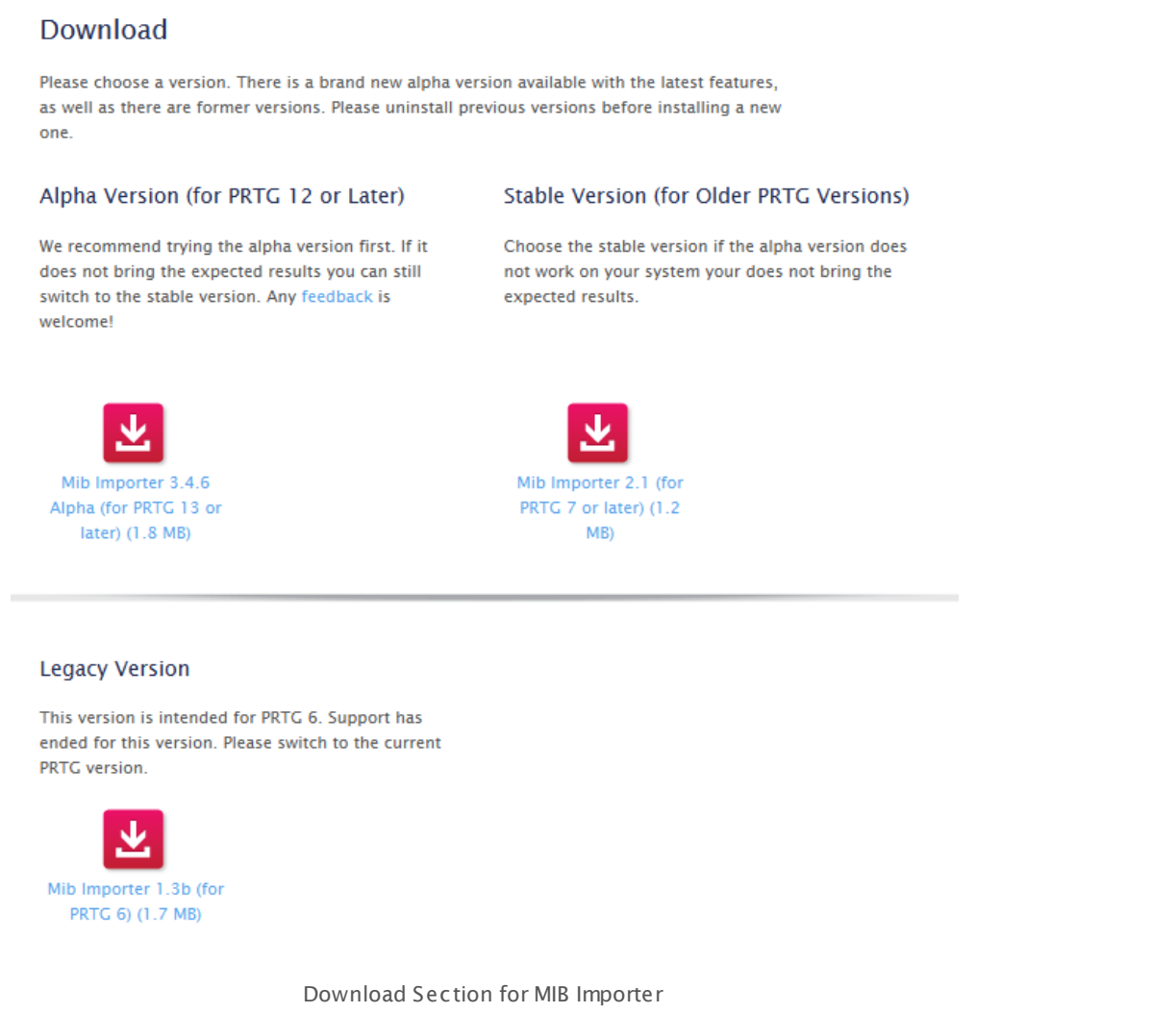
See the example above how OID values are organized in a tree view. The top most node of the tree is the module name or agent (1). Its children are tables (2) or groups of single values (3).

Part 2

Download and Installation

2 Download and Installation

The installation of the MIB Importer is straightforward with the setup wizard. Go to **http://www.paessler.com/tools/mibimporter** first and download the zip-file at the bottom of the page.



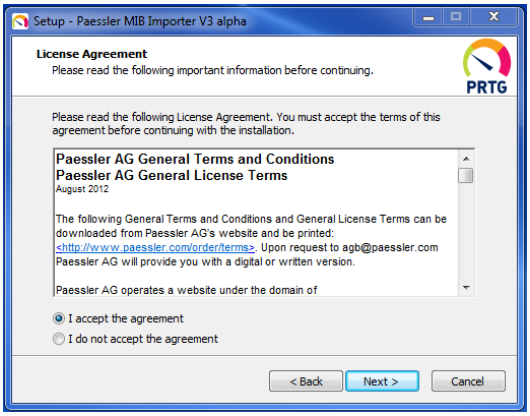
Download Section for MIB Importer

Installation

1. Open the downloaded file **Paessler MIB Importer V3**.
2. The **Setup Wizard** appears. Follow the instructions and click on **Next**.

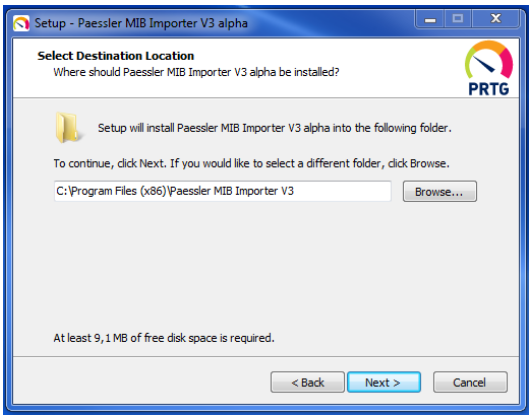
Paessler MIB Importer Setup Wizard Welcome Screen

3. Please read the appearing **License Agreement**. If you accept, choose **I accept the agreement** and click on **Next**.



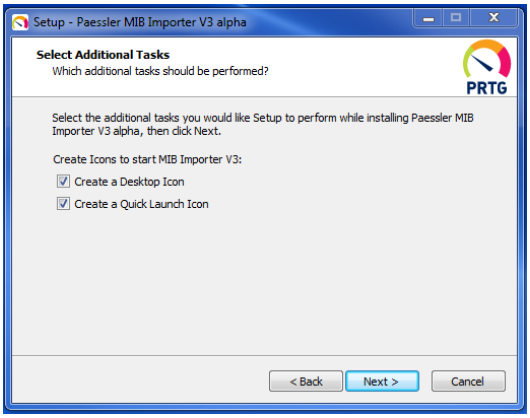
Setup Wizard License Agreement

4. Choose in which folder the importer should be installed. Default is **C:\Program Files \Paessler MIB Importer V3**. Click on **Next**.



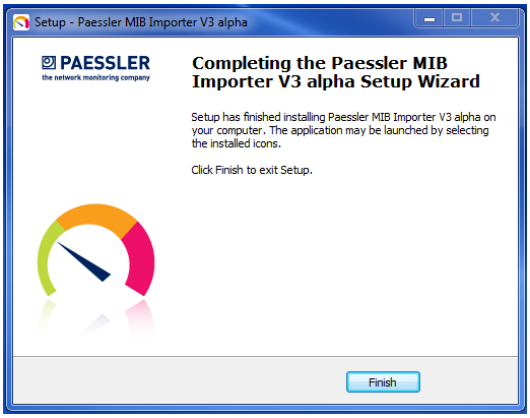
Setup Wizard Destination Selection

5. Choose if you want to create icons on your desktop for starting the MIB Importer. Click on **Next**.



Setup Wizard Icons Creation

6. The setup assistant will install the MIB Importer in the specified folder.



Setup Wizard Completing

7. Click on **Finish** to complete the installation.

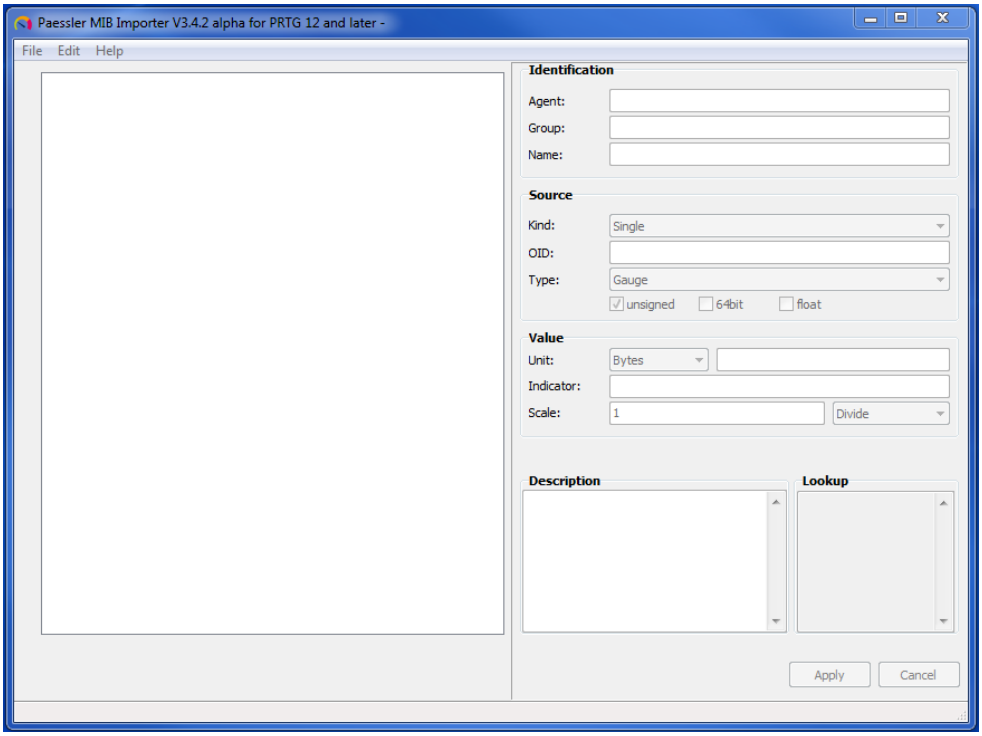
You can launch the MIB Importer now via the installed icons or in your Windows start menu.

Part 3

Using the MIB Importer

3 Using the MIB Importer

After installing the MIB Importer, you can launch it via its desktop icons or the Windows Explorer: the default path is **\Paessler MIB Importer V3\mibimporterv3.exe**.



The MIB Importer Interface

General Layout

The general layout of the MIB Importer is organized as follows:

- At the top: the global header bar containing the main menu.
- On the left: this window will contain the OIDs in a tree view after you have imported an MIB file.
- On the right: the properties of the selected OID.

Main Menu

From the main menu, you can access the functions of the MIB Importer:

- **File**
  - **New...**: Opens a new, empty SNMP library.
  - **Open...**: Loads an existing SNMP library.
  - **Save Complete OIDLib**: Saves changes to an imported SNMP library file.

- **Save Complete OIDLib As...**: Manually copy a created or edited SNMP library file into the \snmplibs subfolder of your PRTG installation (for example, when running the importer on a different machine than PRTG).
- **Save for PRTG Network Monitor**: This option is only visible if you run the MIB Importer on the same machine as your PRTG installation. Automatically opens the \snmplibs subfolder of your PRTG installation to save the SNMP library file for PRTG.
- **Enable Partial Selection**: Makes partial selection of OIDs available. This is useful for large MIBs with many OIDs.
- **Save Partial Selection As...**: Saves the partially selected OIDs in a new library; the original SNMP library will not be affected.
- **Import MIB File...**: Starts the import process.
- **Show Import Log...**: Opens the log of recent MIB import processes.
- **Exit**: Closes the MIB Importer.

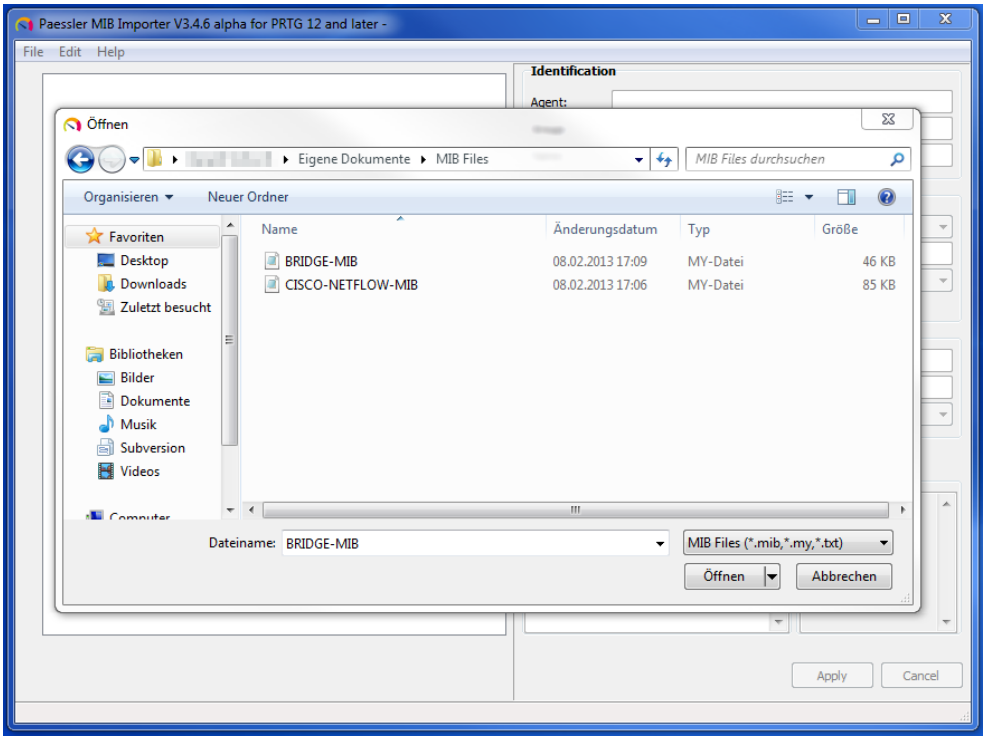
- **Edit**
  - **Add OID...**: Adds a new OID to the library.
  - **Delete OID**: Deletes a selected OID from the library.
  - **Find...**: Searches for a specific term.
  - **Find Next**: Searches for the next appearance of the searched term.
  - **Find Previous**: Returns to the OID that was found before.
  - **Replace...**: Searches for a specific term and replaces it by another.
- **Help**
  - **Help...**: Opens this manual.
  - **About**: Opens a popup with information about Paessler's MIB Importer.

3.1 Importing MIB Files

With the MIB Importer, you can convert any MIB file into an SNMP library, as long as it belongs to the **Supported MIB Files**. Follow the steps below to import MIBs to PRTG.

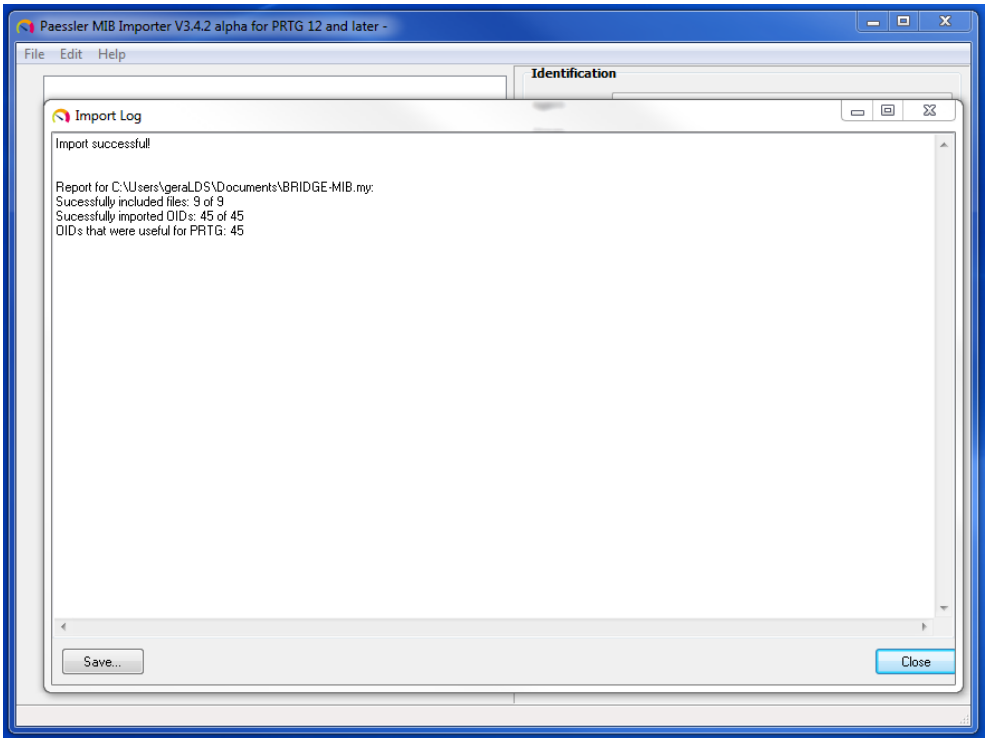
Steps to Go

1. Click on **File | Import MIB File...** in the main menu bar to load an MIB file. Navigate to the directory where the desired MIB file is located. **Open** this file.



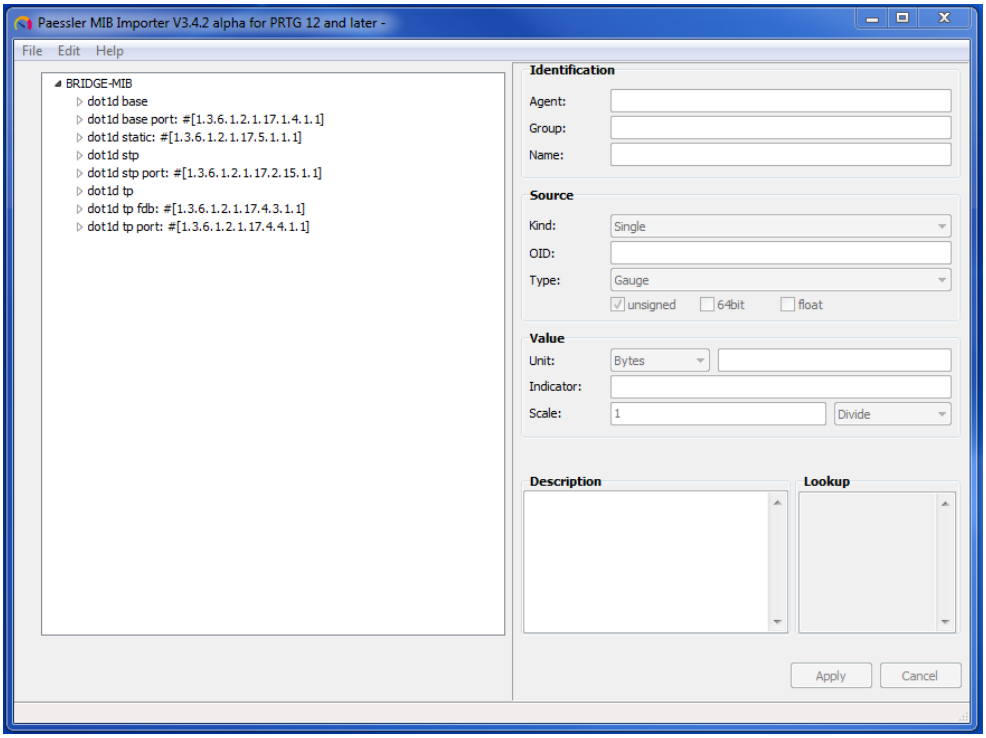
Navigation to MIB File

2. The import will start automatically. It will take a few seconds.
3. The Import Log window appears. If the import was successful, the first line says "Import successful!", followed by a report. The report will sum up the successfully included files and imported OIDs, as well as it indicates how many OIDs will be useful for PRTG.



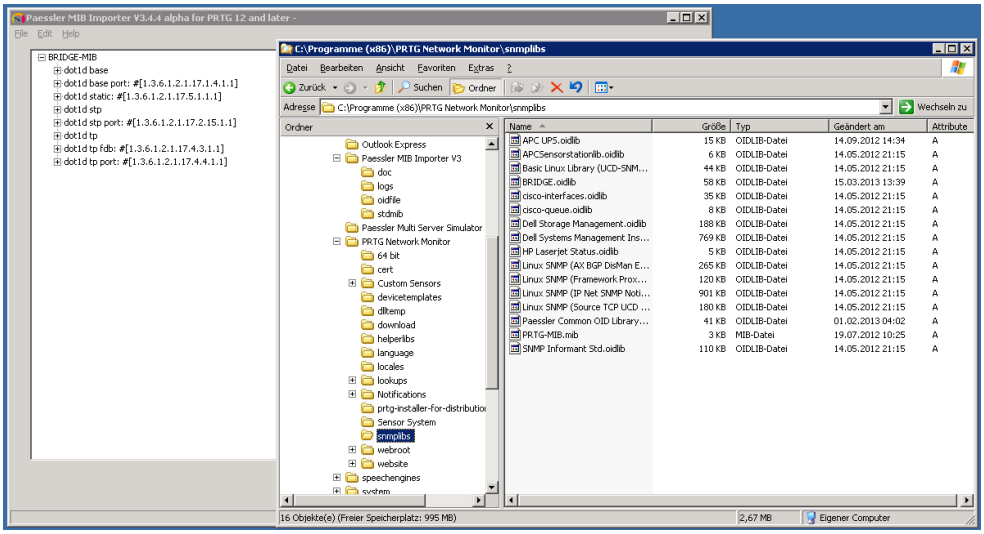
Import Log Indiciating a Successful Import

4. Optionally, you can save the log file by clicking on **Save...** at the bottom of the window. Otherwise click on **Close** to return to the MIB Importer's main window. The imported MIB will appear on the left side.



The MIB Importer After a Successful Import of an MIB File

5. You can import one or more MIB files in order to combine them into a single library. For this purpose, repeat the import process (steps 1.—4.) as often as needed.
6. You can now edit the SNMP library for your purposes. Choose **File | Save Complete OIDLib** from the main menu to save recent changes.
7. Select **File | Save for PRTG Network Monitor** from the main menu to save the created Paessler SNMP Library file for PRTG.
   7.1. You can also copy the SNMP library file manually into the \snmplibs subfolder of your PRTG installation. This is useful if you run PRTG and the MIB Importer on different machines. Choose **File | Save Complete OIDLib As...** from the main menu.



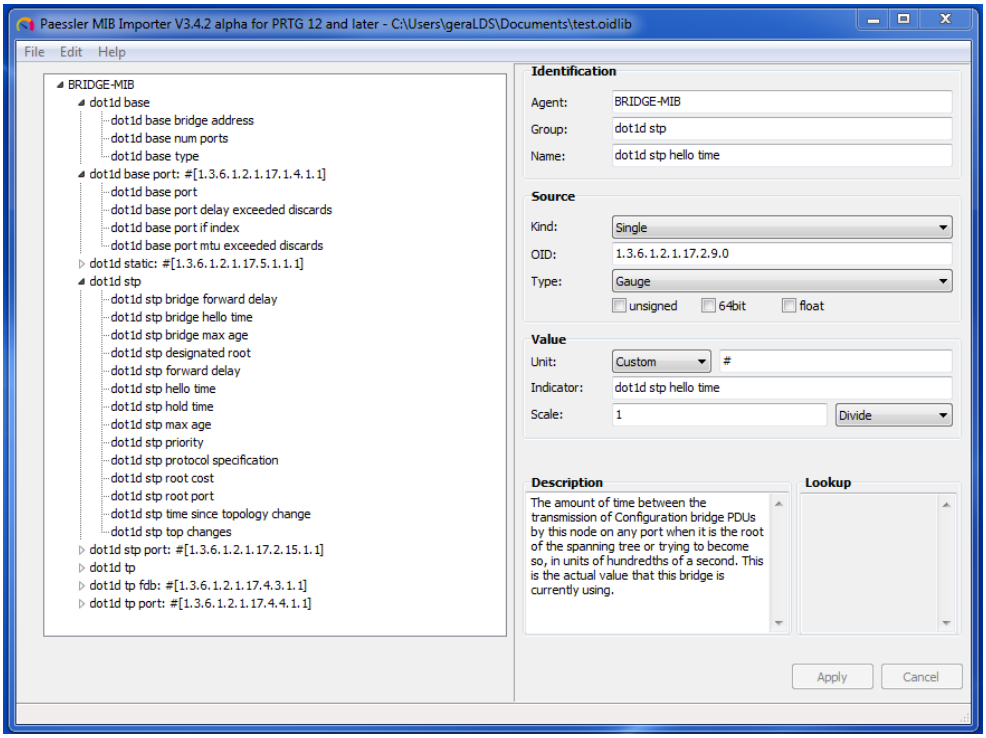
PRTG Subfolder \snmplibs with Several .oidlib Files

8. In PRTG, create a new **SNMP Library Sensor**, respectively an **SNMP Custom String Sensor** if an OID returns string values. Use the created SNMP library file for this purpose. For details, see section **Using SNMP Libraries in PRTG**.

3.2 Opening and Editing Existing SNMP Library Files

You can open existing SNMP library files by choosing **File | Open...** from the main menu. Select the desired **Paessler SNMP Library** file in the popup window and **Open** it.

You can now edit the library via the main menu: the MIB Importer can be used for adding and deleting OIDs, editing single OIDs, and selecting subsets of the counters you want to see in PRTG with **Partial Selection**. If you are an advanced user, you can change the available information of an OID.



An OID Library Opened in the MIB Importer

On the left side you will see the tree view of the SNMP library. It is organized the following way (see also section **Supported MIB Files**):

- **Agent** is the top level node. In the figure above, BRIDGE-MIB is the only agent.
- **Group**s are the daughters of the agent. In the figure above, there are eight groups, indicated by the first indentation.
- **OID**s are organized in groups. They are given with their **Name** in the tree view.

On the right side you will see detailed information about an OID. These properties are only visible when you select an OID in the tree view on the left side. In the figure above, you see the properties of the OID dot1d stp hello time. For details about the given information, see section **Changing Available Information**.

Adding a New OID

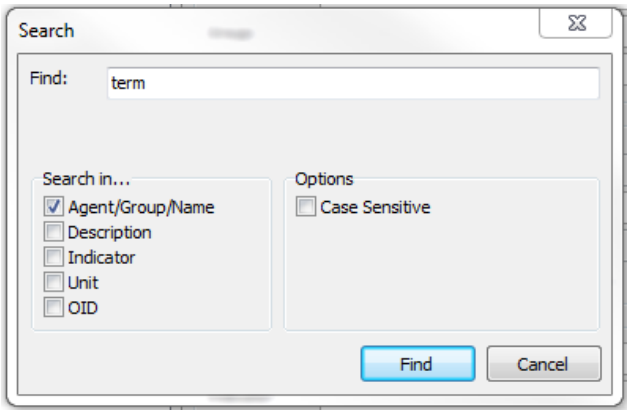
1. To add a new OID to the current library, choose **Edit | Add OID...** from the main menu. It will be added to the node of the tree you have selected currently on the left.
2. The fields **Agent** and **Group** in the **Identification** section of the new OID will be filled automatically depending on where you add the new OID in the tree. This behavior eases adding several OIDs to one group.
3. Enter your desired values in the fields on the right. See section **Changing Available Information** for the meaning of the fields.
4. Once you have provided all necessary information, click on **Apply** to confirm the changes.
5. Repeat these steps until you have added all OIDs you need.

Deleting an OID

1. To delete an OID from the current library, select it in the tree view on the left. You can also delete whole groups and agents.
2. Delete it with **Edit | Delete OID** in the main menu or with the shortcut **Ctrl+X**.

Finding an OID

1. To find a specific OID, choose **Edit | Find** from the main menu, or use the shortcut **Ctrl+F**.
2. The search window will appear.
3. Enter the term to be searched in the **Find** field.



Search Window to Find a Specific OID

4. In the **Search in...** section, specify what type of properties the term is you want to search for. Set a check mark in front of the respective type. Choose between:
   - **Agent/Group/Name**: Returns the first OID with the specified Agent, Group, or Name, as given in the **Identification** section of the OID's properties.
   - **Description**: Returns the first OID containing the term you search for in the **Description** section of the OID's properties.

- **Indicator**: Deprecated. Returns the first OID containing the the term you search for in the **Indicator** field of the OID's properties.
- **Unit**: Returns the first OID containing the term you are searching for in the **Unit** field of the OID's properties. Note: It is searched for the string in the field, not for the unit itself (this is, Bytes, Percent, or Custom).
- **OID**: Returns the first OID containing all the single OID numbers in the order you search for. This means that you can search for an OID snippet and the importer will find all OIDs containing this snippet (for example, searching for 2.1.17.1 would return the OID 1.3.6.1.2.1.17.1.1.0 amongst others containing this snippet).

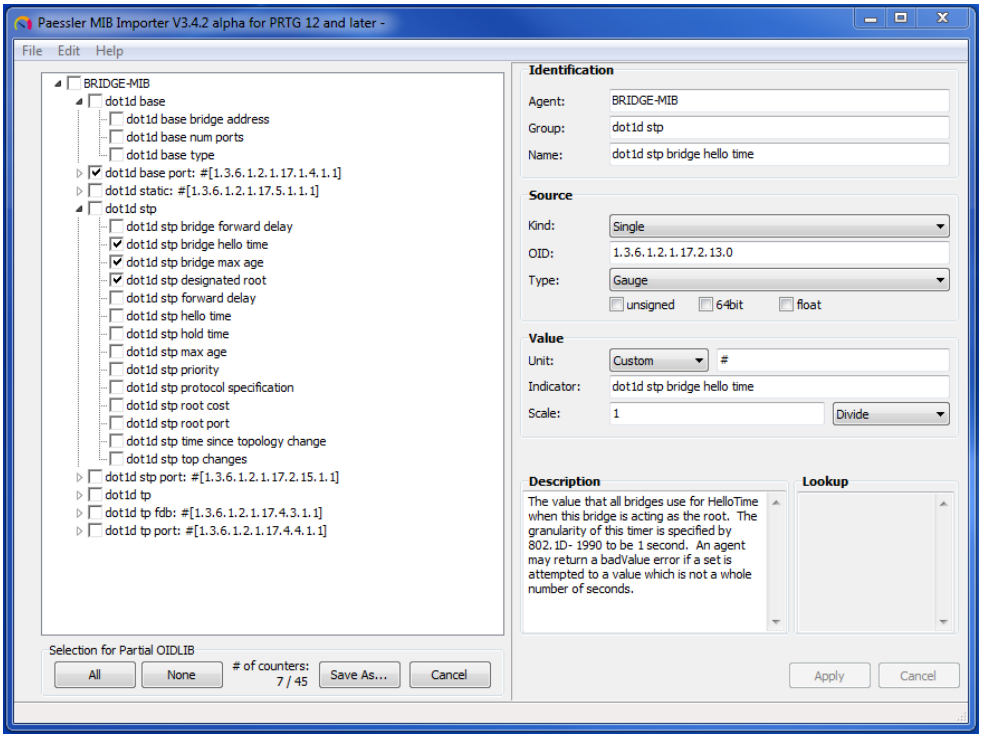
5. Optionally, define if the search term in the **Find** field is **Case Sensitive** by setting a check mark in the **Options** section.
6. To go to the next OID that matches your search term, choose **Edit | Find Next** from the main menu, or use the shortcut **F3**.
7. To go back to the OID that matches your search term and is listed before the recent found one in the tree, choose **Edit | Find Previous** from the main menu, or use the shortcut **Shift +F3**.

Replacing...

We recommend you to only use the **Replacing...** option if you are an advanced user. For more information, see section **Changing Available Information**.

3.3 Partial Selection

Usually all OIDs which are displayed in MIB Importer's tree view are saved into one SNMP library. However, once a library is loaded by opening it from the main menu, or created by importing a MIB file, you can select a subset of the counters you want to see in PRTG. Often MIBs are very long and include counters which do not interest you. **Partial Selection** enables you to choose only MIBs which are important for you.



Enabled Partial Selection

Using Partial Selection

You can start the partial selection mode in the main menu under **File | Enable Partial Selection**. The tree view displaying the counters changes its appearance. Checkboxes for all counters are available now. You can select and deselect an item by clicking the checkbox besides any counter. It is also possible to multi-select or multi-deselect all items underneath an **Agent** or a **Group** by clicking the corresponding checkboxes of agents or groups.

In the partial selection mode there is also an extra command line available at the bottom of the tree view: **Selection for Partial OIDLIB**. You can select **All** or **None** items by clicking on the corresponding buttons. In addition, the number of selected items is shown in this section: **# of counters:** [selected counters]/[all counters].

Click on the **Save As...** button to save the selected items as a new SNMP library. With **Cancel** you will leave the partial selection mode and return to the default tree view.

Clicking on **Save As...** will create a new SNMP library. Enter its name and specify the directory where the library will be stored. The original SNMP library will not be affected by this, as long as you do not use exactly the same name and path for the new library. You can also save the partial selection via **File | Save Partial Selection As...** in the main menu.

Note: Editing of the properties on the right side of MIB Importer's window is disabled during partial selection mode. See **Changing Available Information** for details about editing these properties.

3.4 Changing Available Information

With the MIB Importer you can manually edit an SNMP library file after the import. In addition, it is possible to create your own SNMP library files. This option is helpful if you do not have a vendor specific MIB file, but you know the OIDs you want to use. In most cases you will change available information, for example, names and descriptions of values, after importing an MIB file.

Note: We strongly recommend you only to edit existing and to create new SNMP library files if you are an advanced user.

Creating Your Own Libraries and Editing OIDs

In order to create own libraries, or to edit OIDs of an existing library, follow the steps below:

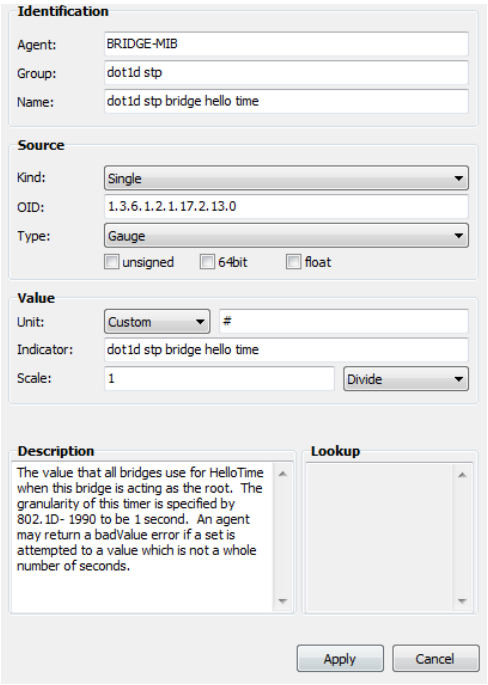
1. Create a new SNMP library file with **File | New...** in the main menu, or load an existing library with **File | Open...** to edit it.
2. You can add new OIDs, edit existing ones, or delete not needed OIDs. Repeat until you are finished.
3. Once you are satisfied with your newly created SNMP library, save the file. Select **File | Save for PRTG Network Monitor** in the main menu to save the SNMP library file for PRTG. Alternatively, you can select **File | Save Complete OIDLib As...** and manually copy the file into the \snmplibs folder of your PRTG installation.
4. In PRTG, create a new **SNMP Library Sensor** and choose the created library file. For details, see section **Using SNMP Libraries in PRTG**.

Editing an Existing OID

1. To edit an existing OID, select it in the tree view on the left.
2. Edit properties of the selected OID on the right. Enter the desired values in the corresponding fields. See below for the meaning of the fields.
3. Click on **Apply** to confirm the changes, or on **Cancel** to discard them.

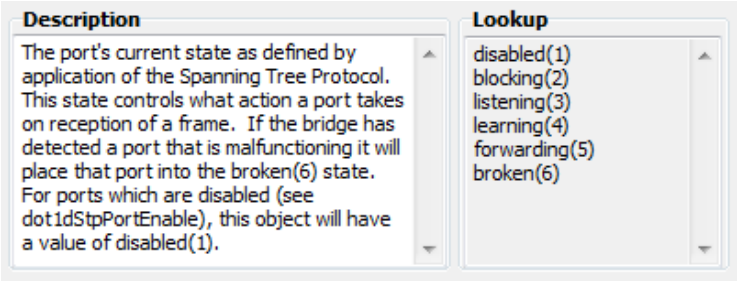
Properties of OIDs

On the right side of the MIB Importer interface, information about a selected OID is given. You can edit these properties for your own needs.



Properties of an OID

- **Identification**: defines this OID's identification parameters
  - **Agent**: the name of the MIB module this OID is in, the top most hierarchical layer of the MIB.
  - **Group**: the name of the group or table this OID is in.
  - **Name**: the name of the OID itself.
- **Source**: defines this OID's source parameters
  - **Kind**: defines if this OID is a **single** value or a **table**.
  - **OID**: the address string of the OID; it has to start with 1.3.6.1.
  - **Type**: defines the type of the OID; it can be **Gauge**, **Delta**, or **String**; if finetuning of the type is needed, you can choose **unsigned**, **64bit**, or **float** by clicking the corresponding checkbox.
- **Value**: defines the properties of a device's return value for this OID as shown in PRTG
  - **Unit**: choose between **Bytes**, **Percent**, or **Custom** in the scroll down menu to define the unit of the return value. For **Custom** provide a unit string in the field on the right.
  - **Indicator**: Deprecated. (Usually includes the name of the OID.)
  - **Scale**: defines the scaling factor of the returning value. Select **Divide** or **Multiply** in the scroll down menu, for example, if you want to convert KB into MB, select Divide and enter 1024.
- **Description**: provides a description of the current OID.
- **Lookup**: shows lookup definitions for this OID if available in the MIB. For more information about lookups and how to edit these, please see section **More**.



Lookup Values of a Port State OID

If a lookup definition is available for an OID, the corresponding code in the MIB file will look like this:

```
dot1dStpPortState OBJECT-TYPE
       SYNTAX INTEGER {
              disabled(1),
              blocking(2),
              listening(3),
              learning(4),
              forwarding(5),
              broken(6)
              }
       ACCESS read-only
       STATUS mandatory
       DESCRIPTION [...]
       REFERENCE
              "IEEE 802.1D-1990: Section 4.5.5.2"
       ::= { dot1dStpPortEntry 3 }
```

Replacing Information of an OID

1. To replace a specific information of an OID with another term, choose **Edit | Replace...** from the main menu.
2. In general, replacing works the same as finding an OID. Enter a search term and choose its type.
3. Define the term that will replace the searched term. Enter this term in the **Replace** field.
4. Click on **Replace**. The MIB Importer will search for the specified term. All matching terms will be replaced by the term you entered in the **Replace** field.

More

PRTG Manual: Define Lookups

- http://www.paessler.com/manuals/prtg/define_lookups.htm

Part 4

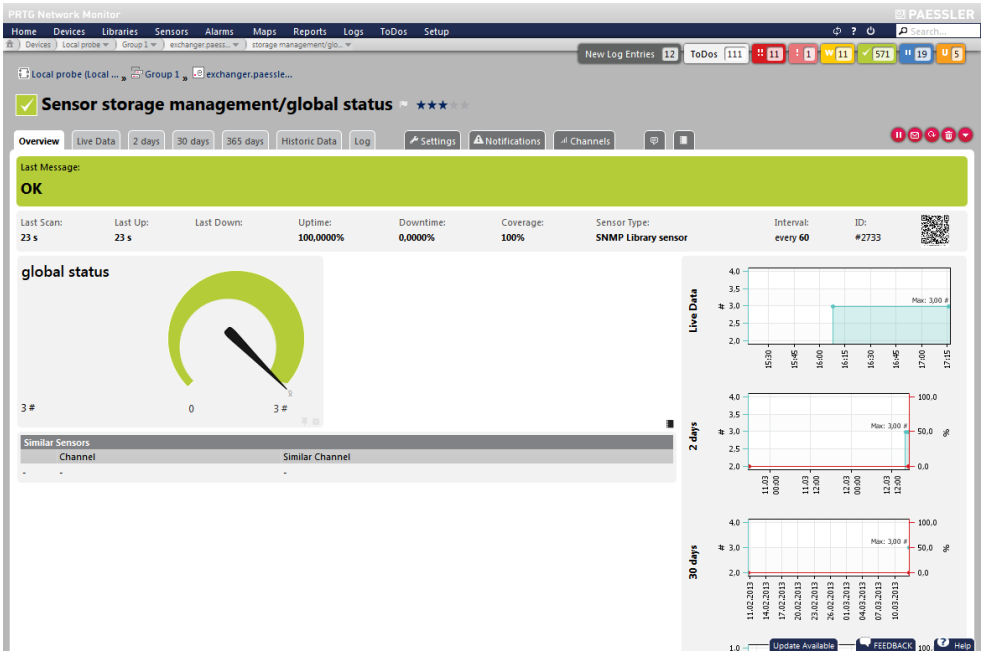
Using SNMP Libraries in PRTG

4 Using SNMP Libraries in PRTG

PRTG provides an **SNMP Library Sensor**. This sensor monitors a device using Simple Network Protocol (SNMP) in combination with the compiled Management Information Base (MIB) file—the Paessler SNMP Library files that you create with the MIB Importer. Furthermore, an **SNMP Custom String Sensor** is available to be used if the values returned by a specific OID are strings. This approach provides extended monitoring beyond the standard SNMP sensors of PRTG.

Monitoring Devices via SNMP Libraries

PRTG delivers default SNMP library files, available without converting any MIB. If the available libraries do not fit for the SNMP device you want to monitor, import MIB files as described in the present manual.



SNMP Library Sensor in PRTG Using Dell's StorageManagement-MIB

Steps to Go

1. If not done yet, create a device in PRTG representing the device you want to monitor via SNMP (see section **More**).
2. Right-click it to open the context menu and choose **Add Sensor...**
3. In the Add Sensor assistant, filter for **SNMP** in section **Technology Used?**
4. Find the entry **SNMP Library** and click on **Add This** there.
5. A popup will appear with selectable SNMP library files. Mark the desired library and click on **Ok**.

Note: If you imported a library and it is not selectable in this list, please ensure that it is available in the /snmplibs subfolder of your PRTG Network Monitor installation.

6. In the next step of the assistant dialog, choose the counter(s) in the list PRTG will create the sensor(s) for. Click on **Continue**.
7. PRTG will start monitoring the selected counters immediately.

For details about the SNMP Library sensor, please see section **More**.

More

PRTG Manual: Device Settings

- http://www.paessler.com/manuals/prtg/device_settings.htm

PRTG Manual: SNMP Library Sensor

- http://www.paessler.com/manuals/prtg/snmp_library_sensor.htm

PRTG Manual: SNMP Custom String Sensor

- http://www.paessler.com/manuals/prtg/snmp_custom_string_sensor.htm

Part 5

Trouble Shooting

5 Trouble Shooting

Not all MIB files are fully compliant to the syntax defined by the RFCs. In PRTG and the MIB Importer various workarounds are already implemented in order to import non-compliant MIB files and to make the MIB Importer tolerant to various errors.

However, you can still encounter problems with certain MIBs. Please see below for trouble shooting.

- Syntax Errors
- Missing Import File(s)
- OIDs Not Starting With 1.3.6.1
- No Useful OIDs Found
- Float Values and SNMP Version 2

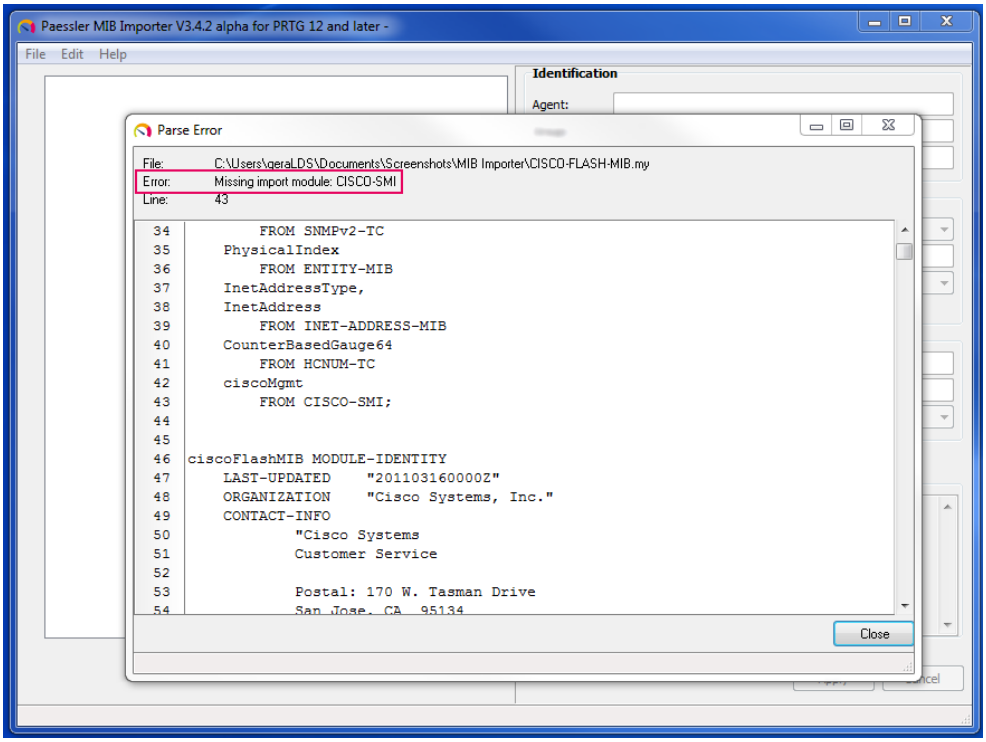
Syntax Error(s)

If the MIB Importer encounters syntax errors while importing an MIB file—or in one of its include files—an error message will appear. This message indicates the position where the MIB parser detected an irregularity in the syntax of the source code.

- Probably the position of the error is in the expression before the shown position.
- Correct the source code of the MIB or contact the vendor.
- Try to import the MIB file again.

Missing Import File(s)

The MIB Importer already includes various standard import files by default. However, one or more files can be still missing. In this case, the MIB Importer will show you a list of missing files. Most probably, these will be vendor specific include files.



Parse Error Caused by Missing Import Files

- Please obtain the missing file(s), for example, via the webpage of the specific vendor.
- Paste the files in the same directory as the imported MIB file, or in the \stdmib subfolder of the MIB Importer application directory. The MIB Importer considers only these two folders when searching for include files.
- Try to import the MIB file again.

OIDs Not Starting With 1.3.6.1.

Note that an OID always starts with the four numbers 1.3.6.1. If you encounter any OID that does not start with these digits, then most probably something is wrong:

- One or more include files of the MIB file could not be found.
- One or more parental OIDs could not be read properly.

No Useful OIDs Found

When importing an MIB file, a message might appear that OIDs were found successfully, but none of these OIDs are useful for PRTG. In such cases, the MIB file does not include any information that can be used with PRTG. Usually you will encounter this issue if the MIB file only contains the following:

- SNMP traps
- double-index OIDs

- similar counters which cannot be processed by PRTG's SNMP sensors

The MIB importer only imports objects which return an integer value. If it is possible, please try another MIB file.

Float Values and SNMP Version 2

Float values are not defined in the MIB definition of SNMP v2. However, you can define float values manually with the MIB Importer when needed. Please see section **Changing Available Information** for more details.

Part 6

Notes

6 Notes

Please consider the following notes when using Paessler MIB Importer.

Problems

There are many different formats of MIB files available nowadays. You may encounter problems with several MIB files. Please see section **Trouble Shooting** for most common errors.

Support

The MIB Importer is a free software tool for users of Paessler's network monitoring tool PRTG. It is mainly designed as an add-on for PRTG Network Monitor. Support is officially only available for paying customers which are owner of a PRTG license with an active maintenance. If in need for help with the MIB Importer, please contact Paessler's support.