

MIB Explorer Pro Features



4.x

5.x

Standards and Protocols Supported

MIB specification formats SMIv1 (RFC 1155) and SMIv2 (RFC 2578-2580).



SNMPv1 (RFC 1157), SNMPv2c (RFC 1901/1905), and SNMPv3 (RFC 3412 - 3417, RFC 3826, RFC 7860).



Transport Protocols UDP, TCP, and. All transport protocols support with IPv4 and IPv6.



TLS v1.3 (RFC 5343, 5390, 5391, 6353) support over TCP transport with IPv4 and IPv6.



New DTLS v1.2 (RFC 6347) support for TLS over UDP (DTLS) with IPv4 and IPv6



New Diffie Hellman key exchange (RFC 2786)



Platforms Supported

Java Standard Edition (SE) Runtime Environment 8 or later.



Java Standard Edition (SE) Runtime Environment 9 or later.



Query MIB Data

Browse sub-trees while detecting inconsistencies between retrieved values and MIB definition (if available).



Directly edit browsed SNMP values based on the retrieved syntax type.



Displaying MIB object instances as leaf nodes in MIB tree.



View, Edit, and Create SNMP Values

Setting single MIB instances directly from MIB tree.



Viewing and editing SNMP conceptual tables with multi-column sorting and transposable table editor.



Table editor with virtually unlimited undo/redo including row creation and deletion.



Column width for table views are (optionally) restored when table is browsed again.



Cell delta highlighting to quickly spot changed values between table refreshes.



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Commit changes to table cells row-by-row and auto-refresh set values.	✓	✓
Commit all writable columns of each changed row even if value has not been changed.	✓	✓
Filter table contents by setting a lower and/or upper bound limit.	✓	✓
Easy row creation with advanced index editor that allows to specify sub-index objects individually and according to its object format (including DISPLAY-HINT).	✓	✓
Duplicate an existing row with the table editor by providing just a new index.	✓	✓
Refresh table contents periodically and export table data to CSV, XML, and XLS.	✓	✓
Table editor detects augment and expansion table relationships and displays them optionally in a single editor.	✓	✓
View and edit scalar object instances with the table editor to quickly issue multi-variable SET requests.	✓	✓
Advanced value editors with DISPLAY-HINT format input and output, smart OID lookup by lastname, and IP address lookup by hostname.	✓	✓
View and edit related SNMP tables in a Grid table editor for better overview about sparse table relationships.	✓	✓
Multi-target table view to view and edit rows (instances) of the same table (sub-tree) for multiple agents in the same table. Compare and copy content by row and side-by-side.	✓	✓
Receive Traps, Notifications, and Inform Requests		
SNMPv1 trap, SNMPv2c/v3 notification, and SNMPv2c/v3 inform request reception with configurable severity indication.	✓	✓
Run configured scripts on behalf of incoming traps/notifications/informs depending on their notification ID.	✓	✓
Persistently save trap history (optionally also as XML).	✓	✓
New Delay INFORM responses by a configurable amount of milliseconds to debug/stress test command responder applications sending INFORM requests.		✓
MIB Specification Authoring		
Edit MIB specification files with one or more MIB modules with customizable syntax highlighting and error stripe for quickly locating errors in MIB modules.	✓	✓
Export MIB modules as XML, XML Schema, HTML, PDF, and plain text files.	✓	✓
Check MIB files for syntax errors with exact error location and accurate checking results according to SMIv1 and SMIv2 rules.	✓	✓
Auto-resolve MIB module dependencies when compiling MIB files.	✓	✓
Detect all syntax errors of a MIB file at once with the advanced error recovery of MIB Explorer's MIB compiler.	✓	✓
Auto SMI syntax completion using <Ctrl>-<Space> in MIB file editor.	✓	✓

SNMPv3

Send, receive, and analyse SNMPv3 messages with MD5 and SHA authentication and DES, 3DES, AES 128/196/256bit encryption.	✓	✓
New Send and receive SNMPv3 messages using the TLS and DTLS transport and security model.		✓
Specify authentication and encryption passphrases as plain text, decimal, or hexadecimal strings.	✓	✓
Use non-localized passphrases as well as localized ones which allows using different passphrases for the same security name on different agents.	✓	✓
Change passphrases, delete, and create remote (and optionally local) USM users on multiple SNMP entities at once (see also Administration).	✓	✓
New Create target configurations without creating any USM user in advance. Directly localize passwords into target specific keys easily.		✓

PDU Editor

Create and modify SNMP PDUs by dragging/selecting object types and instances from the MIB tree and browse results into the editor.	✓	✓
Save and open PDUs as XML and MIB Explorer's PDU files.	✓	✓
Send a PDU as GET, GETNEXT, SET, GETBULK, TRAP, and INFORM request to multiple target addresses at once.	✓	✓
New Send any PDU type quickly to the current target and get results displayed in PDU editor		✓

Debugging and Analyzing SNMP Devices/Entities

SNMP Packet Analyzer for tree structured BER decoding and hex-dumping of all sent and received SNMP messages.	✓	✓
SNMP Packet Analyzer decrypts scoped PDUs of SNMPv3 encrypted messages on the fly using MIB Explorer's user configuration.	✓	✓
Logging with configurable log levels.	✓	✓
Browse results indicate type inconsistencies between MIB specification and agent implementation as well as missing MIB specifications.	✓	✓
Use MIB sets to group a set of MIB modules together and associate targets with MIB sets for faster loading of the appropriate MIB modules for a target.	✓	✓
Auto-detect MIB modules supported by a SNMP agent and store it as a MIB set.	✓	✓
Take snapshots from agents as a whole or in parts, open and compare snapshots, apply snapshots to agents (through SNMP SETs), and merge snapshots.	✓	✓
Run stress tests against SNMP agents by using scripting (e.g. trap-gun or simulating complex configuration steps).	✓	✓
New Packet analysis supports quick search to find packets with special data fast		✓

MIB Analysis

Search a loaded MIB modules for duplicate OIDs.	✓	✓
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Search a MIB repository (= a set of compiled MIB modules) by OID, object name, description, or whole object definition with regular expressions.	✓	✓
Fully customizable script (mib2text.vm) to format MIB module as text file.	✓	✓
Example script to extract OID to object name mappings for Java (can be customized for any other programming language).	✓	✓
SNMP Data Export		
Dump MIB tree, including possibly retrieved instances, to a text file.	✓	✓
Export table data to CSV (Comma Separated Values), XLS (MS Excel®), and XML.	✓	✓
Export browse data to text file.	✓	✓
Save received traps and inform requests as PDUs for reuse in PDU editor or scripts.	✓	✓
Monitoring SNMP Entities		
Monitor SNMPv1/v2c/v3 targets and collect data in round robin database with fully configurable data consolidation and display data as 2D and 3D charts.	✓	✓
Monitor chart images (GIF, JPEG, PNG, PS, PDF) and data (CSV, XLS, HTML, ..) can be accessed via HTTP using a built-in HTTP server (see also HTTP Server).	✓	
Monitor chart images and data can be exported periodically to files.	✓	✓
Monitor configuration is highly customizable and supports index calculation and spreadsheet like expressions.	✓	✓
Monitor data passively collected from notifications and inform requests.	✓	✓
Configure alarm conditions for Monitors to send notifications, SNMP operations, E-Mails, or execute a system commands when an alarm condition is met.	✓	✓
Run MIB Explorer as a background process (headless) to server SNMP data through the built-in HTTP server and to monitor/control SNMP entities.	✓	
Monitor configuration and collected data can be saved/loaded to/from XML.	✓	✓
Monitor configuration and collected data can be stored/loaded to/from relational databases with JDBC interface.	✓	
SNMP Network Discovery		
Discovery of SNMPv1/v2c/v3 agents and other network elements by periodically scanning networks using seeds.	✓	✓

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Discovered network elements are pinged periodically for connectivity test.	✓	✓
Add SNMP objects to include in SNMP entity scan.	✓	✓
Easily add scanned SNMP entities as new targets to MIB Explorer's configuration.	✓	✓
Administration		
SNMPv3 user administration on multiple targets at once, including USM user creation for local and remote users, password modification, and user deletion.	✓	✓
Backup critical SNMP data by saving a snapshot from a table or sub-tree and restore it to an agent at a later time via SNMP SET commands.	✓	✓
TFTP server and client to backup and restore bulk data (e.g. system configuration) of SNMP devices.	✓	✓
New Automatic software update notifications with option to do an in-place update (plain Java installation) or run matching OS installer.		✓
New Protect all SNMP credentials (i.e. passwords and keys) optionally with a master password.		✓
Support		
Free informational support through the AGENTPP SNMP forum at: https://forum.snmp.app	✓	✓
One year free e-mail support from support@agentpp.com.	✓	✓
Comprehensive, non-nonsense online help (also available as PDF) and HTML scripting API documentation.	✓	✓

*New in MIB Explorer version 5.0 compared with MIB Explorer 4.x.

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