

# How to monitor the RAID system with MIB file

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Version 1.0 (NOV, 2010)

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<http://www.QsanTechnology.com>  
White Paper# **QWP201009-P300H**



## Introduction

This document introduces how to download the MIB file from the RAID system. Using the MIB file can monitor the RAID system with **MIB Browser** (the product of iReasoning, Inc).

## Environment

- Host OS:** Windows Server 2003 Enterprise Edition.
- MIB Browser:** iReasoning MIB Browser Personal Edition (version 4.0)  
<http://ireasoning.com/mibbrowser.shtml>
- RAID system:** P300Q-D212
- Firmware:** 2.0.1

## Installation

The **iReasoning MIB Browser Personal Edition** is a free MIB browser for users to manage a network device with SNMP enabled. You can just download the installer from the URL: <http://ireasoning.com/downloadmibbrowserlicense.shtml>. Just run the installer and follow the step by step processes to install it on your host.

## Configuration

1. Download the MIB file from the RAID system.

The MIB file can be downloaded from the Web UI of RAID system directly. Save it into the host and use it in the **MIB Browser** later.



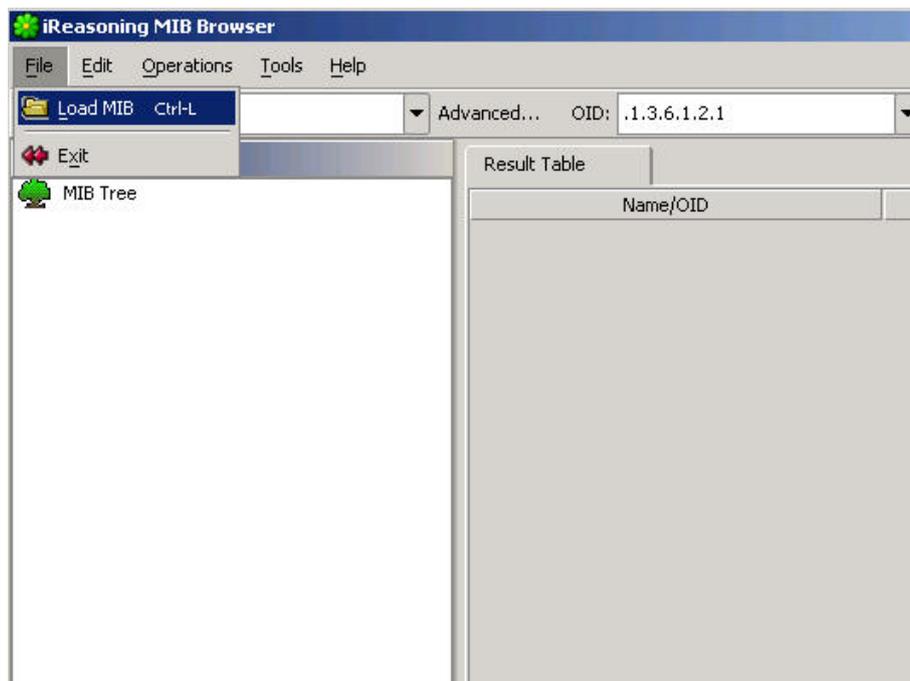
2. About the MIB file.

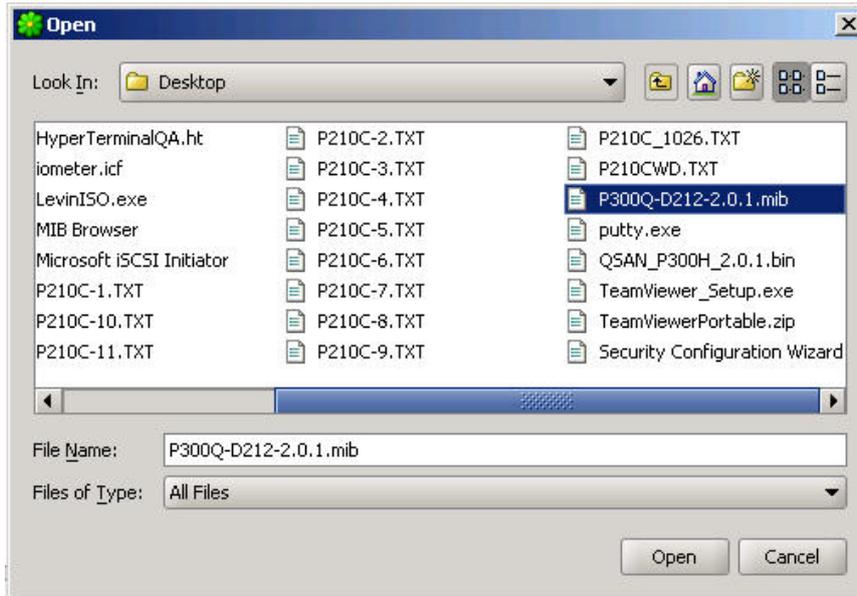
If the MIB file is opened in text editor, it can be found a description within each object. From the figure below, the object **sys-status-dual** is used to show if the RAID system operates as a dual-controller mode; the object **sys-name** is used to show the system name of the RAID system and so on. Always check the description in the MIB file if the user does not understand the value meaning.

```
sys-status-dual OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Dual controller. 1:NG, 0:OK."
    ::= { system-config-status 7 }
-- raid/system-config/setting
sys-name OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "system name"
    ::= { system-config-setting 1 }
sys-current-time OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "system current time"
    ::= { system-config-setting 2 }
```

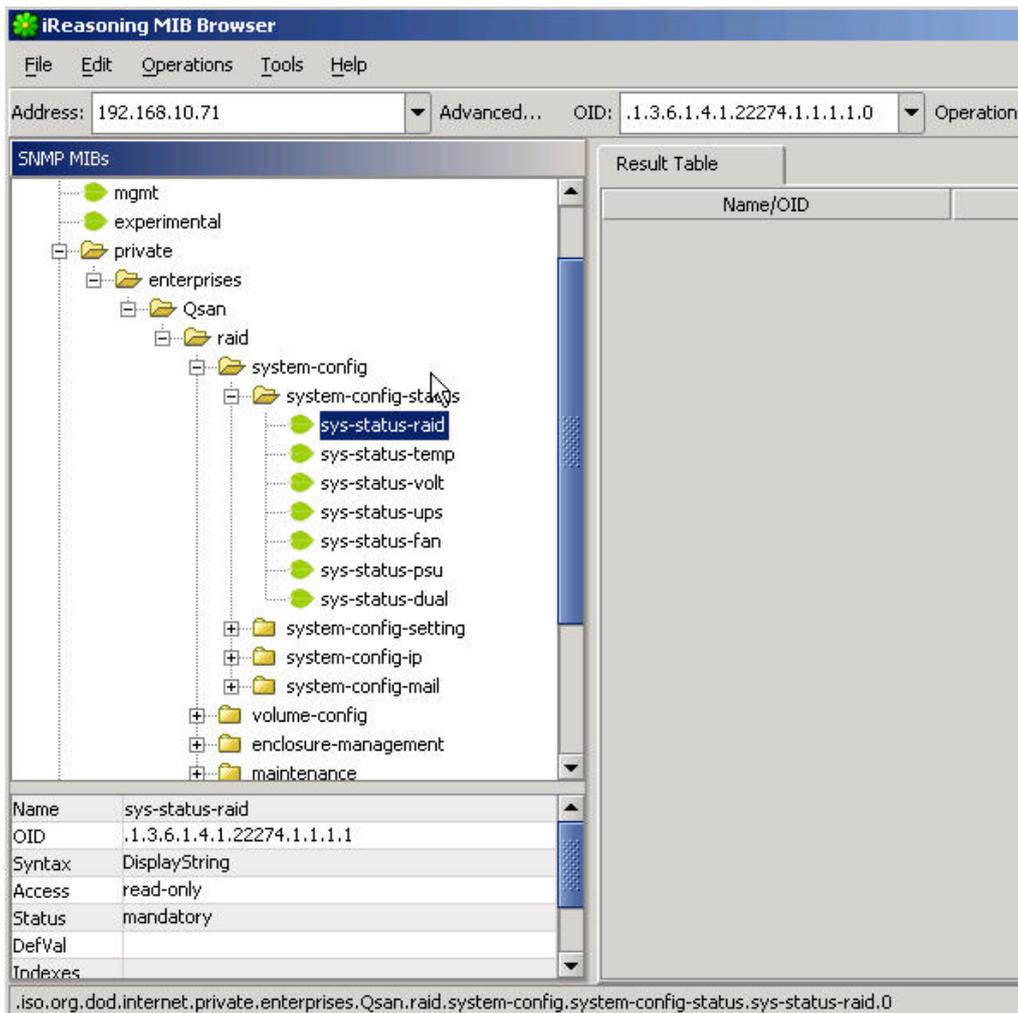
3. Load the MIB file into the MIB Browser.

Run **MIB Browser** and then load the MIB file.



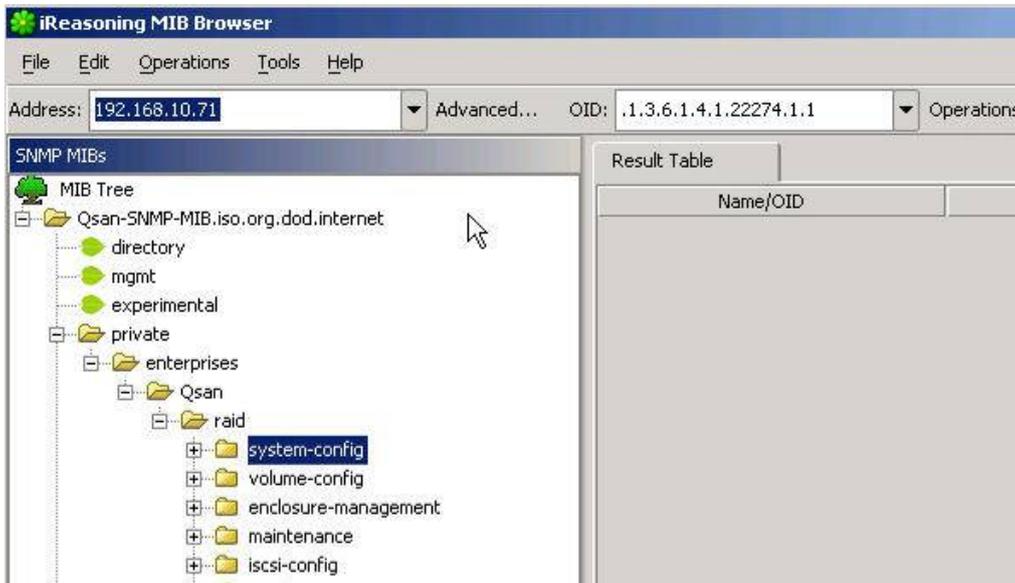


After the MIB file is loaded into the MIB Browser, the objects in the MIB file are listed as a tree structure in the SNMP MIBs window.



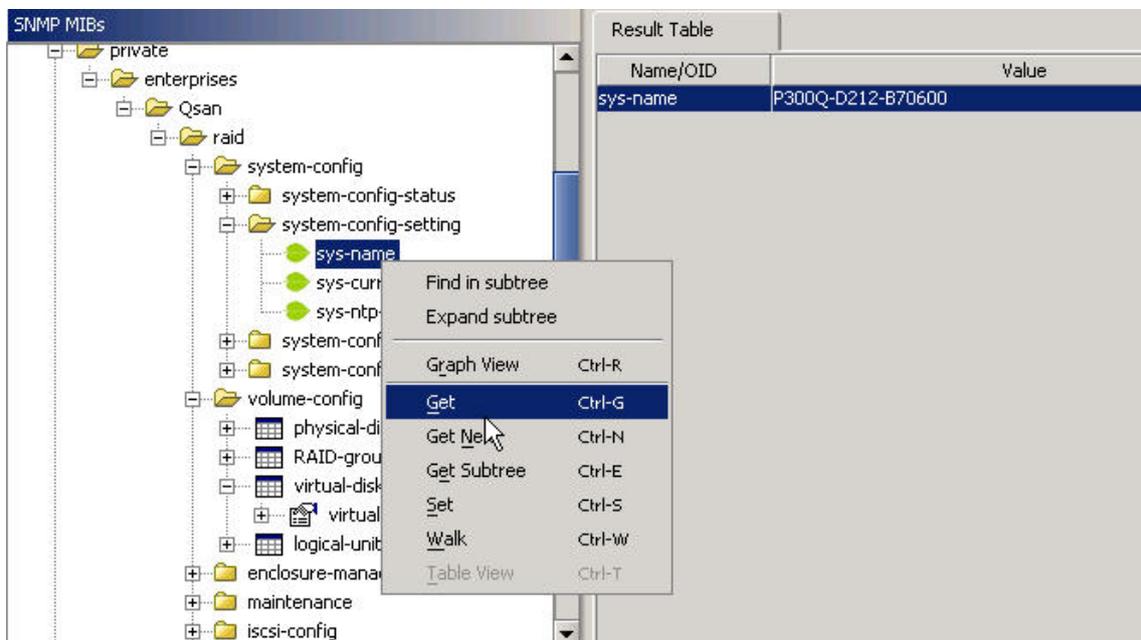
#### 4. Assign the IP of RAID system.

Assign the IP address of the RAID system in “**Address**” column.

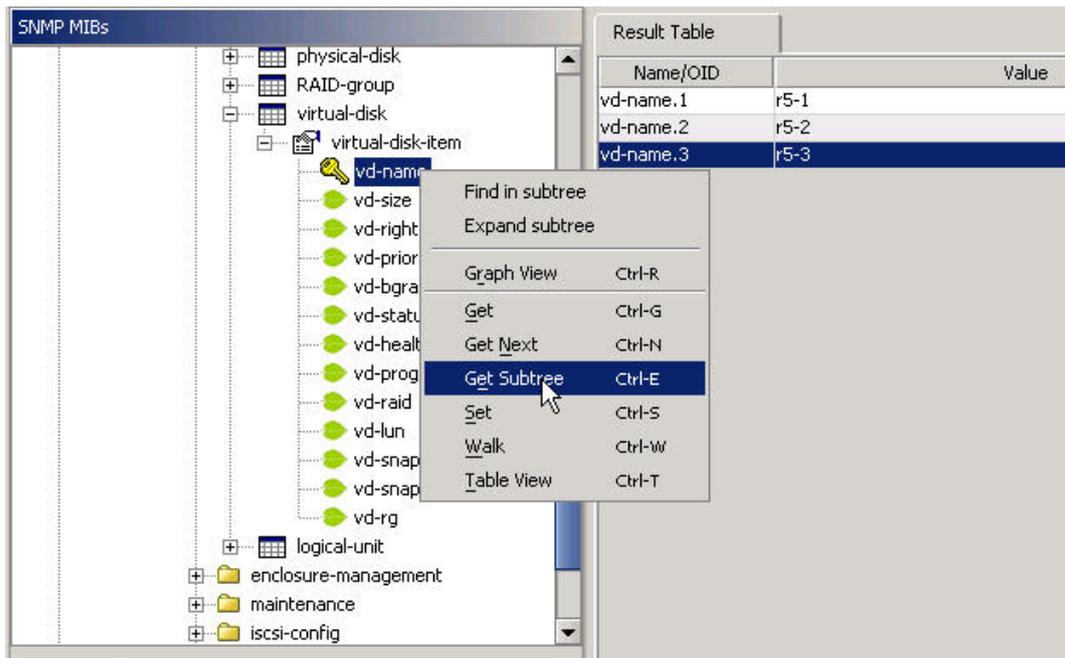


5. Query the real-time information from the RAID system.

Click “**Get**” function to retrieve the object which has single value on the RAID system, such as sys-name (system name), sys-ip (system IP of management port), and so on.



Click “**Get Subtree**” function to retrieve the object which has multiple values on the RAID system, such as pd-size (the size of physical drive), vd-name (the name of virtual disk) and so on.



## Summary

All **QSAN** RAID systems are SNMP enabled and can be managed by SNMP tools with the MIB file. This document is an example of using MIB file. For some sophisticated tools, users can define their own rules to monitor some special values of the RAID system per their needs and setup a notification automatically when the values are abnormal. **QSAN** RAID systems are ready to work with these tools.

## Applies to

- All **QSAN** redundant controllers FW 2.0.0p1 (20101118\_1200)
- All **QSAN** LVM3 single controllers FW 1.0.8p2 (20101118\_1700)
- All **QSAN** LVM2 single controllers FW 1.1.9/2.3.8 (20100908\_1100)

## References

- MIB Browser  
<http://ireasoning.com/mibbrowser.shtml>
- SNMP (Simple Network Management Protocol)  
[http://en.wikipedia.org/wiki/Simple\\_Network\\_Management\\_Protocol](http://en.wikipedia.org/wiki/Simple_Network_Management_Protocol)