Feature-based Private MIB

Ethernet Switch

ZyNOS 4.10

Support Notes

Version 4.10 Sep 2013

ZyXEL
Unleash Networking Power

Purpose

A management information database (MIB) is a virtual database used for managing the entities in a communications network. Most often associated with the Simple Network Management Protocol (SNMP). Our switches communicate with SNMP services by using specified OID and parameters.
However, there are three limitations, as discussed below.

1. It is difficult to support all of the feature that network administrator want to use, because our MIB file is designed by model to include and support standard features.
2. The same features are defined by different OIDs on some models.
3. It is inconvenient for the network administrator to configure the same feature on various kinds of models because the corresponding MIB file to access the specified switch must be loaded.

   Therefore, we have developed a new architecture on the MIB files to resolve the above problems. The following are enhancements on the MIB files.

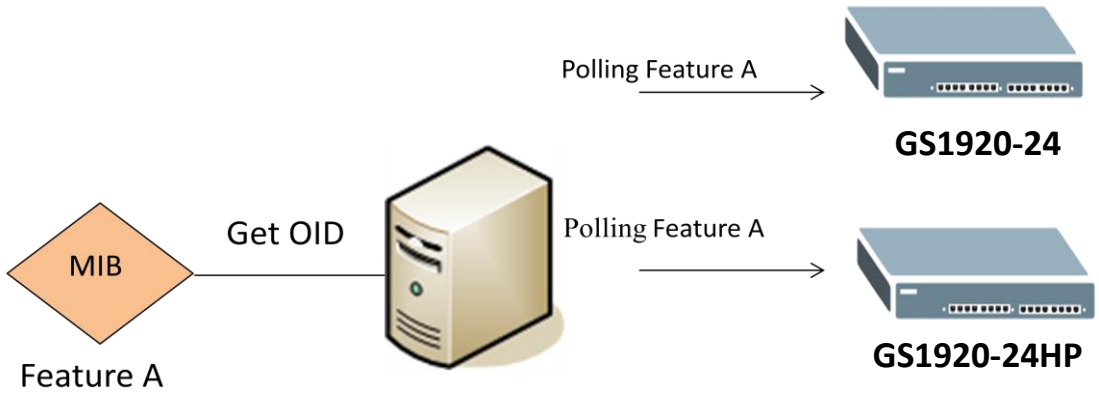
1. Compare some latest MIB files and combine it to be a big MIB file.
2. Define some rules to classify and rename these entries.
3. Regroup these features and divide the big file by feature.
4. Set specified common OIDs for each feature.

Features

In the original architecture, the network administrator must loads the corresponding MIB file if he wants to access the specified switch using the MIB browser. It is inconvenient to use if the network administrator wants to configure the same feature on various models.

For “Feature-based Private MIB”, we define a common OID for each feature and divide the MIB file by feature. The network administrator only needs to load the feature MIB file that he wants to use, and then use the same MIB file to access all the switches that support the new architecture. In addition, the network administrator can purchase a new ZyXEL switch and access it with the same MIB file.

Scenario



In this scenario, we install iReasoning MIB browser on the PC and every switch has a different IP address as the management IP address. Follow the steps for VLAN tagging on the switch.

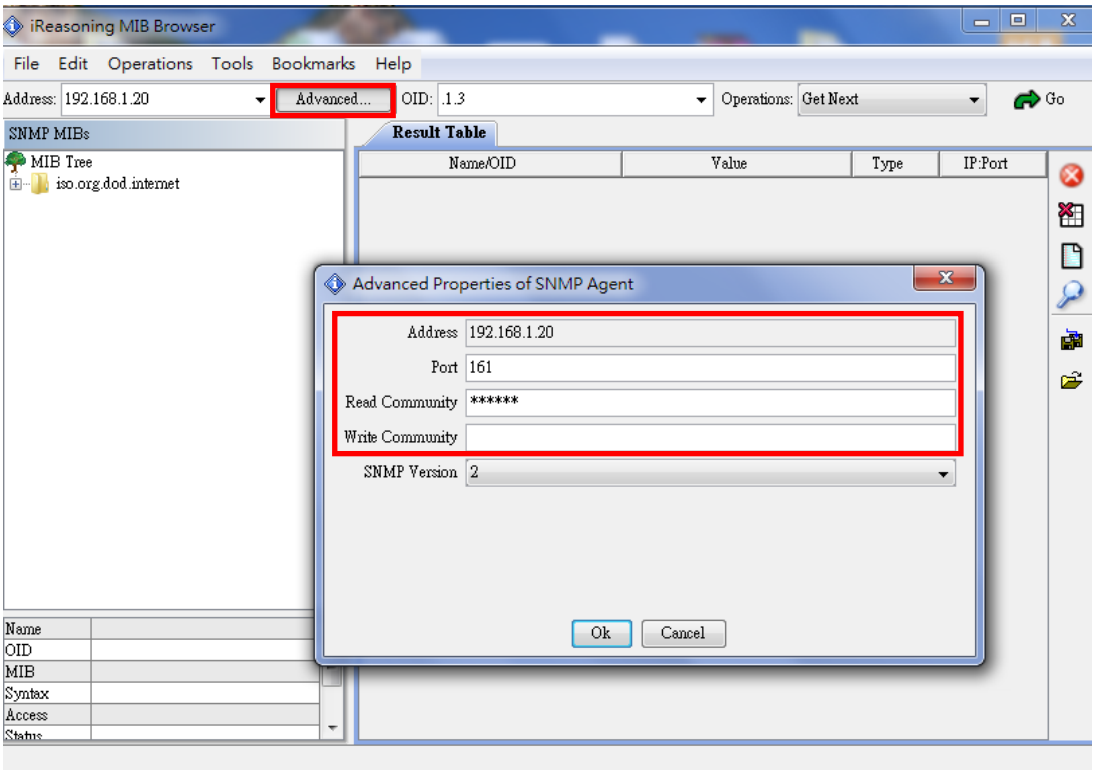
Step 1:

We have two switches with the following IP interfaces:

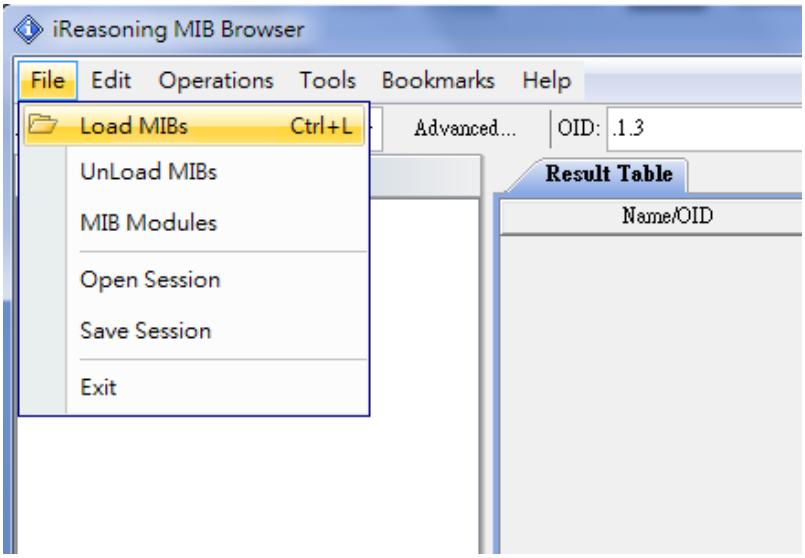
GS1920-24 IP: 192.168.1.20

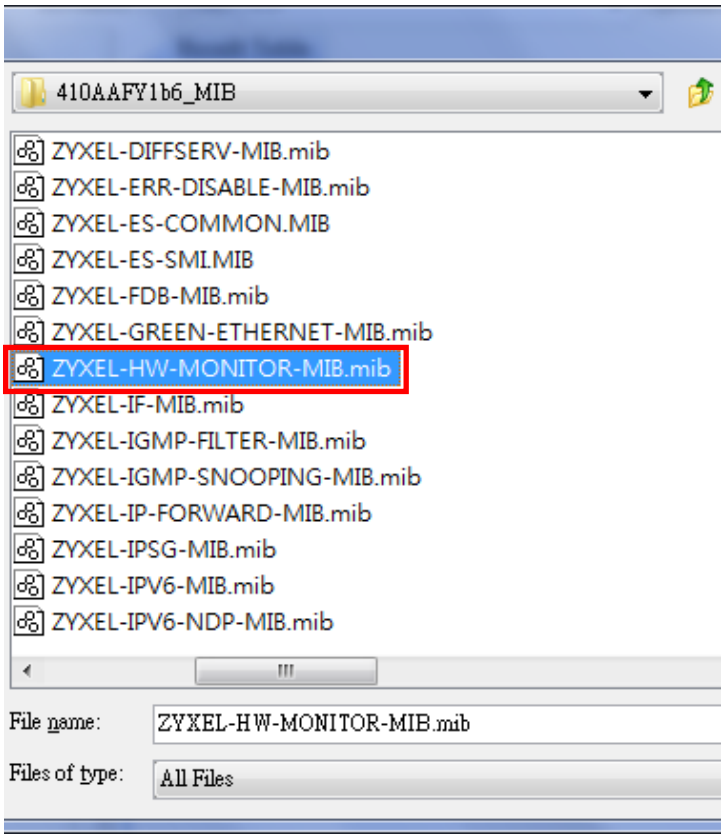
GS1920-24HP IP: 192.168.1.10

Open iReasoning MIB browser and setup port / community/ device MGMT IP address.



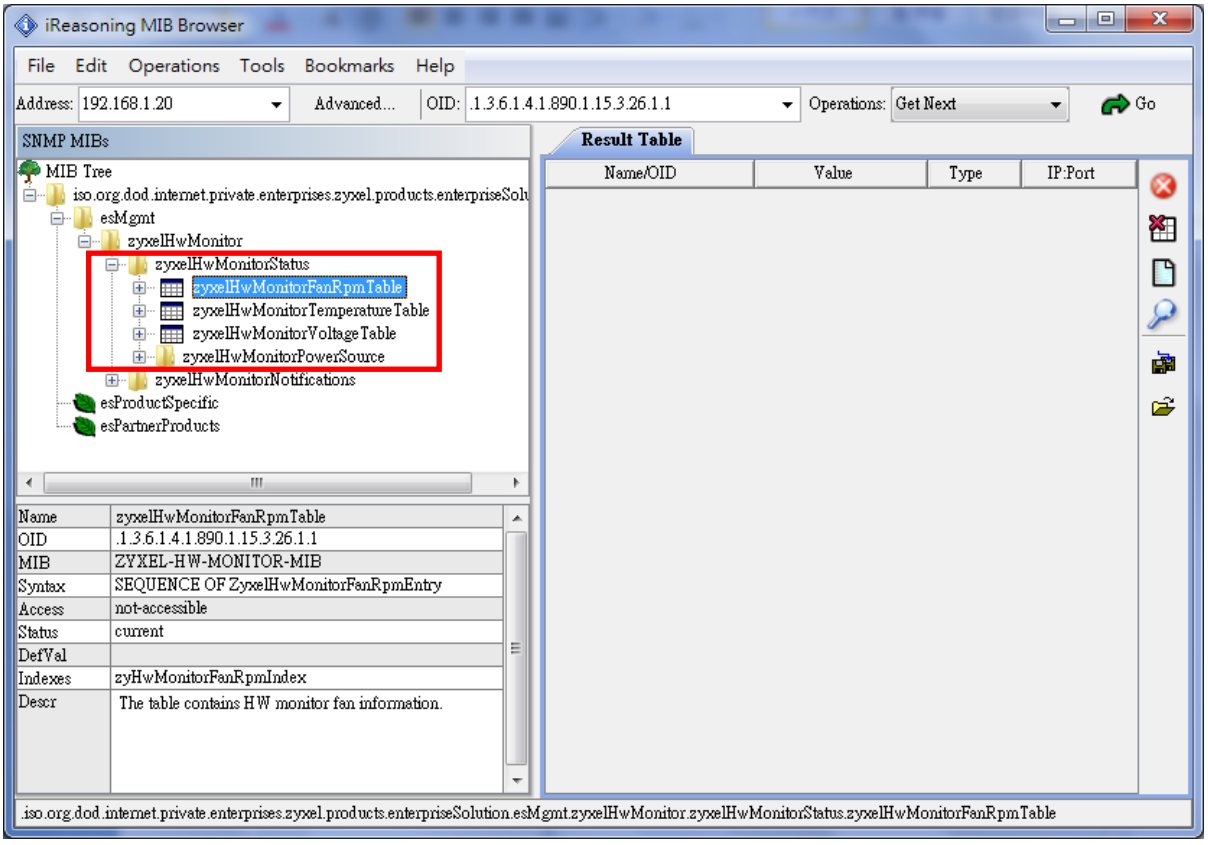
Step 2: Load the specific MIB file (HW Monitor).

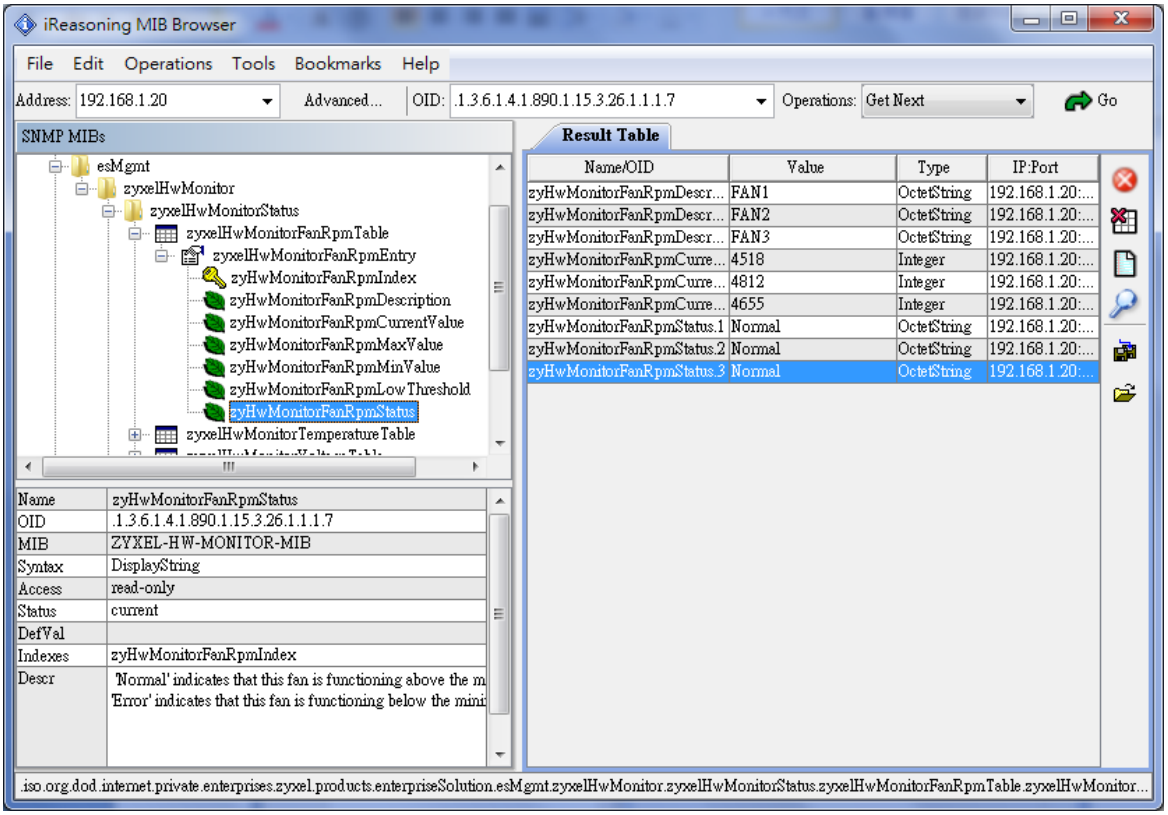


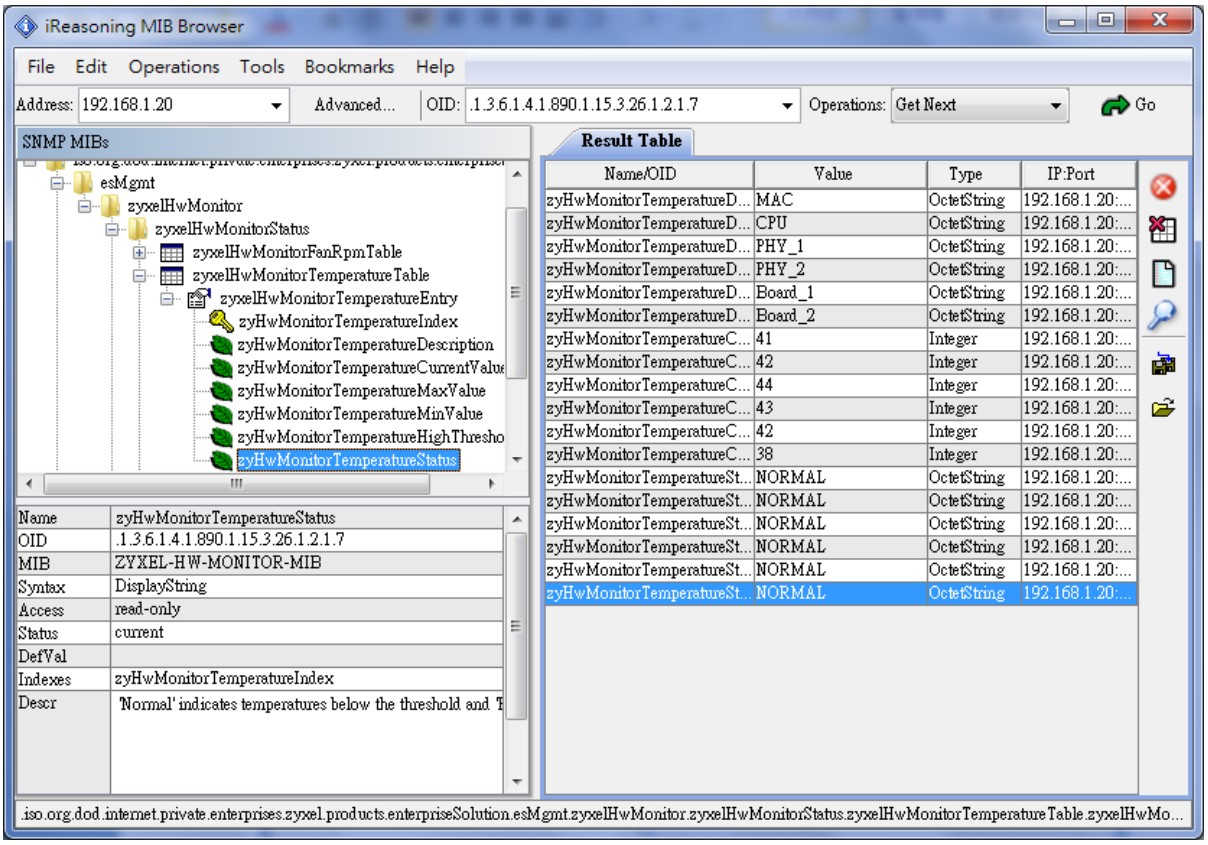


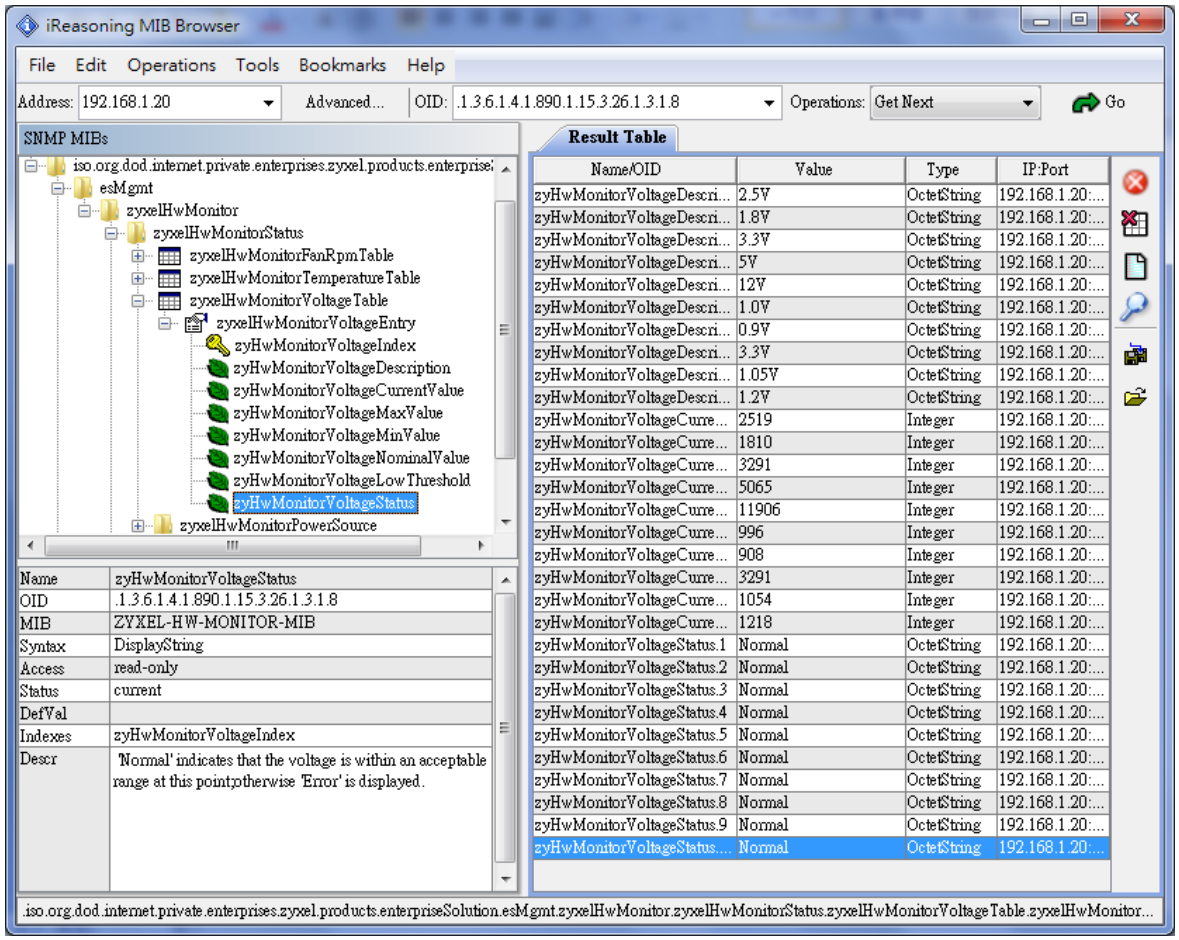
Step 3:Then we can see the MIB tree in the left window. Click on **zyxelHwMoniotrStatus** to get values

of every item on the GS1920-24.









Step 4: After checking the GS1920-24, we changed the IP address and community to check the GS1920-24HP.