

Advantech AE Technical Share Document

Date	2015 / 04 / 08	SR#	
Category	<input type="checkbox"/> FAQ <input checked="" type="checkbox"/> SOP	Related OS	Win7/ WinXP
Abstract	How to Use SNMP client with Advantech SNMP Agent		
Keyword	SNMP		
Related Product	UNO-2362G-T2AE/ TPC-1840WP/ TPC-2140WP/ SPC-1840WP/ SPC-2140WP/ ADAM-5560 UNO-2272G-N2AE/ TPC-8100TR/ UNO-2473G-ExAE/ TPC-1251T-ExAE UNO-2174G-C54E/ UNO-2184G-Dx4E/ UNO-3083(85)G-D44E/ UNO-3083(85)G-D64E UNO-1483G-4xxAE/ UNO-2483G-4xxAE/ TPC-1582H-4xxAE/ TPC-1782H-4xxAE/ TPC-1581WP-4xxAE/ IPPC-6152A		

■ **Problem Description:**

■ **Brief Solution - Step by Step:**

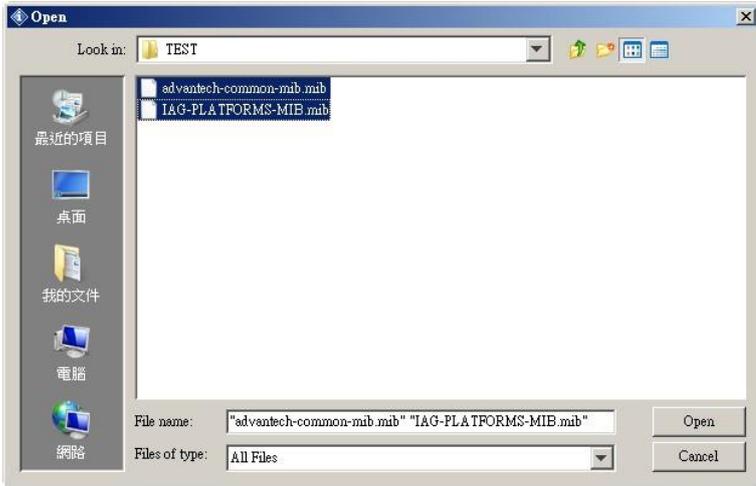
We use 3-party snmp client tool for example in this document. Please download software from link:
<http://ireasoning.com/mibbrowser.shtml>

NOTE. On SNMP Sub-Agent Device, you must select “Accept SNMP package from all host”, please check setting in property of SNMP Service of Windows Service.

1. Once you installed and run iReasoning MIB browser, please load MIB.



- The MIB files are available after you install SNMP agent. (C:\program files\Advantech\AdvSNMPAgent\Mib). So please copy these two files to your client platform in advance.



- Please enter the IP address of SNMP server in MIB browser



4. For example, you could find **sysDeviceName** as following photo, and there is also description in bottom of window.

The screenshot shows the iReasoning MIB Browser interface. The MIB Tree on the left is expanded to show the path: iso.org.dod.internet > mgmt > private > enterprises > advantech > advantechCommonMIB > atSystem > sysDeviceName. The details pane on the right contains the following information:

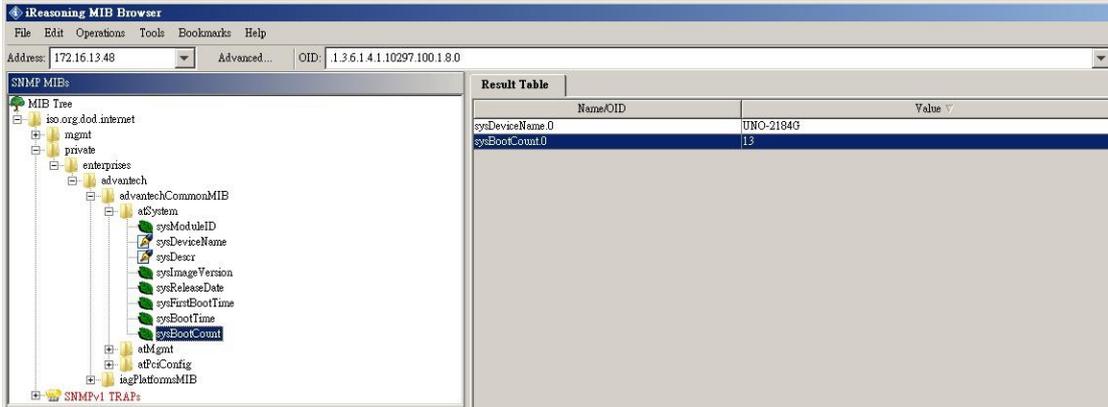
Name	sysDeviceName
OID	.1.3.6.1.4.1.10297.100.1.2
MIB	ADVANTECH-COMMON-MIB
Syntax	DISPLAYSTRING
Access	read-write
Status	current
DefVal	
Indexes	
Descr	The user defined name of the device, e.g. alias name, may be its device location.

5. Please double click on sysDeviceName, and SNMP Server will reply the device name message at right side of window.

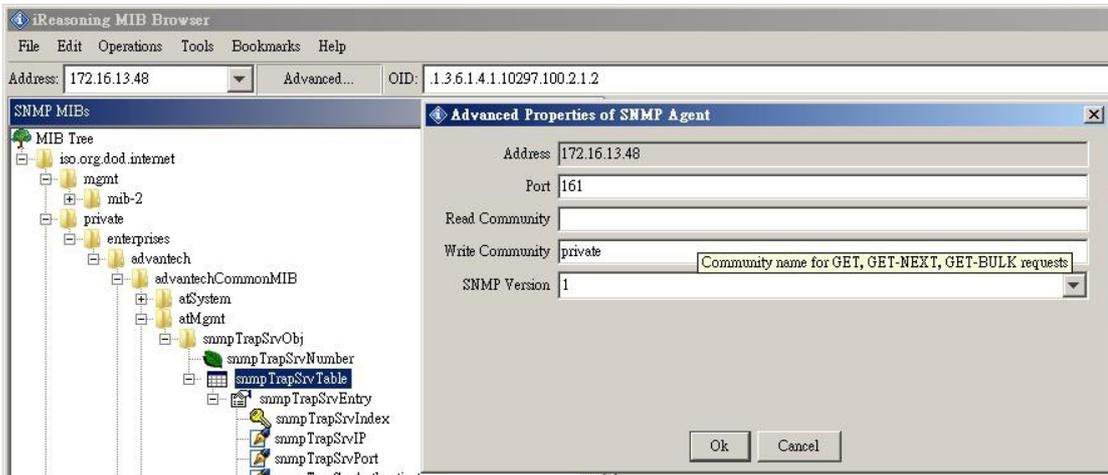
The screenshot shows the iReasoning MIB Browser interface after clicking on sysDeviceName. The MIB Tree on the left is expanded to show the path: iso.org.dod.internet > mgmt > private > enterprises > advantech > advantechCommonMIB > atSystem > sysDeviceName. The Result Table on the right displays the following information:

Name/OID	Value
sysDeviceName.0	UNO-2184G

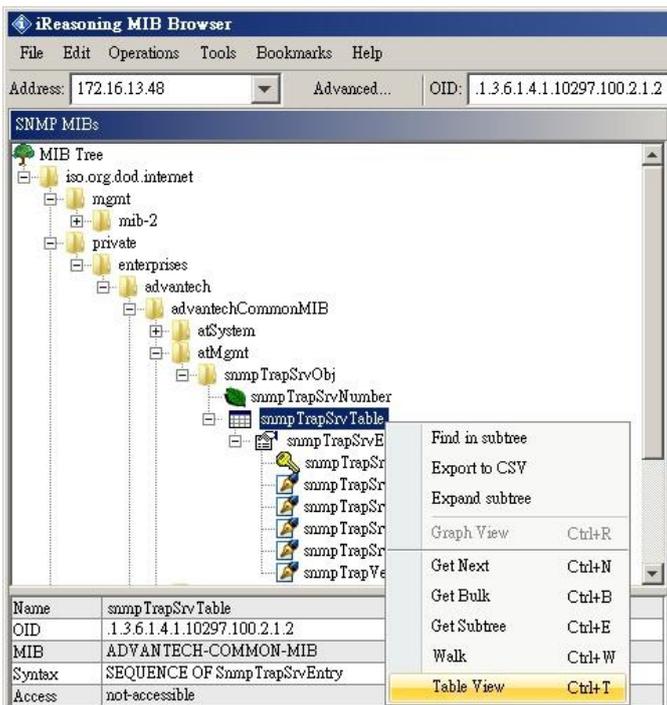
6. You could also double click **sysBootCount** to get reboot counter value from SNMP server for example.



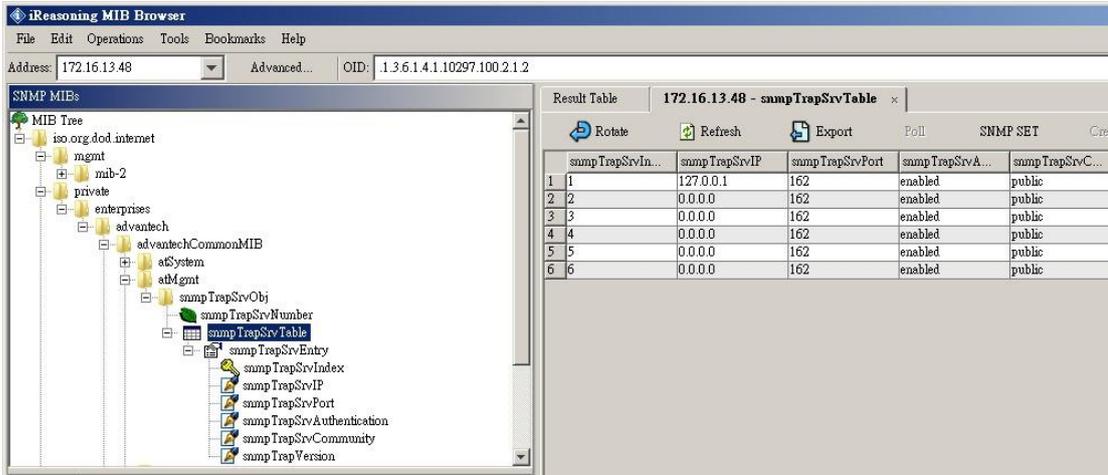
7. We also have TRAP function which could notify SNMP client if there is alarm event. For example, if the voltage is abnormal, SNMP will send trap to notify user automatically. Before we start, please click **Advanced** button and enter **private** in "Write Community" filed.



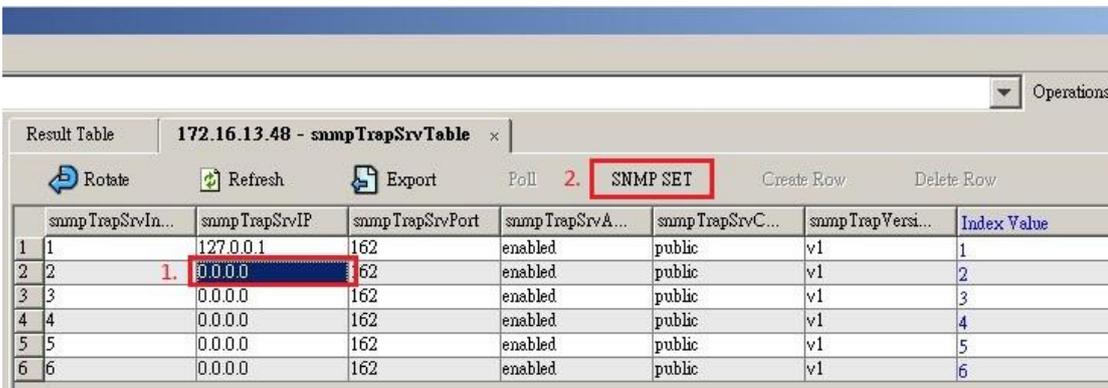
8. Find **snmpTrapSrvTable** and right-click, then click Table View.



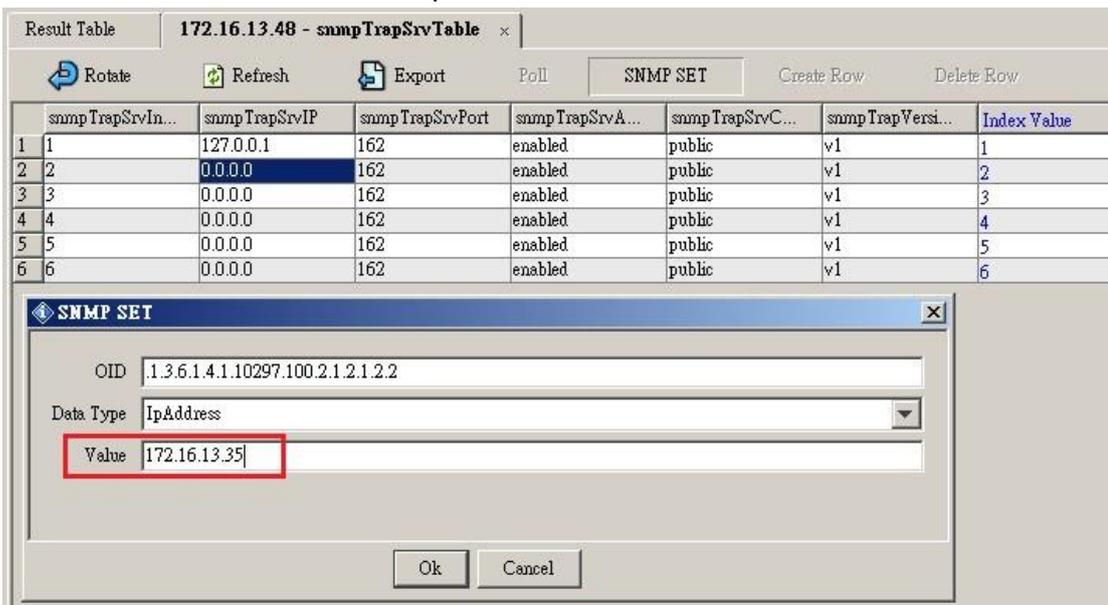
9. The Trap Server Table will show in right side of window.



10. At first, click one textfield of snmpTrapSrvIP, and click button "SNMP SET"



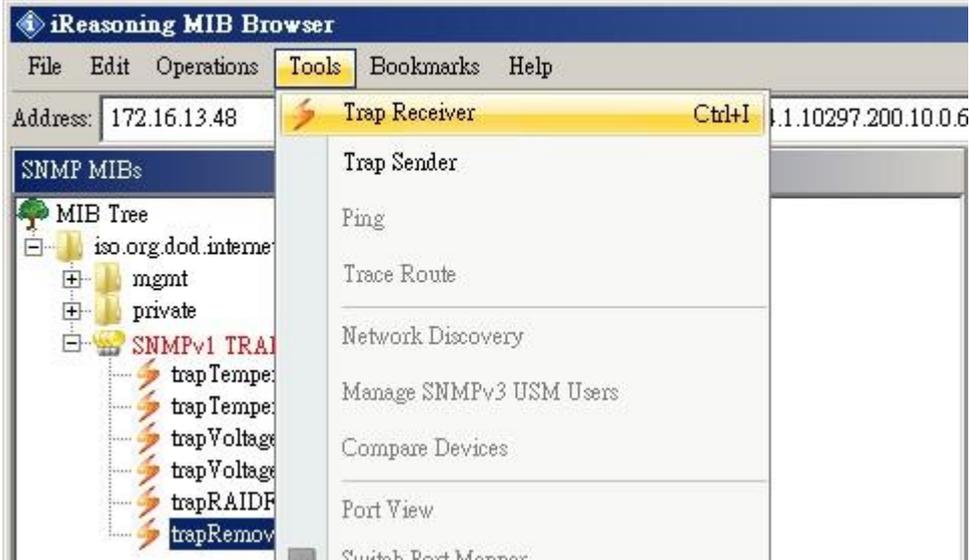
11. Enter the IP address of client platform in Value field.



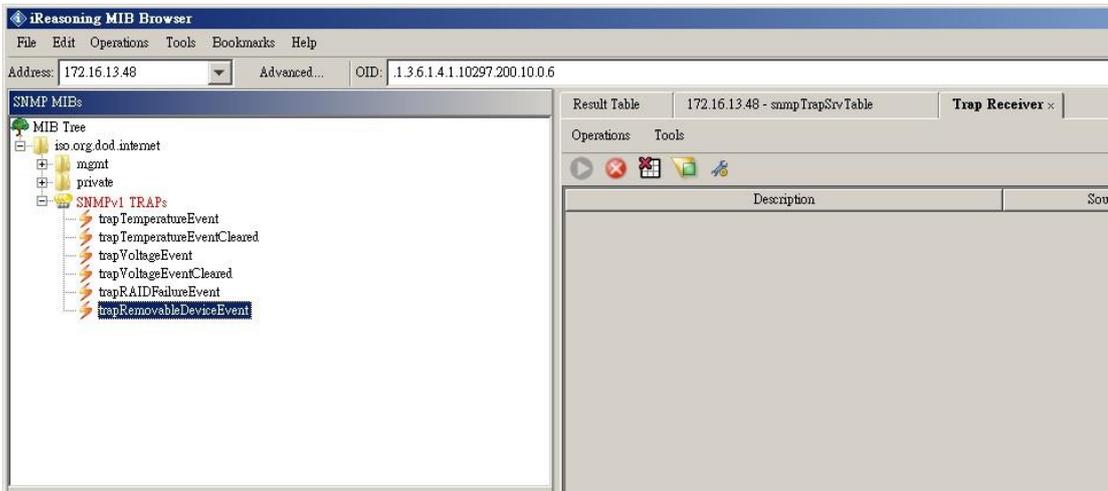
12. This message box is supposed to be showed up.



13. Tools → Trap Receiver



14.



15. There is a Trap could receive notification if any device changed on SNMP server.
Please plug/remove USB hard drive from SNMP server and verify if it works.

The screenshot shows the Reasoning MIB Browser interface. On the left, the MIB tree is expanded to show the trapRemovableDeviceEvent. The main pane displays a table of trap events and detailed information for the selected event.

Description	Source	Time	Severity
trapRemovableDeviceEvent	172.16.13.48	2014-10-16 15:03:37	
trapRemovableDeviceEvent	172.16.13.48	2014-10-16 15:03:37	

Source: 172.16.13.48 Timestamp: 28 minutes 57 seconds SNMP Version: 1
 Enterprise: iso.org.dod.internet.private.enterprises.advantech.iagPlatformMIB.platformTrapObjs
 Specific: 6
 Generic: enterpriseSpecific
 Variable Bindings:
 Name: iso.org.dod.internet.private.enterprises.advantech.iagPlatformMIB.peripheralGroup.hardwareDetectObj.hwdTable.hwdEntry.hwdDeviceType.28
 Value: [Integer] disk_device (2)
 Name: iso.org.dod.internet.private.enterprises.advantech.iagPlatformMIB.peripheralGroup.hardwareDetectObj.hwdTable.hwdEntry.hwdEvent.28
 Value: [Integer] insert (1)
 Name: iso.org.dod.internet.private.enterprises.advantech.iagPlatformMIB.peripheralGroup.hardwareDetectObj.hwdTable.hwdEntry.hwdFriendlyName.28
 Value: [OctetString] 0x38 9C 45 01 02
 Description: "The device insertion/ removal event."

16. For example of temperature trap. Please set tpMax as 20 and enabled

The screenshot shows the Reasoning MIB Browser interface with the temperature trap configuration table visible.

tpIndex	tpName	tpUnit	tpValue	tpMax	tpMin	tpGetTime	tpState
1	CPU #0 Core #0	degree(s) Celsius	44	20	0	0xd07 D7 01 1D 00...	enabled
2	Board temperature	degree(s) Celsius	28	255	0	0xd07 D7 01 1D 00...	disabled

(Zoom In)

This is a zoomed-in view of the temperature trap configuration table from the previous screenshot.

tpIndex	tpName	tpUnit	tpValue	tpMax	tpMin	tpGetTime	tpState
1	CPU #0 Core #0	degree(s) Celsius	44	20	0	0xd07 D7 01 1D 00...	enabled
2	Board temperature	degree(s) Celsius	28	255	0	0xd07 D7 01 1D 00...	disabled

17. Now you will receive a trap which notify the temperature is abnormal.

Description	Source	Time
trapTemperatureEvent	172.16.12.229	2015-01-08 16:19:27

Source: 172.16.12.229 **Timestamp:** 1 hour 27 minutes 55 seconds **SNMP Version:**
Enterprise: .iso.org.dod.internet.private.enterprises.advantech.iagPlatformsMIB.platformTrapObjs
Specific: 1
Generic: enterpriseSpecific
Variable Bindings:

Name: .iso.org.dod.internet.private.enterprises.advantech.iagPlatformsMIB.monitorGroup.temperatureObj.tpTable.tpEntry.tpIndex.1
Value: [Integer] 1

Name: .iso.org.dod.internet.private.enterprises.advantech.iagPlatformsMIB.monitorGroup.temperatureObj.tpTable.tpEntry.tpValue.1
Value: [OctetString] 44

Name: .iso.org.dod.internet.private.enterprises.advantech.iagPlatformsMIB.monitorGroup.temperatureObj.tpTable.tpEntry.tpMax.1
Value: [OctetString] 20

Name: .iso.org.dod.internet.private.enterprises.advantech.iagPlatformsMIB.monitorGroup.temperatureObj.tpTable.tpEntry.tpMin.1
Value: [OctetString] 0

Description: "Critical Under-Temperature problem. tpIndex, tpValue, tpMax, tpMin"

■ **Reference:**

N/A