

Advantech AE Technical Share Document

Date	2015 / 04 / 08	SR#			
Category	□ FAQ ■ SOP	Related OS	Win7/ WinXP		
Abstract	How to Use SNMP client wit	h 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: <u>http://ireasoning.com/mibbrowser.shtml</u>

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.

File	Edit Operations Tools	Bookmarks Help
D	Load MIBs Ctrl+L	Advanced OID: 1.3
	UnLoad MIBs MIB Modules	2
	Open Session Save Session	-2
	Exit	

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2. 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.

🚯 Open							×
Look in:	퉬 TEST				-	1 😕 🛄 🖬	3
最近的項目	advantec]	-common-mib TFORMS-MIB	mib mib				
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北 我的文件							
電腦							
(File name:	"advantech-c	ommon-mib.r	nib" "IAG-PLATFO	RMS-MIB.mil)"	Open
網路	Files of type:	All Files					Cancel

3. 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.

🚯 iRea	soning MIB Browser
File 1	dit Operations Tools Bookmarks Help
Address:	172.16.13.48 Advanced OID: 1.3.6.1.4.1.10297.100.1.2.0
SNMP 1	fIBs
	Tree so.org.dod.internet mgmt private enterprises advantech advantechCommonMIB atSystem sysNoduleID sysDeviceName SysDeviceName SysDescr sysDescr sysReleaseDate sysReleaseDate sysReleaseDate sysReleaseDate sysReleaseDate sysReleaseDate sysBootTime sysBootTime sysBootTime sysBootTime sysBootCount enterprises enterprises sysBootCount enterprises sysBootCount enterprises sysBootCount enterprises sysBootCount enterprises sysBootCount enterprises sysBootCount enterprises sysBootCount enterprises sysBootCount enterprises enterprises enterprises sysBootCount enterprises sysBootCount enterprises sysBootCount enterprises sysBootCount enterprises sysBootCount enterprises sysBootCount enterprises sysBootCount enterprises sysBootCount enterprises enterprises enterprises enterprises enterprises enterprises enterprises enterprises enterprises enterprises enterprises ente
Name	sysDeviceName
OID	1.3.5.1.4.1.10297.100.1.2 ADVANTECH COMMON MIR
MIB	ADYAN IBCH-COMMON-MIB
Syntax	DISTLATSTRING mad units
Access	1880-Wills
STATUS	COTENT
Derval	
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.





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



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.

🔹 iReasoning MIB Browser		
File Edit Operations Tools Bookmarks Help		
Address: 172.16.13.48 Advanced OID	D: 1.3.6.1.4.1.10297.100.2.1.2	
SNMP MIBs	Advanced Properties of SNMP Agent	×
MIB Tree iso.org.dod.internet mgmt mib-2 private enterprises advantech advantech adventechCommonMIB adventechCommonStructure adventechCommonStructure adventechCommonStructure adventechCommonMIB adventechCommonMIB adventechCommonMIB adventechCommonMIB adventechCommonStructure adventech	Address 172.16.13.48 Port 161 Read Community Write Community private SNMP Version 1 Ok Cancel	

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

A IKeast	oning MIB Browser		
File Ed	it Operations Tools Bookmarks Help		
ddress: 1	172.16.13.48 💌 Advanced	OID: .1.3.6.1.4.	1.10297.100.2.1
NMP MI	Bs		
	ree o.org.dod.internet mgmt 		-
	atlystein atlystein atlystein sump TrapSrvObj sump TrapSrvNumber 	Find in subtree Export to CSV Expand subtree Graph View	Cttl+R
	atMystelli atMyst	Find in subtree Export to CSV Expand subtree Graph View Get Next Cat Paulo	Ctri+R Ctri+N
ame	atMgmt atMgmt smmp TrapSrvObj smmp TrapSrvNumber smmp TrapSrvTable smmp TrapSrv smmp TrapSrv	Find in subtree Export to CSV Expand subtree Graph View Get Next Get Eulk	Ctrl+R Ctrl+N Ctrl+B
ame ID	sump TrapSrv Table sump TrapSrv Table sump TrapSrv Table sump TrapSrv Table sump TrapSrv sump T	Find in subtree Export to CSV Expand subtree Graph View Get Next Get Bulk Get Subtree	Ctri+R Ctri+N Ctri+B Ctri+E
ame ID IIB	samp TrapSrv Table 1.3.6.1.4.1.10297.100.2.1.2 ADVANTECH-COMMON-MIB STOULED CE Song TapSrv Elector	Find in subtree Export to CSV Expand subtree Graph View Get Next Get Bulk Get Subtree Walk	Ctrl+R Ctrl+N Ctrl+B Ctrl+E Ctrl+W



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

🚯 iReasoning MIB Browser						
File Edit Operations Tools Bookmarks Help						
Address: 172.16.13.48 Advanced OID: 1.3.6.1.4.1.10297.100.2.1.2						
SNMP MIBs	Result 1	lable	172.16.13.48 - snu	npTrapSrvTable	×	
MIB Tree	Þ	Rotate	🗳 Refresh	Export	Poll SNI	MP SET Cree
	snmj	pTrapSrvIn	snmp TrapSrvIP	snmp TrapSrvPort	snmp TrapSrvA	snmpTrapSrvC
± mib-2			127.0.0.1	162	enabled	public
	2 2		0.0.0	162	enabled	public
- enterprises	3 3		0.0.0.0	162	enabled	public
alivaniech aduratebCommonMID	4 4		0.0.0.0	162	enabled	public
	5 5		0.0.0.0	162	enabled	public
ath/ant	6 6		0.0.0.0	162	enabled	public
amp TrepSrvObj amp TrepSrvNumber amp TrepSrvHable amp TrepSrvHable amp TrepSrvEntry amp TrepSrvPort amp TrepSrvPort amp TrepSrvPort amp TrepSrvCommunity amp TrepSrvCommunity amp TrepSrvCommunity amp TrepSrvCommunity						

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

Result Table	172.16.13.48 - sn	mpTrapSrvTable	×			
le Rotate	🔊 Refresh	Export Export	Poll 2. SNI	MP SET Crea	ate Row Dele	ete Row
snmp TrapSrvI	n snmpTrapSrvIP	snmp TrapSrvPort	snmp TrapSrvA	snmp TrapSrvC	snmp Trap Versi	Index Value
1	127.0.0.1	162	enabled	public	v1	1
2	1. 0.0.0.0	62	enabled	public	v1	2
3	0.0.0.0	162	enabled	public	v1	3
4	0.0.0.0	162	enabled	public	v1	4
5	0.0.0.0	162	enabled	public	v1	5
6	0000	162	enabled	nublic	v1	6

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

snmp Tra	pSrvIn	snmp TrapSrvIP	snmp TrapSrvPort	snmp TrapSrvA	snmpTrapSrvC	snmp Trap Versi	Index Valu
1		127.0.0.1	162	enabled	public	v1	1
2		0.0.0.0	162	enabled	public	v1	2
3		0.0.0.0	162	enabled	public	v1	3
4		0.0.0.0	162	enabled	public	v1	4
5	1	0.0.0	162	enabled	public	v1	5
6		0.0.0.0	162	enabled	public	v1	6
O. Data Tyr	D .1.3.6.	1.4.1.10297.100.2.1	1.2.1.2.2				
O) Data Ty	D .1.3.6.: pe IpAdd:	1.4.1.10297.100.2.1 ress	1.2.1.2.2			•	
O! Data Ty Val	D .1.3.6.1 pe IpAdd: ne 172.16	1.4.1.10297.100.2.1 ress .13.35	1.2.1.2.2			_	
O) Data Ty Val	D .1.3.6.1 pe IpAdd: me 172.16	1.4.1.10297.100.2.1 ress i.13.35	1.2.1.2.2				



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

SET suc	ceeded	×
0	SET succeeded	
	OK	

13. Tools \rightarrow Trap Recevier

🚯 iReasoning MIB Bro	wsei		
File Edit Operations	Tools Bookmarks Help		
Address: 172.16.13.48	🍎 Trap Receiver	Ctrl+I	1.1.10297.200.10.0.6
SNMP MIBs	Trap Sender		
MIB Tree	Ping		
⊡ iso.org.dod.interne ⊡ mgmt	Trace Route		
⊡-∰ private ⊡-∰ SNMPv1 TRAI	Network Discovery		
trap Tempe: 5 trap Tempe:	Manage SNMPv3 USM Users		
	Compare Devices		
	Port View		
Паркеноч	Cuitab Part Manner		

14.

iReasoning MIB Browser The Declaration Hole				
Pile Edit Operations Ioojs Bookmarks Heip Address: 172.16.13.48 Advanced OID: 1.3.6.1.4.1.10297.200.10.0	.6			
SNMP MIBs	Result Table	172.16.13.48 - snmpTrapSrvTable	Trap Receiver ×	
MIB Tree	Operations T	ools		
E and the second memory of the second	0 3 街	1 16		
E SNMFvl TRAPE trapTemperatureEvent trapToltageEvent trapToltageEventCleared trapToltageEventCleared trapRAIDFailureEvent trapRemovableDeviceEvent		Description .		iour



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.

l vl

File Edit Operations Tools Bookmarks Help								
Address: 172.16.13.48 • Advanced OID: 1.3.6.1.4	1.10297.200.10.0.6 • Operations: Get	t Next 👻 🍙 Go						
SNMP MIB:	Result Table 172.16.13.48 - mmp TrapSrv Table Trap Receiver ×							
MIB Tree	Operations Tools							
mgmt	0 3 🕅 😼 🛷							
E SNMPVI TRAPS	Description Source Time	Severity						
	trapRemovableDeviceEvent 172.16.13.48 2014-10-16 15.03.37							
trap Temperature Event Cleared	trapRemovableDeviceEvent 172.16.13.48 2014-10-16 15:03:37							
→ trap∀oltageEventCleared								
trapRAIDFailureEvent	Source: 172.16.13.48 Timestamp: 28 minutes 57 seconds SNMP Version	n: 1						
	Entermise: iso and divident private enterprises advantech isoPlatformt/MIB platformTrapObje							
	specific o							
	Generic: enterpriseSpecific							
	Variable Bindings:							
	Name: iso orgidad internet private enterprises advantech iadPlatformeMIB peripheralGroup hardwareDetectOb hwdTable	Name: iso org dod internet private enterprises advantech iaePlatformsMIB peripheralGroup hardwareDetectObi hwdTable hwdEntry hwdDeviceTyne 28						
	Values (loterard disk design (2)							
dame trapRemovableDeviceEvent	Take. [Integer] and_outlet(s)							
Enterprise platformTrapObjs (1.3.6.1.4.1.10297.200.10)	Name: .iso org.dod.internet.private.enterprises.advantech.iagPlatforms/MIB.peripheralGroup.hardwareDetectObj.hwdTable.hwdEntry.hwdEvent.28							
Jeneric 6	Value: [Integer] insert (1)							
produc 0 Jariahlan bud Davice Type, bud Event, bud Event bud Event bud Event								
Descr "The device insertion/ removal event."	Name:	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

SNMP MIBs	Result Table	172.16.12.229 - smmp	TrapSrv Table	Trap Receiv	ver 172.16	5.12.229 - ewfObjTable	172.16.12	229 - tpTable ×
e wfDriveName	🕗 Rotate	💋 Refresh	Export Export	Poll S	NMP SET	Create Row D	Delete Row	
ewiState	tpIndex	tpName	tpUnit	tp Value	tpMax	tpMin	tpGetTime	tpState
ewfHORMState	1 1	CPU #0 Core #0	degree(s) Celsius	44	20	0	0x07 D7 01 1D 00.	enabled
ewfMaxLevels	2 2	Board temperature	degree(s) Celsius	28	255	0	0x07 D7 01 1D 00	disabled
🗈 🎍 fbwfObj								
🖃 🍶 monitorGroup								
E imperatureObj								
t pNumber								
+ minate								
(e) VolkigeOb								
memorySize								
- Derinheral Group								
harddiskObi								
watchdogObi								
multiLevelWatchdogObj								
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(Zoom In)

F	lesult Table	172.16.12.229 - snmp	TrapSrv Table	Trap R	eceiver	172.16.12.229 - ewf	ObjTable	172.16.12	.229 - tpTable \times
	Director Rotate	💋 Refresh	Export Export	Poll	SNMP SET	Create Row	Delete Rov	7	
Γ	tpIndex	tpName	tpUnit	tp.Value	tpMa	x tpMin	tpG	etTime	tpState
1	1	CPU #0 Core #0	degree(s) Celsius	44	20	0	0x0'	7 D7 01 1D 00	. enabled
2	2	Board temperature	degree(s) Celsius	28	255	0	0x0'	7 D7 01 1D 00	. disabled



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

Result Table	172.16.12.229 - snmpTrapSrvTable	Trap Receiver ×	172.16.12.229 - ewfObjTable	172.16.12.229 - tpTable				
Operations Too	bls		8					
D 🙆 🎦	1 18							
	Description		Source	Time				
rap TemperatureEv	ent	172.16.12	229 2015-	01-08 16:19:27				
Source:	172.16.12.229 T	imestamp:	1 hour 27 minutes 55 seco	nds SNMP Version:				
Enterprise:	.iso.org.dod.internet.private.enterp	orises.advantech.iagPlat:	formsMIB.platformTrapObjs					
Specific:	1							
Generic:	enterpriseSpecific							
Variable Bindi	ngs:							
Name:	. iso. org. dod. internet. private. enterprises. advantech. iagPlatformsMIB. monitorGroup. temperatureObj. tpTable. tpEntry. tpIndex. 1							
Value:	[Integer] 1							
Name:	iso.org.dod.internet.private.enterp	orises.advantech.iagPlat:	formsMIB.monitorGroup.tem	peratureObj.tpTable.tpEntry.tpValue.				
Value:	[OctetString] 44							
Name:	.iso.org.dod.internet.private.enterp	orises.advantech.iagPlat:	formsMIB.monitorGroup.temp	peratureObj.tpTable.tpEntry.tpMax.1				
Value:	[OctetString] 20		102523 1025					
Name:	.iso.org.dod.internet.private.enterp	orises advantech iagPlat:	formsMIB.monitorGroup.temp	peratureObj.tpTable.tpEntry.tpMin.1				
Value:	[OctetString] 0							

Reference:

N/A