

How to create a Trend Report and generate an alert if a threshold is breached.

This information is reproduced from the 'SNMPc 6 Evaluation Guide'. This document contains information on how to install the evaluation software and a walk through of some of the main features of SNMPc. You can download the full document from <u>here</u>. Although this example deals with creating a Trend Report on Server Disk space you can use this guide to apply to any recorded statistics such as WAN Utilization or Network Latency.

1) To create a trend report on server Disk Space first highlight the server icon you want to record the statistics from. Select the *Trend* tab on the bottom of the selection tool (the left-hand pane of the main window). Right-click on the folder named *SNMPc Trend Reports* and select '*Insert Report*'.



2) Give your Trend Report a Report Title. SNMPc can record statistics on any SNMP variable but some of the most common reports are available in a drop down list under 'MIB table'. To record server disk space choose the report Server Disk Stats An overview of other common reports is listed at the end of this How-To.

Insert Trend Re	port						
General Export Destinations Export Filter Page Layout							
Report Title – Mib Table –	Disk Space						
	Interface Usage (BPS)						
Poll Interval:	Server Disk Stats Server CPU Stats Response - IP/SNMP Response - WEB Response - FTP Response - Telnet Response - User1 Response - User2 Response - User4 RMON Ethemet Bytes RMON Ethemet Packs						
	OK Cancel Apply H	lelp					

3) Add additional devices to the report or change the poll interval as required.

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Insert Trend Re	eport	X			
General Export	Destinations Export Filter Page Layout	1			
Report Title — Mib Table —	Disk Space				
	Server Disk Stats				
	List 💿 Built-ins 🔿 All Report Tables				
	Counters/Expressions Only Instances				
Poll Interval:	10 Vinutes				
Devices					
	wlan Add				
	Delete				
	OK Cancel Apply Help				

4) To configure a threshold on the data being recorded select the *Instances...* button.

🖨 Trend Report Instances					
⊡- 🖺 Report Table Instances	StorageIndex	StorageDescr	BytesTotal	PercentFree	Percen
🗄 🗁 WLAN	1	C:\	39.983G	68.049	31.950
	2	D:\	0	0	0
t r 1	3	EΔ	0	0	0
<u></u> 4	4	F:\Label: Serial	61.483G	31.249	68.750
	5	Virtual Memory	1310790000	100	0
Include Exclude Edit	<< Add D	el >> Select	ОК	Cancel	Help

5) By highlighting an instance and choosing *Add* you can select what instance will be recorded. If you *Add* individual instances you would normally *Exclude '<All other Instances>.'* In this example we have selected two hard disks to record information on and *Exclude'd <All Other Instances>.*



6) The *Edit* button allows you to define thresholds and the names that will be used in the final report.

🖨 Trend Report Instances	Instance Edit	WLAN. 1			
Beport Table Instances WLAN All Other Instances 4 (Backup Unit)	Instance Name Manual Alarm Variable: Threshold:	e: Apps is hrPercentUsed >80			PercentUsed 1.937 8.750
		Name hrBytesTotal hrBytesFree hrBytesUsed hrPercentFree hrPercentUsed	Threshold <10 >80		
Include Exclude Edit.		OK	Cancel	o	Help

7) In the pictured example we have highlighted instance number '1' and then selected the *Edit* button. The instance has been named and two thresholds have been configured. One alert will be generated when disk usage goes above 80% capacity and one when disk space falls below 10%. Using SNMPc's event filters you could then create different actions for each event. When the disk space is 80% full SNMP could send an email to the support team. If disk space falls below 10% a page could be sent to your cell phone or pager.

Insert Trend Report	X
General Export Destinations Export Filter Page Layout	
Export Image To Printer: CDEFAULT> C Landscape C Portrait To WEB Server Styles: Summary Graph Pie Bars Dist	Schedule Hourly Daily Weekly Monthly
Export Text	
To File:	
C Tab Sep. C Comma Sep. ☐ And Run:	
OK Cancel Apply	Help

- 8) Select OK until you return to the Insert Trend Report configuration screen. Then choose the *Export Destinations* tab. Here you can control the format of your report. SNMPc Enterprise can automatically produce scheduled hourly, daily, weekly, and monthly reports. Report formats include graph, pie, bar chart, distribution, and summary (table). You can also choose how the data is exported. Reports can be automatically sent to a printer, web server or saved to disk. Using ODBC you can also export recorded data to third party databases.
- 9) From the *Page Layout* tab you can choose layout options such as axis labels and the position of the Legend.
- 10) Select OK to save your settings and begin the data collection process.
- 11) At any time, trend reports can be viewed by right-clicking on the report name in the Trend selection tool and selecting "View Report". The date range and format of report that you wish to see can then be selected.

v	iew Rep	ort					E	X
	Daily	0	Monthly					
	<<	<	М	ay 20	>	>>		
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	
	27	28	29	30	1	2	3	
	4	5	6	7	8	9	10	
	11	12	13	14	15	16	17	
	18	19	20	21	22	23	24	
	25	26	27	28	29	30	31	
	1	2	3	4	5	6	7	
	Single Merged Graph OK OK					ОК		
	C Single Variable / Multiple Instances					C	ancel	

12) To view Html reports select the '*Web Reports....*' option from the *Tools* menu. The web report template can only be viewed once the first report has been created.



Overview of Common Report Selections:

Interface Usage (BPS)

Records the data transmitted and received on an interface. The data is measured in bits per second (bps). This is the same measurement that network interfaces are rated by. (56Kbps WAN Link, 100Mbps LAN)

Interface Utilization (%)

Displays data transmitted as a percentage of the total available bandwidth. This report can record statistics on both LAN and WAN interfaces. This report also records the total errors seen on the interface as a percentage of the overall traffic transmitted. Many customers configure SNMPc to generate an alert when traffic rises above 80% of the available link capacity. This alerts them to large data transfers and possible network slowdowns.

Server Disk Stats

Records disk related statistics including total disk capacity and percentage disk space used/free. As with all statistics recorded by SNMPc the system can be configured to automatically generate an alert if disk capacity breaches a preset threshold.

Server CPU Stats

The server CPU utilization expressed as a percentage. By setting a threshold for above 90% Utilization you can be alerted to potential servers hangs.

Response - IP/SNMP



Records device or application availability as a percentage. This is useful for SLA reporting. The time taken for a packet to be transmitted between SNMPc and the device is also recorded as a measure of network latency. Using the distributed polling functionality of SNMPc Enterprise the network latency can be measured from strategic points in the network.