Graphing

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This document applies to V3.0

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General Information

Summary

Graphing is a tool which is used for monitoring various RouterOS parameters over a period of time.

Specifications

Packages required: *system, routerboard (optional)*
License required: *level1*
Home menu level: */tool graphing*
Hardware usage: *Not significant*

Description

The Graphing tool can display graphics for:

- Routerboard health (voltage and temperature)

- Resource usage (CPU, Memory and Disk usage)

- Traffic which is passed through interfaces

- Traffic which is passed through simple queues

Graphing consists of two parts - first part collects information and other part displays data in a Web page. To access the graphics, type **http://[Router_IP_address]/graphs/** and choose a graphic to display in your Web browser.

Data from the router is gathered every 5 minutes, but saved on the system drive every **store-every** time. After rebooting the router, graphing will display information that was last time saved on the disk before the reboot.

RouterOS generates four graphics for each item:

- "Daily" Graph (5 Minute Average)

- "Weekly" Graph (30 Minute Average)

- "Monthly" Graph (2 Hour Average)

- "Yearly" Graph (1 Day Average)

To access each graphic from a network, specify this network in **allow-address** parameter for the respective item.

General Options

Home menu level: */tool graphing*

Property Description

store-every (*5min | hour | 24hours*; default: **5min**) - how often to store information on system drive

Example

To store information on system drive every hour:

```
/tool graphing set store-every=hour
[admin@MikroTik] tool graphing> print
    store-every: hour
[admin@MikroTik] tool graphing>
```

Health Graphing

Home menu level: */tool graphing health*

Description

This submenu provides information about RouterBoard's 'health' - voltage and temperature. For this option, you have to install the **routerboard** package:

Property Description

allow-address (*IP addressnetmask*; default: **0.0.0.0/0**) - network which is allowed to view graphs of router health

store-on-disk (yes | no; default: **yes**) - whether to store information about traffic on system drive or not. If not, the information will be stored in RAM and will be lost after a reboot

Interface Graphing

Home menu level: */tool graphing interface*

Description

Shows how much traffic is passed through an interface over a period of time.

Property Description

allow-address (*IP addressnetmask*; default: **0.0.0.0/0**) - network which is allowed to view graphs of router health

interface (*name*; default: **all**) - name of the interface which will be monitored

store-on-disk (yes | no; default: **yes**) - whether to store information about traffic on system drive or not. If not, the information will be stored in RAM and will be lost after a reboot

Example

To monitor traffic which is passed through interface **ether1** only from local network **192.168.0.0/24**, and write information on disk:

```
[admin@MikroTik] tool graphing interface> add interface=ether1 \
\... allow-address=192.168.0.0/24 store-on-disk=yes
[admin@MikroTik] tool graphing interface> print
Flags: X - disabled
 #   INTERFACE ALLOW-ADDRESS     STORE-ON-DISK
 0   ether1    192.168.0.0/24    yes
[admin@MikroTik] tool graphing interface>
```

Simple Queue Graphing

Home menu level: */tool graphing queue*

Description

In this submenu you can specify a queue from the **/queue simple** list to make a graphic for it.

Property Description

allow-address (*IP addressnetmask*; default: **0.0.0.0/0**) - network which is allowed to view graphs of router health

allow-target (yes | no; default: **yes**) - whether to allow access to web graphing from IP range that is

specified in /queue simple target-address

simple-queue (*name*; default: **all**) - name of simple queue which will be monitored

store-on-disk (yes | no; default: **yes**) - whether to store information about traffic on hard drive or not. If not, the information will be stored in RAM and will be lost after a reboot

Example

Add a simple queue to Grapher list with simple-queue name **queue1**, allow limited clients to access Grapher from web, store information about traffic on disk:

```
[admin@MikroTik] tool graphing queue> add simple-queue=queue1 allow-address=yes \
\... store-on-disk=yes
```

Resource Graphing

Home menu level: */tool graphing resource*

Description

Provides with router resource usage information over a period of time:

- CPU usage

- Memory usage

- Disk usage

Property Description

allow-address (*IP addressnetmask*; default: **0.0.0.0/0**) - network which is allowed to view graphs of router health

store-on-disk (yes | no; default: **yes**) - whether to store information about traffic on hard drive or not. If not, the information will be stored in RAM and will be lost after a reboot

Example

Add IP range **192.168.0.0/24** from which users are allowed to monitor Grapher's resource usage:

```
[admin@MikroTik] tool graphing resource> add allow-address=192.168.0.0/24 \
\... store-on-disk=yes
[admin@MikroTik] tool graphing resource> print
Flags: X - disabled
 #    ALLOW-ADDRESS      STORE-ON-DISK
 0    192.168.0.0/24     yes
[admin@MikroTik] tool graphing resource>
```