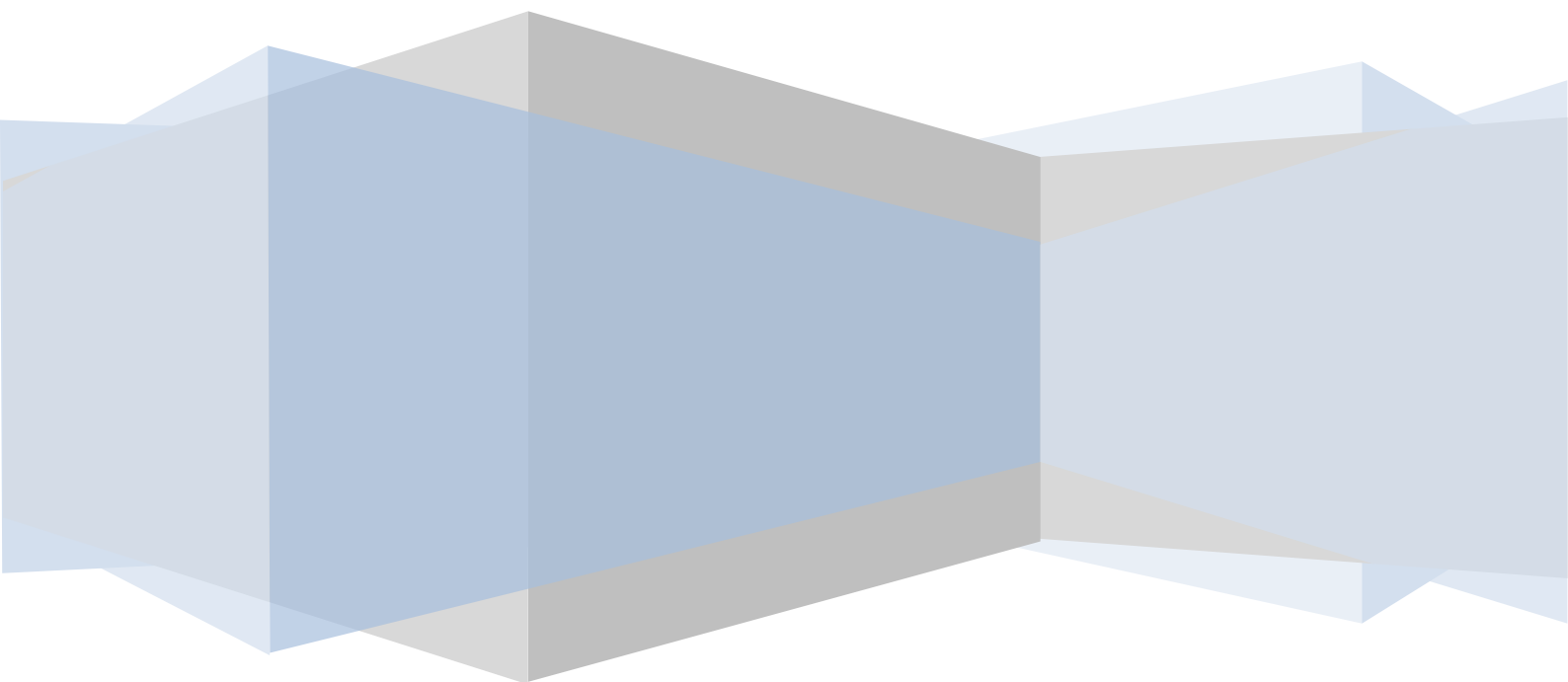


Institute of Computational Intelligence  
Częstochowa University of Technology

# The Dude

Foundations of computer networks laboratory



## The objective of the exercises

The aim of the exercise is to familiarize with The Dude software as the example of the software network monitors.

## Introduction

The Dude is a program used to monitor the network environment as well as all of its elements. In order to have knowledge about the network administrators, helpful programs such as The Dude and like him. Thanks to The Dude, the administrator is able to capture and locate any disruption or interruption of connection.

Application The Dude has quite a few options:

- Thanks to it we are able to scan all the devices that are in the specified subnet by user.
- You can determine the IP address of the network adapter's MAC address as well.
- Using the program we can create a kind of database it is possible thanks to the opportunity to save the monitoring results periodically.
- To identify the version of the system installed on the device.

Using The Dude, the administrator is able to ensure that the person did not have unauthorized access to the subnet. An interesting feature of the program is the possibility to show the commercial on a map of connection graphically.

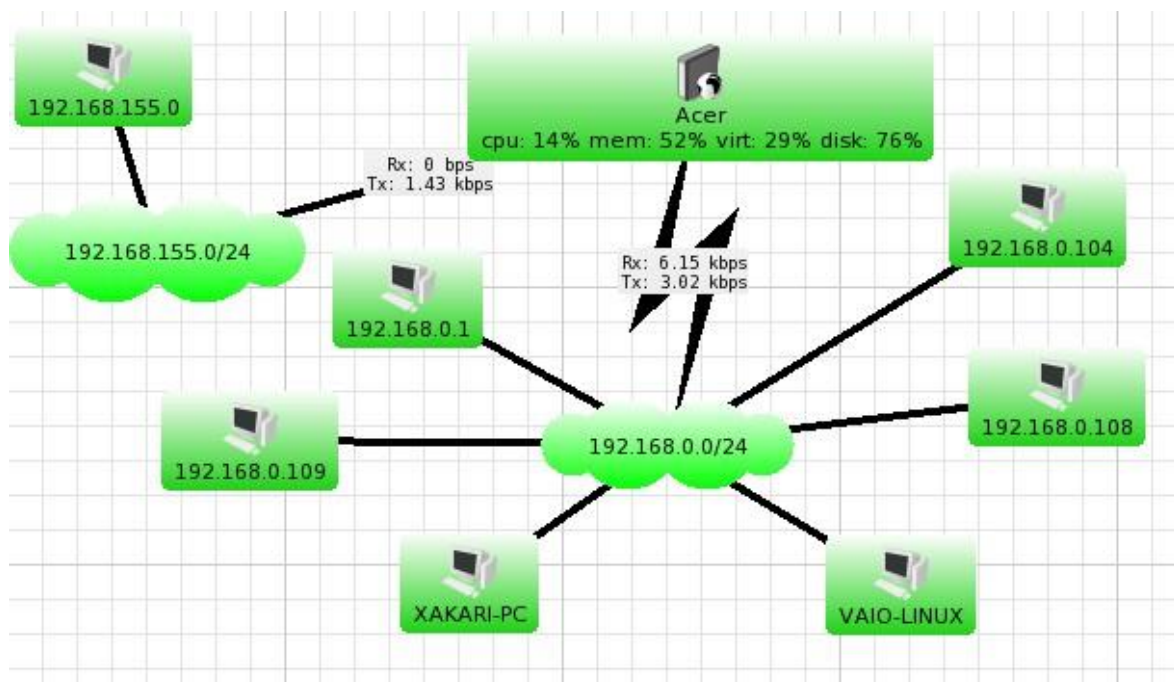


Fig. 1. The objects arranged on a map in The Dude

To carry out the exercise it is necessary to know such as SNMP protocol. SNMP or Simple Network Management Protocol is a network protocol team, which is used to manage the router devices, switches, computers and telephone via IP networks. This is one of the more common protocols used to manage the network, so that the only drawback is the failure to the security of your data, which are transmitted. SMN information transfer is commonly used: standard UDP port 161 is used to send and receive requests, while port 162 is used to capture trap signals from devices. It is also possible to use other protocols to transfer requests, for example. TCP [1].

# The Dude

## Course of exercise

When you perform the exercises can happen with The Dude automatically collapse to icons in the system tray (icons next to the system clock), it will look like the figure 2.



Fig. 2. the icon in the system tray

To start a task, open the program and click The Dude on the button **Badaj** (Explore).

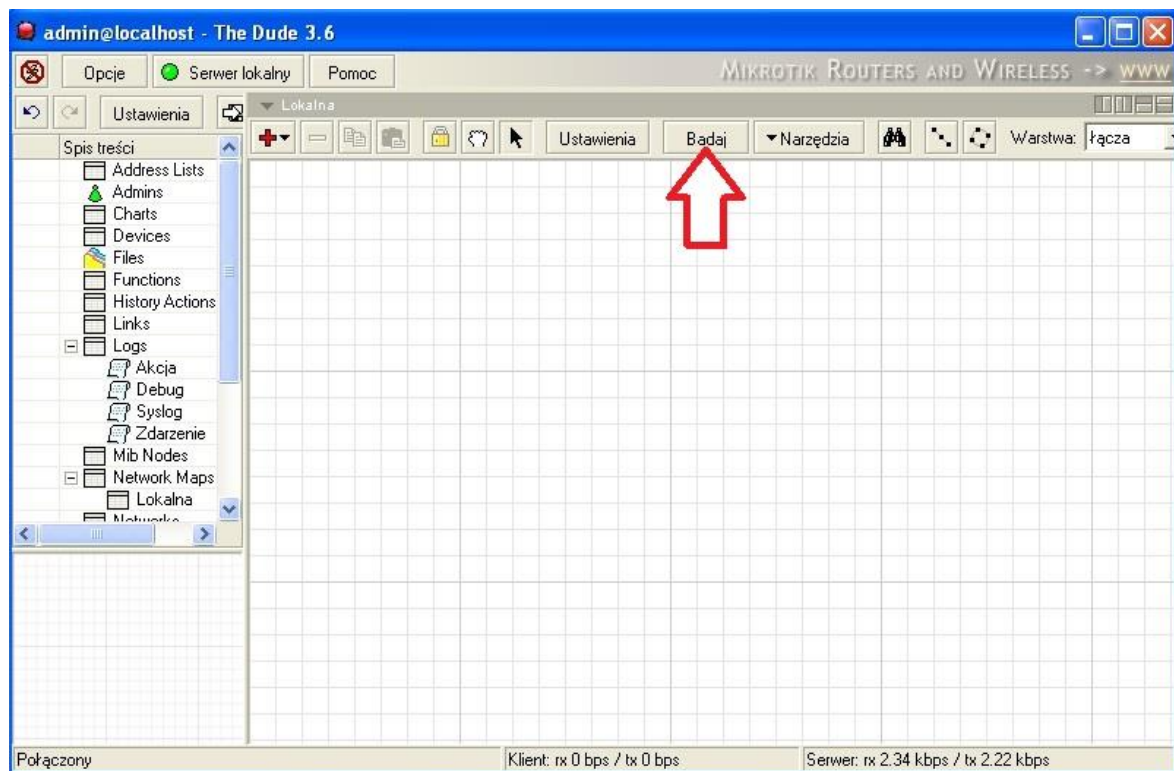


Fig. 3. the first launch of The Dude

Window pops up **Badanie urządzenia** (Test devices).

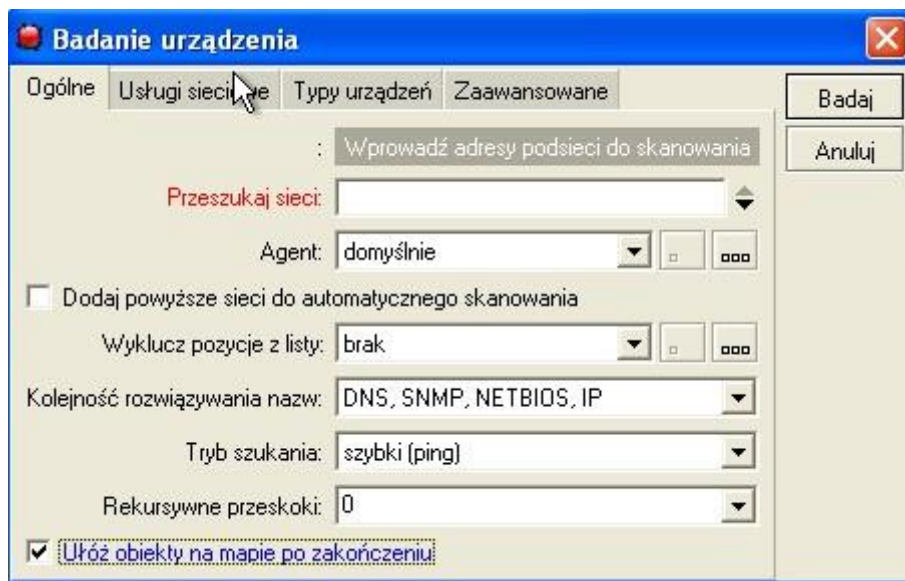


Fig. 4. Open dialog box when you click the button "Explore"

In the field **Przeszukaj sieci** (Search)



Fig. 5. Check the subnet address

Read the first three octets of the address and the fourth type 0/24. Then select **Ułóż obiekty na mapie po zakończeniu** (Arrange objects on the map after the end), which is located at the bottom of the dialog box presented when you click the above button, thanks to our facilities will be transparently deployed in the network map. When you press the button **Badaj** (Explore) our subnet will be scanned. After the scan, we have given the names of the devices that are connected to a subnet, they should be arranged on a map and also linked along with the subnet address. The Dude allows us to also become familiar with resources of the devices that are connected to the subnet. For such a State of affairs should enable SNMP. To do this, go to Control Panel then click on the **Dodaj lub usuń programy** (Add or remove programs) icon on the right side of the pane that will appear on the screen, click on **Dodaj/usuń składniki systemu Windows** (Add/Remove Windows components). Then a window appears as shown in Figure 5.



Fig. 6. The Wizard Windows XP components

In the components box, select the **Narzędzia zarządzania i monitorowania** (Management and monitoring tools) and click the **Dalej** (Next) button. On the screen you should see a window component wizard, which configures them, after completing the configuration back to The Dude, and repeat the previous operation.

- Click the button **Badaj** (Explore)
- Type the subnet address
- Select **Ułóż obiekty na mapie po zakończeniu** (Arrange objects on the map after the end of the)
- examine the network

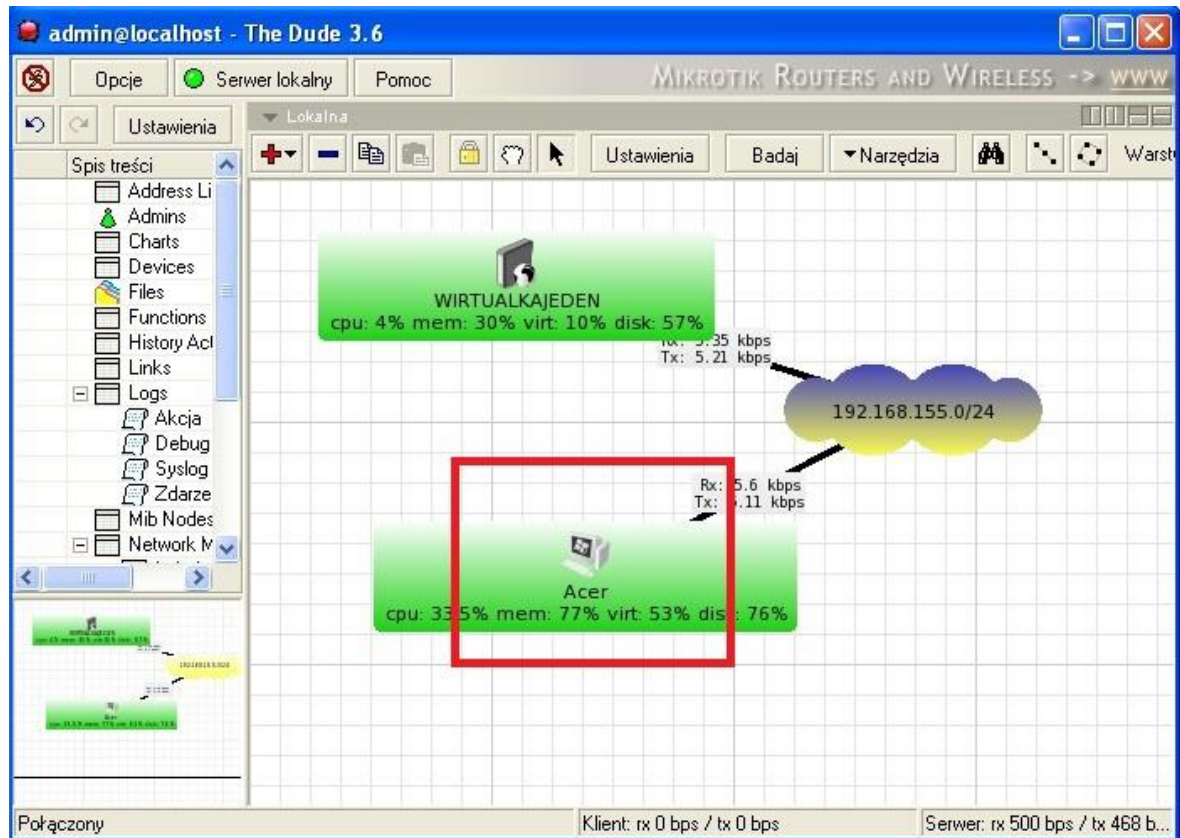


Fig. 7. The objects on map attached SNMP

After the completion of the study in The Dude you should see information about our computer where we conduct research. In the case of carrying out a similar configuration operations on other devices after scanning the subnet names should also show the data of these devices, as it is shown in Figure 7. Double click on the computer icon as shown in Figure 8.



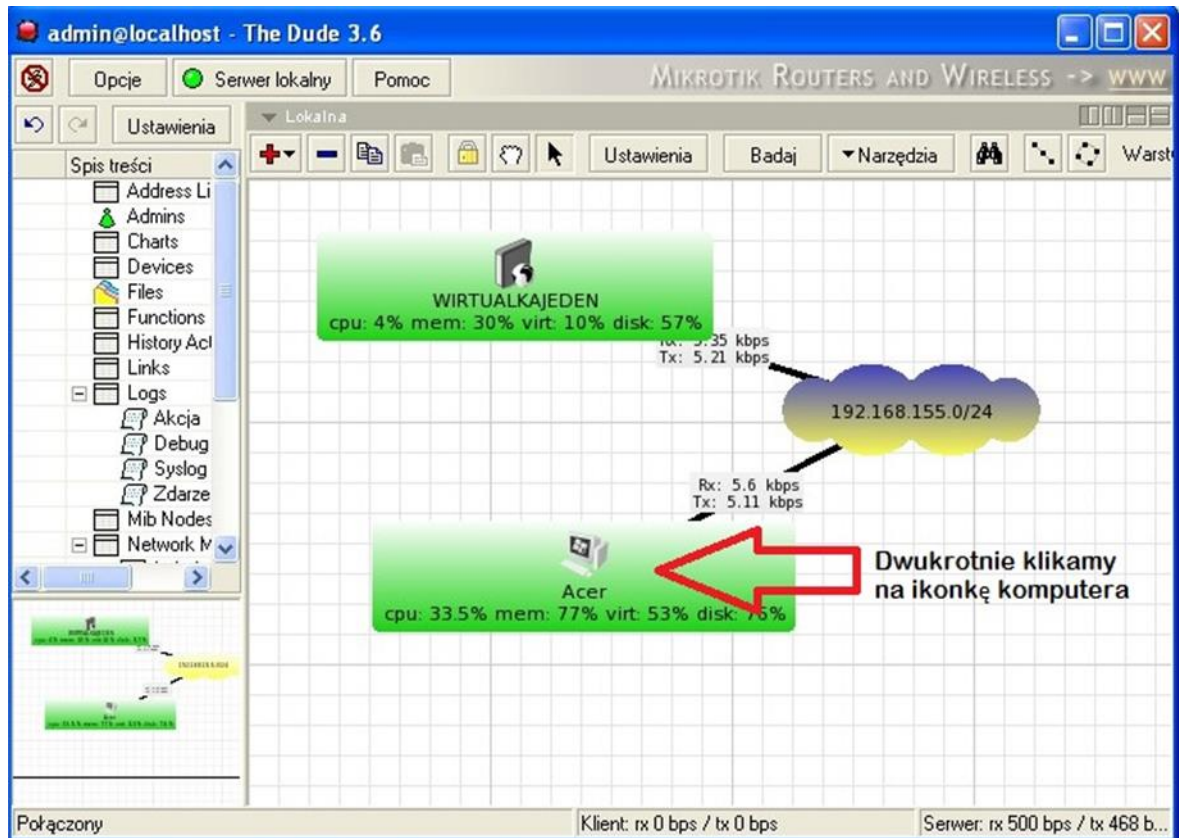


Fig. 8. Objects on the map

There is now a window shown in Fig. 9.

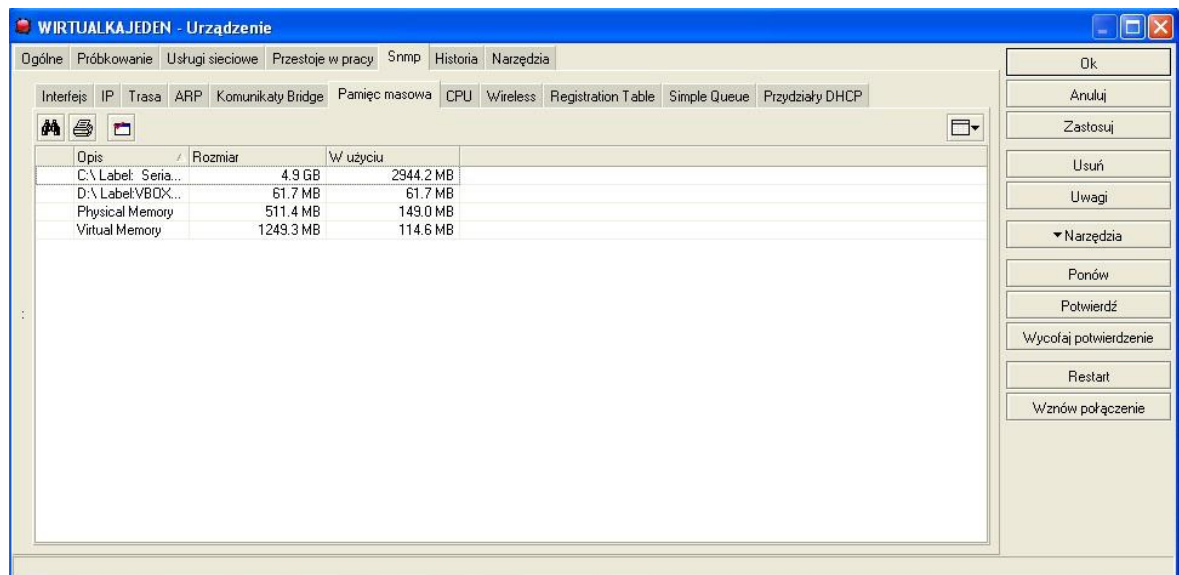


Fig. 9. A window showing the storage

Click the SNMP tab and here we have the exact details about the device, which currently we check. There are presented information concerning, inter alia, the size of the partition, and also the size of which is already being used.

# The Dude

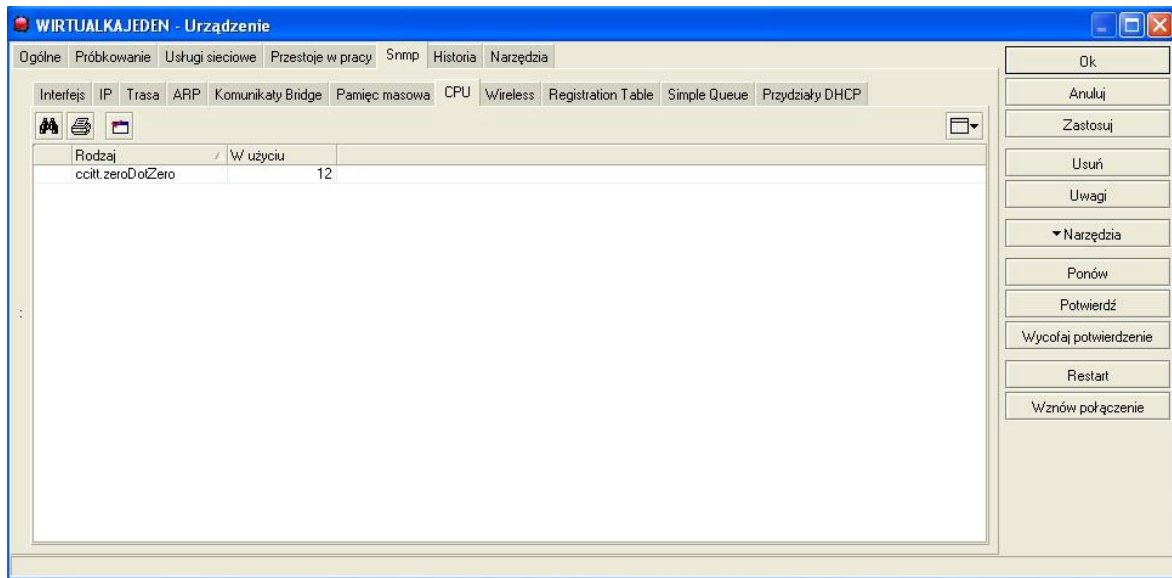


Fig. 10. A window showing CPU utilization

Presented above fig. 10. shows the percentage of what the processor is used.

## The report

Students work in pairs or alone. The report should include the results obtained during exercises and conclusions.

## Bibliography

- [1] Simple Network Management Protocol, Wikipedia wolna encyklopedia, [http://pl.wikipedia.org/wiki/Simple\\_Network\\_Management\\_Protocol](http://pl.wikipedia.org/wiki/Simple_Network_Management_Protocol).
- [2] MikroTik Routers and Wireless: The Dude, <http://www.mikrotik.com/thedude>.
- [3] Manual: The Dude-MikroTik Wiki, [http://wiki.mikrotik.com/wiki/Manual:The\\_Dude](http://wiki.mikrotik.com/wiki/Manual:The_Dude).

## Legal notes

This manual has been designed by Katarzyna Kazior as the part of Master thesis realized in Faculty of Mechanical Engineering and Computer Science in Częstochowa University of Technology. Translated using Microsoft® Translator.