

ManageEngine Free Tools User Manual



Free Process Traffic Monitor Tool



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Overview

Free Process Traffic Monitor Tool

ManageEngine Free Process-Traffic Monitor is a light weight tool helps system administrator, IT technicians to find which process/applications utilizes more resources in a system . Tool monitors TCP/ IP network traffic usage pattern for a Windows Server and also shows details of which process occupies which port in a server.

The "ManageEngine Process -Traffic Monitor" tool can monitor traffic details of a Windows server. The best part is that the tool is made available to you, absolutely FREE of cost.

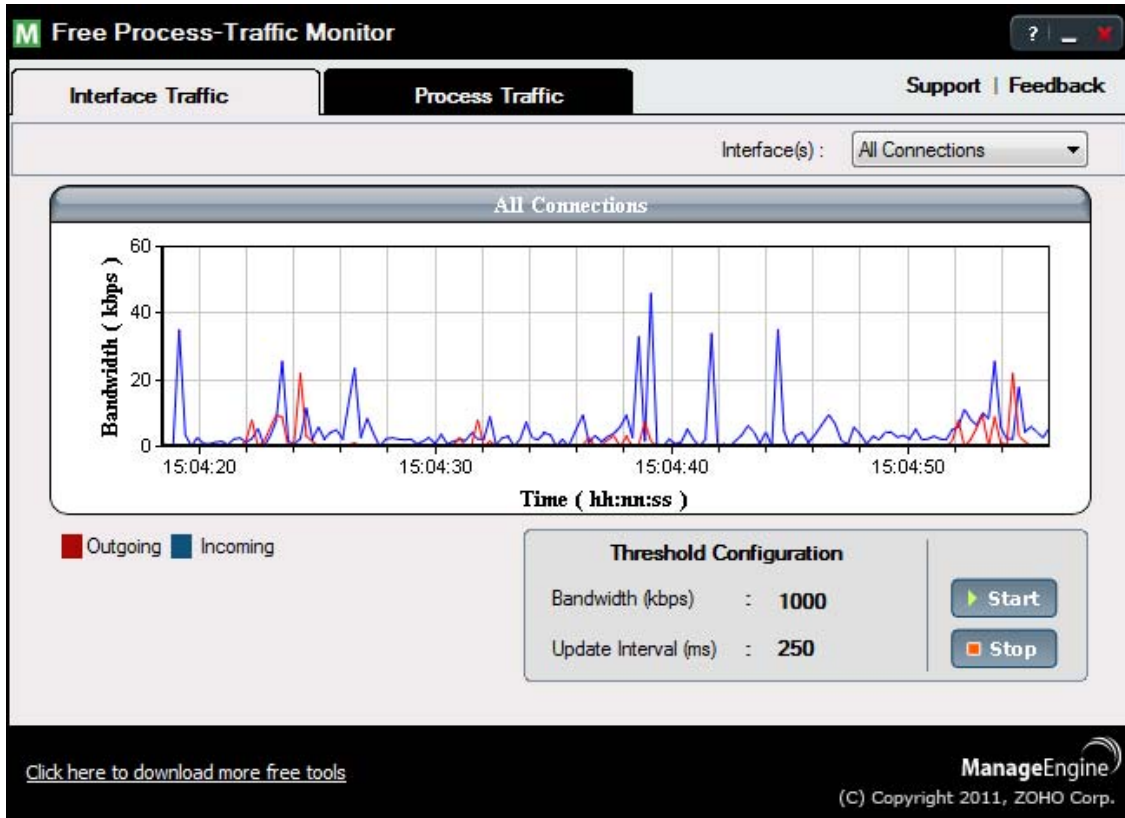
Key Benefits

Process Traffic Monitor tool, allows you to monitor traffic usage of a Windows server continuously. Tool populates incoming and outgoing traffic usage (of the machine / server / individual interfaces) details in a elegant graphs and reports. The tool lists all the port occupying processes in the given machine and also provides performance metrics of the above processes. The tool provides traffic usage and process details in two separate views.

This tool monitors all data transmissions of a given machine. It calculates the network traffic generated by each process with its corresponding port by logically mapping relevant information. Using the tool, administrator can also set threshold values for incoming traffic, out going traffic If at all, the traffic volume increases, behave abnormally, or any counter exceeds the threshold value color coded alerts are shown in the process view.

The "ManageEngine Process -Traffic Monitor" tool serves as a smart desktop tool that continuously monitors traffic of a server. More importantly, Administrator then effortlessly can monitor traffic of a particular process in real-time and ensures your mission-critical application are available to users, all the time.

Interface Traffic View



Process Traffic View

Free Process-Traffic Monitor

Interface Traffic | **Process Traffic** | Support | Feedback

End Process

Process	PID	Local Port	Sent Rate (kbps)	Received Rate (kbps)	Cpu Usage (%)	Memory Usage (kB)
wrapper	2436	32000	0	0	0	4176
wininit	564	49152	0	0	0	4520
UNS	5488	49299	0	0	0	10972
tvnserver	3272	5800	0	0	0	5340
tvnserver	3272	5900	0	0	0	5340
System	4	138	0.19	0	1.29	7024
System	4	445	0	0	1.31	7024

Threshold Configuration

■ Sent Rate (kbps) : 1000

■ Received Rate (kbps) : 1000

Refresh Interval (s) : 10

▶ Start

■ Stop

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Features

ManageEngine Free Process-Traffic Monitor helps system administrator, developer and IT technicians to find which process/applications occupies which port and also helps in monitoring the Server/Interface traffic usage and traffic usage for each and every process involved in data transmission in the given Windows machine.

Key Features

- View server/desktop traffic usage graphically.
- View traffic usage per interface graphically.
- Identify and monitor processes/applications that occupy ports.
- Identify which process/application uses which port and how much traffic each process is generating.
- Configure thresholds for incoming & outgoing traffic usage at various level and get indication on exceeding.
- Customize the tabular view by choosing the columns from list of parameters being monitored.
- Search based on process name and sort based on any column.
- View details of individual processes in separate window.
- Terminate processes that are not required anymore from GUI.

View server/desktop and individual interface's traffic usage graphically

Process-Traffic Monitor lists all the active interfaces of the given machine. Based on user selection it displays the traffic usage of the selected interface or overall traffic usage of machine, graphically. By default it displays the overall system traffic usage. Here user can configure threshold limit for the traffic usage which will ease checking whether traffic usage is under control or not.

Monitor processes/applications occupying ports(UDP/TCP)

Process-Traffic Monitor actively monitors all data transmissions in a given Windows machine. It lists all the port occupying process in the given Windows machine with few important performance metrics like CPU Usage, Memory Usage, thread count and few useful information like process name, process ID, port number, protocol, user name etc, in tabular form.

The total list of parameters/attributes monitored by this tool are as follows:

- Process name
- PID(process ID)
- Protocol
- Local Port
- Sent Rate
- Received Rate
- CPU Usage
- Memory Usage
- Local Address
- State
- User Name
- Priority
- Thread Count.

Process-Traffic Monitor lists all the port occupying processes in the given machine, also it identifies which port is used by which process/application and gives the rate of data transmission (incoming and outgoing) for each and every port occupying process, thus helps in identifying which process/application generates more traffic.

Configure thresholds for incoming & outgoing traffic usage at various levels.

Process-Traffic Monitor provides an option for configuring the max-threshold for incoming and outgoing traffic at various levels like overall server/interface, individual interface level and for individual processes involved in data transmission.

For overall system traffic and individual interface traffic, if the traffic usage exceeds the configured threshold level, a line indicating threshold level will be drawn and a message will be put in the graph being plotted for traffic usage.

For process level threshold, all the processes exceeding the threshold for Send Rate will be marked with Orange color and all the processes exceeding the threshold for Received Rate will be marked as Red to indicate that the process exceeds threshold.

Customize the tabular view by choosing the columns from list of parameters being monitored.

Process-Traffic Monitor provides you with option to choose the list of columns you are interested in viewing from the list of parameters being monitored, about the process occupying ports in the given machine, with the help of column chooser.

Search based on process name and sort based on any column.

Process-Traffic Monitor lists all the details of processes occupying ports in tabular form and provides option to search based on process name.

Also users can sort table of details of processes based on any column, this will help in lot of cases like identifying the process having high CPU Usage or Memory Usage etc.

Double clicking on any row will open the corresponding process details on separate window.

Terminate processes from GUI

Process-Traffic Monitor provides a option for terminating unwanted processes from GUI. It will help to terminate process exceeding threshold of any performance metrics.

Documents

Introduction

ManageEngine Process Traffic Monitor is a powerful, Windows-based tool that monitors the traffic of all the port-occupying processes. It has an elegant Graphical User Interface that helps in viewing the incoming and outgoing traffic usage (of the machine / server / individual interfaces) graphically. The tool lists all the port occupying processes in the given machine and also provides useful performance metrics of the processes concerned.

This tool actively monitors all data transmissions of the given machine. It calculates the traffic generated by each process by mapping the traffic of the port being used by that process. By logically grouping relevant information, the tool provides traffic usage and process details, as two different tabs to the user. The tabs are a) Interface Traffic b) Process Traffic respectively.

Interface Traffic

This tab lists all the active interfaces of the given machine. Based on user selection it displays the traffic usage of the selected interface or overall traffic usage of machine, graphically. By default it displays the overall system traffic usage. Here user can configure threshold limit for the traffic usage which will ease checking whether traffic usage is under control or not.

Threshold Configuration

Here you can configure the traffic usage threshold and time interval for updating the graph.

- **Bandwidth (kbps)** : Max threshold for traffic usage for both incoming and outgoing value can range up to 1000000 kbps. If the traffic usage exceeds the configured threshold level, a line indicating threshold level will be drawn and a message will be put in the graph.
- **Update Interval(ms)** : The Interval at which the graph plot to be updated. Update interval can be within the range of 250 ms to 5 s.

For configuring the above parameters, follow the steps below,

- Click Stop button, now the fields become editable and the graph plot will stop.
- Configure the traffic usage threshold and update interval.
- Click Start. The graph will start plotting according to the new configuration.

If any interface goes down while graph plot for the same is in progress, tool will proceed with plotting traffic usage for the lexicographically next interface in the list with message stating that the interface has went down.

If any interface comes up while tool is running, it will be updated on click of the start button (ie) if any interface comes up, to update the same, click Stop and then Start.

Process Traffic

This tab lists all the port occupying process details in the given machine with few important performance metrics like CPU Usage, Memory Usage, thread count and few useful information like process name, process ID, port number, protocol, user name etc, in tabular form. Most importantly it shows the incoming & out going traffic generated by each and every process. Also user is allowed to choose a list of columns that he/she is

interested to display from the list of parameters being monitored and configure threshold for incoming and outgoing traffic usage by individual processes.

By default this tab displays the following parameters

Process	The name of the process running in the system.
PID	Process ID of the process.
Local Port	Port being used by the process.
Sent Rate	Outgoing data rate in kbps.
Received Rate	Incoming data rate in kbps.
CPU Usage	CPU Usage of the process as %.
Memory Usage	Memory consumed by the process in kB.

User can add his/her choice of columns to display from the list of parameters being monitored using Column Chooser. Additional parameters available are as follows,

Protocol	Protocol being used by the process for data transmission(UDP or TCP).
Local Address	Actual IP Address in which the port is bound.
State	Present state of the connection in case of TCP (i.e) Listening, Established, etc.
Priority	Priority of the process (i.e) High, Normal, etc.
UserName	User who has started the process.
CPU Usage	CPU Usage of the process as %.
Thread Count	Number of threads associated with the process.

Details View

User can double-click on any process/row to view the details of process in separate window.

Threshold Configuration

User can configure Max threshold for Sent and Received rate of a process and also can modify the Refresh Interval (i.e) time interval to fetch the details of process and it's traffic usage.

- Sent Rate(kbps) : Max threshold for Sent rate for a given process and value can range up to 1000000 kbps, default value is 1000 kbps.
- Received Rate(kbps) : Max threshold for Sent rate for a given process and value can range up to 1000000 kbps, default value is 1000 kbps.

All the processes exceeding the threshold for Sent Rate will be marked with Orange color and all the processes exceeding the threshold for Received Rate will be marked as Red to indicate that the process exceeds threshold.

Refresh Interval(s) : Time interval to fetch the process details and it's data transmission details. This value can range from 5s to 60s. By default it will be 10s, (i.e) for every 10s the values will be fetched freshly and populated to the GUI.

EndProcess

Users can terminate the process which is not required anymore by selecting the same by clicking the End Process button. If termination is success, status message will be shown that the process has been terminated, otherwise pop-up will be triggered with detailed error message.

Note: Whenever tool is minimised, it minimises to the System Tray and if traffic exceeds the limit it pops up a message that the threshold has exceeded the limit.

Units	Explanation
Kbps	Kilo bytes per second
KB	Kilo Byte
Ms	millisecond
S	Second

Units Explanation
 kbps kilo bits per second
 KB kilo Byte
 ms milli second
 s second

System Requirements

Hardware Requirement

- **CPU** : 1 GHz (x86 processor) or 1.4 GHz (x64 processor) and higher versions.
- **Memory** : Atleast 512 MB of RAM
- **Disk Space**: Atleast 3 MB of disk space must be available before installation and less than 10 MB of disk space is needed after installation.

Software Requirement

Microsoft .Net Framework 2.0 / 3.0 / 3.5.

Note : If you do not have Microsoft .NET Framework, please download the required version from (Microsoft .Net Framework 2.0)

- <http://www.microsoft.com/downloads/details.aspx?FamilyID=0856EACB-4362-4B0D-8EDD-AAB15C5E04F5&displaylang=en>
- (Microsoft .Net Framework 3.0)
- <http://www.microsoft.com/downloads/details.aspx?FamilyID=10CC340B-F857-4A14-83F5-25634C3BF043&displaylang=en>

Winpcap Library

Note : If you do not have Winpcap installed, please download it from the below link <http://www.winpcap.org/install/default.htm> (Winpcap 4.1.2)

FAQ

1. I have downloaded the tool but it is not running. What should I do?

Please check Dot Net platform is installed in your system. Run the utility available in the bin directory, DotNetUtilities.exe , It will tell you the Dot Net version. If Dot Net platform is not available in the system, download the platform. Please see the software requirements page for downloading the platform.

2.I have started the tool but it throws winpcap is not installed. What should I do?

This exception will be thrown when winpcap is not installed in your machine. Please download the latest version of winpcap. Please see the software requirements page for downloading the winpcap software.For latest versions of OS use the latest versions of winpcap accordingly.

3.I have made the interface up at runtime, but it is not showing that interface in the list. What should I do?

If any interface comes up while tool is running, it will be updated on click of the start button (ie) if any interface comes up, to update the same, click Stop and then Start.

4) Whom should i contact when i face with any error while running the tool ?

If you are facing any error while running the tool ,please send us mail to free-tools@manageengine.com