



LanTraffic V2

Version 2.5

***Traffic Generator for IP Networks (IPv4 & IPv6)
LAN, MAN, WAN, WLAN, WWAN, Mobile, Satellite, PLC, etc.***

The screenshot displays the LanTraffic V2 application window. The interface includes a menu bar (File, Edit, Configuration, File Downloading, Automation Tool, Help) and several tabs: Sender - Parameters, Sender - Traffic + Statistics, Receiver - Traffic + Statistics, and Throughput Graphics. The 'Sender - Parameters' tab is active, showing a table of 16 connections. Each connection has a dropdown for 'Destination Parameters' (IP Address or Host Name, Protocol, Port) and a 'Browse' button. The 'Save the Received Data' section has a 'Filename' field and 'Browse' buttons for each connection. The 'Traffic Generator' section has two modes: 'Unitary Mode' (selected) and 'Automatic Mode'. Under 'Unitary Mode', there are 16 rows, each with a 'Generator' button, a 'Parameters' dropdown, and an 'On' button. A large bracket on the right side of these rows is labeled '[P]'. At the bottom, there are sections for 'Sender Statistics' and 'Receiver Statistics', each with fields for 'Active Connections', 'Total Sending Throughput', and 'Total Receiving Throughput'. There are also 'Start Receiver' and 'Stop Receiver' buttons.

Connection	Destination Parameters	Protocol	Port	Filename	Generator	Parameters	On
Connection #01	NO_ADDRESS	TCP	2009	Browse #01	Generator	Parameters #01	On
Connection #02	NO_ADDRESS	TCP	2009	Browse #02	Generator	Parameters #02	On
Connection #03	NO_ADDRESS	TCP	2009	Browse #03	Generator	Parameters #03	On
Connection #04	NO_ADDRESS	TCP	2009	Browse #04	Generator	Parameters #04	On
Connection #05	NO_ADDRESS	TCP	2009	Browse #05	Generator	Parameters #05	On
Connection #06	NO_ADDRESS	TCP	2009	Browse #06	Generator	Parameters #06	On
Connection #07	NO_ADDRESS	TCP	2009	Browse #07	Generator	Parameters #07	On
Connection #08	NO_ADDRESS	TCP	2009	Browse #08	Generator	Parameters #08	On
Connection #09	NO_ADDRESS	TCP	2009	Browse #09	Generator	Parameters #09	On
Connection #10	NO_ADDRESS	TCP	2009	Browse #10	Generator	Parameters #10	On
Connection #11	NO_ADDRESS	TCP	2009	Browse #11	Generator	Parameters #11	On
Connection #12	NO_ADDRESS	TCP	2009	Browse #12	Generator	Parameters #12	On
Connection #13	NO_ADDRESS	TCP	2009	Browse #13	Generator	Parameters #13	On
Connection #14	NO_ADDRESS	TCP	2009	Browse #14	Generator	Parameters #14	On
Connection #15	NO_ADDRESS	TCP	2009	Browse #15	Generator	Parameters #15	On
Connection #16	NO_ADDRESS	TCP	2009	Browse #16	Generator	Parameters #16	On

Read Me First

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Part 0 Overview

0.1 LanTraffic V2 Key Features

The **LanTraffic V2** software generates traffic for IP networks by using the following protocols: TCP (Transmission Control Protocol), UDP (User Datagram Protocol) or ICMP (Internet Control Message Protocol).

LanTraffic V2 is supported on the following platforms: Windows Server 2003 (Service Pack 1), Windows XP Home or Professional, Windows 2000 Professional or Server, Windows NT 4 Service Pack 6 Workstation or Server, or Windows 98. It needs at least one Ethernet connection (LAN or WLAN card i.e. NIC, remote access...).

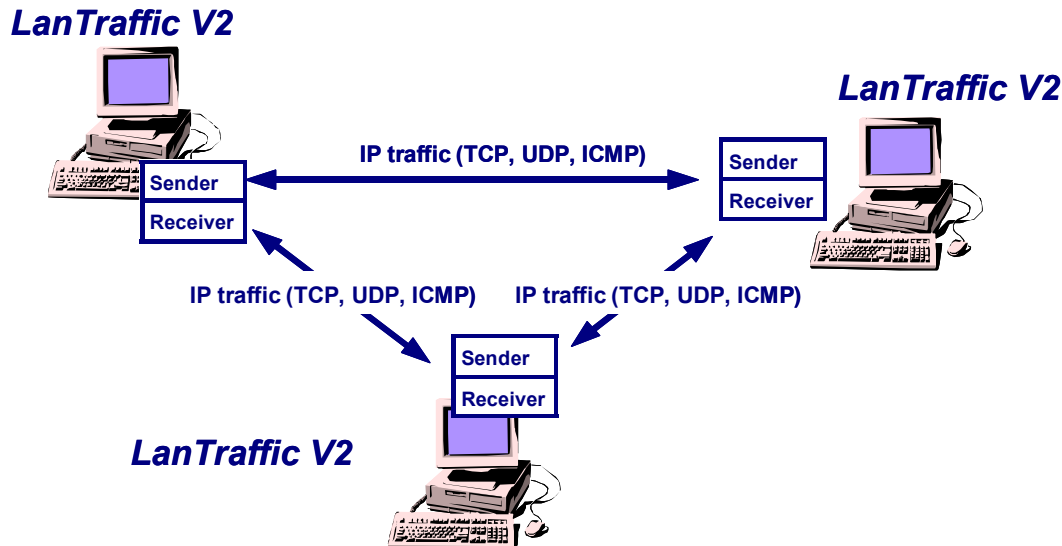
The minimum screen resolution is 1024 x 768 and the DPI setting should be "Normal size (96 DPI)".

LanTraffic V2 requires Acrobat Reader to display the software's Help file.

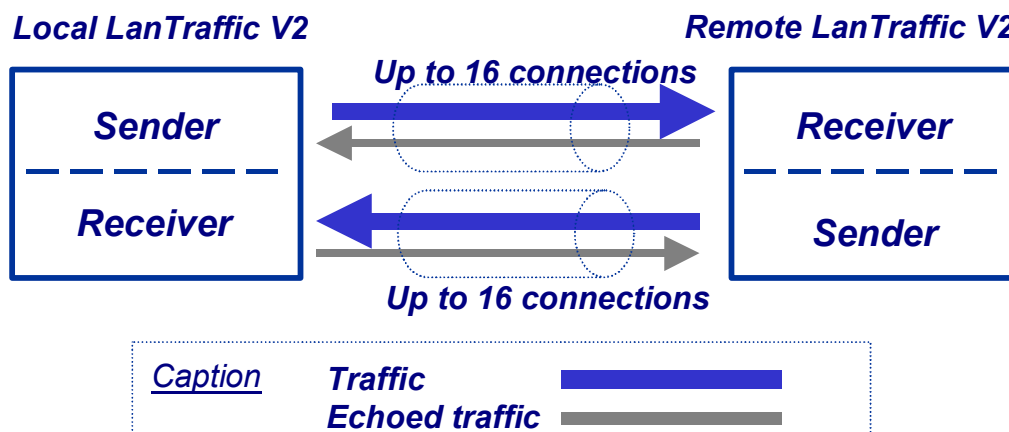
The add-on software called **Automation Tool for LanTraffic V2** allows automating operations with **LanTraffic V2**. For instance, you can run test campaigns automatically.

Various testing configurations can be implemented using more than two PCs.

LanTraffic V2 creates TCP or UDP connections between PCs through the IP network.



The **LanTraffic V2** testing tool is made of a **Sender** part and a **Receiver** part.



- The **Sender** generates up to 16 simultaneous UDP and/or TCP connections. Connections can be established in two different testing modes:

⇒ **Unitary Mode**: you can select the traffic generator data source and configure packets size and inter packet delay for each connection.

LanTraffic V2 offers three different data sources:

- Automatic data generator by using mathematical laws,
- Packets generator: many parameters can be defined (number of packets to send, inter packet delay, packet contents, ...)
- File: selection of a file to send.

⇒ **Automatic Mode**: select one mathematical law for connections generating (up to 16 connections) and starting time, then select a second mathematical law for data volume to be sent.

⇒ **Statistics**: for each connection the following statistics parameters are displayed by the **Sender** and can be saved in a file:

- Sent throughput
- Received throughput
- Sent packet throughput
- Received packet throughput
- Sent data volume
- Received data volume (volume of data sent by the remote)
- Sent packets
- Received packets (packets sent by the remote)
- Data volume to send
- Remaining volume (of data to send)
- Sequence numbering errors
- RTT Mean (Round Trip Time)
- Jitter

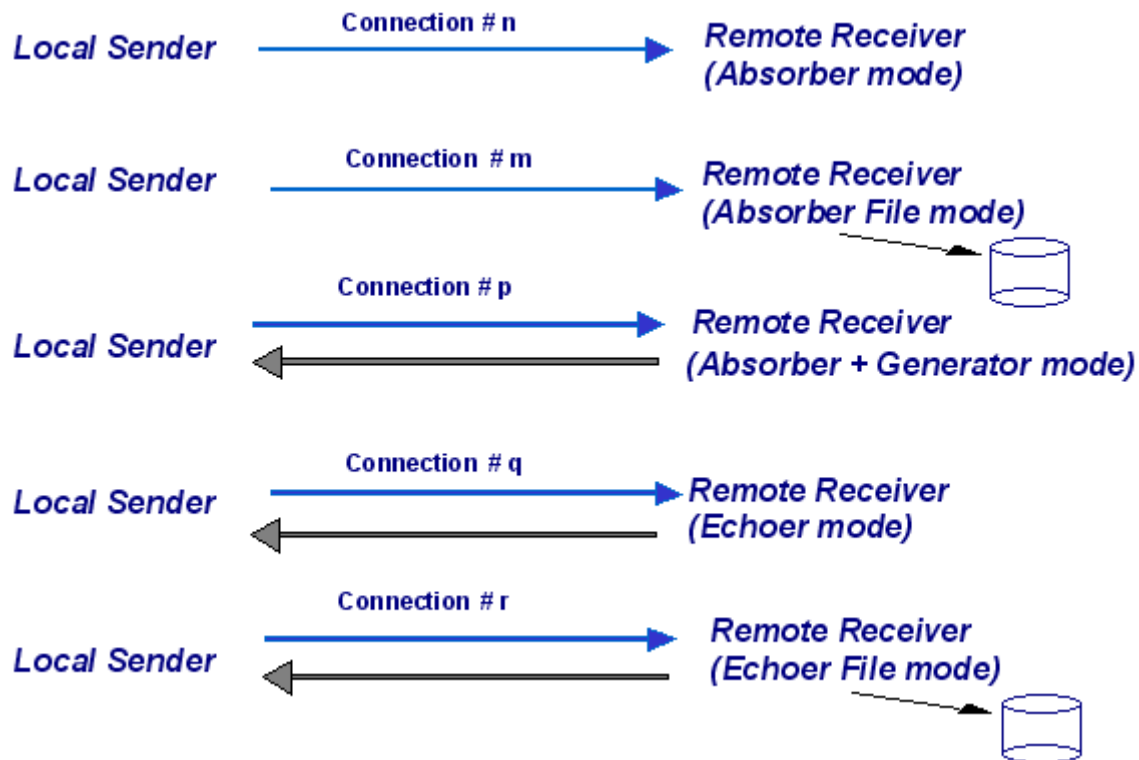
- The **Sender** can also generate up to 16 simultaneous ICMP connections, but through the unitary testing mode only:
 - ⇒ **Unitary mode:** for each IP connection, you can select the traffic generator data source, specify the ToS byte (Type of Service) and the Time To Live byte (TTL).

Find below the different possibilities available with the ICMP protocol:

- ICMP Echo request packet number and content: packet generator (fixed, random, alternated and increasing / decreasing).
 - ICMP Echo Request data size: fixed, random, alternated and increasing / decreasing.
 - ICMP Echo Reply receiving timeout: fixed, random, alternated, increasing / decreasing or use of a mathematical law.
-
- ⇒ **Statistics:** for each connection the following statistics parameters are displayed by the **Sender** and can be saved in a file:
 - Sent ICMP requests (Tx Packets)
 - Received ICMP replies (Rx Packets, responses sent by the target remote)
 - Sequence numbering errors
 - RTT Mean (Round Trip Time)

- The **Receiver** receives traffic (up to 16 simultaneous connections) and operates five different working modes: Absorber, Absorber File, Absorber + Generator, Echoer and Echoer File.

⇒ Each Receiver's connection can be set up according to one of the following five modes:



Note: in this document, we will consider that the local machine is used for sending traffic and the remote one is used for receiving traffic.

⇒ **Statistics:** for each connection the following statistics parameters are displayed by the **Receiver part** and can be saved in a file:

- Sent throughput
- Received throughput
- Sent packet throughput
- Received packet throughput
- Sent data volume
- Received data volume (volume of data sent by the remote)
- Sent packets
- Received packets (packets sent by the remote)
- Data volume to send
- Remaining volume (of data to send)
- Sequence numbering errors
- Data not echoed
- Jitter

Multicast feature



LanTraffic V2 is able to generate and receive Unicast and Multicast IP traffic (IPv4 and IPv6). The multicast feature is used for the UDP protocol only.

- **Multicast & IPV4:** IPv4 addresses from 224.0.0.0 to 239.255.255.255 are MULTICAST IP addresses. These addresses can be used to generate multicast IP traffic (define the multicast IP address in the Sender part) or to receive multicast IP traffic (define the multicast IP address in the Receiver part).
For information: these IPv4 addresses 224.0.0.0 to 239.255.255.255 do not generate IGMP JOIN /LEAVE messages.
- **Multicast & IPv6:** IPv6 multicast addresses are defined in "IP Version 6 Addressing Architecture" [RFC2373].
This defines fixed and variable scope multicast addresses.
IPv6 multicast addresses are distinguished from unicast addresses by the value of the high-order octet of the addresses: a value of 0xFF (binary 11111111) identifies an address as a multicast address; any other value identifies an address as a unicast address (FE80::/10 are Link local addresses, FEC0::/10 are Site Local addresses where FF00::/8 are Multicast addresses).
Multicast addresses from FF01:: through FF0F:: are reserved.
The complete list of Reserved IPv6 multicast addresses can be found in "IPv6 Multicast Address Assignments" [RFC 2375].
The ICMPv6 messages are used to convey IPv6 Multicast addresses resolution.

IP version selection (Windows XP and later)

Please note that **LanTraffic V2** supports IPv6 for Windows XP and later versions (i.e. Windows Server 2003) but doesn't support IPv6 for Windows 2000.

IPv6 is not installed by default: it should be added on the network interface you want to use.

LanTraffic V2 supports the IPv6 numerical address format (128 bits long) as well as canonical addresses. The IPv6 multicast is available with **LanTraffic V2** in accordance to RFC 2373 where a multicast IPv6 address starts with FF.

With IPv6 the maximum size of the packet to avoid fragmentation is **1440** bytes whereas it is 1460 bytes in TCP with IPv4.

Interface selection

The interface selection of a LAN card (NIC), a virtual NIC such as an IP tunneling protocol or a remote access is useful to control the data traffic hardware route.

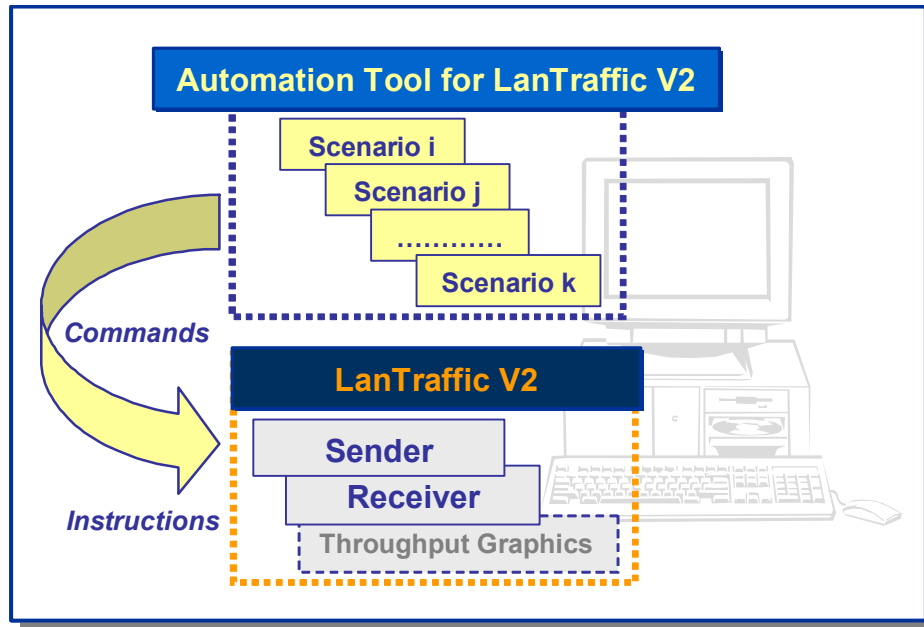
The **LanTraffic V2** software is able to generate and receive Unicast and Multicast IP traffic on a selected interface, giving the user a deeper control where data are exchanged and makes multiple routes definition easier.

Statistics values

Statistics values presented by **LanTraffic V2** are calculated at the Application level. They don't include the protocol header, the IP header nor data link header and/or trailer.

0.2 The Automation Tool for LanTraffic V2

The add-on software **Automation Tool for LanTraffic V2** allows you to edit scenarios, to carry out scenarios, to set the **LanTraffic V2** parameters and to pilot **LanTraffic V2** automatically on the same PC.



A scenario is a succession of **commands** and **instructions**.

A **command** is used to set parameters and/or activate a function of **LanTraffic V2**. For example the **Set and Start connection(s)** command helps to set parameters for IP connections and to start the traffic on these connections. With such command you specify the IP address, port number, protocol, packet size, inter packet delay, duration, etc. and you start the traffic generation for these connections.

An **instruction** is used by the Automation Tool to create an internal process. For example, the **Wait Date/Time** instruction suspends the scenario execution up to the specified date and time before to continue.

By using the **Automation Tool for LanTraffic V2** you can:

- Set automatically the parameters of the **LanTraffic V2** software,
- Start and stop IP connections based on timers,
- Execute the scheduled operations in accordance with your own timing,
- Make repetitive tests operations automatically,
- Simplify the tests reproduction,
- And more...

Part 1 What's new in LanTraffic V2 Version 2.5

This part is a general overview of new features and main improvements of **LanTraffic V2** version 2.5. You will find some important information on how to upgrade your software from previous versions.

Details regarding features and corrections included in the different versions of **LanTraffic V2** can be found in the version.txt file located in the installation directory (by default: C:\Program Files\LanTraffic V2).

To upgrade your software from version 2.2, 2.3 or 2.4 to 2.5 version, please refer to paragraph 1.2.

To upgrade your software from 2.1 version and older to 2.5 version, please refer to paragraph 1.3.

1.1 New features and improvements included in the version 2.5

⇒ **LanTraffic V2 (Version 2.5)**

- Improvements for the the Graphical User Interface.
- Easy-to-use GUI to specify the parameters of the mathematical laws.
- Units in accordance with IEEE Std 260.1-2004. The user can select one of the 2 units to use: Kibi = 1,024 or Kilo = 1,000 (IEEE 260.1).
- Support Windows Server 2003 SP1
- Use of USB Crypkey© protection (available with Windows Server 2003, Windows XP, Windows 2000 and Windows 98). Not available with Windows NT4 due to the lack of USB support.
- Automatic start of LanTrafficV2 when double-clicking on a context file, LanTrafficV2 loads this context file when it starts.
- New statistics symbol "N/A" to indicate that there is no value for the relevant statistic.
- Support of TTL and DSCP in the Absorber/Generator mode.
- New scales in the throughput tab.
- RPC port configuration for the dialog with "Automation Tool for LanTraffic V2", using a new key located in the Windows registry.

The contexts created with versions 2.0.12 and higher are reused automatically. When saved, they become the new 2.5 context file format.

⇒ **Automation Tool for LanTraffic V2 (Version 1.5)**

- Support Windows Server 2003 SP1
- Automatic start of Automation Tool when double-clicking on a scenario file, Automation Tool opens this scenario when it starts.
- During a **Wait instruction** execution, the elapsed time and remaining time are displayed.
- When the Automation Tool is executing a **Wait instruction** by clicking the Pause button, the countdown of the **Wait instruction** is suspended.

The scenarios created with older versions are reused automatically. When saved, they become the new 1.5 scenario file format.

1.2 Upgrading from Version 2.2, 2.3 or 2.4

There is no need to uninstall **LanTraffic V2** version 2.2, 2.3 or 2.4 before upgrading to version 2.5. The installation procedure will detect and update the previous version automatically.

The installation of the **LanTraffic V2** version 2.5 over the **LanTraffic V2** version 2.2, 2.3 or 2.4 will replace the following application and documentations files:

- LanTrafficV2.exe and Aut_LTV2.exe,
- "Read Me First.pdf", "LanTraffic V2 User Guide.pdf" and "Automation Tool for LanTraffic V2 User Guide.pdf".

The license scheme is maintained during the upgrade process. If an unlimited license is available, **LanTraffic V2** version 2.5 is ready for unlimited use. If you are using a trial version, the number of remaining days remains the same and will continue to decrease up to the final date.

LanTraffic V2 version 2.5 requires Acrobat Reader: see paragraph 1.4 for more details.

1.3 Upgrading from Versions 2.1 and older

There is no need to uninstall **LanTraffic V2** version 2.1 and older before upgrading to version 2.5. The installation procedure will detect and update the previous version automatically.

The license scheme is maintained during the upgrade process. If an unlimited license is available, **LanTraffic V2** version 2.5 is ready for unlimited use. If you are using a trial version, the number of remaining days remains the same and will continue to decrease up to the final date.

LanTraffic V2 version 2.5 requires Acrobat Reader: see paragraph 1.4 for more details.

1.4 Acrobat Reader version compatibility

To access the **LanTraffic V2's** help file, Acrobat Reader is required.

LanTraffic V2 supports Acrobat Reader version from 4.01 to 7.0 that have been tested successfully.

If the Acrobat reader version you are using is too old, you can find the latest version on the **LanTraffic V2's** CD-ROM or download it straight from the Acrobat reader's website: www.adobe.com.

Part 2 Install LanTraffic V2

LanTraffic V2 requires less than 15 MB of free disk-space. The default settings folder is C:\Program files\LanTrafficV2.

"Automation Tool for LanTraffic V2" add-on software is automatically installed with LanTraffic V2.



** To run LanTraffic V2 your computer screen resolution must be at least 1024 X 768 and the DPI setting should be set up with the "Normal size (96 DPI)" value.*

** To install LanTraffic V2 for Windows NT, 2000, XP or Windows Server 2003, you must log on with your administrators rights.*



We recommend that you shutdown first your anti-virus application before installing LanTraffic V2.

Please note that you should mask the task bar in a 1024x768 screen resolution, so you get an optimal view of the software interface.

The default settings of **LanTraffic V2** come with a 15-day limited license. When it reaches the deadline, **LanTraffic V2** stops running. Go to PART 3 for more information about the license program.

The installation procedure is a standard installation program for Windows 98, NT4, 2000, XP and Windows Server 2003.

2.1 How to install the software downloaded from the Internet



To install LanTraffic V2 for Windows NT4, 2000 or XP, you must log on with your administrators rights.

If you have downloaded **LanTraffic V2** trial version from our website, you have downloaded the "LanTrafficV2.zip" file including the software and the related documentation.

You must first unzip this file in a temporary directory.

Then run [Setup_LanTrafficV2Bundle.exe](#) from this temporary directory to launch the setup procedure and follow the instructions on the screen.

The default settings install **LanTraffic V2** in the following directory: C:\Program Files\LanTrafficV2.

The **LanTraffic V2** installation procedure installs the following files on your hard disk:

- LanTrafficV2.exe: program file
- LanTraffic V2 User Guide: PDF file (use the free version of Adobe® Acrobat® Reader® software. Available on www.adobe.com).
- Aut_LTV2.exe: program file (Automation tool)
- Automation Tool for LanTraffic V2 User Guide: PDF file
- LanTrafficV2 license help file
- Version.txt: text file which contains information about the versions and the Registry parameters.



*All files created by **LanTraffic V2** are saved in the folder where **LanTraffic V2** has been installed.*

Start Menu shortcuts created:

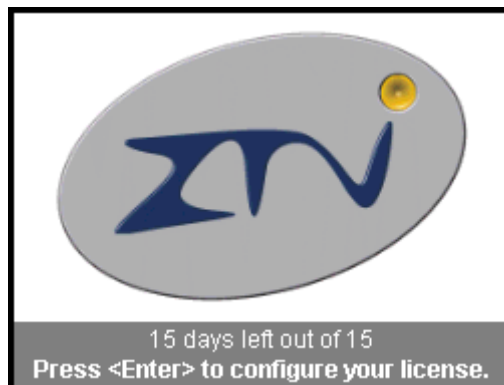
Start > Programs > **LanTraffic V2**

- ⇒ **LanTraffic V2** (click to run the software)
- ⇒ **LanTrafficV2 User Guide** (PDF file)
- ⇒ **Automation Tool for LanTrafficV2** (click to run the software)
- ⇒ **Automation Tool for LanTrafficV2 User Guide** (PDF file)
- ⇒ **License help**
- ⇒ **Uninstall LanTrafficV2**



You will need to restart your system in order to complete the installation.

When launching a **LanTraffic V2** trial version for the first time, a message is displayed showing the remaining days of use (for example, 15 days left out of 15 in the following example):



*Please refer to Part 3 (Software License Configuration)
to configure your unlimited license.*

2.2 How to install the software from the CD-ROM

The installation procedure is a standard installation program.



To install LanTraffic V2 for Windows NT4, 2000, XP or Windows Server 2003, you must log on with your administrators rights.

- First, insert the **LanTraffic V2** CD-ROM in your CD-ROM drive.
- Click on “Start”, “Execute” and type “CD unit>: \Setup_LanTrafficV2Bundle.exe”. Follow the **LanTraffic V2** setup instructions to proceed with the installation.
LanTraffic V2 default settings install files in the following directory: C:\Program Files\LanTrafficV2.

Start Menu shortcuts created:

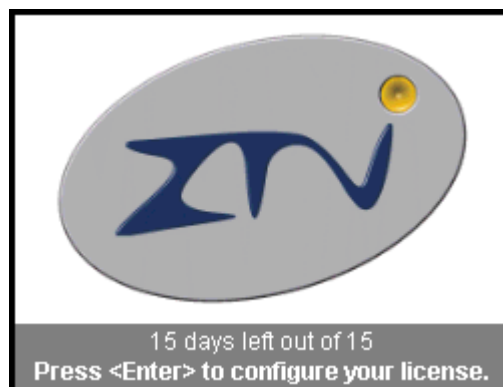
Start > Programs > **LanTraffic V2**

- ⇒ **LanTraffic V2** (click to run the software)
- ⇒ **LanTrafficV2 User Guide** (PDF file)
- ⇒ **Automation Tool for LanTrafficV2** (click to run the software)
- ⇒ **Automation Tool for LanTrafficV2 User Guide** (PDF file)
- ⇒ **License help**
- ⇒ **Uninstall LanTrafficV2**



You will need to restart your system in order to complete the installation.

When launching **LanTraffic V2** for the first time, a message is displayed showing the remaining days of use, even if you have bought an unlimited license (for example, 15 days left out of 15 in the following window):



Please refer to Part 3 (Software License Configuration) to configure your unlimited license.

Part 3 Software License Configuration

Up to **LanTraffic V2** version 2.4, the Software License Configuration mechanism was based on a Site Key manually entered in the configuration window, as described in paragraph 3.1.

LanTraffic V2 version 2.5 introduces an additional Software License Configuration mechanism. It is based on a specific USB key hardware called USB Crypkey© that contains the license information. This avoids the request for an unlimited Site Key license. The USB Crypkey© is available for unlimited time licenses only. The trial license doesn't use the USB Crypkey©. To get all the features of the USB Crypkey© please refer to explanations stated in the paragraph 3.4.

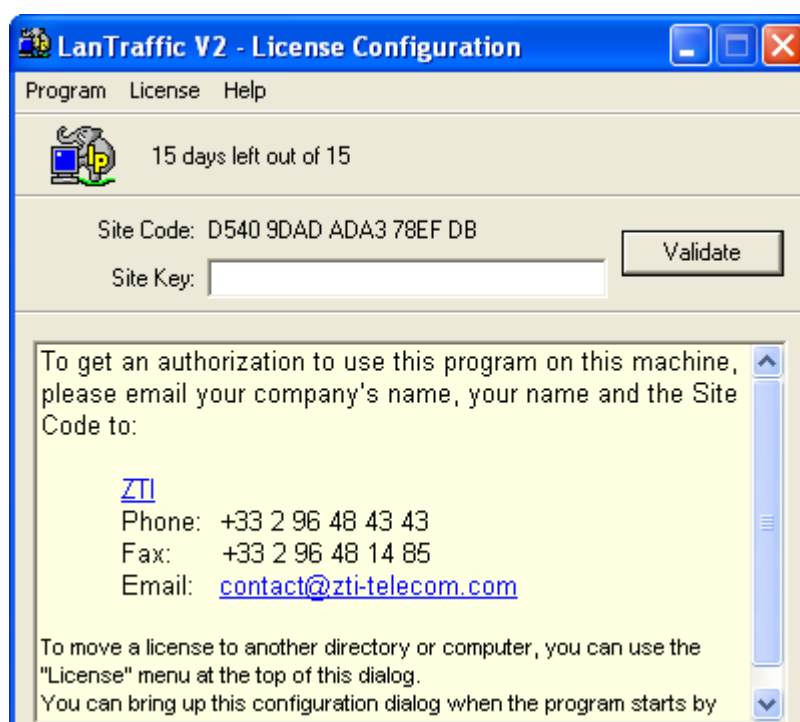
3.1 How to configure the Site Key license

***Note:** This software is licensed on a per workstation basis. This means that you will need to get a separate license for each machine that you'll install it on. Each licensed copy of the software installed on a system has a unique **Site Code** which requires a corresponding unique **Site Key** to be entered before the tool is operational (except for a trial version: a duration of 15 days is automatically enabled at the first installation of the software. If you try to install the software again, the license program will disable the trial period).*

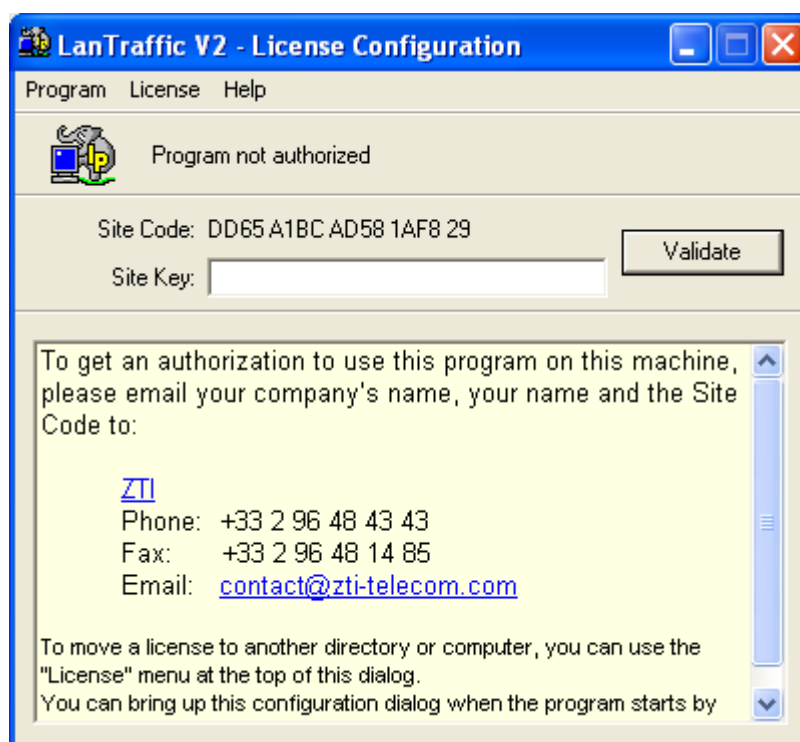
If you wish to configure your license before the trial period ends, press **Enter** just after launching the software when the following message is displayed:



You will then see the following license configuration window:



*At the end of the trial period when you launch **LanTraffic V2**, the same license configuration window appears, but says "Program not authorized" instead of showing the remaining days of use.*



To get the **Site Key** and obtain an unlimited version, please send an email to contact@zti-telecom.com or contact@zti.fr with the following information:

- The **Site Code** (you can copy and paste the Site Code displayed in the license window)
- The name of the software, for example: **LanTraffic V2** or the **LanTraffic V2** software bundle (including the Automation Tool for LanTraffic V2)

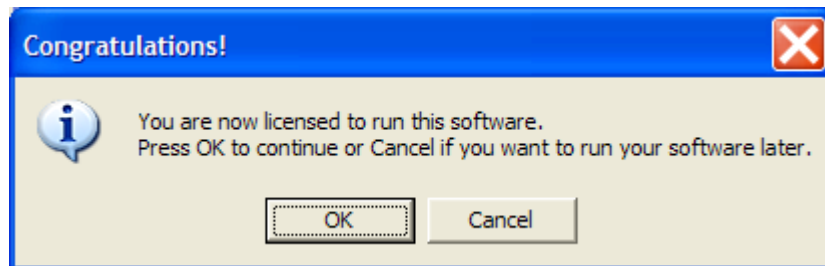
- c. The OS used
- d. Your company's name
- e. Your name and phone number
- f. The purchase order number and date of purchase

We will then email you the **Site Key**. You can now close the license window.

After you have received the email with the **Site Key**, open the license configuration window again by pressing the Enter key as explained before.

Copy the Site Key in and then click "Validate".

After validation of the Site Key, you will get the following message:



- ⇒ **Important:** one **Site Code** is associated with one **Site Key**, and only one. A **Site Code** is unique for each PC installed. For security reasons, as soon as you validate a **Site Key** (trial or unlimited), the license program generates a new **Site Code** automatically.
- ⇒ For any question or further information, please contact our technical support:
Email: support@zti-telecom.com or support@zti.fr
Phone: +33 2 96 48 43 43
Fax : +33 2 96 48 14 85



When you launch **LanTraffic V2** with an unlimited license, you will see the following window:



3.2 Site Key License Transfers



**A license transfer is not a duplication of any type.
Please contact ZTI or your authorized distributor for site license information
and for several licenses purchase.**

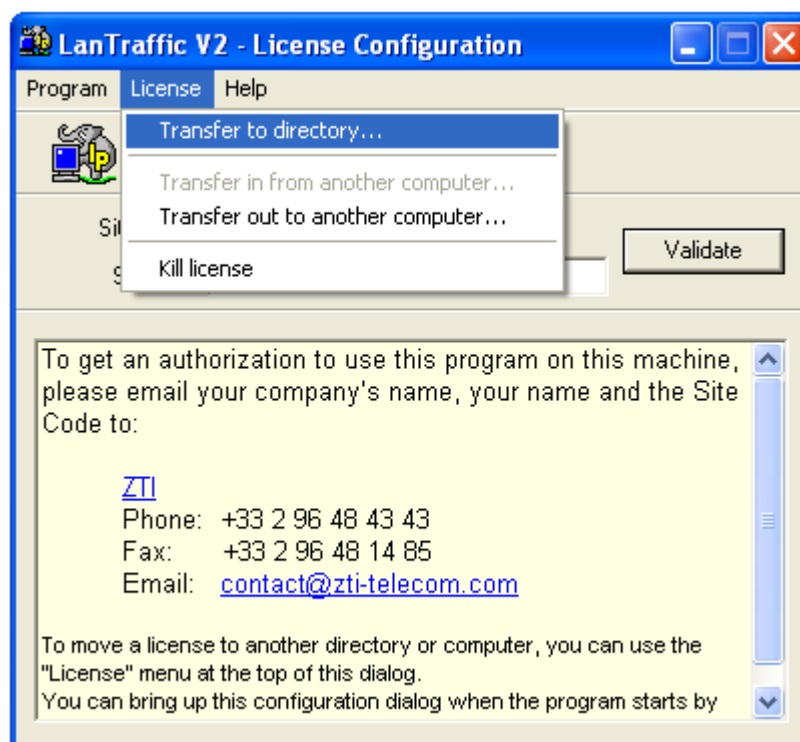
Licenses can be transferred using one of the following methods:

- ⇒ **Direct transfer:** move the license to another directory on the same PC or between two PCs of a same network.
- ⇒ **Transfer by media:** move the license from a source PC to a target PC by using a floppy disk or USB key.

3.2.1 Direct **Transfer**: move the Site Key license from one local directory to another

This transfer mechanism must be used to move a license in two cases:

- from a source to a target directory of the same PC
 - from a source to a target directory of networked PCs
- First, copy the program (copy **LanTraffic V2** folder) to the target directory.
For example from "C:\Program Files\LanTrafficV2" to "C:\Temp\LanTrafficV2"
 - Then run the program from its original directory (from "C:\Program Files\LanTrafficV2"). When the license configuration window appears, press **Enter** and select "License > Transfer to directory ..." in the license menu as shown below:



- Provide the path name of the target program (for example C:\Program Files\LanTrafficV2\LanTrafficV2.exe).
The license is now transferred to the new directory.

3.2.2 Transfer the Site Key license by media (floppy disk or USB key) from a source PC to a target PC



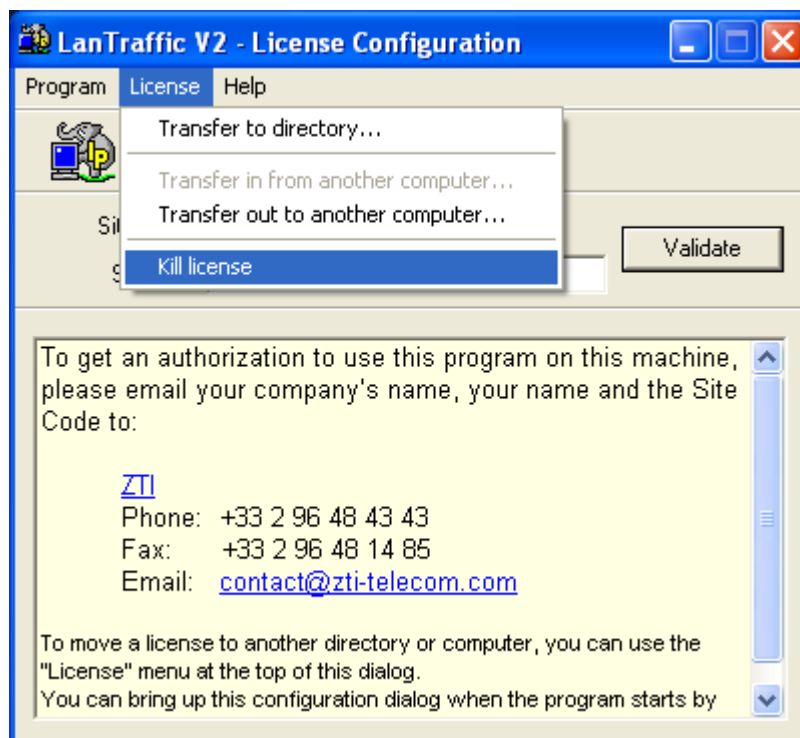
A floppy disk or USB key is needed for this kind of transfer.

To transfer the license from the source PC (PC #1) to the target PC (PC #2), proceed as described in the following order:

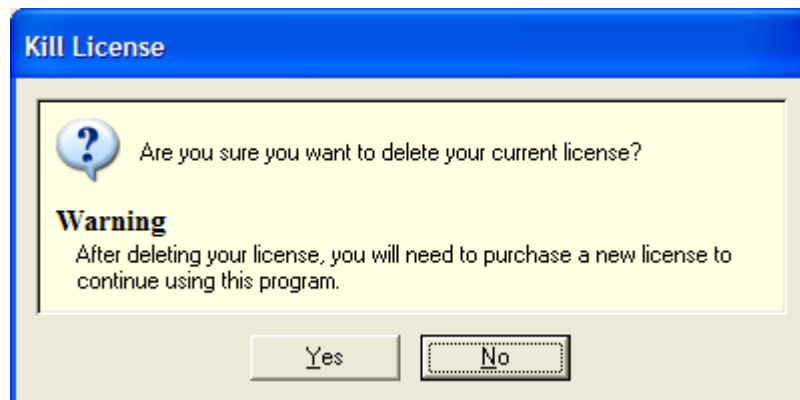
- 1) First install the program on the target PC (PC # 2).
- 2) Run the software on PC # 2 and delete the trial license in order to get an unauthorized license on this PC.
If the "Transfer in from another computer ..." item of the license menu is disabled, you must kill the license.

How to kill a license?

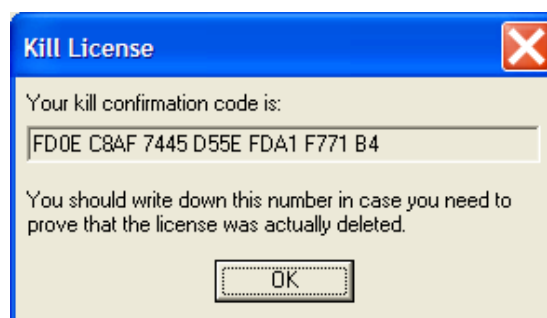
When the license configuration window appears, press **Enter** and select "License > Kill license" in the license menu.



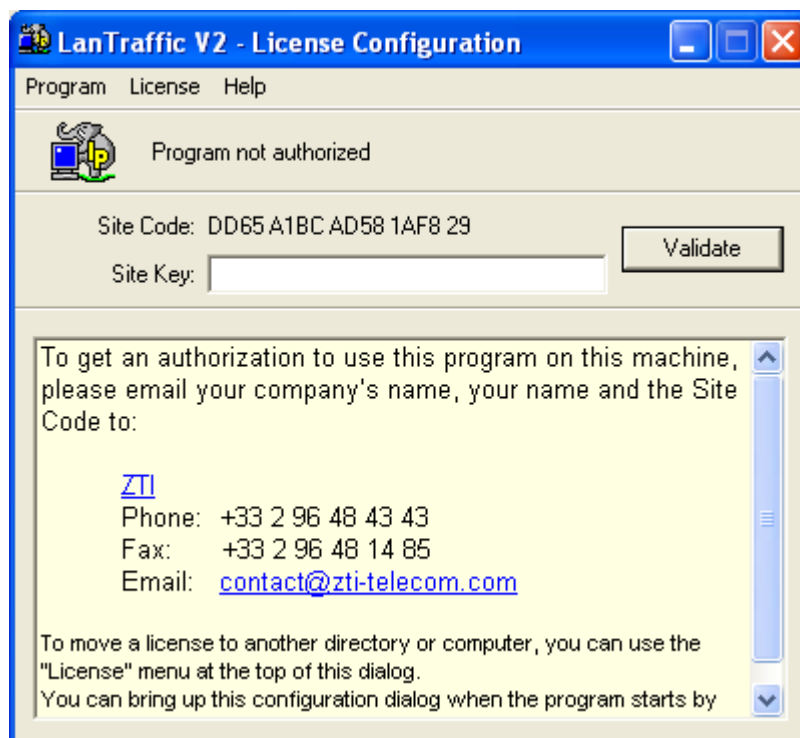
A message box will appear:



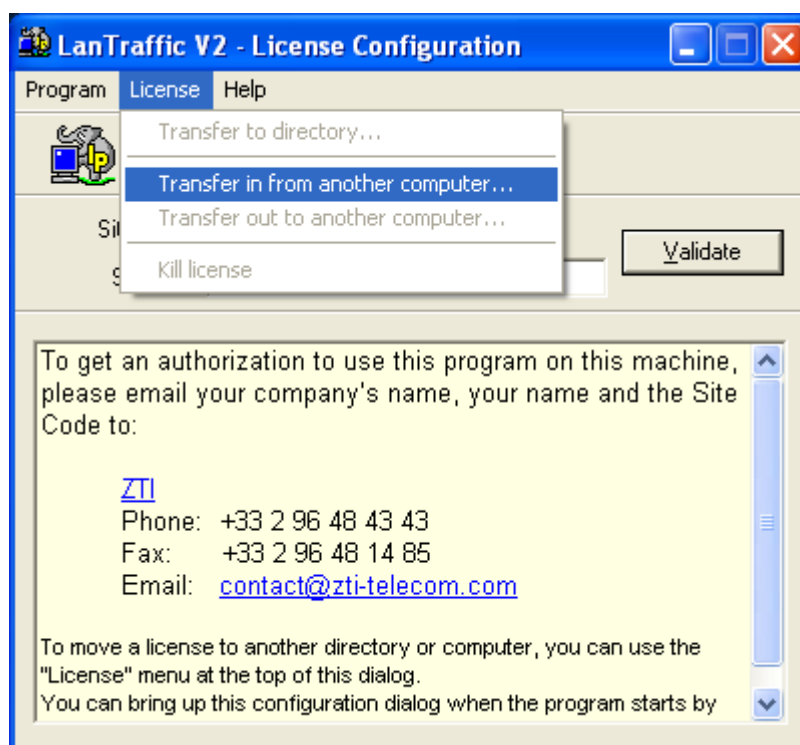
Press 'Yes' to kill the license and a confirmation code is displayed:



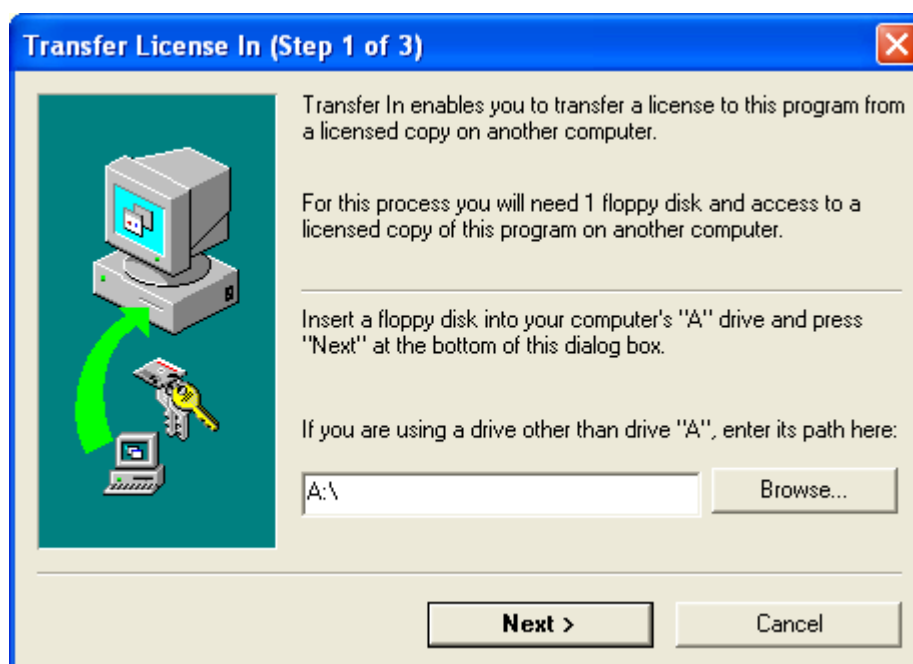
Click 'OK' and the license window displays now "Program not authorized":



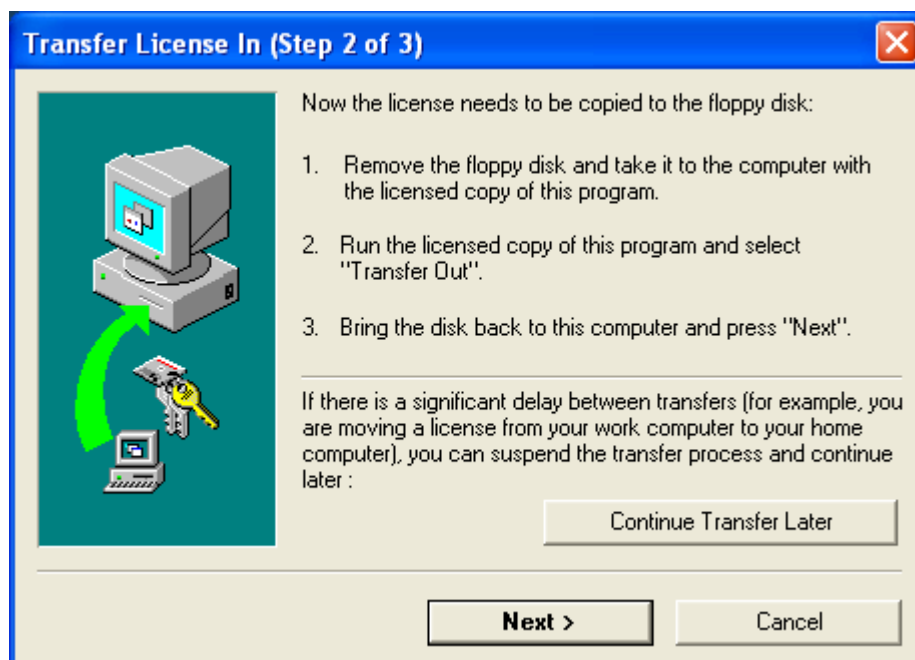
3) Select "License > Transfer in from another computer ..." from the license menu:



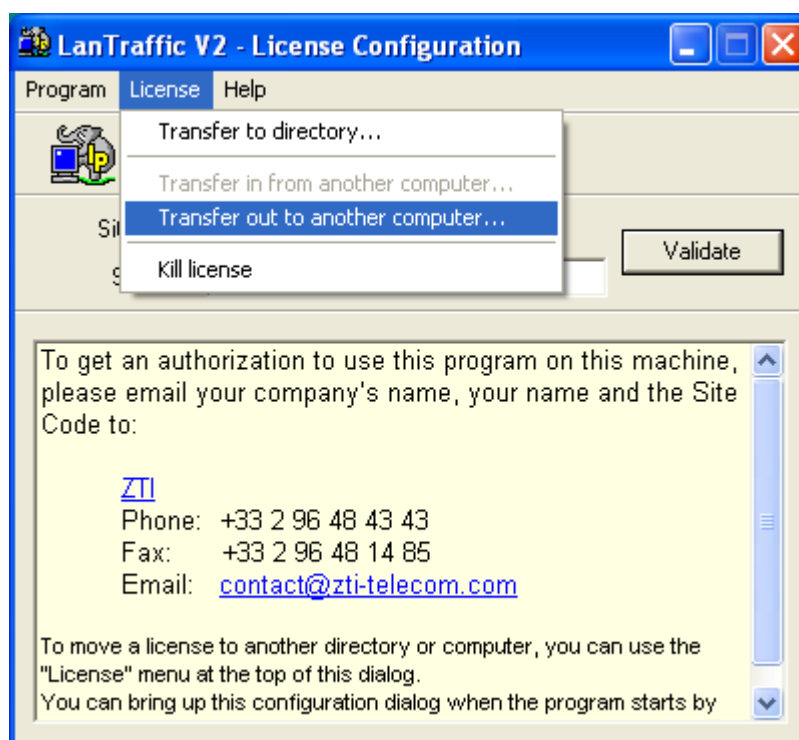
The "Transfer License In (Step 1 of 3)" window is displayed:



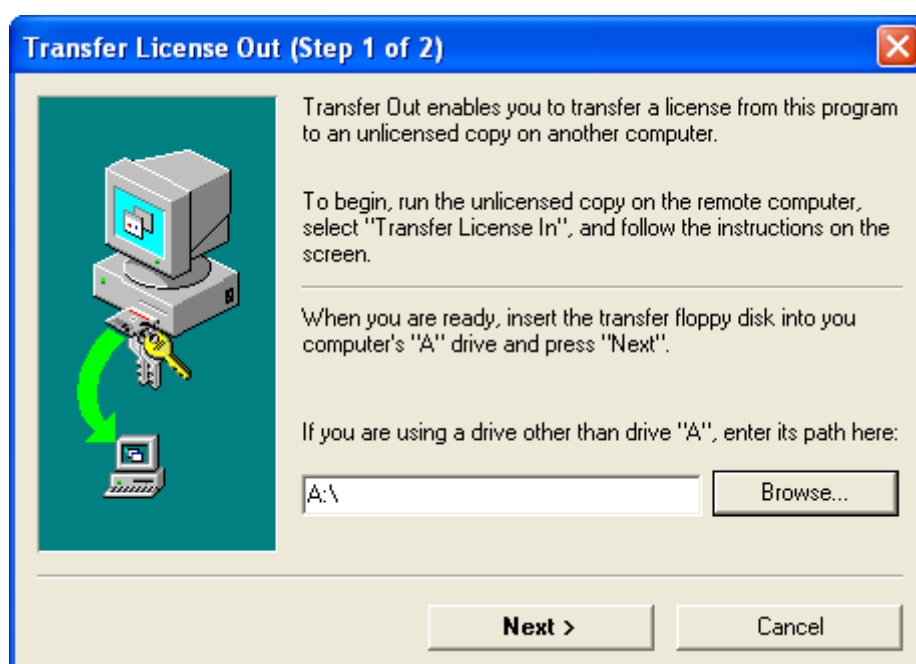
4) Insert a floppy disk or use a USB key as requested in step 1 of 3 and specify the path. Then press "Next >": the "Transfer License In (Step 2 of 3)" window is displayed:



5) Go to the source PC (PC #1) and insert the media (floppy disk or USB key). Then start the program on PC #1. When the license configuration window appears, press **Enter** and select "License > Transfer out to another computer ..." as shown below:



The following window is displayed:



Input the media path (floppy disk or USB key) and then press "Next >".

When the license is put on the media, you get the "Program not authorized" message:



You can check that the license is not available anymore on the source PC since the LanTraffic V2 software license is on a workstation basis.
Contact us to get information on site license (contact@zti.fr or contact@zti-telecom.com).

6) Remove the media from PC #1 and return to PC #2.

Click the 'Next' button on the step 2 of 3 of the "Transfer license in" window (on PC #2) to complete the transfer.

The unlimited license key is now transferred from the source PC to the target PC, and you get the following message:



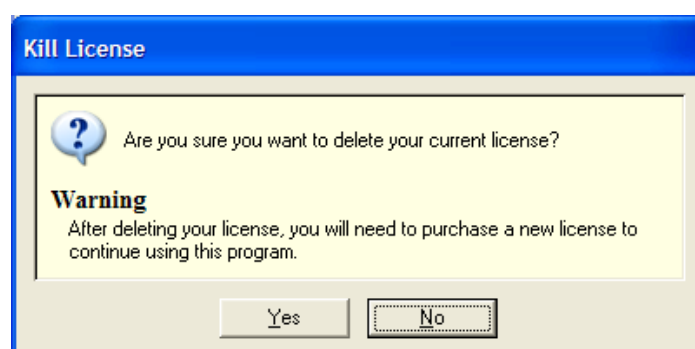
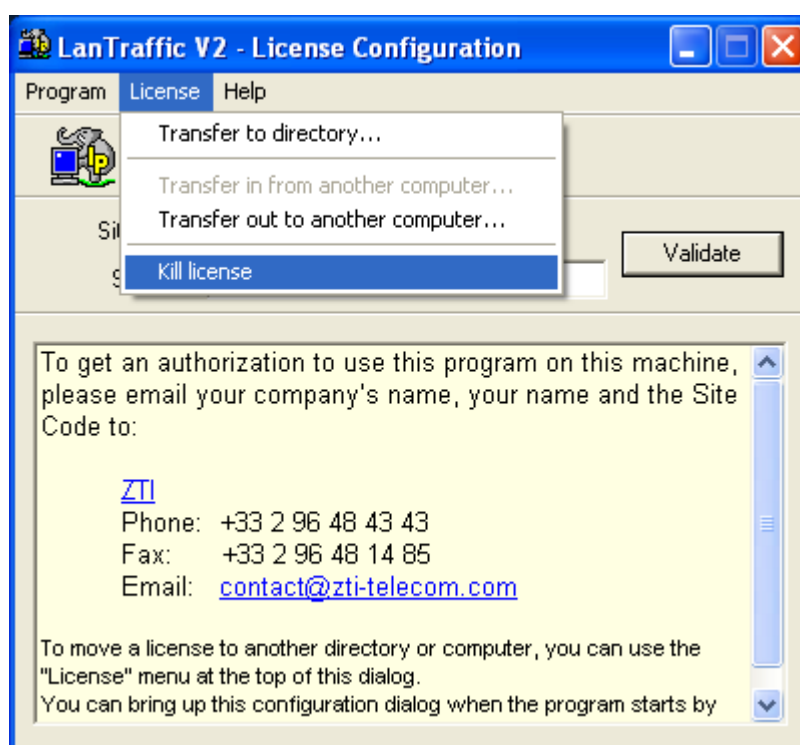
Click Finish to continue.

3.3 How to kill a Site Key license

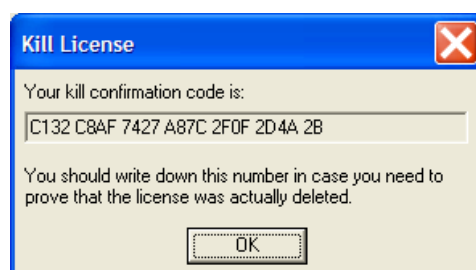
If you would like to transfer an unlimited license key onto a PC where a trial period is still active, you should first delete the active trial period. If you don't delete the active trial period, you will not be able to transfer an unlimited license.

To delete the trial license, you should proceed as follows:

- From the license configuration window, select "License > Kill License" in the license menu as shown below:



- Press 'Yes' and your license is now deleted. Please write down the kill confirmation code. This code may be requested by ZTI.



3.4 USB Cryptkey© license **New**

To use the **USB Cryptkey©**, you need a PC with one USB 1.1 or 2.0 port.

The **USB Cryptkey©** license is a specific USB Key that contains the **LanTraffic V2** license information on it. This new license hardware equipment avoids transferring the license from one PC onto another PC when needed. With the **USB Cryptkey©**, you install **LanTraffic V2**, plug the **USB Cryptkey©** on that PC and use **LanTraffic V2** immediately.

*Note: The LanTrafficV2 software is licensed on a per workstation basis. This means that you will need to get a **USB Cryptkey©** license for each machine that you'll run it on. You are able to install the LanTrafficV2 software on multiple machines but the **USB Cryptkey©** is restricted to be used on only one machine at a time.*

To take advantage of the **LanTraffic V2 USB Cryptkey©** license information options, the **LanTraffic V2** license should be killed from the PC before to use **LanTraffic V2**.

- ⇒ **Important:** When a **Site Key** (trial or unlimited) exists on the PC, the license program uses it before analyzing the **USB Cryptkey©** license information. In this case, you may lose the additional license information options available on the **USB Cryptkey©** if you keep the existing **Site Key**. This is why we recommend killing the license before the first usage of the **USB Cryptkey©**. It should be done as soon as you get the **USB Cryptkey©** to use immediately all the license information options available on the **USB Cryptkey©**.



*The **USB Cryptkey©** label – hexadecimal number - should remain unchanged. It contains a part of the protection information needed for an upgrade of LanTraffic V2.*



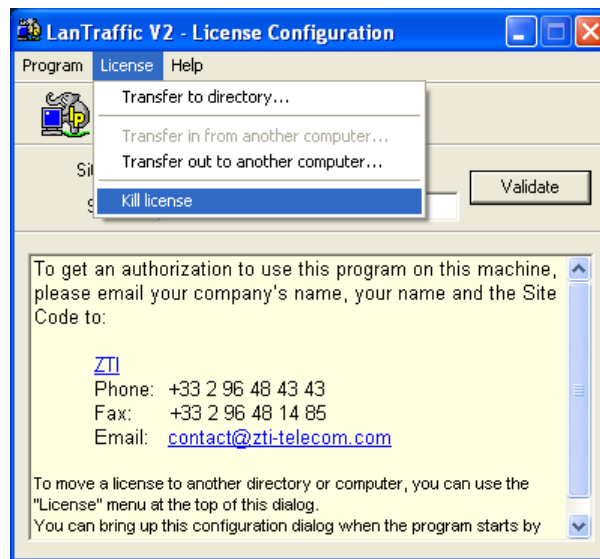
*The **USB Cryptkey©** needs the same safe operation as a standard USB Key. You should safely remove the USB Cryptkey©, using the USB Windows system tools. You may loose your **LanTraffic V2** license when the **USB Cryptkey©** is not removed safely under Windows 98 or 2000.*



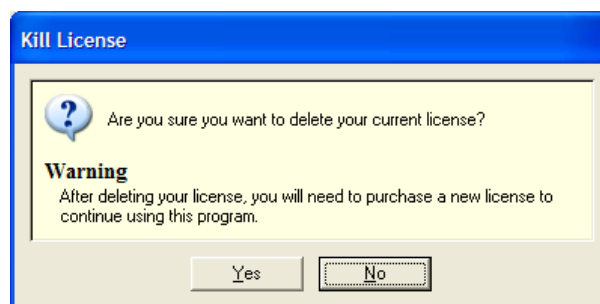
*We don't recommend using the **USB Cryptkey©** as a standard USB key i.e. to transfer data between equipments. Some files located on the **USB Cryptkey©** contain the license information: they should remain untouched.*

3.4.1.1 How to kill a license before the first use of the USB Cryptkey©?

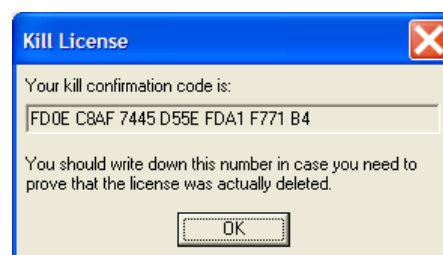
When the license configuration window appears, press **Enter** and select "License > Kill license" in the license menu.



A message box will appear:



Press 'Yes' to kill the license and a confirmation code is displayed:



The license menu doesn't kill the license located on the USB Cryptkey©.

3.4.1.2 How to use LanTraffic V2 with the USB Crypkey© license?

- 1) Plug the **USB Crypkey©** in a USB 1.1 or 2.0 port.
- 2) Run **LanTraffic V2**. You should see the following window:



- 3) Keep the **USB Crypkey©** plugged in until **LanTraffic V2** has been stopped to avoid losing data and to avoid the shutdown of **LanTraffic V2**. Should you need to remove the **USB Crypkey©**, do it **safely** by using the USB Windows system tools, after you have stopped **LanTraffic V2**.

Part 4 Uninstall LanTraffic V2

The uninstall procedure is a standard uninstall program.

To uninstall **LanTraffic V2** select “Uninstall LanTraffic V2” in the “Start > Programs > LanTraffic V2” menu.

Part 5 LanTraffic V2 Getting Started

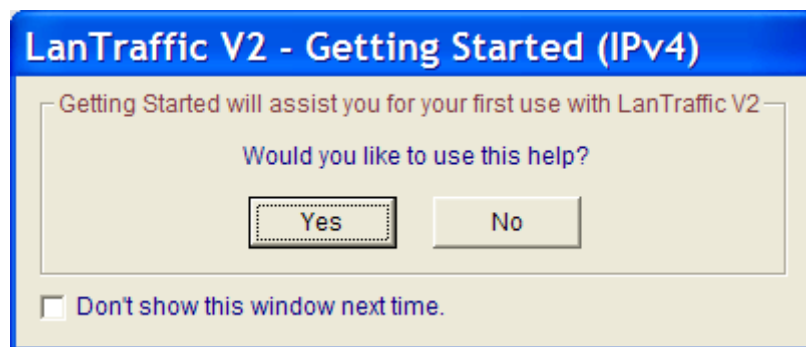


Anti-virus or firewall applications may disrupt **LanTraffic V2** when sending or receiving data.

Please set up your security software before using **LanTraffic V2** (see Part 6 and Part 7).

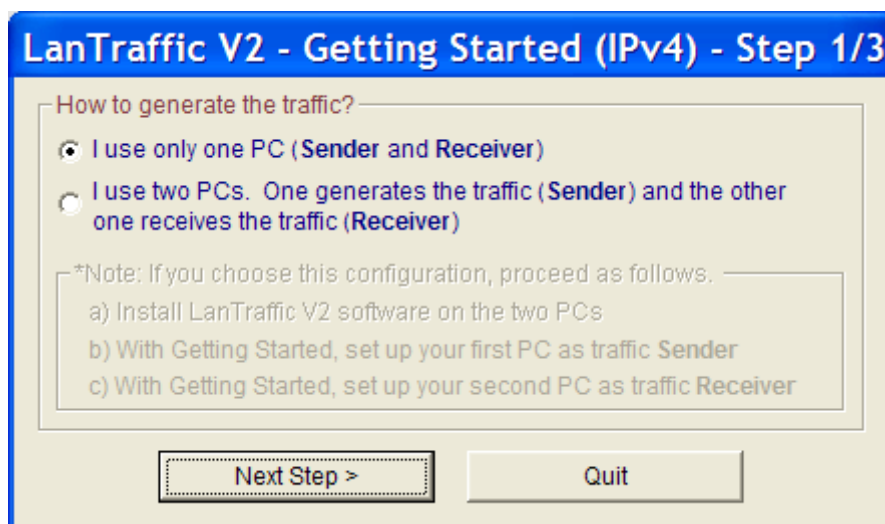
New users can use this help as an introduction to **LanTraffic V2** and generate or receive traffic with the IPv4 protocol in a few clicks.

Just after launching **LanTraffic V2**, the Getting Started Window is displayed:

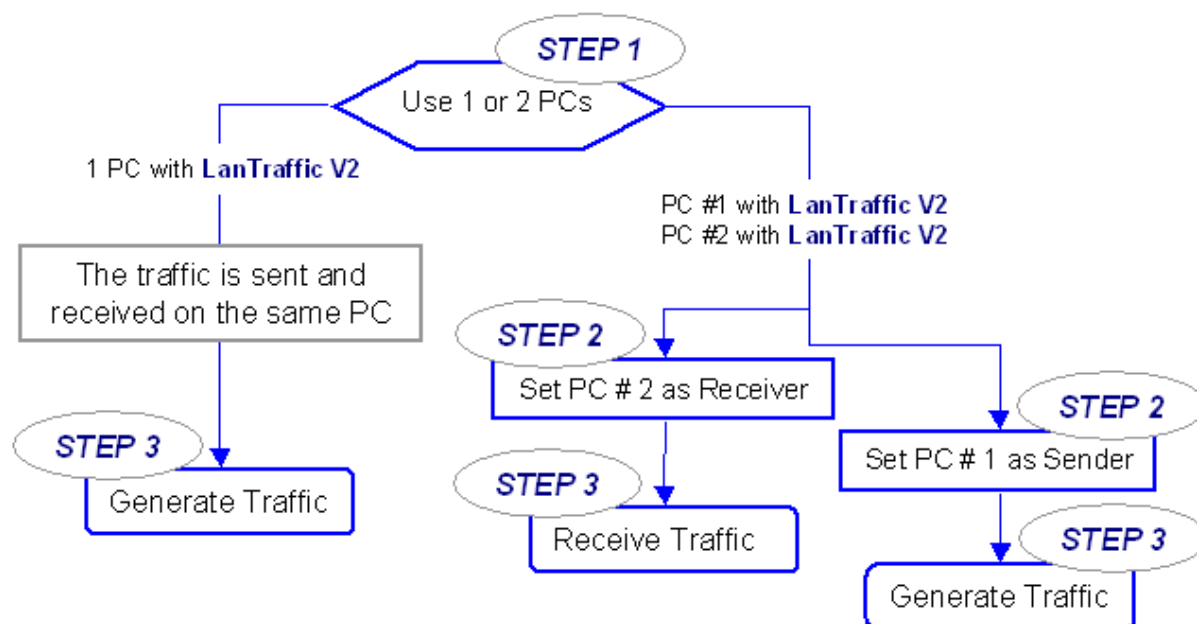


Press **No** if you don't want to use this help.

Press **Yes**, the next window will ask you if you want to use 1 or 2 PCs:



Depending on your choice to use 1 or 2 PCs, the plan below shows the steps:



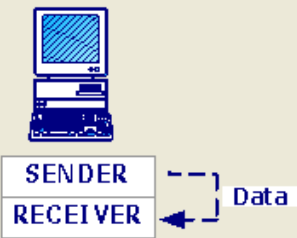
For the use of 1 PC

The following window is displayed.

LanTraffic V2 - Getting Started (IPv4) - Step 3/3

In order to help you to use LanTraffic V2, this assistant is going to generate traffic using two connections. The first one will use TCP protocol and the second one will use UDP protocol. The data are generated from the **Sender** to the **Receiver** of LanTraffic V2 on your PC.

LanTraffic V2



For this configuration, the IPv4 address and port number used are specified as follows

IPv4 Address: *

Port Number: (the value should be between 1 and 65535)**

* You can specify an IPv4 Address respecting the standard format (ex: 192.168.0.1) or use a host name (ex: myremotepc, myserver, ...).

** Set up the same port number that you have specified on the PC chosen as traffic **Receiver**.

To start the **Sender** and the **Receiver**, click on the "Generate Traffic" button.

Then press the "Generate traffic" button to continue. The "Sender – Traffic + Statistics" tab of LanTraffic V2 will display the two first active connections as shown on the following window:

LanTraffic V2

File Edit Configuration File Downloading Automation Tool Help

Sender - Parameters | Sender - Traffic + Statistics | Receiver - Traffic + Statistics | Throughput Graphics

Unitary Mode

Destination Parameters			Statistics (based on application data)								Clear on Stop	
	IP Address or Host Name	Port	Tx Throughput	Tx Volume	Tx Packets	Rx Throughput	Rx Volume	Rx Packets	Jitter			
Connection #01	127.0.0.1	2009	205 Kb/s	516 KB	362 p	0.00 b/s	0 B	0 p	N/A	<input type="button" value="Stop #01"/>		
Connection #02	127.0.0.1	2009	103 Kb/s	258 KB	181 p	0.00 b/s	0 B	0 p	N/A	<input type="button" value="Stop #02"/>		
Connection #03	NO_ADDRESS	2009								<input type="button" value="Start #03"/>		
Connection #04	NO_ADDRESS	2009								<input type="button" value="Start #04"/>		
Connection #05	NO_ADDRESS	2009								<input type="button" value="Start #05"/>		
Connection #06	NO_ADDRESS	2009								<input type="button" value="Start #06"/>		
Connection #07	NO_ADDRESS	2009								<input type="button" value="Start #07"/>		
Connection #08	NO_ADDRESS	2009								<input type="button" value="Start #08"/>		
Connection #09	NO_ADDRESS	2009								<input type="button" value="Start #09"/>		
Connection #10	NO_ADDRESS	2009								<input type="button" value="Start #10"/>		
Connection #11	NO_ADDRESS	2009								<input type="button" value="Start #11"/>		
Connection #12	NO_ADDRESS	2009								<input type="button" value="Start #12"/>		
Connection #13	NO_ADDRESS	2009								<input type="button" value="Start #13"/>		
Connection #14	NO_ADDRESS	2009								<input type="button" value="Start #14"/>		
Connection #15	NO_ADDRESS	2009								<input type="button" value="Start #15"/>		
Connection #16	NO_ADDRESS	2009								<input type="button" value="Start #16"/>		

Export Statistics into a File
Parameters Export is disabled

Choose Columns Reset Display

Sender Statistics (based on application data)
Active Connections: 2 (TCP Connections: 1 - UDP Connections: 1)
Total Sending Throughput: 308 Kb/s Total Receiving Throughput: 0.00 b/s

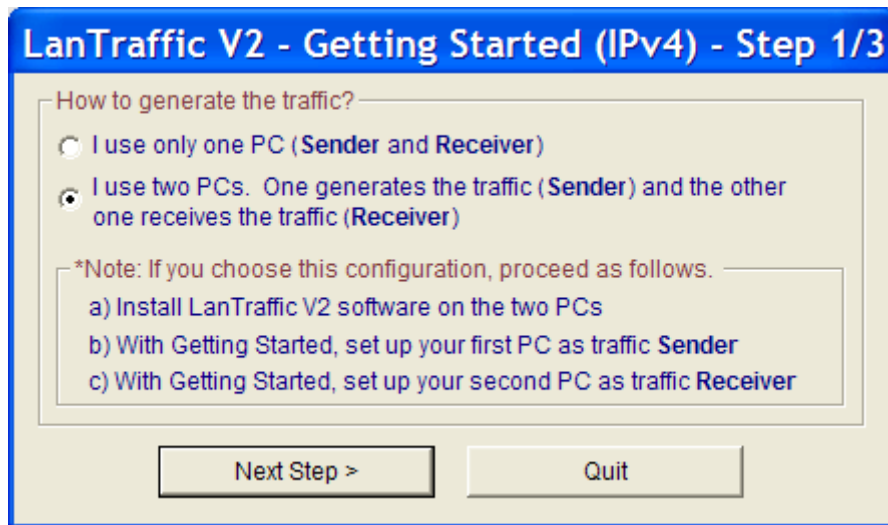
Receiver Statistics (based on application data)
Active Connections: 2 (TCP Connections: 1 - UDP Connections: 1)
Total Sending Throughput: 0.00 b/s Total Receiving Throughput: 308 Kb/s

Start Sender and Receiver
Stop Sender and Receiver

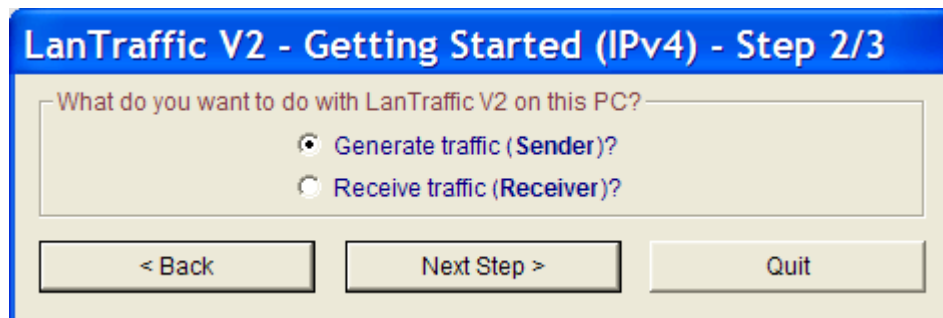
Start All Connections
Stop All Connections

For the use of 2 PCs

If you select the option: **I use two PCs**, read the following instructions.
LanTraffic V2 must be installed on the two PCs.



Press "Next Step >" to continue.

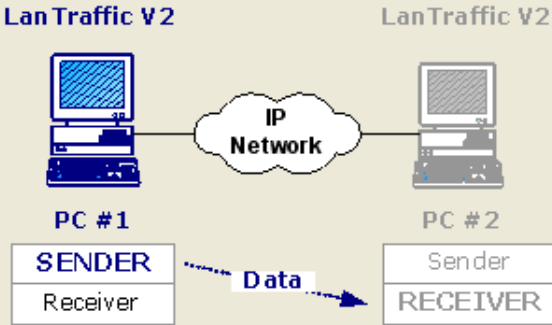


Then choose if you want to generate or receive the traffic on this PC.

If you select "Generate traffic" the following window will appear:

LanTraffic V2 - Getting Started (IPv4) - Step 3/3

In order to help you to use LanTraffic V2, this assistant is going to generate traffic using two connections. The first one will use TCP protocol and the second one will use UDP protocol. The data are generated by the **Sender** of the LanTraffic V2 based on the PC #1 and are received by the **Receiver** of the LanTraffic V2 based on the PC #2.



For this configuration, you should set up the IPv4 destination address and port number to the PC #2

IPv4 Destination Address: *

Port Number: (the value should be between 1 and 65535)**

* You can specify an IPv4 Address respecting the standard format (ex: 192.168.0.1) or use a host name (ex: myremotepc, myserver, ...).

** Set up the same port number that you have specified on the PC chosen as traffic **Receiver**.

To start the **Sender**, click on the "Generate Traffic" button.

< Back Generate Traffic Quit

Define the IPv4 address and port number to use.

Then press the "Generate traffic" button and a warning dialog is displayed:

LanTraffic V2 - Getting Started (IPv4)

Did you set up and start the LanTraffic V2 Receiver on PC #2?

Yes No

Before generating traffic towards PC # 2, the PC # 2 must be configured as Receiver.

LanTraffic V2 - Getting Started (IPv4) - Step 2/3

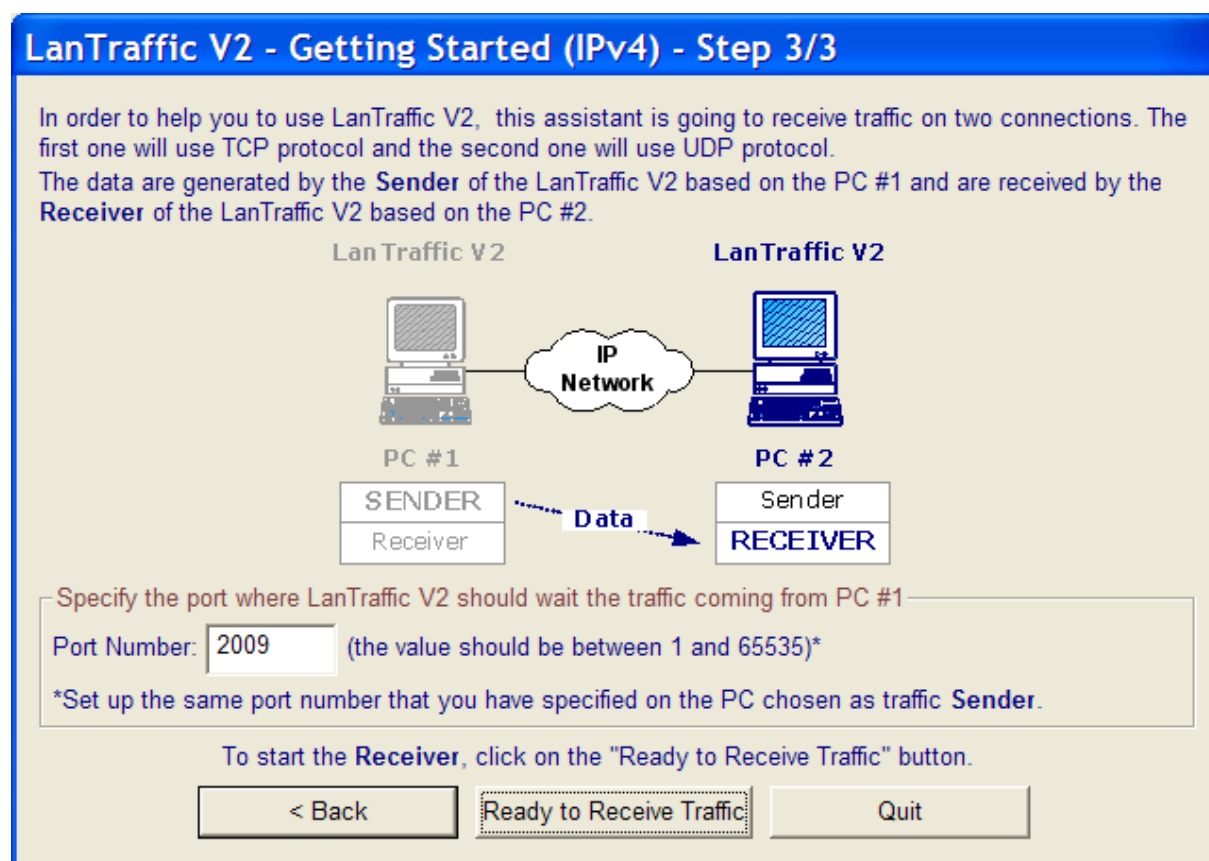
What do you want to do with LanTraffic V2 on this PC?

☐ Generate traffic (Sender)?

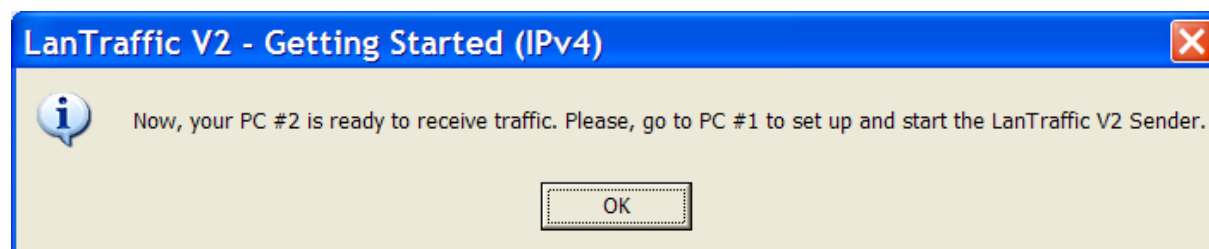
☒ Receive traffic (Receiver)?

< Back Next Step > Quit

Press "Next Step >" to continue on PC # 2.



After pressing the "Ready to Receive Traffic" button, a warning message will appear:



Press "OK" and the "Receiver – Traffic + Statistics" tab of **LanTraffic V2** is displayed on PC # 2.

Then go to PC # 1 and start the **LanTraffic V2** Sender. The "Sender – Traffic + Statistics" tab of **LanTraffic V2** displays now the two first active connections.

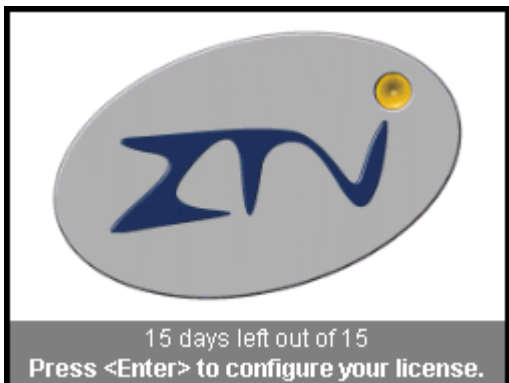
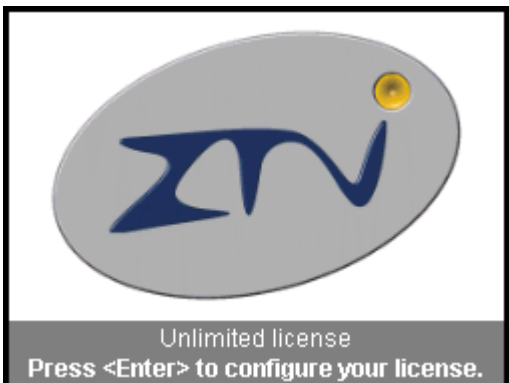
You have now 2 connections generating traffic from PC #1 to PC # 2.

Part 6 Run LanTraffic V2

Use the Windows start menu:

Start ► All Programs ► LanTraffic V2 ►  LanTraffic V2 Click here.

After a few seconds and depending of your license, you will get one of the following license window:

Limited license	Unlimited license
	

Press **Enter** only if you need to configure your license,

If you don't, allow a few seconds for the main window of **LanTraffic V2** to open.

With Windows XP Service Pack 2, the window below may appear.

This window allows configuring the Windows Firewall settings for **LanTraffic V2**.

Click on the “Unblock” button to add **LanTraffic V2** into the authorized programs list.



Part 7 LanTraffic V2 / Windows Firewall



*Anti-virus or firewall applications may disrupt **LanTraffic V2** from sending or receiving data. Please set up your security software before using **LanTraffic V2**.*

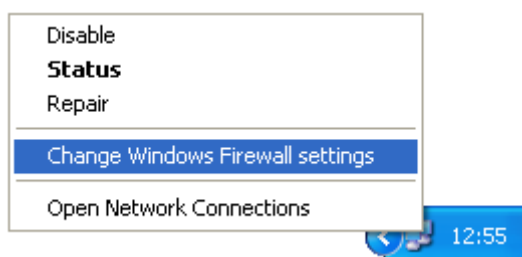
Some anti-virus configurations can stop **LanTraffic V2** working because of their security settings.

For commercial anti-virus, please refer to the related documentation to authorize **LanTraffic V2**.

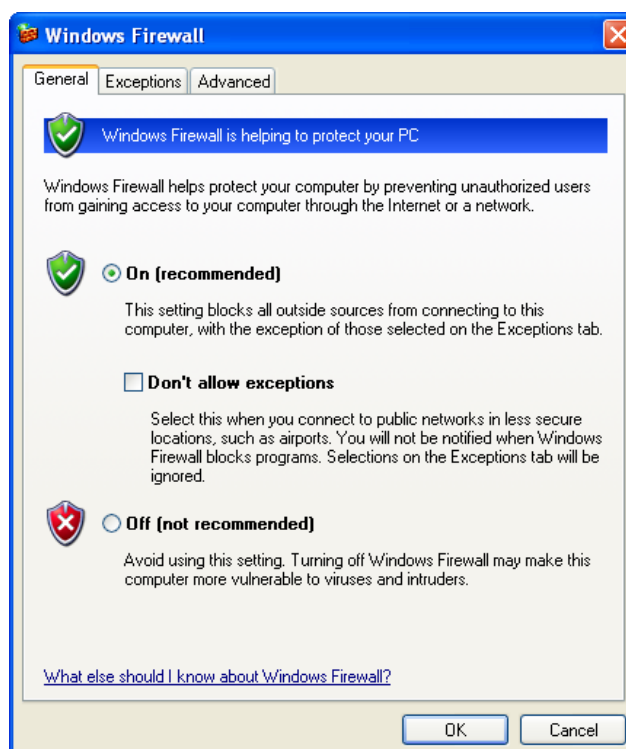
7.1 Configuration for UDP, TCP connections and ICMP IPv4

See below how to configure the Windows Firewall included in Windows XP Service Pack 2 to use UDP & TCP connections for IPv4 and IPv6, and the ICMP (IPv4) connections.

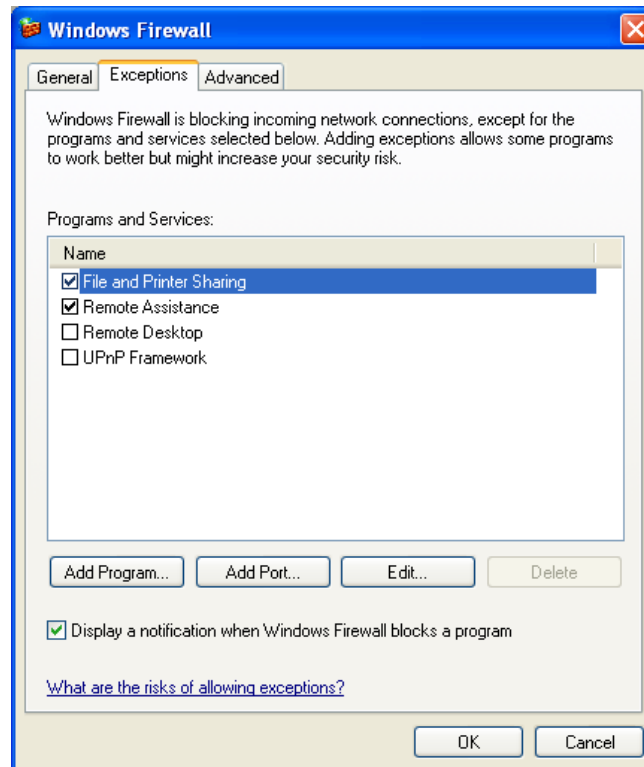
1. Open the Windows Firewall settings window by right clicking on the two computers representing the network interface that **LanTraffic V2** will use.



2. The window below appears. If the Firewall is off, there is no need to change the settings. If the Firewall is active, proceed as described below:

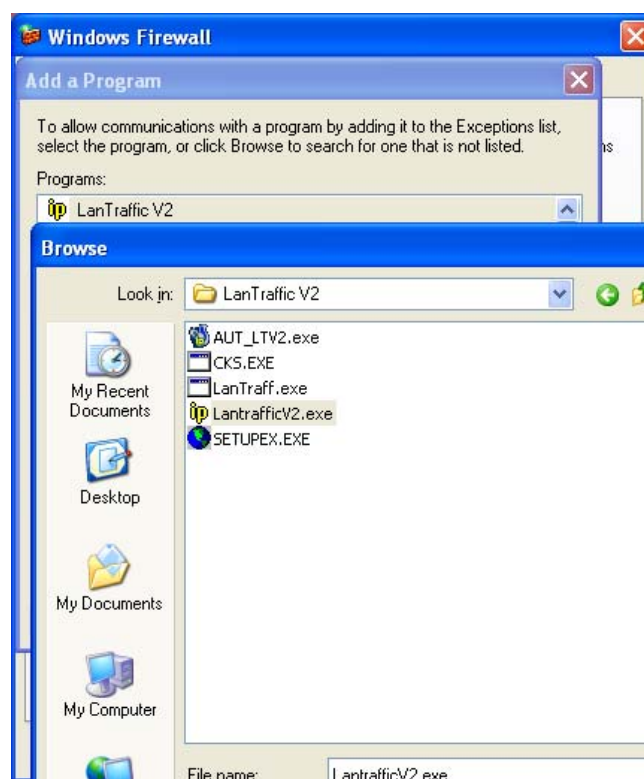


3. First switch on the “Exceptions” tab.

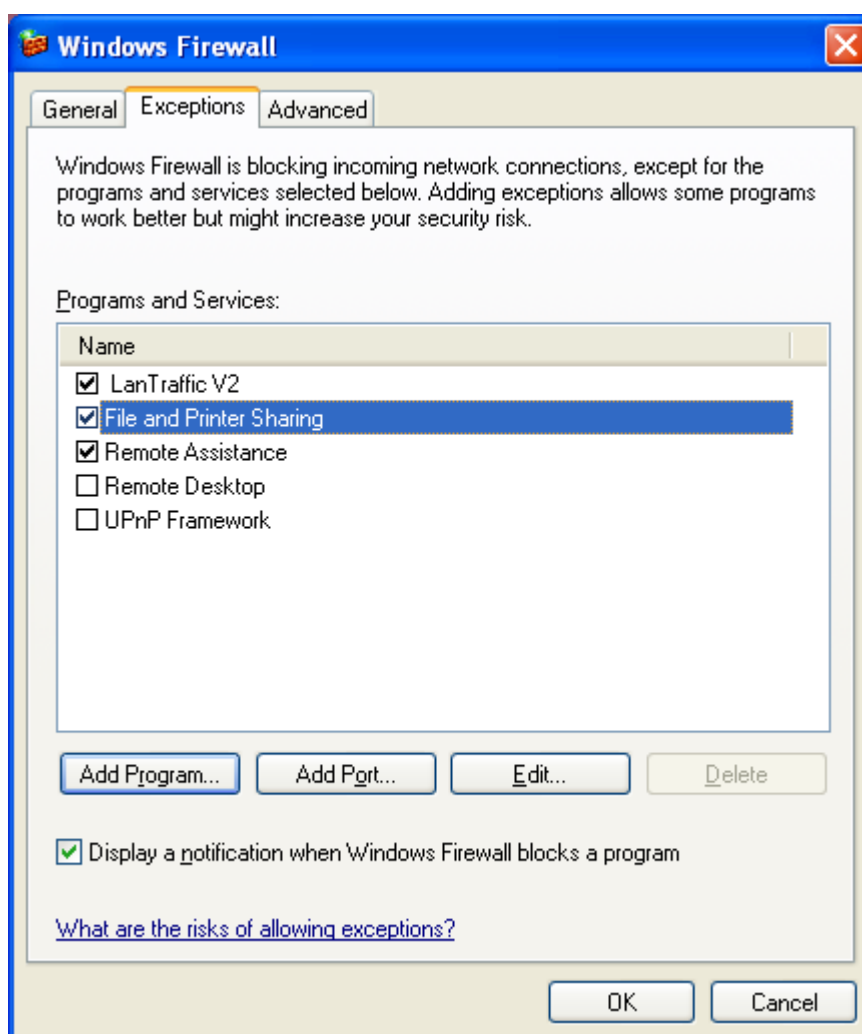


If **LanTraffic V2** is already in the list, just select it by checking the box and press “OK”.

If **LanTraffic V2** is not in the list, click on the “Add Program ...” button. Then click on the “Browse” button and add it by selecting the LanTrafficV2.exe file placed in the installation directory (default settings: “[Drive]:\Program Files\LanTrafficV2\”).



4. Then select **LanTraffic V2** into the program list and press “OK”.



Now **LanTraffic V2** is allowed to use ports, generate and receive TCP and UDP IPv4 and IPv6 traffic, including ICMP (IPv4). Click “OK” to save the new settings.

7.2 Configuration for ICMP IPv6 connections

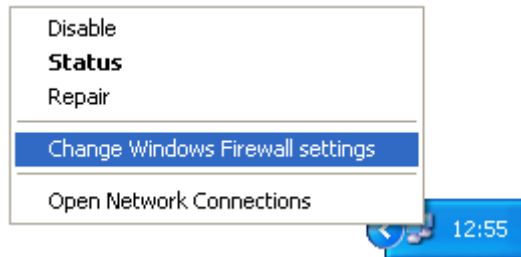


The use of the ICMP IP V6 connection requires disabling the Windows Firewall before using LanTraffic V2.

By disabling the Windows Firewall, you enable the TCP, UDP and ICMP (IPv4) connections as described in the paragraph 7.1.

See below how to disable the Windows Firewall included in Windows XP Service Pack 2 to use ICMP IPv6 connections, as well as TCP, UDP and ICMP (IPv4) connections.

1. Open the Windows Firewall settings window by right clicking on the two computers representing the network interface that **LanTraffic V2** will use.



2. The window below appears. If the Firewall is off, there is no need to change the settings. If the Firewall is active, select the **Off** option as shown. Then click OK.

