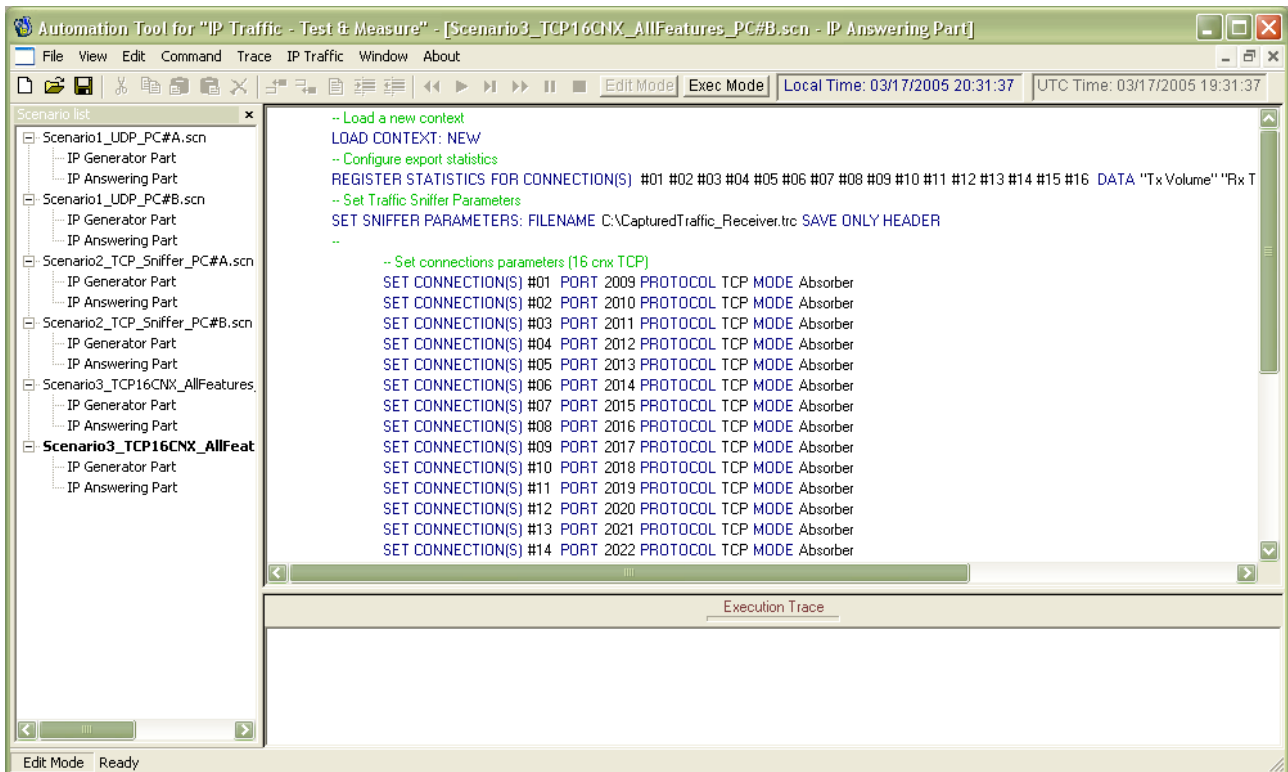




# Automation Tool for "IP Traffic - Test & Measure"

*Version 1.3.1*



## User Guide

*The content of this User Guide is provided for informational use only. It is subject to change without notice, and must not be used as a commitment by ZTI.*

*ZTI could not be liable for any direct or indirect damages caused by the software or User Guide imperfection.*

By any chances, if mistakes have slipped in this guide, do not hesitate to contact our client support and make remarks.

Except when allowed by license agreement between ZTI and the End User, no part of this guide or the software may be reproduced, transmitted in any form or by any means.

*This guide allows discovering the “Automation Tool for IP Traffic – Test & Measure” software and is not an exhaustive user manual.*

### **To contact us:**

ZTI  
1, boulevard d'Armor  
B.P. 20254  
22302 Lannion Cedex  
France

Phone: +33 2 96 48 43 43  
Fax: +33 2 96 48 14 85

Web: <http://www.zti-telecom.com> or <http://www.zti.fr>  
E-mail: [contact@zti-telecom.com](mailto:contact@zti-telecom.com) (marketing & sales)  
[support@zti-telecom.com](mailto:support@zti-telecom.com) (technical support)

---

### **Copyrights**

Copyright ZTI, 2003-2005. All rights reserved.

The software described in this manual is furnished under a License Agreement and may only be used in accordance with the terms of this agreement.

No part of this manual may be copied, photocopied, reproduced, translated, or reduced to any electronic medium or machine-readable form without prior written consent from ZTI.

All products and company names mentioned in this document are trademarks or registered trademarks of their respective owners.

## **Software License Agreement**

This is an agreement between you (legal entity or physical person) and ZTI.

### **❖ COPYRIGHT**

The enclosed Software and documentation (here after called the Products) remains ZTI property.

French copyright laws and international treaties protect the products.

ZTI grants you the right to use the products according to the following:

### **❖ USE OF THE SOFTWARE**

You may:

- Install the software on hard disk of your system accordingly with the software protection described in the next paragraph.
- Make 1 backup copy of the software, provided this copy is not used or install on any computer.
- Use the Products properly.

In accordance with copyright and patent laws, the Licensee undertakes:

- To use the Products only for its own use
- Not to modify the Products
- Not to make illegal copy of the Products
- Not to give, rent, sublicense or sale the Products
- To protect and respect ZTI and Products reputation.

### **❖ SOFTWARE PROTECTION**

The “Automation Tool for IP Traffic – Test & Measure” software is licensed on a per workstation basis. You will need to purchase a separate license for each machine that you install it on.

### **❖ LIMITED WARRANTY**

Software is supplied without any warranty express or implied regarding the performance or results obtained by the use of the Products.

ZTI warrants that software media (i.e. CD-ROM) will be free of material defects for a ninety (90) days period following purchase. The limited warranty applies to the media and not the information contained on it. If the media does not comply with this limited warranty, the sole remedy is the replacement of the media software

In no event, ZTI will be liable for any kind of direct or indirect damages caused by the Products.

### **❖ JURISDICTION**

French laws will govern this agreement.

The court of GUINGUAMP-France shall finally settle all disputes arising out of or in connection with this Agreement.

**For further information, please contact: ZTI customer support department.**

## Table of Contents

<b>Part 0:</b>	<b>Preface .....</b>	<b>5</b>
0.1.	<i>Minimum System Requirements.....</i>	<i>5</i>
0.2.	<i>Technical Support.....</i>	<i>5</i>
<b>Part 1:</b>	<b>Product Overview.....</b>	<b>6</b>
<b>Part 2:</b>	<b>Graphical User Interface.....</b>	<b>10</b>
2.1.	<i>Main Window .....</i>	<i>10</i>
2.2.	<i>Menu description.....</i>	<i>12</i>
2.2.2	<i>View menu .....</i>	<i>13</i>
2.2.3	<i>Edit menu.....</i>	<i>13</i>
2.2.4	<i>Command menu .....</i>	<i>14</i>
2.2.5	<i>Trace menu.....</i>	<i>15</i>
2.2.6	<i>IP Traffic menu.....</i>	<i>16</i>
2.2.7	<i>Window menu .....</i>	<i>17</i>
2.2.8	<i>About menu.....</i>	<i>17</i>
2.3.	<i>Tool Bar description .....</i>	<i>17</i>
<b>Part 3:</b>	<b>Using the Automation Tool .....</b>	<b>19</b>
3.1.	<i>Create and edit a scenario .....</i>	<i>19</i>
3.2.	<i>Run a scenario.....</i>	<i>20</i>
<b>Part 4:</b>	<b>Command Line Parameters.....</b>	<b>23</b>
4.1.	<i>General rule .....</i>	<i>23</i>
4.2.	<i>Start the “Automation Tool for IP Traffic” and launch a scenario .....</i>	<i>23</i>
4.3.	<i>Stop the “Automation Tool for IP Traffic” and “IP Traffic – Test &amp; Measure” .....</i>	<i>23</i>
<b>Part 5:</b>	<b>Annex: Commands and Instructions of a scenario .....</b>	<b>24</b>

## Part 0: Preface

### 0.1. Minimum System Requirements

The "Automation Tool for IP Traffic – Test & Measure" or "Automation Tool for IP Traffic" software requires the following minimum system configuration to operate properly:

- Windows 98 (SE recommended), 2000 (SP 3 or earlier recommended) or XP
- Pentium processor with 128 MB memory
- 1024 x 768 display
- 10 MB free hard disk space

### 0.2. Technical Support

ZTI Technical support can assist you with all your technical problems, from installation to troubleshooting.

Before contacting technical support, please read the relevant sections of the product documentation and the "Read Me First" file.

You can contact Technical Support by:

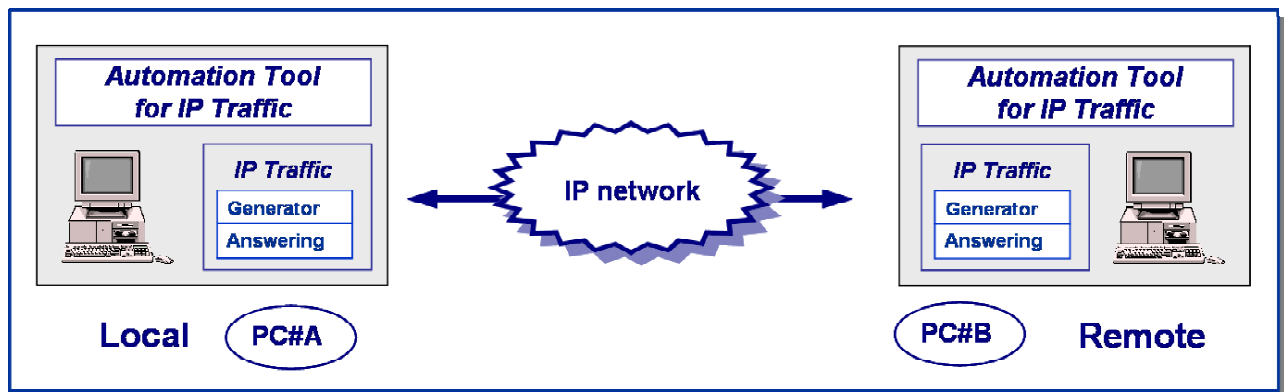
Email	Send as many details as possible to <a href="mailto:support@zti-telecom.com">support@zti-telecom.com</a> or <a href="mailto:support@zti.fr">support@zti.fr</a>
Fax	Send as many details as possible to +33 2 96 48 14 85
Telephone	Telephone support is available from 09:00 am to 06:00 pm (UTC Time +1 or +2), Monday to Friday. Call +33 2 96 48 43 43

Before contacting Technical Support, please record the following information:

- Product name and version.
- Demo version or licensed product.
- System configuration.
- Problem details: settings, error messages...
- If the problem can be reproduced, the details allowing to repeat the problem.

## Part 1: Product Overview

The "Automation Tool for IP Traffic" software is an add-on tool for the "IP Traffic – Test & Measure" application.



This tool allows to control and parameter the "IP Traffic – Test & Measure" application by using a scenario.

This Automation Tool is based on the notion of [scenario](#). A scenario is a succession of commands and instructions.

A Command is used to parameter and/or to activate a function of the "IP Traffic – Test & Measure" application, for example: The 'Start Receiver' Command is equivalent by pressing manually the 'Start receiving traffic' button in the 'IP Answering – Parameters + Statistics' tab on the "IP Traffic – Test & Measure" application.

An Instruction is used by the Automation Tool to realize a specific treatment: for example, 'Wait 10 seconds'.

*Note: a maximum of 20 scenarios can be opened at the same time.*

A scenario is composed of two entities:

- The [IP Generator part](#) to pilot the 'IP Generator' module of the "IP Traffic – Test & Measure" application
- The [IP Answering part](#) to pilot the 'IP Answering' module of the "IP Traffic – Test & Measure" application

<b>Commands and Instructions for the 'IP Generator' part</b>	<b>Commands and Instructions for the 'IP Answering' part</b>
Comments	Comments
Load Context	Load Context
Download Remote file	Download Remote file
Repeat	Repeat
End Repeat	End Repeat
Launch External Application	Launch External Application
Register Statistics	Register Statistics
Select interface	Select interface
Select Columns	Select Columns
Set File Mode Parameters	Set Connections(s)
Set GPS Parameters	Set File Mode Parameters
Set Sniffer Parameters	Set GPS Parameters
Set Specific Parameters	Set Sniffer Parameters
Set ZClock Parameters	Set Specific Parameters
Set and Start Connection(s)	Set ZClock Parameters
Start Register Statistics	Start Receiver
Start Sniffer	Start Register Statistics
Stop All Connections	Start Sniffer
Stop Connection(s)	Stop Receiver
Stop Register Statistics	Stop Register Statistics
Stop Scenario	Stop Scenario
Stop Sniffer	Stop Sniffer
Wait	Wait

The description of each Command or Instruction is shown in the annex.

An example of scenario is displayed below, with the following configuration:

- PC#A is acting as the 'Local' machine with the scenario file:  
'[Scenario1\\_UDP\\_PC#A.scn](#)'
- PC#B is acting as the 'Remote' machine with the scenario file:  
'[Scenario1\\_UDP\\_PC#B.scn](#)'

## Contents of the [Scenario1\\_UDP\\_PC#A.scn](#) file

### Sender Part

Scenario File: Scenario1\_UDP\_PC#A.scn - IP Generator Part

```
LOAD CONTEXT: NEW
-- Set and start connection #1 (UDP) for 1 minute (auto ending after 1 minute)
SET AND START CONNECTION(S)#01  DESTINATION IPADDRESS 192.168.0.130 PORT 2009
    PROTOCOL UDP AVERAGE THROUGHPUT 512 kb/s PACKET SIZE 1024 bytes TOS 00
    DURATION 00:01:00
-- Set and start connection #2 (UDP), wait 1 minute and stop the connection
SET AND START CONNECTION(S)#02  DESTINATION IPADDRESS 192.168.0.130 PORT 2010
    PROTOCOL UDP AVERAGE THROUGHPUT 512 kb/s PACKET SIZE 1024 bytes TOS 00
WAIT 00:01:00
STOP CONNECTION(S)#02
-- Repeat 2 times starting and closing connection #1 (UDP)
REPEAT 2 TIME(S)
    WAIT 00:00:10
    SET AND START CONNECTION(S)#01  DESTINATION IPADDRESS 192.168.0.130
        PORT 2009 PROTOCOL UDP PACKET SIZE 1024 bytes INTERPACKETDELAY 50
        ms
        TOS 00
    WAIT 00:00:30
    STOP ALL CONNECTIONS
END REPEAT
```

### Receiver Part

Scenario File: Scenario1\_UDP\_PC#A.scn - Receiver Part

Empty

## Contents of the [Scenario1\\_UDP\\_PC#B.scn](#) file

### Receiver Part

Scenario File: Scenario1\_UDP\_PC#B.scn - Receiver Part

```
LOAD CONTEXT: NEW
SET CONNECTION(S)#01  PORT 2009 PROTOCOL UDP
SET CONNECTION(S)#02  PORT 2010 PROTOCOL UDP
START RECEIVER
```

### Sender Part

Scenario File: Scenario1\_UDP\_PC#B.scn - Sender Part

Empty

To execute the scenario [Scenario1\\_UDP\\_PC#A.scn](#), please proceed as follows:

- The “IP Traffic – Test & Measure” and “Automation Tool for IP Traffic” software are running on PC#A and PC#B.
- First, the ‘Scenario1\_UDP\_PC#B.scn’ file is loaded on PC#B (Remote) and started.
- Second, the ‘Scenario1\_UDP\_PC#A.scn’ file is loaded on PC#A (Local).
- Then define change the IP addresses to map the address of your PC#B (192.168.0.130 is the address of the PC#B we took as example)
- You can then execute this scenario on PC#A



**Remark**

Three scenario examples are provided with “Automation Tool for IP Traffic” with 2 files for each example.

Example 1: 2 UDP connections from PC#A to PC#B

- Scenario1\_UDP\_PC#A.scn (for PC#A)
- Scenario1\_UDP\_PC#B.scn (for PC#B)

Example 2: 2 TCP connections from PC#A to PC#B

- Scenario2\_TCP\_PC#A.scn (for PC#A)
- Scenario2\_TCP\_PC#B.scn (for PC#B)

Example 3: 16 UDP connections from PC#A to PC#B

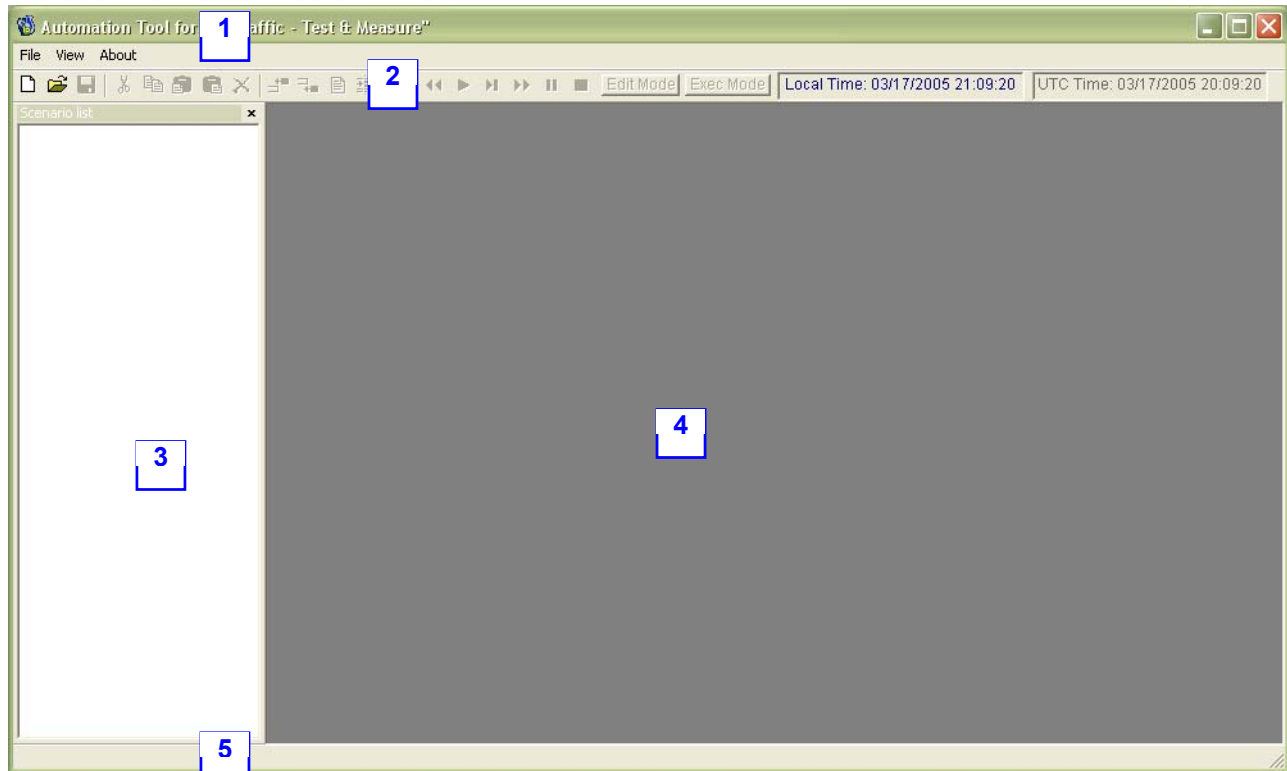
- Scenario3\_LaunchAllProcesses\_PC#A.scn (for PC#A)
- Scenario3\_LaunchAllProcesses\_PC#B.scn (for PC#B)

To execute these scenarios, proceed as described above, by adapting IP addresses.

## Part 2: Graphical User Interface

### 2.1. Main Window

When the Automation Tool is started, the following main window is displayed:



*Automation Tool main window*

This main window is composed of four areas:

**Area 1:** the **Menu Bar**

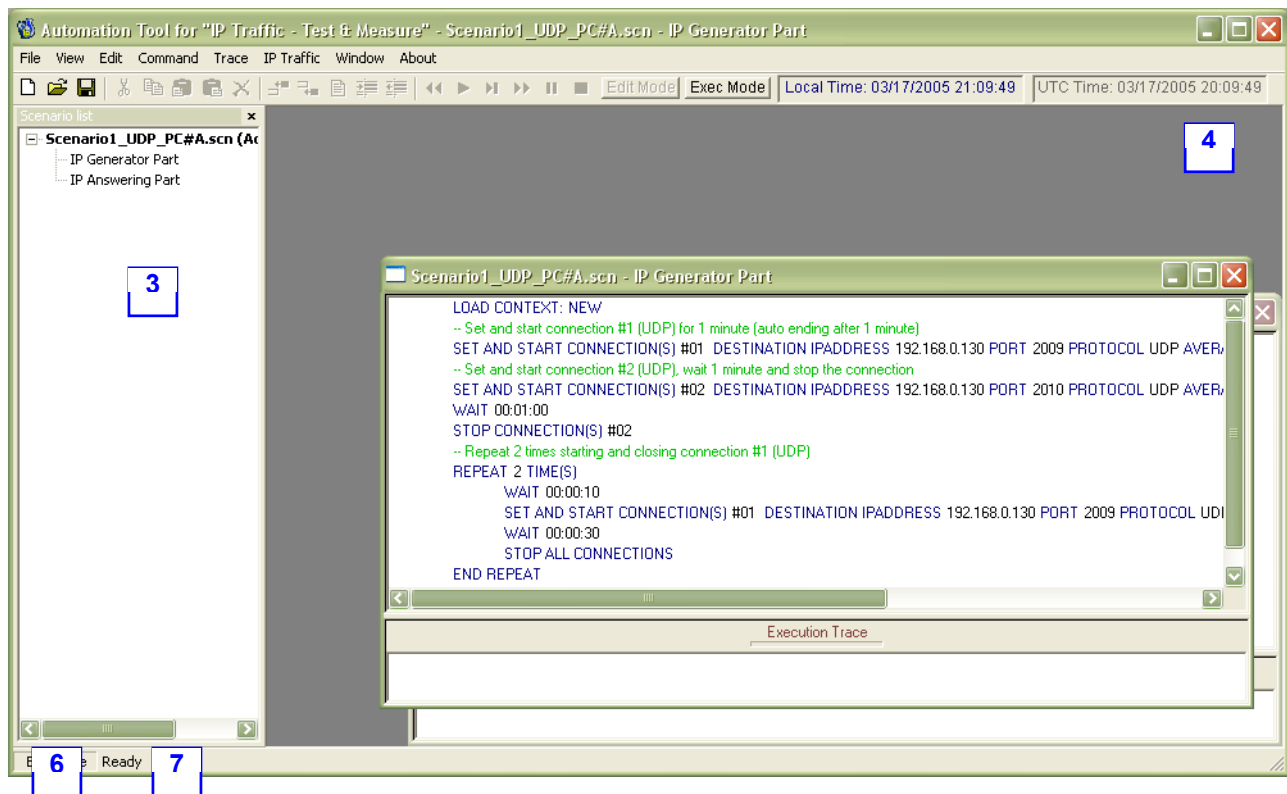
**Area 2:** the **Tool Bar**

**Area 3:** to display the list of opened scenarios

**Area 4:** working area used for editing and running a scenario

**Area 5:** the **Status Bar** is composed of two fields used for displaying information. The first field indicates the scenario's working mode: Edit mode or Exec mode. The second field is used for contextual help information.

When a scenario is opened, the information is displayed in the areas 3 and 4 as shown below and the Menu Bar is enriched:



A scenario is composed of 2 parts (area 3) displayed in two different windows (area 4):

- the 'IP Generator' part,
- and the 'IP Answering' part.

The status bar is also subdivided in two horizontal zones (area 6 and 7):

- Area 6: Edit zone
- Area 7: Execution zone

Two operating modes are available:

- Edit mode: to create, edit, modify and delete a scenario.
- Exec mode: to run a scenario

You switch from one mode to the other one by using the buttons 'Edit Mode' or 'Exec Mode' located in the **Tool Bar**:



## 2.2. Menu description

The items of the Menu Bar vary depending if a scenario is opened or not.

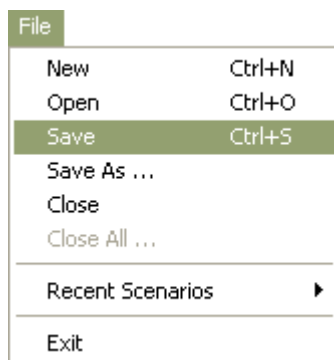
When you launch this tool or if no scenario is opened, the following items are displayed:

**File View About**

When one or more scenarios are opened, the Menu Bar is enriched to display the following items:

**File View Edit Command Trace IP Traffic Window About**

### 2.2.1.1 File menu



### 2.2.1.2 File/New

This command opens a new default scenario composed of two parts: Sender and Receiver.

### 2.2.1.3 File/Open

The "Open" command allows opening a scenario file (.SCN file), which contains a previously saved scenario.

### 2.2.1.4 File/Save

The "Save" command allows saving all the lines defined by the user in the opened scenario file.

### 2.2.1.5 File/Save as

This command allows saving all the parameters and commands defined in a scenario file defined by the user (.SCN file).

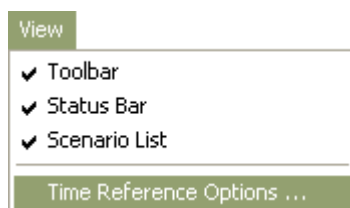
### 2.2.1.6 File/Recent Contexts

This command allows opening a scenario file previously loaded. The 6 most recent scenario files are shown in the list.

### 2.2.1.7 File/Exit

This command allows quitting the "Automation Tool for IP Traffic". A confirmation message box is then displayed and a message box will ask you to save or not changes made to the opened scenarios for each modified scenario.

## 2.2.2 View menu



### 2.2.2.1 View/Toolbar

By clicking this item, the Toolbar is displayed or hidden.

### 2.2.2.2 View/Status Bar

By clicking this item, the Status Bar is displayed or hidden.

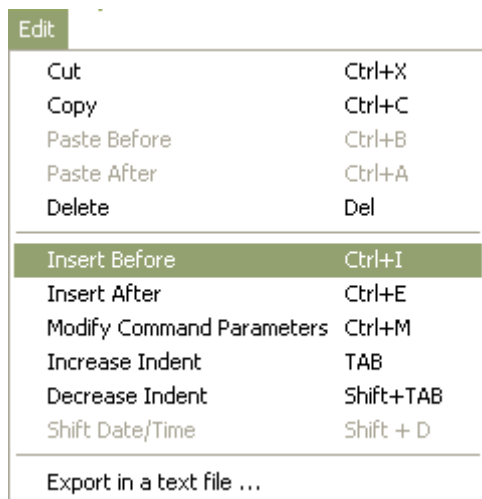
### 2.2.2.3 View/Scenario List

By clicking this item, the Scenario List is displayed or hidden.

### 2.2.2.4 View/Time Reference Options ...

By clicking this item, the time reference can be selected. In function of the selection, the Date/Time information including in the scenario will be interpreted using the local time or the machine time (UTC).

## 2.2.3 Edit menu



The items of this menu are only available in the "Edit Mode".

### 2.2.3.1 Edit/Cut

To cut selected lines in a scenario.

### 2.2.3.2 Edit/Copy

To copy selected lines of a scenario.

### 2.2.3.3 Edit/Paste Before

To paste the previously copied lines before the selected line in the scenario.

#### **2.2.3.4 Edit/Paste After**

To paste the previously copied lines after the selected line in the scenario.

#### **2.2.3.5 Edit/Delete**

To delete the selected lines in the scenario.

#### **2.2.3.6 Edit/Insert Before**

To insert a new command or instruction before the selected line.

#### **2.2.3.7 Edit/Insert After**

To insert a new command or instruction after the selected line.

#### **2.2.3.8 Edit/Modify Command Parameters**

To modify the selected line of the scenario.

#### **2.2.3.9 Edit/Increase Indent**

Increase indentation of the selected line.

#### **2.2.3.10 Edit/Decrease Indent**

Decrease indentation of the selected line.

#### **2.2.3.11 Edit/Export in a text file ...**

Open a dialog box to save in a file the lines of the selected part of a scenario (.TXT format).

### **2.2.4 Command menu**

Command	
Rewind	F7
Run	F5
Step by step	F11
Go	F5
Pause	F4
Stop	F3

The items of this menu are only available in the "Exec Mode".

#### **2.2.4.1 Command/Rewind**

Set the execution point of the scenario to the first line.

#### **2.2.4.2 Command/Run**

Run the active scenario (Sender and Receiver parts).

#### **2.2.4.3 Command/Step by Step**

Execute the lines of the scenario step by step for the active window (Sender Part or Receiver Part).

#### **2.2.4.4 Command/Go**

This command can be used after a step by step execution.

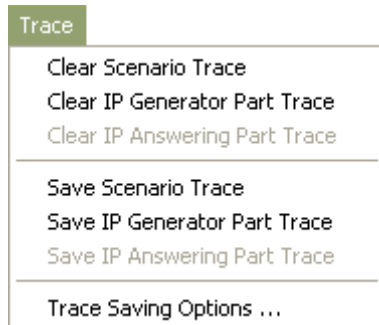
### 2.2.4.5 Command/Pause

To stop the execution of the scenario after the current line being executed.

### 2.2.4.6 Command/Stop

To stop the execution of the scenario. It doesn't stop "IP Traffic – Test & Measure".

## 2.2.5 Trace menu



The items of this menu are enabled in the "Exec Mode". The "Trace Saving Options ..." item is always enabled.

### 2.2.5.1 Trace/Clear Scenario Results

This command clears the results of the execution in the 'Execution Results' zone for the IP Generator Part and the IP Answering Part.

### 2.2.5.2 Trace/Clear IP Generator Part Results

This command clears the results of the execution in the 'Execution Results' zone for the IP Generator Part exclusively.

### 2.2.5.3 Trace/Clear IP Answering Part Results

This command clears the results of the execution in the 'Execution Results' zone for the IP Answering Part exclusively.

### 2.2.5.4 Trace/Save Scenario Results

To save the results of the execution in a file (.TXT format) for the IP Generator Part and the IP Answering Part.

### 2.2.5.5 Trace/Save IP Generator Part Results

To save the results of the execution in a file (.TXT format) for the IP Generator Part exclusively.

### 2.2.5.6 Trace/Save IP Answering Part Results

To save the results of the execution in a file (.TXT format) for the IP Answering Part exclusively.

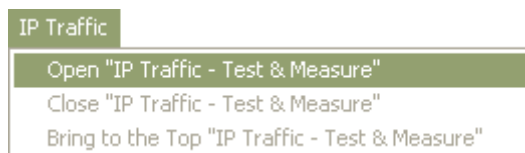
### 2.2.5.7 Trace/Trace Saving Options

This command is used to save the results while executing a scenario in one or two files (.TXT format) and you can define the periodicity of this automatic saving process.

The dialog box is titled "Automation Tool for 'IP Traffic - Test & Measure' - Trace Saving Options". It contains the following elements:

- A checked checkbox labeled "Activate Automatic Save".
- Two radio button options:
  - "Automatically save Trace in one File" (unselected): Below it is a text field labeled "Trace File:" followed by a "Browse" button.
  - "Automatically save Trace in two Files" (selected): Below it are two text fields: "IP Generator Trace:" and "IP Answering Trace:", each followed by a "Browse" button.
- A text field labeled "Periodic save Trace (seconds):" with the value "1" entered.
- A "Note:" section containing the text: "Automatic Save is started when you launch the scenario and is halted when you stop the scenario."
- "OK" and "Cancel" buttons at the bottom.

## 2.2.6 IP Traffic menu



This menu is used to start (Open ...) and stop (Close) manually the "IP Traffic – Test & Measure" application.

### 2.2.6.1 IPTraffic/Open

This command is used to start manually and open the "IP Traffic – Test & Measure" application (if already not launched).

### 2.2.6.2 IPTraffic /Close

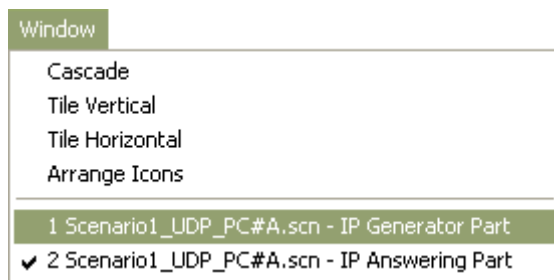
This command is used to stop manually and close the "IP Traffic – Test & Measure" application.

### 2.2.6.3 IPTraffic /Bring to the top

This command is used to bring to the top the "IP Traffic – Test & Measure" main window.



## 2.2.7 Window menu



This menu is used to arrange the opened windows for the scenarios displayed on the right part with different methods:

- Cascade
- Tile vertical
- Tile horizontal
- Arrange icons (when the windows are iconized)

## 2.2.8 About menu

This command displays the version number and copyright of the “Automation Tool for IP Traffic” application.

## 2.3. Tool Bar description



The tool bar is composed of icons, buttons and information zones.

Description of the objects from left to right:

- Create a new scenario
- Open a scenario file
- Save the active scenario in a file
- Cut the selection
- Copy the selection
- Paste before (the current line)
- Paste after (the current line)
- Delete the selected line(s)
- Insert before (the current line)
- Insert after (the current line)
- Modify (the current line)
- Increase indent (the selected lines)
- Decrease indent (the selected lines)
- Rewind (the execution mark is at the top of the scenario)

- Run the scenario
- Run the scenario step by step
- Go (after a step by step execution)
- Pause
- Stop
  
- Edit Mode button
- Exec Mode button
  
- Local time (current time of the machine)
- UTC time (absolute time)

## Part 3: Using the Automation Tool

### 3.1. Create and edit a scenario

**Step 1:** File/New

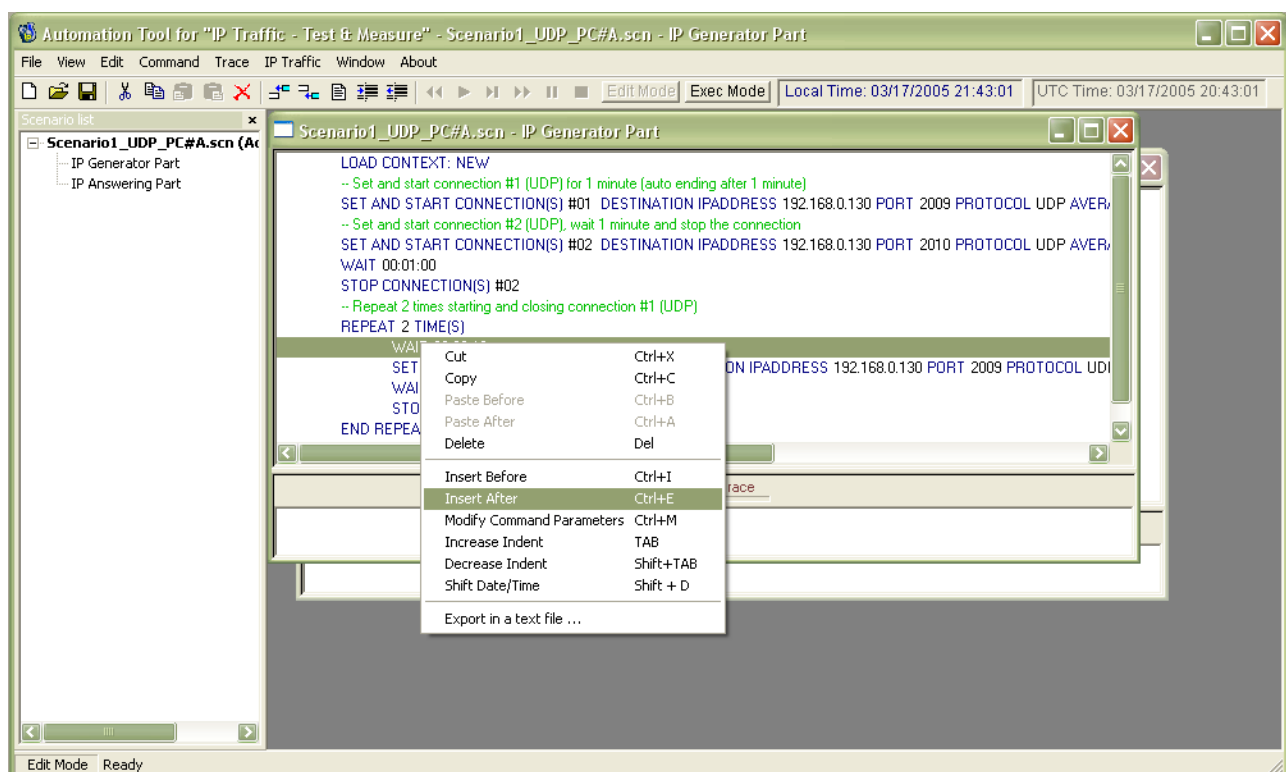
**Step 2:** Select the window: IP Generator Part or IP Answering Part

**Step 3:** Double click on the line 'Double click here to insert a new command line'. A window is displayed to insert a command or instruction.

**Step 4:** Select the command or instruction you want to insert and fill in the parameters, and then click OK.

**Step 5:** Add new command or instruction lines to the scenario with a double click or a right click on the line 'Double click here to insert a new command line or right click on the command line to access the edit menu"

In the example below, a right click on a command line opens a menu with different options:



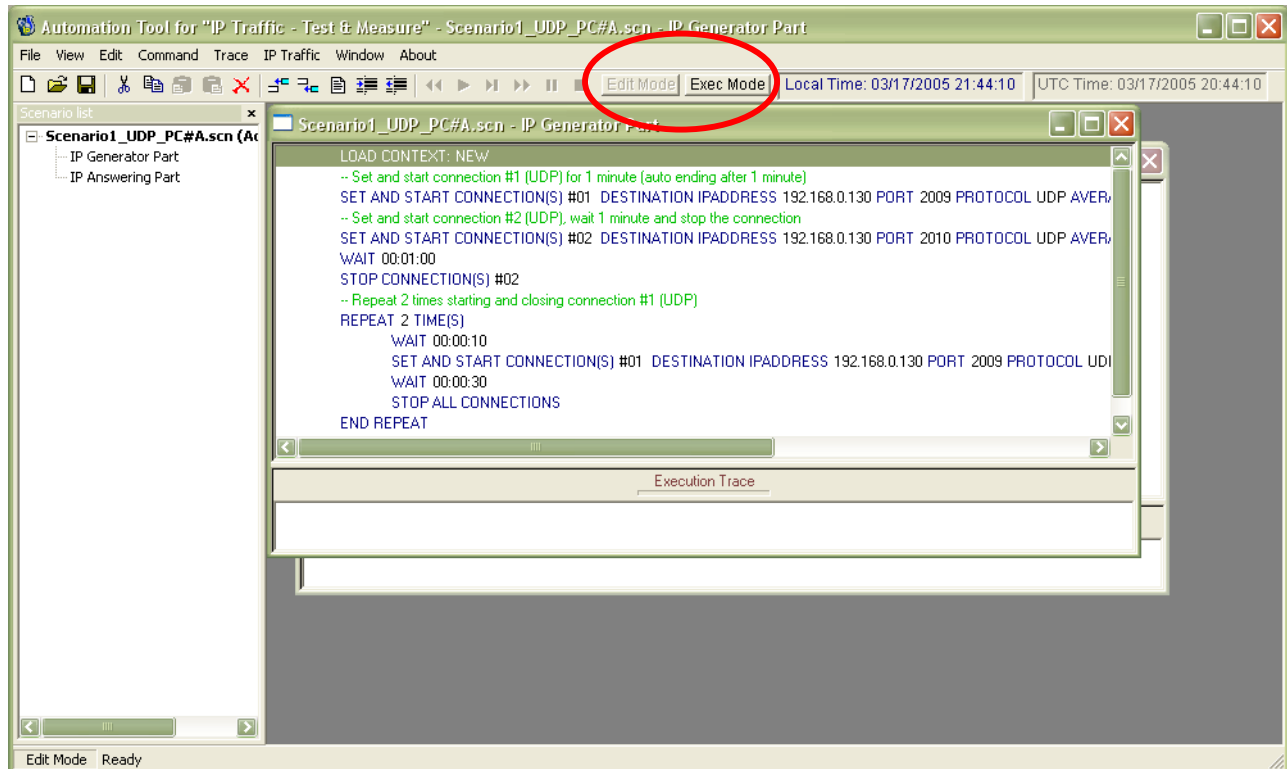
**Step 6:** Save this new scenario in a scenario file (with the extension .SCN) by using the menu File/Save as ...

You can modify a line of the scenario in the 'Edit Mode' by double clicking on the line.

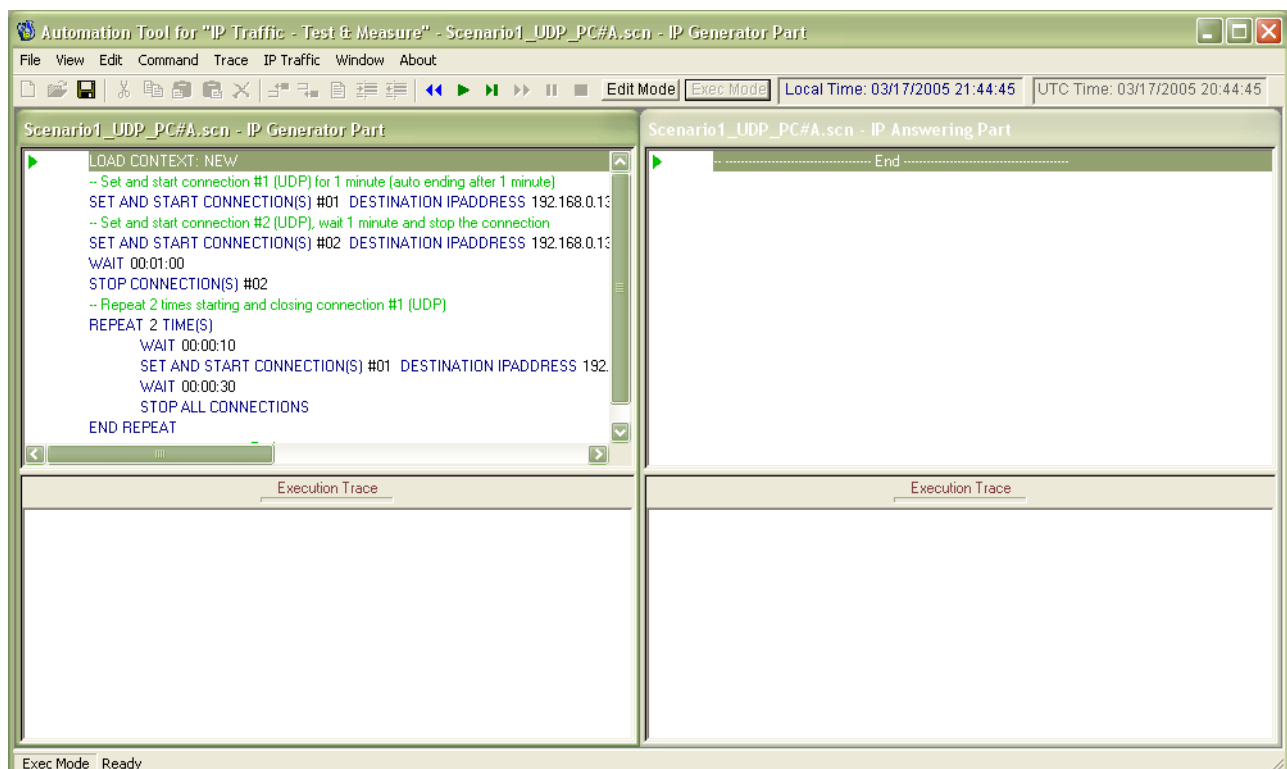
*Important note: the UTC Time (or the Local Time) is the reference for the Date/Time specified in the Wait command and for the execution results of the scenario. The Date/Time reference can be changed by using the menu item "View > Time Reference Options".*

## 3.2. Run a scenario

To run a scenario, switch to the ‘Exec Mode’ by pressing the button “Exec Mode” in the Tool Bar.



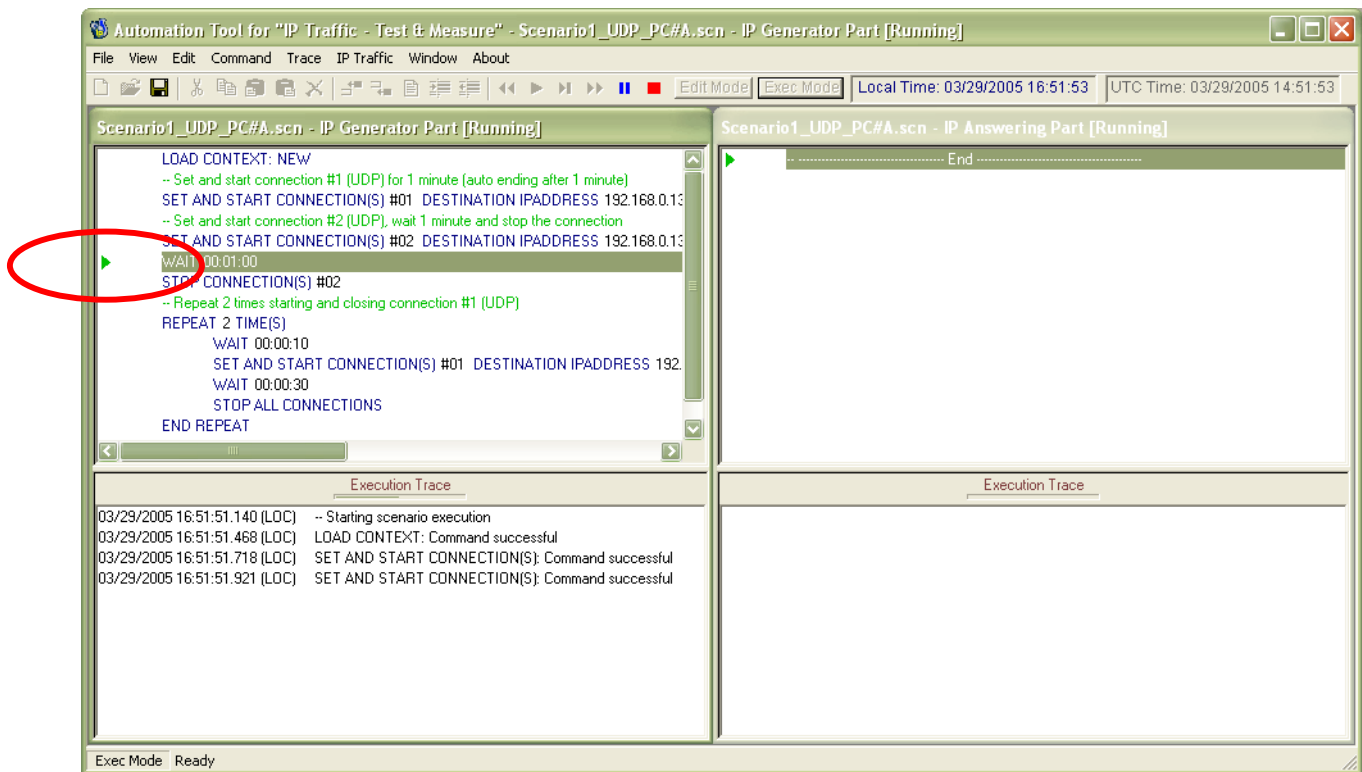
Then the “IP Generator Part” and the “IP Answering Part” of the scenario are displayed in two windows as follows:



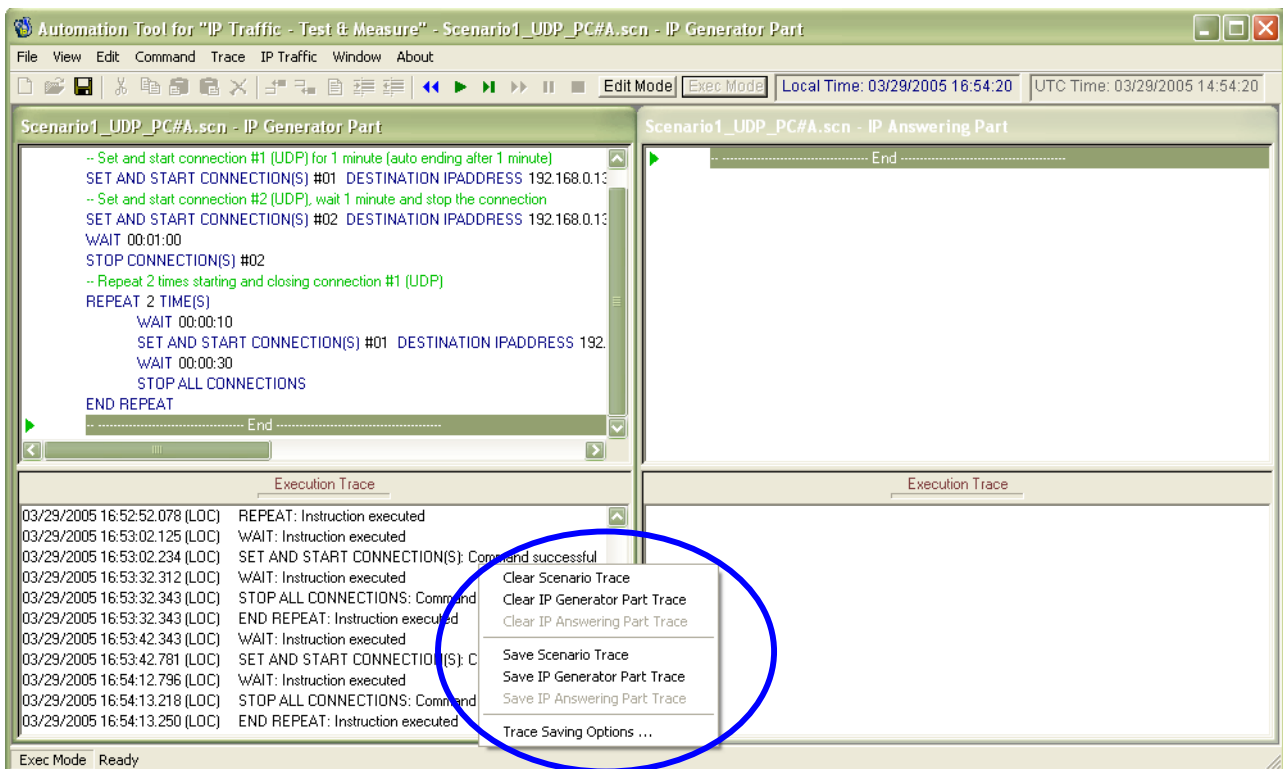
You can switch to the 'Edit Mode' by pressing the 'Edit Mode' button in the Tool Bar. To execute the scenario, you can use the commands available in the 'Command' menu or the buttons in the tool bar.



When the scenario is running, the symbol ► indicates the command being executed and the 'Execution Results' zone is filled with the result of each command or instruction.



When the execution of the scenario is ended, you can right click in the 'Execution Results' zone to clear and save the displayed results.



## Part 4: Command Line Parameters

The **"Automation Tool for IP Traffic"** software can be started by using a command line with parameters.

### 4.1. General rule

Parameters should be separated from the application name by a space. The application name of **"Automation Tool for IP Traffic"** is "Aut\_IPTraff.exe". Under Windows, the application name is not case sensitive.

### 4.2. Start the "Automation Tool for IP Traffic" and launch a scenario

The scenario filename is a set of commands and instructions for **"IP Traffic – Test & Measure"**. This set can be saved in a file and reloaded later.

The command line parameter to start the **"Automation Tool for IP Traffic"**, load and launch a scenario: **-START**

Syntax: **-START:filename**

Where filename may be:

C:\temp\scenario1.scn or

"C:\Program Files\IP Traffic\ scenario1.scn". The " symbol is necessary to use spaces in filenames or directories.

*There in NO space between the parameter **-START:** and the filename.*

Example:

Aut\_IPTraff –START:"C:\Program Files\IP Traffic\Scenario1\_UDP\_PC#B.scn"

### 4.3. Stop the "Automation Tool for IP Traffic" and "IP Traffic – Test & Measure"

There is only one command line parameter to stop the execution of the scenario and then stop the **"IP Traffic – Test & Measure"** and the **"Automation Tool for IP Traffic"** software.

Syntax: **-STOP**

Example:

Aut\_IPTraff –STOP

## Part 5: Annex: Commands and Instructions of a scenario

Commands and instructions for the 'IP Generator' part	Commands and instructions for the 'IP Answering' part
<a href="#">Comments</a> Load Context Download Remote file <a href="#">Repeat</a> <a href="#">End Repeat</a> <a href="#">Launch External Application</a> Register Statistics Select interface Select Columns Set and Start Connection(s) Set File Mode Parameters Set GPS Parameters Set Sniffer Parameters Set Specific Parameters Set ZClock Parameters Start Register Statistics Start Sniffer Stop All Connections Stop Connection(s) Stop Register Statistics Stop Scenario Stop Sniffer <a href="#">Wait</a>	<a href="#">Comments</a> Load Context Download Remote file <a href="#">Repeat</a> <a href="#">End Repeat</a> <a href="#">Launch External Application</a> Register Statistics Select interface Select Columns Set Connections(s) Set File Mode Parameters Set GPS Parameters Set Sniffer Parameters Set Specific Parameters Set ZClock Parameters Start Receiver Start Register Statistics Start Sniffer Stop Receiver Stop Register Statistics Stop Scenario Stop Sniffer <a href="#">Wait</a>

A specific window is attached to a command or [instruction](#) (an instruction has no action on the "IP Traffic – Test & Measure" application).

A command or [instruction](#) is composed of 3 parts:

- <The command or Instruction name> : Description
- <List of parameters> [may be null]
- <Comments> [optional]

### **Commands and Instructions for the 'IP Generator' Part**

Description	List of parameters	Comments
Comments		
Download Remote File	File name to download Remote IP address Remote port Local File name	
Load Context	New context Context file	
Repeat	Counter = number of iterations	
End repeat		
Launch External Application	Command Line	

(continued)



Description	List of parameters	Comments
Register Statistics	Filename Max size (in KB) Connections to export (#1 to #16) Parameters to export (Throughput, packet throughput, data sent, data received, packet sent, packet received, volume to send, remaining volume, sequence numbering errors, Round Trip Time, Jitter)	
Select Interface	Connections concerned (#1 to #16) Local IP Address	
Select Columns	Available Columns Selected Columns	
Set File Mode Parameters	File Rule (Overwrite or Rename)	
Set GPS Parameters	Communication Port Wait Synchronization and Timeout value Save GPS location and periodicity	<i>Overwrite previous parameters</i>
Set Sniffer Parameters	File name Option to capture only header	
Set Specific Parameters	Refresh time for GUI display Throughput sampling period	
Set ZClock Parameters	Parallel port	<i>Overwrite previous parameters</i>
Set and Start Connection(s)	Connections to set (#1 to #16) Destination IP address or Hostname Port Protocol (TCP, UDP or none) TOS field Packet size (in bytes) Inter Packet Delay (in millisecond) Average throughput per connection: packet size or inter packet delay adjustable Volume per connection (expressed in Bytes, KBytes, MBytes, GBytes, Pkt i.e. packets) Duration	
Start Register Statistics		
Start Sniffer		
Stop All Connections		
Stop Connection(s)	Connections to stop (#1 to #16)	
Stop Register Statistics		
Stop Scenario		<i>Stop both Sender and Receiver parts</i>
Stop Sniffer		
Wait	Date and/or Time (UTC or Local) Period: number of days and duration Duration (HH:MM:SS)	

**Commands and Instructions for the 'IP Answering' Part**

Description	List of parameters	Comments
Comments		
Download Remote File	File name to download Remote IP address Remote port Local File name	
Load Context	New context Context file	
Launch External Application	Command Line	
Repeat	Counter = number of iterations	
End repeat		
Register Statistics	Filename Max size (in KB) Connections to export (#1 to #16) Parameters to export (Throughput, packet throughput, data sent, data received, packet sent, packet received, sequence numbering errors, Data not echoed)	
Select Interface	Connections concerned (#1 to #16) Local IP Address	
Select Columns	Available Columns Selected Columns	
Set File Mode Parameters	File Rule (Overwrite or Rename)	
Set GPS Parameters	Communication Port Wait Synchronization and Timeout value Save GPS location and periodicity	<i>Overwrite previous parameters</i>
Set Specific Parameters	Refresh time for GUI display Throughput sampling period	
Set Sniffer Parameters	File name Option to capture only header	
Set Connection(s)	Connections to set (#1 to #16) Destination IP address or Hostname Port Protocol (TCP, UDP or none)	
Set ZClock Parameters	Parallel port	<i>Overwrite previous parameters</i>
Start Receiver		
Start Register Statistics		
Start Sniffer		
Stop Receiver		
Stop Register Statistics		
Stop Scenario		<i>Stop both Sender and Receiver parts</i>
Stop Sniffer		
Wait	Date and/or Time (UTC or Local) Period: number of days and duration Duration (HH:MM:SS)	