

GTNetConfig

CLOCKS REMOTE CONFIGURATION SOFTWARE

USER GUIDE

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GORGY  TIMING
L A M A R Q U E D U T E M P S

IMPORTANT SAFETY INSTRUCTIONS



WARNING! Read the section that follows very carefully before installing your equipment. It gives the safety instructions to follow during installation.



The electrical installation to which the equipment is connected must comply with the NF C 15-100 standard.



This device does not have a primary power switch. A power protection system (circuit-breaker or disconnecting switch), that is easy to access must be built into the wiring installation. This device must support the nominal voltage and current values specified on the clock.



In Europe: to comply with European regulations on the protection of persons and the environment, you must dispose of this equipment in a collection site provided for this purpose (separately from household waste). Contact your reseller, collection site or the competent local authorities for more information.



Modifying or opening the product without the consent of the Customer service department will void the warranty.



All maintenance operation shall be conducted with power shut off, including systems connected on relay outputs if any.



Generally, the power cable (220V) and transmission cable (of time signal) shall not be very close to each other, so as to avoid interference (keep the distance of a few centimeters).



Gorgy Timing disclaims all responsibility in case of accident or damage caused by an improper use of the product.

GORGY TIMING products are compliant with the following standards: CE, EN 60950, EN 55022, EN 50024

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1.1. REMOTE CONFIGURATION SOFTWARE REQUIREMENT:

- ▶ Operating System: Windows XP/Vista/7, Windows Server 2003 et 2008 (32 et 64 bits)
- ▶ Up to date Microsoft DOT NET Framework (.NET)
- ▶ Minimal Screen Resolution: 800x600 (1024x768 or more is encouraged)
- ▶ Have administrator rights for installation and software execution. If not, set them by right- clicking on software executable and select "*Execute as Administrator*".
- ▶ "*GTNetworkManager*" (strongly encouraged)

1.2. INSTALLATION STEPS

- ▶ Launch installation setup program named "*GTNetConfig*" from CD-ROM given along with clocks. Install it on a computer, choose the installation directory and allow the link creation on Desktop.
- ▶ Installed software:



"*GTNetConfig*" software for remote configuration of Gorgy Timing clocks.



Do not open this software on several computers at the same time as conflicts can appear in case of simultaneous configuration settings.

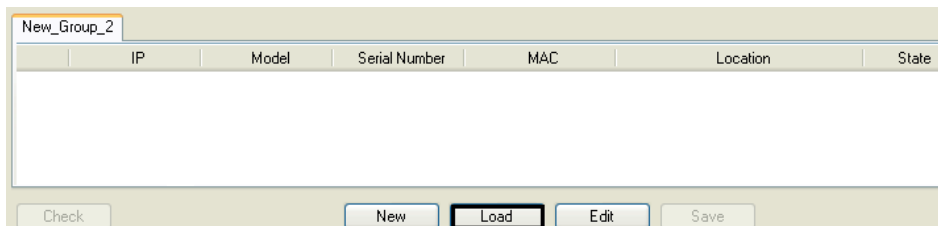
You are strongly encouraged to read the glossary at the end of this document to clarify some expressions used along this document. This software is based on Simple Network Management Protocol (SNMP) so supervision tools like

"GT (SCADA) Supervision" which use the same protocol will be automatically disabled. At the closure of "GTNetConfig" software, if the supervision tool does not restart, it should be restarted manually.

1.3. LAUNCH GTNetConfig

Launch "GTNetConfig" software in administrator mode.

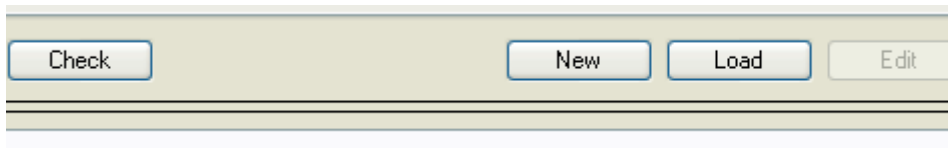
The window shown below appears. It allows to detect and select clocks, organise them in groups (by adding/removing them) and load/save a group. The first time, a new group should be created and clocks on the network should be detected and added to the group.



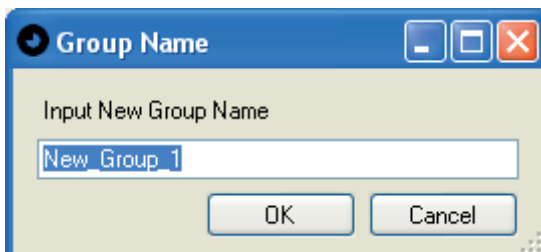
Gathering by groups (defined in *.grp files) allows to configure several clock at the same time which make configuration easier and faster as you have to set parameters only once for the whole group or a selection of clock from the group. It also allows to be sure that all clocks of the group have the same configuration.

1.4. GROUP CREATION

- ▶ To create a new group, click on "New".



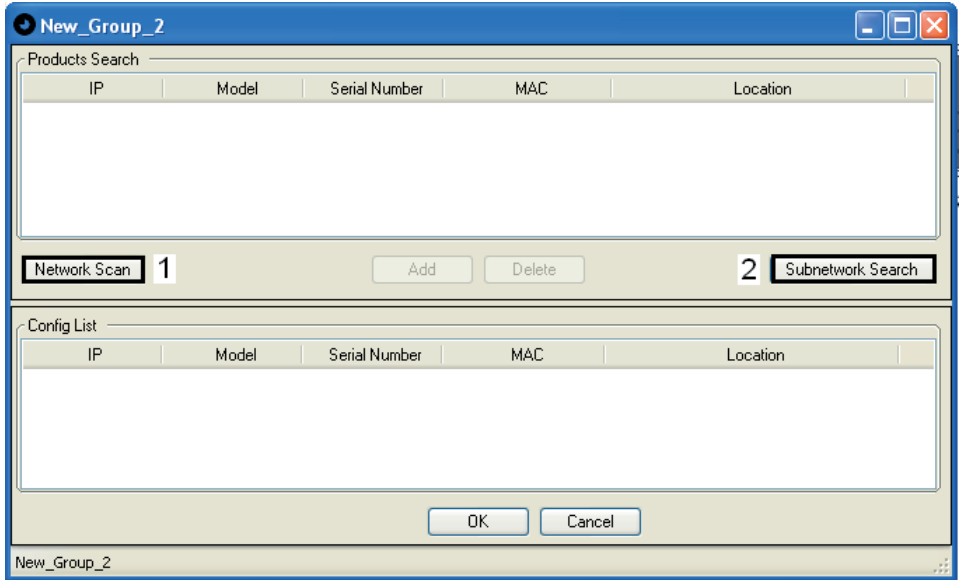
- ▶ Choose a name for the group and press "OK".



- ▶ The group can still be renamed later.

1.5. CLOCK DETECTION

► After creating the group, clocks can be detected by two different ways:



1.5.1. 1st way: "Network scan"

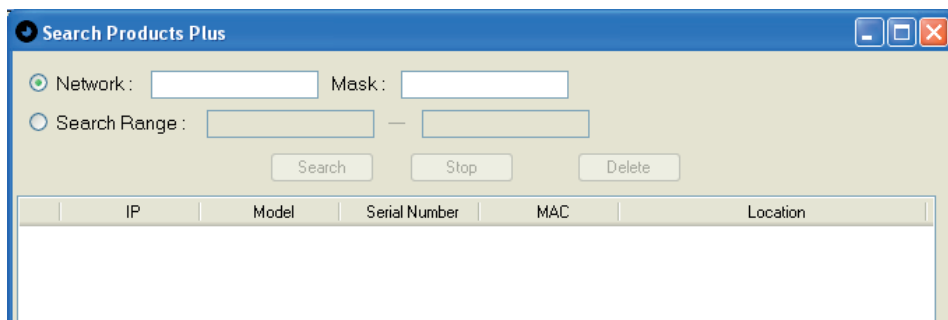
Software will automatically scan the computer associated subnetwork. Only the clocks on the same subnetwork will be found. Then, click on the devices you want to add to the group. Devices written in black are those we can configure remotely by this software, others in grey are not supported.

1.5.2. 2nd way: "Subnetwork scan"

In this new window, we can specify which subnetwork will be scanned by setting a network Internet

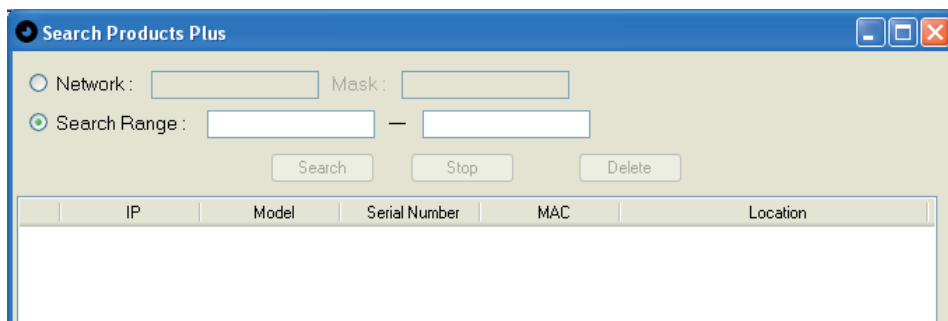
Protocol (IP) address and mask or a range of IP addresses. For example:

- ▶ If the address 192.168.10.120 and the mask 255.255.255.248 are set, all clocks with an address between 192.168.10.120 and 192.168.10.127 will be listed.



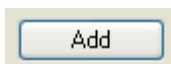
The screenshot shows the 'Search Products Plus' window with the 'Network' radio button selected. The 'Network' field is empty, and the 'Mask' field is also empty. The 'Search Range' radio button is unselected. Below the input fields are three buttons: 'Search', 'Stop', and 'Delete'. At the bottom of the window is a table with the following headers: IP, Model, Serial Number, MAC, and Location.

- ▶ If the range 192.168.10.120 – 192.168.10.150 is set, all clocks with an address between these two limits will be listed.



The screenshot shows the 'Search Products Plus' window with the 'Search Range' radio button selected. The 'Search Range' field is empty, and the 'Network' field is also empty. The 'Mask' field is also empty. Below the input fields are three buttons: 'Search', 'Stop', and 'Delete'. At the bottom of the window is a table with the following headers: IP, Model, Serial Number, MAC, and Location.

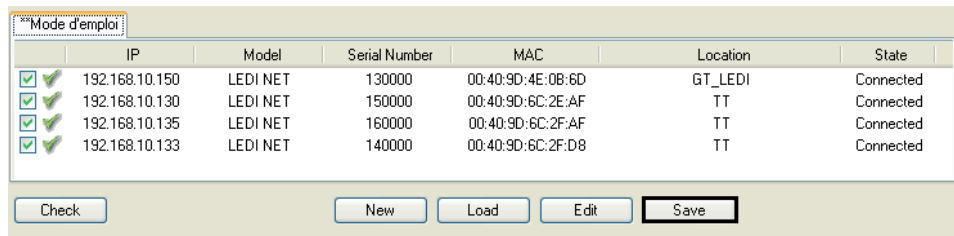
- ▶ When all the wanted clocks are selected, click the "Add" button to add them to the group.



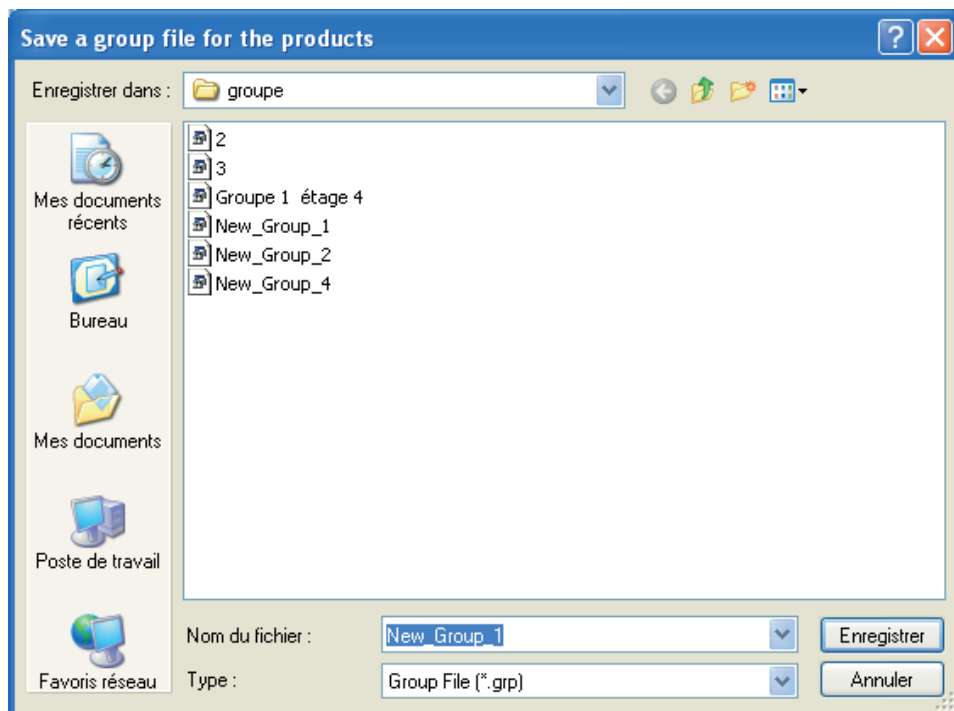
1.6. LOAD, SAVE AND EDIT A CLOCK GROUP

1.6.1. Save Group

► To save the list of clock in a group, select them all and click the "Save" button.

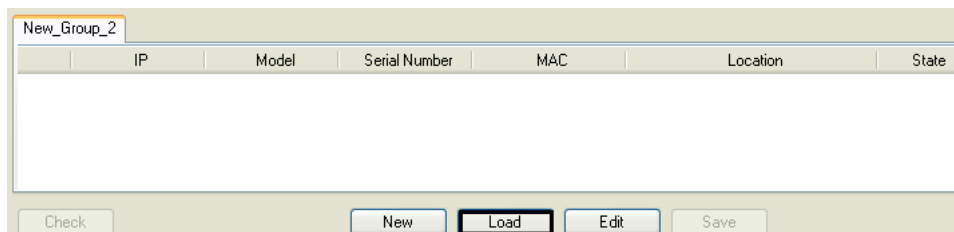


A dialog box appears to let you choose a file to save the group. The default extension of "GTNetConfig" group files ".grp" is automatically added if no extension is specified. By default, "GTNetConfig" saves the groups in the directory "group" of its installation directory.



1.6.2. Load Group

- ▶ To load a clock group, click on "*Load*" and select an existent group file (*.grp).




1.6.3. Edit Group

- ▶ Finally, the "*Edit*" button allows to add or remove clocks from the current group.

1.6.4. Rename and Delete Group

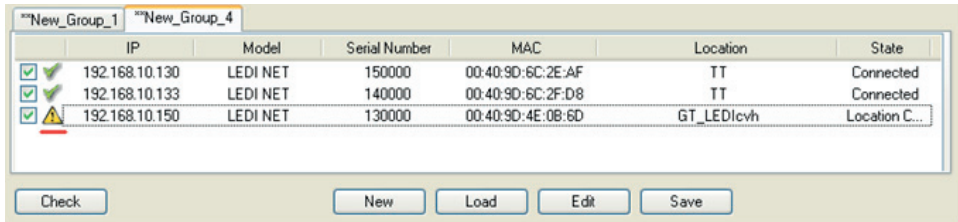
- ▶ To rename a group, right-click on its name and select "*Rename*". A dialog box opens to set the new group name. You can also directly rename the group by renaming its associated file (*.grp) and reloading it.
- ▶ To close a group, right-click on its name and select "*Close*". The group file will stay on disk.
- ▶ To definitely delete a group, it must be closed and its associated group file (*.grp) must be removed.

1.7. CLOCK MANAGEMENT

 **Warning !** If the box "Enable remote (network) configuration" in the webpage configuration isn't checked, you can't change the parameters of the clock by GTNet Config. In this case, refer to the webpage configuration in "snmp parameters" page 16 and 17

1.7.1. Clock Selection

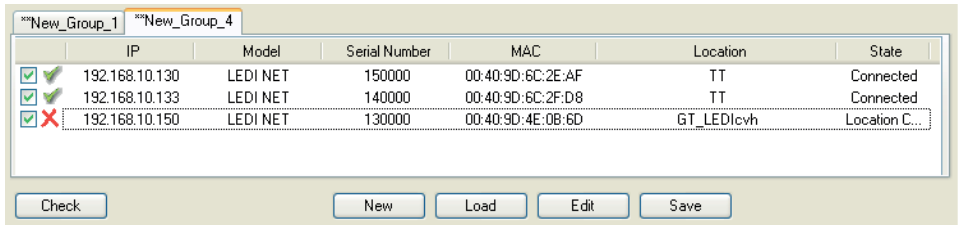
- ▶ Each clock of the selected group displays its basic information: IP address, clock model, serial number, Media Access Control (MAC) address, SNMP location parameter and connexion status.
- ▶ If a warning appears in a group, it is because some parameters have changed (IP or location in the example below). Just click on "Save" to validate these changes. Then the warning will disappear when the group is reloaded.



	IP	Model	Serial Number	MAC	Location	State
<input checked="" type="checkbox"/>	192.168.10.130	LEDI NET	150000	00:40:9D:6C:2E:AF	TT	Connected
<input checked="" type="checkbox"/>	192.168.10.133	LEDI NET	140000	00:40:9D:6C:2F:D8	TT	Connected
<input checked="" type="checkbox"/>	192.168.10.150	LEDI NET	130000	00:40:9D:4E:0B:6D	GT_LEDlcvh	Location C...

Buttons: Check, New, Load, Edit, Save

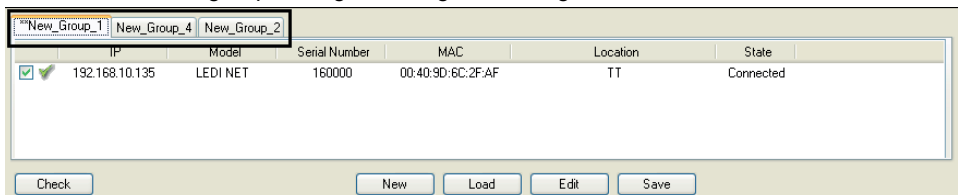
- ▶ The red cross means that the software does not detected this device anymore. Check the device network connection or click on its checkbox to redetect it.



	IP	Model	Serial Number	MAC	Location	State
<input checked="" type="checkbox"/>	192.168.10.130	LEDI NET	150000	00:40:9D:6C:2E:AF	TT	Connected
<input checked="" type="checkbox"/>	192.168.10.133	LEDI NET	140000	00:40:9D:6C:2F:D8	TT	Connected
<input checked="" type="checkbox"/>	192.168.10.150	LEDI NET	130000	00:40:9D:4E:0B:6D	GT_LEDlcvh	Location C...

Buttons: Check, New, Load, Edit, Save

- ▶ Several groups can be opened at the same time but only one can be configured at a time. To change the current group, click on its name. Then, click on "Check" to see the current group settings and begin its configuration.



	IP	Model	Serial Number	MAC	Location	State
<input checked="" type="checkbox"/>	192.168.10.135	LEDI NET	160000	00:40:9D:6C:2F:AF	TT	Connected

Buttons: Check, New, Load, Edit, Save

1.7.2. Clock Configuration

- ▶ **To set the same configuration to one or more clocks:**
 - ▶ Select the target clocks with their checkbox and click "Check".
 - ▶ Change their parameters.
 - ▶ Click "Save" before any change of tab since the configuration changes are lost when switching tabs.
 - ▶ Click on "Set" to apply the changes on the selected clocks.

The screenshot shows a configuration window with two main sections. The top section is a table with columns: IP, Model, Serial Number, MAC, Location, and State. Below the table are buttons for 'Check', 'New', 'Load', 'Edit', and 'Save'. The bottom section is a tabbed interface with tabs for 'General Info', 'Clock Config', 'NTP Config', 'SNMP Config', and five 'Display' tabs. The 'NTP Config' tab is active, showing a dialog box titled 'NTP Configuration'. This dialog has radio buttons for 'Auto-detect NTP server's IP address automatically' and 'Use the following NTP server's IP address'. Under the second option, there are three rows for 'NTP Server 1', 'NTP Server 2', and 'NTP Server 3', each with an IP address field and an 'Associated MD5 key' dropdown menu. A 'Save' button and a 'Cancel' button are at the bottom of the dialog. A red box highlights the 'Cancel' button at the bottom right of the entire configuration window.

	IP	Model	Serial Number	MAC	Location	State
<input checked="" type="checkbox"/>	192.168.10.150	LEDI NET	130000	00:40:9D:4E:0B:6D	GT_LED1	Connected
<input type="checkbox"/>	192.168.10.130	LEDI NET	150000	00:40:9D:6C:2E:AF	TT	Connected
<input checked="" type="checkbox"/>	192.168.10.135	LEDI NET	160000	00:40:9D:6C:2F:AF	TT	Connected
<input checked="" type="checkbox"/>	192.168.10.133	LEDI NET	140000	00:40:9D:6C:2F:D8	TT	Connected
<input checked="" type="checkbox"/>	192.168.10.121	LEDI NET	120000	00:40:9D:4E:0B:87	Alpha 7/60	Connected

NTP Configuration

Auto-detect NTP server's IP address automatically

Use the following NTP server's IP address Disable Server's Priority

NTP Server 1: 192.168.10.202 Associated MD5 key: none

NTP Server 2: 0.0.0.0 Associated MD5 key: none

NTP Server 3: 0.0.0.0 Associated MD5 key: none

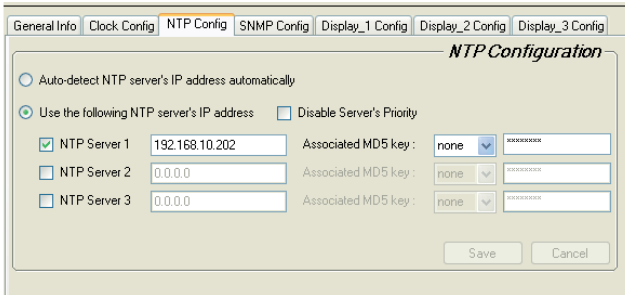
Save Cancel

1

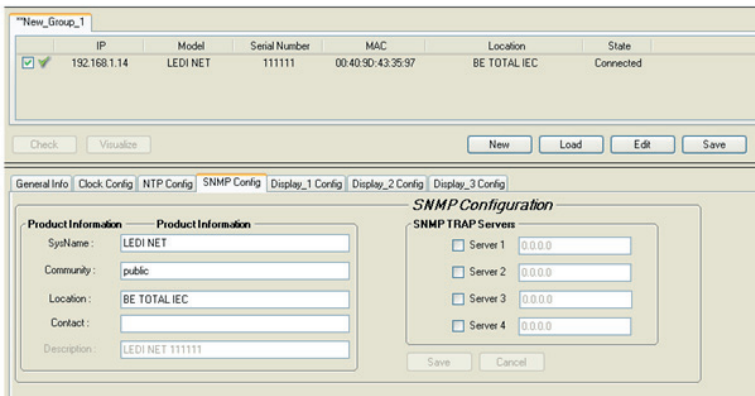
Set **Cancel**

- ▶ The color, luminosity, time settings and text on the optional text display can be changed for each time zone.
- ▶ In the "General Info" tab, autonomous or NTP synchronisation modes can be chosen. In autonomous mode, the time must be set manually whereas in NTP mode, clock will synchronise on one or several NTP servers.
- ▶ The selected clocks can also be rebooted by pressing "Reboot".

- ▶ In the "NTP Config" tab, at least one NTP servers must be set if the NTP synchronization has been chosen. The option "Auto-detect NTP server's IP address automatically" allows the selected clocks to scan their network and synchronize with the first server they find.



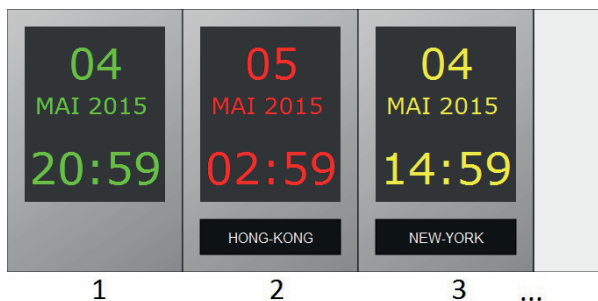
- ▶ In the "SNMP Config" tab, settings can be added to ease the identification of a device with its name and its location. A computer IP address can also be set for it to receive alert messages (trap) when special events append (power failure, synchronisation loss...). An SNMP trap receiver software must always run on the computer to prevent a loss of these messages.



- ▶ If some parameters are changed by another way (website, buttons,...), they will be visible in "GTNetConfig" only if you press "Cancel" then "Check" to reload the clock parameters in the software.

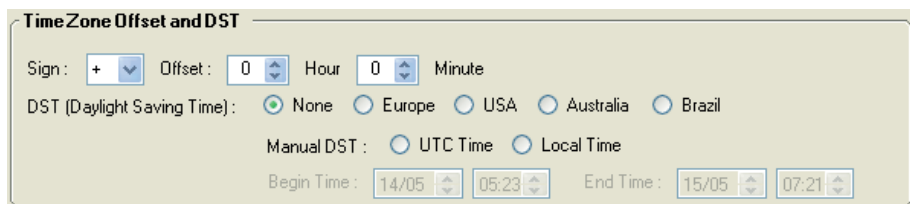
1.8. TIMEZONE CONFIGURATION

In the "Display X" tabs, each time zone can be configured. The zones are numbered from 1 on the left side when in front of the clock as shown in the image below. There can be up to 7 time zones on a same clock.

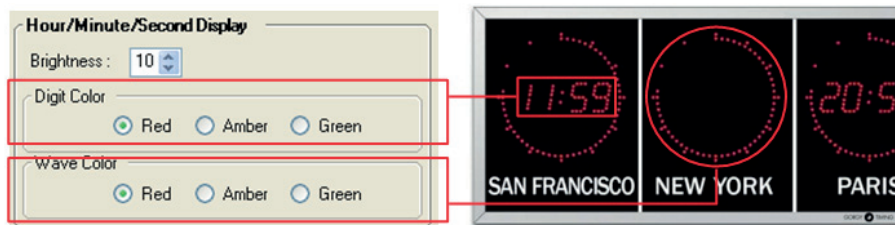


- ▶ 1. The time zone offset can be set from -13h30 to +13h30 offset to UTC.

Example with the Australian DST: The summer time period starts the 1th Sunday of October at 2 A.M. (UTC) and ends the 1st Sunday of April at 2 A.M. (UTC).

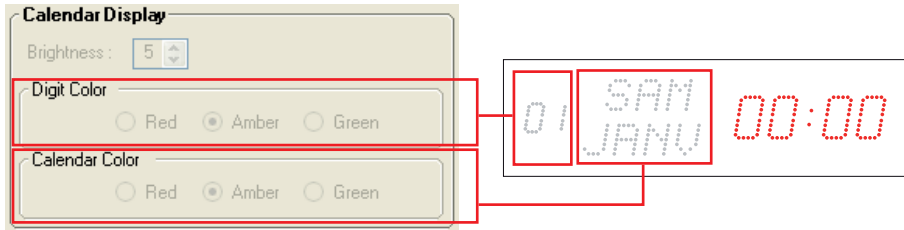


- ▶ 2. The "Hour/Minute/Second Display" section allows the configuration of the color and brightness for the hour display. Brightness can be set from 0 (off) to 10 (full luminosity).

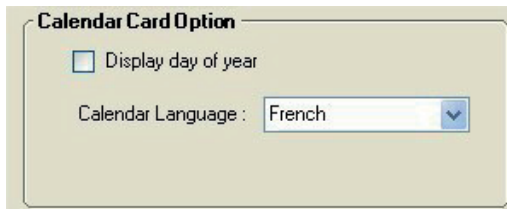


If a wave circle is present around the hour display (optional), a change in "Wave Color" will affect the color of the wave as shown in the above picture.

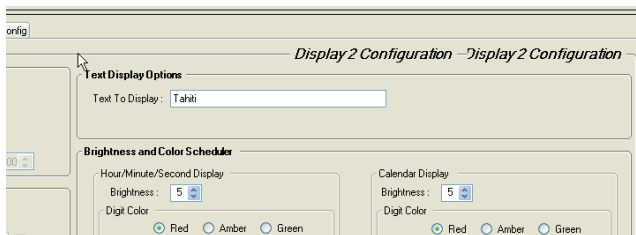
- ▶ 3. If a time zone can displays a date (optional), the "Calendar Display" section allows the configuration of its day and date colors as well as its luminosity.



- ▶ 4. Again with the calendar option, the "Calendar Language" can be used to change the days of week and months language. The default available languages are English, French, German, Spanish, Italian, Dutch, Scandinavian languages or Russian.



- ▶ 5. If a text display is present on clock, the "Text Display" section can be used to configure its content.



 **N.B:** Up to 16 ASCII characters can be prompted in this display.

1.9. VISUALIZATION OPTION

- ▶ By clicking on "Visualize", the clocks configurations can easily and quickly be checked.



- ▶ At each tab, a clock hour, date, displayed text and color are displayed.

1.10. UNINSTALLING GTNETCONFIG

For Windows XP et Windows Server 2003:

- ▶ Open "Start Menu" → "Control Panel" → "Add or Remove Programs "
- ▶ Then click on "Uninstall" for the software named "GTNetConfig".

For Windows Vista, Windows 7, Windows Server 2008:

- ▶ Open "Start Menu" → "Control Panel" → "Device Manager"
- ▶ Then click on "Uninstall" for the software named "GTNetConfig".

- ▶ To open a clock embedded website, its IP address or Domain Name System (DNS) name should be written in a web browser.



Info: The Web interface can change depending on the web browser and operating system.

- ▶ For the authentication use "root" as login and "gtmt" as password.



- ▶ If the information was correct, the index Web page appears.



- [Home](#)
- [Network](#)
- [Ntp parameters](#)
- [Output parameters](#)
- [Sntp parameters](#)
- [Upload Firmware](#)
- [Reboot](#)

Home

Welcome to the management and configuration web interface.
You can use the navigation menus on the left to access additional pages.

Name: LEDI NET (130000)

IP Address: 192.168.10.150
MAC Address: 00:40:9D:4E:0B:6D

Up Time: 31 minutes 47 seconds

NTP State: TRACKING (First NTP server : 192.168.10.202)
INTERNAL Time: LUN 21/05/43 13:39:43
OUTPUT Time: LUN 21/05/43 13:39:43

2.1. MENU DESCRIPTION

- ▶ **Home:** Leads to the home page. This page as shown above gives information about clock status like its current internal time (Universal Time Coordinated (UTC)), output time, IP address. . .
- ▶ **Network:** In this page, network parameters can be set. Dynamic Host Configuration Protocol (DHCP) can be enabled to get a network configuration automatically if its network provides it, else a static configuration must be set.
- ▶ **Ntp parameters:** In this page, up to 4 NTP synchronization servers can be set. Each server can have an encryption key for more security.
- ▶ **Output parameters:** In this page, a global time zone configuration to be applied on all displays and serial ports can be set. Moreover, if the option was featured, the serial port can be configured in this page too.
- ▶ **Snmp parameters:** In this page, information for SNMP supervision like the clock location to easily identify it in "*GTNetConfig*" or in your network can be set. On the second side of the page, addresses of computers which should receive SNMP trap (alarm messages) can be configured.

[rkl](#)
[parameters](#)
[t_parameters](#)
[parameters](#)
[Firmware](#)
[t](#)

SNMP parameters

System Name :	<input type="text" value="LEDI NET"/>
System Location :	<input type="text"/>
System Contact :	<input type="text"/>
System Description :	<input type="text" value="LEDI NET 144304"/>
System Community :	<input type="text" value="public"/>
<input type="checkbox"/> Trap Address #1 :	<input type="text" value="0.0.0.0"/>
<input type="checkbox"/> Trap Address #2 :	<input type="text" value="0.0.0.0"/>
<input type="checkbox"/> Trap Address #3 :	<input type="text" value="0.0.0.0"/>
<input type="checkbox"/> Trap Address #4 :	<input type="text" value="0.0.0.0"/>
Enable remote (network) configuration :	<input checked="" type="checkbox"/>

Please check the option that you want to activate and associate a valid IP address

- ▶ Check the box "Enable remote (network) configuration" in order to configure the clock with *GTNetConfig*."
- ▶ The checkbox at the bottom of the page allows to enable remote configurations with "*GTNetConfig*" and disable buttons setting.
- ▶ **Upload Firmware** : To update the firmware version in the clock.
- ▶ **Reboot** : To remotely reboot the clock.

2.2. UPDATING A CLOCK

- ▶ Go to the clock website. Then go to the "Upload Firmware" page.

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[Network](#)
[Ntp parameters](#)
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[Sntp parameters](#)
[Upload Firmware](#)
[Reboot](#)

Home

Welcome to the management and configuration web interface.

You can use the navigation menus on the left to access additional pages.

Name: LEDI NET (130000)

IP Address: 192.168.10.150
 MAC Address: 00:40:9D:4E:0B:6D

Up Time: 1 day 21 hours 20 minutes 17 seconds

NTP State: TRACKING (First NTP server : 192.168.10.202)
 INTERNAL Time: VEN 25/05/43 11:43:56
 OUTPUT Time: VEN 25/05/43 11:43:56

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Upload Firmware

Upload a new firmware or ROM image into flash.
 (A firmware image file must be called *image.bin*. A ROM image file must be called *rom.bin*, *spi_rom.bin*, or *romzip.bin*.)

Select Image:

V1.23 - Gorgy Timing

- ▶ Choose the new firmware file (with the name "*image.bin*") given by the Gorgy Timing Support.
- ▶ Team and click on "Upload".

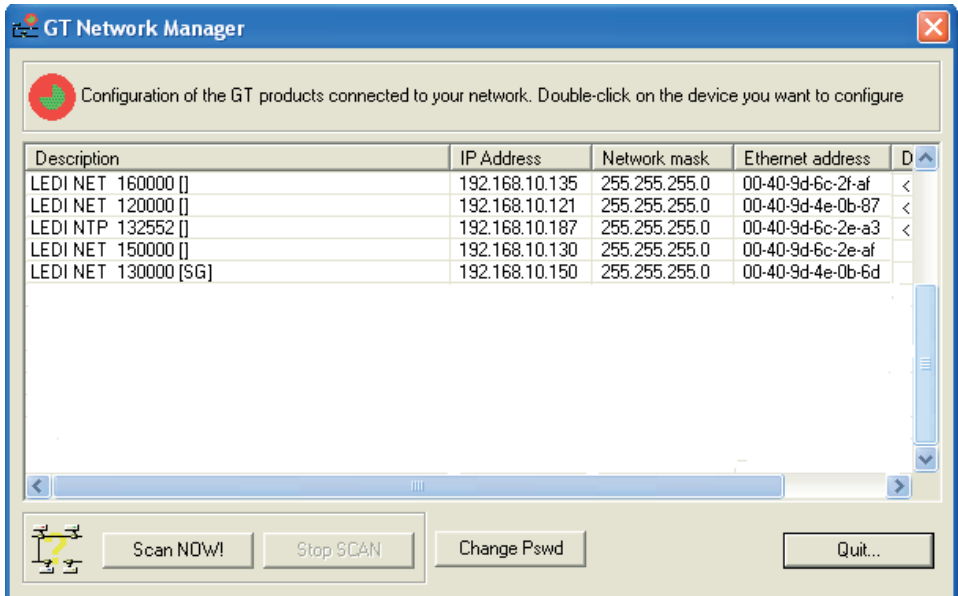


Settings have been saved. You must reboot for changes to take effect.

- ▶ The clock will restart to complete the update. It will be fully operational after around 3 minutes after the reboot to let it apply all its configurations.

3.1. FIND THE IP ADDRESS OF A PRODUCT

"GTNetworkManager" can be used to list all IP addresses of Gorgy Timing products on a local network. Be aware that the Embedded Network Device Management Interface (ENDMI) must not be deactivated on the researched product for "GTNetworkManager" to find it.



- ▶ If the product does not appear in the list, try again with the product connected to a computer directly with a crossover cable or through an isolated switch/network.
- ▶ If the product has the ENDMI deactivated, configure and start a DHCP server on the computer of the isolated network then check which device requests an IP address. If the product does not request one, try to restart it with the physical reboot button on its backside. If the product still does not request an IP address, then it has been configured with a static IP.
- ▶ To revert the static IP configuration, reset the product to its factory defaults. It will then need to be completely reconfigured.

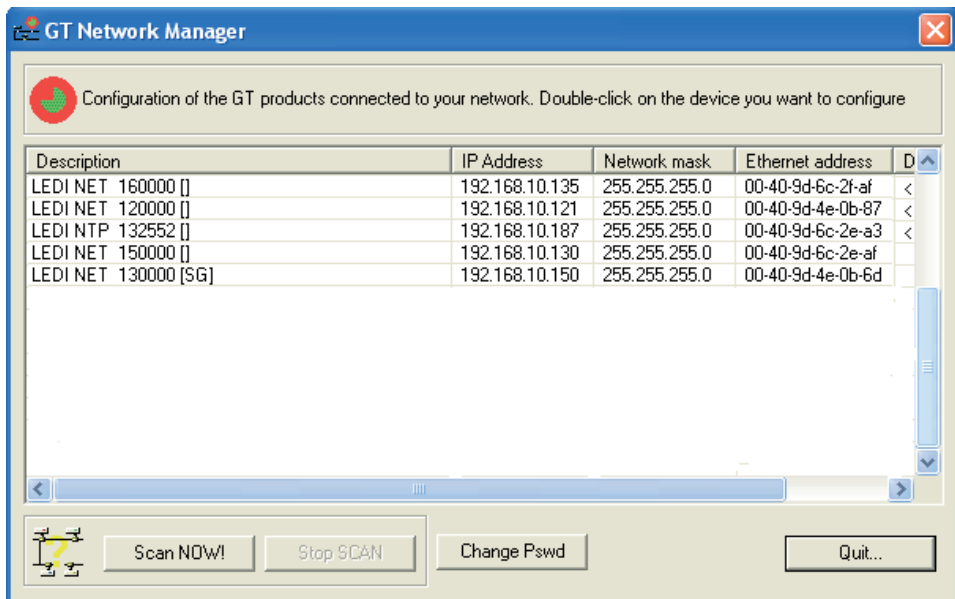
3.2. SET A STATIC IP ADDRESS FOR A PRODUCT

Here are the two ways to set a static IP address for a Gorgy Timing product:

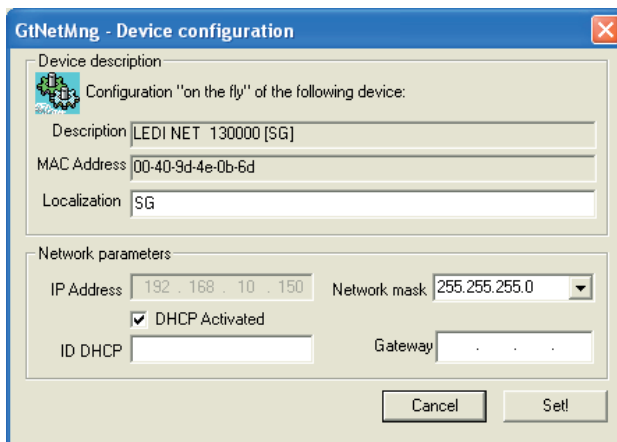
► **1st way:** Via its embedded website:

- 1. Click on the "Network" page link.
- 2. Select "Use the following IP address".
- 3. Set the IP address and other network parameters.

- ▶ **2nd way:** Via "GTNetworkManager":



- ▶ 1. Double click on the product line.

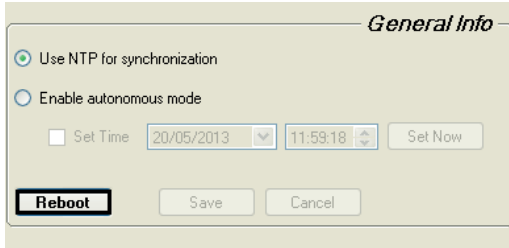


- ▶ 2. Deselect "DHCP Activated".
- ▶ 3. Set the IP address and other network parameters.

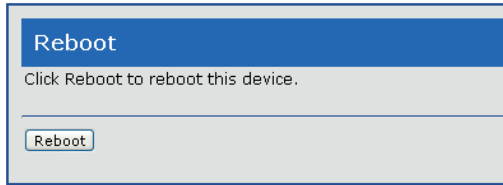
3.3. REBOOT CLOCK

Here are three ways to reboot a clock:

- ▶ **1st way:** With "GTNetConfig", go in the "General Info" tab then click on "Reboot".



- ▶ **2nd way:** With a Web browser, go to the clock "Reboot" embedded Web page and click on "Reboot". The clock Web interface will be unavailable for a few minutes.





- ▶ **3rd way:** If the previous ways do not work, you can power off the clock. After a few minutes, it will be processing again.

3.4. FACTORY DEFAULT

To do a Factory Default :

- ▶ Keep the FD button (the one on the bottom) pressed.
- ▶ Quick press the "Reset" button.
- ▶ Continue to press FD for 45 seconds then release it.
- ▶ The clock should have rebooted with our factory parameters.

 ***If you have a problem which is not in this Q&A, feel free to give a call to our Support Team.***

 ***A visual check of a LED display may be done regularly to detect any problem.***

CLASSIC PROBLEMS AND THEIR SOLUTIONS

PROBLEMS	POSSIBLE EXPLANATION	SOLUTIONS
The configuration has not been applied on all selected clocks.	The message was lost on the network.	Try to resend the configuration by modifying one parameter, saving the change, setting back the parameter you modified, saving again and resending the settings.
There are red fields in "GTNetConfig".	One or more selected clocks have different configurations.	This is not an error, "GTNetConfig" just shows you that there are differences in the group.
A clock display is off.	The clock is not powered.	Check its power supply cable.
	The display luminosity is set to 0 (OFF).	Set it to another value with the Webpage or "+" button'.
No access to a product embedded webpage.	The product is not wired to network.	Check network connection.
	The IP address/DNS name is wrong.	Check the product address.
	The DNS server is inaccessible.	Check the DNS server or use the product IP address.
	The product is on another subnetwork.	Check the computer subnetwork.
The colon stays off.	Synchronization failure due to a problem of network connection or in the network itself.	The clock and NTP server network configurations are incompatible. Try with DHCP or check these settings.
A clock displays a bad time.	The synchronization source time is wrong.	Correct the problems on the synchronization source or set manually the time.
	A wrong offset is applied on time information.	Check your offset and DST configuration for this display in the Webpage or on the website in "Output".

PROBLEMS	POSSIBLE EXPLANATION	SOLUTIONS
A clock have a display problem.	A software bug occurred in the clock	Try to reboot the clock (see the Reboot section). If a soft reboot does not correct the display, try to manually disconnect the power supply and reconnect it. Restart " <i>GTNetConfig</i> " if it was running.
An error occurs while opening the webpage.	Web browser is out of date.	Update the web browser or try with another one.
A problem occurs while opening " <i>GTNetConfig</i> ".	" <i>GTNetConfig</i> " does not have the administrator rights.	Launch it as administrator: right-click on its icon and choose " <i>Launch as administrator</i> ".
	DOT NET (.NET) Framework is out of date.	Update your .NET Framework on Microsoft website.
	Your operating system is incompatible or corrupted.	Try with another operating system in the list at the beginning of this document or try to install this software on another computer.

DHCP (or Dynamic Host Configuration Protocol) is a network protocol for dynamically distributing network configuration parameters such as IP addresses or Network Mask.

DNS (or Domain Name System) translates domain names which can be easily memorized by humans to the numerical IP addresses needed for the purpose of computer services and devices worldwide.

DST (or Daylight Saving Time) is a policy to make human activity time more synchronous with daylight time by adding one hour in summer and remove it in winter. It is country or region specific and some countries do not have DST policy.

ENDMI (or Embedded Network Device Management Interface) is the Gorgy-Timing protocol used to detect their products and set their network configuration.

IP (or Internet Protocol) address is the number which identify each device on a network and that computer uses to communicate throughout the Internet.

MAC (or Media Access Control) is an unique address given by product manufacturer to clearly identify network device. Example: 00:07:CB:C4:48:C9.

NTP (or Network Time Protocol) is an application protocol which allows time synchronization throughout network.

SNMP (or Simple Network Management Protocol) is an application protocol which allows product monitoring by a computer through network.

UTC (or Universal Time Coordinated) replace GMT ("Greenwich Meridian Time") as international time reference.



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