

# GTNetworkManager2

# **USER GUIDE**







### IMPORTANT SAFETY INSTRUCTIONS



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



To protect your equipment, connect power on UPS (Uninterruptible Power Supply).



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



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).



An external circuit-breaking device must be used with this product. It must be easily accessible by the user.

Earthing: This product can be used with TT or TN earthing.



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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The GTNetworkManager2 program can be installed on any computer running Windows 10, Windows 7, Windows Vista, Windows XP, Windows Server... It does not work under Linux.

No internet connection is required during installation.

To start the installation, run the GTNetworkManager2\_Installer.EXE program (requires to be administrator of the station or to know the password of the administrator level).

First, the choice of the language for the installation will be proposed (which is not necessarily the language in which the GTNetworkManager2 program itself will run):



Next comes the choice of the directory in which the various components of the program will be installed:



The default directory is called GTNetworkManager2, it is located in a GORGY TIMING directory which will be created automatically if it does not already exist. GORGY TIMING itself is located in C:\Program Files (x86).

Once the choice of the installation directory has been validated, a summary appears:



► The actual installation itself starts after a click onto the "Install" button.



Once completed the content of the previously chosen installation directory is as follows:

Nom	Туре	Taille
👩 GTNetworkManager2.exe	Application	21 680 Ko
GTNetworkManager2.wx	Fichier WX	1 Ko
🛍 uninst.inf	Informations de configuration	9 Ko
🛋 wd190action.dll	Fichier DLL	140 Ko
🛋 wd190com.dll	Fichier DLL	3 168 Ko
🛋 wd190etat.dll	Fichier DLL	768 Ko
🛋 wd190grf.dll	Fichier DLL	432 Ko
🛋 wd190img.dll	Fichier DLL	688 Ko
🛋 wd190mat.dll	Fichier DLL	136 Ko
🛋 wd190mdl.dll	Fichier DLL	324 Ko
🛋 wd190net4.dll	Fichier DLL	524 Ko
🛋 wd190obj.dll	Fichier DLL	5 108 Ko
🛋 wd190oldb.dll	Fichier DLL	880 Ko
🛋 wd190ole.dll	Fichier DLL	116 Ko
🛋 wd190pnt.dll	Fichier DLL	290 Ko
🛋 wd190prn.dll	Fichier DLL	1 588 Ko
🛋 wd190sql.dll	Fichier DLL	828 Ko
wd190std.dll	Fichier DLL	1 124 Ko
🛋 wd190vm.dll	Fichier DLL	3 264 Ko
wd190xls.dll	Fichier DLL	424 Ko
📧 wd190xml.dll	Fichier DLL	1 308 Ko
🔹 wd190zip.dll	Fichier DLL	704 Ko
🖏 WDUNINST.EXE	Application	344 Ko
WDUninst.ini	Fichier INI	3 Ko

Follows a screen proposing different options (that may include, depending on the Windows version, the choice to install an icon in the quick launch bar):



The icon available in different places (desktop, Start menu and possibly quick launch bar) looks as follows



In the Start menu, the entry GTNetworkManager2 is in the group GORGY TIMING.

## 2. PROGRAM EXECUTION

The GTNetworkManager2 program is multi-instance: it is possible to launch several simultaneous executions (if you want, for example, to see different portions of the product list simultaneously).

#### It does not require administrator privileges.



**3. PRESENTATION OF THE SOFTWARE** 

The GTNetworkManager2 PC program is used to:

- List all Gorgy Timing products connected to the IP network of a computer under Windows (clocks, time servers, modular time centers, ...).
- Configure the network settings for each of these products.
- Access the web page of each of these products.

GTNetworkManager2				
GORGY 🛃 TIMING	Description - n° de série Adresse MAC - nouveau produit Localisation SNMP	Adresse IP/sous-réseau	DHCP ou IP fixe	
	GT HANDI 159240 00:0F:60:02:44:FE TOTEM HANDI WI-F	192.168.7.223/255.255.248.0	IP fixe	Config 📈
a man a second a second	GT LEDI 1/5/RK Enhan 159052 00:20:4A:AE:18:E2 Baie : IRIG	192.168.1.30/255.255.248.0	DHCP	Config 🔀 🗏
	GT RT4000/NT012 module 000000 00:20:4A:86:9B:A9 Bureau JLM	192.168.1.154/255.255.248.0	DHCP	Config 📈
	GT RT4000/NT013 modu 000000 00:20:4A:91:F8:86 Bureau JLM	192.168.1.210/255.255.248.0	DHCP	Config 🔀
	GT RT95 140687 00:40:9D:71:1C:02	192.168.7.220/255.255.248.0	IP fixe	Config 🔀
	GT_HANDI 159241 42:47:54:1E:2D:43	192.168.7.224/255.255.248.0	IP fixe	Config 📈
(20-59)	LEDI NET 151837 00:40:9D:7E:75:70	192.168.1.192/255.255.248.0	DHCP	Config 📈
Tri par description (Z> A)	▼ 19 pro	duits trouvés Recherche		
Interfaces	Se	Can 🖘 🗆 Automatique		Quitter 🔀

### MAIN WINDOW

For each product, the following details are displayed:

- > A generic image, which offers an immediate visual identifier for the type of product.
- Its description.
- Its serial number.
- Its MAC address.
- The word "new", next to its MAC address, if the device has just been discovered during the last scan (this will make it easier to identify products that have been newly connected to the network or have just been powered up).
- Its SNMP location, if assigned. Its different IP addresses the subnet mask or the prefix length for each address, and whether this address has been assigned by DHCP or whether it is a fixed IP address. If the product has more than one, the primary address is shown in bold and first position. If a product has multiple IP addresses, then its primary IP address is the address obtained in response to an ordinary IPv4 request (and not in response to an IPv6 request nor in response to a broadcast request).
- A button to open its configuration window (see below).

10 9.8 7 6 5 HANDI clock	LEDI clock	LEDI PILOT box	LEDI TOP
RT 9S or RTCP09 or mother clock	RT GTC mother clock	LEDI NETWORK 1SRK or I time serve	TS or TDS or TS.
LEDI NETWORK ITSv2m or ATS time server	NTP card of a Time server	Lantronix NTP output card of a time server	
RT4000 modular time server	NT012, NT013, NT022 or NT023 of an RT4000 modular time server	NT815 or NT825 of an RT4000 modular t	ime server

## The different possible images are:

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Each product is displayed on a colored background that corresponds to the network interface it is connected to (or on a white background if it is connected to several interfaces of different colors. In this case, only the IP address of the product is displayed on colored background).

Exception: in case of an anomaly, it is displayed on a red background, allowing it to be easily identified in the list.

Potential product anomalies may be:

- Corrupted flash memory (MAC address 00: 40: 9D: 43: 35: 97 or 00: 40: 9D: BA: DB: AD). IP address already used by another product.
- MAC address or IP address identical with the one of another product.
- Invalid serial number.

GTNetworkManager2				
GORGY D TIMING	Description - n° de série Adresse MAC - nouveau produit Localisation SNMP	Adresse IP/sous-réseau	DHCP ou IP fixe	
	GT RT4000/NT012 module 000000 00:20:4A:86:9B:A9 Bureau JLM	192.168.1.154/255.255.248.0	DHCP	Config 📈
20-59	LEDI NET 151837 00:40:9D:7E:75:70	192.168.1.192/255.255.248.0	DHCP	Config 📈
	GT RT4000/NT013 modu 000000 00:20:4A:91:F8:86 Bureau JLM	192.168.1.210/255.255.248.0	DHCP	Config 🔀
a anna a 📾 👯 weg	1801 NETWORK (75.2 (801) 76 OD 18075 (80) DA197	<b>192.168.2.26</b> (2005.2005.2005.0	DHCP	Config 🔀
	NTP SERVER OUTCARD 159051 00:40:9D:6F:A1:2C	192.168.2.43/255.255.248.0	DHCP	Config 📈
	GT RT9s 140687 00:40:9D:71:1C:02	192.168.7.220/255.255.248.0	IP fixe	Config 🔀 😑
	GT HANDI 159240 00:0F:60:02:44:FE TOTEM HANDI WI-F	192.168.7.223/255.255.248.0	IP fixe	Config 📈
Tri par adresse IP principale (1> 9)	▼ 18 pro	duits trouvés Recherche		
Interfaces	Se	Can 🆘 🗆 Automatique		Quitter 🔀

# 5. POSSIBLE INTERACTIONS

The **Scan** 47 button starts an analysis of the network interfaces present on the PC and scans the products connected for each one of them.

The list is then updated accordingly. In case anomalies are found in products, a pop-up indicating their number appears to inform of the presence of such anomalies. Then simply acknowledge this pop-up by clicking onto its button **OK**.



The F5 key of the PC as well makes it possible to start a scan.

A checkbox allows to enable or disable the automatic scan mode.



A window appears allowing to set the time interval between two consecutive scans.



In case of an error during the scan (network interface disconnected, ...) or anomalies in products, the next automatic scan will only resume once the error pop-up has been ac-knowledged.

In automatic scan mode, it is still possible to click on the Scan 4 button at any time to start a scan manually before the end of the countdown.

A click onto the line of a product selects it, it will then be displayed on a blue background. This selection just allows to easily locate this product among all the others and provides access to its Web page through the contextual menu (right click onto the product).



The up and down arrow keys on the keyboard let you switch between the products.

By holding the Ctrl key you can select several products and then for example open the web pages of the selected products at the same time using the context menu or a keyboard shortcut.

O GTNetworkManager2				×
GORGY D TIMING	Description - n° de série Adresse MAC - nouveau produit Localisation SNMP	Adresse IP/sous-réseau	DHCP ou IP fixe	
	GT HANDI 159240 00:0F:60:02:44:FE TOTEM HANDI WI-F	192.168.7.223/255.255.248.0	IP fixe	Config 🔀
	GT LEDI 1/S/RK Enhan 159052 00:20:44:AE:18:E2 Baie : IRIG	192.168.1.30/255.255.248.0	DHCP	Config 🔀 🗏
	GT RT4000/NT012 module 000000 00:20:4A:86:9B:A9 Bureau JLM	192.168.1.154/255.255.248.0	DHCP	Config 🔀
	GT RT4000/NT013 modu 000000 00:20:4A:91:F8:B6 Bureau JLM	192.168.1.210/255.255.248.0	DHCP	Config 🔀
	GT RT9s 140687 00:40:9D:71:1C:02	Copier l'adresse IP	10 five	Coolia V
	GT_HANDI 159241 42:47:54:1E:2D:43	Ouvrir la page web Ouvrir en arrière plan la page web Ouvrir les pages web des produits sélectio	nnés	Entrée
20-59	LEDI NET 151837 00:40:9D:7E:75:70	Ouvrir en arrière plan les pages web des p	roduits sélectionn	és Ctrl+Entrée
Tri par description (Z> A)	▼ 19 pro	duits trouvés Recherche		
Interfaces 🔳	S	Can 🐓 🗆 Automatique		Quitter 🔀

A click outside the list of products (in the white part of the window, between the buttons at the bottom for example) cancels the selection, the products are then displayed again with the background color of their network interface (or on a red background for those who are in anomaly).

The vertical scroll bar allows you to go down or up in the list, if the size of the window does not allow to display all products at once.

The search field *Recherche* is used to restrict the list of displayed products to those with an attribute (description, serial number, MAC address, "new" product, SNMP location, IP address(es), subnet mask, gateway, fixed DHCP/IP column, DHCP ID) included in the search term.

This filter is useful to quickly access a specific product among an important number of products present.

Le combo box Tri par description (Z -> A) allows you to classify the displayed products as per a particular attribute:

- ► By description: the products are listed in ascending (A ► Z) or descending (Z ► A) alphabetical order of their description.
- By serial number: products are listed in ascending (1 ► 9) or descending (9 ► 1) numeric order as per their serial number.
- ► By MAC address: the products are sorted in the order of the increasing number of hexadecimal (00 ► FF) MAC addresses.
- By SNMP localization: the products are sorted in ascending alphabetical order (A ► Z) or decreasing (Z ► A) of their SNMP location.
- ► By primary IP address: the products are listed in ascending (1 ► 9) or descending (9 ► 1) numerical order of their main IP address (the one shown in bold and in 1st position, if they have several ones).
- By network interface of the PC: the products are grouped by network interfaces (i. e. by color).

# The type of sorting is stored and will be used for the next scan as well as at the next program start.

The Interfaces button opens the PC network interface window (see below).

The **Config** is button for each product opens the configuration window for the network parameters of the corresponding product (see below). You can also open this window by double-clicking anywhere onto the line.

The IP address **192.168.1.54** of each product is a clickable area opening an internet browser with its web page.

The GORGY **TIMING** logo is a clickable area opening an internet browser with the GORGY TIMING website.



6. NETWORK AND PRODUCT INTERFACES

#### NETWORK INTERFACE WINDOW

GTNetworkManager2 - Interfaces réseau	
Realtek PCIe GBE Family Controller	Couleur
192.168.0.134/255.255.248.0	🖌 Utilisé
255.255.255.255/0.0.0.0	🖌 Utilisé
fe80::e852:b458:3823:d20e/64	🗹 Utilisé
VirtualBox Host-Only Ethernet Adapter	Couleur
192.168.56.1/255.255.255.0	🗌 Utilisé
255.255.255.255/0.0.0.0	🗌 Utilisé
fe80::a07e:a424:4e11:c963/64	🗌 Utilisé 🗸
Plage additionnelle d'adresses IPv4 de destination	
Activée	Couleur
Début 192.168.10.1 Fin 192.168.	10.255
RAZ Scan 47	Fermer 🔀

This window lists the network interfaces found during a scan, with their different IP addresses and corresponding subnet masks.

A scan is done with the scan 4 button of this window or with the button Scan 4 of the main window (these two buttons work in the same way).

For each network interface, a switch is used to enable or disable ( $\bigcirc$  /  $\bigcirc$ ) each of its IP addresses, thus making it possible to take into account or ignore the products accessible through the IP address of this interface.

# The status (enabled/disabled) of the IP address of a network interface is stored and will be used for the next scan (if the interface is still present), as well as at the next launch of the program.

This window also offers the possibility of entering an additional range of IPv4 destination addresses in order to scan products outside the local network. These destination addresses will then be used with each of the enabled network interfaces.

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At the 1<sup>st</sup> start of the program, each network interface, as well as the additional range of IP addresses, are provided with a default color (unless there are more than 16, in which case they are all displayed on a white background).



Once validated, the new color is taken into account immediately for displaying the products in the main window. It is also stored and will be found at the next program start (if the network interface is still present).

The RAZ is button resets to the original colors (Reset to Zero).



o GTNetworkManager2 - Configuration à la volée de "LEDI NETWORK TS 146310"					
Description du produit					
Description	LEDI NETWORK TS				
N° de série	146310				
Adresse MAC	00:40:9D:7B:67:5C				
Localisation SNMP	Salle 1				
Paramètres réseaux					
	IPv4	IPv6			
Adresse IP	192.168.10.128				
Masque sous-réseau/long préfixe	255.255.255.0	0			
Passerelle					
	DHCP	DHCP			
ID client DHCP (option 61)					
Page web			ок	Annuler 🚫	

This window provides for the configuration of the following network settings:

- SNMP localization.
- ▶ DHCP mode or fixed IP address.
- ▶ IP address, subnet mask (or the prefix length, in IPv6) and the gateway, if in mode fixed IP.
- DHCP ID.

The ok button is enabled ( ok 🕑 ) as soon as a parameter value different from the original one is entered.

Once the configuration validated, a login pop-up appears asking for a username and password:

GTNetworkManager	2 - login	
Utilisateur	root	
Mot de passe	••••	Þ
	ок 🥑	Annuler 🚫

Enter respectively "root" and "gtmt".

If the product has several IP addresses, the choice to send the seized configuration to will be proposed:

GTNetwork	Manager2 - Configuration à la volée de "LEDI NETWORK ITS 2 4 "
2	Veuillez saisir le numéro d'adresse IP de destination à laquelle envoyer la configuration : 1 : 192.168.0.154 2 : fe80::240:9dff.fe6f:6c44
	0
	OK Annuler

Once the configuration validated, the product is grayed in the main window, it will only be accessible after a new scan (it may still be resetting or may be assigned a new IP address by DHCP, ...):

GTNetworkManager2				
GORGY D TIMING	Description - n° de série Adresse MAC - nouveau produit Localisation SNMP	Adresse IP/sous-réseau	DHCP ou IP fixe	
	LEDI NETWORK ITS 2 159054 00:40:9D:6F:A1:1A GP5 NTP TCXO ILSI	192.168.0.202/255.255.248.0	IP fixe	Config 📈
	PTP SERVER OUTCARD 120000 00:40:9D:68:98:2B	192.168.0.203/255.255.248.0	IP fixe	Config 🔀
	LEDI NETWORK TS 159053 00:40:9D:6F:A1:09 Baie : IRIG NTP	192.168.0.230/255.255.248.0	IP fixe	Config 🔀
· · · · · · · · · · · · · · · · · · ·	LEDI NETWORK ITS 2 160175 00:40:9D:88:DA:9F	192.168.0.234/255.255.248.0	IP fixe	Config 🗙
· · · · · · · · · · · · · · · · · · ·	LEDI NETWORK TS 146310 00:40:9D:7B:67:5C DCF/TDF/GPSLC	192.168.1.27/255.255.248.0	DHCP	Config 🔀
- · · · · · · · · · · · · · · · · · · ·	GT LEDI 1/S/RK Enhan 159052 00:20:4A:AE:18:E2 Baie : IRIG	192.168.1.30/255.255.248.0	DHCP	Config 🔀
	LEDI NETWORK ITS 2 159051 00:40:9D:6F:7E:EA Bale: GPS GLONASS	192.168.1.121/255.255.248.0	DHCP	Config 🔀
Tri par adresse IP principale (1> 9)	• 18 pro	duits trouvés Recherche		
Interfaces	Se	Can 🖘 🗆 Automatique		Quitter 🔀

The configuration window, just like the main window, gives access to the product's web page, through the button Page web (this is the main IP address of the product that is used, if there are several).



GTNetworkManager2 - Configuration à la volée de "LEDI NETWORK ITS 2 830128"					
Description du produit					
Description	LEDI NETWORK ITS 2				
N° de série	830128				
Adresse MAC	00:40:9D:6B:6E:95				
Localisation SNMP					
Paramètres réseaux					
	IPv4	IPv6			
Adresse IP	192.168.0.129				
Masque sous-réseau/long préfixe	255.255.248.0	0			
Passerelle					
	DHCP	DHCP			
ID client DHCP (option 61)					
Page web			ок 🕒	Annuler 🚫	

With a product having an IP address identical to that of another one (if they have both been configured with the same fixed IP address for example), the IP address displayed in the configuration window is the one previously entered for this product and which was finally not used when restarting the device due to the address conflict.

The "DHCP" text is also displayed in red in order to highlight that the product is in DHCP mode though it had been configured with a fixed IP address.

🖸 GTNetworkManager2 - Configuration à la volée de "LEDI PILOT box 161344"					
Description du produit					
Description	LEDI PILOT box				
N° de série	161344				
Adresse MAC	42:47:54:3C:2F:4D				
Localisation SNMP					
Paramètres réseaux					
	IPv4	IPv6			
Adresse IP	192.168.10.125				
Masque sous-réseau/long préfixe	255.255.255.0	0			
Passerelle					
	DHCP	DHCP			
ID client DHCP (option 61)	GT_Scheduler_16				
Page web			ок	Annuler 🚫	

With a product having a DHCP ID with invalid characters (characters other than letters, numbers, and the hyphen), its ID is displayed in red, and the ok button is grayed out until a valid DHCP ID has been seized.

# NOTES

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