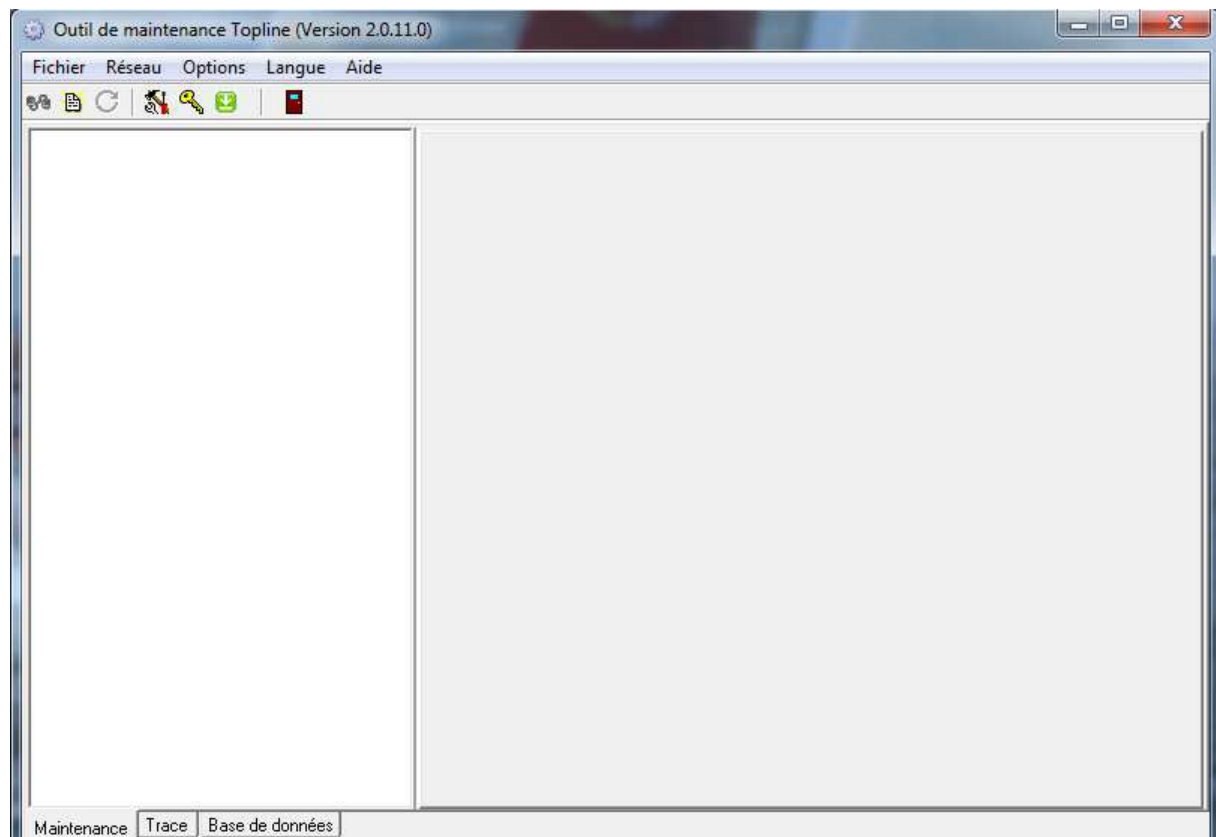


TOPLINK 2

Maintenance Software



User manual

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1. Software presentation

"TOPLINK 2" is a maintenance software for Topline instruments designed to run under Windows on a PC.

TOPLINK 2 provides the following functions:

- Topline devices firmware update
- Reading cookies installed on Topline devices
- Data logging of the TOPLINE Bus data for further analysis

This software is restrained so that the various functions are only available for specified authorisation levels. 3 Modes are set up: Normal (the most restrained), Expert, Administrator (the most complete). Activation keys given by nke allow access to the different modes.

Connection of the PC to the **TOPLINE Bus is done via a **USB port** linked to the **nke WiFi box (part n. 90-60-538)**.**

2. Installing the software

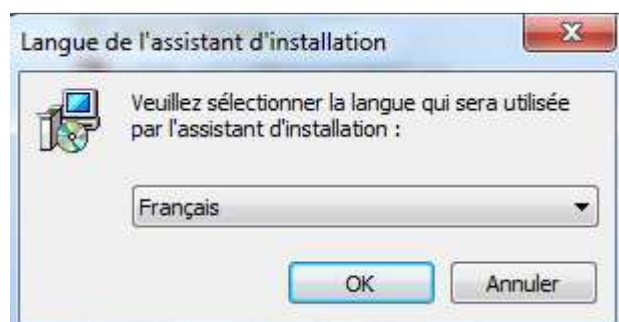
Download the toplink file from the following address:

<https://www.nke-marine-electronics.fr/acces-technique/>

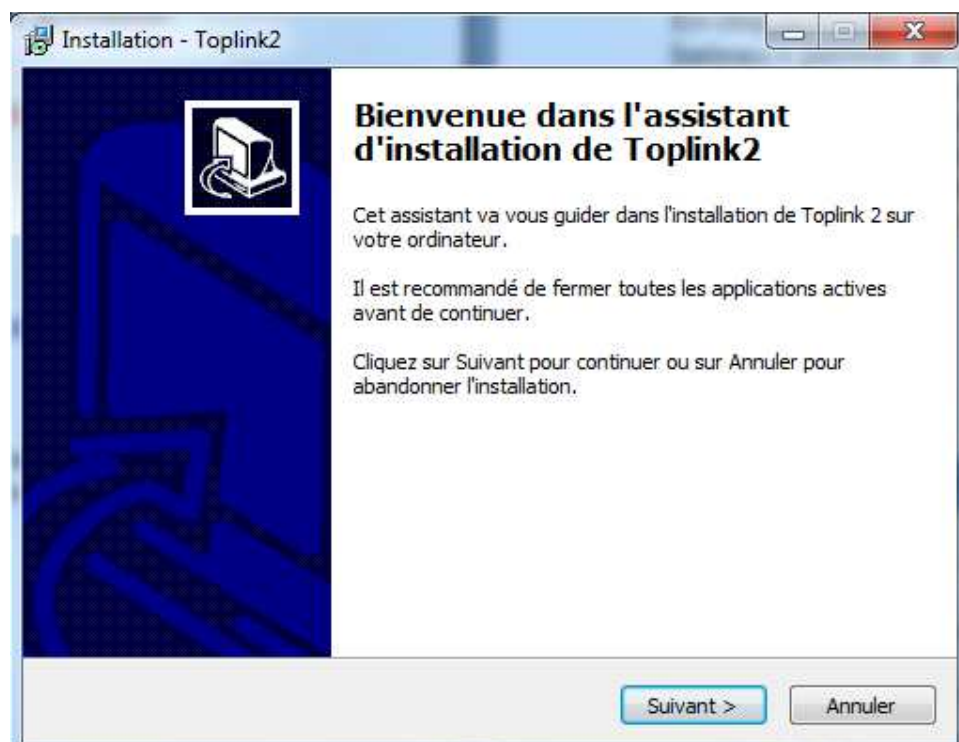
Password: "prive"

Double-click on the executable file "ToplinkSetup.exe": The installation will start. Follow the instructions at each step of the installation.

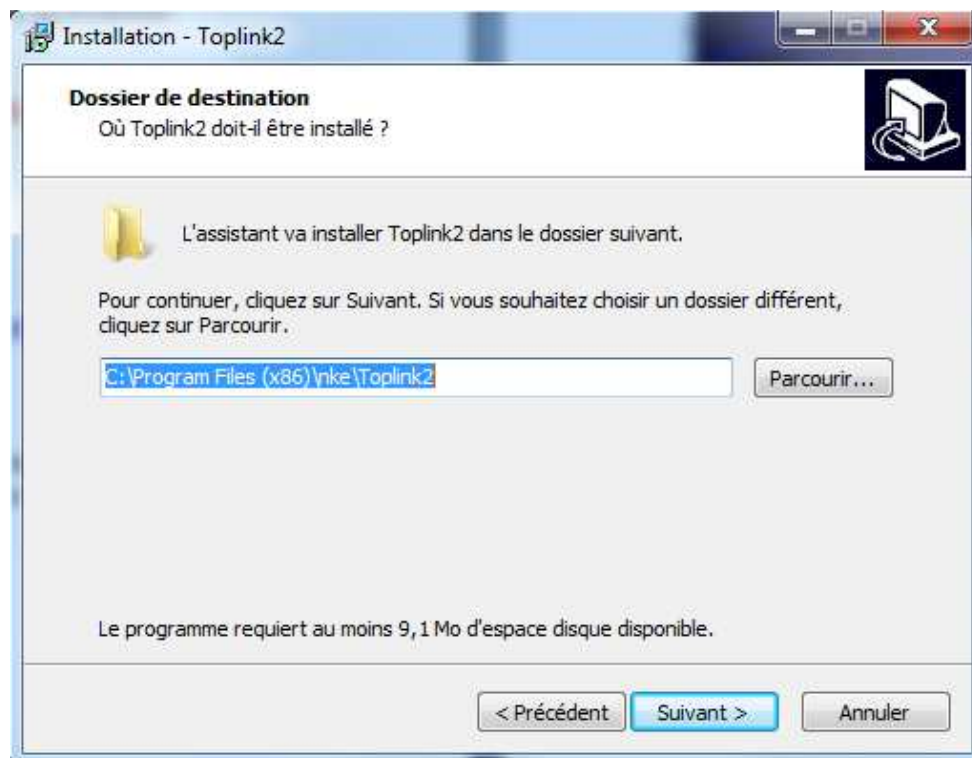
Choose a language:



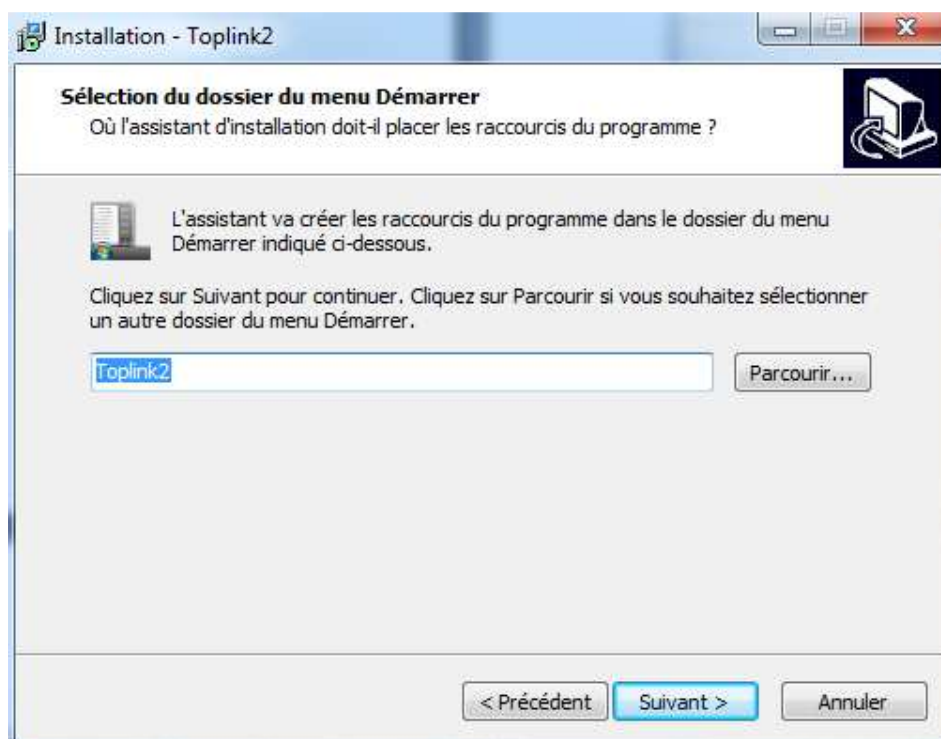
Start the installation:



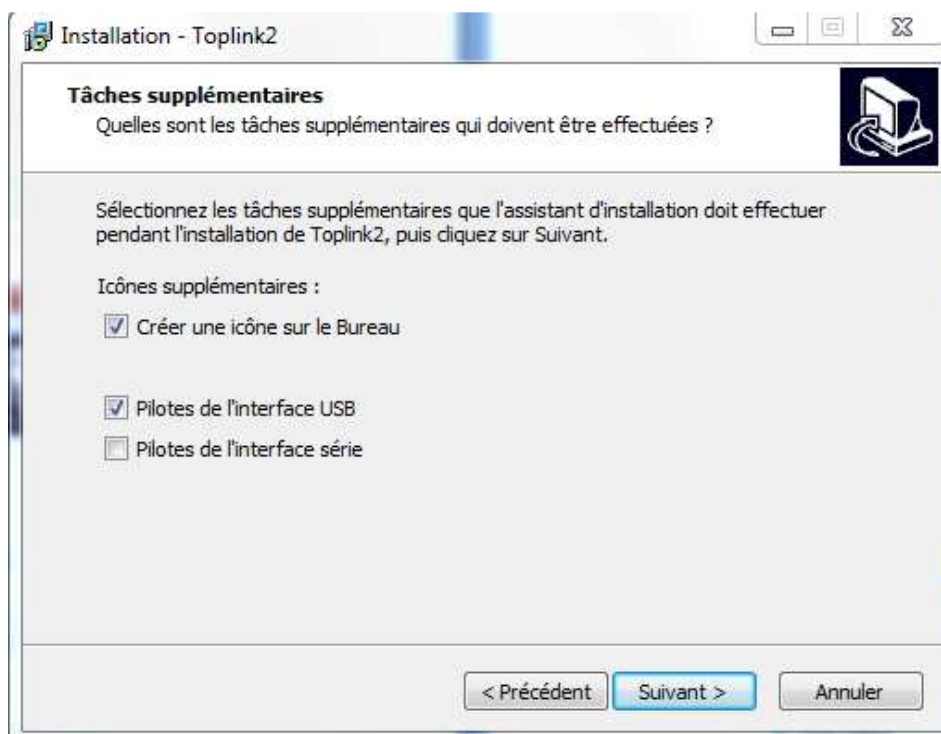
Choose the installation path:



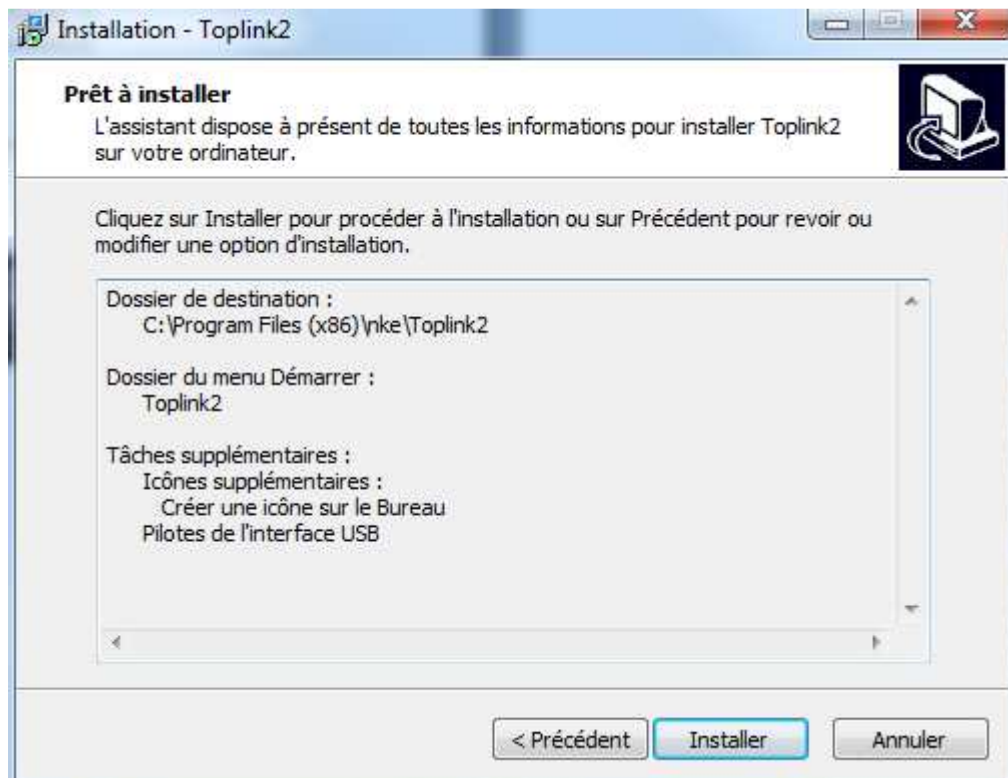
Shortcut the Start menu:



Additional tasks: Tick "Create an icon on the desktop" and "USB interface's pilot":



Ready to install:

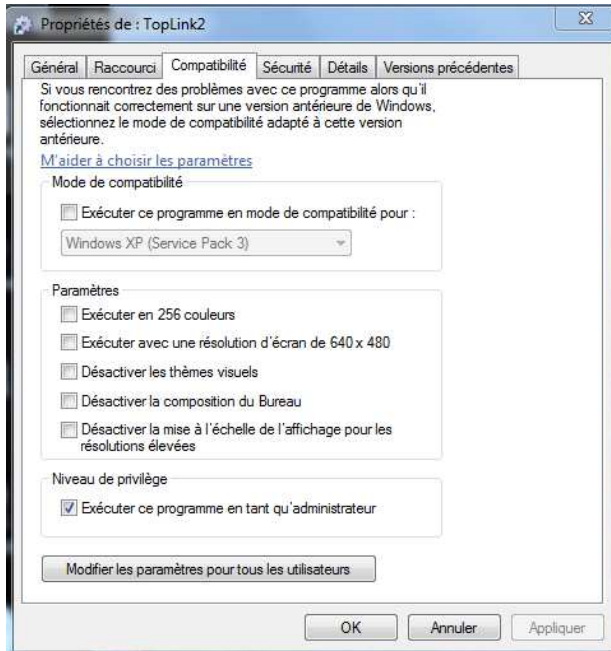


End of installation:



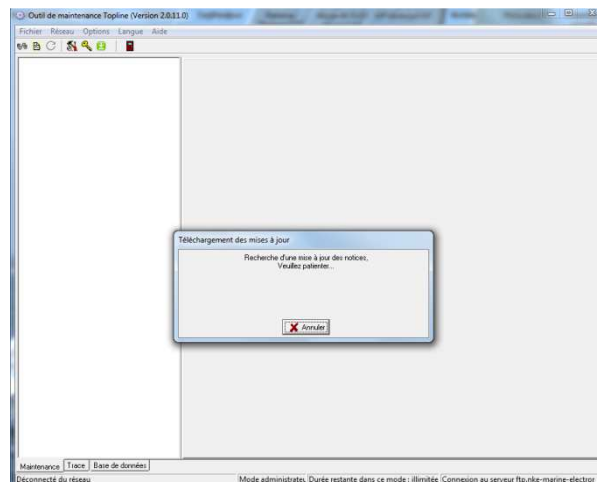


Once the installation program is closed, right-click on the Toplink icon on the desktop. Select "Properties", and the "Compatibility" tab. Tick "Execute this program as Administrator" and confirm with "OK":



Initial start of Toplink 2:

Connect the computer to Internet and run Toplink. An automatic download process will start to retrieve the Topline database, updated firmwares, nke instruments manuals and the software. Once this is completed, the Toplink software is fully updated.



3. Setting up the software



By clicking on the button, you open a settings window:

- "Boat name" is the field where you type the name of the boat, which will be used to name the various saved files.
- "Topline Communications: choose the COM or USB port from a scroll-down list. If no port is available, check the wiring of your interface and install the Topline USB port driver.

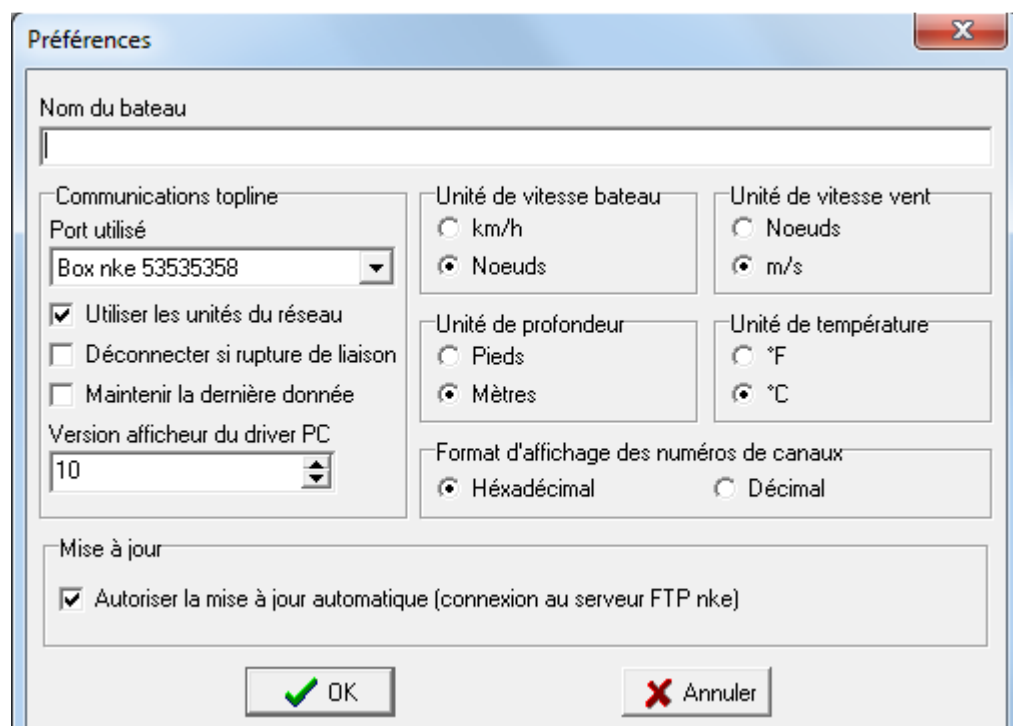
The drivers are available at the following address:

<https://www.ftdichip.com/Drivers/D2XX.htm>

To install the driver, follow the process described in the document related to your Windows version. Here below, you will find the path to access the documents.

[C:\Program Files \(x86\)\nke\Toplink2\Drivers](C:\Program Files (x86)\nke\Toplink2\Drivers)

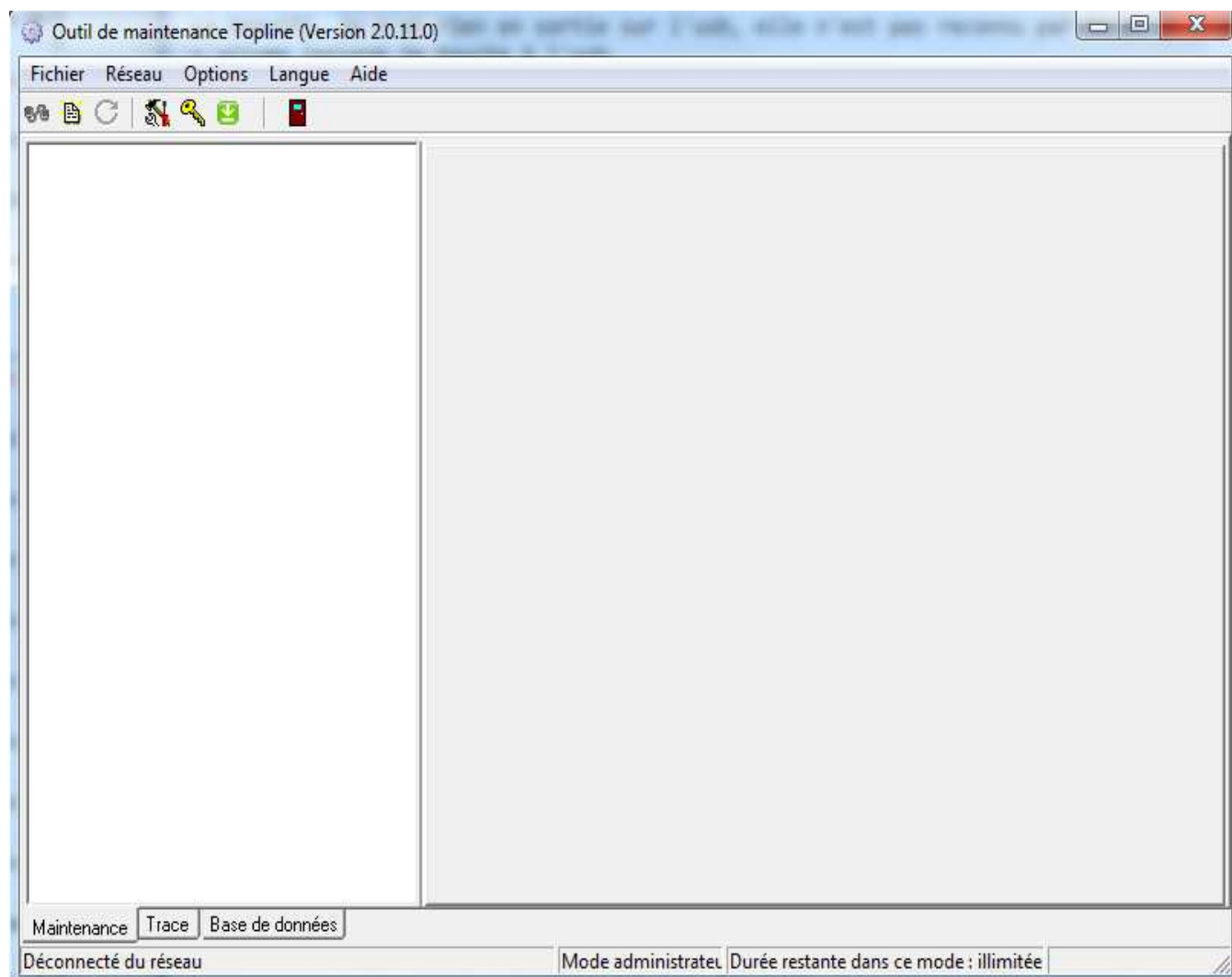
- "Update": Automatic updates are launched at each start of the software. Nevertheless, this function can be disabled by unticking "Allow automatic update".



4. Commissioning

Once the installation is completed, connect the PC to the Topline network via the nke WiFi box with its USB cable. Run TOPLINK 2.

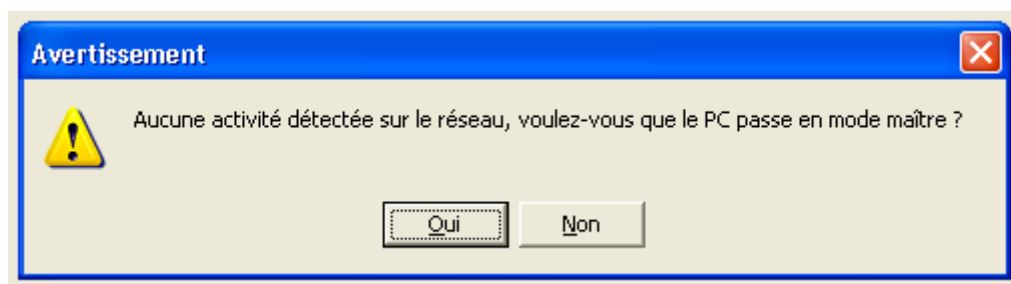
The following window opens:



Click on the Bus Connection button.

2 possibilities:

1 – No "Master" display on the Bus, or the "Master" display node has been set to "0", the following message appears.



on

Click
"Yes"

to set the PC as "Master".

The following page appears: It lists all the devices connected to the Bus by displaying a tree where each element is displayed with:

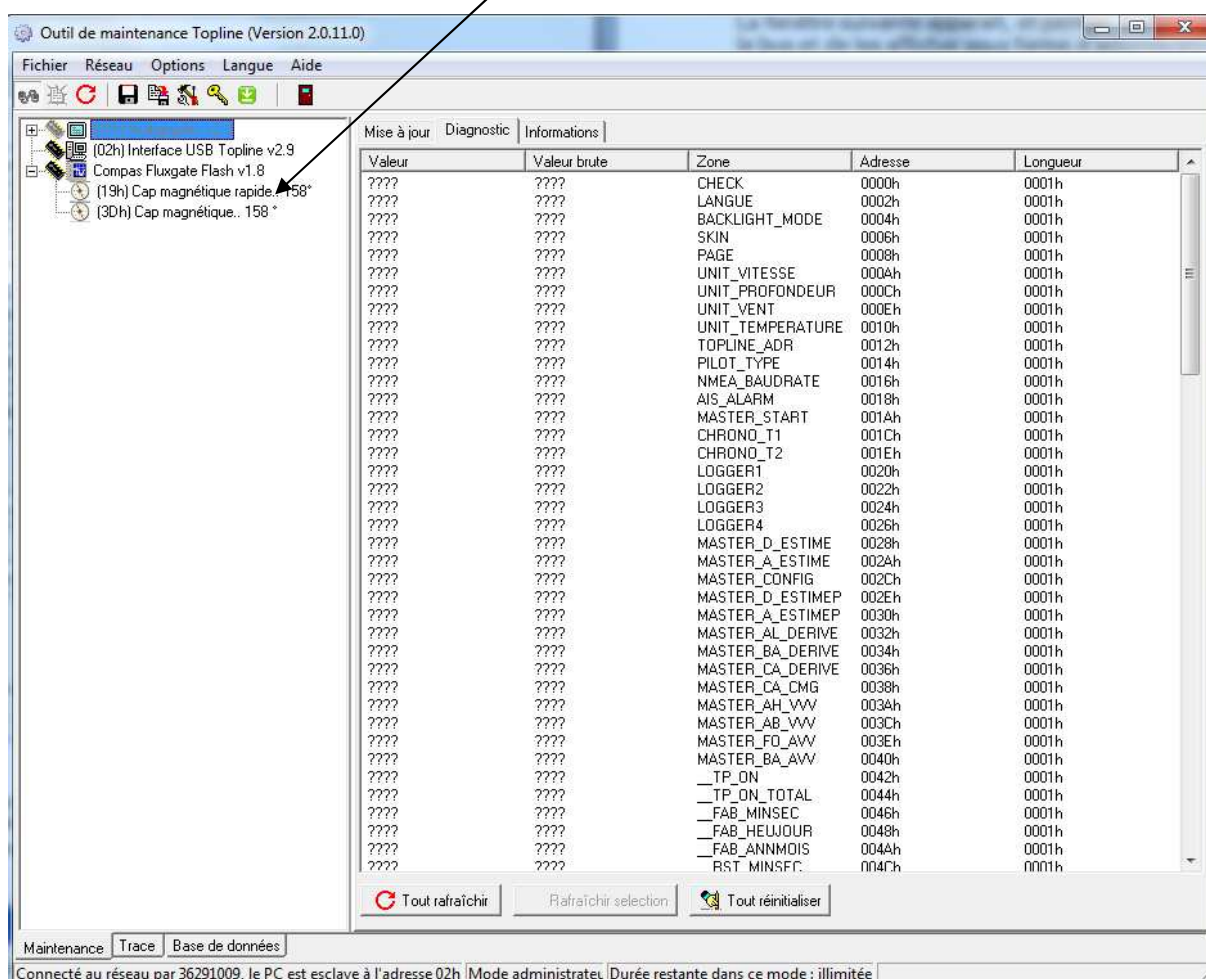
- Name (according to the chosen language)
- Icon indicating the type



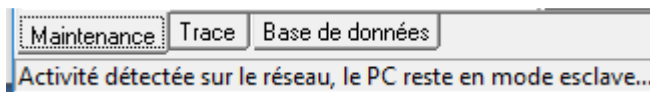
- Icon indicating if it can be edited



- Tree featuring the channels created by the related equipment



2 – Presence of a "Master" on the Bus: the software starts. As a "Master" is already detected on the Bus, the PC remains as "Slave". The PC's status is indicated at the bottom of the page.



5. Analysis of the different Operating Modes

Normal Mode

This is the default Mode. It allows to read the Topline Bus tree, updating the firmwares for all editable Topline devices and read the cookies installed on some instruments (read the raw value).

Expert Mode

Compared to Normal Mode, the Expert Mode allows reading true values in the cookies, reset the cookies, and save data from the Topline Bus (tracks).

Administrator Mode

Additionally to the Expert Mode, you can access the database.

The activation of the Expert and Administrator Modes can be done with a key provided by the nke Customer service. Keep the Toplink software running during the whole following process:

Click on the button for authorisation to toggle level, in the tool bar, and then on the "Manage private key" button, in the "Authorisation" window.



Communicate that private key to the nke customer service so that they can send you the matching key. You will type this key in the "Public key" window to activate the new operating Mode for a given time.

6 operating modes settings are then available:

- 1 hour Expert Mode
- 1 day Expert Mode
- Unlimited Expert Mode

- 1 hour Administrator Mode
- 1 day Administrator Mode
- Unlimited Administrator Mode

The keys used for a time limited Mode can be used only once. Authorised duration is for the total operational time of the given mode.

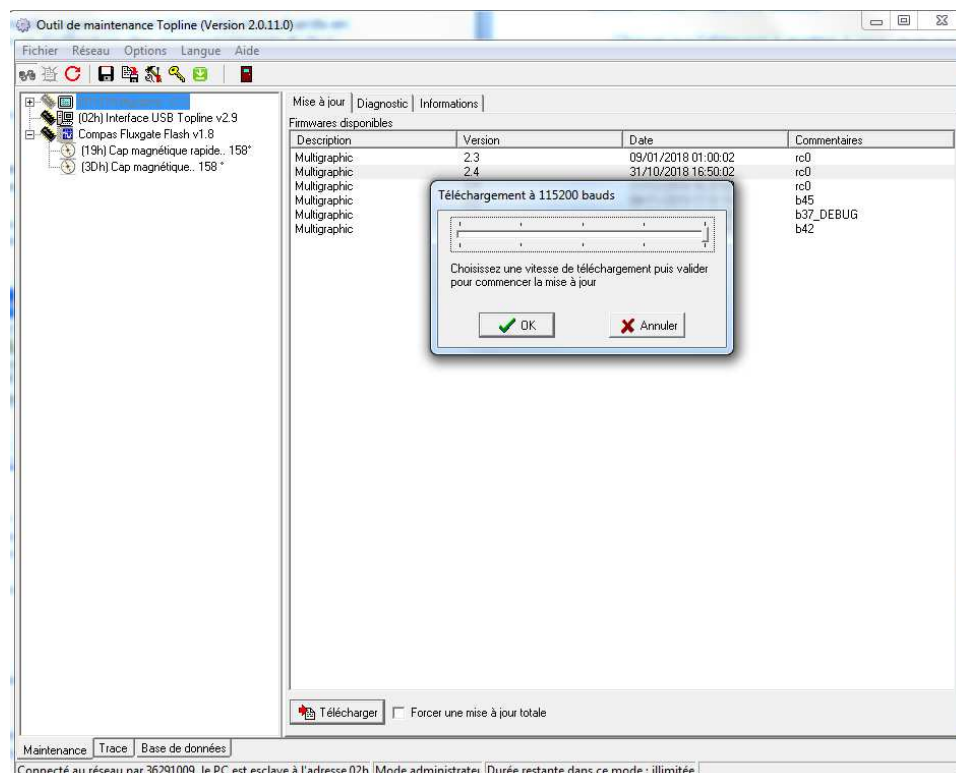
6. Firmware update for Topline devices

To update a device's firmware, the "Toplink2" application searches for a compatible file with the "nke" extension, located in <C:\Program files\Fichiers communs\nke\Firmware>.

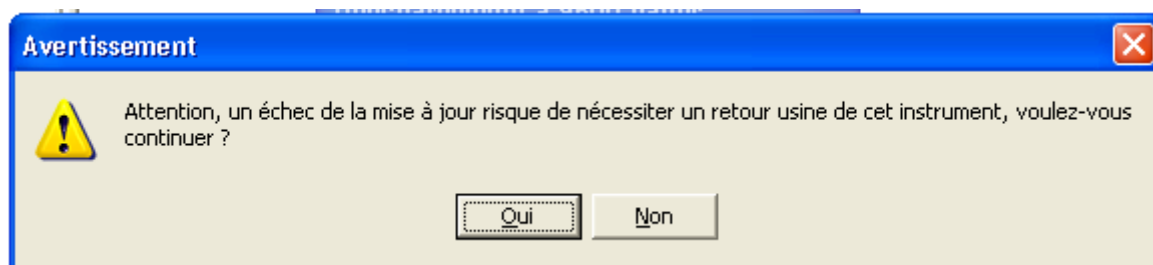
The "nke" files are automatically placed in the "Firmware" folder when downloaded. In some cases, it is possible to copy and paste a "nke" file in that folder.

Procedure:

- Click on the device that needs an update, and then, click on the "Update" tab.
- Select the firmware to download;
- Click on "Download", then on "OK" (the download speed on a TOPLINE Bus is 115200 baud maximum, and 9600 baud minimum). **Warning: It is strongly recommended to run the update of the Multigraphic or Multidisplay at 115200 baud** (allow 20 minutes for that task).



In some cases, the following warning message is displayed:



Never interrupt the procedure while downloading. If a full update is interrupted, the device must be sent back to factory

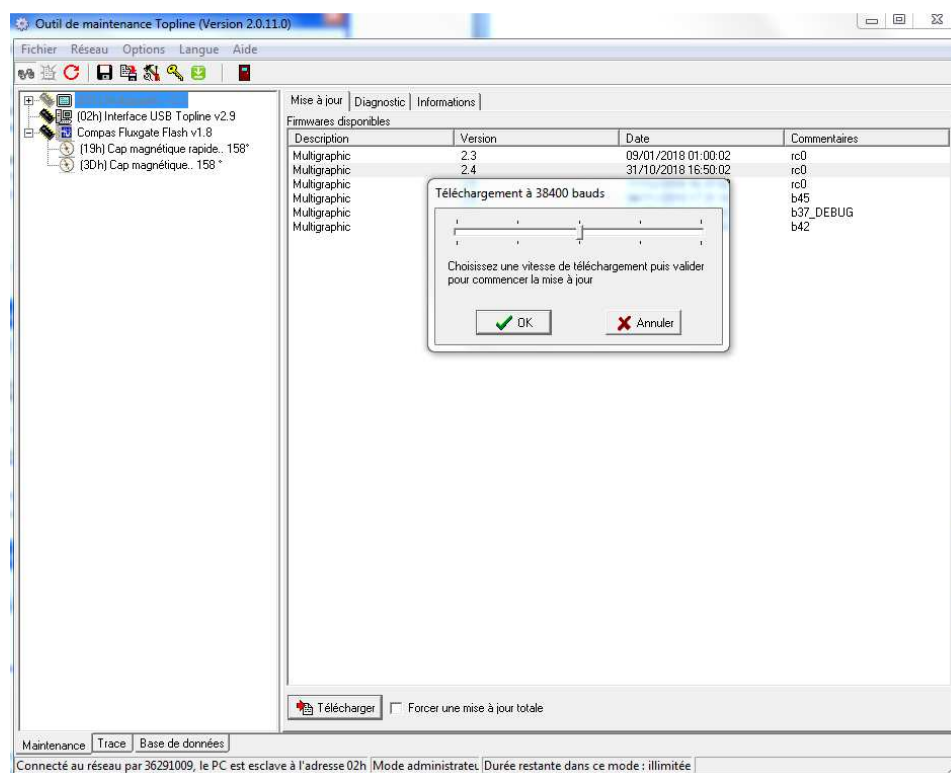
- Click on the YES button to start the download. A progress bar allows to follow the download status:



Once download is completed, the following message informs you that the download was successful:



When the download process is done on a Topline Bus where only editable devices are present, this operation can be achieved at 115200 baud. In that case, there is a TrackBar set at that speed by default. In case of communication failure during downloading, this TrackBar allows the user to set a lower speed and try again.



7. Help to diagnosis

With Toplink 2 you can save files with the extension ".tss", containing the Bus folders tree and the values of the cookies (after saving), as well as instruments parameters if the case occurs. Such a file can be sent to the service support for expertise.

7.1 *Saving the cookies*

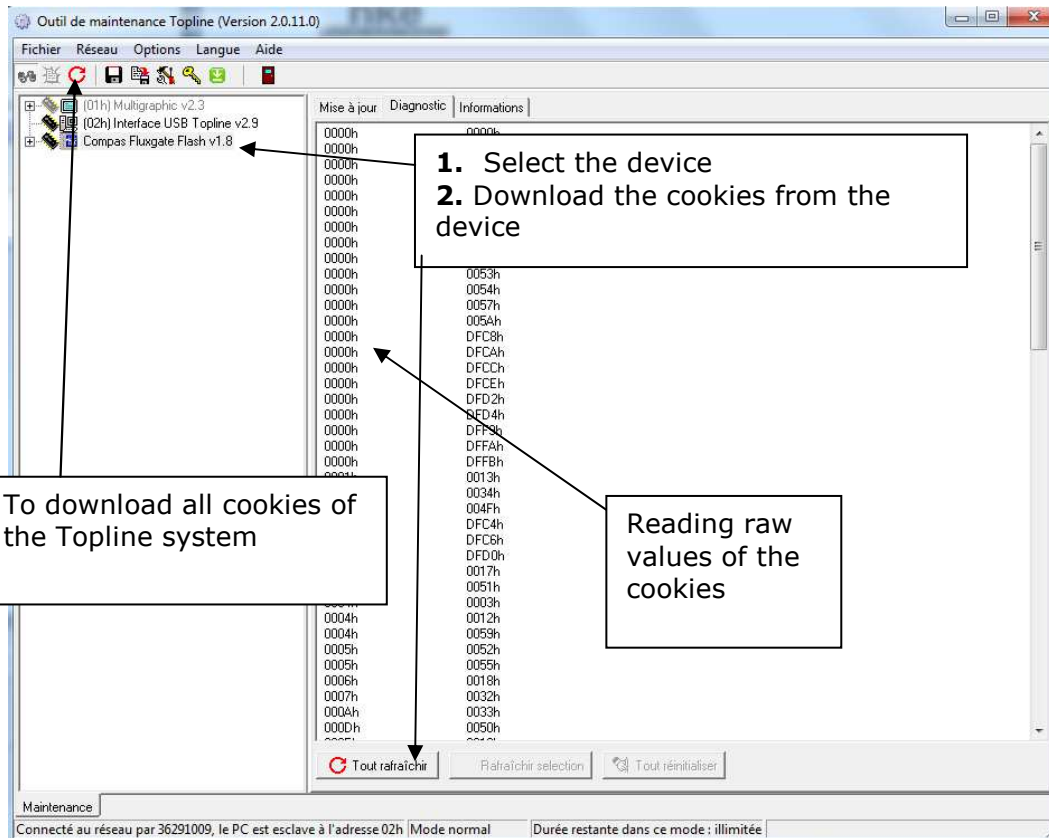
Once connected to the TOPLINE Bus, browse the folder tree to find the device for which you need to read the cookies. In the diagnosis window, click on the "refresh" button to download the data.

For a full diagnosis file, click on the button:

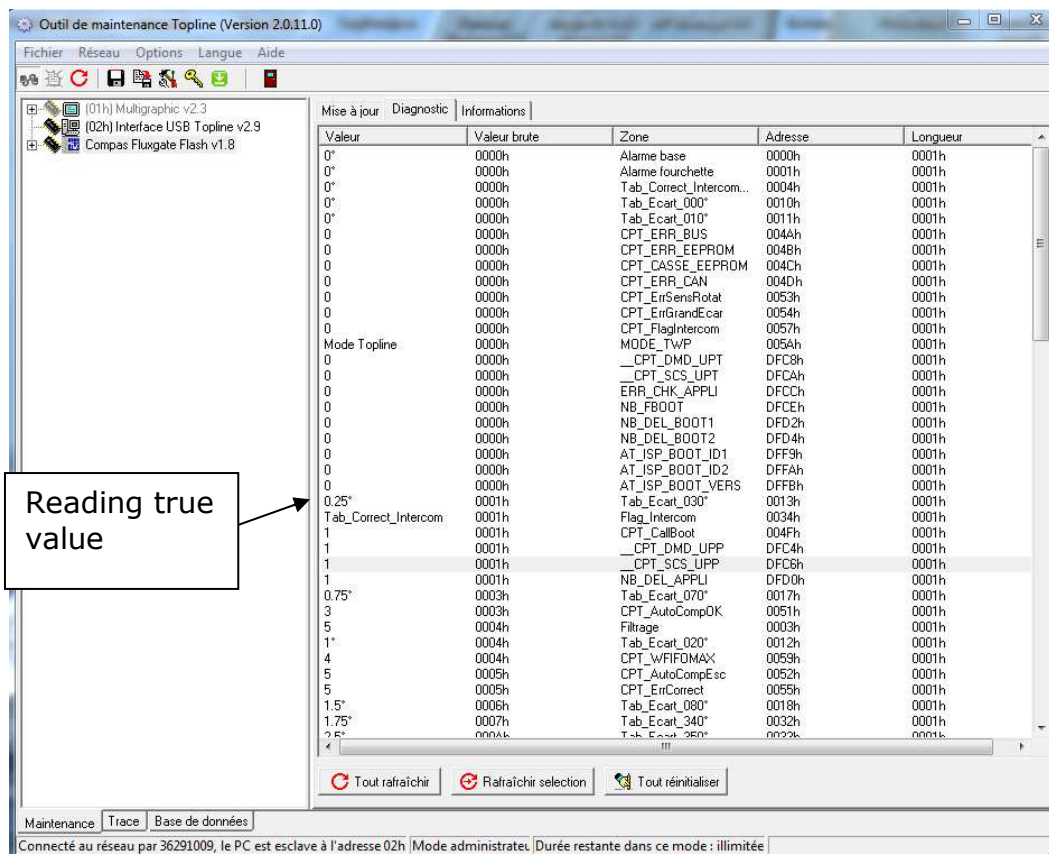
Read all the zones



Normal Mode: Access to raw values in the cookies

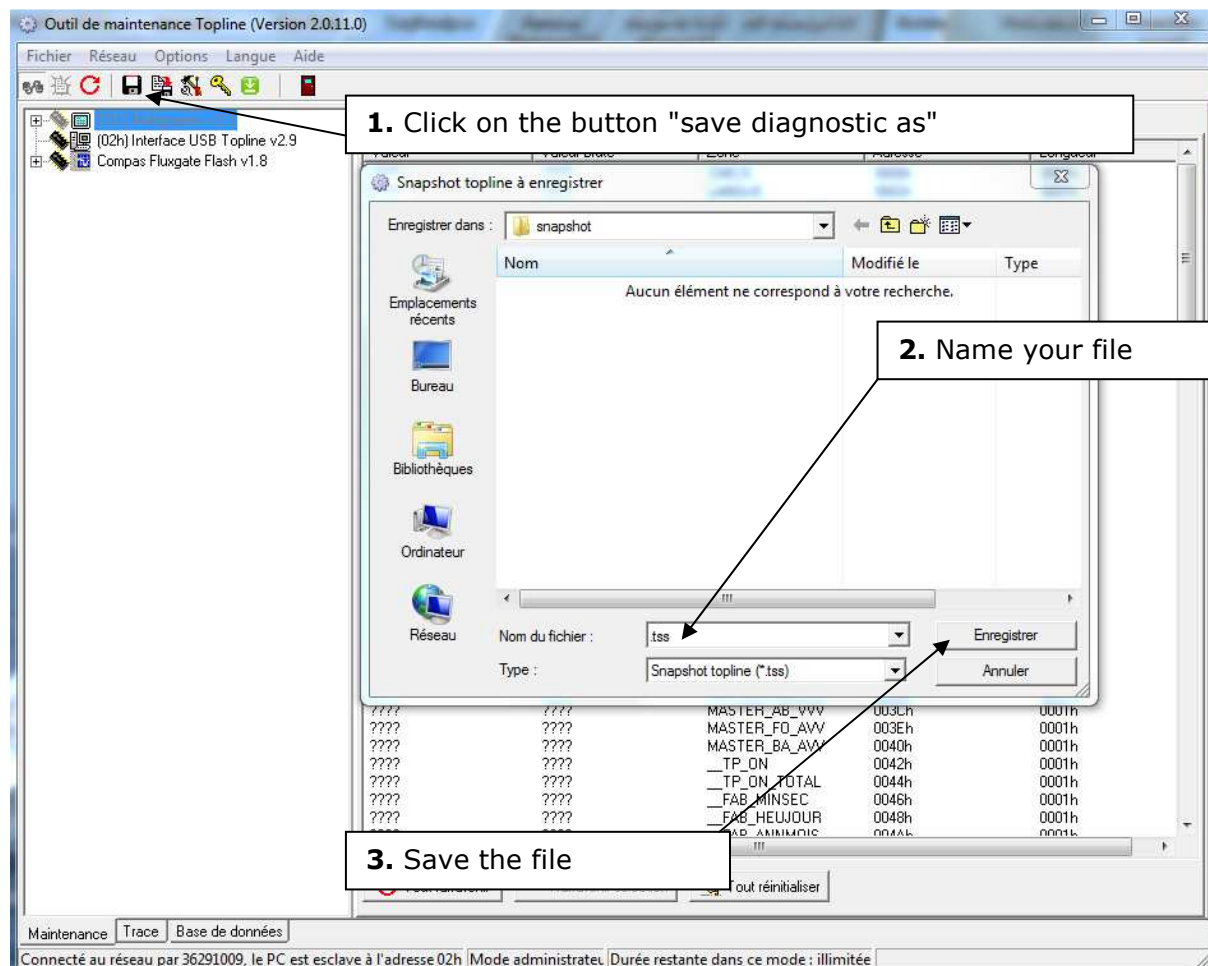


Expert Mode: Access to raw and true values



7.2
Saving a file

The user can save a binary file (extension .tss), called "snapshot". It contains the folders tree for the Bus and the values of the cookies previously downloaded. This file is saved in the folder <C:\Program Files\nke\Toplink2\snapshot>. It can be used by the Toplink application or sent to technical support for analysis.



It is possible to read a ".tss" file offline with Toplink:

- Click on the button "Bus emulation..."
- Select the file in the folder "snapshot".

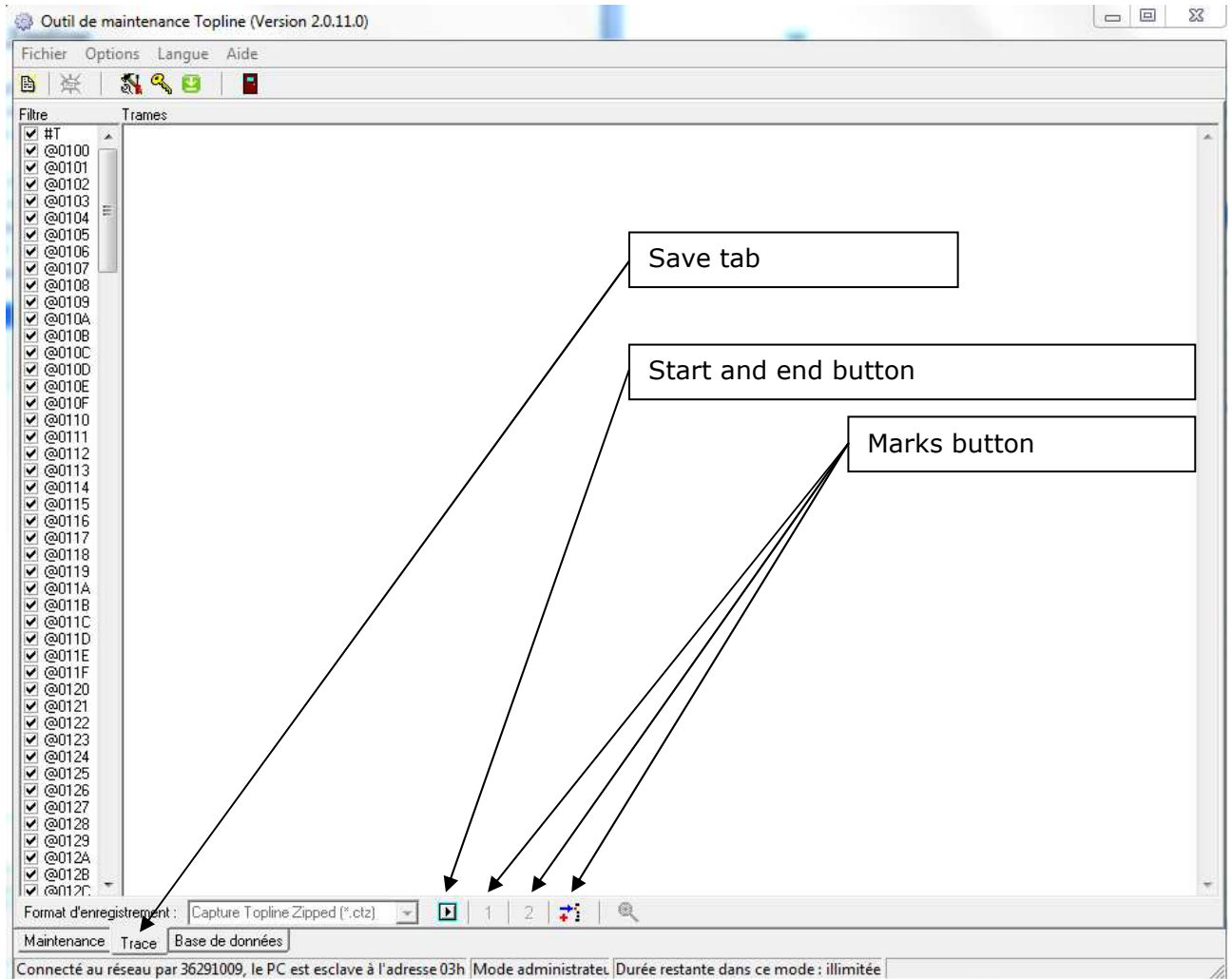
The folders tree and various cookies previously saved can be displayed.

8. Recording the TOPLINE Bus

This function, available in the Expert Mode under the Track tab, allows to save the Topline Bus data exchange under a digital format.

The file's name contains the date and time of its creation (yymmdd_hhmmss.ctz). Each file contains only 30 minutes of data record to limit the size of the files. After the first period, a new file is automatically created for the next 30 minutes, and so on.

Warning: The compressed file (.ctz) is generated only at the end of the process. This can result in a lead time once the data have been recorded.



8.1 "Record" procedure

Once connected to the TOPLINE Bus:

- start recording with the button "start record"
- press the buttons "1" and "2" to mark a particular event.
- stop recording with the button "stop record".



The files are saved in the following folder: <C:\program files\nke\toplink 2\trace> and can be sent to nke technical support for analysis.

- At the end of the record, a window proposes to open the last file or to choose a file from those in the "trace" folder for analysis.

