



beyond
payment

Local Loading Tool (LLT)

For TELIUM™ Terminals

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CONTENTS

1. INTRODUCTION	5
2. Environment	5
3. Software installation	5
4. Software removal	6
5. Use of LLT functions	6
5.1. Connecting to the terminal	6
5.2. Connection rules	7
5.3. Disconnecting to the terminal	8
5.4. Software component downloading	8
5.5. Parameter files downloading	8
5.6. List of components in the terminal	9
5.7. Uploading diagnostic files (*.DIA)	9
5.8. File selection and transfer	10
5.9. Displaying and consultation	12
5.10. Catalogue file management	15
6. Views of some files	18
6.1. File LIFECOUNTER.DIA	18
6.2. File BOOSTER?.DIA	18
6.3. File APPDEFAULT.DIA	19
6.4. File APPCOUNTER.DIA	19
7. LLT Setting	20
7.1. File LLT.INI	20
7.2. File LLT.PRM	21
7.3. File LLT.LNG	21

7.4. File LLT.BMK	21
7.5. LLT used in command mode	22
7.6. Displaying the USB connection port number	25
8. Appendices	26
8.1. List of short cut keys	26
8.2. List of icons and their function	26
8.3. Problems and Solutions	27
9. Connection Configuration with terminal	28
9.1. With Windows ® XP Professional	28
9.2. With Windows ® Vista Professional	39
9.3. With Windows ® 7 Professional	55

1. INTRODUCTION

This document describes the installation process and the implementation of the Local Loading Tool (LLT). This tool allows the user to download software components or parameter files in the terminals with *TELIUM*™ technology.

In the continuation of this document, the following designations « terminals with *TELIUM*™ technology » will be replaced indifferently by the word « terminal » or the abbreviation « EFT ».

To install and use the LLT software follow the different steps described below:

- [Software installation](#)
- [Connection Configuration](#) with terminal according to the used Windows® platform.
- [Use of the LLT Functions](#).

2. Environment

LLT software runs under Microsoft® Windows® platform:

- Windows® XP Service Pack 3
- Windows® Vista Professional Service Pack 2
- Windows® 7 Professional

In order for the software to run the computer where the software is installed must have a CD-ROM drive and a serial or USB port.

3. Software installation

You must have **administrative privileges** to install and to uninstall this program. This includes having administrative privileges the first time you start your computer after installing or uninstalling.

LLT use port IP 6000 for data exchange. The use of this port must not be forbidden by the network administration (Firewall, Virtual Private Network (VPN)) or must not be used by another application.

Before installing the LLT application, make sure that all applications are closed.
Then, insert the CD-ROM containing the LLT software and follow instructions of the LLT setup.

If your PC doesn't run the setup automatically, click "**Start**" button from the task bar, choose "**Run ...**", then "**Browse ...**" CD drive and select "**LLT_setup.exe**".

Once you have completed the setup procedure, you can launch the tool by double-clicking on the **LLT icon** or from **Start** button Choose: **Programs -> TELIUM Tools -> LLT xx.yy -> LLT xx.yy** (where xx, yy are major and minor version number).

The USB driver for terminals with *TELIUM*™ technology is automatically installed during the LLT installation.

4. Software removal

From task bar click **Start** and choose **Programs -> TELIUM Tools -> LLT xx.yy -> LLTxx.yy Uninstall.**

5. Use of LLT functions


LLT allows downloading software components or parameter files in the terminal during a downloading activity. It also may allow uploading diagnostic file during a diagnostic or maintenance activity.

5.1. Connecting to the terminal

Before the first connection,

- See chapter '[Connection Configuration with terminal](#)' in function of platform Microsoft ® Windows ® used.
- Make sure the serial cable or the USB cable is correctly connected to the PC and terminal.
- Make sure the terminal is ready to be connected. The terminal must be switched to LLT mode using the key combination: simultaneously pressing '.' and yellow button (to reset the terminal) and then pressing "Up" key. When LLT mode is reached, the "LLT" message is displayed on the terminal screen.

Different ways to connect:

- with mouse: by clicking on the icon 
- with the LLT menu: **Terminal → Connection.**
- with shortcut key: **F4.**

5.2. Connection rules

5.2.1. Definitions

COMs: list of COM ports installed,
USBs: list of USB ports with a terminal connected.
For LLT options see [LLT.ini](#) file description.

5.2.2. Graphical mode

- Option 'EnumUSB' is on (yes: default value). Priority is given to USB link.
 - A single terminal connected in USBs
==> trying to connect with this terminal,
 - More than one terminal connected in USBs
==> a dialog box is opened to select which USB port to use.
 - No terminal connected in USBs
==> trying to connect using the port selected in the window 'LLT Connection properties' (LLT menu : **Connection** → **Connection configuration**).
- Option 'EnumUSB' is off (no)
The attempt to connect is made with the port selected in the window 'LLT Connection properties' (LLT menu : **Connection** → **Connection configuration**).

5.2.3. Command mode


(see chapter : [LLT used in command mode](#))

- Option 'EnumUSB' is on (yes: default value)
 - Number of port provided (with -x parameter)
 - it is present in COMs and in USBs
==> trying to connect using this port,
 - it is absent in USBs and a single terminal connected to USB
==> trying to connect with this terminal,
 - it is present in COMs and USBs is empty,
==> trying to connect using this port,
 - it is absent in COMs
==> Error (-19),
 - Number of port not provided (without -x parameter)
 - if a single terminal connected to USB
==> trying to connect with this terminal,
 - 0 or more terminals connected to USB
==> Error (-19),
- Option 'EnumUSB' is off (no)
 - Number of port provided (with -x parameter)
 - it is present in COMs
==> trying to connect using this port,
 - it is absent in COMs
==> Error (-19),
 - Number of port not provided (without -x parameter)
==> trying to connect using the last port used (in the last connection).

5.3. Disconnecting to the terminal

The LLT must be disconnected before unplugging the cable. This will cause a reset of the terminal.

Different ways to disconnect:

- with mouse: by clicking on the icon 
- with the menu: **Terminal** → **Disconnect**.
- with shortcut keys: **CTRL + F4**.


5.4. Software component downloading

- Select the downloading activity in the LLT menu: **Activity** → **Downloading**.
- Connect to the terminal (see [Connecting to the terminal](#)).
- Move in the LLT explorer in order to select the catalogue files corresponding to the components to be downloaded (see [File selection](#)).
- Download the component(s) in the SWAP directory of the terminal (see [File transfer](#)).
- Disconnect (see [Disconnecting from the terminal](#)). After the reset terminal, the valid components are transferred in the SYSTEM directory in order to be used.

5.5. Parameter files downloading

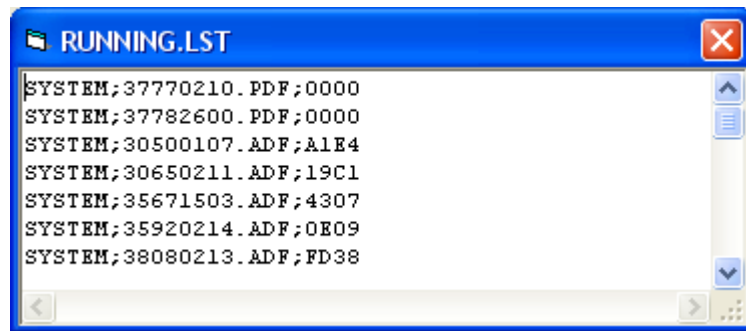
You can download a parameter file usable by an application in the **HOST** directory of the terminal.

Note: the application using this parameter file will have to delete it after using.

- Select the downloading activity in the LLT menu: **Activity** → **Downloading**.
- Connect to the terminal (see [Connecting to the terminal](#)).
- Go to **HOST** directory by clicking  icon (or with **CTRL+B** keys) and double-click on HOST directory (terminal side).
- Move in the LLT explorer (PC side) in order to select the files to be downloaded (see [File selection](#)).
- Download the component(s) in the HOST directory of the terminal (see [File transfer](#)).
- Disconnect (see [Disconnecting from the terminal](#)).

5.6. List of components in the terminal

- Select the downloading activity in the LLT menu: **Activity** → **Downloading**.
- Connect to the terminal (see [Connecting to the terminal](#)).
- Double click on RUNNING.LST file or used the LLT menu: **Terminal** → **Component list** or **CTRL + F** shortcut keys to display the component list.



5.7. Uploading diagnostic files (*.DIA)

- Select the downloading activity in the LLT menu: **Activity** → **Diagnostic**.
- Connect to the terminal (see [Connecting to the terminal](#)).
- Select the diagnostic files in the terminal view to be uploaded (see [File selection](#)).
- Transfer the file(s) in a PC directory (see [File transfer](#)).
- Disconnect (see [Disconnecting from the terminal](#)).
- Display content of diagnostic files (see [LifeCounter.dia](#) , [Booster.dia](#), [AppDefault.dia](#) or [AppCounter.dia](#))

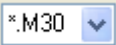
5.8. File selection and transfer

5.8.1. File selection

The file selection is made in the same way as Windows Explorer:

- select a file by clicking on it,
- select all the files pressing simultaneously Ctrl and A keys,
- select contiguous files by clicking on a file with 'Shift' key,
- select non-contiguous files by clicking on a file with 'Ctrl' key,
- ...
-

5.8.1.1. Selection a catalogue file

Selecting '*.Mxx' in the file type list  (Mxx corresponding to the catalogue file extension) allows the user to view catalogue files in the current directory. **When a catalogue file transfer is carried out, all files present in that catalogue file will be transferred.**

5.8.1.2. Selecting a package

It is possible to transfer files presents in a package built from 'IngPackager' tool by selecting the 'descriptor.xml' file and downloading (drag&drop). Only the '<application > ... </application>' and '<data> ... </data>' tags are supported.

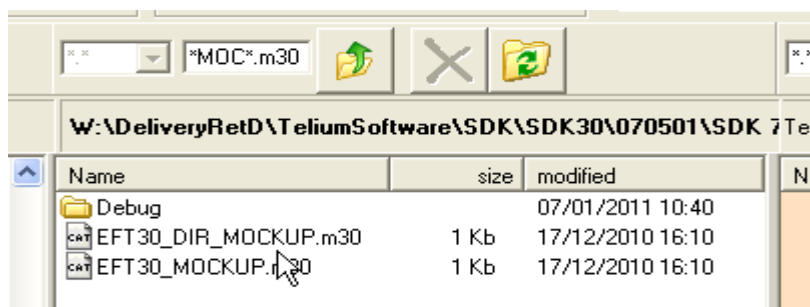
Warning: The '<requirements>' tags are not supported. All files associated with the terminal product type and with the '<application>' tag and files with the '<data>' tag are downloaded.

5.8.1.3. Selecting a file list

Selecting "*.*)" in the file type list, allows the user to view all files and sub directories from the current directory. **In this mode all selected files will be transferred.**

5.8.2. Filter function

A filter function is available. Usage of characters '*' and '?' is implemented.

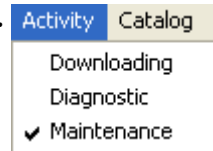


5.8.3. File transfer

Once connection has been established (see [Connecting to the terminal](#)) and once files have been selected (see [File selection](#)):

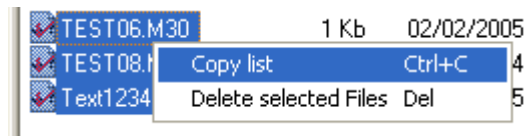
- with the menu: **Terminal** → **File downloading** or **Terminal** → **File uploading**
- with mouse: drag and drop (from the source window to destination window).
- with shortcut keys: **F2** or **CTRL + F2**.

By default the remote downloading activity is selected. Maintenance and diagnostics activities are also possible from LLT by selecting the menu "**Activity**".



5.8.4. Copy File List

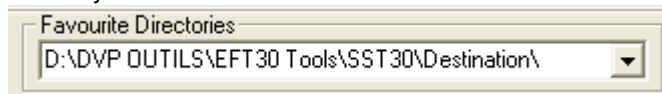
You can copy the list of selected file from the current view to the clipboard with the popup menu or with the **CTRL + C** keys.



5.9. Displaying and consultation

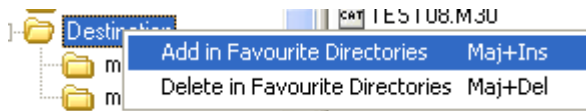
5.9.1. Direct access to a directory of the computer

Select the directory in the list of the favourite directories.



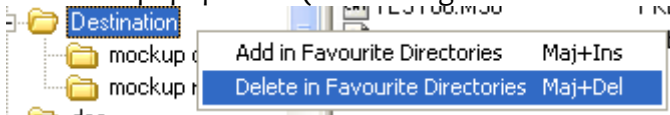
To **add** a path in the list selects a directory in the tree view:

- with shortcut keys : **SHIFT + INS**
- or with the popup menu (with the right button of the mouse).



To **delete** a path in the list, select the directory name in the tree view:

- with shortcut keys: **SHIFT + DEL**
- or use the popup menu (with the right button of the mouse).



When the LLT application is closed, it is possible to automatically add the current directory in the list of the favourite directories with the option 'Auto_bmk=yes' in file LLT.ini (default value: no). At the next LLT execution, this directory will be the current directory.

Another option 'Update_bmk' (default value: yes) can be used. The list of the favourite directories is automatically checked and updated (with disks present) when LLT is launched.

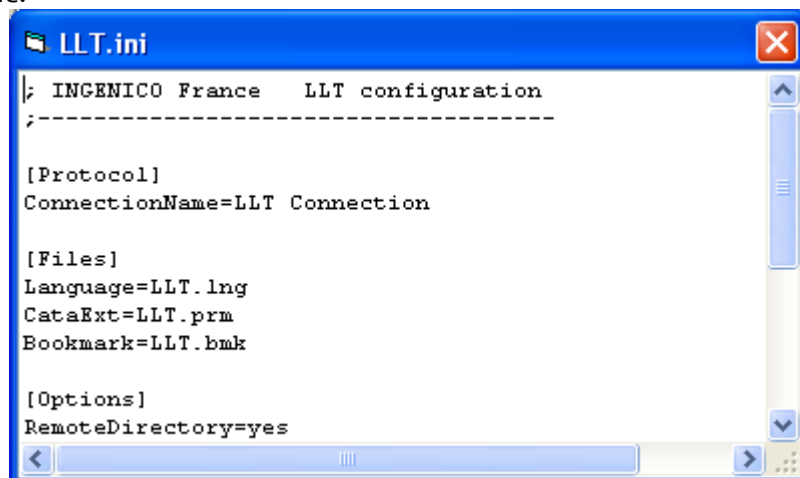
5.9.2. Direct access to a directory of the computer

From PC View use **CTRL + J** keys to go to Terminal view or click on the Terminal view.

From Terminal View use **CTRL+ K** keys to go to PC view or click on the PC view.

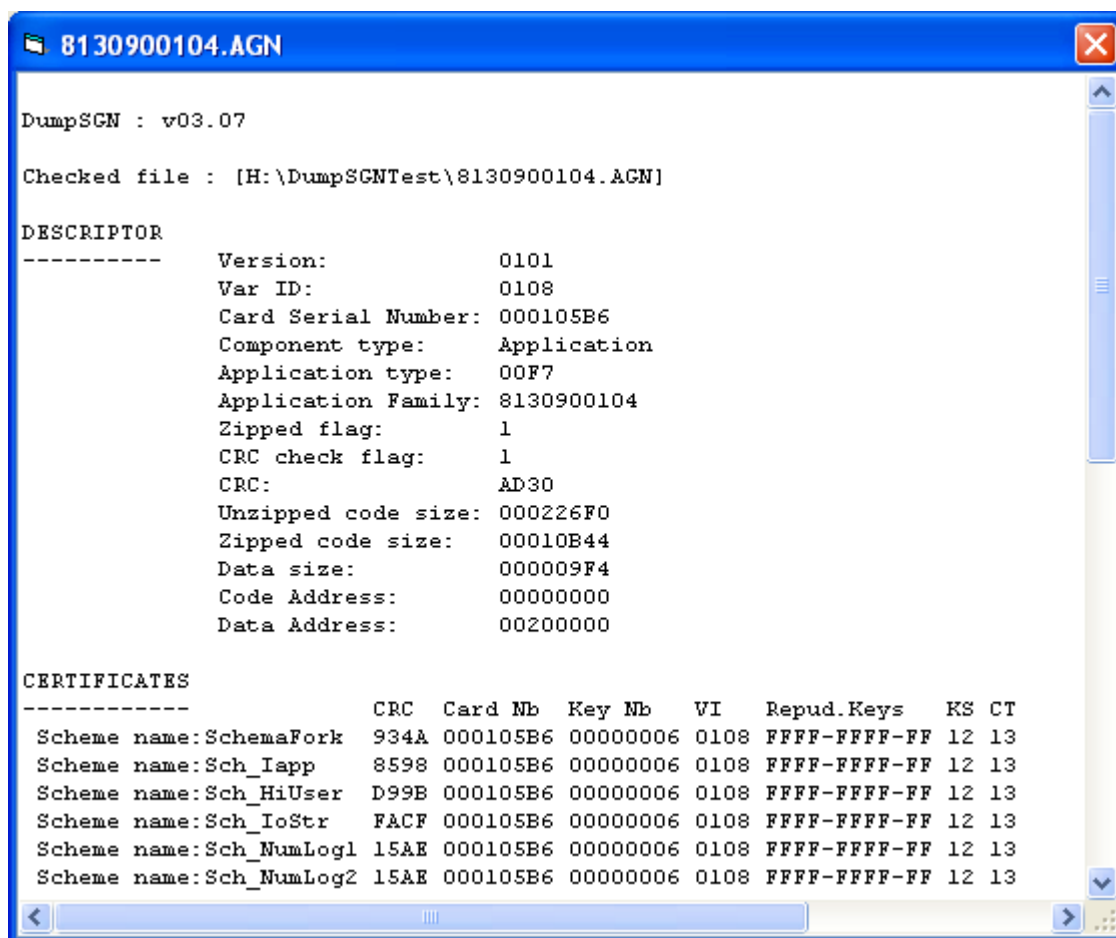
5.9.3. Direct access to a file contents

A double click on the file itself or press Return key after selecting the file displays in a window the file contents in text mode.



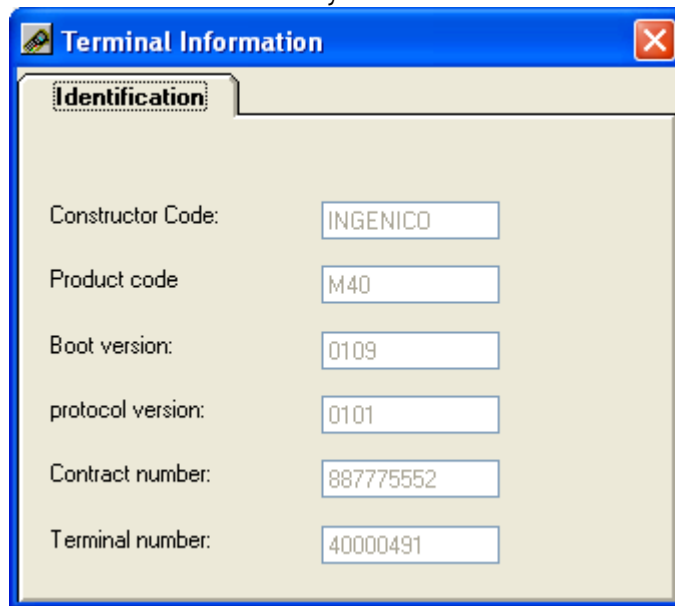
5.9.4. Component signature consultation

Select '*.*' in the list then Double click on a file with extension '*.GN' (.SGN, .AGN, .PGN, ...) corresponding to a signed component to consult. The option 'Certif_SGN' in file LLT.ini must be set to on (default value: off).



5.9.5. Terminal identification consultation

Once connection has been established, terminal characteristics can be displayed with the menu: **Terminal → Identification** or with shortcut keys: **CTRL + I**.



Terminal Information

Identification

Constructor Code: INGENICO

Product code: M40

Boot version: 0109


protocol version: 0101

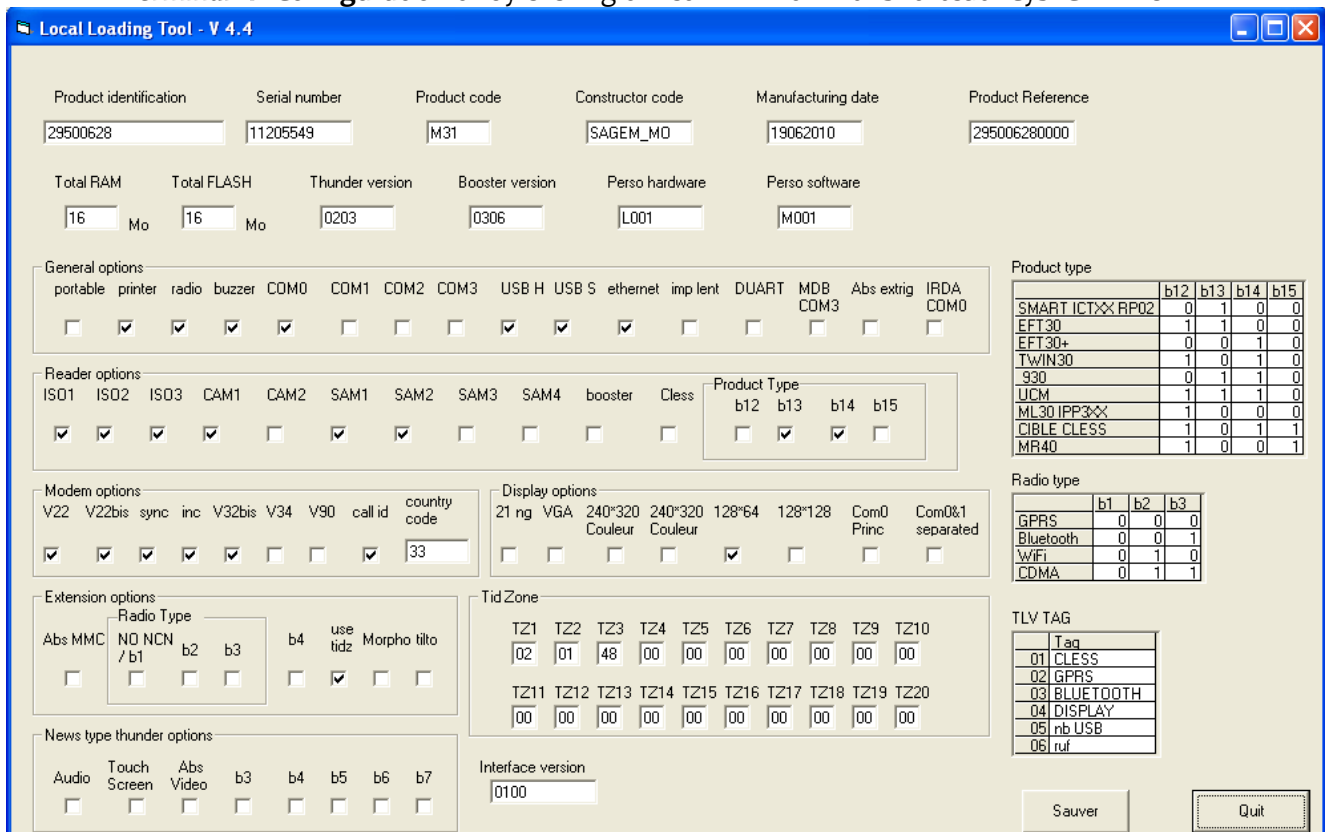
Contract number: 887775552

Terminal number: 40000491

5.9.6. Terminal configuration consultation

When the current activity is **'Maintenance'** and once connection has been established, terminal configuration can be displayed with the menu:

Terminal → Configuration or by clicking on icon  or with shortcut keys: **CTRL + J**.



Local Loading Tool - V 4.4

Product identification: 29500628 Serial number: 11205549 Product code: M31 Constructor code: SAGEM_MO Manufacturing date: 19062010 Product Reference: 295006280000

Total RAM: 16 Mo Total FLASH: 16 Mo Thunder version: 0203 Booster version: 0306 Perso hardware: L001 Perso software: M001

General options

portable ☐ printer ☒ radio ☒ buzzer ☒ COM0 ☒ COM1 ☐ COM2 ☐ COM3 ☐ USB H ☒ USB S ☒ ethernet ☒ imp lent ☐ DUART ☐ MDB COM3 ☐ Abs extrig ☐ IRDA COM0 ☐

Reader options

ISO1 ☒ ISO2 ☒ ISO3 ☒ CAM1 ☒ CAM2 ☐ SAM1 ☒ SAM2 ☒ SAM3 ☐ SAM4 ☐ booster ☐ Cless ☐ Product Type: b12 ☐ b13 ☒ b14 ☒ b15 ☐

Modem options

V22 ☒ V22bis ☒ sync ☒ inc ☒ V32bis ☒ V34 ☐ V90 ☐ call id ☒ country code: 33

Display options

21 ng ☐ VGA ☐ 240*320 Couleur ☐ 240*320 Couleur ☐ 128*64 ☒ 128*128 ☐ Com0 Princ ☐ Com0&1 separated ☐

Extension options

Abs MMC ☐ Radio Type: NO ☐ NCN ☐ b1 ☐ b2 ☐ b3 ☐ b4 ☐ use tidz ☒ Morpho tilto ☐

News type thunder options

Audio ☐ Touch Screen ☐ Abs Video ☐ b3 ☐ b4 ☐ b5 ☐ b6 ☐ b7 ☐

Tid Zone

TZ1	TZ2	TZ3	TZ4	TZ5	TZ6	TZ7	TZ8	TZ9	TZ10
02	01	48	00	00	00	00	00	00	00
TZ11	TZ12	TZ13	TZ14	TZ15	TZ16	TZ17	TZ18	TZ19	TZ20
00	00	00	00	00	00	00	00	00	00

Interface version: 0100

Product type

	b12	b13	b14	b15
SMART ICTXX RP02	0	1	0	0
EFT30	1	1	0	0
EFT30+	0	0	1	0
TWIN30	1	0	1	0
930	0	1	1	0
UCM	1	1	1	0
ML30 IPP3XX	1	0	0	0
CIBLE CLESS	1	0	1	1
MR40	1	0	0	1

Radio type

	b1	b2	b3
GPRS	0	0	0
Bluetooth	0	0	1
WiFi	0	1	0
CDMA	0	1	1

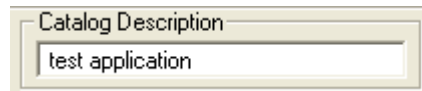
TLV TAG

Tag
01 CLESS
02 GPRS
03 BLUETOOTH
04 DISPLAY
05 nb USB
06 ruf

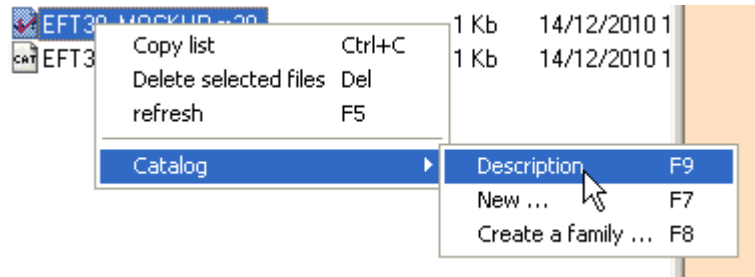
Sauver Quit

5.10. Catalogue file management

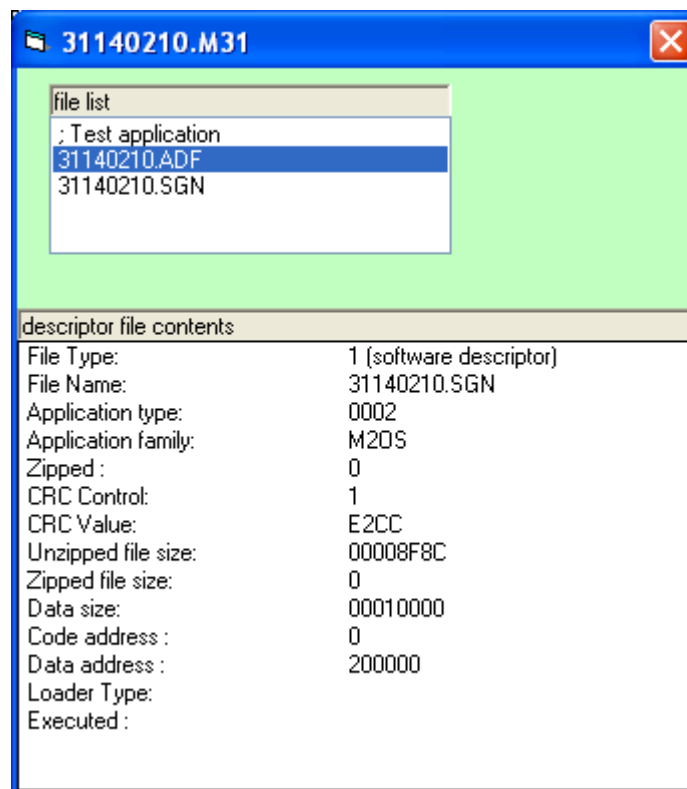
5.10.1. Consulting catalogue file



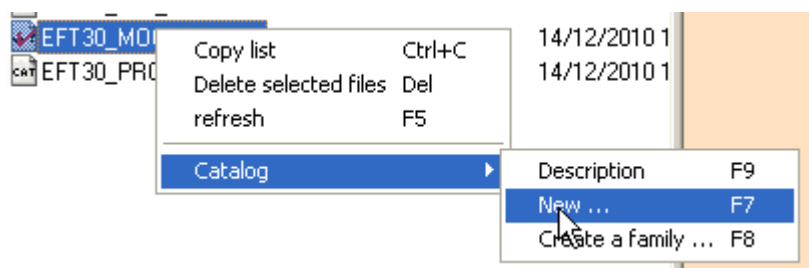
The catalogue description is displayed each time a catalogue file is selected.



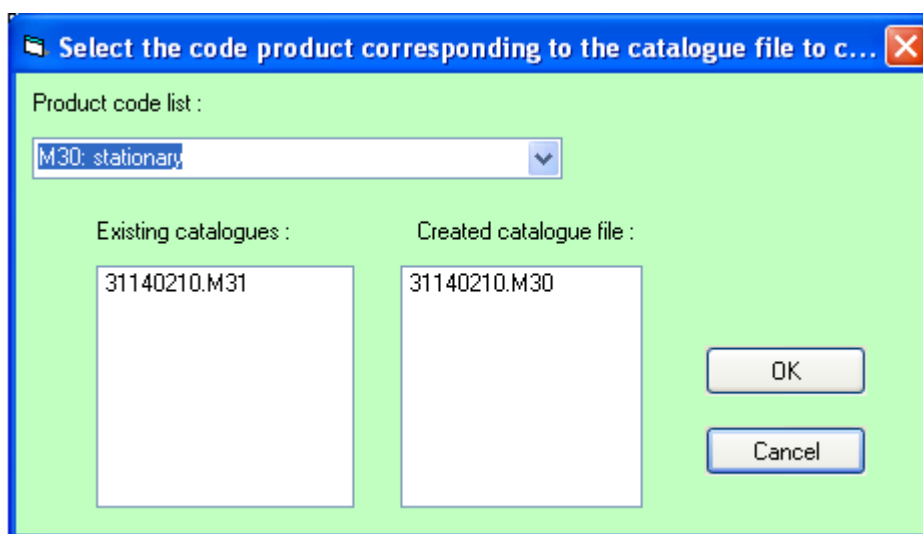
Use contextual menu (with right click) or **F9** key after selecting a catalogue file, allows the user to view the catalogue file contents and also viewing the associated descriptor file and the signed file (see [Component signature consultation](#)) contents by selecting it in the file list.



5.10.2. Create a new catalogue file

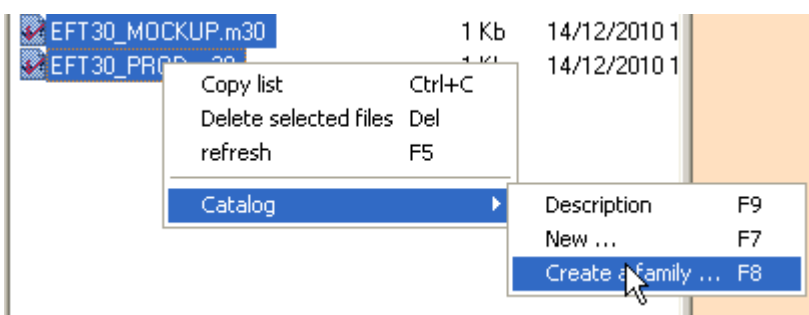


Use contextual menu (with right click) or **F7** key after selecting files. This allows the user to create catalogue files for another product type from an existing one.

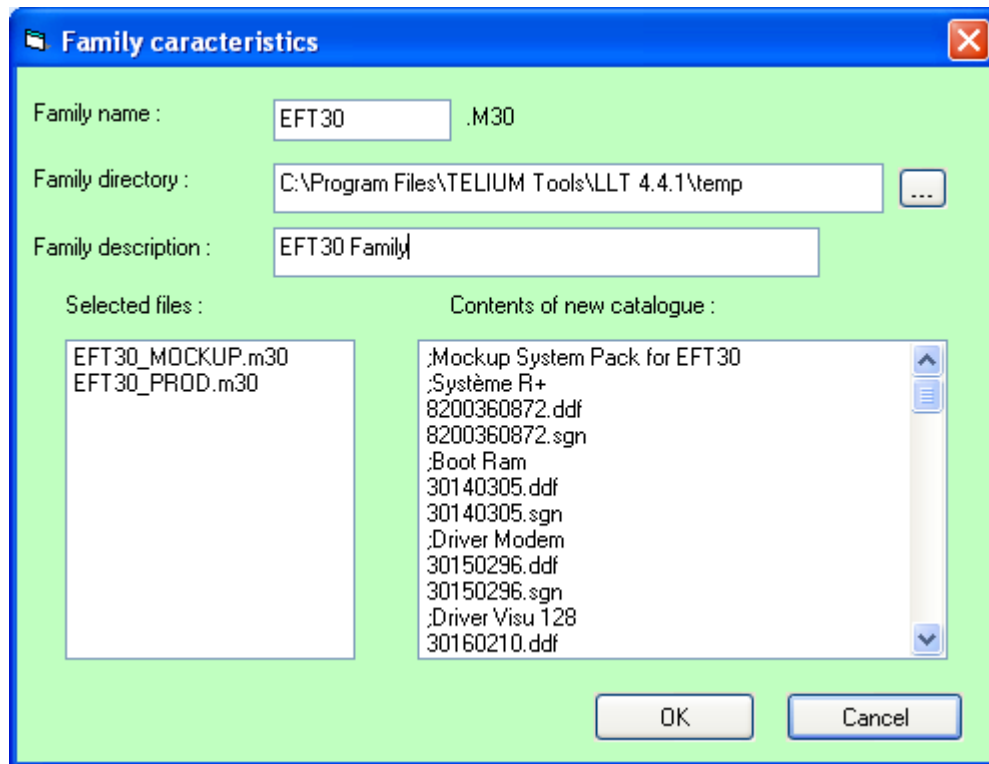


5.10.3. Create a family

This function allows the user to create a family for a same product type. This function is only accessible after selecting the *.Mxx (Mxx corresponding to the catalogue file extension) in the list associated to the file list. Use contextual menu (with right click) or **F8** key after selecting catalogue files.



The new catalogue file will be created from one or more catalogue files for a same terminal and stored in the family directory (destination). All files present in the source catalogue files are copied to the specified directory.



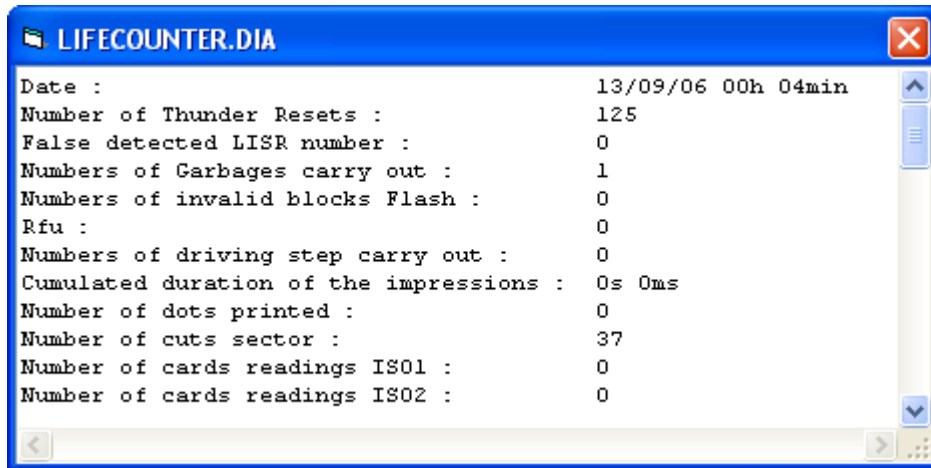
5.10.4. Deletion of a catalogue file

When you delete a catalogue file, the software deletes associated files, only if they are not used by other files.

6. Views of some files

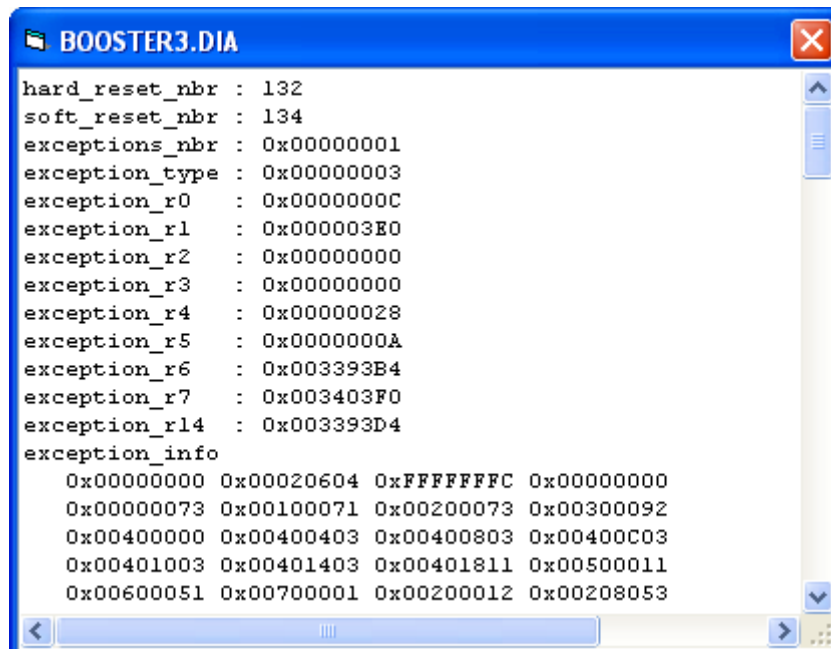
6.1. File LIFECOUNTER.DIA

For view 'LifeCounter.dia' file, you must double-click on the file, and after the information of this file are displayed in a window.



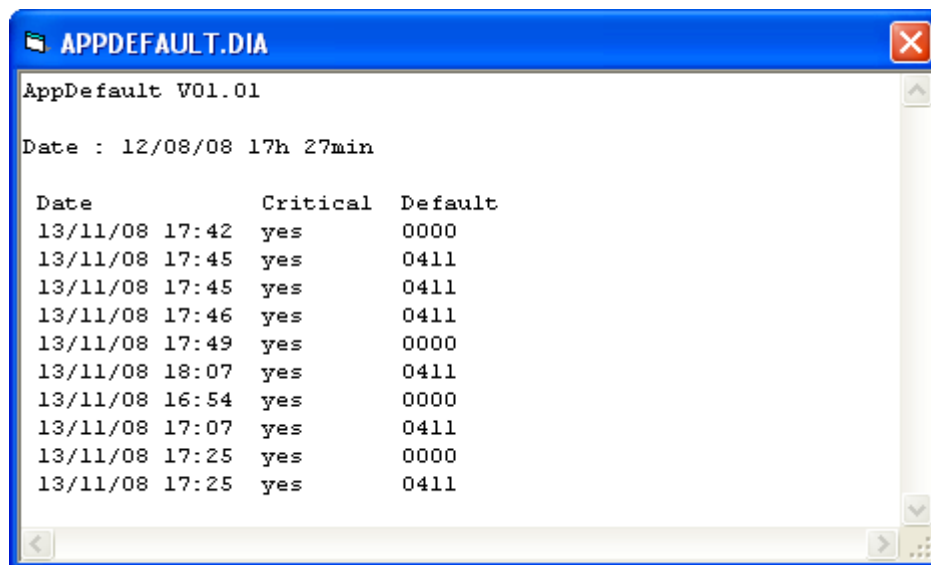
6.2. File BOOSTER?.DIA

For view 'Booster?.dia' file, you must double-click on the file, and after the information of this file are displayed in a window.



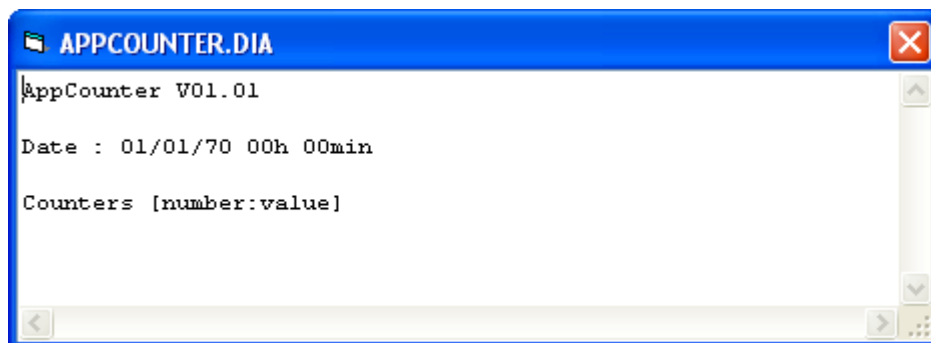
6.3. File APPDEFAULT.DIA

For view 'AppDefault.dia' file, you must double-click on the file, and after the information of this file are displayed in a window.



6.4. File APPCOUNTER.DIA

For view 'AppCounter.dia' file, you must double-click on the file, and after the information of this file are displayed in a window.



7. LLT Setting

7.1. File LLT. INI

LLT configuration is given by the file 'LLT.ini'.

Options list (yes/no):

RemoteDirectory (yes default value): displaying network disks.

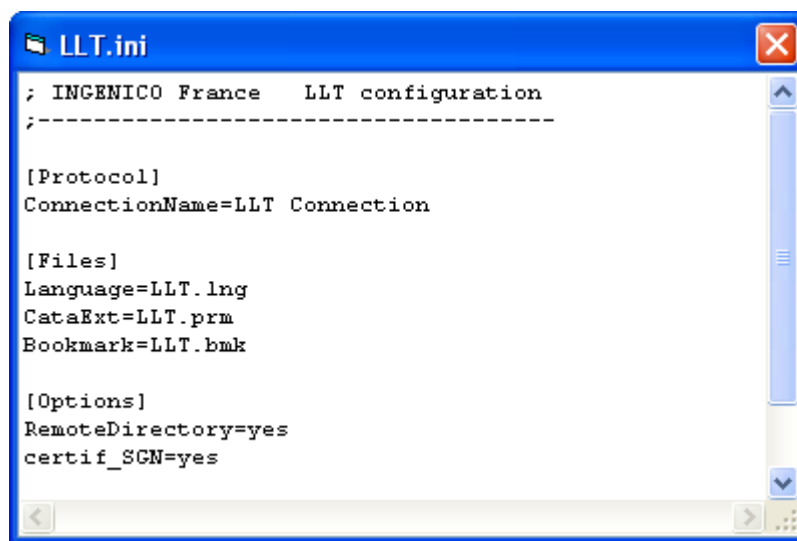
Certif_SGN (no default value): displaying certificate for '*.?GN' files.

Auto_bmk (no default value): automatic storage of last directory used (in 'LLT.bmk' file).

EnumUSB (yes default value): automatic enumeration of terminals connected to PC using an USB link.

Update_bmk (yes default value): automatic update the list of favorite directories (from disks present).

Example :



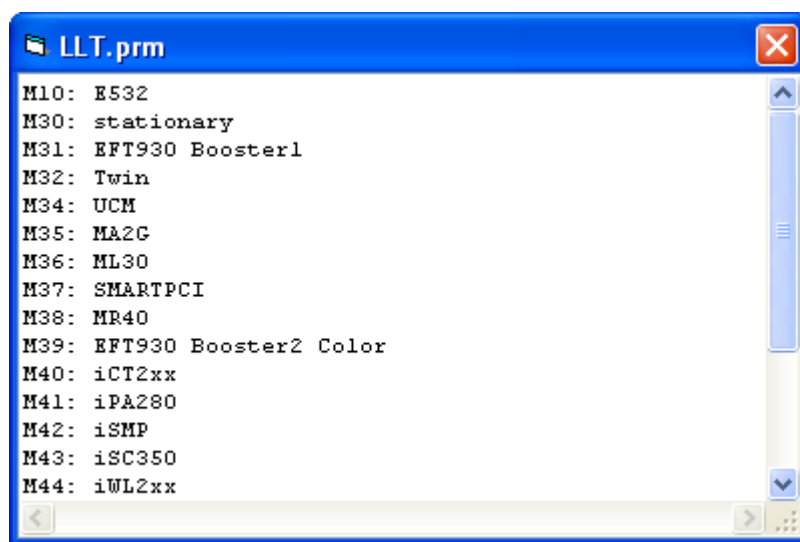
7.2. File LLT.PRM

It allows the user to define all product code lists for EFT and the associated terminal description. This product code corresponds to catalogue files extension.

Syntax:

Mxy: product description

Example:



7.3. File LLT.LNG

It contains the list of messages to be displayed by LLT. These messages are written in 2 different languages: the local language (English by default) and French.

7.4. File LLT.BMK

It contains the list of the favorite directories that the user can access in one click from LLT. The user can write the directories to be accessed easily in it. To update this file: see '[Direct access to a directory of the computer](#)'.

7.5. LLT used in command mode

7.5.1. Actions

- c = downloading the files listed in catalogue file
- u = uploading the files listed in catalogue file
- d = deleting the files listed in catalogue file

7.5.2. Switches

- r = filename where is stored the resulting code (if omitted, return code will be stored in « ResBatch.txt » in the LLT installation directory)
- e = name of the directory in the terminal where are downloaded the files contained in catalogue file (downloading mode) or from where are uploaded the files contained in catalogue file (uploading mode) or where are deleted the files contained in catalogue file (deleting mode) (if omitted, swap disk)
- a = number of activity (if omitted, 1) (1=downloading, 2=diagnostic, 3=maintenance)
- x = number of serial port (if omitted, last port used by LLT)
- n = without dialog box displayed

7.5.3. Syntax

- Downloading:
LLT.EXE -c<path and catalogue file name> -r<path and result file name> -a<N° of activity>
-e<name of the directory in terminal where are downloaded the files>
-x<N° of serial port>
- Uploading:
LLT.EXE -u<path and catalogue file name> -r<path and result file name> -a<N° of activity>
-e<name of the directory in terminal from where are uploaded the files>
-x<N° of serial port>
- Deleting:
LLT.EXE -d<path and catalogue file name> -r<path and result file name> -a<N° of activity>
-e<name of the directory in terminal where are deleted the files>
-x<N° of serial port>

7.5.4. Return codes

The downloading return code is numerical ASCII coded in the resulting file followed by a text.

- "0": OK
- "-1": missing parameter
- "-2": catalogue file access problem
- "-3": resulting file access problem
- "-4": downloadable files access problem
- "-5": LLT already running
- "-6": LLT configuring file missing (LLT.INI, LLT.LNG, LLT.PRM)
- "-7": connection name ("LLT Connection") not found in Windows RAS.
- "-8": PPP connection problem (RAS error + error number)
- "-9": FTP connection problem
- "-10": FTP error during file transfer
- "-11": terminal not responding once PPP connection has been established
- "-12": LLT cannot be run on such Windows platform
- "-13": LLT identification not recognized by the terminal
- "-14": unauthorized activity
- "-15": activity badly finished
- "-17": can not download a file with diagnostic activity
- "-18": can not found the RAS phonebook
- "-19": COM port unknown

7.5.5. Examples

Catalogue file name: 31140210.M30

With values: ; Download files to SWAP
 31140210.ADF
 31140210.SGN
 ; Change destination directory and download a file
 -eHOST
 Param.txt

Commande file : LoadingTest.bat

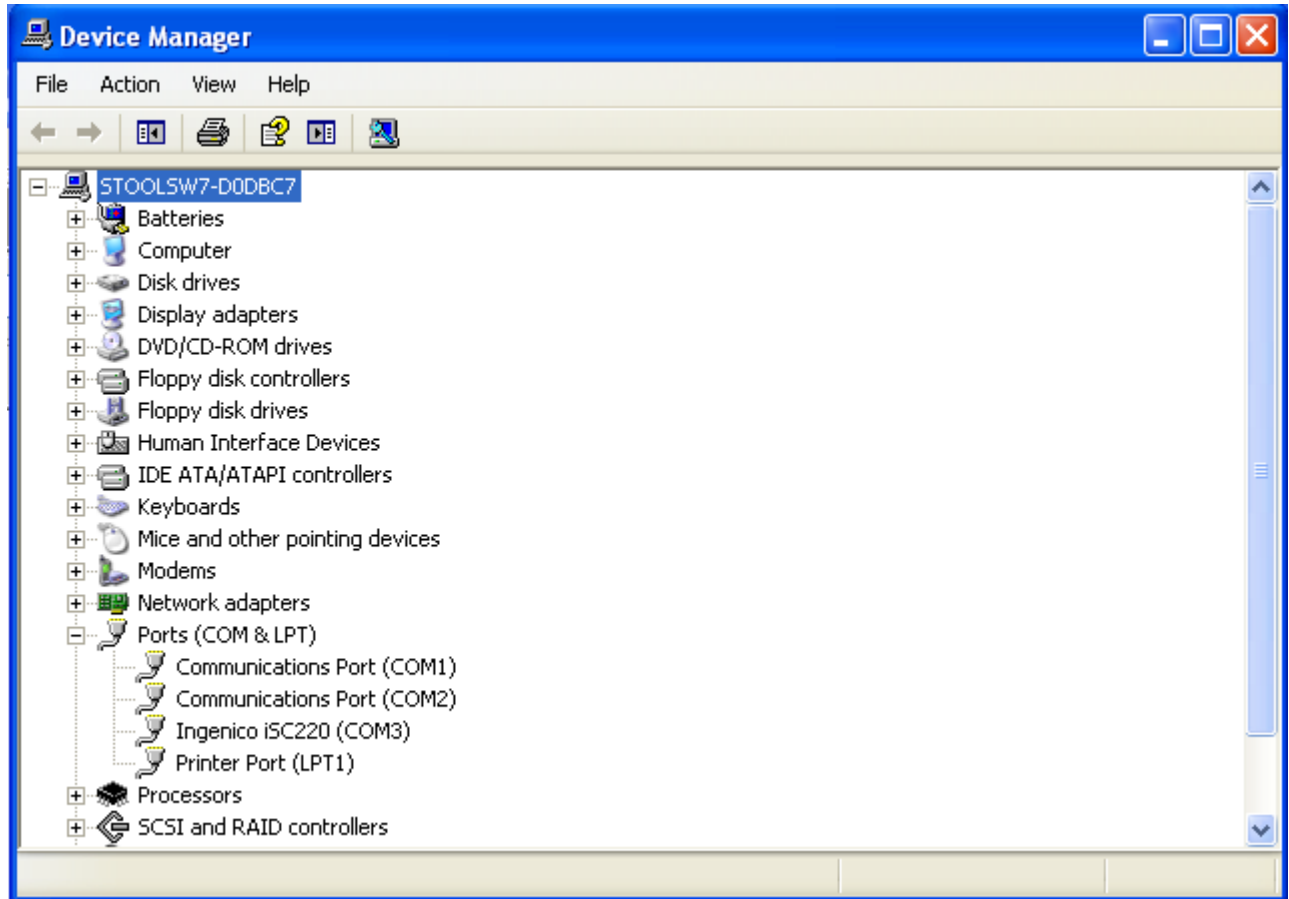
With values:

```
@echo off
set PATH=C:\Program Files\TELIUM Tools\LLT
set NB=1
set /P PORT=Enter COM port number or [ENTER] for COM%NB% :
if .%PORT%. == .. goto Label0
set NB=%PORT%
:Label0
echo Enter LLT Tools install directory or [ENTER] for
set /p LLT_TOOLS= "%PATH%" :
if .%LLT_TOOLS%. == .. goto Label1
set PATH=%LLT_TOOLS%
:Label1
set LLT="%PATH%\LLT.EXE"
echo Launch LLT Tools on the terminal
set /p T=When "LLT" displayed, press a key to continue...
echo Catalogue loading in progress ...
%LLT% -c31140210.M30 -eSWAP -a1 -x%NB%
echo Loading is finished.
set /p T=Press a key to continue...
```


7.6. Displaying the USB connection port number

Display the 'Device Manager' panel with the LLT menu: **Connection** → **Device manager** (or with Windows menu: **Start** → **Control Panel** → **Device Manager**).

The list of USB ports used can be updated with the menu: **Action** → **Scan for hardware changes**.



8. Appendices

8.1. List of short cut keys


Each LLT function is accessible via the menu and is also accessible via a keyboard function key or a combination of these keys.

Function	Short Cut
Consult the User Guide	F1
Files downloading	F2
Files uploading	CTRL + F2
Connect to terminal	F4
Disconnect from terminal	CTRL + F4
Refresh the view contents	F5
Creating a catalogue file from an existing one	F7
Creating a family	F8
Consult a catalogue file	F9
Open a file or a directory	Return key
Delete some files from the view	Del key
Select the favoriteF directory list	SHIFT + F
Add a directory to the favorite directory list	SHIFT + Ins
Delete a directory from the favorite directory list	SHIFT + Del
Select all the files	CTRL + A
Go back to the parent directory	CTRL + B
Copy file list from the view to clipboard	CTRL + C
Display the list of modules present in the terminal	CTRL + F
Terminal Information	CTRL + I
Terminal Configuration	CTRL + J
PC view is active view	CTRL + K
Exit from LLT	CTRL + Q


8.2. List of icons and their function

For each view an icon bar allows the user to access to some functions.



Use  icon or **Del** key or popup menu to delete selected file(s) from the current view and from the corresponding directory (Note: Such function can be unauthorized on the terminal). When you delete a catalogue file, the software deletes associated files, only if they are not used by other files.



Use  icon or **F5** key refresh view contents.



Use  icon or **CTRL+B** key navigate and view the parent directory.

8.3. Problems and Solutions

Some errors are classified by code, their description is given below in order to check potential problems.

Error number	error	What to do ?
Ras 602	The port is already open.	The serial port used by LLT is already used by another application.
Ras 624	RasPhone2000.pbk	First locate the Rasphone2000.pbk file (file located in the RAS subdirectory of the LLT directory application) and make sure that the read-only file property in the Properties dialog box is not selected.
Ras 629	The port was disconnected by the remote machine.	Check that hardware flow control is still disabled on LLT or check that terminal is waiting for connection.
Ras 633	The remote computer is in used	Check USB port is present in the list of USB connection port number or check if the USB cable is connected to the USB port declared on PC.
Ras 638	The remote server does not response	On a laptop, turn off the modem if present.
Ras 721	The remote computer did not respond.	The plugged port COMx is not selected. See chapter Selecting communication port or see chapter Installing the null modem driver to define the used serial interface.
Ras 651 or Ras 777	Your connecting device has reported an error.	Terminal is not responding. Check connection (check the serial cable or USB cable is correctly plugged) and check that terminal is waiting for a connection. If not check Selecting communication port or Installing the null modem driver .
FTP 12002	Internet connected	Stop the Wifi connection on the PC.
FTP 12163	Internet disconnected	In web browser delete check from the Property "working off-line"
	LLT displays "PPP Connected" then automatically disconnecting	LLT uses port IP 6000 for data exchange. Check that the use of this port is not forbidden by the network administration (Firewall, Virtual Private Network (VPN)) or check the port is not used by another application.
	LLT displays "Absence of terminal answer"	LLT uses port IP 6000 for data exchange. Check that the use of this port (or the LLT application) is not forbidden by the network administration (Firewall, Virtual Private Network (VPN)) or check the port is not used by another application.
Run-time error '10048'	Address in used	Verify that the IP address and IP port used by the LLT are not used by another application.

9. Connection Configuration with terminal

Connection configuration is different following the Microsoft ® Windows ® platform used.

9.1. With Windows ® XP Professional

9.1.1. Connection with serial interface

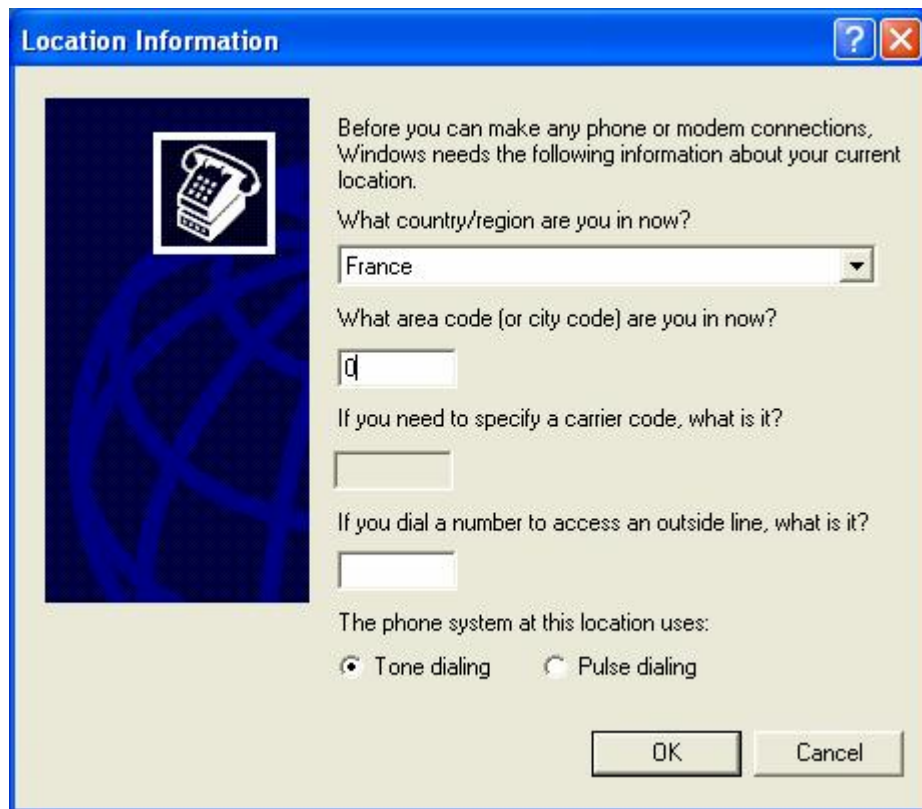
To be connected to a terminal a serial cable must be used. For that configure the PC by installing the null modem driver and determine the serial port that will be used with this connection.

9.1.1.1. Installing the null modem driver

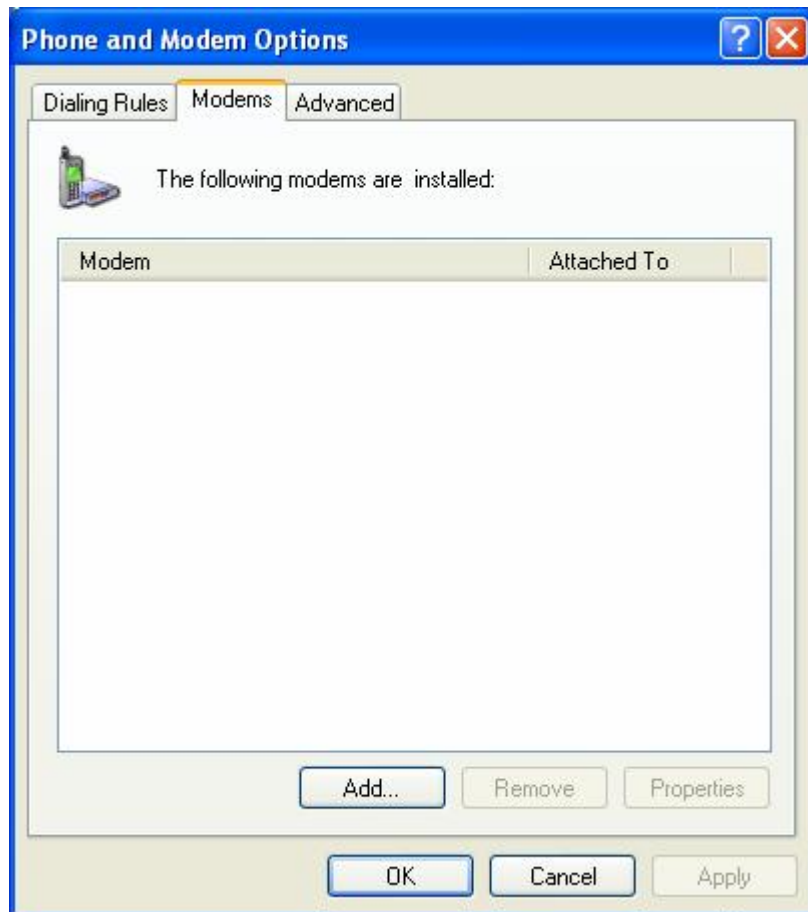
Configure the serial interface with the LLT menu: **Connection → Serial interface properties ...**

Note: the PC must be restarted after the null modem is installed.

If no modem has been installed on this computer, the following screen appears:



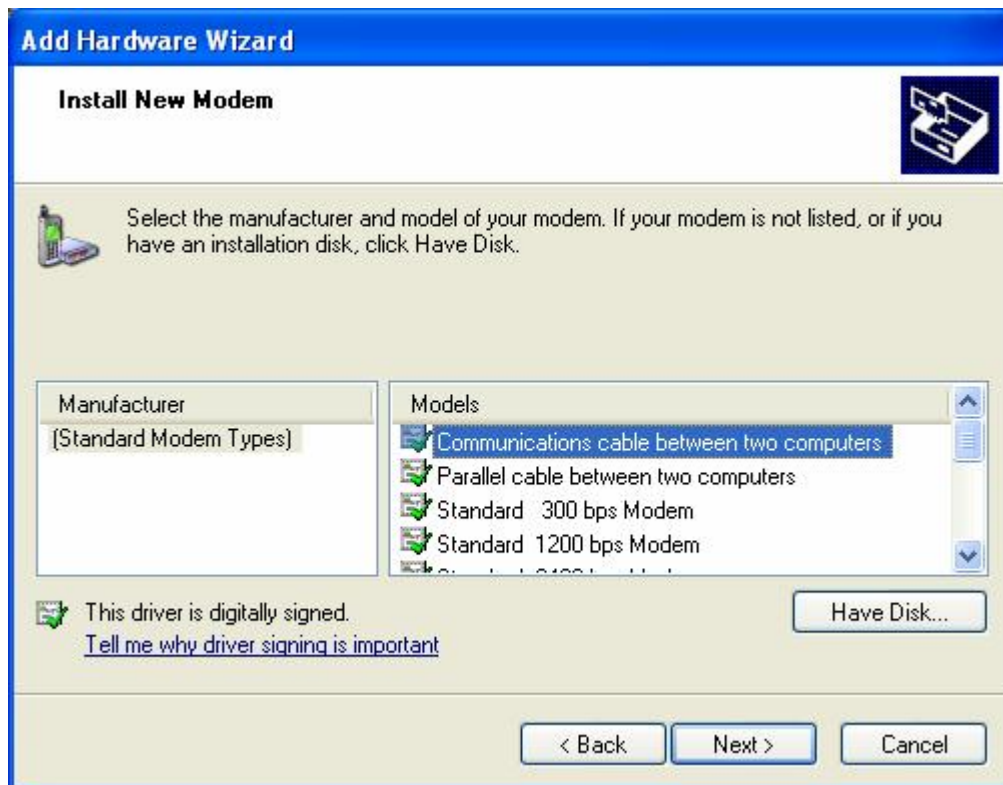
Key in any value for your area code, and then close the window by button **OK**.



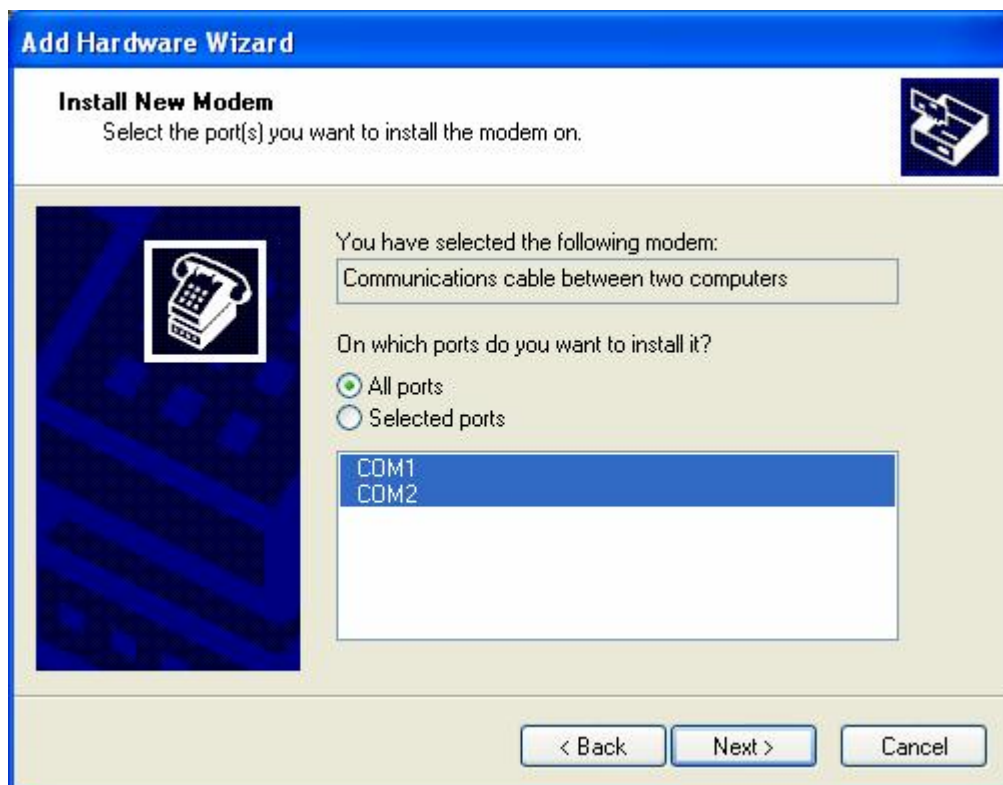
Click **"Add"** button to install the null modem driver.



Check the option **"Don't detect my modem; I will select it from a list"** and then click **"Next"** button to select the null modem driver from a list.



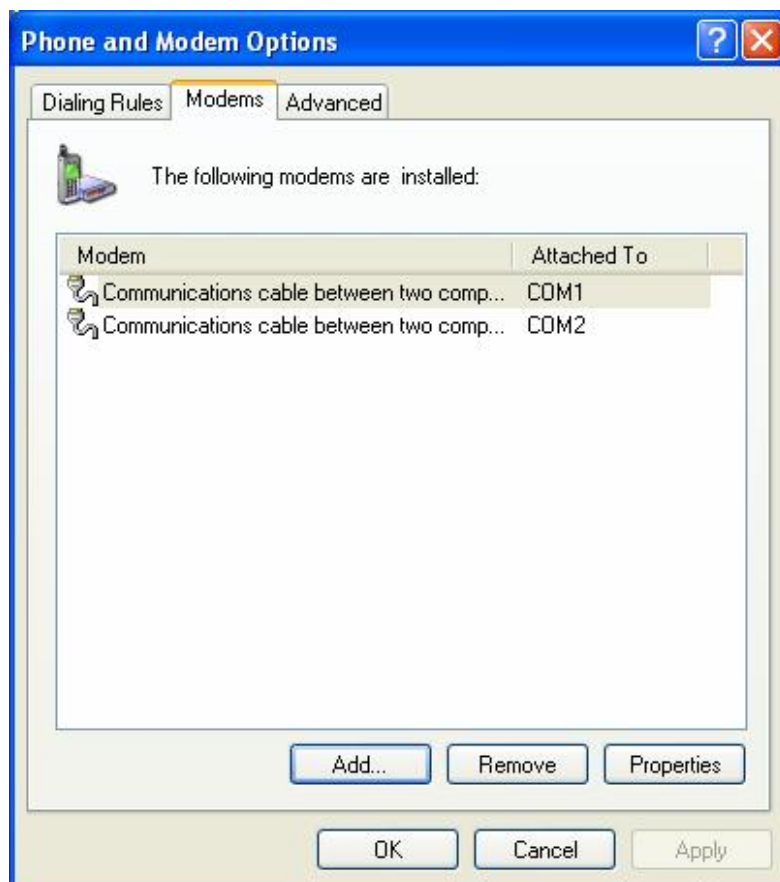
Select "(Standards Modem Types)" from the list "Manufacturer" and "Communications cable between two computers" from the list "Models".
 Then click "Next" button to select the serial port that will be used for the connection.



Select a specific port or 'All ports' if you want to be able to use either one or the other. Continue by clicking "Next" button.



and click "Finish".
The new interface appears now from the list.



Click "OK" to validate these settings.

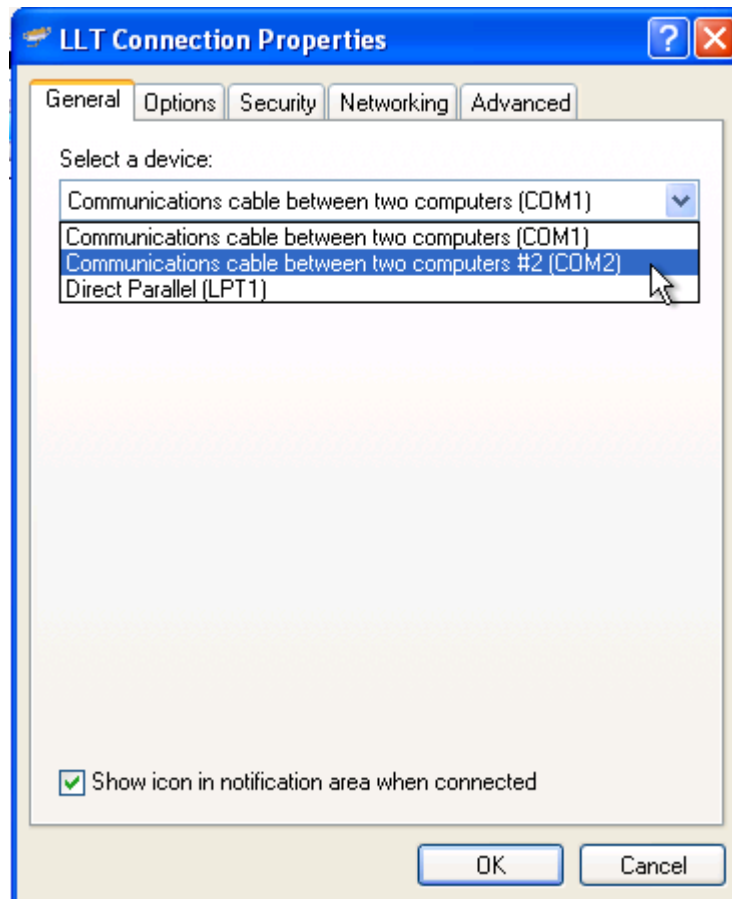
9.1.1.2. Use of another serial port

It is possible to define several serial ports in order to select later the available port (See chapter [Selecting communication port](#)). To define a new interface and a new serial port (for example using COM2), repeat the previous step described in [Installing the null modem driver](#).

9.1.1.3. Selecting communication port

Select the serial port used from '**Connection → Connection configuration ...**' LLT menu.

Select the port to use in the device list.

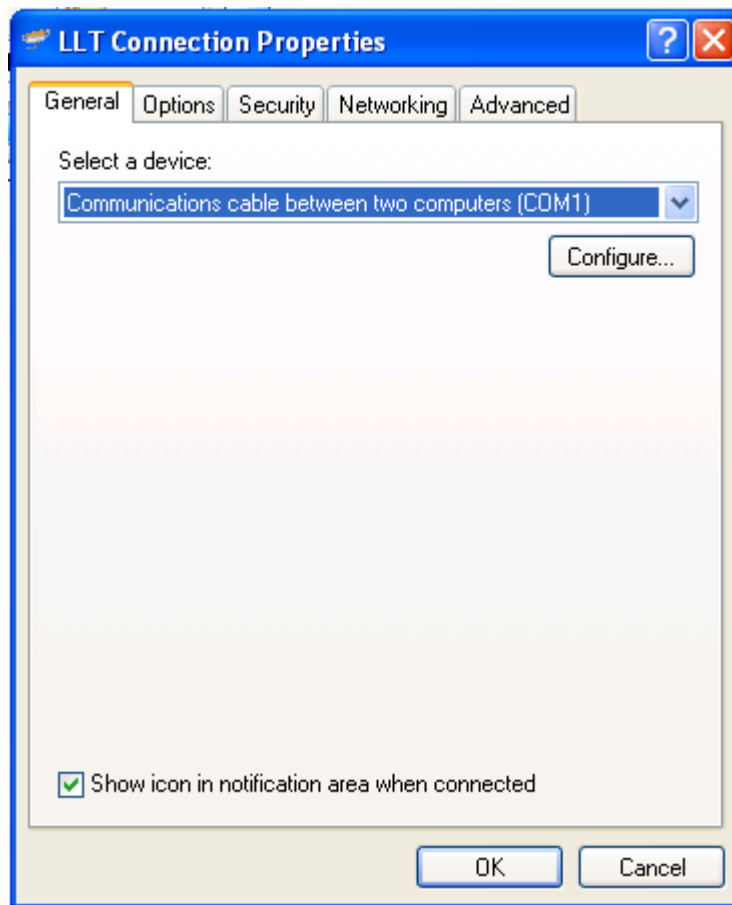


If the serial port is not displayed in the device list, check if it has correctly defined (see chapter [Installing the null modem driver](#)).

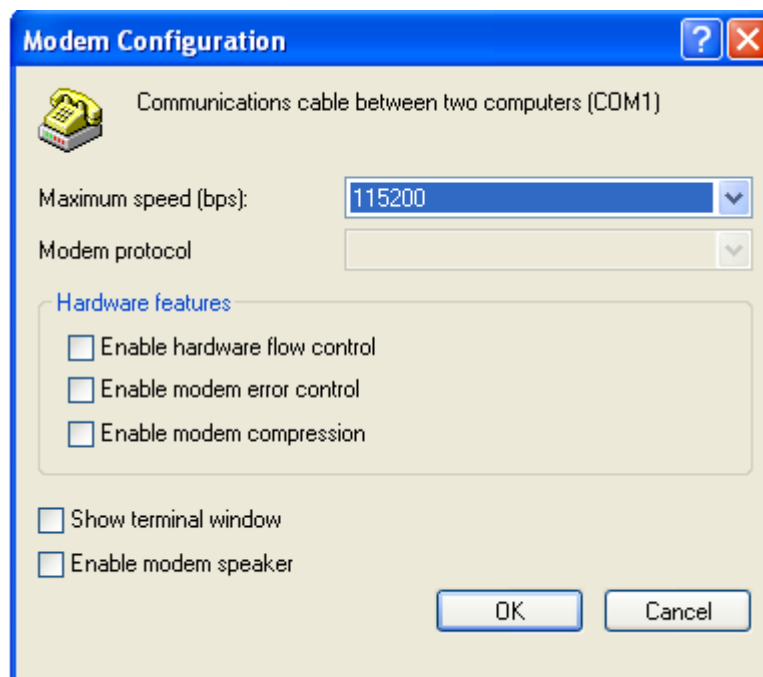
Before using LLT application check that LLT cable is correctly plugged into the right serial connector.

9.1.1.4. Communication port configuration

Used communication port configuration is made from LLT menu: **Connection** → **Connection configuration**
...



Click **Configure...**



Then choose initial speed: 115200 and disable hardware flow control.

Click  in the different opened windows to valid these settings.

9.1.2. Connection with USB cable

9.1.2.1. Telium USB driver Installation

The USB driver for Telium terminals is automatically installed during the LLT installation.

Connect an USB cable between the terminal (USB Slave) and the PC (USB Host).

A new hardware is automatically detected by Windows® XP and the terminal is added in the list of USB connection port number (see [Displaying the USB connection port number](#)).

➤ If the automatic installation was completed successfully go to [Installing the null modem driver](#).

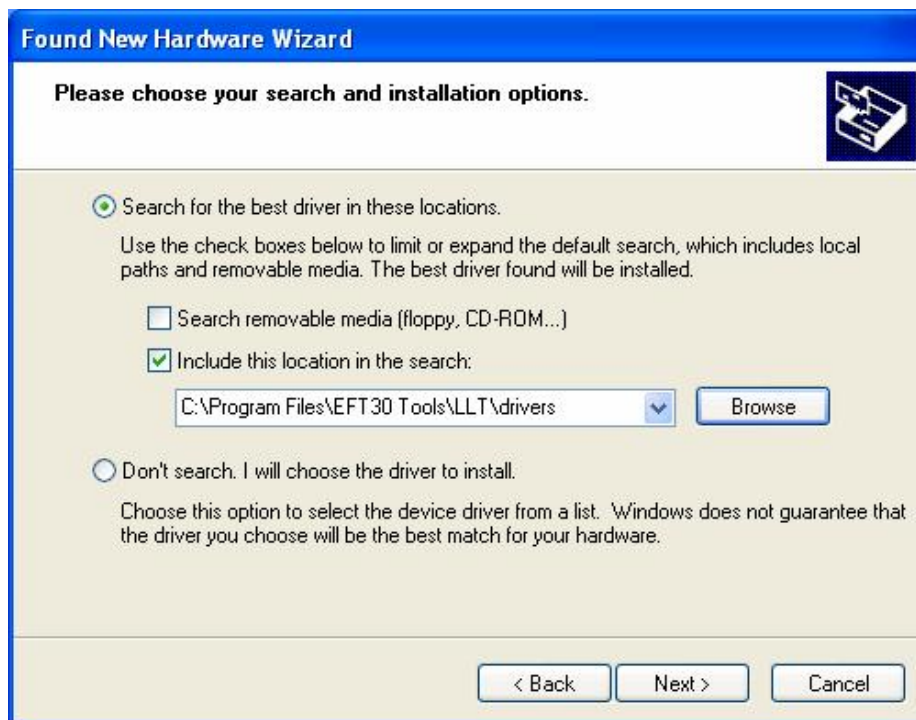
➤ If the automatic installation was not done properly, follow the following steps:

- Put the terminal in LLT mode (terminal must display « LLT »).
- Connect USB cable between terminal (USB Slave) and PC (USB Host).

When you plug the terminal with USB cable, Windows® XP suggests installing a new driver in order to manage USB terminal connection.



Click "Next"



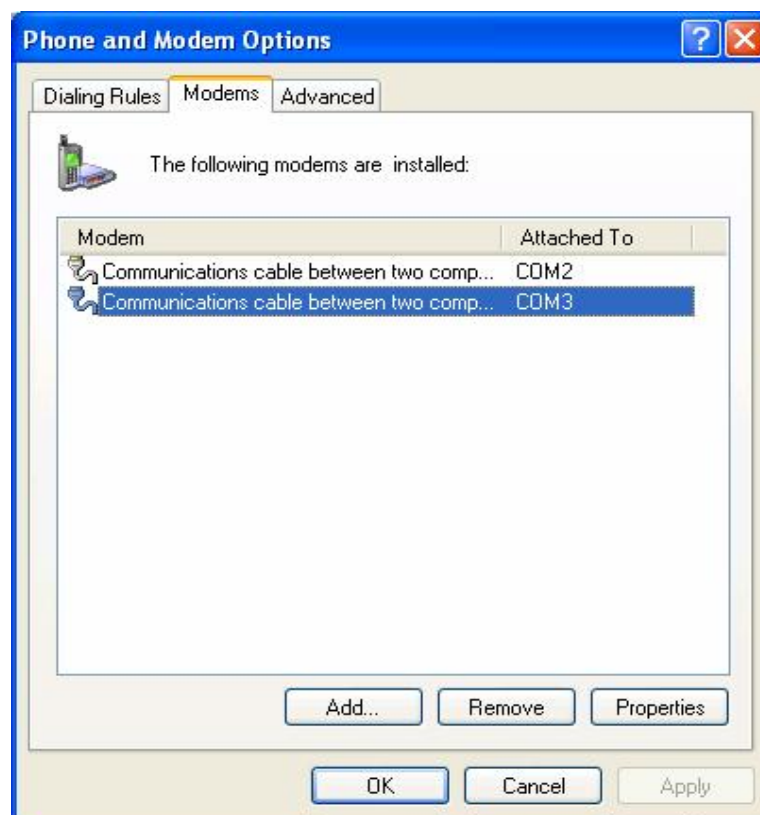
Click Browse to select the « drivers » sub-directory located in the LLT installation directory. Then click “Next”.



Then "Finish". Now, the USB driver is installed and ready to be used. The USB connection is seen by LLT as a serial port. You must configure this new port (See [Installing the null modem driver](#)). Choose the new port which is displayed in the list corresponding to the established USB connection.

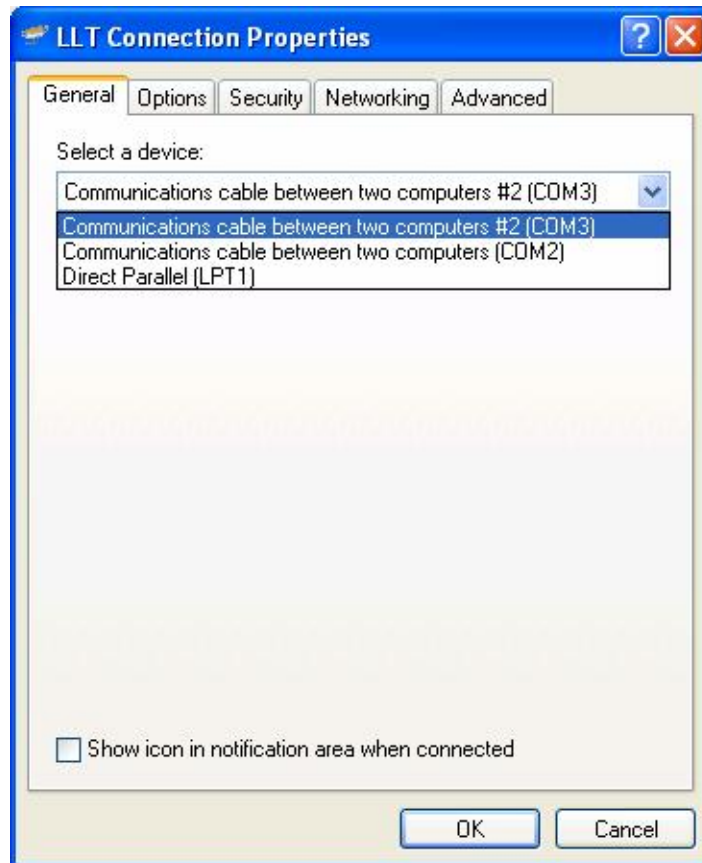


Now, the new communication cable appears from the list.



Click "OK".

Select the serial port used from **Connection → Connection configuration ...** of LLT menu.
Select the port to use from device list



and click “OK”. Now, your connection is configured. You can connect the LLT to the terminal (see [Connecting to the terminal](#)).

9.2. With Windows® Vista Professional

9.2.1. Connection with serial interface

To be connected to a terminal a serial cable must be used. For that configure the PC by selecting a null modem driver and determine the serial port that will be used with this connection.

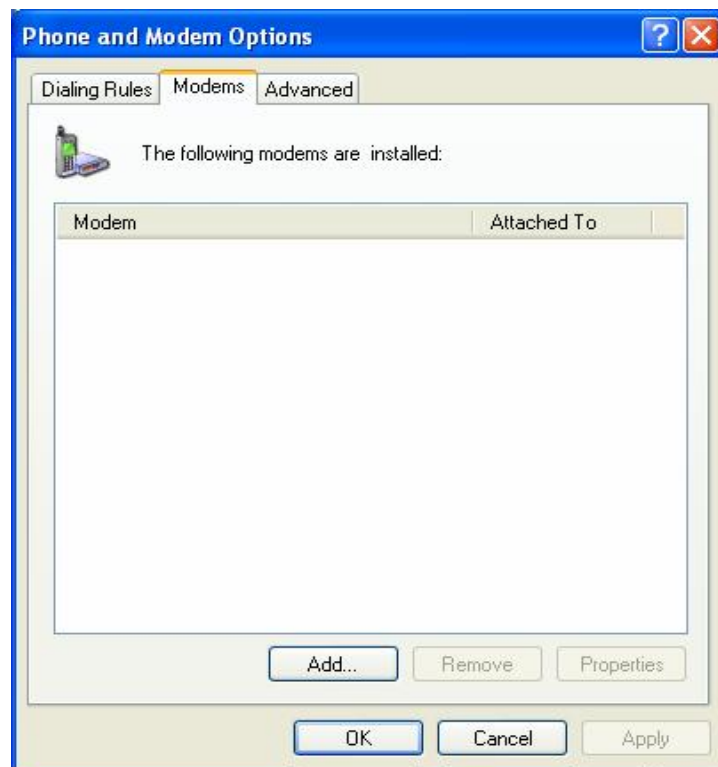
9.2.1.1. Installing the null modem driver

Communication port configuration is made from LLT menu: **'Connection | Serial interface properties ...'**

Note: with Windows® Vista 64 bits instead used the PC menu: **'Start | Control Panel | Phone and Modem Options | Modem'**.

Note: the PC must be restarted after the null modem is installed.

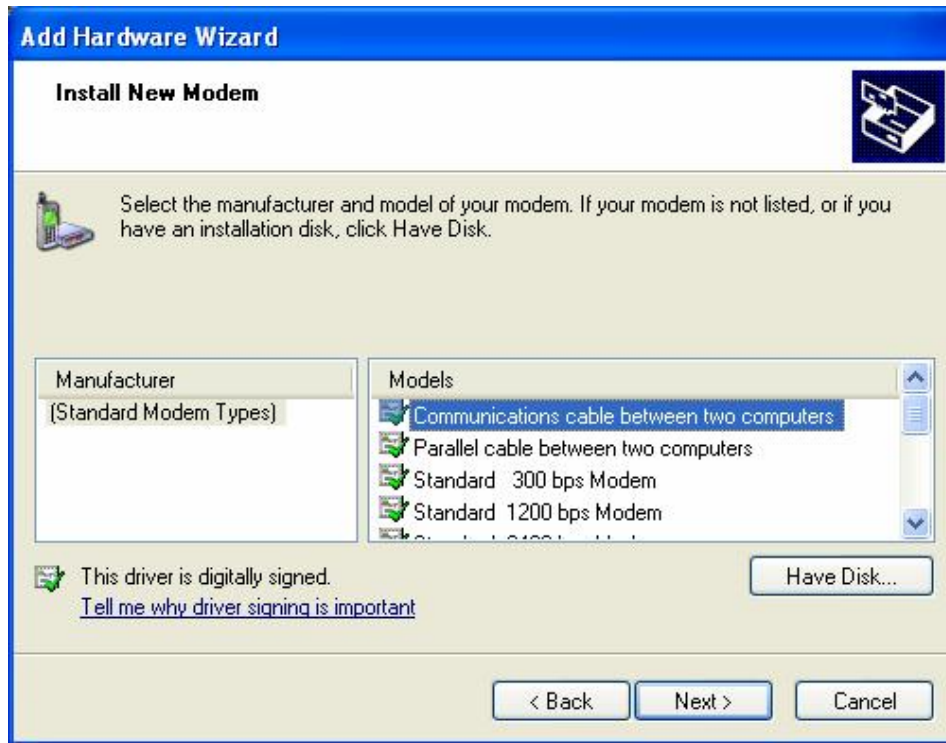
If no modem has been installed on this computer, the following screen appears:



Click "Add" button to install the null modem driver. Then,

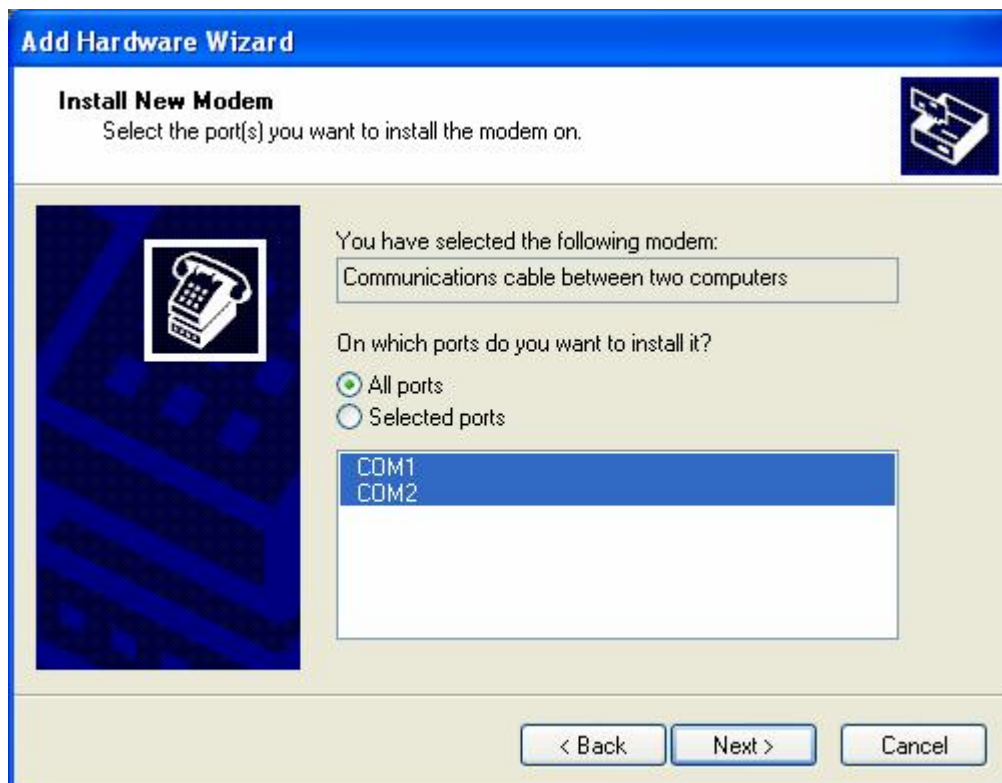


Check the option "Don't detect my modem; I will select it from a list» and then click "Next" button to select the null modem driver from a list.



Select “(Standards Modem Types)” from the list “Manufacturer” and “Communications cable between two computers” from the list “Models”.

Then click “Next” button to select the serial port that will be used for the connection.



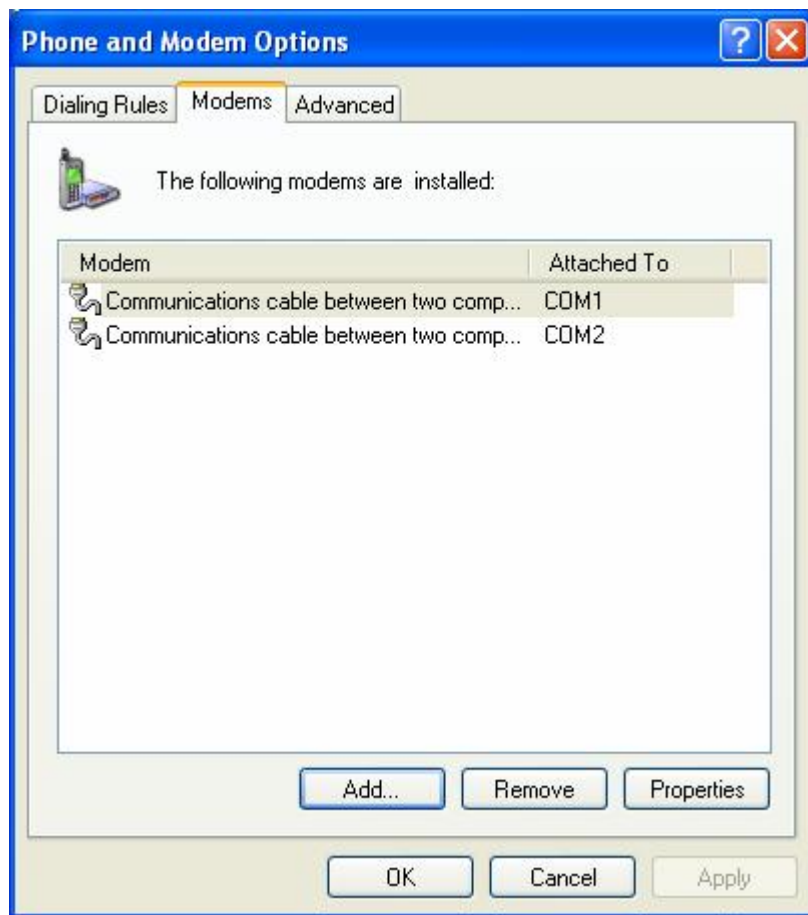
Select a specific port or ‘All ports’ if you want to be able to use either one or the other.

Continue by clicking “Next” button



and click "Finish".

The new interface appears now from the list.



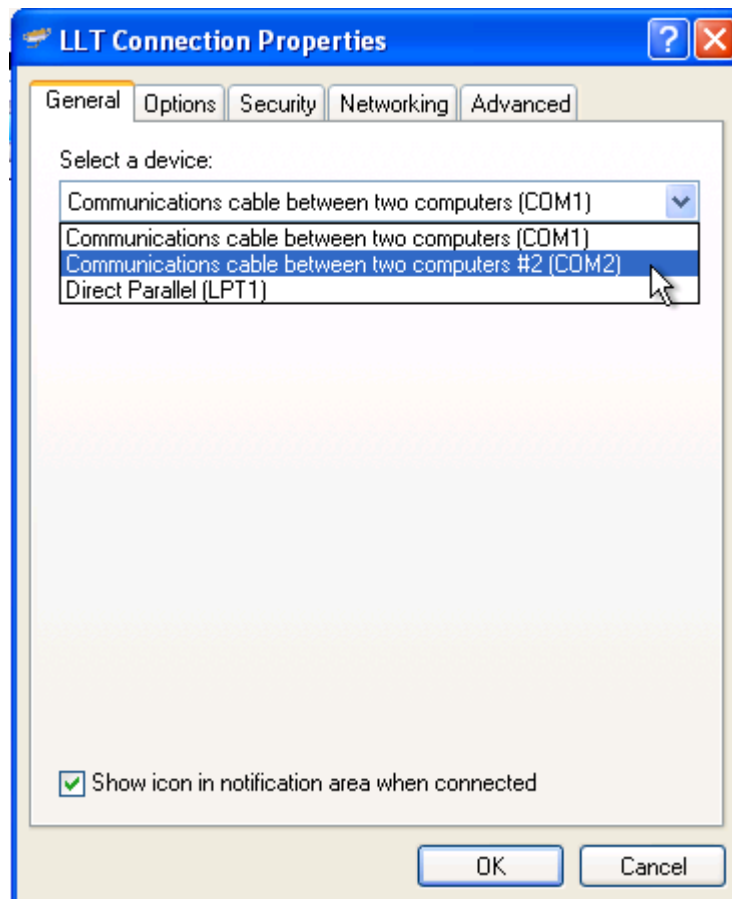
Click "OK" to validate these settings.

9.2.1.2. Use of another serial port

It is possible to define several serial ports in order to select later the available port (See chapter [Selecting communication port](#)). To define a new interface and a new serial port (for example using COM2), repeat the previous step described in chapter [Installing the null modem driver](#).

9.2.1.3. Selecting communication port

Select the serial port used from **Connection | Connection configuration ...** LLT menu.
Select the port to use in the device list.



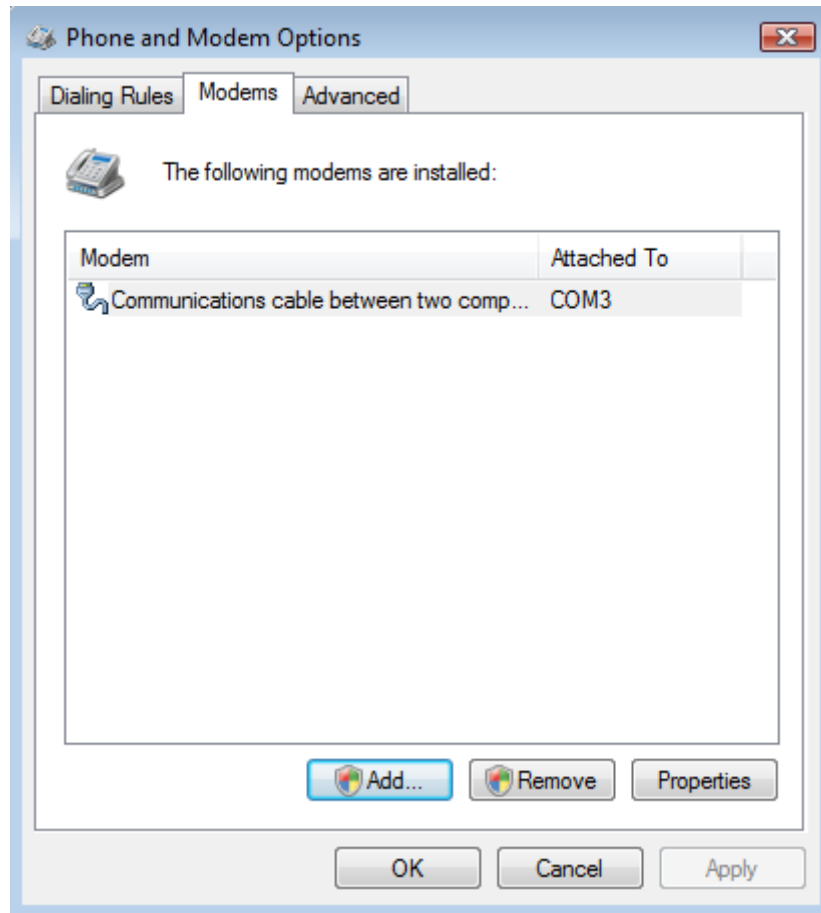
If the serial port is not displayed in the device list, check if it has correctly defined (see chapter [Installing the null modem driver](#)).

Before using LLT application check that LLT cable is correctly plugged into the right serial connector.

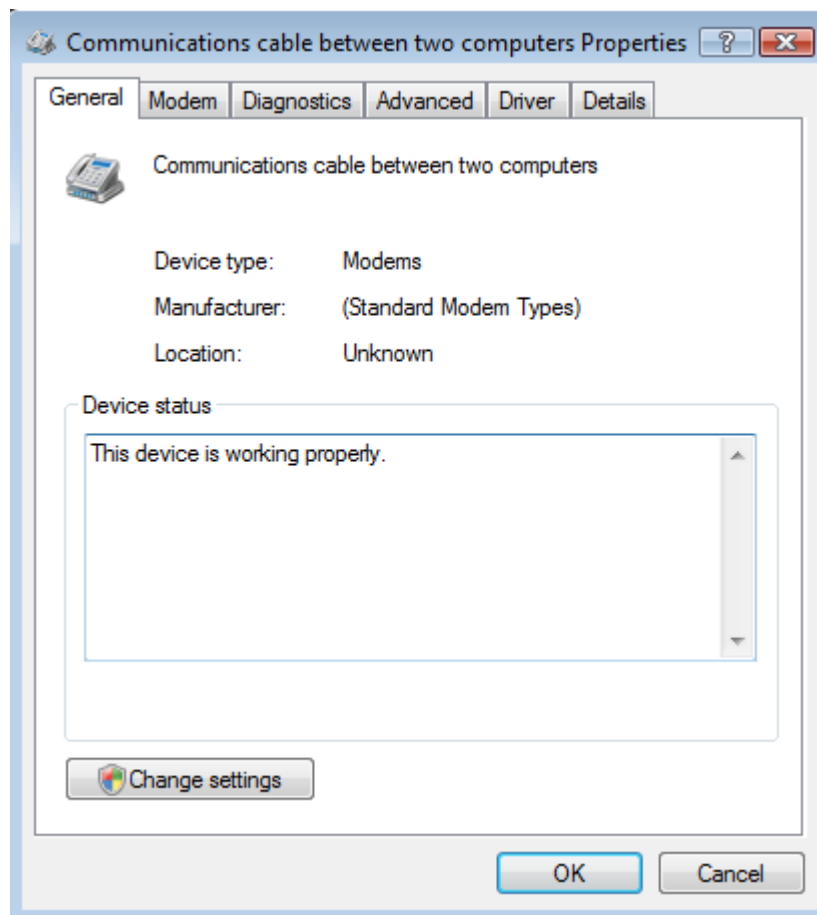
9.2.1.4. Communication port configuration

Communication port configuration is made from LLT menu: '**Connection → Serial interface properties ...**'

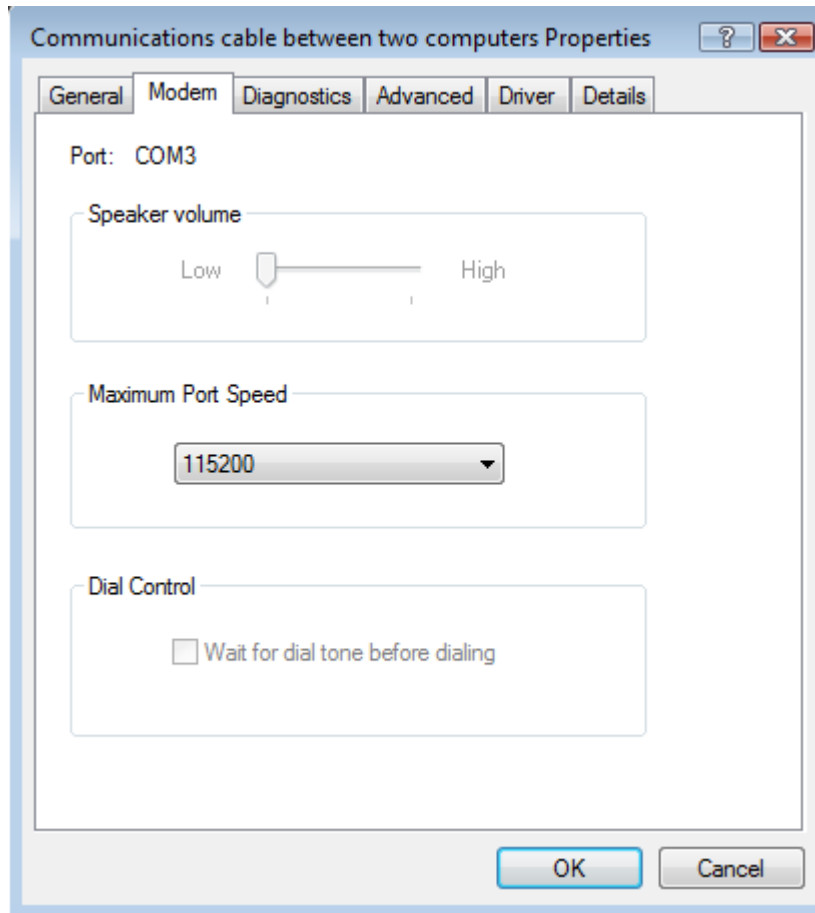
Note: with Windows ® Vista 64 bits instead used the PC menu: '**Start → Control Panel → Phone and Modem Options → Modem**'.



Select the port and click "**Properties**".



Select: 'Modem' panel.



Choose 'Maximum Port Speed' value: **115200**.

Select '**Advanced**' panel and '**Change Default Preference...**', verify '**Port speed**' and '**Flow control**' (None).

Click OK in the different opened windows to valid these settings

WARNING: The PC must be restarted.

9.2.2. Connection with USB cable

To be connected to a terminal, an USB cable may be used if the terminal software configuration authorizes it.

9.2.2.1. Telium USB driver Installation

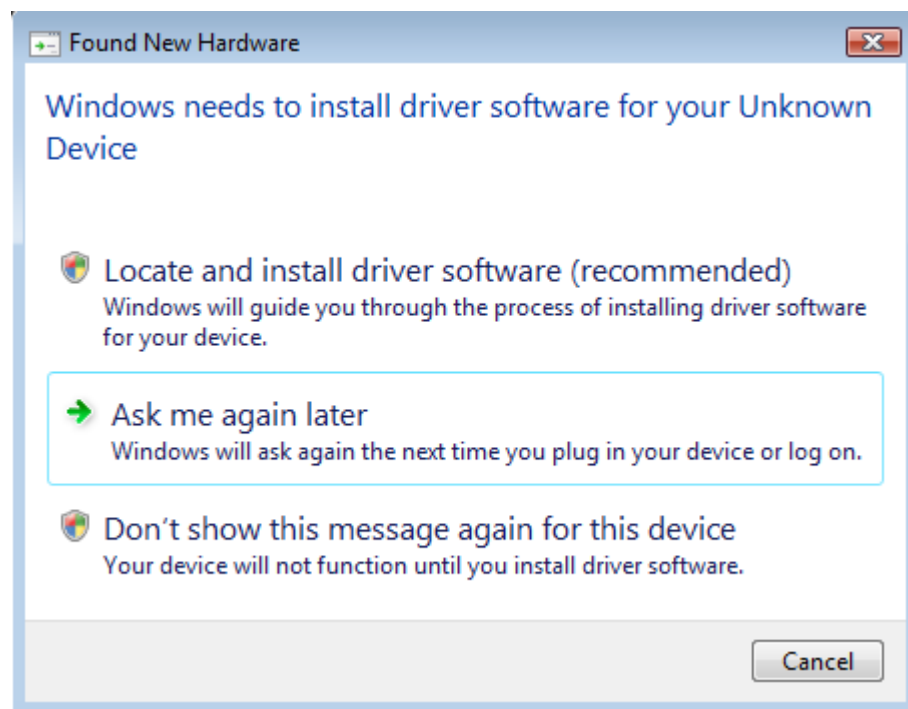
The USB driver for Telium terminals is automatically installed during the LLT installation.

Connect an USB cable between the terminal (USB Slave) and the PC (USB Host).

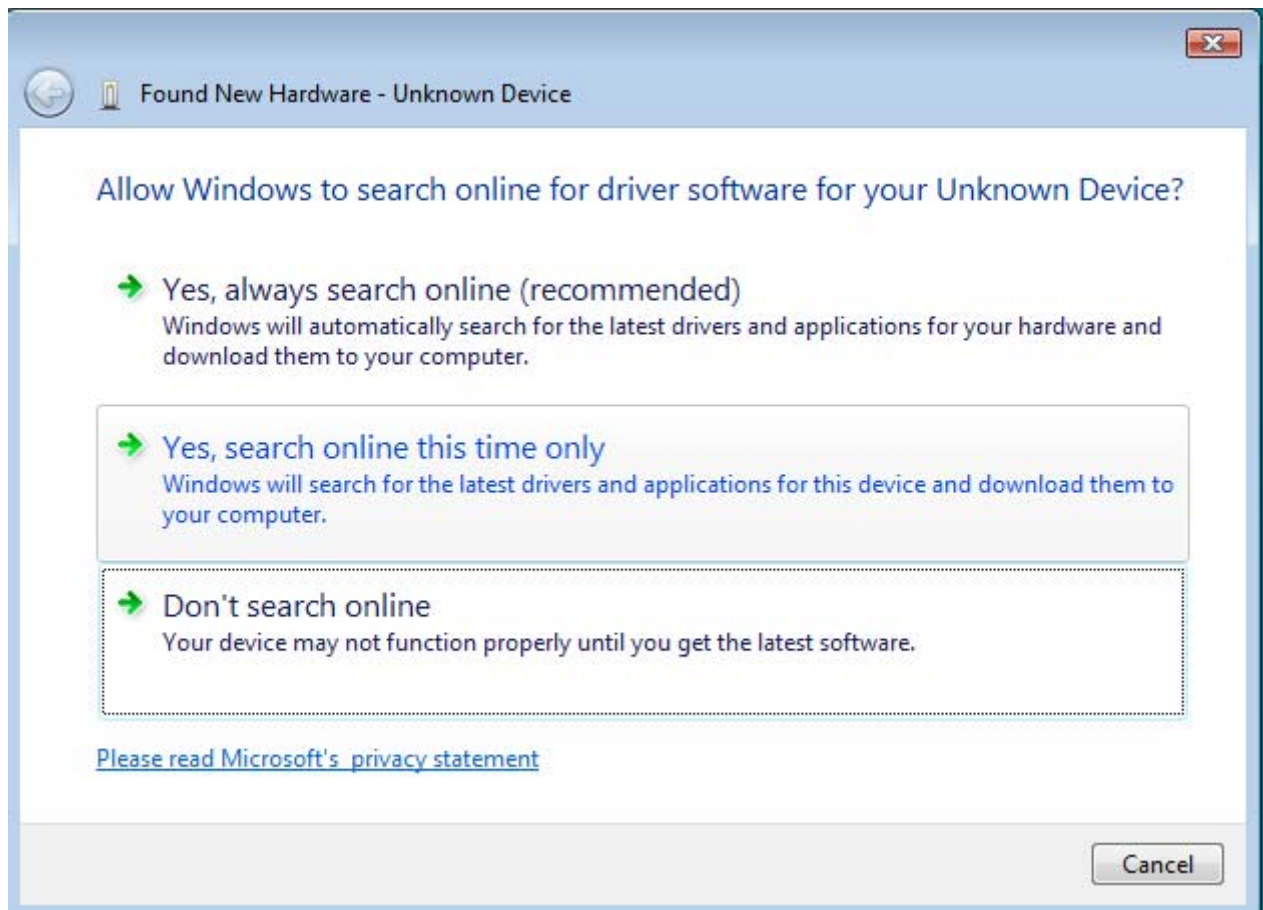
A new hardware is automatically detected by Windows ® Vista and the terminal is added to the USB connection port number (see [Displaying the USB connection port number](#)).

- If the automatic installation was completed successfully go to [Installing the null modem driver](#).
- If the automatic installation was not done properly, follow the following steps:
 - **Put the terminal in LLT mode (terminal must display « LLT »).**
 - **Connect USB cable between terminal (USB Slave) and PC (USB Host).**

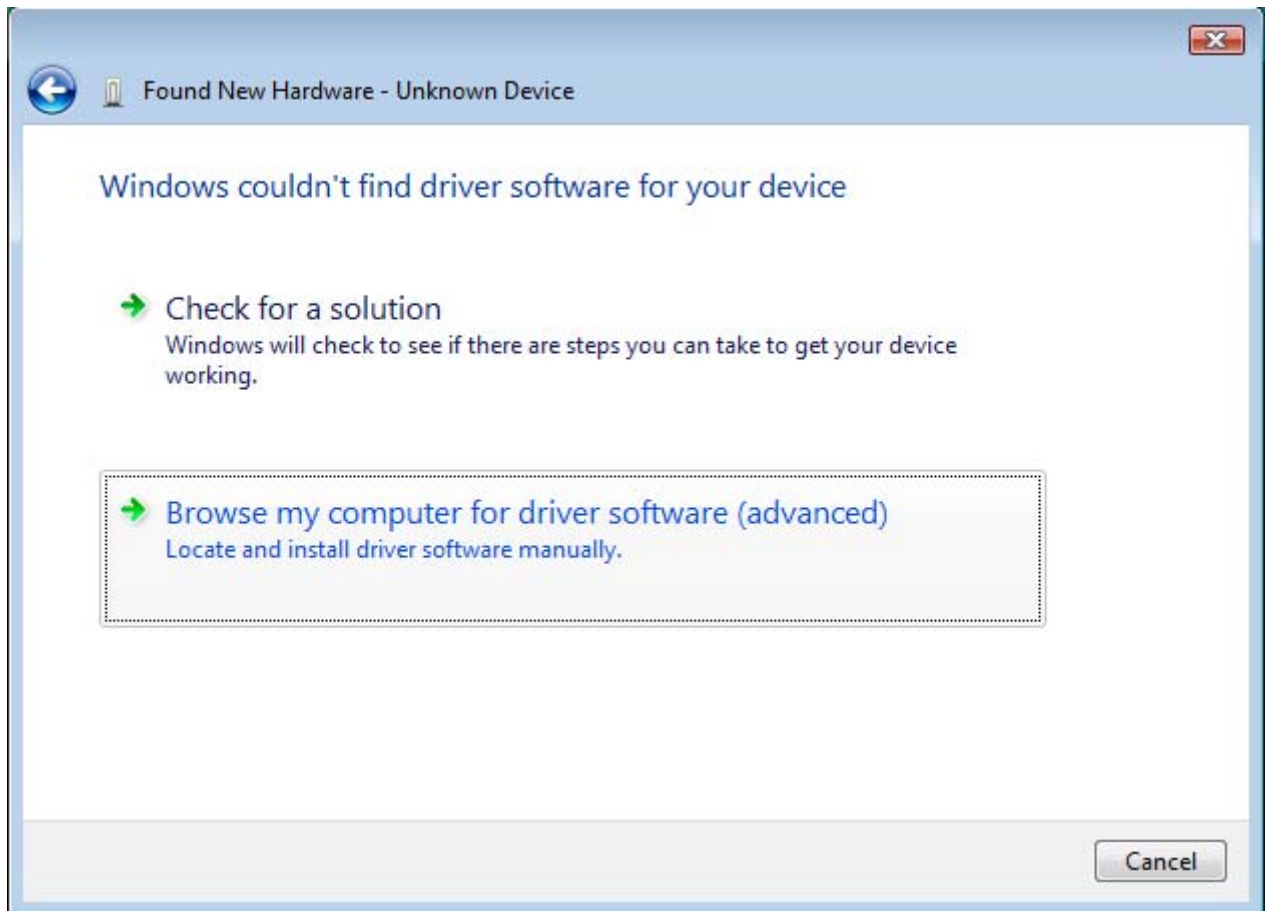
When you plug the terminal with USB cable, Windows ® Vista suggests installing a new driver in order to manage USB terminal connection



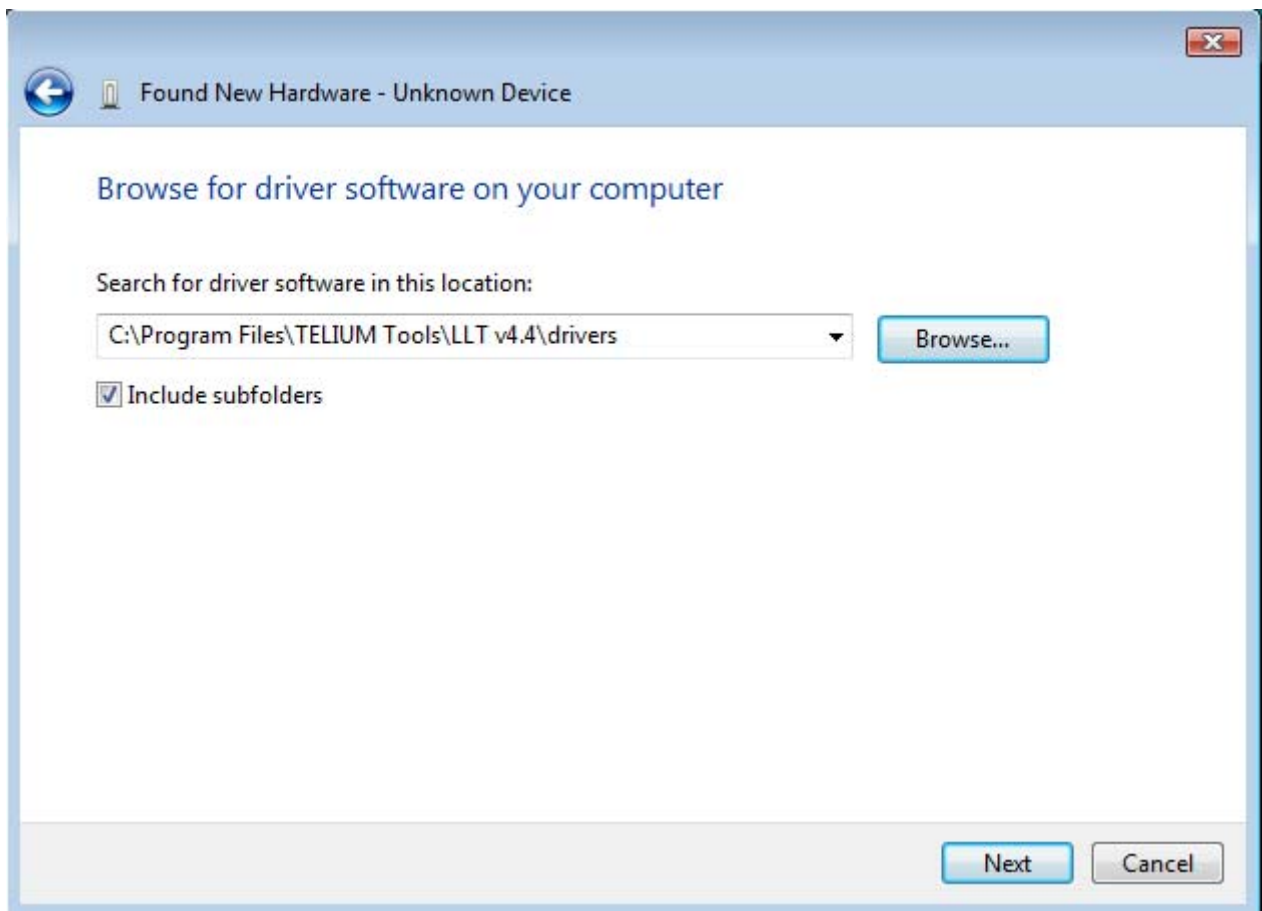
Click “Locate and install driver software (**recommended**)”.



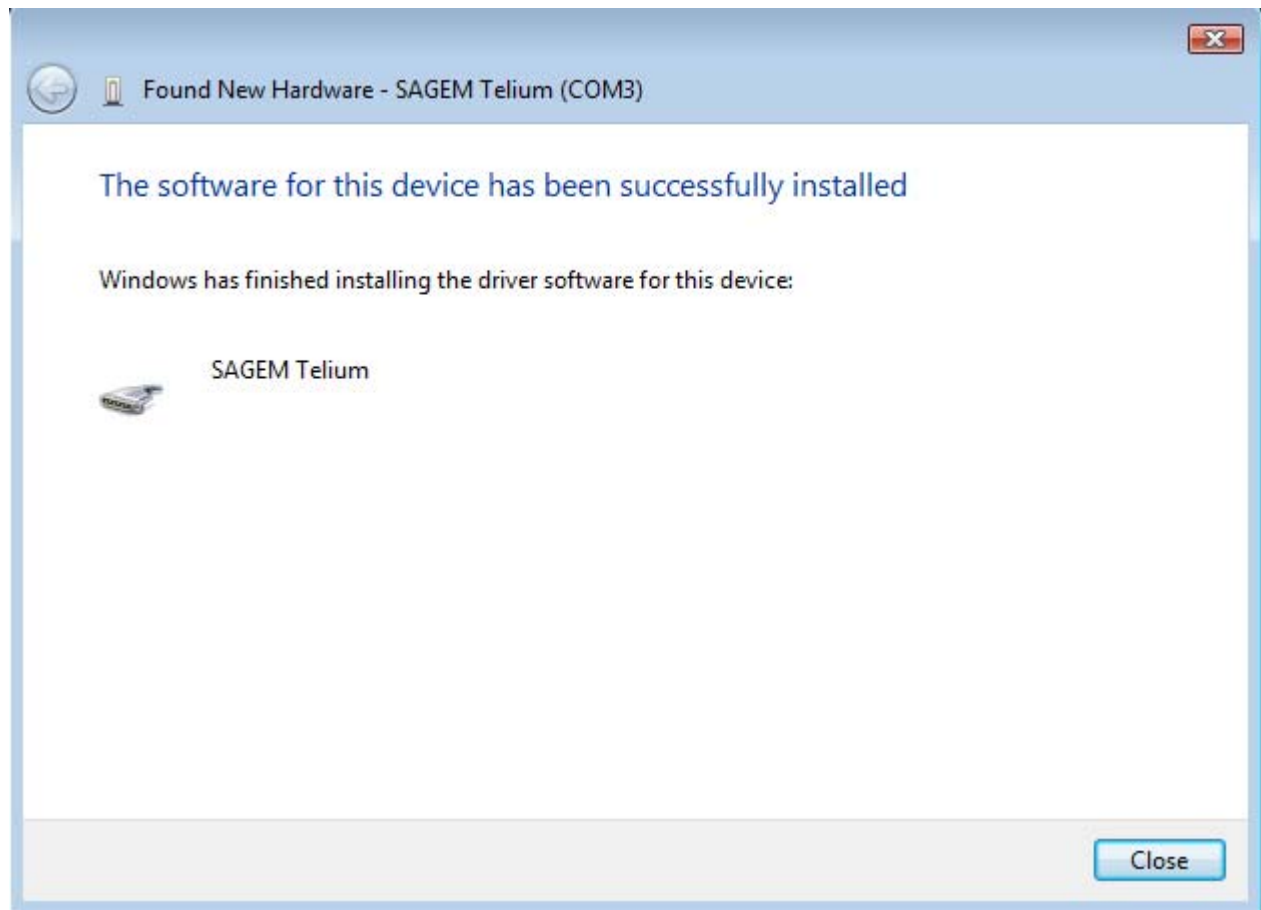
Click “Don’t search online”.



Click "Browse my computer for driver software (advanced)".

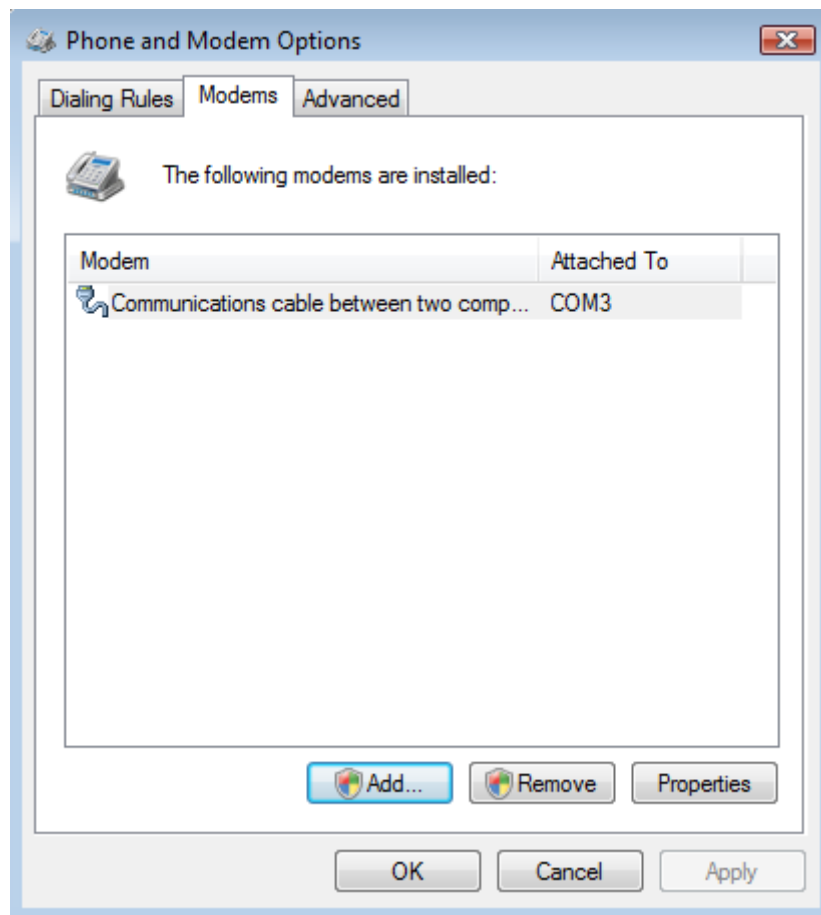


Click “Browse” to select the « drivers » sub-directory located in the LLT installation directory.
Then click “Next”.



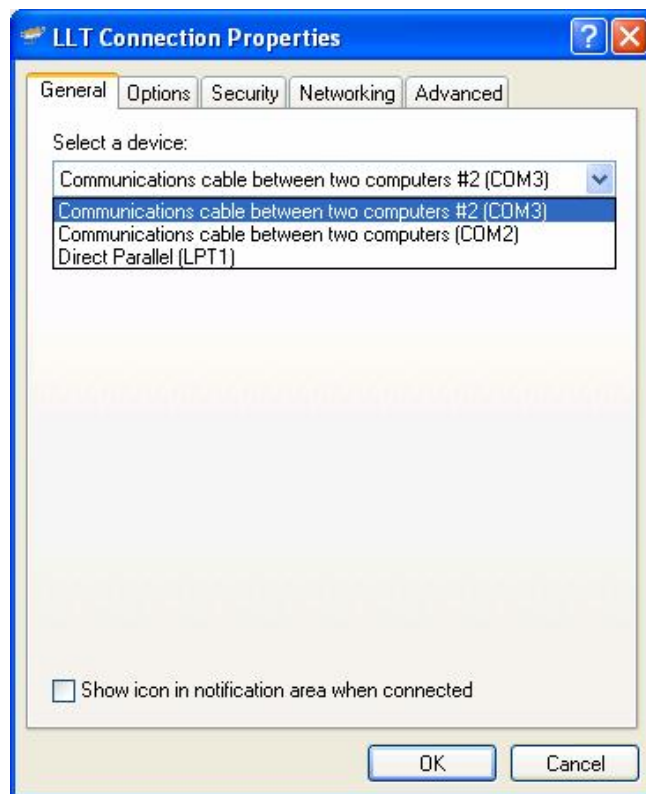
Then **"Finish"**. Now, the USB driver is installed and ready to be used.

The USB connection is seen by LLT as a serial port. You must configure this new port (See [Installing the null modem driver](#)). Choose the new port which is displayed in the list corresponding to the established USB connection.



Now, the new communication cable appears from the list. Click “OK”.

Select the serial port used from LLT menu: **Connection → Connection configuration ...** and select the port to use from device list.



Click "OK". Now, your connection is configured. You can connect the LLT to the terminal (see [Connecting to the terminal](#)).

9.3. With Windows ® 7 Professional

9.3.1. Connection with serial interface

To be connected to a terminal a serial cable must be used. For that configure the PC by selecting a null modem driver and determine the serial port that will be used with this connection.

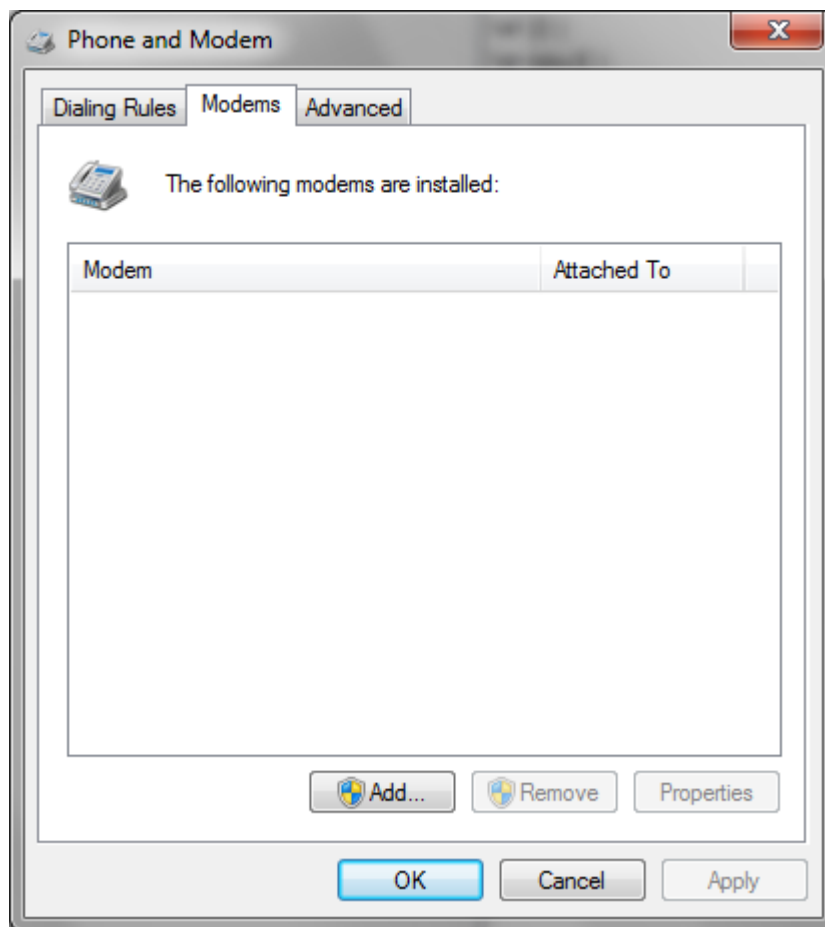
9.3.1.1. Installing the null modem driver

Communication port configuration is made from LLT menu: **Connection → Serial interface properties ...**

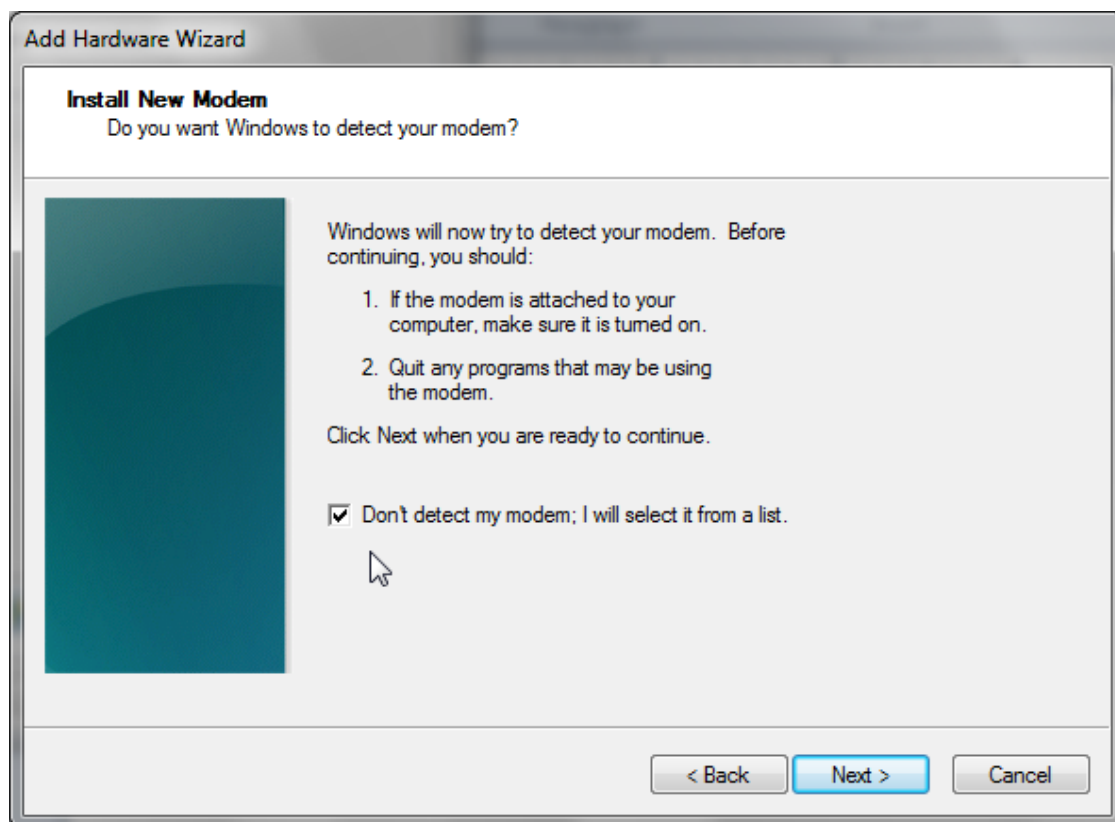
Note: with Windows ® 7 64 bits instead used the PC menu: **Start → Control Panel → Phone and Modem Options → Modem.**

Note: the PC must be restarted after the null modem is installed.

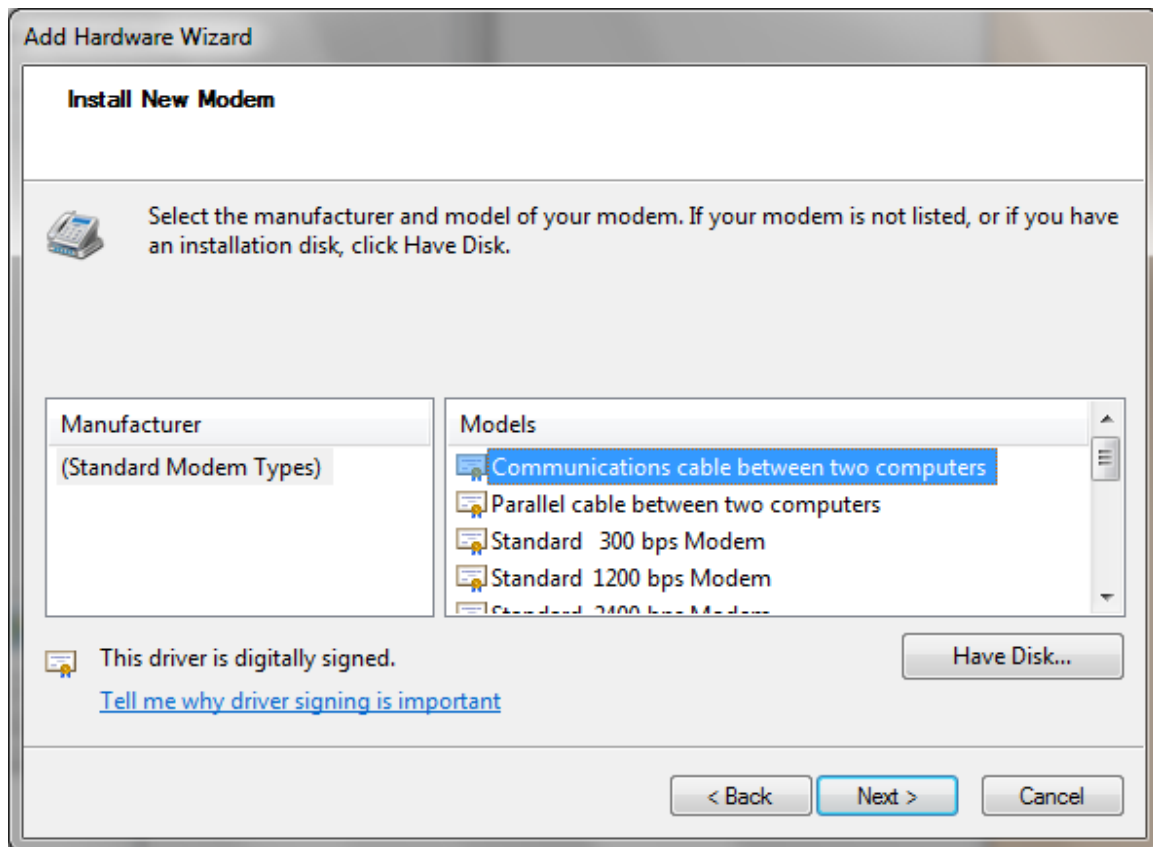
If no modem has been installed on this computer, the following screen appears:



Click **"Add"** button to install the null modem driver.

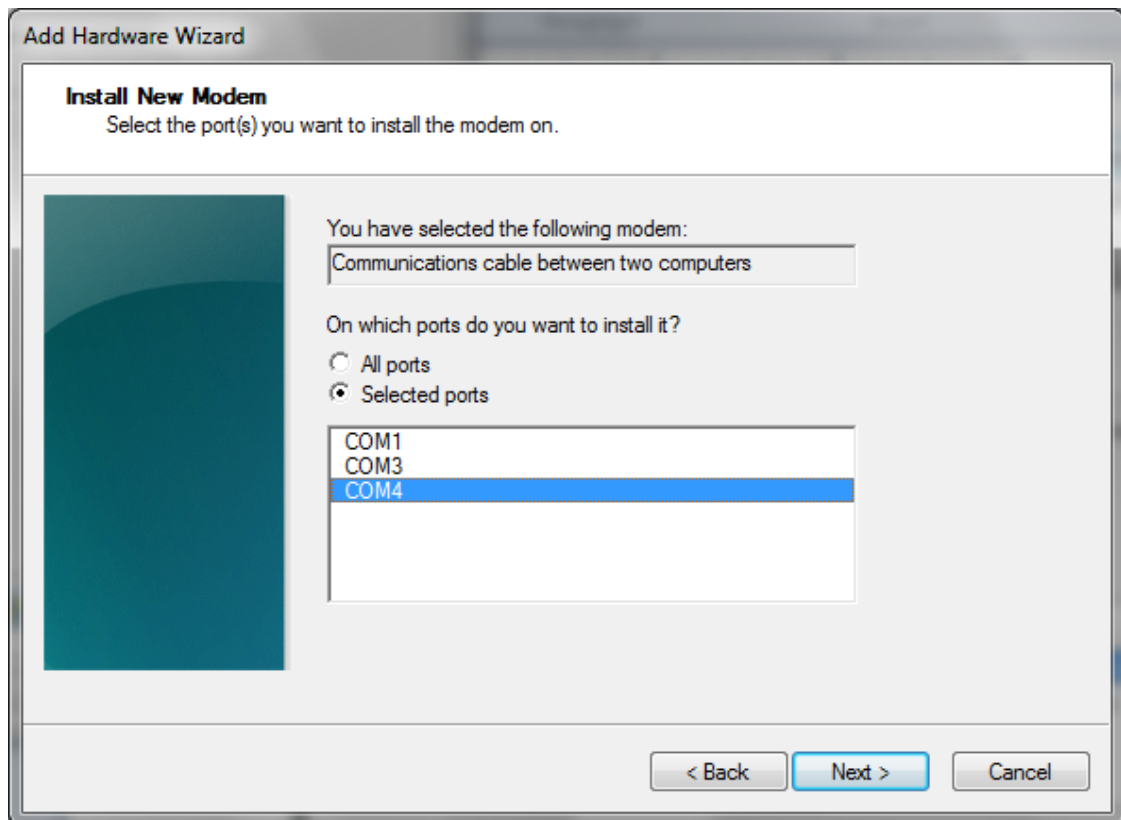


Check the option **"Don't detect my modem; I will select it from a list"** and then click **"Next"** button to select the null modem driver from a list.



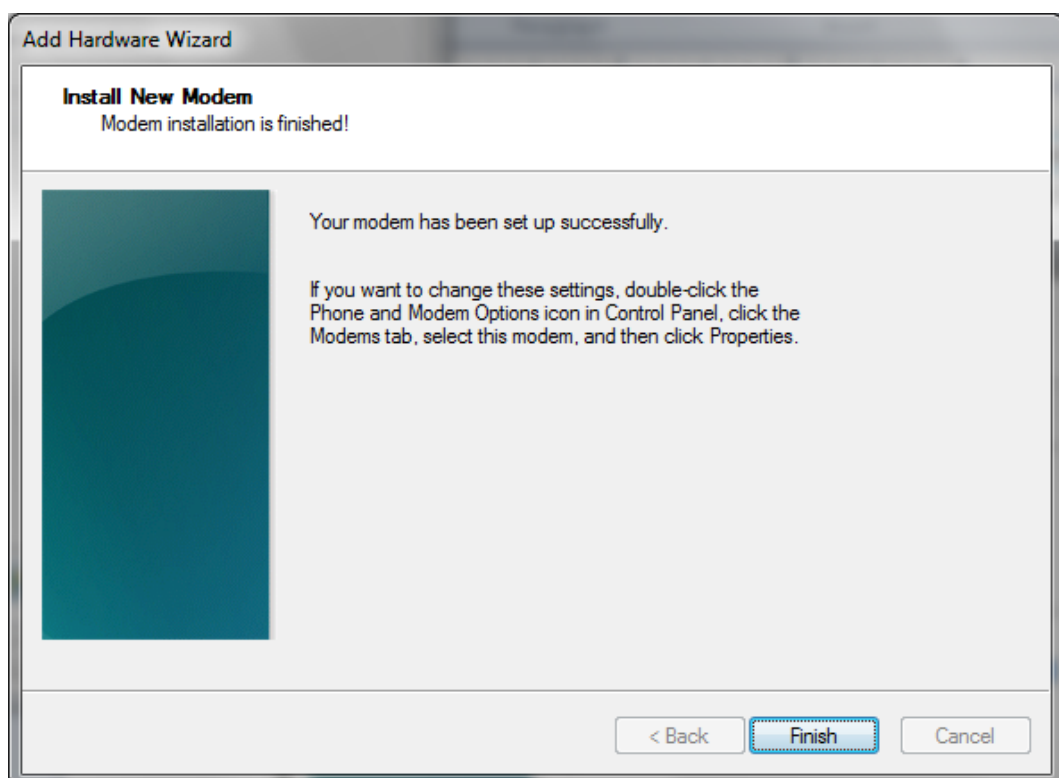
Select “(Standards Modem Types)” from the list “Manufacturer” and “Communications cable between two computers” from the list “Models”.

Then click “Next” button to select the serial port that will be used for the connection.



Select a specific port or **"All ports"** if you want to be able to use either one or the other.

Continue by clicking **"Next"** button



Click **"Finish"**. The new interface appears now from the list.

Click **"OK"** to validate these settings.

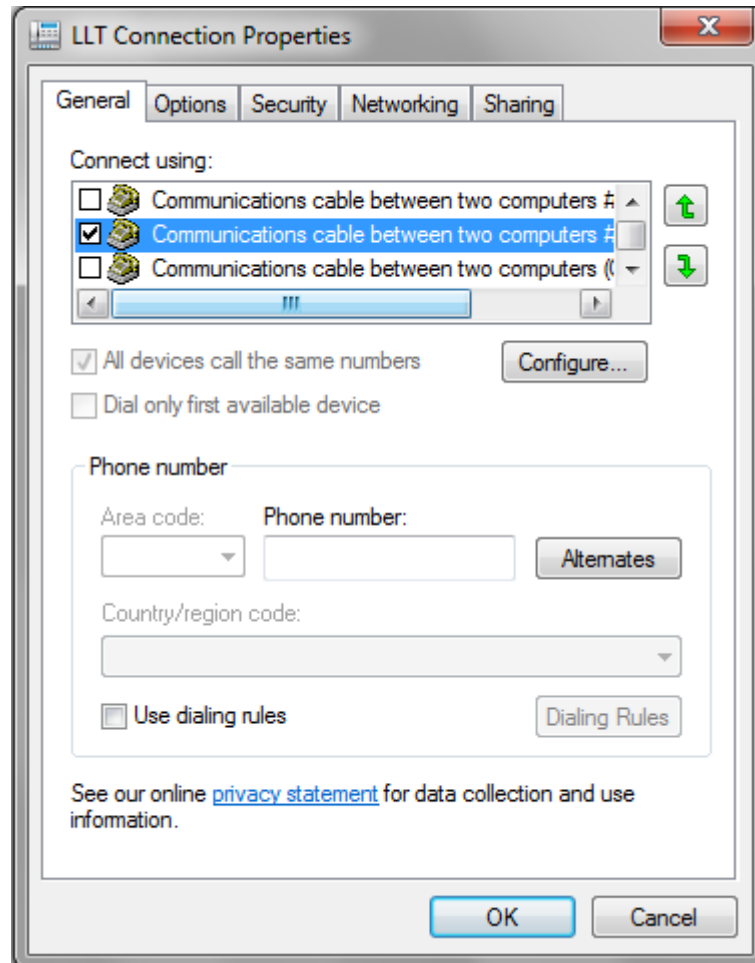
9.3.1.2. Use of another serial port

It is possible to define several serial ports in order to select later the available port (See chapter [Selecting communication port](#)). To define a new interface and a new serial port (for example using COM2), repeat the previous step described in [Installing the null modem driver](#).

9.3.1.3. Selecting communication port

Select the serial port used via the LLT menu: **Connection → Connection configuration ...**.

Select the port to use in the device list.

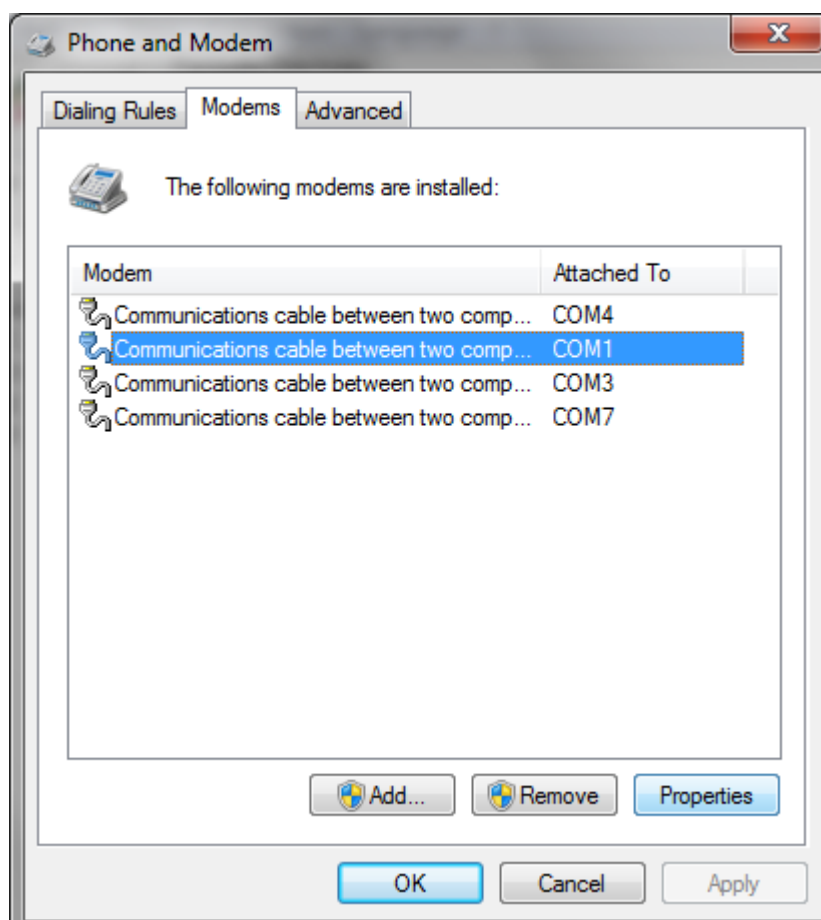


If the serial port is not displayed in the device list, check if it has correctly defined (see chapter [Installing the null modem driver](#)).

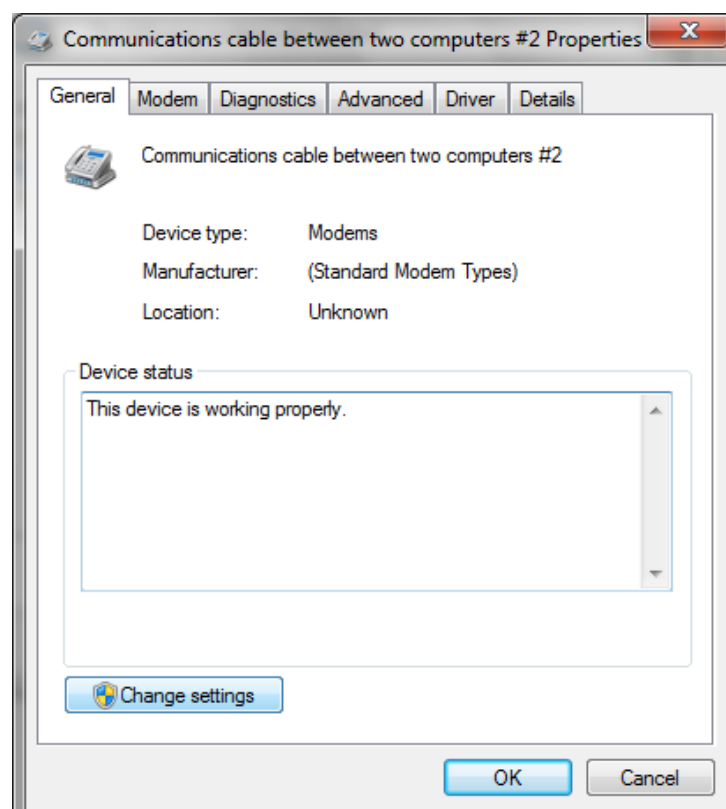
Before using LLT application check that LLT cable is correctly plugged into the right serial connector.

9.3.1.4. Communication port configuration

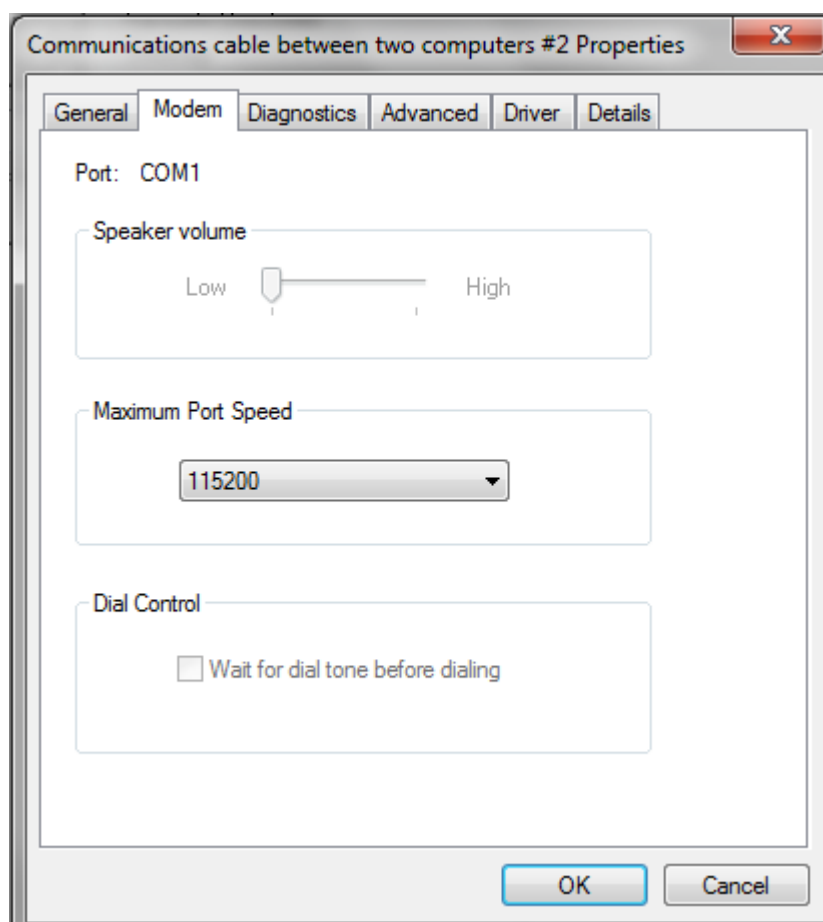
Select the serial port used via the LLT menu: **Connection** → **Serial interface properties**



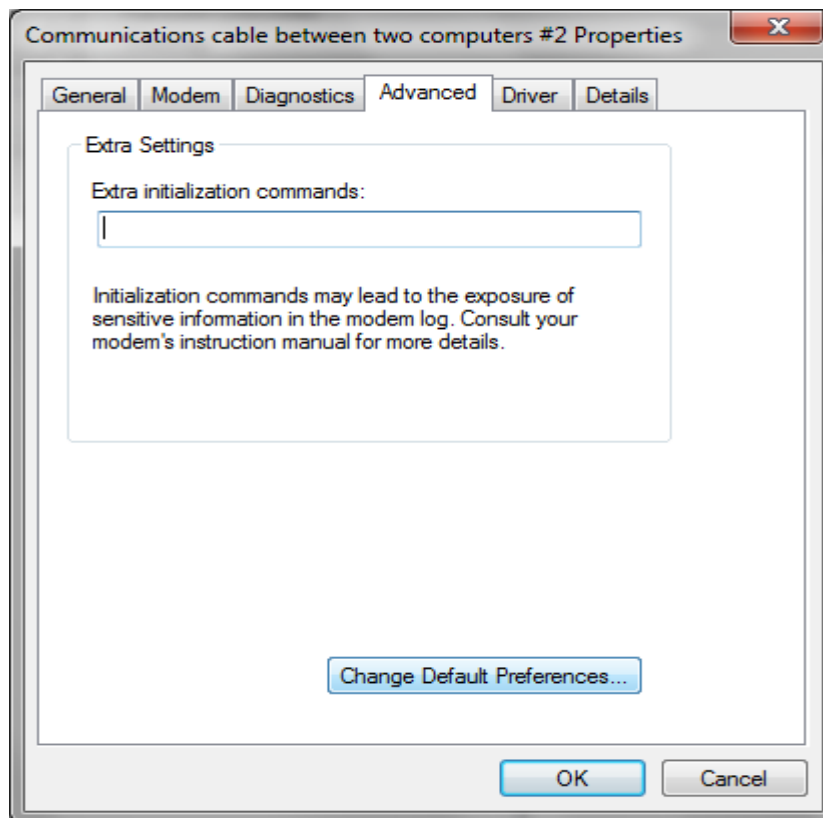
Select the port number and click "**Properties**".



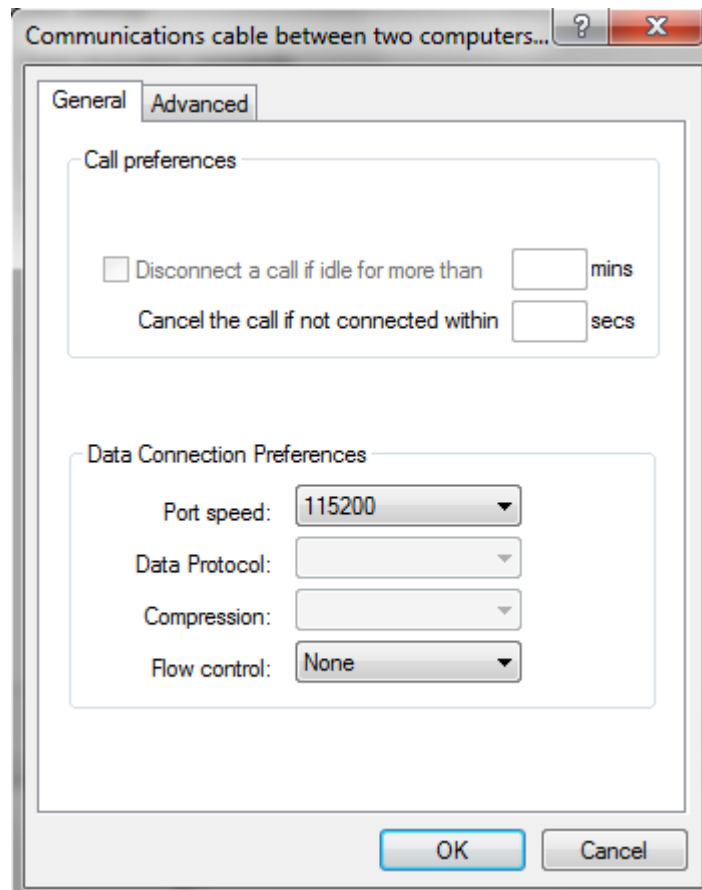
Select "**Modem**" panel.



Choose "Maximum Port speed": **115200**.



In "**Advanced**" panel, select "**Change Default Preferences...**"



And verify **"Port speed"** (115200) and **"Flow control"** (None).

Click OK in the different opened windows to valid these settings.

WARNING : The PC must be restarted.

9.3.2. Connection with USB cable

To be connected to a terminal, an USB cable may be used if the terminal software configuration authorizes it.

9.3.2.1. Telium USB driver Installation

The USB driver for Telium terminals is automatically installed during the LLT installation.

Connect an USB cable between the terminal (USB Slave) and the PC (USB Host).

A new hardware is automatically detected by Windows® Vista and the terminal is added to the list of USB connection port number (see [Displaying the USB connection port number](#)).

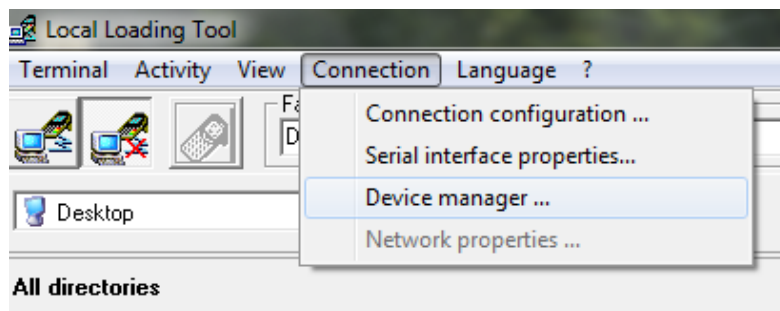
- If the automatic installation was completed successfully go to [Installing the null modem driver](#).
- If the automatic installation was not done properly, follow the following steps:
 - Put the terminal in LLT mode (terminal must display « LLT »).
 - Connect USB cable between terminal (USB Slave) and PC (USB Host).

When you plug the terminal with USB cable, Windows® 7 displays the following message.

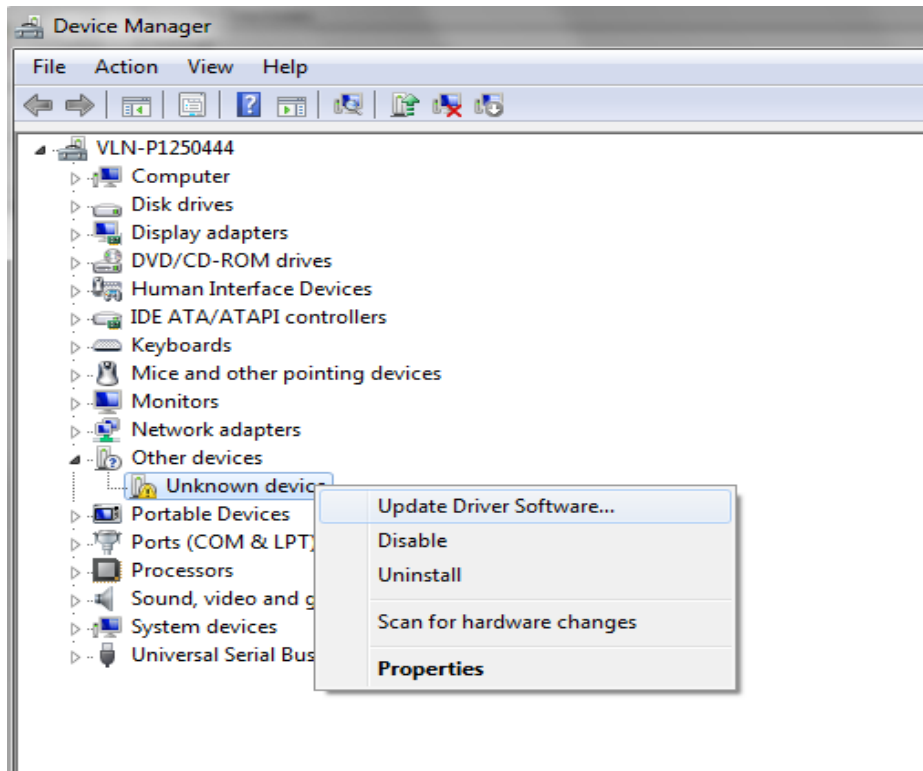


To install a new driver in order to manage USB terminal connection, select via the LLT menu: **Connection** → **Device manager**

Warning: if the device manager panel is not displayed, close and restart the LLT application.

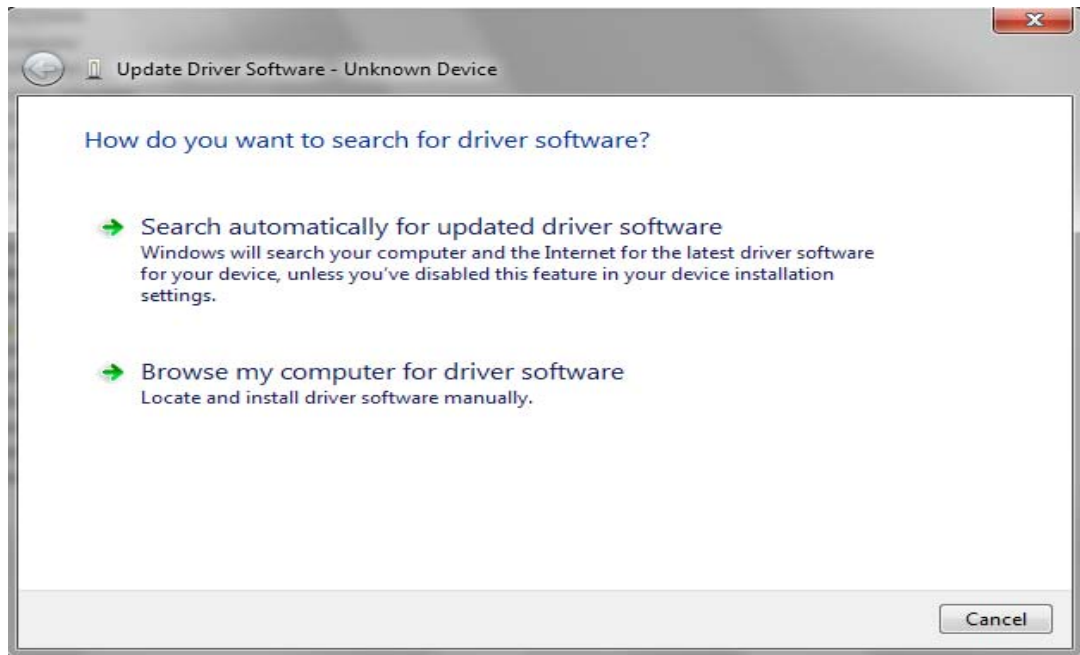


Select the "Unknown device",

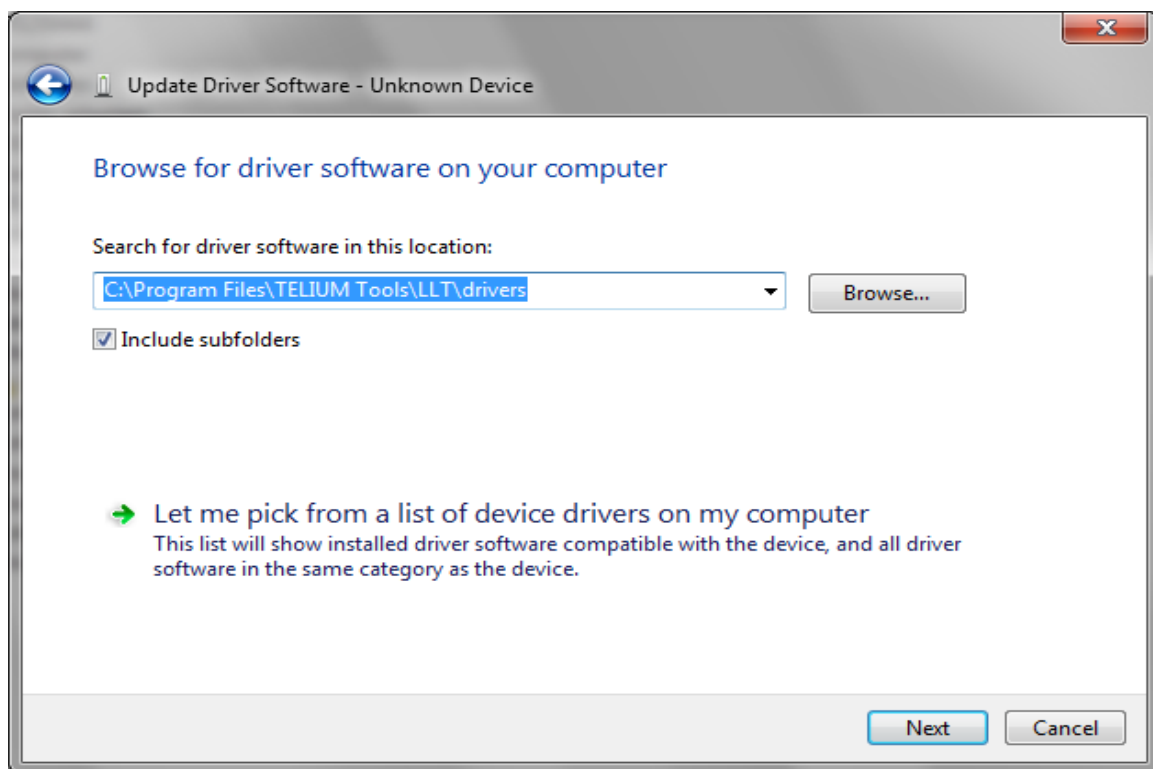


And after select "Update Driver Software...".

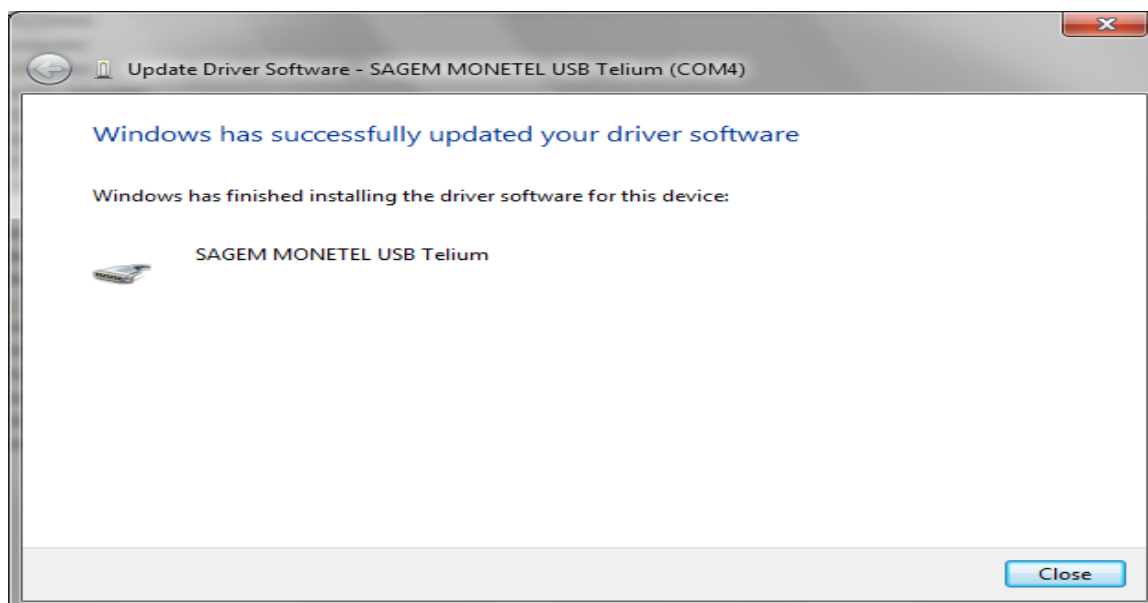
After locate and install driver software manually (**'Browse my computer for driver software'**):



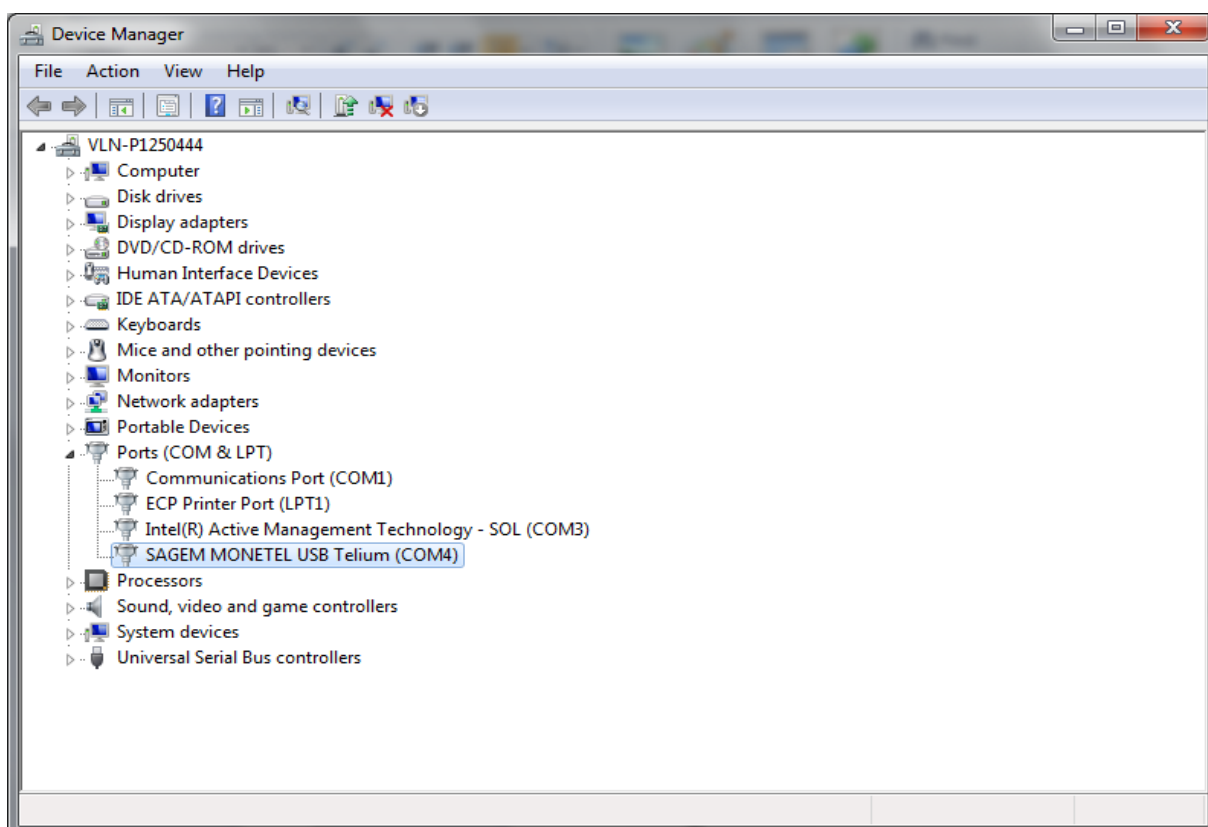
Click **"Browse"** to select the subfolder "drivers" under LLT installation folder and click **"Next"**.



Check USB driver is correctly installed and click **"Close"**.



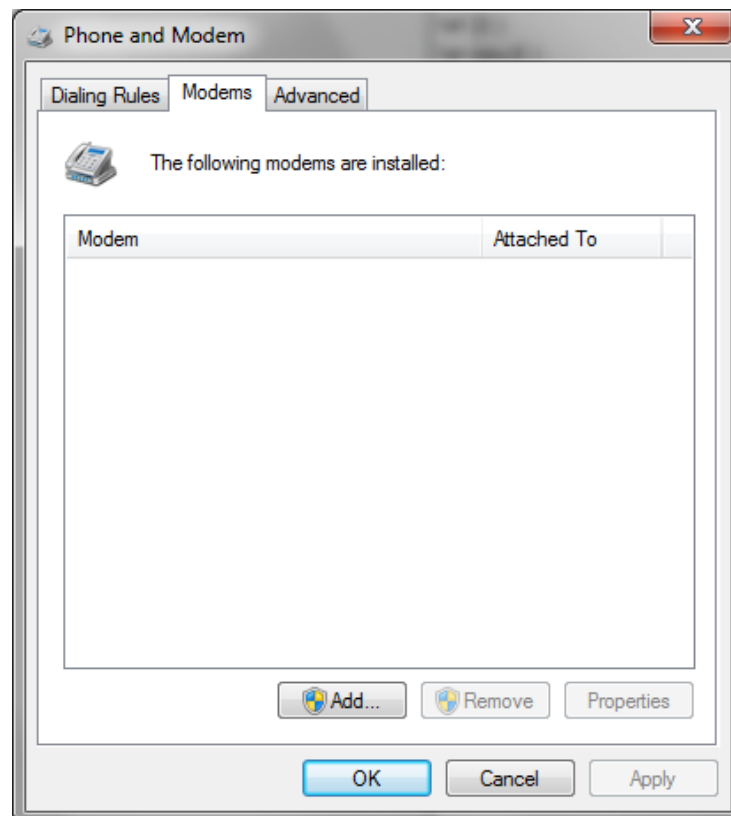
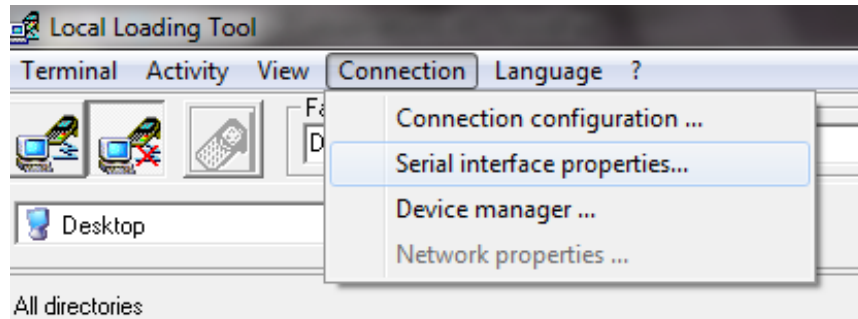
The new device is now displayed.



Now, the USB driver is installed and ready to be used. The USB connection is seen by LLT as a serial port. You must build this interface.

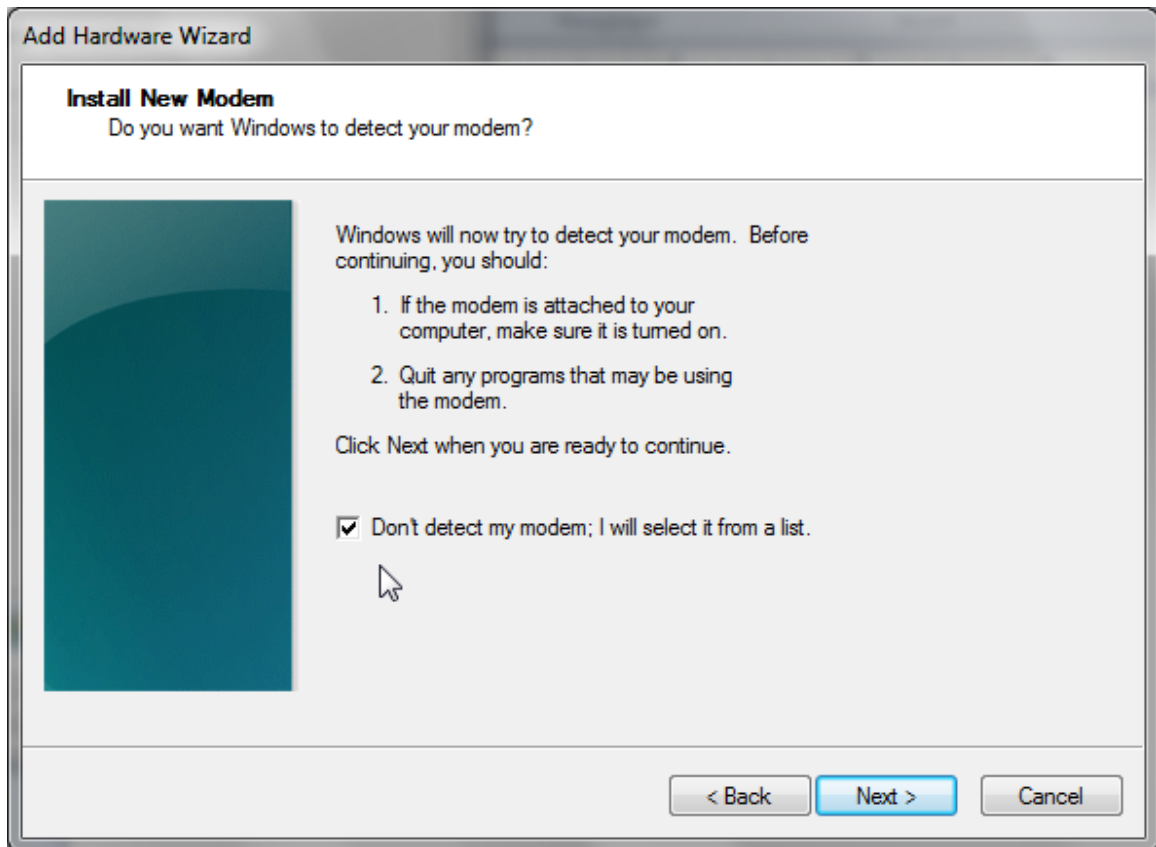
To build this interface, select via the LLT menu: **Connection → Serial interface properties...**

Note: with Windows ® 7 64 bits instead used the PC menu: **Start → Control Panel → Phone and Modem Options → Modem.**

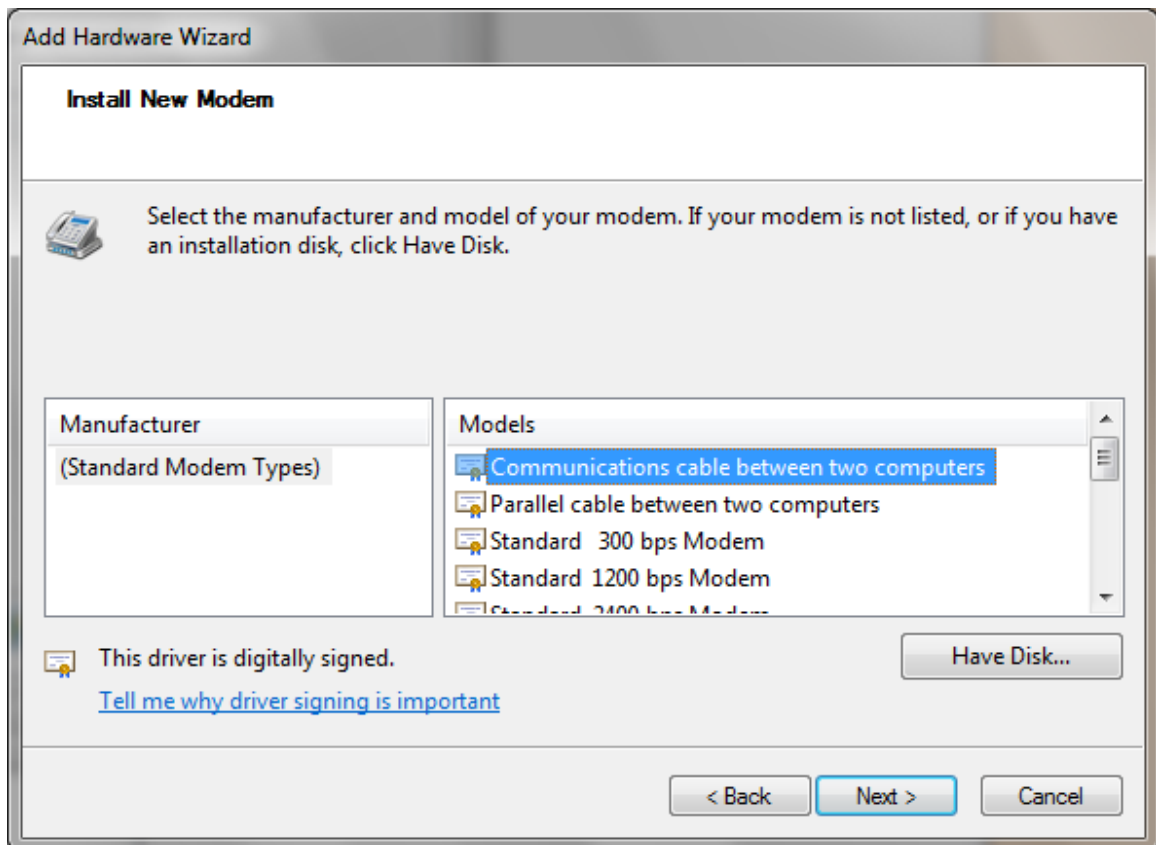


And select **“Add”**.

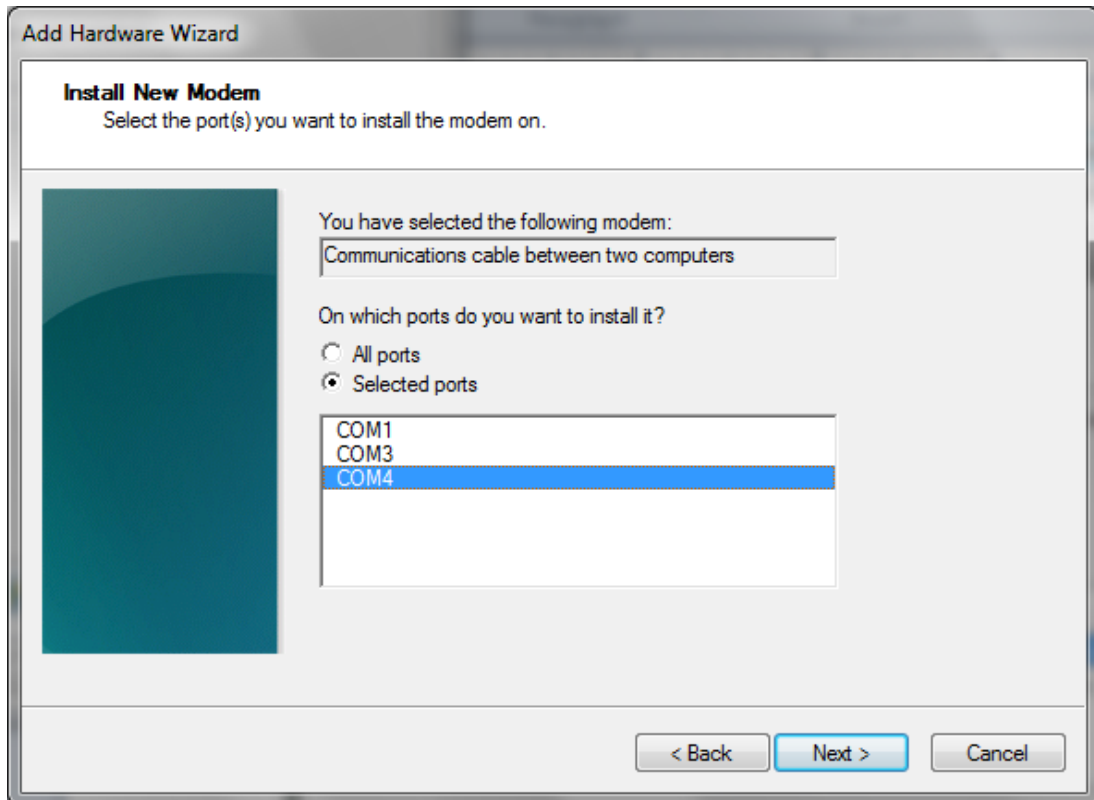
Select “Don’t detect my modem...” and click “Next”.



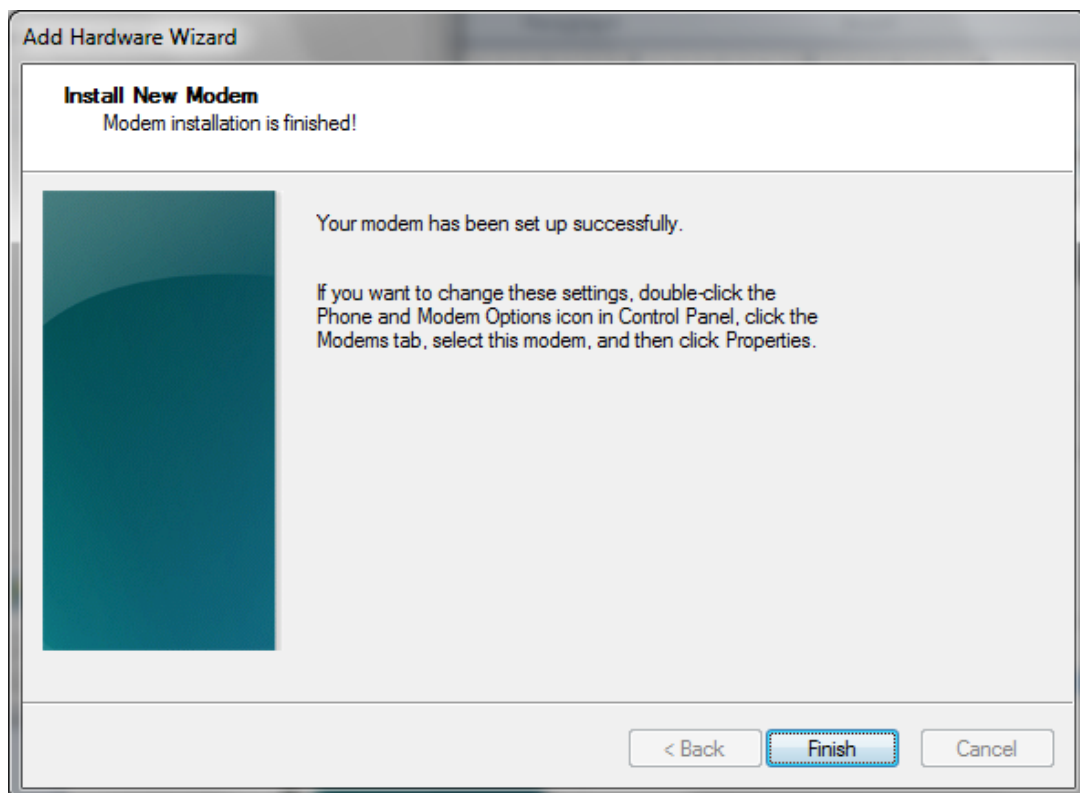
Select “Communication cable between two computers” and click “Next”.



Select the port number and click **“Next”**.



Click **“Finish”**.



Warning: if the following screen is displayed, check **"Public networks"** for this program (LLT) and click **"Allow access"**.



If not, the following windows will be displayed after LLT connection action.

