

User's Guide

Franson GpsGate for Windows

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How to install and uninstall GpsGate.

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Using GpsGate you can connect normal NMEA GPS applications to Garmin USB GPS receivers.

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Using GpsGate you can share one GPS between several computers connected to the same LAN.

[Virtual Null Modem](#) GpsGate can act as a virtual null modem.

Makes it possible to interconnect two applications using serial ports on the same computer.

[TCP/IP to serial proxy](#)

GpsGate can redirect TCP (and UDP) traffic to a virtual or physical serial port.

[GpsGate API](#)

Integrate your GPS application to GpsGate (for developers only).

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Technical support can be found in the user forum. We will constantly monitor and answer questions in the forum. The forum also includes frequently asked question (FAQ).

[FAQ for GpsGate](#)

[Browse the Technical support forum!](#)

[Search the Technical support forum!](#)

Install and uninstall

Install GpsGate for Windows

1. [Download](#) GpsGate.
2. Unzip the downloaded file.

3. Run **Setup.exe** and go through the installation steps.

If you get an error while running the installation program you need to install "Microsoft Windows Installer" first (see below)

Here is more help for trouble shooting GpsGate installation: [FAQ for GpsGate](#)

NOTE! To run the installation program you must have "Microsoft Windows Installer" installed on your computer. This is already installed on Windows XP and Windows ME. But for earlier versions of Windows you need to download and install this update separately.

Windows NT/2K	Download	More info
Windows 9x	Download	More info

Run GpsGate

You can launch GpsGate under "Start->Programs->Franson GpsGate". When GpsGate is running it is displayed as a Tray Icon. By clicking on this icon you can access its functions.



[Click here](#) to see how GpsGate is setup.

Uninstall GpsGate

1. Run Start->Program->Franson GpsGate->Uninstall
2. Go through the steps in the uninstall wizard.

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Settings

GpsGate has three main features:

1. **GPS sharing** - multiple GPS applications can share one GPS on one computer, over a TCP/IP network, over serial ports etc.
2. **NMEA log** - the ability to record and play back log files.
3. **GPS simulator**

The two latter features are great for indoor development and demonstrations.

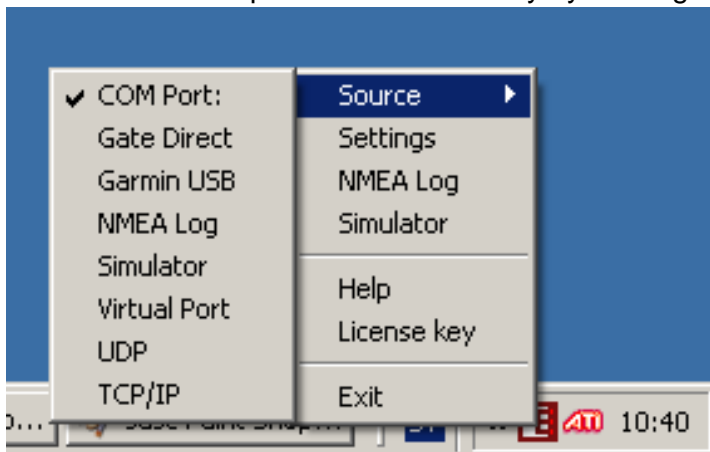
When you start GpsGate it appears as a tray icon:



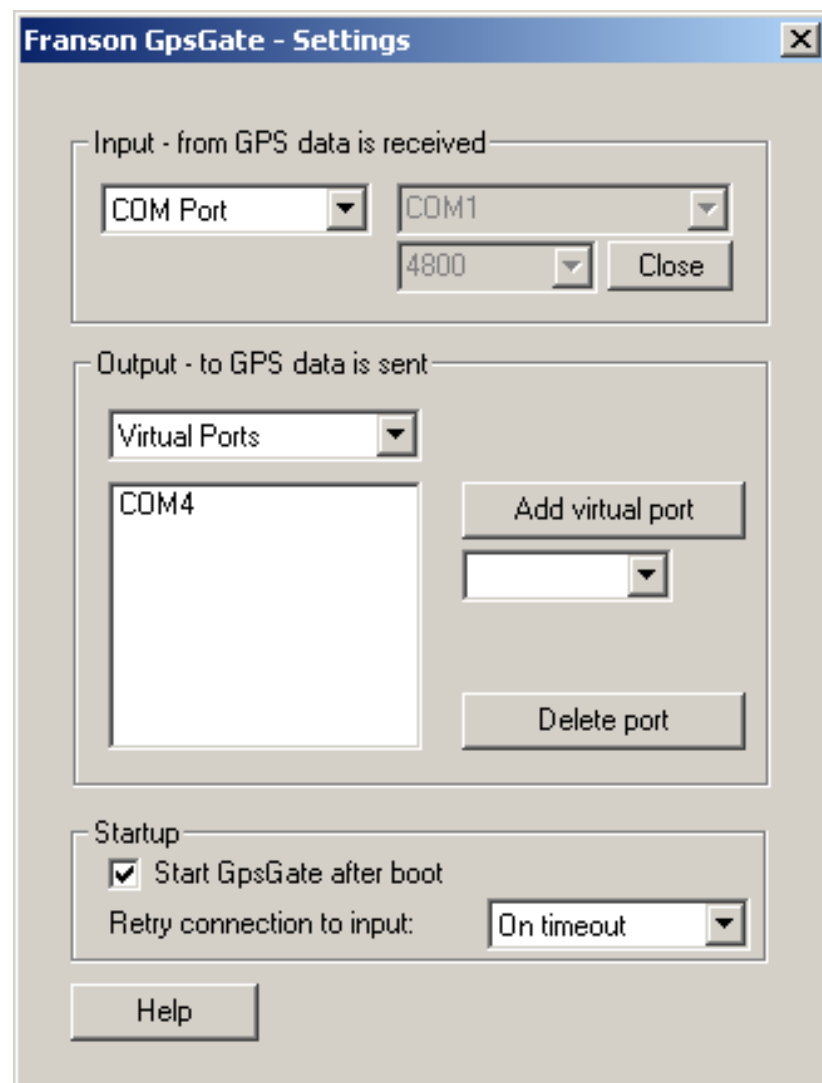
If you move the mouse pointer over the tray icon, you get status information about GpsGate:

NOTE! On Pocket PC you need to go to the Today screen to see the tray icon. You do that by selecting "Start->Today"

You can access GpsGate's functionality by clicking on the tray icon:



Before you do anything else you need to do some basic configuration of GpsGate. Select "Settings" from the menu (this window will also be displayed the first time you start GpsGate).



Under "**Input**" you select from where GpsGate should take its GPS data. To use a physical GPS as input select "COM port" as input and specify the COM port and baudrate your GPS connects at. The baudrate should typically be set to 4800 baud. After that click "Open". The tray icon will indicate by its color the status of the GPS (see below).

NOTE! If the drop down is greyed out - as in the picture above, you will need to click "Close" first before you can select a port.

To use a Garmin USB GPS as input [read more here...](#)

To select a TCP/IP server as input [read more here...](#)

To use a log file or the simulator as GPS input, select "NMEA Log" or "Simulator" instead.

Read more about the Simulator [here...](#)

Read more about the NMEA Logger [here...](#)

Under "**Output**" you create virtual serial ports your GPS applications will connect to. You should create one port for each application, and there is no limit in the number of ports you can create. Select a free COM port under "Add virtual port" and then click the button.

NOTE! Select a port in the drop down under "Add virtual port", then click the button. If you click "Add virtual port" without selecting a port in the drop down first, you will get an error message!

To remove a virtual serial port you select it from the list and click "Delete port".

You can also send GPS data to physical serial ports on your computer. Select "Physical ports" in the dropdown above the list of COM ports. And setup the ports to which you want to send GPS data.

NOTE! On Pocket PC there is often very few available COM ports. On iPaq h2210 for example only COM7: is free. Therefore you should only create **one** virtual port and then connect all applications to the same port. One port virtual port can handle any number of application in the GpsGate Pocket PC version.

After those steps you can start your GPS application and configure it to connect to the virtual serial port you have created for it.

To select TCP/IP as output [read more here...](#)

Under "**Startup**" you can configure GpsGate to automatically start when Windows is started by checking "Start GpsGate after boot."

If you connect GpsGate to Plug'n Play serial ports, like USB adapters or to virtual serial ports that are dynamically created you probably want to use the "**Retry connection to input**" option. Using this option GpsGate will continue trying to connect to the selected serial port until it is available (created or closed by another application using it). This option is turned on by default.

Tray icon colors and shapes

The tray icon always indicates the status of GpsGate. Here is a list of the possible displayed tray icons:



No GPS or NMEA data is detected by GpsGate.



Valid GPS data has been detected at the selected input, but the GPS data has no fix, that is it cannot determine its position (yet).



A valid GPS position (fix) has been detected at the selected input.

If the tray icon is **not** green your GPS application will not display/use a correct position.

Note! The tray icon has changed in GpsGate 1.10!

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License	GpsGate Standard
Version	GpsGate 1.00 (and later)

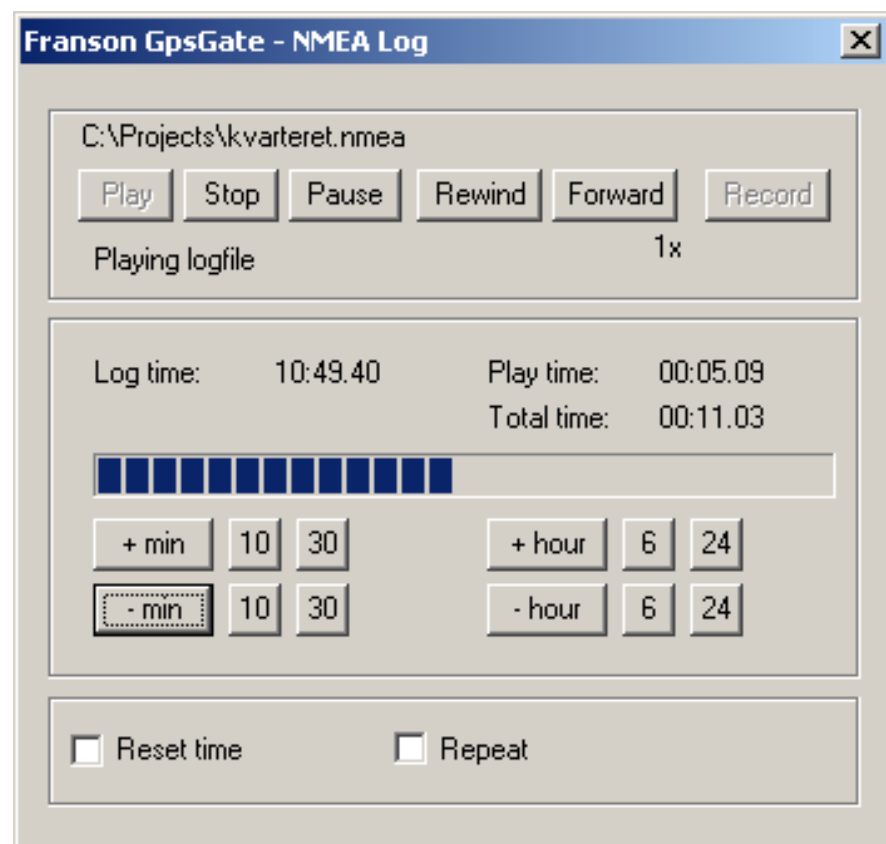
NMEA Logger

The NMEA Logger can be used to record data from a GPS source (selected in the Settings window). And use it for later play back (or other custom use). Standard NMEA sentences are stored in the log file.

Recording

To record a log file select "NMEA Logger" from the tray menu. And click "Record" in the NMEA Logger window. Data will be appended to the selected file. If you restart GpsGate while recording is turned on, recording will be turned on automatically when GpsGate starts again.

To stop the recording click "Stop". The NMEA Logger window do not need to be visible for the log to work.



Playing

To play back a log file. Click "Play" in the NMEA Logger window and select the log file to play back. If you check "Reset time" GpsGate will change the time stamp of the NMEA data to the current (UTC) time. "Repeat" will make GpsGate automatically restart the log file when it has reached its end. Use "Rewind" and "Forward" to change the playback speed. And use "+/- min" and "+/- hour" to browse back and forward in the log file.

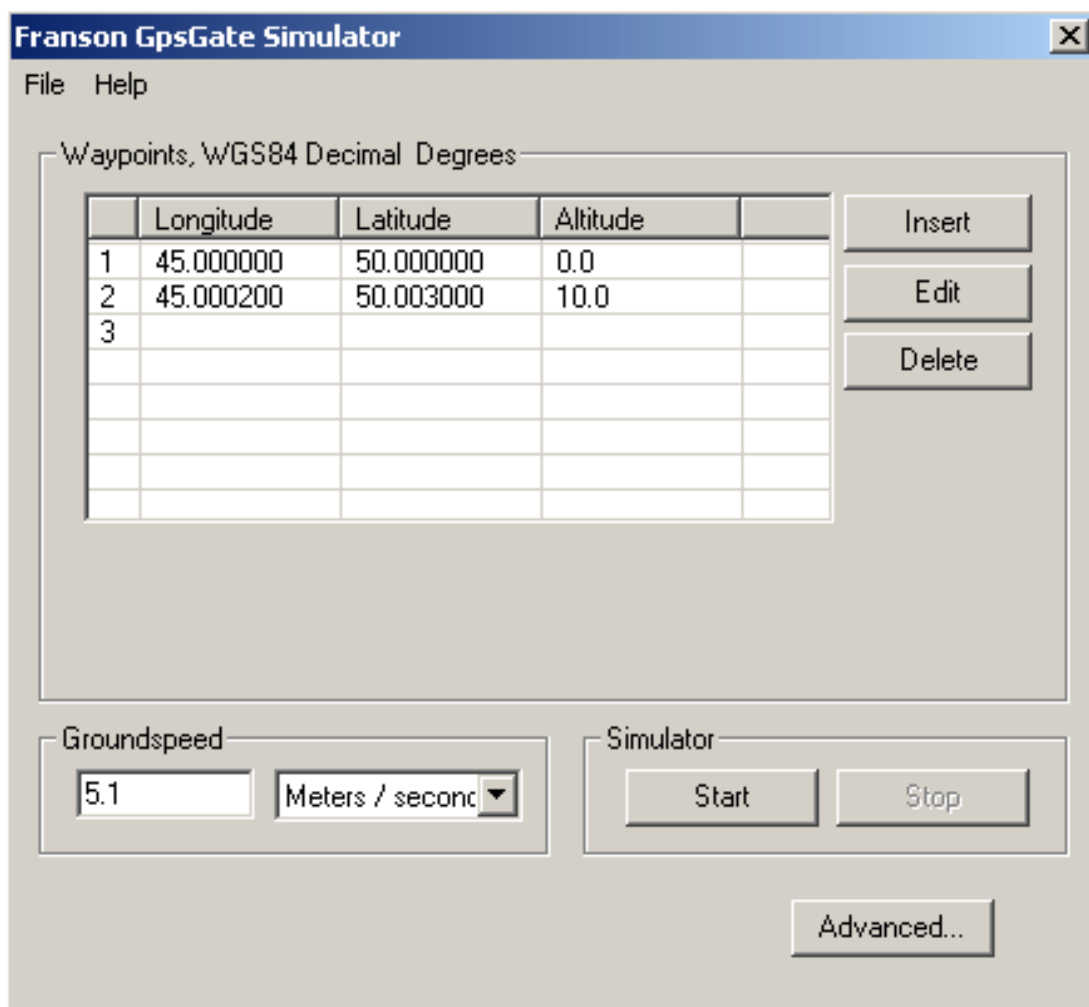
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License	GpsGate Standard
Version	GpsGate 1.00 (and later)

GPS Simulator

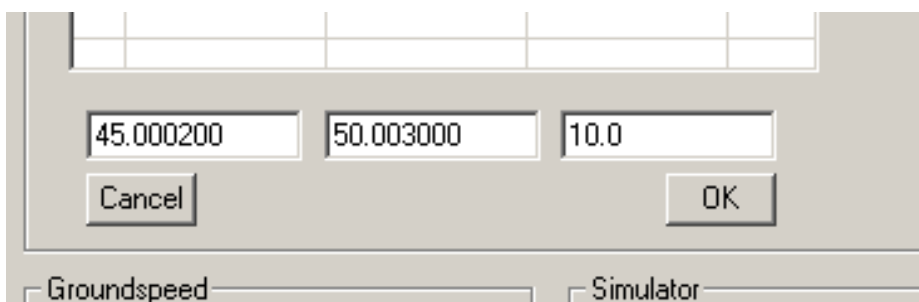
To show the simulator window select "Simulator" from the GpsGate tray menu.

NOTE! On Pocket PC you need to go to the Today screen to see the tray icon. You do that by selecting "Start->Today"

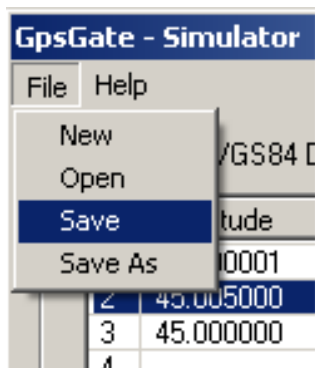


Use the **Insert**, **Edit** and **Delete** buttons to edit the list of waypoints. The simulator will act as a GPS traveling between the waypoints in the selected speed.

NOTE! The waypoints should be entered in decimal degrees. You can use [CoordTrans](#) to convert coordinates from other coordinate systems.



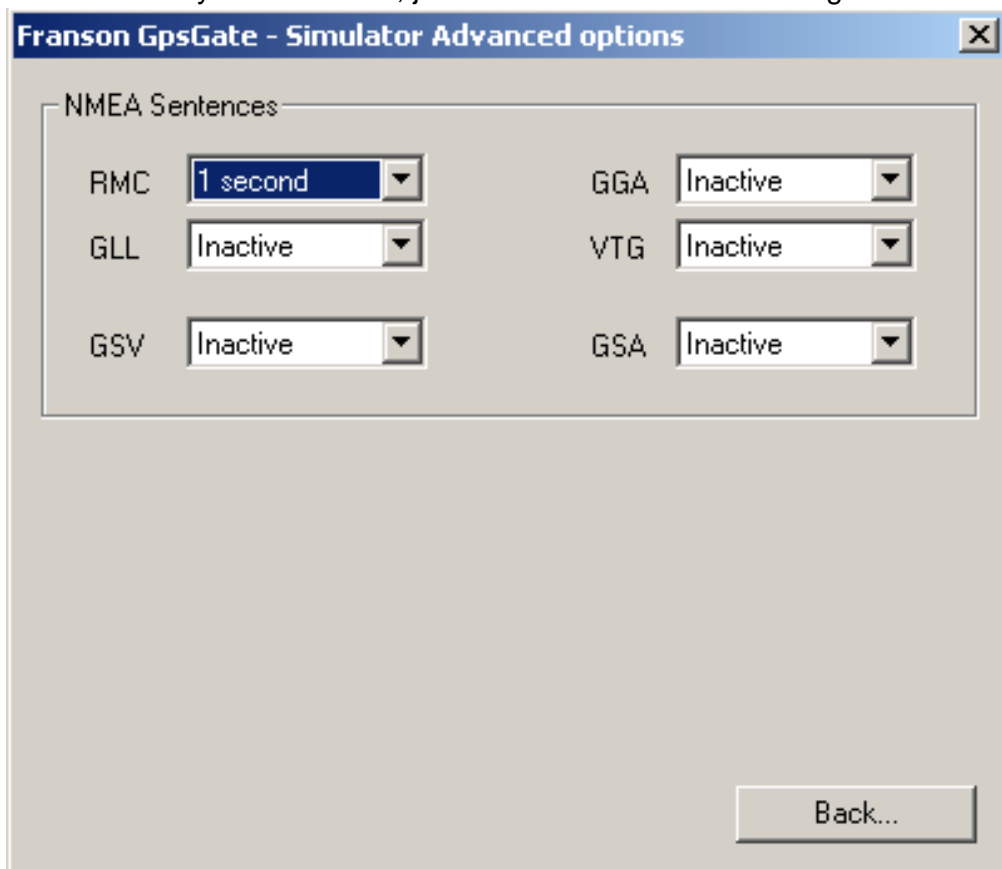
Use the File menu to save the waypoints to a file. The file can later be reloaded using "Open"



To start the simulator click **Start**. NMEA data will now be sent out the virtual serial ports you defined under [Settings](#).

To stop the simulator click **Stop**

Use the settings under "Advanced..." to control exactly which NMEA sentences will be used and in what paste they will be sent. If you don't know, just leave it at the default settings.



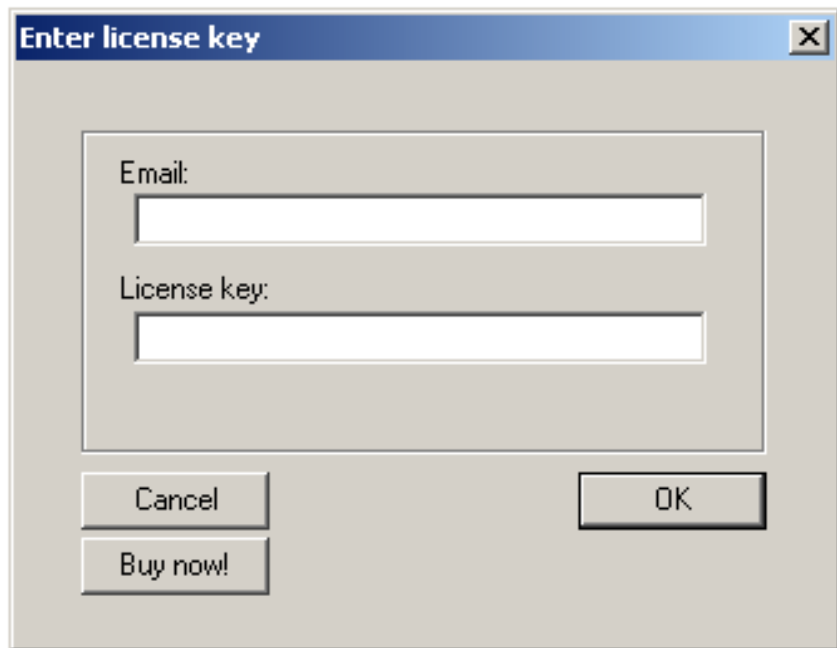
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Install license key

If you after 14 days trial want to continue using GpsGate you need to buy a license.

If you have purchased a GpsGate Express license, please make sure you have GpsGate 1.10 (or later) installed.

1. First you need to **purchase a license key**. You will have the key delivered to you by email directly after the purchase. You can make the purchase [here](#).
2. Start GpsGate. If your trial period has expired you will have the dialog below displayed to you. If your trial period has not expired, select **License Key** from the GpsGate tray menu.



3. Cut and paste your **email address (Windows only)** and the **license key** you received by email after your purchase. Then press OK.
4. The license key is now installed!

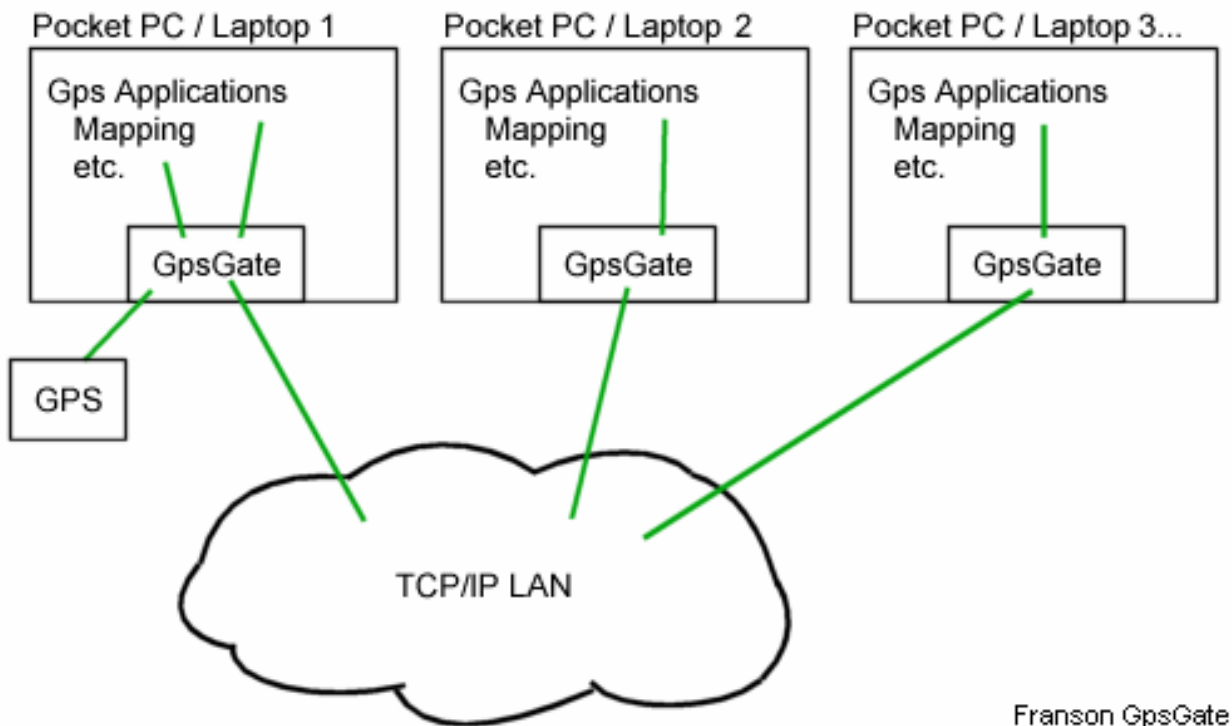
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License	GpsGate Standard
Version	GpsGate 1.10 (and later)

Share GPS over local network

Franson GpsGate can be used to share one GPS connected to a Pocket PC or laptop to other computers connected to the same LAN. This can be useful if you have several computers in the same vehicle.

On each computer running GpsGate you can in turn connect any number of GPS applications to GpsGate, everything running at the same time.



Franson GpsGate

Step by step instructions to set up GpsGate in a network configuration:

On the computer to which the GPS is connected (server):

1. Select the GPS as input. [More info here](#)
2. Open the settings dialog.
3. Select "TCP/IP" in the Output dropdown.
4. Select port "20175" under the button "Add TCP port".
5. Click "Add TCP port".
6. Close settings dialog. Finished!

On each other computer accessing the GPS over the network (client):

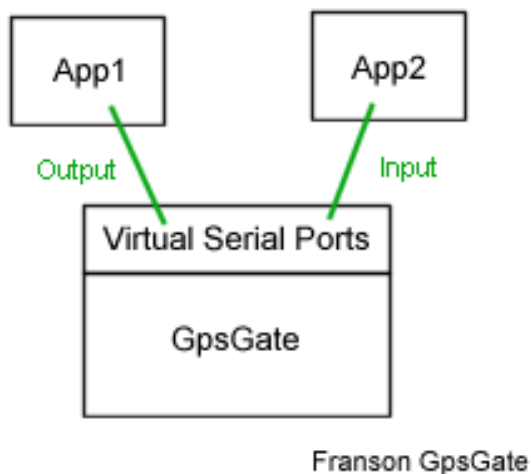
1. Open the settings menu. [More info here](#)
2. Select "TCP/IP" as Input.
3. Write the name or IP address of the server to which the GPS is connected.
4. Select port "20175".
5. Click "Open".
6. Create virtual ports to connect your GPS applications to. [More info here](#)
7. Close settings dialog. Finished!

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License	GpsGate Standard
Version	GpsGate 1.10 (and later)

Use GpsGate as a virtual null modem

GpsGate can be used as a virtual null modem. If you have two applications you want to connect to each other using serial ports you need a null modem. A null modem is basically a cable to connect two serial ports to each other. Normally you need two computers or two physical ports on one computer to achieve this. Using GpsGate you can emulate the null modem and run the two applications on the same computer without any additional hardware.



Steps to set up GpsGate as a null modem:

1. Open the settings menu.
2. Select "Virtual port" as Input.
3. Select a port and click "Open" (e.g. COM4).
4. In the Output dropdown, select "Virtual ports".
5. Select a port and click "Add virtual port" (e.g. COM7)
6. Close the settings menu and you are finished!

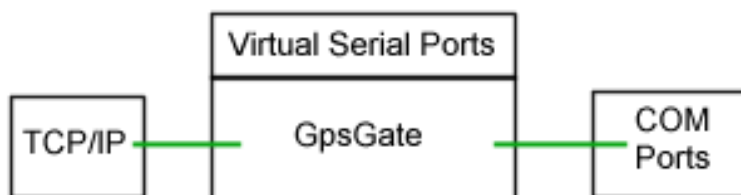
COM4 and COM7 (or whatever ports you selected) are now connected to each other as a null modem.

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License	GpsGate Standard
Version	GpsGate 1.10 (and later)

Use GpsGate as TCP to serial port proxy.

GpsGate can be used to redirect data from a TCP/IP port to a physical or virtual serial port. GpsGate can act both as a TCP/IP server and a client.



Steps to set up GpsGate as TCP/IP client:

1. Open the settings menu.
2. Select TCP/IP as input.
3. Enter the name of the server and its port number.
4. Create ports to connect your GPS applications to. [More info here](#)
5. Close settings dialog. Finished!

The serial port and your TCP/IP server is now interconnected.

Steps to set up GpsGate as TCP/IP server:

1. Open the settings menu. [More info here](#)
2. Select serial port as input.
3. Select "TCP/IP" in the Output dropdown.
4. Select a port number under the button "Add TCP port".
5. Click "Add TCP port".
6. Close settings dialog. Finished!

You TCP/IP client can now connect the the TCP/IP server created by GpsGate. All traffic is redirected to the serial port selected as input.

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License	GpsGate Standard and Express
Version	GpsGate 1.10 (and later)

Use GpsGate with Garmin GPS 18 (USB)

The **USB** version of **Garmin GPS 18** does not support **NMEA**, it only support Garmin's own protocol. Therefore very few GPS applications can use Garmin GPS 18. **GpsGate solves this problem!** You can connect GpsGate to Garmin GPS 18, and most other Garmin USB GPS receivers as well. GpsGate will make the Garmin GPS appear as a normal NMEA GPS connected to a serial port. And! You can connect any number of GPS applications to the GPS at the same time!

Steps connect to a Garmin GPS 18:

1. Open the settings menu.
2. Select "Garmin USB" as Input.
3. In the Output dropdown, select "Virtual ports".
4. Select a port and click "Add virtual port" (e.g. COM4)
5. Repeat setp 4. to create as many virtual ports as you need (one per application using the GPS at the same time).
6. Close the settings menu and you are finished!

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