

# Leica GPS1200 PC Simulator

## Getting Started

Version 1.0  
English

- when it has to be **right**

**Leica**  
Geosystems

# Introduction

## Purchase

Congratulations on the purchase of a GPS1200 PC Simulator with SmartAntenna (ATX1230/ATX1230 GG) option.



To use the product in a permitted manner, please read carefully throughout this manual before using the GPS1200 PC Simulator with SmartAntenna option.

## Product identification


The type and the serial number of your product are indicated on the type plate. Enter the type and serial number in your manual and always refer to this information when you need to contact your agency or Leica Geosystems authorized service workshop.

Type: \_\_\_\_\_

Serial No.: \_\_\_\_\_

## Symbols

The symbols used in this manual have the following meanings:

| Type  | Description  |
|---|--|
|  | Important paragraphs which must be adhered to in practice as they enable the product to be used in a technically correct and efficient manner. |

## Trademarks

- Windows and Windows CE are a registered trademark of Microsoft Corporation
  - Bluetooth is a registered trademark of Bluetooth SIG, Inc
- All other trademarks are the property of their respective owners.



## Validity of this manual



- This manual applies to the GPS1200 PC Simulator with SmartAntenna option. The steering of the SmartAntenna via GPS1200 PC Simulator is limited to the GX1230 and GX1230 GG sensor type.



- This manual covers instructions for setting up the GPS1200 PC Simulator with SmartAntenna option and operating it. Refer to GPS1200 Technical Reference Manual for information about GPS1200 general and applications functionality.

**Available documentation**

The following documentation for GPS1200 is available:

| Name        | Description  | Format  |   |
|-------------|--|---|---|
|             |  |  |  |
| User Manual | All instructions required in order to operate the product to a basic level are contained in the User Manual. Provides an overview of the product together with technical data and safety directions. | X   | X   |

| Name                | Description  | Format  |   |
|---------------------|--|---|---|
|                     |  |  |  |
| System Field Manual | Describes the general working of the product in standard use. Intended as a quick reference field guide. |   | X   |

| Name                              | Description  | Format  |   |
|-----------------------------------|--|---|---|
|                                   |  |  |  |
| Application Programs Field Manual | Describes specific onboard application programs in standard use. Intended as a quick reference field guide. The RoadRunner application program is described in a separate manual.                              | X   | X   |
| Technical Reference Manual        | Overall comprehensive guide to the product and program functions. Included are detailed descriptions of special software/hardware settings and software/hardware functions intended for technical specialists. |   | X   |

**Refer to the following resources for all GPS1200 documentation and software:**

- the SmartWorx DVD
- <http://www.leica-geosystems.com/downloads>

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# 1

## 1.1

# Concept

## Introduction

### Description

---

The combination of the Leica GPS1200 PC Simulator and the SmartAntenna (ATX1230/ATX1230 GG) is a lightweight, innovative GNSS rover with RTK capability and the precision of Leica's high end GPS1200. Different RTK data formats are supported and the connection can be done as dial-in or via Internet (NTRIP). It is a cable free solution that allows the user to collect data directly in the field using the power of the Leica GPS1200 PC Simulator.

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### Function

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The Leica GPS1200 PC Simulator with SmartAntenna option allows the steering of the SmartAntenna with a PC via COM port and Bluetooth.

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## 1.2

## Hardware and software requirements

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### Required hardware

The following hardware is required for steering the SmartAntenna with a PC:

- SmartAntenna (ATX1230/ATX1230 GG)
  - Battery GEB211
  - Pole
  - Dongle
  - PC (recommendation: Pentium 1GHz processor or higher / 512 MB RAM or more / Microsoft® Windows™ 2000 or XP / Microsoft® Internet Explorer 5.5 or higher)
  - Integrated (or external) Bluetooth device to connect the SmartAntenna and the PC
  - RTK device with Bluetooth (e.g. mobile phone)
  - PC requires a Bluetooth module that supports at least two devices in parallel.
- 

### Required software

The following software tools are required for steering the SmartAntenna with a PC:

- Leica GPS1200 PC Simulator with SmartAntenna option
  - Bluetooth software (e.g. Microsoft)
-


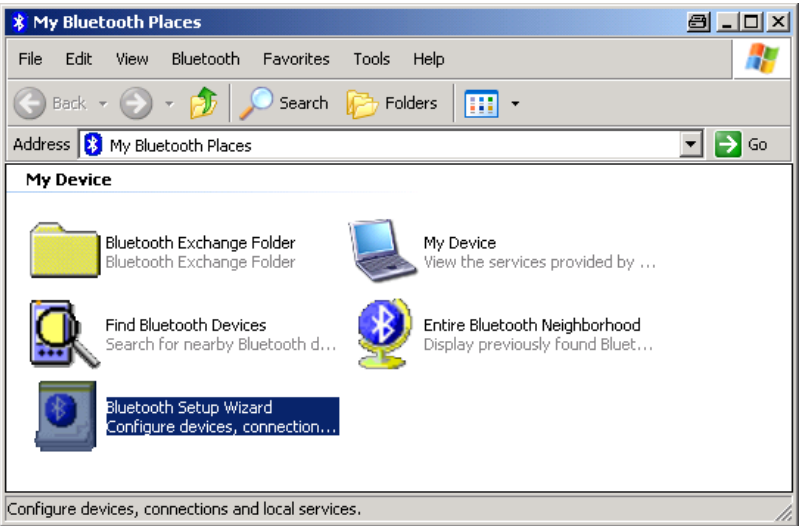
## 2

### 2.1

#### Connecting SmartAntenna step-by-step

## Bluetooth Connections

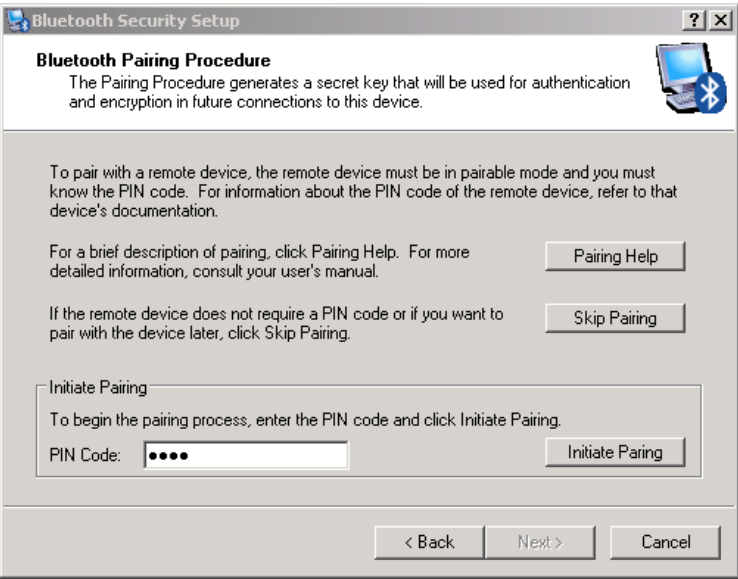
### Connecting SmartAntenna to PC

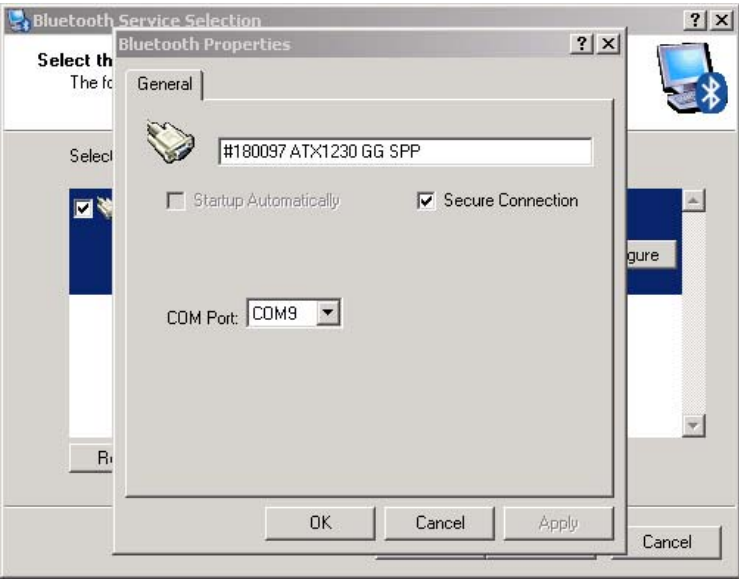
| Step  | Description   |
|---|---|
| 1.  | Insert the battery (GEB211) into SmartAntenna and switch it on.   |
|  | The following steps can differ from PC to PC.   |
| 2.  | Activate Bluetooth on the PC.   |
| 3.  | Open the Bluetooth software and start <b>Bluetooth Setup Wizard</b> .<br> |

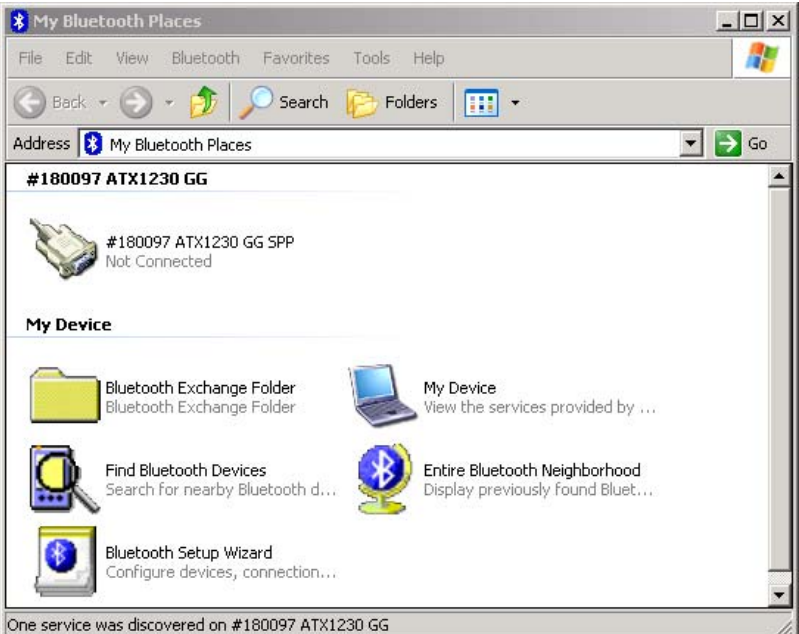


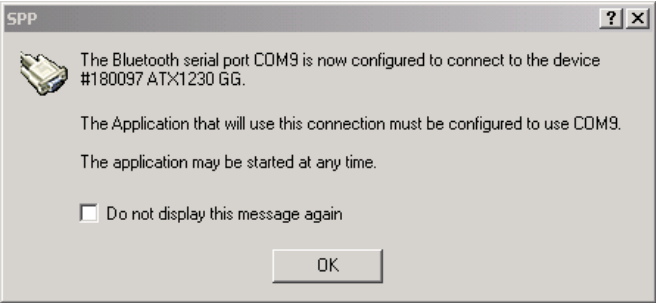
| Step | Description  |
|------|--|
| 4.   | <p>Select specific Bluetooth device to be configured and click <b>Next</b>.</p>  |

| Step | Description   |
|------|---|
| 5.   | <p>The <b>Bluetooth device selection</b> will be started and an automatic search will be done.</p>  |

| Step | Description  |
|------|--|
| 6.   | <p>Select the shown ATX1230 GG and click <b>Next</b>. The pairing procedure is started.</p>  |
| 7.   | Type in <b>0000</b> and click <b>Initiate Paring</b> .   |

| Step | Description   |
|------|---|
| 8.   | <p>Enable <b>SPP</b> and click <b>OK</b>.</p>  <p>The screenshot shows the 'Bluetooth Properties' dialog box with the 'General' tab selected. The device name is '#180097 ATX1230 GG SPP'. The 'Startup Automatically' checkbox is unchecked, and the 'Secure Connection' checkbox is checked. The COM Port is set to 'COM9'. The dialog has OK, Cancel, and Apply buttons.</p> |
| 9.   | Click <b>Finish</b> .   |


| Step | Description  |
|------|--|
| 10.  | <p>A shortcut of the service will be added to <b>My Bluetooth Places</b> on your PC.</p>  <p>The screenshot shows a window titled "My Bluetooth Places" with a menu bar (File, Edit, View, Bluetooth, Favorites, Tools, Help) and a toolbar with navigation buttons (Back, Forward, Home, Search, Folders) and a "Go" button. The address bar shows "My Bluetooth Places". The main content area is titled "#180097 ATX1230 GG" and displays a device icon with the text "#180097 ATX1230 GG SPP Not Connected". Below this is a section titled "My Device" containing several shortcuts: "Bluetooth Exchange Folder", "Find Bluetooth Devices", "Bluetooth Setup Wizard", "My Device", "Entire Bluetooth Neighborhood", and "Entire Bluetooth Neighborhood". A status bar at the bottom indicates "One service was discovered on #180097 ATX1230 GG".</p> |

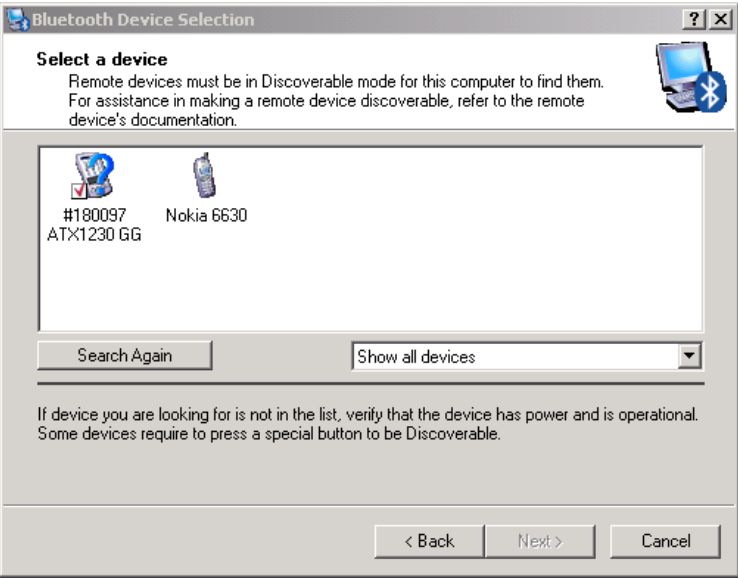
| Step | Description   |
|------|---|
| 11.  | <p>Right-mouse click on the ATX1230 GG and <b>Connect</b> the antenna.</p>  |
| 12.  | The SmartAntenna is now connected via serial COM9 port.   |

## 2.2

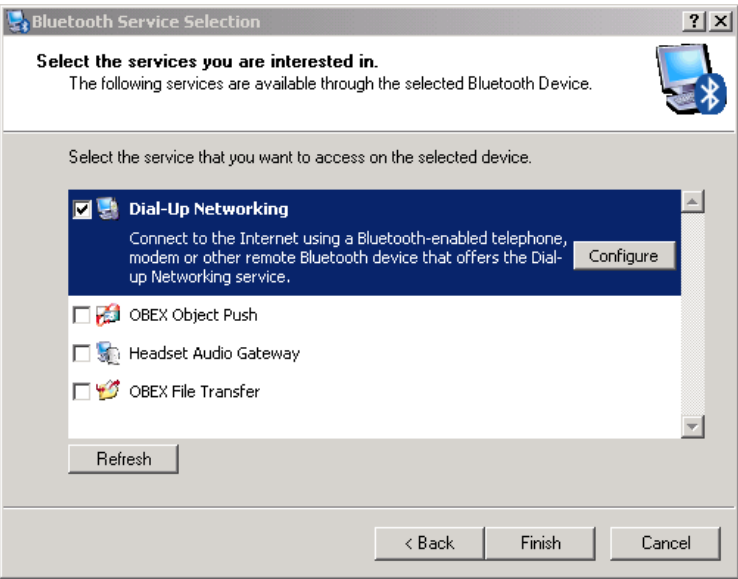
### Connecting mobile phone step-by-step

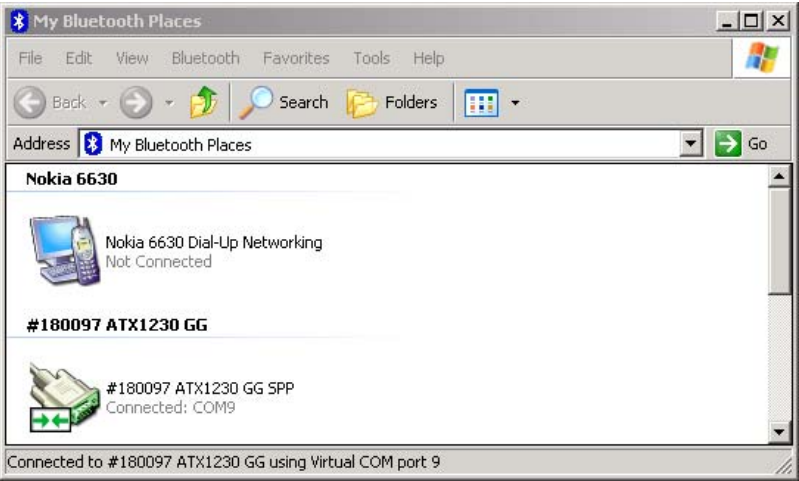
## Connecting mobile phone to PC

| Step  | Description  |
|---|--|
|  | The necessary steps for connecting a mobile phone to a PC can slightly differ depending on the model. The following steps are related to a Nokia 6630. |
| 1.  | Switch the mobile phone on. Activate Bluetooth and make it visible.  |
| 2.  | Start the Bluetooth software on your PC and start <b>Bluetooth Setup Wizard</b> . Refer to "2.1 Connecting SmartAntenna to PC".                        |
| 3.  | Choose specific Bluetooth device to be configured and click <b>Next</b> . Refer to "2.1 Connecting SmartAntenna to PC".                                |

| Step | Description   |
|------|---|
| 4.   | <p>The <b>Bluetooth device selection</b> will be started and an automatic search will be done.</p>  |
| 5.   | <p>Select the Nokia 6630 and click <b>Next</b>. The pairing procedure is started. Refer to "2.1 Connecting SmartAntenna to PC".</p>   |



| Step | Description  |
|------|--|
| 6.   | Type in <b>0000</b> and click <b>Initiate Pairing</b> . Type in <b>0000</b> on your Nokia 6630 and press <b>OK</b> . The Bluetooth service selection appears on your PC. |
|      |    |

| Step | Description   |
|------|---|
| 7.   | <p>Enable <b>Dial-Up Networking</b>, click <b>Finish</b> and a shortcut for the selected service will be added to <b>My Bluetooth Places</b> on your PC.</p>  |
| 8.   | <p>Right-mouse click on the Nokia 6630. Under <b>Properties</b> - &gt; <b>Configure</b> you will find the configured COM port to be used for the connection to the PC.</p>  |

## 3

### 3.1


## Operating the Simulator

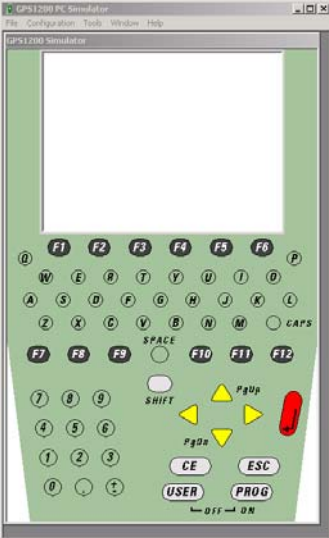
### Configuring the GPS1200 PC Simulator

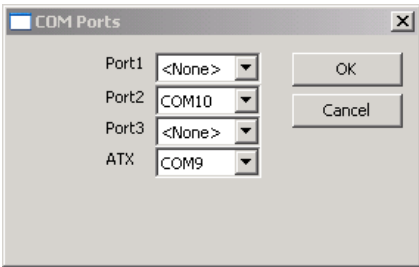
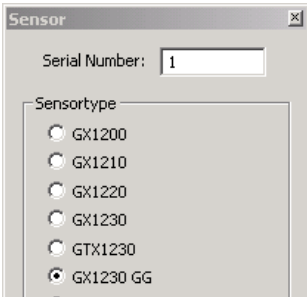
#### Description

This chapter explains the starting of the GPS1200 PC Simulator in general, the configuration of the sensor type and the COM ports in detail.

#### Configuring the GPS1200 PC Simulator

| Step  | Description  |
|---|--|
|  | Before you can start the GPS1200 PC Simulator you have to install the software onto your PC. Go to the related folder on the SmartWorx DVD and run the installation. |

| Step | Description   |
|------|---|
| 1.   | <p>Start the GPS1200 PC Simulator software.</p>  |
| 2.   | Click <b>Configuration</b> - > <b>COM Ports....</b>   |

| Step | Description   |
|------|---|
| 3.   | <p>Select the configured COM port of the Nokia 6630 (COM10) for <b>Port2</b> and the configured COM port of the SmartAntenna (COM9) for <b>ATX</b> and click <b>OK</b>.</p>  |
| 4.   | Click <b>Configuration - &gt; Sensor....</b>  |
| 5.   | <p>Select <b>GX1230 GG</b> or <b>GX1230</b> and click <b>OK</b>.</p>   |
| 6.   | Switch the sensor on by clicking the <b>PROG</b> key on the GPS1200 PC Simulator.   |

| Step | Description   |
|------|---|
|      | <p>18:10<br/>GPS1200</p> <p>Main Menu</p> <p>1 Survey    2 Programs...    3 Manage...</p> <p>4 Convert...    5 Config...    6 Tools...</p> <p>CONT                a ↑</p> |

## 3.2

## Configuring RTK connection

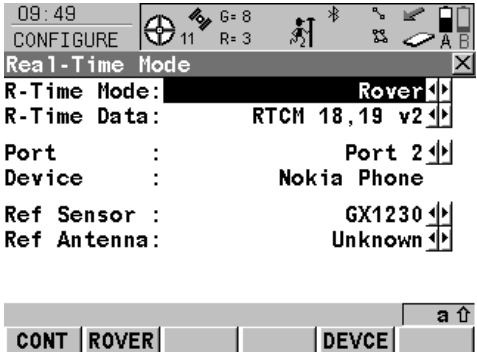
### Overview

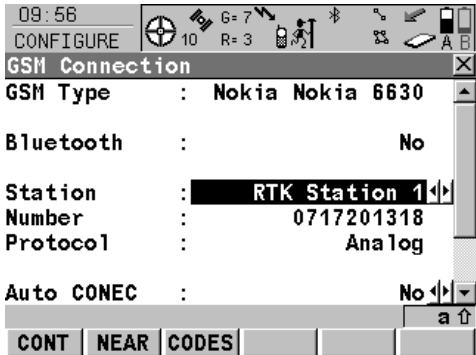


### Configuring RTK settings

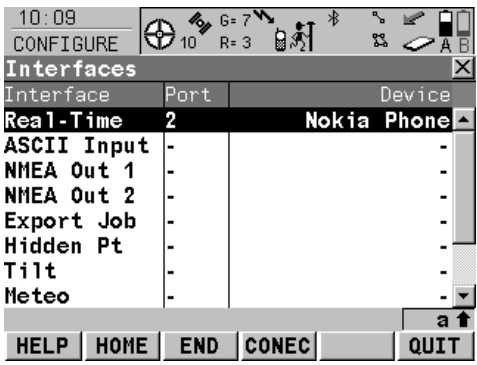
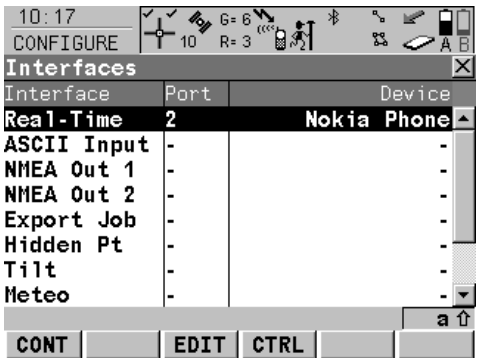
This chapter explains the settings you have to configure to receive RTK data using a GSM.

Refer to GPS1200 Technical Reference Manual for detailed information about configuration of a Rover Real-Time interface using a digital cellular phone.

| Step | Description   |
|------|---|
| 1.   | Switch the sensor on. Refer to "3.1 Configuring the GPS1200 PC Simulator".  |
| 2.   | Enter <b>CONFIGURE Real-Time Mode</b> .<br> |

| Step | Description  |
|------|--|
| 3.   | <p>Make the following settings:</p> <ul style="list-style-type: none"> <li>• <b>R-Time Mode: Rover</b></li> <li>• <b>R-Time Data: RTCM 18,19 v2</b></li> <li>• <b>Port: Port 2</b> (port has to be the same as configured in "3.1 Configuring the GPS1200 PC Simulator")</li> <li>• <b>Device: Nokia Phone</b></li> </ul> <p>Settings for Ref Sensor and Ref Antenna depend on your situation.</p> |
| 4.   | <p>Enter <b>GSM Connection</b>.</p>    |



| Step | Description  |
|------|--|
| 5.   | <p>Configure a station to dial and click <b>CONT (F1)</b>.</p>         |
| 6.   | <p>Click <b>SHIFT CONEC (F4)</b> to establish the RTK connection.</p>  |

| Step | Description  |
|------|--|
| 7.   | The connection will be established and the GPS1200 PC Simulator starts receiving RTK data. |

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## 3.3



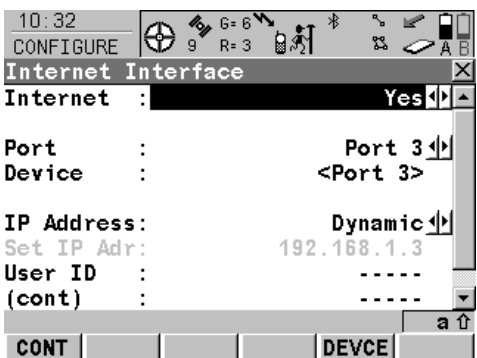

## Configuring an Internet connection

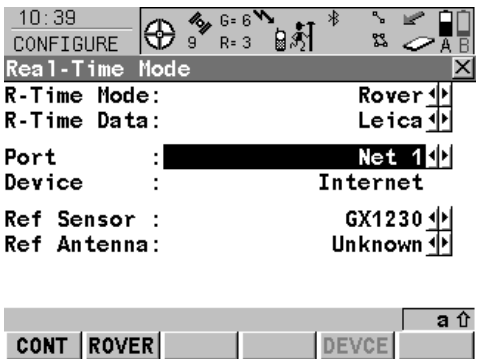
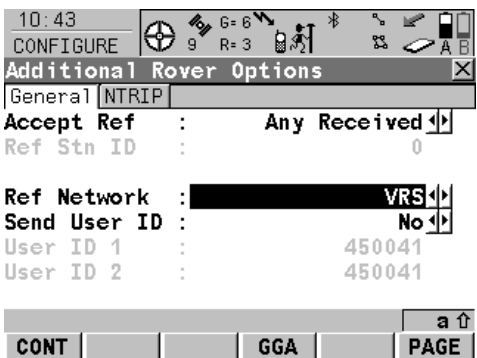
Refer to GPS1200 Technical Reference Manual for detailed information about configuration of a Rover Real-Time interface using an Internet connection.


### 3.3.1

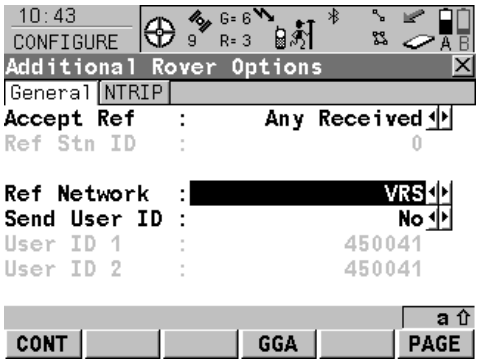

### Configuring Internet interface

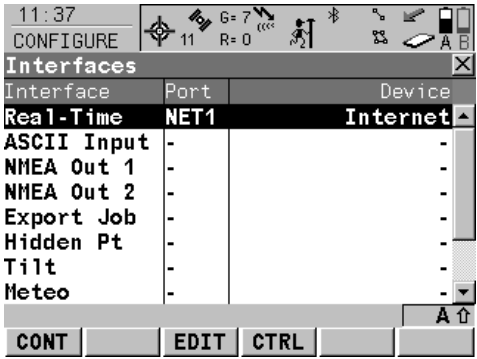
#### Configuring Internet Interface settings

| Step | Description  |
|------|--|
| 1.   | Switch the sensor on. Refer to "3.1 Configuring the GPS1200 PC Simulator".   |
| 2.   | Enter <b>CONFIGURE Internet Interface</b> .<br>  |
| 3.   | Enable Internet ( <b>Internet: Yes</b> ) and click <b>CONT (F1)</b> .<br> There is no need to configure other settings on this page than the <b>Internet</b> field. |

| Step | Description   |
|------|---|
| 4.   | <p>Enter <b>CONFIGURE Real-Time Mode</b>.</p>   |
| 5.   | <p>Select <b>Port: Net 1</b> and click <b>ROVER (F2)</b> to enter <b>CONFIGURE Additional Rover Options</b>.</p>  |

| Step | Description  |
|------|--|
| 6.   | <p>Select <b>Ref Network: VRS</b> and click <b>GGA (F4)</b> to enter <b>CONFIGURE Send GGA NMEA</b>.</p>  <p>The screenshot shows a software interface for configuring NMEA output. The title bar includes a clock showing 10:45, the word 'CONFIGURE', and several status icons. The main content area displays 'Send GGA NMEA' and 'GGA Position : Automatic'. A 'CONT' button is visible at the bottom left, and a 'a ↑' button is at the bottom right.</p> |

| Step | Description  |
|------|--|
| 7.   | <p>Select <b>GGA Position: Automatic</b> and click <b>CONT (F1)</b> to return to <b>CONFIGURE Additional Rover Options</b>.</p>  |
| 8.   | <p>Click <b>PAGE (F4)</b> to change to <b>NTRIP</b> page.</p>    |

| Step | Description  |
|------|--|
| 9.   | Enable NTRIP ( <b>Use NTRIP: YES</b> ) and set up <b>User ID</b> , <b>Password</b> and <b>Mountpnt</b> of the server you want to connect for receiving RTK data. |
| 10.  | Click <b>CONT (F1)</b> twice to return to <b>CONFIGURE Interfaces</b> .  |
| 11.  | Click <b>SHIFT (F4)</b> to connect to the server.  |
|      |    |
| 12.  | The connection will be established and the GPS1200 PC Simulator starts receiving RTK data.   |

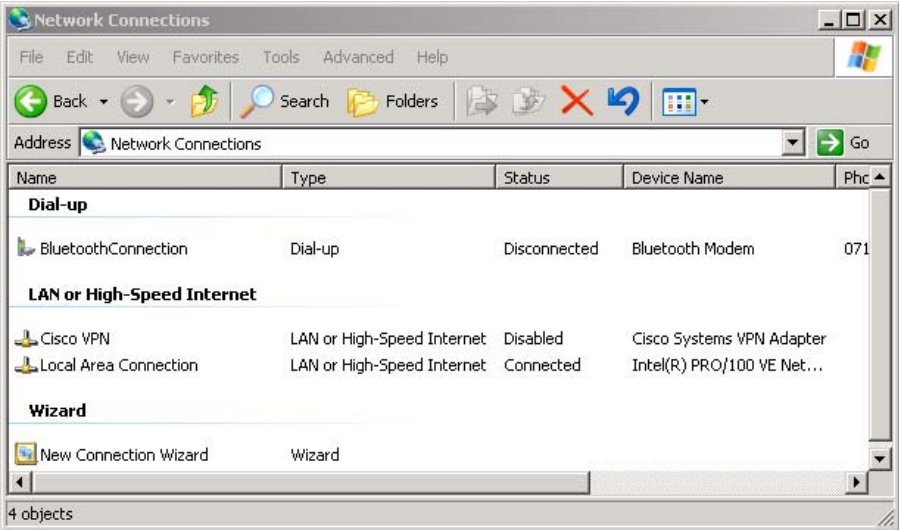
### 3.3.2



#### Configuring Dial-up Connection step-by-step

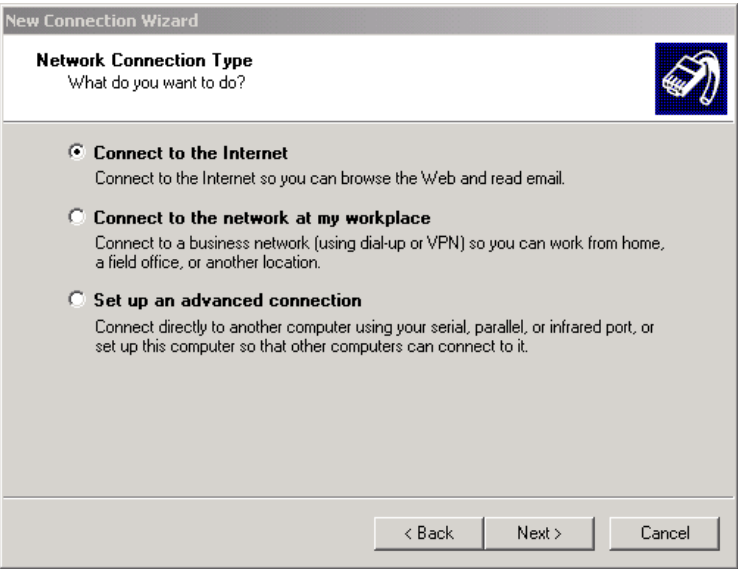
### Configuring a dial-up connection

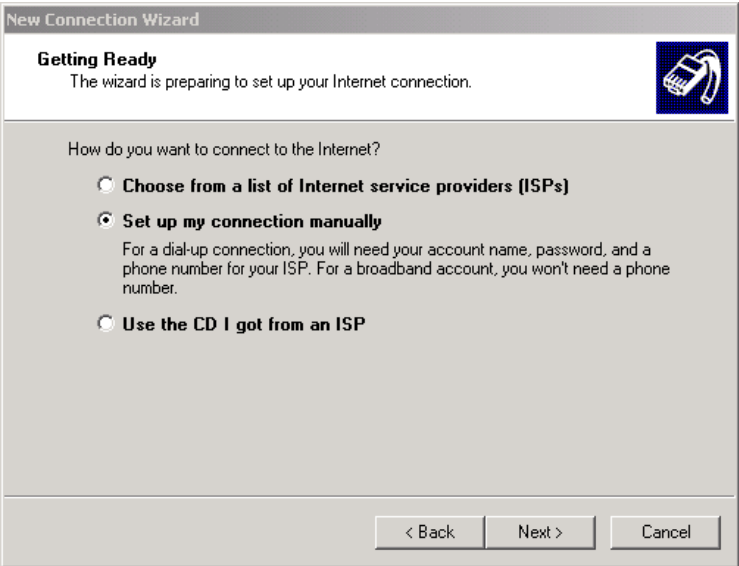
Refer to "3.3.1 Configuring Internet interface" for information about the Internet interface configuration settings of the GPS1200 PC Simulator.

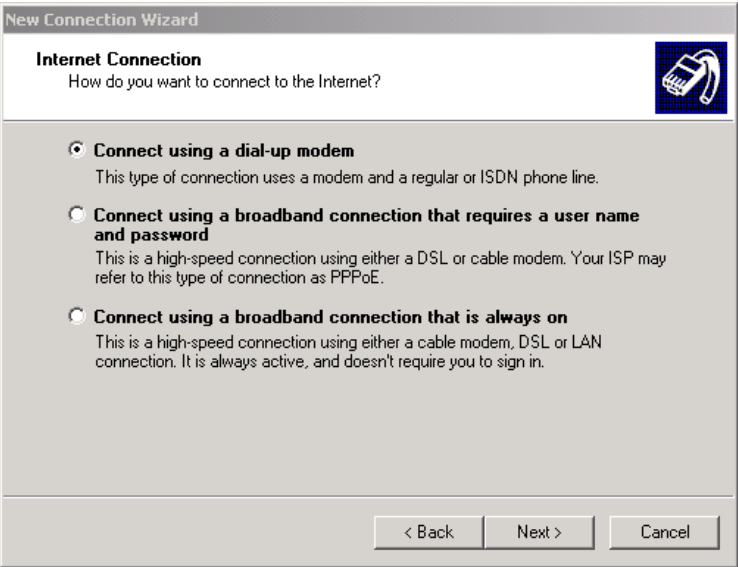
| Step | Description  |
|------|--|
| 1.   | <p>Open Windows <b>Network Connections</b>.</p>  |

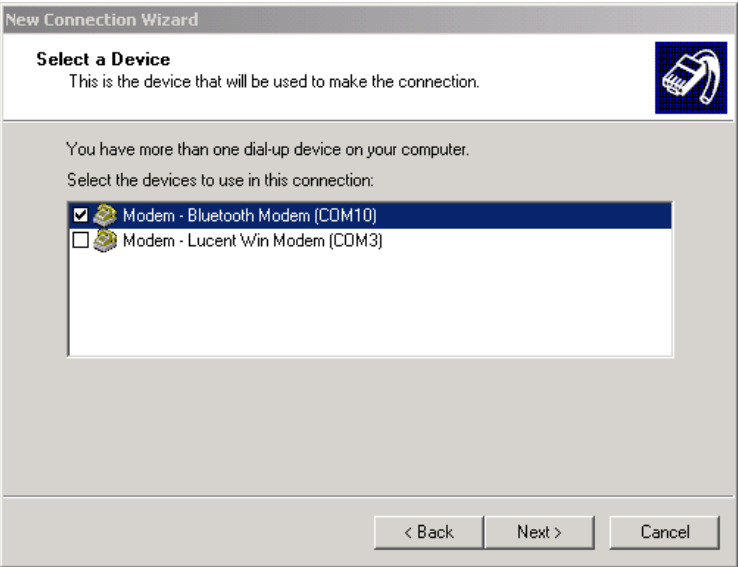


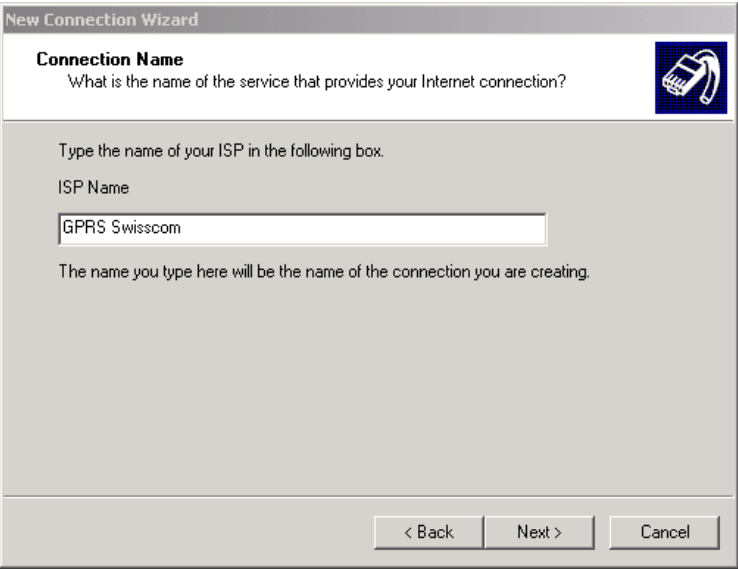
| Step | Description  |
|------|--|
| 2.   | <p>Start <b>New Connection Wizard</b> to create a new connection.</p>  |

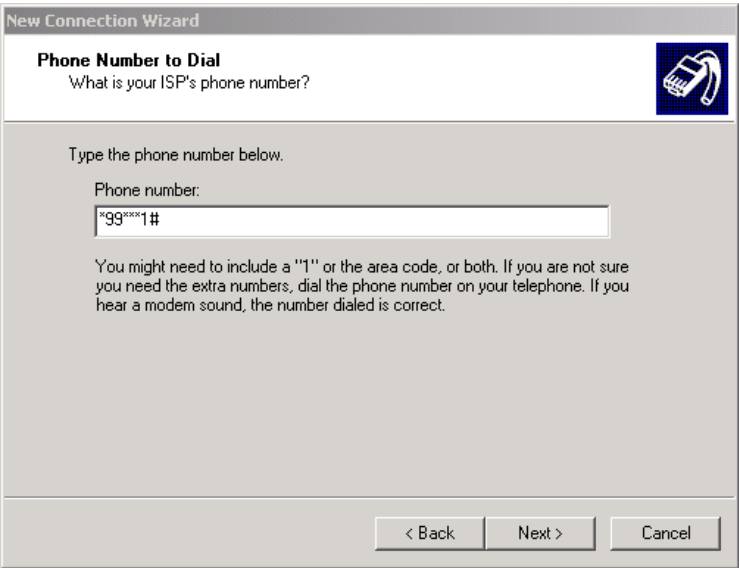
| Step | Description  |
|------|--|
| 3.   | <p data-bbox="539 127 810 154">Click <b>Next</b> to continue.</p> <div data-bbox="539 172 1281 741">  <p data-bbox="544 183 738 199"><b>New Connection Wizard</b></p> <p data-bbox="572 221 793 237"><b>Network Connection Type</b></p> <p data-bbox="606 244 785 259">What do you want to do?</p> <ul style="list-style-type: none"> <li data-bbox="606 314 1209 359"> <input checked="" type="radio"/> <b>Connect to the Internet</b><br/>           Connect to the Internet so you can browse the Web and read email.         </li> <li data-bbox="606 381 1209 442"> <input type="radio"/> <b>Connect to the network at my workplace</b><br/>           Connect to a business network (using dial-up or VPN) so you can work from home, a field office, or another location.         </li> <li data-bbox="606 464 1209 525"> <input type="radio"/> <b>Set up an advanced connection</b><br/>           Connect directly to another computer using your serial, parallel, or infrared port, or set up this computer so that other computers can connect to it.         </li> </ul> <p data-bbox="943 695 995 711">&lt; Back</p> <p data-bbox="1058 695 1106 711">Next &gt;</p> <p data-bbox="1182 695 1233 711">Cancel</p> </div> |

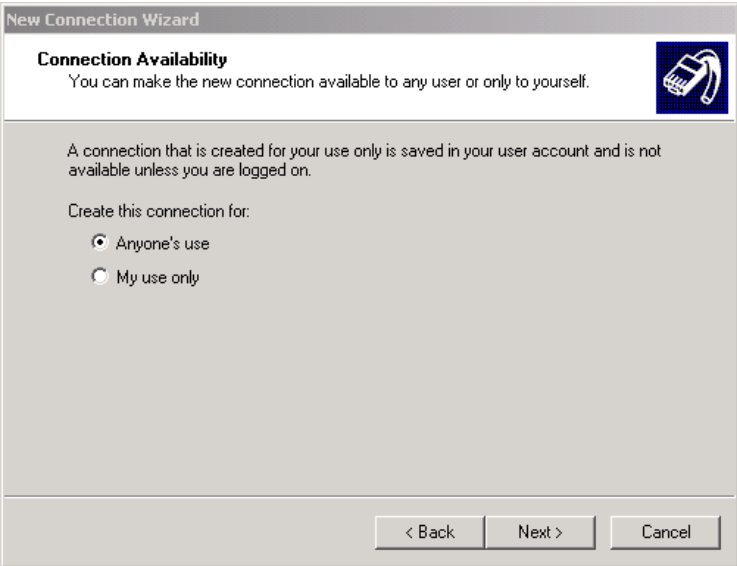
| Step | Description  |
|------|--|
| 4.   | <p>Select <b>Connect to the Internet</b> and click <b>Next</b>.</p>  |

| Step | Description  |
|------|--|
| 5.   | <p>Select <b>Set up my connection manually</b> and click <b>Next</b>.</p>  |

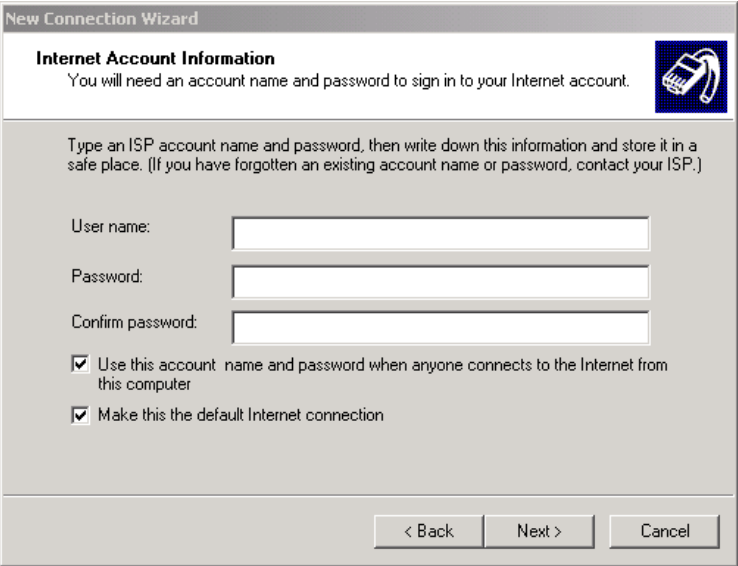
| Step | Description  |
|------|--|
| 6.   | <p>Select <b>Connect using a dial-up modem</b> and click <b>Next</b>.</p>  |

| Step | Description  |
|------|--|
| 7.   | <p>Select the device of your Bluetooth phone. Refer to "2.2 Connecting mobile phone to PC".</p>  |

| Step | Description  |
|------|--|
| 8.   | <p>Type in the name of your service provider and click <b>Next</b>.</p>  <p>The screenshot shows a 'New Connection Wizard' window. The title bar says 'New Connection Wizard'. Below the title bar, there's a section titled 'Phone Number to Dial' with a question 'What is your ISP's phone number?'. To the right of this text is a small icon of a telephone handset. Below this, it says 'Type the phone number below.' followed by 'Phone number:'. There is a text input field containing '999991#'. Below the input field, there is a paragraph of text: 'You might need to include a "1" or the area code, or both. If you are not sure you need the extra numbers, dial the phone number on your telephone. If you hear a modem sound, the number dialed is correct.' At the bottom right of the window are three buttons: '&lt; Back', 'Next &gt;', and 'Cancel'.</p> |

| Step | Description  |
|------|--|
| 9.   | <p>Type in phone number of your service provider and click <b>Next</b>.</p>  |

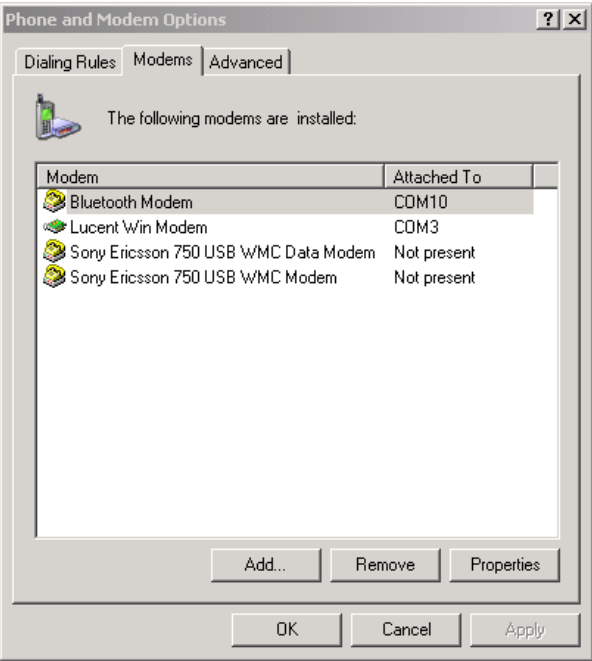


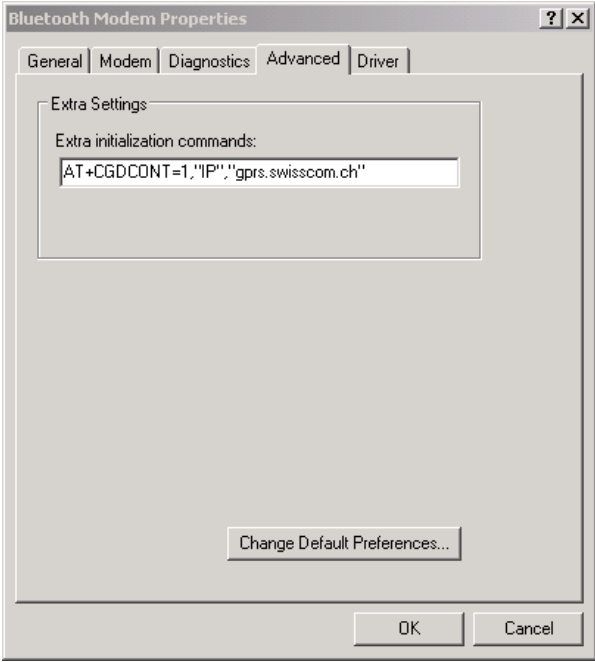
| Step | Description   |
|------|---|
| 10.  | <p>Select the availability of the connection for users of your PC and click <b>Next</b>.</p>  |

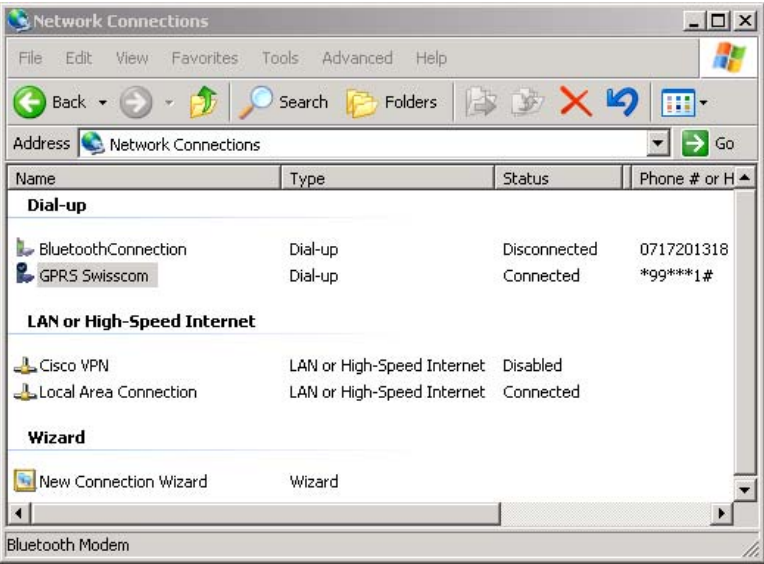
| Step | Description   |
|------|---|
| 11.  | <p>Click <b>Finish</b> to complete the connection and to add it to your network connections.</p>  |

| Step                       | Description   |              |              |        |              |         |  |  |  |                     |         |              |            |               |         |              |          |                            |  |  |  |           |                            |          |  |                       |                            |           |  |        |  |  |  |                       |        |  |  |
|----------------------------|---|--------------|--------------|--------|--------------|---------|--|--|--|---------------------|---------|--------------|------------|---------------|---------|--------------|----------|----------------------------|--|--|--|-----------|----------------------------|----------|--|-----------------------|----------------------------|-----------|--|--------|--|--|--|-----------------------|--------|--|--|
|                            | <div><div><div>Network Connections</div><div>File Edit View Favorites Tools Advanced Help</div><div><div>Back</div><div></div><div></div><div>Search</div><div>Folders</div><div></div><div></div><div></div><div></div><div></div></div><div>Address <div>Network Connections</div> <div>Go</div></div><table><thead><tr><th>Name</th><th>Type</th><th>Status</th><th>Phone # or H</th></tr></thead><tbody><tr><td colspan="4">Dial-up</td></tr><tr><td> BluetoothConnection</td><td>Dial-up</td><td>Disconnected</td><td>0717201318</td></tr><tr><td> GPRS Swisscom</td><td>Dial-up</td><td>Disconnected</td><td>*99***1#</td></tr><tr><td colspan="4">LAN or High-Speed Internet</td></tr><tr><td> Cisco VPN</td><td>LAN or High-Speed Internet</td><td>Disabled</td><td></td></tr><tr><td> Local Area Connection</td><td>LAN or High-Speed Internet</td><td>Connected</td><td></td></tr><tr><td colspan="4">Wizard</td></tr><tr><td> New Connection Wizard</td><td>Wizard</td><td></td><td></td></tr></tbody></table><div>Bluetooth Modem</div></div></div> | Name         | Type         | Status | Phone # or H | Dial-up |  |  |  | BluetoothConnection | Dial-up | Disconnected | 0717201318 | GPRS Swisscom | Dial-up | Disconnected | *99***1# | LAN or High-Speed Internet |  |  |  | Cisco VPN | LAN or High-Speed Internet | Disabled |  | Local Area Connection | LAN or High-Speed Internet | Connected |  | Wizard |  |  |  | New Connection Wizard | Wizard |  |  |
| Name                       | Type  | Status       | Phone # or H |        |              |         |  |  |  |                     |         |              |            |               |         |              |          |                            |  |  |  |           |                            |          |  |                       |                            |           |  |        |  |  |  |                       |        |  |  |
| Dial-up                    |   |              |              |        |              |         |  |  |  |                     |         |              |            |               |         |              |          |                            |  |  |  |           |                            |          |  |                       |                            |           |  |        |  |  |  |                       |        |  |  |
| BluetoothConnection        | Dial-up   | Disconnected | 0717201318   |        |              |         |  |  |  |                     |         |              |            |               |         |              |          |                            |  |  |  |           |                            |          |  |                       |                            |           |  |        |  |  |  |                       |        |  |  |
| GPRS Swisscom              | Dial-up   | Disconnected | *99***1#     |        |              |         |  |  |  |                     |         |              |            |               |         |              |          |                            |  |  |  |           |                            |          |  |                       |                            |           |  |        |  |  |  |                       |        |  |  |
| LAN or High-Speed Internet |   |              |              |        |              |         |  |  |  |                     |         |              |            |               |         |              |          |                            |  |  |  |           |                            |          |  |                       |                            |           |  |        |  |  |  |                       |        |  |  |
| Cisco VPN                  | LAN or High-Speed Internet  | Disabled     |              |        |              |         |  |  |  |                     |         |              |            |               |         |              |          |                            |  |  |  |           |                            |          |  |                       |                            |           |  |        |  |  |  |                       |        |  |  |
| Local Area Connection      | LAN or High-Speed Internet  | Connected    |              |        |              |         |  |  |  |                     |         |              |            |               |         |              |          |                            |  |  |  |           |                            |          |  |                       |                            |           |  |        |  |  |  |                       |        |  |  |
| Wizard                     |   |              |              |        |              |         |  |  |  |                     |         |              |            |               |         |              |          |                            |  |  |  |           |                            |          |  |                       |                            |           |  |        |  |  |  |                       |        |  |  |
| New Connection Wizard      | Wizard  |              |              |        |              |         |  |  |  |                     |         |              |            |               |         |              |          |                            |  |  |  |           |                            |          |  |                       |                            |           |  |        |  |  |  |                       |        |  |  |

| Step | Description  |
|------|--|
| 12.  | Start Windows <b>Control Panel</b> .   |
|      |  |

| Step                                 | Description  |       |             |                 |       |                  |      |                                      |             |                                 |             |
|--------------------------------------|--|-------|-------------|-----------------|-------|------------------|------|--------------------------------------|-------------|---------------------------------|-------------|
| 13.                                  | <p>Open <b>Phone and Modem Options</b>.</p>  <p>The following modems are installed:</p> <table border="1" data-bbox="576 333 1098 464"> <thead> <tr> <th>Modem</th><th>Attached To</th></tr> </thead> <tbody> <tr> <td>Bluetooth Modem</td><td>COM10</td></tr> <tr> <td>Lucent Win Modem</td><td>COM3</td></tr> <tr> <td>Sony Ericsson 750 USB WMC Data Modem</td><td>Not present</td></tr> <tr> <td>Sony Ericsson 750 USB WMC Modem</td><td>Not present</td></tr> </tbody> </table> | Modem | Attached To | Bluetooth Modem | COM10 | Lucent Win Modem | COM3 | Sony Ericsson 750 USB WMC Data Modem | Not present | Sony Ericsson 750 USB WMC Modem | Not present |
| Modem                                | Attached To  |       |             |                 |       |                  |      |                                      |             |                                 |             |
| Bluetooth Modem                      | COM10  |       |             |                 |       |                  |      |                                      |             |                                 |             |
| Lucent Win Modem                     | COM3   |       |             |                 |       |                  |      |                                      |             |                                 |             |
| Sony Ericsson 750 USB WMC Data Modem | Not present  |       |             |                 |       |                  |      |                                      |             |                                 |             |
| Sony Ericsson 750 USB WMC Modem      | Not present  |       |             |                 |       |                  |      |                                      |             |                                 |             |

| Step | Description   |
|------|---|
| 14.  | <p>Change to <b>Modems</b> page, select the attached mobile phone and click <b>Properties</b>.</p>  <p>The screenshot shows a 'Bluetooth Modem Properties' window with the 'Modem' tab selected. Under 'Extra Settings', the 'Extra initialization commands' text box contains the command: <code>AT+CGDCONT=1,\"IP\",\"gprs.swisscom.ch\"</code>. A 'Change Default Preferences...' button is located below the text box. The window has standard 'OK' and 'Cancel' buttons at the bottom right.</p> |
| 15.  | <p>Change to <b>Advanced</b> page, type in command to initialize your mobile phone and click <b>OK</b> to return to Network connections on your PC.</p>   |

| Step | Description  |
|------|--|
| 16.  | <p>Select your <b>Dial-up</b> connection and establish it by right-mouse click <b>Connect</b>. The connection is established.</p>  |

## 3.4

### Accessing GPS data from 3rd party application

#### Description

For using GPS data from GPS1200 PC Simulator within a 3rd party application you can use **NMEA out** interface or **Remote interface** (OWI) within the simulator.

#### Requirements

The access requires the usage of physical or virtual COM ports (have to be realized by using special software).



## Appendix A

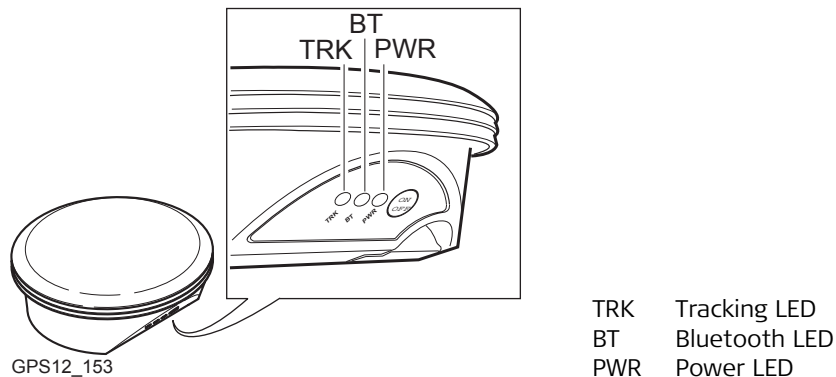
## LED indicators on SmartAntenna

### LED's indicators

#### Description

SmartAntenna has three **L**ight **E**mitting **D**iode indicators. They indicate the basic antenna status.

#### Diagram



### Description of the LED's

| IF the LED | is             | THEN  |
|------------|----------------|---|
| TRK        | off            | no satellites are tracked.  |
|            | flashing green | less than four satellites are tracked, a position is not yet available.   |
|            | green          | enough satellites are tracked to compute a position.  |
|            | red            | SmartAntenna is initialising.   |
| BT         | green          | Bluetooth is in data mode and ready for connecting.   |
|            | purple         | Bluetooth is connecting.  |
|            | blue           | Bluetooth has connected.  |
|            | flashing blue  | data is being transferred.  |
| PWR        | off            | power is off.   |
|            | green          | power is okay.  |
|            | flashing green | power is low. The remaining time for which enough power is available depends on the type of survey, the temperature and the age of the battery. |
|            | red            | power is very low. The battery should be changed.   |

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Heinrich-Wild-Strasse  
CH-9435 Heerbrugg  
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