

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

Concept

1.1

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.

Function

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

1.2

Hardware and software requirements

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)
-

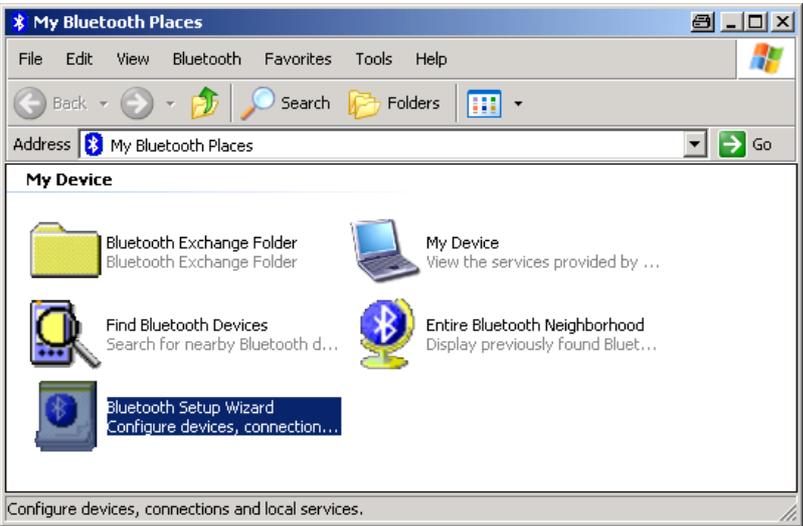
2

2.1

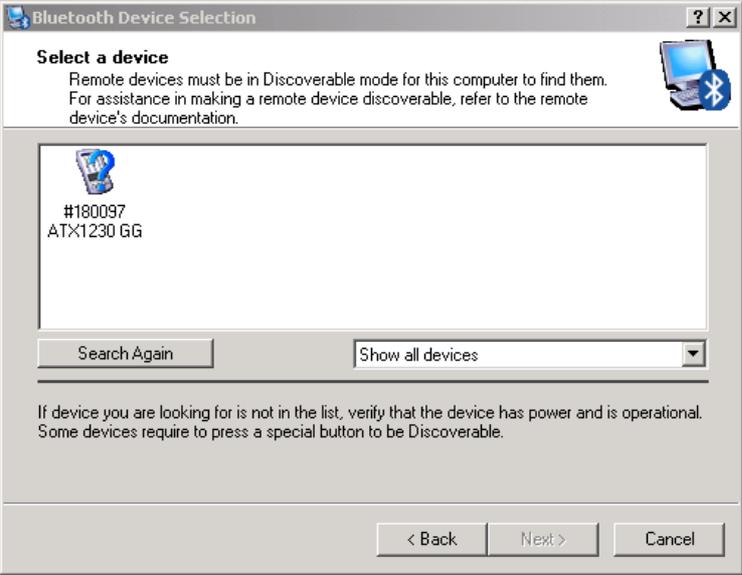
Connecting SmartAntenna step-by-step

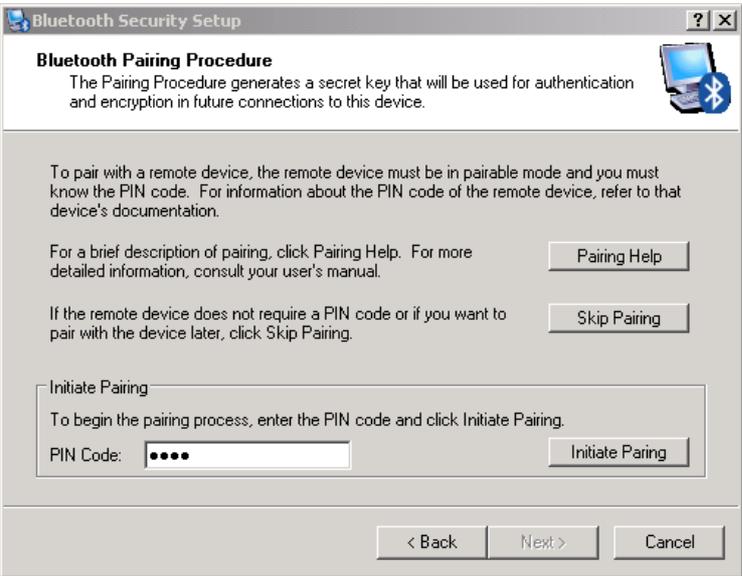
Bluetooth Connections

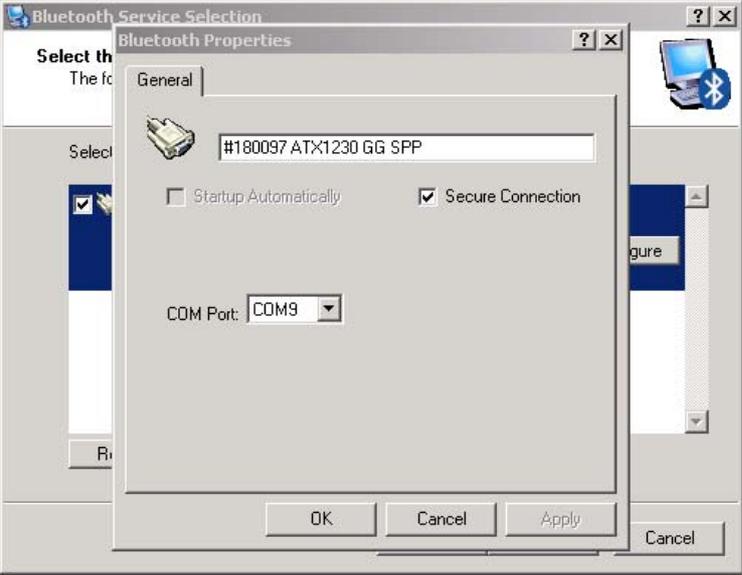
Connecting SmartAntenna to PC

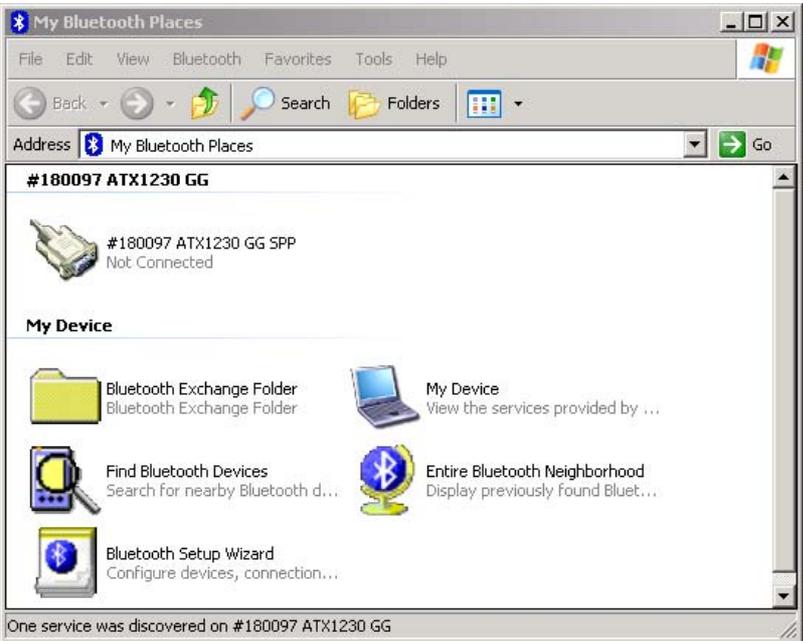
| Step | Description |
|---|--|
| 1. | Insert the battery (GEB211) into SmartAntenna and switch it on. |
|  | The following steps can differ from PC to PC. |
| 2. | Activate Bluetooth on the PC. |
| 3. | Open the Bluetooth software and start Bluetooth Setup Wizard . |
| |  |

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

| Step | Description |
|------|---|
| 5. | The Bluetooth device selection will be started and an automatic search will be done. |
| |  <p>The screenshot shows a Windows dialog box titled "Bluetooth Device Selection". The dialog has a title bar with a question mark and a close button. The main content area is titled "Select a device" and includes the following text: "Remote devices must be in Discoverable mode for this computer to find them. For assistance in making a remote device discoverable, refer to the remote device's documentation." Below this text is a list of discovered devices. One device is listed: "#180097 ATX1230 GG". Below the list are two buttons: "Search Again" and "Show all devices". At the bottom of the dialog are three buttons: "< Back", "Next >", and "Cancel".</p> |

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

| Step | Description |
|------|---|
| 8. | Enable SPP and click OK .  |
| 9. | Click Finish . |

| Step | Description |
|------|--|
| 10. | <p>A shortcut of the service will be added to My Bluetooth Places 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 (Back, Forward, Home, Search, Folders). The address bar shows "My Bluetooth Places". The main content area displays a list of services under the heading "#180097 ATX1230 GG":</p> <ul style="list-style-type: none"> #180097 ATX1230 GG SPP (Not Connected) My Device section containing: <ul style="list-style-type: none"> Bluetooth Exchange Folder (Bluetooth Exchange Folder) Find Bluetooth Devices (Search for nearby Bluetooth d...) Bluetooth Setup Wizard (Configure devices, connection...) My Device (View the services provided by ...) Entire Bluetooth Neighborhood (Display previously found Bluet...) <p>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 Connect the antenna.</p>  |
| 12. | The SmartAntenna is now connected via serial COM9 port. |

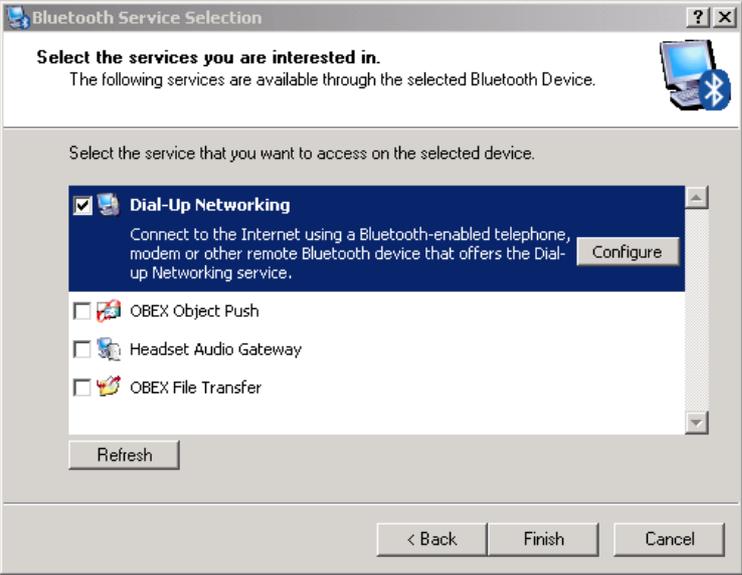
2.2

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 Bluetooth Setup Wizard . Refer to "2.1 Connecting SmartAntenna to PC". |
| 3. | Choose specific Bluetooth device to be configured and click Next . Refer to "2.1 Connecting SmartAntenna to PC". |

| Step | Description |
|------|---|
| 4. | <p>The Bluetooth device selection will be started and an automatic search will be done.</p>  <p>The screenshot shows a window titled "Bluetooth Device Selection". Inside, there's a section "Select a device" with instructions. Below that, a list of devices is shown: "#180097 ATX1230 GG" and "Nokia 6630". The "Nokia 6630" device is selected with a checkmark. At the bottom, there are buttons for "< Back", "Next >", and "Cancel", along with a "Search Again" button and a "Show all devices" dropdown menu.</p> |
| 5. | <p>Select the Nokia 6630 and click Next. The pairing procedure is started. Refer to "2.1 Connecting SmartAntenna to PC".</p> |

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

| Step | Description |
|------|--|
| 7. | Enable Dial-Up Networking , click Finish and a shortcut for the selected service will be added to My Bluetooth Places on your PC. |
| |  <p>The screenshot shows a window titled "My Bluetooth Places" with a menu bar (File, Edit, View, Bluetooth, Favorites, Tools, Help) and a toolbar (Back, Forward, Home, Search, Folders). The address bar shows "My Bluetooth Places". The main content area lists two services:</p> <ul style="list-style-type: none"> Nokia 6630: Nokia 6630 Dial-Up Networking, Not Connected. #180097 ATX1230 GG: #180097 ATX1230 GG SPP, Connected: COM9. <p>At the bottom, it states: "Connected to #180097 ATX1230 GG using Virtual COM port 9".</p> |
| 8. | Right-mouse click on the Nokia 6630. Under Properties - > Configure you will find the configured COM port to be used for the connection to the PC. |

3

Operating the Simulator

3.1

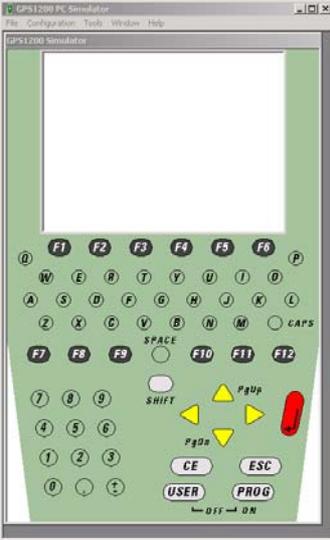
Configuring the GPS1200 PC Simulator

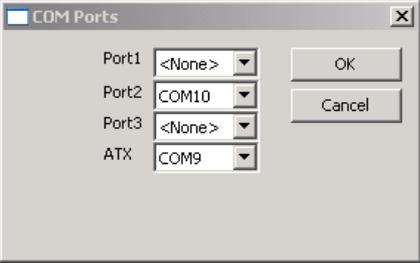
Description

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. | Start the GPS1200 PC Simulator software.  |
| 2. | Click Configuration - > COM Ports... |

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

| Step | Description |
|------|--|
| |  <p>16:10 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

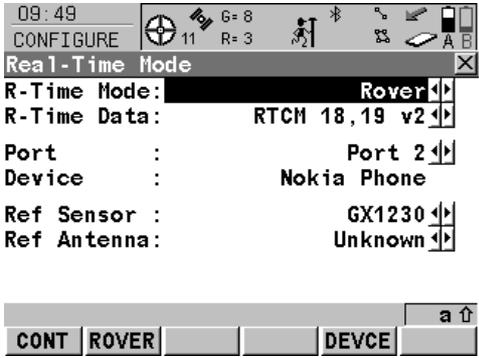
Overview

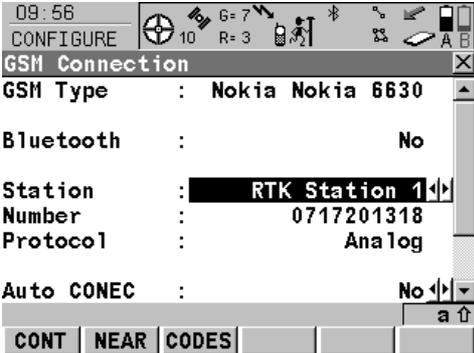


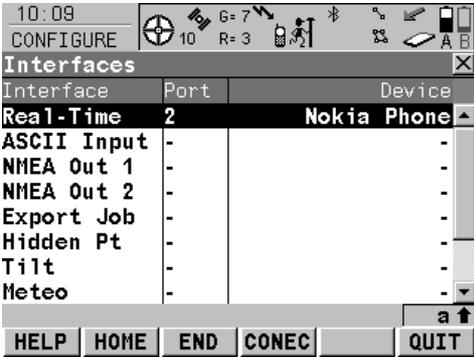
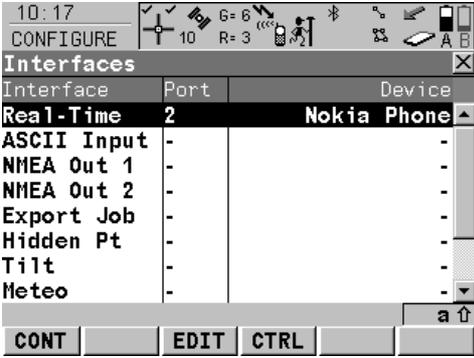
Configuring RTK settings

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 CONFIGURE Real-Time Mode .  |

| Step | Description |
|------|---|
| 3. | <p>Make the following settings:</p> <ul style="list-style-type: none"> • R-Time Mode: Rover • R-Time Data: RTCM 18,19 v2 • Port: Port 2 (port has to be the same as configured in "3.1 Configuring the GPS1200 PC Simulator") • Device: Nokia Phone <p>Settings for Ref Sensor and Ref Antenna depend on your situation.</p> |
| 4. | <p>Enter GSM Connection.</p>  <p>The screenshot shows a configuration window titled "GSM Connection" with the following settings:</p> <ul style="list-style-type: none"> GSM Type : Nokia Nokia 6630 Bluetooth : No Station : RTK Station 1 Number : 0717201318 Protocol : Analog Auto CONEC : No <p>At the bottom of the screen, there are several buttons: CONT, NEAR, CODES, and a button with 'a' and an upward arrow.</p> |

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

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

3.3



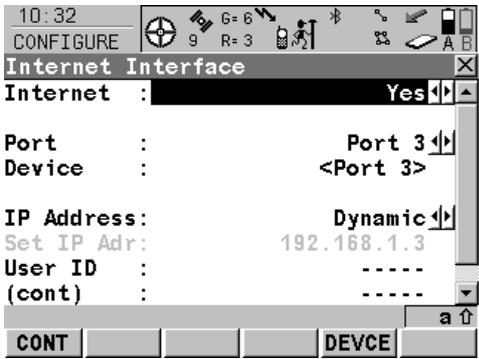
Configuring an Internet connection

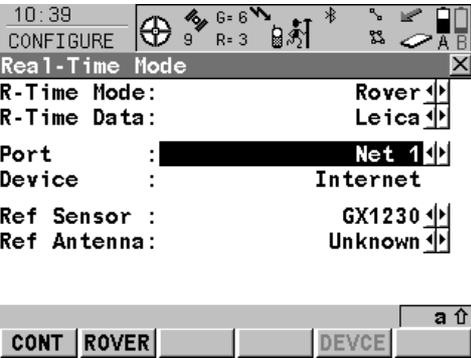
Refer to GPS1200 Technical Reference Manual for detailed information about configuration of a Rover Real-Time interface using an Internet connection.

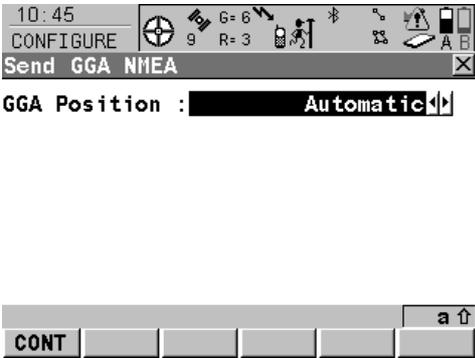
3.3.1

Configuring Internet interface

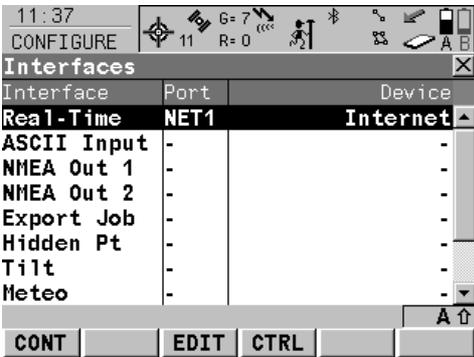
Configuring Internet Interface settings

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

| Step | Description |
|------|--|
| 4. | <p data-bbox="539 126 979 154">Enter CONFIGURE Real-Time Mode.</p>  <p data-bbox="539 171 1010 529"> 10:39 CONFIGURE Real-Time Mode R-Time Mode: Rover R-Time Data: Leica Port : Net 1 Device : Internet Ref Sensor : GX1230 Ref Antenna: Unknown a ↑ CONT ROVER DEUCE </p> |
| 5. | <p data-bbox="539 540 1495 596">Select Port: Net 1 and click ROVER (F2) to enter CONFIGURE Additional Rover Options.</p>  <p data-bbox="539 619 1010 966"> 10:43 CONFIGURE Additional Rover Options General INTRIP Accept Ref : Any Received Ref Stn ID : 0 Ref Network : VRS Send User ID : No User ID 1 : 450041 User ID 2 : 450041 a ↑ CONT GGA PAGE </p> |

| Step | Description |
|------|--|
| 6. | Select Ref Network: VRS and click GGA (F4) to enter CONFIGURE Send GGA NMEA . |
| |  <p>The screenshot shows a configuration menu titled "Send GGA NMEA". At the top, there is a status bar with the time "10:45" and various system icons. Below the title bar, the text "CONFIGURE" is visible. The main content area shows "GGA Position : Automatic" with a dropdown arrow. At the bottom of the screen, there is a "CONT" button and a button labeled "a" with an upward arrow.</p> |

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

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

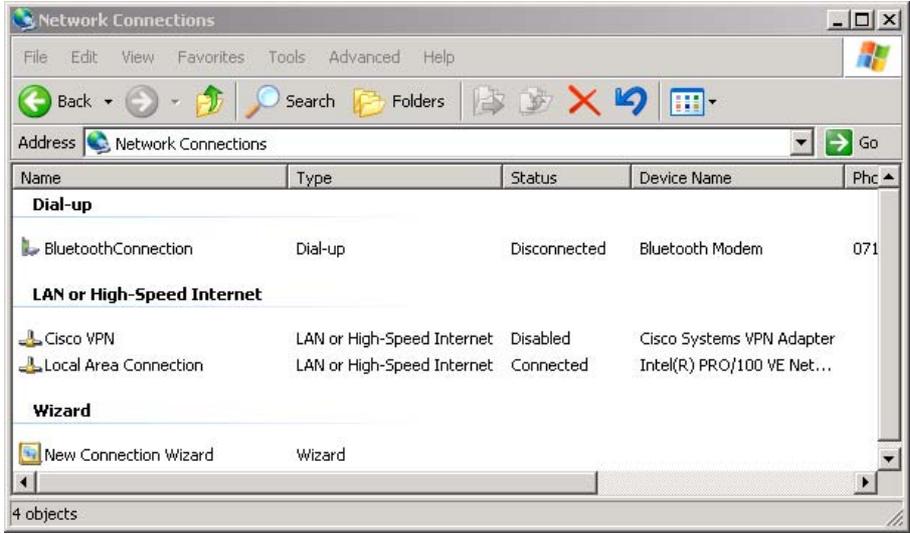
3.3.2



Configuring Dial-up Connection step-by-step

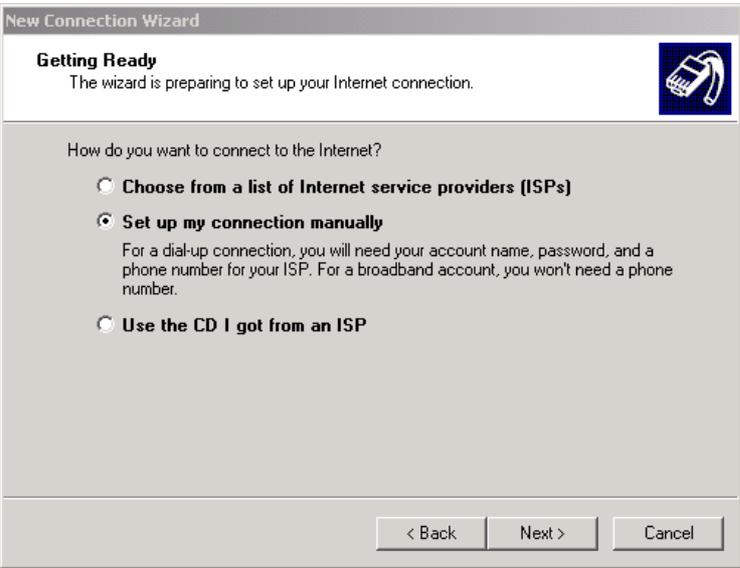
Configuring a dial-up connection

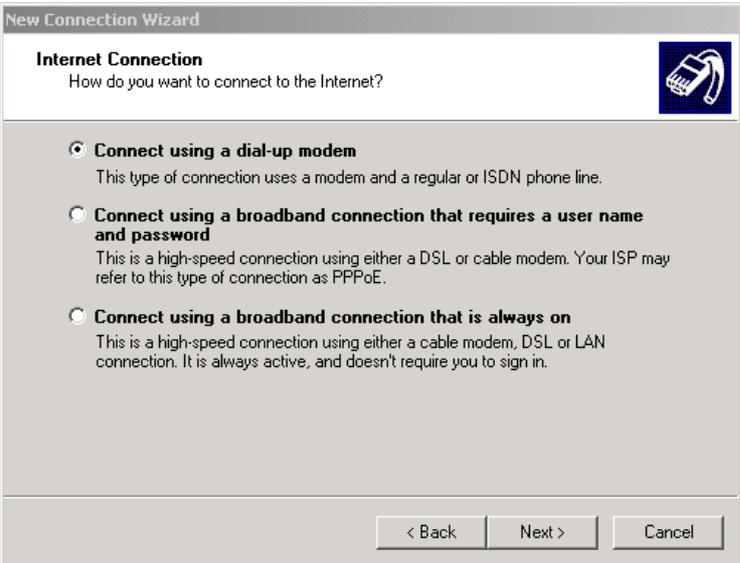
Refer to "3.3.1 Configuring Internet interface" for information about the Internet interface configuration settings of the GPS1200 PC Simulator.

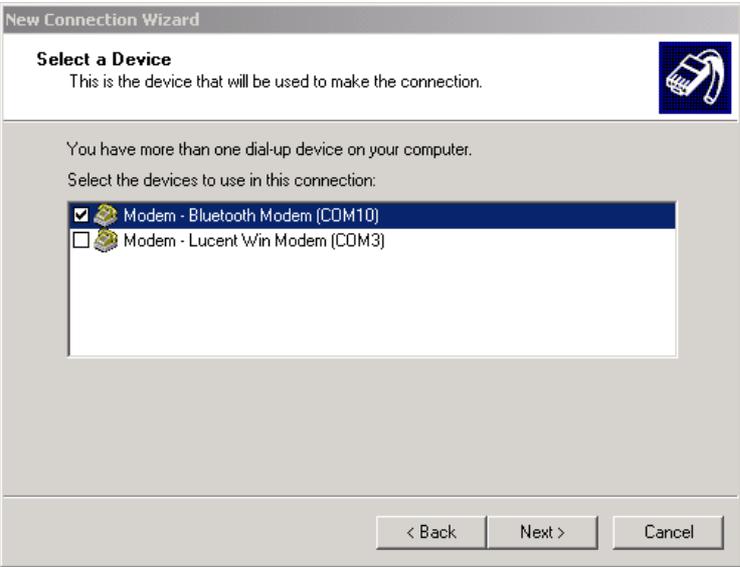
| Step | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|--------------|----------------------------|--------|-------------|-----|----------------|--|--|--|--|---------------------|---------|--------------|-----------------|-----|-----------------------------------|--|--|--|--|-----------|----------------------------|----------|---------------------------|--|-----------------------|----------------------------|-----------|----------------------------|--|---------------|--|--|--|--|-----------------------|--------|--|--|--|
| 1. | <p>Open Windows Network Connections.</p>  <p>The screenshot shows the Windows Network Connections window. The window title is "Network Connections". The address bar shows "Network Connections". The window contains a table of network connections:</p> <table border="1"><thead><tr><th>Name</th><th>Type</th><th>Status</th><th>Device Name</th><th>Phc</th></tr></thead><tbody><tr><td colspan="5">Dial-up</td></tr><tr><td>BluetoothConnection</td><td>Dial-up</td><td>Disconnected</td><td>Bluetooth Modem</td><td>071</td></tr><tr><td colspan="5">LAN or High-Speed Internet</td></tr><tr><td>Cisco VPN</td><td>LAN or High-Speed Internet</td><td>Disabled</td><td>Cisco Systems VPN Adapter</td><td></td></tr><tr><td>Local Area Connection</td><td>LAN or High-Speed Internet</td><td>Connected</td><td>Intel(R) PRO/100 VE Net...</td><td></td></tr><tr><td colspan="5">Wizard</td></tr><tr><td>New Connection Wizard</td><td>Wizard</td><td></td><td></td><td></td></tr></tbody></table> <p>4 objects</p> | Name | Type | Status | Device Name | Phc | Dial-up | | | | | BluetoothConnection | Dial-up | Disconnected | Bluetooth Modem | 071 | LAN or High-Speed Internet | | | | | Cisco VPN | LAN or High-Speed Internet | Disabled | Cisco Systems VPN Adapter | | Local Area Connection | LAN or High-Speed Internet | Connected | Intel(R) PRO/100 VE Net... | | Wizard | | | | | New Connection Wizard | Wizard | | | |
| Name | Type | Status | Device Name | Phc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dial-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BluetoothConnection | Dial-up | Disconnected | Bluetooth Modem | 071 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LAN or High-Speed Internet | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cisco VPN | LAN or High-Speed Internet | Disabled | Cisco Systems VPN Adapter | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Local Area Connection | LAN or High-Speed Internet | Connected | Intel(R) PRO/100 VE Net... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wizard | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| New Connection Wizard | Wizard | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

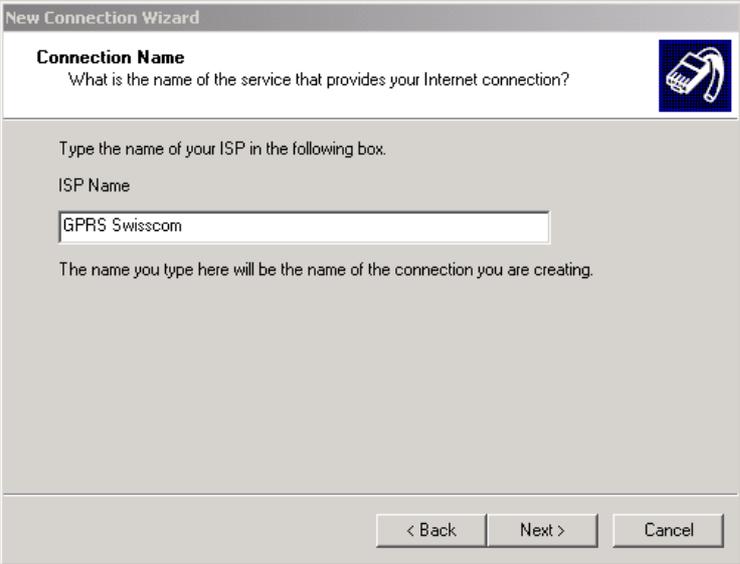
| Step | Description |
|------|---|
| 2. | <p data-bbox="536 126 1251 154">Start New Connection Wizard to create a new connection.</p>  |

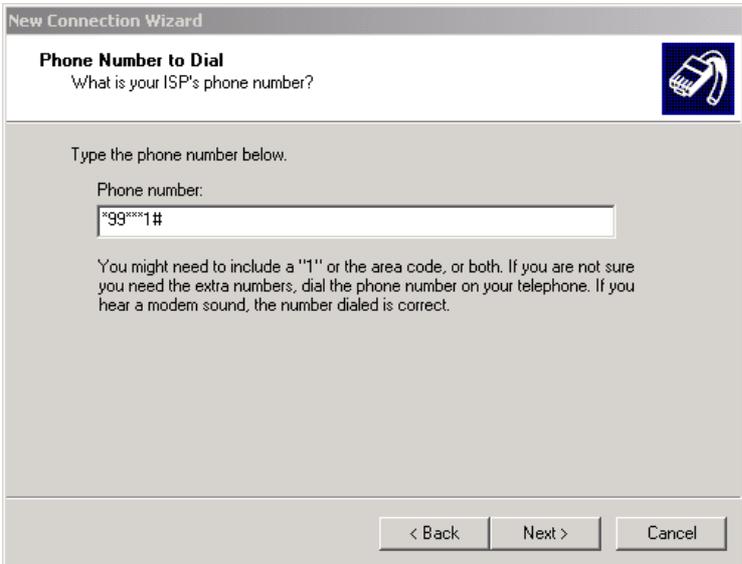
| Step | Description |
|------|---|
| 3. | <p data-bbox="539 127 810 154">Click Next to continue.</p> <div data-bbox="539 172 1278 736"><p data-bbox="544 183 735 199">New Connection Wizard</p><p data-bbox="571 221 794 239">Network Connection Type</p><p data-bbox="603 244 783 262">What do you want to do?</p><ul data-bbox="603 314 1209 527" style="list-style-type: none"><li data-bbox="603 314 1209 359"><input checked="" type="radio"/> Connect to the Internet Connect to the Internet so you can browse the Web and read email.<li data-bbox="603 378 1209 443"><input type="radio"/> Connect to the network at my workplace Connect to a business network (using dial-up or VPN) so you can work from home, a field office, or another location.<li data-bbox="603 462 1209 527"><input type="radio"/> Set up an advanced connection 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.<p data-bbox="916 687 1262 717"><input type="button" value=" < Back"/> <input type="button" value=" Next > "/> <input type="button" value=" Cancel"/></p></div> |

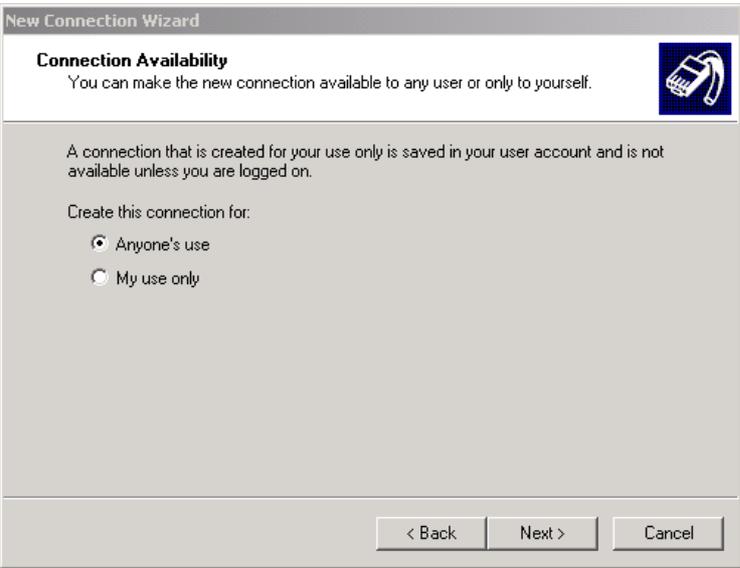
| Step | Description |
|------|--|
| 4. | <p>Select Connect to the Internet and click Next.</p>  |

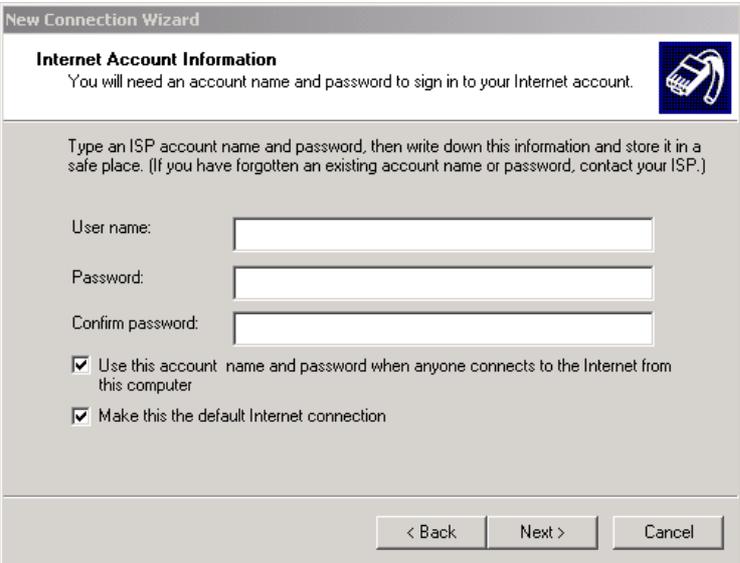
| Step | Description |
|------|--|
| 5. | <p>Select Set up my connection manually and click Next.</p>  |

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

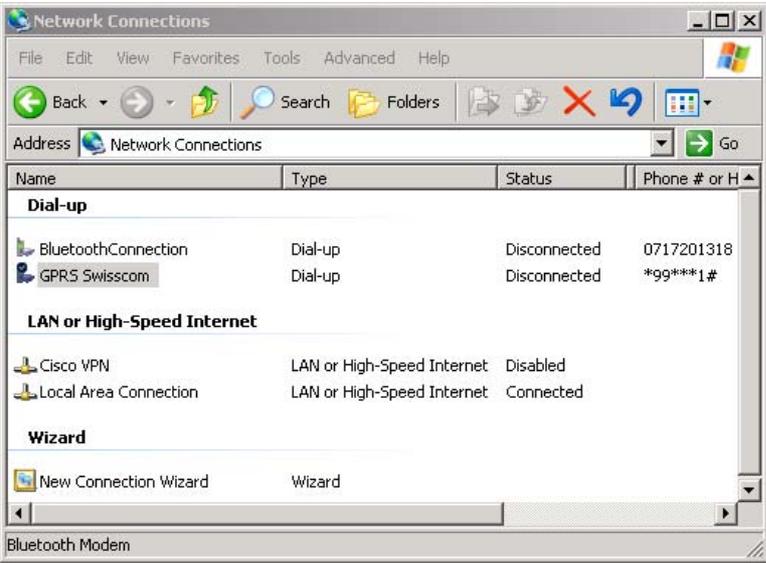
| Step | Description |
|------|--|
| 7. | Select the device of your Bluetooth phone. Refer to "2.2 Connecting mobile phone to PC". |
| |  |

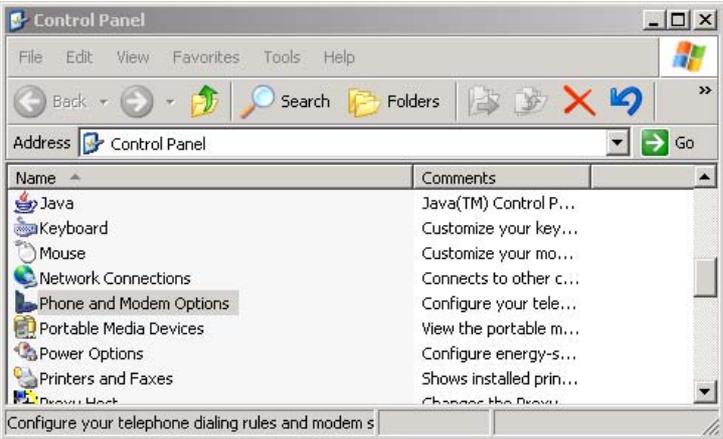
| Step | Description |
|------|--|
| 8. | <p>Type in the name of your service provider and click Next.</p>  |

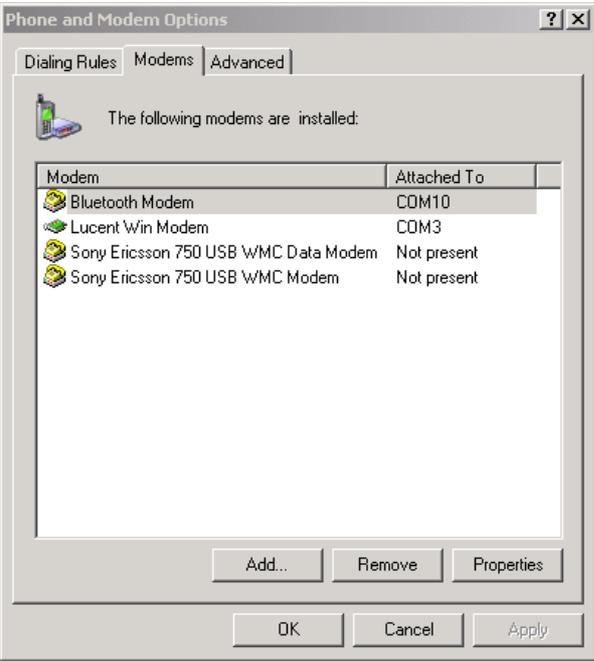
| Step | Description |
|------|--|
| 9. | <p>Type in phone number of your service provider and click Next.</p>  |

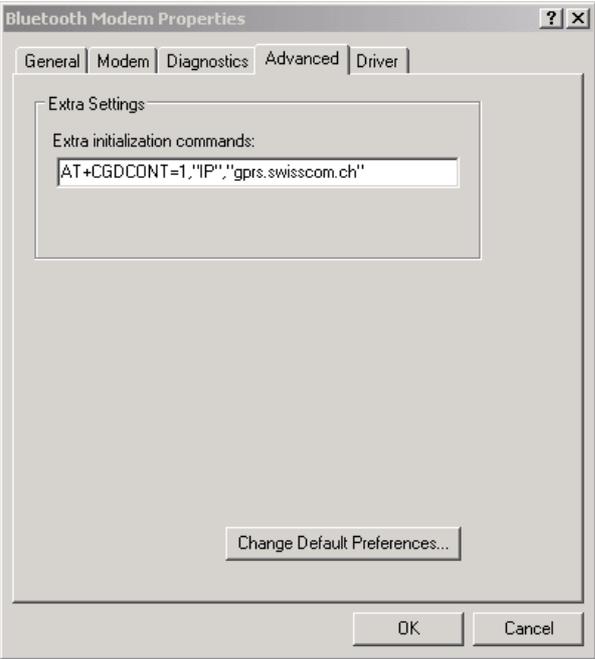
| Step | Description |
|------|---|
| 10. | <p>Select the availability of the connection for users of your PC and click Next.</p>  |

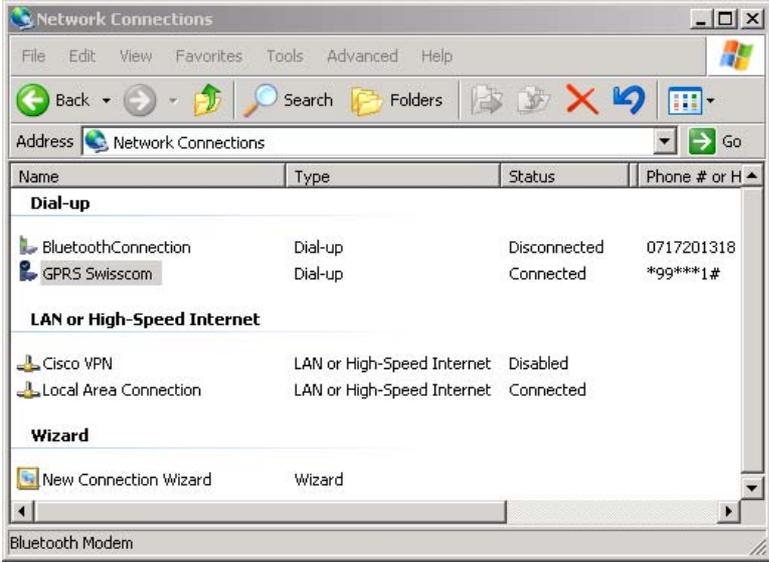
| Step | Description |
|--|---|
| 11. | Click Finish to complete the connection and to add it to your network connections. |
|  | |

| Step | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|--------------|--------------|--------|--------------|----------------|--|--|--|---------------------|---------|--------------|------------|---------------|---------|--------------|----------|-----------------------------------|--|--|--|-----------|----------------------------|----------|--|-----------------------|----------------------------|-----------|--|---------------|--|--|--|-----------------------|--------|--|--|
| |  <p>The screenshot shows the Windows Network Connections window. The window title is "Network Connections". The address bar shows "Network Connections". The window contains a table of network connections:</p> <table border="1"> <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> <p>At the bottom of the window, there is a section for "Bluetooth Modem".</p> | 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 Control Panel .  |

| Step | Description | | | | | | | | | | |
|--|--|-------|-------------|---|-------|--|------|--|-------------|---|-------------|
| 13. | <p data-bbox="539 128 967 154">Open Phone and Modem Options.</p>  <p data-bbox="539 181 1129 203">Phone and Modem Options</p> <p data-bbox="560 225 831 244">Dialing Rules Modems Advanced</p> <p data-bbox="571 266 898 300">  The following modems are installed: </p> <table border="1" data-bbox="571 333 1098 461"> <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> <p data-bbox="751 725 1098 748">Add... Remove Properties</p> <p data-bbox="772 788 1123 810">OK Cancel Apply</p> | 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 Modems page, select the attached mobile phone and click Properties.</p>  <p>The screenshot shows a dialog box titled "Bluetooth Modem Properties" with a close button (X) and a help button (?). It has five tabs: "General", "Modem", "Diagnostics", "Advanced", and "Driver". The "Advanced" tab is selected. Inside the dialog, there is a section labeled "Extra Settings" containing a text box with the command: <code>AT+CGDCONT=1,\"IP\",,\"gprs.swisscom.ch\"</code>. Below this text box is a button labeled "Change Default Preferences...". At the bottom of the dialog are "OK" and "Cancel" buttons.</p> |
| 15. | <p>Change to Advanced page, type in command to initialize your mobile phone and click OK to return to Network connections on your PC.</p> |

| Step | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--------------|--------------|--------|--------------|----------------|--|--|--|---------------------|---------|--------------|------------|---------------|---------|-----------|----------|-----------------------------------|--|--|--|-----------|----------------------------|----------|--|-----------------------|----------------------------|-----------|--|---------------|--|--|--|-----------------------|--------|--|--|
| 16. | Select your Dial-up connection and establish it by right-mouse click Connect . The connection is established. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>The screenshot shows the Windows Network Connections window. The window title is "Network Connections". It has a menu bar with "File", "Edit", "View", "Favorites", "Tools", "Advanced", and "Help". Below the menu bar is a toolbar with icons for "Back", "Forward", "Home", "Search", "Folders", "Refresh", "Disconnect", "Connect", and "Go". The address bar shows "Address Network Connections" and a "Go" button. The main content area is a table with columns "Name", "Type", "Status", and "Phone # or H".</p> <table border="1" data-bbox="544 367 1297 729"> <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>Connected</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> <p>The status bar at the bottom of the window shows "Bluetooth Modem".</p> | | Name | Type | Status | Phone # or H | Dial-up | | | | BluetoothConnection | Dial-up | Disconnected | 0717201318 | GPRS Swisscom | Dial-up | Connected | *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 | Connected | *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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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

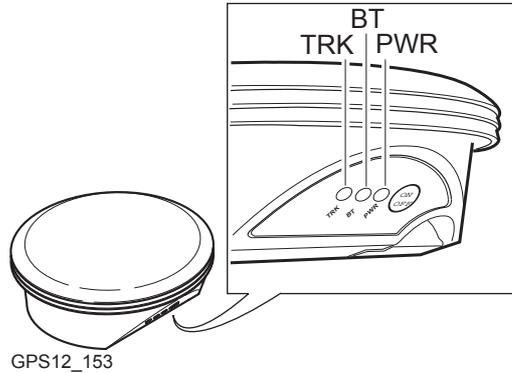
LED indicators on SmartAntenna

LED's indicators

Description

SmartAntenna has three Light Emitting Diode indicators. They indicate the basic antenna status.

Diagram



TRK Tracking LED
BT Bluetooth LED
PWR Power LED

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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