

## **GPSSGate Installation Notes**

Practical Sailor testers had some trouble installing GPSSGate, which is only compatible with Microsoft and WidComm/BroadCom Bluetooth stacks (the software that manages and controls a Bluetooth device). The two laptops we used for to evaluate GPS receivers for smart phones and PDAs both had Toshiba Bluetooth stacks installed.

We first noted that there was a problem with the installation when the GPSSGate Bluetooth server reported that no Bluetooth device existed, even though we knew one was installed and running.

After some research, we found a way that did the trick on three Windows XP laptops with Toshiba Bluetooth stacks installed. We offer our experience and the fix with the proviso that we only know that this worked for us. If you aren't computer literate or find the instructions difficult to follow, seek outside help. Keep in mind that the possible variants that may be encountered with different computers are numerous. In our three attempts, we encountered only one situation that varied from the original instructions and it was easily resolved. Take all standard precautions, including setting a restore point and having good backups before proceeding.

### **The Fix**

The Windows' "Plug and Play" feature compares the IDs of hardware devices to an internal list and selects the appropriate drivers for that device. Failing this, the new hardware may not function until the appropriate drivers are provided from an external source.

The following procedure takes the device IDs for the Bluetooth radio, which should be seen by Windows as an unknown device after un-installing the existing Bluetooth stack, and adds them to a Windows Bluetooth file. When Windows is restarted, it should recognize the Bluetooth radio and assign an Microsoft Bluetooth stack to manage it.

- 1.** Verify that the existing Bluetooth stack is not a compatible version by examining the entries for the Bluetooth radio with the Windows device manager. You must configure the device manager to show hidden devices (View tab) and have the Bluetooth radio or adapter turned on. If it's a Microsoft Bluetooth stack, there should be a "Microsoft Bluetooth Enumerator" entry.
- 2.** If it's not a compatible version, un-install the Bluetooth stack using the Windows Add/Remove Programs function.
- 3.** Restart Windows with the Bluetooth radio switched on and cancel any attempts to automatically install any new hardware. You should get a message reporting an unidentified UGX device, but continue even if you don't.

4. Open the device manager and again configure it to show hidden devices. We had an entry for the unknown UGX device on two installations, but the third one reported an unknown USB device even though it was equipped with an internal Bluetooth adapter. You can verify that the unknown device you have located is the Bluetooth adapter by switching it off. The unknown device should disappear and re-appear again when it's turned back on.

5. When you have verified that the unknown device you have located is the Bluetooth radio, right click on it and select Properties. Under the Details tab, scroll down to "Hardware ID" and carefully write down the two Plug and Play (PnP) IDs, which both will begin with "Vid\Usb." Note that the numbers are in hexadecimal format, so there may be zeros but not the letter "O."

6. Open the file "bth.inf," located in the Windows\INF folder with the Windows Notepad text editor. Scroll down to the Device section, and locate the entries for Sony. Using any name you like, add two new lines under the existing entries using the Device IDs you wrote down earlier. Duplicate the existing lines exactly, and save the file back to its original location when done.

Sample entry:

```
_[Sony.NT.5.1]
My Bluetooth Device= BthUsb, USB\Vid_044e&Pid_3001&Rev_1392
My Bluetooth Device= BthUsb, USB\Vid_044e&Pid_3001
```

7. Restart the computer. Windows should report finding new hardware with the same name you entered in the new lines created in Step 6 his time, let Windows proceed with the installation. It may report a second new device found; again, let Windows install this one, too.

If successful, you should have a new Bluetooth icon on the right side of the task bar and GPSGate should report that the Bluetooth server is working normally when you click on its entry on the output page.

Presumably, this same procedure would work for a Bluetooth USB dongle, but we didn't verify it.

If you don't have Service Pack 2 or higher installed, you can learn about installing a Microsoft Bluetooth stack at <http://support.microsoft.com/kb/323183/> and download this update from: [http://download.microsoft.com/download/whistler/SP/1.1.1/WXP/EN-US/bt\\_stack\\_rtm.exe](http://download.microsoft.com/download/whistler/SP/1.1.1/WXP/EN-US/bt_stack_rtm.exe)

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