



Melody and Windows 7 SPP

Application Note



SIERRA
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Due to the nature of wireless communications, transmission and reception of data can never be guaranteed. Data may be delayed, corrupted (i.e., have errors) or be totally lost. Although significant delays or losses of data are rare when wireless devices such as the Sierra Wireless modem are used in a normal manner with a well-constructed network, the Sierra Wireless modem should not be used in situations where failure to transmit or receive data could result in damage of any kind to the user or any other party, including but not limited to personal injury, death, or loss of property. Sierra Wireless accepts no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using the Sierra Wireless modem, or for failure of the Sierra Wireless modem to transmit or receive such data.

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Do not operate the Sierra Wireless modem in areas where blasting is in progress, where explosive atmospheres may be present, near medical equipment, near life support equipment, or any equipment which may be susceptible to any form of radio interference. In such areas, the Sierra Wireless modem **MUST BE POWERED OFF**. The Sierra Wireless modem can transmit signals that could interfere with this equipment.

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Revision History

Revision number	Release date	Changes
1	March 22, 2017	Initial revision in SWI template.

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>> 1: Introduction

This application note describes how to connect SPP from Windows 7 to Melody and from Melody to Windows 7.

Assumptions and prerequisites:

1. Serial terminal software such as PuTTY(used in this document), Hercules, or Hyperterminal.
2. User knows how to connect and work with Melody over UART on PC.
3. Melody and Windows 7 are paired.
4. Melody device has enumerated and installed the appropriate drivers correctly.
5. Melody is controlled over UART and is connection over Bluetooth to the same PC.

2: Determining your Windows 7 SPP COM Ports

Before you can initiate an SPP connection to/from Windows 7, you need to know which COM ports enumerated for the Melody (BlueCreation-XXXXXX) device.

To do this, go to Start Menu > Devices and Printers. Find the BlueCreation-XXXXXX device and Right Click on properties:

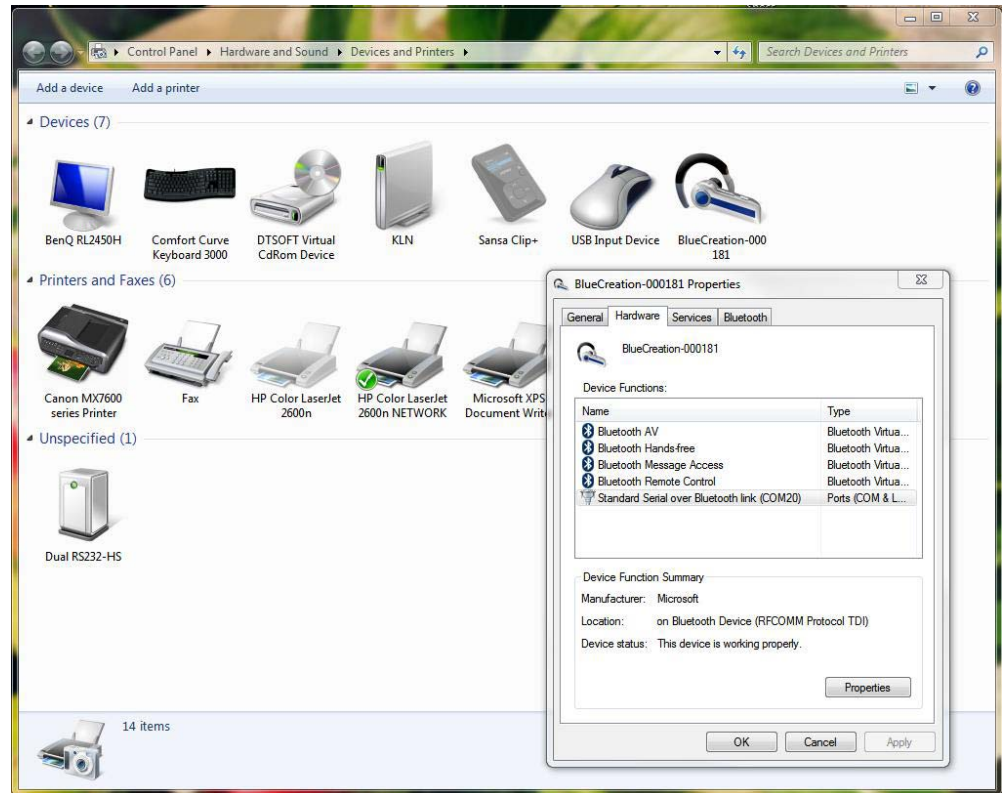


Figure 2-1: Hardware Properties

Go to the Hardware tab and look for the "Standard Serial over Bluetooth Link (COMXX)".

The COMXX reflects the COM port used by Windows to initiate a connection to Melody. In the screenshot above this is COM20.

The COM port used to accept connections on Windows is the next free COM port. Usually, this is COMXX+1. In the case above, Windows will accept incoming SPP connections at COM21.

>> | 3: Opening SPP from Windows 7

Using a serial terminal application open a connection to Melody. Using another instance of the serial terminal application, open the COMXX port used by Windows to initiate SPP. In the case of the screenshot this is COM20.

For the COM port baud setting use the same as Melody does, or higher (the default Melody baud is 9600), 1 stop bit, no parity. You can choose to use or not use flow control. In order to not lose any data, we suggest flow control be left on the PC side.

Once the COM port is opened, you will receive an SPP OPEN message on Melody.

You can now send data by typing into the Windows SPP COM port. This will be shown as RECV_SPP events in Melody.

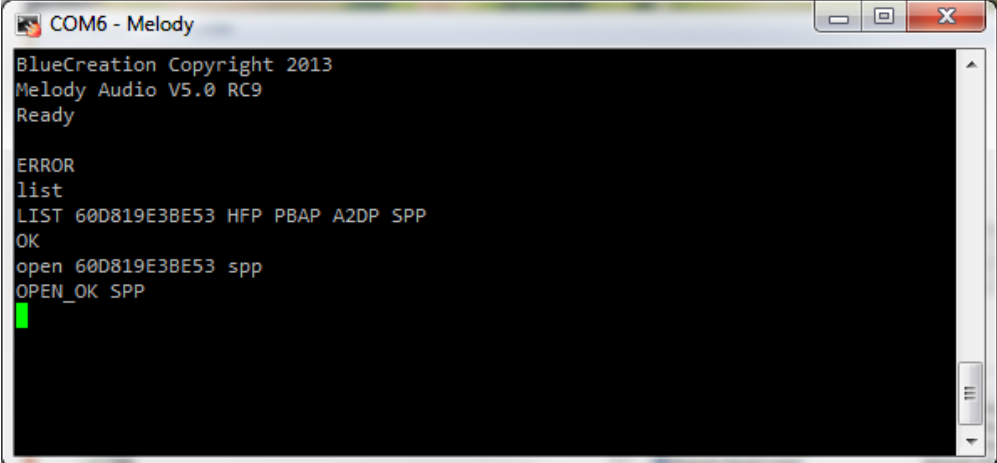
You can use the SEND {data} command in Melody to send data over SPP to the PC. This will directly be displayed in the serial terminal that has the SPP COM port open.

Closing the Windows SPP terminal will close the connection. Alternatively, using CLOSE 0 in Melody will close the connection from the Melody side.

4: Opening SPP from Melody

Using a serial terminal application open a connection to Melody. Using another instance of the serial terminal application, open the COMXX+1 port used by Windows to accept SPP. In the case of the screenshot this is COM21.

For the COM port baud setting use the same as Melody does, or higher (the default Melody baud is 9600), 1 stop bit, no parity. You can choose to use or not use flow control. In order to not lose any data, we suggest flow control be left on the PC side.



```
COM6 - Melody
BlueCreation Copyright 2013
Melody Audio V5.0 RC9
Ready

ERROR
list
LIST 60D819E3BE53 HFP PBAP A2DP SPP
OK
open 60D819E3BE53 spp
OPEN_OK SPP
```

Figure 4-1: Using a Serial Terminal Application to Open a COM port

Once the COM port is opened, you will be able to accept SPP connections from Melody.

In Melody, use the LIST command to get the Bluetooth address of the Windows PC you are paired with. Then open an SPP connection by using the *OPEN {bdaddress} SPP* command.

You can now send data by typing into the Windows SPP COM port. This will be shown as *RECV_SPP* events in Melody.

You can use the *SEND {data}* command in Melody to send data over SPP to the PC. This will directly be displayed in the serial terminal that has the SPP COM port open.

Closing the Windows SPP terminal will close the connection. Alternatively, using *CLOSE 0* in Melody will close the connection from the Melody side.