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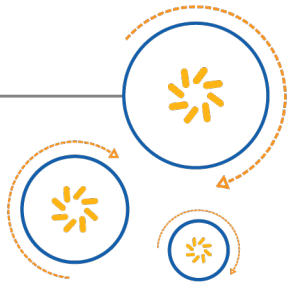

VMSpy

User Guide

80-CT431-1 Rev. AG

October 17, 2017

Revision history

Revision	Date	Description
1	OCT 2008	Initial release. Alternative document number CS-00123515-UG.
2	JUL 2010	Updated for 2010 Bluetooth SDKs with BlueLab SDK references removed. Updated to latest style guidelines
3	JUL 2011	Updated to latest CSR™ style
4	JAN 2012	Updated to latest CSR style
5	APR 2014	Updated to latest CSR style
6	MAY 2016	Updated to conform to QTI standards. No technical content was changed in this document revision
AG	OCT 2016	Added to the Content Management SystemDRN updated to use Agile number. No technical content was changed in this document revision

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Figures

1 VMSpy application overview

The VMSpy application collects debug output from a VM application into a useful dialog. You can also use it as a simple terminal application to access BCSP channel 13. This channel is used for communications between the host and the VM application. VMSpy needs to connect to the Qualcomm® BlueCore™ technology device on a development platform (for example, a casira) over a serial or USB connection. Ensure that:

- The development platform is connected to the PC using a suitable cable.
- Nothing else is using that port (including other QTIL software).
- The appropriate transport has been configured using PSTool.

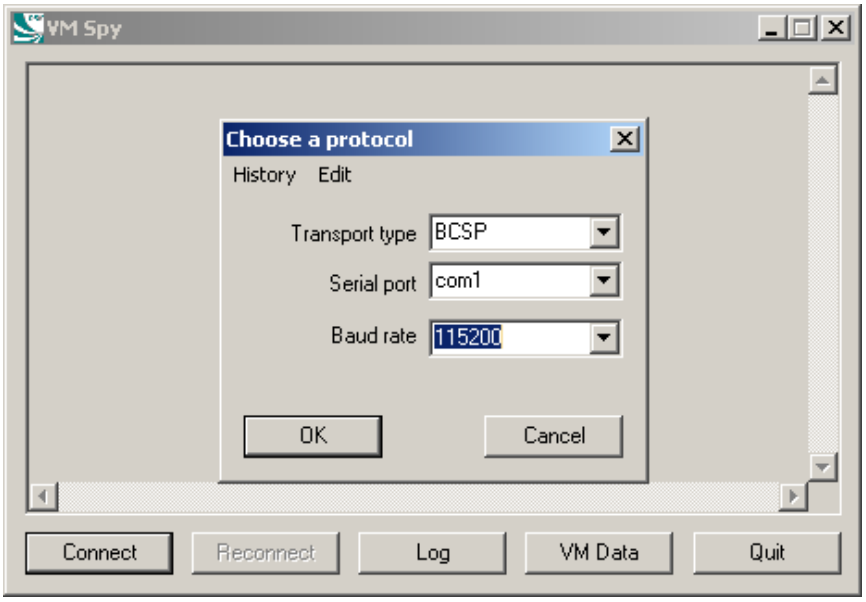
NOTE PSTool is included in the tools shipped with Bluetooth SDKs and Qualcomm® BlueSuite™ technology Development Tools.

VMSpy can use any host transport that can carry BCSP, that is:

- BCSP over the UART
- H4 over the UART
- H4DS over UART
- H5 over the UART
- H2 over USB

It cannot be connected using *raw UART* access, or over SPI.

To log a session to file, click the **Log** button. To initiate a connection, click the **Connect** button. Select the transport and other settings to match the configuration of the development hardware, see the figure below.



When VMSpy has connected to the development platform, all debugging output is displayed in the main window. If the application uses the VM data channel 13 for BCSP using either streams or the

host messages, click the **VM Data** button to view the channel traffic. This button opens a window that shows all traffic on this channel:

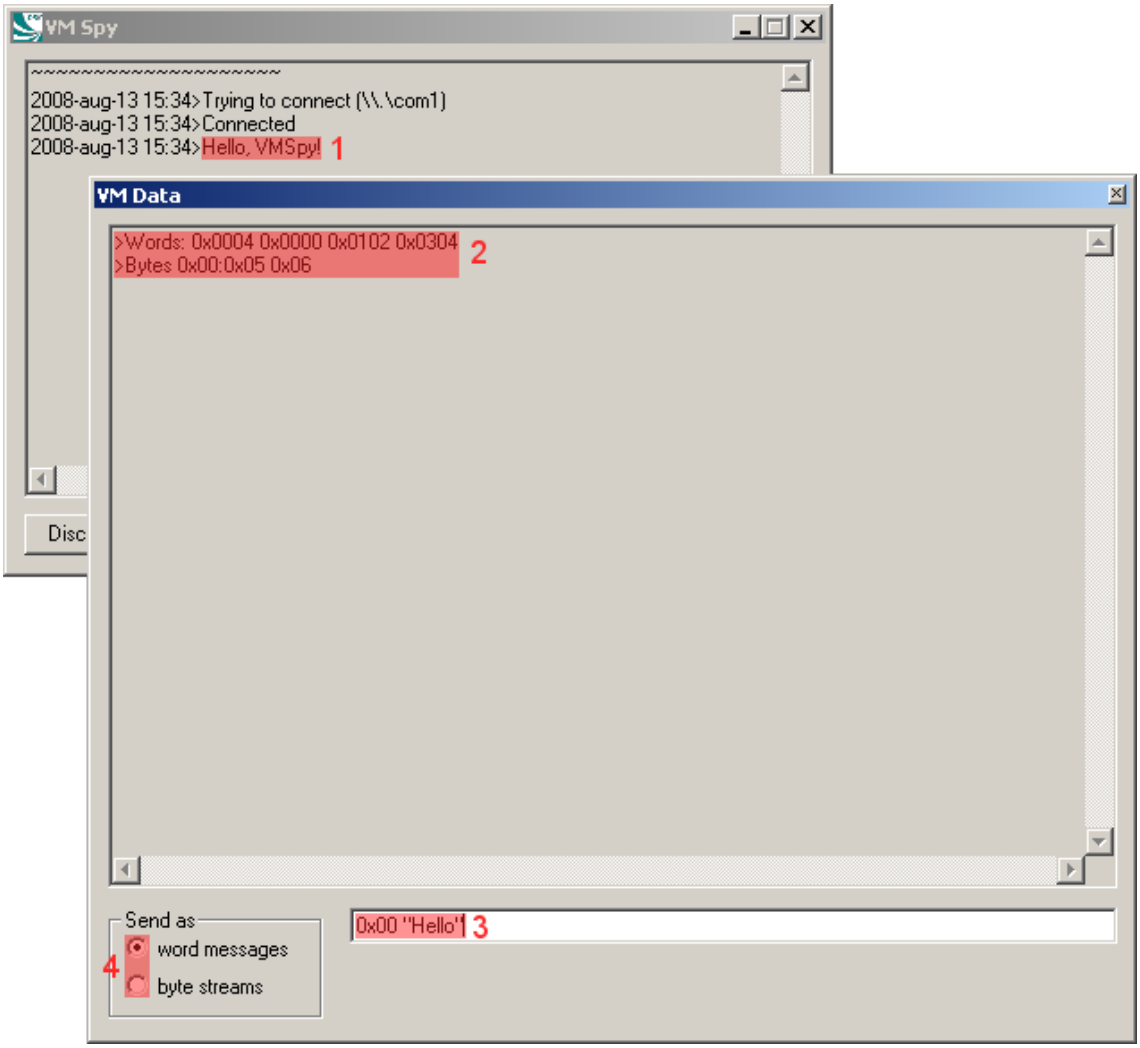


Figure 1-1 VM Data window

If the application uses the `printf` function, the output displays in the main window. This is the same text displayed in the **Print Channel 0** tab in xIDE.

1. This window displays the output generated by the `printf` statement, for example, `printf("Hello, VMSpy!\n").`
2. If the application sends data to the host using BCSP channel 13, the message displays in the VM Data window. Host message (word) based data is prefixed by `"Words:"` and stream (byte) based data by `"Bytes nn:"` where `nn` is the channel number used. The window in this example shows the output using BCSP channel 13 of the following code example:

```
uint16 msg[] = {0x0004,/* length */
                0x0000,/* sub-type */
                                    0x0102,/* data */
                0x0304,/* data */};
HostSendMessage(msg);
```

and also by writing the text "\x05\x06" to the Sink using the function `StreamHostSink(0)`. For further details, see *Implementing Streams in Bluetooth SDKs*.

3. The field labeled 3 in Figure 1-1, enables you to send information to the device on your development platform. It can contain numbers (decimal, hexadecimal or octal) or character strings (delimited with "). The first entry on the line must be a number defining subtype or Host Stream channel. Do not enter the length field: it is calculated automatically.

4. The **Send as** radio buttons select whether the data is sent as message (word) or stream (byte):

   - Message-based information is sent to a task selected using `MessageHostCommsTask`

   Stream-based data is available from the Source as specified by the `StreamHostSource(channel)` function.

Document references

Document	Reference
Implementing Streams in Qualcomm BlueCore Applications	80-CT437-1/CS-00207483-UG

Terms and definitions

Term	Definition
BCSP	BlueCore Serial Protocol
BlueCore	Group term for the QTIL range of Bluetooth wireless technology chips
Bluetooth	Set of technologies providing audio and data transfer over short-range radio connections
PC	Personal Computer
SPI	Serial Peripheral Interface
UART	Universal Asynchronous Receiver Transmitter
USB	Universal Serial Bus
VM	Virtual Machine