GETTING STARTED

Quick Start Guide *v1.2*

INTRODUCTION

The goal of this document is to explain how to install the BL620-US dongle for use on your PC.

REQUIREMENTS

The following equipment and utilities are required:

- BL620-US Dongle
- Windows PC (Windows 7 or newer)
- UwTerminal (Windows) – free download from www.lairdtech.com

The BL620-US dongle has a Segger J-Link chip on board; when you connect the dongle to your computer, it searches for the relevant driver which can be obtained from http://www.segger.com/jlink-software.html. You need the serial number printed on the underside of your dongle next to the text SEGGER # to be able to download the driver from the Segger website.

INSTALLATION

1. Connect the dongle to your PC.
2. With the J-Link driver installed, wait until Windows finishes installing device driver software.
3. Check that the device is listed in the Device Manager. See Figure 1.

Note: The JLink UART port number varies on different computers.

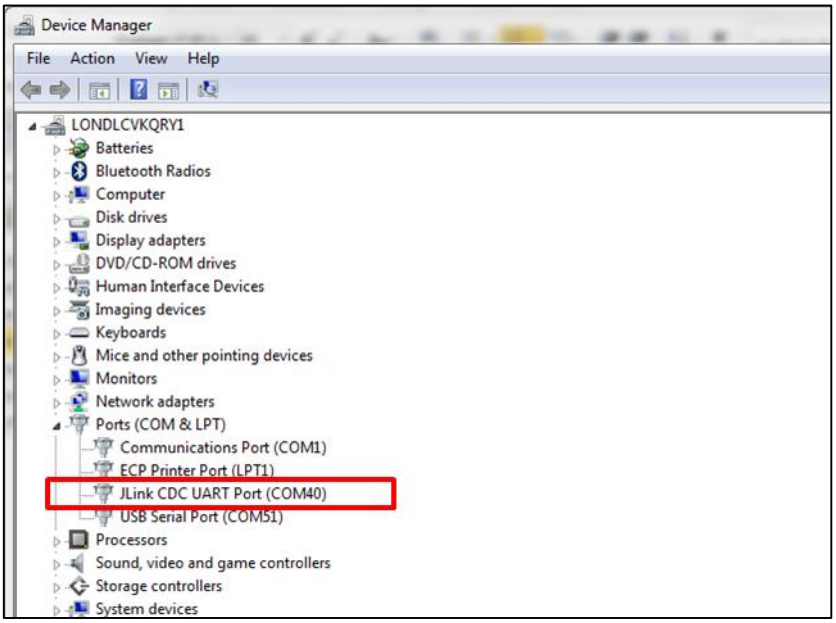
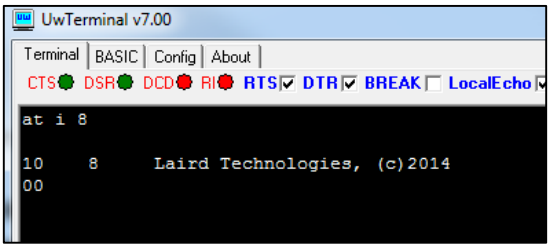


Figure 1: BL620-US as shown in Device Manager

4. Open UwTerminal and type "**at i 8**" and Enter to confirm you can communicate with the dongle on the right com port.



Note: The default baud rate on the BL620 is 9600 bps.

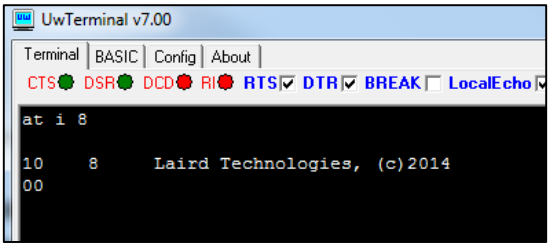
Note: When using the BL620-US dongle, in UwTerminal the CTS pin is always de-asserted. The underlying firmware in the Segger interface chip locally handles the CTS/RTS hardware handshaking.

FIRMWARE UPGRADE

The BL620-US is already preloaded with firmware. When new firmware becomes available, customers can upgrade the firmware over the USB interface. The procedure is quite straightforward. Be aware that all *smart*Basic applications and settings are cleared after the upgrade.

The firmware package can be downloaded from https://laird-ews-support.desk.com, and login credential will be required. Customers should visit the website to submit the request.

1. Connect the dongle to your PC.
2. Send **at i 8** to ensure the correct com port is opened.



3. The upgrade package is provided as a zip file so decompress it into a new folder of your choice. The form of the file name is: **BL620_R2_Firmware_&_Samples_smartBASIC_Apps_vW_X_Y_Z-rN** where W,X,Y,Z is the version number of the firmware and –rN is an optional suffix that is present if the zip file has new content apart from the firmware image (such as corrections in the user guide or other documentation.

Note: Do not decompress into an existing folder, as there is potential for confusion with regards to firmware upgrade files. We recommend you decompress the zip file into a folder with the same name as the zip filename.

4. In the decompressed folder, launch **_DownloadFirmware_vA_B_C_D.bat** (either double-click it or launch it from a command prompt console window). Upgrade process will start immediately.
5. If the J-Link firmware is outdated, the following dialog box displays (Figure 4):

Figure 4: J-Link firmware update dialog

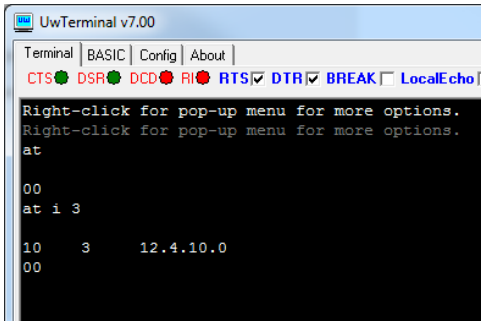
6. Click **Yes** to update the J-Link firmware.

   The BL620-US firmware upgrade process resumes automatically and displays a command prompt box.

7. When the upgrade is finished, the console window displays the following:

```
Programming, please wait it will take up to 20 seconds ....
.
..              Acquiring info
...
....
.....           Programming stack (please wait)
......
.......         Programming application  (please wait)
........
.........
..........
...........
............
.............
.............. Resetting module
...............
################################
The firmware upgrade is complete
################################
```

8. Press any key to proceed.
9. Send **at i 3** to confirm the firmware has been upgraded.



UART BREAK NOT AVAILABLE (BL620-US ONLY)

If you are familiar with using Laird's BL600 module then you may be familiar with sending a uart_break to force the module to reset.

Unfortunately, the Segger interface chip which is providing the virtual serial port emulation is not capable of asserting a BREAK to the module. The only way to reset the device is to send an ATZ command if you are in command mode OR to invoke the reset() function from a *smart*BASIC application.

If you are using the *cmd* sample app to interact with peripherals and if it is running, an additional way to achieve a reset is to send the *stop* command. This aborts the application and the BL620 is placed in command mode. You can then submit the ATZ command to reset it.

FURTHER INFORMATION

Further information relating to firmware and the use of UWTerminal is available from the Laird website at http://www.lairdtech.com/Products/Embedded-Wireless-Solutions/Bluetooth-Radio-Modules/BL600-Series

REVISION HISTORY

Revision	Date	Description	Approved By
1.0	12 Sept. 2014	Initial Release	Jonathan Kaye
1.1	20 Sept. 2014	Minor Edits	Jonathan Kaye
1.2	14 Oct. 2014	Minor edits	Jonathan Kaye