Batch Application Notes for iOS
BT900/BL600/BL620

Application Note   *v1.2*

INTRODUCTION

The Laird Toolkit Batch functionality enables you to send *smart*BASIC applications wirelessly over the air to the Laird BT900 or BL600. These applications can be custom-made and use AT commands to control the module remotely. This application can only run when your module is in VSP command mode (bridge mode does not work).
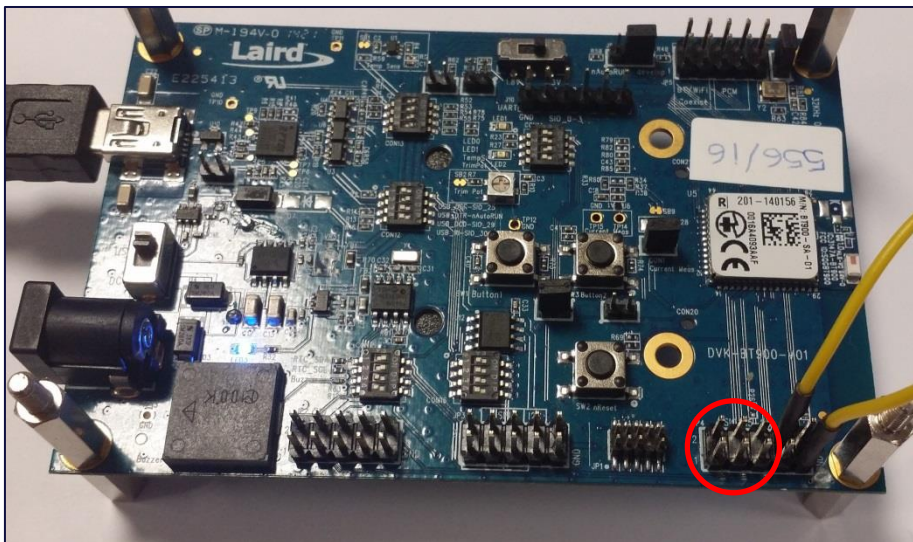
REQUIREMENTS

- PC running Windows XP or later
- UWTerminalX (found at https://github.com/LairdCP/UwTerminalX/releases)
- DVK-BT900 running firmware v9.1.2.0 or later, DVK-BL600, or DVK-BL652
- USB A to mini B cable
- iPad 3/ iPhone 4S or newer with BT4.0 support
- Internet connection on iOS device (to download the Laird Toolkit app)
- Product User Manual
- FTDI Drivers http://www.ftdichip.com/Drivers/VCP.htm (for some versions of Windows)

DEVELOPMENT KIT SETUP

- DC/USB power source switch (SW4) – USB
- 1.8V/3.3V switch (CON17) – 3.3V
- Autorun (CON12) – USB_DTR-nAutorun

To setup the BT900 development kit, follow these steps (to configure the BL600 or BL652 please refer to their respective DVK User Manuals):

1. Ensure that the module is in VSP mode. See Figure 1 and Figure 2.

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Figure 1: BT900 in VSP mode and jumper attached (front). Pins that the cable is attached: Ground and SIO_19
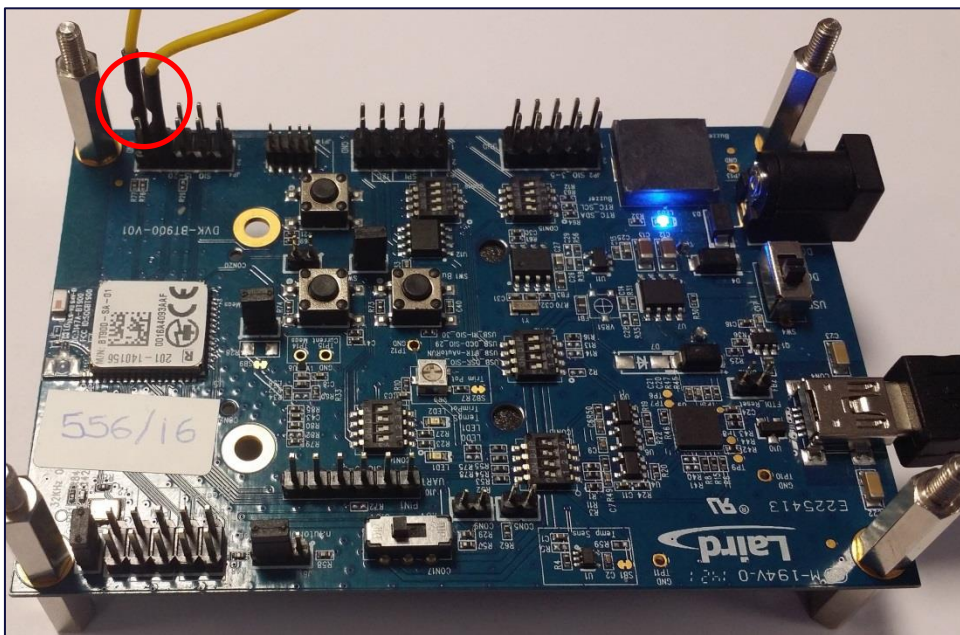
Figure 2: BT900 in VSP mode and jumper attached (back)

2. Connect one end of the mini USB cable to CON4 on the development board and the other end of the cable to your PC.
3. Follow the on-screen prompts. Depending on your version of Windows, you may need to install the FTDI drivers.
   When complete, the development board appears in the Windows device manager as a *USB Serial Port*. Make a note of the COM port number to use in step 5.
4. Extract UWTerminalX to a selected folder and run the program (no installation is required).
5. Select your product from the Device dropdown box. If your device is not displayed select the COM port with the port number seen in device manager with the following settings:

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- ▪ Baudrate:
  - – BT900: 115200
  - – BL652: 15200
  - – BL600: 9600
- ▪ Parity – None
- ▪ Stop Bits – 1
- ▪ Data Bits – 8
- ▪ Handshaking – CTS/RTS

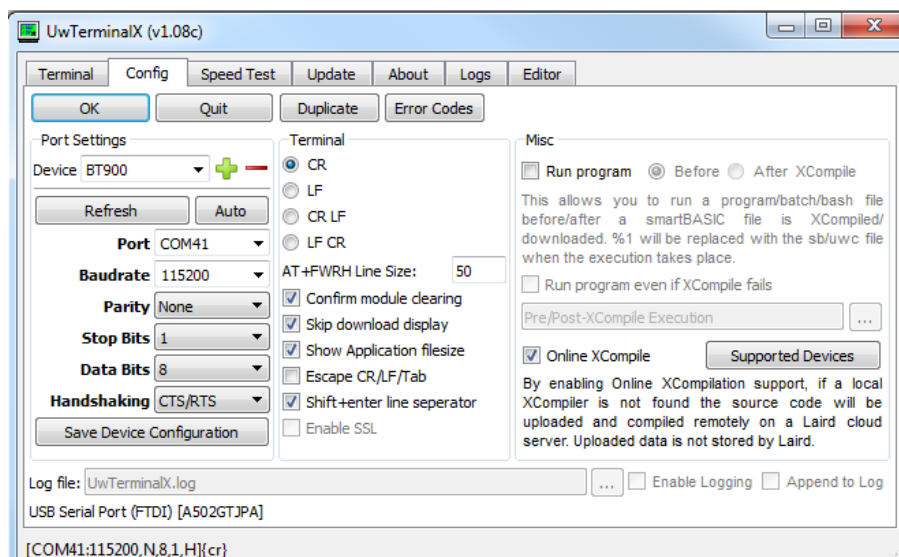*Figure 3: Comms settings*

6. Confirm you can communicate with the development board by typing *at* followed by a <carriage return>. The module responds with *00*.
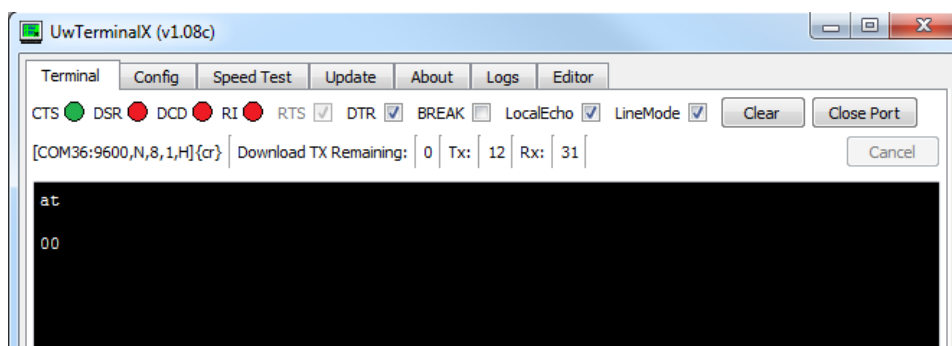

Figure 4: Comms OK

iPad/iPhone Setup

For iPad/iPhone setup, install the Laird Toolkit app from the Apple App Store and ensure Bluetooth is enabled in the device settings.

If using an iPad and after searching the Laird Toolkit app doesn't appear in the results, select **iPhone Only** from the dropdown menu.


"Laird Toolkit" by Laird Technologies - https://itunes.apple.com/us/app/laird-toolkit/id978146538?mt=8

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Figure 5: Laird Toolkit app installed

USING THE LAIRD BATCH APPLICATION

To use the Laird Batch application, tap the Laird Batch icon found in the Laird Toolkit app.The figure shows the functionality of the Laird Batch screen.
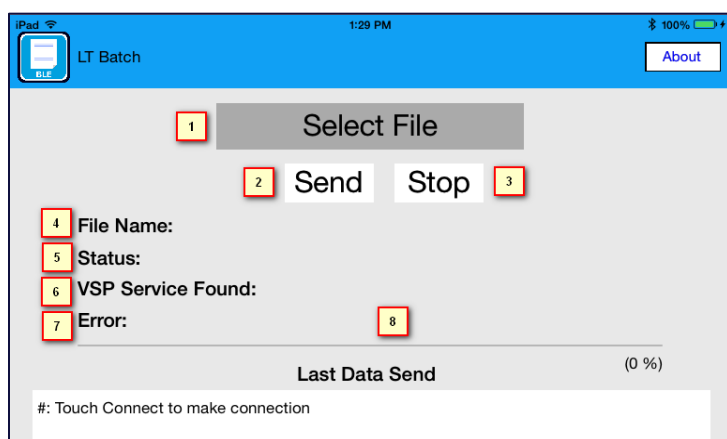

1. Select a batch file to be executed. All commands to be run are in the file.
2. Click **Send** to run the batch file. It is enabled only if a file is selected and a device is connected.
3. The Stop button is enabled only if a file is being executed.
4. File Name refers to the selected file.
5. Status indicates the running status of the batch process.
6. VSP Service Found displays any VSP service that is found.
7. Error shows an error number or error string if there is an error; otherwise it is blank.
8. A progress bar shows the batch commands progress.
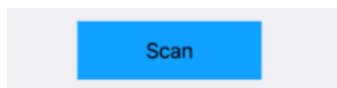
To connect to a device, tap **Scan**. When the desired device displays, tap the device.
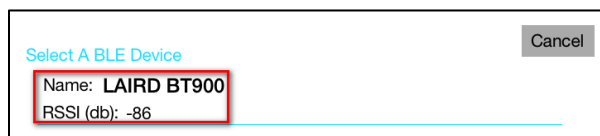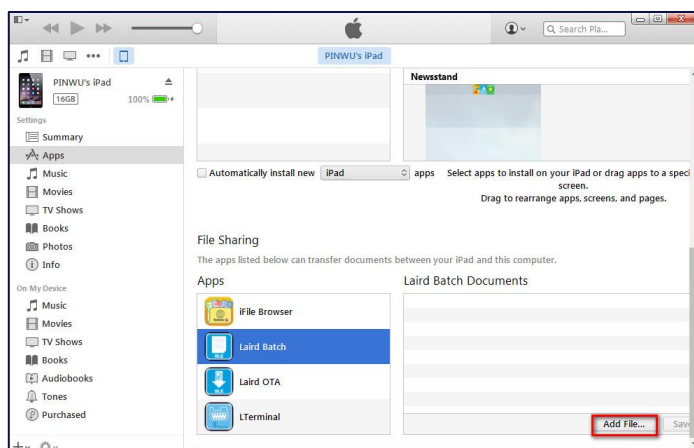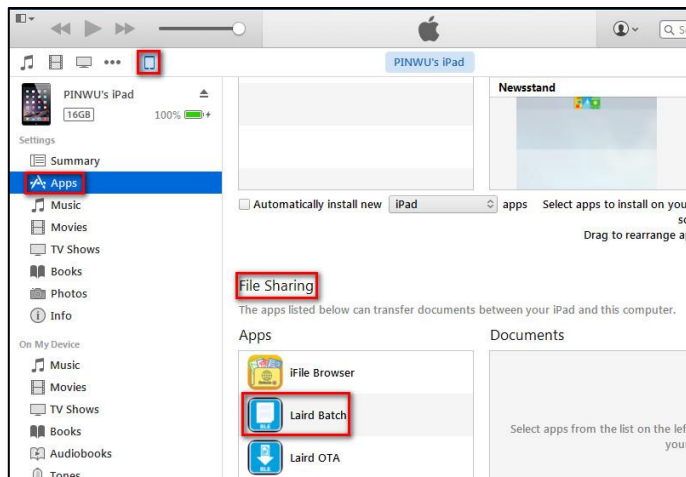

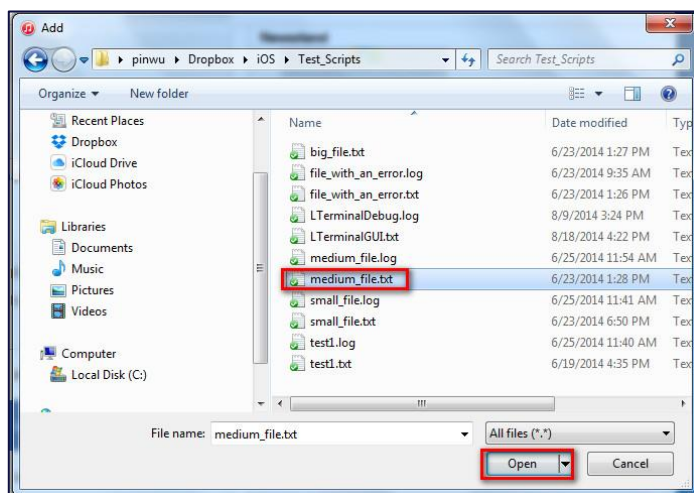When the device is connected, the Scan button changes to **Disconnect**.
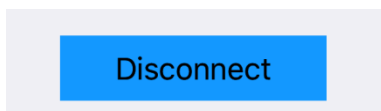
If the file that you want to run is not in the local files list, you can use iTunes on your PC to download to the device:

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1. Connect your iOS device to a PC loaded with iTunes.
2. Select the device icon as shown in the red box.
3. Click **Apps**.
4. Scroll down to the File Sharing section.

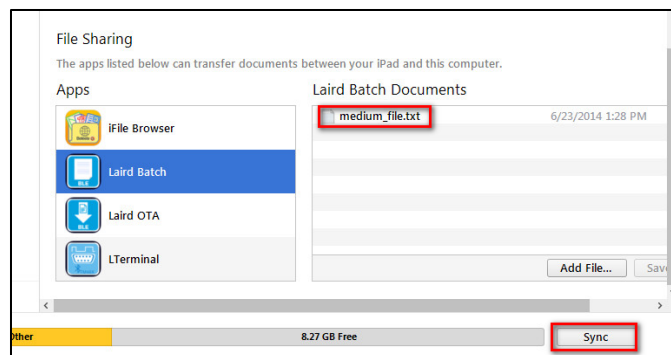5. Click the Laird Batch application, then click **Add file...**.

6. Select the file that you want to download and click **Open**.

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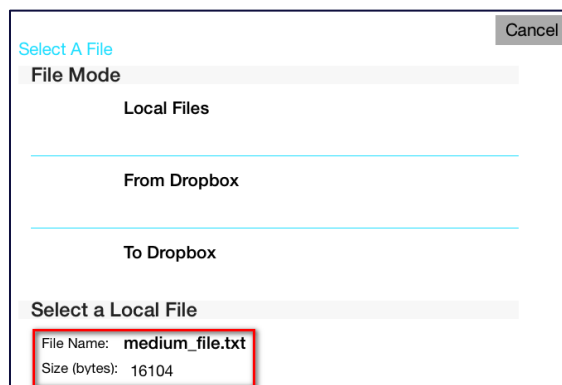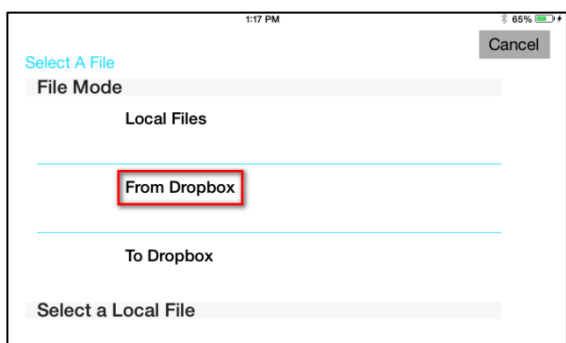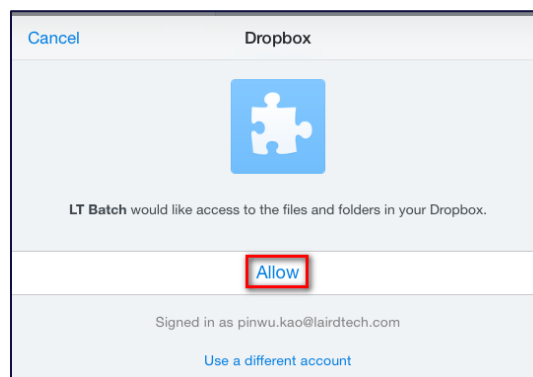Hong Kong: +852 2923 0600

7. The file name is displayed.
8. Click **Sync**.

If your file is in Dropbox, do the following:

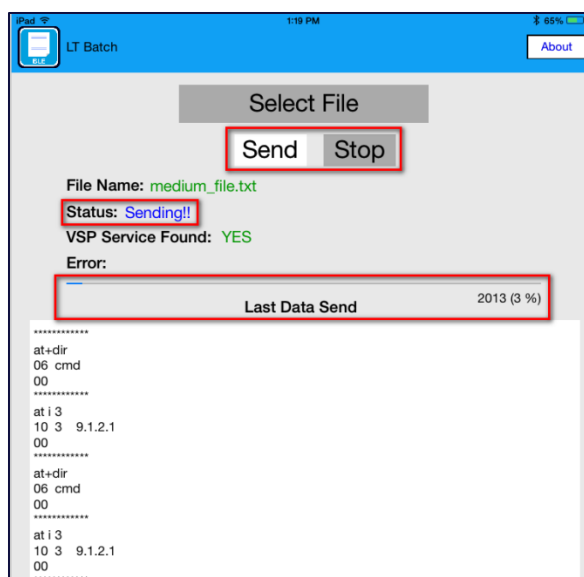1. The first time you use the application, you will be asked for permission to allow the application to access your Dropbox account. Tap **Allow** to continue.

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2. After you select a file and make a connection, the Send button is enabled.

3. Tap **Send**.

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4. The status displays Sending Finished when the process is complete.
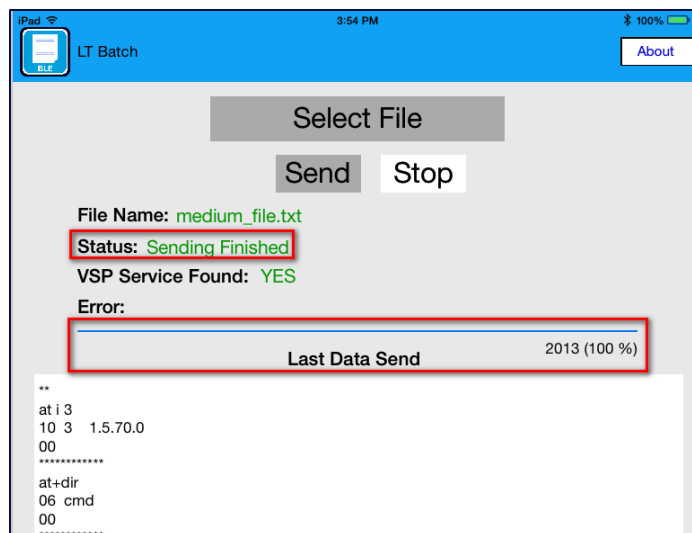
REVISION HISTORY

Revision	Date	Description	Approved By
1.0	05 Feb 2015	Initial Release	Jonathan Kaye
1.1	04 Mar 2015	Added Revision History	Sue White
1.2	03 Jan 2017	Updated for UwTerminalX and new template.	Jonathan Kaye

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