

## Step-by-Step guide to updating BLE Mini Firmware

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### Objective

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Drag-and-Drop new firmware to BLE Mini on Windows PC.

### Hardware Check-list

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- Microsoft Windows PC
- USB cable with micro-USB connector /



- BLE Mini

### Software Check-list

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- firmware to update (e.g. Biscuit-UART\_20130313.bin)

Firmware named Biscuit-UART\_XXXX.bin are designed to communicate with Arduino via UART.

### Steps

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1. Windows PC is on and running.
2. Disconnect BLE Mini from PC and any other Boards (like Arduino)
3. Remove any power sources (e.g. battery) from BLE Mini.

4. With USB cable's **NEITHER** ends connected, insert the micro-USB connector to Mini.
5. Press and Hold the push button on BLE-Mini while connecting the other end of USB cable to PC. Keep the push button down **until** Mini appears as Removable Disk on Windows.

Might need to press Refresh (F5) button for Removable Disk to show up.



6. (First Time Only) New Hardware detected by Windows.

Wait until Driver installation to complete

7. Now a new Removable Disk would appear. This is BLE-Mini.

- Press F5 key to refresh the Windows Explorer if necessary.



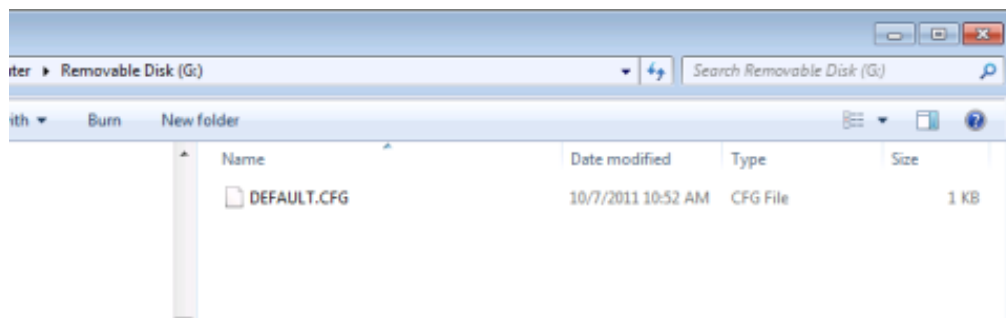
8. Release the push-button on BLE-Mini

9. Deleting any existing firmware on the disk (e.g. Biscuit.bin)

The Removable Disk will disappear and reappear momentarily. And the deleted firmware will no longer appears.

If this is not the case, the firmware is not removed. Try again.

If problem persists, try formatting again, see Troubleshooting section before proceeding to next step.



10. Copy your new firmware to the disk (e.g. Biscuit-UART\_20130313.bin)

*NO NEED to rename file to Biscuit.bin*

11. Mini will restart automatically and Green LED turned ON.

At this point the Removable Disk no longer appears.

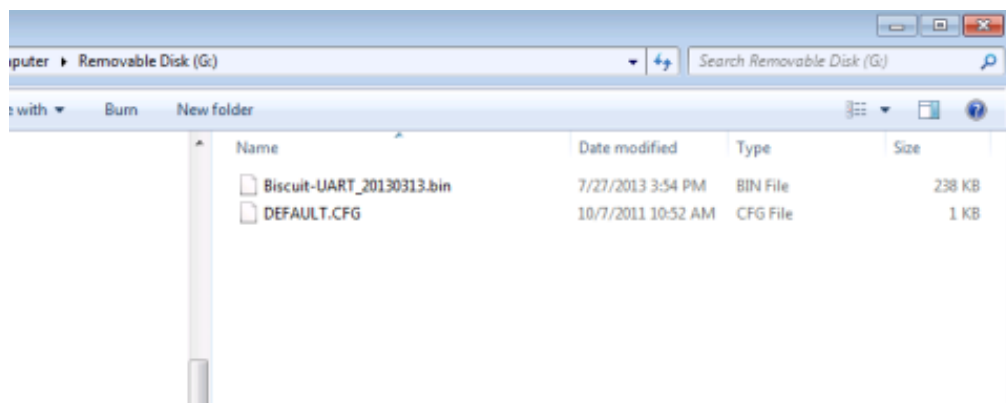
12. Disconnect the USB cable from PC.

13. Disconnect USB cable from Mini.

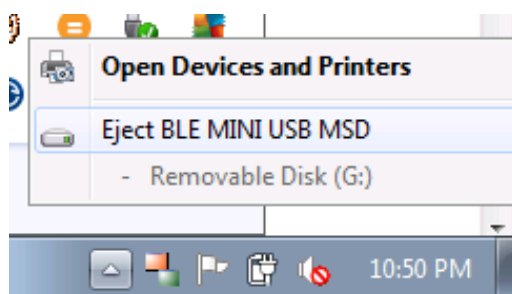
14. Firmware update completed.

Verify the firmware is updated

1. Follow Steps 1-8 above.
2. Open the Removable Disk
3. You should see the new firmware there (e.g. Biscuit-UART\_20130313.bin)



#### 4. Eject the Removable Disk

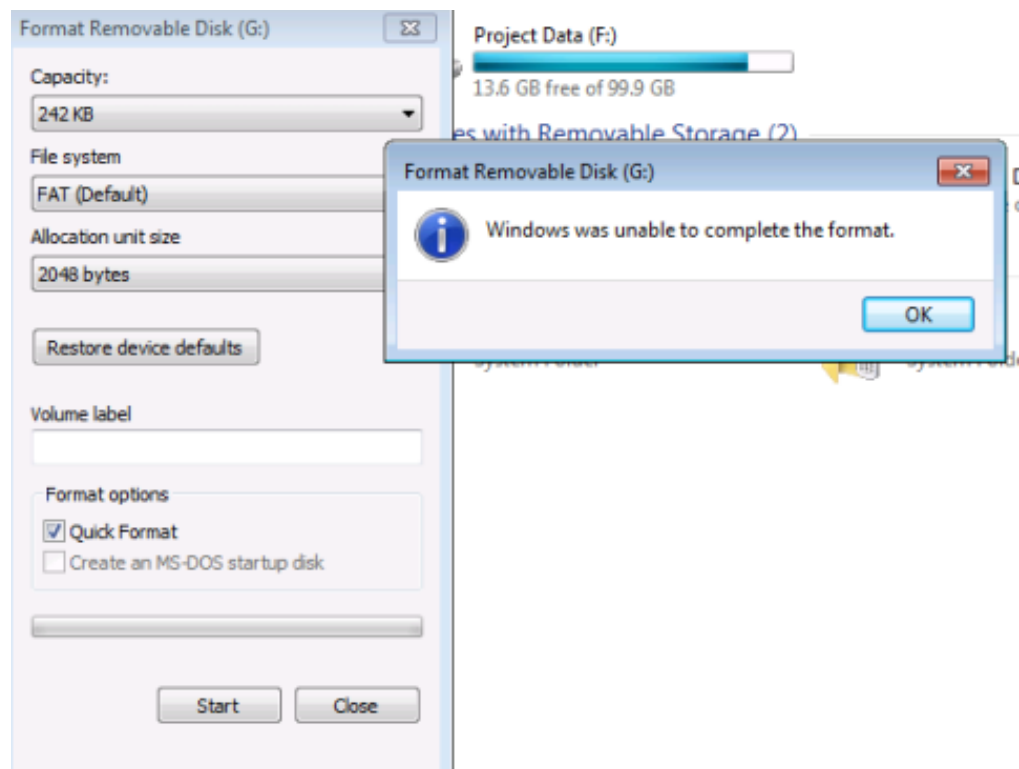
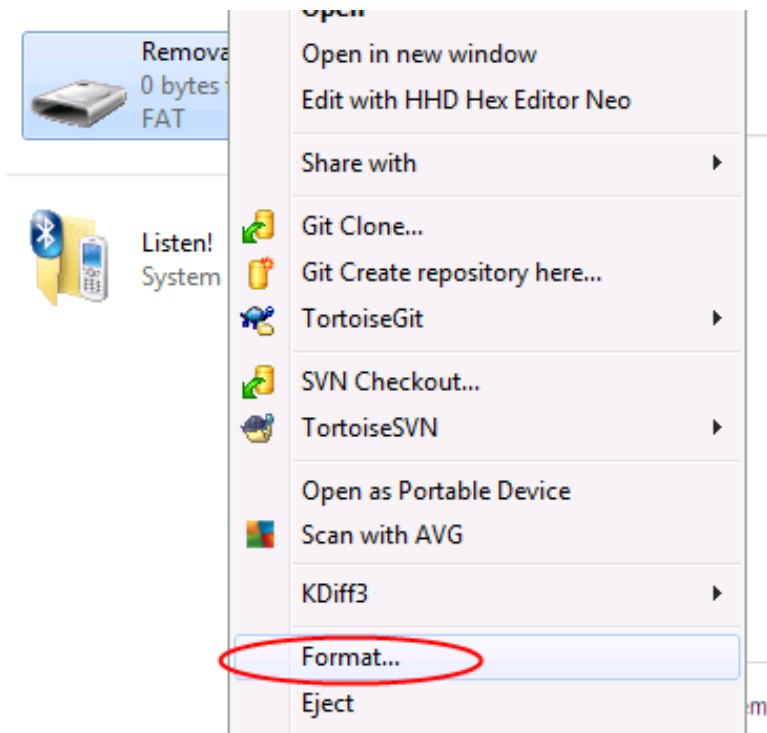


#### 5. Disconnect the USB cable from PC

#### 6. Disconnect the USB cable from Mini

### Troubleshooting

- In case it fails to delete the old firmware (Step 9) failed - the old firmware file remains listed in Windows Explorer in Removable Disk. Try the following:
    - Format the Removable Disk
      - From UI
- Error message could appear saying "Windows was unable to complete the format". Ignore this.



- From Command Prompt

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*format f: /fs:fat /a:1024 (drive f = BLE Mini drive)*

Ignore error message "Format Failed."

- Delete old firmware from Windows Explorer
- Repeat the above until the old firmware no longer appears.
- Continue the Firmware Update steps.