

# BLE DEV.N Device Firmware Updates (DFU)

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*Instruction Manual*

**November , 2013 v1.0**

### The BLE DEV.N Board is programmed with:

- The last version of softdevice (5.2.1) from Nordic in region 0 (read and write protected);
- Device firmware updates (dfu) from Nordic (modified pin numbers for board compatibility) in the upper end of region 1;
- “blinky\_example” from Nordic’s examples (modified pin numbers for board compatibility).

If you power the board the yellow led will blink rapidly.

### In order to put the board in programming mode:

1. Connect pins 2 and 19 from P2 connector by cable;
2. Connect the board to PC by USB cable – the board will be powered and green power led should light;
3. Press and hold the black button;
4. Unplug and plug again jumper from connector P4 (this will make hard reset);
5. Release the button;
6. The blue led should light – the development board is ready to receive the new code.

### In order to download your code to board you have to do:

1. From menu “Target options->Target” set the values for ROM(Start 0x14000, Size 0x2C000) and RAM (Start 0x20002000, Size 0x2000) as it is shown in Figure 1.
2. Compile the code;
3. From menu “Target options->Utilities” check and fill in the fields as it is shown in Figure 2. If the file “hci\_dfu\_send\_hex.exe” is not in PATH you have to add the full path before it. If the file “your\_code.hex” is not in current folder you have to add the full path before it. The COM port number can be verified in “Device Manager”; (Arguments: -p COM12 -b 921600 -fc -f #H)
4. Press “Load” button from toolbar;
5. The downloading will begin and the progress will be shown in window “Build Output”;
6. After successful programming your code will start automatically.

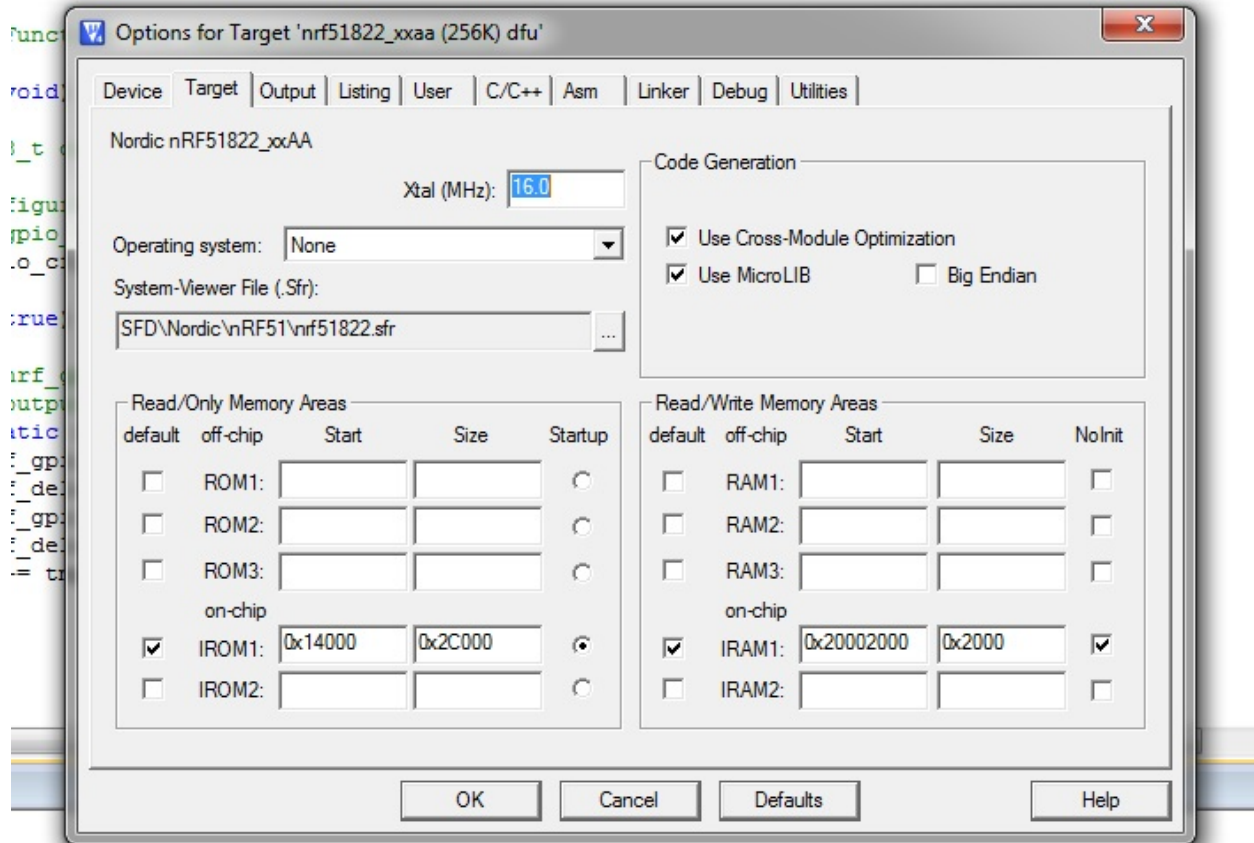


Figure 1

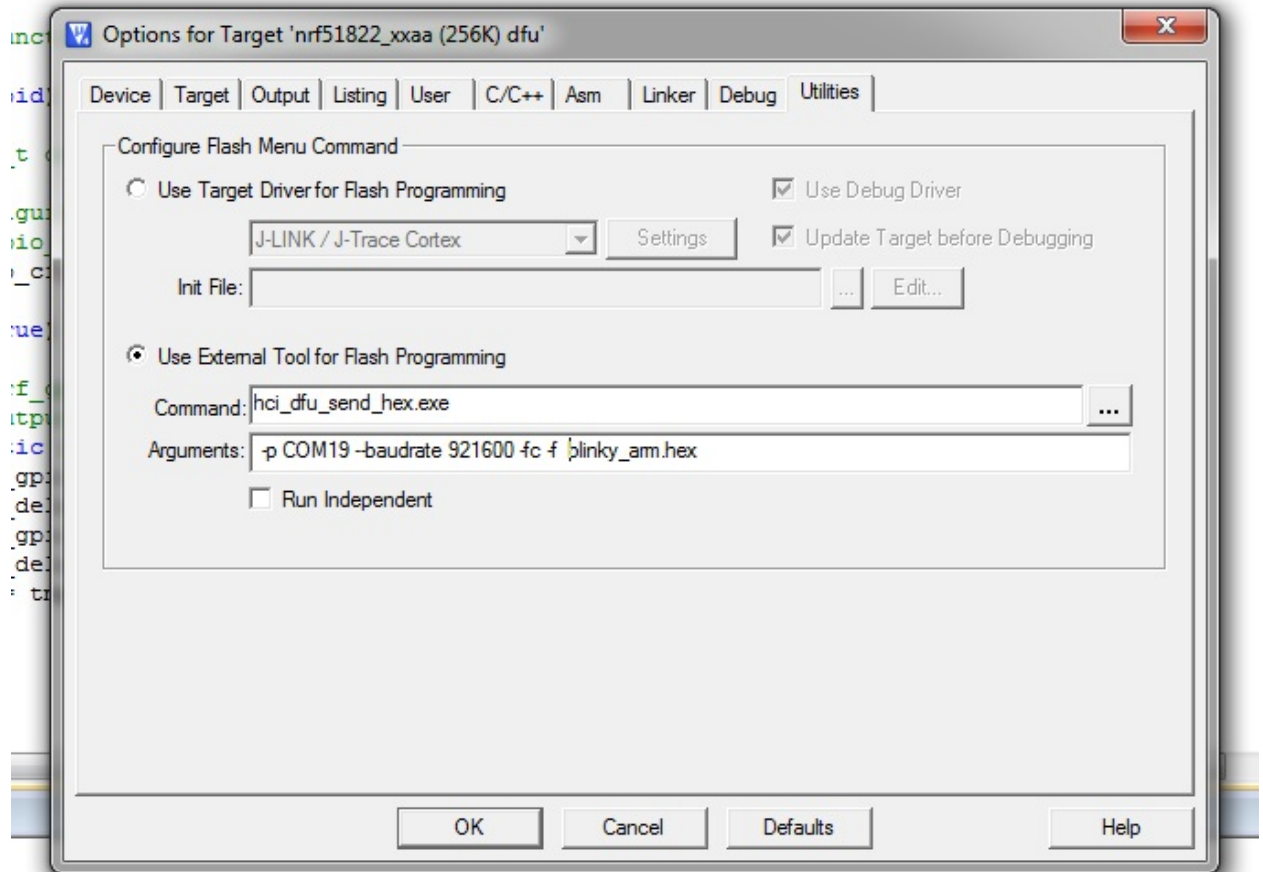


Figure 2