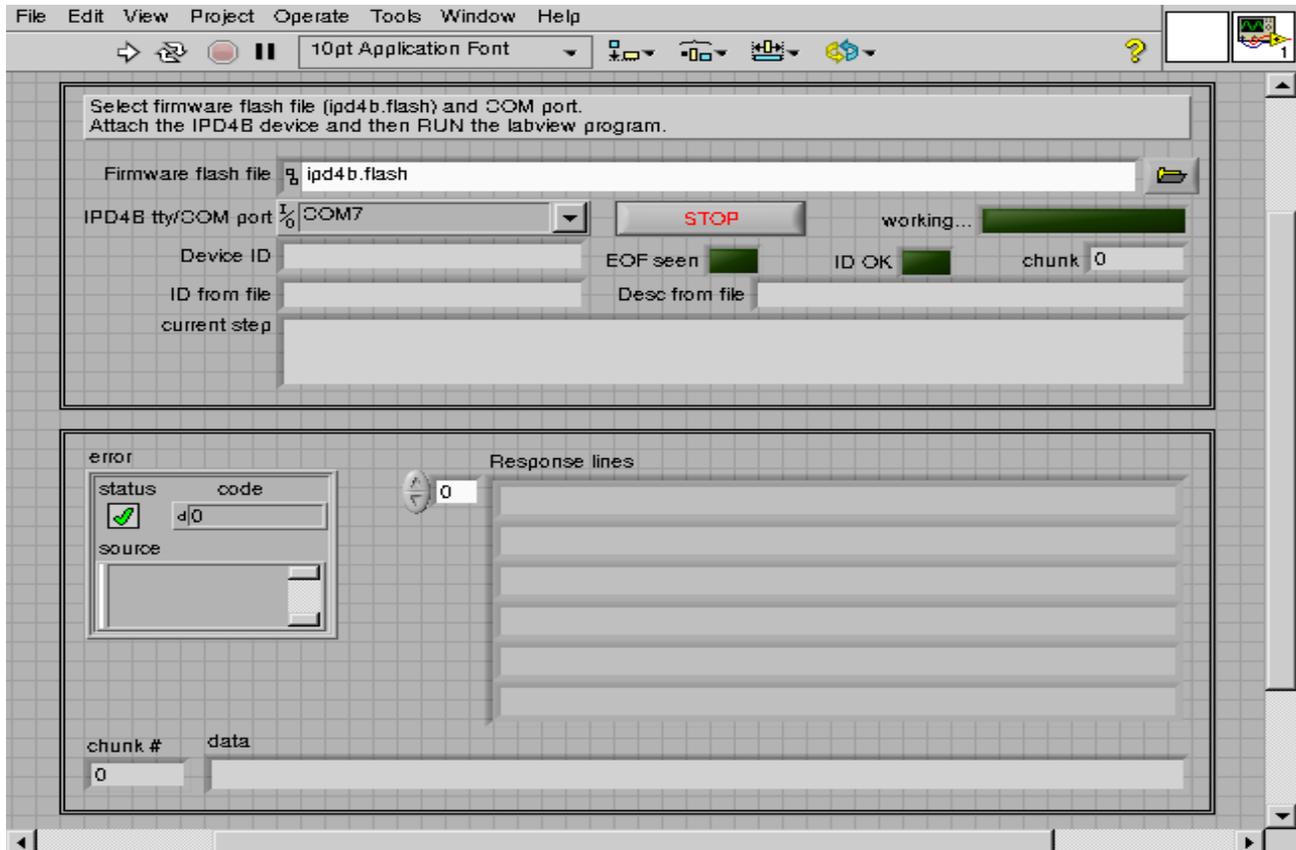


## Installing Firmware Updates on the WL-IPD4B via USB

The supplied LabView VI can be used for flashing new firmware onto the WL-IPD4B via the USB.

Perform the following steps:

1. Launch the **IPD4B\_fw\_update.vi** (or open in LabView).  
You need at least LabView 2010 (Version 10).
2. Locate the supplied \*.flash file (e.g. ipd4b.flash). Enter the path to this file in the box *firmware flash file* or choose the file interactively by pressing the *browse path* button to the right.
3. Connect the IPD4B via USB to the computer.
4. Make sure the IPD4B is powered up.
5. Select the correct COM port for the FlexDDS-NG at *VISA resource name*.  
You can use the Windows Device Manager to identify that COM port.  
For Linux, you may have to use the program **visaconf** use „Add Static“ button, pick an interface (ASRL#::INSTR) and connect it with the corresponding /dev/ttyUSBx (or /dev/ttyIPD4B if suitable udev rules are in place).
6. Start the LabView program by hitting the LabView start/run button.



After starting the LabView program, it needs to activate the bootloader on the IPD4B. Observe the „current step“ message. The program may tell you to reset the IPD4B via the small reset pushbutton next to the small LEDs on the bottom side. The progress bar fills during the firmware update. The whole process takes less than 1 minute.

After a successful install, the program will show a dialog box notifying you of the successful install.

## WL-IPD4B Firmware Update via Linux Terminal

Under Linux (64 bit), the program **cbootload** bundled in the firmware ZIP file can be used to install the firmware update.

Perform the following steps:

1. Launch a terminal emulator.
2. Locate the supplied **\*.flash** file (e.g. ipd4b.flash).
3. Connect the IPD4B via USB to the computer.
4. Make sure the IPD4B is powered up.
5. Find the corresponding device. Usually `/dev/ttyUSBx` (with `x` being a number 0, 1,...) or `/dev/ttyIPD4B` if a suitable udev rule is active.
6. Execute the firmware update command by entering the following command into the terminal:  
`./cbootload -8n1 -bd=24 /path/to/ipd4b.flash /dev/ttyUSBx`

Example transcript:

```
joe@debian:~ > ./cbootload -8n1 -bd=24 ipd4b.flash /dev/ttyUSBx
Opening firmware archive "ipd4b.flash"...
BL: File comment: "IPD4B-v0.9.5"
   File desc:    "BL/IPD4B/R1"
Entering programming mode... (if this takes long, reset device)
Identification response: "BL/IPD4B/R1"
Flashing firmware
.....[EOF][CKSUM OK] OK
New firmware successfully installed.
joe@debian:~ >
```