

**Marcus Graf**

Software artist

## Increasing Behringer BCF-2000 fader resolution

Posted on [2011/04/15](#) by [admin](#)

RTFM!

Usually I don't, but this time I did. Not to overlook any hidden features. And it paid off: NRPN, also known as **Non-Registered Parameter Numbers**. This is part of the normal MIDI protocol to support 14-bit messages. It has been implemented in the BCF-2000 and you can set up a fader pretty easily:

[edit]+move fader

knob1: MIDI data type -&gt; choose 'nrpn'

knob2: MIDI channel

knob3: parameter number

knob6: controller mode: A 14 (absolute 14-bit)

knob4: min value: 0

knob5: max value: 16384 (turn knob up to 9999 then up to 6383)

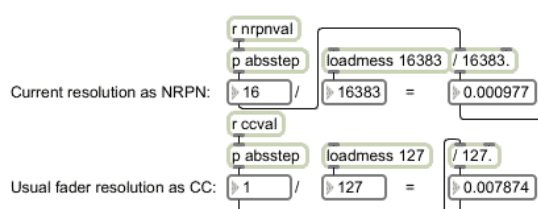
knob7: controller option: move/pick-up/motor

knob8: display value: on/off

[exit]

You can now use a program like [MidiOx](#) or the [midiparse] object from [Max/MSP](#) to test what is coming in. I made a small [Max/MSP test patch for you to download](#).

I was fearing that the resolution wouldn't be much higher, but luckily I was proven wrong! As opposed to the 1/127th standard resolution I got a good average 1/512th – 1/1024th resolution, increasing it to a 9-/10-bit resolution device, better suited for changing values like filter cut-off frequencies, sound amplitudes or pixel alpha values. This one is for you, Matteo!



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