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# Creating an Equalizer Preset in Logic Pro 9

Introduction to Music Production, Week 5

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## Introduction

My name is Joe Muscara and I live in Houston, Texas. We came through the recent flooding without any damage. I was a little worried about my home studio for a while. This lesson is for week five of Introduction to Music Production at [coursera.org](https://www.coursera.org). I will show how to emulate the equalization (EQ) section of a large format mixing console using the Channel EQ that comes with Logic Pro 9.

### Before We Begin

Logic Pro is a very deep and powerful program. There is usually more than one way to do something, whether it be a menu item, a keyboard shortcut, or a cursor tool. If you're familiar with Logic Pro, you may have a completely different method to do some of the steps I describe below. What's important is that you use what's best for your workflow. Also, while I am showing Logic Pro 9, these techniques are the same or similar in Logic Pro 8 and X. Consult your documentation for specifics.

The procedure below assumes that you already have a track or channel set up in a Logic Pro session and that you know some of Logic Pro's terminology.

### Why Emulate?

Different mixing consoles or mixers have different EQ sections largely because of design philosophies. While EQ in a digital audio workstation (DAW) such as Logic Pro is virtually limitless in its configurations, hardware EQ is expensive and designers of these devices make specific choices to achieve certain goals. Thus, the EQ section of each of these mixers has their own sound. By configuring the EQ of your DAW to work like a hardware EQ, you can get a head start on your EQ settings instead of trying to start from scratch.

### Is It Really the Same?

Simply put, no. While a large part of the sound of a hardware EQ comes from what is and what is not adjustable, the circuitry behind the EQ can also affect the sound. There are many plug-in manufacturers that make plug-ins that are designed to emulate hardware EQs. If you're interested in the sound of a hardware EQ, you should see if there is a plug-in available that emulates that unit.

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## The Neve 88RS

We will emulate the controls of the Neve 88RS mixing console. From the manual,

*The equaliser provides 4-band parametric equalisation, with overlapping frequency ranges.*

*HF 1.5kHz - 18kHz*

*M2 0.8kHz - 9kHz*

*M1 120Hz - 2kHz*

*LF 33Hz - 440Hz*

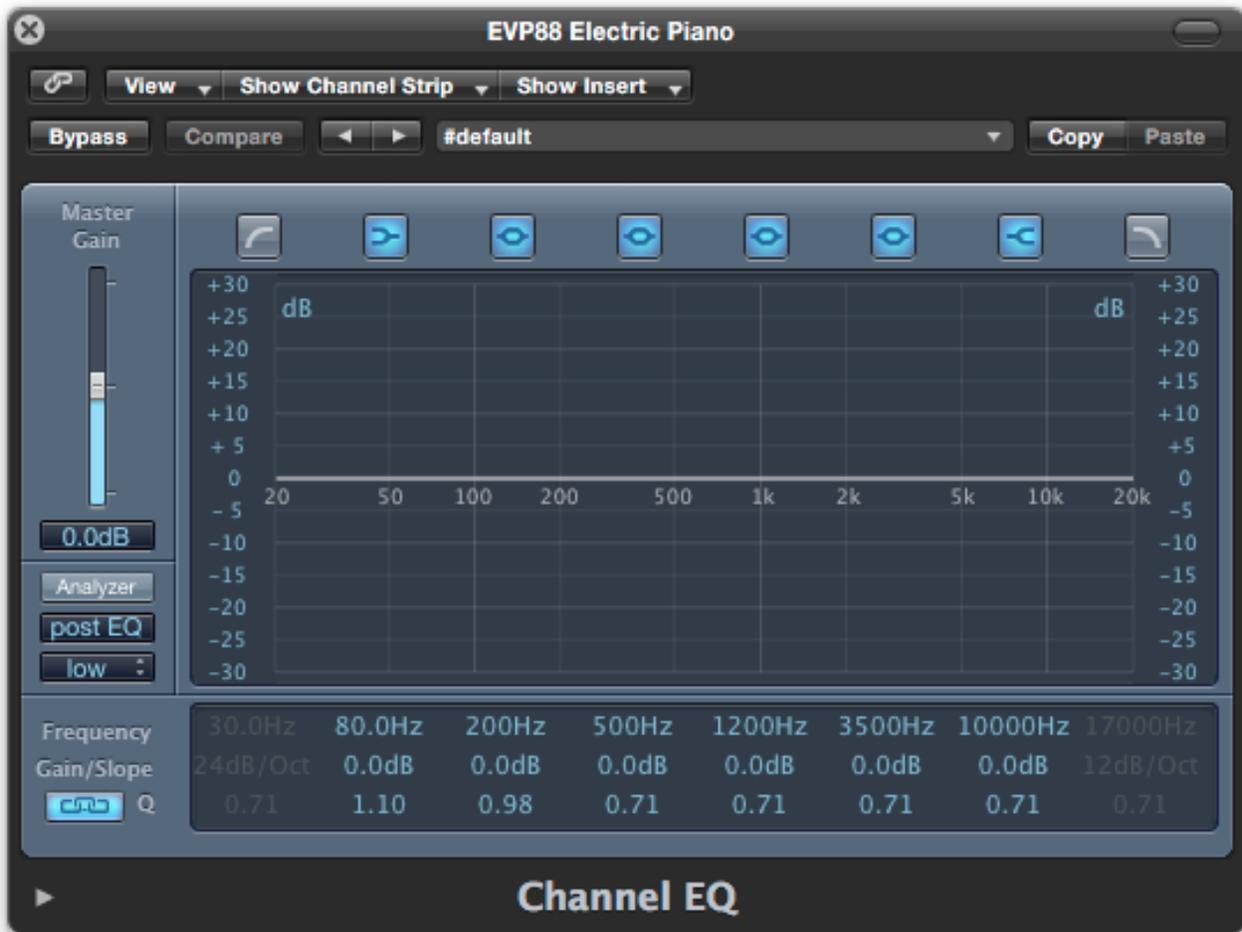
*The two mid-bands have variable controls for Q (from 0.4 to 10), gain (20dB cut and boost) and frequency.*

*The high and low frequency EQ controls provide variable gain (20dB cut and boost) and frequency controls with switchable Q (either 0.7 or 2) and a peak or shelf characteristic.*

In addition, the input section of the console has high and low pass filters.

*These are 12dB/octave high and low pass filters, with continuously variable frequency ranges from 31.5Hz to 315Hz and 7.5kHz to 18kHz respectively.*

## Channel EQ



Starting with the high pass filter on the left, it is off by default so click the On/Off button above the graphic display to turn on this band. Double-click in the Gain/Slope field to edit the value, and enter 12 to match the slope of the Neve filter. The Neve filter ranges from 31.5 to 315 Hz so change the frequency to 31.5 Hz knowing that you can increase it up to 315 Hz.

We will set the low and high frequency band EQ controls to be of the shelving type. By default the low shelving filter is on. The Neve low shelving filter ranges from 33 to 440 Hz, so we will start our shelving filter at the midpoint of the knob (trust me - the image is in the manual) which is about 160 Hz. Double-click on the Frequency for this band and enter 160. Logic Pro doesn't let you set the Q to be 0.7, but 0.71 is close enough so double-click on Q and enter that value.

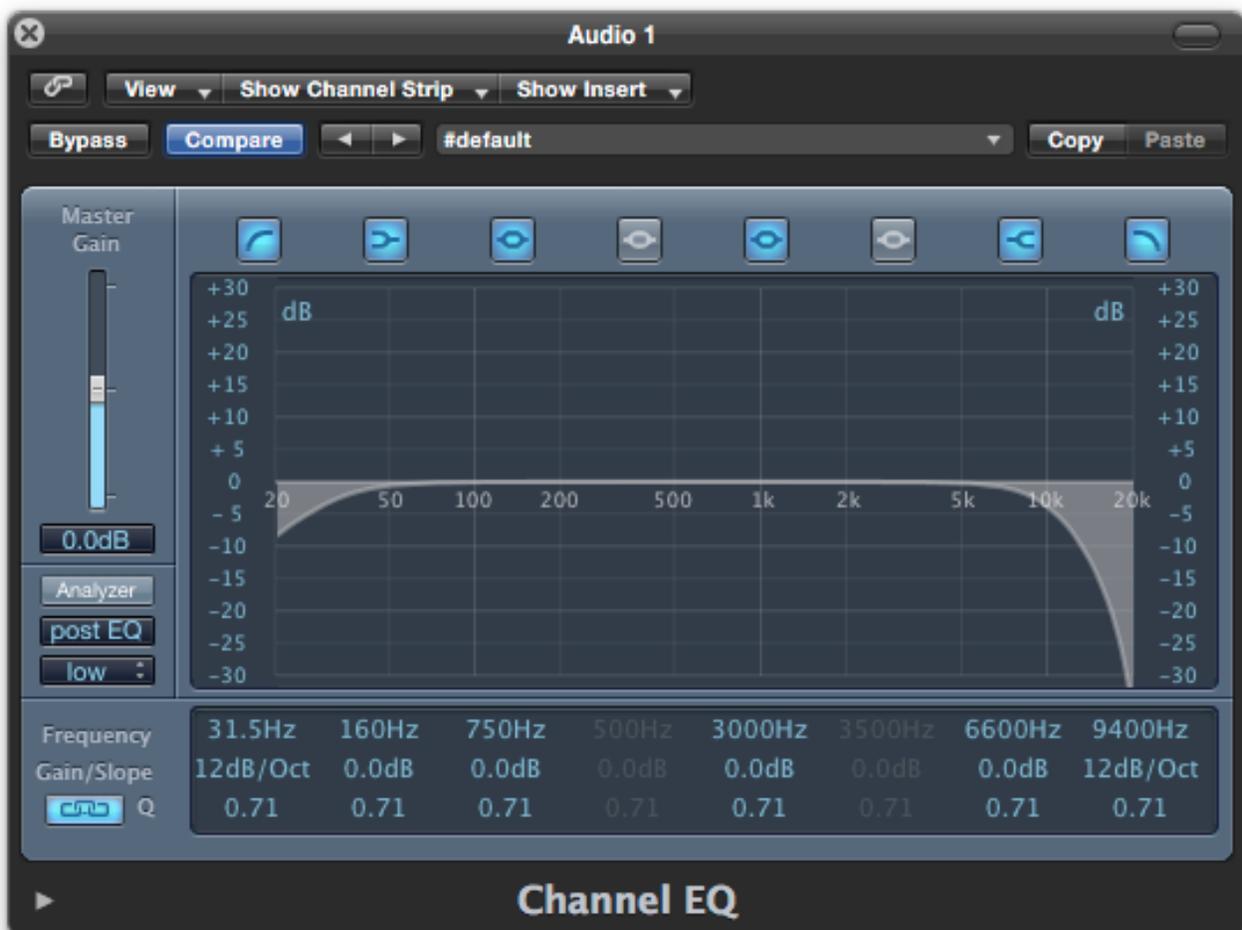
The low mid (M1 in the manual) on the Neve ranges from 120 Hz to 2 kHz, with a Q that ranges from 0.4 to 10. Set the Frequency to 750 Hz and the Q to 0.71. You can use either band 3 or 4 for this, turning the other band off at the top of the graphic display.

The high mid (M2 in the manual) on the Neve ranges from 0.8 kHz to 9 kHz, and again the Q ranges from 0.4 to 10. Set the Frequency to 3000 Hz and the Q to 0.71. You can use either band 5 or 6 for this, turning the other band off at the top of the graphic display.

The Neve high shelving filter ranges from 1.5 to 18 kHz, so we will start our shelving filter (band 7) at the midpoint of the knob which is about 6.6 kHz. Again, Logic Pro doesn't let you set the Q to be 0.7, but 0.71 is close enough so double-click on Q and enter that value.

Finally, turn on the low pass filter in the last band (band 8) on the right. It is already at 12 dB/octave and 0.71 Q so we just need to set the Frequency to the midpoint of the knob at about 9400 Hz.

When you are done, the Channel EQ should look similar to this. You may have used different bands for the mid EQs.

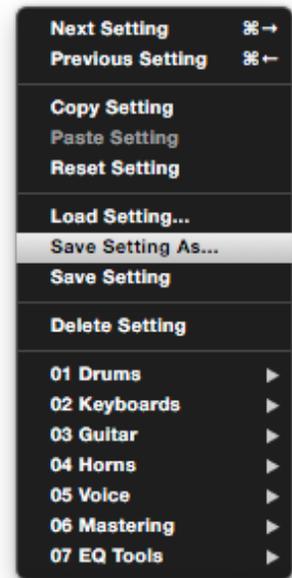


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## Saving as a Preset

Click on the menu above the EQ panel where it says “#default.” Select “Save Setting As...” This will open a Save dialog and by default, will select the Channel EQ folder in the Logic folder in your Library. Name the preset (such as “Neve 88RS”) and click Save.

Remember when using this preset that the hardware version has the ranges and settings described above, so you can feel free to adjust the Frequency and Q of each band within those ranges as your starting point when applying EQ.



## Reflection

Even though I have used the Channel EQ previously, I learned a lot more about it by doing this lesson. I also learned a bit about hardware EQs and consoles. I also found that there is a [software emulation of this and other aspects of this console](#).

Thanks for reading. I hope you found this useful, and I’m looking forward to your feedback.