

## Brainworx bx\_digital - ELECTRONIC MUSICIAN REVIEW (EM)

Mar 1, 2008 12:00 PM, By Brian Heller

**This mastering and M/S processor plug-in provides EQ, M/S processing, de-essing, and more.**



Brainworx bx\_digital is a software simulation of the company's hardware mastering processors. The display includes a large, well-marked depiction of the EQ curve for each channel.

Brainworx is a new hardware and software company based in Germany, and the bx\_digital plug-in (approx. \$877, TDM CD and printed manual; \$857, TDM download; \$509, VST/RTAS CD and printed manual; \$488, VST/RTAS download; \$427, RTAS-only download) is an emulation of its bx-series hardware mastering processors. It runs on both Macintosh and Windows platforms and is available in VST, RTAS, and TDM formats. All versions are copy protected and can be authorized with the iLok system or a challenge-and-response procedure.

The plug-in combines a mid-side processor, stereo equalizer, and de-esser. It also includes two unique Brainworx features: Bass and Presence Shifters on each channel and the Mono-Maker (more about these in a moment).

Bx\_digital's EQ section provides five bands per channel, each of which is fully parametric. Bands 1 and 5 can become high and low shelves, and bands 2 and 4 can become high- and lowpass filters. In the TDM version, two more bands offer dedicated high- and lowpass filters for each channel. Each band offers plenty of control over frequency range and bandwidth as well as 12 dB of boost or cut. Each band can also be individually linked to the corresponding band on the other channel, making it easy to work with some bands in stereo and some in mono.

I found the EQ to be exceptional. It was as smooth, transparent, and clean as I've ever heard. Compared with an average mixing EQ plug-in, it was clearly more elegant with large boosts, and it didn't impart any sense of harshness in the mids and highs. It also stood out among some other computer-based mastering EQs, requiring almost 3 dB less gain in the high shelf to give the same sonic results as another such respectable product.

The Bass and Presence Shifters are essentially 2-band EQs with fixed center frequencies and bandwidths that operate in tandem from a single control — a boost in one band causes a corresponding cut in the other. The Bass Shifter bands are set around 63 Hz and 315 Hz, and the Presence Shifter bands are centered around 6 kHz and 12 kHz. The designers' years of practical experience suggested that corresponding boosts and cuts at these frequencies are commonly needed in mastering, and I found them to be both convenient and effective.

One thing that sets bx\_digital apart is its M-S (mid-side) processing. In fact, the elegant and user-friendly way this is handled represents a significant step forward. In the conventional left/right stereo mode, the controls operate as you would expect. But when you engage one of the M-S stereo modes, all controls for the left channel are relabeled "mono" (mid) and the right channel's controls become "stereo" (side). This makes bx\_digital a useful tool for M-S recordings.

The Mono-Maker is another Brainworx-specific tool. It creates a mono low end by cutting low frequencies in the side channel while boosting them in the mid channel to retain their total power in the mix. This feature has a cutoff-frequency control that ranges from 20 to 400 Hz. The manual provides good examples of how this might be useful, such as ensuring that bass frequencies are mono for vinyl mastering.

In operation, bx\_digital was nearly flawless, and my gripes are mostly nitpicky wishes. For instance, there is a master bypass for the EQ, but there are no bypass controls on the individual EQ bands or the de-esser. In addition, there is no true notch filter, which might be a useful thing to have on a great-sounding EQ like this one. Loading settings saved in a VBox matrix in BIAS Peak Pro didn't work correctly (Brainworx said it will look into this issue). It would also make sense to add a list of the keyboard modifiers to the documentation; for example, Option-clicking on a control resets it to the default value.

Bx\_digital needs a lot of screen real estate. That is part of what makes the plug-in a pleasure to use, but it also doesn't leave much room for anything else on a 17-inch display at 1,440 x 900. The TDM version can show or hide the two different sections, but the VST and RTAS versions cannot.

Bx\_digital is the flagship software title, but some of its functions are available in the scaled-down bx\_control (\$99) and bx\_solo (free). In any case, you're sure to be thrilled by the sound of these outstanding plug-ins.

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**Value (1 through 5): 4**

Brainworx  
[www.brainworx-music.de](http://www.brainworx-music.de)