

BC MANAGER FOR WINDOWS

Version 1.0.0

MANUAL

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1. Overview

BC Manager for Windows is a free, third-party utility for working with the Behringer BCF2000 and BCR2000 USB Midi Controllers.

A few notes on terminology used in this manual:

- 'BC' is used as a generic term for the BCF2000 and the BCR2000.
- 'BCL' (Behringer's term) stands for B-Control Language, the language in which all the BCF2000/BCR2000's parameters are sent, embedded in MIDI System Exclusive messages.
- 'Element': a generic term for buttons, encoders and faders.

Note that this manual is rather sketchy in many areas, but hopefully it covers the most important issues. I just didn't want to waste any more time before publishing the program...

BC Manager provides the following facilities (among others):

- Maintenance of up to 16 BCs simultaneously: you can send and receive global settings and presets.
- You can save all BC data as 'syx' or 'txt' files. BC Manager opens and saves both formats, so no manual, external conversion is needed between syx and txt. (Actually BC Manager does include a conversion utility, but you never need to use it for BC Manager itself.)
- Display of all global, preset and element parameters in on-screen tables.
- Graphical editing of all parameters. (So you don't have to know BCL.)
- You can edit a particular parameter for a range of elements (or even presets) in one go, either to a single value or incrementally.
- Full support for 'custom' (.tx') MIDI messages: you can edit these graphically too.
- For Roland and Yamaha MIDI devices it is possible to use a special parameter definition file: in this way you only have to tell BC Manager which parameter you want to assign to a particular button, encoder or fader on your BC, and BC Manager creates the appropriate MIDI message definition automatically.

The BC Manager 1.0.0 package provides only 3 definition files, but hopefully people will write their own and upload them to the Yahoo group's file section, for everyone to use.

Maybe a future version of this manual will detail this parameter file format. Until that time, see the example files provided, and feel free to contact me for any questions or suggestions.

- Standard copy-and-paste facilities for presets and elements.
- You can provide a label for each element (and print them — see below). Furthermore, you can add your own comments (of unlimited length) to the global setup, to each preset and to each element.

Beware: these labels and comments cannot be stored on the BC itself. Therefore it is recommended that you only *send* preset definitions containing labels and/or comments to the

BC, but don't attempt to *receive* those definitions back from the BC.

- For testing purposes, BC Manager incorporates a seamlessly integrated BCL script editor: you can load the internally maintained state of a BC (or even a single preset) directly into a BCL text editor window, and you can have BC Manager 'execute' the text from this window or send it directly to the BC via MIDI.
- Various printing facilities:
 - You can print the parameter table window *images* as such.
 - You can print a page containing 'strips' specifying the elements' labels: if you cut these out, you can put them on your actual BCF and BCR. (Note: this routine *always* uses *Landscape* orientation for the printed page, irrespective of the setting made in BC Manager's main window via Options ⇒ Printer.)
- You can export a parameter table to a specially formatted 'txt' file that you can use as an input file to create a table in an external word processor. (In any case I know that this works for WordPerfect; I assume that it works for other word processor as well.)
- Lots of integrated, generic MIDI tools for monitoring input and output.

2. Version history

Version 1.0.0: First published version.

3. Requirements

To run BC Manager for Windows, your computer must comply with the following requirements:

- Processor: Any Intel 80486- or Pentium-compatible CPU. Processor speed is relatively unimportant.
- Operating system: in principle BC Manager should run under Windows 95, NT 4 or any later Windows version. However, BC Manager has so far only been tested under Windows XP Professional with Service Pack 2.
- An SVGA-compatible graphical card and monitor, capable of a resolution of at least 800×600 pixels. However, some of the bigger dialog boxes may be cut off if the screen width is too small, so 1024×768 is the *practical* minimum, and 1280×1024 is highly recommendable.
- A mouse.
- Free hard disk space: about 8 MB. (This is mainly for the installer; BC Manager itself occupies little more than 1 MB.)
- RAM: when running, BC Manager occupies roughly 10 MB.
- Unlike BC-Edit, BC Manager does *not* require Java Runtime Environment (JRE).

BC Manager runs perfectly well without a MIDI link to a BC, but if you want to establish a real-time connection between BC Manager and a BC, the BC must be linked to the computer via MIDI input and output ports, being either 'normal' MIDI I/O ports or the BC's USB-based MIDI I/O ports.

4. Installation

To install BC Manager, proceed as follows:

1. Download the file BCMan100.zip to your computer.
2. Unzip this file to any folder on your computer. This creates a single file: Setup.exe.
3. Run Setup.exe, and follow its instructions. BC Manager (including an uninstaller) will be installed on your hard disk.

When you run BC Manager itself (i.e. BCMan.exe) for the first time, a pop-up dialog-box warns you that BC Manager can't find your configuration. This is normal: when you quit BC Manager, it stores its setup (including the MIDI setup, BC definitions and window layout) in a file called BCMan.ini, which simply isn't present the first time you start BC Manager.

A useful tip follows from this: if at any stage you have messed up your settings, you can simply delete BCMan.ini while BC Manager isn't running; then switch on the BC and start BC Manager: it's then as if BC Manager is running for the first time again.

5. MIDI setup

For your convenience, when BC Manager is started for the first time, it defines one BCF2000 and one BCR2000. BC Manager does not perform auto-detection, but it may still be able to actually ‘find’ these devices correctly. For this to work, several conditions must be true:

- You must use Behringer’s USB driver version 1.2.1.3. (Versions 1.1.1.0 and 1.1.1.1 do *not* work in this respect, simply because they lead to slightly different MIDI I/O port names, which BC Manager doesn’t recognize.)
- Your BCF and/or BCR must both have Device ID 1 (as set via ‘Global Setup’).
- You must have connected your BCF and/or BCR via USB and have switched them on *before* you start BC Manager.

In all other cases (e.g. if you use a different USB driver version, or don’t use USB at all), you must manually tell BC Manager where to find your BC(s). This involves two steps:

1. You must ensure that the pertinent MIDI I/O ports are *enabled* in BC Manager:
From the main window’s ‘Options’ pull-down menu, ‘MIDI devices’ opens a dialog box in which you can configure the MIDI devices that BC Manager monitors. This is relevant in several ways:
 - If you want BC Manager to communicate with a BC, the MIDI input and output ports connected to this BC need to be ‘enabled’ here.
 - More in general, *all* BC Manager’s MIDI utilities (including those not directly related to BCs) can only exchange data via MIDI devices that are ‘enabled’.
 - If you want to run other programs at the same time, it may be a good idea to keep as many MIDI devices disabled here as you can, in order to avoid conflicts.
 - A side-note: in the ‘MIDI devices’ dialog box you can also set up a ‘soft MIDI thru’ link, by connecting an enabled MIDI input to an enabled MIDI output device. Any MIDI message received by the MIDI input device is then immediately passed on to the MIDI output device. In fact, you can set up as many links as there are devices; the only restriction is that each device can have only one connection.
2. You must set every BC’s MIDI I/O ports and its Device ID to the correct values: in the ‘B-Controls’ window, select (highlight) the appropriate BC, then run ‘MIDI options’ from the ‘MIDI’ pull-down menu.

A good way to test whether the bidirectional connection to your BC is working, is to execute ‘Receive identity’ from the ‘B-Controls’ window’s MIDI pull-down menu.

6. Using the computer keyboard

BC Manager's user interface uses mostly standard Windows controls (buttons, checkboxes, pull-down boxes etc.). This means that it may sometimes be easier to use the keyboard instead of the mouse for particular operations.

A few standard Windows keystrokes worth mentioning:

Control	Key(s)	Action
Checkbox	Space	Toggle the setting on/off
Pull-down box	Left/Up arrow	Select the previous item
	Right/Down arrow	Select the next item
	Home	Select the first item
	End	Select the last item
	Alt+Up/Down arrow	Open/close the pull-down list

And here are some important keystrokes and mouse-clicks for the parameter knobs:

Key(s)/mouse click	Action
Left arrow	Decrease the value by 1
Right arrow	Increase the value by 1
Ctrl+Left arrow	Decrease the value by a 'big' amount (often 10)
Ctrl+Right arrow	Increase the value by a 'big' amount (often 10)
Home	Select the lowest value
End	Select the highest value
Alt+Enter	Open a dialog box in which you can type a new value (this only works for purely numerical knobs, i.e. knobs without items like 'Off')
Left click (caption/value)	Select the knob under the mouse
Left click (actual knob)	Set the value as indicated by the mouse position
Right click	Change the value by a big amount in the direction of the mouse

7. Known problems

MIDI ports:

While BC Manager is running, connecting or disconnecting a BC via its USB cable must be avoided, since it may lead to nasty error messages. The operating system does notify all running applications when a BC gets connected or disconnected, but (as far as I know) stupidly enough applications are not allowed to actually *update* to the new situation, so you must exit and restart BC Manager manually.

8. Wish list

There are many things that I would like to incorporate in BC Manager, but due to time constraints, this section of the manual is yet to be written. However, don't hesitate to contact me if there's anything that you really miss: that particular feature might then move up my things-to-do list.