

FL Studio & Behringer BCR2000

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In gerenal

You can use my configuration for absolute and relative controlling. That means:

- absolut mode = BCF sends an absolute value between 0 and 127 to FL Studio, depending on the position of knob or switch; you can see the position by the LEDs
- relative mode = BCF sends only a change value to FL Studio like „1 step more“ or „1 step less“; usage of LEDs doesn't make any sense

Preparation of BCR2000

1. Download BC Manager for easy configuration of your BCR2000 (<http://mountainutilities.eu/bcmanager>)
2. Use BC Manager for the following steps:
 - a. delete all presets on your BCR2000 (you can surely make a backup first)
 - b. install my presets on your BCR (e.g. „FL Studio (absolute)“ on P-1, „FL Studio (relative)“ on P-2, ...)
3. P-1 „FL Studio (absolute)“ is configured with the following parameters
 - a. All encoder values are from 0 to 127
 - b. Encoder Group 1: 1-2 dot LEDs (default value = 0)
 - c. Encoder Group 2-4: not used
 - d. Push Encoder Group 1 & Switches: values from 127 to 0; Toggle Mode On
 - e. Top/Middle/Bottom Row: 1 dot LED (default value = 0)
4. P-2 „FL Studio (relative)“ is configured with the following parameters:
 - a. All encoder values are from 0 to 127
 - b. Encoder Group 1: no LEDs (default value = 0)
 - c. Encoder Group 2-4: not used
 - d. Top/Middle/Bottom Row: no LEDs (default value = 0)
 - e. Push Encoder Group 1 & Switches: not used
5. P-3 „FL Studio (dual)“ is configured with the following parameters:
 - a. All encoder values are from 0 to 127
 - b. Encoder Group 1-3: 1-2 dot LED, Absolute (default value = 0)
 - c. Middle/Bottom Row: no LEDs, Relative (default value = 0)
 - d. Push Encoder Group 1 & Switches: values from 127 to 0; Toggle Mode On

NPRN-Mode only works with BCF2000. Therefore use CC-Mode for BCR2000

absolute controller for digital knobs, faders, etc - bi-directional!!

- BCR2000 preset „FL Studio (absolute)“
- Midi-protocol is CC (cc# 0 to 127; value range 0 to 127)
- Midi-Channel is 2 (you can change if you want)

No.	Group/Row	Item	F	M	Name	Comments	Show	Default	LEDs	Resolutions	Type	Ch	Param	Value 1	Value 2	Mode	Custom output
1	Push Encoder Group 1	1	*				+	0	Cutoff freq	96	CC	2	1	0	127	Absolute	
2	Push Encoder Group 1	2	*				+	0	Cutoff freq	96	CC	2	2	0	127	Absolute	
3	Push Encoder Group 1	3	*				+	0	Cutoff freq	96	CC	2	3	0	127	Absolute	
4	Push Encoder Group 1	4	*				+	0	Cutoff freq	96	CC	2	4	0	127	Absolute	
5	Push Encoder Group 1	5	*				+	64	Pan	96	CC	2	5	0	127	Absolute	
6	Push Encoder Group 1	6	*				+	64	Pan	96	CC	2	6	0	127	Absolute	
7	Push Encoder Group 1	7	*				+	64	Pan	96	CC	2	7	0	127	Absolute	
8	Push Encoder Group 1	8	*				+	64	Pan	96	CC	2	8	0	127	Absolute	
9	Push Encoder Group 2	1	*				+	0	1 or 2 dots	96	CC	2	9	0	127	Absolute	
10	Push Encoder Group 2	2	*				+	0	1 or 2 dots	96	CC	2	10	0	127	Absolute	
11	Push Encoder Group 2	3	*				+	0	1 or 2 dots	96	CC	2	11	0	127	Absolute	
12	Push Encoder Group 2	4	*				+	0	1 or 2 dots	96	CC	2	12	0	127	Absolute	
13	Push Encoder Group 2	5	*				+	0	1 or 2 dots	96	CC	2	13	0	127	Absolute	
14	Push Encoder Group 2	6	*				+	0	1 or 2 dots	96	CC	2	14	0	127	Absolute	

relative controller for digital knobs, faders, etc

- BCR2000 preset „FL Studio (relative)“
- Midi-protocol is customized
- With BCF2000 you can use NPRN-protocol (but BCR2000 doesn't work with NPRN in FL Studio)

No.	Group/Row	Item	F	M	Name	Comments	Show	Default	LEDs	Resolutions	Type	Ch	Param	Value 1	Value 2	Mode	Custom output
1	Push Encoder Group 1	1	*						1 dot	30				0	0		ifp \$B3 \$60 \$01 ifn \$B3 \$61 \$01
2	Push Encoder Group 1	2	*						1 dot	30				0	0		ifp \$B3 \$60 \$02 ifn \$B3 \$61 \$02
3	Push Encoder Group 1	3	*						1 dot	30				0	0		ifp \$B3 \$60 \$03 ifn \$B3 \$61 \$03
4	Push Encoder Group 1	4	*						1 dot	30				0	0		ifp \$B3 \$60 \$04 ifn \$B3 \$61 \$04
5	Push Encoder Group 1	5	*						1 dot	30				0	0		ifp \$B3 \$60 \$05 ifn \$B3 \$61 \$05
6	Push Encoder Group 1	6	*						1 dot	30				0	0		ifp \$B3 \$60 \$06 ifn \$B3 \$61 \$06
7	Push Encoder Group 1	7	*						1 dot	30				0	0		ifp \$B3 \$60 \$07 ifn \$B3 \$61 \$07
8	Push Encoder Group 1	8	*						1 dot	30				0	0		ifp \$B3 \$60 \$08 ifn \$B3 \$61 \$08

No.	Type/Hex	Param/Dec	Binary
1	ifp		
2	\$B3	179	1011-0011
3	\$60	96	0110-0000
4	\$01	1	0000-0001
5	ifn		
6	\$B3	179	1011-0011
7	\$61	97	0110-0001
8	\$01	1	0000-0001

- If value positive
 - Set MIDI channel 3 (you can also use an other channel)
 - And send value 60 (means increase one step*)
 - For controller #1 (Param/Dec) → use number only for one controller
- If value negative
 - Set MIDI channel 3 (you can also use an other channel)
 - And send value 61 (means decrease one step*)
 - For controller #1 (Param/Dec)

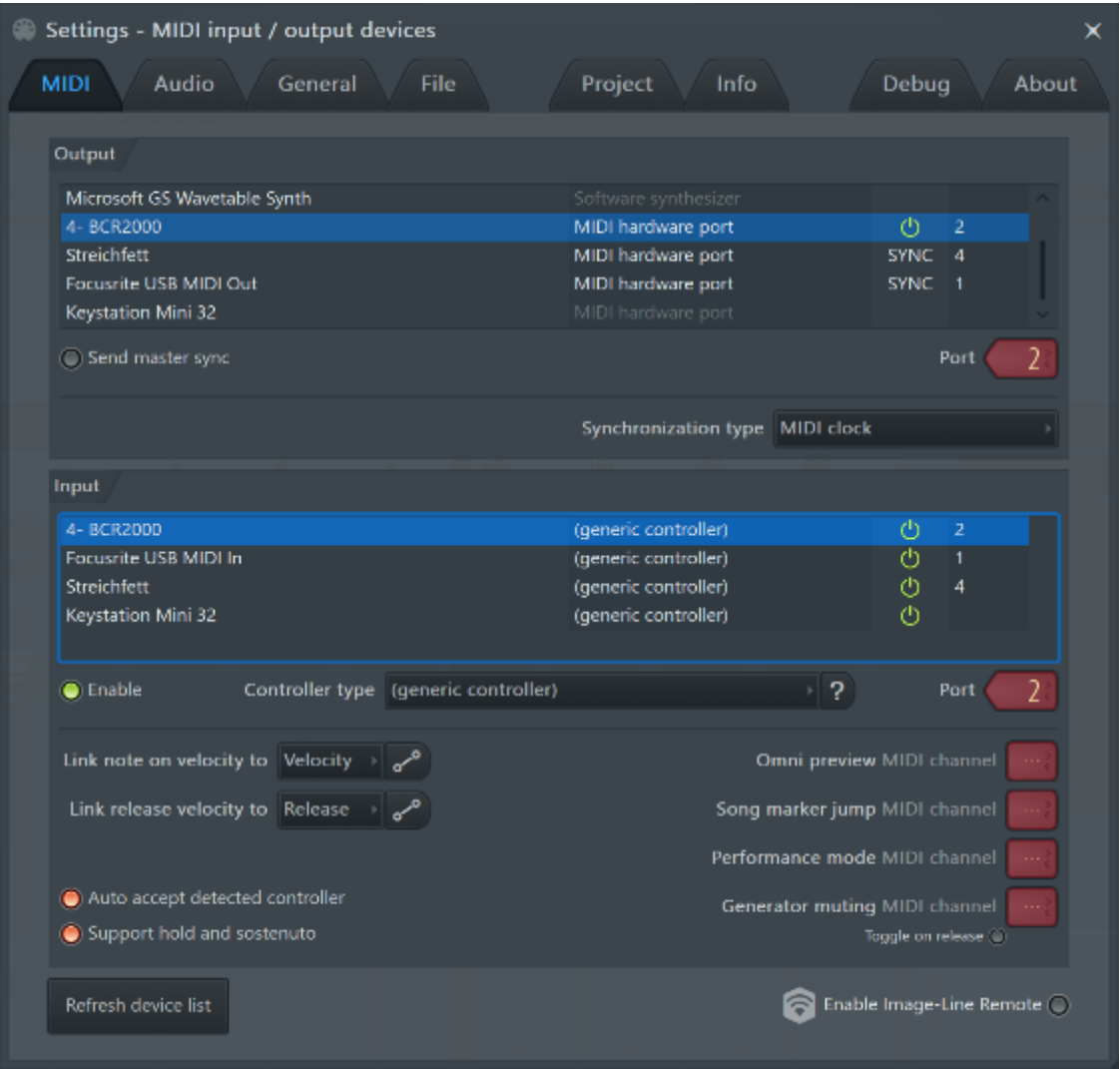
* FL Studio 12 or lower: one step isn't one step from 0 to 127, but about 4 steps;
From FL Studio 20 it works well ☺

Preparation of FL Studio

1. Copy
Dashboard\Behringer_BCR2000.fst
Dashboard\Behringer_BCR2000_dual.fst
to
C:\Program Files (x86)\Image-Line\FL Studio 12\Data\Patches\Plugin presets\Generators\Dashboard
2. Copy
MidiOut\Behringer_BCR2000.fst
MidiOut\Behringer_BCR2000_dual.fst
to
C:\Program Files (x86)\Image-Line\FL Studio 12\Data\Patches\Plugin presets\Generators\MIDI Out

Preparation of FL Studio

- 3. Enable BCR2000 as generic controller and choose any port you want (e.g. 2; same for Output und Input)
- 4. Use this port only for BCR2000



Mode #1: bi-directional absolute controlling

1. It is recommend to use only for „Link to controller...”-Mode. That means every wheel on BCR controls only one knob or switch at FL Studio; more information in FL Studio Help
2. Use BCR2000 in preset „P-1“
3. Add MidiOut to Channel Rack
4. Load Preset „Behringer_BCR2000.flp“ (turn the knobs to check whether BCR reacts)
5. Change Midi Channel to 2, and port to 2 (even if you choosed this port)
6. Add Dashboard to Channel Rack
7. Load Preset „Behringer_BCR2000.flp“
8. To use fully bi-directional controlling do the following way (next page with pictures)
 - a. Open MidiOut of the BCR2000
 - b. RM (Right Mouse) on knob (e.g. 1 = controller #1), „Link to controller...”
 - c. choose „Internal Controller“ → Behringer_BCR2000 – Wheel1 (that’s the first wheel controller of Dashboard)
 - d. Do this for all other knobs (Wheel2, Wheel3, ... Switch1, Switch2, ...)
 - e. Open Dashboard
 - f. RM on knob (e.g. Wheel 1), „Link to controller...”
 - g. Turn the equal wheel on your BCR2000
 - h. Do this for all other knobs (Wheel2, Wheel3, ... Switch1, Switch2, ...)
 - i. Open any instrument or effect you want to use (e.g. Fruity Filter)
 - j. RM on knob, „Link to ctrontroller...”
 - k. choose „Internal Controller“ → change the wheel or switch you want to use, but use each wheel on your BCR only for **one** instrument or effect

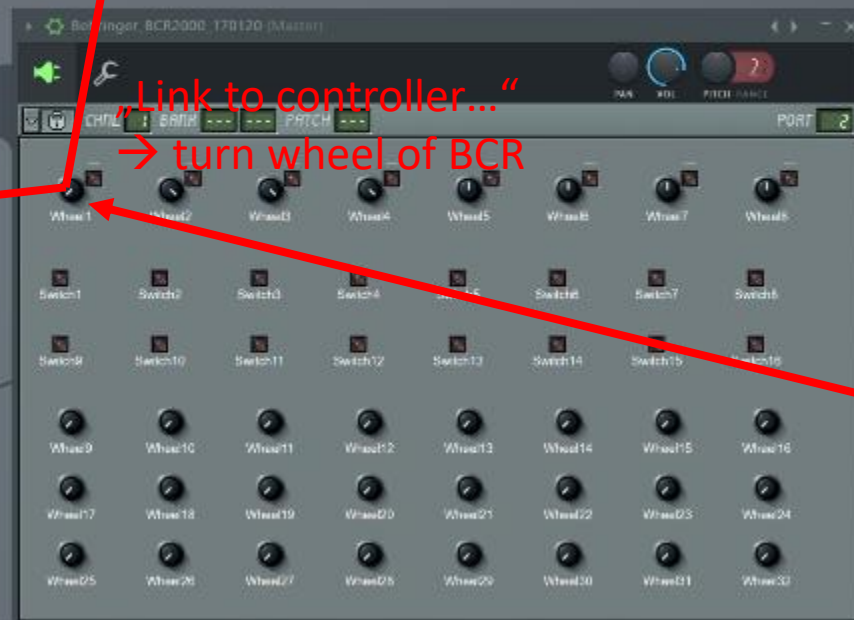
„Link to controller...“
→ Internal Controller e.g.
Wheel 1



„Link to controller...“
→ turn wheel of BCR



„Link to controller...“
→ Internal Controller e.g.
Wheel 1



Mode #2: relative controlling

1. It is recommended to use only for „Override generic link“. That means you can connect BCR wheel with Filter CutOff and you can use this wheel for every Filter CutOff in your session (also in every new project); more information in FL Studio Help
2. Use BCR2000 in preset „P-2“
3. To use controlling do the following way (next page with pictures)
 - a. RM (Right Mouse) on knob (e.g. 1 = controller #1), „Override generic controller“
 - b. When you turn your wheel on BCR, the virtual wheel starts from it's current point
 - c. It's not useful for automation, because one step on BCR is 4 steps in FL Studio, but it's very at the beginning of composing for fast trying
 - d. For automation during your arrangement use Mode #1 with absolute controlling

Mode #3: bi-directional absolute and relative controlling

1. It is recommend to use only „Link to controller...“-Mode for absolute controllers and „Override generic link“ for relative controllers.
2. Use BCR2000 in preset „P-3“
3. Add MidiOut to Channel Rack
4. Load Preset „Behringer_BCR2000_dual.flp“ (turn the knobs to check whether BCR reacts)
5. Add Dashboard to Channel Rack
6. Load Preset „Behringer_BCR2000_dual.flp“
7. To use fully bi-directional controlling (Push Encoders 1-3 and Encoder Top Row) see Mode #1 description
8. Use of relative controllers (Middle and Bottom Row) see Mode #2 descripton

Any questions?

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