BitX – Command-Based Live Control System for Bitwig

BitX is a "ClyphX-style" command system for **Bitwig Studio**.
You control your project by naming **clips** and **cue markers** with special commands like:

```
()BPM 122:8 ()LIR Bass1:2 ()MPCXD 134 ()RSND
```

BitX reads those names, parses the commands, and manipulates Bitwig: BPM, sends, instruments, FX racks, note filters, external synths via Program Change, OSC, and more.

Installation

1. **Download** https://personalaudio.lemonsqueezy.com/
2. **Place** Create a PerSonal folder inside the Bitwig Studio Extensions folder and places the scripts inside of it
3. **Restart Bitwig**, then go to
   Settings → Controllers → Add Controller → Per-Sonal → BitX
   (or whatever you named it).

   macOS Silicon:
   The optional external display app is signed, but macOS might block it the first time.
   Go to **System Settings → Security & Privacy** and click **Allow**.

You don't have to compile the project — just drop in the compiled extension.

How it works

BitX watches **Clip Launcher clips** and **Arranger cue markers**.

Any name that contains commands starting with **()** is parsed.

You can chain multiple commands in one clip name:

```
()BPM 120 ()SMW Hello World ()SPN Starting set! ()MPCXD 210
```

Spaces between commands are allowed
Commands can have arguments (e.g. `120:8`, `Bass 1:3`, `C2:G5`)

Command groups:

Group	Description
Transport & timing	BPM, time signature

Group	Description
Track utilities	Sends, channel/note filters
Bitwig devices	Drum Machine, Instrument Selector, FX Selector
External synths	MIDI Program Change, Korg XD helper
UI & OSC	Popups, display window, OSC out
Navigation	Jump by track and clip name

Preferences

In Bitwig's **Controller Preferences**, you'll find:

Setting	Description	Default
Number of tracks	Visible tracks in the TrackBank	32
Number of scenes	Scenes per TrackBank	128
Number of layers	Layers per selector	32
Number of sends	Sends per track	4
Display Window	Show/hide external JavaFX window	Off
OSC Send IP / Port	OSC target	127.0.0.1 : 8000
OSC Cursor Remotes Output	Which OSC output receives cursor remotes	Output 1
Support me	Opens support link	–

OSC Cursor Remotes Output (TouchOSC, TouchDesigner, etc.)

BitX can emit the currently active **Remote Controls** page (selected device / track remote / project remote) so external apps can bind controls in sync with Bitwig.

Setup

1. In **Preferences → OSC**, set your OSC outputs (host/port) and enable them.
2. Pick **Bitx Cursor Remotes Output** to choose which output receives the cursor remotes data.
3. Restart the controller after changing output settings.

Incoming (optional, from Torso T-1)

BitX listens for:

```
/torsot1script/cc <channel> <cc> <value> <targetType> <targetTrack> <targetPage> <label>
```

This message updates the display and can trigger a cursor-remotes snapshot, but the output also updates when the active Remote Controls page or values change.

Outgoing (from BitX)

BitX sends:

```
/bitx/cursorremotes/page <pageName>
/bitx/cursorremotes/knob1 <value> <name>
/bitx/cursorremotes/knob2 <value> <name>
...
/bitx/cursorremotes/knob8 <value> <name>
```

Notes: - `value` is normalized 0.0..1.0. - If a slot has no remote, `name` is `"0"` and `value` is `0.0`.

Command Reference

1. Transport & Timing

()BPM Set or transition BPM.

```
()BPM 124        → sets tempo instantly to 124 BPM
()BPM 124:8      → transitions to 124 BPM over 8 bars
```

Format:

```
()BPM <targetBPM>[:<bars>]
```

()STS Set time signature.

```
()STS 3:4
()STS 7:8
```

Format:

```
()STS <numerator>:<denominator>
```

Numerator	1–32
Denominator	1, 2, 4, 8, 16, 32

---

2. Bitwig Device Utilities (Per Track)

()SCF Set Channel Filter allowed MIDI channels.

```
()SCF 1:5:9
```

- Uses the first *Channel Filter* device on the track.
- Disables all channels, then enables 1, 5, 9.

Format:

```
()SCF <ch1>:<ch2>:<ch3>...
```

Channels: 1–16

()SNF Set Note Filter key range.

```
()SNF D1:E5
()SNF C-2:G8
```

Format:

```
()SNF <minNote>:<maxNote>
```

()SNT Set Note Transpose.

```
()SNT 2
()SNT -1:12
()SNT 1:7:-25
```

Format:

```
()SNT <octave>[:<coarse>[:<fine>]]
```

Parameter	Range	Notes
Octave	-3 … +3	
Coarse	-48 … +48	semitones
Fine	-100 … +100	mapped to -200%..+200%

3. Instrument & FX Selector (Layer-Based)

()LIR Select Instrument layer by name.

```
()LIR Bass 1
()LIR Keyscape Pad:2
```

Format:

```
()LIR <layerName>[:<remotePageIndex>]
```

()LFR   Select FX layer by name.

```
()LFR Reverb Long
()LFR CrunchDelay:3
```

Format:

```
()LFR <fxLayerName>[:<remotePageIndex>]
```

()LDR   Load Drum Rack preset.

```
()LDR 909_Kicks
()LDR IDM_Drums_01
```

Format:

```
()LDR <presetName>
```

---

4.   Sends & Mix

()RSND   Reset all sends on all visible tracks.

```
()RSND
```

Format:

```
()RSND
```

---

5.   External Synths (MIDI Program Change)

()MPC   Generic MIDI Program Change.

```
()MPC 10:1:5:2
()MPC *:*:3:*
()MPC 42:::15
```

Arg	Range	Description
Program	1–128	Converted to 0–127
Bank MSB	1–128	Converted to 0–127
Bank LSB	1–128	Converted to 0–127
Channel	1–16	Converted to 0–15

Use * or leave empty to skip that parameter.

`()MPCXD` Korg Minilogue XD slot selector (1–500).

```
()MPCXD 1
()MPCXD 137
()MPCXD 500
```

Format:

```
()MPCXD <slot>
```

---

6. UI & Feedback

`()SMW` Show message in the external Display Window.

```
()SMW Hello World
```

`()SPN` Show Bitwig popup notification.

```
()SPN Drop coming up!
```

`()OSC` Send OSC message.

```
()OSC /bitx/section 1 intro
()OSC /lights/scene 3
()OSC /fx/reverb 0.5
```

---

7. Navigation & Jumping

`()JUMPTO` Jump to track & clip by name.

```
()JUMPTO Bassline:Verse A
```

Chaining Commands – Examples

```
()BPM 124:8 ()SMW Warming up ()SPN Transitioning tempo
()LIR Bass 1:2 ()SNF D1:E5 ()SNT 1:7
()MPCXD 210 ()SCF 1:3:5 ()SPN XD slot 210
()LFR Big Reverb:1 ()RSND ()OSC /lights/scene 5
```

Device UUID Reference

Device	UUID	Description
Instrument Selector	9588fbcf-721a-43...	Combines instruments/layers
FX Selector	956e396b-07c5-44...	Manages FX dynamically
Channel Filter	c5a1bb2d-a589-4f...	Filter based on MIDI channels
Note Filter	ef7559c8-49ae-46...	Filters note range
Note Transpose	0815cd9e-3a31-44...	Shifts notes
MIDI Program Change (MPC)	429c7dcb-6863-48...	External synths

---

Credits

Developed by **Creating Spaces**
  Musician • Developer • Space Creator

Support at https://personalaudio.lemonsqueezy.com/