Controlling multiple lasers

BEYOND allows you to control up to 24* separate laser controllers connected to the computer. Simply connect multiple FB3s, FB4s or QM2000s to the computer, and BEYOND will automatically recognize them, and place an icon in the status bar portion of the program.

(* Note that the number of laser controllers that BEYOND can control depends strongly on the horsepower of your computer as well as the version – Essentials, Advanced or Ultimate. The more laser controllers you connect to a single computer, the faster your computer will need to be since BEYOND computes the output for all laser systems using the PC processor. In addition, performance when using multiple QM2000s may be limited.)

First steps

Once you have connected more than one FB3 to your computer, you should do the following:

1. Adjust the Projector Settings for each FB3 in order to optimize the settings for each projector.
2. Adjust the Geometric Correction, and perhaps other parameters using the Projection Zones dialog box.

Once you have setup the projector settings and geometric correction for each projector, you can now direct BEYOND cues to the individual lasers using one of two methods:

1. Specify which laser to use within the cue properties of each cue.
2. Use "zone hot keys" to indicate where to send cues.

Specifying a projection zone within the cue properties

You can access the properties of each cue by right-clicking on that cue and choosing Cue Properties.

If you right-click on a cue, the last menu item is Cue Properties

Cue properties

General | Image

Icon
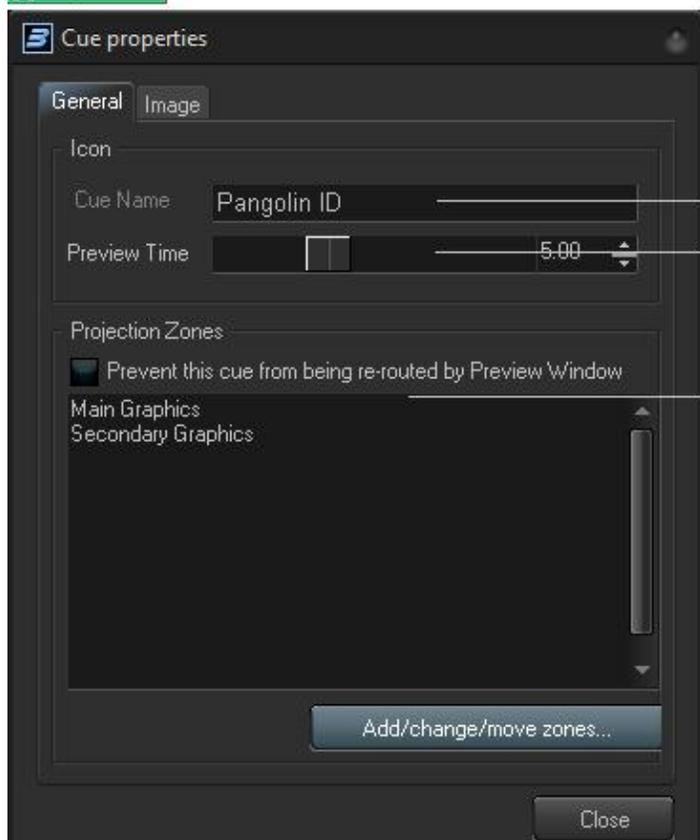
Cue Name — Pangolin ID — You can change the name of the cue here

Preview Time — 5.00 — You can select the representative frame that is shown when the cue is not running by moving this slider

Projection Zones

☐ Prevent this cue from being re-routed by Preview Window

Main Graphics
Secondary Graphics

You can select the TYPICAL destination of the cue here

Note that it is possible to have the cue go to more than one zone simultaneously by simply clicking on Add/change/move zones

Add/change/move zones...

Close

The Destination section controls the destination of the cue (i.e. where the cue will be routed once it is triggered). Note that you can specify that the cue be directed to more than one zone (i.e. laser) simultaneously, so if you check both the "Zone 1" and "Zone 2" boxes above, the cue will be directed to both lasers simultaneously.

You may go through each cue in the workspace and specify which zone (i.e. laser) you want to use for that cue. For certain applications, this makes sense, but greater flexibility is afforded by using "Zone hot keys".

Using "zone hot keys"

You may split the Laser Preview window into four, nine, or sixteen separate zones by right-clicking in the Preview Window and selecting the appropriate menu.
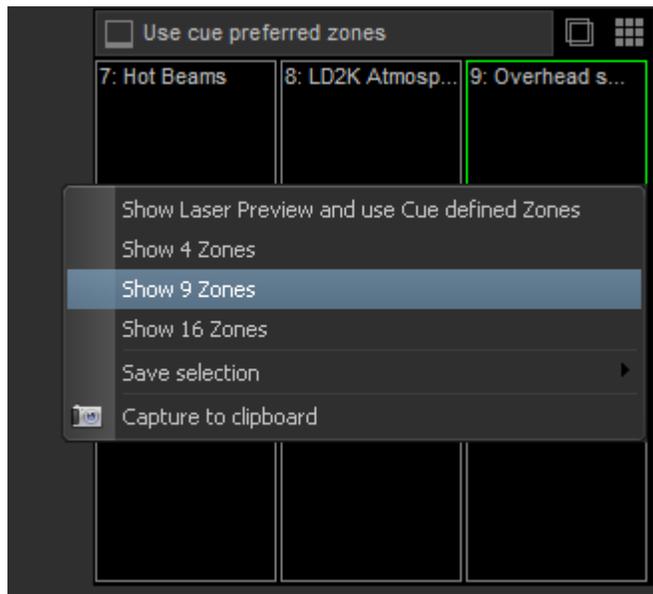
Once the Laser Preview window is split into nine zones, you may click the left mouse button on one of the zones, and, from that point forward, most laser cues will be directed to the zone you selected.
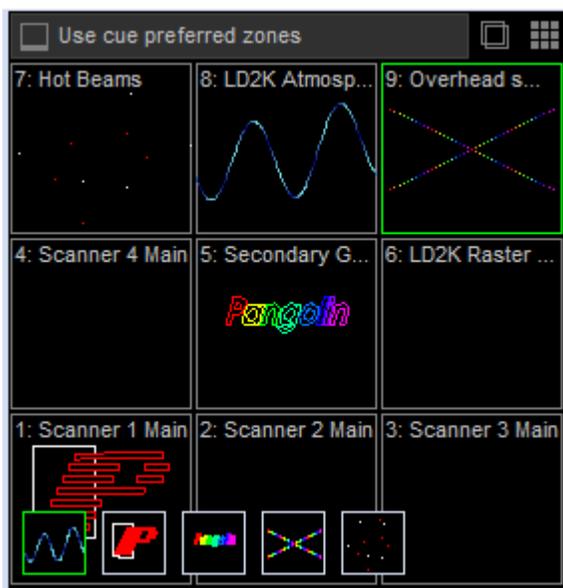

Two-handed keyboard control

Note that the layout of the nine zones is exactly like that of the numeric keypad on your computer keyboard. Therefore what you can do is use your right hand to press a numeric key to specify the zone, and use your left hand to press letter keys and trigger individual cues.

Pressing the zero-key will use the normal cue-preferred zone

When you press the zero-key on the numeric keypad (or click the "Use cue-preferred zones" button above), no zone hot-key override will take place and instead, the cue will be directed to the place where it normally is, in accordance with the cue properties.

Only works when Numeric Lock is enabled

The right-hand control on the numeric keypad only works when the Numeric Lock is enabled. See the picture below for a full explanation of the keys.
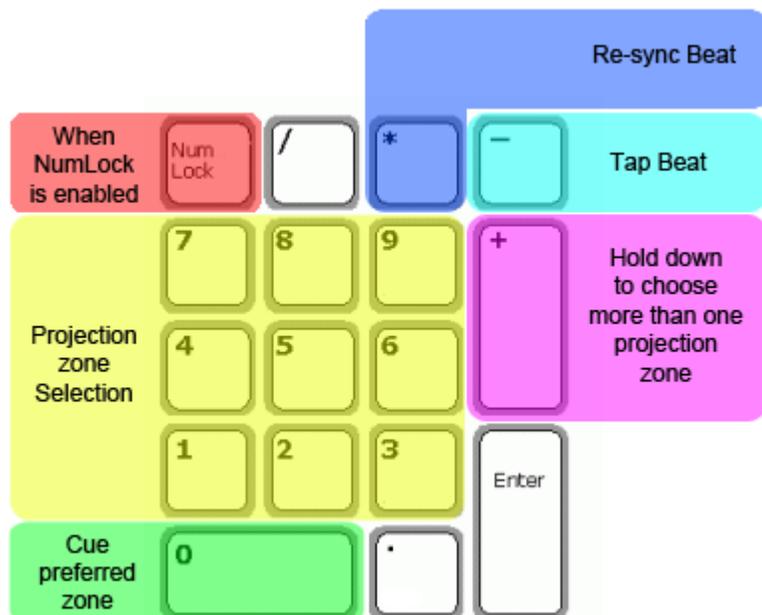
Some cues will not be rerouted using zone hot-keys

Certain cues will not be routed using zone hot-keys. These include shows made with the BEYOND Timeline, as well as QuickCaptures and cues which specifically indicated that they did not want to be rerouted.