

QuNeome Bridge

Welcome

QuNeome is a QuNeo-to-monome bridge application that will allow your QuNeo controller to interact with patches/apps developed for the monome grid controller (monome.org) – similar in nature to the MonomeSerial application for monome.

Included in the package is a full standalone version and an editable Max/MSP patch (Max 6 only).

Please note that, currently, QuNeome only works with patches/applications that use the older MonomeSerial protocol – it does not work with the newer serialosc apps.

Setup

Installation

1. Download the QuNeome Bridge package from the KMI projects page: www.keithmcmillen.com/projects
2. Unzip the package – a folder named “QuNeome” should be created
3. Place this folder wherever you like on your hard drive
4. Done!

Operation

1. The Correct QuNeo Preset

The QuNeome application is set up to interact with the factory settings for preset 5 (Grid Mode Ch.2), so if you have altered this preset in any way you should make sure to revert this preset to factory settings before proceeding.

Alternatively you can create a preset with the pads in grid mode, sending notes 0 through 63 (starting at the bottom-left, increasing to the right, moving from bottom to top) and it will work with no issue.

2. Connections

- Connect the QuNeo to your computer
- Open up the QuNeome application (or the Max patch in Max/MSP)
- In the main window, select QUNEO from the Device menu – this will tell the application to listen to data coming from the QuNeo. If QUNEO does not appear in the list, please see the [Troubleshooting section](#))

3. Set the Host IP Address

The Host IP setting tells the QuNeome application what destination to send the data to. By default it sends to 127.0.0.1, which is the default 'localhost' address (e.g. your computer).

Typically this does not need to be adjusted — it should default to the proper settings if everything will be on a single computer. However, if you want to send data to another computer over a network, then you'll need to enter the IP address of the receiving computer.

4. Set your input and output ports

The input and output port settings specify what port number to listen to for incoming data (input port) and what port to output data on (output port).

These can be in the range of 0-65535. Higher numbers are typically better, and it is best practice to avoid using a port in the 0-1024 range as you could interfere with some computer processes (e.g. HTTP uses port 80, HTTPS uses port 443, etc)

You will likely never to ever alter the port numbers — QuNeome defaults to port 8080 for input (to QuNeo) and port 8000 for output (from QuNeo). These are the default ports used by nearly all monome apps.

5. Set your prefix

The prefix setting specifies what text string the OSC data begins with when being sent out — it also specifies what OSC prefix QuNeome should be listening for. All prefixes should begin with a forward slash character (this → /, not this → \)

QuNeome defaults to using **/box** as for a prefix. Each monome app potentially uses a different prefix — e.g. mlr uses **/mlr**, step uses **/step**, flin uses **/flin**, muon uses **/box**, etc. You will need to check the documentation for the specific app you're using to determine the correct prefix you should be using.

More detailed information regarding OSC prefixes and monome can be found in the OSC section of this page: <http://monome.org/docs/app:monomeserial>

6. LED Color

The LED Color setting specifies what color the QuNeo should use. There are two options — red or green.

Message Formatting

Output Message Formatting

These are the messages that get sent out from QuNeome to the destination app.

/box/press

Reports the current state of the grid buttons (pressed or not pressed).

Format: /current_prefix/press (row) (column) (state)

(Row and Column values can be integers from 0 to 7, button state is 1=pressed, 0=not pressed)

Example: /box/press 4 6 1

The fifth row, seventh column button has been pressed. Remember, we start counting from zero in computer land!

Supported Input Messages

/box/led 0 0 1

Sets the state of an LED (on or off) on the QuNeo

Format: /current_prefix/led (row) (column) (state)

(Row and Column values can be integers from 0 to 7, button state is 1=pressed, 0=not pressed)

Example: /box/led 3 2 1

Turns on the LED for the fourth row, third column

Example: /box/led 4 1 0

Turns off the LED for the fifth row, first column

/box/clear

Turns off all grid LEDs currently lit

Format: /current_prefix/clear

/sys/prefix /prefix_string

Sets the current prefix that is sent out and listened for

Format: /sys/prefix /prefix_to_change_to

Example: /sys/prefix /face

This will change the current prefix to /face

Notes: The prefix you're changing to should not contain spaces. Weird/Special characters haven't been tested much, so it's best practice to stick to letters, numbers, underscores, and dashes.

MonomeSerial vs. SerialOSC

Please note that the QuNeome bridge will only work with monome apps using the older MonomeSerial protocol – *it will not work with apps that use the newer serialosc protocol.*

This is because the serialosc protocol requires no middle-man software – it just automatically detects whether or not a monome is connected and sends the data directly to and from the board. Previously, with the MonomeSerial protocol, an app had to be running to translate the data going to and from the monome, so there was a much more direct way to make other controllers compatible with monome apps.

Monome Links

For more information about monome and applications/patches written for it, please check out these links

Monome Docs & Apps: <http://docs.monome.org/doku.php>

MonomeSerial Documentation: <http://monome.org/docs/app:monomeserial>

serialosc Documentation: <http://monome.org/docs/app:serialosc>

Troubleshooting

If you're running into problems using the QuNeome application, there are a few things to try:

Use the correct preset

The QuNeome application is set up to interact with the factory settings for preset 5 (Grid Mode Ch.2). If you are using a different preset you run the risk of odd (or no) behavior.

You can also modify or create your own preset where the pads have the same settings as the pads in factory preset 5 – it should work without issue.

QUNEO does not appear in Device select menu

If QuNeo is not appearing in the Device selection list there are a couple of potential solutions:

- You may just need to refresh the device list. If the QuNeo is plugged in after starting the QuNeome app the menu will likely not automatically update.
- Your QuNeo may not actually be connected to the computer — make sure your USB cable is completely plugged in.
- **Windows users** may need to make sure all other audio/MIDI applications are closed before using the QuNeo with QuNeome. Windows only allows one application to be connected to a class-compliant MIDI device (which the QuNeo is) at a time, so if something like Ableton Live or the QuNeo Editor is open then the QuNeo may not be available to connect to the QuNeome application.
- **Windows XP:** Windows XP displays all class-compliant USB MIDI devices as "USB Audio Device (#)", so it will never say "QUNEO". You need to select the correct USB Audio Device (usually USB Audio Device 1) in the Device menu. It is possible to give devices an actual name if you like. There is a good set of instructions on how to do this on the Ableton Live forums here: <https://forum.ableton.com/viewtopic.php?f=4&t=176816>

Doesn't work in Max 5

The QuNeome patch will not work properly in Max 5 because we use the new feature to the 'route' object where you can dynamically set what symbol/int/float is being routed. If you would like to edit and use the patch in Max 5 you will need to create your own subpatcher, abstraction, or external that allows for this functionality.