

# mLAN BASICS

by ElmerJFudd

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<https://www.facebook.com/groups/yamaha01x/>

The basics are....

Use your Graphic Patchbay, not the Auto Connector.

Under WrdClck, select the 01x or i88x (device other than the computer) to be word clock master and route the signal to your other mLAN devices, not the computer.

Under MIDI, don't run any MIDI ports to/from the computer. If you need them sent somewhere, send them out another mLAN device's MIDI output, or grab a return and bring it back. It is possible to send the 01x's controller data out the i88x's MIDI port and use it as a controller for another computer or DAW with a standard MIDI interface.

Under audio, make your connections and don't run any audio to/from the computer.

Apply.

Since your mLAN gear will remember last saved state, the next time you boot up, the mLAN connections between your devices will be present. So, with all your gear off, unplug the firewire cable running to your mac or pc. Then start up your mLAN gear. The network now needs no computer. Unless you need to reroute or reconfigure.

# mLAN BASICS

(continued)

## USB MIDI CONVERTERS

<http://www.amazon.com/s?ie=UTF8&keywords=midi%20usb%20adapter&page=1&rh=i%3Aaps%2Ck%3Amidi%20usb%20adapter>

## MIDI CABLES

<http://alturl.com/9xb27>

## FIREWIRE CABLES

6-PIN TO 6-PIN > <http://alturl.com/fh6rv>

6-PIN TO 9-PIN > <http://alturl.com/fej48>  
use with Mac

4-PIN to 6-PIN > <http://alturl.com/4sost>  
use with laptop firewire

4-PIN to 9-PIN > <http://alturl.com/co9j6>  
use with laptop firewire

## S/PDIF CABLE

<http://alturl.com/5bnkh>

## ADAT TOSlink OPTICAL CABLES

<http://alturl.com/8fthy>

# Standalone mLAN network

by ElmerJFudd

mLAN Users Forum

<http://mLAN.dailyforum.net/>

The following post will explain the basics of creating a standalone mLAN network (computer removed from network after initial setup after making another device wordclock master). In light of the fact that Yamaha is entirely silent on 64bit drivers for Windows or OSX, there are ways to incorporate your mLAN gear with hardware+drivers that do support Snow Leopard.

This is basically how to make a stand alone mLAN network and get audio, and MIDI (SM2 and Controller DATA) in/out your computer without actively using the mLAN drivers. In fact, after completing this setup, you can disable the mLAN driver on your PC (don't uninstall though, as you may need it at some point to reconfigure or reset devices).

Things you will need:

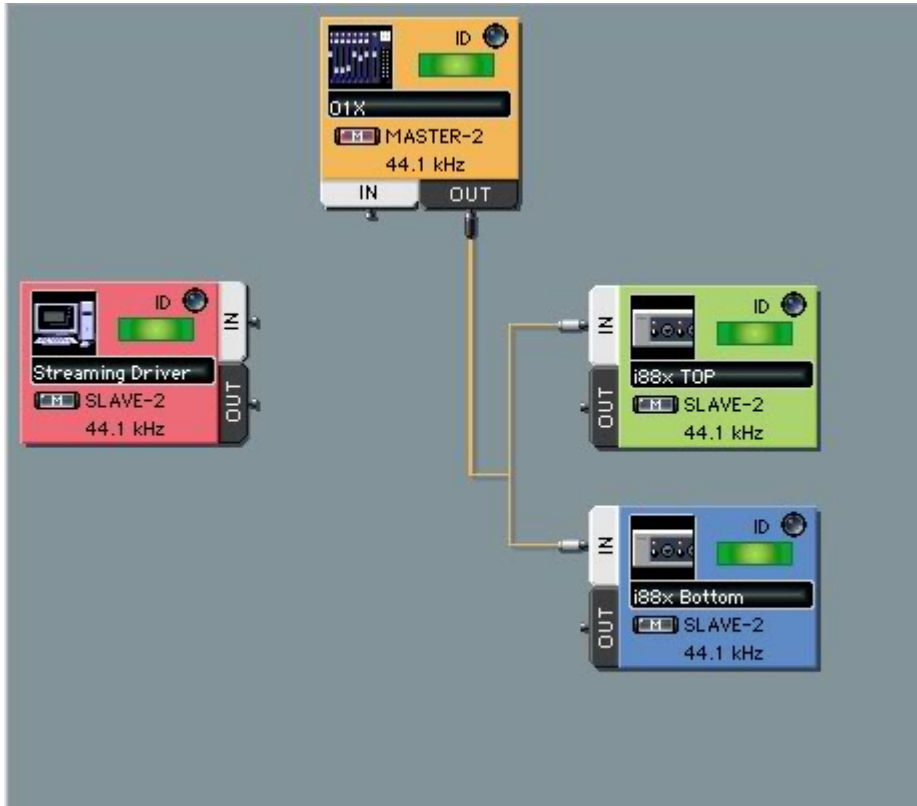
- 01X
- i88x
- i88x
- USB MIDI interface (something like a MOTU Fast Lane 2x2)
- A PCI or Cardbus audio interface with ADAT I/O (something like an RME HDSP9652)
- 4 ADAT cables of appropriate length.
- 2 MIDI cables of appropriate length.
- 2 SPDIF cables of appropriate length.

# Standalone mLAN network

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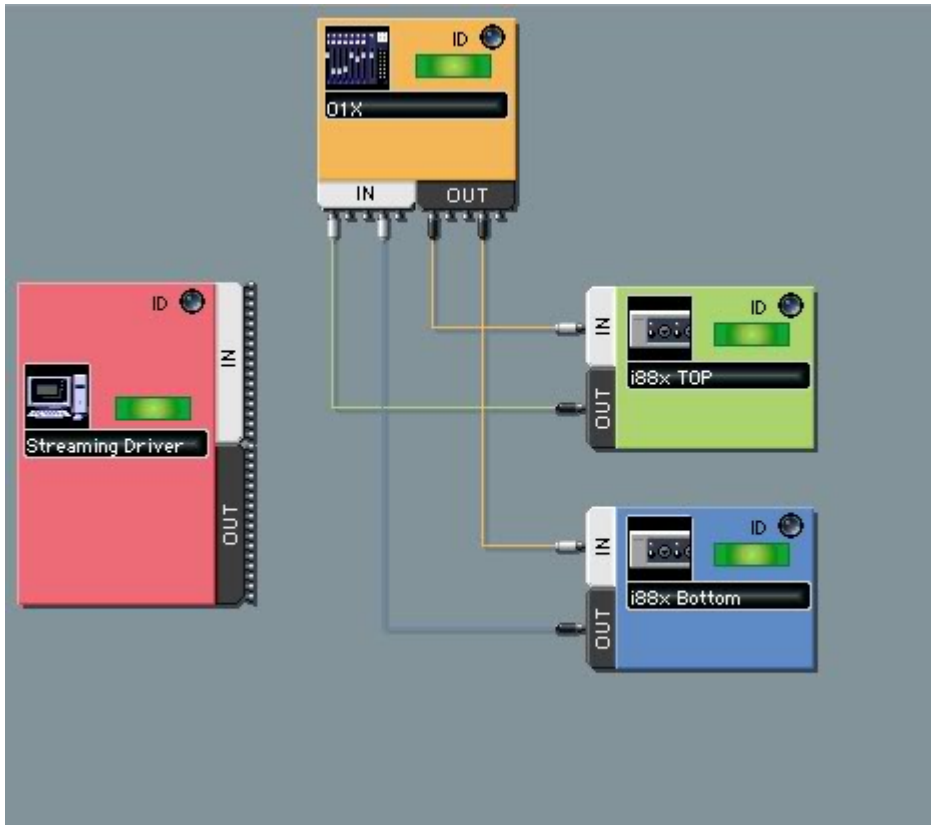
In the graphic patchbay you will make the 01X wordclock master (at 44.1 or 48k, whichever you prefer) rather than the computer. You will also route NO audio, MIDI, or wordclock to/from the computer at all. Essentially creating a stand alone mLAN network, no computer involved.

mLAN image 1 of 3



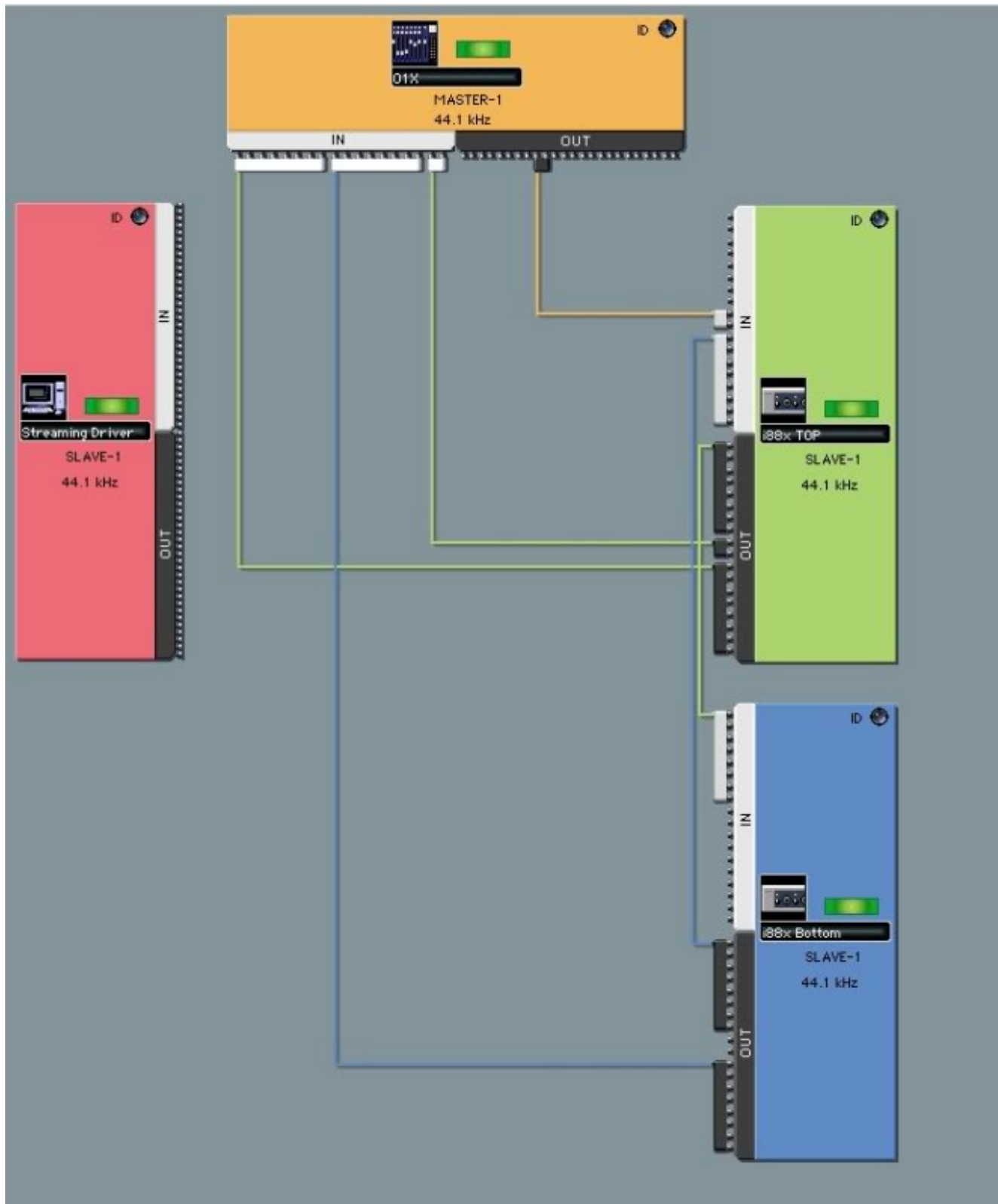
# Standalone mLAN network (CONTINUED)

mLAN image 2 of 3



# Standalone mLAN network (continued)

mLAN image 3 of 3



# Standalone mLAN network

(CONTINUED)

Shut down the computer and mLAN gear. Remove the firewire cable that runs to the computer entirely. Boot up your 01X, then i88x, and other i88x. Since they remember last saved state, they should sync up just as you left them.

Install the MOTU Fastlane and RME HDSP on your computer according to manufacturer's directions.

Run MIDI cables from the top i88x MIDI out to the MOTU's MIDI port 1 in. And run the MOTU's MIDI port 1 out to the i88x's MIDI port 1 in. Configure your DAW to listen/send the 01X's MIDI controller messages on the MOTU MIDI port 1 in/out.

Launch SM2 and the 01X editor, and configure it to now listen/send on MOTU MIDI port 2 in and out for SM2 messages going to/from the 01X.

Run ADAT cables to/from both i88x's INs/OUTs and label them so you remember which is in and which is out and which ins/outs are coming from which i88x. You will notice from the audio pictures above that you are actually sending the AD ins of the top i88x out of the bottom i88x's ADAT port, and vice versa.

Run SPDIF cables to/from the RME and "TOP" i88x.

Here is an explanation of the audio configuration. Special thanks to an old 01Xray friend of mine, Ade, for working with me on this, bouncing ideas back and forth, and ultimately achieving what we set out to do.

This setup allows me to record 16 channels of analog audio from the i88x's - via 2 banks of ADAT, straight into the RME.

When I first started to configure this setup, I made the mistake of routing the i88x to the 01x, from the 01x back to the i88x ADAT inputs and from there into the RME. The only advantage that gave was that the inputs could be muted, modified, at the mixer before they got to the DAW. But it seemed pointless to modify the data in such a way when the exact same modifications can be done on playback! And so there are 16 busses from the i88x mLAN'd to the 01x. Those busses are fed by two banks of RME ADAT outs. So now you can mix on the 01x.

Also, note the SPDIF coming from the Top i88x. That is being fed via high quality cable from the RME spdif to the "TOP" SPDIF input - and then mLAN'd to mLAN 17-18 - the monitor channels. If the Stereo mix from the DAW is all you want to hear, just hit the monitor A/B. Voila!

But once you like a mix created in the 01x, how to render? Notice there are only two outputs from the mixer, mLAN 7 and 8. Nominate those channels as the Stereo Out and send them to the SPDIF of the TOP i88x. From there, the i88x can send SPDIF to the RME for real time rendering. And, of course, that does not have to be the Stereo Mix - it could be any channels that you bussed to 7/8 via the REC BUSS of the 01x. So, you can monitor, mix and record out from the 01x and direct monitoring of signals is handled by the PC DAW. On the PC, the Direct Monitoring works brilliantly. I enable a track in Nuendo and, irrespective of Latency settings, I am hearing near zero latency monitoring, with gain and pan all controlled directly from the Cubase/Nuendo mixer (ergo the 01x too) and no need to even open up TotalMix. It all happens behind the scenes.

This is by no means the only configuration possible. You can do something much more simple with no ADAT returns from the DAW to the 01X, and forego using SPDIF at all. Or you may dream up something far more complex and/or useful to you once you've wrapped your head around how the routing basically works. Hope this post is of help to folks who do indeed love their 01X but find themselves at a loss once driver development stops.