^{1]} First, make sure that you have downloaded and installed the latest mLAN driver from "YAMAHA". The current driver is named the "Yamaha Steinberg Firewire Driver" [YSFW]. You may need to uninstall your current drivers first...

NOTE: If you do not have the current driver(s), go through the 'readme file' or other documentation that came with the driver(s) and follow the instructions to completely uninstall- trash, reboot your system and reinstall the new driver(s)...

It will also be necessary to update the Motif XS' IEEE1394 Firmware.

² On the XS, make the following Utility Settings... Press,

[UTILITY]> [F1] General > [SF4] Autoload> Set the IEEE1394 Driver parameter to 'FW' Press [Store] and confirm.

[UTILITY]> [F5] Control> [SF1] Remote, set DAW Type to "Logic". Press [SF2] MIDI> Interface= USB; and set MIDI Sync= MIDI or Auto; Press [Store] to save the settings...





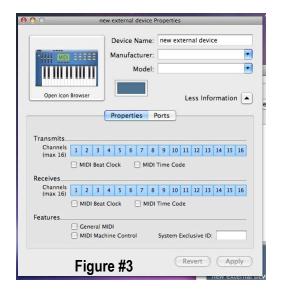
Figure #2

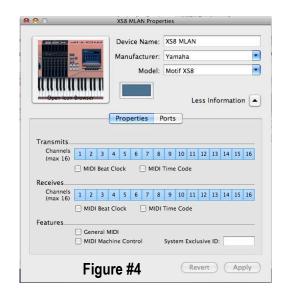
When properly installed, the YSFW driver will appear in the System Preferences FIG. #1 and in Audio MIDI Setup FIG. #2. In Audio MIDI Setup ('AMS'), the YSFW mLAN driver typically will not appear in 'AMS' until the Motif XS is connected via firewire the first time. Also, it will be grayed out unless the XS is physically connected to the MAC via the firewire connection (with the XS set to operate via mLAN- page 44 of the manual).

Audio MIDI Setup recognizes all properly installed Audio / MIDI (USB or mLAN) drivers but, it does not recognize any keyboard or controller connected via the driver. That is, it does not 'see' and thus cannot properly port MIDI to the tone generator. The keyboard then, must be manually setup in 'AMS'.

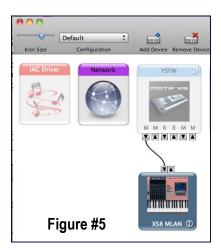
So, from the 'Finder', hold down both 'Command' + 'Shift' + 'U'. Open the Audio MIDI Setup. Choose the MIDI Studio. Select 'Add Device'. An item appears called 'new external device' $^{\text{FIG. #2}}$. Double-click the first device $^{\text{FIG. #3}}$. Type 'Motif XS' as the Device Name (I've named mine XS8 MLAN). You can type Yamaha $^{\text{FIG. #4}}$ as the manufacturer, if you choose. Apply the changes and close...

NOTE: As you will see later, what you name this device is important, particularly when creating new External MIDI Tracks, because Logic looks past your actual mLAN Driver to this device connected to it and uses its name to represent your mLAN Port 1.





^{4]} Move the Motif XS Device directly under the YSFW mLAN Driver Device in 'AMS' (*l've customized the icons in mine, so they'll look different*). There is at least one set of small triangles at the bottom which represent MIDI ports. Place your cursor at the left down-facing triangle ("out port") and drag to the left triangle of the Motif XS Device ("in port") Fig. #5. It draws a cable. Draw just the one and-Close 'AMS'...





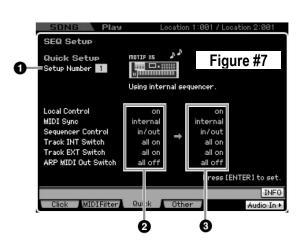
NOTE: The Motif XS and YSFW Driver use 'YSFW Main' (Port 1) to send MIDI to the DAW (Logic Pro 9) and from the DAW (MIDI tracks) to the Motif's tone generator... 'YSFW MIDI OUT' is used as a MIDI thru channel. It is used to utilize an external synth physically connected to the XS' MIDI Out. 'YSFW Remote' is used to control the DAW from the Motif. A final port, which is not visible from within Logic, is used to simultaneously utilize the Studio Manager / XS Editor as a stand alone...

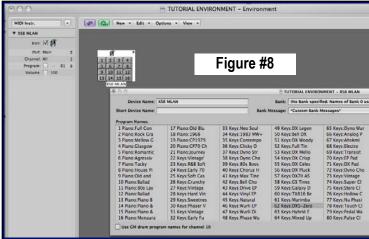
^{5]} When the YSFW is properly installed and the Motif XS (set to operate via mLAN) connected to the MAC, OS-X auto-configures the driver to work with Logic 9. In Snow Leopard, manual selection of a 'Default' Audio source from the AMS is eliminated- FIG. #6 so, the YSFW automatically appears as an option when physically connected to the MAC.

NOTE: While it is advised to boot both the MAC and XS with the firewire connected, the beauty of OS X is that it will adapt, on the fly, to changes in your "AMS". In other words, if you are working in Logic 9 and decide to connect the XS, Logic will intuitively prompt you to use the mLAN as the Core Audio. If you disconnect the XS it will typically default to your 'Built In Output'.

^{6]} Typically, when connected via mLAN, the Local On/Off on the keyboard should be turned off- meaning that pressing a key on the keyboard will not produce sound (when disconnected from the MAC) because the MIDI note never reaches the XS Tone Generator. It has to travel the path, 'MIDI Port 1' into the MAC and back to the XS via that port to the Motif's tone generator...

To set the local to 'off'- press the Seq. Control button; press 'F3' on the XS; change the Setup number either to #2 or #3 (depending on how you will record) FIG. #7; Press 'Enter'. {MOTIF XS8 MANUAL Pg. 269 & 271}.





7] Download the "**Logic Motif XS Environment**" .lso file from the link in this message. Double-click it and it opens as a Logic Song, complete with Motif XS Environment and patch names ^{FIG. #8}. You can view the MIDI environment by pressing '# + 8'. This Environment contains only (8) External MIDI Tracks- in part, because of both my workflow and the limitations of the XS' Insert Effects ^{FIG. #9}. Of course, other MIDI Tracks can be added as necessary...

NOTE: If the Motif XS instrument in the window is not highlighted, click on it at the top and in the Motif XS drop down menu to the left, change the port parameter to 'MOTIF XS' (or, whatever you named your Motif XS Device in 'AMS' in step #3.

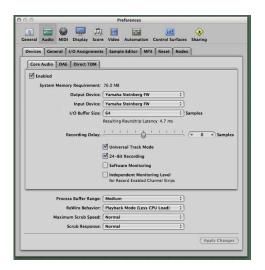




Figure #10

^{8]} Check in the transport to see that MIDI notes are being received as you play the keyboard FIG. #10...

^{9]} In the Toolbar, select Preferences> Audio. In the Core Audio Tab FIG. #11 under Devices, make sure that it reads 'YSFW'. If not, select it from the drop down menu. If it doesn't appear there, check your cables...



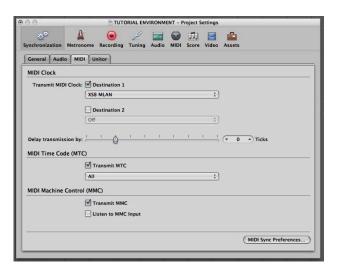
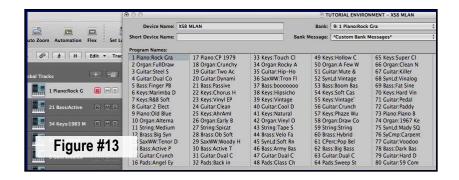


Figure #11 Figure #12

^{10]} Set Logic to send MIDI clock and MTC so that the XS will sync to Logic. In the Toolbar, select 'Settings' Synchronization' MIDI Tab. Make sure Destination #1 is checked FIG. #12 and select the Motif XS port from the drop down menu (again, the same name of the Keyboard Device in 'AMS').

NOTE: When recording from the XS Sequencer, set the tempo within Logic (either from the transport or the Global Tracks) to match the XS's song tempo and set the XS to slave.

^{11]} In the Arrange Window, double-click on the Track Header's icon for an External MIDI Track, (in my case, 'Piano: Rock Grand). It opens a pop-up window FIG. #13 where you can select your various voices. Change the Bank from the drop down menu to access additional voices. Unlike the pic, I've updated the Environment so that its Bank 1 equals the XS' Bank 1, and so on...



IMPORTANT: mLAN carries two types of data: audio and MIDI. The External MIDI Tracks record and play MIDI only. Any audio that you hear coming from the XS may appear on the Master Output but, it is not recorded unless it is bussed to an Audio Track, (others recommend Aux Channels). Exception: this audio is recorded when doing a live bounce...

Observations: Logic is temperamental in this way- when playing multi-tracked MIDI from Motif's Sequencer into Logic, you may experience having every channel's incoming MIDI notes to trigger that one a single instrument, if the External MIDI Track's record button is lit; or, if an External MIDI Track is selected (highlighted). Deselecting the track or selecting an Audio Track or Software Track often solves this problem for me...

Create an Audio Track and in the Inspector on the right, click the circle icon under the fader. This toggles the track between mono, stereo and surround (depending on the settings selected when creating Audio Tracks) $^{\text{FIG. #14, #15}}$. Select whichever suits how you will record. Change the I / O input above the fader accordingly. If the track is set for stereo recording, you will select channel pairs (1&2, 3&4, etc... up to a total of 16 tracks). They are not labeled as mLAN within the inspector and, more than 16 channels are listed...

Figure #14





Figure #15

^{15]} Set the XS' mLAN Monitor Setup. From Song or Pattern Mode- [UTILITY]> [F2] (I/O)> mLAN Monitor Setup - change to either 'with PC' or, 'with PC (DirectMonitor)'. Simply put 'with PC' allows you to monitor any effects you are adding to the audio coming from the XS and, an additional setting must be made within Logic.

From that same Preference referenced above in '9]', select Software Monitor when utilizing the 'with PC' mode on the XS and you should hear it's audio... This mode is best for recording from the internal sequencer. I personally, only use it only for recording MIDI. In the 'with PC (DirectMonitor) mode, you should hear the XS right away and should deselect that Software monitoring setting in Logic. It is used for Recording Audio without latency.

Also, you're going to have to familiarize yourself with the Quick Setup feature of the XS which automatically adjusts MIDI Sync and Local On settings via the Sequencer Setup button. Press 'F3' for 'Quick Setup' and choose Option #1 (Stand Alone operation- not using mLAN), Option #2 (Recording internal sequencer to computer), or Option #3 (Recording 'live' to computer) or, Option #4 (Recording Arpeggio to computer) depending on how you are recording into Logic.

^{14]} On the Motif XS, select the Output Channels for each track considering the following: you have access to either 16 mono channels, 8 stereo pairs or, any combination of the two equaling 16 channels. This is easiest to do in the XS Editor's Main Window by changing the 'Output Select' FIG. #16.

Also, note the following: in the XS8- there are 16 mono channels of mLAN audio out (output 1-2, mLAN 1-14) and for each channel used in your 'Mixing' on the XS, you must select the corresponding mLAN channels and output to Logic (in order to record them). Output L,R correspond to output channels 1&2. m1&2 correspond to output channels 3&4, etc... m13&14 will correspond to output channels 15&16.



- ^{16]} Select each Audio Tracks record button (one at a time) and check to make sure each Audio Track is getting audio signal as you playing its corresponding XS channel...
- ^{16]} If you need to create new External MIDI Tracks: Click the '+' button in the Global Tracks ^{FIG. #17} and select External MIDI in the pop up window ^{FIG. #18} (and adjust number of tracks as needed) making sure the 'open library' box is checked. Click 'OK' and the new track is created and the 'Library' opens... Select XS8 MLAN, (may also appear as YSFW MAIN) ^{FIG. #19} from the 'Library' and match the channel to the desired XS channel...

{Remember, this will have the same name that you gave the device in AMS. It can be renamed by typing in a new Device Name in Fig. #12 above. Also, when the mLAN is connected, two additional Motif XS ports will appear in the 'Library'. Typically, they are named YSFW MIDI OUT & YSFW Remote. Do Not Choose Them!}. Close the 'Library'...

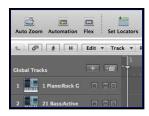
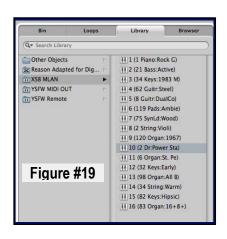






Figure #18



Finally, remember: once you have the arrangement window set according to your preferences, save it as a template and you can open it anytime you start Logic by selecting '#+N' and selecting your template from the 'My Templates' folder...

^{18]} Logic Remote: The most important thing about using the Logic Remote on the XS is to make sure that the MIDI Out port is set correctly. Logic 9 should prompt you that a Logic Control is now present upon launch ^{FIG. #20}. In order to properly control Logic, that control must be set to operate via the appropriate MIDI Port. If it isn't, not much beyond the XS' Transport will function properly.

You do this by Click on the Logic Control and it will reveal its current Port assignment. Change it to 'Remote'. This can also be accessed manually from the toolbar: Preferences> Global> Control Surfaces> Setup...

