FireNFX Documentation

Updated July 16, 2021

Description:
FireNFX is a project to enhance the existing AKAI Fire functionality with and easy to use MIDI Looper style helper functions. As such, many of these features are already available to AKAI Fire users, except not all in one place and not designed with MIDI looping in mind.

A MIDI Looper is simply a way of recording yourself performing and controlling multiple tracks on a MIDI device - most commonly a MIDI piano style keyboard. The benefit of the Looper aspect is that it will repeat the parts for you allowing you to add and remove other parts.

You can record up to 8 parts and control various parameters in real time. Most of the original AKAI Fire functions will still be available as well.

One of the goals of this project is to use grouping, coloring and feedback along with the display on the AKAI Fire to use many of FL Studio' s functions without having to interact directly in FL Studio with the mouse or keyboard.

As an example, once everything is loaded you could turn off the monitor and use FL via the fire device to:

- Set a custom tapped tempo
- Select the first instrument
- Press record to capture a performance and loop it
- Manipulate the volume and pan
- Delete it if you didn't like it
- Change to other channels quickly and confidently
- Set the snap level to allow quantize on your recording
- Move to other patterns or instruments and record other parts
- mute /unmute parts to add interest.
- So much more!

As of this writing this project is still in pre-alpha and should not be used in a live production environment without understanding the risks of crashes. Thank you for understanding/

Pre-requisites:
AKAI Fire Hardware, FL Studio 20.7+

This document presumes you have basic abilities with the AKAI Fire device as well as some basic skills to download, extract, copy files and create folders as needed.

Installation:

The first step is to download the files. I recommend you download the zip file. This can be done from the github file depot at: xxx.xxx.xxxxx

The ZIP file needs to extract the files into a specific folder below your user data folder.

First you should identify your personal User Data Folder. You can do this FL Studio by going to Options>File Settings and look for the area labeled “User Data Settings”. Please remember that folder name as **yours will be different from mine**. You need this to find your “Hardware” folder

Using my own User Data Folder of “**C:\Users\NFXBeats**”, my Hardware folder is located here:

C:\Users\NFXBeats\FL Studio\Settings\Hardware

Notice all I did was add “\FL Studio\Settings\Hardware”. That should be all you need to do with your own user data folder.

Inside of the Hardware folder, create a new folder named **AKAI Fire NFX** and put all the downloaded/extracted files into that folder.

Using my example from above, my own folder would be:

C:\Users\NFXBeats\FL Studio\Settings\Hardware\AKAI Fire NFX

Testing the install:
Now that the files have been copied to the correct folder, we need to validate that everything works.

Please follow these instructions in order (video walk through here xxx.xxx.x):

1) Start FL Studio.

2) Open the file located under your “FL Studio\Settings\Hardware\AKAI Fire NFX” named FireNFX_Template.zip (open the ZIP, do not extract it first) with FL Studio. It may take a second but should open a project with 8-10 colored pattern tracks. You might need to adjust the playlist zoom to see them all at once.

3) Go to Options>MIDI . You should already have the Fire setup as a device.

4) Select the Fire Device and click the dropdown for the device list. On the right column should be listed **AKAI Fire NFX (user)**. Select it. You might see the device reset itself.

5) From the FL Studio main menu, go to View>Script Output. This should open a window that has a tab named AKAI Fire. and it should indicate the location of the script it is running and any errors (if any). The location of the script should be in the AKAI Fire NFX folder. For example mine would be:

C:\Users\NFXBeats\FL Studio\Settings\Hardware\AKAI Fire NFX\device_Fire.py

At this point if there are no errors and you are loading the modified script. You are good to activate it. For now let’s leave this window open.

Activating:
To activate the feature set you must perform two steps:

1) Put the AKAI into drum mode. Specifically the mode with the FPC pads to the left. This should be the default drum mode when the “Drum” button is pressed.

2) On the AKAI Fire, hold the ALT button and press the 9th pad on the bottom row. This should be the first unlit pad of the bottom row for easy identification.

At this point the mod is active and the pads should have changed colors and are ready for use.

If you left the Script Output window open, you should see that it displays some information about the current track. It builds a set of links between the VST channels, patterns and mixer channels.

Project Requirements and Philosophy:
The FireNFX requires a project with 8 channels, 8 patterns and 8 mixer tracks all linked from channels->patterns->mixer in a 1 to 1 way. (mostly... more on this later)

In short, 1 channel must be linked to only 1 mixer track and used in only 1 pattern. The color coding is also important as these links are represented by a single color. Following this will yield the best performance and reliability.

See how this is done in the supplied demo ZIP project template. After opening the ZIP in FL studio, you might consider saving it to a new location of your choosing.

You can set your pattern lengths to any size. 4 or 8 bars is typical, but FL will always use the longest pattern, so be aware of that. I also recommend you put you pattern lengths in sensible sizes.

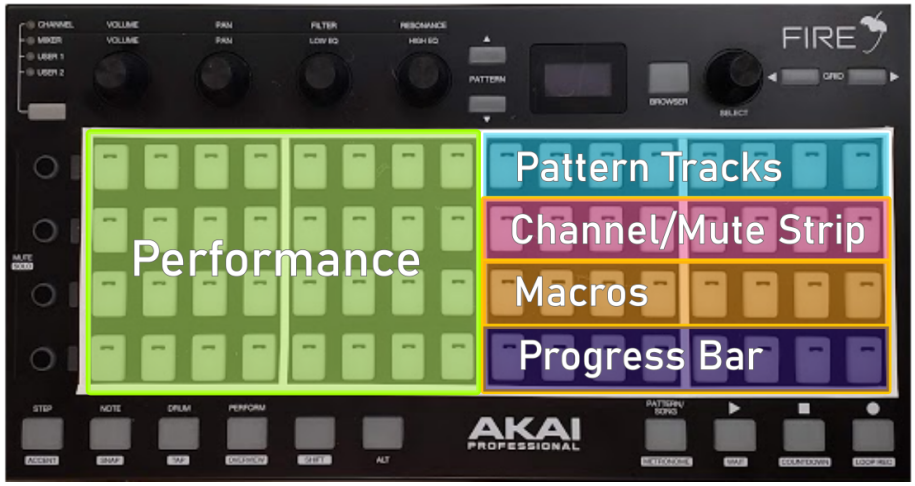
You should have snap recording enabled. If you want it off, just set the snap to off instead but leave this feature on.

Also set automation recording disabled (for now). Fire NFX cannot currently delete the automation. If you leave it on, you will have to manually delete it.

.....more ??

Updating after changes:
If you were to make changes to the FL Project, say you changed colors and/or names. You should bring up the Script Output window (View>Script Output) and click the reload button to reload everything. Re-activate and your changes will be applied.

FireNFX Layout:
Before using the FireNFX, lets understand the layout:



There are 5 sections.

Performance:
This area will allow you to play the active Pattern Track by sending MIDI notes to FL Studio.

If the active track is an FPC, it will load a custom color set for FPC Pad Banks A (4x4) and B (4x4). To tell FireNFX that its an FPC track you name it “FPC xxx” or “...FPC xxx”

If a non FPC track is active, it will load a 4 octave harmonic scale with the root notes highlighted.Currently this is hard coded to C Minor Pentatonic.

The bottom row is the lowest octave, starting one octave higher on each row above the last.

Pattern Tracks:
The 8 Pattern Track pads (top row) will allow you to quickly activate the associated channel to play it with the performance section or other MIDI keyboard.

These 8 pads would be color coded to use the same colors as the first 8 pattern tracks in FL Studio. If you recall the 1 to 1 to 1 philosophy, if the yellow channel is your “Lead” instrument, pressing the yellow pad will activate the “Lead” instrument channel, the “Lead” pattern and the “Lead” mixer track.

Upon activating the FireNFX, the Pattern Track colors should be nearly identical to the colors you used for the Patterns in FL Studio. Please note that some colors do not translate well between the FL Studio and AKAI so choose wisely. There are about 8 distinct (meaning they can be easily identified when next to any other in the list): Green, Cyan, Blue, Purple, Magenta, Red, Orange and Yellow. I recommend you stick with slight variations on these if color distinction is important to you.

Breaking my own philosophy:
The FireNFX actually has a limited ability to use multiple patterns. This breaks the 1 to 1 to 1 philosophy for sure but it was an experimental way to allow for multiple patterns of different lengths to be used. So I am experimenting for now. This may not remain a feature but is demonstrated in the example template project by the “FPC” pattern and it’s “subs”. One of the deficiencies of this method is that I haven’t figured out how to mute the channels from Mixer mode.

If, for example, the “FPC” pattern is cloned (I clone the patterns to insure they have the same channel and mixer links) and renamed “...FPC xxxx”. The 3 dots would indicate to FireNFX to use that as a “sub” pattern of the one cloned. Pressing the pad for the pattern will toggle to the first pattern and then through the list of “sub” patterns.

You can see in the demo project there is a “FPC”, “...FPC Short” and “...FPC Long”.

Now when you press the pad to activate the “FPC” channel, you can press it again to toggle through the “...” channels below it. In the demo project, it’s the last pad (Blue) on the top row. Pressing it will move between the three FPC patterns.

Additionally I made the FPC the last pattern so I could route the FPC pads to groups of mixer tracks.... But trust me 1 to 1 to 1 is mostly the way to go here. :)

Channel/Mute Strip:
The row below the Pattern pads is the channel/mute strip (second row) it can operate differently depending on the mode:

1) When in Mixer mode - the pads will represent the mute button for the pattern pad directly above it. The pad color will be dim white when NOT muted and completely off when muted. This is to allow you to do live “arrangement” of sorts by muting and un-muting to add variety and interest to your performance.

2) When in “Channel” mode - the pads will now only affect the currently selected channel. To represent this visually, all the pads will be colored a dim version of the active pattern color. Of the 8 pads in this row, the first 4 manipulate the loop length:

a) Pad 1 - resets the pattern loop length to “None”.
b) Pad 2 - sets the pattern loop length to 2 bars. Stays lit when active.
c) Pad 3 - sets the pattern loop length to 4 bars. Stays lit when active.
d) Pad 4 - sets the pattern loop length to 8 bars. Stays lit when active.
e) Pad 5 - mute/unmute for the active pattern
f) Pad 6 - Show/Hide Plugin/Generator
g) Pad 7 - show/Hide Piano Roll
h) Pad 8 - show/hide Channel setting

Side note on pattern loop length: The actual **pattern length** in the playlist will be different from pattern **loop** length.. If your pattern length was 8 bars but yout pattern loop length was 2 bars, it would loop the 2 bars 4 times to fill in those 8 bars total.

Side note on knobs usage in modes: The knobs above the pads will function as labeled on the AKAI. I did not change these so you have easy access to volume and pan, etc. The mode determines which volume and pan is used (channel vs mixer).

Macros:
These are various 8 pads that help with assorted features. Some features may require the ALT or SHIFT button to be held

As of this pre-release the macros are defined as such:

a) Pad 1 - Save Undo point
b) Pad 2- Undo last change

c) Pad 3 -
d) Pad 4 - Toggle note repeat on/off
e) Pad 5 - Clear MIDI from current pattern. Use with ALT to Clear ALL Patterns
f) Pad 6 - Set snap
g) Pad 7 - Toggle MIDI Velocity??
h) Pad 8 -

Progress Bar:
This is an 8 step progress indicator that is active only when playing or recording. It's a simple visual indicator as to your position within the repeating song loop.

Pressing on a position could move the song to that position as well.

Advanced usage / Customization