
# User's Guide (Version 2.00)

Welcome to the Vyzex Kiwi-106 User's Guide. Please remember to check back at the Kiwi-106 website (www.kiwi-106.com) for updates to the program and to this document.



## *What are the minimum requirements for the program?*

**PC** Windows XP and up. P4 equivalent Processor and up, 32-bit color graphics and 1200x800 or larger display.

**MAC** OSX 10.4.x and up, all Intel Processors. 1200x800 or larger display.

## *How do I install and configure the program?*

First you should connect your Kiwi-106 to your computer via a certified USB MIDI Interface (You'll need a quality interface like those made by Roland, M-Audio, Korg or Yamaha – Cheap USB MIDI cables bought on eBay for $5 may or may not work given the traffic passed between Kiwi-106 and the software) and then run the editor installer. Now you should quit any MIDI port using music software you have running before you launch the program for the first time – This will avoid any possible conflicts between Vyzex and your other MIDI software on the program's maiden voyage.

**Auto-sensing, auto-sensing, 1, 2, 3…**

By default, Vyzex Kiwi-106 will open every MIDI In and MIDI Out port on your computer and will run a thorough search for your Kiwi-106 on these MIDI ports: When your Kiwi-106 has been found, Vyzex selects the Kiwi-106 MIDI IN and MIDI OUT ports that were detected and proceeds to...

## *Backing up your Kiwi-106 into a Set File*

Vyzex Kiwi-106 will automatically ***GET*** your Kiwi-106 patch groups, sequence banks, pattern banks, global settings and all current edit buffers. To back this data up to your hard disk, choose 'FILE->Save Set' from the application's menu. You're now backed up, provided you don't save any later edits to this file accidentally.

If you're worried about future edits damaging your backup Set file, choose the 'FILE->Save Set As…' option to change the file name you are working with. This will ensure your backup Set is no longer open in the editor and therefore safe from any file saving you do while exploring the Vyzex Kiwi-106 editor.

Set files use the **.SQS** extension on both Windows and Mac operating systems and are interchangeable between OS platforms.

## *What if Vyzex couldn't find my Kiwi-106?*

If the AutoSense routine on program launch fails to find your Kiwi-106, the editor will launch the **QuickStart Help Guide** PDF which explains many of the common reasons why Kiwi-106 might not be detected by the editor: Procedures to resolve these problems are included in this document.

The QuickStart Help GUIDE PDF and the rest of the Vyzex Kiwi-106 manuals are available from the application's **Manuals** menu. If in doubt, read them first and should you be unable to work things out, the application's **Online** menu has a direct link to the **Kiwi-106.com** user community where help for editor related issues can be browsed, searched and requested.

## *Where's the Help for this Software?*

Vyzex Kiwi-106 includes PDF manuals to help you along. For detailed documentation of the editor's many features, please keep reading. If you want specific information regarding the program preferences, check out the **Preference Guide PDF** and the other documents available from the application's **Manuals** menu.


...You can also check out the official Vyzor Editors YouTube channel at: http://www.youtube.com/user/VyzorEditors and a

Video demonstrations of our Vyzex and Vyzor editors are posted here, along with all the tech support videos referenced by the Vyzor Technical Support board (http://support.vyzor.com).

For all matters Juno-106 repair and reconditioning, check out the Syntegrator channel at http://www.youtube.com/user/Syntegrator. Tony from Psicraft Designs will be posting informal tutorials and tours of Kiwi-106 and the Version 2 firmware in the coming months to complement what is officially posted on the Vyzor Editors channel.

Of course, we didn't go to the trouble of writing this manual for nothing: Read on to the end and it should address any specific questions you might have. As the saying goes, ***RTFM*** when in doubt.

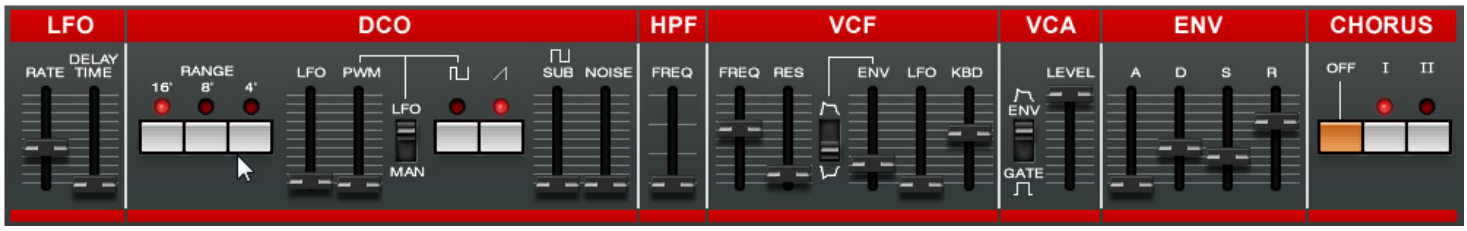
OK, let's get started!

# Introducing the Kiwi-106

### *One Day in 1985…*

Inside your JUNO-106, long before its upgrade to Kiwi-106 status, there was a battery on the main CPU board that kept the instrument's somewhat permanent memory alive. There were two 'Groups' of 64 patches stored there (A & B), for a total of 128.

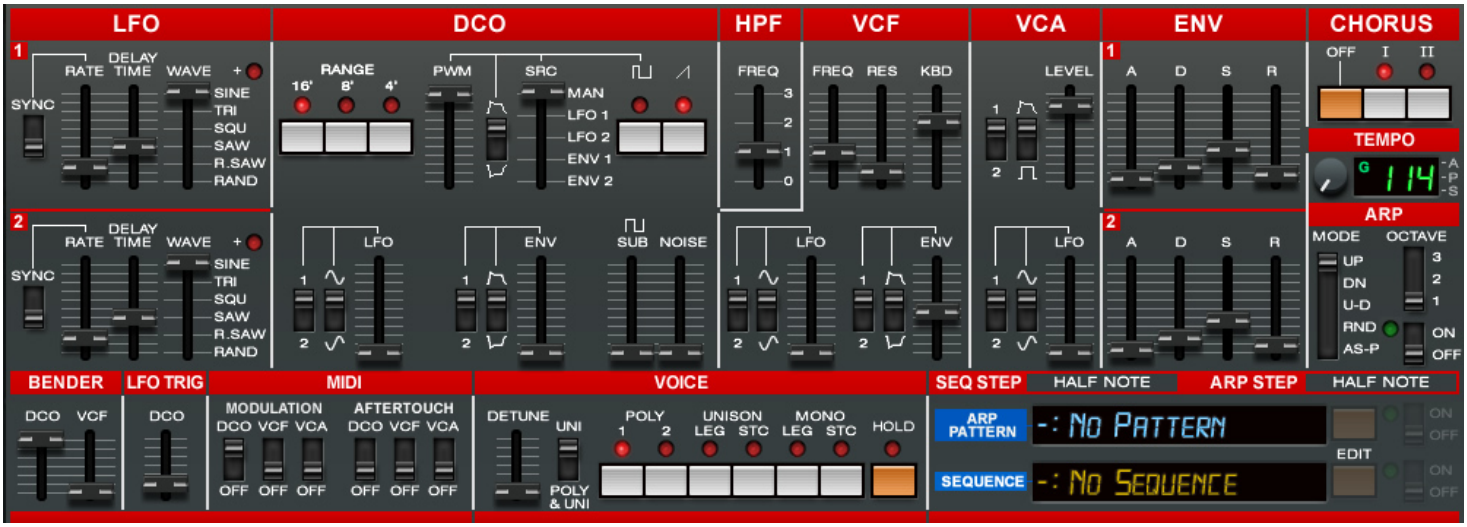
Back then, any time you pressed a GROUP, BANK or PATCH button on Juno-106 front panel, one of these patches was copied into a temporary memory area called the ***Patch Edit Buffer*** where 24 parameter settings (the Patch) were applied to the Juno-106 sound engine:




After some tweaking from the front panel, you'd press the **WRITE** button and choose a destination for your modified patch, where it would replace the patch previously stored in that location. When the 128 patches in the battery-powered memory got overcrowded, you'd hook up a cassette recorder and make a tape dump backup that would keep them backed up... Until you accidentally recorded over it with something from the radio (***Tom Sawyer*** if you were cool, the ***Bird Dance*** if not).

And so it was back in the days of the original Nintendo Entertainment System, with chunky cartridges for gamers and hand-labeled cassette tapes for synthesizer-owning musicians. Fortunately, some smart person invented fire around that time and the wheel, the internet, Google Earth and mobile devices soon followed.

### *In the 21st Century…*




Now that it has been upgraded to Kiwi-106 status, your JUNO-106 no longer has its original CPU board - Or even a battery, for that matter. The Kiwi-106 upgrade uses Flash RAM to store its data and that means the patches you **WRITE** from the front panel will last indefinitely until you replace them with another WRITE operation or via a MIDI Sysex patch dump.

As can be seen, there are many more parameters in a Kiwi-106 patch than the original 24 Juno-106 parameters. Additionally, there are now 8 Groups instead of just the original two (that's 512 patches total), a bank of 8 sequences, a bank of 8 patterns and even 22 global parameters to manage.

This is why the Kiwi-106 hardware upgrade includes the Vyzex Kiwi-106 editor/librarian program for Windows and Mac: The WRITE button on the Juno-106 front panel simply isn't enough to manage all of this data.

Before we go any deeper into the Kiwi-106 /Vyzex editor's deep capabilities, let's compare the original Juno-106 with it's modern upgraded self.

## *Juno-106 vs Kiwi-106… What's the difference?*

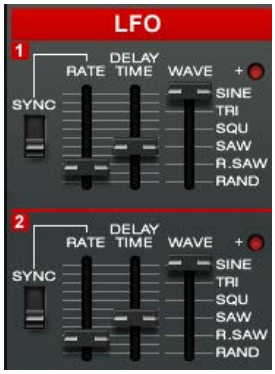
As was mentioned earlier in this guide, the Kiwi-106 hardware upgrade gives your Juno-106 a completely modern brain to go with its vintage analog brawn. In the original Juno-106, the 1980's era CPU was calculating all the LFOs, Envelopes and modulation paths, which had to be kept to basic functionality to work within that CPU's limited memory and speed.

The Kiwi-106 is built with a modern microcontroller that is very fast and equipped with a lot of ram and flash memory. We've already shown how this expanded memory makes for a greatly expanded onboard patch library that does not require a battery to maintain, but we haven't yet detailed the Kiwi's patch structure compared to the original.

### *Low Frequency Oscillators*

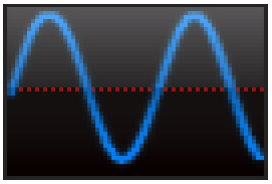
**JUNO-106**


**KIWI-106**

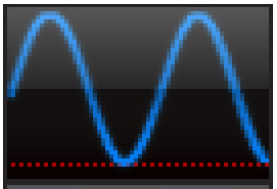



In the original Juno-106, there is one LFO (Low Frequency Oscillator) with (0-127 range) rate and delay time parameters. Its waveform is always a sine wave, and the LFO has no way to synchronize with beats being played on other instruments.

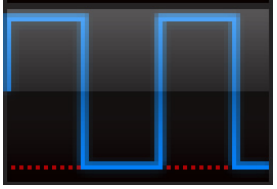
Kiwi-106 has two LFOs that have the same rate and delay time parameters, with a much higher resolution (0-4095) than the originals. Additionally, these LFOs can be set to Triangle, Square, Saw, Reverse Saw and Random waveforms, both output normally (+/- centered around the input value) or in a positive only (+) mode that has all modulation added to the input value.



Normal output mode of the LFO is good for applying a vibrato or modulation that is balanced around the pitch, amp level or filter cutoff frequency that is being affected by the LFO. The value will go higher than the original, return to the original, dip below the original and return again before repeating.



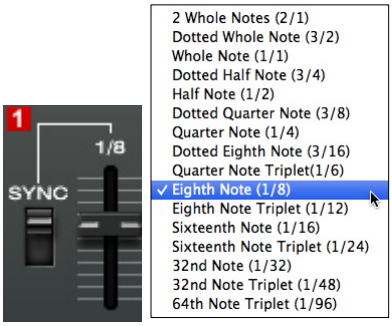
Positive output mode of the LFO allows you to apply a 'completely positive' modulation to a pitch, amp level or filter cutoff frequency.



One application where positive mode LFO comes in useful is when you set an LFO to Square wave (Positive) while setting the exact amount of pitch modulation to periodically cycle played notes up a fifth and back down to the root. How Devo is that[1]?

[1] ...Very, very Devo, indeed.

Unlike the original Juno-106, Kiwi-106's LFO rates can also be set to Beat SYNC mode:




When switched to SYNC mode operation, the amount of musical time the LFO takes to completely cycle (its period) becomes the speed control, relative to whatever musical clock the Kiwi-106 is set to follow.

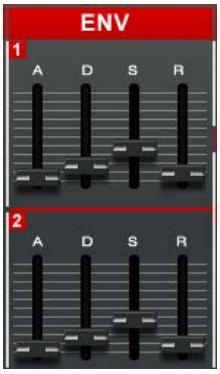
Because there are two LFOs and each can be set to a different beat SYNC interval, you can get very interesting sonic results that will groove along with your drum tracks.


For example, you could have LFO1 applying a rhythmic 1/16th note vibrato to the notes you play while LFO2 applies a rhythmic boost/cut to the filter cutoff frequency that repeats every two bars while your song plays.

### *Envelope Generator(s)*

**JUNO-106**

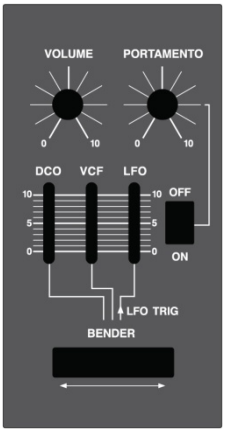

**KIWI-106**




In the original Juno-106, there is one ENV (Envelope Generator) with (0-127 range) attack, decay, sustain and release parameters. It's known to be a fairly fast envelope compared to other synthesizers of the era[1], but is not capable of the super-punchy attack times that modern hardware synthesizers can provide. This single envelope generator is permanently routed to the VCF, VCA sections of the Juno-106, making DCO pitch and/or PWM envelopes impossible.

Kiwi-106 has two envelope generators, each of them executed extremely fast and with high resolution (0-4095 range). Their output control routings are flexible, providing VCF, VCA, PWM and DCO Pitch envelopes from either ENV. Attack times of 0 are as sharp and snappy as any modern hardware synthesizer.

### *Bender Block Parameters*




In the lower left side of the Juno-106 is what we refer to as the 'Bender Block'.

The three sliders here control the DCO bend range, the VCF bend range and the LFO amount triggered when the bend paddle engages the LFO switch.

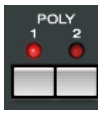
The two knobs are master volume and portamento time, respectively. The OFF/ON switch activates and disables the Portamento function.

On Juno-106, these controls are all global – They apply to every patch you load. On Kiwi-106, all of these controls (except master volume) are patch-specific parameters and can be set differently for each patch: More power to you!


[1] See this discussion on the vintagesynth.com forums for all the cool details.

### *Voice Modes*

**JUNO-106**




**KIWI-106**


Just as with the Bender Block controls, the voice modes in the original Juno-106 are global. This means they are dependent on you manually selecting them at the start of any session, and will apply to any patch you load up until you turn off the synthesizer. Juno-106 offers Poly 1, Poly 2, and (if you press both buttons at the same time) a unison mono mode.

Kiwi-106 offers considerably more voice modes and these are patch-specific parameters that change whenever you load a new patch. The original Poly 1 and Poly 2 modes are provided, along with two unison and two mono modes, each with a legato/staccato characteristic. A separate Voice Detune parameter is also provided in the patch, allowing for extremely full monophonic sounds.


***Unison*** voice modes have all six voices stack together for a fuller monophonic voice.

***Detune*** is applied to Unison voice modes to 'widen' the perceived pitch generated by all six voices.

***Mono*** voice modes have only one voice responding to incoming notes.

***Legato*** voice modes will not retrigger the envelopes when a new note is played, and...

***Staccato*** voice modes always retrigger the envelopes when a new note is played.

The Detune parameter can either be applied to Unison modes only, or to Unison and Poly modes if desired.

### *Arpeggiator*

**JUNO-106**

Not Applicable

**KIWI-106**


In the early 80s, the Roland Jupiter 4, Jupiter 8, Juno 60, Korg Polysix and Sequential Prophet-600 (and others!) were well known for their arpeggiators, which were both the cause and effect of the synth arpeggio-heavy popular music of the time.

When Roland released the Juno-106, however, many musicians and synthesists were both surprised and dismayed to see the classic arpeggiator was gone, having been dropped from the instrument's features despite its obvious pop-culture appeal.

It's taken 30 years, but Kiwi-106 finally brings that long-missed ARP functionality to the Juno-106: As a patch-specific feature, you can chose Up, Down, Up-Down, Random and 'As Played' arpeggios to be generated from any notes you play simultaneously.

Because the Kiwi-106 can be set to MIDI and external clock sources, the arpeggiator has an ARP STEP parameter that allows you to define a musical interval for the ARP to follow. Generated arpeggios will then playback in lock-step with whatever beat master you have set up, such as a DAW or hardware drum machine.

### *Note Velocity*

**JUNO-106**

Not Applicable

**KIWI-106**


The Juno-106 was released at a time in history where velocity sensitivity was simply not an option for under $2,000. In remaining years of the 80s that followed, Roland synthesizers like the Alpha Juno, JX-8P, JX-10, D-50 and JD-800 would all be released with velocity sensitive keybeds at somewhat affordable prices[1], but for all intents and purposes, the Juno-106 remained a fixed velocity machine... Until now, that is!

The Kiwi-106 hardware upgrade cannot change the fact that the Juno-106 keybed only has one set of contacts per key, so velocity sensitivity is not possible from the built in keyboard.

Fortunately, note data generated by the sequencer, the arpeggiator and coming in the MIDI IN port are not subject to this limitation. Your Kiwi-106 will happily operate as a velocity sensitive synthesizer module, and will also play built-in arpeggios and sequences with velocity sensitive note data triggered from the built-in keybed.

The operative parameters in these situations are the VCF Note Velocity and VCA note Velocity parameters found in the 2015 editor mode: These can be set to OFF, 30%, 60% or 100%, stored individually within each patch you create.

### *Sequencer*

**JUNO-106**

Not Applicable

**KIWI-106**


While step sequencers were included with a number of contemporary synthesizers to the Juno-106 (such as the Prophet-600 and the JX-3P), the Juno-106 does not have such capabilities built in. Fortunately, the Kiwi-106 hardware upgrade adds a bank of 8 sequences to the instrument, all of them linkable to any of the 512 patches you have stored in flash memory.

Each step sequence can store up to 124 steps, recordable from the front panel. Each sequence step holds up to 6 notes with velocity data, or up to 6 controllers with value data. This allows you to create melodies, chordal progressions, or even automated parameter tweaks that shift and mutate your sound along with the beat of any master sequencer or drum machine you have connected to the Kiwi-106.

Sequences can play along with whatever notes you play on the keybed, or can be set to automatically transpose to match the root notes you play on the keybed in real-time. Additionally, you can set up any sequence linked patch to begin playing on patch load, or to only playback the sequence while a key is held down.


The KEYDOWN, TRANSPOSE, and RESET ON KEY parameters are only accessible from the Vyzex editor – They do not have button combos for front panel editing.

The free Vyzex Kiwi-106 editor includes a powerful step sequence editor with the provision to edit sequences up to 96 steps in length, which is the maximum possible resolution for tempo synched sequences.

The Vyzex Kiwi-106 sequencer editor is covered in a dedicated section later in this document. For now, let's explore the rest of the features that Kiwi-106 brings to your Juno-106.

[1] Remember the old Moog ad from the 70s? "If you can afford a truck, you can afford a synthesizer!"

# Quick Tour of the Editor GUI

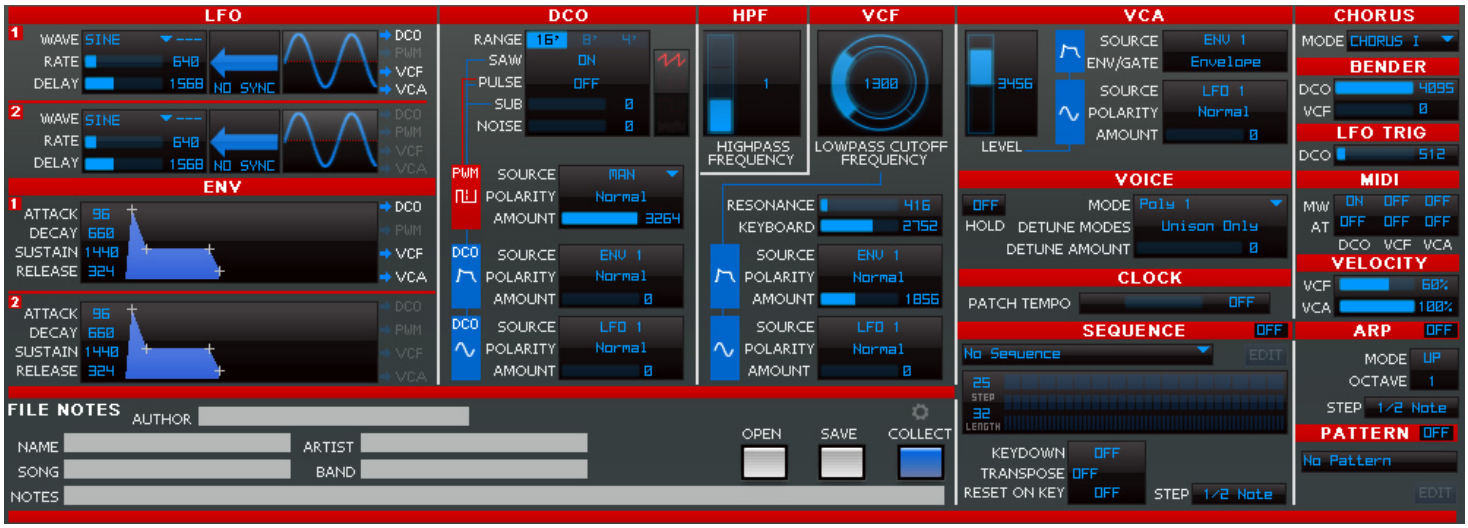
## *PATCH: 1985*


Vyzex Kiwi-106 contains a lot of functionality. When first launched, the editor will be in **PATCH : 1985** mode, which is our rendition of what Kiwi-106 would look like if the technology and budget had existed back in 1985 to manufacture it as an actual synthesizer. Not only is this editor mode a natural extension of how the real front panel works, it maps very nicely to the Kiwitechnics 'page 2' features such as the second LFO and ENV when they are edited in real-time from the actual LFO and ENV sliders.

This of course, is just the tip of the iceberg – There's a lot more to the Kiwi-106 editor than 1985 patch sliders...


Press the **PATCH 2015** button to engage the time circuits and leap the editor forward 30 years!

## *PATCH: 2015*




You'll see the 1985 sliders and switches get replaced with modern GUI controls. This is more than a cosmetic detail, as the 2015 mode of the patch editor also provides more of a signal-flow layout than the 1985 mode, with drag envelope controls, visual waveform display, control routing arrows and a FILE NOTES section for adding meta-data to your patches.


***Packrat © David C. Lovelace 2014***

We implemented two patch modes into Vyzex Kiwi-106 mainly because designing sounds is a creative activity with a workflow that depends on what you are trying to achieve. In other words, you'll find that one of the patch editor modes is more intuitive than the other for certain tasks at different times.

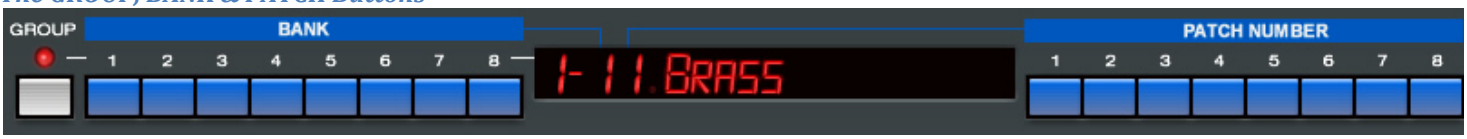
Also, an animated flux capacitor was a core requirement of this editor design. The whole 1985 to 2015 time travel made this unique technology a necessary requirement.

***When this baby hits 88 miles per hour...***

Feel free to switch between 1985 and 2015 as you work – Both modes are editing the same patch data, but the pathways of experimentation they encourage lead to parallel creative universes[1].

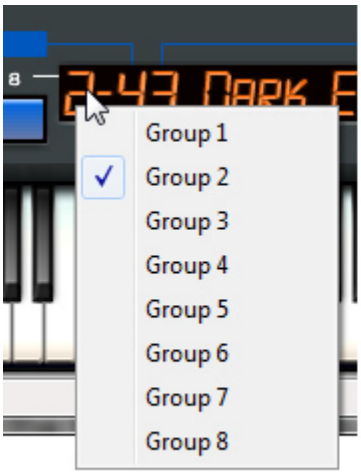
[1] Just remember: Don't let Biff get his hands on that sports almanac...

### *The GROUP, BANK & PATCH Buttons*



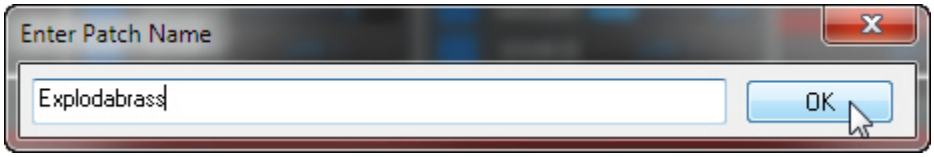

The GROUP button steps up through the 8 groups, one at a time when you click on it, while the Bank and Patch buttons operate identically to those on your upgraded Juno-106's front panel.

If you'd like to make a specific group or patch selection, click anywhere on the LED display's group or patch number to see the desired pop-up list.





Finally, clicking anywhere on the Patch Name will open a dialog inviting you to enter a new name:




Once a patch has been loaded and edited, the changes are only temporary unless you press the STORE button.

### *The STORE Button*


Just like the front panel's WRITE button, the STORE button will take the edited patch and place it into a specific location within one of Kiwi-106's groups.

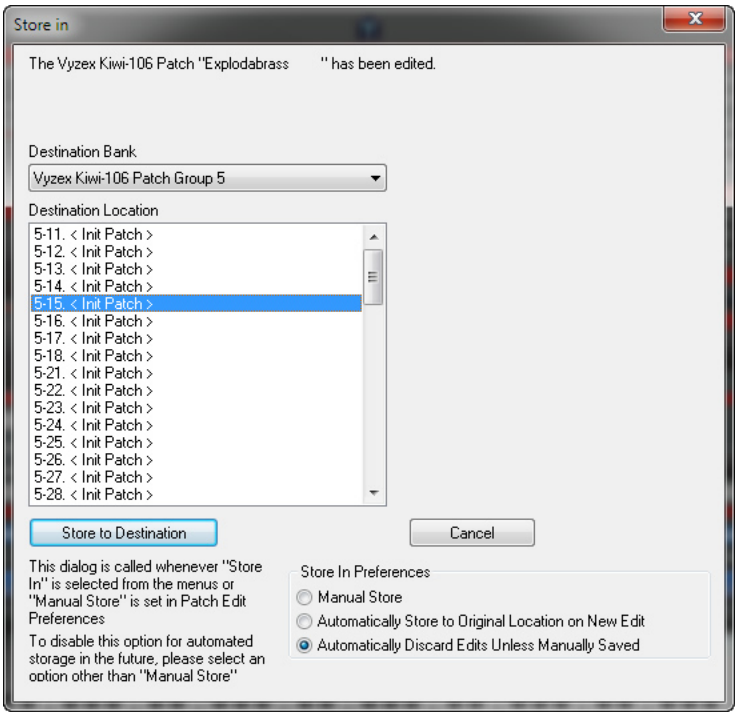
If the Vyzex Kiwi-106 editor is in ***Direct Bank*** editing mode, pressing **STORE** is equivalent to a WRITE operation from the Juno-106 front panel. The edited sound will be stored in the current group/patch location in the editor's currently loaded set contents and will **also** be written to your Kiwi-106's Flash RAM memory at the matching group/patch location.

If the editor is in ***Virtual Bank*** editing mode, pressing **STORE** will only store the edited patch in the editor's currently loaded set contents and will not automatically send the patch your Kiwi-106 Flash RAM. Manually **SYNC** the newly **STORED** patch if you want it written to your Juno-106 for use when no computer is connected.


### *The 'Store-In...' Dialog*

There will be times when you want to STORE an edited patch in a different group or patch location than the original.

Simply Ctrl-Click (Command-Click on Mac) on the STORE button and instead of normal STORE operation, the editor will open the '**Store In...**' dialog:

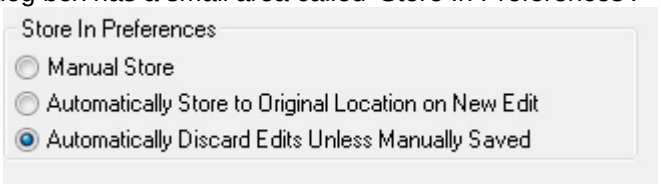



Once the Store In dialog opens, you can choose which group (1 to 8) and patch number that you would like to store the patch to.

Note that this dialog refers to the eight Kiwi-106 patch groups as 'Destination Banks' because the Vyzex Editor's underlying architecture sees the groups as 'Banks', which is really what they are in terms of their functionality.

### *Danger, Will Robinson! 'Store In Preferences' Alert!*

The **Store In...** dialog box has a small area called 'Store In Preferences':




'**Automatically Discard Edits Unless Manually Saved**' is checked by default.

This is ***recommended*** option for running the Vyzex Kiwi-106 editor: Any edits you make must be STORED before they become permanent changes to the group or bank location that the patch, pattern or sequence was originally loaded from. Experiment all you like and no harm will be done, in other words.

Changing this preference to '**Manual Store**' will mean you always get the 'Store In...' dialog when clicking on the STORE button. If this is preferable to you, feel free to change to this option.

And now the warning:

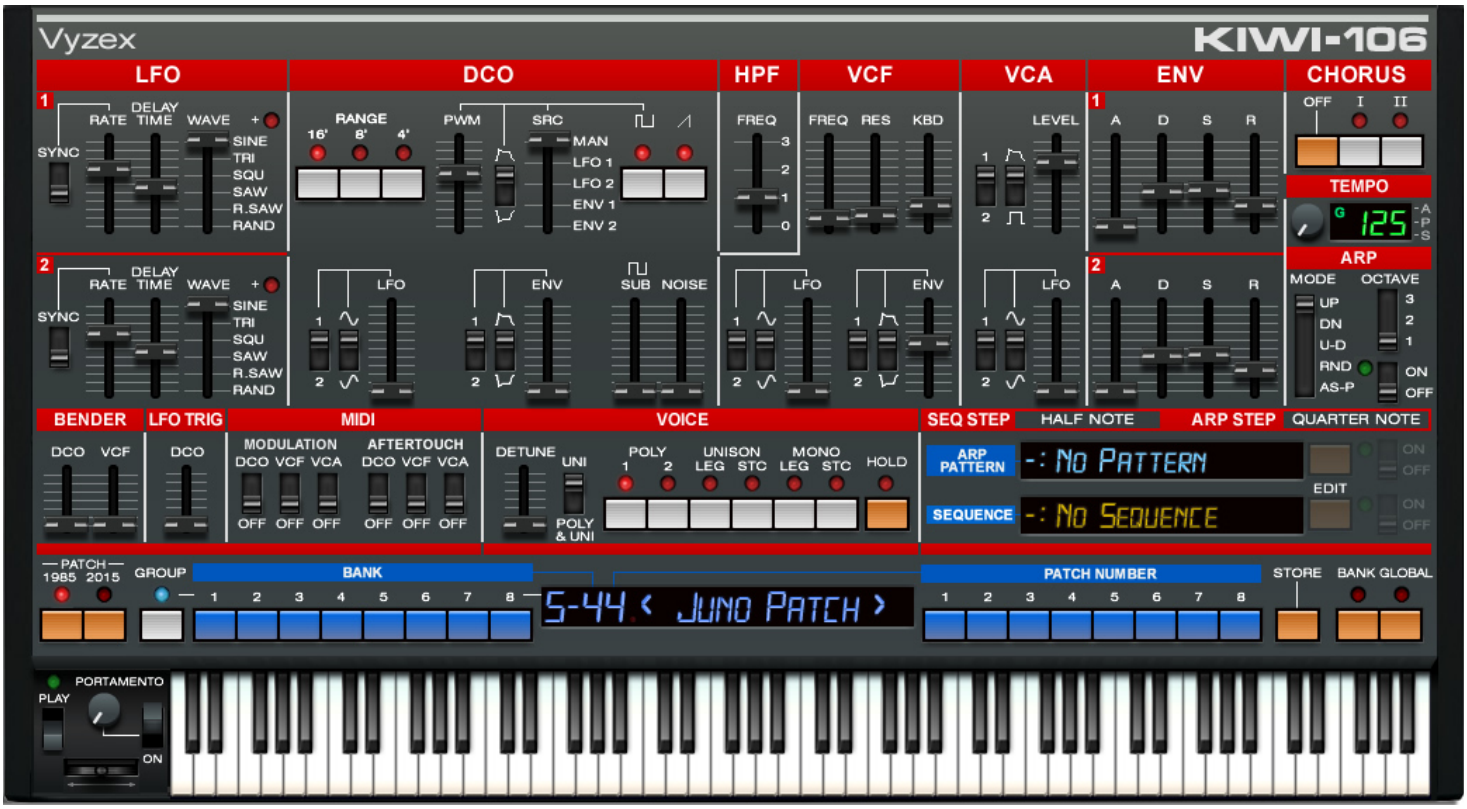
Changing this preference to '**Automatically Store to Original Location on New Edit**' will mean ***every*** change you make to the currently loaded Patch, Sequence or Pattern will be automatically STORED to the editor on selection of the next group/bank item. In DIRECT BANK editing mode, this option will also **WRITE** those edits to your Kiwi-106 Flash RAM memory, without any notification.

You can switch to this preference if you are sure these are the results that you want.

## *Importing Juno-106 Patches*

Although the System Exclusive Implementation of the Kiwi-106 upgrade is much more advanced than the original Roland Juno-106, it is possible to convert patches created for the original synthesizer into ones that will load on your Kiwi upgraded instrument.

If you dump an original Juno-106 patch to the Kiwi-106 editor, it will be converted automatically and will replace the contents of the current patch edit buffer:




By default, editor's current group and patch number will not update to match the group and program number of the patch sent from the Juno-106. This option can be changed in the editor's GLOBAL page, which we'll get into later.

Since the original Juno-106 patch does not have any provision for naming, a default name of '**< Juno Patch >**' will be entered by the conversion process. Likewise, the single LFO and ENV parameters of the original Juno-106 patch will be applied to both LFOs and ENVs of the converted Kiwi-106 patch.


You will probably find the sound of any converted patch requires fine tuning to match the original – The import conversion is only the starting point for any patches you bring forward to the 21st Century.

Also, once a patch has been imported, renamed and fine tuned you will need to STORE it to one of the Patch GROUP locations via the Vyzex Kiwi-106 editor's STORE button.

### *Kiwi-106 'Groups' and 'Banks' Explained*

We should take a moment and make some terminology clear. The Roland Juno-106 front panel calls 8 patches a 'Bank', and calls 64 Patches (8 Banks of 8 Patches) a 'Group'.

In the Kiwi-106, there are 8 sequences and 8 patterns, each of which is called a 'Bank'. In this context you can look at a 'Bank' as meaning 8 elements, which can be a patch, pattern or sequence.


In the Vyzex Kiwi-106 editor, the word 'Bank' is used to describe the GUI page where all the flash RAM storage on Kiwi-106 is displayed and edited. Each of the display areas in the editor's GUI page is called a 'Bank Editor' even in the case of the area managing the 8 groups of 64 patches.

Out in the world of MIDI, however, the word 'Bank' means up to 128 'Programs' loaded by 'MIDI Program Change' commands and switched between with 'MIDI Bank Select (MSB,LSB)' commands.

In this context, a program is simply a member of the selected MIDI Bank. If you are trying to switch sounds on Kiwi-106 from a remote controller like a MIDI pedal unit or control surface, here's what you need to know:

- Patch Groups 1 & 2 are selected for program change with Bank Select (0,0),
- Patch Groups 3 & 4 are selected for program change with Bank Select (0,1),
- Patch Groups 5 & 6 are selected for program change with Bank Select (0,2),
- Patch Groups 7 & 8 are selected for program change with Bank Select (0,3),
- The Sequence Bank is selected for program change with Bank Select (1,0),
- The Pattern Bank is selected for program change with Bank Select (2,0).

When using the Vyzex Kiwi-106 editor, you won't need to worry about MIDI Bank selects, but we thought now was a good time to mention them: It's better to be confused ***now***, than later on when you are trying to make music.

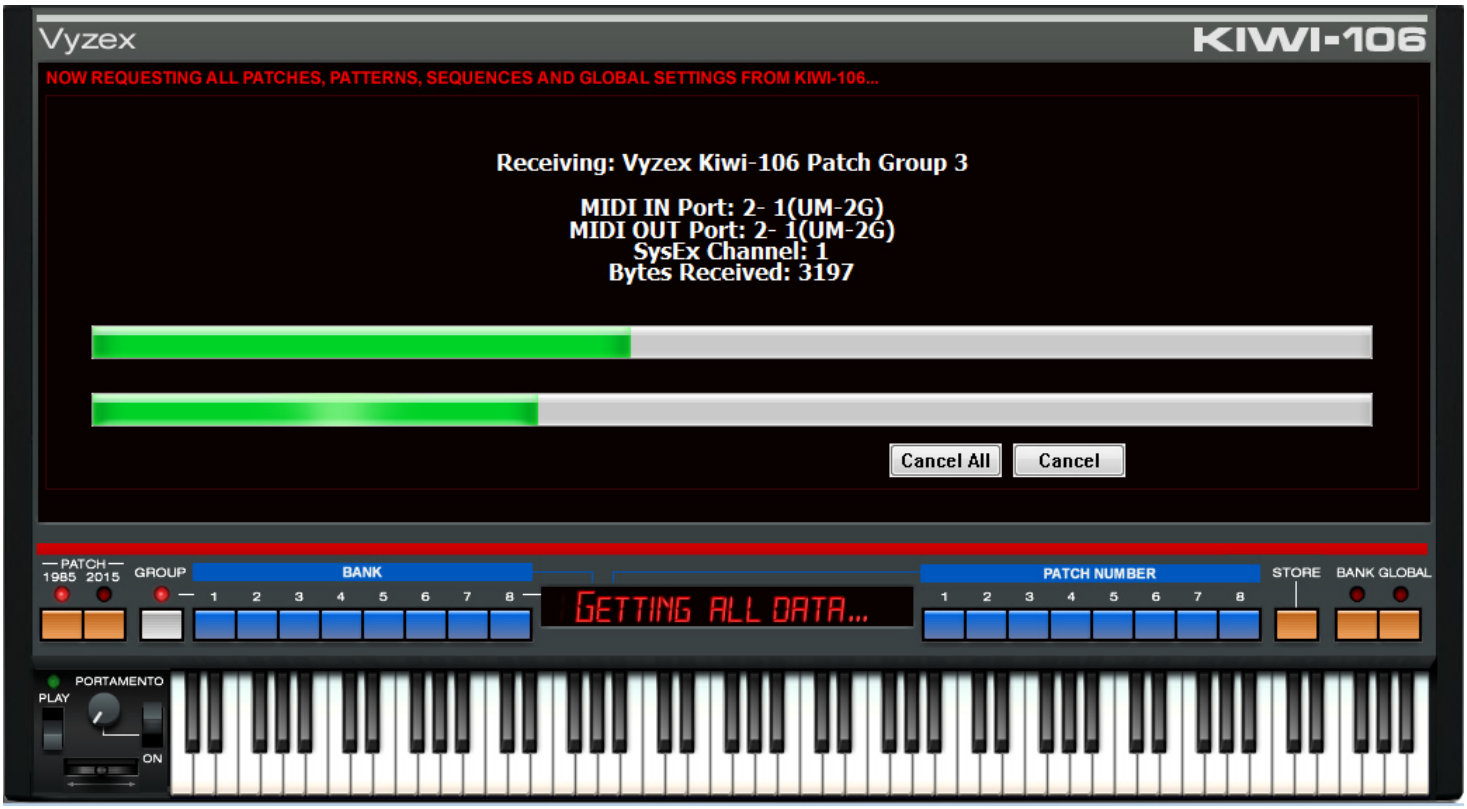
Instead of working directly inside your Kiwi-106's onboard memory like the front panel WRITE button must do, the Vyzex Kiwi-106 editor provides 'virtual' groups and banks that simulate the built-in Kiwi-106 groups and banks.


In ***Virtual Bank Editing*** mode, Vyzex Kiwi-106 won't overwrite your onboard bank Patches, Sequences and Patterns unless you specifically instruct it to with **SYNC** commands made from the editor GUI (Graphical User Interface), while in ***Direct Bank Editing*** mode all changes you make in the editor will be automatically transmitted to the Kiwi-106's onboard flash RAM memory.

Unless you know this essential fact up front, you'll likely find yourself puzzling over the way the editor works, but as you will soon see, the benefits of the Virtual/Direct bank approach are well worth it. We've put together a quick tour of the editor GUI, followed by a patch editing tutorial in the following pages, so please follow along and you'll get the hang of things very quickly.

**Direct and Virtual Bank Modes**

As explained on a previous page, when you first launch the Vyzex Kiwi-106 editor, it will **GET** (receive) all the data from your Kiwi-106: The global settings, all eight Patch Groups (64 patches each for a total of 512 patches), the Sequence Bank (8 sequences) and Pattern Bank (8 patterns) will be requested by the editor and transferred as MIDI SysEx data.




Once the editor has all this information, it will be completely ***synchronized*** with your Kiwi-106 and can enter **Direct Bank Editing** mode. In this mode, everything you do in the editor will be automatically applied to the corresponding elements on board the Kiwi-106's Flash RAM memory.

The Vyzex Kiwi-106 editor application contains a number of dedicated specialised editor pages which we'll explore shortly – For now, we're going to have a quick look at the **BANK** page to present the concepts of Direct and Virtual Bank editing.

### *Direct Bank Editing*


When **DIRECT BANK EDITING** is indicated in the various bank displays (PATCH, PATTERN and SEQUENCE), this means everything you see is a mirror of what is stored in your Kiwi-106's flash RAM memory. If you move any bank elements around, the software will automatically reshuffle the elements inside your Kiwi-106 to match their new locations. Similarly, if you edit any patch, pattern or sequence and press a STORE button to make the changes permanent in one of the editor's bank locations, the software will automatically update those elements on board your Kiwi-106. At any time you can shut the editor down and disconnect your Kiwi-106 from the computer and you will be taking the changes with you.

While Direct Bank Editing is very intuitive, it's not the way you will always want the software to behave. For example, what if you open a backup set file or a bank of patches downloaded from the Kiwi-106.com online patch exchange? You wouldn't necessarily want the software to automatically replace your own patches in this situation. This is why the editor also has **VIRTUAL BANK EDITING**.

### *Virtual Bank Editing*


Virtual Bank Editing engages whenever the editor is ***not*** synchronized with Kiwi-106, such as when you open a set file from disk or click on patch data in the Collection (another cool feature we'll cover later in this guide). In this mode, all edits are non-destructive with regards to your Kiwi-106 patch memory: You are operating on copies or variations of patch data from your Kiwi-106 or elsewhere, and not on the data aboard the connected Kiwi-106's flash RAM groups and banks. This means you are free to reorganize, edit and store the currently loaded set data in the editor from top to bottom and unless you SYNC the set back to the Kiwi-106 at the end of your session (or individually SYNC any of the Patches, Sequences and Patterns you've edited), your actual Kiwi-106's groups of 512 Patches, banks of 8 Sequences and 8 Patterns will remain safely untouched.

Likewise, when you load a patch for editing through the Vyzex Kiwi-106 GUI, only the Kiwi-106's editing buffer is updated with the edited patch data. This allows Kiwi-106 to constantly 'audition' your changes to the current patch so you can test out each edit you make in real-time. Unless you press the patch SYNC button within the editor GUI, however, the edited patch will not be written to your Kiwi-106's onboard Preset Bank memory.


### *'Auditioning' Explained*

Vyzex-Kiwi-106 refers to the process of sending data to any of the Kiwi-106's edit buffers as *Auditioning* the data. Every patch, sequence or pattern you load into Kiwi-106's corresponding edit buffer will change what you hear, and you'll decide if you want to keep it or not based on this auditioning process.

### *'Edit Buffer' Explained*

An edit buffer is a temporary memory area used by the hardware to hold the currently loaded sound data. In the Kiwi-106 there are patch, pattern and sequence edit buffers, and Vyzex Kiwi-106 is constantly refreshing them to match what you see in the Patch, Sequence and Pattern editor pages of the software GUI.

**Direct or Virtual: Which one do I choose?**

This answer really depends on how you want to operate: When you first run Vyzex Kiwi-106 it will GET all the data from your Kiwi-106 expanded Juno-106 and enter Direct Bank editing mode because it knows the data it has loaded matches what is aboard the Kiwi-106.

If you are concerned about trashing any of these sounds while you learn the editor software, simply save the file to disk and then reopen it (or the supplied Factory Set.SQS file). When a file is opened from disk, Vyzex Kiwi-106 will enter Virtual Bank editing mode and unless you press a SYNC button in the BANK page, none of the changes you make in the editor will be reflected in your Kiwi-106's onboard memory.

Because the Vyzex-Kiwi 106 editor always auditions loaded patches, sequences regardless of the Bank Editing mode, everything you do in the editor will appear to be going on within the Kiwi-106. In Direct Bank mode the editor will send MIDI commands to change the current patch, pattern and sequence to correspond to what you have loaded in the editor, while in Virtual Bank mode the editor will replace the patch, pattern and sequence edit buffers aboard your Kiwi-106 using System Exclusive (SysEx) messages instead. This means Virtual Mode is 'safer' than Direct, but even Virtual Mode can be dangerous to the unwary user's precious patches, patterns and sequences:

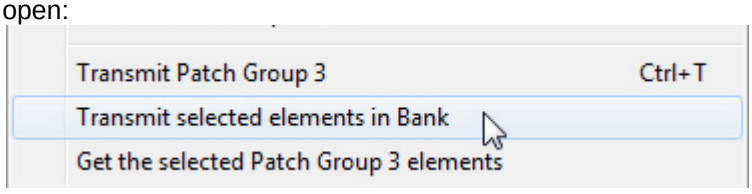
### *'Sync' means 'Replace what's in the Instrument's flash RAM'*

In Virtual Bank Editing mode, SYNC SELECTED buttons become visible whenever you make a selection:


When you click on one of these buttons, the editor will replace what is aboard your Kiwi-106 at the corresponding group or bank location. There's no Undo for this unless you've already backed up what is at that location to disk, so use with caution.

### *'Transmit' means the same thing as 'Sync'*

If you right-click (Control-click on Mac) over any of the bank displays, a context menu will open:




The Transmit commands do the same thing as Sync: Bank elements will get sent to the instrument, replacing whatever happens to be at the corresponding location.

With all that Direct and Virtual business out of the way, let's take a tour of the expanded bank memory of your Kiwi-106:

Press the **BANK** button to activate the editor's BANK mode.


## *The BANK Editor*


If you are running the editor with a Kiwi-106 connected, it will have automatically synchronized itself on launch and the bank displays will all be in DIRECT BANK EDITING mode as shown above.

When this GUI page is active, you can...

- Select patches, patterns or sequences for editing by clicking on them.
- Reorganize the elements within the editor's bank displays with drag and drop operations.
- Copy and paste the elements within the editor's bank displays with clipboard operations.
- Rename the elements in the editor's bank displays by double-clicking on them.

By default, drag and drop will swap the source element with the destination. CTRL-C will copy the current selection to the clipboard and CTRL-V will paste it back over any new selections you make. The arrow buttons will navigate between cells.


When you copy and paste selections of elements, you must make sure the destination number of items matches the number you put on the clipboard or you may not get the exact results you want.

For example, if you copy 5 source patches to the clipboard, you must select 5 destination patches before pasting the clipboard. If you select just one destination patch, only the first patch on the clipboard will be pasted.

As we just explained, DIRECT BANK EDITING means that any changes you make are automatically reflected within your Kiwi-106's flash RAM. If you have opened a file from disk, VIRTUAL BANK EDITING mode will be active instead, and this means any changes you make will NOT be transferred to your Kiwi-106's flash RAM memory unless you manually SYNC them. Similarly, the editor will not have any of the patches, patterns or sequences aboard your Kiwi-106 unless you manually GET them first.

## *The Patch Collider*

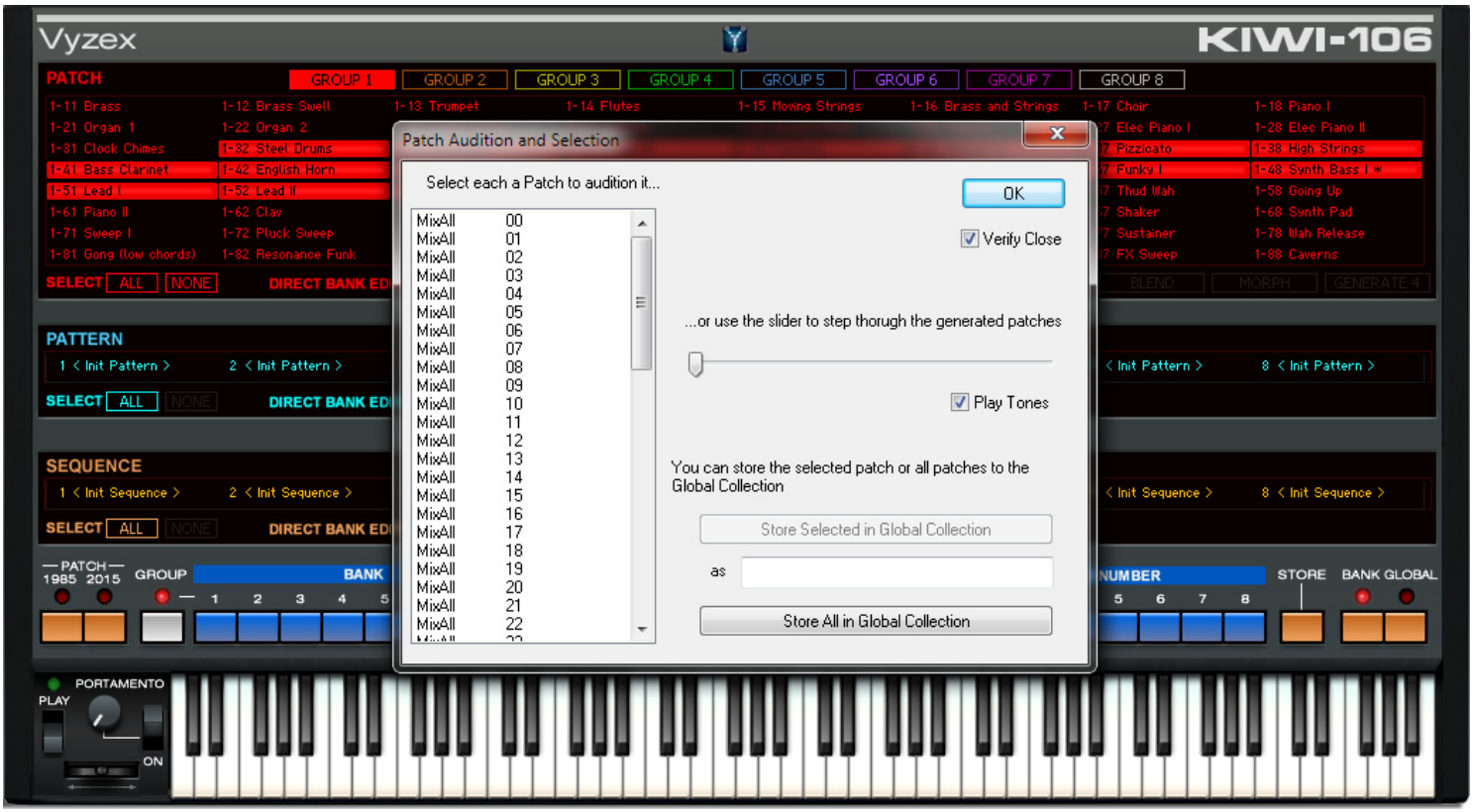
As you make selections in the patch groups, you will see buttons become active in the PATCH COLLIDER area of the bank editor.


The Patch Collider is a ***very*** powerful feature of Vyzex Kiwi-106 – Think of it as your very own parameter scrambling particle accelerator that allows you to take one or more source patches and smash them into each other at relativistic speeds, producing new and exciting sounds (and theoretically a few micro-miniature black holes in the bargain)[1].


**Visible when 2 or more patches are selected**

The **MIX ALL** button creates a new group of 64 patches by randomly picking parameters from 2 or more selected patches. The probability of the parameter coming from each of the selected patches is equal.

Each new patch is a random combination of the selected patches. The more source patches you choose for collision, the longer it will take the editor to smash them together. Please be patient and you will be rewarded at the end with the following dialog:




In the example shown here, 21 patches have been selected in the bank editor and the MIX ALL button has been clicked, which opens the Patch Audition and Selection dialog.

On the left side of this dialog is the patch selector, which contains 64 patches that have been automatically generated from the collided parameters of the 21 selected patches from group 1. The current selection is auditioned on your Kiwi-106, which allows you to quickly step through the entire set of generated patches (note that some of them will not produce sound because of their random nature) with your mouse and/or keyboard arrow up and down keys to find the ones you'd like to keep.

The 64 collided patches will be discarded if you close the dialog without storing any of them to the collection or your currently open patch bank.

If you leave the 'Verify Close' option checked, you will be warned every time you try to close this dialog, but if you uncheck this option be advised that any un-stored generated patches will be lost.

[1] If cult science-fiction movies are more to your liking, feel free to call this feature the **BrundelPatch Teleporter** instead. The effects on the patches you run through it are the same – Their parameter DNA gets interchanged and scrambled together to create exciting (and sometimes horrific) new creations.

Once you have found a generated patch you wish to keep, you can either store individually it in the Global Collection with an optional new name (see The Collection View) , or you can store the entire batch of generated patches into the Global Collection by pressing the '**Store All in Global Collection**' button.

When an entire batch of 64 collided patches are put in the collection, they are automatically named and numbered according to which Patch Collider command created them and their order in the created batch. For example:

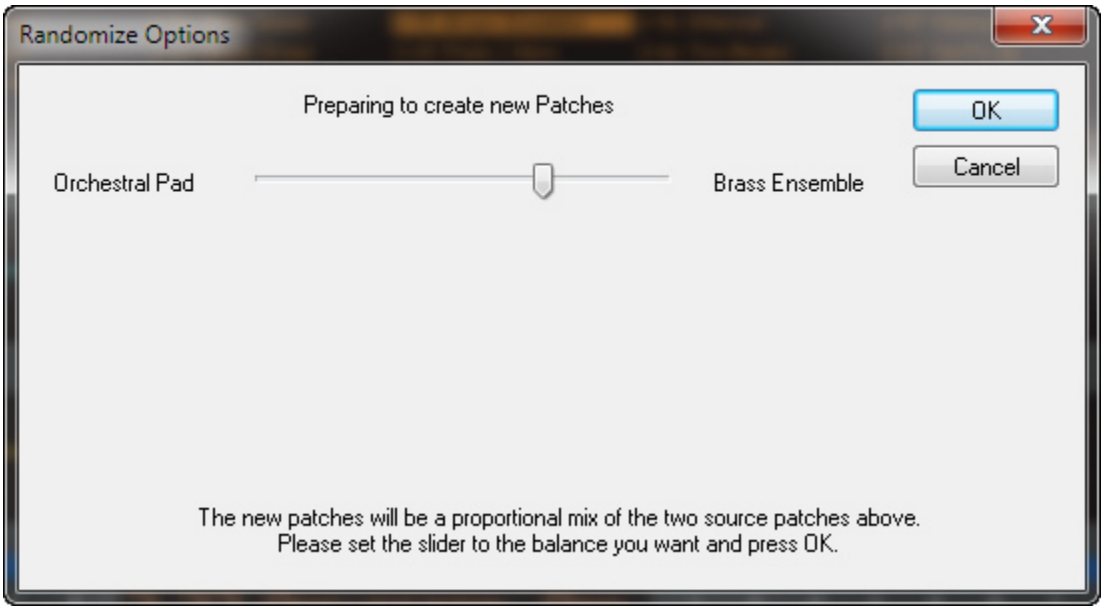
1. **MIX ALL:** MA00 to MA63
2. **MIX:** MX00 to MX63
3. **BLEND:** BL00 to BL63
4. **MORPH:** MO00 to MO63
5. **GENERATE 4:** G400 to G463

These automatic names will keep the batches together in the collection's alphabetical listing.


**Visible when 2 patches are selected**

The **MIX** button creates a new group of patches by randomly picking parameters from 2 selected patches.

The probability of any parameter coming from each of the selected source patches is controlled by the 'Randomize Options' dialog:





**Visible when 2 patches are selected**

The **BLEND** button works similarly as MIX except that it combines larger chunks of data from each patch thus maintaining more of their overall aural characteristics. Additionally the probability of the parameter coming from each of the selected patches is fixed at 50%.


**Visible when 2 patches are selected**

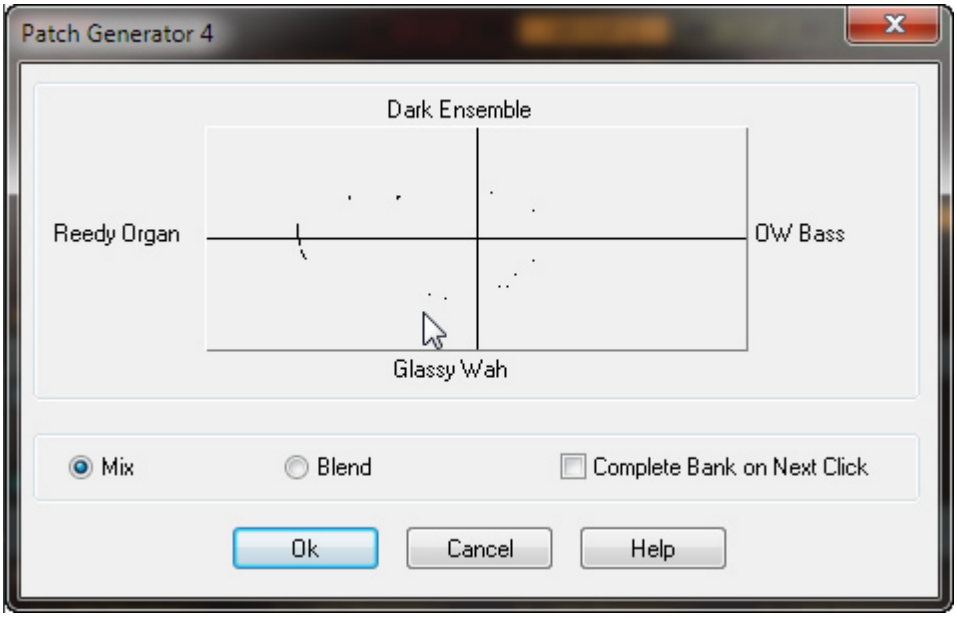
The **MORPH** button creates a new group of patches from 2 source patches by incrementally transposing the settings of the first patch through to the second patch's settings. This function is ideal if you are trying to find a sound that is somewhere between two given patches.

The names of the generated patches and their position in the list indicate how far along the morphing has been applied between the two source patches.


The MORPH function takes some time to generate the entire group of 64 patches – Be prepared to wait for five seconds or so while these are generated!


**Visible when 4 patches are selected**

The **GENERATE 4** button opens the Patch Generator 4 Dialog, and is active only when you select 4 patches at the same time. The Patch Generator 4 Dialog creates a bank of new patches by mixing the parameters of the four selected patches. The percentage of each patch is determined by the location of each of your mouse clicks, as shown here:




An entirely new patch is generated from the selected source patches for each of the mouse clicks that you make in this 4-way grid.

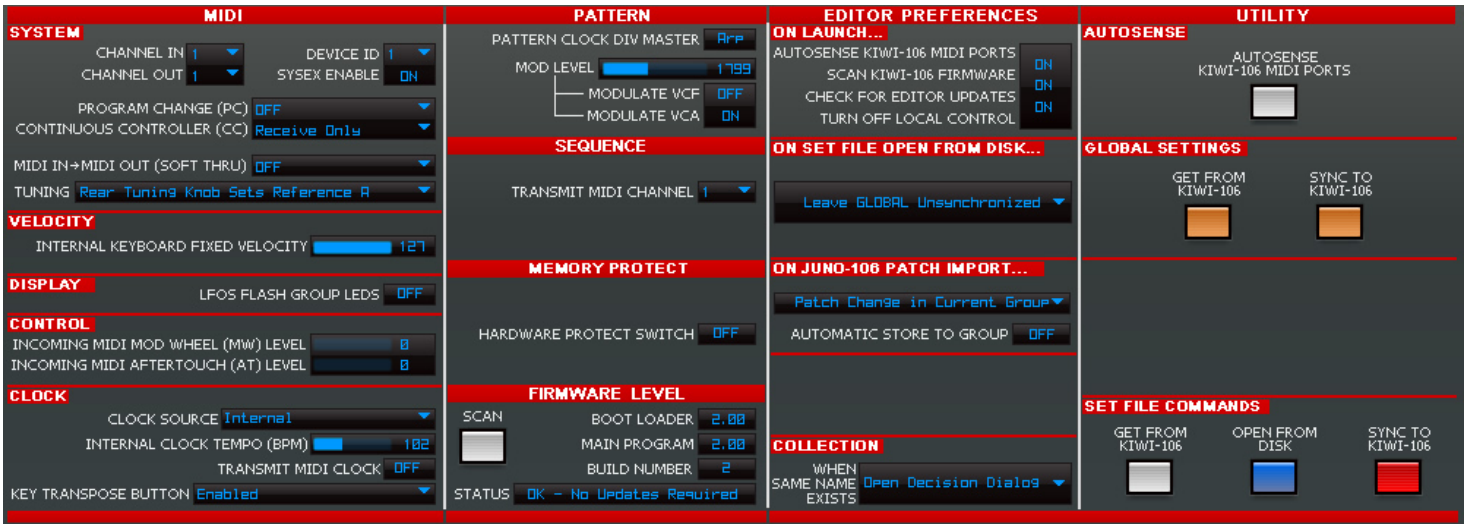
Once you have entered 64 points (you can drag in the grid to enter multiple points quickly), GENERATE 4 will move on to the Patch Audition and Selection dialog where you can quickly try out the newly generated patches (one patch is generated for each of the points you entered).


**GENERATE 4** will use either the **MIX** or **BLEND** algorithm, depending on your selection in the Patch Generator 4 dialog above.

Now that we've toured all the patch and bank editing, let's take a quick trip through the GLOBAL page: There are some important controls in here, so it's worth doing, even if it's not a very sexy part of the editor.

Press the **GLOBAL** button to activate the editor's GLOBAL page

# *The GLOBAL Editor*




GLOBAL page is where all of the universal settings for your Kiwi-106 and the editor software are located for editing.

In version 2.xx of the Kiwi-106 firmware, several new features have been added to make your life easier:

### *TUNING*

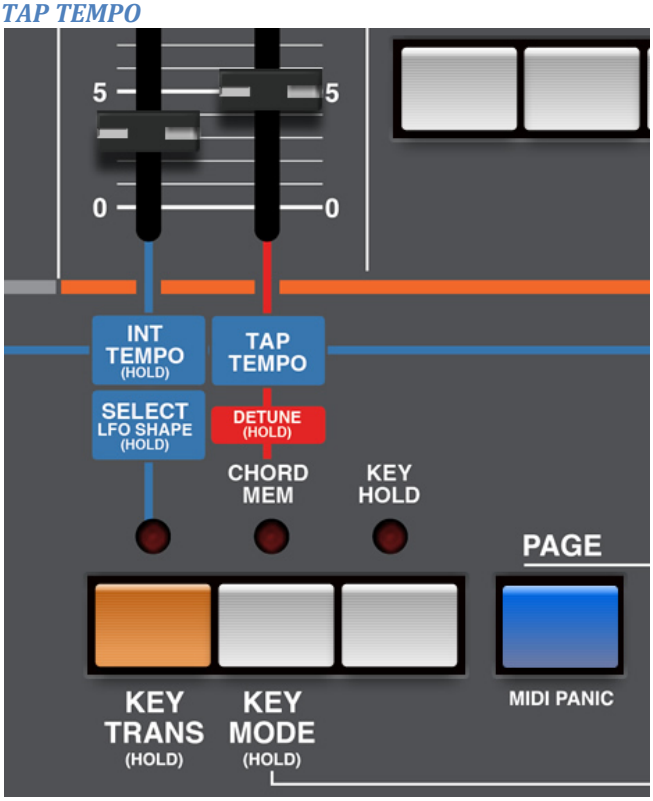
On a stock Juno-106, all tuning is handled from a tiny knob located on the rear panel of the synthesizer, where casual hands can change the settings by accident, making for unhappy onstage experiences.

By default, Kiwi-106 allows this knob to set the tuning as it did in a stock Juno-106:


The alternative setting (Knob DISABLED) guarantees A440 tuning, regardless of the rear-panel knob position:


This mode can only be turned on with the Vyzex Kiwi-106 editor, and will be cleared on a Factory Restore.

### *TAP TEMPO*




With all the beat-synchronized LFO and Sequencer features added to Kiwi-106 in the V2 upgrade, it was very important that a tap tempo function also be available from the front panel.

The illustration to the left shows on the SynthGraphics Kiwi-106 v2 overlay, but you will also recognize the buttons shown here as the ***Key Transpose***, ***Poly 1*** & ***Poly 2*** buttons on the stock Juno-106.

Holding down the KEY TRANS button will activate the LFO RATE slider to work as a controller of the Internal Tempo, and the LFO DELAY slider to work as the LFO WAVE SHAPE slider.

Holding down the KEY TRANS button will ***also*** activate the KEY MODE button as a tap tempo button. Tap along with the beat of a live band or track that you are playing to and your Kiwi-106's LFOs and Sequencer will adjust their tempo to match.

By default, when the KEY TRANS button is being held down, the Juno-106 keyboard goes into 'Transpose Note Entry' mode and any notes you play will set the global Transpose amount (just as it does on the original Juno-106).

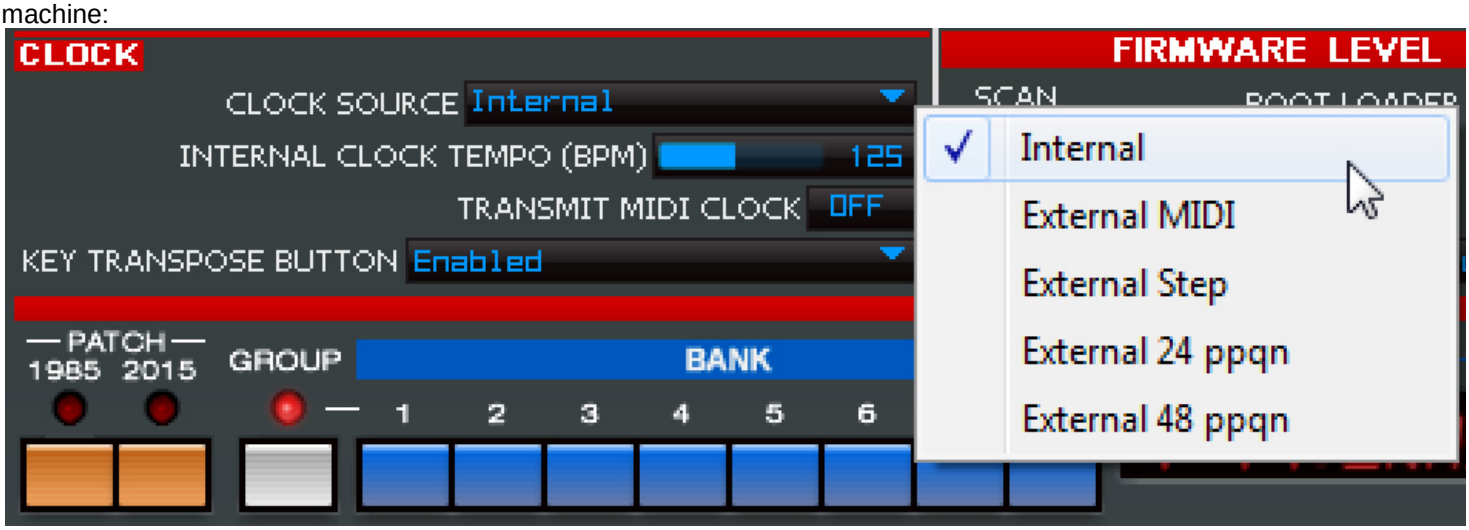
***Illustration based on Kiwi-106 V2 Overlay © SynthGraphics 2015***

Because the Keyboard Transpose functionality (activated when the KEY TRANS button is held down) will interfere with keyboard performances in which you want to tap the tempo while playing notes, there is a new global parameter to ***disable*** the Key Transpose capability.


Disable this parameter and the KEY TRANS button will only act as a 'shift' key to permit tap tempo entry (and other functions) while you play the keyboard. Just remember you won't be able to globally transpose the keyboard unless you turn this function back on.

### *CLOCK (updated in V2)*

The multiple clock source selectors in Kiwi-106 v1 have been condensed into a single CLOCK SOURCE parameter in v2. You can have Kiwi-106 provide the MIDI clock master for your rig, or you can set the clock source to External MIDI to have Kiwi-106's tempo synced functions driven by the MIDI clock signal coming from your DAW, workstation keyboard or drum machine:




The remaining options (External Step, 24 ppqn, 48 ppqn) are for using an analog clock signal input through the EXTERNAL SYNC IN jack on the rear panel of your Kiwi-106. If your upgraded Juno-106 does not have the SynthGraphics overlay installed, this jack will be labeled PATCH SHIFT, which was its original function back in the 1980s.

When set to External Step, the clock will advance one clock pulse for every on/off pulse detected on the EXT SYNC IN jack. Kiwi-106's clock resolution is 24 pulses per quarter note (ppqn), meaning 24 pulses will equal a quarter note of musical time.


If you want to manually step the arp and sequencer from an external foot pedal (for some avant-garde interactive musical purpose you've dreamed up) then set the Global Clock Source to 'External Step' and set the Arp and Seq Clock Div patch parameters to 64$^{th}$ note triplets.

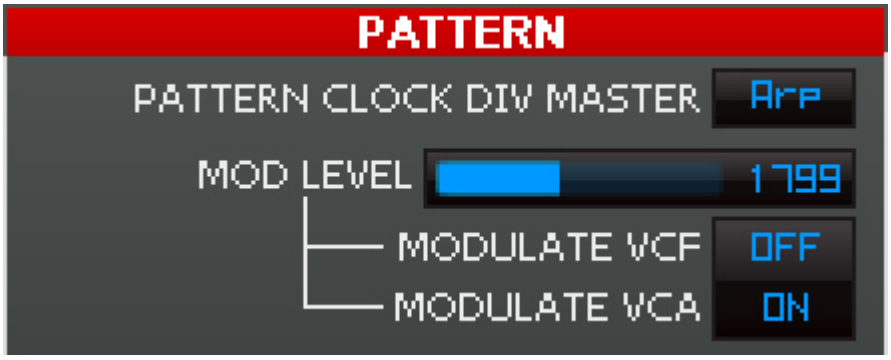
When set to 64$^{th}$ note triplet clock divide, the sequencer, arp and pattern will advance one step for every clock pulse, and at External Step one clock pulse is generated for each press down and up of a connected pedal.

External 24 ppqn and External 48 ppqn are options for connecting a vintage drum machine as your clock master: Check your owner's manual to see which SYNC standard your machine follows and set this parameter accordingly.

### *PATTERN (updated in V2)*

In most electronic musical instruments, a pattern means a basic sequence of events such as a drum machine 'pattern' or a step sequencer 'pattern'. In Kiwi-106, the pattern is a simple stepped source of modulation that operates outside of the arpeggiator and the sequencer.

A pattern consists of up to 16 steps of 'Off/On' switch data. While a pattern is playing, if a step is off, nothing happens. If a step is on, the pattern will modulate either the VCF Cutoff Frequency or the VCA Level.




As set in the Global page of the editor, the pattern can follow either the ARP clock division or the Seq clock division. ARP is the default.

The Mod Level governs how strongly a 'ON' value in the pattern will affect the synth engine.

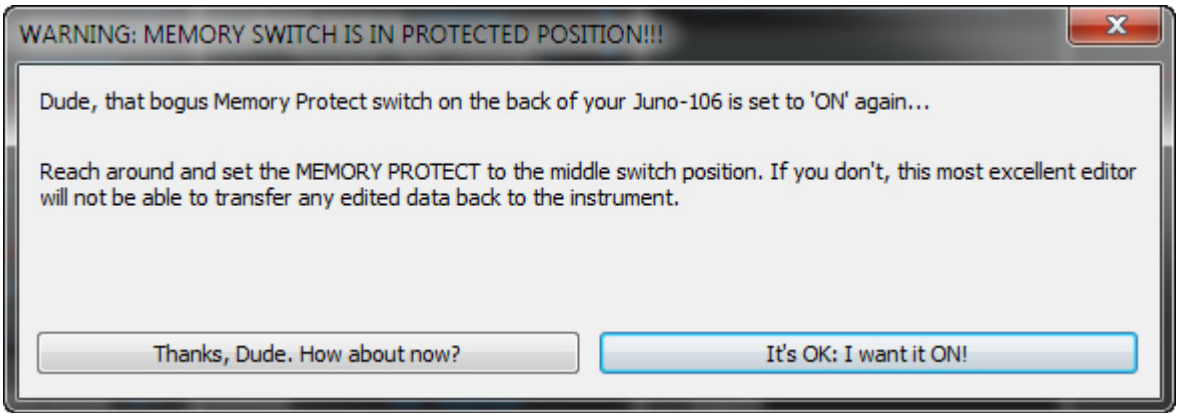
The Modulate VCF and Modulate VCA controls select whether ON steps will influence the VCF or VCA according to the Mod Level amount.

Here are important Global parameters inherited from version 1 of the Kiwi-106 firmware that are worth checking out:

### *MEMORY PROTECT*

The Kiwi-106 upgrade obeys the Memory Protect switch located around the back of your Juno-106: If you accidentally have this rear-panel hardware protect switch in the **ON** position, the editor's SYNC operations will **NOT** work.


This would be a bad thing, so the software is designed to check the memory protect switch every time it runs. If the editor finds out you've accidentally (or intentionally) turned on the MEMORY PROTECT, you see somewhat annoyed looking red 'ON' text displayed in the GLOBAL mode, and the editor will also hit you with ***Bill and Ted's Memory Switch Warning***:




The moral of the story here is 'Keep that heinous memory switch turned OFF, party on and be excellent to each other.'

### *FIRMWARE LEVEL*

Vyzex Kiwi-106 and the actual Kiwi-106 firmware were engineered to work together.


**Version 2.00 of the Vyzex Kiwi-106 editor is designed to work with the following firmware version:**

**BOOT LOADER: 2.00**
**MAIN PROGRAM: 2.00**

There may be V2 build numbers higher than 1, but as long as they are versioned at 2.xx the editor should be compatible with them. If in doubt you can check for editor updates from the Vyzex editor's 'Online' command menu.

***You MUST update your firmware if it is reporting as v1.03 or lower! The version of the editor that launches this manual is for v2.00 and up.***

Should the scanned firmware version be older (and a lower number) than what the editor expects, it will enter a special mode and offer to step you through the firmware upgrade procedure:


When newer firmware becomes available for the Kiwi-106 hardware that requires an editor update, a new version of the Vyzex Kiwi-106 editor will be posted to kiwi-106.com that has these firmware files built right into the application: When you run this future version of the editor it will react to the scanned v2.00 firmware on your Kiwi-106 and will begin the upgrade procedure to bring your hardware up to the firmware version ***it*** expects.

### *EDITOR PREFERENCES – ON LAUNCH…*

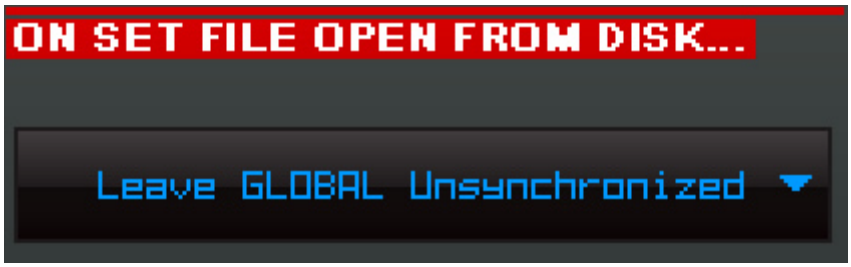
When Vyzex Kiwi-106 launches, it is preconfigured to do a number of tasks outside of just backing up your Kiwi-106:


By default the program will AutoSense for the Kiwi-106 MIDI ports then and reconfigure to use these ports for the current session. The program will also scan the Kiwi-106 firmware to be sure it is up-to-date, and it will check with http://kiwi-106.com to see if a newer version of the editor (with updated firmware) is available. You can disable any of these startup functions if you wish.

### *EDITOR PREFERENCES – ON SET FILE OPEN FROM DISK…*

As we've already covered, when you open a set file from disk, Vyzex Kiwi-106 will enter Virtual Bank Editing mode to allow you to browse all the patches, patterns and sequences in the file without altering any of the corresponding flash RAM locations in your Kiwi-106.

But what about the global settings stored in that set file? Should the editor override the global settings on your Kiwi-106 with the data in the set, or should it always treat your onboard Global settings as the override to the opened set file's globals? Maybe you'd rather decide each time you open a set file instead:




By default the program will leave the GLOBAL data in the set unsynchronized when you open a Set file from disk: This means what you see in the editor's GLOBAL mode will not reflect what is actually going on in your Kiwi-106's global settings until you decide to either GET the global data from Kiwi-106, or to SYNC the global data from the editor to Kiwi-106 using the provided buttons in the UTILITY section of the GLOBAL editor. Based on your own needs, you can change this setting to suit your preferences.

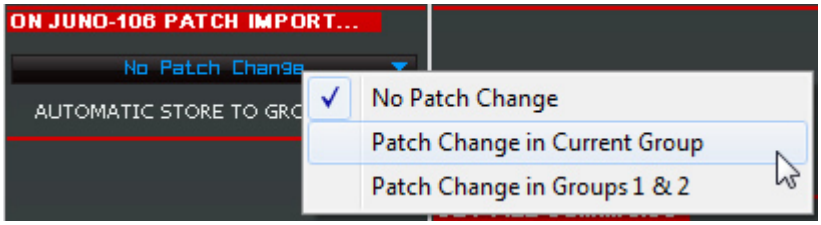
### *EDITOR PREFERENCES – ON JUNO-106 PATCH IMPORT…*

Earlier in this guide we covered how the Vyzex Kiwi-106 editor is always ready to convert an incoming Juno-106 patch dump into a Kiwi-106 patch, but in that previous section we told you the incoming patch would simply replace the current edit buffer without changing the destination patch location in the editor.


'No Patch Change' is the default (and safest) option for the Juno-106 patch import feature, but it is not the most convenient setting if you are importing more than one patch in one session.

Let's consider the most obvious use of this feature, namely backing up your Juno-106 patches before having your instrument upgraded to Kiwi-106 status. In this situation, you have two groups (A and B) filled with your signature Juno-106 sounds and you want them all converted and put back in the corresponding Kiwi-106 groups. Having to manually choose a destination and STORE each of these 128 patches would be quite a chore, and we all hate doing chores!

Here are the three Patch Change options of the Juno-106 Patch Import function:




**Patch Change in Current Group** will set the destination of the imported patch to match the Juno-106 bank and program it was dumped from. The destination group will remain the current one you have loaded in the Kiwi-106 editor.

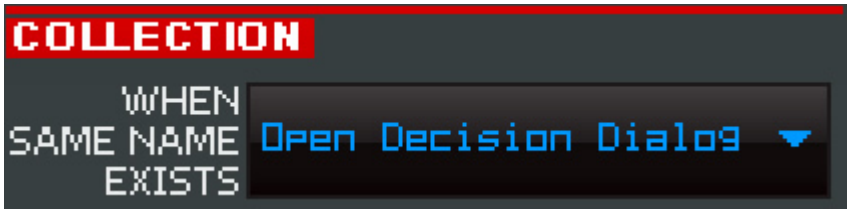
**Patch Change in Groups 1 & 2** will set the destination of the imported patch to match the Juno-106 bank, program ***and group*** it was dumped from. The destination group will be group 1 or group 2 in the Kiwi-106 editor depending on whether you are dumping from Juno-106 group A (Red LED) or group B (green LED).

No matter which option you choose in this control, you will still need to press the STORE button to make the imported patch part of the actual group afterwards. While this additional protection makes sense, there will be situations where you'd prefer the imported patches go directly into the group without a STORE being required. That's what the AUTOMATIC STORE TO GROUP switch is for:

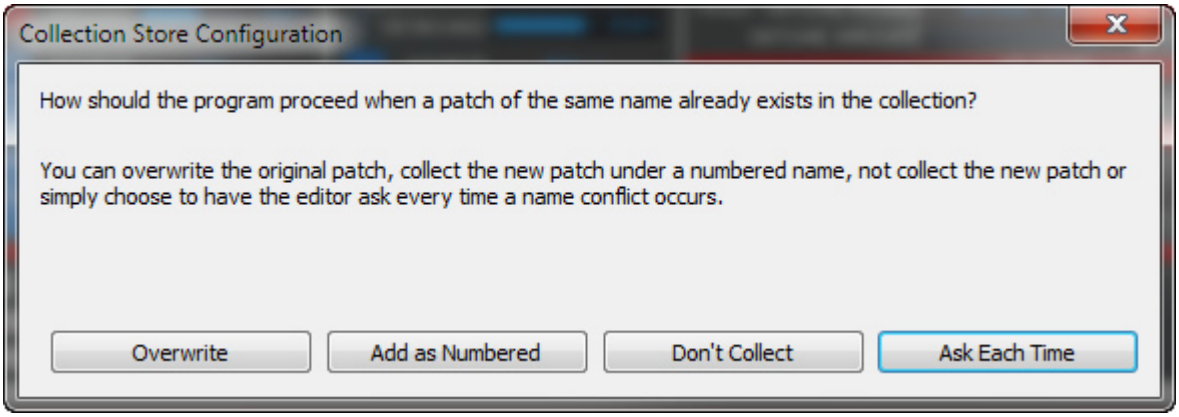

With this switch turned on, any incoming Juno-106 patch will automatically be STORED to the patch destination configured in the first option. It makes backing up and converting a Juno-106's entire patch group memory very easy, but it could be dangerous to have this switch on all the time. Consequently, this parameter will default back to OFF every time you run the program.

### *EDITOR PREFERENCES – COLLECTION*

We'll cover the collection feature of Vyzex Kiwi-106 later in this document. For now, it's enough to know that you can collect patches, patterns and sequences in a global library built into the editor, where they are sorted by name.




By default, if you try to collect the same named item more than once, Vyzex Kiwi-106 will open this dialog box:

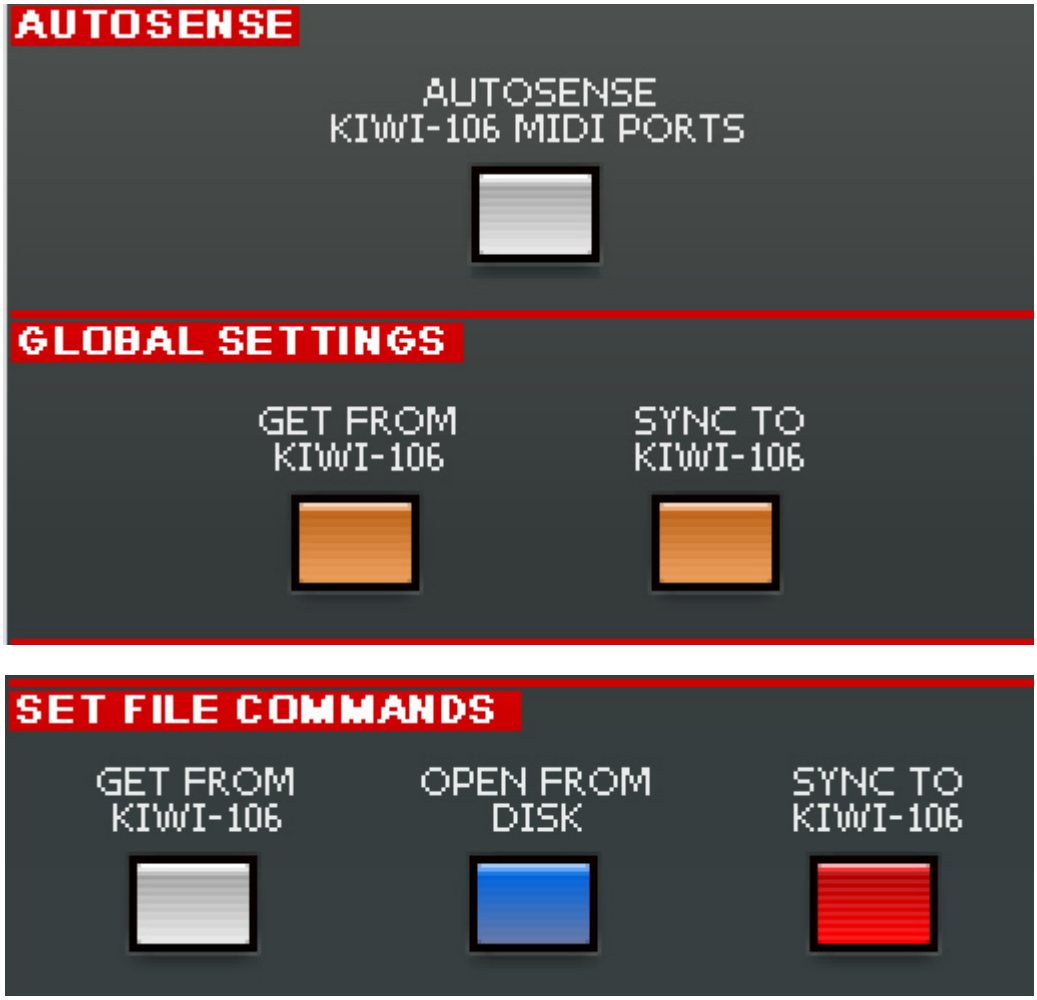



You can overwrite the earlier version in the collection, have the item collected with a number added to the end of its name, cancel the collection process, or deal with this Decision Dialog every time.

The control in the EDITOR PREFERENCES – COLLECTION section of the GLOBAL editor allows you to change which of these choices is the default without actually attempting to collect a patch, pattern or sequence first.

### *EDITOR PREFERENCES – UTILITY*

The utility section of the GLOBAL mode is a selection of command buttons that trigger certain editor functions manually.




If you have plugged a USB MIDI interface into your computer after having launched the editor you may find the manual AUTOSENSE button helpful in setting up the connections without closing and restarting the software.

The GLOBAL SETTINGS buttons are for manually synchronizing the global settings in an opened SET file – Something you may wish to do if you have the 'Leave GLOBAL Unsynchronized' option configured as the default operation when set files are opened.

The SET FILE COMMANDS buttons duplicate the FILE menu of the Vyzex Kiwi-106 application. They are handy shortcuts.

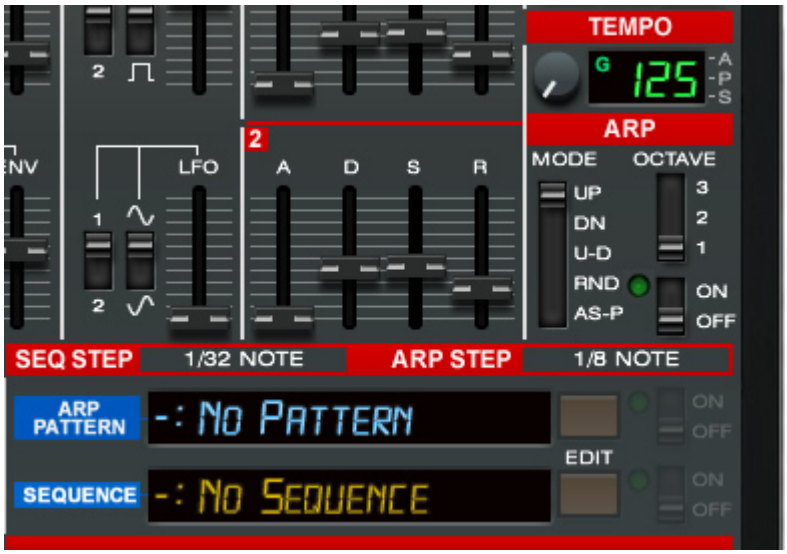
## *The Sequence Editor*

Now it's time to get into a powerful and super-cool feature of the Kiwi-106 upgrade: The sequencer!


Press the **PATCH 1985** button to engage the time circuits and return to 1985.

We're using the 1985 Patch editor to begin with, but you could alternatively use the 2015 Patch editor just as effectively – Both modes have controls to launch the sequence and pattern editors, but we think the 1985 versions are more intuitive for a first-time exploration.

In either of the PATCH editors, there are sections for programming the TEMPO, ARP, PATTERN and SEQUENCE. These four areas are grouped together because they are interrelated by the ***Tempo*** and ***Step*** parameters.




### *Tempo*

Patches can be set to follow the global tempo, or can follow their own dedicated tempo.

In the 1985 editor, turning the tempo knob down to its minimum switches the patch to global tempo (green BPM display). Turning the tempo knob up will switch the patch to its dedicated tempo (red BPM display).

Naturally, the tempo governs 'how fast' the Arp, Pattern and Sequence will play, but you'll still need to choose a musical step to get the results you want.

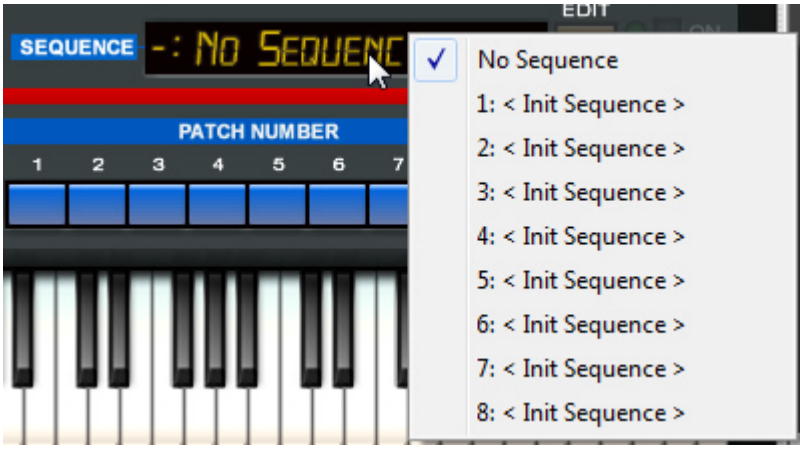
### *Seq Step & Arp Step*

The Sequence and Arp Step parameters are a 'clock divide' that control the actual timing of the Arp (plus Pattern) and the Sequence. This means that any given Arp/Pattern or sequence will play with different timings when loaded by different patches. In the screen capture above, the Seq Step is set to 1/32 note, so any sequences played when this patch is loaded will advance to the next step every thirty second note (32 times in a bar of 4/4). The Arp Step in this example is set to 1/8 note which means any arpeggios you trigger from the keyboard will play at a quarter the apparent speed of the sequencer, advancing to the next arpeggio note every four steps played by the sequencer.


Because it is intended for use with the arpeggiator to apply velocity and filter nuances to the arpeggio notes, the pattern always follows the Arp Step interval.

### *Patch Pattern & Sequence Selects*


Each patch can choose a pattern and a sequence to automatically load and even play when the patch is selected: If you don't have a pattern or sequence selected, the corresponding edit and enable controls will not be activated.

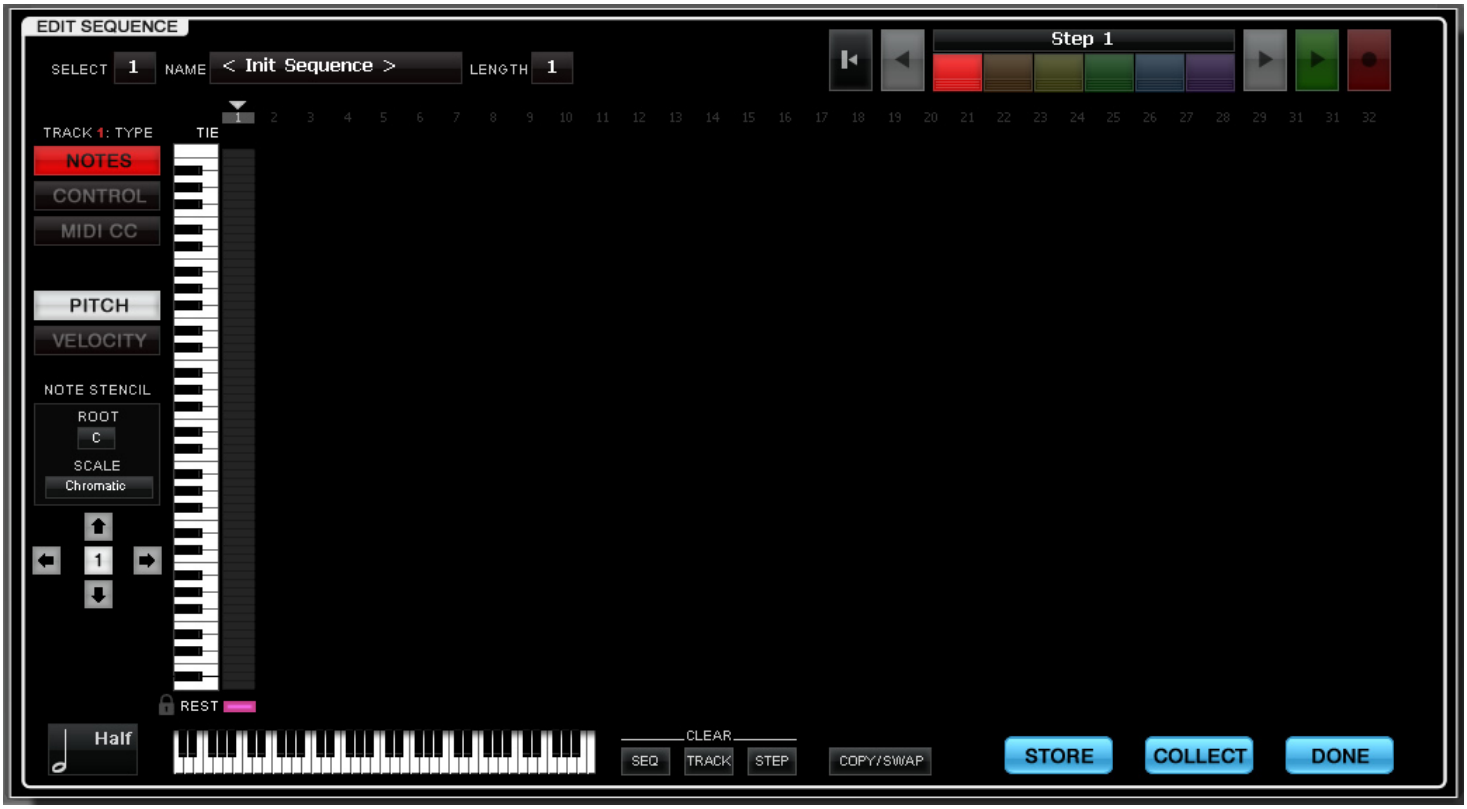



Click anywhere in the sequence name display to get a pop-up list of the sequences in the currently loaded bank of 8.

By default they are all named < Init Sequence >'.

We'll choose number 1 for our example.


The SEQUENCE EDIT button now becomes fully visible and can be pressed to launch the Sequence Editor.




Unlike the rest of Vyzex Kiwi-106, the sequence editor doesn't try to look like the Juno-106 hardware: Editing sequences calls for some fairly complex user interactions and we designed this part of the software to handle them intuitively according to 2015 expectations.

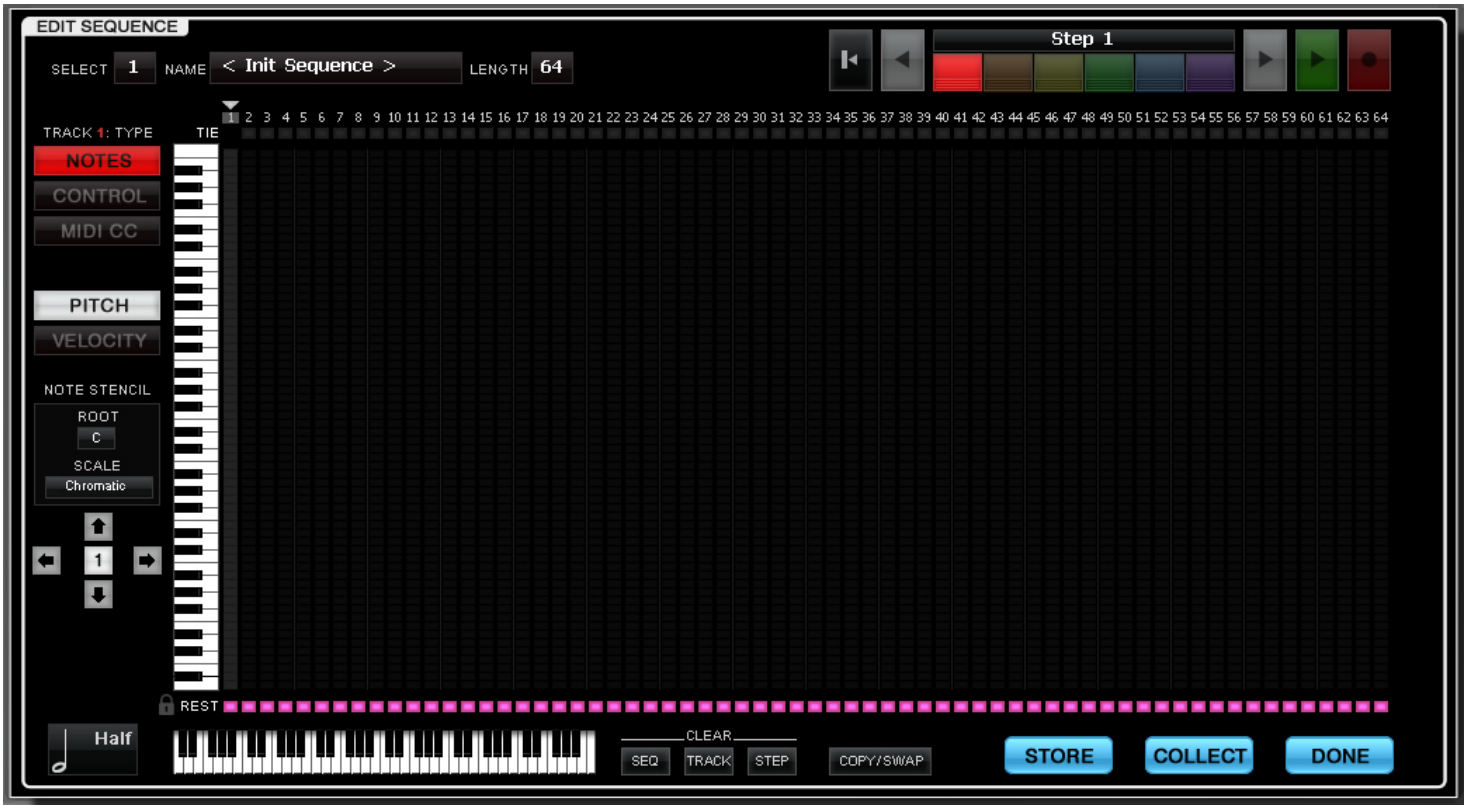
The sequence editor is essentially six monophonic note recorders stacked together: There are six tracks in the sequence editor, with each color coded track dedicated to one of the six voices in the Juno-106 analog synthesizer engine.


You'll also notice each track has a TYPE selector: Each of the 6 sequencer tracks can be a NOTE track, a CONTROL track or a MIDI CC track, depending on your musical needs.

We're going to start at the beginning and explore the default NOTES track type first.

The < Init Sequence> defaults to having only 1 step, so your first order of business is to change the length to something useful. The Vyzex Kiwi-106 editor can edit up to 64 steps, so we'll click on the LENGTH control and choose 64 from the pop-up menu.


With the length set to 64, we now have a full canvas shown in the drag editor area:





The sequence editor has three zoom factors: 1-32 steps, 1-64 steps, and 1-96 steps.

The zoom factor will set itself automatically whenever you change the sequence length.

Now we've got 64 steps to play with, let's take a look at the various controls that are provided to edit them!

# *The Parts of the Sequence Editor*

## *The Step/Track Transport*


At the heart of the Step/Track Transport are six color coded track buttons that show the current step's note events.

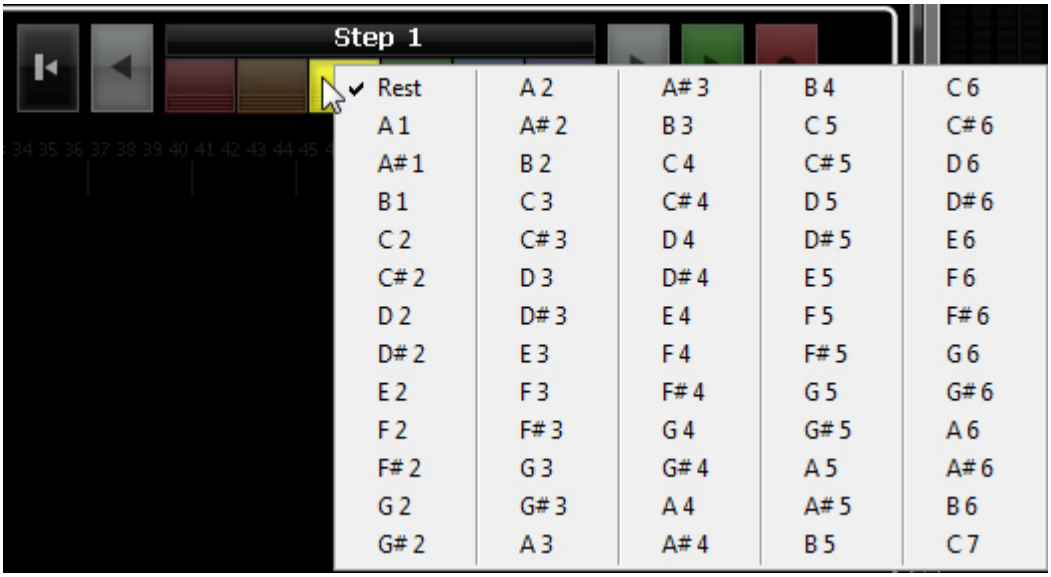
Since the default < Init Sequence > is empty, you won't see much: All six tracks initialize as NOTE tracks with rests in each of their steps.

Clicking on the upper 75% of any track selector button (the area without horizontal lines) will launch a pop-up selector for that track's current step value and will select this specific track for drag-editing.

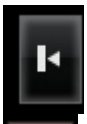
Clicking on the lower 25% of any track selector button (the area ***with*** horizontal lines) will simply select this track for drag-editing without a pop-up value selector.

Since the default track mode is NOTES, and the default note value is a rest (silence), you will not see any value shown within the upper part of any track selector button until you click on it and select a note value other than rest.

Clicking on the upper part of a track selector button in a NOTES mode track will result in the following popup value selector:




Once you have entered the note for a given step, you can use the following controls to change the current step:



Reset

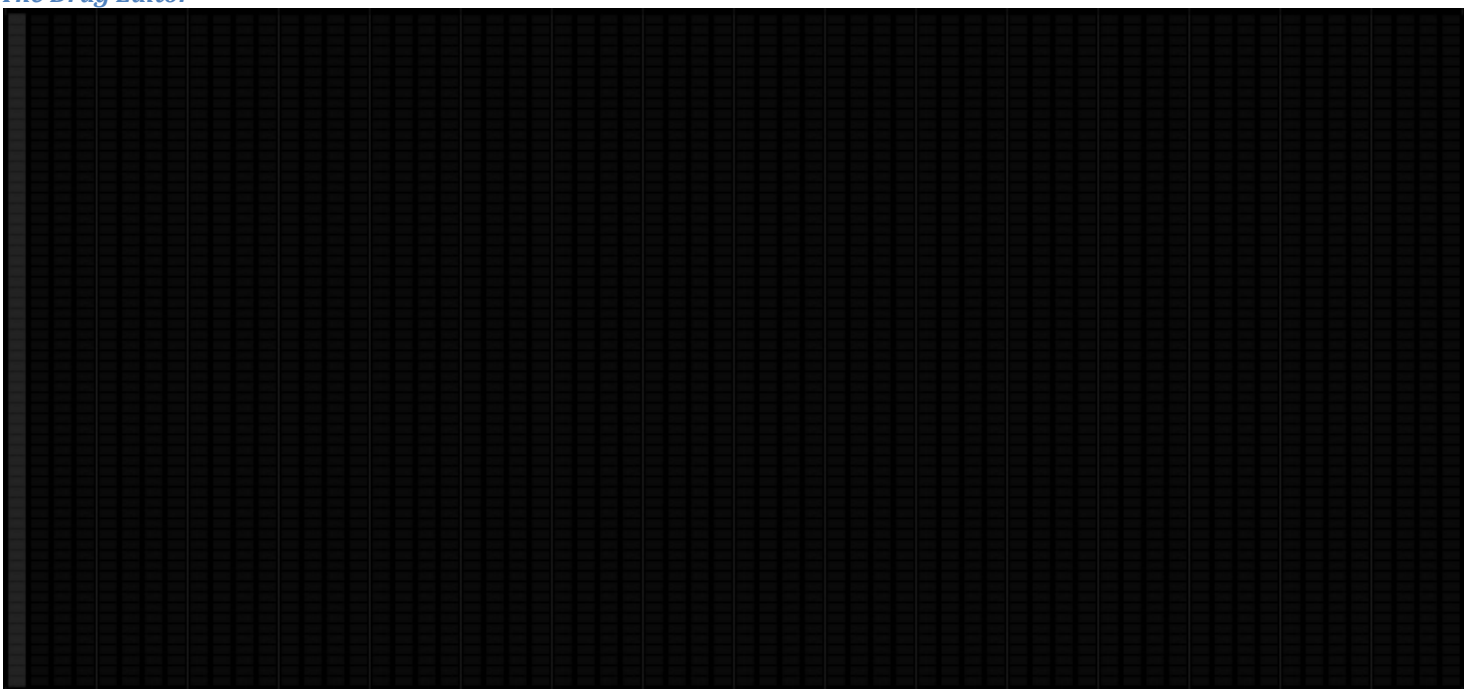
Step Back


Displays current step and will select a new step within the valid length.

Step Forward

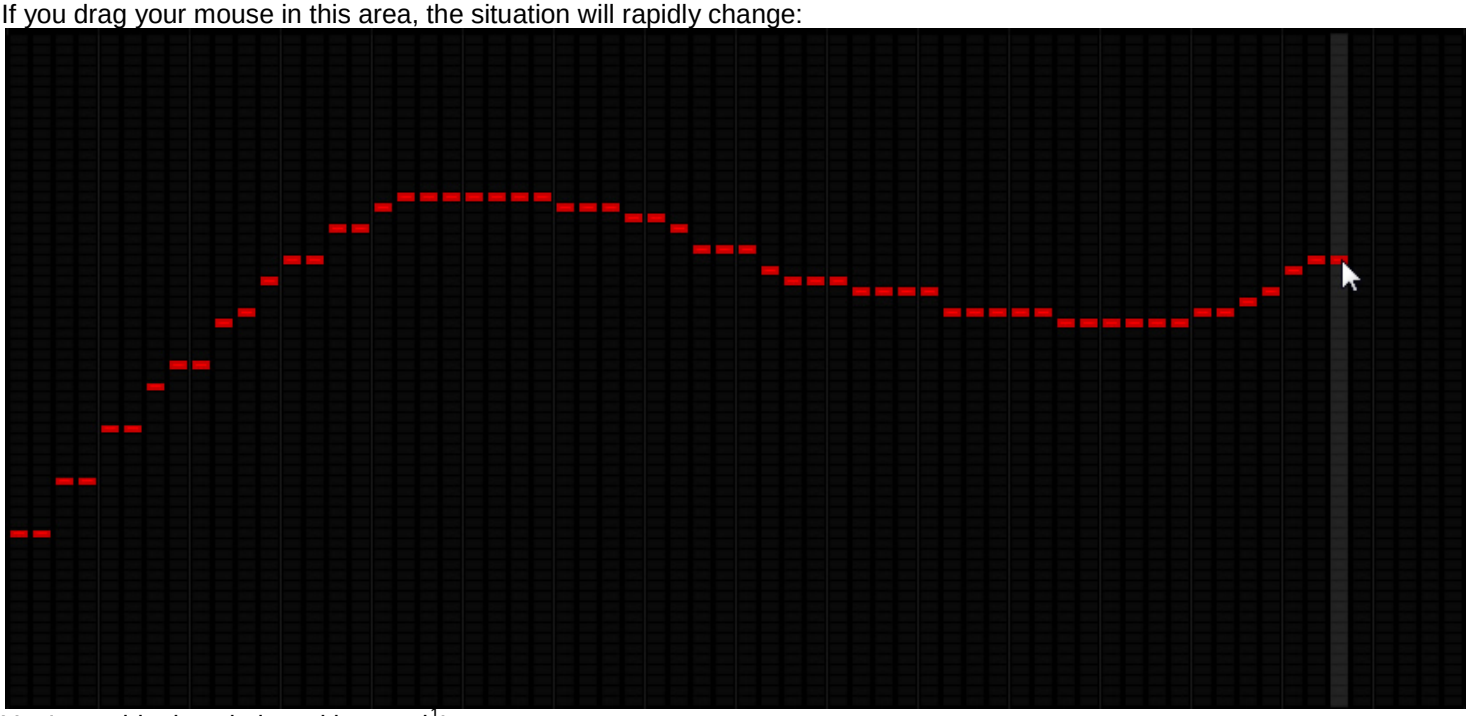
Play Sequence

The Record button is a powerful tool we'll get into later in this section.



In an empty sequence, this part of the editor looks, well... Empty!

If you drag your mouse in this area, the situation will rapidly change:



You're suddenly painting with sound[1]!

Feel free to go wild (if you haven't already) filling your sequence with random chromatic scale melodies. Press the PLAY button to hear the madness in real-time.

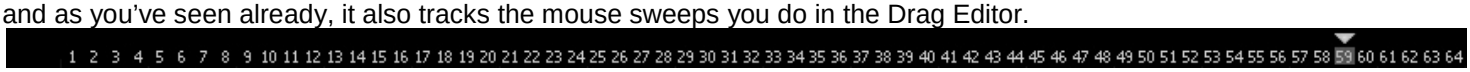

If you want to lock the drag editor to the current step while you pull the note value up and down, hold down the CTRL key (Option key on Mac). This key combination is useful when you want to use the drag editor for a precise individual step edit.

Remember to release the mouse before you release the CTRL key at the end of your edit. Otherwise the drag editor will snap to the mouse location and might unintentionally edit the steps in between.

[1] Incidentally, ***Painting With Sound*** was the original name of the company that would later become Kiwitechnics. Original series Patch Editors have consequently become rare collector's items coveted for their unusual front panel logo.

### *The Step Slider*

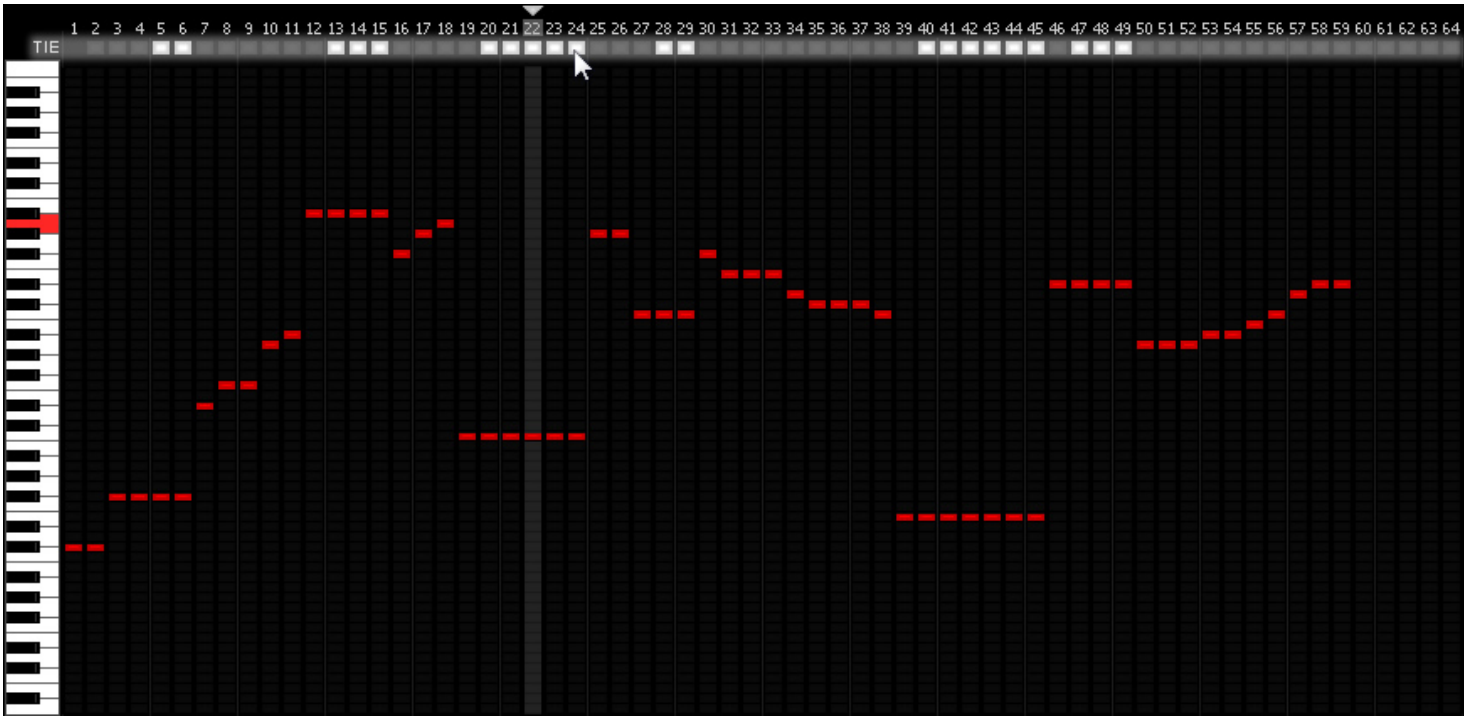
Above the Drag Editor lives the ***Step Slider***. You can click and drag on this control to move the vertical step selection bar, and as you've seen already, it also tracks the mouse sweeps you do in the Drag Editor.




### *The TIE Bar*

Between the Step Slider and the Drag Editor is the ***TIE Bar***. You can click and drag on this control to tie notes in the Drag Editor together:


Here's how the TIE Bar (highlighted) works in conjunction with the drag editor:




The TIE Bar is a series of boxes, one for each step. Clicking the TIE box for any step will cause that step to act as an extension of the previous one, meaning that the previous step note will not change and the VCA and VCF envelopes will not retrigger when that step is played back. In the Drag editor, you'll see that the affected steps stick together into horizontal bars, reflecting their tied status.


There is no tie box on step one. There ***is*** no earlier step than 1, so nothing to tie to!

### *The STEP Keyboard*

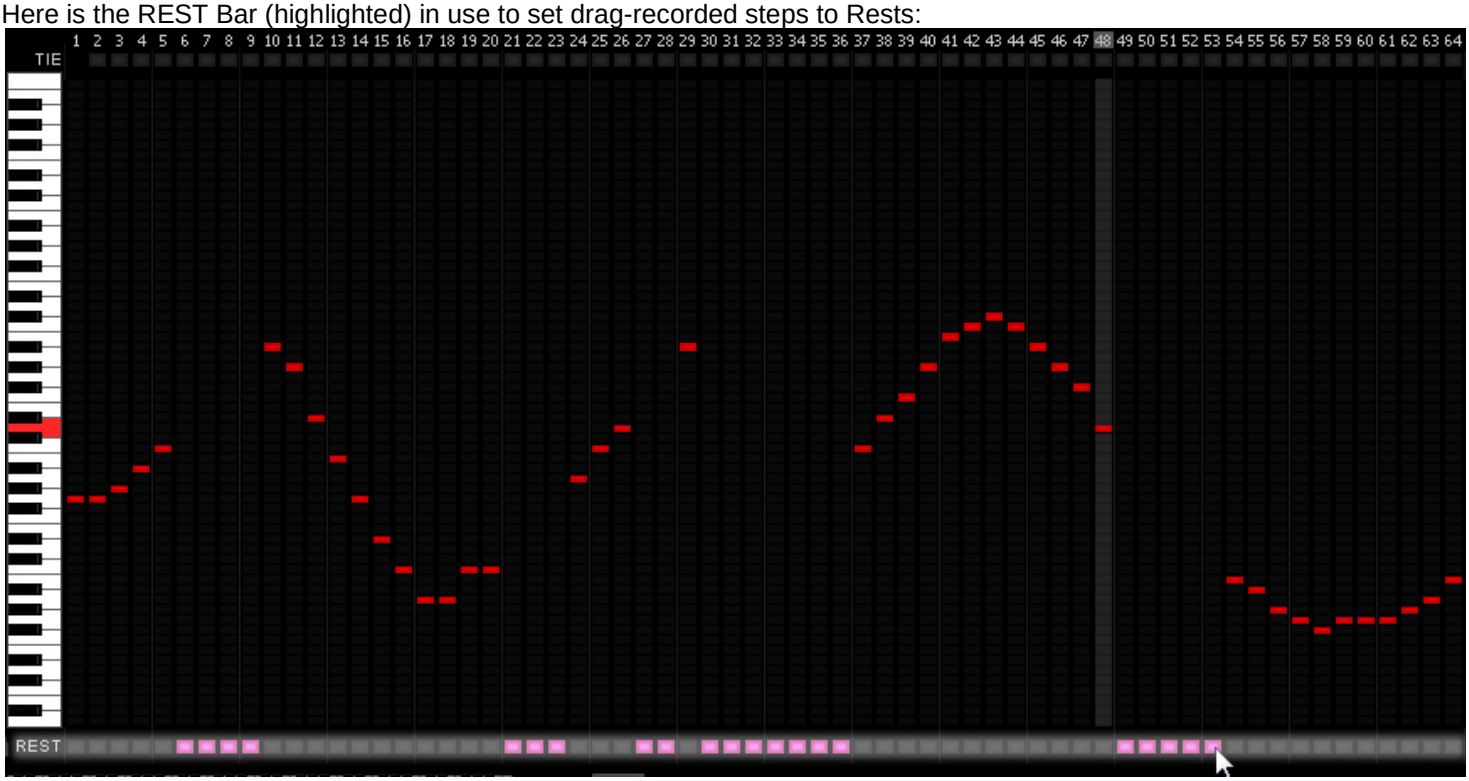
In the screen capture above, there is a vertical keyboard control on the left side of the Drag Editor. This keyboard shows the current step's notes, color coded to match the track they are on: This helps visualize the chordal structures that result from the current notes from each track.

You also can click on any note within the STEP keyboard to change the current track's note to match.

### *The REST Bar*

Underneath the Drag Editor is the ***REST Bar***. You can click and drag on this control to erase and reset notes in the Drag Editor:

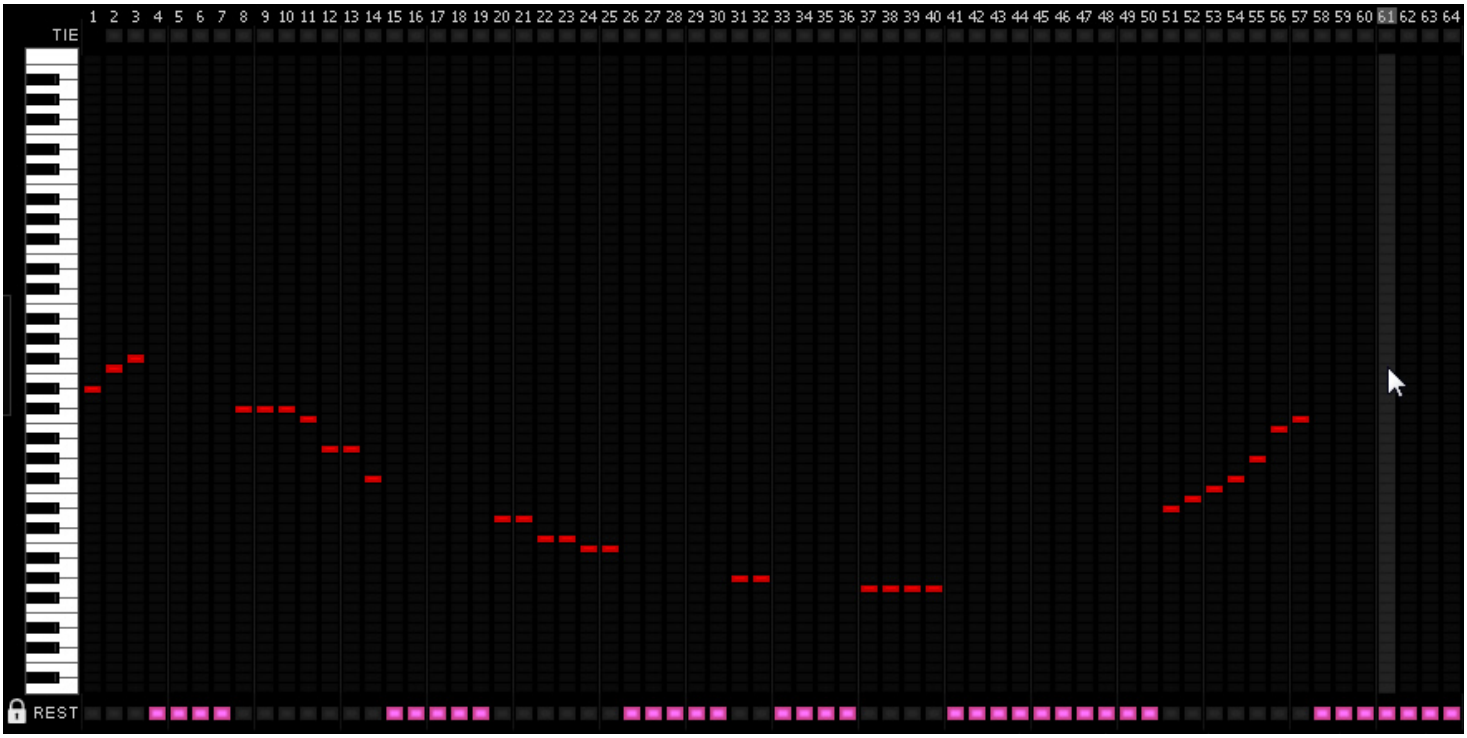

Here is the REST Bar (highlighted) in use to set drag-recorded steps to Rests:




If you spend some time switching between the Drag Editor and the REST Bar you'll notice the following:

1. The Drag Editor will automatically change a step to REST if you drag below the lowest note value,
2. The Drag Editor will wipe out rests you have previously set with the REST Bar. 'Note' = 'No Rest', after all.

If you've gone to the trouble of inputting a carefully chosen set of rests, having the drag editor wipe these rests out on your next mouse sweep would be more than irritating. This is why you can **lock** the REST Bar by clicking on the Lock Icon to the left of the REST Bar.




With the REST Bar locked, the Drag Editor will not be able to paint notes into any rest steps.

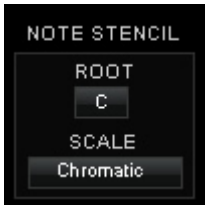
### *PITCH & VELOCITY*

To the upper left of the Drag Editor you will see the Pitch & Velocity View Buttons:


When a track is set to NOTE type, PITCH and VELOCITY are the two view modes available to you. PITCH is the default view whenever a NOTE track is selected. For now, leave the view set to PITCH... We'll cover the VELOCITY view shortly.

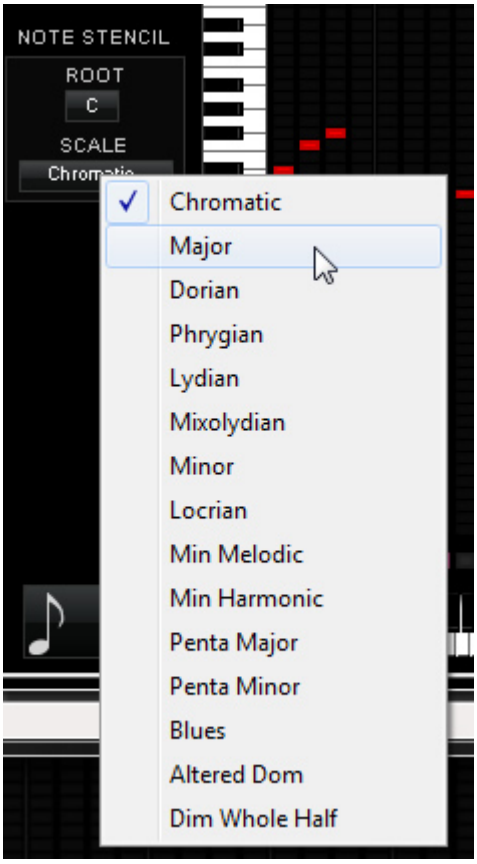
### *The NOTE STENCIL*

To the left of the Drag Editor you will see the Note Stencil:




The ROOT and SCALE controls appear in PITCH mode. They apply a musical 'stencil' or 'mask' over the Drag Editor that blocks entry of note values outside of a specified Root and Scale. This feature makes 'musical sounding' drag editing possible.

By default these controls are set to C Chromatic, which essentially means ***no*** stencil is active: Any note block that you drag over will become the current step's note value.




If you click on the SCALE control, you will see quite a few possibilities, from the obvious to the obscure.

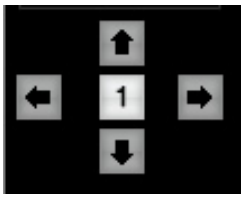
Once a key and scale are chosen, mouse drags will only apply if they pass over a member of that key and scale: Just like airbrushing through a stencil, which is where the inspiration for the name comes from.

Have fun experimenting. You will find that the Note Stencil allows the creation of very interesting melodic sequences with almost no musical skill required.

In the hands of theory-trained musicians, the Note Stencil is even more powerful: You can explore some interesting musical modulations without a lot of fussing over mouse drag operations.


The NOTE STENCIL parameters are not saved with the sequence. They will reset to C, Chromatic on every sequence load.

### *SHIFT ARROWS – PITCH View*




Below the Note Stencil controls are the ***Shift Arrows***. These button controls allow you to shift the notes in the drag editor back, forwards, up or down.

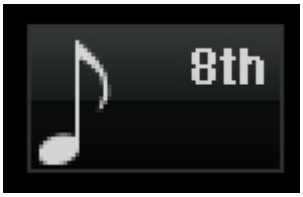
The number control in the center of the Shift Arrow sets the number of semitones the UP and DOWN buttons will shift the note data of the displayed track. You can select up to an octave of shifting.

The BACK and FORWARD shift buttons always apply one step of shifting.


When any UP and DOWN shifted note hits the limit of Kiwi-106's sequencer (too high or too low) it will be dropped/raised an octave to stay within the drag editor.

Similarly, when any BACK or FORWARD shifted note goes beyond the start or end of the sequence, it will be rotated to the opposite side of the sequencer. For example, shift a note beyond the last step of the sequence and it will reappear as the first step.

### *The SEQ STEP Control*




In the lower left-hand corner of the sequence editor is a graphical indicator of the current sequence step timing.

This SEQ STEP control can be edited on the fly, but it is important to remember that the changes you make only apply to the currently loaded patch, and are not stored in the sequence.

### *The MIDI Keyboard*

Along the bottom of the sequence editor is an animated MIDI Keyboard. This keyboard displays incoming notes played by the sequencer, arpeggiator and Juno-106 keyboard in real-time.


The MIDI Keyboard will also send MIDI Note events to the instrument when a note is clicked. It's great for auditioning notes with the mouse.

### *The CLEAR Buttons*


To the right of the MIDI Keyboard are the CLEAR buttons.

- The CLEAR SEQ button will clear the entire sequence,
- The CLEAR TRACK button will clear the current track,
- The CLEAR STEP button will clear the current step.

CLEAR SEQ button will always open a dialog to confirm the command before it proceeds.

### *The COPY/SWAP Button*


To the right of the CLEAR buttons is the COPY/SWAP button

This button launches a pop-up menu that allows you to copy and swap note and control value data between the six tracks, and with the clipboard.

We'll explore the Block Copy/Swap functions in better detail later in this User's Guide (on page 50, to be exact).

### *The Step/Track Transport's RECORD BUTTON*

Now we've explored the rest of the Sequence editor's capabilities, it's time to return to the Step/Track Transport and check out the RECORD Button. This button activates real-time step recording that uses incoming MIDI note events as the input values.

Clear your sequence (with the CLEAR SEQ button), Reset to step 1 and press the RECORD Button.

When the RECORD button is illuminated, any MIDI notes you play within the sequencer's valid range [ A1(33) - C7(96) ] will be recorded as the current step/track note value. MIDI notes played below A1(33) will be recorded as a REST, while MIDI Notes above A7(96) will be ignored.


Because the REST Bar Lock only applies to mouse drag edits, MIDI Note recording will bypass the REST Bar's LOCK and create notes in steps where rests originally existed.

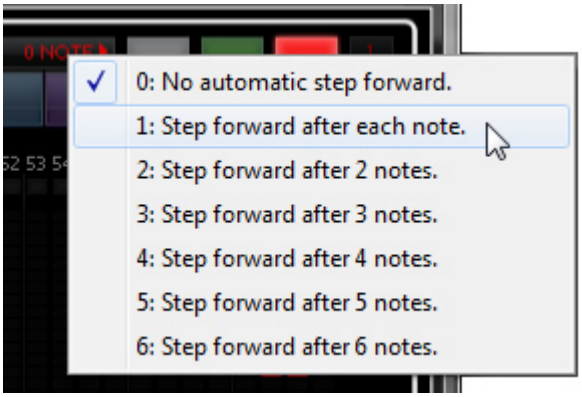
You will need to step the sequencer forward with the Step/Track Transport buttons or send MIDI Notes below A1(33) to enter RESTS when you have the RECORD button active.

### *The AUTOSTEP Control*

The Step/Track Transport should now look like this:

A red indicator reading '**0 NOTE >**' will be shown.


This new indicator is the **AUTOSTEP** Control. It sets how many notes the RECORD system will receive before it automatically steps forward. When set to the default value of 0, AUTOSTEP sets the RECORD system to ***never*** step forward, regardless of how many notes are received. This is a safe starting place for when the RECORD button has been just pressed.




Setting the AUTOSTEP control to 1 will increment the recording step by one with each note that is received.

Setting the AUTOSTEP control to 2 will cause recording to occur first on track 1, then on track 2 before the step is incremented. This allows you to enter 2-note chords in quick progression.

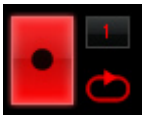
Setting the AUTOSTEP control to 3,4,5 and 6 will cause recording to occur first on track 1, then on each track up to the number chosen before the step is incremented. This allows you to enter 3-note, 4-note, 5-note, and 6-note chords in quick progression.

### *The RECORD MIDI Channel Control*

When the RECORD button is activated, the RECORD MIDI CHANNEL control also appears as a rectangular red number box. It will default to MIDI Channel 1 as shown here.

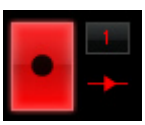
Depending on your MIDI controller input setup, you may wish to change this selection. It can filter for MIDI channels 1-16 or be set to 'All' which is another way of saying 'OMNI'.

### *The LOOP RECORD Control*



When the RECORD button is activated, the LOOP RECORD control also appears. By default it is turned on.

The LOOP RECORD icon means recording ***WILL*** wrap around to the start of the sequence if the step number goes beyond the length of the sequence during real-time STEP recording.

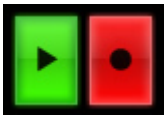


If you wish to safeguard against accidental overwrite of the start of your recording, click on the LOOP Record Control to change it to ONE-SHOT operation.

With the ONE-SHOT icon displayed, the RECORD process will end when the loop resets.


Because the MIDI Keyboard sends MIDI Note events to the instrument when a note is clicked, you can use this capability for recording notes in conjunction with the RECORD mode's AUTOSTEP settings.

### *When both RECORD and PLAY are ON: Real-Time MIDI Note Recording*



When the RECORD and PLAY Buttons are both activated, ***Real-Time*** recording becomes possible.

In this mode, the Kiwi-106 sequencer drives the stepping of the editor display, and you can play as many notes as you wish (up to 6) and the sequence editor will enter these notes into the step that is currently playing.

The AUTOSTEP and LOOP controls associated with the RECORD button will not be shown (or used) when both RECORD and PLAY are activated.


The Velocity values of the notes you input will be recorded along with the notes themselves – We'll cover velocity value display and editing very shortly.

### *The RECORD TRACKS Control*

When Real-Time MIDI Note recording is active, a new control will appear in the left side of the STEP Selector: RECORD TRACKS.


By default, the RECORD TRACKS control is set to 1-6, meaning anything you play will be recorded into tracks 1-6 depending on how many notes were pressed during the current step's playback. The alternative settings of this control will start the recording cycle at tracks 2,3,4,5 and 6 respectively.

- If you set this control to 'Tracks 2-6', any notes previously recorded in Track 1 will not be replaced,
- If you set this control to 'Tracks 3-6', any notes previously recorded in Tracks 1 & 2 will not be replaced,
- If you set this control to 'Tracks 4-6', any notes previously recorded in Tracks 1-3 will not be replaced,
- And so on, up to the final setting of 'Track 6' in which only one note can be recorded per step in track 6. Tracks 1-5 will be protected from overwriting in this situation.

The RECORD TRACKS control allows you to lay down parts in succession, building on the previous track recordings without any danger of overwriting them. It's not Cubase[1], but it gets the job done.


While you can use the drag editors to enter notes during Real-Time MIDI Note recording, It is not advisable to do so as the currently selected track will automatically change while note and step messages are received from the Kiwi-106 during playback.

Simply turn off the RECORD Button if you wish to select tracks and make drag edits while the sequencer is playing: Real-time operation will continue, but the track select will not change automatically. When you wish to return to MIDI note input, reactivate the RECORD control.


When RECORD and PLAY are activated, the editor will temporarily turn off the sequencer's MIDI output. This is to prevent recorded notes from being re-recorded on other tracks.

Turning off either the RECORD or PLAY button will restore Kiwi-106's MIDI Sequencer output.

Real-time playback of the sequencer is graphics intensive: On Windows you should not see any appreciable latency in the screen redrawing unless your computer is notably old and slow (XP Pentium).

On Mac OS however, you will need a newer machine with hardware accelerated graphics to avoid perceptible redraw latencies when the sequencer is being animated in real-time.

In this scenario, we're sure other Apple users will advise you to upgrade your machine to a 'modern' one in the event of any online discussions on this topic. 'More stitches, less riches', after all...

[1] Remember, Cubase is a registered trademark and copyright of Yamaha. Arigato, user-san.

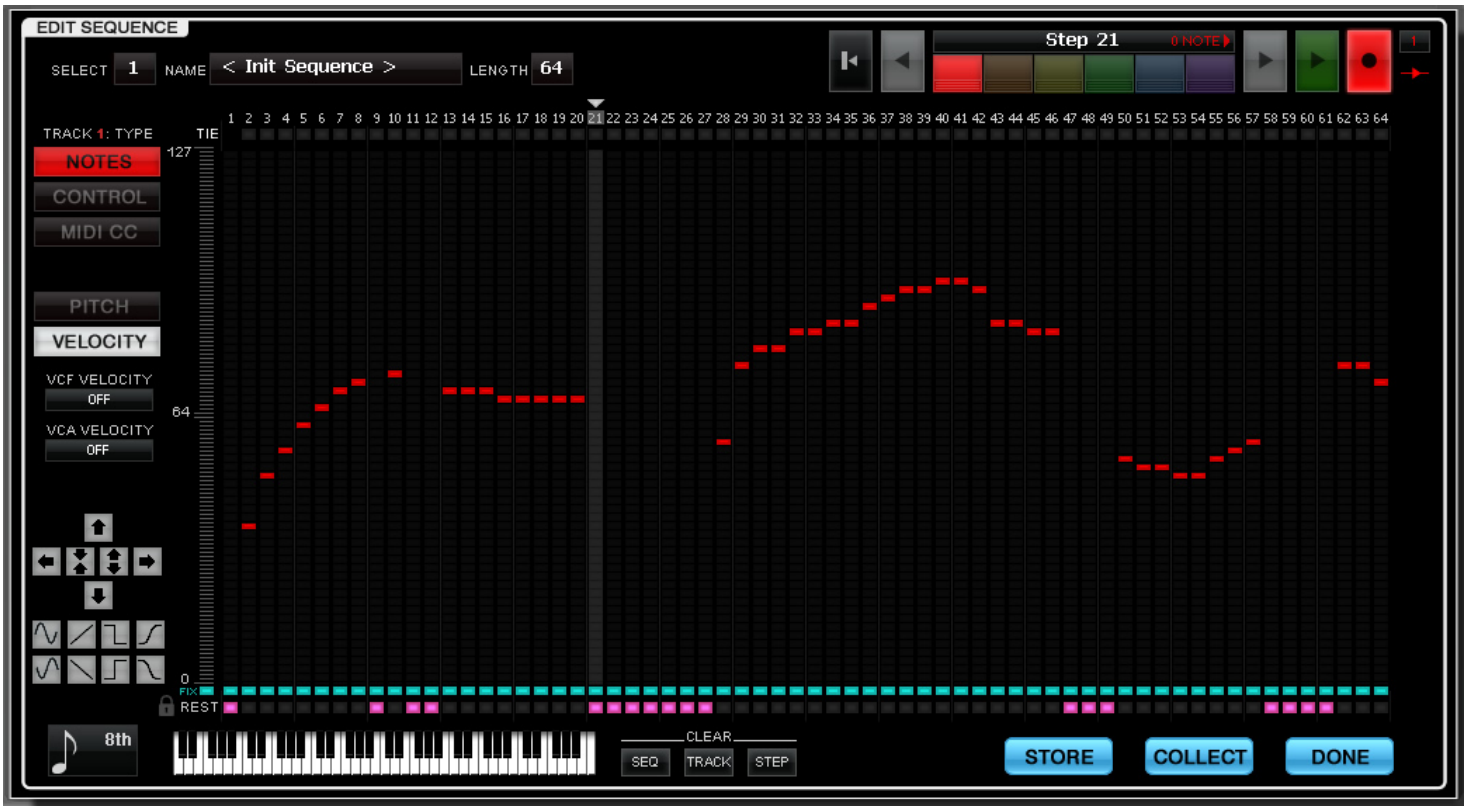
### *NOTE VELOCITY VIEW*

As we discussed earlier, to the left of the Drag Editor you will see the Pitch/Velocity View selectors:


Even though the Juno-106 keybed is fixed at a single volume level, the Kiwi-106 upgrade is velocity sensitive: Not only can incoming MIDI notes play the Juno-106 synthesizer engine with velocity expression, Kiwi-106's sequences are also velocity sensitive, should you wish them to be.

Click on the VELOCITY button to change the drag editor view from 'Note Pitch' to 'Note Velocity':

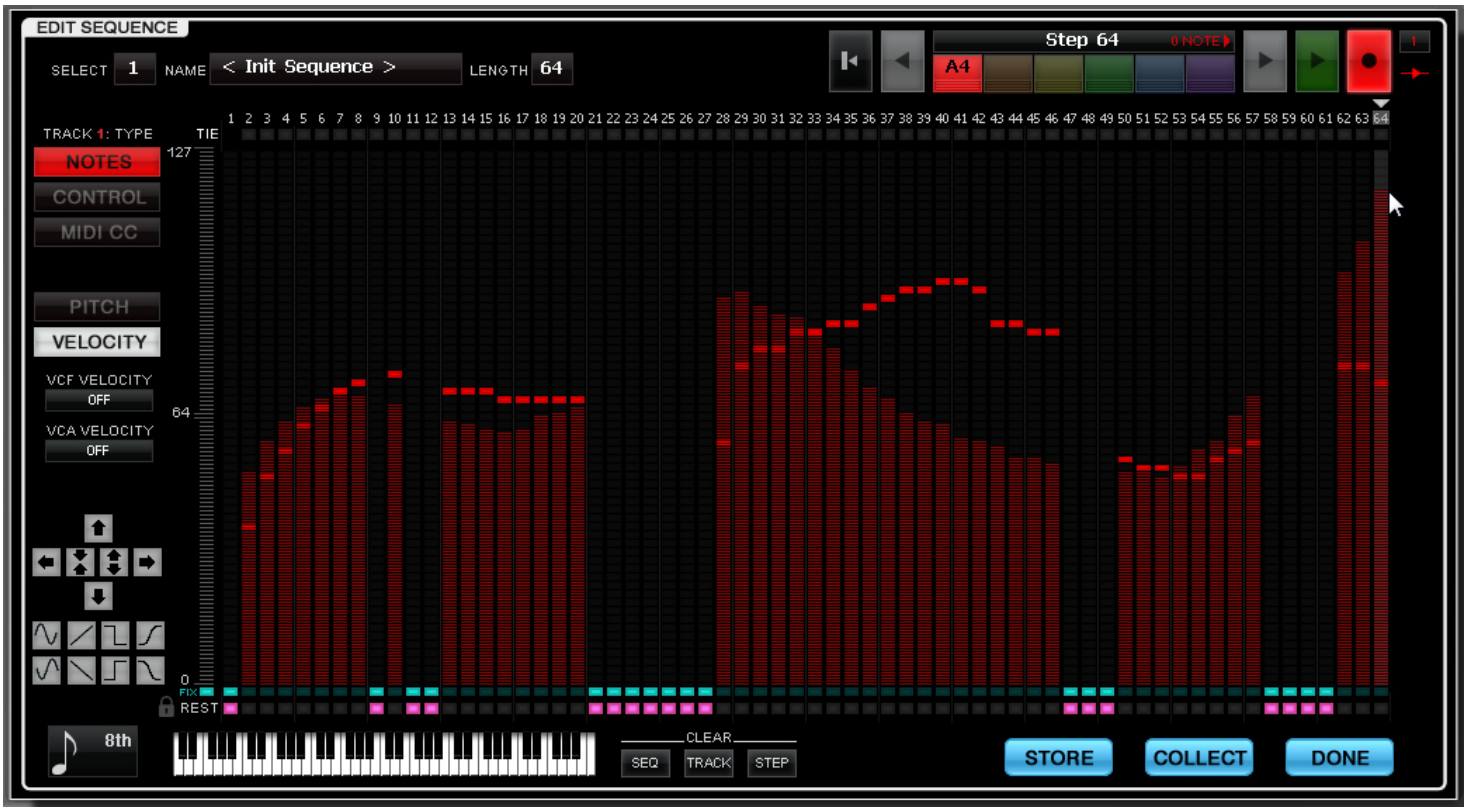

In Velocity mode, the drag editor view will display only the current track's note events:




In the Velocity view, the Note Stencil disappears and is replaced by two controls that reflect the current patch parameters for VCF and VCA sensitivity. Similarly, the SHIFT ARROWS are reconfigured and a set of eight Wave Template buttons appear: We'll explain these very soon.

You'll also see the scale on the left of the drag editors is now numbered from 1 to 127, with FIX labeling the lower-left corner of the drag editor. A bar of cyan toggle buttons also appear along the bottom edge of the drag editor.

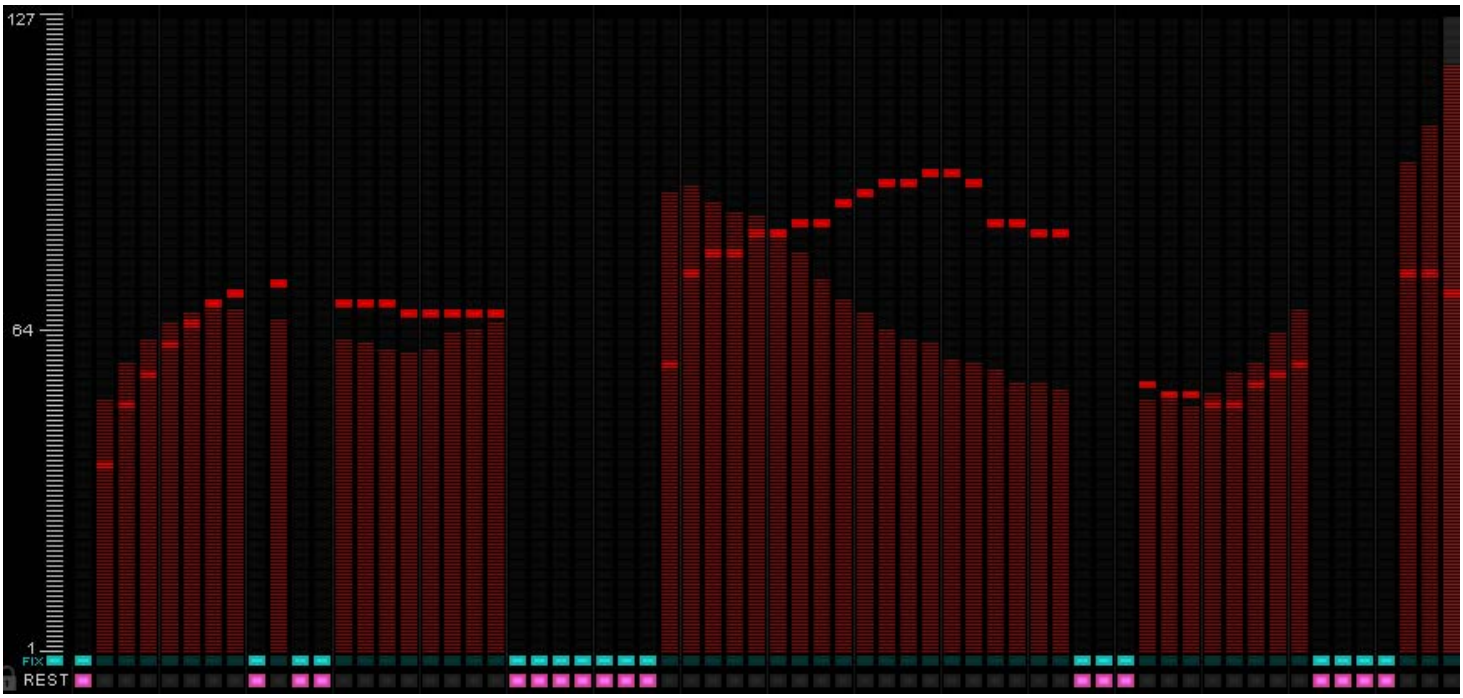
Now try sweeping your mouse across the drag editor area. In Velocity mode, instead of painting note events, you'll create velocity (volume) level bars underneath each existing note as you trace a curve:




Each vertical bar is the Velocity value associated with the note event at the step in question. 127 is max volume, while 1 is as quiet as the note can go.

### *The FIX Bar*

Underneath the Velocity Drag Editor (and above the REST Bar) is the ***FIX Bar***.



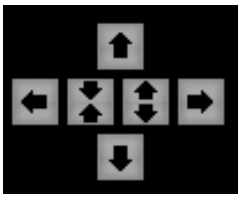

FIX is a quick way of saying 'Fixed Internal Velocity'. This is the default velocity value that the Kiwi-106 upgrade applies to all notes coming from the velocity-insensitive keybed on your Juno-106. When a sequence note is set to FIX, its velocity will be equal to the internal fixed velocity value defined in the Global page of the Kiwi-106 editor.

You can click and drag on the steps of the FIX Bar control to toggle the current track's notes between the internal fixed velocity and note-specific velocity values set in the drag editor. The differences can be quite dramatic.


Velocity values will only be entered when there is ALREADY a note event in the sequence at the step in question.

If a step is set as a REST, it will also appear as FIXED and no velocity editing will be possible until you uncheck the rest or switch back to PITCH editing and drag a note into existence at the step you wish to apply a velocity to.

### *SHIFT ARROWS – VELOCITY View*



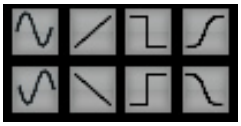
In the Velocity View, the ***Shift Arrows*** reconfigure to shift velocity values.

The BACK and FORWARDS buttons still allow you to shift the notes (and their velocities) in the sequencer backwards and forwards in time, but the UP and DOWN buttons will only affect the Velocity values, not the note pitches.

You'll also see two new buttons appear: COMPRESS and EXPAND.

- COMPRESS reduces the range of the velocities while retaining the curve shape, and
- EXPAND increases the range of the velocities while retaining the curve shape.

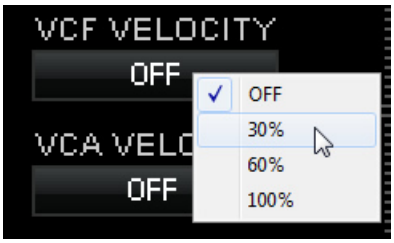
### *WAVE TEMPLATES*



The wave template buttons provide pre-calculated velocity waves that match the current sequence length.

These waves are meant as the starting point for shifting, compressing, expanding and hand drawn modification that will result in any velocity curve you might want for your note sequence.

### *VCF & VCA VELOCITY*




Because its keybed is not velocity sensitive, the JUNO-106's original CPU firmware was not designed to handle velocity sensitive note data – Not even if it came in from the MIDI IN Port.

The Kiwi-106 Upgrade, ***IS*** designed for velocity sensitive note data: The VCF Velocity and VCA Velocity parameters set the amount of influence note velocity values have on the VCF and VCA respectively. If set to OFF, no amount of velocity will make a difference, while 30%, 60% and 100% will have increasing influence on the dynamics.


In Kiwi-106 version 1, VCF and VCA Velocity were global parameters, but in version 2 onwards they have been promoted to Patch Parameters and can be set differently for each patch that you load.

All incoming MIDI notes and those played by the Sequencer and ARP Pattern will produce sounds according to the VCF and VCA Velocity settings defined in the current patch. This is why the sequence editor makes these parameters editable in the context of velocity drag editing – Just be sure to remember that any changes must be saved to the patch and not the sequence.

This covers all of the sequencer's NOTE mode capabilities, which were the entire story in version 1 of the Kiwi-106 firmware.

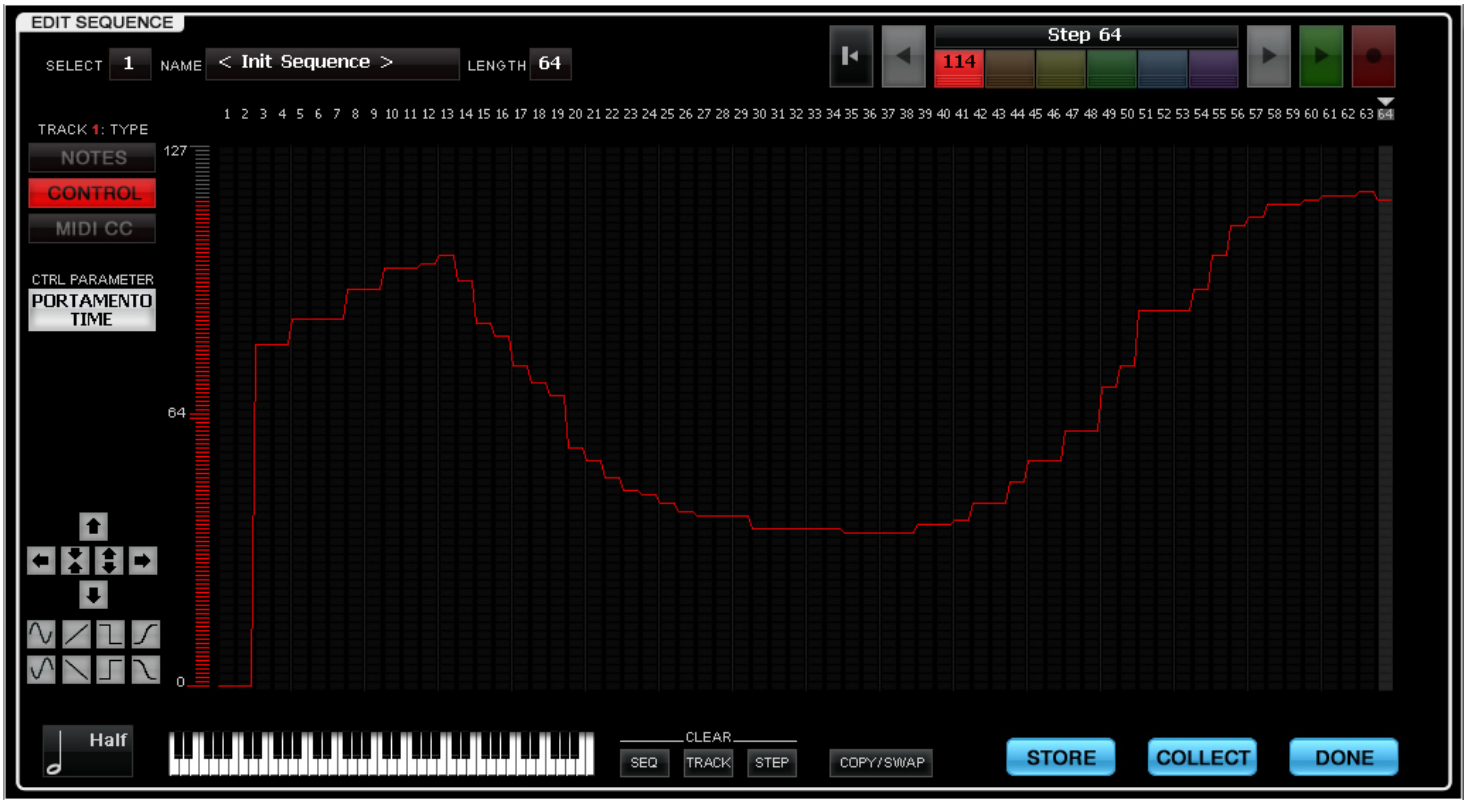
In Kiwi-106 version 2 and beyond, the sequencer also has CONTROL and CC Track Types, which we'll now get into.


Click on the CONTROL button to change Track 1's type from NOTE to CONTROL.

## *CONTROL TRACKS*

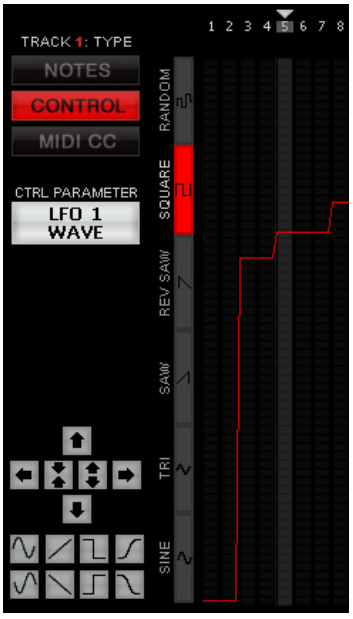
Control Tracks are a very cool feature added to Kiwi-106 in version 2: Each step of any selected Sequence Track can be set up to directly automate the patch parameter of your choice.

Using a combination of note and control tracks, you can build up some very unique repeating loops, which you can then record as audio to Ableton and other similar workstations for unlimited stacking and experimentation. Should you ever want to change the loop in the future, you can reload the sequence from the Vyzex editor to your Kiwi-106 and make whatever edits you like before updating the audio file of the loop in your DAW.




When a track is switched to CONTROL mode, the default assignment is PORTAMENTO TIME, and any step value data previously entered will be shown as a curve that can be dragged, step edited or manipulated with the SHIFT ARROW, COMPRESS and EXPAND controls. The WAVE TEMPLATE buttons are also available for clearing the track values to a pre-calculated wave shape.

For example, click on the CTRL PARAMETER and change Track 1's assignment to LFO 1 WAVE.




You'll see that the vertical level control shown when Portamento Time was selected now changes into a vertical tab control showing the LFO 1 Wave possible values. The entire range (0-127) of the track's step values are collected into sub-ranges matching the actual parameter values set by the sequencer when the currently selected step is played.

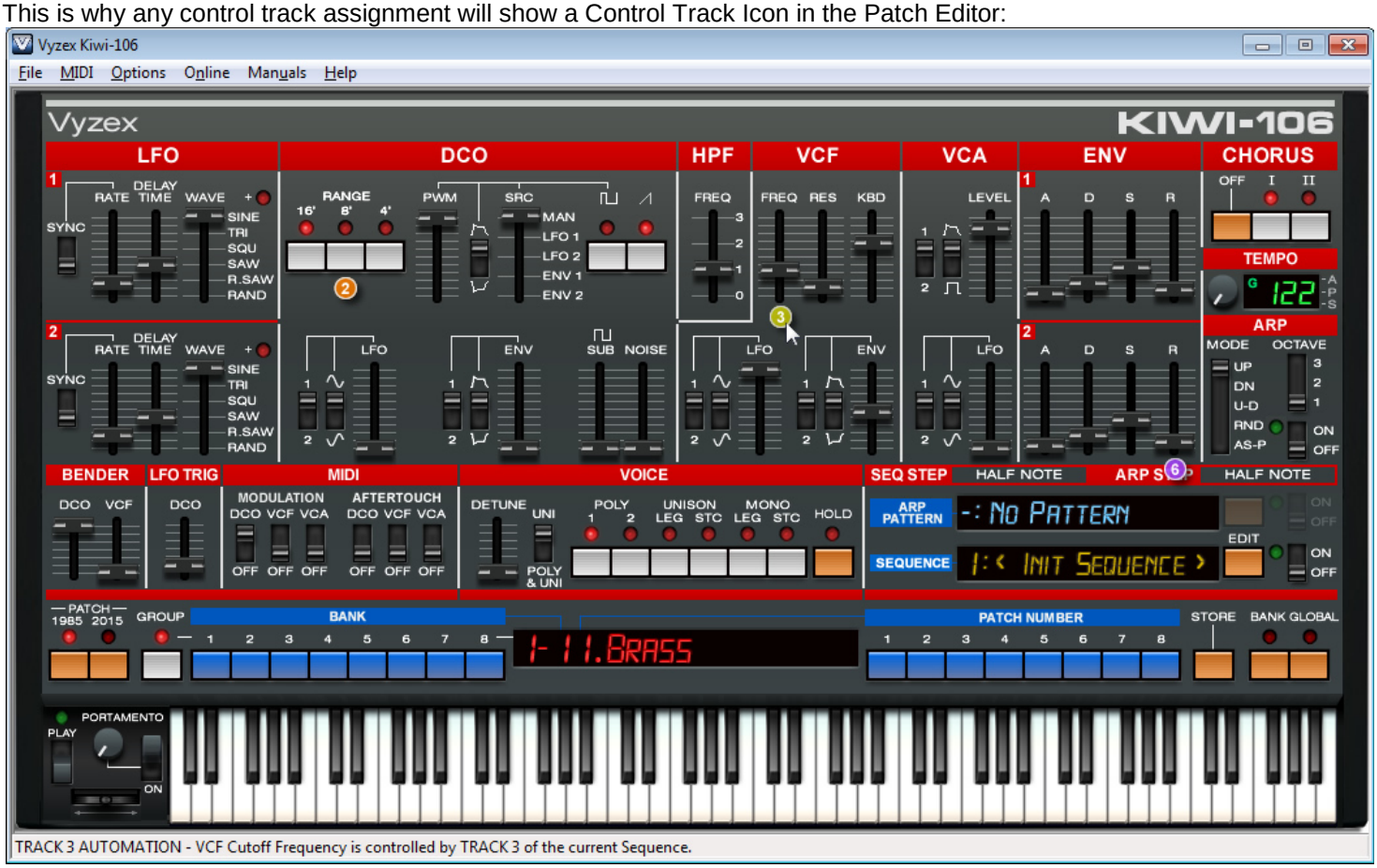
This is how the CONTROL TRACKS work: All curves have 0-127 range, which map to valid parameter edit values no matter which patch parameter is being automated. This means you can mix and match curves between tracks and never have to worry that it will result in an illegal value being applied to any control parameter.

When this sequence plays, LFO 1's wave selection will now automatically keep changing, following the value curve shown in the editor and then repeating when the loop restarts.

### *PATCH EDITOR: CONTROL TRACK ICONS*

When a control track is assigned for a patch parameter, this means the parameter will be repeatedly automated (self-edited) as the sequencer plays. On loading a patch set to automatically play such a sequence, the patch editor might appear to be possessed as these controls begin moving around on their own!

This is why any control track assignment will show a Control Track Icon in the Patch Editor:




Hovering the mouse over one of these icons will show the assignment in the status bar. You can also click on the icon to reassign the control track on the fly without leaving the patch editor – Just remember that this is a sequence parameter you are editing and changes you make here will need to be stored from within the sequence editor before you load another one.

Speaking of storing your edited sequence...

### *The STORE, COLLECT and DONE Buttons*

In the lower right area of the Sequencer Editor are three buttons that handle the actions you'll take once you have completed your sequence editing.

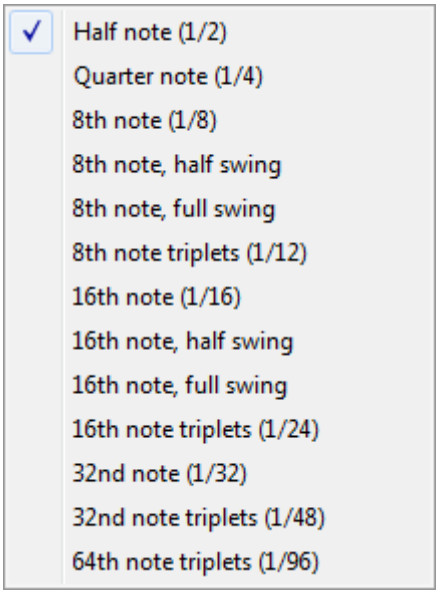

- STORE operates identically to the STORE button in the main editor GUI, except that it will store the current Sequence to one of the Sequence Bank locations, rather than storing the current Patch to one of the Patch Group locations. Similarly, you can CTRL-Click (Command-Click on Mac) on the STORE button to get the **STORE In...** dialog.

- COLLECT operates identically to the COLLECT button in the PATCH 2015 editor, except that it puts the current ***Sequence*** into the Collection instead of the current ***Patch***. We'll explain the Collection in the next section of this guide.

- DONE closes the sequence editor and returns the editor GUI to the previous PATCH mode (1985 or 2015). Until you select a new sequence, the sequence edit buffer will be preserved in its current state, so you can always resume editing the sequence after adjusting some key Patch or Global parameters in other editor modes.

Just as with the PATCH GROUPS, the SEQUENCE BANK can operate in Virtual or Direct Editing mode.

When in Direct Editing mode, pressing the STORE button will cause the current sequence to be transmitted to your Kiwi-106's corresponding BANK location where it will replace what is currently there.



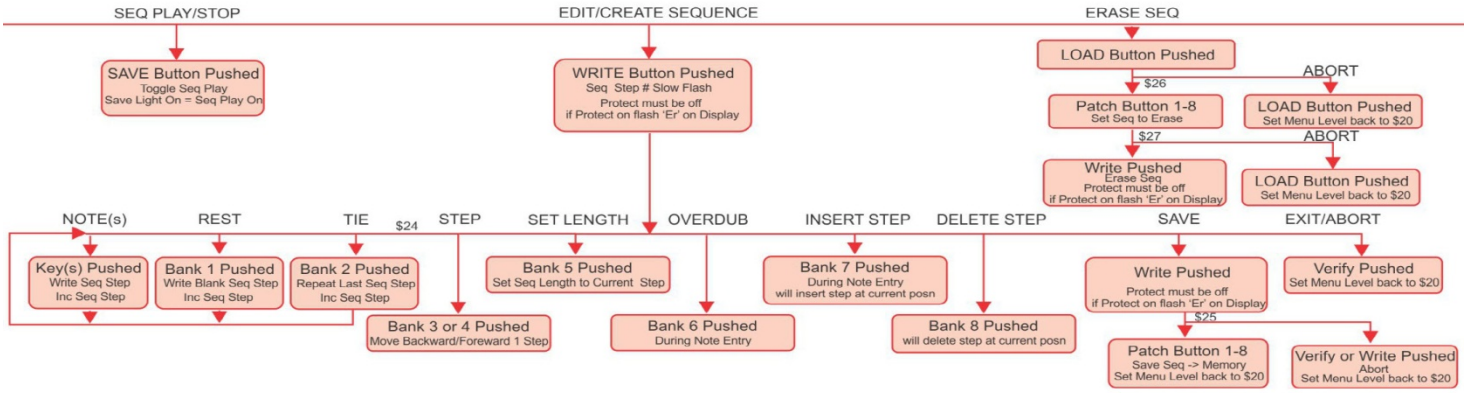

When you are working in the Sequence editor, it is useful to understand how the choice of Sequencer Step Interval and Sequence length combine to define the musical time of the sequence.

Since a whole note is defined as 4 quarter notes (a bar or measure of 4/4 time), the fractional values shown in the ***Sequence Step*** pop-up menu indicate in the denominator how many steps are needed to make up a bar of musical time.

| Step Interval | 1 Bar equals... | 2 Bars equal... |
|---|---|---|
| **Half note** | 2 steps | 4 steps |
| **Quarter note** | 4 steps | 8 steps |
| **8th note** | 8 steps | 16 steps |
| **8th note triplet** | 12 steps | 24 steps |
| **16th note** | 16 steps | 32 steps |
| **16th note triplet** | 24 steps | 48 steps |
| **32nd note** | 32 steps | 64 steps |
| **32nd note triplet** | 48 steps | 72 steps |
| **64th note triplet** | 96 steps | 192 steps (too long for seq) |

## *USING THE KIWI-106 FRONT PANEL SEQUENCE CREATION TOOLS*

The Kiwi-106 front panel buttons provide a basic method for creating sequences without the Vyzex editor. Here is part of the 'PAGE 2' menu map taken from the Kiwi-106 User's Guide PDF:

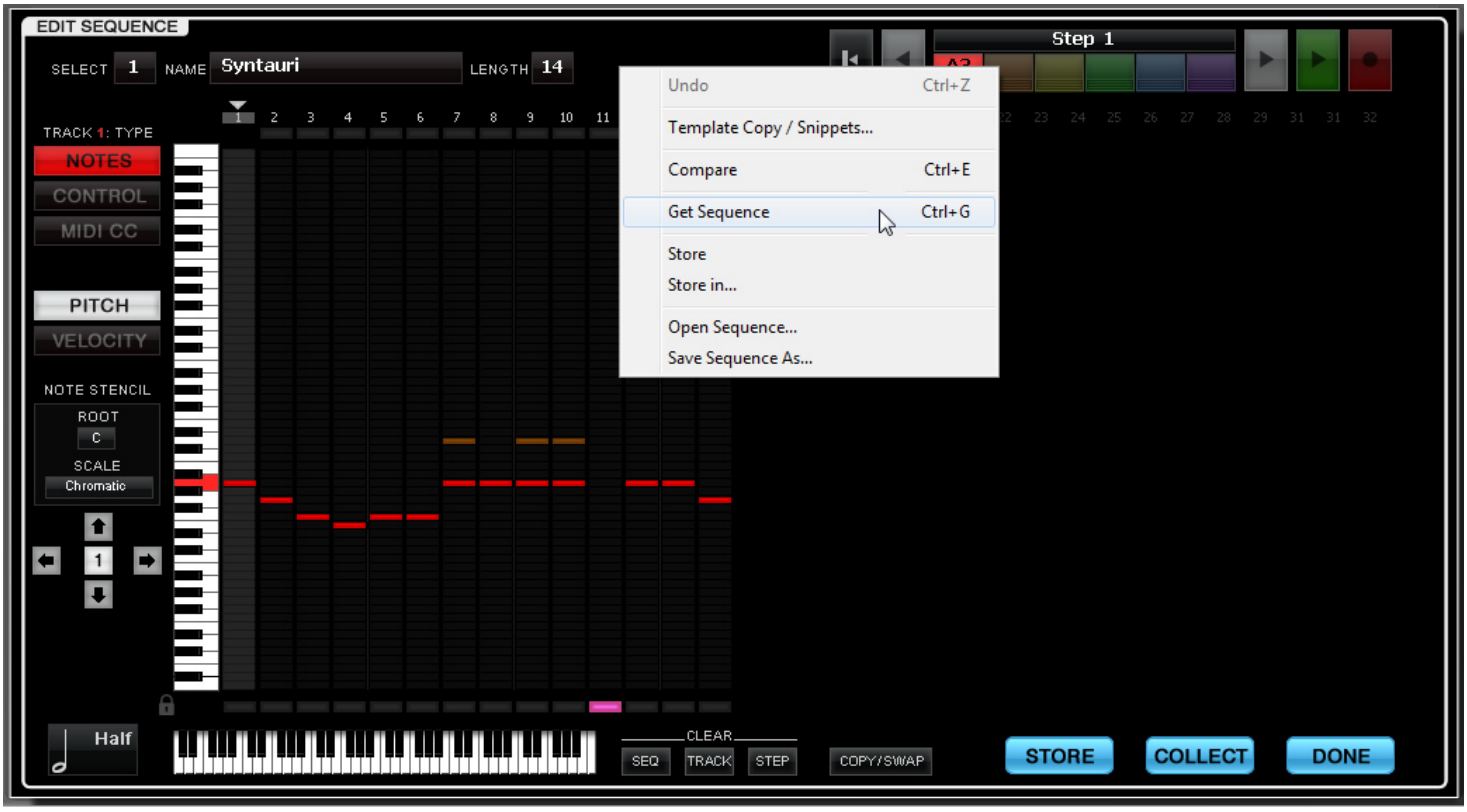



The Vyzex Kiwi-106 Sequence editor is ***not*** integrated with these button combinations.

If you enter the EDIT/CREATE SEQUENCE Kiwi-106 front panel mode to insert notes, rests, ties, etc, the Vyzex Kiwi-106 Sequence Editor will ***not*** automatically update to reflect the changes. The sequence editor was designed as an advanced alternative to the front panel, not as a companion.

You can work around this situation and use both the front panel buttons and Vyzex Sequence Editor at the same time if you manually refresh the editor's edit buffer after every front panel EDIT/CREATE SEQUENCE session.

Hover your mouse over an empty area in the sequence editor and right-click (ctrl-click on mac) to open the editor's contextual pop-up menu: Now select ***Get Sequence*** from the command list.



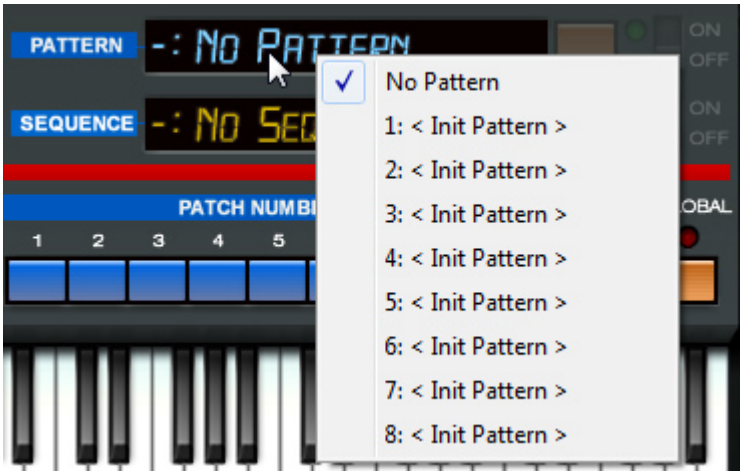

This will command the editor to get your newly entered step data from Kiwi-106's sequence edit buffer and load it into the Vyzex Sequence editor. You can then continue editing in the software.

This covers our exploration of the fairly complex Sequence Editor. What's next? The very simple Pattern Editor, of course!

# The Pattern Editor

### Patch Pattern Select


As was explained before, if you don't have a pattern selected, the corresponding edit and enable controls will not be activated.

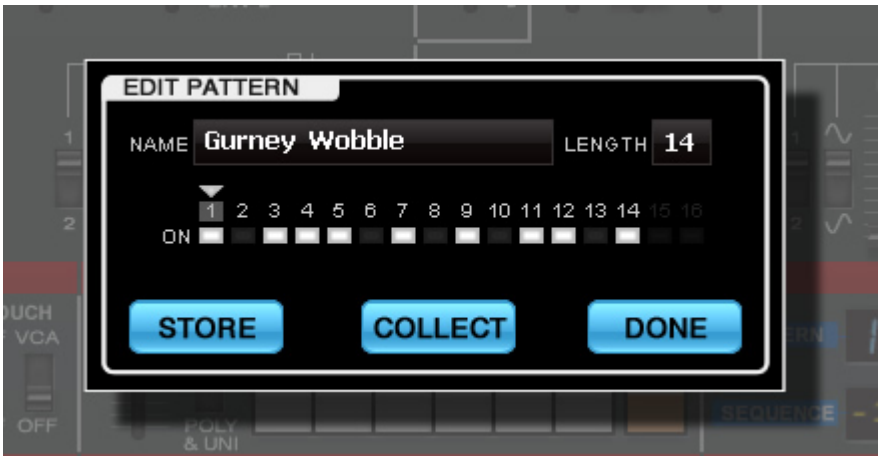



Click anywhere in the pattern name display to get a pop-up list of the sequences in the currently loaded bank of 8.

By default they are all named < Init Pattern >'.

We'll choose number 1 for our example.


The PATTERN EDIT button now becomes fully visible and can be pressed to launch the Pattern Editor.




Patterns are basically looping accents that you can apply against what Kiwi-106 is generating to provide variations that occur on a different period to the notes played. Over time the variations will mutate as differing notes are accented on different loop iterations.

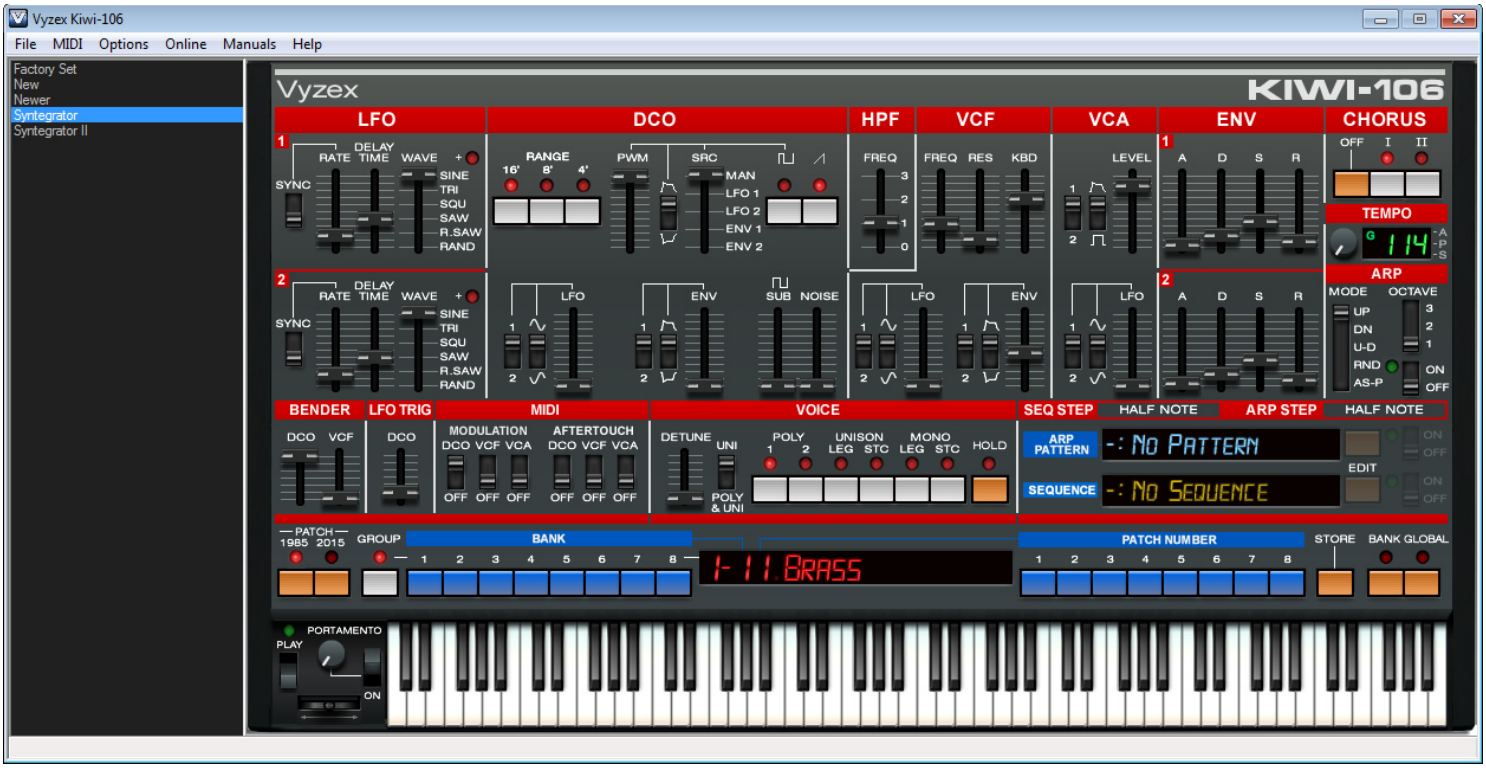
As we said on the previous page, the Pattern Editor is very simple: Each pattern can have a maximum length of 16 and consists of steps that are either OFF or ON.

You can rename the pattern, you can change its length and you can toggle the state of its steps... And that's it. When the pattern is being applied you will see the step indicator animating to show the results, but this is a read-only parameter.

We are ready to move on to the 'side' views of the Vyzex editor application: There are three of them in all, including the 'Collection' that was introduced earlier in this guide.

# The SET File View

Because Set Files are so important, there is an optional view to the application called the ***Set File View***. This view is activated from the application's ***Options*** Menu: Simply check the ***Set File View*** item and you'll see this 'side-car' view open to the left of the editor GUI.

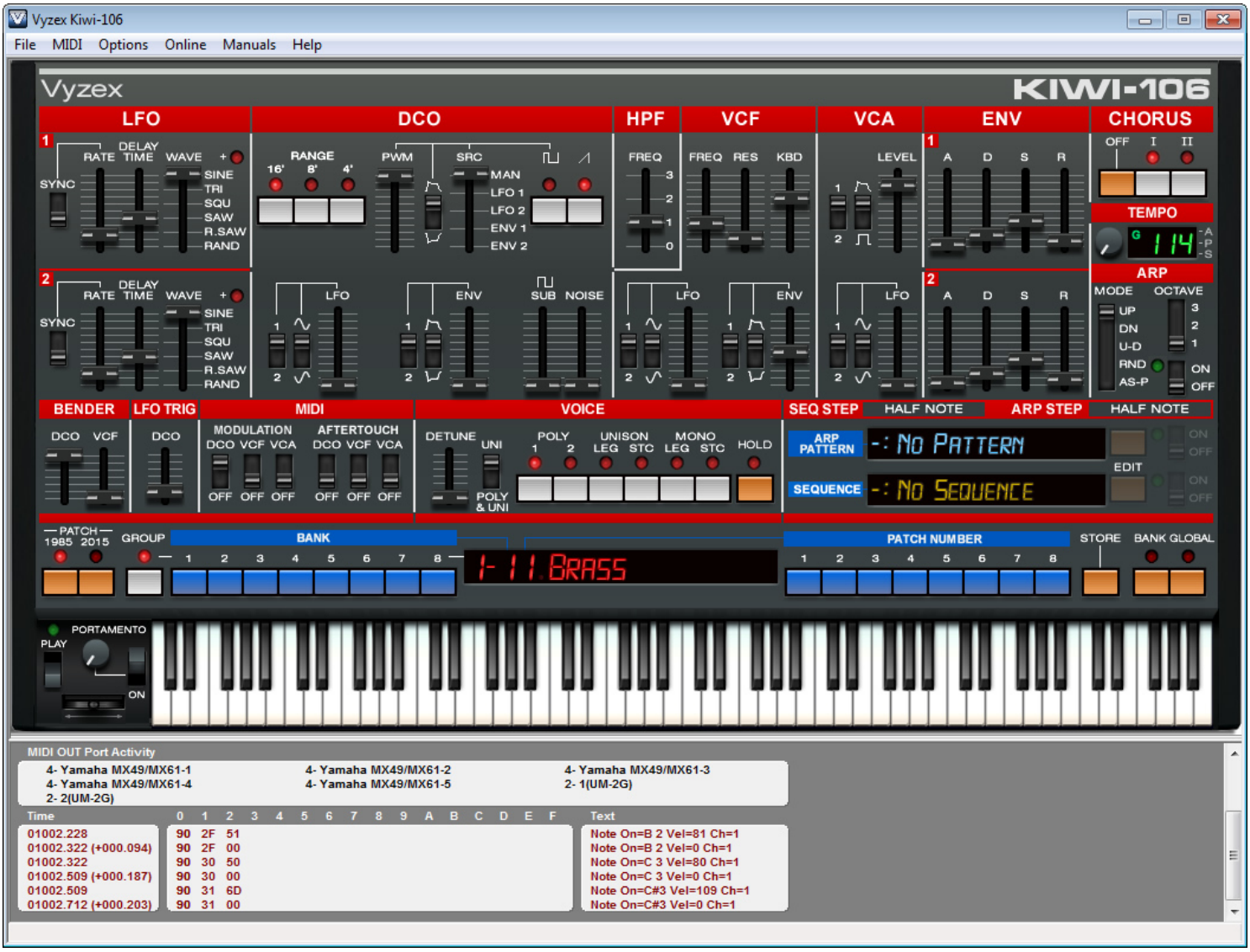



Any Set files you save will be shown in this view – Simply double-click on any entry to load it into the Vyzex Kiwi-106 Editor.

**The MIDI Monitor**

There may be times when you want to see the MIDI messages that are being generated by Vyzex and/or your Kiwi-106 as part of their communications.

In times like these, the MIDI Monitor is there for you: Simply check the ***MIDI Monitor*** item in the Options pull-down and you'll see this 'side-car' view open on the bottom of the editor GUI.





The monitor is not very large and therefore much of what you are looking for will quickly scroll out of view.

You can copy the monitor data to the clipboard and paste it into a text editor at any time to get as wide a view as you need.

Right-Click (CTRL-Click on Mac) over the monitor area to see the many filtering options, plus the copy to clipboard commands.

### The Collection View

The collection view is the most useful of the three optional views: The collection acts as a global listing of your favorite patches, sequences and patterns that remains available no matter which set file you have currently opened.

This property makes the Collection View as equally useful as both a transfer clipboard and a master library of individual set components. Just like the bank editors, the collection view automatically loads any selection you make for instant editing – This means you should be careful to store your currently edited patches, sequences and patterns before you select any new item from the collection.


To transfer any bank entry to the Collection, simply drag it from the Bank window into the Collection. Likewise to transfer a collection entry to the editor, simply drag it back into the editor.

If you want to collect the currently loaded patch (in the Collection of course), go to the 2015 Patch Editor and press the **COLLECT** button. Likewise if you want to collect a Pattern or a Sequence, press the COLLECT button in either editor.

When you first install Vyzex Kiwi-106, the Collection will be empty. Then as you add items to it from the Editor, the Collection will add them sequentially, although the whole collection will be reordered alphabetically when you click on the Name heading bar (Windows) or whenever you reopen the program (Mac).

The entire collection is stored as a single file on your hard drive called **Default.SQC**: If you ever want to archive the collection, this is the file to back up.

The Default.SQC file is located in the **\Psicraft\Vyzex Kiwi-106\Kiwitechnics Kiwi-106** subfolder of your user documents folder (on both Windows and Mac).

## *Block Copy/Swap*

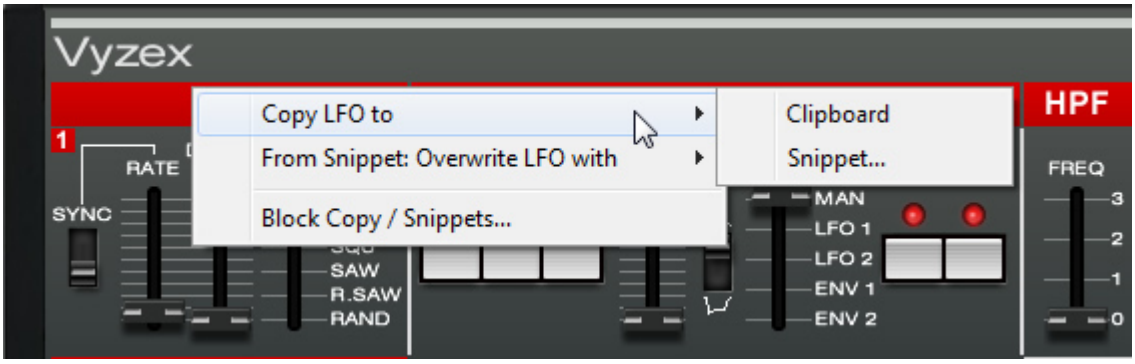
Hidden inside the Patch and Sequence editors are predefined 'Blocks' that combine parameters into interchangeable pieces that can be copied, pasted, swapped with each other and stored as 'Snippets' in a universal library that is always available.

While the full power of this feature is available from the right-click pop-up menu in the Patch and Sequence editors, dedicated COPY/SWAP buttons have been embedded into both editors.


In the Sequence editor, the COPY/SWAP button is visible. Click on it and you will get a context-sensitive menu for working with the currently selected track's modal data.


In the Patch editor, there are invisible COPY/SWAP buttons built into the white title text of every red section header. Sneaky!

For example, clicking on the LFO text in the Patch editor will launch a COPY/SWAP pop-up menu:

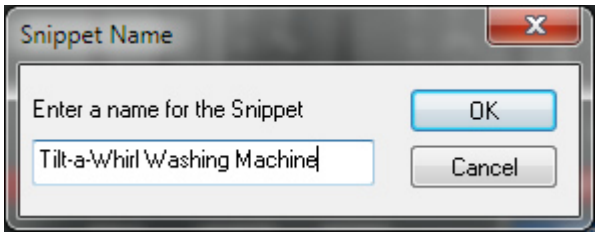



The LFO 'Block' contains the settings of both LFO 1 and LFO 2. You can put this block on the clipboard and paste it to another patch, or you can save the settings as a ***Snippet***.

### *What the heck's a Snippet?*

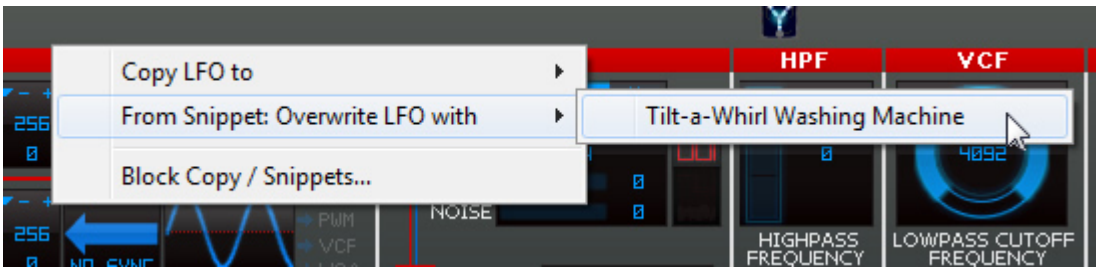
Good question: A 'Snippet' is the stored content of one of the editor's defined 'Blocks'. Snippets allow you to build a library of your favorite patch (or sequence) pieces that you can reference anytime you need them in the future.

As we were saying above, copying the LFO block to the clipboard is useful, but the clipboard is only a temporary storage area. For a more permanent storage of this block, you'd copy it to a Snippet and give that snippet a memorable name:



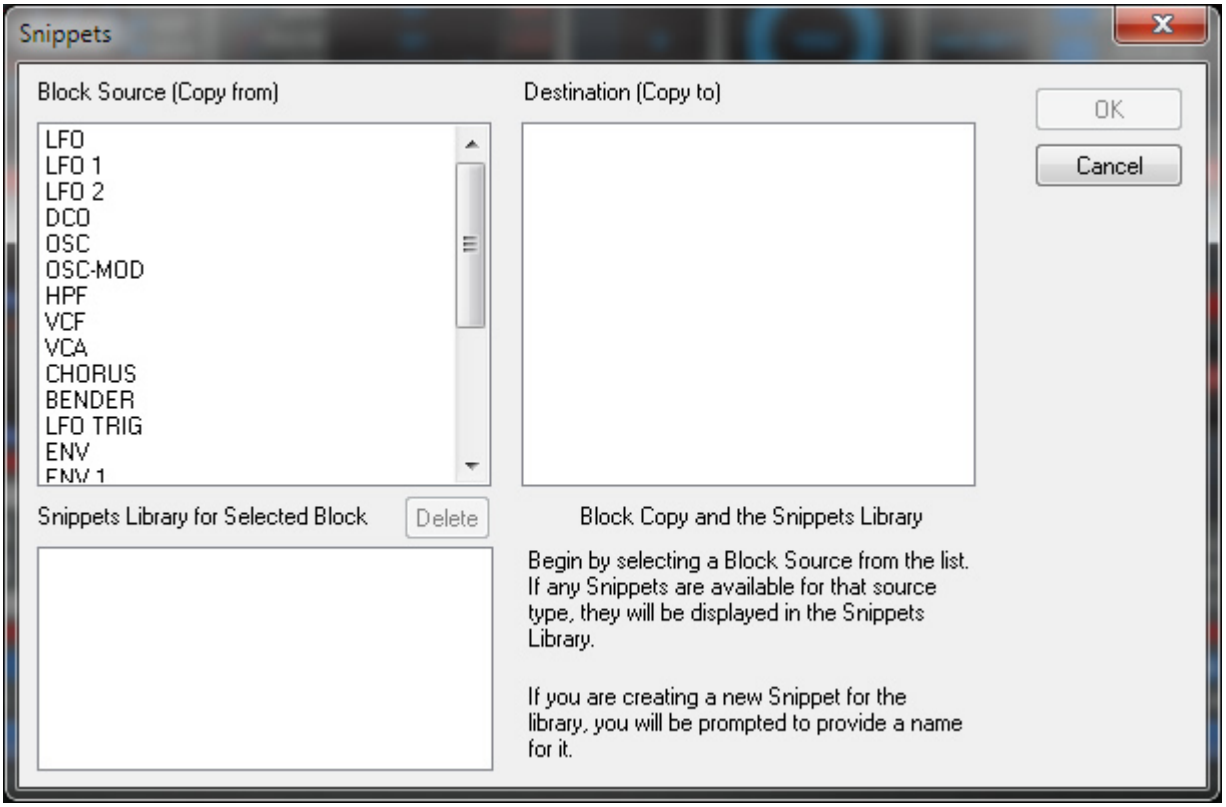

*Too memorable, perhaps?*

Once you press the OK button, the Snippet is added to the library. From now on you will be able to click on the LFO text in any patch and select the '***From Snippet: Overwrite LFO with'*** menu to get the following fly-out selection:




Clicking on the Snippet name will copy the saved parameter values into the current patch LFO section.

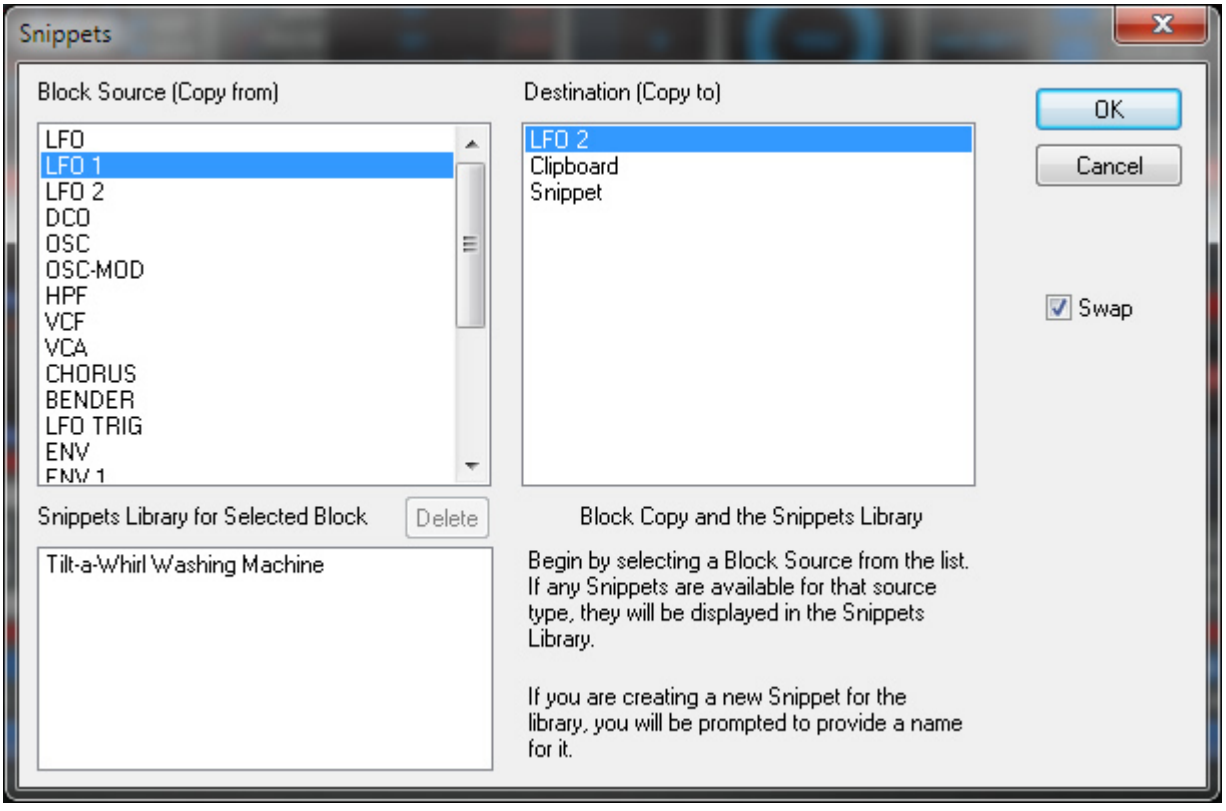
The last item on the COPY/SWAP pop-up menu reads ‘Block Copy / Snippets...’ Click on this entry to open the detailed Snippets library dialog:




As the built-in instructions note, begin by selecting a block source from the upper-left list, and if any matching Snippets exist in the library they will appear in the lower-left list. Similarly, compatible destinations will appear in the upper right Destination list. Make your choices and press OK to complete the COPY/SWAP operation.

### *Where’s the Swap?*

Swapping is an option that becomes available when you select a block that has a compatibility with other blocks in the patch. For example, the LFO 1 block is compatible with the LFO 2 block, and these two can be swapped.



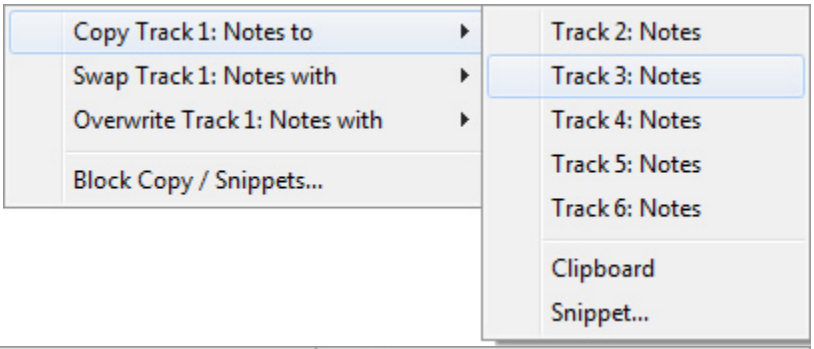
### *Block Copy / Snippets in the Sequencer*

As mentioned earlier, the sequencer editor has a single COPY / SWAP pop-up menu control:

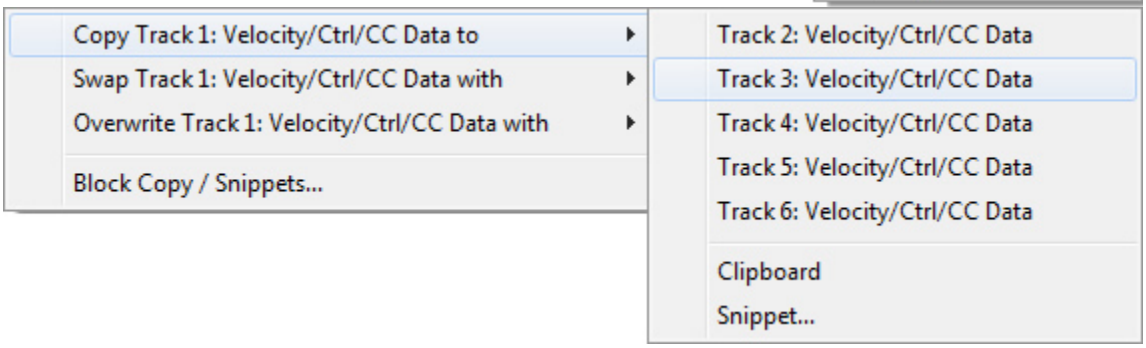

This button pops up a context-sensitive menu for working with the currently selected track's data.

Accordingly, this means you will see the following track-specific pop-ups under specific editing cases (Track 1 is the example, if a different track is selected when the COPY/SWAP is pressed then ***this*** track will be the source):

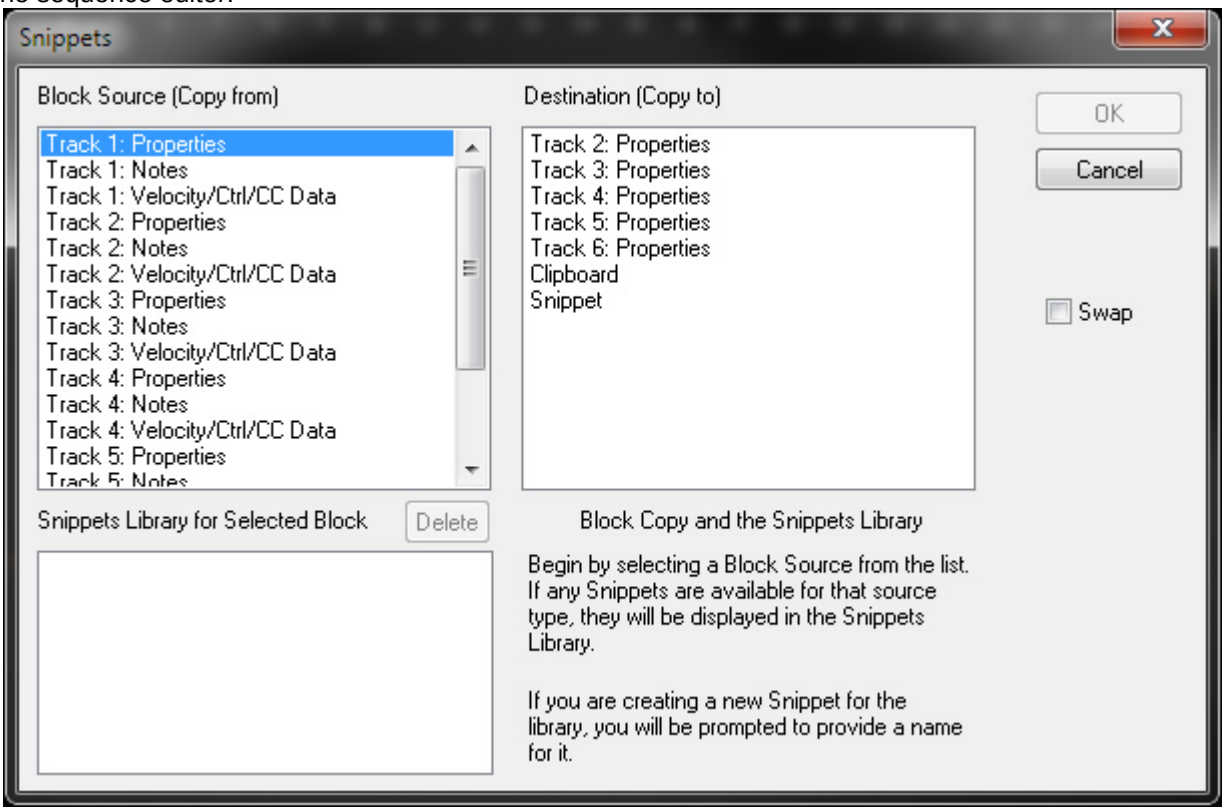
Track 1 Selected,
& Note Pitch Mode
Active




Track 1 Selected,
& Note Velocity / Param
Control/ CC Mode
Active

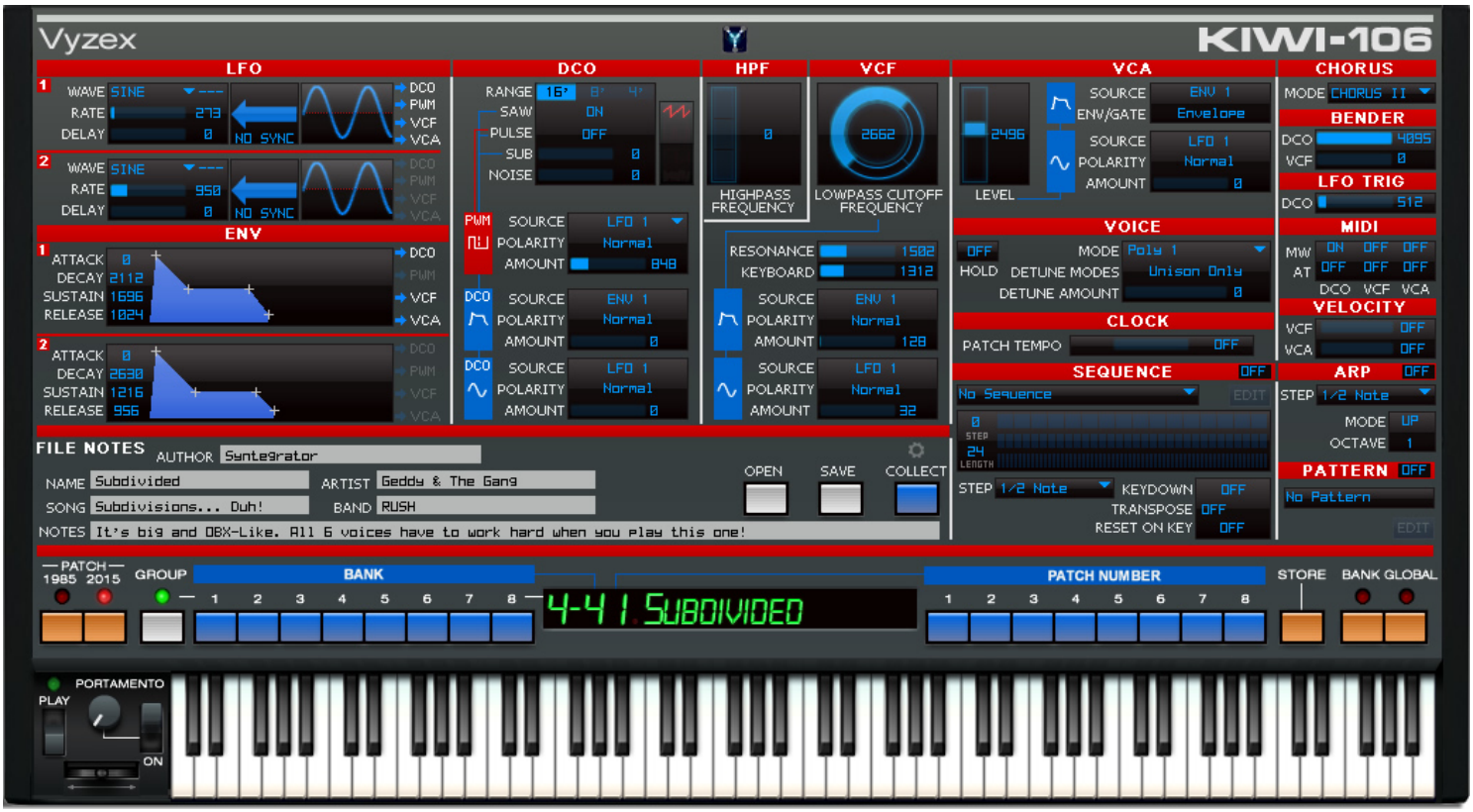



If you select the 'Block Copy / Snippets...' option in any of the sequencer COPY/SWAP pop-ups you will see all the defined blocks in the sequence editor:




Track Properties contain the track type, subtype and other track-wide parameters.

## *The File Notes & Kiwi-106 Website*




The **File Notes** panel of the Patch 2015 mode lets you view (and edit) the Patch's extra information such as the Name, Song, Author, Band, Artist, and Notes data.

This additional information is saved along with the patch parameter data into the editor's patch groups when you **Store** the patch, which means it will be stored as part of the set file when you choose File->Save Set from the Vyzex Kiwi-106 application menu.

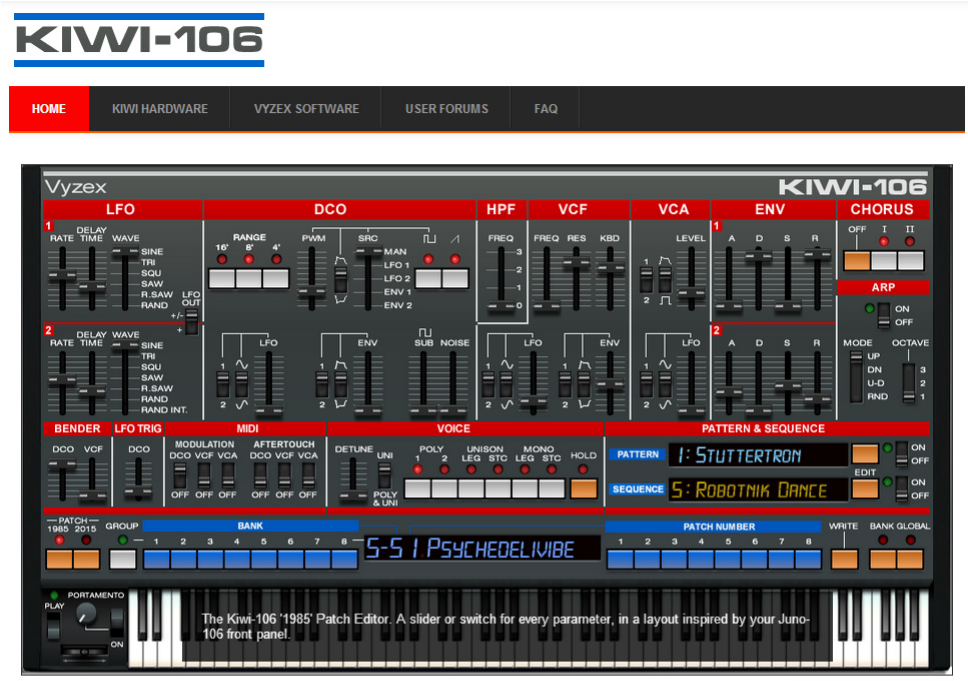
The file notes are also exported whenever you save the current single as a patch (*.pat) file by pressing the **Save** button in the File Notes, and any **.PAT** file you **open** will also bring its file notes into the current patch edit buffer.

Your Kiwi-106 does not feature memory space to store the File Notes aboard the instrument.

As a result, Syncing a single to Kiwi-106 will ***not*** transfer its file notes into the unit, and any patches you get from your Kiwi-106 will have their File Notes fields completely empty.

**The Kiwi-106 Website**

When you are ready to share your patch and sequence creations online (or want to check out what everyone else has been up to), it is time to visit the Kiwi-106 Website with your web browser of choice.

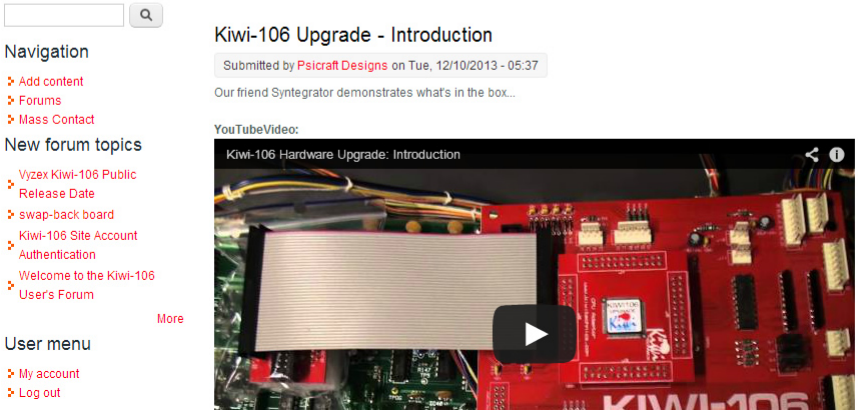



The Kiwi-106 website is not only the place for you to share your sound creations with the rest of the world – It's also the place for Kiwi-106 users to get caught up on the latest user community news, read artist blogs, comment on Kiwi-106 topic forums and generally hang out with other users at all levels of fame and fortune.

The Kiwi-106 Website's URL is:

http://kiwi-106.com

http://kiwi106.com also works if you hate typing in those hyphens.





You can launch the Kiwi-106 website in your browser by clicking on the editor program's Online menu and selecting 'Kiwi-106 Website' from the list.

We recommend you store your downloads directly in the program's default documents data folder.


Vyzex Kiwi-106's default data folder is

**/ User / Documents / Psicraft / Vyzex Kiwi-106 / Kiwitechnics Kiwi-106**

Where **User** is your user account name.

This applies to all supported operating systems, Windows and Mac alike.

This concludes the ***Vyzex Kiwi-106 User's Guide***. As mentioned earlier on, it's a good idea for you to also read the companion PDF manuals such as *the* ***Kiwi-106 User Guide*** and the ***Vyzex Kiwi-106 Preferences Guide*** for a more complete view of the preferences menu and how the editor's control types operate. Just as with this document, these PDFs are accessible from the program's ***Manuals*** pull down menu.