

Solaris v2.2.0 OS upgrade

Here is the addendum for the new v2.2 OS. Since most of the synthesizer functions remain the same as in v2.1, I feel it is only necessary to describe the changes and additions. As always, I am extremely grateful to Jim Hewes for the thousands of hours he has dedicated to improving the Solaris operating system.

ModMtx and CatNam Groups

When you are in Preset mode, or pressing the Home button, you will find the same set of soft button labels, as explained in the Solaris 2.0 documentation. Selecting Sys/Mid and going to page 3 will take you to this screen:



There are 2 new labels on the right side - ModMtx and CatNam. These stand for Mod Matrix and Category Naming. Let's explore the Mod Matrix report page first:

Mod Matrix Reporting



This screen shows all of the current Part's modulation routings for the patch, with the Sort parameter set to show them by **Destination**. Though you cannot edit any of the routings at this page, pressing Enter will 'jump' to the appropriate page in the synth, where you can then do edits.

You can use the up/down paging buttons to the left of the graphic display to move through all of the routings, or you can use most of the knobs to scroll them, except for the following:

The lower leftmost knob selects through the Parts.

The lower rightmost knob selects the Sorting Type. (The upper rightmost knob has no function.)

The current Preset/Program's name is displayed on the bottom line as well.

And here is the Mod Matrix Source view:

System	Midi			ModMtx	CatNam
JoyV	->	Vector	1	V	
ModA	->	Osc	1	Pitch	
ModH	->	Osc	2	Pitch	
ModH	->	Osc	3	Pitch	
ModA	->	Osc	4	Pitch	
					-Sort- Source
Part 1 Rotate Parts					1/1

Here we see the routings sorted by the **Source**. Again, pressing Enter will take you to the appropriate modulation path for editing.

Using **Source** as the sorting type is probably the most typical way all other synths handle their Modulation Matrix, so this would be the most familiar, however, it's convenient at times to use **Destination** when you want to view everything that is going to the same place (such as Osc 1's Pitch).

The Mod Matrix reporting allows one to see just exactly what modulations are going on in a patch. This has been probably the most requested feature, as the Solaris does offer around 104 possible modulation routings!

Category Naming

System	Midi			ModMtx	CatNam
Cat1 1: Keys 4					
BCDEFGHIJKLMNOPQRSTUVWXYZ abcd					
[cursor] [A-Z] [a-z] [0-9] [symbol]					

When you are on the main Preset page, you will find 2 knobs that select Categories which you can add to a Preset (which you do by selecting then saving the Preset). When the Filter is set to something other than Off, it uses the 2 category definitions for its search. To cover any type of sound that was not listed in the predetermined lists, we added User 1-10 categories some years ago, and now you can edit those names to anything you like. Also, for the category names, you do not have to do any kind of Save routine - just editing them will do it!

The upper leftmost knob will select through all User categories (starting with Cat1, but continuing on to Cat2). The Up/Down paging buttons to the left of the display will also step through the category names. You can then use the regular naming process that came with v2.0 to change the name.

Rotate Parts



Some years ago, before we had a true multi-timbral operating system, we were playing around with loading a different Preset in each of the five voice DSPs, to see if we could copy the way the Sequential 6-Trak did its 'unison' stacking. This option (which was a feature years ago, but since removed) required that you have the 5 presets you wanted to use all programmed in a numerical 'row'. Then with Unison, you could have 5 different sounds stacked up. While doing this, I also asked to have a keyboard mode that would allow me to 'step' through each of the 5 DSPs with every key press, so that I could get that "round robin" effect of playing a single key, but having different sounds play and overlap each other if desired. It was a bit cumbersome to program everything in a row of Presets, and it was removed once we had true multi-timbre function with v2.0 OS.

I was recently reminded of this function by my colleagues at Korg, and asked Jim if we could do something similar with the 4 Parts. Hence we have the Rotate Parts function, which is found in the Home pages on the new Page 4.

To explain further, here are Jim's notes:

- Added the Rotate function using key presses to rotate among the parts.
- The new parameters are on Home page 4.
- When rotating among two or three parts the user is expected to locate them as the first two or three parts respectively.
- If a part is not set up to play notes (not enabled, voices assigned, MIDI channel, etc.) then it won't play. It's not just skipped.
- The rotate pattern can be reset by using an Assign button and setting the target to "RotReset".
- Rotate doesn't make any effort to choose parts that have voices available over parts that don't. So for example the Random pattern may result in more voice stealing than typical.

Here are the parameter ranges:

Rotate - On, Off

Rot(ate) Parts - 2, 3, 4

Rot(ate) Dir(ection) - Up, Down, Up/Down, Random

These are stored per Preset. Note: if you have more Parts enabled than you have selected in the Rotate Parts parameter (for example, 4 Parts enabled with 3 as the RotParts parameter), it will play as a normal Part according to the key mapping and so on.

Some other changes for v2.2.0:

- .WAV files are now playable correctly, no need to convert to .raw format (but still need a SamplePool.txt file for info)
- The function of the Hold button is changed. It no longer just duplicates the sustain pedal when the arp and sequencer are off. Instead when you lift all the keys and then press new keys the previous notes are released. (Under the covers the previous parameters for Arp Hold and Sequencer Hold are removed and they're replaced with just Part Hold. This Part Hold is a per-part parameter. The arp and sequencer still work as before when the Part Hold parameter is enabled).
When earlier presets are loaded where the arp is enabled and arp hold is enabled, the part's Hold will be enabled. It's the same for the sequencer and the sequencer hold function.
In the sustain pedal function list "Arp Hold" is replaced with just "Hold" and that now represents the part Hold parameter.
- The file system now supports the exFAT format.
- Added global parameters SendArp and SendSeq to the MIDI page 3. These override the corresponding part parameters that allow the arpeggiator or sequencer to send their generated notes over MIDI.

So, that is all for the new v2.2.0 Operating System. Please let me know if you come across any bugs or issues that you'd like to see in future versions. And thank you so much for supporting the Solaris OS development!

Cheers,
John Bowen
john@johnbowen.com

SHIFT Key Combinations

A reminder - here are all of the Shift key actions:

1. Shift - By itself shows what VCA sections are ON in the current Part
2. Shift+graphic LCD page up/down buttons - Selects Parts
3. Shift+Home - Turns off all arpeggiated notes if Arp and Hold is ON; leaves those functions ON
4. Shift+Seq On - Turns OFF all sequencers
5. Shift+Arp On - Turns off all Arpeggiators
6. Shift+Hold - Turns off all Hold buttons
7. Shift+Keypad 1,2,3,4 - Selects same numbered Part
8. Shift+Period on keypad - Plays C4
9. Shift+note - Sets High or Low Key for key zones in Multi pages
10. Shift+Inc Button - Inserts a space when naming a Part or Preset
11. Shift+Dec Button - Deletes current character when naming a Part or Preset
12. Shift+Enter when copying or swapping Parts - ignores Multi parameters with operation
13. Shift+upper knob in Program Mode, page 2 (for assigning performance controls) -clears assignment
14. Shift+lower knob assigns parameter for performance controls
15. Shift + Step number for arp and seq sections - allows to copy a step value across other steps.