

*There is a group of buttons that most of us hardly ever notice. Collectively it is called 'Voice Effect' and, quietly and unobtrusively, each control plays an important part in making the instrument sound the way that it does.*

## The Voice Effect Buttons - Mono



Fig.1

As we continue our journey through the Voice Effect buttons we next come to the [MONO] button (fig.1).



*Monophonic* means 'one note only' and applies to many wind instruments such as flute, trumpet or clarinet that can play a single line of music (e.g. the melody) but with no harmony accompaniment or chords.

By default most voices on Tyros, PSR, CVP etc. are *polyphonic* (i.e. they can play more than one note at a time) but there are instances where a mono voice is desirable.

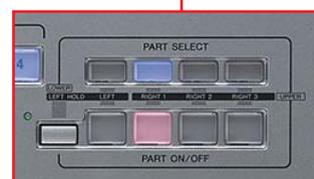
When it is switched on, [MONO] converts the selected right hand voice to mono - but, unlike the [INITIAL TOUCH] and [SUSTAIN] buttons, MONO doesn't affect all the voice sections equally.

The mono effect only affects the voice part whose Part Select light is on when the [MONO] button is pressed. So, if you want voice parts Right1 and Right3 to be monophonic you must first select the [RIGHT1] Part

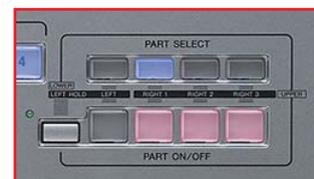


Fig.2

Select button (fig.2), switch on [MONO], then select the [RIGHT3] Part Select button and switch on [MONO] for that part too.



When you switch on all the PART ON/OFF buttons you'll be able to play chords with the only voice part that hasn't been switched to mono... RIGHT2.



## Where would I use this?

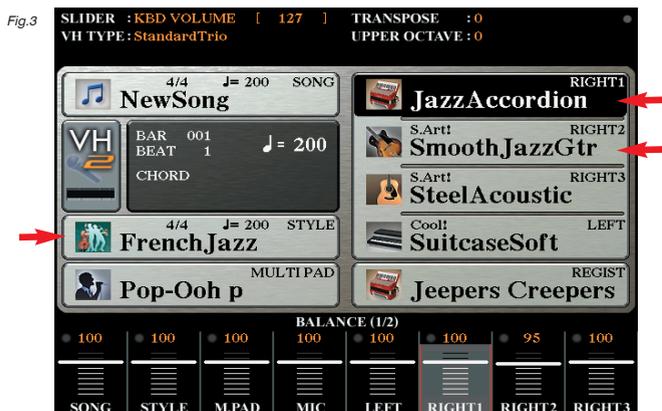
Here's an example using just two voice parts, but it's not easy to do from a technical point of view...

I set a swing Style for the accompaniment - such as 'FrenchJazz', with the tempo at about 200bpm (quickstep-ish).

Then I press the [RIGHT1] Part Select button, select the Jazz Accordion voice from the ACCORDION category and press the [MONO] button.

Next I select the [RIGHT2] Part Select button and choose the SmoothJazzGtr voice from the E.GUITAR

category. This time I leave the [MONO] button switched off. I leave Voice Part3 switched off too (fig.3).



Now comes the tricky bit... Play the tune *plus chords* with your right hand. I played 'Jeepers Creepers' so here are the first two bars of the right hand part (fig.4).



The top note of the chord plays the melody - using the newly monophonic jazz accordion voice. The notes underneath the melody form an extra chord line - played by the jazz guitar. As long as you play the top line smoothly the accordion will hold the tune whilst your other fingers are free to provide an extra rhythmic part to go with the accompaniment style. If you're really good you'll be able to score extra points by playing a counter-melody (an extra tune) underneath the melody using your free fingers. As long as the top note is played smoothly enough to hold the melody the rest is up to you.

### Mono voices and Portamento

In music 'portamento' is when a pitch slides from one note to another... and when we press the [DIRECT



ACCESS] button and follow it with [MONO] we're taken to the TUNE tab of the Mixing Console where the Portamento level of the Right1 voice is highlighted (fig.5).

The Portamento level will only have any effect on monophonic voices - so often, when experimenting in the Mixing Console, people assume that it's not doing anything (or, if it is, it's not worth noting). You'll find that there are a lot of monophonic voices in the SYNTH voice category and most of these carry a degree of portamento. For now though, let's try it with another voice.

### One song idea for showcasing Portamento...

I've had an idea for a tune I think you'll all know. It's 'The Good, The Bad and The Ugly' by the wonderful Ennio Morricone. Well, two bars of it at least... (fig.6)



Press the [RIGHT1] Part Select button and select the Pan Flute voice from the WOODWIND category. Then press the [MONO] button.

Now press [DIRECT ACCESS] followed by [MONO] to return to the TUNE tab of the Mixing Console.

Play the first five notes of the music. Play them as smoothly as possible and you should hear the pitch slide between the notes. Increase the Portamento level gradually and the pitch will take longer to slide from one note to the next. With a metronome/rhythm beat running at about 110 bpm I settled for a Portamento level of 29 as shown in fig.5.

If you decide that you'd like to continue with the song I'd suggest that you increase the reverb quite a lot (and I also selected the Real Large Hall reverb type in the Mixing Console EFFECT tab).

### Mono voices and trills

Today's SuperArticulation 2 (SA2) voices often automatically take care of the switching between monophonic and polyphonic voicing - so the need for the MONO button in this situation is greatly diminished. In fact, the MONO button is deactivated when SA2 voices are used. Here's another snippet of music for you... (fig.7)



These opening bars of Jeremiah Clarke's 'Trumpet Voluntary' are probably as well known as Morricone's

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music for 'The Good, The Bad and The Ugly'.

The second note has a trill sign over it - instructing the trumpeter to alternate rapidly between the note E and the note one scale-note above (fig.8).



When you play this on a wind instrument each note sounds out clearly during the trill - because the instrument cannot sound two notes at once. On a keyboard though it's very easy to slightly overlap, or 'smudge', the notes by inadvertently catching two notes at once.

By setting the voice to mono you can avoid this and produce a trill as clean and clear as the wind player. With [MONO] engaged press *and hold* the first note of the trill. Continue to hold this note (E) as you quickly and repeatedly play the F# above. Each time you play the higher note the sound of the note below is cut off. When you release the F# the lower note sounds again - but there is a definite clean break between the two.

## The Voice Effect Buttons - DSP/Variation



Fig.9

The [DSP] button switches on, or off, the currently assigned DSP effect for the selected voice (fig.9).



DSP stands for Digital Signal Processor and it is responsible for all the studio effects that are added to the voicing of the keyboards we play and love. Without these effects each voice would sound just as it did when it was recorded in a dead clinical environment. Because the voices are usually recorded without any studio effects we have the option to add the ones we want for each voice. We can, for example, add reverb to a piano sound, a rotary speaker to an organ sound, distortion to a guitar sound etc. etc.

The good news is that we don't need to know which effect to add... or how to do it... because the professional sound guys who set up the instruments for us have done all the work. Each sound comes with

an appropriate effect, or effects. If we're inquisitive (or adventurous) enough we have the option to change what the pro's have done and make our own DSP settings... but the point is that *we don't have to!*

An easy way to show what the [DSP] and [VARIATION] buttons do is to use one of the organ sounds from the 'ORGAN WORLD' voice category.

Press the PART ON/OFF [RIGHT1] button on the panel (fig.10). This will automatically light up the PART SELECT button above it (fig.10).

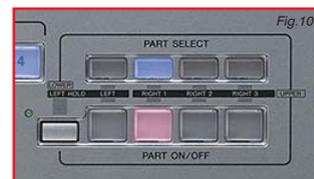


Fig.10

Now, keeping an eye on the [DSP] button, press the [ORGAN WORLD] voice category button (fig.11).



Fig.11

This immediately calls up the first OrganFlutes preset in the Vintage Organ category (fig.12).



Fig.12

The [DSP] button lights up to show that this voice has a DSP effect (fig.13).



Fig.13

*Note: Pressing [DIRECT ACCESS] followed by the [DSP] button opens the Mixing Console EFFECT tab where you can see that the effect assigned to the RIGHT1 voice part is D.ROTARY (Dual Rotary Speaker). Selecting EFFECT from the screen will also show you the current DSP effect.*

Each DSP effect has two settings. One is the main effect and the second is a variation. The organ controls shown in fig.12 include a ROTARY/TREMOLO speed control with options of SLOW and FAST. Keeping an



eye on the DSP [VARIATION] button again, use the control on the screen to switch the Rotary Speaker speed from SLOW to FAST (fig.14).

As the speed is changed the DSP Variation kicks in and the [VARIATION] button on the panel lights up (fig.15).



### Why is the DSP [Variation] button necessary?

When you're in the middle of a performance you can't always guarantee that you'll have the correct controls open in the screen to change the DSP from its main setting to its variation. Having the button on the panel gives you immediate access to the change in sound achieved by switching to the variation.

One of the reasons that I've used an organ sound to illustrate this workshop is that this is one type of voice that very clearly demonstrates the need for such a control.

In fact, the 'Leslie Speaker' control switch you see in the on-screen illustration (fig's.12/14) was often screwed onto the front panel of electronic organs (fig.16) - right underneath the player's hand.



When Genos was introduced we found that the DSP [Variation] button had been replaced by a ROTARY SPEAKER switch - proving, if proof were needed, that the original button was frequently used for this task.

That's all for this chapter of Tyros Basics but I'll be back in October with some ideas about the final button in the Voice Effect group... Harmony/Echo.

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