



Z4 / Z8

SAMPLER

Version 1.20 Addendum

AKAI
professional



User Guide

WARNING

To prevent fire or shock hazard,
do not expose this appliance to
rain or moisture.

Version 1.20 introduces many new features and functions to the Z4/8 Operating System. These are:

- It is possible to control zone switching using any controller in the modulation matrix
- It is possible to control sample start using any controller in the modulation matrix
- It is possible to load EIII™ sound library from CD-ROM
- It is now possible to load MPC2000 and MPC2000XL sound library
- Improvements to save speed
- USB Host driver is improved to support a greater variety of USB drives

IMPORTANT NOTE ABOUT COMPATIBILITY

Because of the new functions introduced in V1.20 (notably zone xfade and sample start control), programs created and/or saved using V1.20 cannot be loaded into a Z4 or Z8 that is still using V1.15 or earlier.

Similarly, programs created/saved on a Z4 or Z8 using V1.20 cannot be used with an MPC4000 using 1.16 or earlier.

The S5/6000 are not affected by this and programs created using V1.20 can be used on these samplers.

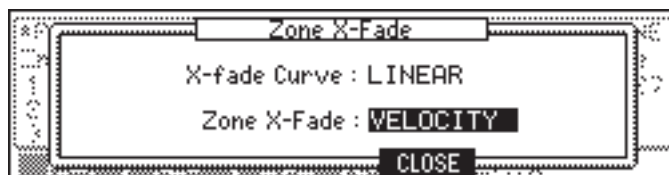
ZONE SWITCH MODULATION

New functionality has been added that allows you to switch between keygroup zones using any controller in the modulation matrix. Previously, velocity was hardwired to zone switching but now many more possibilities are open to you.

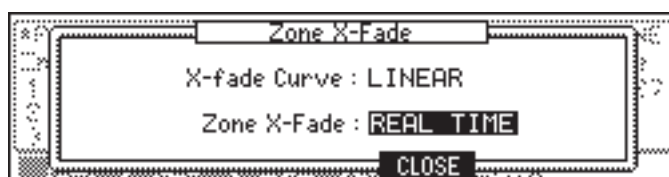
The new function is available in the ZONES MOD page:

*Program 1		KG	Ks : 1	Ks Edit : ONE
Zn	Sound	Filter	Start	Range
1	Sample 1	+000	+0000	0127
2				
3				
MAIN KGRP ZONE Zn TUNE Zn MOD				

It doesn't look that different to previous releases but, when the cursor is on either of the RANGE parameters, pressing the WINDOW key pops up this window:



Previously, in the ZONE XFADE field, you only had two options - ON or OFF. Now you have the choice of OFF, VELOCITY and REAL-TIME:



When set to REAL TIME, it is possible to use any of the controllers in the modulation matrix to crossfade between the zones. Modulation controllers are assigned by pressing WINDOW again when the cursor is on the ZONE X-FADE field:



In this case, the modwheel can be used to crossfade between the zones.

USING REAL-TIME ZONE CROSSFADE

To use real-time zone crossfade, simply assign two or more samples to the keygroup zones and set a suitable range for each of them (for example, Zone 1 : 0-50, Zone 2 : 45-100 and Zone 3 : 90-127). Set ZONE X-FADE to REAL-TIME. In the PROGRAM MODULATION window, find a free modulation 'slot' and assign the controller of your choice to ZONE SELECT. Finally, set a modulation depth.

As an example, by assigning a modwheel as the controller in the above example, as you move the modwheel, so the different samples will fade in and out. In the case of an LFO being assigned, the different samples will fade in and out as the LFO waveform rises and falls. In this way, you can achieve a simple but effective form of vector synthesis.

NOTE FOR EWI USERS: By using breath control, you can crossfade between samples using your playing technique. For example, you can crossfade between soft and loud brass as you blow harder.

With velocity assigned to ZONE SELECT, zones will switch/crossfade using velocity as before.

NOTE: When REAL TIME is selected, each zone uses a voice and so the polyphony of the program is reduced by the number of zones used.

SAMPLE START MODULATION

It is now possible to control the position of the sample start point using any controller in the modulation matrix. Previously, Akai samplers have only allowed velocity control of start time. However, the Z4/8 now allow you to use *any* controller.

In the ZONE MOD page of the PROGRAM mode, you will see this parameter:

*Program 1		KG	Ks : 1	Ks Edit : ONE
Zn	Sound	Filter	Start	Range
1	Sample 1	+000	+0000	0 127
2				
3				

MAIN KGRP ZONE Zn TUNE Zn MOD

The START parameter sets start point of the sample over a range of 9,999 samples. This is also the start point for the modulation effect (or, in the case of bi-polar controllers, sets the point about which the control source will pivot).



START at +0000



START at +9999

In this way, as well as the actual sample start point set in TRIM, you also have control of the sample start point in each keygroup zone which can be unique not only to each keygroup but also to each zone.

NOTE ABOUT SAMPLE START

It is possible to set a negative start point. Generally, this will not have much - if any - effect because most samples will be edited either in EDIT SAMPLE or in an external wave editor to start at sample 0. Thus, a negative setting of keygroup zone START will have no effect.

However, if your sample's start time is set to something other than 0, you can use a negative keygroup zone START offset to actually play the area before the sample's actual start point.

Although velocity will probably be the most common controller to use for sample start modulation, it is possible to assign any controller to the function. To assign a controller and set its modulation depth, with the cursor on the START field, press the WINDOW key. You will see the Program Modulation window:



Select the controller in the SOURCE column and set its depth of modulation in the DEPTH column. The DEPTH control (+/-100) has a range of +/-9,999 samples. What this means in practice is.....

Ex. 1 With a START value of +0000 and using velocity as the control source:

- A mod value of +100 will cause low velocity to play the sample from 0 and high velocity to play from 9,999



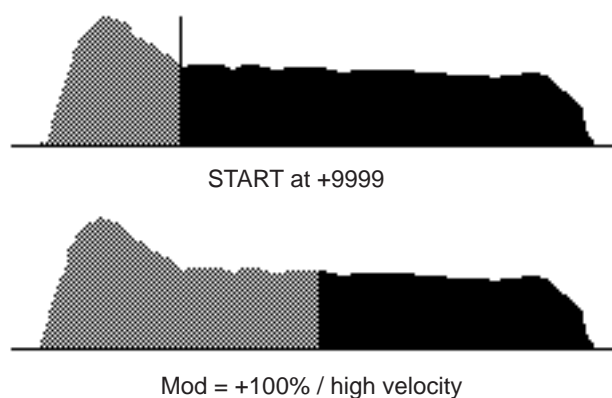
START at +0000



Mod = 100% / high velocity

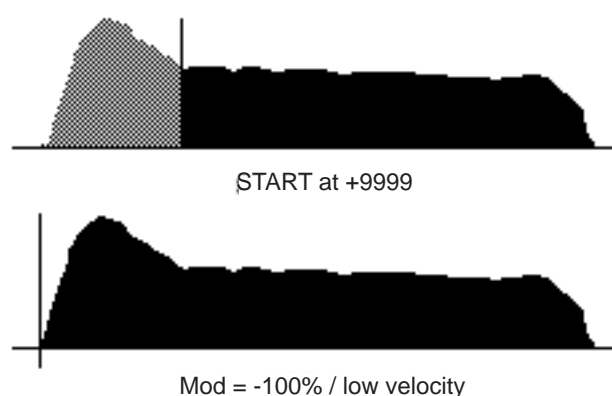
Ex 2 With a START value of +9999 and using velocity as the control source:

- A mod value of +100 will cause low velocity to play from 9,999 and high velocity to play from 19,998



Ex 3 With a START value of +9999 and using velocity as the control source:

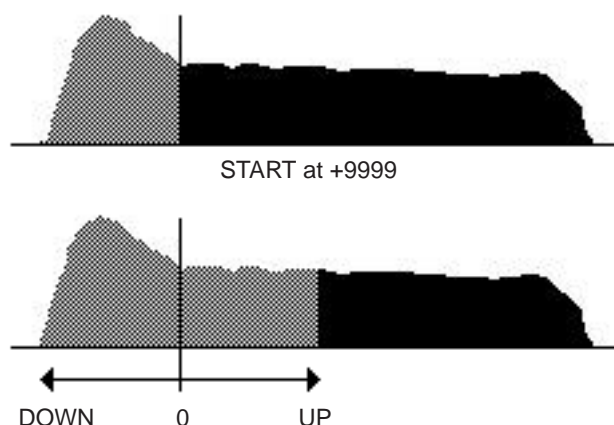
- A mod value of -100 will cause low velocity to play from 9,999 and high velocity to play from 0



Generally, this function is likely to be used to control the attack of the sample and you will want to set it as shown in Ex. 3 above so that low velocity will skip the sample's natural attack and high velocity will start playback from the very start of the sample.

However, the fact that you can assign any mod source to control sample start time allows a great deal more flexibility than just velocity>start can offer.

For example, using a bi-polar controller (i.e. one that 'rotates' around 0 such as pitch bend or the LFOs), you have control of sample start in two directions:



NOTE 1: Regardless of the controller used to modulate sample start, the effect will only take place at note-on.

NOTE 2: Some controllers are not well suited to modulating sample start. For example, any of the envelope generators would be unsuitable for modulating the start offset as would the LFOs when RETRIGGER is ON.

Another application for the START parameter is to use it as a static parameter with no modulation. Some applications for this are:

- Perhaps a drum sample is not sitting well in a track because there is some 'dead space' at the front of the sample (i.e. some silence because the sample has not been accurately trimmed). Rather than go to SAMPLE mode and edit the sample in isolation, you can adjust the sample's start time in the keygroup itself, alongside the other samples as they play.
- A common technique to fatten up a sound is simply layer it on top of itself and add some detune. However, because the samples are identical, the result can sometimes be a bit 'fake'. By setting the START parameter so that one of the samples in the layer starts a bit later in the sample, the layering effect can be more effective.

EIII™ SOUND LIBRARY COMPATIBILITY

It is now possible to use sounds (presets and samples) from Emu EIII CD-ROMs into the Z4/8.

Whilst every effort has been made to ensure that these sounds translate accurately, because of hardware differences, AKAI professional cannot guarantee that these sounds will be converted with 100% accuracy. However, they should be pretty close and will be certainly very 'usable'.

MPC2000 AND MPC MPC2000XL SOUND LIBRARY COMPATIBILITY

It is now possible to use sounds from the MPC2000 and MPC2000XL series of MIDI Production Centres.

Whilst every effort has been made to ensure that these sounds translate accurately, because of hardware differences, AKAI professional cannot guarantee that these sounds will be converted with 100% accuracy. However, they should be pretty close and will be certainly very 'usable'.

IMPROVEMENTS TO SAVE SPEED

Some changes to the Z4/8's disk system now means that save times are faster. It is not possible to give exact details because much depends on the drive being used, the amount of data being saved and so forth. Suffice to say that typically you should notice an improvement of around 20%.

IMPROVEMENTS TO USB HOST DRIVERS

Certain improvements have been made to the Z4/8's USB host drivers meaning that a wider range of USB drives is now supported.



AKAI professional M.I. Corp.