

USING SAMPLE AID WITH EMU ULTRA SAMPLERS

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INTRODUCTION

The tool is described in the main Sample Aid document as part of Sequetron's help/docm package downloadable from the PhiLiZound website, but these notes show how to use it specifically for sampling a MIDI-based instrument with an EMU Ultra E5000 hardware sampler running Eos 4.7.

There are/will be YouTube tutorial videos (e.g. search for 'Sample Aid EMU'), but check the version no. as older ones didn't have any group-handling features.

Some of these notes just clarify my findings with Eos in order to design the tool, but I'm not an expert so there may well be better ways of doing this; advanced users can probably skip direct to the practical examples. If there are any glaring errors, please get in touch so I can amend the document and/or the tool itself.

Generic details such as setting port & chan nos., or checking record levels using the manual buttons and/or Audition mode etc. are not shown here as they are all described in the main document.

The tool was designed during my first serious attempts at bulk sampling on the Emu, which can be daunting as sampling a whole instrument can involve many hundreds of samples. It's tempting to resort to other people's samples, but you can get sidetracked by problems getting them into the Emu, such as proprietary file formats, SCSI transfers vs. exchangeable storage options, etc. If you do it yourself everything is under your control; all the samples are yours, and even if you don't have the digital I/O option, the analogue inputs may perform better than you think!

As long as your instrument can be driven by MIDI, Sample Aid removes the hassle of generating the notes to be sampled; you don't have to worry about pressing keys at specific velocities or trying to remember which key you pressed last etc.

Eos itself cannot be fully automated so some button pushing is unavoidable, but Sample Aid simplifies the process to just pressing the same few buttons on the Emu repeatedly until the process is finished. This reduces errors and provides consistency when testing different settings such as sampling rate, no. of notes, no. of velocity bands etc.

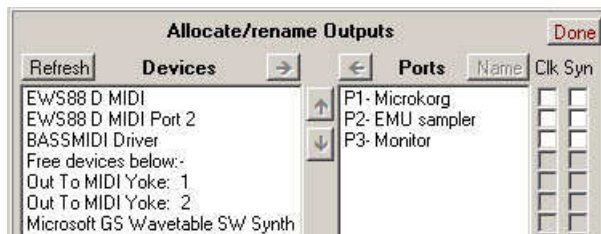
SAMPLE PLACEMENT / ORIG KEY

In the context of this document, when Eos samples a sound, the sample is 'placed' or mapped across a set of keys/notes for subsequent playback. You could map each sample to a single note or to a range of notes. Either way, Eos has no concept of the sample's pitch (it could be a non-pitched noise) so it needs you to tell it which note to associate with the sample - its 'orig' value. During playback, Eos compares each incoming MIDI note with its set of orig values to decide which sample(s) to play. Incoming notes with no match cause Eos to play the nearest sample (depending on the mapping), either faster or slower to create the missing pitches. This is shown more clearly in the comments & screenshot at the end of Ex1.

The orig value is crucial to the playback process and, unless you set it manually, Eos uses the most recent MIDI note on the MIDI-In port prior to placing the sample. To automate this, you just send the same MIDI note used for triggering the instrument to Emu's MIDI-In socket at the same time as sending the audio to Emu's Sample-In sockets. The practical examples all assume this is the case.

Sample Aid has a dedicated output for this, but you can use your instrument's MIDI-Thru socket if it has one, or use a MIDI splitter to split the target output to the instrument and the Emu.

This screenshot shows Sample Aid's devices allocated as port 1 for the target instrument/synth, port 2 for the Emu and port 3 for the optional group alarm.



SAMPLE NAMING

Presets and samples in Eos can be named manually at any time using up to 16 characters, but with large nos. of samples, automatic naming is recommended. Eos can do this when samples are created and placed in a preset, but there are some restrictions if you want names to be readable in the Preset Edit screens.

Eos only uses the first 8 characters of the preset name as a prefix. You can change the prefix for subsequent samples by either choosing a different target preset, or if you want to keep all samples together, just edit the current preset name at any time. The practical examples use both methods.

Eos can also append a suffix to the name using the orig note value described earlier. It pads the existing prefix with spaces to a width of 8 characters, then adds a space and the orig name (ranging from C-2 to G8).

e.g. an F2 sample in preset 'VCO1' will be named 'VCO1 F2'
a C#-2 in preset 'CacophonyOfSound' will be named 'Cacophon c#-2'

This strategy allows the name to fit neatly in the Voices Main window in Preset Edit without truncation.

PITCH RANGES

The memory/RAM size on old h/w samplers such as this Emu is usually the limiting factor on the size & no. of samples which can be played back live. Work-rounds are possible, such as reducing the sampling rate, bit depth, pitch range or looping short samples, but each one affects the sound quality by varying degrees.

The full MIDI pitch range has 128 values spanning 10+ octaves from C-2 to G8 so you can eliminate the higher & lower regions by setting the **first & last** pitch values. For ultimate accuracy, every pitch within these limits should be sampled, i.e. a **step** size of 1, but if you only sample every few notes the sampler can fill in the missing ones during playback by playing them faster/slower as described earlier.

The drawback is these 'interpolations' can be audible depending on the sample contents and sampler capabilities, so you may need to test various step sizes. Timbre jumps between sampled and interpolated notes can be masked to some degree by applying positional cross-fading in the Voices, Key window in Preset Edit.

VELOCITY RANGES

If you don't need velocity sensitivity you can reduce the no. of samples by sampling notes at a fixed velocity, as shown in Ex1. The Eos cord (patch) system can still be used to recreate vel sensitivity later, but if you want to capture the exact velocity effects of the original instrument you need to sample each note at different velocities. The more velocities sampled the more accurate the results, but as with the pitch range above, there are 127 different values so a trade-off is usually needed. Discontinuities between velocity bands can be masked to some degree by applying velocity cross-fading in the Voices, Vel window in Preset Edit.

TIMING & DELAYS

Eos's **sample length** time should normally be set equal to or longer than Sample Aid's **note-on + note-tail** time to allow for the note's decay or other effects like reverb added by the instrument. If it's too short you'll cut off the sample prematurely, too long and you'll waste time capturing silence, although this won't affect the sound if you always truncate the sample end.

Sample Aid's **note delay** allows time for Eos to process & place each sample - too short and the next sample will arrive before you've pressed Arm, too long and you'll waste time waiting in Armed state.

You may have to try a few dummy runs first, making sure you test with notes at each end of the pitch & vel ranges. The count-down displays on Sample Aid show how much time you have spare. Once the values are set correctly you can sample huge quantities of notes with confidence... just don't fall asleep; pressing buttons repeatedly can be very hypnotic!

If the worst happens and you miss a sample, click **Abort** on Sample Aid to stop the sequence, click the manual buttons (<) as reqd. to 'rewind' the sequence to where the problem occurred, then click **Play-1** to resume from that point.

ASSIGNABLE KEYS

Some of the practical examples do a lot of switching between Eos windows, so you can reduce the number of button pushes by using Assignable Keys. e.g. Ex3 step 13 uses Preset Edit, [Name] to edit the preset name, so before you start, go to this window then press & hold one of the assignable keys until 'Assigning key ...' flashes up. You can now press the assignable key at step 13 (or any other time) to jump directly to that window.

Similarly step 14 uses Sample Manage, [New] to go back to the Create Sample window, so go to this window first and press & hold another assignable key.

PRESET EDIT

The Preset Edit button can be confusing as the Voices Main window might not appear when you first press it, as is assumed in the practical examples. Preset editing is split between two sets of windows, one for the preset definition (which is what we want), the other for dynamic processing, both of which are accessed via the one button... and Eos tries to help by showing the window you last used!

The bottom line is (excuse the pun) you may get an unexpected window the first time you press Preset Edit, so check *both* of the following in this order:-

1. If the bottom line of the window is [Timing Amp/Filt Lfo/Aux Cords], press **Exit**.
2. If the bottom line is [Global Links Voices] and Voices is *not* highlighted, press **[Voices]**.

You can avoid this complication by setting an assignable key when you're in the Voices Main window. These keys are non-volatile and will always get you to the right place regardless of the previous state.

TRUNCATE, NORMALISE & LOOP

Eos offers these 3 pre-processing options for each sample. The settings depend on your instrument/requirements so you may want different ones to mine:-

- Truncate = both. Removing silence from the sample end means you don't have to be too accurate with the sample length setting; as long it's on the high side you won't lose anything. Removing silence from the sample start is probably unnecessary in these examples as sampling is triggered by the arrival of the sound (via Arm), but I truncate both start & end just to be sure.
- Normalise = off. This retains the relative volume levels of the sampled instrument. Check the loudest note reaches full-scale deflection on the Create Sample VU meters to maximise the signal-to-noise ratio during playback.
- Loop = off. Although looping saves sample RAM, the auto-loop option can produce glitches depending on the sample contents, so unless you've got the patience to check/edit each sample or you're pushed for RAM space, it's not worth the hassle imho! You may need to compromise if your instrument has a long (or infinite) sustain by committing to a maximum note length before you start sampling, otherwise your only course of action is to loop (either via this auto option, or later via Utils in Sample Edit).

PRACTICAL EXAMPLES

These vary in complexity but all have 3 sections: **setup, main loop & tidy up**. The main loop is the repetitive (boring) part which Sample Aid can automate at different levels:-

- **Low:** Use the manual Step button to output each note individually, giving you all the time you need to prep Eos for receiving each sample.
- **High:** For single batches of pitch or velocity, use the auto Play-1 button to output all notes one after the other. This is used in Ex1.
- For multiple batches, either:
 - **Medium:** Use auto Play-1 but set the Hold options first to stop at the end of each range, giving you all the time you need to prep Eos for the next batch before pressing Play-1 again to continue.
 - **High:** Use auto Play-1 but set the Group delay options to pause & resume each batch automatically. This is used in all examples except Ex1.

The examples assume the highest automation level but if the group alarm interactions put too much time pressure on you, adapt them for lower levels of automation as reqd. Whatever you do, check the process first with a small range of samples before going for the biggy!

The estimator/calculator can be used to check how much sampling RAM you need before starting, but may need calibrating to your specific sampler model, especially if your usage is close to the limit. The Note-tail & Bits values can be tweaked if the actual & predicted values don't match - none of the estimator values affect the sampling process. Note the Bits value refers to storage, not sampling bit depth, although they are related, e.g. the E5000 sampler has a 20-bit A/D converter but uses a compression algorithm so the storage value is smaller.

For simplicity, a small & unrealistic range of pitches & velocities were used for the screenshots. If you're new to Eos or sampling, Ex1 has more background details.

Each heading includes a (cryptic) summary of the button pushes reqd. for the main loop using this convention:-

A = Arm

P = Place

PmN = Preset Manage, Name (or assignable key)

SmN = Sample Manage, New (or assignable key)

Ex1. Sampling a single velocity

This is the simplest method as no groups/batches are involved. All samples end up in a single voice and are identified with the orig note name.

Main loop summary: APAPAPAP...

Setup Emu

1. Press **Preset Manage**, [**New**] to create & name a preset to hold all the samples; the first 8 chars are used to auto-name them.



2. Press **Sample Manage**, [**New**] to show the Create Sample window. Set max Length of sample.



Options such as Input, Source, Chan depend on your setup, but note that the Arm trigger system only monitors the *left* channel so if you want to sample in mono, don't use the right!

3. Press [**Force**] to show the sample placement window.

Set **Target = above preset**
 Set **Group = G1**
 Set **Range = auto*MultiSm**
 Set Truncate, Normalise & Loop as reqd.

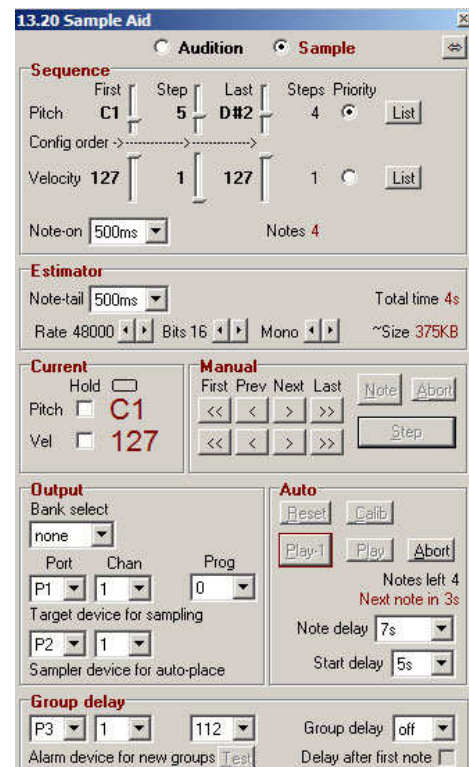


4. Eos will use the above settings for all subsequent samples. Scrap the forced dummy sample by pressing [**Dispose**]. Eos will return to Create Sample.

Setup Sample Aid

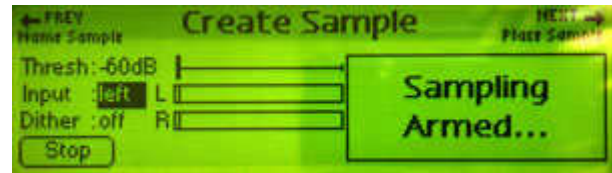
5. Set pitch range: First, Step & Last as reqd.
6. Set velocity range: First as reqd., **Step = 1, Last = First**.
7. Set **Priority = Pitch**.
8. Set note-on, note delay, start delay as reqd.
9. Set **Group delay = off**.
10. Click **Reset** to reset the sequence, then click **Play-1**.

You can now move to the Emu as the sequence won't start until after the specified start delay.



Main loop on Emu

11. Press **[Arm]** and wait for a note to arrive. Eos will sample the note and show the placement window.



The Orig value should match the note, but if you've set everything correctly above, nothing needs altering so just press **[Place]**.



When Eos has finished processing & placing it goes back to the Create Sample window automatically.

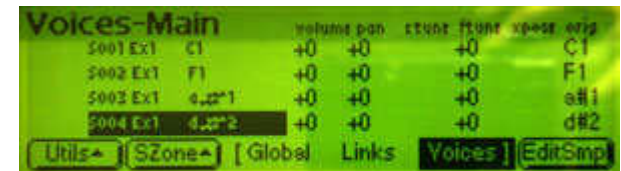
12. Repeat step 11 until notes stop arriving. You don't need to touch the computer so you can concentrate solely on alternately pressing the **[Arm]** & **[Place]** buttons on the Emu. Sample Aid stops automatically after one cycle of the sequence so you may end up with the Emu armed but with nothing to sample, in which case just press **[Stop]** to cancel.

Tidy up Emu

13. Press **Sample Edit** and use the wheel or page prev/next buttons to confirm the samples are named correctly and have the expected length.

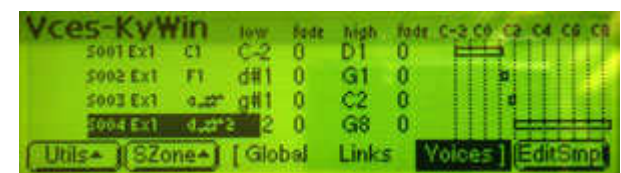


14. Press **Preset Edit** to show the Voices Main window. Scroll down to confirm the samples are a 'multisample' within one voice (V1).



The **orig** notes on the far right should match the note in each sample name.

15. Press **Page Next** to show the Voices Key window and scroll down to confirm the samples are mapped/placed across the pitch range as expected.



If you're new to Eos or sampling, this last screen shows the 4 sampled notes: C1, F1, A#1 and D#2 mapped across the full MIDI range of C-2 to G8. During the placement step, Eos used the **orig** value of each sample (and its neighbours) to map it to a range of keys shown in the **low & high** columns and by horizontal bars on the right. On playback, an incoming MIDI note of F1, say, will play sample S002 unchanged because that's its **orig** value. A lower MIDI note of D#1 still lies within the range of S002 so Eos plays it slower to lower its pitch. Similarly, a higher G1 plays it faster to raise its pitch. An even higher G#1 falls outside the range of S002, but it's inside the range of S003 so Eos plays that sample instead. In this case G#1 is lower than S003's orig value (A#1) so Eos plays it slower... etc.

Ex2. Sampling multiple velocities with un-named bands

This method groups samples into separate voices and group nos., one for each velocity. They have no other identification apart from the orig note name.

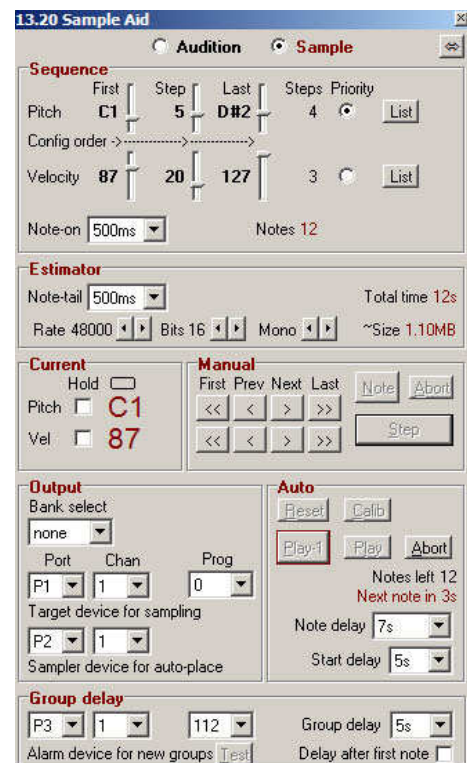
Main loop summary: APAPAPAP... A {alarm} P, Next, Inc, Prev, APAPAPAP...

Setup Emu

1. Press **Preset Manage, [New]** to create & name a preset to hold all the samples; the first 8 chars are used to auto-name them.
2. Press **Sample Manage, [New]** to show the Create Sample window.
Set Length as reqd.
Options such as Input, Source, Chan depend on your setup.
3. Press **[Force]** to show the sample placement window.
Set **Target = above preset**
Set **Group = G1**
Set **Range = auto*MultiSm**
Set Truncate, Normalise & Loop as reqd.
4. Press **[Dispose]**; Eos will return to Create Sample.

Setup Sample Aid

5. Set *both* pitch & velocity ranges:
First, Step & Last as reqd.
6. Set **Priority = Pitch**.
7. Set note-on, note delay & start delay as reqd.
8. Set **Group delay = as reqd**
Set **Delay after first note = off**
9. Click **Reset** to reset the sequence,
then click **Play-1**.

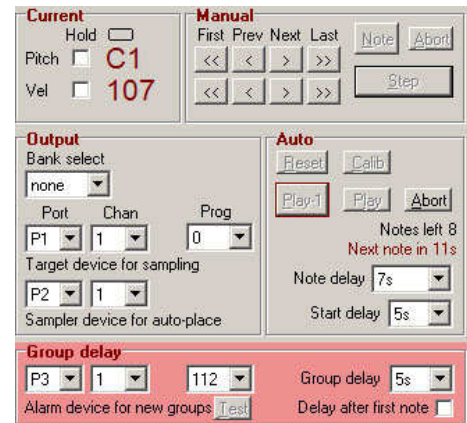


Main loop on Emu

10. Press **[Arm]** and wait for a note to arrive. Eos will sample the note and show the placement window. Nothing should need altering so just press **[Place]**. When Eos has finished processing & placing it goes back to the Create Sample window automatically.
11. Repeat step 10, pressing **[Arm]** & **[Place]** alternately until the group alarm occurs.

This is shown visibly by the Sample Aid screen lighting up, or audibly via the Alarm device if enabled.

The alarm occurs just after the *last* note in the group has been output, so you still need to press **[Place]**. You should now be in the Create Sample window, so if you've overshoot and Emu is armed, just press **[Stop]** to cancel.



You now have the group delay time to increment the group no. as follows...

12. Press **Page Next** to show the Place Sample window, which should open up with the Group no. field already highlighted. Press **Inc** to increment it. Press **Page Prev** to return to the Create Sample window. Go back to step 10.



Continue till notes stop arriving. If Emu is still armed, press **[Stop]** to cancel.

Although this sounds complicated, once you've tried a few dummy runs it becomes a simple repetitive button-pressing exercise, making large nos. of groups easily achievable.

Note the Place Sample window is not the same as the intermediate placement window shown automatically after a sample is captured, although you can edit the Group no. in either. Also don't get confused by the other fields (like I did) - the Orig, Low & High values may also show values like G1, but these refer to the music note G1 not the group G1!

Tidy up on Emu

- Press **Sample Edit** and use the wheel or page prev/next buttons to confirm the samples are named correctly and have the expected length. Samples with the same pitch but different velocities will have similar names, but this is not a problem for Eos as all samples are given a unique numeric identifier Snnn.



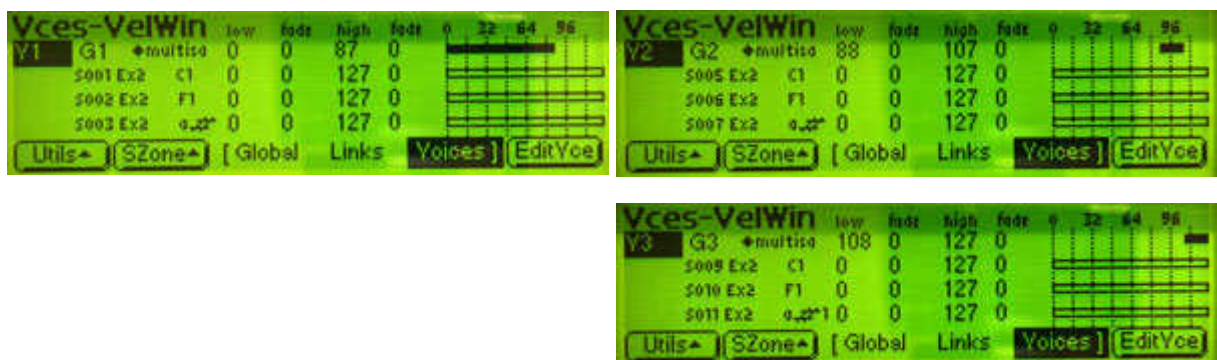
- Press **Preset Edit** to show the Voices Main window and scroll down to confirm each batch of samples is grouped under different voices (V1, V2 etc).



- Press **Page Next** to show the Voices Key window and scroll down to confirm the samples have been placed across the pitch range as required.

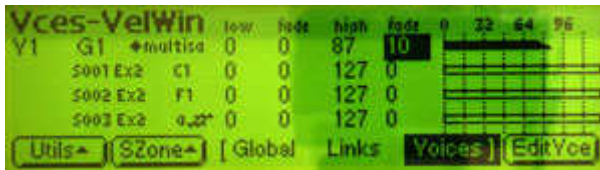


- Press **Page Next** to show the Voices Vel window and set the low & high values for each voice to correspond to each velocity band. This is only required for the Voice multisample entries (the solid bars), *not* each individual sample.



The velocity values for each band are available from Sample Aid; use the List button or step through them manually, but they are *not* stored on the Emu. Ex3 & Ex4 show some ways of doing this.

17. If you've only sampled a few bands, you might hear the joins (jumps in timbre) during playback, so try cross-fading them by overlapping the previous values slightly and setting the low/high fade values as reqd.



Ex2(alt). Sampling multiple velocities with un-named bands

This is similar to Ex2 but increments the Group no. in a different window. There is no change in the no. of button pushes but you may prefer it.

Main loop summary: APAPAPAP... A {alarm} Down, Right, Inc, P, APAPAPAP...

There are no screenshots for this so just follow Ex2 with these exceptions:-

Step 8: Set **Group delay = as reqd**, Set **Delay after first note = on**.

Step 11: The alarm occurs just after the *first* note in each group has been output, so *before* pressing [Place], you have the group delay time to change the group no. as follows...

Step 12: The intermediate placement window always opens with the Orig field highlighted, so press the **Down** and **Right** cursor keys to move the highlight to the Group no. field.

Press **Inc**

Press **[Place]**

Go back to step 10.

Continue till notes stop arriving. If Emu is still armed, press [Stop] to cancel.

The group delay does not apply to the very first group. This is deliberate as the first group no. has already been set up in step 3 so no manual interaction is reqd. This means that whenever the alarm occurs, the Eos interaction at step 12 is always the same so less concentration is needed.

Ex3. Sampling multiple velocities with named bands

This is similar to Ex2 but adds velocity info to each sample name. It requires more Eos intervention at the end of each group, but the info can be useful for confirming placement or adjusting the bands in the Voices Vel window, or when re-using samples in other presets. Ex3 & Ex4 use different methods to do this; Ex3 requires less setup & tidyup steps than Ex4, but the interventions are trickier.

Main loop summary:

APAPAP... A {alarm} P, Next, Inc, PmN, edit keys, OK, SmN, APAPAP...

Setup Sample Aid

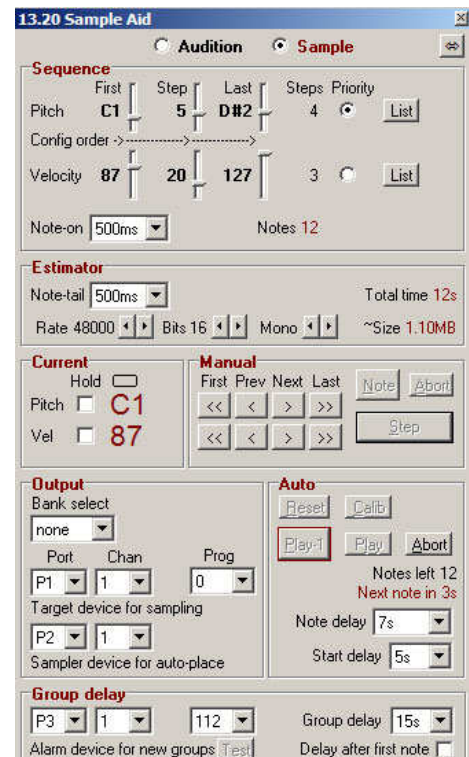
1. Set pitch & velocity ranges: First, Step & Last as reqd.
Each velocity value is needed in step 13, so use the **List** button or manual vel Next button (>) to display & make a note of them, e.g. 87, 107, 127

Setup Emu

2. Press **Preset Manage, [New]** to create & name a preset to hold the samples; the first 8 chars are used to auto-name them so incorporate the first velocity value in that part of the name, e.g. 'Ex3-87'
3. Press **Sample Manage, [New]** to show the Create Sample window. Set Length as reqd. Options such as Input, Source, Chan depend on your setup.
4. Press **[Force]** to show the sample placement window. Set **Target = above preset**
Set **Group = G1**
Set **Range = auto*MultiSm**
Set Truncate, Normalise & Loop as reqd.
5. Press **[Dispose]**; Eos will return to Create Sample.

Setup Sample Aid

6. Set Pitch Priority.
7. Set note-on, note delay & start delay as reqd.
8. Set **Group delay = as reqd**
(may need to be longer than before)
Set **Delay after 1st note = off**
9. Click **Reset** to reset the sequence, then click **Play-1**.



Main loop on Emu

10. Press **[Arm]** and wait for a note to arrive. Eos will sample the note and show the placement window. Nothing should need altering so just press **[Place]**. When Eos has finished processing & placing the sample it goes back to the Create Sample window automatically.
11. Repeat step 10, pressing [Arm] & [Place] alternately until the group alarm occurs. The alarm occurs just after the *last* note in the group has been output, so you still need to press [Place]. You should be in the Create Sample window, so if you've overshoot and Emu is armed, just press [Stop] to cancel.

You now have the group delay time to increment the group no. *and* edit the preset name as follows...

12. Press **Page Next** to show the Place Sample window, which should open up with the Group no. field already highlighted. Press **Inc** to increment it.
13. Press **Preset Manage, [Name]** and rename the preset, overwriting the velocity no. with the next value, e.g. change 'Ex3-87' to 'Ex3-107', or change 'Ex3-107' to 'Ex3-127' Press **[OK]**
14. Press **Sample Manage, [New]** to return to the Create Sample window. Go back to step 10.

Continue till notes stop arriving. If Emu is still armed, press [Stop] to cancel.

Tidy up on Emu

15. Press **Sample Edit** and use the wheel or page prev/next buttons to confirm the samples are named correctly and have the expected length. Samples with the same pitch but different velocities should have unique names.



- Press **Preset Edit** to show the Voices Main window and scroll down to confirm each batch of samples is grouped within different voices (V1, V2 etc).

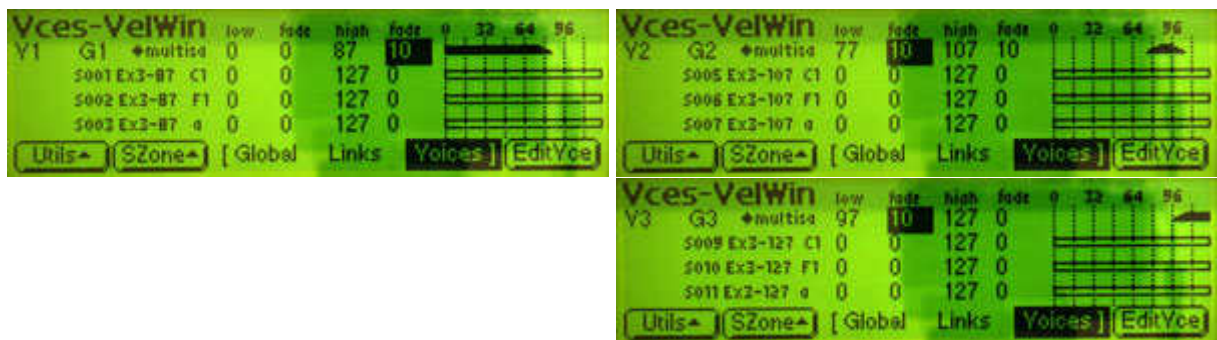


- Press **Page Next** to show the Voices Key window and scroll down to confirm the samples have been placed across the pitch range as required.



- Press **Page Next** to show the Voices Vel window and set the low & high values for each voice to correspond to each velocity band. This is only required for the Voice multisample entries (the solid bars), *not* each individual sample.

To cross-fade, overlap the previous values slightly and set the low/high fade values as reqd. If there are a lot of bands, this is easier than Ex2 as all the velocities are now visible within the sample names.



Ex4. Sampling multiple velocities with named bands via multiple presets

This is similar to Ex3 but has a much simpler main loop interaction at the expense of extra setup & tidy-up steps. It uses a simple 'Inc' button push to change the preset instead of editing its name, so needs much less concentration. This can only be done in the intermediate window between sampling & placement, so the group delay needs to occur after the first note of each group has been sent (see step 9).

Main loop summary: APAPAPAP... A {alarm} Down, Inc, P, APAPAPAP...

Setup Sample Aid

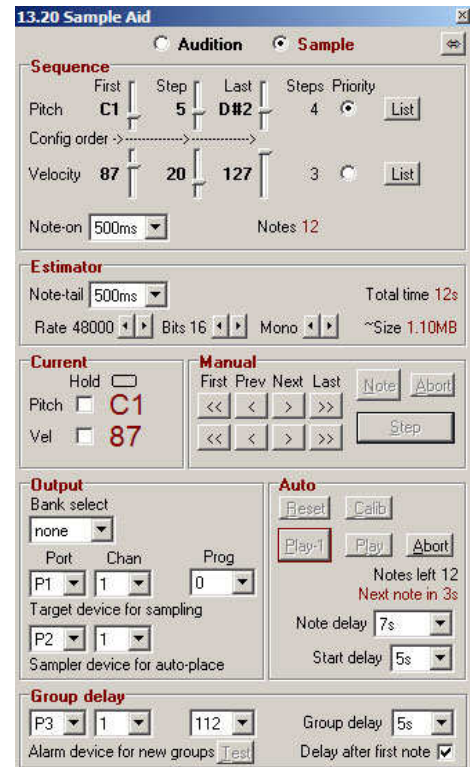
1. Set pitch & velocity ranges: First, Step & Last as reqd.
Each velocity value is needed in step 3, so use the **List** button or manual vel Next button (>) to display & make a note of them, e.g. 87, 107, 127

Setup Emu

2. Press **Preset Manage, [New]** to create & name a preset to hold the first batch of samples; the first 8 chars are used to auto-name them so incorporate the first velocity value in that part of the name, e.g. 'Ex4-87'
3. Press **[Copy]** to create a new preset and edit its name for the next vel value, e.g. 'Ex4-107'. Repeat this step for all batches, e.g. 'Ex4-127'.
N.B. all presets must be contiguous for the Inc button in step 13 to work.
4. Press **Sample Manage, [New]** to show the Create Sample window.
Set Length as reqd.
Options such as Input, Source, Chan depend on your setup.
5. Press **[Force]** to show the sample placement window.
Set **Target = first preset above**, e.g. 'Ex4-87'
Set **Group = G1**
Set **Range = auto*MultiSm**
Set Truncate, Normalise & Loop as reqd.
6. Press **[Dispose]**; Eos will return to Create Sample.

Setup Sample Aid

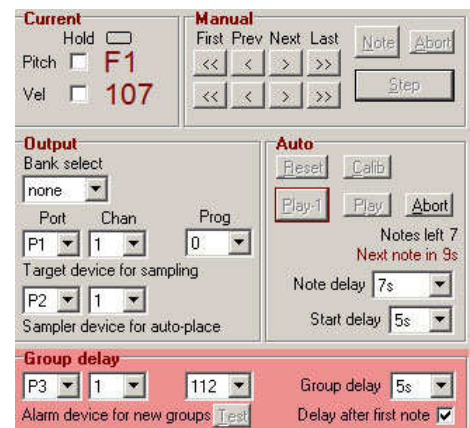
7. Set Pitch Priority.
8. Set note-on, note delay & start delay as reqd.
9. Set **Group delay = as reqd**
Set **Delay after 1st note = on**
10. Click **Reset** to reset the sequence, then click **Play-1**.



Main loop on Emu

11. Press **[Arm]** and wait for a note to arrive. Eos will sample the note and show the placement window. Nothing should need altering so just press **[Place]**. When Eos has finished processing & placing the sample it goes back to the Create Sample window automatically.
12. Repeat step 11, pressing **[Arm]** & **[Place]** alternately until the group alarm occurs.

The alarm occurs just after the *first* note in each group has been output, so *before* pressing **[Place]**, you have the group delay time to change the target preset as follows...



13. The intermediate placement screen always opens with the Orig field highlighted, so press the **Down** cursor to highlight the Target preset field.
Press **Inc**
(in this example, the preset will change from Ex4-87 to Ex4-107)
Press **[Place]**
Go back to step 11.



Continue till notes stop arriving. If Emu is still armed, press **[Stop]** to cancel.

As with Ex2(alt), the group delay does not apply to the very first group; the first target preset has already been set up in step 5 so no manual interaction is reqd. This means that whenever the alarm occurs, the Eos interaction at step 13 is always the same so less concentration is needed.

Tidy up on Emu

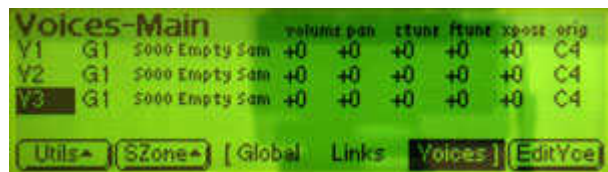
- The following describes two ways of 'merging' these individual velocity presets into a master preset; there may be other ways.

Method A copies the sample entries from each preset into the master; the individual presets can then be deleted.

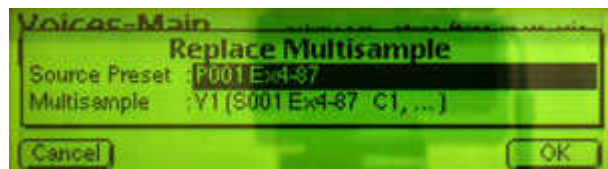
Method B creates links in the master preset to point to the individual presets; the individual presets must be retained, but the master preset is easier to edit as the display is not cluttered with sample entries.

Tidy up method A

- Press **Preset Manage, [New]** to create & name a preset for holding the merged groups. Each batch of samples will be copied into its own voice in this preset.
- Press **Preset Edit** to show the Voices Main window. Eos has already created Voice 1 (V1) so create some more...
- Press **[Utils], [New]** as many times as reqd. for all batches.



- Scroll the cursor highlight up to V1 and press **[SZone], [GetMS]** to show the Replace Multisample screen.

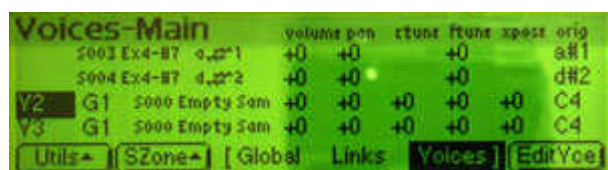


The Source Preset field should already be highlighted, so use the wheel or Inc/Dec buttons to select the preset containing the first batch, e.g. Ex4-87, then press **[OK]**.

Voice 1 will now contain all the samples from batch 1.



- The highlight should still be on V1, so press **Inc** to highlight V2



6. Press **[SZone]**, **[GetMS]** and set the Source Preset to the next batch, e.g. Ex4-107, then **[OK]**



Repeat for all batches.

7. Press **Page Next** to show the Voices Vel window and edit the velocity bands as in Ex3 steps 17/18. The only difference with this Ex4 preset is that the voices are all in the same group G1, but you can change them later if necessary. Eos groups are only for your convenience when using certain commands; they won't affect the audio output.

If all ok, you can delete the individual batch presets, e.g. press Preset Manage, select preset, [Utils], [Erase], but do *not* erase the samples! The entries in a preset are just pointers to the real samples... and these are still required by the master preset you created in step 1.

Tidy up method B

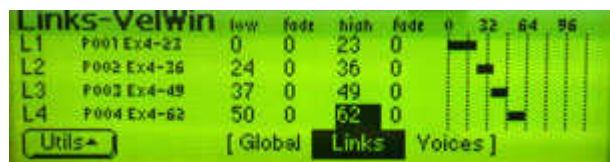
1. Press **Preset Manage**, **[New]** to create & name a preset for holding the links. Each link will be set to point to the individual velocity presets.
2. Press **Preset Edit** to show the Voices Main window, then press **[Links]** to show the Links Main window. There are currently no links, so create some...
3. Press **[Utils]**, **[New]** as many times as reqd. for all batches.



4. Scroll the cursor highlight to the right and use the wheel, Inc/Dec buttons or numeric keypad to point each link to its corresponding velocity preset.



5. Press **Page Next** to show the Links Vel Window, and adjust low & high values to assign velocity ranges and cross-fade as reqd.



6. Note:
The link settings override those in the individual presets.
Do *not* delete the individual velocity presets.
Eos remembers the last Preset Edit state so will show this Links window when you press Preset Edit in future. To switch back to the Voices Main window, press **[Voices]**.