

# MOTIF XS

## Power User Plus Pack Tutorial: Voice Transitioning

### Tutorial Example 1: Learning to use Expanded Articulation (XA) Control for Voice transition



Expanded Articulation (XA) is a specially designed tone generation system of the MOTIF XS that provides greater *performance flexibility* and acoustic realism. It allows you to more effectively recreate realistic sound and natural performance techniques—such as legato and staccato – and provides other unique modes for random and alternate sound changes as you play. This includes seamless transitions between instrument sounds when applied using the advanced 8 Element Voice architecture found within the Motif XS. **XA CONTROL** is an Element parameter (shown left, second on the list view). It can be set to eight different settings: normal, legato, key off, wave cycle, wave random, all AF off, AF 1 on, AF 2 on.

Acoustic instruments have their own unique characteristics—even specific, unique sounds that are

produced only at certain times in a performance. These include the flutter tonguing on a flute or playing high harmonics on an acoustic guitar. The MOTIF XS recreates these by allowing you to switch between the sounds while you play—using the ASSIGNABLE FUNCTION buttons and the XA Control parameter settings, “AF 1 on,” “AF 2 on” and “all AF off.”

The highly versatile functions above can be applied effectively not only to acoustic sounds but also to synthesizer and electronic Voices as well. The XA Control feature opens up enormous potential for realizing authentic sounds, performing expressively and coming up with creative new styles of playing. You can easily specify which Elements will be sounded according to the on/off status of the ASSIGNABLE FUNCTION buttons. For example, this could be used on an acoustic guitar Voice to switch between playing normally and playing high harmonics – in lieu of using the standard velocity swap. Or it could be used to switch seamlessly between an acoustic piano sound and a string sound – allowing you to sustain one while accessing and playing the other. Reintroduced in Motif XS version 1.10, the seamless transitioning found in the original Motif and Motif ES has returned – where in a SONG MIXING or PATTERN MIXING program you can use the TRACK SELECT buttons to move between one PART and another without the sound cutting off. However, in this article we are talking about doing this at the individual **Voice** level as a performing articulation, at the **Performance** level as a programming “trick”, and finally we’ll discuss the **Song/Pattern Mixing** level PART selection.

Each Motif XS Voice can contain as many as 8 Elements. Each Element is a complete multi-sample and can represent a different instrument sound. In the graphic above, the Organ Voice “Roundabout” **PRE2: 001(A01)** has 8 Elements set to an articulation where, randomly, a different Element plays with each keystroke (wave random). In a Voice like “Bluesy Clean Legato” **PRE2: 088(F08)** the XA Control is setup so that when you play legato (trigger a note before releasing the previous note) the Voice transitions to Element 3 (the *legato* Element in this Voice) which has no biting attack. So doing the keyboard equivalent of a “hammer-on” trill is now possible. Another example, of Element switching is **PRE4: 098(G02)** “Accent mf-fall AF1&2” – Pressing [AF2] will give you pitch scoop, while pressing AF1 will give the brass fall-off. Used in real time performance you can see how it is possible to articulate a more realistic phrase... the AF1 and AF2 buttons are set to “momentary” so you hold them when you want the effect. You can start a phrase with a scoop and finish it with a fall-off.

Imagine rather than transitioning between Elements of the same instrument, we used the XA CONTROL to transition between entire instrument sounds. In the examples, shown below two and even three instruments can easily be articulated in real-time play via the expanded control function; all while in VOICE mode. A complete instrument can be just one or two Elements – you have eight Elements available per Voice.

- This is accomplished by setting the **XA Control** parameter for the Elements to “all AF off,” “AF 1 on,” or “AF 2 on.”

**WARNING:** Make a backup **ALL** data file (.XOA) of your own data prior to loading these tutorial sounds. Load the accompanying **ALL** data file: “**VoiceTransitionEx.XOA**” for the following examples:

## VOICE MODE Examples

### User 1: 001(A01) – Piano > Strings(AF1)

This Voice when initially called up will be acoustic piano. When you activate [AF1] by either pressing the button or activating the assignable FS (which has been reassigned to cc86), the Element XA Control will switch you to strings. Once triggered, the next notes played will sound as string Elements. The Foot Switch is momentary (naturally) and must be held, but the [AF1] is set to “latch” so you have both available. If a Foot Switch **and** a Sustain pedal are connected you can hold the strings with the Sustain pedal and return to acoustic piano all with your feet. This allows the strings to sustain while you play piano.

This is accomplished by setting the Piano Elements (EL1-4) to **XA Control** = “all AF off” and setting the String Elements (EL5-8) to **XA Control** = “AF 1 on”. When no AF buttons are lit you are playing a piano across the keyboard, when you illuminate [AF1] you recall a full stereo string sound.

VOICE	Edit-Elm 1 Piano > Strings(AF1)			
	Element 1	Element 2	Element 3	Element 4
Element Switch	✓	✓	✓	✓
XA Control	allAFoff	allAFoff	allAFoff	allAFoff
Element Group	1	1	1	1
Wave Bank	PRE	PRE	PRE	PRE
Wave Category	Ap	Ap	Ap	Ap
Wave Number	0026	0032	0038	0024
Note Limit Low	C -2	C -2	C -2	G# 5
Note Limit High	G 5	G 5	G 5	G 8
Vel Limit Low	1	73	108	1
Vel Limit High	72	107	127	127
Vel Cross Fade	0	0	0	0
Key On Delay	0	0	0	0
Delay Tempo Sync	off	off	off	off
Delay Tempo				
Ins Effect Output	ins A	ins A	ins A	ins A
Wave Name CF3 Flat Soft St				
1 Elm ▶ LIST				
Oscillator	Pitch	Filter	Amplitude	Elm LFO
				EQ

VOICE	Edit-Elm 5 Piano > Strings(AF1)			
	Element 5	Element 6	Element 7	Element 8
Element Switch	✓	✓	✓	✓
XA Control	AF 1 on	AF 1 on	AF 1 on	AF 1 on
Element Group	1	1	1	1
Wave Bank	PRE	PRE	PRE	PRE
Wave Category	St	St	St	St
Wave Number	0508	0511	0520	0523
Note Limit Low	C -2	C -2	C -2	C -2
Note Limit High	G 8	G 8	G 8	G 8
Vel Limit Low	1	1	85	85
Vel Limit High	84	84	127	127
Vel Cross Fade	0	0	0	0
Key On Delay	0	0	0	0
Delay Tempo Sync	off	off	off	off
Delay Tempo				
Ins Effect Output	ins B	ins B	ins B	ins B
Wave Name OrchStras Soft L				
1 Elm ▶ LIST				
Oscillator	Pitch	Filter	Amplitude	Elm LFO
				EQ

Press [EDIT] > Press Track button [1] to view Element Edit parameters > Press [F1] Oscillator > Press [SF5] 4 ELM to view four Elements in the column view (as shown above)

### User 1: 002(A02) – Piano > E.Piano(AF1)

A similar setup is used in this VOICE. Acoustic Piano Elements (EL1-5) **XA Control** = “all AF off” and Electric Piano Elements (EL6-8) set to **XA Control** = “AF 1 on”

### User 1: 003(A03) – Epno > Strg > Piano

Here three instruments are used... 7 Elements total.

- o E.Piano – “all AF off” (EL1-3) Three Elements each assigned a velocity range for *p-mf-f* play
- o Strings – “AF 1 on” (EL5-7) These three Elements make up the complex string sound
- o Piano – “AF 2 on” (EL4) this single Element is a stereo, stretched tuned, 3-way velocity swap piano.

With this VOICE you have an electric piano when no [AF] buttons are lit but you can light both and play acoustic piano and strings. Use the **AS1** and **AS2 knobs** to independently control the level of the acoustic piano and string Elements, respectively. **[AF1]** gives you *just* acoustic piano, and **[AF2]** gives you *just* the strings. Touching the **RB (Ribbon)** controller on the right side will give the strings a longer Release envelope and the farther you move your finger along to the left the shorter the envelope. Ribbon is set to HOLD so you can determine at any time, how much release the string sound will have by where on the ribbon you last touched it. Modulation Wheel will control the LFO speed of the CHORUS Insert Effect applied to the Electric Piano Elements (1-3). **Aftertouch** provides a swell in string volume (Element 7 only).

These Voices should give you an idea of what is possible with XA CONTROL and a little imagination. Necessity being the mother of invention... you will be able, if you dig into Voice editing, to make any combination of sounds that you might need when performing “live”.

### User 1: 004(A04) – Comp EP/Clav/Organ

Here three instruments are used... 8 Elements total

- o Comp EP – “all AF off” (EL1-4) Four Elements each assigned a velocity range for *p-mf-f* play, and Element 4 is the Key-Off Element – which sounds only when a key is released. Elements 1-4 are routed to Multi-Band Compressor (INSERT A).
- o Clav – “AF 2 on” (EL5) One Element multi-sampled Clavinet sound. Only sounds when [AF2] is ON. The Clav Element also is routed to the Multi-Band Compressor (INSERT A).
- o Organ – “AF 1 on” (EL6-8) these three Elements make up a jazz B3 sound with the first 3 drawbars (888000000) active... These three Elements are routed to INSERT B > Rotary Speaker. Use the Ribbon to activate the Speed Control.

Go to [EDIT] > [COMMON EDIT] > [F1] GENERAL > [SF3] OTHER to find the “Assignable Function Mode” *Latch* or *Momentary* referred to in the Web Video. Set and store, as you prefer. Since the FS will *always* be momentary, you may want to set the [AF] button to latch. Also you will find the “Ribbon Mode” parameter set to hold. Touching the **Ribbon** on the right side will select the Fast Rotary speed, touching the Ribbon on the left side will select the Slow Rotary speed for the Organ Elements. Later this Voice is used in a MIXING setup example with an arpeggio applied. Notice that you can when the arp is on switch between the EP, the Clav and the Organ by simply working the [AF] buttons.

### User 1: 005(A05) – Random Wave Cycles

Here eight Elements are set to either “w.rndm” (Wave Random) or to “w.cycle” (Wave Cycle). They are being triggered by an arpeggio... try experimenting by changing them between random and cycle for various effects.

### User 1: 006(A06) – Syn&Mr.Rez&Duck Lead

Here three Voices have been combined by copying Elements from separate Voices to share in this one Voice. You would do this when you needed to perhaps move seamlessly between a synth comping sound (Pad Syn), and two different lead textures

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#### Quick Tips on exploring:

You can use the MUTE and SOLO buttons while in Voice Edit to isolate a particular Element. This is useful when determining an elements contribution to the whole. SOLO will let you hear one Element at a time – remember you must meet the requirements of that Element according to the programming within the Voice. That is you must play a key in its Note Limit range, and at a Velocity to which it is programmed to trigger. Additionally, an Element can be dependent on an Articulation Control – that is, it may not respond unless played in conjunction with others (legato) or it may not sound unless a particular [AF] button is activated.

If you want to trigger a particular combination of Elements together, use the MUTE function and mute those Elements you wish to eliminate.

There are two levels of editing within a VOICE: The [COMMON EDIT] level which is accessed by a dedicated button. This lets you see parameters that affect the entire Voice. Then there is the individual ELEMENT EDIT level – which is accessed via the Element Select buttons [1]-[8].

Get familiar with the ONE ELEMENT and 4 ELEMENT (list) views while in Element Edit. There are times when you want to see a single Element’s settings and there are other times when a comparison view is more convenient. The [SF5] 1ELM/4ELM button will let you toggle the view while in ELEMENT EDIT

## VOICE Programming Skills: COPY ELEMENTS

You can copy Elements from one Voice into the current Voice. This will allow you to combine instruments and get the sounds that you want into one Voice. Here's an example of how.

First choose a Voice as a potential candidate to copy Elements from... Explore that Voice and determine which Elements are the ones you wish to include in your new Voice.

For this example I have selected the following Voices and Elements to work with:

Electric Piano VOICE: **PRE 1:042(C10) Bell Chorus**

This Voice is two Elements. (Shown on the left below)

VOICE	Edit-Elm 1	Element 1	Element 2	Element 3	Element 4
Element Switch	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
XA Control	normal	normal	normal	normal	normal
Element Group	1	1	1	1	1
Wave Bank	PRE	PRE	PRE	PRE	PRE
Wave Category	Ep	Wv	Ap	Ap	Ap
Wave Number	0060	1078	0001	0001	0001
Note Limit Low	C -2	C -2	C -2	C -2	C -2
Note Limit High	G 8	G 8	G 8	G 8	G 8
Vel Limit Low	1	1	1	1	1
Vel Limit High	127	127	127	127	127
Vel Cross Fade	0	0	0	0	0
Key On Delay	0	0	0	0	0
Delay Tempo Sync	off	off	off	off	off
Delay Tempo					
Ins Effect Output	ins A	ins A	ins A	ins A	ins A

Wave Name EP2 Soft1

1 Elm ▶ LIST

Oscillator Pitch Filter Amplitude Elm LFO EQ

VOICE	Edit-Elm 1	Element 1	Element 2	Element 3	Element 4
Element Switch	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XA Control	normal	normal	normal	normal	normal
Element Group	1	1	1	1	1
Wave Bank	PRE	PRE	PRE	PRE	PRE
Wave Category	St	St	Wv	Ap	Ap
Wave Number	0481	0488	0933	0001	0001
Note Limit Low	C -2	C -2	C -2	C -2	C -2
Note Limit High	G 8	G 8	G 8	G 8	G 8
Vel Limit Low	1	1	1	1	1
Vel Limit High	127	127	127	127	127
Vel Cross Fade	0	0	0	0	0
Key On Delay	2	0	2	0	0
Delay Tempo Sync	off	off	off	off	off
Delay Tempo					
Ins Effect Output	ins A	ins B	ins B	ins B	ins A

Wave Name Ensemble Mix St

1 Elm ▶ LIST

Oscillator Pitch Filter Amplitude Elm LFO EQ

I also selected the String VOICE: **PRE 4:032(B16) Back Ground**

This Voice is three Elements. (Shown at right above)

I can copy the 2 Elements of the "Bell Chorus" Voice into Elements 4 and 5 of the Back Ground.

- Call up **PRE 4:032(B16) Back Ground**
- Press [JOB]
- Press [F3] COPY
- Set the dialog box so you are copying **FROM** the Bell Chorus Voice Element 1 **TO** the Current Voice Element 4
- Press [ENTER] to execute

VOICE	Play	Transmit Ch:1	Octave:+0
PRE 4:032(B16)	Category: Strng - Pads		
<b>Back Ground</b>			
<b>Voice Job - Copy</b>			
Voice			
PRE 1: 042(C10)			
Keys - NoAss : Bell Chorus			
<input checked="" type="checkbox"/> Current Voice			
element1			
↓			
Current Voice element4			
Press [ENTER] to execute.			
INFO			
Init Recall Copy Bulk			

VOICE	Play	Transmit Ch:1	Octave:+0
PRE 4:032(B16)	Category: Strng - Pads		
<b>Back Ground</b>			
<b>Voice Job - Copy</b>			
Voice			
PRE 1: 042(C10)			
Keys - NoAss : Bell Chorus			
<input checked="" type="checkbox"/> Current Voice			
element2			
↓			
Current Voice element5			
Press [ENTER] to execute.			
INFO			
Init Recall Copy Bulk			

- Set the dialog box so you are copying **FROM** the Bell Chorus Voice Element 2 **TO** the Current Voice Element 5
- Press [ENTER] to execute

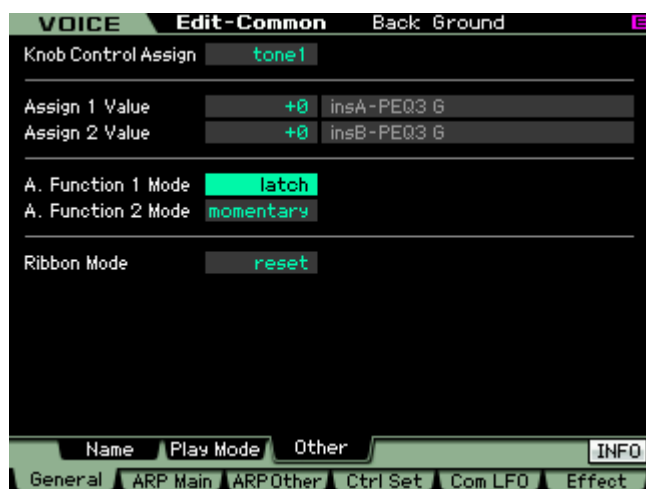
Now you have all five Elements in a single Voice and you can start to make decisions about how you want to manipulate them. For example, if you want to play the electric piano sound initially and have the string

sound come in when you activate the Assignable Function 1 button, you can set Elements 1, 2 and 3 so that **XA CONTROL = "AF 1 on"**.



By setting ELEMENTS 1-3 so that the Expanded Articulation (XA) Control function is ON, the String Elements will only sound when the AF1 L.E.D. is lit. By leaving Elements 4 and 5 set to "normal" Articulation, this will allow you to play the Electric Piano sound normally and at all times. You can experiment with other combinations

Next let's look at operation of the [AF1] button. Many users feel that having to reach for the button may disturb their playing – particularly with polyphonic sounds like piano and strings. This is where the assignment of the [AF1] function can be additionally be programmed to the assignable Foot Switch. Plugging an FC3 into the Sustain jack and either an FC4 or FC5 into the Foot Switch jack will give you additional articulation control.



The Foot Switch is programmed (globally for VOICE mode) by pressing the UTILITY button while in VOICE mode, selecting [F3] VOICE and then [SF3] CONTROL... here you will find the "FOOT SWITCH CONTROL NO." is set to cc086 the same Control Change number for the [AF1] button.

The AF1 button is initially set to "momentary" – you can edit this by going to [COMMON EDIT] > [F1] GENERAL > [SF3] OTHER > Set [AF1] A. Function 1 Mode = latch

"Latch" will allow you to press the button and have the strings remain audible while the light is lit. If you have loaded the ALL file from the tutorial and have an FC4 or FC5 plugged into the Foot Switch jack, you will be able to operate the pedal as your *momentary*

control. The Foot Switch by nature of its operation is always momentary – the strings will be in only while you hold it down (in a similar way to which the Sustain pedal operates in that down is ON and up is OFF). Depending on the musical piece you are performing with one or the other (or both) maybe convenient. If you need to bring strings in and out on cue you will want to setup for the Foot Switch. If you are going to bring in the strings and leave them playing then the LATCH function is what you want.

## Tutorial Example 2: Learning to use the [PERFORMANCE CONTROL] function for Voice transition

If Element level programming is still a little too advanced for you at this point, you can, with the technique outlined below, setup any four Voices to which you need quick real-time access in a PERFORMANCE.

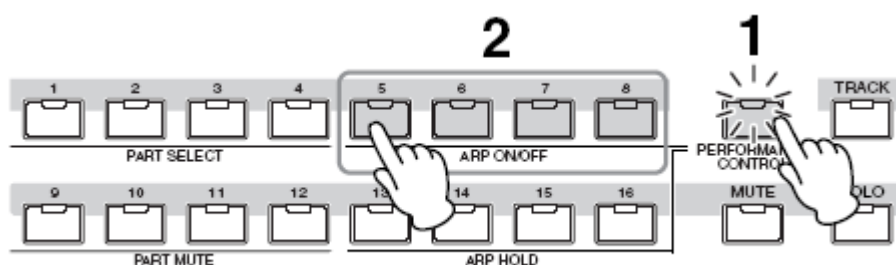
### PERFORMANCE MODE Examples

Concept: Seamless switching using the Arpeggio ON/OFF: [PERFORMANCE CONTROL] function “trick”.

Place any 4 Voices you want to use and switch between in a PERFORMANCE as PARTS 1-4. Each will be able to recall its full compliment of Insertion Effects.

- Activate the [PERFORMANCE CONTROL] button, which will give you access to PART SELECT (1-4), ARP ON/OFF (5-8), PART MUTE (9-12) and ARP HOLD (13-16) buttons for each PART. Use the ARP ON/OFF buttons (5-8) to turn ON and OFF Voices.
- Set each PART to respond to an arpeggio by setting the PART's ARP SWITCH = ON
- Assign each PART to respond to arpeggio TYPE = “off” (bypass).
- [STORE] your PERFORMANCE

When you activate the [PERFORMANCE CONTROL] ARP ON/OFF PART switch buttons [5]-[8] you will be turning OFF that PART as it is under control of the ARPEGGIO (which is bypassed). That is, the PART whose LED is OFF (5-8) is the Part that is active and can be heard by direct play.



Instead of using the PART MUTE buttons – use the ARP ON/OFF buttons [5]-[8] to bring PARTS in and out. You can play any combination of Voices – and if you turn the LED ON (Part goes OFF) while physically holding a chord, that chord will be held with the original sound and you can play another sound.

### Step-by-step:

Use the [JOB] function to initialize a PERFORMANCE.

- Press [JOB]
- Press [F1] INIT
- Select ALL PARAMETERS and press [ENTER] to execute

This will create a PERFORMANCE with the Full Concert Grand in PART 1



- Press [PERFORM]
- Press [F2] VOICE – Here you can activate Voices for each of the four PARTS by placing a red check in the PART box and select a sound using the Category Search function. Choose your four VOICES.

Shown at left

PART 1 - Piano: Full Concert Grand

PART 2 - Strings: Medium Large Section

PART 3 - Organ: On Road AS1

PART 4 - Brass: Velo Falls

Each is active across the entire range of the keyboard.



- Press [F4] ARPEGGIO
- Place a red check in the SW (switch) box to turn the ARP ON for each PART
- Highlight the CATEGORY parameter and press the [DEC/NO] button until the bypass "-" appears; this will turn the arpeggio Type = "off"
- Repeat for each of the four PARTS
- Set the main [ARPEGGIO ON/OFF] button to ON (LED is green)
- Name and Store your PERFORMANCE

**How it works:** When you call up this PERFORMANCE, press the [PERFORMANCE CONTROL] button. The buttons [5], [6], [7], and [8] will activate and deactivate PARTS 1, 2, 3, and 4 respectively. When the ARP ON/OFF light is OFF, that PART will sound in response to your direct key presses. Why this works is because any PART set to respond to the arpeggio will only respond to the currently select Arpeggio Type and since we have set that to OFF, the VOICE will be OFF. By turning the ARP OFF for that PART, we activate it for real time play. Cool trick! (thanks Papaphoenix for bringing this one to our attention)!

In this instance, any sound where you are *physically* holding down the keys will continue to sound – even if you press the corresponding ARP ON/OFF switch. You can activate multiple sounds, as necessary. Using this programming "trick" you **cannot** use the Sustain pedal to extend instruments through the transition.

In our first example PERFORMANCE:

#### USER 1: 001(A01) 4 PART PERFORM

PART 1: Ap:Full Concert Grand  
 PART 2: St:Medium Large Section  
 PART 3: Or:On Road AS1  
 PART 4: Br:Velo Falls

The PERFORMANCE is stored with Full Concert Grand active; [5] LED = OFF, while [6], [7] and [8] are lit.

Full Concert Grand + Medium Large Section (piano+strings) [5] and [6] = OFF; while [7] and [8] = lit. You can quickly develop a technique with two fingers to turn OFF one while turning ON another. And of course you can work on particular combinations if you wish to play layered.

#### USER 2: 002(A02) Viol>Ens>Orchestra

PART 1: St:Violin Solo  
 PART 2: St:Octave Ensemble  
 PART 3: Br:Orchestra Brass  
 PART 4: CP:Timpani (below G2; velocities above 92)

When initially called up (ARP ON/OFF is ON) and you hear only the Solo Violin Voice. Activate [PERFORMANCE CONTROL] so that you can switch PARTS individually via [5]-[8] same as above. The **Foot Switch** is assigned to cc96, which will operate the main ARP ON/OFF function – bringing in all PARTS together. You can use either method on this one or a combination. You can go from solo violin to full orchestra by simply stepping on the Assignable Foot Switch (turns the ARP ON/OFF LED OFF), which brings in all four PARTS. The Octave Ensemble strings and Orchestra Brass are made richer via the **Symphonic** effect assigned to the Chorus processor. The **Rev-X** Reverb is set to Church giving the feeling of a large room with a very high ceiling. The Velocity response curve is used so that when all PARTS are active the strings are dominant at lower velocities, while the Brass and Timpani only join in when you play aggressively. The **Ribbon** will pitch bend the timpani and brighter/darken the Brass layer. It is turned off for the solo and ensemble string PARTS.



### **Tutorial Example 3: Use the SONG MIXING and PATTERN MIXING programs for Voice transition**

Re-introduced with Motif XS operating system **version 1.10** is the ability to transition between complete Voices that have been assigned to PARTS of a MIXING setup. Each PART is on a separate MIDI channel and you simply have to press the Track Select button to switch transmit channels and call up a new sound. There is no cutoff of sound from one to the other and you can use the sustain pedal to hold one PART while you switch to another. To use this you simply need to assemble the Voices you require real time access to in a SONG MIXING or PATTERN MIXING program and you have access to them in real time via the [1]-[16] front panel buttons.

### **SONG/PATTERN MIXING Mode**

Stored MIXING programs remain in memory between power cycles of the Motif XS. There are 64 SONG MIXING and 64 PATTERN MIXING programs that can be named and stored. Additionally, 32 MIXING Templates can be named and stored in Flash ROM for recall when necessary.

When using these multi-timbral/multi-MIDI channel setups here is what you need to know:

- 1) Any eight of the sounds can recall their Dual Insertion Effects. The Insertion Effects are those that are part of the Voice and can be controlled in real time by assigned physical controllers. The "Insert" Effects are often what give a Voice its *personality*. The Rotary Speaker on a B3 organ sound, or the Distortion on a lead guitar sound are examples of Insertion Effects. All PARTS of a MIXING setup (or PERFORMANCE for that matter) must share the SYSTEM EFFECTS (Reverb and Chorus processors).
- 2) What you are actually doing in this mode is changing MIDI transmit channels. Each Track Select button can transmit on a different MIDI channel. The current condition of controllers remains if you switch to another channel. For example, you can play and hold a string sound on Track [1] – you can hold it either physically holding the keys or with the sustain pedal, then press Track [2] and play a piano sound. The strings will hold as long as you either hold the keys or keep the sustain pedal pressed. When you release the keys or the sustain pedal the RELEASE portion of the envelope will be implemented (meaning the sound will fade out according to the programmed RELEASE).
- 3) Come up with some kind of consistent layout for yourself so that these become second nature to play. For example, have a PART number that always contains your main comping instrument, have a different PART number that is for lead sounds, and yet another for backing/pad type sounds, etc.
- 4) You may notice that when you are on the main SONG or PATTERN [F1] PLAY screen the XS keyboard will transmit on the MIDI channel of the TRACK selected. However, when you go into EDIT any PART or PARTS that you view in the screen will sound because when in EDIT the currently EDITED MIDI channel will be used.

#### **PATTERN 01: Mix of Eight #1**

A mix of eight PARTS... Simply pick any eight Voices you would like quick access to during live play. Why eight? Because each PART can recall its full compliment of INSERTION EFFECTS... and besides if you need to play more than eight sounds in a musical composition – you are underpaid. Wind players get double scale when they play two horns – ask for higher pay ☺. You can actually make up to sixteen sounds in a Mixing setup in this fashion but since there are 128 of these setups you might as well maximize your Effects potential.

#### **PATTERN 02: Mix of Eight #2**

A variation on the theme established above. These first two are simply examples – pick your favorite sounds and assemble them into SONG/PATTERN MIXING programs as required for the music you are performing.

#### **PATTERN 03: Mix of Eight #3**

In this one you will find that PARTS 1, 2, and 4 are under arpeggio control but *independently*. You can start a drum groove by pressing any key with PART 1 selected. Move to PART 2 and play middle "C" on the beat to start the Mr.Wah! Voice percolating; later you can add a bass line by select PART 4 and playing a "C" an octave lower... The Foot Switch is assigned to turn ON/OFF the ARP SWITCH

The following **PATTERN MIXING** setups (04-10) some shown by Athan Billias in the Web Video segments, combine several PARTS on the same MIDI channel. PARTS are 'mapped' by zoning them to respond in specific Note Limit ranges (horizontally across the keyboard) and/or by specific Velocity ranges (vertically by key strike). Remember a note of polyphony is used only when an Element is actually sounding. So with *clever* mapping of Elements within the Voice using the XA Control and simple PART mapping, you can build very useful large ensemble sounds. If you simply layer multiple sounds without paying any attention to horizontal and vertical usage you will quickly run out of polyphony. This is why it is important to be specific



about building your multi-timbral programs. Spend you polyphony wisely. When writing for an orchestra each note should count.

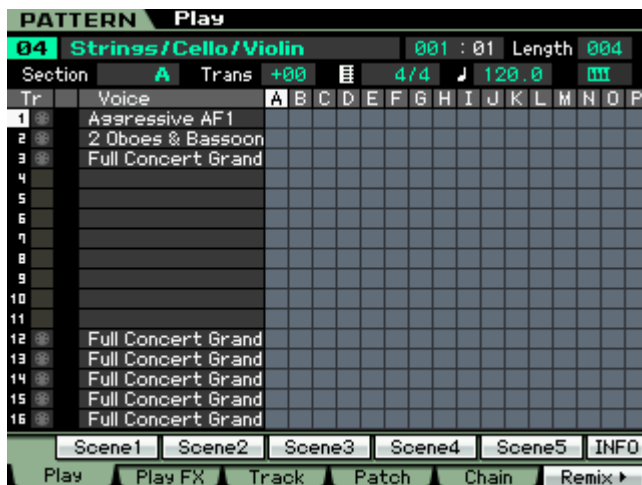
### How to explore what is going on:



- Call up a PATTERN and press [MIXING]
- Press [EDIT]
- Press the Track [1] Select button to view individual PART Edit parameters
- On the [F1] VOICE / [SF1] VOICE screen you will be able to see the important information including:
- MIDI **RECEIVE CHANNEL**, the assigned VOICE, the **NOTE LIMIT** and **VELOCITY LIMIT** parameters

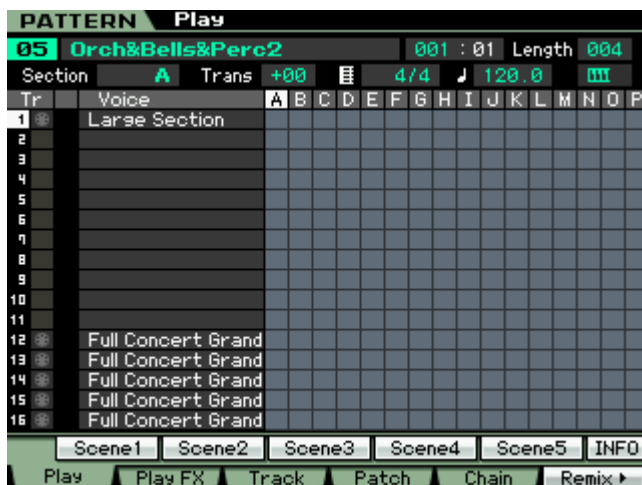
Shown at left PART 1 of this setup is set to a Velocity Limit of 81-127 so this PART will only sound when key-on velocity exceeds 81.

PARTS assigned to the same MIDI channel will respond when a Track is selected that is transmitting on that MIDI channel.



**PATTERN 04: Strings/Cello/Violin** – For example, Athan has combined several String sounds to be triggered when you select TRACK [1] on the main PLAY screen: PARTS 1, 2, 3, 4, 7, and 11 will play. When you select TRACK [2]: PART 5 will play and when you select TRACK [3]: PART 6 will sound.

Tracks that have been re-assigned and stacked on a MIDI channel do not appear in the VOICE column. The PART with the lowest active Voice will appear. So even though PARTS 1, 2, 3, 4, 7 and 11 are all assigned to MIDI channel 1. Only the lowest numbered PART (1) will appear.



**PATTERN 05: Orch&Bells&Perc2** – Here the first 11 PARTS are assigned to MIDI Receive Channel 1. But through clever use of horizontal Note Limits and vertical Velocity mapping, you wind of with plenty of sonic capability without worrying about the dreaded polyphony count. ...Movie score awaits your composing skills!  
 Parts 1, 2, 6, 8, and 9 respond above velocity 81-127  
 Parts 3, 4, 7, 10 and 11 respond to velocities 1-80  
 Part 5 responds to all velocities 1-127

And as you will see when you explore each PART is Note Limited to a specific region of the keyboard. How this is done will be determined by the particular piece of music you are performing. Please do not be afraid to experiment. The whole purpose of this tutorial is not to provide you with some finished programming but to inspire you to think about what your particular needs might be and what you want to accomplish!

but to inspire you to think about what your particular

**PATTERN 06: Action Hero Theme** – another variation on the above theme. Nine PARTS on MIDI channel 1. It is not a contest to see how many sounds you can map, it is about what you need to accomplish musically. Here the “Tympani/Bell/Glocken”, orchestral percussion and pizzicato string sound combine with woodwinds and French Horns to make an orchestral ensemble.

**PATTERN 07: Orch&Dreamscape** – another variation, this time with the Dreamscape Performance copied into the MIXING setup. PARTS 1-11 make up the MIDI channel 1 zone-mapped orchestra, while the Full Concert Grand is on Track [12], and the Dreamscape PERFORMANCE was copied into PARTS 13-16. Athan then divided the Flute to a separate channel, [16]. You can use the sequencer to record different chord suspensions. For example, SECTION [A] features a C minor chord. You can start by selecting Track [1] – and create an orchestral opening. Start the sequencer to bring in the Dreamscape recording, switch to Track 16 or Track 12 to play a flute or piano over it. You can record additional chords into the SECTIONS B-P... experiment.

**PATTERN 08: Lots and Lots** (explore)

**PATTERN 09: Lots and Lots** (shown in Web Video) Get lots of sound going all at once – use your imagination and build your own!!!

**PATTERN 10: Last Waltz** – Use [AF1] to change arpeggiated guitar sound