Power User Guide

MO6 / MO8:
Recording Performances to the Sequencer

The Performance mode offers you the ability to combine up to 4 Voices mapped to the keyboard at one time. Significantly you can play them all simultaneously. Each Voice can occupy a unique range (splits) or they can be stacked (layered) or a combination of split and layered Voices. Each Voice is placed in a PART – so we say that there are a maximum of 4 PARTS in a Performance. The concept of a PART allows us to alter the Voice assigned to it without having to destructively changing the original source material in VOICE mode. For example, you may build several different Performances using the same Grand Piano Voice, yet because PART parameters are non-destructive to the original Voice, in each Performance you could edit the piano slightly differently. In one you might need the piano transposed up an octave, in another you might have the piano mixed behind a string sound, and in still another you might want to add a tempo activated delay.

It is the ability to apply these “offset” parameters to a VOICE that make PARTS an important concept to understand. This also means that the original VOICE is referenced but the offset parameters allow us to do different things to it just for this Performance – it is necessary that the original Voice be available so that the Performance can apply its data to it. This avoids a situation where if you transpose the piano for one Performance you transpose it in every Performance. Each Performance (and Mixing setup) can use the same Voice uniquely.

In the MO6 and MO8 there are 256 Performances. This article will deal with gaining an understanding of how Performances are constructed and then how you can use them to build a musical composition around them in the sequencer. At first this may seem just a simple matter, however it can become complex when you start to realize that one or more of the Parts can be assigned to respond to the MO’s arpeggiator. When a PART has been assigned to the arpeggiator, it no longer directly responds to your key presses – it is instead responding to the output of this device we call an arpeggiator – which ‘interprets’ your key presses via an arpeggio type. There are over 1700 different arpeggio types in the keyboard’s memory and you can create some 256 User arpeggio types yourself. Basically, an arpeggio is a musical gesture and can be a drum groove, a guitar strumming, a bass line, or a simple pattern of notes up and down the keyboard. The significant thing is that although this arpeggio starts in response to your initial key press, it then follows the pattern of notes or controller data dictated by the rules of the arpeggio type. These rules include playing at a specific tempo, with a specific feel and can be a very musical experience.

In the past arpeggios have been simple patterns of notes, but one of the innovations of the Motif-series has been the development of very musical arpeggio data. This data can be played live, it can be recorded to the sequencer and/or it can be output via MIDI to trigger an external device (module or sequencer). We will address how to go about recording a PERFORMANCE mode performance to the MO Sequencer. But a basic understanding of the “HOW it does what it does” is necessary.

At some point you may want to try your hand at creating your own arpeggios - that will not be the subject of this article, however. First, learn to enjoy the 1787 arpeggio types already in your MO.
Learning about Performance Mode

In the Performance mode, you can play several Voices together in a layer, or play different Voices from separate ranges of the keyboard. You can also trigger automatic rhythms and Arpeggios, over which you can play melody, chord or bass lines of your own. Each of these combinations of Voices is called a "Performance." This mode lets you create richly textured, layered sounds or play two or more different parts simultaneously — for example, piano and bass guitar—and is particularly useful when performing solo.

A Performance can be up to four VOICES layered and/or split on the keyboard simultaneously. Often five different arpeggio types are associated with the Performance - they can be responsible for different drum grooves or guitar strumming patterns or maybe several different bass lines. The Sub-Function (SF) buttons allow you quick, real time access to the associated arpeggios. Performances are immediate – and can inspire you to begin to write your own compositions – that is one of their strong points. By simply calling up a Performance it may trigger your creative juices to start a musical composition. Although Performance is its own mode, you may decide you want to record this complex setup to the sequencer.

If you decide that you want to record yourself playing this complex setup, you must be aware of how the Performance will translate to a Song MIX or Pattern MIX. As mentioned you are playing up to four different complete Voices at one time in PARTS. The SONG MIX or PATTERN MIX that you are going to use to record with the sequencer has a total of 16 PARTS. When you use a multiple Part Performance it will occupy more than one of the MIXING Parts. This is the first thing to understand – if a Performance is made up of 4 Parts – it will occupy 4 Parts of the SONG or PATTERN MIXING setup. If it 2 Parts then it will only occupy 2 of the Parts of the MIXING setup. One, or more, of the Parts might be assigned to respond to an arpeggio. This will mean that perhaps a drum groove may be happening in addition to the normal sounds in a Performance.

The Part (or Parts) that are assigned to the arpeggio are not directly following your note-ons. Oh, it is responding to the notes that you finger all right but it is just using these as "input" to do what it does. In the case of a set of drum groove arpeggios, for example, the drum patterns are simply triggered (started) when you touch the keys. They are following a predetermined FIXED NOTE pattern. You are not literally “playing” the drums – the arpeggiator is playing the drums. In the case of a set of guitar patterns, the guitar Part is not responding directly to your note-ons (one for one), the notes that you are holding influence/determine the pattern. The arpeggiator is doing a scan or 'search' and is responding to the notes you are holding. You are not literally “playing” the guitar Voice directly.

If you were to press the ARP ON/OFF button to stop the arpeggio, then you would be playing that Part directly from the keys. This obvious difference between you playing and the arpeggiator playing a Part must be appreciated for you to understand how to record this type Performance. In short, you are not "playing" the arpeggio Part – the arpeggiator is.

All the PARTS in a Performance are on the same MIDI channel – this is how they respond to MIDI channel messages like note-on events, Pitch Bend, Modulation, Volume, etc. Even the arpeggio Part is on the same MIDI channel - its notes go through the arpeggiator before they arrive to trigger the tone generator. If you are new to MIDI the significance of this fact may not be fully understood, but what it means is that you may have to record your Performance in two or more separate passes. Think about it, the arpeggiator is speaking to just the PART assigned to it – while the others are played in a one-for-one direct manner, directly by your note-on events. Therefore, you will have to separate the arpeggio Part from the other musical sounds when attempting to record. The MO sequencer can record your note-ons (of course). It can record the output of the arpeggiator (of course). But it cannot record them both at the same time while you play. It must be set to record either your playing or the playback (output) of the arpeggiator. This is true in most cases. However, if you follow this tutorial, you will see that it 'feels' exactly the same as when you play the Performance... even though when we do it in separate passes.

Performance Study

But before we get to this, let's learn a bit more about Performances. We mentioned that it could take different forms. We'll take a look at the following types as basic examples:

- Performance Layer
- Performance Split
- Performance Layer/Split with Drum Arpeggio

**Performance as a simple LAYER:**

- Press [PERFORM]
- Call up USR2: 017 “Ap: Romance”

This Performance is a good basic one to start with for our learning process. This is a simple layer;
two Parts with the Parts mapped across the entire keyboard.

- Press [F2] VOICE

Here you can see that two of the four possible PARTS have Voices assigned to them – Part 1 is the GM bank acoustic grand piano Voice called "Ap:ConcertGnd", and Part 2 is a Preset 1 bank string Voice called "St:BackGround". You can see by the NOTE area on the right of the display that they are layered across the keyboard.

This is probably the easiest type of Performance to understand. In order to play two PARTS layered across the keyboard in the Sequencer you need only assign two of the PARTS to the same MIDI channel and transmit to them both from a single track. Later in the section of this article where we begin to move Performances to the Mixing setup, we will use this as the "layer" example.

**Performance as a simple SPLIT:**

- Press [PERFORM]
- Call up USR2: 077 “Co: SlowFinger”

This Performance is a simple split with a mono synth lead in the right hand and an analog pad sound in the left.

- Press [F2] VOICE

Here you can view the three Voices that make up this Performance. In order to play these PARTS you have a couple of options. You can place the Parts into a MIXING setup on a single MIDI channel and maintain the split point. This will allow you to play them all simultaneously from one track. Or you could separate the right hand Part and place it on one MIDI channel and then place the two left hand Parts on a second MIDI channel and play them in two separate passes. Later in the section of this article where we begin to move Performance to the Mixing setup we will use this as the "split" example.

**Performance layer/split w/drum arpeggio:**

- Press [PERFORM]
- Call up USR1: 007 "Co: R&Ballad 1"

This is when you get into several different things happening at the same time. When you touch the keyboard a drum arpeggio begins – it does not matter what key you press the pattern begins. We will learn how this happens and why it happens at a specific tempo.

As you play this Performance you will discover that it is an Electric Piano sound in your right hand, a Bass sound in your left and, of course, a Drum Kit.

Press a [SF] Sub-Function button [SF1]–[SF5] to change the drum arpeggio that is active. Five different arpeggios can be associated with any single program. Notice that the drum arpeggio pattern switches at the “top” of the next measure (we will learn how this happens).

In the screen shot above, you can see that [SF5] “ARP 5” is (highlighted) selected – meaning that the arp pattern stored to this button is the one playing. And you can see that [F1] PLAY is also (highlighted) selected. We call this [F1] PLAY screen the Main screen and we refer to the others [F2]~[F6] the Quick Access screens (for they will allow us to get to other often used items, quickly).

- Press [F2] VOICE

Here you can see that three of the four possible PARTS have Voices assigned to them – Part 1 is a Preset Drum kit (PDR) called R&B Kit2, Part 2 is a Bass called Dark Bass from Preset bank 3, and Part 3 is an Electric Piano called R&B Soft, from Preset bank 1. You can see by the NOTE area on the right of the display that they are split on the keyboard – the bass is on the lower portion of the keyboard and the Electric Piano is on the upper portion of the keyboard. While the Drum kit is triggered by any note across the keyboard.
• Press [F6] ARP

You are now viewing the Quick Access arpeggio page – this is where you can [STORE] specific arpeggio types to the [SF] buttons.

Here you can see that a Preset ("pre") arpeggio from the Drum and Percussion ("DrPc") Category ("Ctgr"), is selected. It is number 120 called "Smooth1C". The tempo is 123 BPM. The "VelLimit", or Velocity Limit, is indicating that playing a note at any velocity will start (trigger) the arpeggio (any note outside of this velocity range limit will sound normally in response to key presses). In this case all note velocities are going to be played by the arpeggiator (since 1-127 is the complete range of velocities available to be played in MIDI). The "Switch" parameter is the ARP ON/OFF switch condition – and is the same as the front panel button labeled [ARPEGGIO ON/OFF]. If you turn the arpeggio Switch to OFF then you will be playing all three PARTS of this Performance ‘live’, directly via your key presses.

Try it. Turn the SWITCH OFF. Now every note has both a Bass and a Drum sound or an Electric Piano and a Drum sound when you press a key. This is important to understand – even if you will not be playing it like this. All three sounds are on the same MIDI channel and are subject to be triggered when you press the key. The difference is when the ARP SWITCH is ON, one or more of the Parts is under control of the arpeggiator and not under direct control of your key press.

The "Hold" parameter is ON – this allows the drum arpeggio to continue even though you are not holding down the keys. Finally the individual PART SWITCH (Part Sw) that assigns which PART or PARTS of the Performance are set to respond to the arpeggiator. You can see that PART 1, the Drum Kit is assigned to follow the arpeggio.

We mentioned that these are the ‘quick access’ parameters of the arpeggiator. Let’s take a quick peek at the full Edit functions. Here’s how:

• Press [EDIT]
• Press [COMMON] a/k/a the DrumKits/Favorites button
• Press [F3] ARP

Here you can select between four different screens that deal with the arpeggiator.

[SF1] TYPE
[SF2] LIMIT
[SF3] PLAY FX
[SF4] OUT CH

Of significance on the [SF1] TYPE screen is the Change Timing parameter:

“ChgTiming = measure”

This determines how quickly after you press an ARP select button the pattern changes. You can set this to either “measure” – the top of the next measure or you can set it to “realtime” – immediately. It is your choice.

[SF2] LIMIT will allow you to define to a greater degree the velocity and the note limit for the triggering of the arpeggio.

[SF3] PLAY FX are also available for realtime manipulation. They will change the “feel” of the arpeggio. You can add swing; even double-time or half-time the data that is created.

[SF4] OUT CH will allow you to define how the data generated by the arpeggiator is transmitted. It does not normally go out via MIDI. Why, you ask? Because normally the direct key-press (your playing) is transmitted out via MIDI. This is what you want 98% of the time.

Summary
So far we have explored a little bit about how a Performance is constructed, how we can change the arpeggio pattern in real time and we have dipped a little deeper into the architecture to view how some of the things that happen are programmed. There is much, much more but we can get to that in time. For now, it is important to recognize that although all PARTS are layered or split on the keyboard, they are all playable from pressing the keys. But that an arpeggio, when applied, is responsible for redirecting our key information and triggers the sound via a separate set of commands. But all this takes place on the same basic MIDI channel.

You Explore...
Take a look at a different (slightly more complex) Performance.
Using the technique we just employed, explore this Performance and discover how it was made. What two Parts are being triggered by the same arpeggio?

**TRANSFERRING a PERFORMANCE to the MIXING setup: A tale of two Methods**

There are two methods of transferring a Performance to the Sequencer’s Mixing setup. Because Performances are typically made up of more than a single Voice, it therefore will occupy more than one PART of the target Mix. A Performance with three PARTS will occupy three PARTS of a MIXING setup. A Performance with four PARTS will occupy four PARTS of a MIXING setup. Which of the methods you use will depend a lot on how you like to work.

As we mentioned previously, because of how arpeggios are triggered, it may be necessary to record your data in multiple passes. Let’s get into a few of the possibilities… Although the examples use SONG mode, this works exactly the same for PATTERN mode.

**Method 1: PF COPY JOB:**
- Press [SONG]
- Press [MIXING]
- Press [JOB]
- Press [F5] PF COPY

(see page 192 in the Owner’s Manual)

This method will be familiar if you previously owned another Motif or S-series product. The JOB works from the Sequencer MIXING mode (SONG or PATTERN) The PF COPY (or Performance Copy) function allow the user to select what attributes of the Performance will be transferred to the current Song Mixing or Pattern Mixing setup. You are able to bring in any one of the Performances and decide what particular things you would like to work with in your composition. But before we continue, let’s ask and answer the question: "Why would you want to copy a Performance into a SONG or PATTERN?" Performance mode was developed for the Motif-series because of an observation by the design team: keyboard players like to play along with some backing music as they compose. As we observed in the example “Co:R&Ballad 1”, this type of Performance can really inspire you to lay down a hip chord progression that might actually become the basis of your next hit tune. Rather than separate recording of every component, a Performance allows you to interact and play, perhaps, several of the Parts simultaneously and instantly. Maybe you are doing a bass line in your left hand, chords in your right and have a drum groove going on as well. The creative immediacy of Performance mode can inspire.

There is also a new function, PERFORMANCE TEMPLATES, (Method 2 below) but the difference between PF COPY and the new method is with PF COPY...

- You can select the desired parameters.
- The MIDI receive channel settings are set to match the basic channel settings. That is, the Parts are all going to be assigned initially to the Basic Receive Channel set for Performance mode (typically channel 1).

For example, you can select the Reverb and Chorus (SYSTEM Effects) to be applied to the MIXING setup. You can select the Insert Effect assignment to be carried over. You can bring the five associated arpeggios and apply them to the current MIXING setup. You can even apply the same Master EQ and Master Effect setup from the Performance and bring it to your current Mix. Or you can choose not to bring over any of these items...

Advantage: This method allows you to bring the Performance into the sequencer, as is, or you can select specific aspects of the Performance. The big advantage is that you can play the Performance all at once just like you did in Performance mode. This is because it will place all the PARTS on the same MIDI channel.

However, in order to record and then playback the Performance Parts properly, you may have to deal with the arpeggio data in a separate pass. We will have an example of this later in the article.

**Method 2: PERFORMANCE TEMPLATE:**
- Press [SONG]
- Press [MIXING]
- Press [F6] TEMPLATE
- Press [SF2] PERFORM

(see page 190 in the Owner’s Manual)
From this display you can transfer the Part settings of the Performance to the currently edited Song. As soon as a Performance is selected; the relevant settings of all Parts will be copied.

This method is similar to the [F5] PF COPY in Song Mixing Job mode (page 192) that we described in Method 1. However, this method is different from the [F5] PF COPY in two major points:

- All parameters are copied simultaneously.
- The Receive Channel settings are assigned to the destination automatically, according to the following rules:

**Rule 1** *When note limit settings for all Parts are the same and the Part Switch and ArpSwitch parameters are both set to ON, the same Receive Channel is assigned to the Parts.*

{That means: If the PARTS are simply layered to the same region of the keyboard and both PARTS are using the arpeggio, then they will be assigned to the same MIDI channel and you will be able to play them together. If, however, the PARTS are simply layered across the same region, then they will be separated so you can record each individually on separate tracks / separate MIDI channels in separate passes.}

**Rule 2** *When Note Limit settings for the Parts are different and Part Switch is set to ON for the Parts, Parts whose ArpSwitch parameter is set to OFF are given different Receive Channel values, while other Parts are set to the same channel.*

{That means: If the PART(S) are a split (different regions of the keyboard) they will be assigned to a unique MIDI channel and you will have to record them in a separate pass.}

**Rule 3** *For those Parts where the Part Switch is set to OFF, Receive Channel is also set to OFF.*

{That means: If a Performance is less than four Parts, then those unused PARTS will be set to MIDI Receive Channel = OFF when you move the Performance via this method. You can, if you wish, assign them but initially they will be turned OFF by this function.}

Note: In addition to the Part settings, the Arpeggio tempo setting stored in the Performance will also be copied.

Advantage: When you use Method 2, the MO will automatically divide the PARTS by MIDI channel first, so that you can individually record them in the traditional manner of a track at a time - in separate passes. In Method 1, the MO will place all the PARTS on the same MIDI channel (as they were in Performance mode). And you have to determine the best method to record them.

Now let’s take a closer look at the specific examples outlined in the first half of the article. These will help you better understand each of the Methods. There is no right or wrong - you can work either way. It will depend on the musical composition you are working on at the time. The MO is about choices.

The most important thing to know is how the two Methods make the assignments of the Performance PARTS to the Mixing setup – how the MIDI channel parameter of each PART is assigned and what happens to the keyboard Note Limits. This will help you determine which method will be most appropriate for what you wish to accomplish.

In the next section of this article, we will look closely at the different types of Performances and how each method deals with the transfer of PARTS to the MIXING setup. We will look particularly at how the MIDI channel assignments and how the Note Limit parameters are effected in the case of a split Performance.
Performance Transfer Examples:

EXAMPLE #1a
PF COPY - simple LAYER: Method 1
Bringing USR2: 017 "Ap: Romance" into a Pattern Mixing setup via PF COPY method:
- Press [PATTERN]
- Select a blank Pattern

Here is our first example Performance setup to execute the PF COPY. You arrive at this screen by executing the following button presses while in PATTERN mode (or SONG mode).
- Press [MIXING]
- Press [JOB]
- Press [F5] PF COPY

You can see I’ve selected to bring the Reverb, Chorus, and Insert Effect Switch assignments into my current Pattern Mixing setup.

- Press [ENTER], [YES] to execute

Because this Performance is a simple Layer – both PARTS will be assigned to the same MIDI channel. This can be seen by going to the MIDI Receive Channel screen:
- Press [EDIT]
- Press Track Select [1] to view PART 01
- Press [F1] VOICE
- Press [SF2] MODE

Here you can see that PARTS 01 and 02 have been both assigned to MIDI Receive Channel 1 by the Method 1 (PF COPY) routine. When you select Track Select [1] you will be able to play both the Piano and the Strings simultaneously. All other parameters from the Performance have been maintained.

Advantage: You would use this method if you want to play and record both parts simultaneously. You would use TRACK 1. Track 2 will not trigger any sound internally because there is no longer any Part set to receive on MIDI channel 2.

EXAMPLE #1b
Perform Template - simple LAYER: Method 2
Bringing USR2: 017 "Ap: Romance" into a Pattern Mixing setup using the PERFORMANCE TEMPLATE method:
- Press [PATTERN]
- Select a blank Pattern

Here is the Performance recalled into the Pattern MIX via the TEMPLATE method. You arrive at this screen by:
- Press [MIXING]
- Press [F6] TEMPLATE
- Press [SF2] PERFORM

Use the cursor and Data wheel to select USR2:017 immediately the Performance is mapped to the Pattern Mix. Here is what it has done:

It has placed PART 01 on MIDI channel 1 and PART 02 on MIDI channel 2, it has also turned OFF the empty PARTS 03 and 04 (according to Rule 3). By this method you are setup to record each individually to separate tracks on separate passes. All other parameters from the Performance have been maintained. (You can reassign PARTS 03 and 04 if you need them.)

Advantage: You would use this method when you decide you want to record the Performance in separate passes... Piano to track 1, Strings to track 2.

EXAMPLE #2a
PF COPY - simple SPLIT: Method 1
Bringing USR2: 077 "Co: SlowFinger" into a Pattern Mixing setup via PF COPY method:
- Press [PATTERN]
- Select a blank Pattern
Here is our second example Performance setup to execute the PF COPY. You arrive at this screen by executing the following button presses while in PATTERN mode (or SONG mode).

- Press [MIXING]
- Press [JOB]
- Press [F5] PF COPY

You can see I've selected to bring the Reverb, Chorus, and Insert Effect Switch assignments into my current Pattern Mixing setup.

- Press [ENTER], [YES] to execute

Because this Performance is a simple Split – all three PARTS will be assigned to the same MIDI channel. This can be seen by going to the MIDI Receive Channel screen: EDIT > Track Select [1] > [F1] VOICE > [SF2] MODE

Here you see that the mono Dynamic lead is in PART 01 and the two Pad sounds are polyphonic in PARTS 02 and 03. All on MIDI channel 1. You can only play this by selecting TRACK SELECT [1].

If you select Track Select 2 or 3, there will be no sound.

- Press [SF3] LIMIT

By pressing [SF3] you can see that SPLIT points (Note Limits) have been created in the MIXING setup.

NoteLimitH = Note Limit High
NoteLimitL = Note Limit Low

The lead sound extends from “middle C” (C3) and above. The pad sounds extend from B2 and below.

**EXAMPLE #2b**

**Perform Template** - simple SPLIT: Method 2

Bringing USR2:077 “Co: SlowFinger” into a Pattern Mixing setup using the PERFORMANCE TEMPLATE method:

- Press [PATTERN]
- Select a blank Pattern

Here is the Performance recalled into the Pattern MIX via the Template method. You arrive at this screen by:

- Press [MIXING]
- Press [F6] TEMPLATE
- Press [SF2] PERFORM

Use the cursor and Data wheel to select USR2:077 immediately the Performance is mapped to the Pattern Mix. Here is what it has done:

It has placed PART 01 on MIDI channel 1 and PART 02 and 03 on MIDI channel 2, it has also turned OFF the empty PART 04. By this method you are setup to record each individually to separate tracks on separate passes. All other parameters from the Performance have been maintained. The right hand sound will be mapped across the keyboard on its MIDI channel and the left hand sound will be Note Limited as it was in Performance mode.

Advantage: You would use this method when you have decided you want to record the Performance
EXAMPLE #3a

**PF COPY – w/Drum Arpeggio**: Method 1

Bringing USR1: 007 "Co: R&Ballad 1" into a Pattern Mixing setup via PF COPY method:
- Press [PATTERN]
- Select a blank Pattern

Here is our complex Performance – it is a split but it also includes an Arpeggio drum groove. Above you can see I have also selected that the ARP function be imported along with the Reverb, Chorus and Insertion Effect assignments. When you use Method 1 (PF COPY) this will transfer all three PARTS to the first three Parts of the current Mix (1,2,3). It will assign them all to MIDI channel 1 and will allow you to play the Performance exactly like you did in Performance mode, if you select TRACK SELECT [1].

Above you can see that the PART 01 (drums) has the ArpSwitch set to ON. Below you can see that PART 02 (bass) and PART 03 (e.piano) have been split by the Note Limit parameter.

As long as you select Track Select [1] you will be able to play this Performance as you did in Performance mode. You will be able to record to the sequencer – but you will have to record the drum arpeggio separately from the musical parts and this will require some reassigning of the MIDI channels in order to play it back. Let's give an explanation here.

As mentioned earlier, because the arpeggiator is responsible for “playing” the drum part, and because the sequencer can record either your key presses or it can record the output of the arpeggiator, you must record them separately. And in order to avoid a situation where the arpeggiator data (now recorded to a track) is playing back all the musical Parts as well, we will need to change the MIDI channels on playback.

To record this Performance, it is recommended that you set the sequencer to record the drums on the first pass, then changing the MIDI Receive channel of PARTS 02 and 03 (to Ch 2) record the musical Parts.
- Press TRACK SELECT [1]
- Press [REC]

This will call up [F1] SETUP

Here you can see I’ve selected:
- TYPE = overdub
- LOOP = off; the recording will stop automatically at the end of the phrase
- QUANTIZE = off; This will preserve the original timing
- TIME SIGNATURE is 4/4
- TEMPO has been set to 123.0 BPM to match the original Performance tempo.

- Press [F2] VOICE

This will show the parameters that are memorized into the Phrase Header. The Phrase Header will recall this data automatically when the Pattern is initially selected.

Here you can see that the Drum kit: Dr; R&B Kit2 is the embedded Voice.
The Volume and Pan were imported from the Performance.
The Insertion Effect Switch condition was also imported from the Performance.

- Press [F3] ARP

This will allow you to view the arpeggiator parameters.
Here you can see that the arpeggio from the Performance is set to play. HOLD = on; This means you do not have to hold down a key for the drums to continue. All that is necessary for you to do is play a note on the downbeat to start the arpeggio pattern playing. If you are late the data will be offset late. PART SWITCH = on; This is required when this track is in record – the Part Switch must be active for the arpeggio to play.

- Press [F4] REC ARP
  This parameter is responsible for telling the sequencer not record your key presses but to record the arpeggiator instead.

Set the Rec Arp parameter to ON. We will not be using the "Output Switch" or the "Transmit Channel" parameters here. These parameters have to do with recording or sending the arpeggio data out via MIDI.

[F5] CLICK turns the metronome ON/OFF. It is shown above active.

Press the [>] PLAY button in the MO transport to begin the count-in. It will click 1 measure (4 beats) as a count-in. Touch any key on the downbeat of the 5th beat to begin the transfer of the arpeggio to Track 1. You can play along with the data – only the drums will be recorded however, but you can practice what you are going to do on the next pass...

The MO will record for four measures and stop.
- Press the ARP ON/OFF button to turn the Arpeggio OFF (the LED will go out).
- Navigate back to the MIXNG > EDIT > [F1] VOICE > [SF2] MODE screen and change PART 02 and 03 to MIDI channel 2. You do not want them playing back the note data intended for the drum sound.

- Playback your recorded arp data

Now you can select TRACK SELECT [2] and record the Bass and E. Piano Parts to track 2. What if your timing is bad and you cannot hit the trigger note on the downbeat? Sometimes you just want to make sure that everything is cued perfectly. If you find it difficult to land on the downbeat to start the arpeggio recording, remember any note will trigger the start of playback. You can step enter a trigger note to begin playback. The note can either be erased later or you can make it a note outside of the drum kit. Here’s what I mean... drum kits have 73 notes in them, the MIDI channel has 128 notes. The Drum kit responds with sound when you hit a key between C0 and C6, if you enter a note, G8, for example, this will start playback of the arpeggio yet it will not trigger a drum sound.

From the main PATTERN [F1] PLAY:
- Press the [EDIT] button
- Press [F5] INSERT
- Insert a note-on event at 001:1:000 _Note G8
- Press [F6] SET to enter the note
- Press the PLAY button

EXAMPLE #3b
Perform Template w/Drum Arpeggio: Method 2
Bringing USR1: 007 “Co: R&Ballad 1” into a Pattern Mixing setup via Performance Template method:
- Press [PATTERN]
- Select a blank Pattern
- Press [MIXING]
- Press [F6] TEMPLATE

Shown above you can see I am set to recall Performance USR1: 007 [Co:R&Ballad 1].

The screen indicates it is three PARTS. Immediately upon dialing up the Performance
number, the data from this Performance is recalled according the rules of the Performance Template. The parts will be given separate MIDI channels and they will be mapped across the entire keyboard (in the traditional fashion).

Here is what happens:
• Drum Kit is sent to PART 01 – MIDI channel 1
• Bass is sent to PART 02 – MIDI channel 2
• E. Piano is sent to PART 03 – MIDI channel 3
• PART 04 is turned OFF (MIDI Receive = OFF)

All PARTS are mapped across the entire keyboard. This method would be used when you want to basically put your sequence together in the traditional sequencing method of one track at a time.

Final words...
Which method is better? It is really a choice and a preference for you. The PF COPY method lets you perform all PARTS simultaneously and then change the assignments later. The TEMPLATE method simply brings the data over and prepares it for you instead of you having to manually setup each individual component separately. The PF COPY method must be executed (you must setup the dialog box and press [ENTER]), the TEMPLATE method immediately sets up the Parts as soon as you select PERFORM number (you only need to change the to the Performance number for the data to be recalled).

Remember it is not a matter of is a hammer better than a screwdriver... somewhere in the construction of the house you will need both. Look at these as two different tools in your arsenal for music production. A wise individual once told me, if all you have is a hammer, pretty soon everything looks like a nail. (Words to live by...).
Enjoy!

Phil Clendeninn
Senior Product Specialist
Field Product Support Group
Pro Audio & Combo Division
Yamaha Corporation America