YAMAHA

Motif ES & PLG150-AN
Power User Plus Pack:

34 AN PLG_USR Voices
&
25 Performances

The PLG150-AN is an extremely powerful plug-in board for use in any of the Modular Synthesis Plug-in System products. This set of sounds was developed specifically for the original Motif and takes advantage of the fact that there are multiple technologies at play and multiple clocks. The data is provided so that you can look at (and hopefully learn from) the analog sounds in the AN EXPERT EDITOR. You can also see how the Custom Board Voices (created with the AN EXPERT EDITOR) are molded into Motif ES PLUG-IN Voices (when you add Effects and Controllers to a "BOARD Voice" it becomes a "PLUG-IN Voice"). Then the PLUG-IN VOICE is placed into a PART of a Motif ES PERFORMANCE. The PLG150-AN has its own clock that can run either an arpeggio or an 'old school' Step Sequencer. The Step Sequencer is used to create Patterns with the analog modeled Voices and these are then synced to the Motif ES clock (MIDI) and combined with the Motif ES arpeggiator and synchronizable LFO and synchronizable Effects of the Motif ES. I originally wanted to do just 16 Voices and 16 Performances, but frankly I was having so much fun I couldn't stop myself. Hopefully these will give you some ideas and then you can go and build your own custom AN Board Voices, add Motif ES parameters and turn them into custom Plug-in Voices and then combine them with internal sounds into custom Performances.
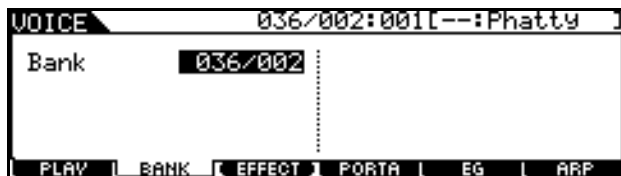
The PLG150-AN board is part of what Yamaha calls the Modular Synthesis Plugin System. This board is equally at home in a range of products…CS6x, CS6R, S80, S30, S90, Motif, Motif ES and even the XG modules. To gain a deeper understanding of the PLG150 see the GETTING STARTED Power User guide located at **www.motifator.com** in the Behind the Manual Section of the site. This article assumes you are somewhat familiar with the architecture of the PLG150-AN.

PLG150-AN Analog Physical Modeling Plug-in Board

This tutorial will take you through the whole process so that you can gain an understanding of how custom analog models can be built into PLG150-AN USER Board Voices. Those USER Board Voices become Motif ES PLUG-IN USER VOICES and then the PLUG-IN USER VOICE can be built into a Motif ES Performance mixed with internal Voices.

Custom **Board** *Voice Element + Motif ES Effects/Controllers =* **Plug-in** *User Voice -> Motif ES Performance*

First, let's understand what a **BOARD VOICE** is: There are 2 types of BOARD Voices: PRESET and USER. There are two banks of PRESET BOARD Voices on the PLG150-AN – they are called 036/000 and 036/001. There is one volatile USER BOARD Voice bank (036/002), which can hold 128 User created/loaded AN sounds. All Board Voices are entirely contained on the PLG150-AN itself. They would be the same no matter what product you place the PLG150-AN.
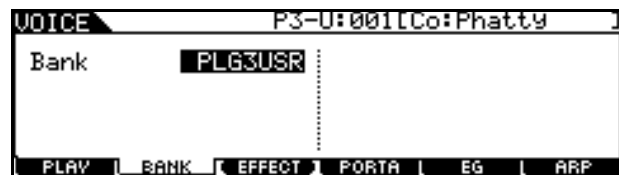

The USER BOARD VOICES are Voices that are constructed on the physical modeling PLG board and are loaded to bank 036/002. This is a volatile bank – this means the sounds disappear when you power the host product down. You can either create your own Board Voices from scratch using the AN Expert Editor or you can (as with this tutorial) load them in from the Editor or from a SmartMedia card/USB drive. This file is a (.w2b) file – a special SmartMedia/USB drive Plug-in Bulk file format saved from the host product (and can be used to automatically restore your Custom Board Voices). Or they can be loaded in from the AN Expert Editor from a (.ans) type file. The AN Voice data provided with this article is saved in the .ans file format expressly so that you can see how the Custom Board Voices were made. (If only the .w2b format was provided you would only be able to load them directly to bank 036/002 and you would never see them in the Editor). So I provide the .ans file so that if you want to study the analog Voices, and see how they were made, you can.

The BOARD VOICE can be a Motif Element-waveform and used to construct a PLUG-IN VOICE. The screen shot above shows a Board VOICE – you can tell by the bank (P3-B) designation: (P) Plugin, (3) Slot 3, (B) Board.

Next is the **PLUG-IN VOICE**. It comes in two types, as well: PRESET and USER. The PRESET Board Voices (64 of them) are automatically loaded from the host ROM when you power up the unit and your PLG150-AN board is detected in a particular slot. This is what the Motif ES is doing when you see "Checking Plugin Boards" when you power up. It matters not which slot you have placed the PLG150-AN – the Motif ES queries the slots, locates it and loads the appropriate PLGPRE1 (Plug-in Preset) data to the 64 reserved locations. It also creates 64 *blank* USER locations per PLG150 board, PLG**1**USR, PLG**2**USR or PLG**3**USR; depending on the slot you have your PLG150-AN. The parameters added to the PLUG-IN VOICE are unique to the host product model.
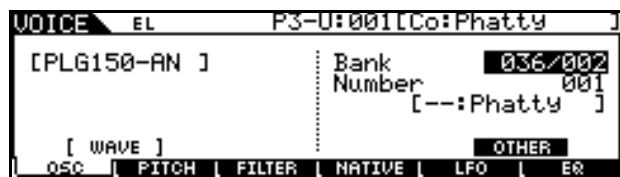

- While in VOICE mode, press the PLG button containing your PLG150-AN
- Press F2 Bank
- Use the Data Wheel or [INC/YES]/[DEC/NO] buttons to select the PLG_USR bank (as shown above) for your slot. PLG3USR is a PLG150-AN board in slot 3.

PLUG-IN VOICE data resides in the host product but points to data on the Board. The PLUG-IN VOICE is made up of Motif ES parameters but the actual waveform (raw data) resides on the PLG150-AN. Much like a "Normal" USER Voice is Motif ES parameters and those parameters point to a sample waveform; a PLUG-IN VOICE resides in the host but the parameters point to a Board Voice Element on the PLG bank list.

And also just like when a "normal" Voice points to a 'volatile' user *sample*, the Board Voice can be in the volatile user Board bank (036/002): in both cases you must ensure that the volatile data is in

the correct location to be recalled properly. "Volatile means that the custom Board data (like RAM samples) disappears when you power down. But as with internal VOICE data you can create an "autoload" file to restore custom Board data.

The screen shot below is where the action takes place. If you are familiar with sample-based Voices (internal sounds) you will recognize this page as the screen where the Voice points to an oscillator waveform. There are over 1800 sampled waveforms in the internal ROM of the Motif ES. Here on your PLG150-AN board, the Voice data is pointing to an oscillator waveform resident on the PLG board itself.

When you start to create your own Motif ES Voices and Performances using the PLG150-AN board as the wave source, you will want to have a consistent layout for your PLG150 Boards. For example, when you create a PLUG-IN VOICE and use it in a Motif ES Performance – the Performance will remember what VOICE *locations* are used, not the VOICE data itself. If PRESET VOICES are used, nothing can go wrong because the Presets are in a predictable location…but if you use USER VOICES (either internal or from the PLUG-IN bank) they have to be restored to the proper locations for the Performance to find them. This is why data for this tutorial is (painstakingly) provided for the particular SLOT you have your PLG150-AN board placed. There are three different sets of data – one appropriate for each of the three SLOTS. Please use the data for your PLG150-AN SLOT.

Loading The Provided Data
Back up your own data prior to loading this data, as it will overwrite your settings and internal data. To do this make sure you save as an ALL data file (.w7a) – this will ensure that you have saved everything. And can restore everything when you are finished experimenting with this set of data.
Transfer the appropriate files to a SmartMedia card (or to a USB drive): "PHAT_ES**x**.w7a/.w8a[1]", (**x** = 1, 2, or 3 depending on your slot) and the "PHATTY~.w2b". For example, if your PLG150-AN is in Slot 1 you should use: PHAT_ES**1**.w7a/.w8a and PHATTY.w2b.

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[1] The .w8a file is "hidden" file. Always copy both w7a and the w8a file together.

The .w7a & .w8a file is an ALL data file and will load all the VOICES and PERFORMANCES and System settings necessary for this bank. An ALL data file was necessary because it includes Foot Switch settings, the Motif ES User Arpeggios in addition to all the PLG_USR Voices, internal Voices and, of course, the Performances. The .wb2 is necessary to load the custom PLG150-AN Board Voices to the PLG150-AN board.

Load the .w7a file from the "ALL" type and the .w2b file via the "PluginAllBulk" type numbered for the slot that contains you PLG150-AN. For example, if your PLG150-AN board were in slot 1, you would use the "PluginAllBulk**1**" Type to load the .w2b data.

- You are also provided the data contained in the .w2b file as an AN EXPERT EDITOR type file (.ans). This is provided so that you can open the data in the AN EXPERT EDITOR to see and learn how these custom Voices were made. So alternatively you could use this .ans file to load the custom Board data to the PLG150-AN from your computer. It is the same data.
- Place your Motif ES in VOICE mode. Make sure your USB connection to the computer is in place and working, then open the AN Expert Editor. You are provided a file for the AN Expert Editor so that you can see how the data was created. Open the "Phatty.ans" file

To select the sounds from Voice mode:
- Press the PLG1, 2, or 3 buttons containing your PLG150-AN board.
- Press F2 BANK and use the DATA WHEEL to select Bank **036/002**. (User Board VOICE bank)
- Press F1 PLAY
- The first USER BOARD Voice in this bank should be "Phatty". If not, please check that you have selected BANK 036/002 and that the .w2b file is loaded (see troubleshooting at the end of the article).
- Shown below is a screen shot for Slot 3:

The BOARD VOICE data:
Px-B: --Phatty (where 'x' is the slot containing your PLG150-AN. For example: if you have your PLG150-AN board in slot 1 the screen will read "P1-B -–Phatty". If your board is in slot 2, the screen will read "P2-B –Phatty".) These are the 'raw' data.

Let's explore this Voice, PHATTY, as an example of how you can see the possibilities of the PLG150-AN. This Voice is a split. It is polyphonic when played above C3 and has a **STEP SEQUENCE** pattern (triggered by notes B2 and below). The Step Sequence will transpose with each note that you play on the keyboard below the split point. Notice that it transposes immediately upon you touching another note (Step Sequence: Keyboard Mode = Mode 1). The tempo, as we will learn about, has been synced to "MIDI". When a PLG150-AN board Voice has an arpeggio or a step sequence and its clock is set to "MIDI" – it will automatically follow the clock of the host product. The MIDI Tempo setting will allow it to slave to the host (Motif) clock. It has a **FREE EG** (a user created control track). Let's take a closer look. Open the AN EXPERT EDITOR file on your computer. Take a look at the PATTERN GENERATOR section in the upper right hand corner of the main screen and click on the "DETAIL" button. The PATTERN GENERATOR of the PLG150-AN can be configured as an ARPEGGIATOR or as an 'old school' STEP SEQUENCER[2]. In this Voice it is a 16-step sequence. Notice that the parameters have a SPLIT POINT that is set to C3. This is of significance because you can split the keyboard and have the lower portion playback the step sequence and the upper portion play normally. This is tied in with the KEYBOARD MODE parameter located in the STEP GRID. It is set to "NOTE SHIFT & NORMAL" – all notes in the lower portion will note shift the step sequence up and down, all notes in the upper portion will play normally. With a split point set to G8, all notes will NOTE SHIFT; with a split set to C-2 all notes will play normally. There are four parameters for each step of the sequence: NOTE, VELOCITY, GATE TIME (Duration) and CONTROL CHANGE. 'Note' and 'Velocity' need no explanation[3]. GATE TIME will control how long the step is held – a low number can create a staccato step, a setting of 100 will create a legato step, and a setting of 200 will make the note overlap its neighbor. CONTROL CHANGE (not used in this particular sequence) can be assigned to any Control Change number 1-95 or to Aftertouch. If, for example, you wanted to add modulation to the step sequence you could program Control Change 001 (modulation) with a

value for a particular step. This particular step sequence is playing FORWARD, is 16 steps in length and each step is a 1/16 note. HOLD MODE 1 means that it will change as soon as you play a note (Mode 2 will wait until the 16 steps complete before changing). And HOLD is ON meaning you do not have to keep a finger on the keyboard in order for the sequence to continue…once triggered it will continue on the last note played. As you will see when you start to customize, the PLG150-AN board will respond immediately to your changes (however, I will mention again that you are editing in an EDIT BUFFER.)[4]

FREE EG – From the main screen find the FREE EG section DETAIL button. FREE EG (Envelope Generator) is so named because the user can freely 'draw' four control tracks for any of 59 parameters. It behaves like a user envelope generator – thus FREE EG. There are four tracks in the FREE EG – only two are used in the PHATTY Voice. Track 1 is assigned to control the "VCF Voltage Control Filter Cutoff" frequency (opening and closing the filter) and track 2 is assigned to control "PWM1/detune" or pulse width modulation detune of VCO 1. Both the filter and the pulse width open up over a 4-measure time, then close back over the next 4-measures – referenced to the current tempo. Hit and hold a note in the upper portion of the keyboard to hear this function. What is going on here is that the sound source VCO (Voltage Control Oscillators) in this sound are pulse waves. A pulse wave is either ON or OFF. A 10% pulse wave is on 10% of the time and off 90% of the time. A 25% pulse wave is on 25% of the time and off 75% of the time. A pulse wave that is on 50% and off 50% is a special case we call a "square" wave. The less time the wave is ON the more nasal it sounds (oboe/clavinet-like), and at 50% ON it sounds "hollow" – (clarinet/woody-like). A PWM sound is one where an LFO is assigned to change the % of the On/Off period of a pulse wave. If you examine the main screen closely you can see that LFO2 is assigned to control the "pulse width". The effect of this type control is sound that swells from nasal to hollow back to nasal, depending on the depth of the PWM. The filter and PWM detune movement are on a 4 measure cycle, based on the clock setting of the Step Sequencer. You will see that the step sequencer is set to MIDI clock – this will allow the PLG150-AN to follow the master clock of the host product, the Motif. When this Board VOICE is

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[2] Those old enough to remember the earliest sequencers remember that there was nothing real-time about data entry. You had a limited number of steps, typically 16, and each pitch was entered manually (usually with a knob or slider). A rest (or pause) cost you a step! Ah, those were the days!!!

[3] Although remember not all analog Voices are velocity sensitive, by design.

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[4] In order to save your data permanently is a multi-step process. First you store the change to the AN Expert Editor via the STORE button on the main screen. Then you must bulk it over to a "036/002" bank location. This will be covered later in the article.

combined later with Motif ES parameters it will automatically synchronize with the tempo of the Motif ES clock (arps, Tempo delays, etc.).

Explore the editor and this bank of custom data when you have the time. Included in this bank (036/002) are several programs expressly to learn from: there is a generic synth bass, synth brass, synth string, electric piano, electric organ, oscillator sync sound, basic pitch width modulation sound, in addition to those that are used in Performances. By studying a simple "init template" voice like these, you can learn about how analog synthesizers *attempted* to recreate the different categories of sounds from the geometric wave shapes available: sawtooth, pulse, square, etc… When you have perused the data in the Board Voice bank, then let's move up a level to the PLUG-IN VOICE bank…

The PLUG-IN VOICE data:
While you are working in the AN Expert Editor the PLG150-AN will respond in real time – you are working in the edit buffer of the board. You cannot write directly to the board, however. The board is only responding to the changes you are making in the editor. If you were to change the Voice (move away and comeback) the edit would be lost. You must bulk the data from the editor to the board for it to remain in a location on the board. Once this Custom Board Voice was created and stored in the AN Expert Editor, it was bulked to location 001 of bank 036/002 of the AN board[5].

Let's take a look at it inside a Motif ES PLUG-IN VOICE. To do this on the front panel of the Motif ES press the F2 Bank button and select the PLGxUSR bank. The "x" will have a number 1, 2 or 3 depending on the slot containing your PLG150-AN. If your board is in slot one select "PLG1USR" and then press F1 PLAY. Select sound 001 **"Co: PHATTY"**. What is different about this version of the data? It is now a Motif ES PLUG-IN VOICE because it has been integrated with Motif parameters, including a two-letter prefix so that you can use the Category Search function and recall it like you do every other Motif ES Voice.[6] It now has Motif ES effects - both the Insertion and System effect processors can be used, and Motif ES controllers have been assigned to the VOICE.
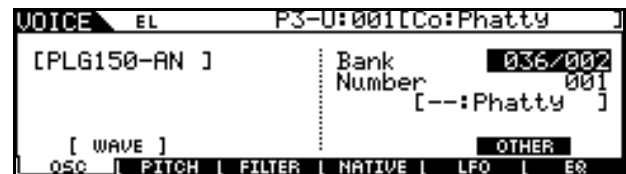
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[5] You can send a single Custom Board Voice to a specific location using the INSERT & TRANSMIT function in the Setup pulldown: "AN Expert Editor Setup…" feature on the toolbar.
[6] "Co" or combination was selected as the Category because combinations can be sub-divided into either splits or sequences. In this case it is a Sequence.

PHATTY at this level is using the Early Reflection algorithm to give it a little ambience:

You can open the Voice Editor for Motif ES 6/7/8 and use it to edit the Plug-in Voice or you can now use the front panel of the Motif ES to make changes. These changes (to the PLUG-IN VOICE) can be stored in the Motif ES. Press EDIT, then touch Element 1 and navigate to the Oscillator Wave page by pressing F1 OSC/SF1 Wave to see how the Voice data is pointing to this 036/002 bank Board Element: Phatty.

If you see a wave element other than Phatty you need to resend the data from the EDITOR (Metallic is the default Voice that occupies location 001 of this bank).

The PERFORMANCES:

First, we created the Board Voice in the PLG150-AN's user bank 036/002. We then assigned that custom Board Voice to a Motif ES Plug-in Voice in the PLGxUSR bank. Now we can take that PLUG-IN USER Voice and place it in a PERFORMANCE combined with up to 3 Internal Motif Voices. Press the PERFORM button and recall Performance 001 **"Co: Phatty"**. This Performance combines our PLG150-AN sound Phatty with a Motif ES Drum Kit (House Kit 1) assigned to a simple drum arpeggio, and a synthesizer lead sound (Ld:ThinkSync).

To play this Performance properly, any note below 'B2' will not only start the drum arpeggio but will start the PLG150-AN Step Sequencer. The step sequence will transpose with any note below the B2 split point. The "Ld: ThinkSync" sound is available across the entire keyboard. With a little practice you can always start the two clocks together. Notice that any key will start the drum arpeggios but only notes below B2 will start the PLG150-AN Phatty sound. If you start the drums first **you** will be responsible for the timing of the "Phatty" sound when you bring it in. If you miss the beat – ouch! But with a little practice you can nail it. Or simply start by pressing a bass note to coordinate the start of the clocks. The KNOB CONTROL FUNCTION parameters can give you access to the tempo – controlling both the drum arpeggio and the step sequence will follow the tempo set for the Performance. The CS controls will allow you to adjust the Volume of the PARTS as follows: CS1 Drums; CS2 Ld: Sync; and CS3 Phatty. Use the SF (Sub-Function buttons to switch Arpeggio Drum patterns).
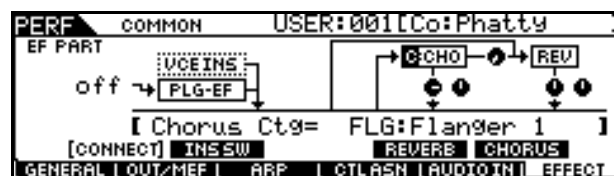
EXPLORE:
Many of the Voices contain PLG150-AN Step Sequences and each of these follows the same scenario as the PHATTY sound. First, take a look at the Custom Board Voice data in the AN Expert Editor. Then go to the PLG_USR bank and see what has been added at the Motif ES level – in terms of effects, controllers, etc. Then go to the Performance and take a look/listen to how it all comes together in a Performance. Those with an (*) asterisk have a Performance made from them. You can see why in the Custom Board Voice: Phatty the arpeggio was set to hold – so that in the Performance you do not have to hold down a note to keep the bass pattern going. So you have to play a bit ahead when thinking about programming. For those of exploring the Voices here is an overview of the Plug-in Voices

The 34 PLUG-IN VOICES:
Co: Phatty – AN Step Sequence, Free EG*
Co: Fat 5th – AN Step Sequence, Free EG*
Co: Acid EG – AN Step Sequence, Free EG*
Co: Noize on – AN Step Sequence, Free EG*
Co: Joshin – AN Step Sequence, Free EG*
Co: Flabber – AN Step Sequence, Free EG*
Co: Bad Sign – AN Step Sequence, Free EG*
Co: 3rd Love 5 – AN Step Sequence, Free EG*
Co: 5th Morph – AN Step Sequence, Free EG*
Co: Short Saw – AN Step Sequence, Free EG*
Co: Noizz – AN Step Sequence, Free EG*
Co: Nu Basic – AN Step Sequence, Free EG*
Co: The Racer – AN Step Sequence, Free EG*
Co: Dark Temple – AN Step Sequence, Free EG*
Co: Maneki – AN Step Sequence, Free EG*
Co: Gabbler – AN Step Sequence, Free EG*
Co: Seismic – AN Step Sequence, Free EG*

Ba: Init Bass – basic synth bass sound emulation
Br: Init Brass – basic brass sound emulation
St: Init String – basic string sound emulation
Kb: Init EP – basic electric piano emulation
Or: Init Organ – basic electric organ emulation
Ld: Init Sync – classic synced oscillator
Pd: Init PWM – classic pulse width modulation
Ld: Tom Sawyer – lead voice emulation
Ba: Uni-Bass – AN Step Sequence, Free EG*
Co: Terraforma – AN Step Sequence Patterns*
Co: FreeEGRt – AN Arpeggio, Free EG*
Ba: Hardstep – bass sound*
Ld: Earth Lead – lead sound
Ld: Chick – lead emulation
Pd: Da Padd – analog pad*
Se: We All... – AN Step Sequence, Free EG
Se: ...Die – AN Step Sequence, Free EG

NEW Performances:

In general the Performances with the "Co" (combination) category prefix use the AN Step Sequence or Arpeggio synchronized with an internal arpeggio (most often Drum arpeggio). If you have an FC4 or FC5, plug it into the Assignable Foot Switch jack – the FT SW is assigned to cc96, which will stop both the drums and the AN Step Sequencer while in Performance mode. Some of the AN and Drum arpeggios are programmed to play even without you holding down any notes. You may notice that it takes a moment for the Motif ES to recall the analog models – so get used to this small hesitation. Analog synths pre-date presets so a lot of the sounds you are hearing here would have taken hours to recall from program sheets – you had to painstakingly recreate each parameter from a piece of paper – so that 250msec hesitation is really nothing in comparison.

Getting the Most of the Data:
When recalling Performances it will be important that you get a clean start when launching both arpeggios – so give the Motif ES a moment to recall all the data before playing. This tutorial is not a complete sound set. It sole purpose is to help you explore some of the possibilities with the AN Physical Modeling Analog board and the power of the Motif ES. Board voices use the AN EXPERT EDITOR; Plug-in voices use the VOICE EDITOR for Motif ES 6/7/8; Performances were created on the Motif ES front panel.

Troubleshooting: There are no rules, but try everything, knobs. You must hit the note cleanly to start the two clocks together (Motif's and PLG150-AN's). Use the Foot Switch to stop both arpeggios. Often the AN Step Sequenced sound is in the LEFT hand split below a certain note. While *any* key will start the drums, only keys below a certain note will start the AN sequence. If you "miss", hit the FT SW twice and retrigger. Once locked in time, they remain locked.

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PERF   DIR                    Performance
BANK USER  GROUP A B C D E F G H
 1 Phatty    5 Joshin   9 5th Morp 13 The Race
 2 Fat 5th   6 Flabber 10 Short Sa 14 DarkTemp
 3 Acid EG   7 Bad Sign 11 Noizz    15 Maneki
 4 Noize on  8 3rd Love 12 Nu Basic 16 Gabbler
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The 25 PERFORMANCES: The first 16 step sequences were derived from the AN200

A1: Co: Phatty – 3 PARTS; Drum Arpeggio (Dr: House Kit1) sync'd with AN Step Sequence. Right-hand pad sync sound with fulltime portamento. The AN step sequence is triggered B2 and below.

A2: Co: Fat 5th- 3 PARTS; Drum Arpeggio (Dr: Tekno Kit) sync'd with AN Step Sequence. Right-hand 5th Lead sound.

A3: Co: Acid EG – 3 PARTS; Drum Arpeggio (House kit); Big Drone lead sound in right-hand; AN Step Sequence below C2.

A4: Co: Noize on – 3 PARTS; Drum Arpeggio (Electric kit); Mr. Cool in the right-hand; AN Step Sequence with FreeEG opening the filter over many measures below C2.

A5: Co: Joshin – 3 PARTS; Drum Arpeggio (HipHop3 Kit); High-pass on MW on right-hand Voice; AN Step Sequence below F#2

A6: Co: Flabber – 3 PARTS; Drum Arpeggio (House Kit2) Filter sync sound in the right-hand; AN Step Sequence below F#2. Techno.

A7: Co: Bad Sign – 3 PARTS; Drum Arpeggio (Analog kit); illbient sound in the right-hand; AN Step Sequence below C2

A8: Co: 3rd Love 5 – 3 PARTS; Drum Arpeggio; Wild AN step sequence against a lead sound; musical 5th comes in on the MW

A9: Co: 5th Morph - Rippin

A10: Co: Short Saw - House

A11: Co: Noizz - Techno

A12: Co: Nu Basic – Filter movement

A13: Co: The Racer - moving

A14: Co: Dark Temple – energy

A15: Co: Maneki - freaky

A16: Co: Gabbler – mad techno

```
PERF   DIR                    Performance
BANK USER  GROUP A B C D E F G H
 1 Funky Ba  5 SeismicG  9 Bass+dru 13 A Visit
 2 Terrafor  6 FreeGroo 10 Fat Stac 14 Race
 3 FreeEGrt  7 SonOfNoi 11 Funk Jam 15 SongWrit
 4 RichPad   8 Big Fun  12 ChinaEns 16 Multiple
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B1: Co: Funky Bass – Groovin' R&B funk line and lead

B2: Co: Terraforma – Each note below B2 has a different Step Sequence against 5 serious funk grooves on the arpeggio Sub-Function buttons. Hundreds of combinations are possible. Each Step Sequence completes its run before next one begins.

B3: Co: FreeEGrthm - A favorite of mine FREE EG Bubbles.

B4: Pd: Rich Pad AT – You can never have enough piano + pad sounds. AN sound on AT

B5: Co: SeismicGrv – Lots of stuff going on: 8 measure User drum Arpeggio sync'd to a User LFO sync'd to a PLG150-AN Step Sequence – STOP action when you release the keys - hope you have a sub-woofer.

B6: Co: FreeGroove – Floating – more in the previous vein.

B7: Me: SonOfNoizz – son of noizz

B8: Co: Big Fun – Hip-hop groove, Sample & Hold, pad, where's Miles?

B9: Co:Bass+drum2 – Jungle stuff

The Morph Function – Go to UTILITY/ F6 PLUG and select the NATIVE X parameters, where X = the slot number of your PLG150-AN board. Here you will find specific parameters concerning the PLG150-AN. Notice you can set up a MORPH function. This can be a sound to which you can morph any current AN sound. For example, go to VOICE mode, select the PLG_USR BANK and select #033(C01)… use the modulation wheel to morph the "We All…" Voice into the "…Die" Voice. Originally, this voice was in the AN1x sound set. The AN1x had two AN engines so each Voice had two "Scenes" – you could morph or fade between the scenes with any assigned controller.

```
UTILITY                  [PLG150-AN    ]
                  PAGE
 Vel Curve              Mrph Pgm No
                 morm                    034
 Mrph CtrlNo            MrphBankLSB
                 001                     002
     STATUS   MIDI  NATIVE1 NATIVE2 [NATIVE3]
 GENERAL   I/O          CTLASN   MIDI   PLUG
```

By setting the "Morph Control No." to 001 (Mod Wheel) the Modulation Wheel will morph the current Voice, as best it can, to the Voice designated by the "Morph Program No" and "Morph Bank LSB" number, i.e., Bank 036/**002** program #**34**. In this case it is the "…Die" Voice. Assign the Morph Control Number to cc022 for Ribbon control. Enjoy…

Phil "Bad Mister" Clendeninn
Senior Product Specialist & MIDI Jedi Knight
Technology Products
Yamaha Corporation of America