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1 Welcome

We are very proud to introduce a new range of dynamic processors for the Merging Technologies' Pyramix DAW.

The FLUX:: Dynamic Processor family features the all-in-one "Solera", the "Pure Compressor", the "Pure Expander", the "Pure DCompressor", the "Pure DExpander".

Solera is the flag ship of the FLUX:: Dynamic Processor family. It is primarily designed for mastering and re-mastering applications. However, it can also be used as a regular dynamic processor for superior sonic quality and distortion free operation.

Every FLUX:: Dynamic Processor plug-in uses some exclusive algorithms that endows them with an incredibly clear and natural sound.

The Pure series uses the same technologies for specific dynamic processes.

Here are some of the key features that make our plug-in the best available for dynamic processing in the digital domain:

1. An analog like metering. RMS values are more useful than dB-fs when setting a dynamic processor.
2. The "Angel's Share" parameter takes account of the signal for intelligent relaxation of the compressor action.
3. The "Hysteresis" parameter allows compressing and de-compressing independently of the sound level and can be mixed with the standard compression scheme
4. The Auto Release features an unique algorithm that avoids typical pumping effect.
5. A delay line can inserted in the signal path to produce a null attack time.
6. The A/B compare and Morphing section enables ultra fast and precise operations.

The FLUX:: Dynamic Processor family supports up to simultaneous 8 channels and DXD operations and ensures the best audio quality ever.

2 Solera

Solera comes from 10-years-long cogitation about the compression, the dynamic, the loudness. How to make a compressor which can add loudness whilst keeping some airiness in the sound, which retains fast transients, subtle distinction and undertone etc ? How to make a processor that can retrieve lost dynamic? Or just to be able to add contrast, to increase low level ambiance or to sharpen the sound etc… How can we imagine doing without sound Level to compress the sound constantly without losing the “nuance” nor pumping? And so more questions.

Thanks to Yves, Jérôme, Graemme, Laurent, Rodolphe and Ronald for all the discussions which largely contributed to finding a solution.

Thanks to George Massenburg for his Model 8900 which opened the ways.

Solera implements 4 different detectors and envelop generators in parallel and simultaneous: compressor, de-compressor, expander and de-expander. All can be independently switched on or off 25 and implement an activity display 26 near to their controls. For each you can set the threshold 27, the ratio 28 and a knee 29 (hard to very soft knee).

On top of these controls you’ll find a display area that show you the resultant dynamic curve and from left to right, the Input level 7 (vu-meter not peak-meter, referenced to -16 dB FS), the Output level 8, the resultant envelop 10 (compression, decompression, and clipper activity), the dynamic difference between in and out 11 and the level difference between in and out 12. Just under these meters, you find the dynamic meter 13 (in orange) and another one 14 (blue segment) which represent the release variation in auto-release mode (variation between fast release on the left to slow release on the right). There’s also a parametric curve for the side-chain EQ 15, 32, 34, 36, 37.

To finalize the description of the standard things; there’s an Input level 3, an Output level 4, a Bypass 1, a Clipper 2 (brick wall limiter to 0 dB FS) and an EQ section (which is only applied to the detection channel if you don’t enable the Solo function 33). The EQ graphic curve can be enlarge by double-clicking. A new double-click on the enlarged version will toggle it back to the reduced size.

Solera + is an improved version. It features a Range control 43 for each dynamic section. The Detector Equalizer now features three sections 44, allowing a super precise tuning of the Solera +. The Clipper now requires less CPU.

5 Displays the overall **transfer curve** for the current settings including all active dynamic sections of the Solera.

6 Displays the **scale** for the transfer curve. It is automatically adjusted to the threshold settings

7 & 8 When MS mode is enabled, the M level is displayed on the left vu and the S level is displayed on the right vu.

15 is the **graphic display** for the detector EQ section. This curve can be set directly with the mouse if the EQ section is enabled. A right-click allows you to adjust the Q-factor with the mouse.

16 **Delay**: Enables the delay line on the signal path allowing you to sync the signal processing to the detection scheme which is done in RMS with an integration time equal to the attack time.

17 The **Auto** function set the delay automatically which produce a dynamic processing with an “attack zero”. The attack settings will therefore be used to speed up or slow down the integration time

18 sets the **Attack Time** for all dynamic process. It also sets the delay line value if Auto is enabled for delay.

19 **Release Mode:** Auto Release & Advanced Auto Release: In Auto Release all is done automatically and solera will try to mach the release to the audio material. In Advance Auto-Release, you will be able to indicate to the auto-release engine the action range: Release gives Release Maximum, the slower possible and release Minimum is the faster one. You can also set the velocity of the engine (variation speed).

20 sets the **Release** value for the manual mode and maximum release value in advanced mode.

21 sets the **Minimum release** value in advanced mode.

22 sets the **Velocity** of the release value variation in advanced mode.

23 sets the **Width** of the stereo signal when the MS mode is activated. A 0.00 value produces no changing. A -6 value produces a mono output.

24 **MS** (only in 2 channels): Solera will encode the input signal in MS, make his processing then decode back to stereo while applying the clipper (if on). The MS Width allows expending or shrinking the stereo width.

30 **Angel's Share**: to literally open the sound, increase the dynamic impression, keep some crest etc.

31 **Hysteresis:** allows compressing and de-compressing independently of the sound level and can be mixed with the standard compression scheme; the second magic button. This setting doesn't act on the expander and the de-expander.

38 is the **display and edit** area for the preset name.

39 is the **browser** for presets.

40 saves the preset in its current state.

41 recalls the selected preset.

42 There are two preset slots to store and recall settings; with a **"Morphing Slider"** in between to go from one to another preset. Double click on the slider to directly switch between A and B. Right click on the display Area to import or export preset and right click on a control to set the automation mode, reset it to the default value, Inc or Dec it and store/recall independent value.

Using the **Ctrl key** constrains the value variation of controls to 6 dB for levels, 100 Hz for frequencies, and 1 dB for ratio.

Using the **Ctrl + Shift** keys enables a fine tuning of the parameter.

Solera *is a wine making technique: A solera is method of fractional blending for wine, closely paralleling the making of Sherry or Malaga. A solera consists of several rows of stacked oak barrels with the oldest wine in the bottom row and the most recently made at the top. At bottling, about one-third of the wine in the bottom row is removed and wine from the row just above replaces it and soon, until reaching the top row, which is replenished with new wine. The concept behind a solera is to make a wine that remains consistent from year to year.*

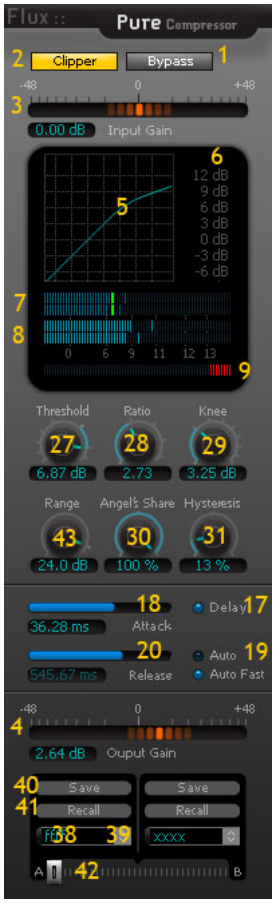
Angel's Share *is a term used for Armagnac, Cognac, Whisky; that part of the spirit that evaporates during the process of aging.*

3 Pure Compressor

Pure Compressor is the compressor section of the Solera.

It uses the exclusive “Angel’s Share” and “Hysteresis” algorithms developed by FLUX::

Pure Compressor produces a wild range of compressions from ultra clean subtle compressions to classic heavy pumping ones. It’s up to your artistical choices not to the technology limitations.



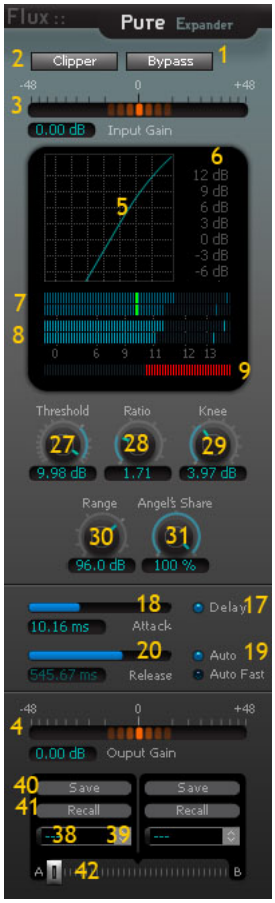
Please refer to the Solera section for a complete description of the settings.

4 Pure Expander

Pure Expander is the expander section of the Solera.

The exclusive the “Angel’s Share” algorithm developed by FLUX:: allows you to remove unwanted noise or reverberation without adding a processed character to your sound.

Pure Expander produces a wild range of expansion process from subtle expansions to hard noise-gate like ones.



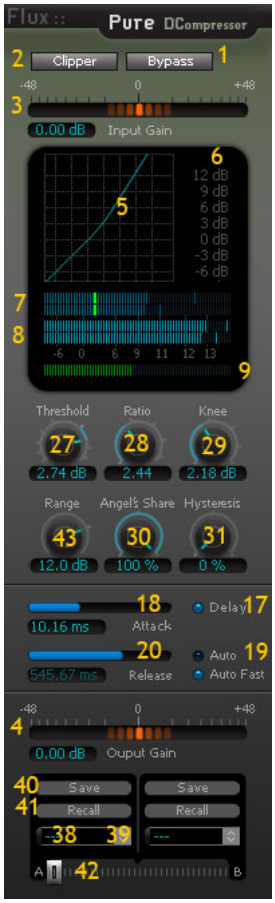
Please refer to the Solera section for a complete description of the settings.

5 Pure DCompressor

Pure DCompressor is the de-compressor section of the Solera.

It uses the exclusive “Angel’s Share” and “Hysteresis” algorithms developed by FLUX::

Pure DCompressor allows you to restore the original dynamic of a sound. It‘s very useful for heavily compressed signal. Pure DCompressor adds some naturalness.



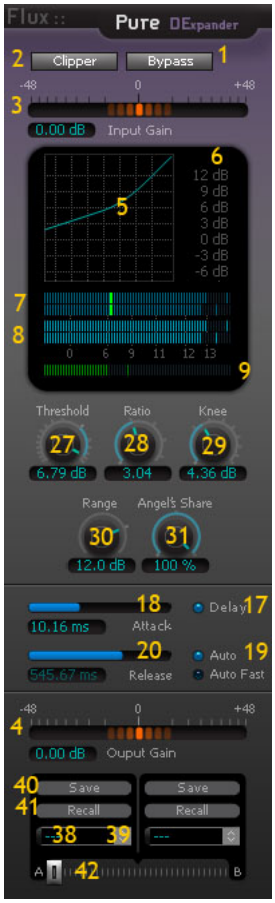
Please refer to the Solera section for a complete description of the settings.

6 Pure DExpander

Pure DExpander is the de-expander section of the Solera.

It uses the exclusive the “Angel’s Share” algorithm developed by FLUX::

Pure DExpander enhances the low levels of the sound. The specialization information is magnified. Pure DExpander makes also your sound more compact. The “Angel’s Share” algorithm permits some heavy processing while keeping an organic character.

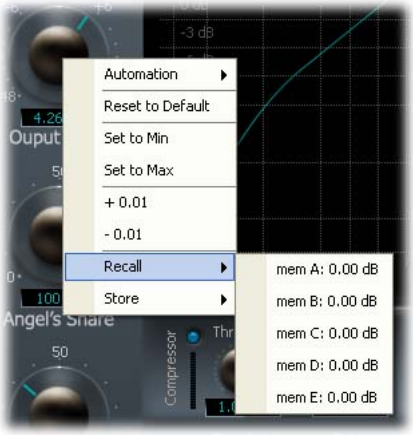


Please refer to the Solera section for a complete description of the settings.

7 Preset Management

Solera allows users to have a bank of five presets for every setting.

A right-click on the control displays the specific panel to manage individual setting presets.



Solera allows users to compare and morph between 2 global presets.

To recall a preset in the A or the B section:

1. Click on the browser button of the corresponding section.
2. Select the desired preset in the shared preset bank.
3. Press the recall button.

To create a new preset:

1. Click on the browser button.
2. Select an empty preset or a redundant one.
3. Enter a name for this new preset.

4. Press the save button.

A double-click on the morphing slider area produces an instant A/B compare. If the slider is moved from A to B, all the settings are interpolated from one value to another allowing to the user set all parameters at one time with a single mouse action. Of course an in-between setting can be stored as new global preset.

As usual for Pyramix' plug-in, global presets can be imported and exported with a right-click on the plug-in's container.

8 Automation

Every control can be automated except the morphing fader.

A right-cliick on the control display the panel for automation.

A black square means that the control is in Isolate mode.

A green square means that the control is in Play mode.

A red square means that the control is in Record mode.

By default all controllers are in Auto-Write mode.

9 Specifications

Solera	
Bypass	1
Clipper	1
Input Level	-48dB to +48dB
Output Level	-48dB to +48dB
Angel's Share	0 to 100%
Hysteresis	0 to 100%
Auto Delay	1
Signal Delay	0 to 312 mS
Attack	0 to 310 mS
Release Mode	3
Release Minimum	1,45 to 10913 mS
Release Velocity	1,45 to 5456 mS
MS matrix	10 to 1000 %
MS width	- 6dB to +6 dB
Detector EQ	1
Detector Solo	1
Filter Type	5
Gain	- 24 dB to +24 dB
Frequency	5 to 22050 Hz
Q-Factor	1 to 100
Compressor Enable	1
Threshold	-32 dB to + 16dB
Ratio	1 to 10
Knee	0 to 24 dB
Expander Enable	1
Threshold	-80 dB to + 16dB
Ratio	1 to 10
Knee	0 to 24 dB
DCompressor Enable	1
Threshold	-32 dB to + 16dB
Ratio	1 to 10
Knee	0 to 24 dB
DExpander Enable	1

Threshold	-80 dB to + 16dB
Ratio	1 to 10
Knee	0 to 24 dB
Number of Presets	51
Loaded presets	2
Preset Morpher	1
Save	2
Recall	2

Pure Compressor / Pure DCompressor	
Bypass	1
Clipper	1
Input Level	-48dB to +48dB
Output Level	-48dB to +48dB
Angel's Share	0 to 100%
Hysteresis	0 to 100%
Auto Delay	1
Signal Delay	0 to 312 mS
Attack	0 to 310 mS
Release Mode	2
Release	1,45 to 10913 mS
Threshold	-32 dB to + 16dB
Ratio	1 to 10
Knee	0 to 24 dB
Number of Presets	21
Loaded presets	2
Preset Morpher	1
Save	2
Recall	2

Pure Expander / Pure DExpander	
Bypass	1
Clipper	1
Input Level	-48dB to +48dB
Output Level	-48dB to +48dB
Angel's Share	0 to 100%
Auto Delay	1
Signal Delay	0 to 312 mS
Attack	0 to 310 mS
Release Mode	2
Release	1,45 to 10913 mS
Threshold	-80dB to + 16dB
Ratio	1 to 10
Knee	0 to 24 dB
Number of Presets	21
Loaded presets	2
Preset Morpher	1
Save	2
Recall	2

10 Presets on Paper

Solera	Preset	Solera	Preset	Solera	Preset	Solera	Preset
Clipper		Clipper		Clipper		Clipper	
Input Level		Input Level		Input Level		Input Level	
Output Level		Output Level		Output Level		Output Level	
Angel's Share		Angel's Share		Angel's Share		Angel's Share	
Hysreresis		Hysreresis		Hysreresis		Hysreresis	
Auto Delay		Auto Delay		Auto Delay		Auto Delay	
Signal Delay		Signal Delay		Signal Delay		Signal Delay	
Attack		Attack		Attack		Attack	
Release Mode		Release Mode		Release Mode		Release Mode	
Release		Release		Release		Release	
Release Minimum		Release Minimum		Release Minimum		Release Minimum	
Release Velocity		Release Velocity		Release Velocity		Release Velocity	
MS matrix		MS matrix		MS matrix		MS matrix	
MS width		MS width		MS width		MS width	
Detector EQ		Detector EQ		Detector EQ		Detector EQ	
Filter Type		Filter Type		Filter Type		Filter Type	
Gain		Gain		Gain		Gain	
Frequency		Frequency		Frequency		Frequency	
Q-Factor		Q-Factor		Q-Factor		Q-Factor	
Compressor Enable		Compressor Enable		Compressor Enable		Compressor Enable	
Threshold		Threshold		Threshold		Threshold	
Ratio		Ratio		Ratio		Ratio	
Knee		Knee		Knee		Knee	
Expander Enable		Expander Enable		Expander Enable		Expander Enable	
Threshold		Threshold		Threshold		Threshold	
Ratio		Ratio		Ratio		Ratio	
Knee		Knee		Knee		Knee	
DCompressor Enable		DCompressor Enable		DCompressor Enable		DCompressor Enable	
Threshold		Threshold		Threshold		Threshold	
Ratio		Ratio		Ratio		Ratio	
Knee		Knee		Knee		Knee	
DExpander Enable		DExpander Enable		DExpander Enable		DExpander Enable	
Threshold		Threshold		Threshold		Threshold	
Ratio		Ratio		Ratio		Ratio	
Knee		Knee		Knee		Knee	
Preset Number		Preset Number		Preset Number		Preset Number	
Preset Name		Preset Name		Preset Name		Preset Name	

Pure Compressor	Preset	Pure Compressor	Preset	Pure Compressor	Preset	Pure Compressor	Preset
Clipper		Clipper		Clipper		Clipper	
Input Level		Input Level		Input Level		Input Level	
Output Level		Output Level		Output Level		Output Level	
Angel's Share		Angel's Share		Angel's Share		Angel's Share	
Hysreresis		Hysreresis		Hysreresis		Hysreresis	
Auto Delay		Auto Delay		Auto Delay		Auto Delay	
Signal Delay		Signal Delay		Signal Delay		Signal Delay	
Attack		Attack		Attack		Attack	
Release Mode		Release Mode		Release Mode		Release Mode	
Release		Release		Release		Release	
Threshold		Threshold		Threshold		Threshold	
Ratio		Ratio		Ratio		Ratio	
Knee		Knee		Knee		Knee	
Preset Number		Preset Number		Preset Number		Preset Number	
Preset Name		Preset Name		Preset Name		Preset Name	

Pure Expander	Preset
Clipper	
Input Level	
Output Level	
Angel's Share	
Auto Delay	
Signal Delay	
Attack	
Release Mode	
Release	
Threshold	
Ratio	
Knee	
Preset Number	
Preset Name	

Pure Expander	Preset
Clipper	
Input Level	
Output Level	
Angel's Share	
Auto Delay	
Signal Delay	
Attack	
Release Mode	
Release	
Threshold	
Ratio	
Knee	
Preset Number	
Preset Name	

Pure Expander	Preset
Clipper	
Input Level	
Output Level	
Angel's Share	
Auto Delay	
Signal Delay	
Attack	
Release Mode	
Release	
Threshold	
Ratio	
Knee	
Preset Number	
Preset Name	

Pure Expander	Preset
Clipper	
Input Level	
Output Level	
Angel's Share	
Auto Delay	
Signal Delay	
Attack	
Release Mode	
Release	
Threshold	
Ratio	
Knee	
Preset Number	
Preset Name	

Pure DCompressor	Preset
Clipper	
Input Level	
Output Level	
Angel's Share	
Hysreresis	
Auto Delay	
Signal Delay	
Attack	
Release Mode	
Release	
Threshold	
Ratio	
Knee	
Preset Number	
Preset Name	

Pure DCompressor	Preset
Clipper	
Input Level	
Output Level	
Angel's Share	
Hysreresis	
Auto Delay	
Signal Delay	
Attack	
Release Mode	
Release	
Threshold	
Ratio	
Knee	
Preset Number	
Preset Name	

Pure DCompressor	Preset
Clipper	
Input Level	
Output Level	
Angel's Share	
Hysreresis	
Auto Delay	
Signal Delay	
Attack	
Release Mode	
Release	
Threshold	
Ratio	
Knee	
Preset Number	
Preset Name	

Pure DCompressor	Preset
Clipper	
Input Level	
Output Level	
Angel's Share	
Hysreresis	
Auto Delay	
Signal Delay	
Attack	
Release Mode	
Release	
Threshold	
Ratio	
Knee	
Preset Number	
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Pure DExpander	Preset
Clipper	
Input Level	
Output Level	
Angel's Share	
Auto Delay	
Signal Delay	
Attack	
Release Mode	
Release	
Threshold	
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Knee	
Preset Number	
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Pure DExpander	Preset
Clipper	
Input Level	
Output Level	
Angel's Share	
Auto Delay	
Signal Delay	
Attack	
Release Mode	
Release	
Threshold	
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Knee	
Preset Number	
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Pure DExpander	Preset
Clipper	
Input Level	
Output Level	
Angel's Share	
Auto Delay	
Signal Delay	
Attack	
Release Mode	
Release	
Threshold	
Ratio	
Knee	
Preset Number	
Preset Name	

Pure DExpander	Preset
Clipper	
Input Level	
Output Level	
Angel's Share	
Auto Delay	
Signal Delay	
Attack	
Release Mode	
Release	
Threshold	
Ratio	
Knee	
Preset Number	
Preset Name	

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