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Bass Line

Update 1.5 Summary



New features (version 1.5)

- Improved oscillator emulation
- Additional foldback distortion unit
- Skin interface (two included skins)
- Midi output (unsupported feature as this is very host dependant).
- Knobs send MidiCC which enables ABL to be used as a virtual Midi controller
- General model improvements
- ~70 included example patterns (Thanks Rob)
- Improved registration process with cross platform license keys
- Copy/Paste pattern can now be done between instances
- Additional 303 type programming mode
- Available for PC: **VST** and Mac OS X: **VST** and **AU**

Confirmed hosts (Mac OS X)

- Logic Audio 6.3.3
- Ableton Live 4
- GarageBand
- Rax (Granted Software)

Skin interface

The appearance of ABL 1.5 can be altered by the user using the skin interface. Two example skins are included (the standard BeautifulScreen/Yellow and a less resource intense CarbonSmall one). Please note that these skins are copyrighted to AudioRealism/BeautifulScreen and can therefore not be used outside the ABL context. See the appendix for a description of the skin interface format.

Improved oscillator emulation

The oscillator of ABL 1.5 has been improved using a bistable algorithm which emulates the nature of analog oscillators. The effect is that the oscillator will contain more energy and additional drive to the filter (typically characterized as the 'ripping' sound). Oscillator can be switched back to the ABL 1.0/1.1 via the Options menu if so desired.

Differences between AU and VST versions

The following functions are currently not available in the AU version:

- Keyboard shortcut programming (i.e. using the computer keyboard assigned to buttons on ABL's interface)
- Knob mode is fixed to linear

The OS X VST version is designed to work with FXpansion VST->AU wrapper, in which case the above functions above are up to the host to support. The Gui settings are stored in AuGui.ini for AU version. This allows VST and AU to have different settings.

General model improvements

In addition to the improvements to the oscillator there have been some minor updates to the engine. It is possible to set the engine back to an earlier version using the EmulationMode tag in the Config.ini file. This is not recommended however, as testing was only aimed for the 1.5 version, and therefore this must be considered an *unsupported feature*.

Additional Foldback Distortion unit

ABL 1.5 has an additional foldback distortion which can be selected via the Options menu. There is also a possibility to add a Gui-switch for selecting distortion (see Appendix: Skin interface format). This new control is an additional parameter which can be automated by the host and/or assigned to a Midi controller.

Midi Output

ABL's sequencer can now send Midi to the host. The knobs of ABL will also transmit CC messages. This means ABL can be used as a virtual Midi controller. Using Midi Out requires a host that can receive Midi events, for example Cubase SX2 or Rax by Granted Software which has a good implementation with Midi input filtering, meaning ABL can drive a whole rack of different synths.

Due to the nature of the sequencer only note on/off and pitch messages are sent. There is no way for to send slides or accents from the internal sequencer.

- In the VST version the host needs to be able to listen and route Midi events. ABL will be published as an additional Midi source.
- In the AU version ABL creates an additional Midi port which the host can listen to. The creation of the Midi Out port can be prevented by setting the MidiOutputDisabled = 1 tag in Config.ini (see *Appendix: New Config.ini and Gui.ini tags*).

Since this behavior of plug-ins sending Midi is rather new, we consider this an *unsupported feature*, meaning the function there but not guaranteed to work.

Additional 303 type programming mode

ABL 1.5 supports an alternative programming mode, which can be accessed with the *Option->Switch Programming Mode* menu entry. This programming mode is more like the original 303 in the sense that there are now two modes for entering sequences:

1. *Time mode* (also used as the Note on/off button in standard programming mode)
2. *Pitch mode* (also used as the Auto Advance button in the standard programming mode)



Example: CarbonSmall skin

Using Pitch mode (P) the notes with effects can be entered in as in the standard way. In Time mode(T) the Down(●), Up(◐), and Accent(-) buttons double as 16th, tie and rest respectively. Once one of these buttons have been pressed ABL will automatically go to the next step. It will stop on the last step, to avoid overwriting the first steps of the same pattern. Double clicking P or T will return ABL to the first step of the pattern.

In the original 303 the pitch notes are picked chronologically (that is, every 16th note picks the next note in the sequence). In ABL the note picked is on the corresponding step in Pitch mode. Example: Enter Pitch Mode: C,D,E,F,A,G and Time Mode: ●, ◐, ◐, ●, ◐, - The 303 would play this back as long C and a long D. ABL will play this back as a long C and a long F.

Improved registration process

The new registration process allows the user to enter the registration information him/herself. When the registration info has been completed it will not be asked for again.

Appendix: New Config.ini, Gui.ini and MidiCC.ini tags

Config.ini Tags	Valid range/values	Description
EmulationMode	0 – ABL 1.0 1 – Freebee 2 – ABL 1.1 3 – ABL 1.5 (latest)	Default emulation mode is latest
MidiOutput	0 – off 1 – on	Midi output is off by default
MidiOutputChannel	1-16	Default Midi output channel is 1
MidiInputChannel	-1 – ALL, 1-16	(AU only) Default is ALL
MidiOutputDisable	0 – not disabled 1 – disabled	(AU only) Midi Output port can be disabled
ProgrammingMode	0 – Standard 1 – Quirky (ABL 1.5)	Default: Standard

Gui.ini Tags	Valid range/values	Description
SkinShowDialog	0 – off 1 – on	Show skin switching dialog (default on)

ClearConfirm	0 – off 1 – on	Clear pattern button can be protected by a dialog (default off)
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MidiCC.ini Tags	Valid range/values	Description
MidiCC.DistortionType	-1 off, 0-127	Default CC is 80

Note: On changing any of these parameters, make sure to use *Option->Reload Configuration*, otherwise any changes made might be lost when closing ABL.

Appendix: Skin interface format

A skin is a set of bitmaps and a text file describing the locations and size of the bitmaps. Each control or button of ABL's interface can be a unique bitmap. Animation frames are stacked vertically in the bitmaps. Two types of buttons are available, the standard button/diod configuration, or the new self illuminated 4 state buttons which were introduced in ABL 1.1. The skin interface supports transparency masking by allocating one color to be the transparent color.

The Skin interface format is made up of lines in text format:

Tag "filename", X,Y,Width,Height

- Tag is the identifier for the control or property.
- Filename must be enclosed in quotation marks (""). Filenames are always relative to the directory in which the plug-in resides. Only Windows .bmp bitmaps are supported.
- X,Y is the offset into the plug-in window where the control should be drawn (for BACKGROUND this must be 0,0)
- Width, Height is the displayed region in the window (ie NOT the actual size of the bitmap, as the number of images of the bitmap is calculated by taking bitmap size and dividing by Height)

Example:

NOTEBUTTON3 "CarbonSmall\notebutton.bmp", 128, 143, 18,18

Note: There should be no comma (,) between the Tag and Filename!

Tag	Description
NAME	Name of the skin displayed in the Option menu
TRANSPARENTCOLOR	R,G,B color that specifies the color to be transparent
BACKGROUND	Background image
ILLUBUTTON1-13	Self illuminating buttons for pitch keyboard
ILLUBUTTON14	Pitchmode/Auto advance
ILLUBUTTON15	Run/Stop
ILLUBUTTON16	Time mode or Gate on/Gate off

ILLUBUTTON17	Down octave
ILLUBUTTON18	Up octave
ILLUBUTTON19	Accent
ILLUBUTTON20	Slide
ILLUBUTTON21	Increase number of steps
ILLUBUTTON22	Decrease number of steps
ILLUBUTTON23	Function button 1
ILLUBUTTON24	Function button 2

VST Plug-In Technology by Steinberg

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