



THE REFERENCE PLUGIN

Magic AB User Guide
release version 2.1.1 (January 2015)
by Sample Magic

support, updates and videos www.samplemagic.com/details/184/magic-ab

concept Sample Magic and Marc Adamo
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documentation Marc Adamo and David Felton
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Magic AB v2 / Disclaimer

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Special thanks to the Beta Test Team, who were invaluable not just in tracking down bugs, but in making this a better product.



Magic AB / System requirements

System requirements

Windows

- Windows Vista or higher (tested up to Windows 10)
- SSE2-enabled processor (Pentium 4 or later)
- Minimum 2GB RAM.
- Any VST / Audio Unit (32/64-bit) / AAX-compatible host software.

Mac OS X

- Mac OS X 10.7 or higher (tested up to 10.10 El Capitan)
- Intel processor Mac
- Minimum 2GB RAM.
- Any VST / Audio Unit (32/64-bit) / AAX-compatible host software.

Audio files supported

- WAV and AIFF up to 24-bit / 96kHz, mp3, m4a, AAC

DAWs supported





Magic AB v2 / Updates and support

Updates

VERSION 2.1.1 - 19 January 2016

- Fixed - Bug in Ableton 9.5 causing Undo list to fill with infinite amount of 'TRK 9 Play' entries.
- Fixed - Bug causing Logic X to crash on some systems.
- Fixed - Pro Tools crashing when swapping Magic AB version 1 for version 2 in a slot without removing V1 completely first.
- Fixed - Track names showing correctly (not truncated) in track slot and main display.

VERSION 2.1 - 14 December 2015

- Fixed - Loop issue with Track 1 not looping properly when switching streams.
- Fixed - Audio buffer noise in Sync Mode when track finished before time line ends.
- Enhancement - Presets now start tracks playing from saved Cue point 1 (instead of start of track) .

VERSION 2 – November 2015

- Added – Rebuilt one-click instant A-B track referencing engine supporting up to nine audio tracks
- Added – Loads all popular and professional audio file formats – there's no need to convert files first
- Added – New Latch, Sync and Manual playback modes to suit your workflow (Latch playback to DAW transport; Sync playback to DAW timeline; Manual playback – for freeform referencing)
- Added – Drag and drop loading
- Added – Mono-Stereo monitoring
- Added – High resolution output meters allow you to focus on the top 12 dB of headroom.
- Added – Peak, RMS and Crest values with adjustable Peak fall time.
- Added – Add multiple Cue and Loop points per track
- Added – Cue point naming
- Added – Redesigned Mini AB with more options and a smaller footprint
- Added – Deactivate tracks – instantly save RAM
- Added – Smoother, more accurate zoom functionality
- Added – Efficient preset system with audio file management.

Note to version 1 users: Magic AB v2 is a whole new plugin, built from scratch with a new framework for more efficient playback and CPU usage. This means it is not backwards compatible with v1 presets. You can keep using v1 as long as you like, and you can use v1 and v2 in the same project. When updating, v2 must be authorised with a new serial number – which you will find in your account (see page 7).

FAQs

The latest Magic AB FAQs are in the SM Help Centre at: www.samplemagic.com/information/36/magic-ab-faqs

Quick-start videos

The SM YouTube channel features a range of quick-start videos for getting more from Magic AB, including:

- **Magic AB Quick-Start:** www.youtube.com/watch?v=Q6Yyn83AmmY
- **Magic AB Smart Controls for Logic X:** www.youtube.com/watch?v=zdaqjl2puNY

A full list of videos can be found here: www.samplemagic.com/details/184/magic-ab



Magic AB / Installation – Mac

Installing Magic AB v2 on a Mac



Sample Magic –
MagicAB v2.pkg.zip

1 – Double-click on the file ‘MagicAB v2.mpkg.zip’. This unpacks the zip into the installer file.

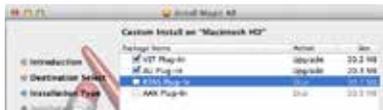


Sample Magic –
MagicAB v2.pkg

2 – Double-click on the file ‘MagicAB v2.pkg’. This starts the installer which will guide you through the process. Click continue to start the install.



3 – Click continue to start the install then select the destination drive.



4 – The standard install will install all plugin formats. If you wish to customise the install, select the formats you wish to install. Click ‘Continue’.



5 – If you wish to install to a custom directory click ‘Change Install Location’.



6 – Click ‘Install’ and enter your password if applicable.



7 – The software is now installed. Click ‘Close’ to finish.

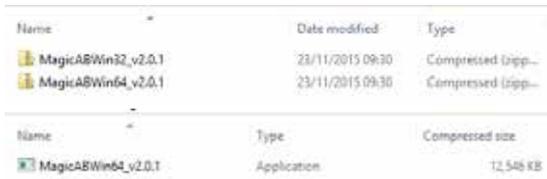


Note: If you are getting security issues preventing you from installing, go to System Preferences > Security & Privacy (General) and ensure the radio button ‘Allow apps downloaded from: Mac App Store and identified developers’ is highlighted.



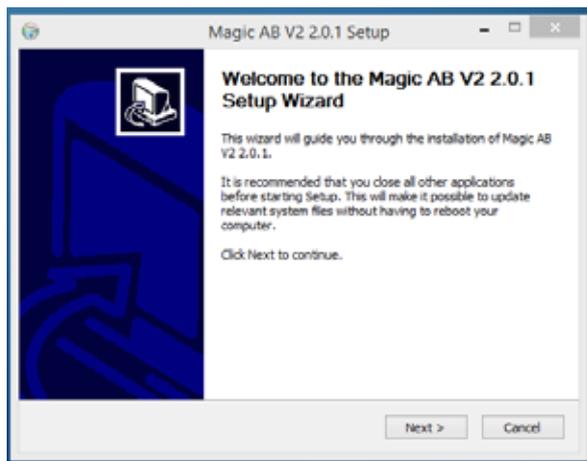
Magic AB v2 / Installation – PC

Installing Magic AB on a PC

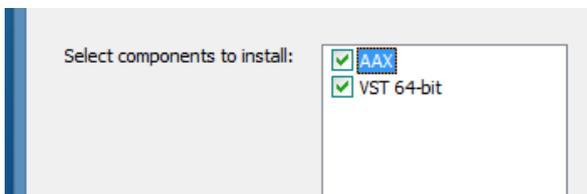


1 – Choose the 32- or 64-bit version and double-click the Zip file to expand.

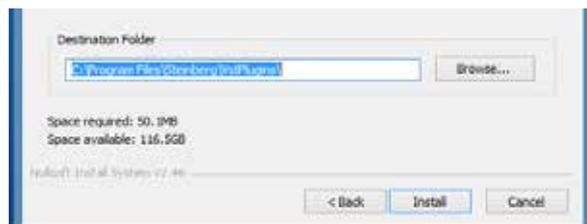
2 – Double-click the .exe file to launch the installer.



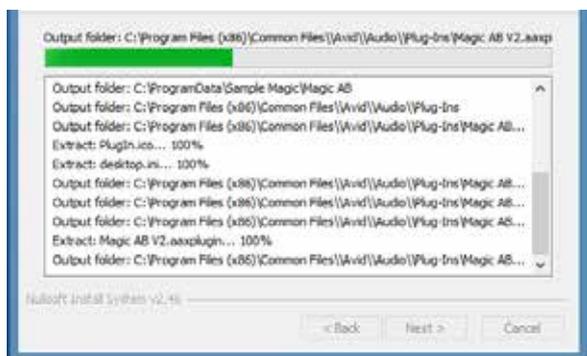
3 – The setup wizard will guide you through installation. Click 'Next' to continue.



4 – Select a format to install: VST and/or AAX.



5 – Choose an install location and click 'Install' to continue.



6 – The installer will now install the plugin.

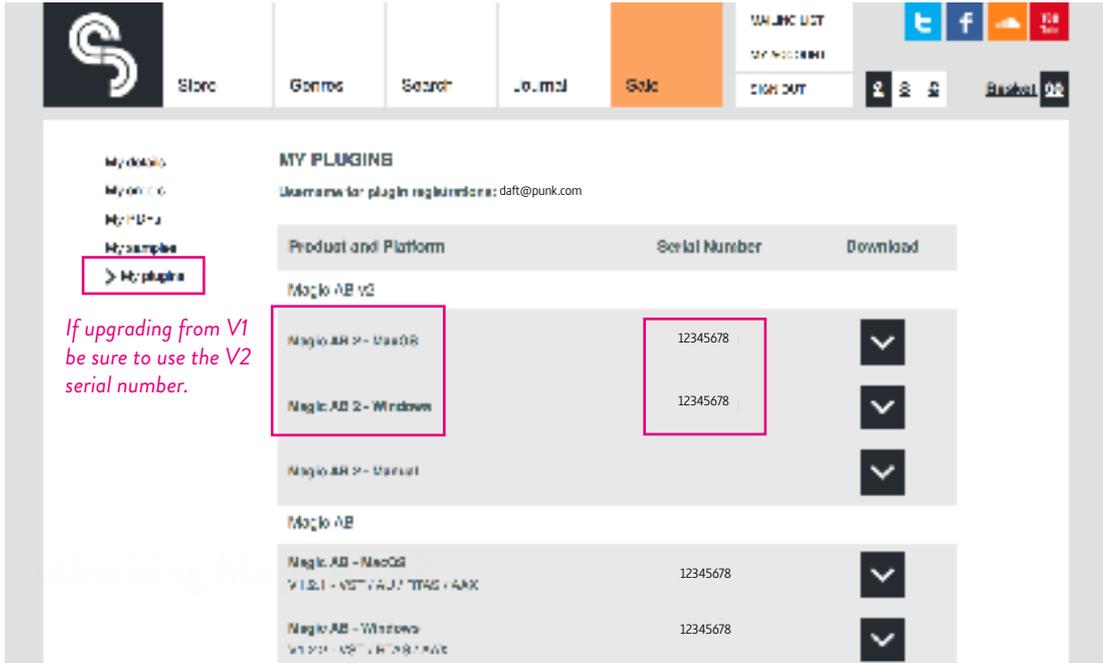


7 – Click Finish to complete installation.



Downloading Magic AB v2

After purchasing Magic AB, you can download it from the MY PLUGINS area of your Sample Magic account. (Just login at www.samplemagic.com, click on MY ACCOUNT and then MY PLUGINS.)



The plugin needs to be authorised the first time it is launched.

You will be asked for the email address associated with your Sample Magic account and the unique eight digit **serial number** generated in your MY PLUGINS download area. Enter these details into the pop-up panel that opens during loading of your DAW.

(If upgrading from V1 you still need to authorise using a new serial number found in your MY PLUGINS area.)



Note: If you cannot copy/paste the serial number into the box then please type it in manually.



Magic AB v2 / Welcome

Welcome to Magic AB v2, the all-new version of Sample Magic's award-winning referencing plugin.

The concept behind Magic AB is simplicity itself – an easy-to-use but powerful utility that allows you to compare the track you are working on with up to nine tracks in an instant.

Magic AB is both an indispensable mixing tool and a serious workflow improver that allows the producer to:

1 Perform instant AB references: to compare the track you are working on in your DAW with a commercially produced reference track. Like the production values of Daft Punk? Or Pink Floyd? Or Nirvana? No problems – import your chosen reference tracks into Magic AB and then flick between them and your own in-progress track using a single mouse click.

2 Hone in on the details: play/cue the reference track from the part you want to hear and loop the section you want to focus on – there's no need for tiresome rewinding and endless internal waveform navigation. In version 2, you are able to set up to four cue and loop points for each reference track.

3 Compare multiple mixes quickly and simply: create and save your own 'go-to' playlists to radically speed up mixing and mastering. Version 2 offers three distinct playback modes: Sync, in which AB latches to the DAW timeline; Latch, in which the DAW's transport controls AB; and Manual playback for V1-style freeform referencing.

4 Balance the relative volume of mixes so that you're always comparing like with like. V2 offers a range of improvements here, from Mono/Stereo monitoring, through high-res output meters that allow you to focus on the top 12dB of headroom, to Peak, RMS and Crest displays with adjustable Peak fall time.

5 Give your ears a chance to recalibrate: with manually changeable crossfade times. Flip in an instant, or allow a transition of up to 2000ms.

Of course, AB referencing is nothing new. Producers have been doing it for decades. In the home studio this referencing is invaluable, allowing your ears to recalibrate to a well-produced commercial master recording to help you sculpt your own mix to get an ever higher quality sound. This is especially useful when your monitoring environment or speakers are less than perfect.



But pro mixers and mastering engineers are no strangers to ABing either – regularly checking that their own mixes (or masters) stack up against other commercially produced tracks or tracks that clients have provided as benchmarks.

Every producer has their own way of ABing. Magic AB's beauty is its simplicity: in one plugin, you can compare your own track to nine pre-loaded reference tracks in an instant. There's no more setting up complex bus routings, needless channel muting, or flicking between outputs; it's all there in one stripped-back interface that does one thing in as efficient a way as possible – without draining more than a fraction of your CPU resources.

But ABing full mixes is just one feature of Magic AB. It can be just as useful when moved from the master bus onto individual channels when working on a new track, to help you emulate a beat you admire, or a kick drum, or a guitar sound. Placed on a single channel, you can AB between the source material and the part you're working on, regularly switching between the two as you hone the tone you want.

It has mastering applications too, allowing mastering engineers to compare in an instant the track they are working on not just to other commercial masters, but also to the other tracks on the album. Of course, you can do that already, by having every track loaded into the same DAW. But you'll never do the same job as quickly or effortlessly as with Magic AB. And in mastering houses time is money.

Magic AB won't give you a stunning new synth sound, or a great new kick, or a sexy reverb. But it will do two things it's hard to put a value on: improve your mixes and streamline your workflow immeasurably. Our users, like us – can no longer imagine studio life without it.

And in V2 what was powerful and intuitive has become doubly so, with numerous workflow improvements from drag and drop loading to a new file saving architecture. Many of the improvements are the result of feedback from you the user.

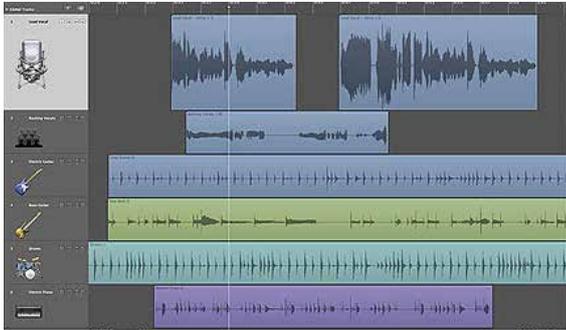
So enjoy – and, as ever, let us know how you're getting on with it.

The Sample Magic Team



Magic AB v2 / Signal flow

Signal flow



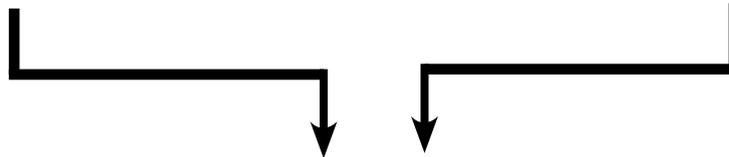
DAW stream



Magic AB stream – reference tracks (1 to 9)



Placed after any master bus effects – see right



Select stream



Stereo out



Magic AB / Operation

Using AB - As easy as... AB

Magic AB has been designed for ITB (in the box) mixing. It works best when it is placed **at the end of the processing chain of the master output** – *pictured right*. This way you can mix your track using plugins such as EQ, compression, limiting and other mastering processors on the output / master bus, and compare them against reference tracks (which are likely to have been mastered), without affecting the sound of the reference tracks with your processing chain.

If you use room correction plugins such as IKmultimedia ARC, ARC should be placed *after* Magic AB so that the reference tracks are processed through the ARC correction and you hear everything on a level playing field.

Once inserted, you can flick between the DAW stream by clicking 'A' and your pre-loaded reference track/s by clicking 'B'. The A-B button has a toggle action so you can click either button to toggle back and forth between the A and B streams.



Magic AB loads with the 'A' DAW stream selected by default. This means there is no interruption to the audio you are working on.





Magic AB v2 / Operation

Loading a reference file

To load a reference audio file into Magic AB, simply **drag and drop** an audio file onto a track slot to load it. If a track is already loaded, it removes the previous one.

Alternatively, you can click on the **text box** alongside one of the nine **players**.



The pop-up window shows two options, 'Load Sound' and 'Unload Sound'. Click 'Load sound'. Doing so opens a window that allows you to choose an audio file from your hard drive. To unload a track, click on the text box and select 'Unload Sound' from the menu. The track will be removed and RAM usage lowered accordingly.

Note: Logic does not allow Audio Units to emit any sound until it receives audio at the plugin's inputs. To ensure that it performs correctly, simply play some audio through the plugin before loading/playing back one of the Magic AB reference tracks.



Note: Magic AB v2 is a stereo plugin. Do not try to insert on a mono channel. If you wish to check your mixes in mono, you can do so using the Mono button, new to V2, found directly above the AB buttons.



RAM usage



Magic AB loads tracks into RAM. The more tracks you have in the player, the more RAM the plugin requires.

Magic AB displays how much RAM is being used to store the files for playback. As a rough guide, one minute of stereo audio in a session running at 48kHz uses around 23MB of RAM.

Note: The longer the track, the more RAM is required. It doesn't matter if it's a 24-bit/96kHz WAV or mp3, once it's loaded into Magic AB all that matters in terms of RAM usage is length.

Deactivate RAM



If RAM is getting tight you can deactivate the tracks you are not currently using to free up RAM. When deactivated, the information screen, *right*, is shown in the main display.



When you need a deactivated track again, simply reactivate it – it takes just seconds to reactivate a four minute track.



Magic AB v2 / Operation

Select track aka Play / Pause track

Click the combined 'Select / Play / Pause' button to select a track. If you are in Latch or Sync mode (see page 15), the track will wait for the DAW transport to start playing. If you are in Manual mode, it will start playing the moment you click the button. Click again to toggle between play and pause. By default Magic AB is in Latch mode.



No track loaded



Track loaded (and not currently playing)



Track loaded and playing

Focus

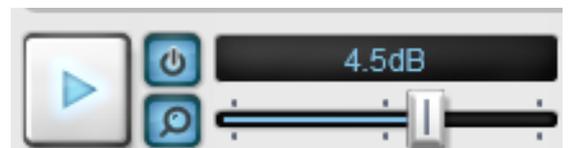


The Focus button enables you to select a track to view in the display without starting its playback. This is especially useful when you are in manual playback mode.



Volume

You can adjust the level of reference tracks relative to each other using their gain sliders. By default relative gain is set to 0.0dB. You can dial up to +/- 18dB of gain on each track.



Tip: To edit values by 0.1dB increments, hold the 'CNTRL' key while dragging.

Tip: During mastering sessions, keep all volumes at the same level so that you can quickly hear how the different tracks in a project relate to each other dynamically.

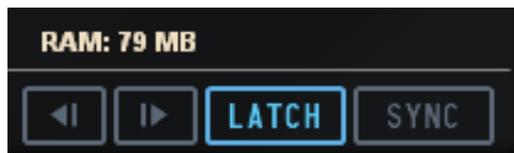
Tip: To reset the gain to 0.0dB, double-click on the fader bar.

To select a different playback track for the 'B' stream, click the power button on the track you wish to play.

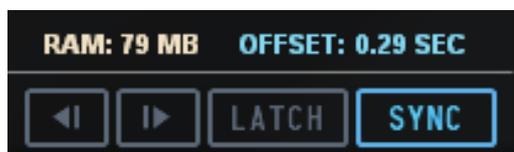


Transport controls and playback types

Magic AB v2 features three different types of playback control to choose from:



LATCH to DAW transport mode: Playback follows the DAW *transport*. This is the most intuitive method and is switched on by default.



SYNC to DAW timeline mode: Use this when you want the reference track to follow the *timeline* of the DAW; naturally it also latches to the DAW transport.

This has been designed for when you need to reference the current mix with another version of the same track, e.g. an earlier version of the mix. With this mode, if you jump to a specific time and start playback – e.g. 2m23secs of the DAW – the reference track will also start playing at 2m23secs. If you loop a section in the DAW the reference track also loops.

If your mixes are a little out of sync, you can adjust the blue highlighted OFFSET by +/- up to 10 seconds. To reset the sync, simply double-click the OFFSET value.



MANUAL mode: The original method from version 1 of Magic AB. To play tracks, use the play/pause button on the track slot, or with Magic AB's transport buttons located to the left of the latch button.

When to use each mode

You can choose the preferred playback method for each reference track individually, so if for the most part you would like tracks to start/stop with the sequencer, leave them on latch.

If you are comparing different versions of the same mix, use Sync mode for these tracks.

If you're comfortable with the old V1 way, deselect latch/sync and go manual, like Magic AB v1.

In Latch and Manual modes, you can skip to new positions by clicking on the larger waveform. This is useful for previewing and auditioning the part of the track you wish to Cue/Loop.

When Sync is active, you can't skip to different positions in the track because the track position is locked to the DAW timeline. If you want to skip to a new position, just use the DAW timeline and the track will follow.



Magic AB v2 / Operation

Waveform display – orange denotes looped area

Waveform overview – used to navigate around main waveform



Cue point name

Cue points – highlight when activated

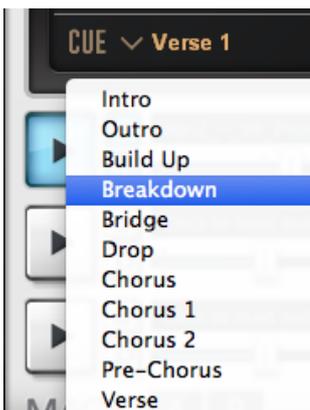
Loop mode

Double/halve loop length

Playback modes – see page 15

Cue points

You can now define up to four cue points per reference track. To set up a Cue point, click one of the **Cue** buttons and drag the marker to where you want the track to play from. Doing so while the track is playing drops the Cue marker at the position you are at in the track.



Naming Cue points

You can give Cue points names to aid navigation. When you create a Cue point, a drop-down menu appears to the left of the Cue buttons entitled 'Cue'. Click the drop-down for a list of structural titles.

Note: You can't currently create your own Cue point names. We hope to address this in future updates. For now, if you would like something added, please write to us and we'll try to include it.



Magic AB / Operation



Loops

Each cue point can also have a loop marker – shown above in orange. Once you have a Cue point set up, you can add a loop point by clicking the loop button and dragging the right hand marker to the desired position. You can reposition the loop without changing its length – for example, to highlight verse 2 after editing verse 1 – by dragging the orange beam.



Need a loop to be double in length? Or half the size? Click the '2x' or '1/2' buttons for instant changes. The loop start point remains unaffected.

Note: Cue and Loop points are defunct when using SYNC mode.

Zoom and navigation

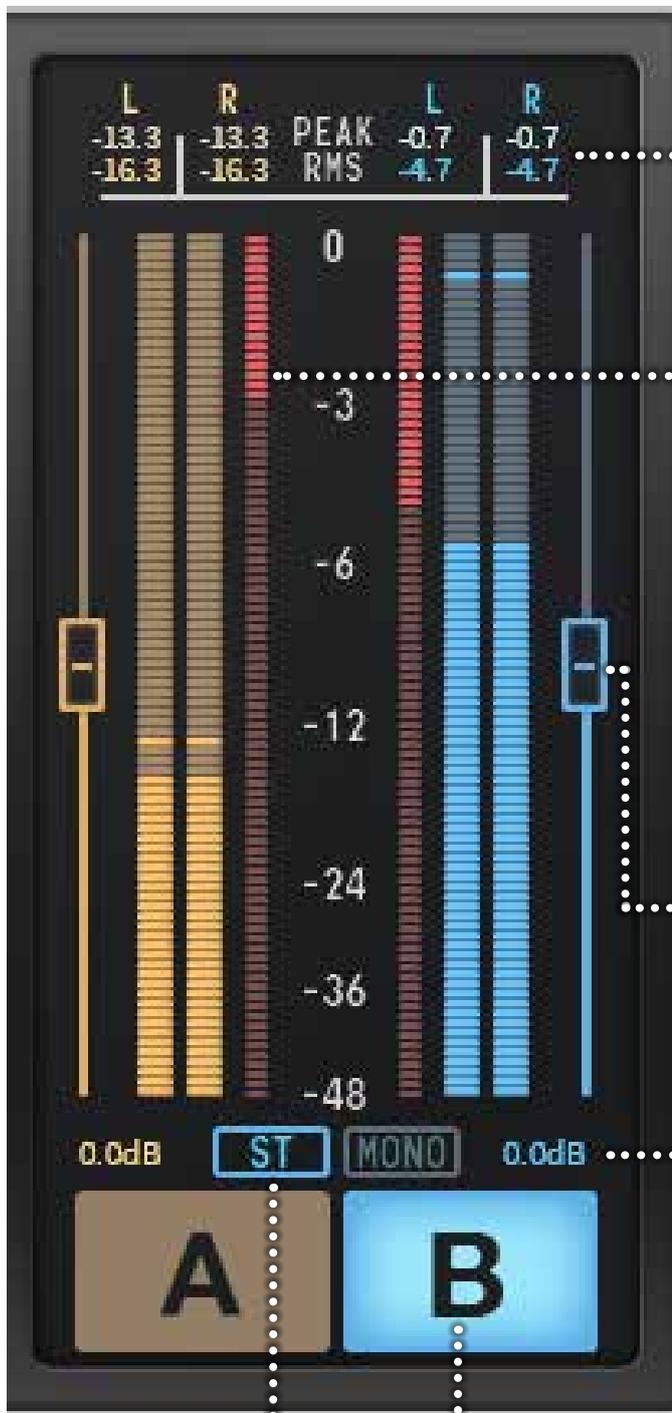
To zoom in/out of the top waveform, drag up or down on the (lower) waveform overview, or use the scrollwheel to zoom in on details.

To navigate around, drag the white scroll bar below the waveform overview left / right or click anywhere on the waveform to jump to that region.



Note: To zoom out to full screen, double-click on the waveform overview to snap back to 100%.

The output meter



Peak and RMS displays (shown in dB). Click to reset the values. To reset all the Peak or RMS levels for both the A+B channels and their respective L+R channels, double-click on either 'Peak' or 'RMS'.

Crest value (dB) shown in red. The 'crest factor' or peak-to-average ratio (PAR) is a measurement of a waveform, calculated from the peak amplitude of the waveform divided by the RMS value of the waveform. It gives you an indication of how dynamic the audio is. If the crest value is low, this means there is not much difference between the peak and RMS. If it is high, the signal retains more dynamic range.

Volume faders – drag to adjust the output volume of each stream. Up to +/- 18dB of gain is available for balancing A/B streams.

Volume gain is displayed above each stream. To type in a value for the volume fader, double-click on the volume fader handle and enter the value into the text box. To reset the fader value to 0.0dB click the fader icon while pressing the ALT key.

AB buttons – select between 'A' (DAW) stream and 'B' (reference) stream.

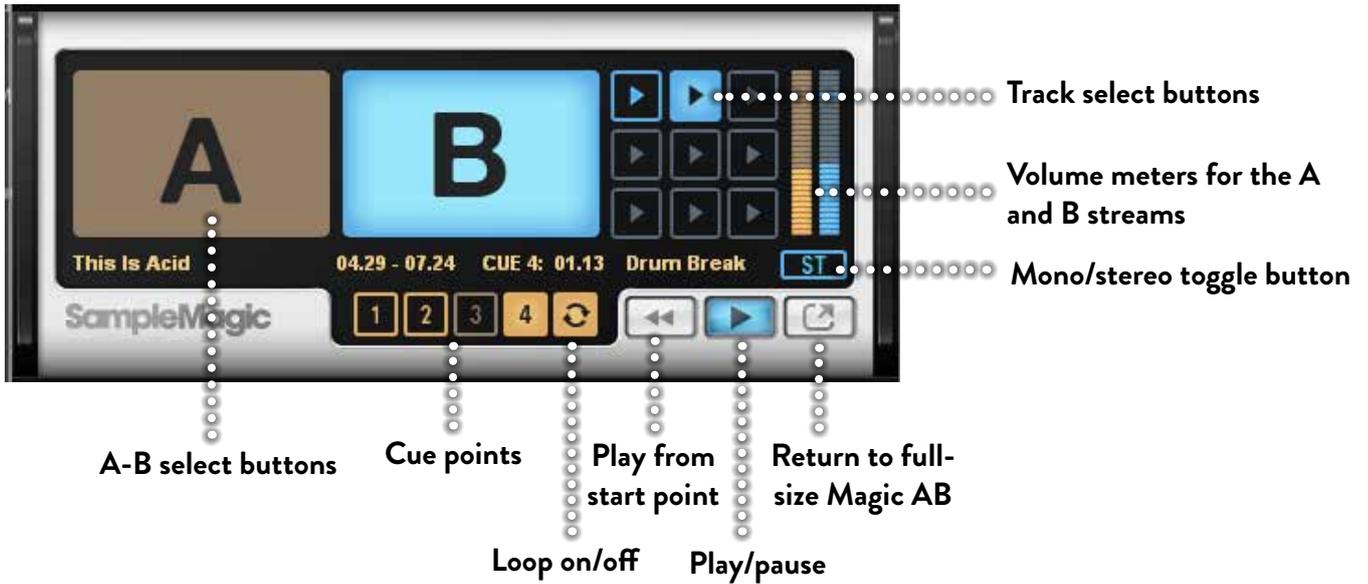
Stereo / Mono monitoring – use the toggle button to switch between stereo and mono monitoring. When the Mono option is selected, the volume meters switch to show the mono scale.



Magic AB / Operation

Mini AB

Mini AB is a compact version of Magic AB that uses a minimum amount of screen space. It's perfect for when you need to free screen space for other plugins. You can access the track select buttons, transport controls, cue points and loop on/off functions from inside Mini AB, making it ideal once tracks have been loaded, loops points set and volume levels balanced.



To switch to Mini AB when using Magic AB, click the 'MINI AB' button located on the bottom menu row.



To switch back to full-size Magic AB click the 'Return' icon on the lower right corner of Mini AB.

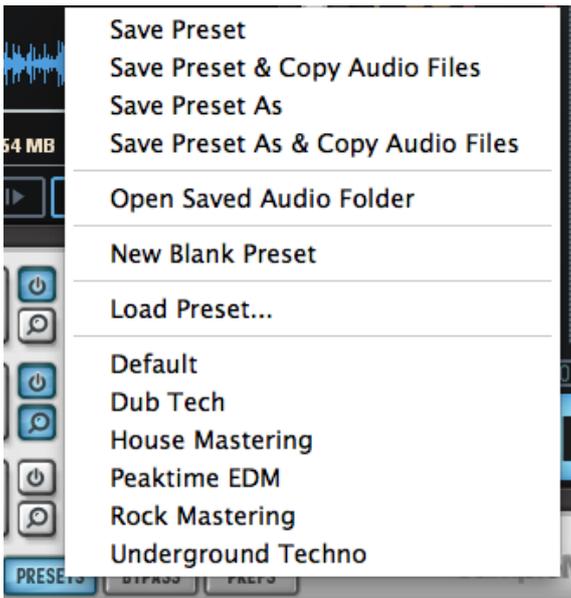


Magic AB v2 / Operation

Presets



Click on the **PRESETS button** (bottom menu) to open the presets menu.



A preset saves a playlist of all reference tracks loaded into Magic AB, alongside all associated parameters (volume, Cue points etc). This means you can store a go-to selection of reference tracks as well as different styles of references (e.g. 'Techno', 'Metal', 'Mastering').

Save Preset – Saves just the preset itself.

Save Preset & Copy Audio Files – Also save copies of linked audio files to the presets directory. This can save you time looking all over your hard drive for your favourite audio files, and reduces the chance of a preset missing files down the line.

Open Saved Audio Folder – A shortcut to the audio folder. Useful when you want to quickly add a favourite reference track to a new preset without having to search all over the HD.

New Blank Preset – Creates a new blank preset ready for you to load up tracks. Resets all controls to zero.

Load Preset... – Opens browser to search for a preset.

Below this is a list of all the presets in the saved presets folder.

Bypass



You can bypass Magic AB at any time by clicking the **bypass button**.



Preferences



There are two additional features that are accessed via the preferences panel. To open this panel, click on the **PREFS** button on the bottom menu.



Crossfade (X-FADE) time

By default the transition between the A and B streams is instant. You can adjust the time it takes to crossfade between the streams in the **PREFS** panel. This changes the time it takes for the volume to fade out of the first stream and fade back in on the other. To edit the crossfade time, click/drag the mouse up/down to increase/decrease the value (displayed in ms).

Tip: You can edit the crossfade time between 0–2000ms

Peak fall time

To edit the peak fall time, drag the mouse up/down to increase/decrease the value (displayed in %). 100% gives the fastest response.

When you are happy with your preferences, click the Exit button or click the PREFS button to return to the main view.



Automation and MIDI control

You can control all of Magic AB's main parameters via both MIDI and automation.

Parameters include:

- A-B toggle
- Bypass
- Mono/Stereo
- Gain A
- Gain B
- GUI size (toggle Mini AB / Full Size)
- Track Select
- Cue select (for tracks 1-9)
- Loop On/off (for tracks 1-9)
- Gain (for tracks 1-9)
- Play/Pause (in manual mode) (for tracks 1-9).

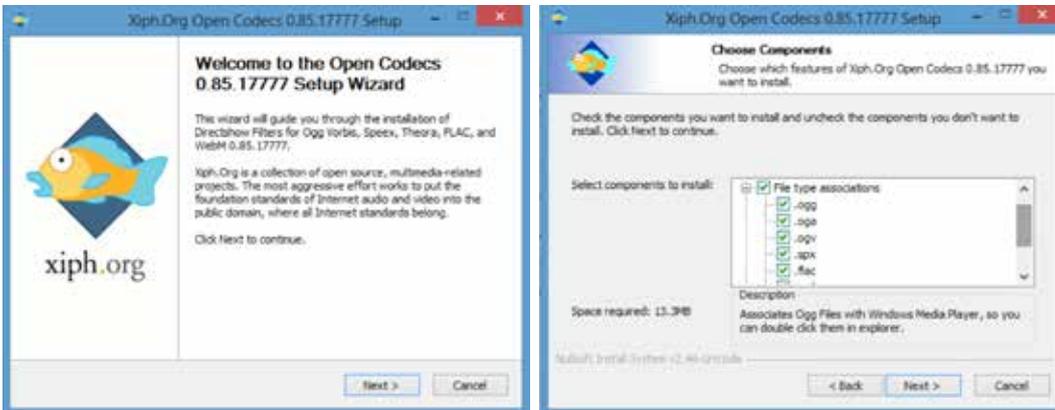


Importing FLAC files on PC

Go to <http://xiph.org/dshow/downloads/>

Download and install the Windows 32/64-bit Installer: `opencodex_0.85.17777.exe` 2,53MB

This is a direct show filter for playing (decoding) FLAC, Ogg Vorbis, Speex, Theora and WebM files in Windows Media player. Installing this will allow FLAC files to be played in Magic AB.



Follow the installation instructions.

There is no need to change any of the default options. The FLAC codec will be installed into the correct directory. It will also install codecs for Ogg Vorbis, Speex, Theora and WebM files. If you don't wish to install these then uncheck the boxes in the drop-down menu for 'File Type Associations'.

Continue following the prompts to finish the installation.

Then you will be able to play FLAC files in MAGIC AB.

Note to Mac users



Unfortunately we are unable to support FLAC files in OSX at this time.