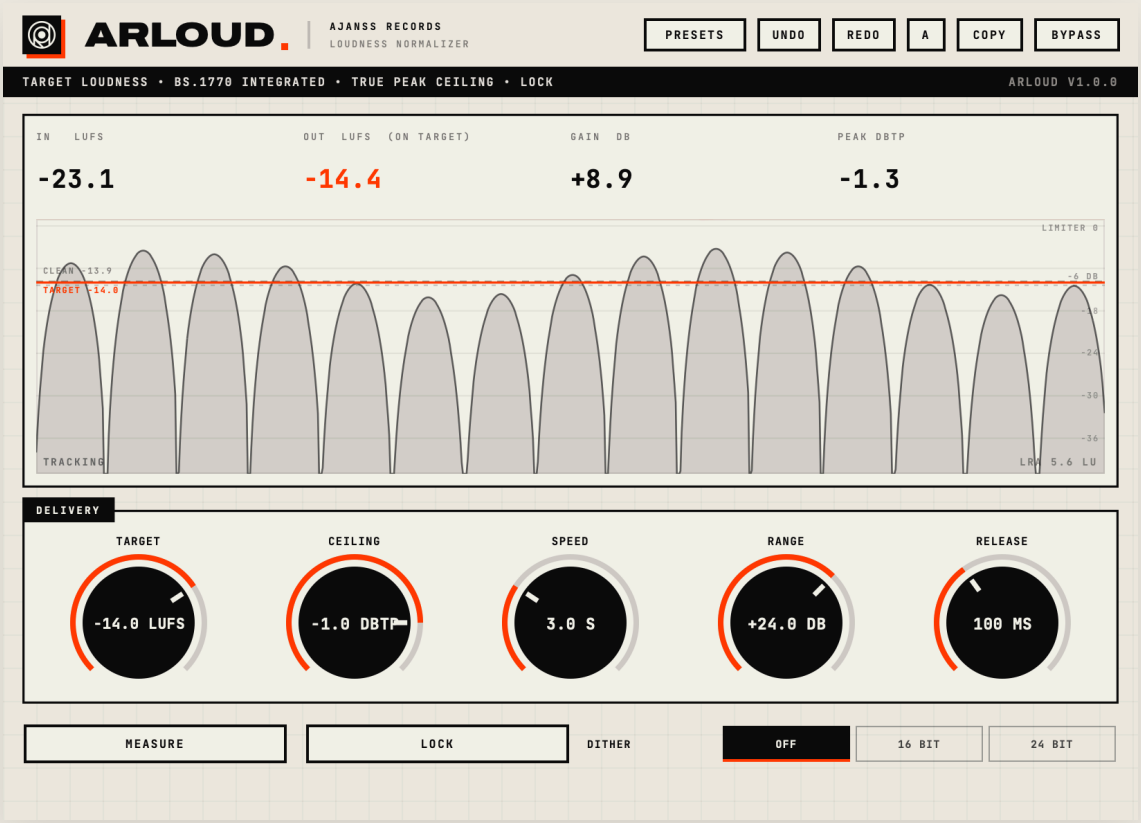
AJANSS RECORDS

ARLOUD.

LOUDNESS NORMALIZER



VERSION	FORMATS	PLATFORMS	DOCUMENT
1.0.0	AU · VST3	macOS · WINDOWS	USER GUIDE

01 WHAT IT DOES

ARLOUD brings a finished programme to the loudness the place you are sending it asks for, and keeps the true peak under a ceiling you choose. Two numbers, and it tells you what each one cost.

It works by measuring rather than guessing. The loudness of what arrives is measured the way every platform measures it — **ITU-R BS.1770-4** gated integrated loudness, the same figure Spotify and Apple read off your file — and the difference between that and your target is applied as gain. Nothing is chased: K-weighted energy scales exactly with gain, so raising a programme by 7 dB moves its integrated loudness by exactly 7 LU. We measured that too, and it came out at **7.000**.

The only thing between the gain and the output is a true peak limiter, and it is there as a safety stage rather than as an instrument: two controls, ceiling and release. Across **36 combinations** of target, ceiling and release, on two kinds of material, the output never once passed the ceiling — the worst case sat **0.10 dB** under it. That was verified at 32× oversampling, one step finer than the plugin's own measurement.

When the target does not need any limiting, ARLOUD adds one constant to the signal and nothing else: the output measured **151.6 dB** below the difference against the input multiplied by that constant. Latency is 163 samples at 48 kHz, reported to the host, and the same audio comes out bit for bit identical at every buffer size.

02 INSTALLING

macOS

Run **ARLOUD Installer.pkg** and follow the steps. You can choose which formats to install, and whether to install for every user or only for yourself. The package is signed and notarised by Apple, so it opens normally.

Windows

Run **ARLOUD Installer.exe** and follow the steps. The plugin is placed in the shared VST3 folder. The installer is not code-signed, so SmartScreen may warn you: click **More info**, then **Run anyway**. This is only needed once.

After installing

Rescan the plugin list in your DAW. ARLOUD appears under **Ajanss Records › ARLOUD**.

03 HOW TO USE IT

Put ARLOUD last in the chain, on the master, and give it the whole programme.

1. Let it hear the piece

Integrated loudness is a property of the *whole* programme, not of the moment, so ARLOUD has to hear the piece before it can normalise it. Press play and let it run through. The status line reads **MEASURING** until it has a second of material, then **TRACKING**; from there the reading keeps refining as more of the piece goes past.

2. Read what it costs

The dashed line on the display is marked **CLEAN**. That is the loudest your programme can be without any limiting at all — its own loudness, plus whatever headroom is left between its peaks and your ceiling. Set the target below that line and the limiter never touches the sound. Set it above and the status line says how much peak the target costs.

3. Lock it, then bounce

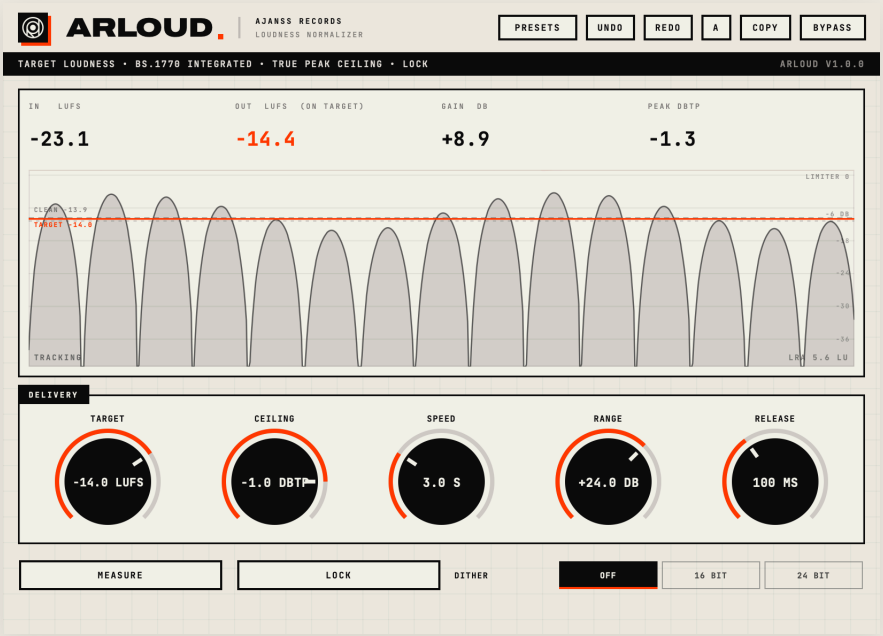
Press **LOCK** when the gain has settled. From that moment ARLOUD adds one constant and the limiter, and nothing drifts — which is what you want for a file you are about to deliver. The locked gain is saved with the session, so reopening the project and bouncing again gives you the same file.

> If you change to a different piece of music, press **MEASURE**. It throws away the old reading and starts again. The gain stays where it is while it relistens — asking it to measure again is not the same as asking it to turn the sound down.

When the target is louder than CLEAN

Then the limiter has to take the difference off the peaks, and taking peaks off also takes loudness with it. On a deliberately peaky recording, a target 4 dB above CLEAN cost 4.2 dB of peak and still landed 3.1 LU short. ARLOUD does not close that gap by limiting harder: it prints the number and leaves the decision to you. If you want that much loudness, the thing that makes it is a limiter or a clipper, placed *before* ARLOUD.

04 THE INTERFACE



IN	The gated integrated loudness of what is arriving, before anything is done to it.
OUT	The same measurement taken on the output — the number that will be in the file. It turns orange when it is within half a unit of the target.
GAIN	What is being applied. It says **LOCKED** when the gain is frozen.
PEAK	The true peak of the output, held at its highest, measured at 16×. It should always read under the ceiling; if it ever does not, the label says **OVER**.
THE CURVE	The output’s loudness over the last fifteen seconds, on the 400 millisecond window.
THE ORANGE LINE	Your target.
THE DASHED LINE	**CLEAN** — the loudest you can go with no limiting at all.
THE CURTAIN	Hanging from the top, what the safety limiter is doing, on a scale marked from 0 to -6 dB. An empty curtain is the good case.

The two lines together are the whole story. Target under CLEAN: the curtain stays empty and

05 CONTROLS

TARGET **-36 – -5 LUFS**	The integrated loudness to arrive at. The place you are delivering to decides this, not us — see the preset list on the next page.
CEILING **-6 – 0 dBTP**	The true peak the output will not pass. Lossy encoders grow peaks when they decode, which is why -1 dBTP is the usual choice. This is a guarantee, not a request: it is measured across every combination of settings, and if it were ever exceeded the test would fail.
SPEED **0.5 – 30.0 s**	How long the gain takes to arrive at the figure that has been worked out. It only has to be slow enough not to be heard.
RANGE **0 – 36 dB**	The most gain ARLOUD may apply, in either direction. This is what stops it lifting room tone at the head of a recording. Asked for 6 dB on material that wanted 28.6, it applied 5.98.
RELEASE **20 – 1000 ms**	The safety limiter’s release. It only matters when the target costs peak. The lower bound is not arbitrary: below it the gain changes fast enough to make new content between the samples, which no amount of oversampling can see coming.
LOCK	Freezes the gain. From then on the only things in the signal path are one constant and the limiter. Saved with the session.
MEASURE	Throws the measurement away and starts again. The gain holds where it is until the new reading is ready.
DITHER **OFF / 16 / 24 BIT**	Only if ARLOUD is the last stage and you are delivering at a shorter word length.
BYPASS	Passes the signal through bit for bit, latency included.

06 PRESETS

Fourteen delivery targets. These are not our taste — they are the figures the platforms publish. Most of streaming has settled around -14 LUFS; Apple Music sits at -16 and Deezer at -15. Amazon is the odd one on peak, asking for -2 dBTP where everyone else takes -1. Broadcast is much quieter, and there it is a requirement rather than a preference.

STREAMING (-14 CLUSTER)	-14.0 · -1.0	APPLE MUSIC	-16.0 · -1.0
DEEZER	-15.0 · -1.0	AMAZON MUSIC (-2 DBTP)	-14.0 · -2.0
PODCAST (STEREO)	-16.0 · -1.0	PODCAST (MONO)	-19.0 · -1.0
PODCAST (SPOTIFY)	-14.0 · -1.0	VOICEOVER	-16.0 · -3.0
EBU R128 (BROADCAST)	-23.0 · -1.0	ATSC A/85 (US BROADCAST)	-24.0 · -2.0
REFERENCE (-18, HEADROOM)	-18.0 · -3.0	LIVE STREAM (FAST)	-16.0 · -1.5
GENTLE (SLOW, SMALL MOVE)	-16.0 · -1.0	LOUD (EXPECT LIMITING)	-9.0 · -0.3

Loading a target never changes **LOCK** or **DITHER**: those two belong to what you are doing right now, not to where the file is going. Your own presets are saved next to these, in the **USER** tab of the preset browser. `A` keeps a second setting you can compare against, and `COPY` copies the current one into it.

07 STARTING POINTS

A podcast episode

Load **PODCAST (STEREO)** for a stereo episode, **PODCAST (MONO)** for a mono one — the two targets differ because the standard counts a mono file differently, not because one should sound quieter. Play the episode through, check that CLEAN sits above your target, press LOCK and export.

A master going to streaming

Load **STREAMING (-14 CLUSTER)**. One file covers Spotify, YouTube, TIDAL, Amazon and SoundCloud; only Apple Music wants a different figure, and only Amazon wants a lower peak. If CLEAN comes out well below -14, that is your master telling you it has more dynamic range than the target allows — make the loudness upstream, with a limiter, and let ARLOUD do the arithmetic.

Programme for broadcast

Load **EBU R128 (BROADCAST)** or **ATSC A/85**. These targets are far below where most material sits, so ARLOUD will be turning things down and the limiter will have nothing to do at all. That is the correct outcome, and the empty curtain is how you check it.

A voiceover to drop into a video

Load **VOICEOVER**. The ceiling is lower here on purpose: the file is going to be mixed with music and effects later, and peaks that sit right under 0 leave the next person no room.

Checking your work

Look at three things before you export. **OUT** should be within half a unit of the target and marked **ON TARGET**. **PEAK** should read under the ceiling. And the curtain should be as empty as your target allows — if it is working hard, the loudness you asked for is being taken out of your transients.

08 WHAT WE MEASURED

Every figure below is produced by the test that ships with the source and runs on every build. Loudness is measured on the samples that came out, with a separate meter instance, offline; true peak is verified at 32×, one step finer than the plugin’s own 16×.

The meter itself, on a 1 kHz -20 dBFS tone	**-19.99 LUFS**
Integrated loudness shift for +7 dB of gain	**7.000 LU**
Reported latency at 48 kHz	**163 samples**
BYPASS	**bit for bit**
Same audio at every buffer size, 32 to 1024	**bit for bit**
Worst miss of the target, four programmes	**0.13 LU**
Ceiling across 36 setting combinations	**never passed**
… closest the output came to it	**0.10 dB under**
With no limiting needed, against input × gain	**-151.6 dB**
Limiter at the CLEAN figure	**0.28 dB**
RANGE asked for 6 dB where 28.6 was wanted	**5.98 dB applied**
LOCK, with the material dropping 12 dB	**gain moved 0.00 dB**
On-screen OUT against an independent measurement	**0.03 LU**

09 SUPPORT

For questions, bug reports and feature requests, please reach us on Instagram at **@ajanssrecords**. Please include your operating system, your DAW and its version, the plugin format you are using, and the plugin version shown in the top right of the window.

ARLOUD 1.0.0 ·