

What this plug-in does

For an ordinary person

It makes your sound feel wider between the speakers, using one knob and a clickable rainbow.

For an artist

Pull the walls off a tiny room and unfold a turquoise horizon; the rainbow spills around your sound like a thousand paper wings opening at once.

For a sound engineer

A stereo enhancer combining frequency-dependent Mid/Side width, harmonic colour and decorrelation, with an optional Mid-derived Side generator and correlation protection.

For a bird with broken wings

Play with it and it will make you fly

Every control explained

WHY DIT main knob

The main macro coordinates frequency-dependent width, gentle harmonic colour, tiny phase/decorrelation cues and linked stereo glue. It is not a literal width percentage or a wet/dry control. Double-click the knob to return to its minimum.

The exact dry condition

The main knob at its minimum gives the unprocessed endpoint only when Rainbow Bloom is also off. With Rainbow Bloom on, even the minimum macro setting can widen a mono source. Use the DAW bypass when you want a direct whole-plugin-in comparison.

The clickable rainbow

Click the painted rainbow itself to toggle Rainbow Bloom. The rainbow stays brighter while enabled and returns to its original colour when disabled. The clickable area follows the paper rainbow silhouette. The mode is saved in the DAW project and can be automated.

MONO light / listen without numbers

The knob has no percentage readout: choose the amount by ear, without a number steering your judgment. MONO is an output correlation indicator, not a mono switch. Green means correlation at least 0.25; yellow means 0 to below 0.25; red means below 0. Negative correlation can indicate cancellation in mono. Use your DAW mono monitoring to hear the result.

Crossed-out painted knobs

The two blue knobs crossed out in the artwork are intentionally inactive. They are not hidden parameters. There is no separate output control, MIX knob or built-in preset browser in this version.

Why dit accepts stereo input and output. A mono recording can be used by routing it through a stereo channel with identical left and right input.

How the soundstage works

The main path

The engine separates audio into Mid, the common centre information, and Side, the left/right difference. It grows Side differently across frequency bands, progressively brings the low end toward mono below roughly 120 Hz, and adds very low-level Side harmonics and drifting decorrelation cues.

Program-dependent width breathing, subtle front/back phase cues, linked stereo glue and smoothed correlation protection shape the result. The main path uses very short Side-only timing cues, not a millisecond-scale Haas echo, and does not pitch-shift the source. Existing stereo information matters: simply turning up Side gain cannot create width from a perfectly mono signal.

Rainbow Bloom

Rainbow Bloom derives new Side information from Mid using complementary all-pass decorrelation networks. A two-stage high-pass excludes low content below roughly 180 Hz. The added Side contribution is designed to cancel in the mono sum; that does not mean the entire plug-in at every macro setting is a perfectly transparent mono bypass.

Bloom adapts to source width, transients and output correlation. It reduces its contribution around sharp attacks and contributes little or nothing when the input is already wide. Its action can therefore change with the arrangement even when you leave the controls untouched.

The protection is assistance

Correlation protection continuously moderates the processing. The light describes the measured output, not a guarantee that every source will fold down well. A yellow indication invites a mono check; a red indication means you should inspect cancellation and reduce the effect if the part loses weight.

A useful listening method

Match perceived level with your DAW fader, switch between processed and bypassed playback, and listen for a stable centre. Then check the result in mono. For a mono or very narrow source, test the rainbow first with the knob at minimum, then add the main macro gradually.

Creative starting points

These are suggested starting points. There are no additional factory presets; save useful settings in your DAW or project.

A mono organ opens a window

Place Why dit after Teroof Organ on a stereo channel. Keep the macro at its minimum and click the rainbow. Raise the macro gently if you want more movement and breadth. The organ is mono at its source, so Bloom is the part that creates new Side information.

The chorus gets a little wider

On a stereo guitar or keyboard group, leave Bloom off and automate a gentle macro setting in the verse to a wider setting in the chorus. Keep the change small enough that the centre remains solid.

A narrow loop becomes a room

Route a narrow percussion loop through a stereo channel, turn Bloom on and start with a small amount. Listen to the attacks and mono fold-down. Bloom's transient adaptation can make its contribution less obvious on sharp hits than on sustained material.

A wider echo without moving the lead

Put Why dit on the return from Frogecho or FaDeLaY, rather than on the original vocal or instrument. Start with Bloom off and a modest macro setting. The dry lead stays centred while the return spreads around it.

A texture that changes its frame

On a sustained mono drone, enable Bloom and slowly automate the macro from minimum to a moderate setting. Record the result and cut out moments that feel alive. Check in mono before making the texture central to the arrangement.

If the knob seems to do very little

A mono source has little or no existing Side information. Try Rainbow Bloom. An already-wide source may trigger protection or make Bloom contribute very little. Make sure the DAW output remains stereo.

If the centre becomes weak

Check the MONO light and listen in mono. Reduce the macro, toggle Bloom off for comparison and match levels. Other stereo effects in the chain also affect correlation.

Saving and automation

The main macro and rainbow mode are exposed to host automation and stored in plug-in state. Use the DAW's plug-in preset system to store reusable settings. Keep the project to preserve automation as well as the current setting.

Installation and everyday use

Windows VST3

Use the Windows 64-bit download and a VST3-capable DAW. Close the DAW, extract the archive, and copy the complete .vst3 bundle to C:\Program Files\Common Files\VST3. Keep its internal folders intact. Reopen the DAW and rescan plug-ins.

macOS edition

Use the macOS download for your Mac. Check the package for supported macOS versions, CPU architecture and included formats. A Windows .vst3 bundle cannot run on macOS.

Choosing the Mac format

For Logic Pro or GarageBand, use the Audio Units edition when supplied. For a VST3-capable Mac DAW, use the Mac VST3 edition when supplied. Follow the installation instructions included with the Mac package, then restart or rescan in your DAW. AU components normally reside in /Library/Audio/Plug-Ins/Components or ~/Library/Audio/Plug-Ins/Components.

Loading the plug-in

Load this plug-in in an audio effect slot on a track, group or return channel. It processes incoming audio; it does not generate an instrument sound from MIDI.

Saving your work

Save the DAW project to retain plug-in parameters. A user preset is a reusable sound; a saved project also retains the track routing and automation. Back up user presets before changing computers. Audio rendered to a file is the most portable way to preserve a finished sound.

If the plug-in does not appear

Check the operating system download, CPU architecture, plug-in format and DAW scan path. Extract the archive before installing. Look in the instrument or effect category as appropriate. If a Mac edition fails validation, use the DAW plug-in manager and check the package instructions.

For a useful support report, include the plug-in version, operating system, DAW version, sample rate, buffer size and a short description of how to reproduce the issue.

Manual edition 2, 13 October 2026. Support: teroofplugins@gmail.com.