

TELLYSCOPE

OSCILLOSCOPE

USER GUIDE

23audio

Free · version 1.0.3

TELLYSCOPE is a free oscilloscope dressed as an old telly. Put it on any track and your sound is drawn on a glowing, curved tube: as a wave, or as a picture of its stereo. It **never changes the sound**: what comes in goes out exactly as it was, with no delay.

It's for looking at sound as well as hearing it: the shape of a kick or a bass note, whether a part is clipping, how wide a mix is, and whether it will hold up in mono. And for just watching it glow.

1 Install

Mac

Quit your DAW, open the **.pkg** and follow the steps. It installs the Audio Unit (Logic, GarageBand), VST3 (most other DAWs) and AAX (Pro Tools). Click **Customise** to leave any of them out.

Needs macOS 11 or later, on Apple Silicon or Intel.

It's free: there's no licence, code or account.

Windows

Quit your DAW and run the **.exe**. If Windows says "Windows protected your PC", that's only because the installer is new: click **More info**, then **Run anyway**. It installs VST3 and AAX (Pro Tools).

Needs Windows 10 or 11, 64-bit.

2 Find it in your DAW

TELLYSCOPE is an effect. Put it in an insert slot, on any mono or stereo track, a bus or your master.

Logic Pro	Click an empty Audio FX slot, then Audio Units > 23audio > TELLYSCOPE.
Pro Tools	Pick TELLYSCOPE from the inserts, under Sound Field.
Others	Look for TELLYSCOPE under 23audio in the effects list. If it isn't there, rescan your plugins.

Drag the window's corner to make it bigger or smaller. TELLYSCOPE remembers the size. It only draws while its window is open, so you can leave it on a track for nothing.

3 The set



A chord on channel 1. The screen, and under it the strip of controls.



The strip: POWER, the four knobs, HOLD, CHANNEL and DISPLAY.

The knobs click from step to step, like an old set's. **Drag up or down** (or scroll) to turn one, and **double-click** to put it back to where it started. As a knob clicks, the screen shows its setting for a moment, the way a telly showed the volume. Click a switch to change it. Every setting is saved with your project, and your DAW can automate them.

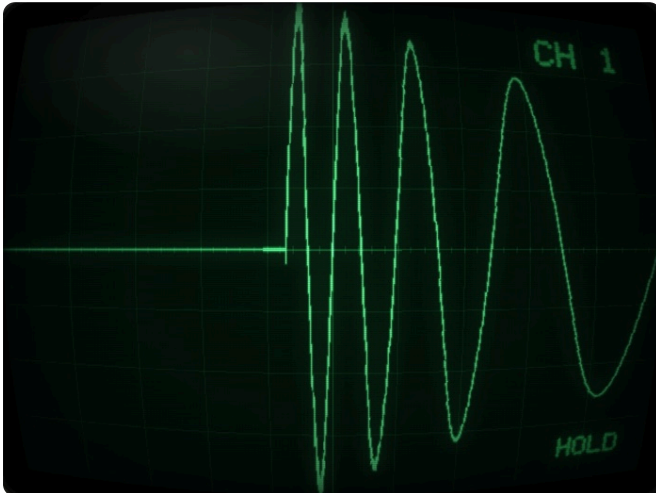
POWER	Switches the set on and off. It warms up as it comes on, and shrinks to a dot as it goes off. Each time you open the window, it warms up again.
SIZE	How tall the wave is drawn, in nine clicks of 3 dB. At 1.0X , a wave at full volume (0 dB) just reaches the top and bottom lines. The readout says where the top line is, for example 2.0X, TOP -6 DB .
SWEEP	How much time goes across the screen, as time per square: 0.2 to 100 ms per division, with 10 divisions across. From 20 MS/DIV the picture rolls (see below).
BRIGHT	How long the glow lingers after the beam has passed, and how much the trace glows: low for a clean line, high for a long, phosphor afterglow.
FOCUS	Soft and glowing at the left, a fine, crisp line at the right.
HOLD	Freezes the picture at the moment you flick it, while the sound carries on. SIZE and SWEEP still work on the frozen picture, so you can zoom in on it. HOLD blinks on the screen until you flick it back.
CHANNEL	The colour of the phosphor: 1 green, 2 amber, 3 ice white, 4 blue, 5 red, 6 rainbow. Click to move on one, or drag or scroll the dial. Like an old set, it takes a moment to find each channel. As for U : it's a station the set has found but never quite tuned in. Have a look.

DISPLAY

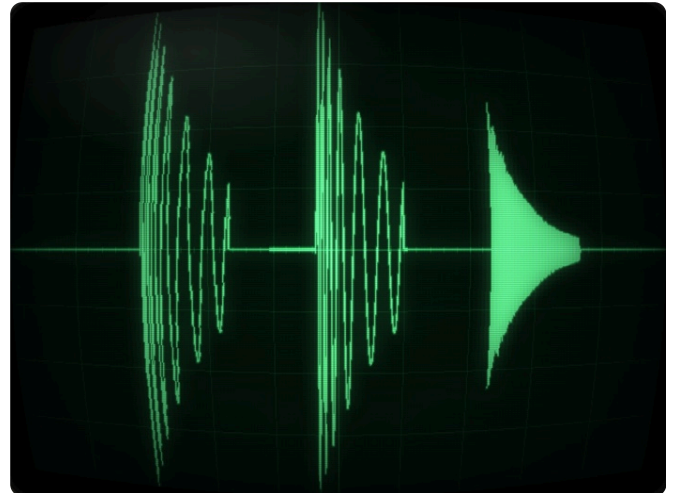
WAVE , **X-Y** or **LAB** : the wave, or two ways of seeing the stereo (below). Click to move on one, or drag to the one you want.

4 WAVE: the shape of the sound

Time runs left to right, and up and down is the sound's level. To hold the picture still, as a real scope does, each sweep starts where the wave rises through the middle line, one square in from the left. Of the places it could start, TELLYSCOPE picks the one that best matches the last sweep, so a steady note, a chord or a voice stands still instead of jittering.



HOLD on a kick drum: the thump's first cycles, frozen to study.

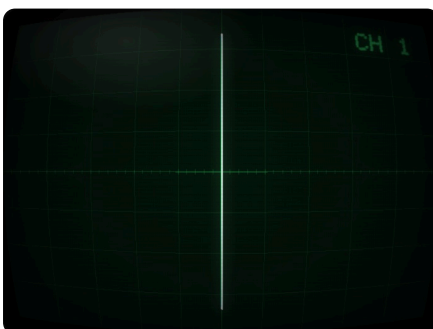


SWEEP at 100 ms/div: a drum loop rolling across, newest on the right.

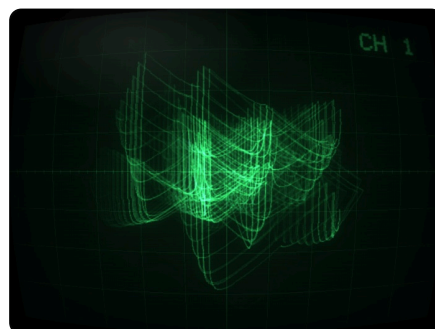
Rolling. At 20 ms per division and slower, a held-still picture would only change once a second or so. So it rolls instead, as a digital scope does: the sound scrolls across with the newest on the right. That's where to watch a sound's shape over time, like a drum's decay, a compressor pumping or a fade.

5 X-Y and LAB: the stereo

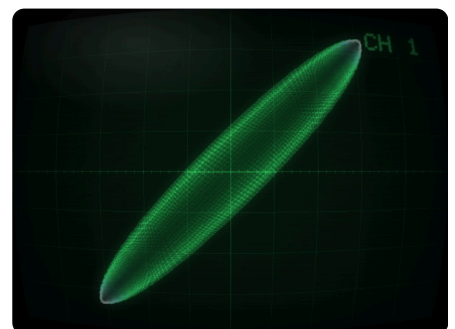
These draw the left and right channels against each other, so you see where the sound sits and how wide it is, not its shape. The picture sizes itself to the music so it fills the screen; SIZE zooms in or out from there. The beam glows brightest where the sound spends its time.



X-Y, a mono bass: an upright line.



X-Y, a wide stereo chord: spread out sideways.



LAB, left and right drifting apart: an ellipse.

X-Y

A studio vectorscope. Up and down is what both speakers share (the middle); side to side is the difference between them (the width). A mono sound is an upright line; the louder, the taller. Stereo spreads sideways. A sound panned to one side tilts. **A wide, flat, sideways picture is a warning:** left and right are working against each other, and the part will thin out or vanish in mono.

LAB

The same picture as a lab oscilloscope draws it: left across, right up, so mono is a diagonal line. Two notes, one on each side, draw the classic looping Lissajous figures.

6 Tips

- **Clipping.** With SIZE at 1.0X, anything that touches the top or bottom line is at full volume. On your master, that's where it starts to clip.
- **Mono.** Before you bounce, put TELLYSCOPE on the master in X-Y. A shape that stands upright will hold up on a phone speaker; one that lies flat won't.
- **Low notes.** Set SWEEP to 5 or 10 ms/div to see whole cycles of a bass or kick.
- **Something fast.** Flick HOLD the moment it happens, then use SIZE and SWEEP to look closer.
- **Just for looks.** Channel 6, BRIGHT up, FOCUS soft, X-Y on a pad. Then turn the lights down.

7 About and credits

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