

USER MANUAL

AbleShow

ABLESHOW.APP

LIVE PERFORMANCE CUES

ABLESHOW.APP · HELLO@ABLESHOW.APP



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01 What AbleShow is and how it works

AbleShow puts live performance cues from Ableton Live in front of your eyes on Even Realities G2 glasses. You name a clip on a dedicated track in your Ableton set, for example `Chorus in 4` or `Hit pedal`, and that text appears on the glasses in time with the music. Tags added to a clip name turn on effects like beat-locked flashing, a count-in, big banner text, and framing lines or a box. A next-cue preview shows what is coming while the current cue is up.

The path from Ableton to your eyes has a few hops:

```
Ableton Live -> Max for Live device -> Wi-Fi (local network) -> phone (Even app)
-> Bluetooth -> G2 glasses
```

- **The Max for Live device** sits on a track in your set. It reads the clips, the tempo, and the song position, and it makes every musical decision about what to show and when. It runs a small server on your computer that the phone connects to over Wi-Fi.
- **The phone** runs the Even app, which hosts AbleShow. The phone connects to your computer over Wi-Fi and sends the cues on to the glasses over Bluetooth. The glasses app only draws what it is told. It knows nothing about beats or tempo.
- **The glasses** show the cue in your eyeline. You can move the cue around the display, hide it with a swipe, and switch on a calm mode, all without touching the computer.

Because the phone does the drawing and the computer does the thinking, several performers can watch the same cues at once and each set their own display preferences on their own phone.

02 What you need

- Ableton Live 12 or later, with Max for Live. Live 11 is untested.
- Even Realities G2 glasses.
- A phone with the Even app, with AbleShow installed from Even Hub.
- Your computer and your phone on the same Wi-Fi or local network. No internet connection is required once both are on the same network.

03 Setup

3.1 • ADD THE DEVICE TO YOUR ABLETON SET

1. Put the AbleShow Max for Live device on a track in your set. It is a MIDI effect, so it goes on a MIDI track.
2. The device must sit directly on the track, not inside an instrument or effect rack. Inside a rack it cannot find the track it is on.
3. Give it a track of its own and mute that track. The track carries your cue clips only and makes no sound.

The device panel is shown in Figure 1. The address readout in its top corner is the address you will need in the next step.

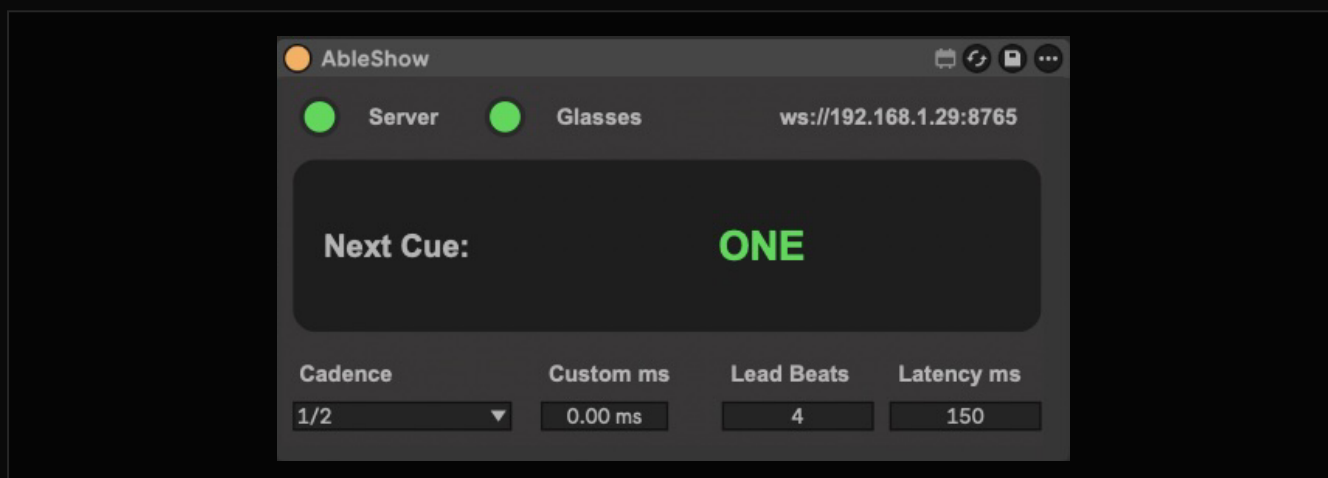


FIG 1 — The AbleShow device panel. The address readout in the top right (ws://...) is the address the phone will need.

3.2 • FIND YOUR COMPUTER'S ADDRESS

The device shows the address the phone needs. On the device panel in Ableton, the address readout shows something like `ws://192.168.1.29:8765`. The number in the middle is your computer's address on the network. The port is always 8765.

If you prefer, you can also read your computer's network address from the operating system network settings. Use the address that is on the same network as your phone.

3.3 • ENTER THE ADDRESS ON THE PHONE

Open AbleShow on the phone. In the Connection section, type your computer's address into the field and press Save. You can enter it as a bare address, as an address with the port (`192.168.1.29:8765`), or as a full `ws://` address. If you leave the port off, the app adds 8765 for you.

The address is saved on the phone and reused every time you launch, so you only type it once. If your computer's address changes later, type the new one and press Save again.

See Figure 2 for the first-run state, before any address is saved. The banner reads NO CUE SERVER and asks you to enter the address below.

AbleShow [Manual](#)

NO CUE SERVER enter the server address below

CONNECTION

Mac address or host:port [Save](#)

LAST CUES
(nothing received yet)

CUE POSITION

top left top top right

left centre right

btm left bottom btm right

GLASSES DISPLAY

CLEAR SCREEN

Top bar (off = nothing at all) ☒

App name ☒

LIVE pip ☒

Server host ☐

RENDERING

Calm mode — every cue as plain text, no flashing ☐

Next-cue preview ☒

TRY IT

[Send test cues \(every effect\)](#)

TELEMETRY
pump: sent=2 dropped=0 failed=0 · blank-text n=2 avg=0ms max=0ms

FIG 2 – The phone page on first run, before an address is saved.

3.4 • FIRST CONNECTION

Before an address is saved, the glasses show a setup screen that reads "Set server address on the phone screen" with a NO LINK marker in the corner. See Figure 3. The glasses never sit fully blank at this stage.

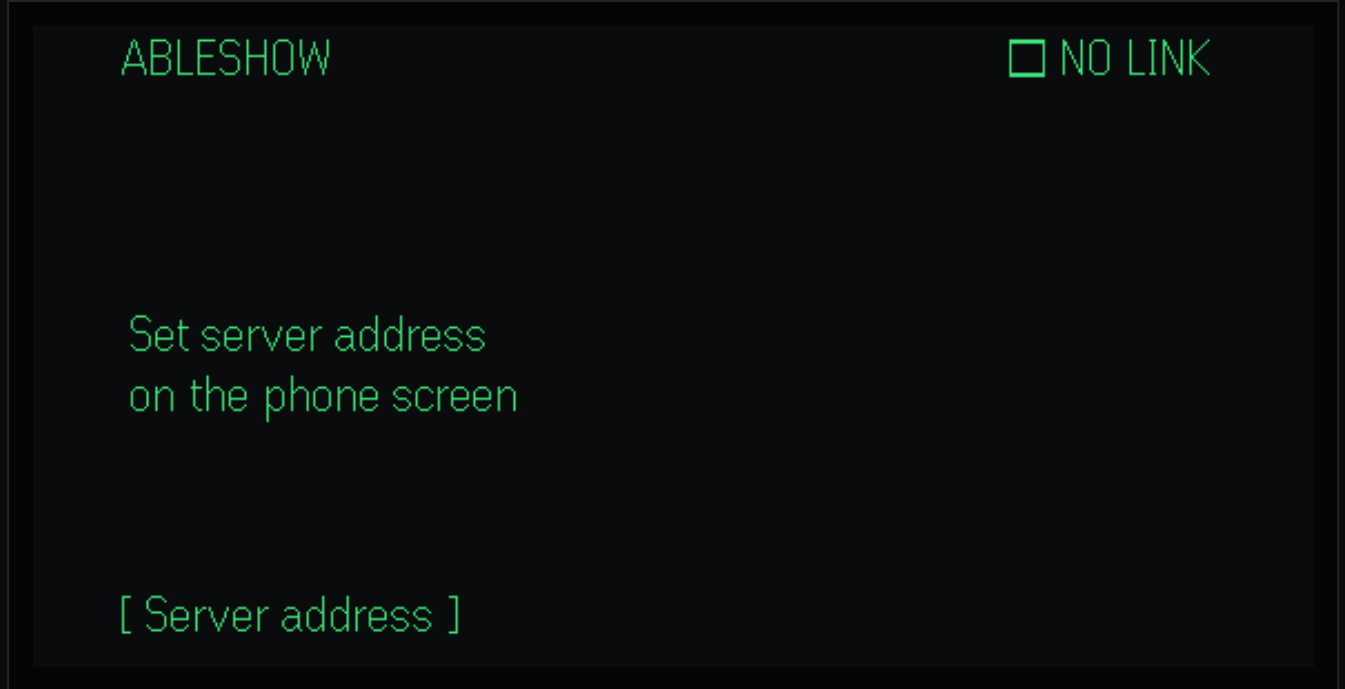


FIG 3 – First-run setup screen on the glasses – "Set server address on the phone screen", with the NO LINK marker.

Once you save the address and the phone reaches the computer, the phone banner turns green and reads CONNECTED with your computer's name, and the glasses show the LIVE marker in the top corner. See Figure 4. Start playing your set and the cues appear.

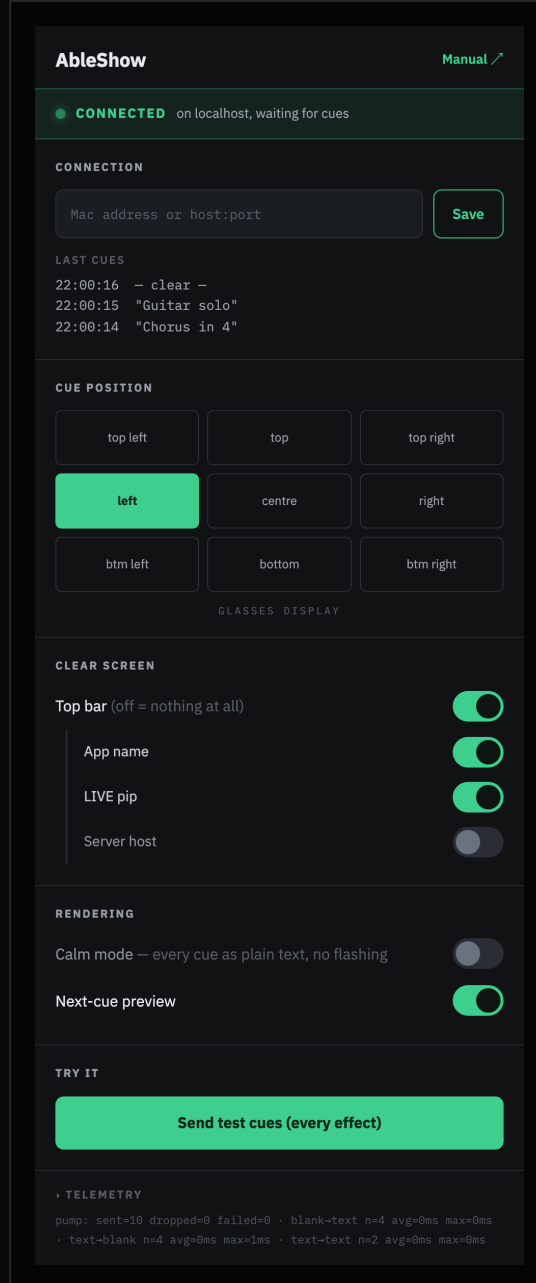


FIG 4 – The phone page while connected – status banner, connection, cue position, clear screen, rendering, and telemetry.

04 Authoring cues in Ableton

4.1 • THE CLIP NAME IS THE CUE

AbleShow reads clip names on the cue track. Whatever a clip is named is what shows on the glasses, with any tags removed. Name a clip `Chorus in 4` and the glasses show "Chorus in 4" while that clip plays. See Figure 5.

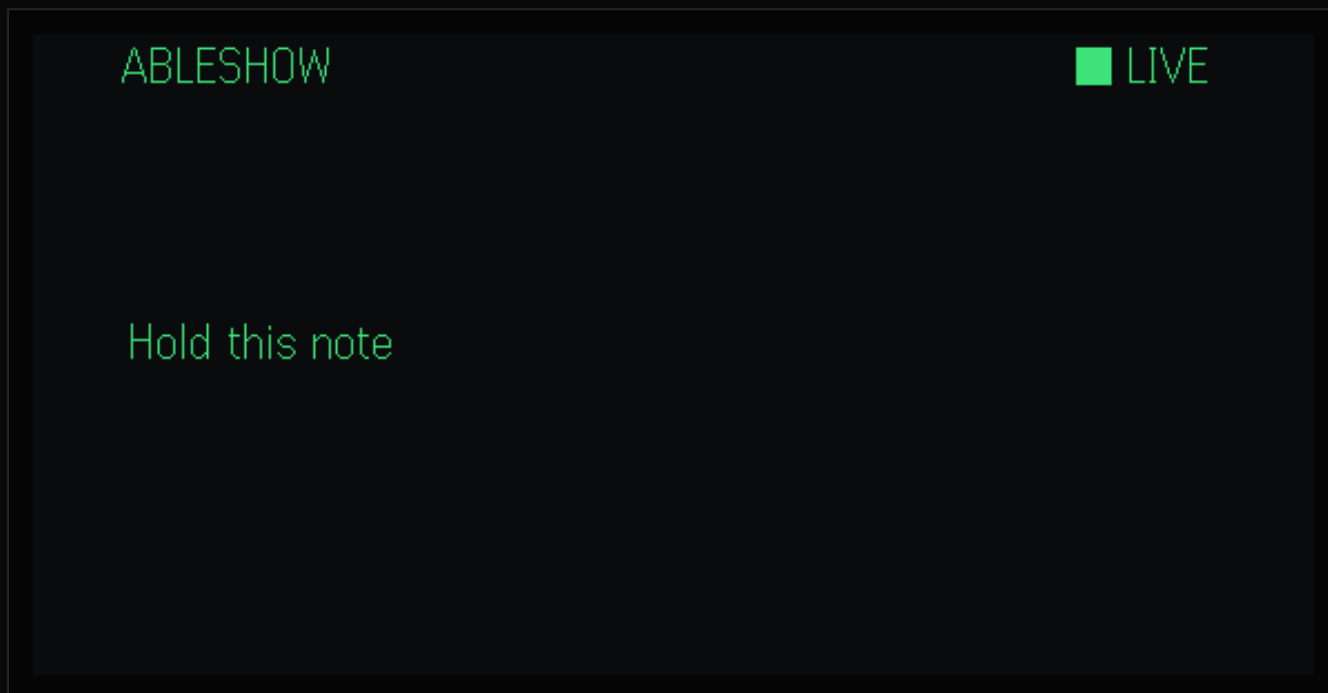


FIG 5 – A plain cue on the glasses.

4.2 • THE DEDICATED CUE TRACK

Put your cue clips on the one muted track that holds the device. Work in the Arrangement view (the timeline). Each clip covers the span of the song where its cue should be on screen.

The clips can be empty. They carry no notes and make no sound. The name is the only thing that matters. When the playhead reaches a clip, its cue appears. When the playhead reaches a gap with no clip, the screen clears. When one clip runs straight into the next, the cue changes over cleanly.

4.3 • THE NEXT CUE PREVIEW

While a cue is on screen, the glasses can also show the next cue on a line below it, so you can see what is coming. See Figure 6. The preview reads the next clip on the track, so you do not author it directly. It is on by default and can be turned off on the phone. The preview shows during a cue. There is no preview during a gap.

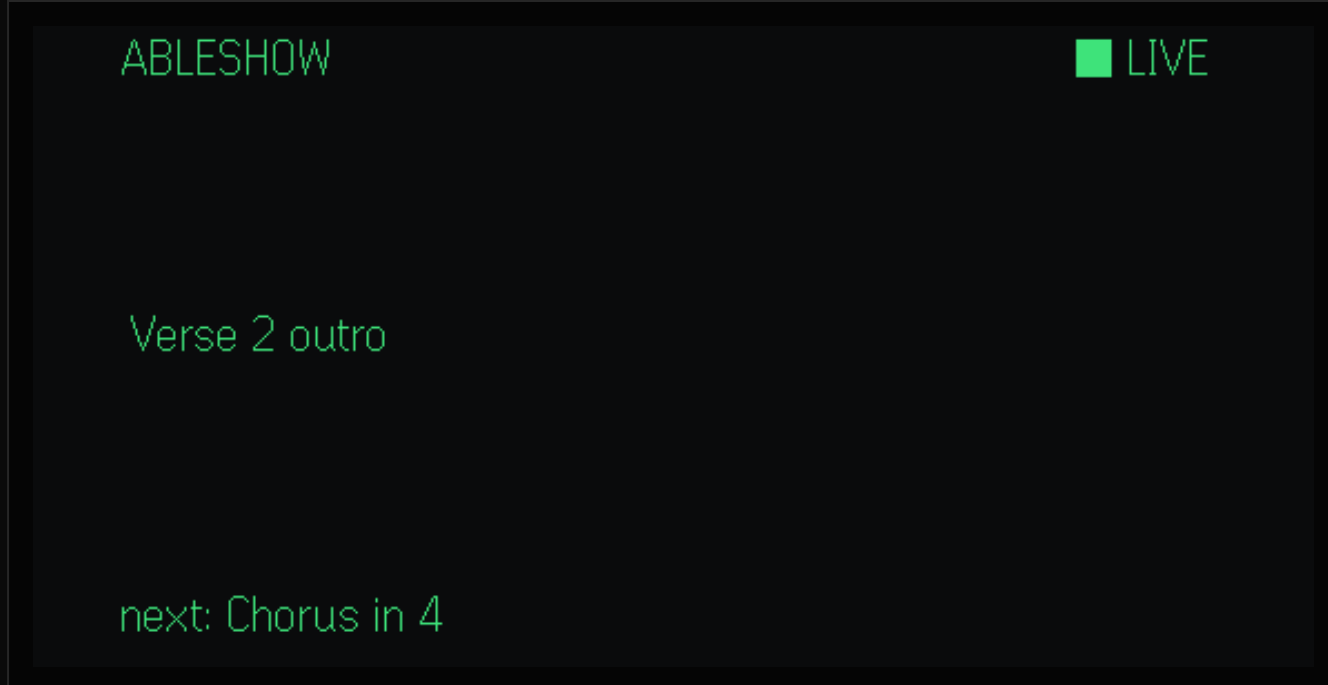


FIG 6 – A cue with the next cue shown on the preview line below it.

05 Tag reference

Tags start with @ and can go anywhere in a clip name. They are removed from the text before it shows. Tag words are not case sensitive, so @FLASH works the same as @flash. An unknown tag, for example a misspelled @flsah, is left in the text so you can see the mistake and fix it. A known tag that cannot take effect falls back to plain text and prints a warning in the Max console when the clip list loads, so problems show up at soundcheck rather than on stage.

@flash

FLASH GROUP

Blinks the cue over the last few beats of the clip. The blink is locked to the beat, and two rule lines sit above and below the text. The blink speed and how many beats it covers are set on the device panel. On frame shown in Figure 7, off frame in Figure 8. The rule lines stay in place while the text blinks.

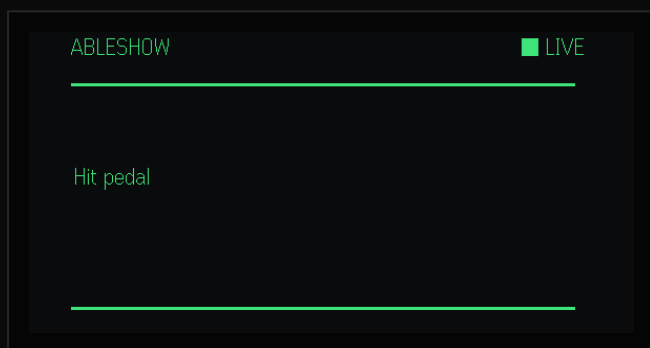


FIG 7 – @flash, on frame – the text lit between the two rule lines.

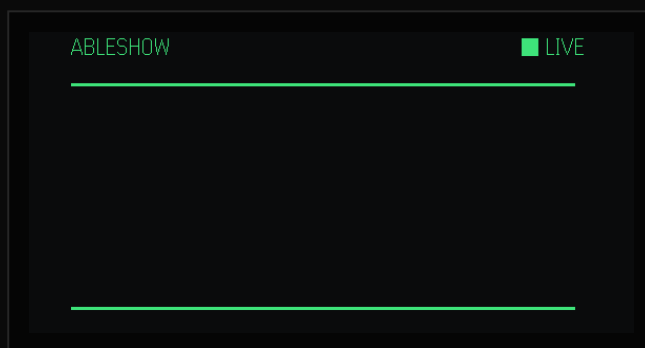


FIG 8 – @flash, off frame – the rule lines stay in place while the text is blank.

@flashing

FLASH GROUP

The same blink as @flash, but it runs for the whole clip instead of only the last few beats, and it does not draw the rule lines. Only the text pulses. Use it for a sustained pulse across a section. See Figure 9.

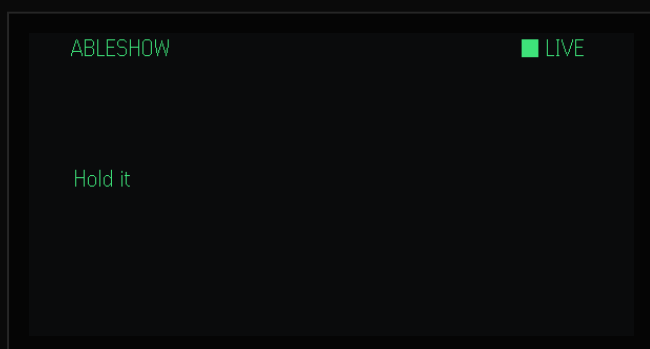


FIG 9 – @flashing – the text pulses with no rule lines.

@big

RENDER MODE

Draws the cue as large block letters across the panel. See Figure 10. It holds up to six characters from A to Z, 0 to 9, and the marks `. ! ? ' -`. A cue longer than six characters falls back to normal text and prints a warning at soundcheck.



FIG 10 – `@big` – the cue drawn as large block letters.

`@count` · `@count:N`

RENDER MODE

Runs a count-in at the end of the clip. The glasses count the beats up — 1, 2, 3, 4 — and the cue word then lands in big block letters on the downbeat that follows, which is the moment to act. A single digit frame is shown in Figure 11 and the big finale in Figure 12. Plain `@count` counts a full bar of four. `@count:N` adjusts the length of the count: the glasses count from 1 up to N plus one, so `@count:1` gives a short "1 2" and `@count:7` counts all the way to 8. N can be 1 to 8. The count owns the end of the clip, so `@flash` or `@flashing` on the same clip is dropped.

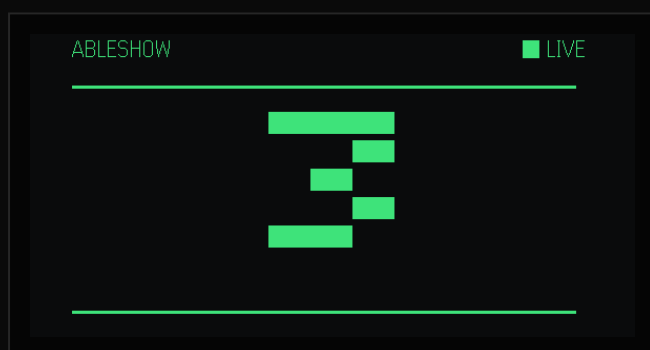


FIG 11 – `@count` – a single count digit.



FIG 12 – `@count` – the cue word landing in big block letters on the downbeat.

`@lines`

FRAMING

Draws two rule lines above and below the cue for the whole time it is on screen. See Figure 13. The lines stay solid while the text pulses, with `@flash` and `@flashing` alike.

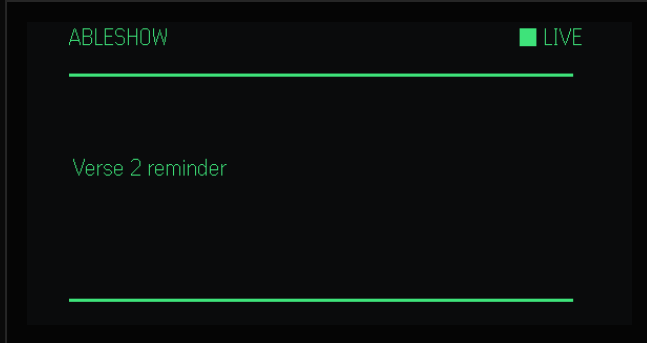


FIG 13 – @lines – rule lines above and below the cue.

@box

FRAMING

Draws a box around the cue text for the whole time it is on screen. See Figure 14. If a word is too wide to fit inside the box sides, the box drops its sides, keeps the top and bottom lines, and splits the word rather than overflow. See Figure 15.



FIG 14 – @box – a box drawn around the cue text.

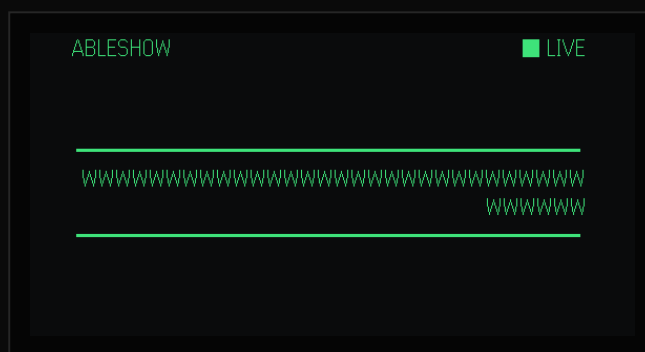


FIG 15 – @box with a word too wide for the sides – the box keeps its top and bottom lines and splits the word.

@slam

ADDITIVE

Flashes the whole panel once as a solid block before the cue appears. See Figure 16. It is a single flash, not a repeating strobe.



FIG 16 – @slam – the one-shot full-panel block flash.

@marquee

RENDER MODE

Scrolls a long cue across the display. It starts at the left showing as much as fits, holds so the start is readable, scrolls to reveal the rest, then loops. A cue that already fits does not move. Home position shown in Figure 17.

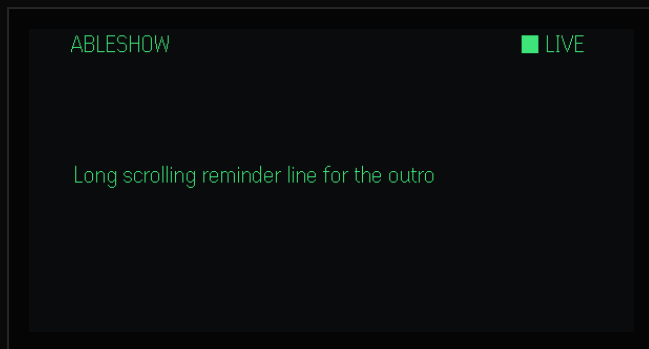


FIG 17 – @marquee at its home position, showing the start of a long cue.

@bar

ADDITIVE

Draws a bar under the cue that shrinks as the clip runs down toward its end. See Figure 18. It needs a clip with a known end to shrink against.

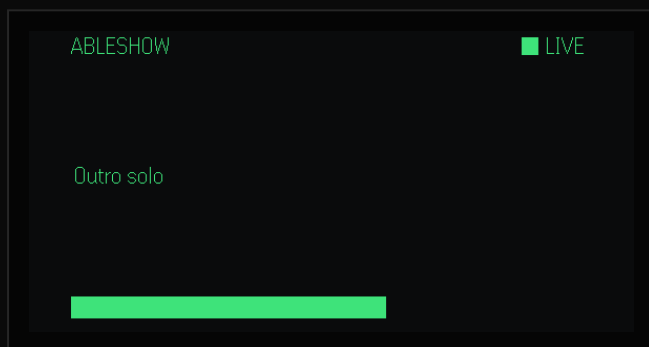


FIG 18 – @bar – the bar under the cue that shrinks toward the clip end.

5.1 • COMBINING TAGS

Tags fall into four groups. The rules below are enforced when the clip loads, so a clip can never send a contradiction, and any conflict prints a warning at soundcheck.

GROUP	TAGS	RULE
Render mode	@big @count @marquee	Use at most one. If more than one is present the order of preference is @count , then @big , then @marquee .
Framing	@box @lines	Use at most one. If both are present, @box wins. @box needs a normal text cue, so a render mode turns it off. @lines works with anything.
Flash	@flash @flashing	Use at most one. If both are present, @flashing wins. A @count clip drops both.
Additive	@slam @bar	Combine with anything. @bar needs a clip with a known end.

Combinations that work cleanly with no warning include @flash @lines , @flashing @box , @big @flash , @big @lines , @slam @big , and @bar @flash . The @flash @lines on frame is shown in Figure 19, @flashing @box in Figure 20, and @big @flash in Figure 21.

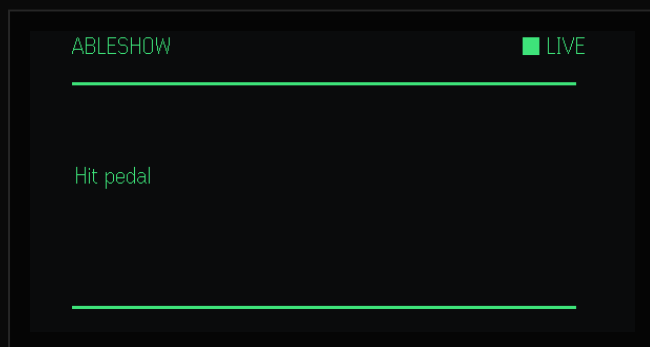


FIG 19 – @flash with @lines, on frame.

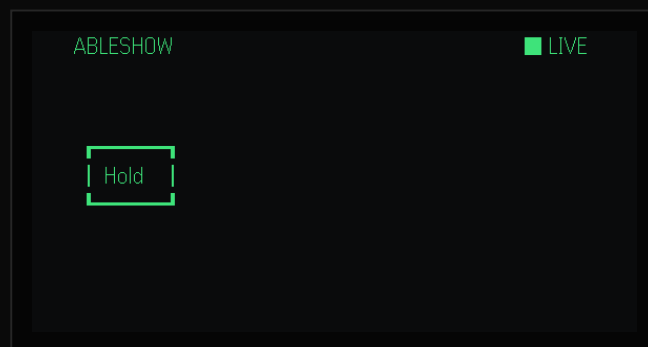


FIG 20 – @flashing with @box – the box stays solid while the text pulses.

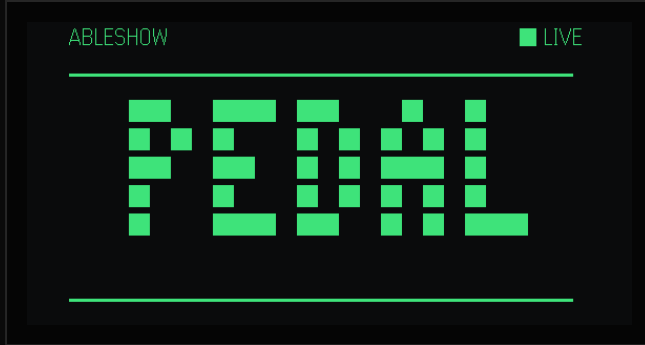


FIG 21 – @big with @flash – block letters flashing.

06 Device panel reference (Ableton)

The device panel in Ableton has the controls that shape the effects, plus a few readouts. The controls are Ableton live controls, so they save with your set and can be automated per track and per song. The panel is shown in Figure 22.

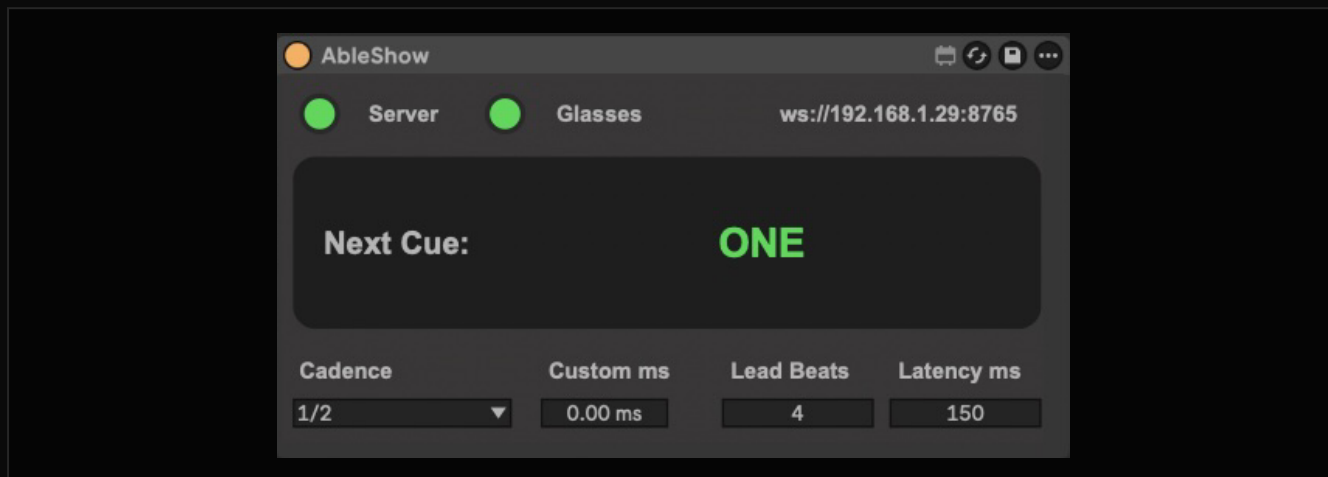


FIG 22 – The device panel – the Server and Glasses lights and the address readout along the top, the Next Cue readout, and the controls left to right: Cadence, Custom ms, Lead Beats, Latency ms.

- **Cadence.** Sets the flash speed for both `@flash` and `@flashing`. The choices are `1/4`, `1/2`, and `User`. `1/4` flashes on every beat. `1/2` flashes on every second beat. Both use an even on and off split. At very fast tempos the note value is kept, so `1/4` keeps flashing on every beat rather than quietly turning into `1/2`. `User` uses a manual time you type in.
- **Custom ms.** The manual flash time used by the User cadence. Typing a value here also switches the cadence to User. A value of 0 uses the glasses app default.
- **Lead Beats.** How many beats before the clip end a `@flash` cue starts blinking. Range 1 to 8, default 4.
- **Latency ms.** How early each count-in step is sent so that it lands on the beat once it has traveled to the glasses. Range 0 to 1000. It ships at 150, which suits most setups. If the count-in digits consistently land early or late, adjust it in small steps.
- **Status lights.** One light shows the server is running, the other shows the glasses are connected.
- **Next cue readout.** Shows the plain text of the next cue.
- **Address readout.** Shows the address the phone needs, for example `ws://192.168.1.29:8765`.
- **Refresh button.** Rebuilds the clip list. Press it if you rename clips and the change does not show within a second or two.

07 Phone app tour

The phone page is the settings and status screen. Every change takes effect straight away, so the page is its own preview. See Figure 23 for the whole page while connected.

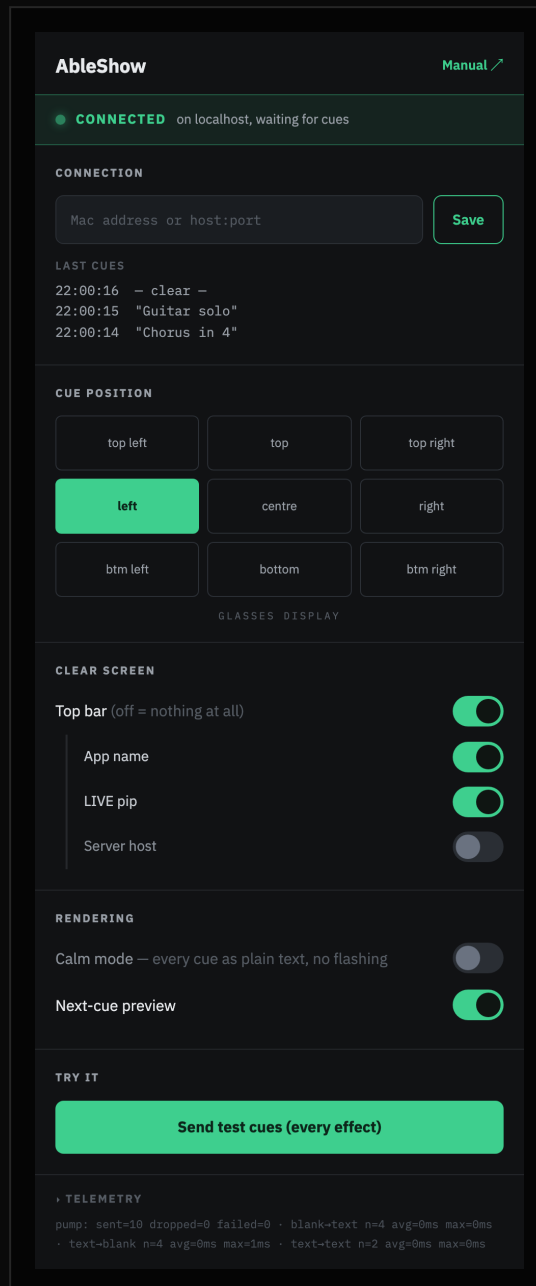


FIG 23 – The phone page while connected – status banner, connection, cue position, clear screen, rendering, and telemetry.

- **Header.** The AbleShow name, with a Manual link in the top corner that opens this manual at <https://ableshow.app>.
- **Status banner.** The strongest signal on the page. Green and CONNECTED when the phone has reached the computer. A light band and NO CUE SERVER on first run or when no server is found. A neutral band for in-between states like Starting, Reconnecting, and Saved.

- **Connection.** The address field and Save button, and a Last cues log showing the most recent cues with timestamps. The pulses of a flash are left out of the log so they do not push everything else out.
- **Cue position.** A three-by-three grid that sets where the cue sits on the glasses. The selected cell is solid green. The GLASSES DISPLAY caption marks which way is which. See the different positions in Figure 24, Figure 25, and Figure 26.
- **Clear screen.** Sets what stays on the glasses between cues. A master Top bar switch, then switches for the App name, the LIVE marker, and the Server host. With the master off, the screen between cues is completely clear. Full top bar shown in Figure 27, completely clear in Figure 28.
- **Rendering.** Calm mode and Next cue preview. Calm mode draws every cue as plain steady text with no flashing or effects. See Figure 29, where a flash cue is drawn as plain text.
- **Try it.** A Send test cues button that runs through every effect on the glasses so you can check the look without Ableton running.
- **Telemetry.** A dim readout of how the display updates are performing. See section 10.

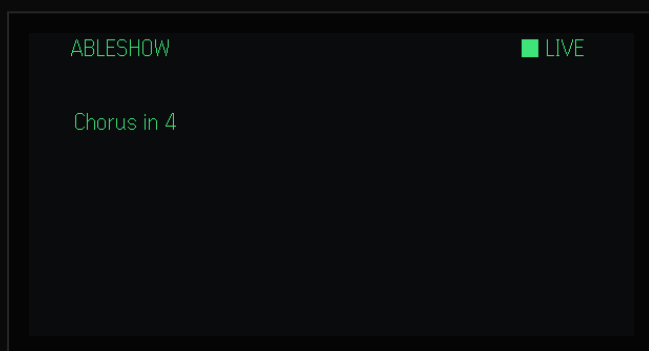


FIG 24 – The cue positioned top left.

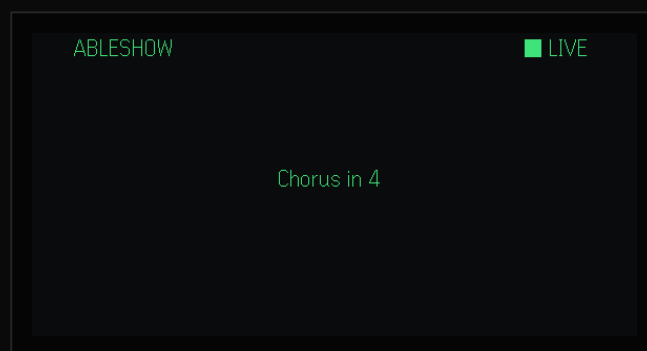


FIG 25 – The cue positioned in the centre.

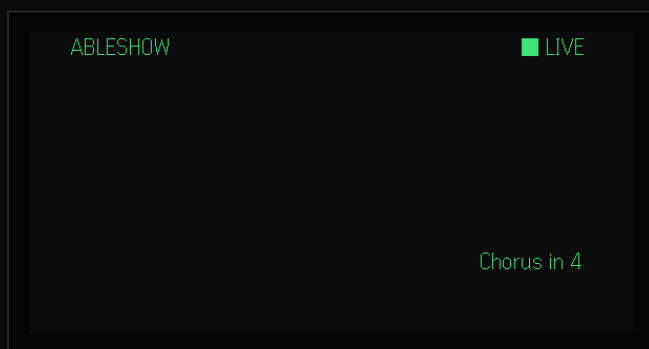


FIG 26 – The cue positioned bottom right.

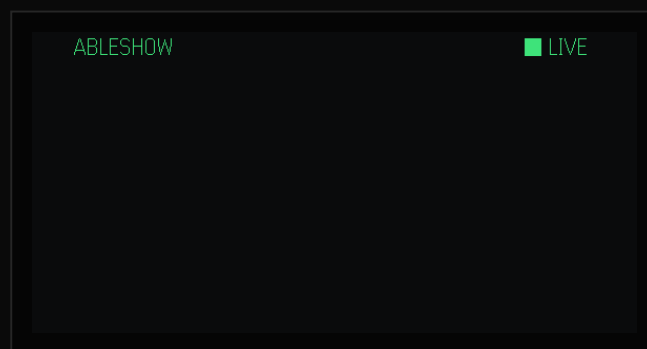


FIG 27 – Between cues with the full top bar switched on.

08 Glasses controls

The controls are on the touchpad on the temple of the glasses. The ring, if you have one, does the same things.

- **Open the menu.** Double tap while no menu is open. The menu docks on the left and the current cue is pushed into the column to its right, where it stays visible but may be partly cut off. A big banner or boxed cue shows as plain text while the menu is open, and comes back in full when the menu closes. See Figure 30.
- **Move the cursor.** Swipe up or down to move the > marker.
- **Select an item.** Single tap.
- **Menu items.** Return to HUD, Hide HUD or Show HUD, Calm mode on or off, and Quit AbleShow. Below the items the menu shows the connection state and your computer's name, and the app version.
- **Calm mode from the glasses.** The Calm mode item mirrors the phone switch, so you can turn it on or off mid set without reaching for the phone.
- **Hide the display.** Swipe down while no menu is open. A prompt appears on the top strip that reads "Hide HUD? swipe again", and the cue stays visible during the prompt. See Figure 31. Swipe down again to hide. A short "HUD hidden, swipe down to show" message appears and then the screen goes blank. See Figure 32. Two swipes are needed to hide so a stray brush does not lose your display. One swipe down brings it back.
- **Hide from the menu.** The Hide HUD and Show HUD menu items do the same thing, which is useful when the phone or the ring is out of reach.
- **Hiding does not stick across a restart.** The display is always visible when the app starts, so a set never begins with a hidden screen.
- **Exit the app.** Open the menu and select Quit AbleShow, which brings up the standard exit dialog. Double tapping while the menu is open also brings up the exit dialog.

- **The phone can be in your pocket.** The connection keeps running with the phone locked and the Even app in the background for the length of a set, so you do not need to keep the phone awake.
- **Reconnecting is quick.** Once the phone has connected to your computer, it remembers that address and keeps retrying it every couple of seconds if the link drops, so a server restart is about a two to three second gap. If the server stays gone for longer, the phone keeps retrying the same saved address with a slightly longer pause between attempts, and reconnects on its own as soon as the server is back.
- **If the server stops mid song.** The cue on the glasses settles to steady text rather than getting stuck mid blink, and the corner shows a RECON marker. When the server comes back the cue picks up again. With Ableton the reconnect is smooth, because the device sends the current cue as soon as the phone reconnects.
- **Calm mode for quieter sections.** Turn on Calm mode, from the phone or the glasses menu, when you want the cues present but with no flashing.

10 Troubleshooting

THE PHONE WILL NOT CONNECT

- Check that the phone and the computer are on the same Wi-Fi or local network.
- Check the address. Read it off the device address readout in Ableton, which shows the exact `ws://` address including the port. Type it into the phone Connection field and press Save.
- Check that only one cue server is running. If a second copy of the device is open, or a leftover test server is running, it holds the port and the new one cannot start. Keep one device in your set.
- On a Mac, if the system asks whether to allow incoming network connections when the device starts, choose Allow — a firewall that blocks incoming connections stops the phone reaching the computer.

CUES DO NOT APPEAR

- Check the glasses show the LIVE marker, which means the phone is connected.
- Check the device is on the cue track and the clips are named.
- Press the Refresh button on the device panel. A clip rename can take several seconds to register on its own, and Refresh forces it.

THE FLASHING LOOKS WRONG

- Check the tag. `@flash` blinks over the last few beats. `@flashing` blinks for the whole clip. They look different on purpose.
- Check the Cadence setting on the device panel. `1/4` flashes on every beat, `1/2` on every second beat.
- Check that Calm mode is off. Calm mode turns all flashing off.

READING THE TELEMETRY

The Telemetry section on the phone is a support aid. You do not need it in normal use. If you report a problem, a screenshot of it helps diagnosis. Dropped updates during fast flashing are normal — the app drops an old frame rather than fall behind. A rising failed count is the one worth reporting.

If you are stuck, write to hello@ableshow.app.