KoeBattle Operating Manual

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KoeBattle v1.3 | Updated: 2026-10-06 | For people who run and set up KoeBattle at the venue

1. What KoeBattle is

KoeBattle measures how loud each section of the crowd cheers, for example at half-time, and shows the battle on the big screens.

- It runs on one PC with one microphone. No internet connection is needed
- You operate it from the "control screen" in a browser. The "output screens" for the big screens open in separate windows (or on another PC)
- The standard battle goes in turns: for each team, call → countdown → measuring, then the results after all teams are done. You can also measure all teams at once in a "simultaneous battle" (4.5)
- Scores are a 0 to 100 "noise score". This is not a sound-level meter reading in dB: you take a baseline at each venue, and the score is the difference from it

KoeBattle runs on Windows and on Mac (Apple silicon). The control screen opens in your default browser. Full-screen windows for the big screens open in Edge on Windows, and in Google Chrome on Mac (Edge if Chrome is not installed).

The control screen can be shown in Japanese or English with the "日本語" and "English" buttons at the top right (3.1). The language of the big screens is chosen separately (5.4).

2. Starting KoeBattle

2.1 Windows

1. Download the zip from the download page (https://dekobokotech.com/KoeBattle/en/download/), right-click it and choose "Extract All" to extract it anywhere on the PC (such as the Desktop). There is no installation. Running the files from inside the zip does not work (if Windows suggests extracting all files first, press "Extract All")
2. Save the license file we sent you by email (KoeBattle-license.json) to your Desktop or Downloads folder
3. Double-click **Start_KoeBattle.bat** in the extracted **KoeBattle** folder. The license is loaded automatically the first time
4. If Windows shows "Windows protected your PC", click "More info" → "Run anyway". If it says "The publisher could not be verified", click "Run". (This can appear the first time, because the files came from the internet)
5. A black window named "KoeBattle Server" stays open (minimized), then the control screen (`http://localhost:8860/`) opens in the browser
6. If you have chosen monitors on the "Outputs" tab, the output screens open full-screen on those monitors

If Windows Firewall asks the first time, press "Allow access". This is needed to open output screens from another PC on the LAN. If you decline, KoeBattle still works on this PC.

2.2 Mac (Apple silicon)

We send the Mac version separately when you order (KoeBattle_Mac_.tar.gz).

1. Install Google Chrome first (used for the full-screen windows)
2. Double-click the tar.gz to extract it (this creates the KoeBattle folder)
3. Save the license file we sent you by email (KoeBattle-license.json) to your Desktop or Downloads folder
4. Double-click **KoeBattle起動.command** in the folder (this is the start file; its name is in Japanese). A Terminal window stays open. Closing it stops KoeBattle. The license is loaded automatically the first time
5. If macOS says "KoeBattle起動.command" Not Opened, click "Done" (not the highlighted "Move to Trash", which would delete the start file), then open "System Settings" → "Privacy & Security" and press "Open Anyway" near the bottom. You only need to do this once (the stop and license-update files are not blocked after that)
6. If Terminal asks for access to your "Desktop" or "Downloads" folder, press "Allow" (it looks for the license file there)
7. If "Google Chrome would like to access the microphone" appears the first time, press "OK". If you declined, allow it in "System Settings" → "Privacy & Security" → "Microphone"
8. If macOS asks whether to accept incoming network connections, press "Allow"
9. Full-screen windows are opened the normal way Chrome opens, so macOS does not ask for "App Management" permission

There is also a way that is never blocked: paste this line into Terminal and press Return. It creates the KoeBattle folder in Downloads (step 5 does not appear).

```
cd ~/Downloads && tar -xzf KoeBattle_Mac_*.tar.gz
```

KoeBattle does not run on Intel Macs (a message says so when you start it).

2.3 If it does not start

Symptom	Cause and what to do
The black window closes at once	Start it again and read the text in the window. If it says "KoeBattle cannot start: the license period has ended", see chapter 10
"KoeBattle cannot start: No license"	Save the license file from our email (KoeBattle-license.json) to your Desktop or Downloads folder, then start KoeBattle again (chapter 10)
"You are running this from inside the zip file"	Right-click the zip, choose "Extract All", then run the start file from the extracted folder
You pressed the start file again	If KoeBattle is already running, only the control screen opens again. This is fine. To stop everything, use **Stop_KoeBattle.bat**
The browser does not open	Open `http://localhost:8860/` in a browser (if that does not work, use the URL after "Control screen:" in the "KoeBattle Server" window on the taskbar)
"Bundled Node.js is missing"	Part of the folder is missing. Extract the downloaded zip again ("Extract All")

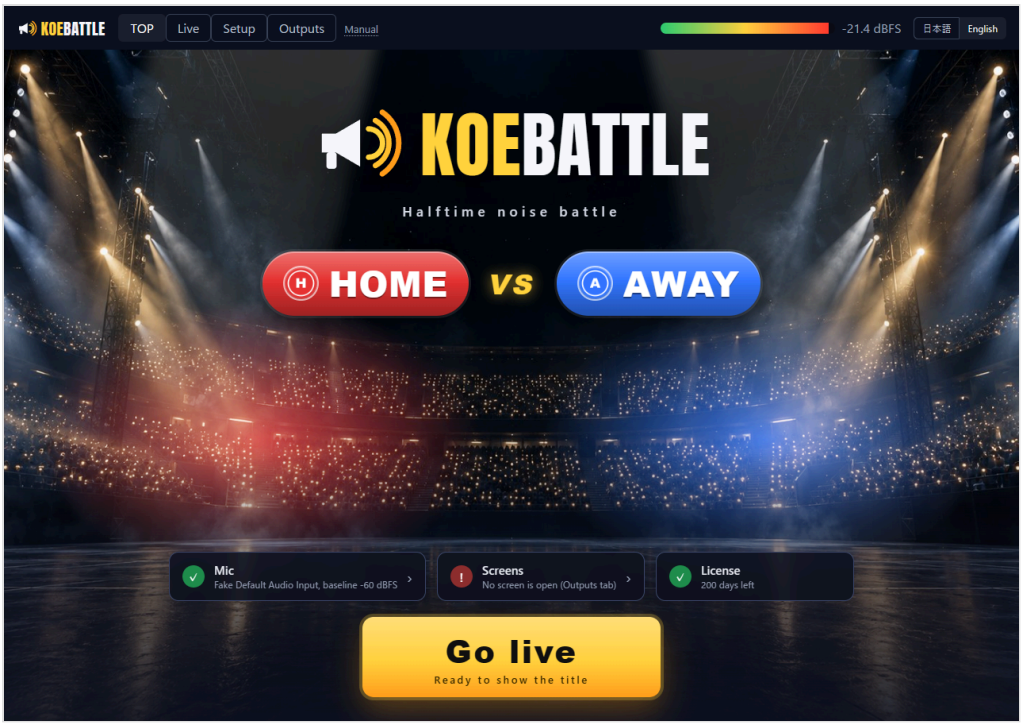
2.4 Using it with other apps

You can run KoeBattle on the same PC as other DBT products such as OtoMotion at the same time.

- KoeBattle uses the first free port from 8860. If another app is using it, KoeBattle moves to the next one (8861…) and the start window says "Note: port 8860 was in use, so port 8861 is used". If you open output URLs on another PC or in OBS, use that port
- **Stop_KoeBattle.bat** stops only KoeBattle. It does not close other apps' windows
- When it looks for a license file, it does not use other products' licenses (chapter 10)

3. The control screen

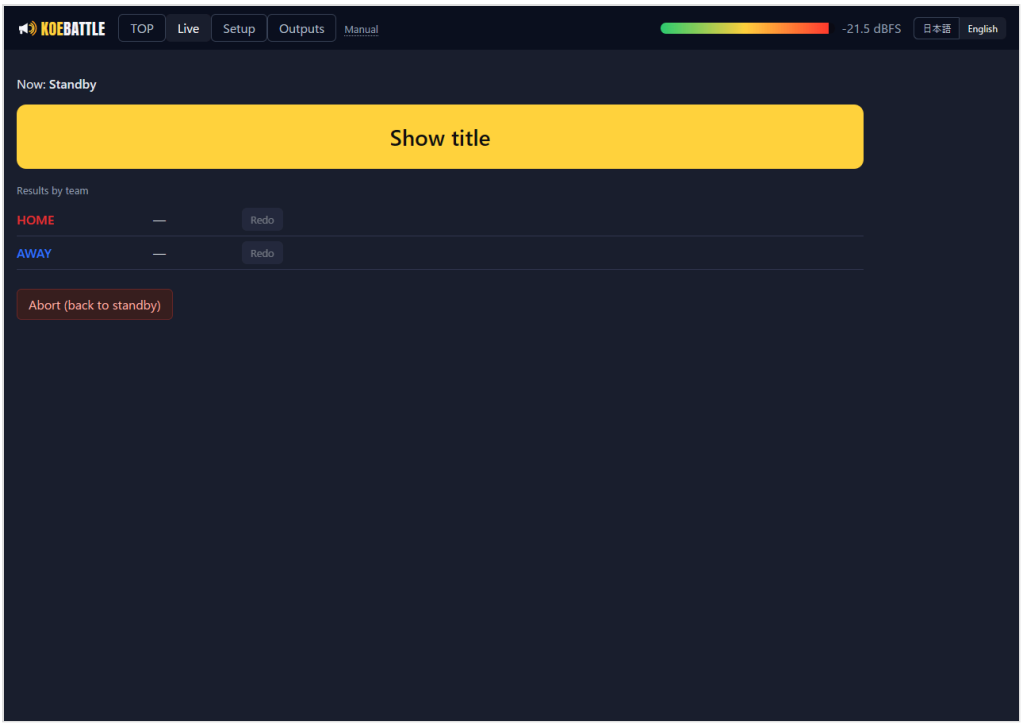
There are four tabs at the top. "Manual" opens this manual. KoeBattle opens on "TOP".



Tab	What it is for
TOP	The screen you see at start-up. Today's match-up and three readiness items ("Mic" / "Screens" / "License"). When the mic or screens item is not ✓, press it to go to that tab (to renew the license, see chapter 10). "Go live" opens the Live tab
Live	Run the round with the big button. Results by team, redo, abort
Setup	"Mic & measuring" / "Teams & logos" / "Backgrounds & videos" / "Text & motion". Preview on the right
Outputs	The list and settings of the screens you send to the big screens (outputs), monitor choice, URLs

The bar at the top right shows how loud the sound picked up by the mic is. If it moves, KoeBattle can measure.

Do not close or reload the control-screen tab during the show. The microphone is captured by this screen. If you close or reload it, press "Setup" → "Use mic" again.



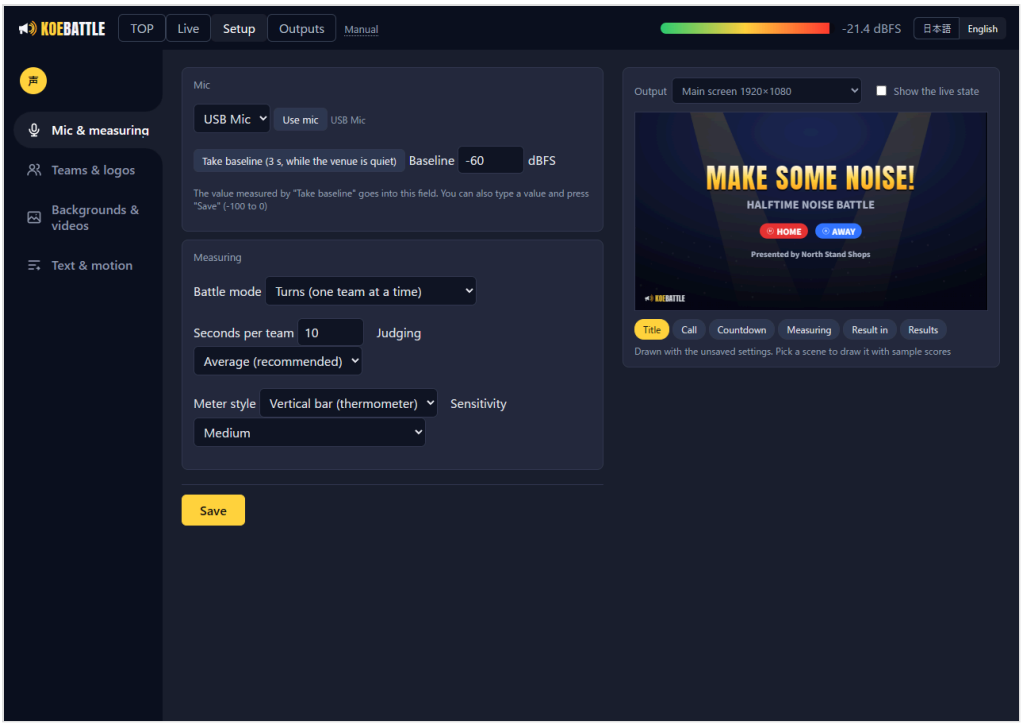
3.1 Japanese or English

Press "日本語" or "English" at the top right to switch the control screen's language. It changes at once without reloading, and the text you are typing is kept. The choice is remembered by this browser on this PC.

- On a PC where KoeBattle was first started with the English start file (Start_KoeBattle.bat), it starts in English; otherwise in Japanese
- Team names, text you wrote and output names are your own text, so they are not translated
- The big screens have their own language setting (5.4)

4. Mic and baseline

"Setup" → "Mic & measuring".



4.1 Where to put the mic

Fairness between teams depends on the distance between the mic and each section of seats.

- Place it **at a similar distance and angle from every team's seats** (between home and away)
- Avoid the front of the speakers (it picks up music and announcements and raises the score)
- Do not move it during a round
- A line input from the venue's mixer can also be used as a mic

4.2 Use the mic

1. Connect the mic to the PC, choose it in the list and press "Use mic"
2. When the browser asks, allow the microphone. If the bar at the top right moves with your voice, it works
3. If you declined, click the icon at the left of the address bar (a lock or camera mark), set the mic to "Allow", then press "Use mic" again

KoeBattle measures with automatic gain control (AGC) turned off. Turning off automatic volume adjustment in the OS sound settings too makes it more reliable.

4.3 Take the baseline

The "Baseline" is how loud it is when the venue is quiet. It is the 0 point of the score.

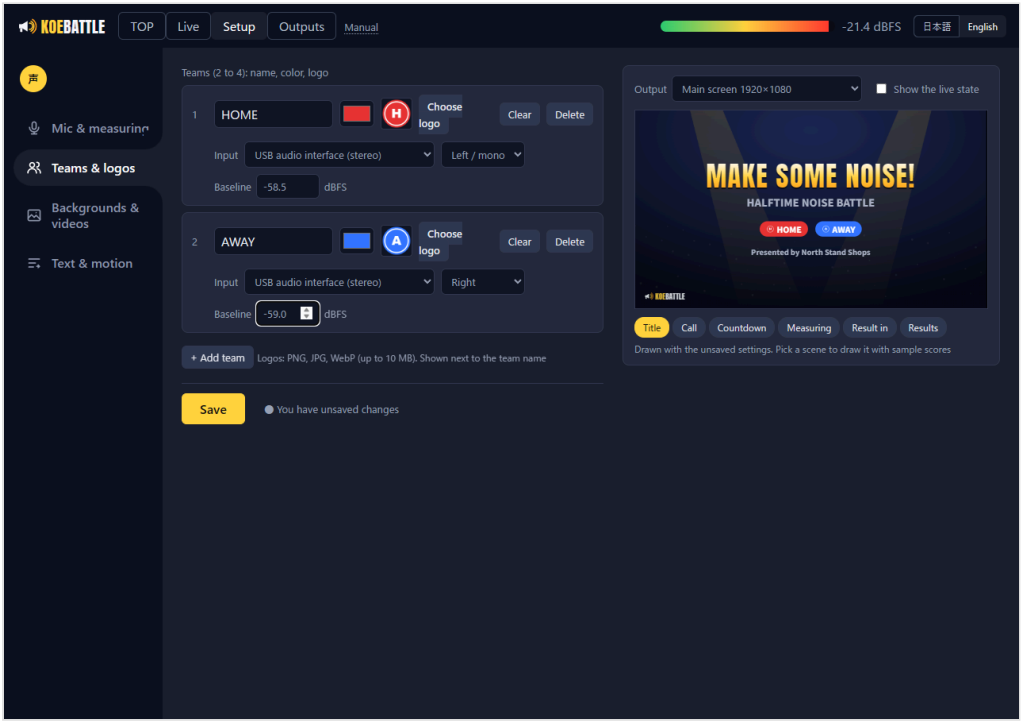
1. Press "Take baseline (3 s, while the venue is quiet)" while the venue is quiet. It measures for 3 seconds, puts the value (dBFS) in the field and saves it automatically (other changes on the Setup tab are saved with it; you can save only in standby)
2. You can also type a value and press "Save" (-100 to 0). This is handy when you know the value from last time

4.4 Measuring

Item	Meaning
"Seconds per team"	Seconds measured after the countdown (5 to 30, default 10)
"Judging"	"Average (recommended)" is the average while measuring. "Peak (0.5 s smoothing)" is the highest value smoothed over 0.5 s. Usually use the average
"Meter style"	Look of the meter on the big screen: "Vertical bar (thermometer)" / "Speedometer" / "Ring"
"Sensitivity"	"High (moves even with quiet voices)", "Medium" (default), "Low (for large venues)". If the score jumps to 100 at once, choose low; if it does not rise, choose high
"Battle mode"	"Turns (one team at a time)" is the default. For "Simultaneous (all teams at once)", see 4.5

4.5 Simultaneous battle (measure all teams at once)

Set "Battle mode" in "Mic & measuring" to "Simultaneous (all teams at once)" to measure and compare all teams at the same time. In turns, all teams share one mic; in a simultaneous battle, each team needs its own sound input.



1. **Choose the inputs** ⋯ An "Input" appears on each team's row in "Teams & logos". Choose the mic (device) and its side ("Left / mono", "Right" or "Mix") for each team. The same input cannot be used by two teams
    - **One stereo feed** (recommended) ⋯ At the venue's mixer, pan the home side's mic to the left and the away side's mic to the right, send the stereo feed to the PC, and set HOME to "Left /

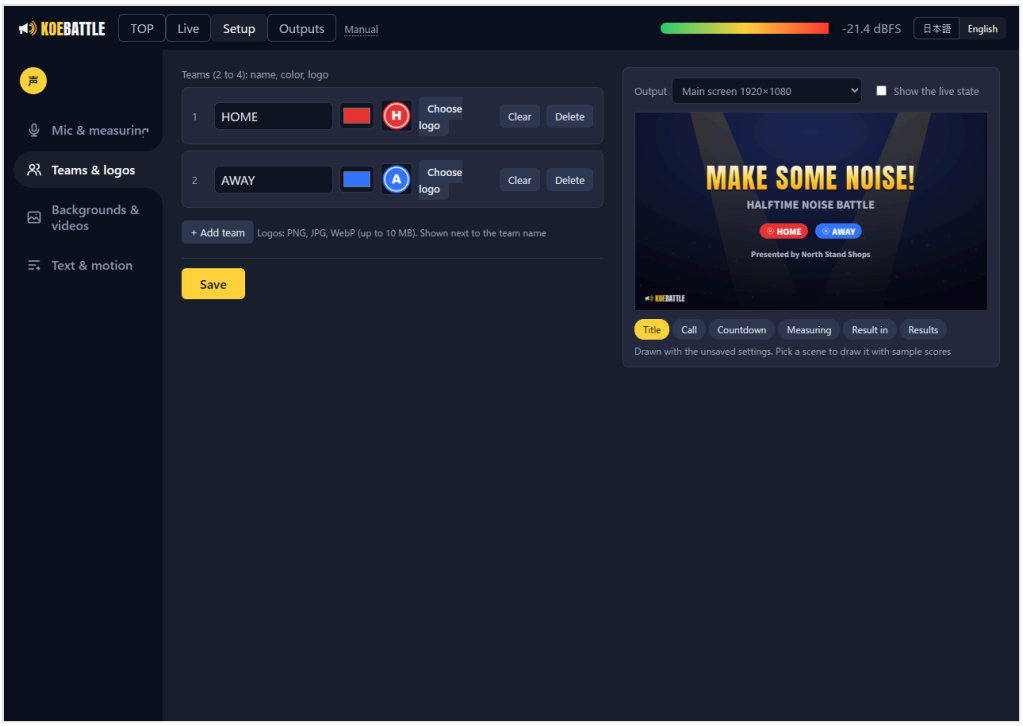
mono" and AWAY to "Right". One stereo feed covers up to 2 teams
    - **One USB mic per team** ⋯ Choose a different USB mic for each team (use "Left / mono" for mono mics). Up to 4 teams. Point each mic at its section and keep the distance to the seats the same for every team
2. **Use the mic** ⋯ Press "Save", then press "Use mic" in "Mic & measuring" (the mic list is not used; the saved team inputs open together). The bar at the top right appears once per team in the team colors and moves with each input. If you change and save the mode or the team inputs, press "Use mic" again (a message tells you)
    - If two teams use a mono mic (no left/right), they would be measured with the same sound, and a message says so. Two USB mics of the same model may look the same in the list. In that case, use a different USB port or split them by stereo left and right
3. **Take the baseline** ⋯ Press "Take baseline (3 s, while the venue is quiet)" while the venue is quiet. It measures each team for 3 seconds, fills in each team's "Baseline" field and saves. If a team has no baseline, you cannot start measuring on the Live tab ("Some teams have no baseline" appears). If you know the values from last time, you can type them and press "Save"
4. **Live** ⋯ The big button goes "Show title" → "All teams, go!" (the big screen shows all team names and the "Call to all teams" text; the English default is "3, 2, 1⋯ SHOUT!") → "Start measuring (3, 2, 1)" → all teams are measured at once (the big-screen meter shows one per team, and the ribbon is split per team) → result in (every team's score) → "Show results"
    - Redo is for all teams together ("Redo all teams"), because measuring only one team again would no longer be simultaneous. If a team gets no reading, all teams are measured again
    - You can change the "Call to all teams" text in "Text & motion", and the video that replaces it in "Backgrounds & videos"

To go back to turns, set "Battle mode" to "Turns (one team at a time)", press "Save" and press "Use mic" again. The per-team input fields are hidden, and the one mic chosen in the list is used.

5. Teams, logos, backgrounds, sponsor, videos that replace text

5.1 Teams and logos

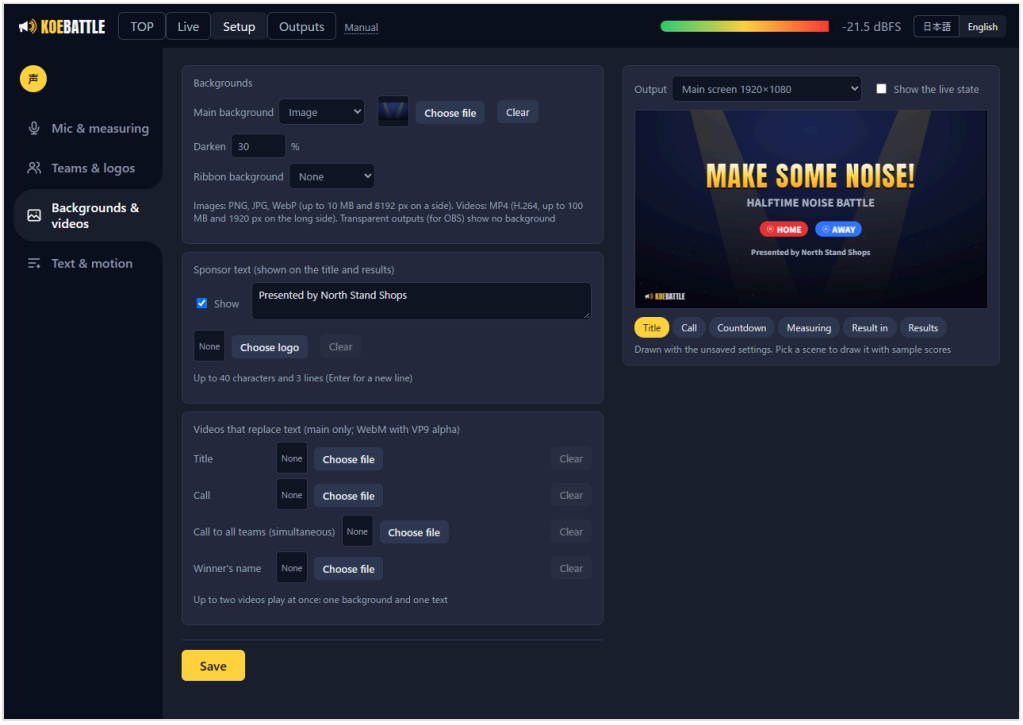
"Setup" → "Teams & logos". Each row is a team: name, color and logo. 2 to 4 teams. Add teams with "+ Add team" and remove them with "Delete".



- Names can be up to 20 characters. Long names are shrunk automatically so the whole name shows on the big screen
- Logos: PNG, JPG, WebP (up to 10 MB). Shown next to the team name. Remove with "Clear"
- Press "Save" after changes. You can save only in standby (when the Live tab shows "Show title")

5.2 Backgrounds and videos

"Setup" → "Backgrounds & videos".



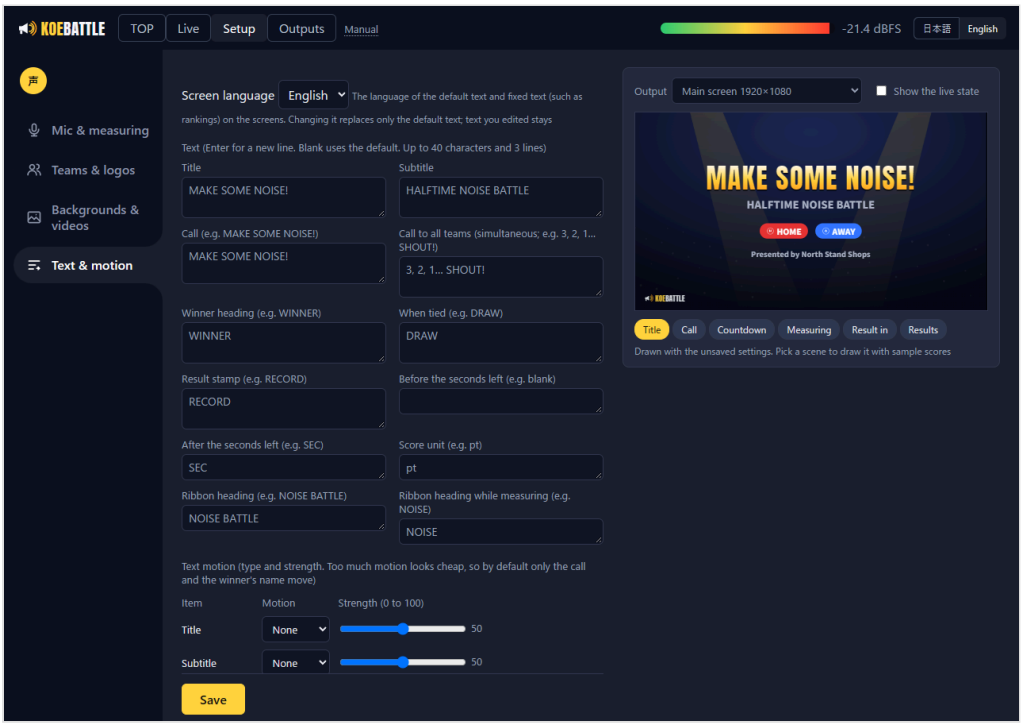
Field	What it does
"Main background" / "Ribbon background"	"None" / "Image" / "Video (MP4)". "Darken" makes the text easier to read
Sponsor text	With "Show" on, the text and logo appear on the title and results scenes (up to 40 characters and 3 lines)
Videos that replace text	Show the title, the call and the winner's name as videos with alpha instead of text

Formats and limits:

- Images: PNG, JPG, WebP, up to 10MB and 8192px on a side
- Background videos: MP4 (H.264), up to 100MB and 1920px on the long side
- Videos that replace text: WebM (VP9 with alpha), up to 100MB and 1920px on the long side. Shown on the main screen only
- Play at most one background video and one text video at the same time. If it is too heavy, the Outputs tab shows "video may be too heavy"
- Transparent outputs (for OBS) show no background. The ribbon inside a composite output cannot use a background video (images work)

5.3 Text and motion

"Setup" → "Text & motion". You can change every piece of text: title, subtitle, call, WINNER, DRAW and more (up to 40 characters and 3 lines; Enter for a new line). A blank field goes back to the default text.



"Text motion" lets you choose, for each piece of text, "None" / "Pulse" / "Zoom in" / "Shake" / "Scroll" / "Blink" and a strength (0 to 100). Too much motion looks cheap, so by default only the call and the winner's name move.

5.4 Screen language

"Screen language" at the top of "Text & motion" chooses the language of the big screens: 日本語 or English. It is separate from the control screen's language, so staff can operate in Japanese while the big screens show English, for example.

- On a PC where KoeBattle was first started with the English start file (Start_KoeBattle.bat), this starts as English; otherwise in Japanese
- When you change it, only the default text is replaced with the new language's default. Text you have edited stays as it is
- Fixed text follows it too: rankings on the ribbon ("1st", "2nd" …), "NO READING" for a team with no reading, and the monitor numbers shown by "Show numbers"
- Press "Save" to use it on the big screens (the preview shows it before saving)

English defaults: title "MAKE SOME NOISE!", subtitle "HALFTIME NOISE BATTLE", call "MAKE SOME NOISE!", call to all teams "3, 2, 1… SHOUT!", result stamp "RECORD", before the seconds left: blank, after the seconds left "SEC".

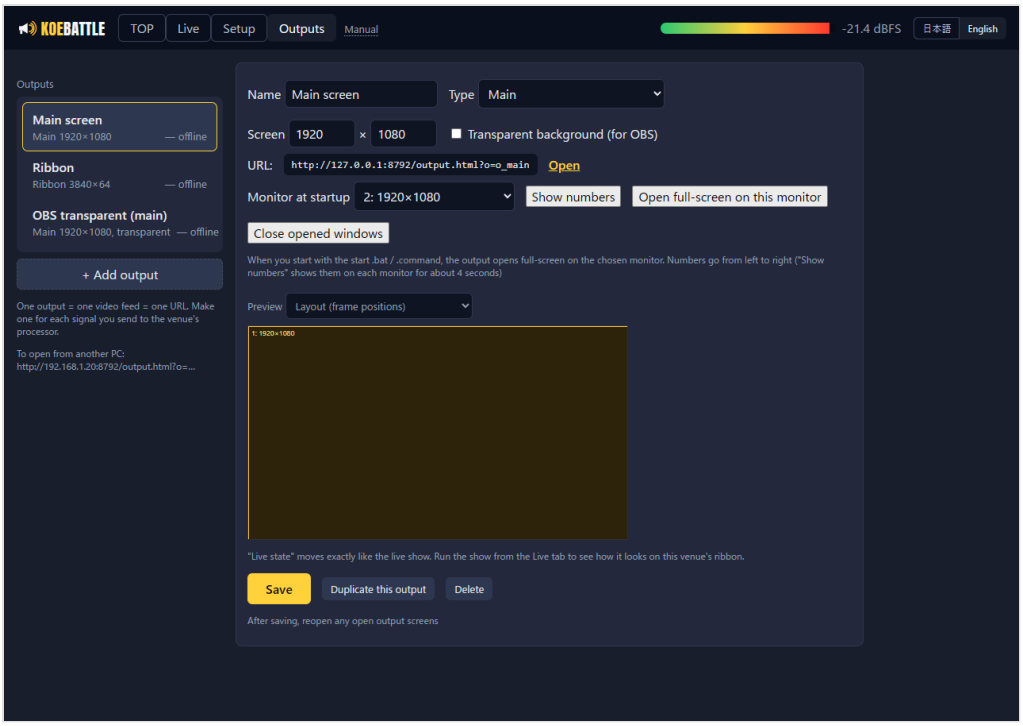
6. Preview

On the right of the "Setup" tab. It draws **the settings before you save them**.

- Use "Output" to choose which screen (main, ribbon or composite) to look at
- The scene buttons ("Title" / "Call" / "Countdown" / "Measuring" / "Result in" / "Results") draw each scene with sample scores. The show itself does not move
- For ribbons and composites, choose "Whole (scaled down)" or "Crop (actual size)". In actual size, drag to move left and right
- With "Show the live state" on, the preview shows the same screen as the live show, with the saved settings

7. Outputs (screens for the big screens)

The "Outputs" tab. One output = one video feed = one URL. Make one for each signal you send to the venue's processor.



7.1 Types

Type	When to use it
"Main"	The big screen. Title, call, meter and results, large
"Ribbon"	A long, thin ribbon board. Meter and results on a narrow strip
"Composite (arrange frames)"	Place main frames and ribbon strips by coordinates inside one screen. For venues where the LED processor cuts the picture apart

7.2 Multi-row ribbon layouts

A layout that cuts one long ribbon into 7 rows of 1824px and packs them into 1920×1080 is handled with a composite output.

1. Set the type to "Composite (arrange frames)". Under "Make rows in one go", enter the number of rows, row size, gap and start position from the drawing, then press "Rebuild frames"
2. Set "Ribbon style" to "Join (one ribbon across all frames)". For the second output, enter "Start position when joined"
3. For rows with a different height, such as the camera position section, enter the real height in that frame's "Source height (squeeze vertically)" to squeeze it vertically only
4. Check the frame positions with "Layout (frame positions)" and the real picture with "Live state (the output screen itself)" under "Preview"

7.3 Transparent (OBS) and LAN

- "Transparent background (for OBS)" draws no background. Put the URL into an OBS browser source to send it over NDI®
- To open it from another PC, open the `http://192.168.…:8860/output.html?o=…` address shown at the bottom left in that PC's browser and press F11 for full screen

7.4 Open full-screen on a chosen monitor

Choose a "Monitor at startup" for each output and press "Save". The next time you start with Start_KoeBattle.bat (Mac: KoeBattle起動.command), the output opens full-screen on that monitor. As delivered, every output is set to "None (open by hand)". At a new venue, choose the monitor connected to the big screen and save.

- "Show numbers" ⋯ A number appears on each monitor for about 4 seconds, counted from the left. On Mac, the full-screen windows are reopened after the numbers disappear, so you see the desktop for a second or two
- "Open full-screen on this monitor" ⋯ Opens the output right now on the monitor chosen in "Monitor at startup" (also for reopening a window you closed)
- "Close opened windows" ⋯ Closes all full-screen windows KoeBattle opened
- If you connect a monitor later, reload the control screen (F5) and choose again (after reloading, press "Use mic" again)
- On Windows without Edge, or on Mac without Chrome or Edge, full-screen windows do not open. Open the URL next to "Open" in a browser and press F11

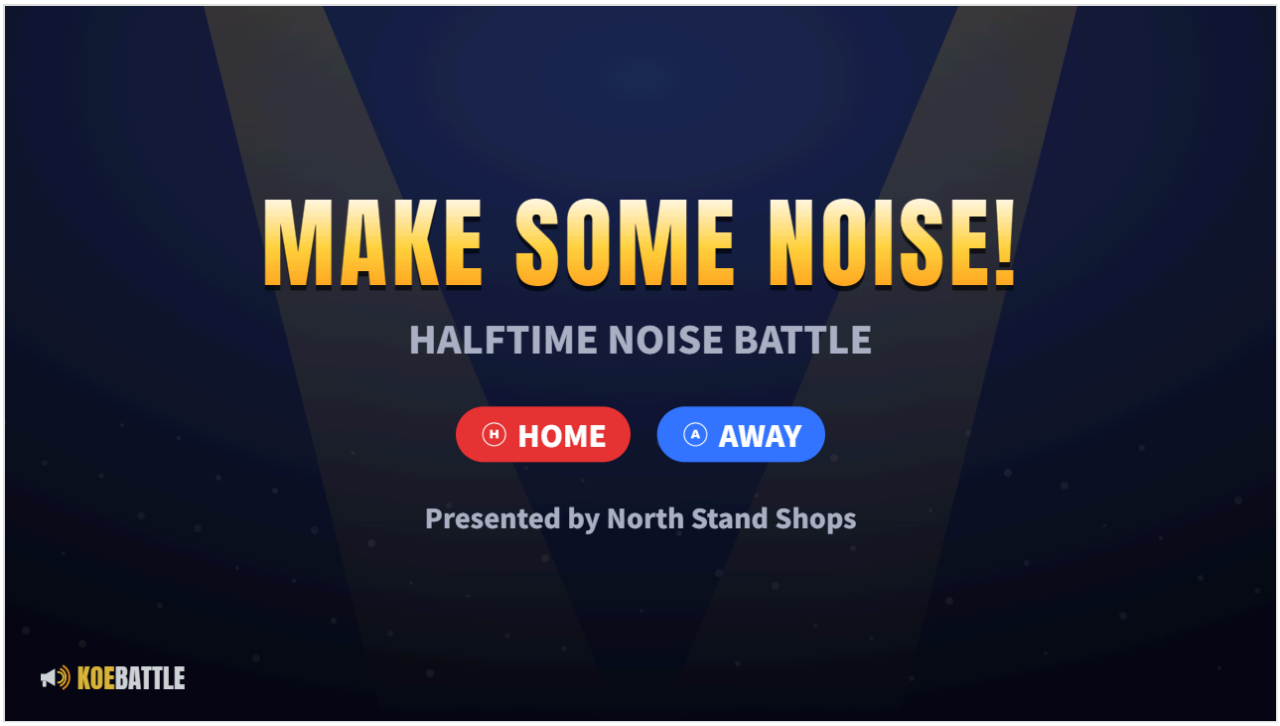
7.5 Status

Each output in the list shows "● 60fps", "⚠ 30fps, video may be too heavy" or "— offline". Offline means that screen is not open (or was closed).

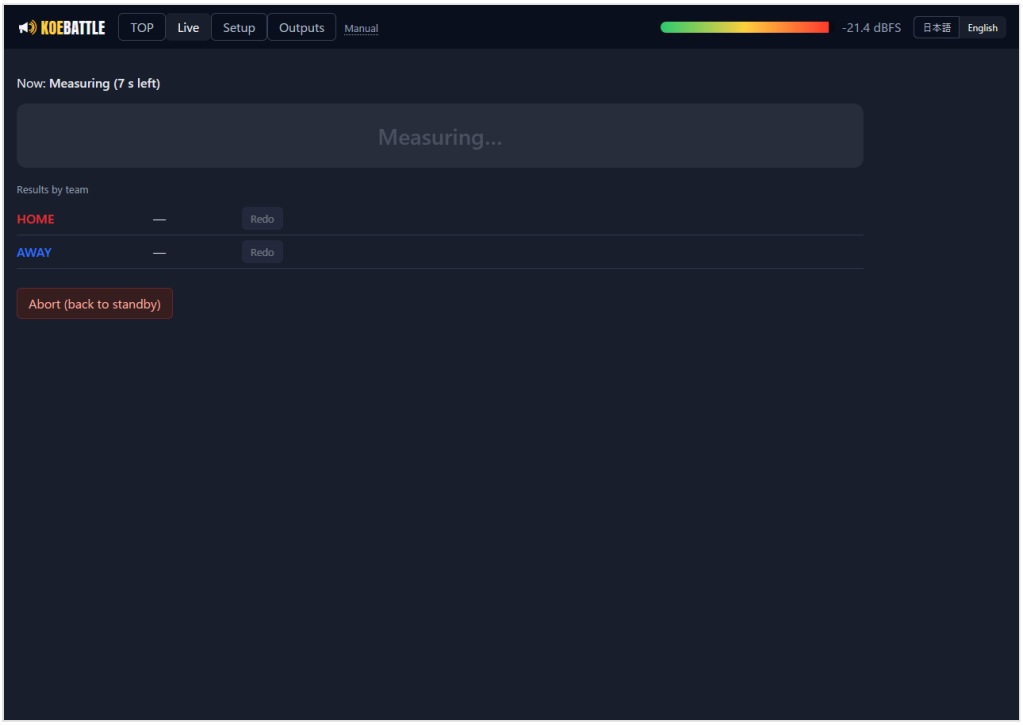
8. Running the show

On the "Live" tab, the big button changes to the next step each time you press it. Go through steps 1 to 6 below.

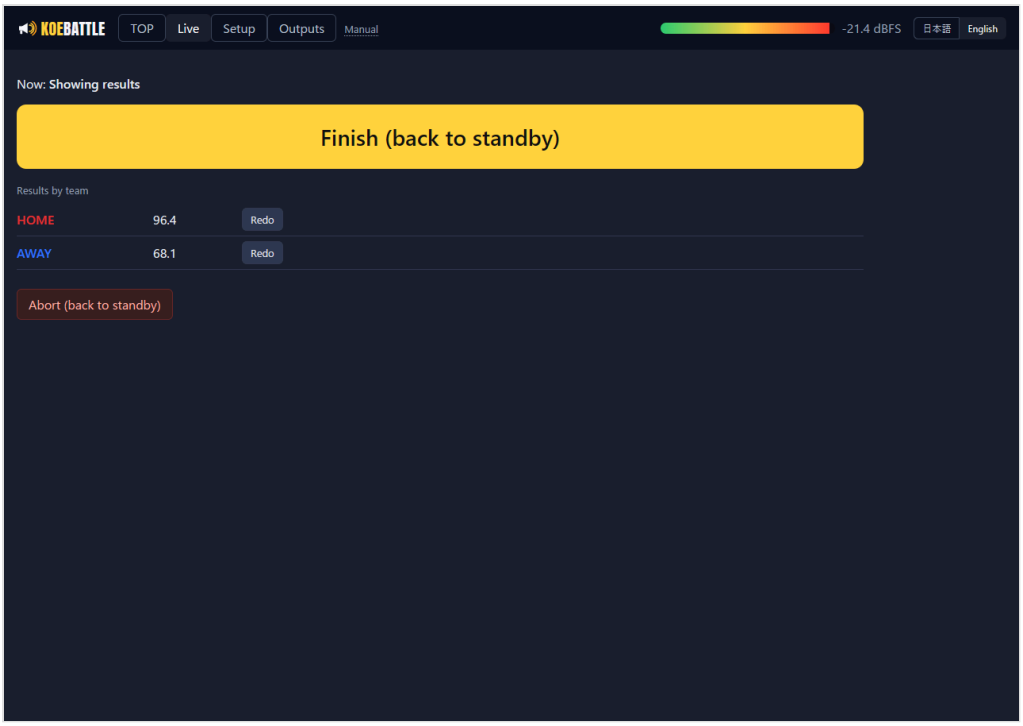
1. **Show title**



2. **HOME, go!** (the call to the first team)
3. **Start measuring (3, 2, 1)** ⋯ After a 3-second countdown, KoeBattle measures for the set number of seconds
4. When measuring ends, the score is fixed. **Next: AWAY** shows the call to the next team; then press **Start measuring (3, 2, 1)** again. Repeat for every team



5. **Show results** ⋯ With two teams, a split-screen VS counts up the scores and crowns the winning side with WINNER. With three or four teams, rows appear from the bottom, then first place appears large. Every row has the voice waveform that team actually made. A tie shows DRAW
6. **Finish (back to standby)** (press OK when asked) ⋯ Clears the results from the big screens and goes back to standby



- Scores appear under "Results by team". If the mic was unplugged or the control screen was closed while a team was measured, that team gets "No reading". Press "Redo" to measure only that team again. You cannot show the results while a team has no reading (the button says "Redo the teams with no reading")
- A team that is not happy with its score can also be measured again with "Redo" (after the result is in, and even while showing results). Pressing it while showing results switches the big screens back to that team's call
- In a simultaneous battle (4.5), steps 2 to 4 happen once: **All teams, go!** → **Start measuring (3, 2, 1)** (all teams at once) → result in, then **Show results**. Redo measures all teams again with "Redo all teams"
- "Abort (back to standby)" (press OK when asked) stops midway. The scores are lost
- Press each button once. Double clicks are ignored


WINNER
H
HOME
96.4pt
VS
A
AWAY
68.1pt
Presented by North Stand Shops

9. Troubleshooting

Symptom	What to do
The bar does not move / "Start measuring (3, 2, 1)" cannot be pressed	Reconnect the mic and press "Setup" → "Use mic". Check the browser permission. A team whose mic was unplugged while measuring gets "No reading", so press "Redo"
"Show title" cannot be pressed and "Some teams have no baseline" appears (simultaneous battle)	One team's "Baseline" field in "Teams & logos" is empty. Press "Use mic" → "Take baseline (3 s, while the venue is quiet)" to take every team's baseline (or type it and press "Save")
On Mac, macOS says it prevented KoeBattle from modifying apps	This is an old version of KoeBattle. Please contact us and we will send the new Mac version (your settings and license stay as they are)
Full-screen windows do not open at start-up	On the "Outputs" tab, press "Show numbers", choose the right number in "Monitor at startup" and press "Open full-screen on this monitor". If you connected a monitor later, reload the control screen (F5) and choose again
An output shows "— offline"	That screen is not open. Press "Outputs" → "Open full-screen on this monitor", or open the URL again
"video may be too heavy"	Set the background video to "None", or remove the video that replaces text. On old PCs, use images only
A full-screen window is hidden behind another window	Click that window to bring it to the front. Or press "Close opened windows" → "Open full-screen on this monitor"
You pressed the start file twice	If KoeBattle is already running, only the control screen opens again. This is fine
"The screen was out of date. Press again"	This appears when KoeBattle was also operated from another window. Just press again
Stop everything	**Stop_KoeBattle.bat** (Mac: KoeBattle終了.command). Type Y and press Enter. The full-screen windows are closed too

10. License

- The license is the file we send you by email (KoeBattle-license.json). The first time you start KoeBattle, it looks on the Desktop, in Downloads, in the KoeBattle folder and at the top of plugged-in drives such as USB memory sticks, and loads it automatically. If none is found, it shows "KoeBattle cannot start: No license" and does not start
- A bar appears at the top of the control screen only when the license expires soon (yellow), when this PC's date may be wrong (yellow), when it has expired (red) or when the file cannot be read (red). Usually nothing appears

- When the license has expired, KoeBattle shows "KoeBattle cannot start: the license period has ended" at start-up and does not start. It does not stop if the license expires while it is running
- Renewing in three steps:
    1. Save the new license file you received (keep its name starting with "license") to the Desktop
    2. Double-click **Update_License.bat** (Mac: **ライセンス更新.command**). It looks for the file on the Desktop, in Downloads, in the KoeBattle folder and at the top of plugged-in drives such as USB memory sticks, and replaces the license
    3. Start KoeBattle again
- If the update window says "a license for another product (OtoMotion, for example)", it only found another product's license on the same PC (on the Desktop, in Downloads or on a USB drive). It can stay where it is. Save the KoeBattle license to your Desktop or Downloads, then double-click the file again
- Contact: support@dekobokotech.com

11. Stopping and backup

- To stop, use **Stop_KoeBattle.bat** (Mac: KoeBattle終了.command). Type Y and press Enter. Closing the "KoeBattle Server" window also stops it, but the stop file closes the full-screen windows too
- All settings are kept outside the KoeBattle folder: on Windows in `%APPDATA%\KoeBattle` (type it into the File Explorer address bar and press Enter), on Mac in `~/Library/Application Support/KoeBattle`. They are `config.json` (teams, text, look), `outputs.json` (outputs), `uploads\` (imported images and videos) and `license.json`. Keep a copy of this folder to move the same settings to another PC
- To update to a newer version, download the new zip from the download page, extract it and replace the KoeBattle folder. Your settings and license stay in the place above
- If you extract the new version over the old KoeBattle folder of version 1.2 or earlier (which kept its settings in `KoeBattle\data\`), the new version copies them to the place above the first time it starts (the old folder is not deleted). If you extract it somewhere else, they are not copied: copy the contents of the old `KoeBattle\data\` to the place above by hand

12. Appendix

12.1 Frequently asked questions

- **What is the maximum score?** … 100. The baseline (quiet) is 0, and the loudness set by the sensitivity is 100. Take the baseline at every venue
- **Can two teams be measured at the same time?** … Yes. Set "Battle mode" to "Simultaneous (all teams at once)" (4.5). One stereo feed from the mixer covers 2 teams; one USB mic per team covers up to 4
- **Sound effects?** … KoeBattle plays none, because the mic would pick up the venue speakers and distort the scores. Please leave the sound to the venue's DJ and MC
- **Can the screens be in English?** … Yes. Switch the control screen with "English" at the top right (3.1), and the big screens with "Screen language" (5.4)

12.2 Folder layout

```
KoeBattle\
  Start_KoeBattle.bat / Stop_KoeBattle.bat / Update_License.bat   (the Japanese-named .bat files do the same)
  README_FIRST.txt
  manual\    this manual
  runtime\   bundled Node.js
  _system\   the application
```

Settings, imported files and the license are kept outside this folder (chapter 11). The Mac version is the folder extracted from the Mac tar.gz. Instead of .bat files it has KoeBattle起動.command (start), KoeBattle終了.command (stop) and ライセンス更新.command (update license).

12.3 System requirements

- Windows 10 / 11 (full-screen windows in Edge, control screen in the default browser), Mac (Apple silicon; full-screen windows in Google Chrome, or Edge if Chrome is not installed)
- Mic: a USB mic, the PC's built-in mic, or a line input from the mixer. For a simultaneous battle, one stereo feed (2 teams by left and right) or one USB mic per team
- Big screens: connected as monitors through HDMI or another video output, or another PC on the LAN, or OBS (NDI)

13. Trademarks

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