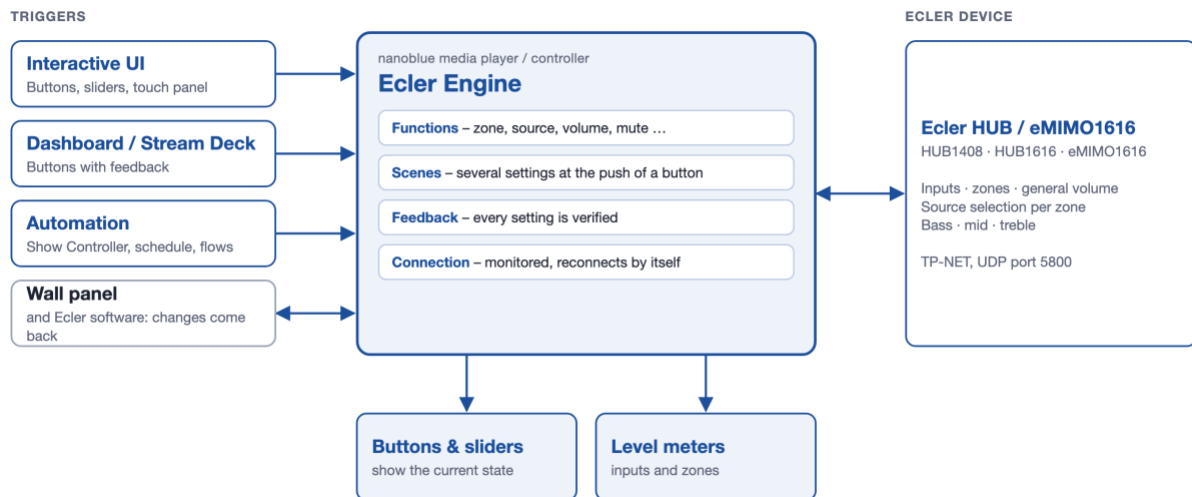


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nanobblue® Ecler Control

Operate Ecler HUB zone managers and the eMIMO1616 matrix – zones, sources, volume, scenes and level meters with feedback



Overview: touch panel, buttons and automation trigger functions. The Ecler Engine translates them for the device, verifies every setting and shows the current state.

What it is about

Ecler HUB zone managers and the eMIMO1616 matrix distribute music, TV sound and announcements to several areas: dining room, bar, terrace, shop floor or meeting rooms. Each zone gets its own source and volume. In day-to-day operation the operator only wants to see a small part of this: volume, mute, and which music plays in which room.

nanobblue Ecler is a ready-made building block for the nanobblue media player and controller. It connects to the device through the manufacturer's open control protocol (**TP-NET, UDP port 5800**) and makes every function available as a button, slider or display in the **Interactive UI**. A new project needs no programming: the function is defined by the ID of the control element.

The engine runs directly on the nanobblue device in the local network of the installation. It responds instantly and needs no internet connection.

Key features

What can be controlled

The device works in four stages. Each one can be controlled on its own:



Each stage can be controlled on its own. HUB1408: 14 inputs / 8 zones · HUB1616 and eMIMO1616: 16 / 16.

Signal path in the device: inputs → source selection → zones → general volume. Each zone plays exactly one input.

Area	Functions
Zones	Volume, louder / quieter, mute, source (any input or none), bass / mid / treble, name from the device
Inputs	Level, louder / quieter, mute, bass / mid / treble, name from the device
General volume	All zones louder, quieter or muted together (HUB series only)
Scenes	Several settings at the push of a button, e.g. “BGM in all zones” or “All zones muted”
Device	Name, model, firmware, network data and the list of connected control stations
Free command	Any command of the TP-NET protocol – for special functions

Volumes are set as a value from 0 to 100, just like in the Ecler device itself. The source of a zone can be selected by number or by the input name stored in the device, e.g. “BGM” or “TV”.

Operation in the Interactive UI

The ID of a control element also defines its function. In UI Studio, create a slider, button or text and give it the matching ID – done. Feedback is sent back to the same ID.

Control element	ID (example)	Effect
Slider	ecler__out1_level	Volume of zone 1 (0–100)
Text	ecler__out1_level_txt	shows the volume, e.g. “72 %”
Button	ecler__out1_mute	Mute on / off, lights up when muted
Buttons	ecler__out1_level__up / __down	louder / quieter in fixed steps
Button	ecler__out1_src_in2	Zone 1 plays input 2, lights up when active
Text	ecler__out1_source_txt	Name of the current source, e.g. “TV”
Slider	ecler__master_level	General volume (HUB)
Button	ecler__scene_bgm_ueberall	Recall a scene, lights up while it applies
Bar graph	ecler__meter_out1	Level meter of the zone

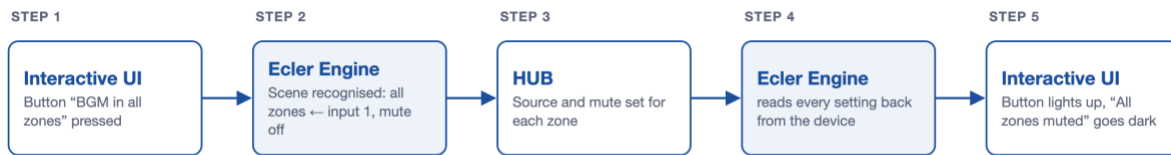
- **Source buttons** behave like radio buttons: the active one lights up, the others go dark.
- **Names from the device:** zone and input names that were set in the Ecler device during installation appear automatically as labels in the Interactive UI.
- **Dashboard and other interfaces:** in addition, the most important functions have ready-made inputs and outputs with plain on/off or numeric values, e.g. for dashboard buttons or a Stream Deck.

Level meters

The device continuously reports the signal levels of all inputs and zones. nanoblue shows them as a bar graph and as a number. The display is updated up to ten times per second. At a glance you can see whether music is arriving and which zone is playing.

Scenes

A scene combines several settings, e.g. which zone plays which source and which one is muted. It is recalled at the push of a button. The button stays active as long as all settings of the scene match the device.



If someone later changes a source on the wall panel, the scene button goes dark by itself.

Example: "BGM in all zones" sets every zone to input 1 and cancels mute. The button lights up, "All zones muted" goes dark.

Scene (example)	Content
BGM in all zones	Every zone plays input 1 (background music), no zone is muted
All zones muted	Every zone is muted – e.g. at closing time
Your own scenes	e.g. "Bar with TV sound": the bar zone plays the TV input at 60, the terrace stays on music

Scenes are defined freely during setup. As Ecler devices cannot recall stored presets through the control protocol, nanobblue assembles each scene from the individual settings. For the operator this makes no difference.

Control from other workflows

- **Show Controller and schedule:** cues or appointments trigger functions, e.g. scene "BGM in all zones" in the morning, terrace louder at lunchtime, "All zones muted" in the evening.
- **Other workflows:** any flow in the nanobblue Editor can send commands, e.g. turn the music down when a presentation starts in the meeting room.

Setup

- **In the nanobblue Editor:** Ecler is a ready-made flow. Only the IP address, the model (HUB1408, HUB1616 or eMIMO1616), the scenes and – if required – the step size for louder / quieter are entered.
- **Test mode:** an included test mode simulates a HUB or eMIMO device. This allows the interface and workflows to be prepared before the system is on site.
- **Persistent:** the configuration is stored on the device and survives restarts and flow updates.
- **First commissioning:** the first run on the real device is carried out together with the operator.

Reliable in operation

- **Self-contained:** control and feedback run on the nanobblue device in the local network – even without internet.
- **Verified feedback:** the device does not confirm settings by itself. nanobblue therefore reads the value back after every change. If the device rejects a setting, the interface shows the correct state again.
- **Synchronisation:** nanobblue picks up changes made on the wall panel or in the Ecler software within a few seconds (regular synchronisation, adjustable).
- **Self-healing:** the device sends a sign of life every second. If it stops, e.g. because the device restarts, the engine reconnects automatically and reads all values afresh.
- **Considerate:** Ecler devices only allow a limited number of simultaneous control stations. nanobblue occupies exactly one and releases it again when it stops.

Security

The TP-NET control protocol is intended for closed technical networks: it has neither login nor encryption. The Ecler device is therefore only operated in the local network or a dedicated VLAN of the installation and is not exposed to the internet. Remote maintenance of the nanoblue device runs encrypted via the nanoblue VPN as usual.

Supported devices

Device	Connection	Functions	Status
Ecler HUB1408	TP-NET, UDP 5800	14 inputs, 8 zones, general volume, all functions in this overview	implemented and tested in test mode; verified during commissioning
Ecler HUB1616	TP-NET, UDP 5800	16 inputs, 16 zones, general volume	implemented; verified during commissioning
Ecler eMIMO1616	TP-NET, UDP 5800	16 inputs, 16 outputs, without general volume	implemented and tested in test mode; verified during commissioning
Ecler VIDA, MIMO SG series	TP-NET, UDP 5800	same protocol, additionally presets, matrix and alarms	on request

Technology in brief

- Ecler Engine as a flow in the nanoblue Editor on the nanoblue media player or controller.
- Ecler TP-NET (Third-Party NET) over Ethernet: UDP port 5800, connection with sign of life (PING / PONG).
- Levels of all inputs and zones at an adjustable rate (1–10 per second).
- Integration with Interactive UI, Dashboard, Show Controller, schedule and all flows in the nanoblue Editor.

Typical applications

- Hospitality: staff control music and TV sound per area on the touch panel without having to go to the device.
- Shops and showrooms: fixed scenes for opening hours, promotions and closing time via the schedule.
- Offices and meeting rooms: room audio together with lighting, projector and media in one interface.
- Hotels and fitness: areas with their own music, centrally mutable.

In preparation

Display in the nanoblue connection monitor · ready-made example page for the Interactive UI with zones, sources and level meters · Ecler amplifiers of the VIDA series and matrices of the MIMO SG series · installation via the nanoblue flow catalogue.