



PRODUCT PROFILE

Bringing the VDA5050 Community *together.*

Three parties, three requirements, one solution.

Fleet controller vendors, vehicle manufacturers and operators work on the same protocol — and rarely read the same finding in a project. The LogIQ VDA5050 Analyzer is the platform where the three meet: one capture, one check catalogue, one verdict.

240

checks for VDA5050 and M2X

15

checks for VDMA LIF

1.1 – 3.0

supported VDA5050 versions

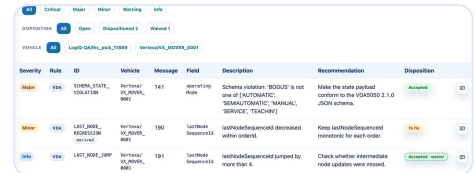
01 Three parties, three requirements, one solution

A VDA5050 project has three parties. Each one carries a different risk. The fleet controller vendor risks a release, the vehicle manufacturer an acceptance, the operator a running site. As long as each party measures with its own tools, the project argues about measurements instead of solutions.

Fleet controller

“Every new vehicle should connect without putting our release at risk.”

The vendor publishes its requirements as a check profile. Every manufacturer tests against them and returns the report with one click — a verdict per check instead of an opinion per email. The onboarding loop gets shorter before it starts.



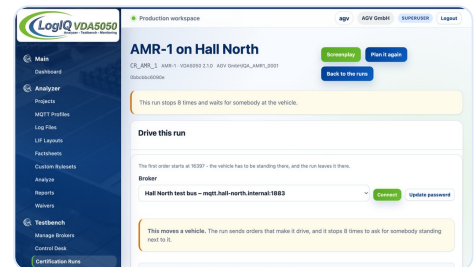
Severity	Rule ID	Vehicle	Message	Field	Description	Recommendation	Disposition
Info	10000_0001_10000_0001	Vehicle: LUGO-GRAN_psa_1088	Message: 10000_0001_10000_0001	Field: 10000_0001_10000_0001	Vehicle validation: '10000_0001' is not one of (AUTOMATIC, SEMIAUTOMATIC, MANUAL, SERVICE, TEACHING)	Make the state passed conform to the VDA5050 2.1.0 schema.	Accepted
Info	10000_0002_10000_0002	Vehicle: LUGO-GRAN_psa_1088	Message: 10000_0002_10000_0002	Field: 10000_0002_10000_0002	Vehicle validation: '10000_0002' is not one of (AUTOMATIC, SEMIAUTOMATIC, MANUAL, SERVICE, TEACHING)	Make the state passed conform to the VDA5050 2.1.0 schema.	Accepted
Info	10000_0003_10000_0003	Vehicle: LUGO-GRAN_psa_1088	Message: 10000_0003_10000_0003	Field: 10000_0003_10000_0003	Vehicle validation: '10000_0003' is not one of (AUTOMATIC, SEMIAUTOMATIC, MANUAL, SERVICE, TEACHING)	Make the state passed conform to the VDA5050 2.1.0 schema.	Accepted

The acceptance: every requirement with verdict, evidence and location.

Vehicle manufacturer

“The vehicle should pass before the site, not inside it.”

A certification run plans what the vehicle has to show before anything is sent: per scenario, the piece of work that proves it, over your own layout. What the factsheet promises is held against the traffic.



A certification run: what it drives, and where it waits for somebody.

Operator

“The site should run — and when it does not, somebody should say why.”

Connectors listen permanently and fold the traffic into fleet figures: availability, faults, speed, where the machines brake — per machine, over months. When there is a dispute, the replay shows what was actually sent. Evidence instead of blame.



The fleet wall: every fleet, two pictures, redrawn every 15 minutes.

The solution is not a third opinion

All three work on the same capture, the same catalogue and the same verdict. The finding the manufacturer sees is the one the master control vendor and the operator see — same evidence, same location. Three measuring tools become one shared language.

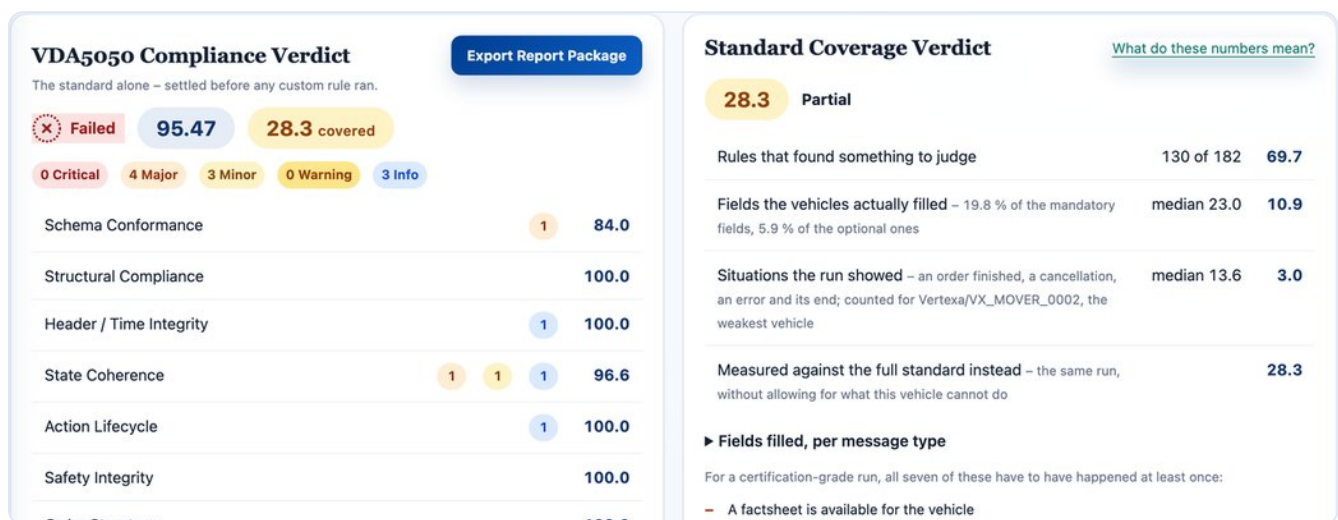
02 Four ways in, one verdict

ANALYZER

The analyzer reads traffic that already happened - from a file, from a broker, or permanently from an installation that does not stop.

Import a log file, record live, sit in between as a transparent proxy, or connect an installation permanently. What happens after that is the same in all four cases.

The report names every check, every verdict and every location down to the single message - against VDA5050 1.1 through 3.0, VDMA M2X and VDMA LIF. Beside the score stands the coverage: how many checks had anything to judge at all. A green tick without that second figure is worthless, which is why it stands beside the result rather than missing beneath it.



Score and coverage: what the verdict is worth

All 182 Active 130 No data 50 Switched off 2					
Rule	Check	ID	State	Result	Findings
SCHEMA CONFORMANCE					
VDA	State message conforms to the VDA5050 JSON schema	SCHEMA_STATE_VIOLATION	Active	FAIL	1
VDA	Order message conforms to the VDA5050 JSON schema	SCHEMA_ORDER_VIOLATION	Active	PASS	–
VDA	Connection message conforms to the VDA5050 JSON schema	SCHEMA_CONNECTION_VIOLATION	Active	PASS	–
VDA	instantActions message conforms to the VDA5050 JSON schema	SCHEMA_INSTANTACTIONS_VIOLATION	No matching messages	–	–
VDA	Visualization message conforms to the VDA5050 JSON schema	SCHEMA_VISUALIZATION_VIOLATION	No matching messages	–	–
FS	Factsheet conforms to the VDA5050 JSON schema	SCHEMA_FACTSHEET_VIOLATION	No matching messages	–	–

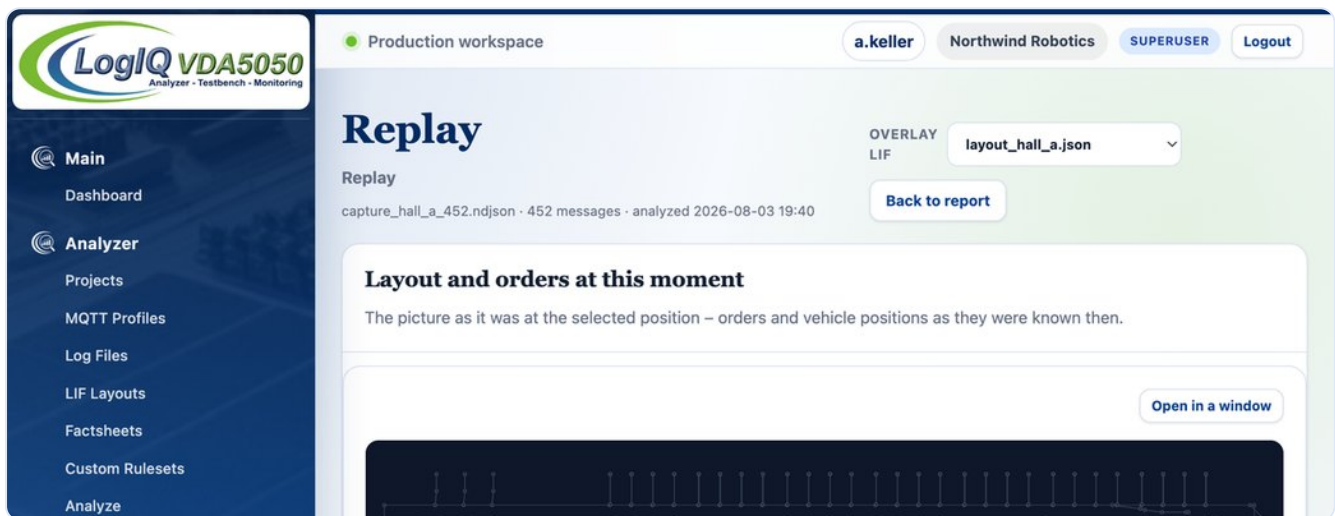
Per check: active, not applicable - and why

03 From a finding to the message, and to acceptance

ANALYZER

A finding is one sentence with the message it rests on underneath it. The replay puts the site back to the second the finding happened: the track, the vehicles, the states, and what changed since the state before.

What may stay is accepted with a reason rather than passed over quietly - per finding, or as a standing waiver per check and vehicle. Beside the standard it counts custom rulesets and a fleet controller's published requirements, both judged separately so the standard's verdict does not move.



The replay: the site at the second of the finding

All Critical Major Minor Warning Info								
DISPOSITION All Open Dispositioned 2 Waived 1								
VEHICLE All LogIQ-QA/lhs_pick_11889 Vertexa/VX_MOVER_0001								
Severity	Rule	ID	Vehicle	Message	Field	Description	Recommendation	Disposition
Major	VDA	SCHEMA_STATE_VIOLATION	Vertexa/VX_MOVER_0001	141	operating Mode	Schema violation: 'BOGUS' is not one of ['AUTOMATIC', 'SEMIAUTOMATIC', 'MANUAL', 'SERVICE', 'TEACHIN']	Make the state payload conform to the VDA5050 2.1.0 JSON schema.	Accepted
Minor	VDA	LAST_NODE_REGRESSION derived	Vertexa/VX_MOVER_0001	190	lastNode SequenceId	lastNodeSequenceId decreased within orderId.	Keep lastNodeSequenceId monotonic for each order.	To fix
Info	VDA	LAST_NODE_JUMP	Vertexa/VX_MOVER_0001	191	lastNode SequenceId	lastNodeSequenceId jumped by more than 4.	Check whether intermediate node updates were missed.	Accepted - waiver

Acceptance: a disposition per finding, with its reason

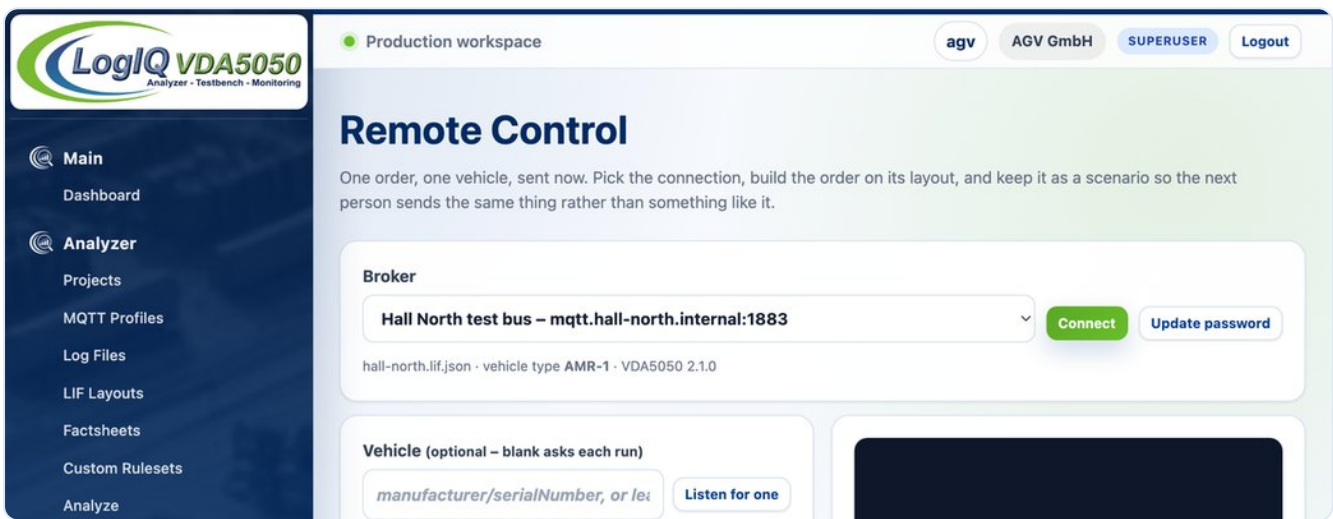
04 One order by hand, one run to a plan

TESTBENCH

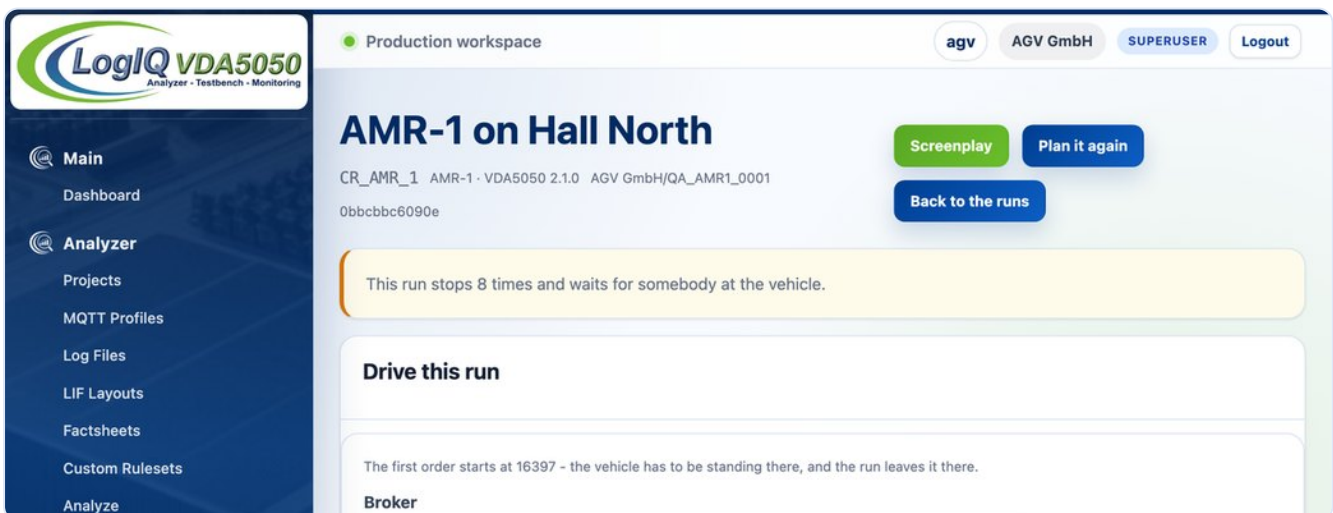
The other direction: here the tool plays the fleet controller and sends real VDA5050 orders - against a real vehicle, or against the built-in virtual one.

At the control desk an order is built on the chosen connection's layout and sent. Instant actions come from the vehicle's own factsheet: what is offered is what it supports, not what the standard allows. The page for the question whether a vehicle does a thing at all.

A certification run, by contrast, is a document before it is a drive: segments carrying the scenarios they exist to prove. It has to provoke - hold a horizon back, cancel a running order. Two of the seven gates cannot be sent by any fleet controller, so those become stops, where the run waits until the traffic shows it happened.



Control desk: an order built on the layout



A certification run, before anything is sent

05 Twins, and fleets for somebody else to drive

TESTBENCH

A twin is a behaviour model of one real machine, measured from a recording rather than typed - and checkable against that same recording. A twin nobody has checked is a claim, and the page says how well it holds.

A fleet puts such vehicles on a broker under their makers' names and leaves them there. A fleet-controller vendor points their own software at them and drives; we command nothing. Starting a fleet also starts a capture of it, so what the other side drove is recorded.

The screenshot shows the 'Vehicle twins' section of the LogIQ VDA5050 Analyzer. The left sidebar contains a navigation menu with 'Main' (Dashboard, Analyser) and 'Analyzer' (Projects, MQTT Profiles, Log Files, LIF Layouts, Factsheets, Custom Rulesets, Analyze). The main content area has a header with 'Production workspace', user 'agv', company 'AGV GmbH', role 'SUPERUSER', and a 'Logout' button. Below the header is the 'Vehicle twins' title and a description: 'This vehicle, not a vehicle: what a maker's AGV declares, how long its actions take and where it departs from the specification. Yours to write, your partners' to drive against.' A 'PROJECT' dropdown is set to 'All projects'. Two buttons are present: 'Upload new twin' (green) and 'Create new twin from recording' (blue). Below is a table for 'AGV GmbH' with columns: Twin, From, Series, Firmware, Version, Measured, Fidelity, Shared with, and Project with. The table shows one entry: 'AMR_2' from 'yours', series 'AMR-', firmware '3.2.1', version '2.1.0', 'unmeasured', 'not', 'private', and project 'Hall North co...'. A 'Twin' checkbox is visible on the left of the table.

☐ Twin	From	Series	Firmware	Version	Measured	Fidelity	Shared with	Project with
☐	AMR_2	yours	AMR-	3.2.1	2.1.0	unmeasured	not	private

Twins: measured, with the fidelity they reached

The screenshot shows the 'Fleets' section of the LogIQ VDA5050 Analyzer. The left sidebar is identical to the previous screenshot. The main content area has a header with 'Production workspace', user 'agv', company 'AGV GmbH', role 'SUPERUSER', and a 'Logout' button. Below the header is the 'Fleets' title and a description: 'A fleet is a name and a list of twins with how many of each. Starting one puts those vehicles on a broker under their makers' names; point a fleet controller at them and drive.' A 'PROJECT' dropdown is set to 'All projects'. A green button 'Put a new fleet together' is present. Below is a table with columns: Fleet, Vehicles, Layout, Made of, Who may start it, Project, and On a broker. The table shows one entry: 'Aisle' with 6 vehicles, layout 'hall-', made of '2 x AMR_1', started by 'yours', project '- none -', and on a broker '-'. A 'Fleet' checkbox is visible on the left of the table.

☐ Fleet	Vehicles	Layout	Made of	Who may start it	Project	On a broker
☐	Aisle	6	hall-	2 x AMR_1	yours	- none -

Fleets: which twins, how many, which layout

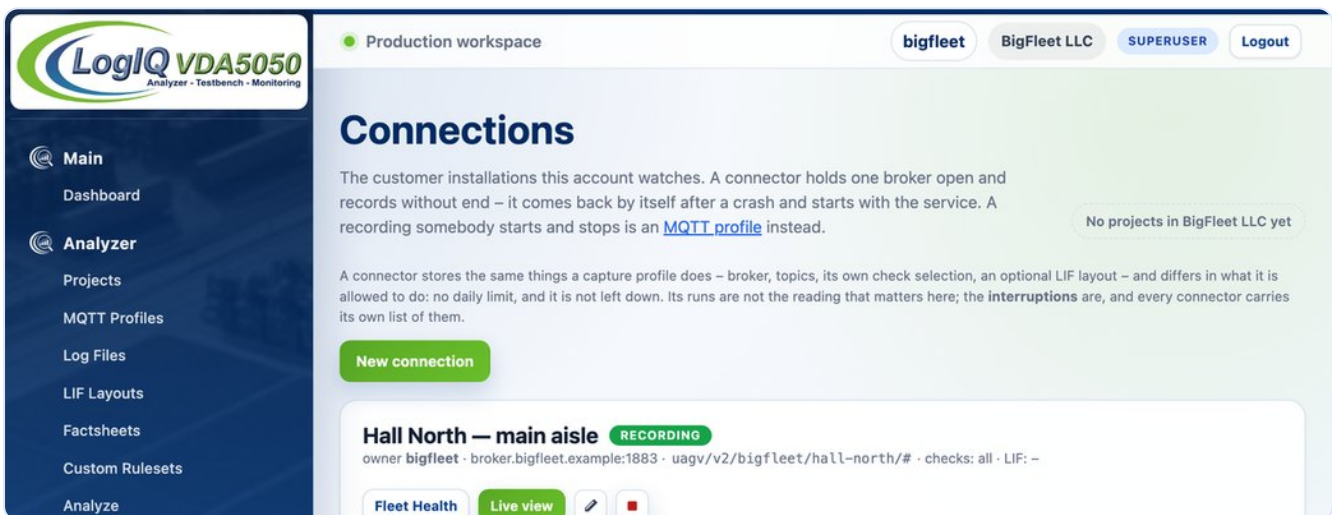
06 Connected without end, all on one screen

MONITORING

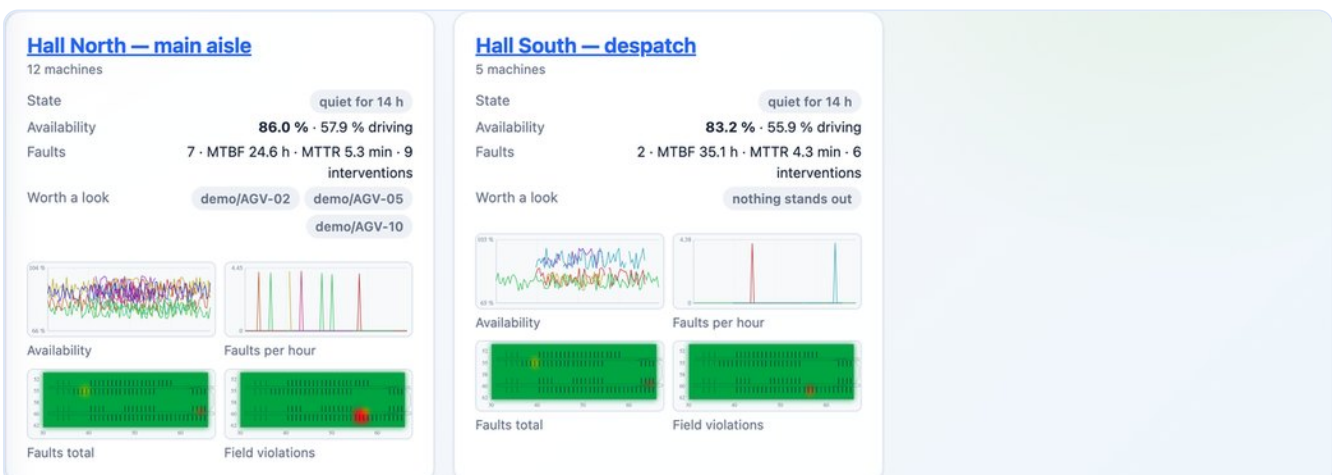
A capture profile records a shift and stops. A customer installation does not - and neither does the question you are being paid to answer about it.

A connector holds a broker connection open indefinitely, comes back by itself after an interruption and starts with the service. Its runs are not the reading that matters; the gaps between them are: when the connection was away, and for how long. What somebody stopped by hand does not count as the customer's outage.

While it records, every state message is folded into quarter-hour cells per vehicle. That is why the pages show months without holding months of traffic. The fleet wall puts every connection side by side as one picture and answers one question: which of these wants looking at right now.



Connections: what runs permanently, and where it stopped



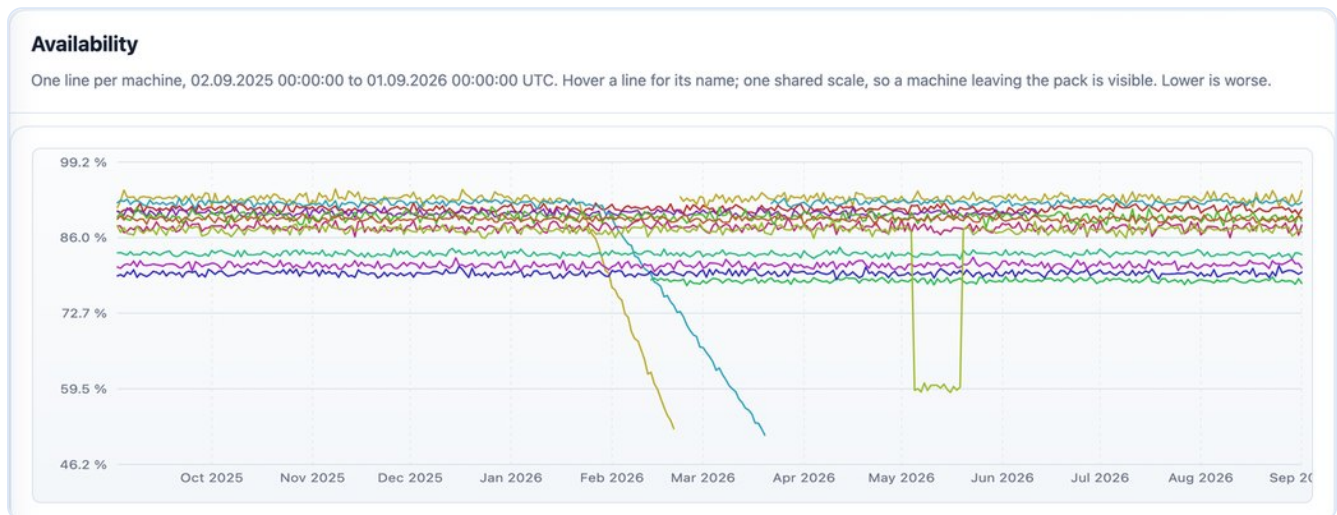
The fleet wall: every fleet on one screen

07 How the fleet is doing, and what is wearing out

MONITORING

Availability, faults, speed and braking places per machine over months. A machine is judged against its own past first and only then against its neighbours - otherwise a fleet ageing evenly disappears into an average.

Preventive maintenance stands on that: counters from the last recorded service, trends that have left the machine's own spread, and the interval from the first warning to the first failure of the same type. Measured operating statistics, not condition monitoring: VDA5050 carries no temperatures and no wear values.



Fleet health: per machine over a year

Production workspacebigfleetBigFleet LLCSUPERUSERLogout

Preventive Maintenance

What is wearing out, read from how the machines behaved. VDA5050 carries no temperatures, no motor currents and no wear values, so this says that a machine is getting worse and roughly how fast. It cannot say which bearing.

Fleet

Fleet Hall North — main aisle · 12 vehicles Window 90 days Show it

Maintenance Status

Counted from the last recorded service where there is one, and from the first recorded cell where there is not; the column says which. The window above does not apply: usage since a service is one number.

Fleet Health

What is wearing out, counted since the last service

08 Getting started

The first finding costs one capture, not a workshop.

Upload a capture

A log file from today is enough. The report with score, coverage and findings is ready in minutes.

Connect a broker

Check live rather than after the fact: the analyzer listens while the site runs.

Invite the roles

Manufacturers test against published requirements, the operator watches the fleet — in the same account.

How it arrives

As a hosted platform or as a dedicated instance for one company. Operated in the EU, backed up daily and encrypted; the details are in the security document.

The next step

A demonstration on your own data says more than four pages: support@logiq-vda5050.com
· www.logistixpert.de

