

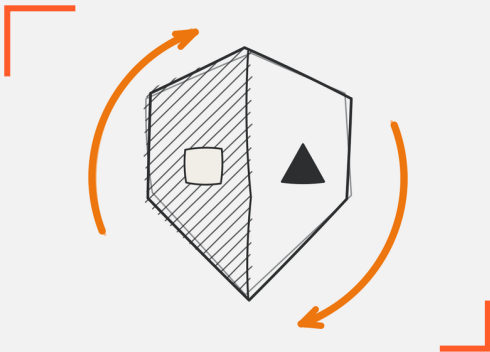
PRODUCTION BENCH FOR MUXEN CAN BOARDS

DECEPTICON

One board on the shelf instead of a dozen, turned into the device a given boat needs at the end of the line.

A yard stocks the generic MUXEN devices. On the bench one is scanned, given the firmware and the configuration of one named position on one boat, and labelled: three taps, no command line and no engineer needed.

The bench holds the boats it serves as profiles. Adding a model, a cabin layout or a yard is a matter of supplying another profile, so the same bench follows whatever comes down the line next.



KEY SPECIFICATIONS

The bench	A laptop running Ubuntu, one per station
CAN interface	Kvaser Leaf Light v2 · 500 kbit/s
Label printer	Brady i3300, over USB
Label	50.8 × 25.4 mm · DataMatrix carrying product, address and UID
Boat profiles	One per model and cabin layout A new model is a new profile, not a new tool
Firmware catalogue	Pinned to a validated release
Interface languages	English, French, Portuguese
Distribution	Debian package
Network	None — the bench works entirely offline
Licence	Proprietary — MUXEN SAS

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ON THE LINE

WHAT IT DOES

The run is the same every time and the operator makes one decision: which position on the boat this board is about to become.

01 PICK THE BOAT

The operator taps a **profile** — a model in one cabin layout — and everything after that is filtered by it. A profile lists the **positions** of that boat by the names the yard uses, so nothing on the bench is described by a code.

02 IT KNOWS THE BOARD

One press **scans the CAN bus** and reads the board on the bench: its **unique id**, its product code, what it is today and the firmware it carries. The yard's own part number is shown beside the MUXEN one.

03 ONLY WHAT IT CAN BECOME

The choices offered are the positions this exact board can fill, matched on its **hardware**. A board that **fits nothing** says so and shows its id, so a wrong delivery is caught on the bench and not on the boat.

04 ONE RUN, FIVE STEPS

Init, reset, firmware update, configuration, label — one press, a **timeline** the operator can watch, and a board that reboots into its new identity.

05 IT COMES OUT LABELLED

The run ends at the **printer**. The label carries the position, the boat and the date in plain text, and a **DataMatrix** holding the product, the address and the unique id — so the box on the bulkhead can be read back later.

06 AND IT CAN BE UNDONE

A programmed board can be **reset to factory state** and programmed again, which is what makes the **generic stock** work: nothing done on the bench is one-way, and a board returned from a boat goes back into the same bin as the rest.

ANOTHER BOAT?

A profile is a file, not a version of the software: a new model, a new layout or a new yard's naming is added without touching the bench. Tell us what comes down your line and we will describe it.

Contact us by email: contact@muxen.fr