

System 2026

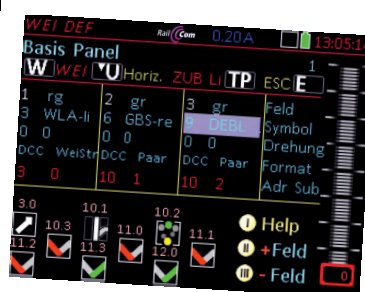
september issue



80 x 177 x 40 mm

MX33WL

ZIMO App



Left: Typical LOCO screen picture, speedo, functions...

Center: other displays

(small selection of 3 from @ 80)

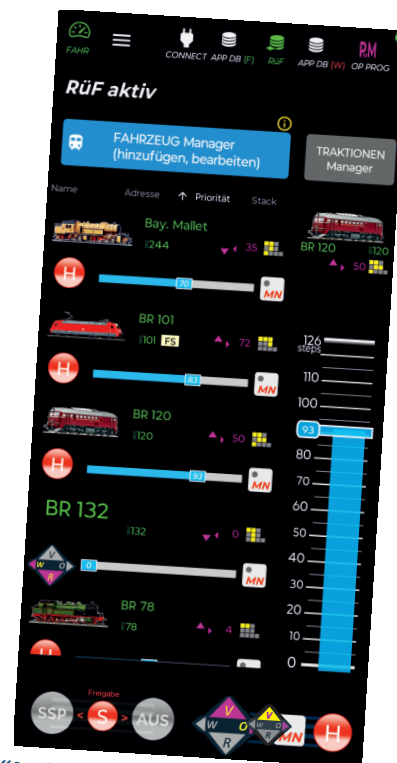
CV-Programming and read-

outs in operation mode; switch

panel in the set-up mode;

"Stop Balls" after short circuit

(UES) on track output 1.



"Active loco recall" = Favorites

Simultaneous control of up to 5 vehicles with their own (smaller) controls, "magnifying glass" for function keys.



Vehicle Database

List of directly accessible addresses (vehicles) in the app - a subset from the command station - with information about direction, speed step or actual speed and state of functions

Controllers MX33 (CAN bus cable), MX33WL (Wi-Fi or cable)

The shape of the ZIMO controllers (introduced in 1995 with the MX2) allows them to be used as either a table-top device or a walk-around controller.

The MX33 not only comes with a design and ergonomic upgrade over the predecessor MX32 but also with a lot of potential (multiple processor performance, internal SD) for future extensions through software updates.

Features: 2.8 inch screen, capacitive multi-touch display, additional buttons for stop and east-west (direction) handling, RGB LED's (all colors) in the keyboard, background LEDs and an optimized scroll wheel.

LOCO screen – Main display

Control and display of an active vehicle; with speed bar including HLU markings, ETCS speedometer, topic buttons and additional function keys; below the display: broadcast stop, MAN -, directional and single stop buttons.

The ZIMO App

Displays and controls are related to the ZIMO MX32 or MX33 controllers, but with the advantage of the large screen of smartphones or tablets. Two of the many special features of the upcoming ZIMO app are shown on the screenshots: "LoR active" (traditional ZIMO term LoR = loco recall) allows simultaneous control of up to 5 vehicles (trains); "Loco" contains a speedometer in the ETCS design (ETCS = European Train Control system), prepared for future ETCS-compliant use.

Command stations: the "big" MX10, the "Economy" MX10EC

Both versions are high-performance digital centres:

MX10 has two track outputs: **12 A** and **8 A**;

MX10EC ("Economy") has „only“ one **12 A** output.

The "full version" MX10 also has a built-in sound generator, more power for auxiliary voltages, more ABA pins, a USB client connector (both MX10 and MX10EC have Ethernet), and a Loconet connection (which, however, is not yet operational at the time of going to press).

Most features of MX10 and MX10EC are however identical:

Finely adjustable driving voltages, overcurrent thresholds and shut-off times; short circuit spark suppression; RailCom oversampling detectors for measurement of weak signals.

The MX10 communicates with system products via a high-performance CAN bus; with older wireless controllers (..FU) via MiWi radio; with current wireless controller (..WL) via Wi-Fi (router included in the starter set); with apps (ZIMO App, Roco App) also via Wi-Fi; with computers via LAN; with third-party products via XpressNet; planned: Loconet).

The ZIMO command stations are prepared for the implementation of the mfx data format. (planned, if there is enough interest)

The ZIMO Starter sets with MX33 or MX33FU

Each starter set contains a command station, a controller, power supply and accessories:

START, -WL, -G, -GWL, -EC, -ECWL

the respective suffixes mean ...

WL = Startset comes with a radio controller MX33WL (otherwise MX33); the command station MX10 is always equipped with LAN.

G.. = This starter set is intended primarily for **G**-scale; power supply with **600 W** power (otherwise 320 W).

EC.. = This starter set comes with an economy command station **MX10EC**

The Starter set with the Mouse a good start, sometimes as an alternative

A **START(EC)WM** is a ZIMO starter set that comes with a Z21 (Roco) WLANmouse instead of a ZIMO controller. A ZIMO MX33 can be added later while the mouse can be used as a useful second controller at half the cost of a ZIMO MX33.



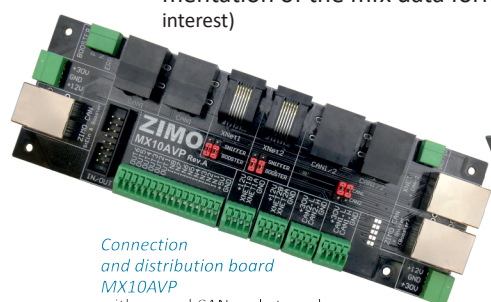
170 x 200 x 40 mm

MX10 „big“ version

MX10 Rear view

140 x 170 x 40 mm

MX10 Economy



Connection and distribution board MX10AVP with several CAN sockets and terminals to expand the MX10.



WiFi router

for the operation of MX33WL controllers and apps on smart phone or tablet.



HIGHLIGHTS examples

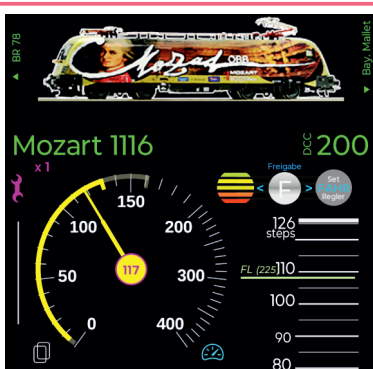
(Screenshots in German MX33 and ZIMO App mixed)



Real speed in km/h on the speedo

The magenta needle shows the current value measured by the decoder and continuously reported via RailCom.

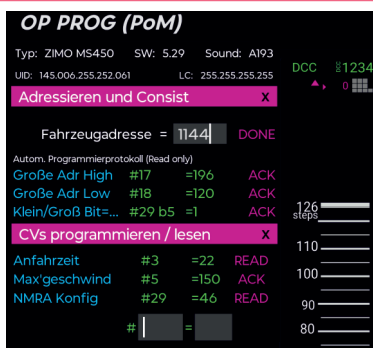
Speed setting (1... 126) is shown on the bar.



Ready for ETCS

The ZIMO app provides a forward-looking view of modern railways: speedometer with a yellow braking curve.

However, the forthcoming implementation of the 'proper' ETCS will encompass all system components and decoders.



Addressing on the main track and CV pages.

ZIMO decoders (like some others) can already be re-addressed without the need for a programming track. Decoders increasingly have more than 1024 CVs; the ZIMO system supports the page technology required for this.



System multiple units

Greater flexibility than the CV#19 – Consists (which, of course, can also be used). Convenient configuration and balancing in the 'Traction Manager'.



ZIMO Library System

Extensive collections of vehicle images, function icons and accessory symbols form the basis for creating the 'GUIs' (graphical user interfaces).

The 'Connect' screen lists the available versions, which can be downloaded or deleted as required.

StEin expansion boards on top sockets
for 8 additional turnouts (coils, motor, servos), and 16 inputs.

Stationary Equipment module

One StEin is more than many small units

The StEin

"All-in-one" INSTEAD of a collection of occupancy detectors, RailCom detectors, accessory decoders, etc.

StEin = TRACK SECTION MODULE

Fully functional track sections with **occupancy** and **train number** detection, **RailCom** local/global, **overcurrent** (short circuit) handling and ZIMO "HLU" for route-dependent speed limits.

The combination of **LZB** (section control system) and **PZB** (milepost control) allows for exact stopping point accuracy, which means cost savings and puts the ZIMO system on the way to **ETCS** (European Train Control System).

StEin = TURNOUT MODULE

for all types of turnout drives and feedback systems, two-way and three-way turnouts; comprehensive parametrisation.

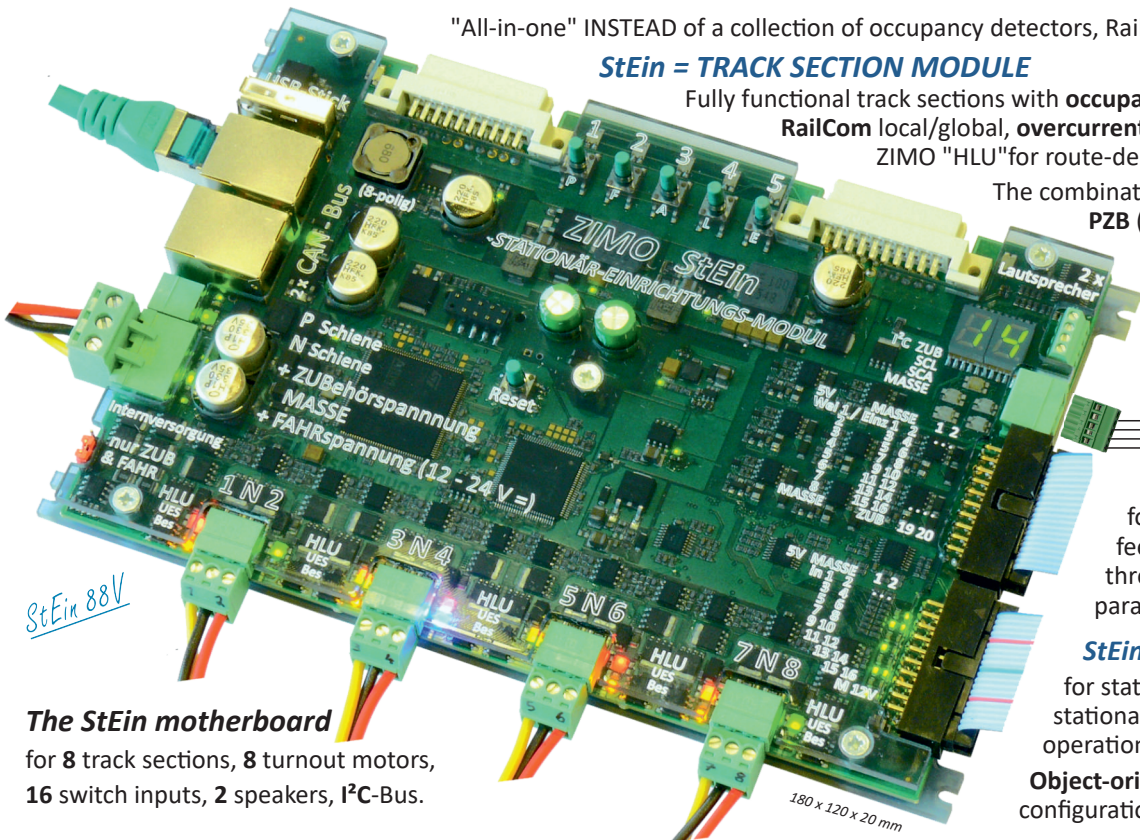
StEin = SOUND MODUL

for station announcements and all stationary railway sounds. Note: not operational at the time of going to print.

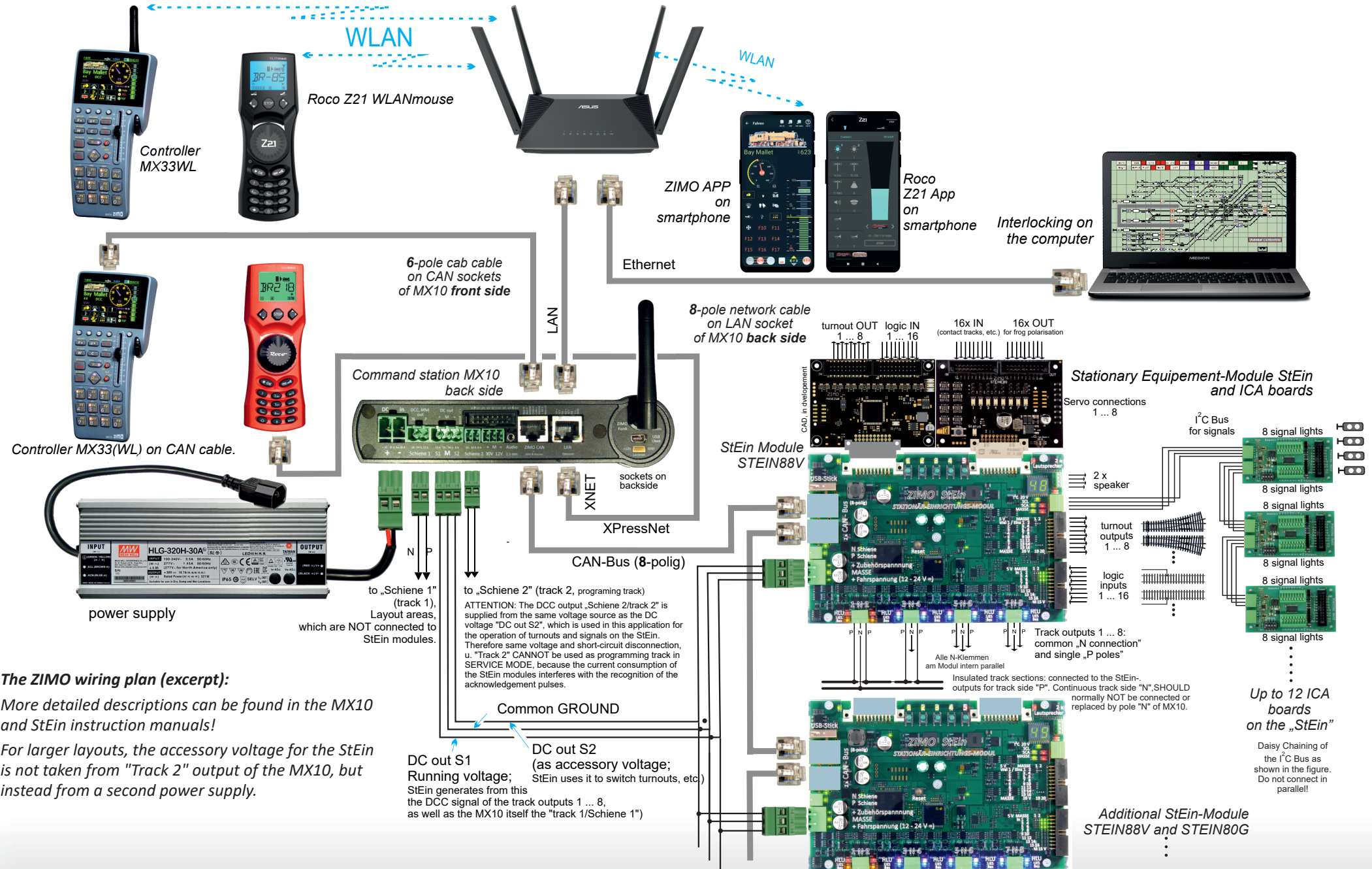
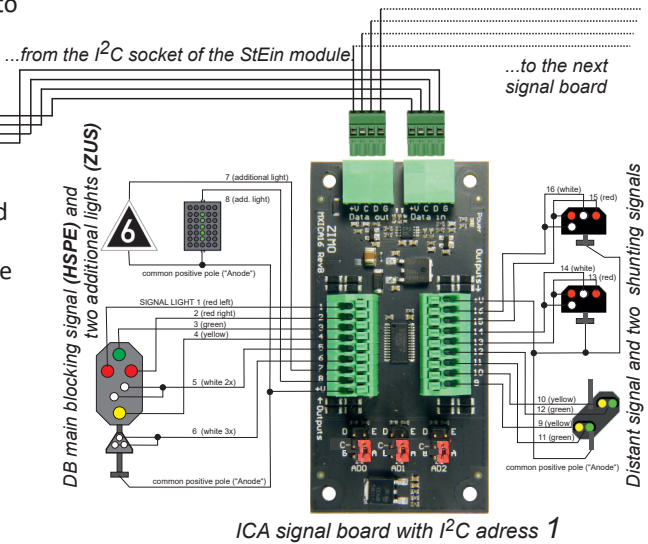
Object-orientated approach and tabular configuration recording

StEin = SIGNAL MODULE

Signals are not connected directly, but via external **"ICA boards"** that are installed in the immediate vicinity of the respective signals. Up to 12 boards are powered and controlled through the I2C bus socket of each StEin: each ICA board has 16 outputs for signal LEDs.



The StEin motherboard
for 8 track sections, 8 turnout motors, 16 switch inputs, 2 speakers, I²C-Bus.



The ZIMO wiring plan (excerpt):
More detailed descriptions can be found in the MX10 and StEin instruction manuals!
For larger layouts, the accessory voltage for the StEin is not taken from "Track 2" output of the MX10, but instead from a second power supply.

SPECIALS

Exclusive to ZIMO: Technical processes and protocols that complement the DCC standard set us apart from the industry's 'standard' products: sophisticated software, but also hardware that is not designed to minimise costs, but rather to deliver superior quality.

on-track search **HLU unmatched for 20 years**

H Halt	7
5 UH intermediate	L evels
U Ultraslow	
LU intermediate	
L Slow	
FL intermediate	
F Full speed	
(A voltage OFF)	

The "on-track search" is used to find the unknown address(es) of one or a few vehicles. The vehicle currently being searched for is briefly de-energised: the address and its assigned name (if already assigned) appear in the display after a few seconds.

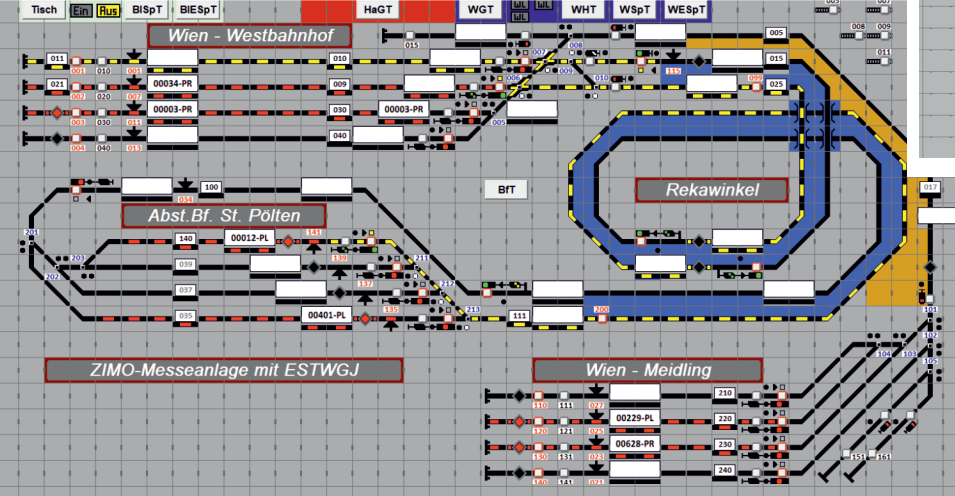
From the beginning (1980), "HLU", initially under the designation "signal controlled speed influence", has been a fixed component of ZIMO digital systems and decoders. While DCC, according to the standard, sends **addressed commands** to each individual vehicle, individual **separate track sections** can be given **HLU information** at the same time. These are not addressed, but are location-dependent for decoders located there. In this way, trains receive HLU instructions to **stop before red signals or speed limits**. HLU information is generated by the track section outputs of a "StEin module"

Autom. Registration GUI Transfer **OW Ost-West**

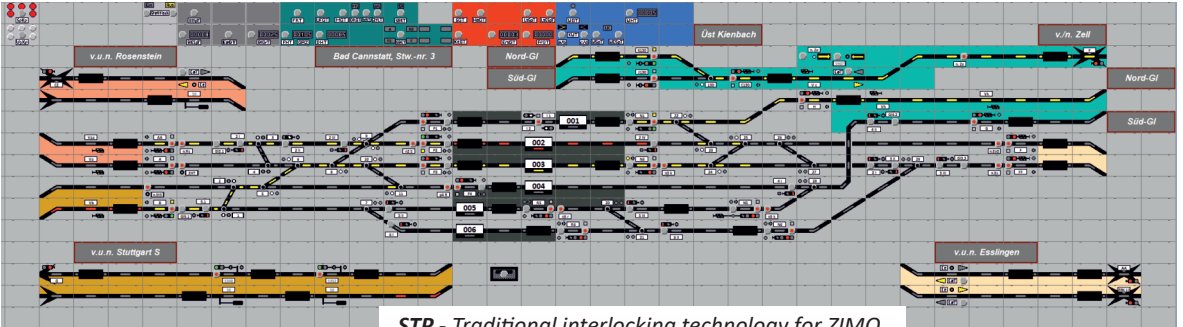
Since the model railway runs digitally, the direction selected on the controller is not track-related but locomotive-related (Forward = "cab 1 ahead"). This is often, but not always, advantageous. ZIMO offers the possibility to drive specifically in a **given layout-related direction**, called "East" and "West", if required. Technically, this is the phasing of the DCC track signal. The characteristic feature is: the entire directional logic is NOT simply switched over, but "forward-backward" and "east-west" work together.

The current version of the **ZIMO stock search**, realized with the means of the standardized **RCN-218**, is started on the ZIMO MX33 controller; then (new) decoders report themselves; a comparison is made with the existing "object database" (the "stock"). In practice, the **ZIMO "GUI transmission"** is even more important than the registration. The "GUI" (Graphical User Interface) consists of an individual collection of images, icons and controls for each vehicle, which may also differ among operating devices (ZIMO cabs, ZIMO App, Roco App).

Whilst this "ZIMO Folder System 2026" was already in the pipeline, the world of computer control and interlocking technology for model railways has been in a state of flux:
One prominent programme has been discontinued, some are still running, and new developments are emerging. Currently, STP, ESTWGI, Windigipet, Rocrail, Itrains and ZEDIS can interact with ZIMO products in various ways.
At this stage, however, no reliable recommendations can be made. More to follow shortly!
Below are therefore just a few illustrations on the subject.



The ESTWGI interlocking for the ZIMO N exhibition layout (a German, highly prototypical push-button interlocking system on screen)



Electronic interlocking in the ZEDIS project.

