

AWIA SDIP®

Comprehensive solutions for public transport vehicles



MANAGEMENT APPLICATION

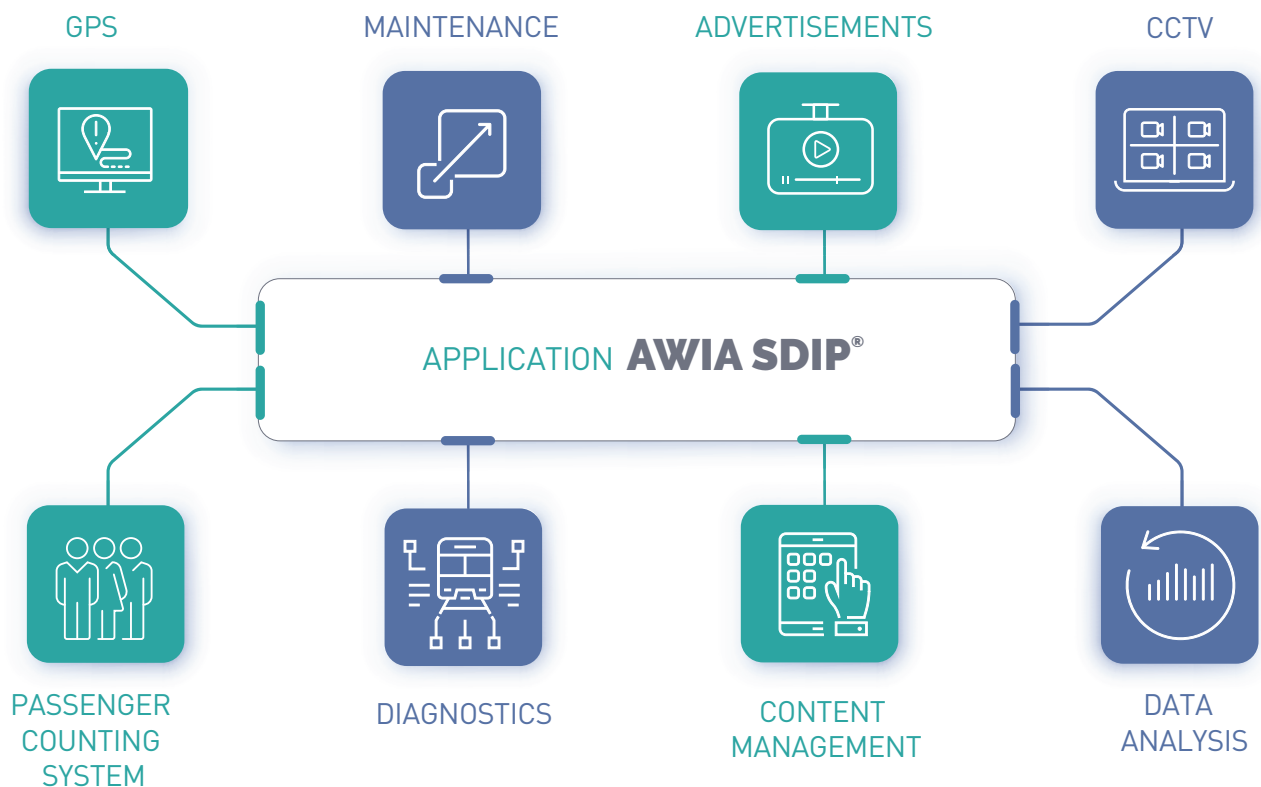
Integrated Fleet Management System

MANAGEMENT APPLICATION

MANAGEMENT APPLICATION is used to monitor the operation of all onboard devices of the AWIA SDIP® system, which operates in public transport vehicles. This app is installed on a server and access is available via a web browser.

The primary task of the application is to process, archive and present data from the vehicle.

The onboard devices of the AWIA SDIP® system interface with the **MANAGEMENT APPLICATION** through the Onboard Computer which is equipped with an integrated GSM/GPRS/EDGE/HSPA/LTE/5G modem.

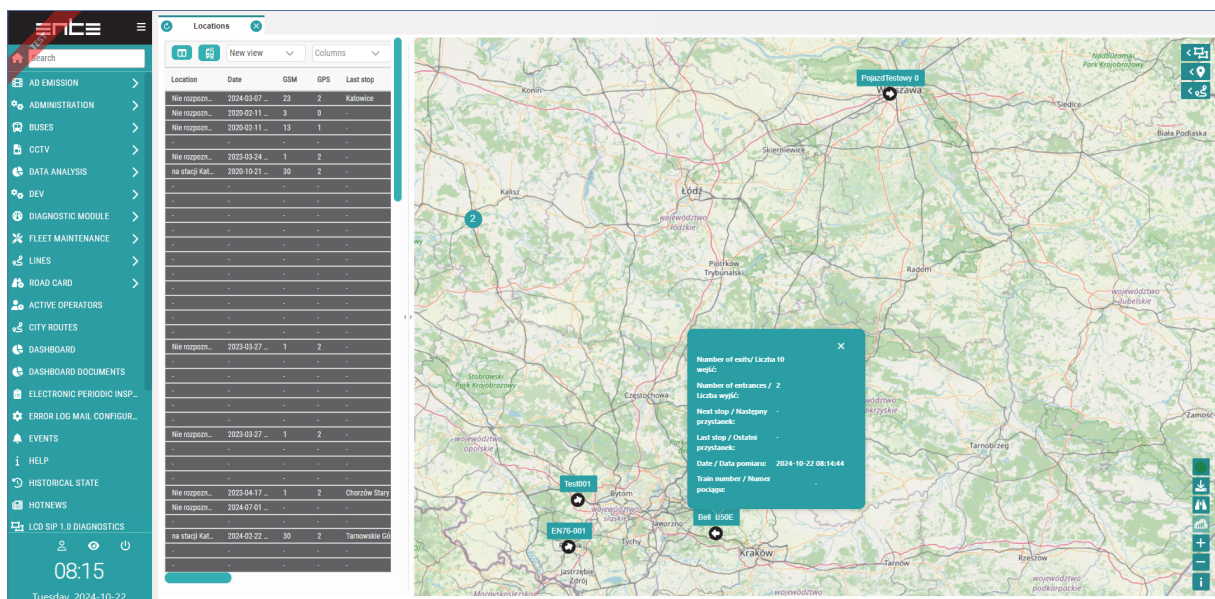


Application AWIA SDIP was developed based on the extensive experience of ENTE's programmers and is continuously improved and updated in line with Customer needs.



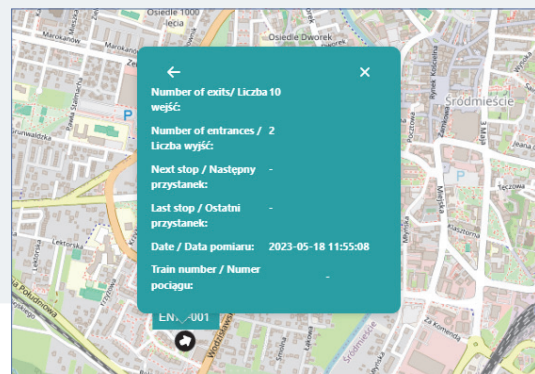
GPS

Thanks to the **GPS** tab it is possible to track the current position of vehicles, as well as their historical routes, on a digital map. Icons placed on the map indicate the location of a specific vehicle. The map can be zoomed in and navigated using the on-screen cursor.



Displaying the current position of each vehicle on maps

Nazwa	Rocklad	GSM	GPS	Zasilanie	Prędkość	LOKALIZACJA
14WE-01	-	-	-	-	0	Katowice 0.8km
14WE-02	-	-	-	-	0	Katowice Zalicze 1.0km
14WE-02_sip.1.0	-	-	-	-	0	Warszawa, Gliniewska
14WE-03	-	-	-	-	0	Katowice 0.7km
14WE-04	-	-	-	-	0	Katowice Zalicze 1.0km
14WE-04_sip.1.0	-	-	-	-	0	Inowrocław, Warsztatowa
14WE-05	-	-	-	-	0	Katowice Zalicze 1.0km
14WE-05_sip.1.0	-	-	-	-	0	Nie rozpoznano
14WE-06	-	-	-	-	0	Katowice Zalicze 1.1km
14WE-06_sip.1.0	-	-	-	-	0	Inowrocław, Warsztatowa
21WEa-001	40527-1564275	-	-	-	0	Na stacji DĄBRÓWA GÓRNICZA ZĄBKOWICE
21WEa-002	34411-1639307	-	-	-	5	Na stacji CZERWONKA DĘBIŃSKO
21WEa-003	40614	-	-	-	0	Gliniewo 0.9km
21WEa-009	94762-1584980	-	-	-	47	Na stacji RYDZKA
21WEa-010	43464-1585313	-	-	-	0	Na stacji RACIBÓRZ
21WEa-Maketa	-	-	-	-	0	Katowice Zalicze 1.1km
22WEa-001	-	-	-	-	0	Katowice 0.7km
22WEa-002	40923-351381	-	-	-	0	Na stacji ŚWIĘTOCHŁOWICE



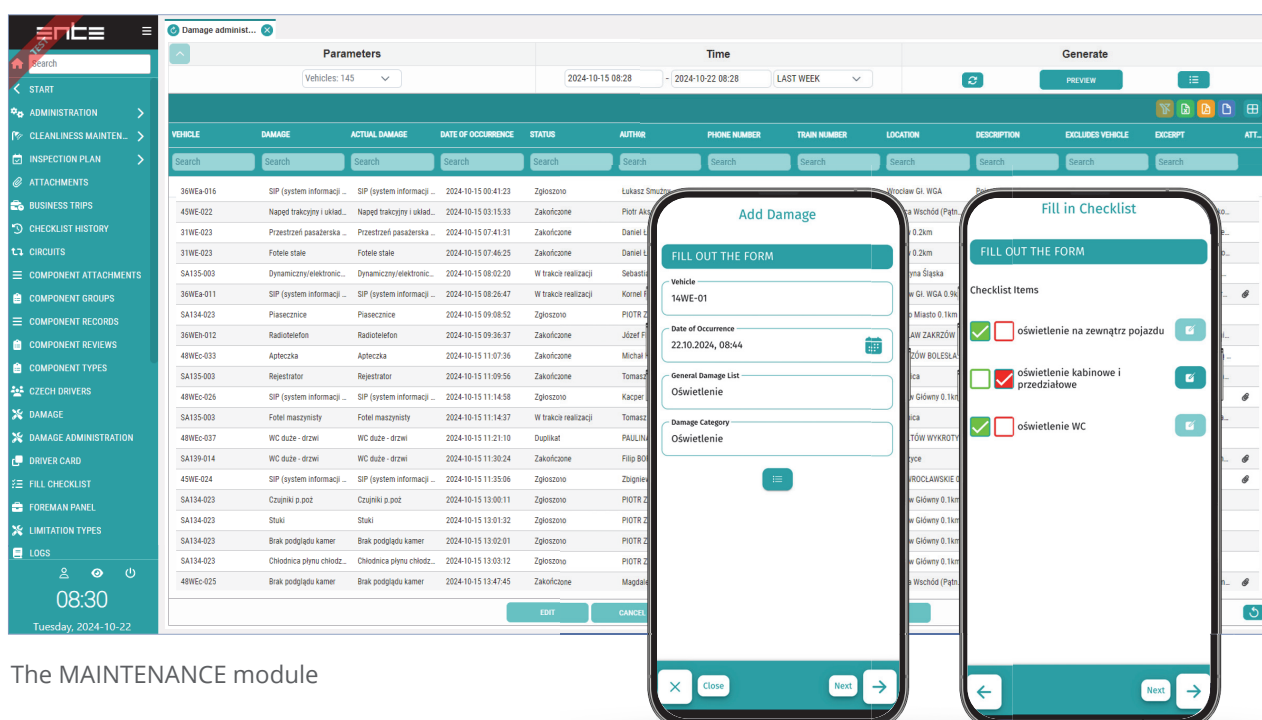
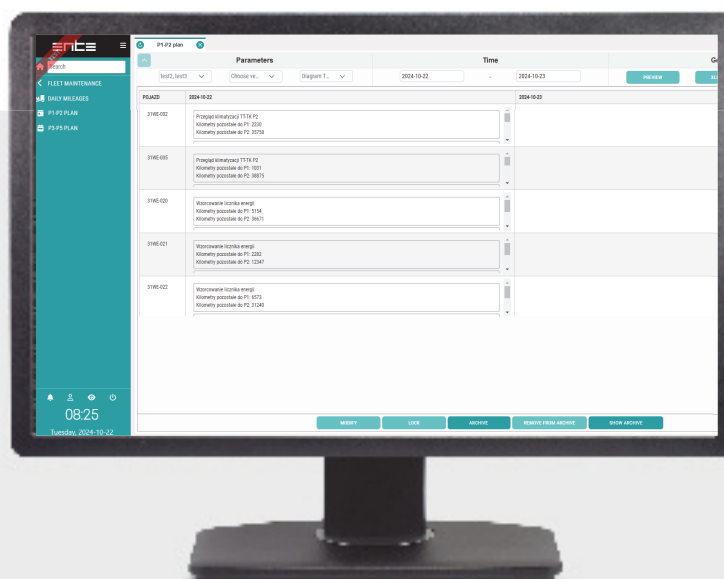


MAINTENANCE

The **MAINTENANCE** module provides access to real-time data of the fleet's condition. Here, users can report and manage faults, create work orders, and schedule inspections for vehicles and components installed in the vehicle.

Additionally, the module offers access to the history of performed tasks, vehicle availability and usage.

- Failures
- Service orders
- Fleet usage planning
- Fleet availability
- Component inspections
- Planning of vehicle inspections



The MAINTENANCE module



ADVERTISEMENTS

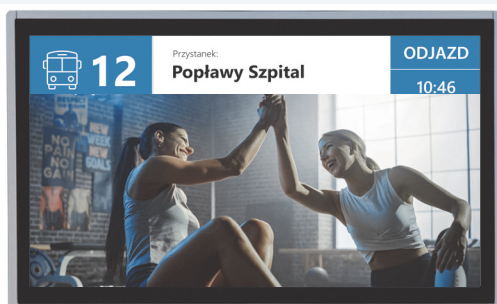
Tabs within the **ADVERTISEMENTS** module allow the user to manage advertising campaigns. In this section users can create a list of advertisers, manage entire advertising campaigns, oversee the materials used, and check which content is currently being displayed. This module enables to create the content shown to passengers both inside and outside the vehicle.

ENTE offers displays and monitors in various sizes and resolutions. The available LED displays come in amber, multicolor (RGB), and white versions, and are offered in various sizes and resolutions.

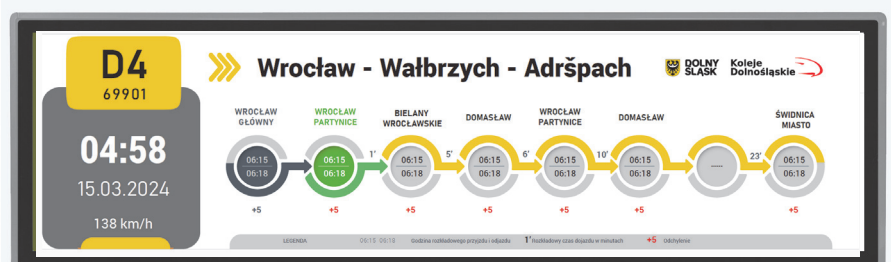
The screenshot shows the 'Active materials' tab in the ENTE system. It includes a sidebar with navigation options like 'START', 'ACTIVE MATERIALS', 'ADVERTISERS', 'ADVERTISING CAMPAIGNS', 'ADVERTISING MATERIALS', 'ADVERTISING PLAYLIST', 'CURRENT MATERIAL', and 'VEHICLE LCD PREVIEW'. The main area displays a calendar for October 2024, with columns for days 01 through 23. Below the calendar is a table listing materials and campaigns.

MATERIAL	CAMPAIGN	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
SklepKO.mp4	SklepKO_35s																							
UrbanCard.mp4	UrbanCard_10s																							
DREZDEN20092...	Promocja Drez...																							
DREZDEN20092...	Promocja Drez...																							
DREZDEN20092...	Promocja Drez...																							
powrodt_spot_v...	ZBIORKI_POWO...																							
prezentacja_g...	Prezentacja_GL...																							

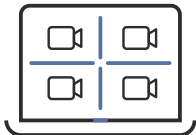
Advertisements - Active Materials Tab



LCD-24" monitor GL



LCD-37" monitor GL

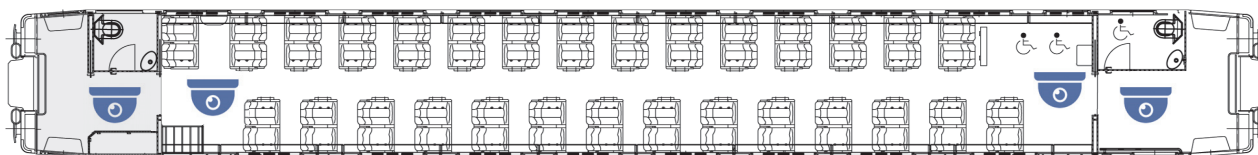


CCTV

Tabs within the **CCTV** module allow to manage the video surveillance system installed in vehicles. This primarily includes managing data on video recorders, flashes monitoring, and recorded footage protection.

The video surveillance system offered by **ENTE** can include, in addition to the recorders: railroad cameras, mirror cameras, pantograph cameras, train coupling cameras and cameras for monitoring the vehicle's interior.

The video recording, along with additional parameters (e.g., GPS location, station and stop names, train and line numbers, alarm events), is carried out using a video recorder.



„The camera feed is displayed on dedicated LCD terminals with a touchscreen or on control terminals installed in the vehicle cabins”.

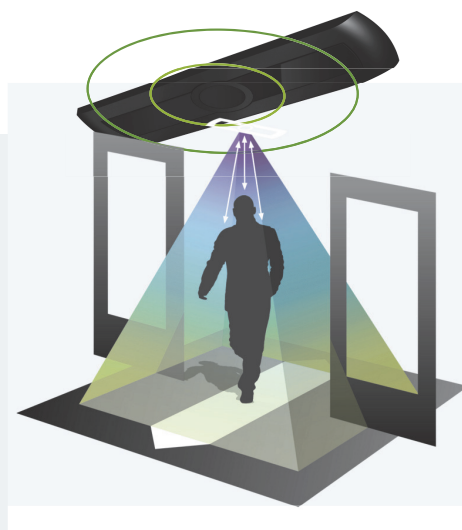
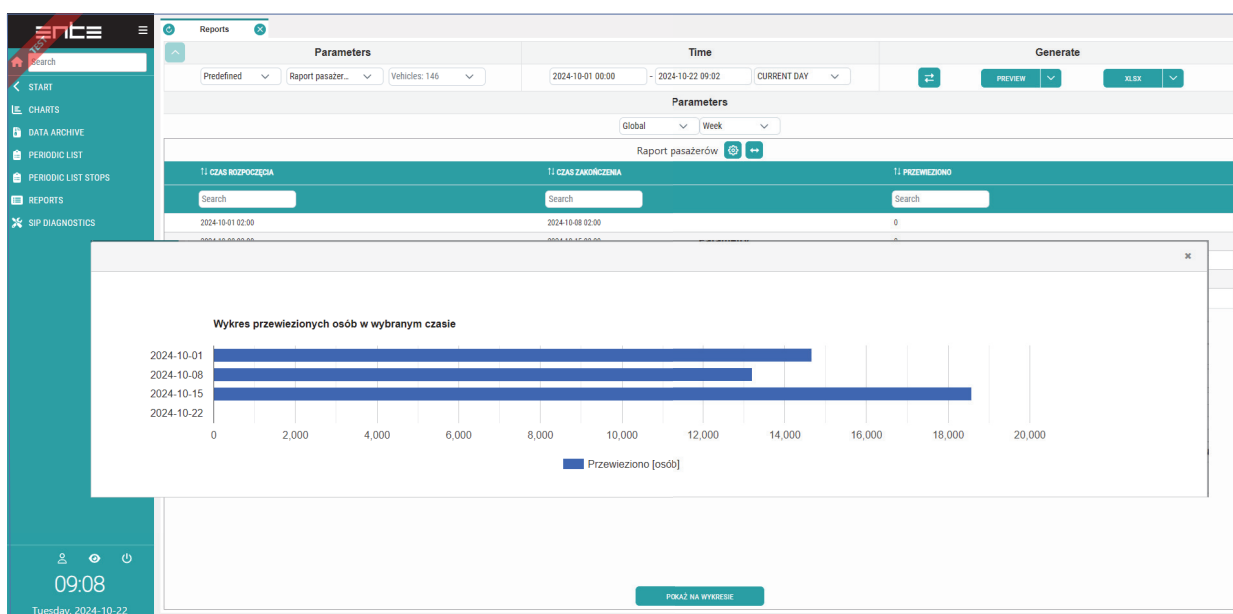
Terminal LCD-10”

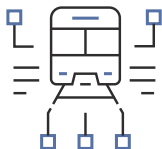




PASSENGER COUNTING SYSTEM

Data from individual counting units is transmitted in real-time via the Onboard Computer to the **Management Application**, which analyses and presents the received information. The visualization of the collected data is available through browser-based software. The provided data on passenger flows enables the operator to forecast passenger demand on the line and appropriately allocate the fleet size for transport tasks, thus optimizing transport plans.

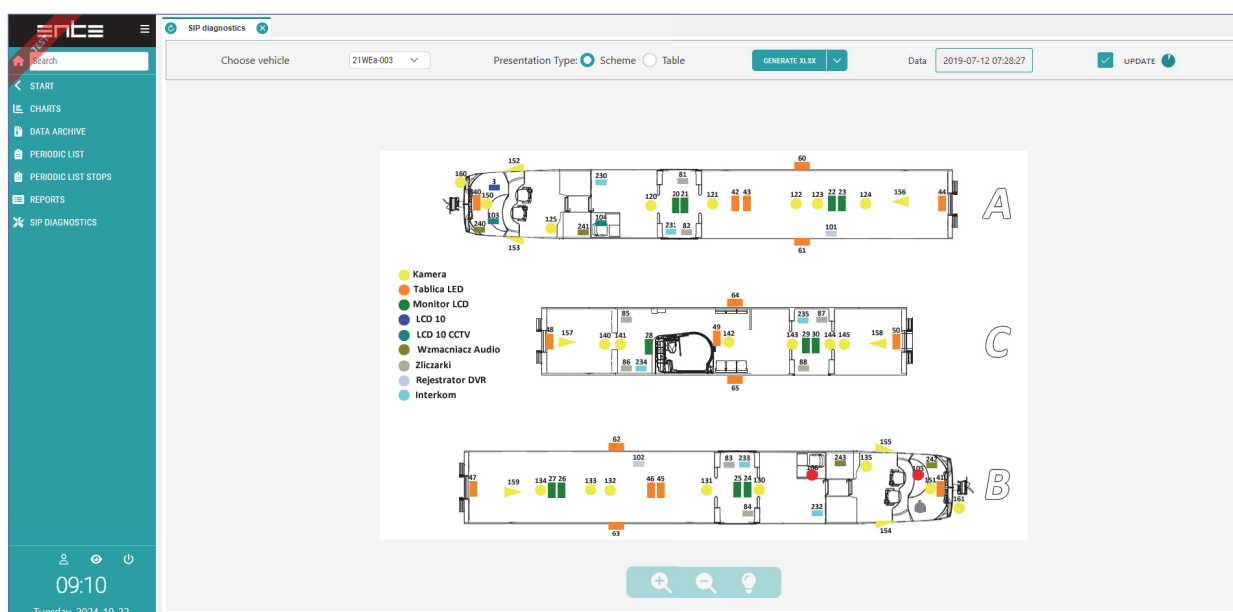




DIAGNOSTICS

The **DIAGNOSTICS** module enables verification of the operational status of devices installed in the vehicle. A schematic of the selected vehicle displays symbols representing all devices of the AWIA SDIP® Dynamic Passenger Information System installed in the vehicle.

Each device type is color-coded. Additionally, each device is assigned a unique IP address. Users can choose between two information display formats - either a schematic or a table - depending on their needs.



Diagnostics – Example Schematic



Diagnostics – Sample Table

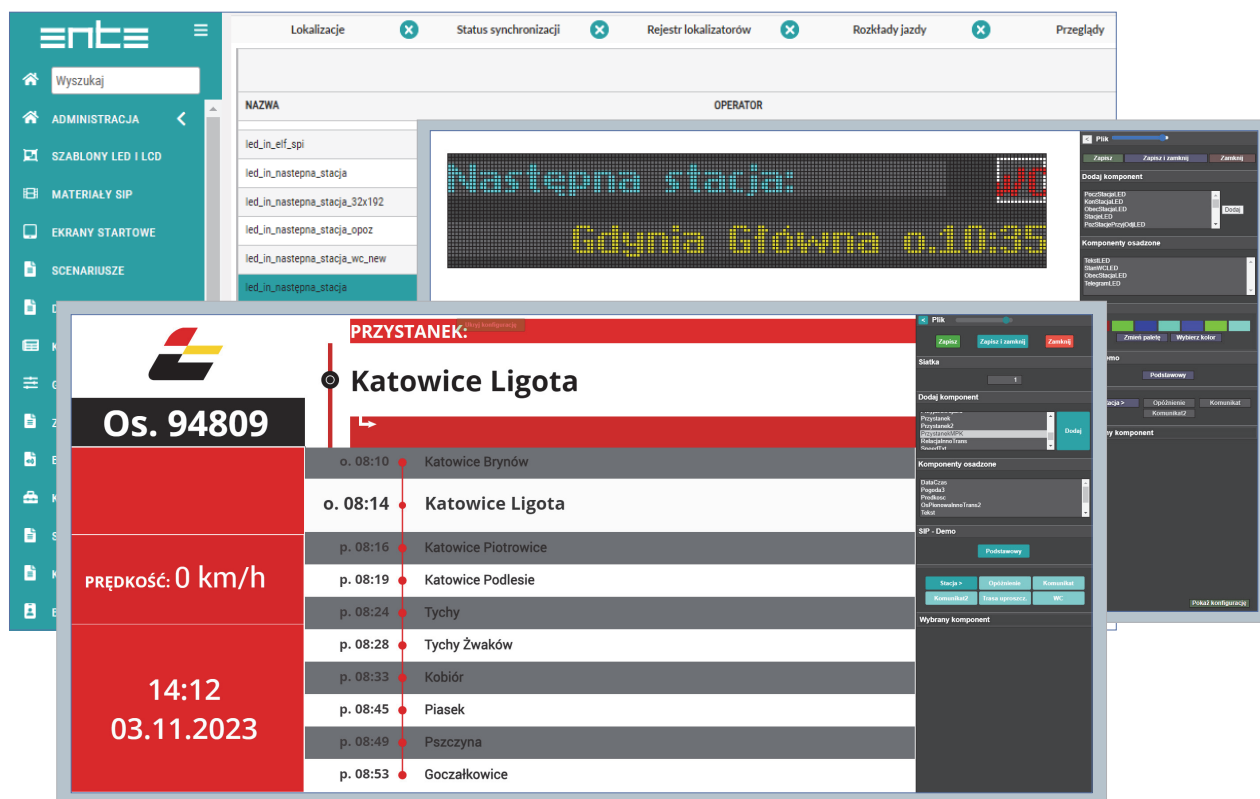
The screenshot shows the 'SIP diagnostics' interface with the 'Table' presentation type selected. The table displays a list of devices with their names, IP addresses, and status. The table has three columns: NAME, IP ADDRESS, and STATUS. The data is as follows:

NAME	IP ADDRESS	STATUS
Kamera	10.3.1	OK
Tablica LED	10.3.2	OK
Monitor LCD	10.3.3	OK
LCD 10	10.3.4	OK
LCD 10 CCTV	10.3.5	OK
Wzmacniacz Audio	10.3.6	OK
Zliczarki	10.3.7	OK
Rejestrator DVR	10.3.8	OK
Interkom	10.3.9	OK
LCD 10	10.3.10	OK
LCD 10	10.3.11	OK
LCD 10	10.3.12	OK
LCD 10	10.3.13	OK
LCD 10	10.3.14	OK
LCD 10	10.3.15	OK
LCD 10	10.3.16	OK
LCD 10	10.3.17	OK
LCD 10	10.3.18	OK
LCD 10	10.3.19	OK
LCD 10	10.3.20	OK
LCD 10	10.3.21	OK
LCD 10	10.3.22	OK
LCD 10	10.3.23	OK
LCD 10	10.3.24	OK
LCD 10	10.3.25	OK
LCD 10	10.3.26	OK
LCD 10	10.3.27	OK
LCD 10	10.3.28	OK
LCD 10	10.3.29	OK
LCD 10	10.3.30	OK
LCD 10	10.3.31	OK
LCD 10	10.3.32	OK
LCD 10	10.3.33	OK
LCD 10	10.3.34	OK
LCD 10	10.3.35	OK
LCD 10	10.3.36	OK
LCD 10	10.3.37	OK
LCD 10	10.3.38	OK
LCD 10	10.3.39	OK
LCD 10	10.3.40	OK
LCD 10	10.3.41	OK
LCD 10	10.3.42	OK
LCD 10	10.3.43	OK
LCD 10	10.3.44	OK
LCD 10	10.3.45	OK
LCD 10	10.3.46	OK
LCD 10	10.3.47	OK
LCD 10	10.3.48	OK
LCD 10	10.3.49	OK
LCD 10	10.3.50	OK



CONTENT MANAGEMENT

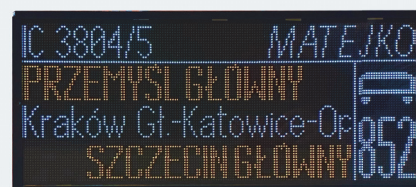
The **CONTENT MANAGEMENT** module is used for managing the information displayed on LED boards and LCD monitors. Each type of display has an assigned set of templates that can be utilized to prepare the displayed content. The module provides functionality for adding new templates, editing and deleting existing templates, and previewing the created messages.



The module is used to generate the following information:

- Direction of the vehicle along with the route display (scrolling text)
- Current vehicle position on the map
- Current or next station
- Line number / car number
- Departure time
- Delay
- Current time, date, and day of the week
- Door status (e.g., open)
- Number of passengers boarding the vehicle
- Hot News type information
- Alerts

RGB LED Boards 64x160



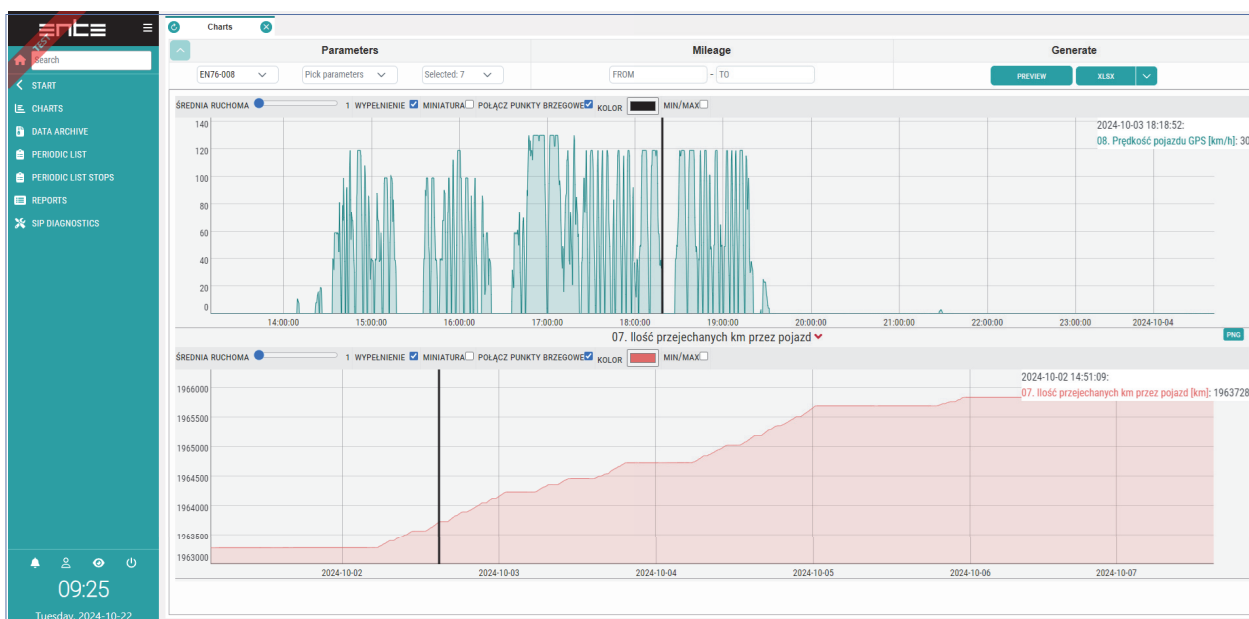
LCD Monitor 24"





DATA ANALYSIS

The set of tabs within the **DATA ANALYSIS** module allows for the statistical analysis of parameters originating from the vehicle. The module enables the generation of charts and reports based on data available in the **AWIA SDIP®** Dynamic Passenger Information System. Moreover, it provides the capability to analyse the operational status of onboard devices based on diagnostic data and to review the location history of a selected vehicle. Information can be displayed on a monitor or saved as a file (in .xlsx, .pdf, .csv, .png, or .gpx formats) for archiving or printing purposes.



Data Analysis Tab – Example Charts

The screenshot displays the 'Reports' tab in the software interface. It shows a table of stop reports for a specific vehicle (EN76-008) on 2024-10-22. The table includes columns for 'NUMER POJAZDU', 'POJAZD', 'CZAS', 'NAZWA PRZYSTANKU', 'WJŚCIE', 'WYŚCIE', 'STAN', 'M/S', 'OPÓŹNIENIE WJAZD', 'OPÓŹNIENIE WYJAZD', and 'ARCH'. The table lists various stops and the corresponding vehicle status and timing.

NUMER POJAZDU	POJAZD	CZAS	NAZWA PRZYSTANKU	WJŚCIE	WYŚCIE	STAN	M/S	OPÓŹNIENIE WJAZD	OPÓŹNIENIE WYJAZD	ARCH
67551-1632252	31WE-001	2024-10-02 05:32:24	Lębork	17	0	17	4	4	4	1
67551-1632252	31WE-001	2024-10-02 05:36:56	Rzeszów	0	1	16	4	3	3	1
67551-1632252	31WE-001	2024-10-02 05:39:57	Rzeszów	2	1	17	2	2	2	1
67551-1632252	31WE-001	2024-10-02 05:43:27	Gazdów	0	0	17	3	3	3	1
67551-1632252	31WE-001	2024-10-02 05:47:28	Chłostów	0	0	17	5	4	4	1
67551-1632252	31WE-001	2024-10-02 05:50:33	Lubin	9	14	12	3	2	2	1
67551-1632252	31WE-001	2024-10-02 05:55:05	Lubin Stadion	2	1	13	5	5	5	1
67551-1632252	31WE-001	2024-10-02 05:59:38	Koźlice	0	1	12	5	5	5	1
67551-1632252	31WE-001	2024-10-02 06:03:39	Rybnice	2	0	14	7	6	6	1
67551-1632252	31WE-001	2024-10-02 06:06:38	Rudna Miasto	1	0	15	6	6	6	1
67551-1632252	31WE-001	2024-10-02 06:14:45	Rudna Gwizdów	1	0	16	11	10	10	1
67551-1632252	31WE-001	2024-10-02 06:23:26	Głogów	1	1	16	13	12	12	1
67551-1632252	31WE-001	2024-10-02 06:31:29	Głogów	5	4	17	12	11	11	1
67551-1632252	31WE-001	2024-10-02 06:34:32	Głogów Huta	1	2	16	8	8	8	1
67551-1632252	31WE-001	2024-10-02 06:38:19	Głogów Wroblew	0	0	16	9	9	9	1
67551-1632252	31WE-001	2024-10-02 06:41:06	Brzeg Głogowski	0	3	13	10	9	9	1
67551-1632252	31WE-001	2024-10-02 06:45:39	Ciepła	2	1	14	11	11	11	1
67551-1632252	31WE-001	2024-10-02 06:53:12	Bytom Odrzański	10	1	23	15	14	14	1
67551-1632252	31WE-001	2024-10-02 07:02:15	Nowa Sól	28	11	40	15	4	4	1
67551-1632252	31WE-001	2024-10-02 07:07:20	Niedoradz	10	1	49	4	3	3	1
67551-1632252	31WE-001	2024-10-02 07:11:24	Zielona Góra Nowy Kisielin	1	1	49	3	2	2	1
67551-1632252	31WE-001	2024-10-02 07:16:31	Zielona Góra Stary Kisielin	0	2	47	5	4	4	1
67551-1632252	31WE-001	2024-10-02 07:17:01	Zielona Góra Główna	0	47	9	0	0	0	1
76400-1303698	31WE-001	2024-10-02 07:57:21	Zielona Góra Główna	22	0	22	3	3	3	1
76400-1303698	31WE-001	2024-10-02 08:00:50	Zielona Góra Stary Kisielin	0	0	22	2	2	2	1
76400-1303698	31WE-001	2024-10-02 08:04:56	Zielona Góra Nowy Kisielin	0	3	19	3	3	3	1
76400-1303698	31WE-001	2024-10-02 08:10:30	Niedoradz	1	0	20	5	4	4	1
76400-1303698	31WE-001	2024-10-02 08:18:18	Nowa Sól	8	10	18	6	6	6	1
SUMA WJŚC:				76889	SUMA WYŚC:				76380	

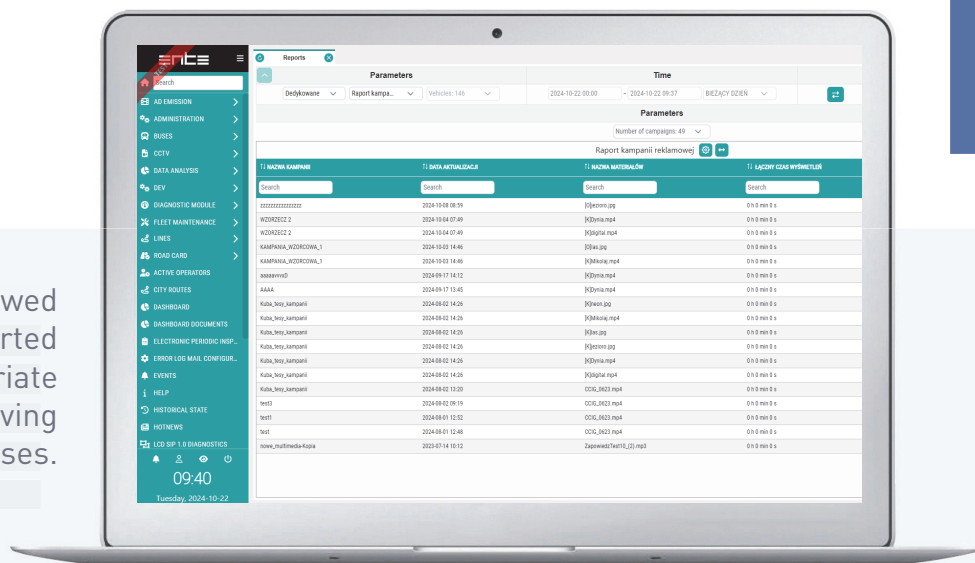
Data Analysis Tab – Example Table "Stop Report"



DATA ANALYSIS - AVAILABLE REPORTS

- Train Attributes Report
- Door Failures Report
- Passenger Counter Failures Report
- Diagnostic Data Report
- Measurement Data Report
- Vehicle Availability Report
- WC Availability Report
- Daily Summary Report
- Component Inventory Report
- WC Status Change History Report
- Hot News Information Report
- Advertising Campaign Report
- Ticket Validator Report
- Elevator and Ramp Usage Report
- Vehicle Washing Report
- WC Maintenance Report
- Area Report
- Counting Evaluations Report
- Operators Report
- Defibrillator Cabinet Opening Report
- Passenger Report
- Trains Serviced by Selected Vehicles Report
- Distance Travelled Report
- Stops Report
- Operational Work Report
- Hybrid Vehicle Performance Report
- Diesel Vehicle Performance Report
- Speeding Incidents Report
- Stops Report
- Punctuality Report
- Advertising Report
- Labor Hours Report for Service Orders
- Counter Readings Report
- Refueling Report
- Routes Report
- Deleted Faults Report
- Pending Faults Report
- Door Entry/Exit Report
- Vehicle Replacement Report
- Display of Advertising Materials Report
- Incident Report

The provided data can be viewed on the screen or exported to the appropriate file for archiving or printing purposes.





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