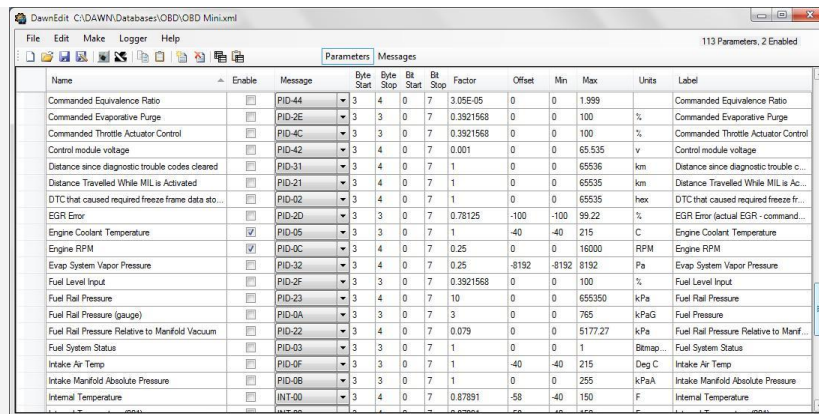


DAWN™ PC Software

DAWN™ (Data Acquisition With In-Vehicle Networks) is HEM Data's in-vehicle network data acquisition and analysis software and hardware solution to acquire data from cars, light, medium, and heavy duty trucks, and off-road vehicles.

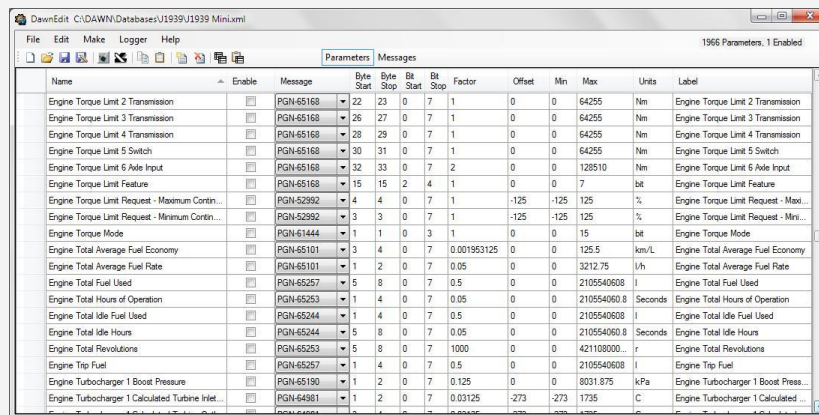
Use the DawnEdit™ database editor to configure and convert engineering parameters. Then use DawnPlot™ for display and analysis.

DawnEdit™



Name	Enable	Message	Byte Start	Byte Stop	Bit Start	Bit Stop	Factor	Offset	Min	Max	Units	Label
Commanded Equivalence Ratio	<input type="checkbox"/>	PID-44	3	4	0	7	3.05E-05	0	0	1.999		Commanded Equivalence Ratio
Commanded Evaporative Purge	<input type="checkbox"/>	PID-2E	3	3	0	7	0.3921568	0	0	100	%	Commanded Evaporative Purge
Commanded Throttle Actuator Control	<input type="checkbox"/>	PID-4C	3	3	0	7	0.3921568	0	0	100	%	Commanded Throttle Actuator Control
Control module voltage	<input type="checkbox"/>	PID-42	3	4	0	7	0.001	0	0	65.535	v	Control module voltage
Distance since diagnostic trouble codes cleared	<input type="checkbox"/>	PID-31	3	4	0	7	1	0	0	65535	km	Distance since diagnostic trouble c...
Distance Travelled While MIL is Activated	<input type="checkbox"/>	PID-21	3	4	0	7	1	0	0	65535	km	Distance Travelled While MIL is Ac...
DTC that caused required freeze frame data st...	<input type="checkbox"/>	PID-02	3	4	0	7	1	0	0	65535	hex	DTC that caused required freeze fr...
EGR Error	<input type="checkbox"/>	PID-2D	3	3	0	7	0.78125	-100	-100	99.22	%	EGR Error (actual EGR - command...
Engine Coolant Temperature	<input checked="" type="checkbox"/>	PID-05	3	3	0	7	1	-40	-40	215	C	Engine Coolant Temperature
Engine RPM	<input checked="" type="checkbox"/>	PID-0C	3	4	0	7	0.25	0	0	16000	RPM	Engine RPM
Evap System Vapor Pressure	<input type="checkbox"/>	PID-32	3	4	0	7	0.25	-8192	-8192	8192	Pa	Evap System Vapor Pressure
Fuel Level Input	<input type="checkbox"/>	PID-2F	3	3	0	7	0.3921568	0	0	100	%	Fuel Level Input
Fuel Rail Pressure	<input type="checkbox"/>	PID-23	3	4	0	7	10	0	0	655350	kPa	Fuel Rail Pressure
Fuel Rail Pressure (gauge)	<input type="checkbox"/>	PID-0A	3	3	0	7	3	0	0	765	kPaG	Fuel Pressure
Fuel Rail Pressure Relative to Manifold Vacuum	<input type="checkbox"/>	PID-22	3	4	0	7	0.079	0	0	5177.27	kPa	Fuel Rail Pressure Relative to Manf...
Fuel System Status	<input type="checkbox"/>	PID-03	3	3	0	7	1	0	0	1	Bitmap...	Fuel System Status
Intake Air Temp	<input type="checkbox"/>	PID-0F	3	3	0	7	1	-40	-40	215	Deg C	Intake Air Temp
Intake Manifold Absolute Pressure	<input type="checkbox"/>	PID-0B	3	3	0	7	1	0	0	255	kPaA	Intake Manifold Absolute Pressure
Internal Temperature	<input type="checkbox"/>	INT-00	3	4	0	7	0.87891	-58	-40	150	F	Internal Temperature

DAWN comes standard with a generic **OBD-II** database which defines almost 100 parameters according to the SAE J1979 standard; 40 being available on a typical car.



Name	Enable	Message	Byte Start	Byte Stop	Bit Start	Bit Stop	Factor	Offset	Min	Max	Units	Label
Engine Torque Limit 2 Transmission	<input type="checkbox"/>	PGN-65168	22	23	0	7	1	0	0	64255	Nm	Engine Torque Limit 2 Transmission
Engine Torque Limit 3 Transmission	<input type="checkbox"/>	PGN-65168	26	27	0	7	1	0	0	64255	Nm	Engine Torque Limit 3 Transmission
Engine Torque Limit 4 Transmission	<input type="checkbox"/>	PGN-65168	28	29	0	7	1	0	0	64255	Nm	Engine Torque Limit 4 Transmission
Engine Torque Limit 5 Switch	<input type="checkbox"/>	PGN-65168	30	31	0	7	1	0	0	64255	Nm	Engine Torque Limit 5 Switch
Engine Torque Limit 6 Aisle Input	<input type="checkbox"/>	PGN-65168	32	33	0	7	2	0	0	128510	Nm	Engine Torque Limit 6 Aisle Input
Engine Torque Limit Feature	<input type="checkbox"/>	PGN-65168	15	15	2	4	1	0	0	7	bit	Engine Torque Limit Feature
Engine Torque Limit Request - Maximum Contin...	<input type="checkbox"/>	PGN-52992	4	4	0	7	1	-125	-125	125	%	Engine Torque Limit Request - Maxi...
Engine Torque Limit Request - Minimum Contin...	<input type="checkbox"/>	PGN-52992	3	3	0	7	1	-125	-125	125	%	Engine Torque Limit Request - Mini...
Engine Torque Mode	<input type="checkbox"/>	PGN-61444	1	1	0	3	1	0	0	15	bit	Engine Torque Mode
Engine Total Average Fuel Economy	<input type="checkbox"/>	PGN-65101	3	4	0	7	0.001953125	0	0	125.5	km/L	Engine Total Average Fuel Economy
Engine Total Average Fuel Rate	<input type="checkbox"/>	PGN-65101	1	2	0	7	0.05	0	0	3212.75	l/h	Engine Total Average Fuel Rate
Engine Total Fuel Used	<input type="checkbox"/>	PGN-65257	5	8	0	7	0.5	0	0	2105540608	l	Engine Total Fuel Used
Engine Total Hours of Operation	<input type="checkbox"/>	PGN-65253	1	4	0	7	0.05	0	0	2105540608	Seconds	Engine Total Hours of Operation
Engine Total Idle Fuel Used	<input type="checkbox"/>	PGN-65244	1	4	0	7	0.5	0	0	2105540608	l	Engine Total Idle Fuel Used
Engine Total Idle Hours	<input type="checkbox"/>	PGN-65244	5	8	0	7	0.05	0	0	2105540608	Seconds	Engine Total Idle Hours
Engine Total Revolutions	<input type="checkbox"/>	PGN-65253	5	8	0	7	1000	0	0	421108000	r	Engine Total Revolutions
Engine Trip Fuel	<input type="checkbox"/>	PGN-65257	1	4	0	7	0.5	0	0	2105540608	l	Engine Trip Fuel
Engine Turbocharger 1 Boost Pressure	<input type="checkbox"/>	PGN-65190	1	2	0	7	0.125	0	0	8031.875	kPa	Engine Turbocharger 1 Boost Press...
Engine Turbocharger 1 Calculated Turbine Inlet...	<input type="checkbox"/>	PGN-64981	1	2	0	7	0.03125	-273	-273	1735	C	Engine Turbocharger 1 Calculated ...

The SAE J1939 standard defines almost 2000 parameters; typically 150 to 400 parameters are available on a heavy duty truck.

DawnEdit will determine the parameters that are actually on your vehicle and builds a database for each vehicle model, so you only need to select the parameters of interest from a table.

After selecting the parameters to acquire and the sample rate, you would then create a configuration file and transfer it to the logger's microSD card.

DAWN imports proprietary DBC files for normal messages and CSV files or Access databases for Enhanced OBD (EOBD) and custom messages. HEM Data provides EOBD databases for various manufacturers as an option.

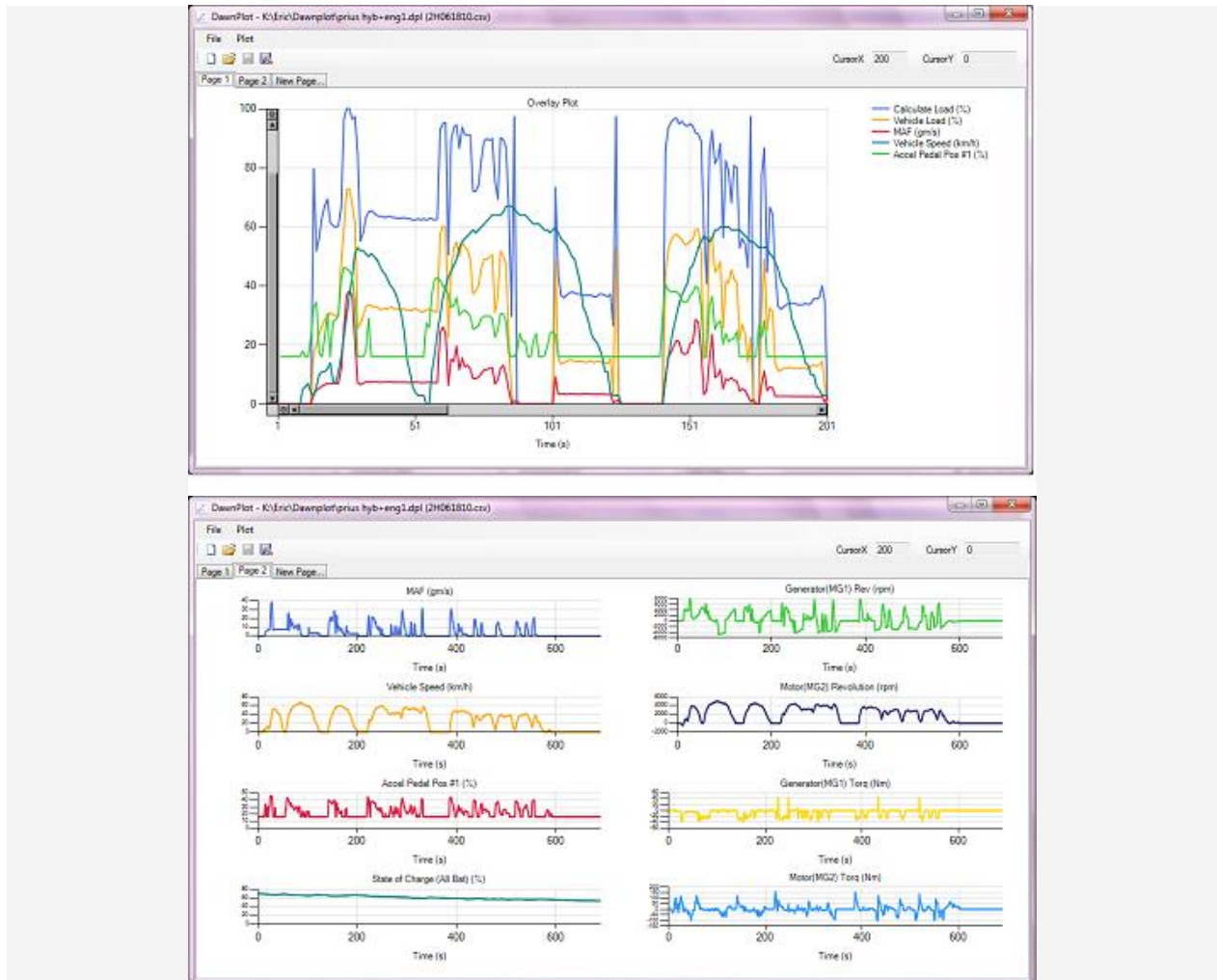
DawnEdit converts the message files stored on the logger to a CSV file containing scaled engineering parameters. Another option is to transfer message files to a website and have the website convert the message files to scaled, engineering parameters. [Click here for website details.](#)

Options include:

- appending trip files together or keeping them separate, and
- time can be shown as either relative time from the start of a trip or the absolute time of day.

DawnPlot™

DawnPlot™ is HEM Data's tool for plotting data files converted in DawnEdit. After converting binary files in DawnEdit, launch DawnPlot to plot the CSV files.



Ease of Use

Open any CSV file created by DawnEdit to instantly plot the data. The first four parameters are plotted on the first page. Create an unlimited number of plot pages with any combination of parameters on each page.

Features

Other DawnPlot features include cursors, drag zooming, multiple y-axis overplots and histograms. When using histograms, DawnPlot automatically determines the value ranges and plots the counts at nice round intervals.



More Hybrid Test Data

For more about DAWN and hybrid test data see [this page](#).

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