DIGITAL DEEP SEA

NMEA 2000 Display App For iKonvert USB

Installation and Instruction Manual

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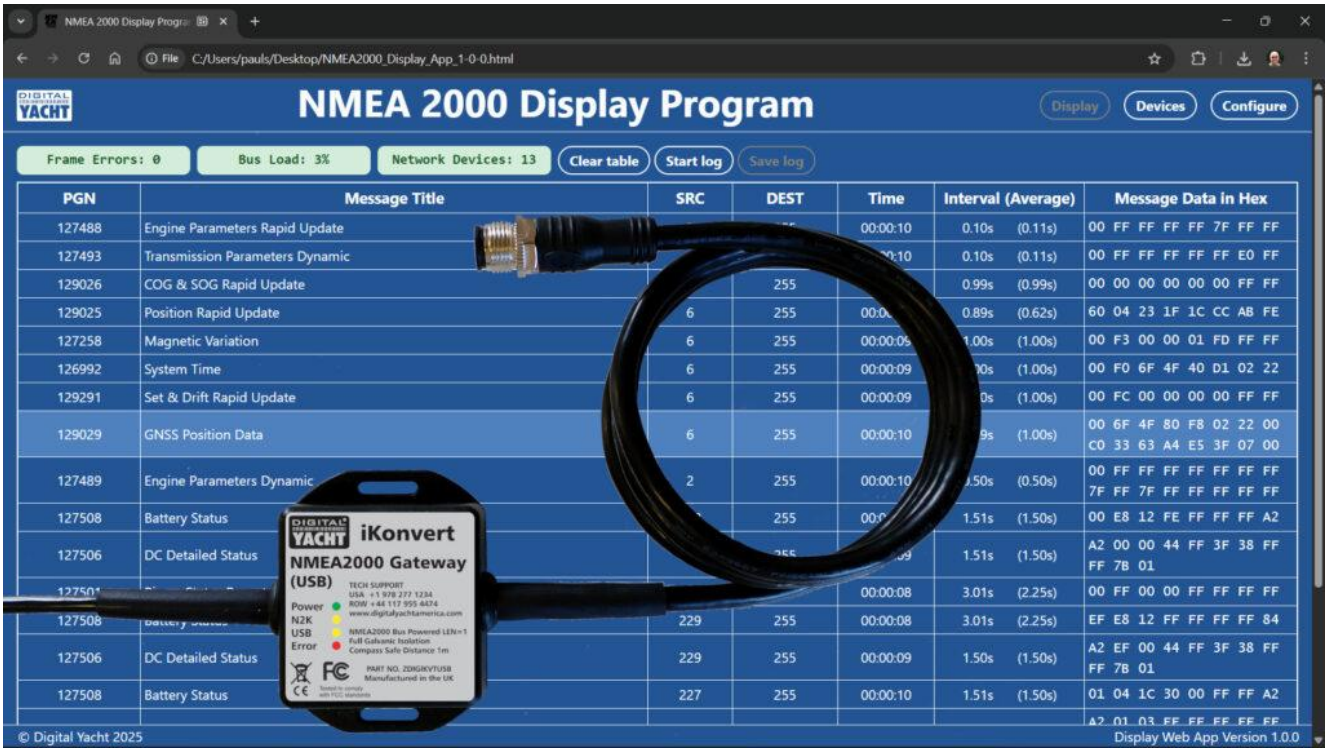
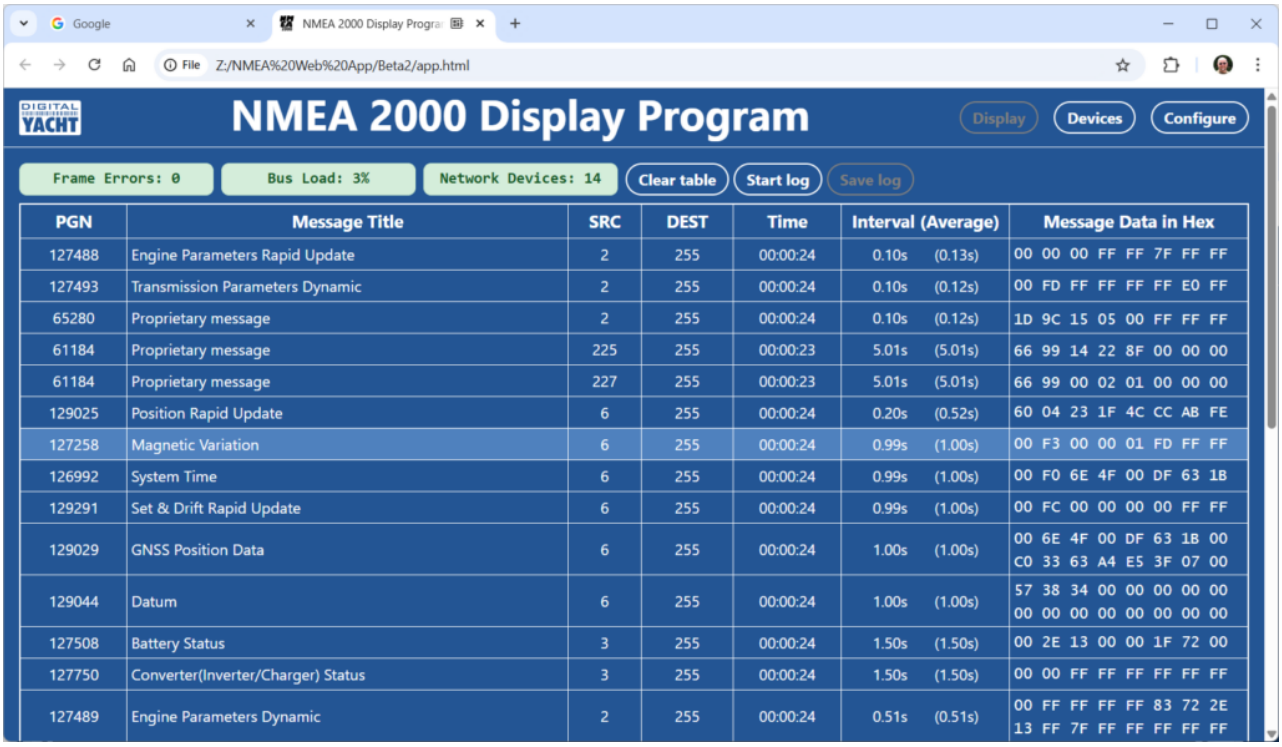


PGN	Message Title	SRC	DEST	Time	Interval (Average)	Message Data in Hex
127488	Engine Parameters Rapid Update			00:00:10	0.10s (0.11s)	00 FF FF FF FF 7F FF FF
127493	Transmission Parameters Dynamic			:10	0.10s (0.11s)	00 FF FF FF FF FF E0 FF
129026	COG & SOG Rapid Update		255		0.99s (0.99s)	00 00 00 00 00 00 FF FF
129025	Position Rapid Update	6	255	00:0	0.89s (0.62s)	60 04 23 1F 1C CC AB FE
127258	Magnetic Variation	6	255	00:00:0	1.00s (1.00s)	00 F3 00 00 01 FD FF FF
126992	System Time	6	255	00:00:09	0s (1.00s)	00 F0 6F 4F 40 D1 02 22
129291	Set & Drift Rapid Update	6	255	00:00:09	0s (1.00s)	00 FC 00 00 00 00 FF FF
129029	GNSS Position Data	6	255	00:00:10	9s (1.00s)	00 6F 4F 80 F8 02 22 00 C0 33 63 A4 E5 3F 07 00
127489	Engine Parameters Dynamic	2	255	00:00:10	0.50s (0.50s)	00 FF FF FF FF FF FF FF 7F FF 7F FF FF FF FF FF
127508	Battery Status		255	00:0	1.51s (1.50s)	00 E8 12 FE FF FF FF A2
127506	DC Detailed Status				1.51s (1.50s)	A2 00 00 44 FF 3F 38 FF FF 7B 01
				00:00:08	3.01s (2.25s)	00 FF 00 00 FF FF FF FF
127508		229	255	00:00:08	3.01s (2.25s)	EF E8 12 FF FF FF FF 84
127506	DC Detailed Status	229	255	00:00:09	1.50s (1.50s)	A2 EF 00 44 FF 3F 38 FF FF 7B 01
127508	Battery Status	227	255	00:00:10	1.51s (1.50s)	01 04 1C 30 00 FF FF A2

With more and more modern boats having an **NMEA2000** network at the heart of their navigation system, it is really important that you have the tools to investigate the devices and data on the network should things not work as planned.

There are some **NMEA2000** tools available but they only run on **Windows** and do not support all of the latest **PGNs** plus they can be difficult to install.

The world's First Multi-Platform Browser-Based NMEA2000 Display App



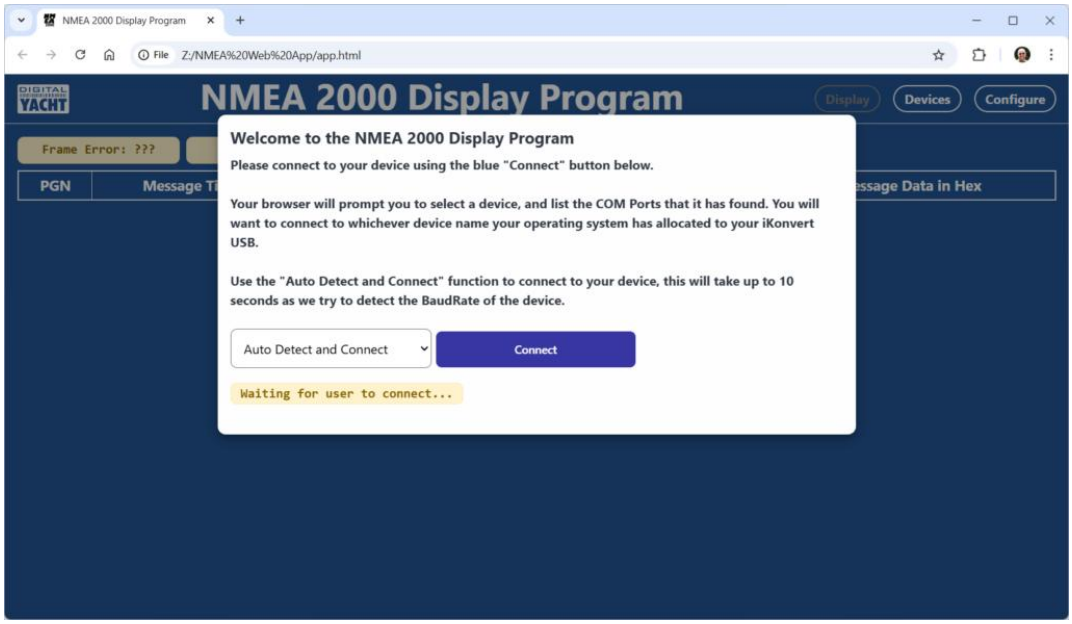
PGN	Message Title	SRC	DEST	Time	Interval (Average)	Message Data in Hex
127488	Engine Parameters Rapid Update	2	255	00:00:24	0.10s (0.13s)	00 00 00 FF FF 7F FF FF
127493	Transmission Parameters Dynamic	2	255	00:00:24	0.10s (0.12s)	00 FD FF FF FF FF E0 FF
65280	Proprietary message	2	255	00:00:24	0.10s (0.12s)	1D 9C 15 05 00 FF FF FF
61184	Proprietary message	225	255	00:00:23	5.01s (5.01s)	66 99 14 22 8F 00 00 00
61184	Proprietary message	227	255	00:00:23	5.01s (5.01s)	66 99 00 02 01 00 00 00
129025	Position Rapid Update	6	255	00:00:24	0.20s (0.52s)	60 04 23 1F 4C CC AB FE
127258	Magnetic Variation	6	255	00:00:24	0.99s (1.00s)	00 F3 00 00 01 FD FF FF
126992	System Time	6	255	00:00:24	0.99s (1.00s)	00 F0 6E 4F 00 DF 63 1B
129291	Set & Drift Rapid Update	6	255	00:00:24	0.99s (1.00s)	00 FC 00 00 00 00 FF FF
129029	GNSS Position Data	6	255	00:00:24	1.00s (1.00s)	00 6E 4F 00 DF 63 1B 00 C0 33 63 A4 E5 3F 07 00
129044	Datum	6	255	00:00:24	1.00s (1.00s)	57 38 34 00 00 00 00 00 00 00 00 00 00 00 00 00
127508	Battery Status	3	255	00:00:24	1.50s (1.50s)	00 2E 13 00 00 1F 72 00
127750	Converter(Inverter/Charger) Status	3	255	00:00:24	1.50s (1.50s)	00 00 FF FF FF FF FF FF
127489	Engine Parameters Dynamic	2	255	00:00:24	0.51s (0.51s)	00 FF FF FF FF 83 72 2E 13 FF 7F FF FF FF FF FF

Digital Yacht's NMEA2000 Display App takes a new approach and is the World's first multi-platform, browser based **NMEA2000 Display App** that will run on **Windows**, **LINUX**, **Mac OSX** and **Raspbian**. There is no installation and if you can save a file and find it again, then that is as complex as it gets with just a single **HTML5** file to worry about (less than 0.5MB in size). You need to use an app with a browser that supports the **Web Serial API**, which currently includes **Chrome**, **Chromium**, **MS Edge** and **Opera**. We also plan to support **Firefox** going forward (with its **WebSerial Extension**) but this was not possible for the first release of the app.

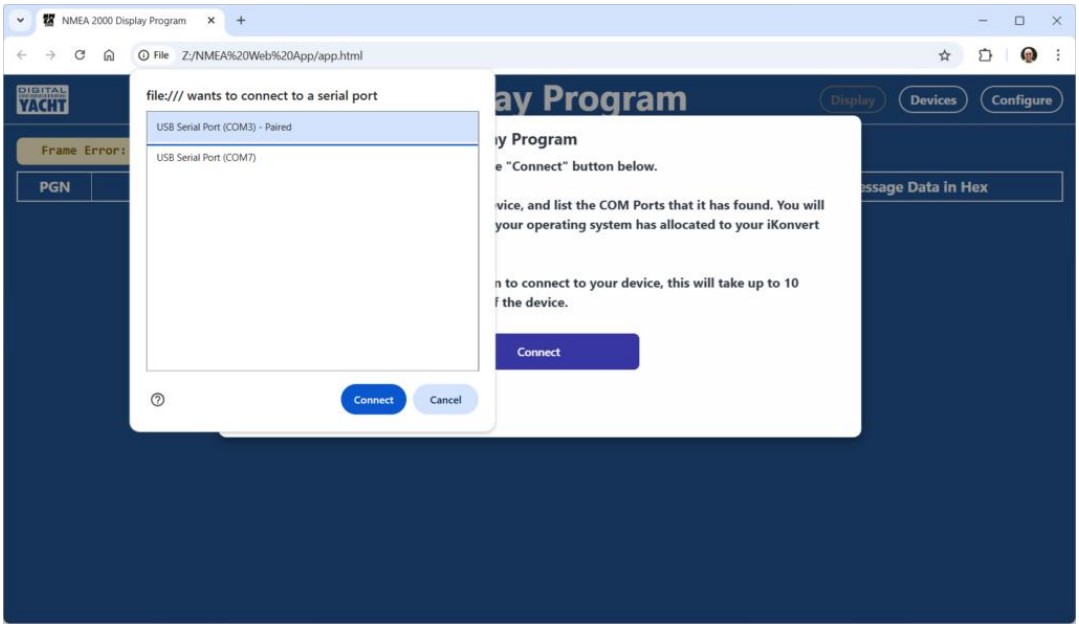
Designed to work with our **iKonvert USB Gateway**, simply download the free App from our dedicated **GitHub** site :

https://github.com/digitalyacht/NMEA2000-Display-App

Unzip the file and after plugging your **iKonvert USB** in to your computer, double click the **HTML** file. Your default browser will open the web App and display the welcome page….

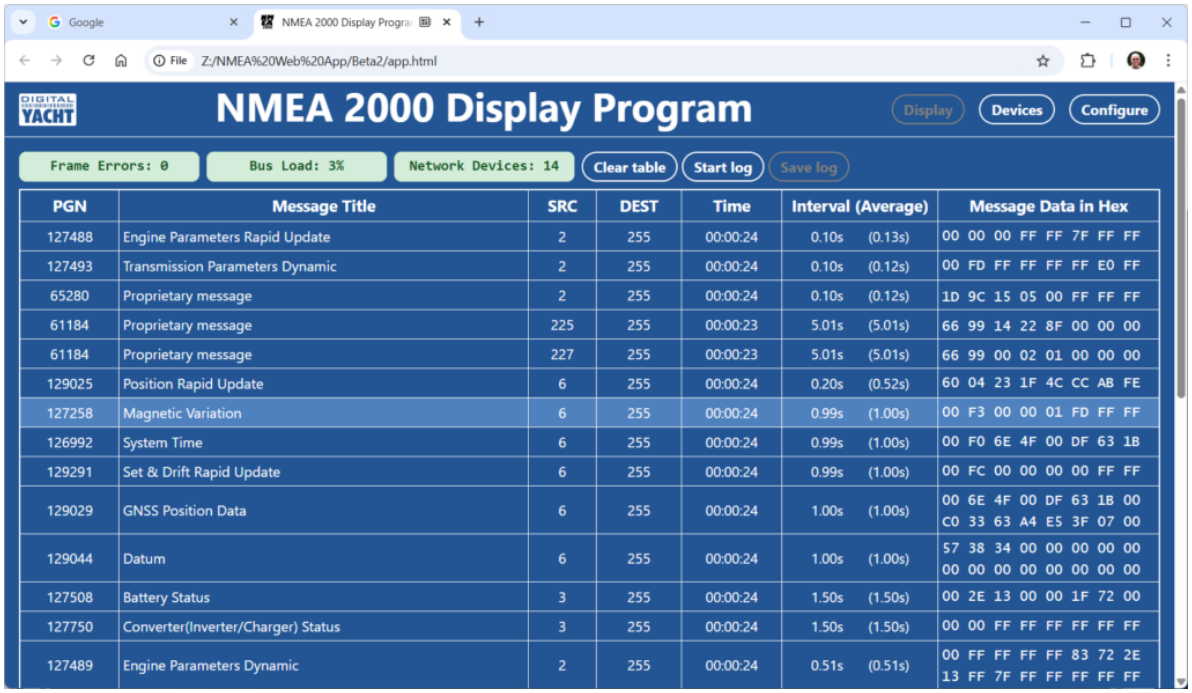


Click the **CONNECT** button and the app will search for the **iKonvert USB** and display all of the USB serial ports that it found….



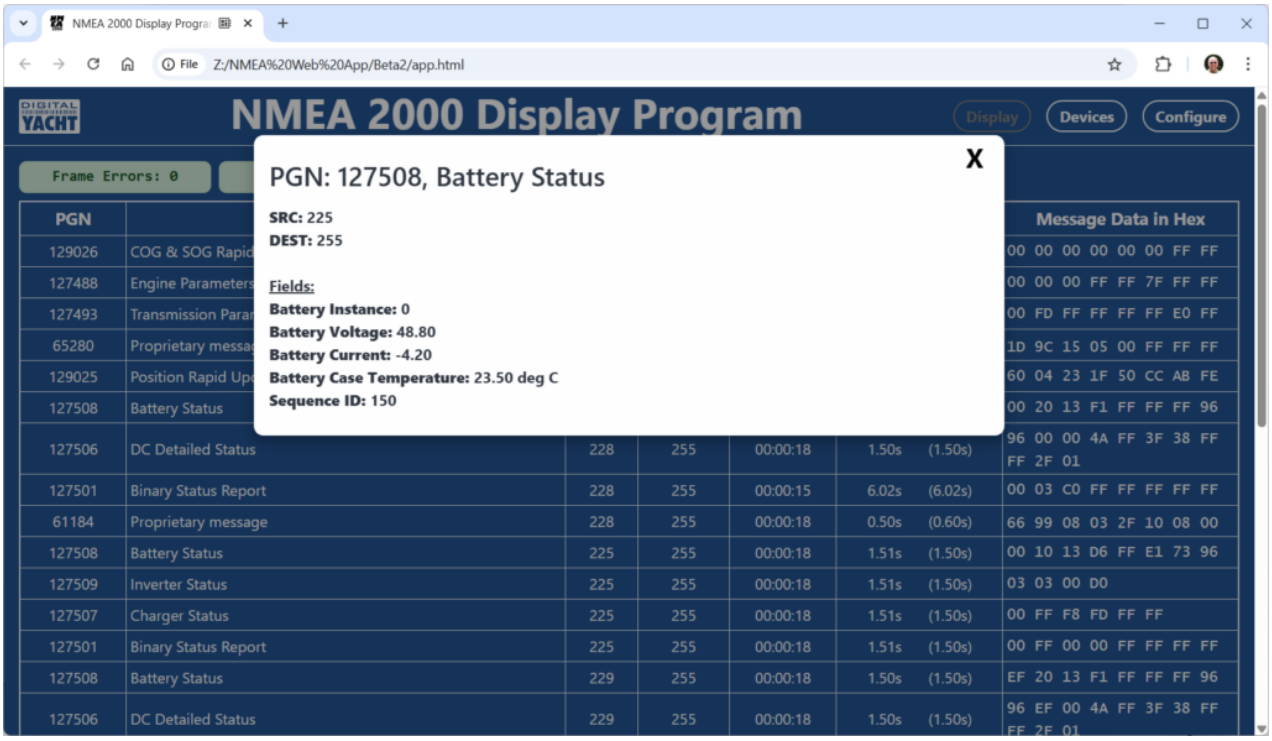
Select the serial port that has been allocated to your **iKonvert USB** and click the **CONNECT** button. The app will now start checking what baud rate the **iKonvert USB** is set to (takes less than 10 seconds) and as soon as it detects the baud rate, set the **iKonvert USB** to its **RAW NMEA2000 Mode** (230400 baud).

Now the app will start receiving **PGNs** and displaying them in a table…



PGN	Message Title	SRC	DEST	Time	Interval (Average)	Message Data in Hex
127488	Engine Parameters Rapid Update	2	255	00:00:24	0.10s (0.13s)	00 00 00 FF FF 7F FF FF
127493	Transmission Parameters Dynamic	2	255	00:00:24	0.10s (0.12s)	00 FD FF FF FF FF E0 FF
65280	Proprietary message	2	255	00:00:24	0.10s (0.12s)	1D 9C 15 05 00 FF FF FF
61184	Proprietary message	225	255	00:00:23	5.01s (5.01s)	66 99 14 22 8F 00 00 00
61184	Proprietary message	227	255	00:00:23	5.01s (5.01s)	66 99 00 02 01 00 00 00
129025	Position Rapid Update	6	255	00:00:24	0.20s (0.52s)	60 04 23 1F 4C CC AB FE
127258	Magnetic Variation	6	255	00:00:24	0.99s (1.00s)	00 F3 00 00 01 FD FF FF
126992	System Time	6	255	00:00:24	0.99s (1.00s)	00 F0 6E 4F 00 DF 63 1B
129291	Set & Drift Rapid Update	6	255	00:00:24	0.99s (1.00s)	00 FC 00 00 00 00 FF FF
129029	GNSS Position Data	6	255	00:00:24	1.00s (1.00s)	00 6E 4F 00 DF 63 1B 00 C0 33 63 A4 E5 3F 07 00
129044	Datum	6	255	00:00:24	1.00s (1.00s)	57 38 34 00 00 00 00 00 00 00 00 00 00 00 00 00
127508	Battery Status	3	255	00:00:24	1.50s (1.50s)	00 2E 13 00 00 1F 72 00
127750	Converter(Inverter/Charger) Status	3	255	00:00:24	1.50s (1.50s)	00 00 FF FF FF FF FF FF
127489	Engine Parameters Dynamic	2	255	00:00:24	0.51s (0.51s)	00 FF FF FF FF 83 72 2E 13 FF 7F FF FF FF FF FF

To display the real time values of a **PGN**, click on the **PGN** row that you are interested in and a **PGN** Info pop-up will appear…



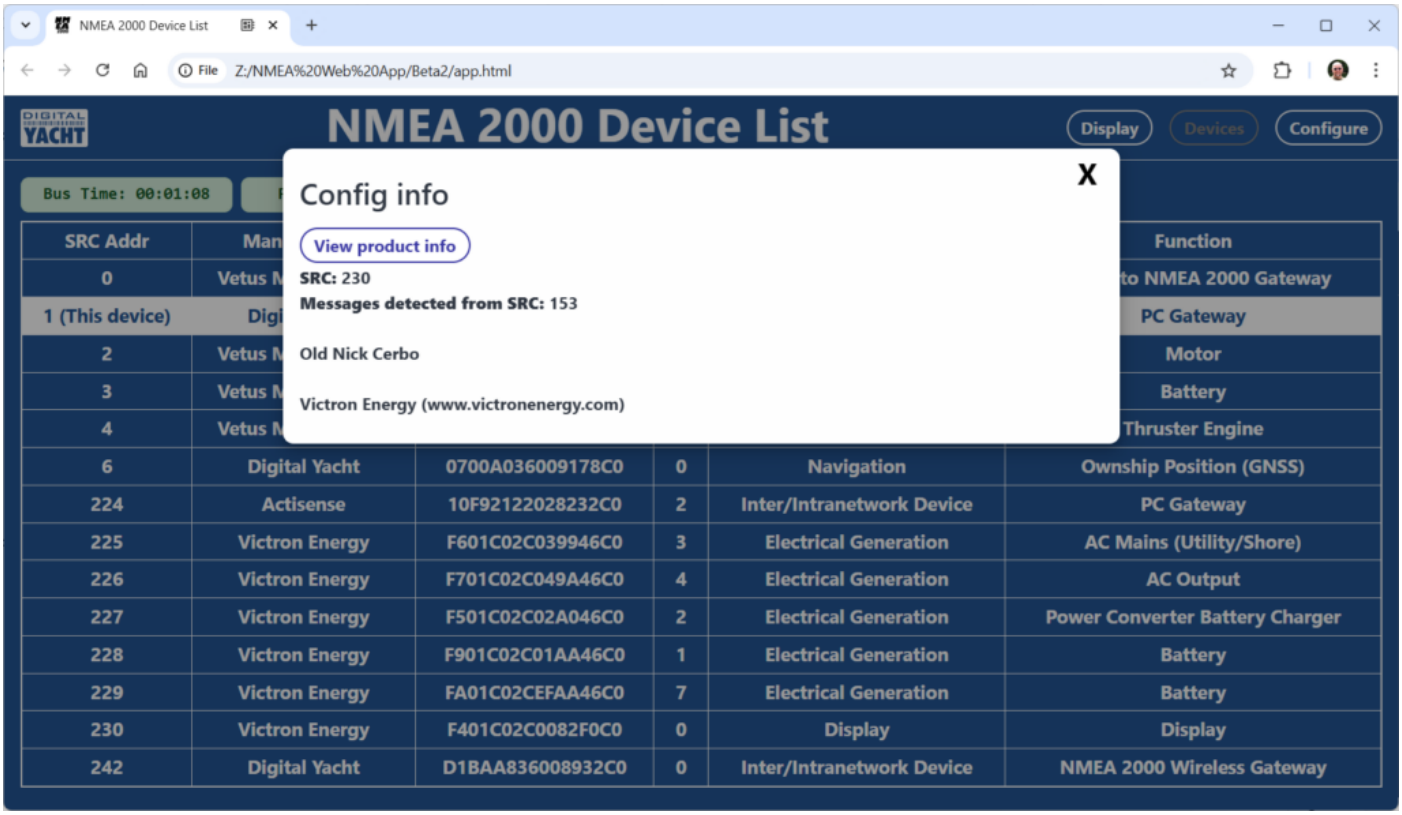
PGN						Message Data in Hex
129026	COG & SOG Rapid					00 00 00 00 00 00 FF FF
127488	Engine Parameters					00 00 00 FF FF 7F FF FF
127493	Transmission Para					00 FD FF FF FF FF E0 FF
65280	Proprietary messa					1D 9C 15 05 00 FF FF FF
129025	Position Rapid Up					60 04 23 1F 50 CC AB FE
127508	Battery Status					00 20 13 F1 FF FF FF 96
127506	DC Detailed Status	228	255	00:00:18	1.50s (1.50s)	96 00 00 4A FF 3F 38 FF FF 2F 01
127501	Binary Status Report	228	255	00:00:15	6.02s (6.02s)	00 03 C0 FF FF FF FF FF
61184	Proprietary message	228	255	00:00:18	0.50s (0.60s)	66 99 08 03 2F 10 08 00
127508	Battery Status	225	255	00:00:18	1.51s (1.50s)	00 10 13 D6 FF E1 73 96
127509	Inverter Status	225	255	00:00:18	1.51s (1.50s)	03 03 00 D0
127507	Charger Status	225	255	00:00:18	1.51s (1.50s)	00 FF F8 FD FF FF
127501	Binary Status Report	225	255	00:00:18	1.51s (1.50s)	00 FF 00 00 FF FF FF FF
127508	Battery Status	229	255	00:00:18	1.50s (1.50s)	EF 20 13 F1 FF FF FF 96
127506	DC Detailed Status	229	255	00:00:18	1.50s (1.50s)	96 EF 00 4A FF 3F 38 FF FF 2F 01

If you want to know more about the **NMEA2000 Devices** on your network, just click the **DEVICES** button in the top right corner and a **Device** table will be displayed with the **iKonvert USB** highlighted in white…

SRC Addr	Manufacturer	CAN Name	DIN	Class	Function
0	Vetus Maxwell INC.	9F01A083008A32C0	0	Inter/Intranetwork Device	Digital to NMEA 2000 Gateway
1 (This device)	Digital Yacht	B338A036008232C0	0	Inter/Intranetwork Device	PC Gateway
2	Vetus Maxwell INC.	9F01A083039B64C0	3	Propulsion	Motor
3	Vetus Maxwell INC.	9F01A08304AA46C0	4	Electrical Generation	Battery
4	Vetus Maxwell INC.	9F01A083059164C0	5	Propulsion	Thruster Engine
6	Digital Yacht	0700A036009178C0	0	Navigation	Ownship Position (GNSS)
224	Actisense	10F92122028232C0	2	Inter/Intranetwork Device	PC Gateway
225	Victron Energy	F601C02C039946C0	3	Electrical Generation	AC Mains (Utility/Shore)
226	Victron Energy	F701C02C049A46C0	4	Electrical Generation	AC Output
227	Victron Energy	F501C02C02A046C0	2	Electrical Generation	Power Converter Battery Charger
228	Victron Energy	F901C02C01AA46C0	1	Electrical Generation	Battery
229	Victron Energy	FA01C02CEFAA46C0	7	Electrical Generation	Battery
230	Victron Energy	F401C02C0082F0C0	0	Display	Display
242	Digital Yacht	D1BAA836008932C0	0	Inter/Intranetwork Device	NMEA 2000 Wireless Gateway

If you want to know more information about a particular device, click the **Device** row that you are interested in and a **Device** Info pop-up will appear…

If you want to display the **Device's Config Info**, click the **VIEW CONFIG INFO** button…



This basically covers all of the main features of the new **NMEA2000 Display App** and we will be looking to add more functionality in the future along with other **NMEA2000 Web Apps** that can run on your desktop or laptop computer.