



FISHING



COMMERCIAL FISHING



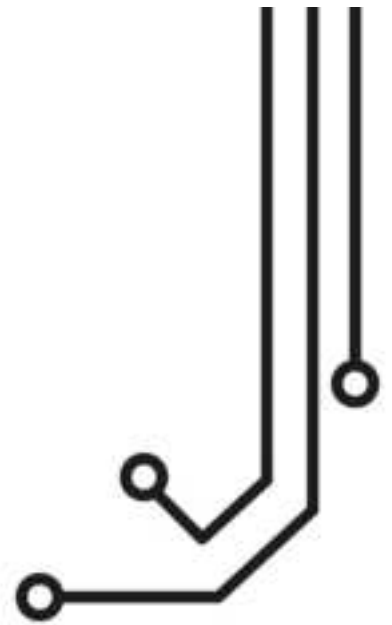
COMMERCIAL SHIPPING



SUPERYACHT



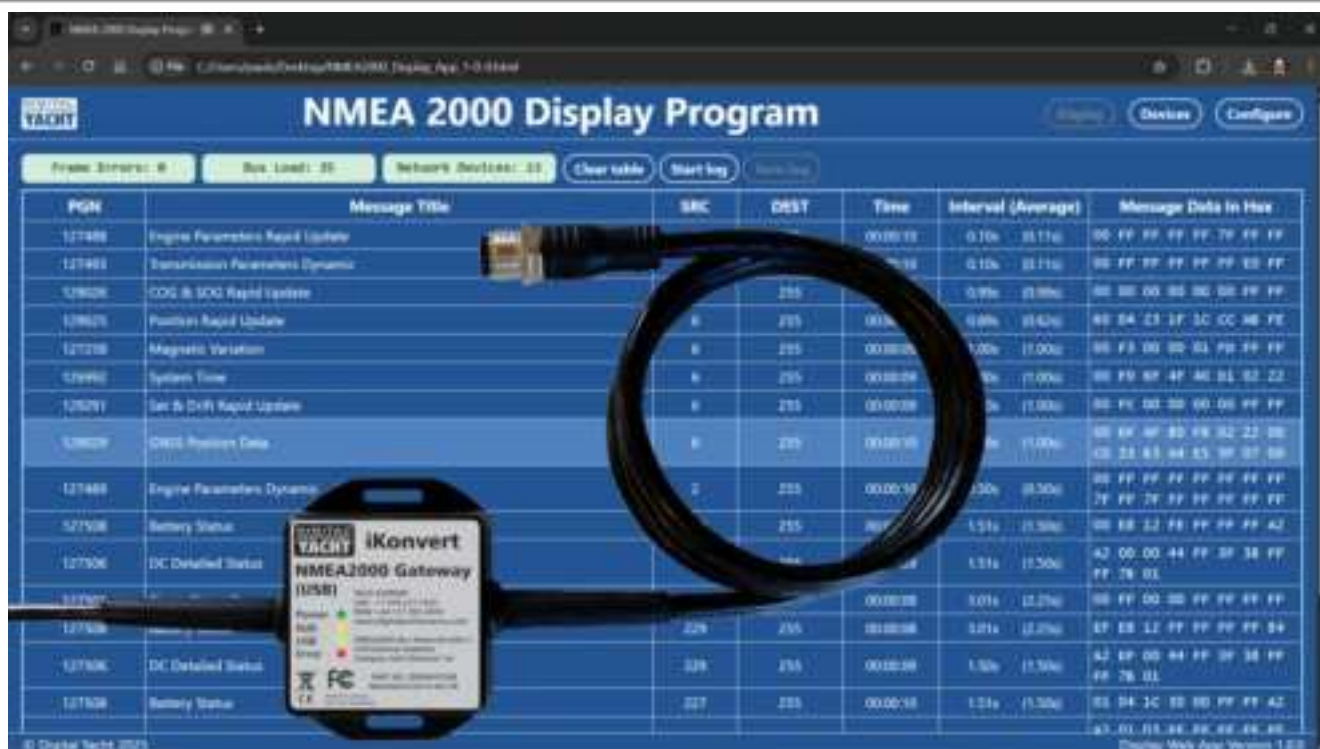
WORK BOAT



NMEA 2000 Display App For iKonvert USB

Installation and Instruction Manual

Tel: 01179 554 474
www.digitaldeepsea.com



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	00:00:34	0.10s (0.13s)	00 00 00 FF FF 7F FF FF
127489	Transmission Parameters Dynamic	2	255	00:00:34	0.10s (0.12s)	00 F0 FF FF FF FF 03 FF
61280	Proprietary message	2	255	00:00:34	0.10s (0.12s)	1D 9C 11 05 00 FF FF FF
61184	Proprietary message	225	255	00:00:33	5.0s (5.0s)	06 08 14 22 8F 00 00 00
61184	Proprietary message	227	255	00:00:33	5.0s (5.0s)	06 08 00 02 01 00 00 00
129025	Position Rapid Update	6	255	00:00:34	0.30s (0.52s)	00 04 23 1F 0C 0C 06 FE
127258	Magnetic Variation	6	255	00:00:34	0.99s (1.00s)	00 F3 00 00 01 F0 FF FF
126992	System Time	6	255	00:00:34	0.99s (1.00s)	00 F0 0F 4F 00 01 02 22
129291	Set & Drift Rapid Update	6	255	00:00:34	0.99s (1.00s)	00 FC 00 00 00 00 FF FF
129029	OWS Position Data	6	255	00:00:34	1.00s (1.00s)	00 00 00 00 00 00 00 00
129044	Datum	6	255	00:00:34	1.00s (1.00s)	17 38 34 00 00 00 00 00
127508	Battery Status	3	255	00:00:34	1.30s (1.50s)	00 2E 13 00 00 1F 72 00
127506	Converter (iKonvert/Charger) Status	3	255	00:00:34	1.50s (1.50s)	00 00 FF FF FF FF FF FF
127488	Engine Parameters Dynamic	2	255	00:00:34	0.1s (0.5s)	00 FF FF FF FF 03 72 2E 13



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.

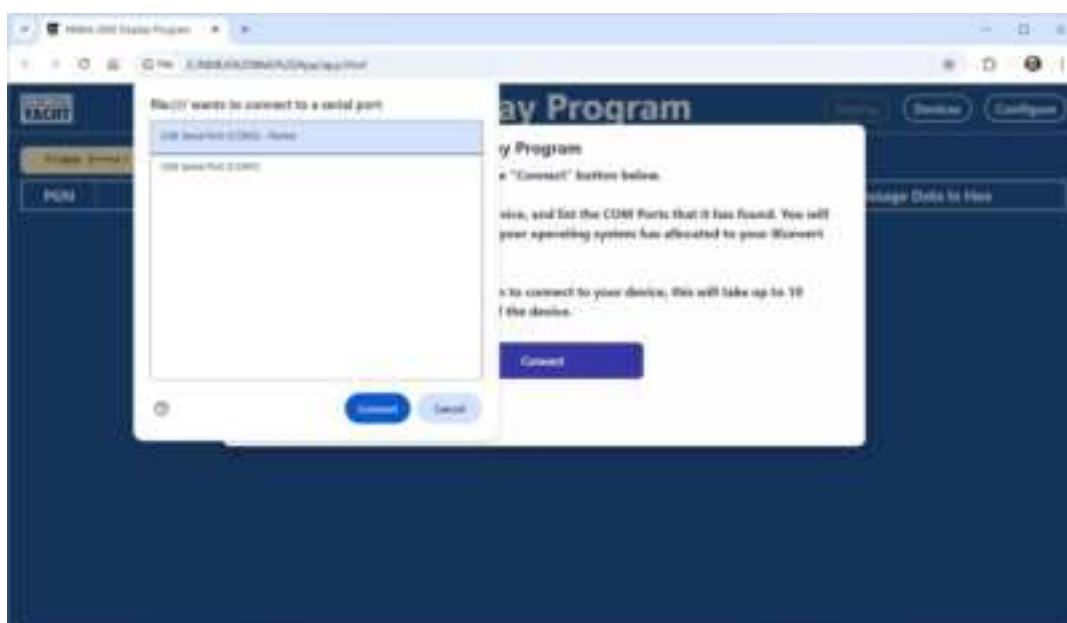
Designed to work with our **iKonvert USB Gateway**, simply download the free App from our dedicated **GitHub** site :

<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...

The screenshot shows the NMEA 2000 Display Program interface. At the top, there are buttons for 'Display', 'Devices', and 'Configure'. Below these are three status buttons: 'From Server: 0', 'Bus Load: 0%', and 'Network Devices: 14'. There are also buttons for 'Clear table', 'Start log', and 'Save log'. The main part of the interface is a table displaying received NMEA 2000 messages.

PGN	Message Title	SRC	DEST	Time	Interval (Average)	Message Data in Hex
127488	Engine Parameters Rapid Update	1	255	00:00:24	0.10s (0.15s)	00 00 00 FF FF FF FF FF
127489	Transmission Parameters Dynamic	1	255	00:00:24	0.10s (0.12s)	00 FF FF FF FF FF FF
65080	Proprietary message	1	255	00:00:24	0.10s (0.12s)	10 9C 33 03 00 FF FF FF
61184	Proprietary message	225	255	00:00:25	5.01s (5.01s)	68 88 24 22 3F 50 50 00
61184	Proprietary message	227	255	00:00:25	5.01s (5.01s)	68 88 00 02 01 00 00 00
128023	Position Rapid Update	6	255	00:00:24	0.20s (0.52s)	60 04 23 1F 4C 5C 48 FF
127238	Magnetic Variation	6	255	00:00:24	0.98s (1.00s)	00 FF 80 80 01 FF FF FF
138952	System Time	6	255	00:00:24	0.98s (1.00s)	00 F0 88 8F 00 5F 43 38
128291	Set & Clk Rapid Update	6	255	00:00:24	0.98s (1.00s)	00 FC 00 00 00 00 FF FF
129629	CANSS Position Data	6	255	00:00:24	1.00s (1.00s)	00 68 4F 00 5F 43 38 00 C0 33 43 A4 65 3F 07 00
129044	Status	6	255	00:00:26	1.00s (1.00s)	67 38 24 00 00 00 00 00 00 00 00 00 00 00 00 00
127508	Battery Status	1	255	00:00:24	1.36s (1.50s)	00 26 13 00 00 1F 72 00
127792	Converter/Inverter/Charger Status	1	255	00:00:24	1.36s (1.36s)	00 00 FF FF FF FF FF FF
127488	Engine Parameters Dynamic	1	255	00:00:26	0.11s (0.15s)	00 FF FF FF FF 83 73 28 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...

The screenshot shows the "NMEA 2000 Display Program" application. A modal window titled "PGN: 127508, Battery Status" is open, displaying the following information:

- SRC:** 225
- DEST:** 253
- Fields:**
 - Battery Instance: 0
 - Battery Voltage: 46.80
 - Battery Current: -4.29
 - Battery Case Temperature: 21.50 deg C
 - Sequence ID: 150

In the background, the main application window shows a table of message data with columns for PGN, Description, Src, Dst, Len, and Data. The table lists various PGNs and their corresponding data values.



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	DBs	Class	Function
0	Vetus Maxwell INC.	9F01A0E3006A32C0	0	Inter/Intranetwork Device	Digital to NMEA 2000 Gateway
1 (This device)	Digital Yacht	B33BA036008232C0	0	Inter/Intranetwork Device	PC Gateway
2	Vetus Maxwell INC.	9F01A0E3039B64C0	3	Propulsion	Motor
3	Vetus Maxwell INC.	9F01A0E304AA40C0	4	Electrical Generation	Battery
4	Vetus Maxwell INC.	9F01A0E3039164C0	5	Propulsion	Thruster Engine
6	Digital Yacht	0700A036009179C0	0	Navigation	Ownship Position (GNSS)
224	Actisense	10F92122628232C0	2	Inter/Intranetwork Device	PC Gateway
225	Victtron Energy	F901C02C039946C0	3	Electrical Generation	AC Mains (Utility/Shore)
226	Victtron Energy	F701C02C049A46C0	4	Electrical Generation	AC Output
227	Victtron Energy	F501C02C02AD46C0	2	Electrical Generation	Power Converter Battery Charger
228	Victtron Energy	F901C02C01AA46C0	1	Electrical Generation	Battery
229	Victtron Energy	FA01C02CEFAA46C0	7	Electrical Generation	Battery
230	Victtron Energy	F401C02C0082F9C0	0	Display	Display
242	Digital Yacht	D1BAAB36008932C0	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...



SRC Addr	Manufacturer	CAN Name	DBs	Class	Function
0	Vetus Maxwell INC.	9F01A0E3006A32C0	0	Inter/Intranetwork Device	Digital to NMEA 2000 Gateway
1 (This device)	Digital Yacht	B33BA036008232C0	0	Inter/Intranetwork Device	PC Gateway
2	Vetus Maxwell INC.	9F01A0E3039B64C0	3	Propulsion	Motor
3	Vetus Maxwell INC.	9F01A0E304AA40C0	4	Electrical Generation	Battery
4	Vetus Maxwell INC.	9F01A0E3039164C0	5	Propulsion	Thruster Engine
6	Digital Yacht	0700A036009179C0	0	Navigation	Ownship Position (GNSS)
224	Actisense	10F92122628232C0	2	Inter/Intranetwork Device	PC Gateway
225	Victtron Energy	F901C02C039946C0	3	Electrical Generation	AC Mains (Utility/Shore)
226	Victtron Energy	F701C02C049A46C0	4	Electrical Generation	AC Output
227	Victtron Energy	F501C02C02AD46C0	2	Electrical Generation	Power Converter Battery Charger
228	Victtron Energy	F901C02C01AA46C0	1	Electrical Generation	Battery
229	Victtron Energy	FA01C02CEFAA46C0	7	Electrical Generation	Battery
230	Victtron Energy	F401C02C0082F9C0	0	Display	Display
242	Digital Yacht	D1BAAB36008932C0	0	Inter/Intranetwork Device	NMEA 2000 Wireless Gateway

Device Info

View config info

SRC 230

Messages detected from SRC: 94

NMEA Database Version: 1.301

NMEA Product Code: 65535

Model ID: Cerbo GX

Software Version: v3.60

Model Version: 1.0

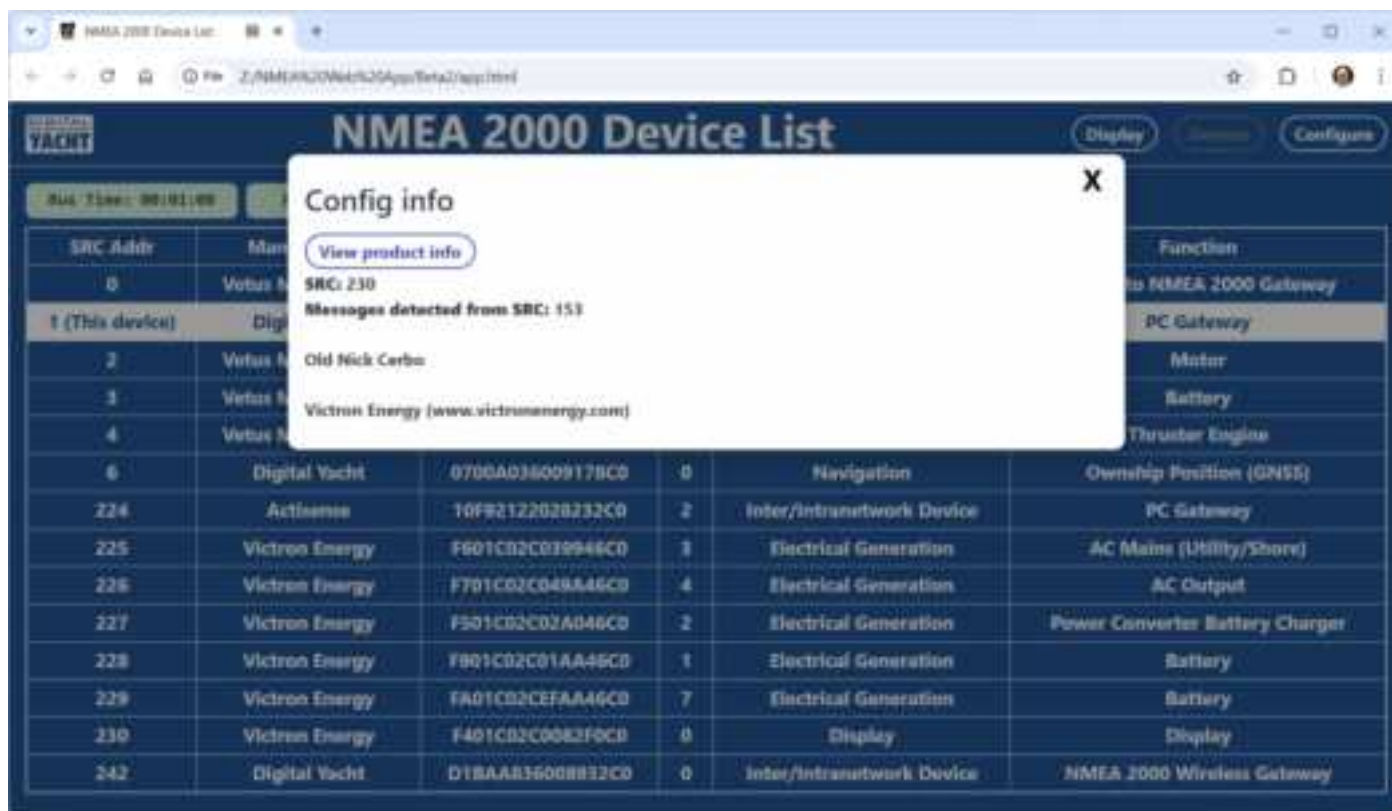
Model Serial Code: D000500

NMEA2000 Cert. Level: 1

Load Equivalency: 0



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



The screenshot shows the 'NMEA 2000 Device List' web application. A modal window titled 'Config info' is open, displaying details for device 230. The modal includes a 'View product info' button and the following text:

SRC: 230
 Messages detected from SRC: 153
 Old Nick Cerbo
 Victron Energy (www.victronenergy.com)

The background shows a table of NMEA 2000 devices with columns for SRC Addr, Manufacturer, Part Number, and Function. The table lists various devices including Digital Yacht, Actinex, and Victron Energy.

SRC Addr	Manufacturer	Part Number	Function
0	Vetus		NMEA 2000 Gateway
1 (This device)	Digital Yacht		PC Gateway
2	Vetus		Motor
3	Vetus		Battery
4	Vetus		Thru-hull Engine
6	Digital Yacht	0700A036009178C0	Navigation
224	Actinex	10F92122020232C0	Inter/Intranetwork Device
225	Victron Energy	F601C02C039946C0	Electrical Generation
226	Victron Energy	F701C02C049A46C0	Electrical Generation
227	Victron Energy	F501C02C02A046C0	Electrical Generation
228	Victron Energy	F801C02C01AA46C0	Electrical Generation
229	Victron Energy	FA01C02CEFAA46C0	Electrical Generation
230	Victron Energy	F401C02C0082F0C0	Display
242	Digital Yacht	D18AAB36008832C0	Inter/Intranetwork Device

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.