Changing NMEA2000 instances

1. Introduction

1.1 Purpose of NMEA 2000 instances

Instances are used in an NMEA 2000 network to identify multiple similar products connected on the same network.

As an example, take a system with two battery monitors (one for the main battery bank, and another for the hydraulic-thruster bank) and also a Quattro inverter/charger. All three of those devices will send their battery voltage measurements out on the N2K network. For the displays to show these values at the right place, they need to know which voltage belongs to what battery. That is what instances are for.

1.2 Different types of instances

There various types of instances, and for marine systems are two that matter: the Device instance and the Data instance. Details and differences of each type are explained in detail in the Cerbo GX manual, NMEA 2000 chapter.

WARNING: whilst it is possible to change the data instances, changing them on a Victron devices will render that device impossible to read correctly by other Victron devices. For example, changing the data instances on a Skylla-i will cause it to either not at all or not completely be visible on a GX device.

1.3 Recommend instancing setup for main MFD brands

Not all MFDs use instances the same. Some do not require setting up instances at all, others require to change the Device-instance and yet other brands require unique data instances or both.

Below documents explain the details for all major brands. Besides details on the required instancing; it also contains notes about supported, as well as non-supported, PGNs.

- NMEA 2000 configuration for Raymarine
- NMEA 2000 configuration for Garmin
- NMEA 2000 configuration for Furuno
- NMEA 2000 configuration for Navico (B&G, Simrad and Lowrance)

1.4 Different methods for setting up instances

As the NMEA2000 protocol prescribes commands to change an instance by sending commands to a device, there are various ways of changing instances. The purpose of this document is to describe all commonly used methods.

Besides the here described methods there are more, for example some MFDs allow changing instances as well.

- 1. GX Device: Device- instances only
- 2. Actisense software + NGT-1 USB: Device- as well as data-instances
- 3. Maretron software + USB adapter: Unknown
- 4. Commandline of a GX device: Device- as well as data-instances. Note that this required advanced Linux skills; and is listed here only for benefit of experienced software developers

Chapter 2, 3, 4, 5 and 6 explain these methods in detail.

1.5 Further reading on Victron and NMEA 2000

- NMEA 2000 & MFD integration guide
- Data communication white paper
- Cerbo GX manual, NMEA 2000 chapter
- NMEA2000 related discussions on Victron Community

2. GX Device: changing device instances

The Settings \rightarrow Services \rightarrow VE.Can \rightarrow Devices menu shows a list of all devices on the N2K / VE.Can network:

VE.CAN devices	22:24
BlueSolar Charger MPPT 150/70 [15965]	Device# 0
ALTREG [231308]	Device# 0
Waste water [530]	Device# 8
Aft Fuel Tank [533]	Device# 9
Waste water [531]	Device# 10
Day tank [532]	Device# 11
🛈 Help 🗘	🖊 Edit

By clicking the right button, a detailed menu is shown:

C BlueSolar Charg	er MPPT 150/70 [15965]	22:25							
Model Name	BlueSolar Charger MPP	T 150/70							
Custom Name									
Careful, for ESS systems, as well as systems with a managed battery, the CAN-bus device instance must remain configured to 0. See GX manual for more information.									
Device Instance		0							
Manufacturer		358							
Network Address		161							
Firmware Version		2.05							
Serial Number	0015965 HQ125	0944QQ							
Unique Identity Number		15965							
<u>الا</u> Pages	^ ≣Mei	nu							

3. Actisense: changing device instances

Note: make sure to use a recent Actisense driver. Otherwise the instance might not 'stick'.

Requires the Actisense NGT-1.

Changing a device instance:

- 1. Open Actisense NMEA Reader
- 2. Select the network view (tab selection is at the bottom left)
- 3. Select the product whose device instance you want to change
- 4. Select the properties tab at the bottom right and change the device instance

Last update: 2021-03-16 ve.can:changing_nmea2000_instances https://www.victronenergy.com/live/ve.can:changing_nmea2000_instances?rev=1615889967 11:19

	A Reader - [COM15: <u>E</u> dit <u>V</u> iew <u>W</u> in			
0	📀 📙 🛛 сом	115: Actisense NGT	▼ 115200	▼ @ NMEA 2000 Bus Load (1%)
	PC Receive Load (0%)			
SRC	Manufacturer	Device Function	Property	Value
35	Victron	Battery (170)	Source Address	35
254	Actisense	Gateway (130)	Industry Group	4
			System Instance	0
			Device Class	Electrical Generation (35)
			Device Function	Battery (170)
			Device Instance	1
			Manufacturer ID	Viction (358)
			Unique ID	0
			N2K Database Version	1.301
			N2K Certification Level	1
			Load Equiv. Number	50 mA (1)
			Manu. Product ID	1963
			Manu. Model ID	BMV
			Manu. Software ID	1.06
			Manu. Hardware ID	1.0
			Manu. Serial ID	0000000
			Installation Details 1	
			Installation Details 2	
			Manu. Information	
<	III	twork View / Hardware Co	nfig	tion (1 (
• •		Transfer Receive All	nfig II I I ► N Details Proper	

4. Actisense: changing data instances

Requires the Actisense NGT-1.

Changing a data instance:

- 1. Open Actisense NMEA Reader
- 2. Select data view (tab selection is at the bottom left)
- 3. Right click on the PGN number. Note that this will only work on PGNs that allow changing their data instance:

1 60928 3: 2 127508 3: 3 127501 3: 4 61184 3: 5 127502 3:	[COM15: Actisens		
Line PGN S 1 60928 33 2 127508 33 3 127501 33 4 61184 33 5 127502 20 5 127502 20 6 12 Mc	COM15: Actis	ense NGT 🔹 115200	(0%) NMEA 2000 Bus Load (0%)
1 60928 33 2 127508 33 3 127501 33 4 61184 33 5 127502 33 6 12 Model	Load (1%)		1
2 127508 33 3 127501 33 4 61184 33 5 127502 20 6 12 Model	SRC DST	Name	NMEA 2000 PGN: 127506 (0x1F212)
3 127501 33 4 61184 33 5 127502 34 6 12 Model	35 255	ISO Address Claim	Name: DC Detailed Status Source = 35, Destination = 255
4 61184 33 5 127500 2 6 12 Mo	35 255	Battery Status	Priority = 6, Length = 9
5 12 ⁷⁵⁰⁰ 2 5 12 Mo	35 255	Binary Switch Bank Status	Number Of Fields = 7
5 12 Ma	35 255	Manu. Proprietary single-frame addressed	Field 1: SID = 73
	Andife Data Insta	DC D-t-thad Status	Field 2: DC Instance = 2
	Modify Data Insta	formation	Field 3: DC Type = 0 (Battery)
	35 255	Battery Status	Field 4: State of Charge = 100 Percent Field 5: State of Health = Not Available Field 6: Time Remaining = 14400 Minutes Field 7: Ripple Voltage = Not Available
↓ ↓ ↓ Data Vie	III View / Network V	iew , / Hardware Config /	Details / Properties / Log /
		Receive All	H I I Details Properties Log

4. And change the value:

	EA Reader -	[COM15	: Actisen	se NGT]
NR Fil	e Edit V	iew Wi	ndow H	Help _ B ×
۲	3	СО	M15: Actis	sense NGT
	PC Receive	Load (0%)	
Line 1	PGN 60928	SRC 35	DST 255	Name NMEA 2000 PGN: 127506 (0x1F212) ISO Address Claim Name: DC Detailed Status
2 3	127508 127501		255 255	Battery Status Source = 35, Destination = 255 Binary Switch Bank Status Priority = 6, Length = 9 Number Of Fields = 7
4 5	61184 127506		255 255	Manu. Proprietary single-frame addressed Field 1: SID = 121 DC Detailed Statue Field 2: DC Instance = 2
6 7	126996 127508	35 35	255 255	Produc NMEA Reader ield 3: DC Type = 0 (Battery) Batter Modify Data Instance in PGN: 127506 Add: 35 ield 4: State of Charge = 100 Percent Field No. Instance ield 5: State of Health = Not Available Ield 6: Time Remaining = 14400 Minutes ield 7: Ripple Voltage = Not Available
	▶ Data		III Network V	/iew / Hardware Config / II + > > Details / Properties / Log /
	115200	Open		r Receive All

Notes for BMVs, Lynx Shunt and the Lynx Ion + Shunt:

- The Battery Instance and the DC Detailed instance are the same value. Changing one of them, will also change the other one.
- Since the BMV sends out two voltages, the main voltage and the aux- or starter-voltage, it comes preconfigured with two battery instances: 0 and 1. When you want to change that to 1 and 2, change the 1 into 2 first, and then the 0 into 1, as they cannot be the same.

5. Maretron N2KAnalyzer

Maretron uses a term called "Unique Instance" where the N2KAnalyzer software tool automatically determines if a particular device uses device or data instances.

WARNING: At Victron we do not understand what and how the Maretron software works with regards to this. We advise to use another tool, not Maretron, so that you know what you are doing, ie know what instance you are changing. So far, we have not been able to use Maretron software to change a data instance. And changing the other instance, the device instance can also be done straight from the Victron GX device its user interface. To change a data instance, for example to fix instance conflicts as reported by the Maretron software, we recommend to use Actisense. Not Maretron.

This procedure requires a Maretron USB adapter.

Open N2KAnalyzer and make sure that the "	Unique Instance"	column is turned	on (i.e. checked) using
the Setup>Columns menu item.			

SE			onfigure Web Help	-		Unique	netance	e Column							
		Jpdøte Directory	t=			-	-	ecolumn							
N	Units	Gateway		10	Mfg Model Version		Unique Instance	Label	Current Software	Available Software	Installation Description #1	Device Instance	NMEA 2000 Version	NMEA 2000 Certification Level	L
~		Software Upda	tes on Startup	H	Martine States	and the second			Conversion of the second		Cantillance who	1	S S S S S S S S S S S S S S S S S S S		-
	Listen Onl	1			44-162-1-02,	. 11002103	2.0	-	4.000,4.001		Sea water temp	2		8	1
	Recover D				Rev D	327681	64		1.11	•	AC Panel Load Sh		1.200		2
_	1.5	on Startup			Rev F	131120	32		1.5	•	DC breakers 16x30	32	1.200		1
×	in the latest school which the	e Config in Boy			t consolition		1		V01.0.1	•	-	1	1.200	A	7
	Columns		•		Expand				2.40	•	-	3	1.210		3
-	08		fectronics PP-03	100	Node Addres				1.0.0 \$03653	(#).		5	0.001		1
	29	Maretron	VDR1	-	Manufacture			ondary Data Recor		3.0.3.1	Connected Aft Bus	1	2.000	A	4
	CA	Maretron	DSM.	100.00	Mfg Model II			k Display	1.4.17.5	1.6.6.3		1	2.000	A	13
	BF	Maretron	ACM	-	Mfg Model V			Bus	1.0.8.2	1.0.9.2	Main A/C Bus A	0	1.301	A	1
	A0	Maretron	12K10	•	Mfg Serial Number			Maker	1.0.13.2	1.2.1.1		0	1.301		3
	90	Maretron	SSC2	-	Gourse			hary Heading Sens	5.0.3	5.0.4.1	Midship	0	1.210	A	3
	30	Maretron	GP	1.00	Unique Insta	nce			1.6.13ù	2.3.0.1	Backup 1	2	1.210	A	3
	70	Maretron	TLM					iboard Water	1.1.6	1.1.8.3		0	1.301		2
	74	Maretron	TLM	100	Current Soft			oline Tank	1.1.6	1.1.8.3	Tender Gasoline T	0	1.301		2
	86	Maretron	WSO	-	Available Sof			id Sensor	2.0.13	2.0.13		0	1.210		3
	72	Maretron	DST1	4	Installation D				1.003,1.022	•	Port Sounder	0	1.300	В	4
	71	Maretron	ALM'		Installation D	escription #	2	ine Room	1,0.6	1.0.6	Engine Room	6	1,301		2
	2D	Maretron	GPS2		Mfg informa	tion		nary	3.5	3.7.1.1	Primary GPS Ante	0	1.301	A	3
	CF	Maretron	DCM		Device Class			kpower	1.0.4	1.0.5.2	System Power	2	1.210	A	1
	73	Maretron	TLM		Device Funct	ion		Tank	1,1,6	1.1.8.3		0	1.301	B	2
	0A	Maretron	USB1	*	Device Instar	ce			1.8,561	1.8.6.2	Connected to Hel	1	1.210	A	3
	cc	Maretron	TMP		System Insta	nce		in Temperatures	1.1.1	1.1.2.7	Ship's Inside Tem_	0	1.210	A	1
	Hardwa	re Channel	Source	4	NMEA 2000 1	/ersion									
	0		Inside Temperature	4	NMEA 2000 (Certification	Level								
	1		Inside Temperature		Mfg Product Code										
	2		Inside Temperature	4	LEN										
	3 Inside Temperature		_	3 Electronics Room			_								
	4		Inside Temperature		4	Mess									
	5	_	User Defined #140	-	8	Unused	_								
	CE	Maretron	TMP	00	1.0	1489901		Engine Room	1.3.4	1.1.2.7	Engine room Rear	0	1,210	A	1
	1A	Maretron	ALM	00	1.0	1460041	0	Deck Alarm	1.0.6	1.0.6	Located Above Po	0	1.301	А	2
	na	Maretron	CILATI	m	1.0	14299012	3	Smoke Detectors	111	1777		0	1 210	۵.	3

Within the N2KAnalyzer main window, any cell with a white background can be edited by clicking in the cell and typing in the desired value. You can see from the following screen shot that a few parameters have a white background including Label and Installation Description #1. To change a devices instance, click in the Unique Instance cell for the device you want to change and type the new number followed by a carriage return. If the particular products accepts the instance change, you will see the new instance number reflected in the cell. You can also use a tool within N2KAnalyzer to check that all products on the network are uniquely instanced. Use the Analyze>Instancing menu to verify correct overall system instancing.

ast	
pdate: 021-03-16 ve.can:changing_nmea2000_instances https://www.victronenergy.com/live/ve.can:changing_nmea2000_instances?rev=161588996	7
021-03-16 02	'
1:19	

Setu	ip Ani	alyze Update Configure Web	Help											
	8	Received PGNs												
and	Ne	Transmitted PGNs	Mfg	Mfg Model	Mfg Serial	Unique	Label	Current Software	Available Software	Installation	Device	NMEA 2000	NMEA 2000	T
		Device Properties	Model ID	Version	Number	Instance				Description #1	Instance	Version	Certification Level	
_	23	DSM250 Viewing	HT200	44-162-1-02	11002103	2		4.000,4.001		Sea water temp	2	1.300	8	1
	2F	EEPROM Contents	ACOS	Rev D	327681	64		1.11	ŝ.	AC Panel Load Sh		1.200	B	5
	10	Carling Technologies	DC16	Rev F	131120	32		1.5	•	DC breakers 16x30		1.200	8	1
	11		DC 10	ruev r	151120	36		V01.0.1		DC Dreakers 10030	96	1.200	A	÷
	BA	Floscan Instrument Co., I Garmin	GPS17x	1.00	3431140			2.40	•		1	1.210	8	-
	0B	Lowrance Electronics	EP-DDS	1.0.0	316	5		1.0.0 \$03653				0.001	8	E
	29	Maretron	VDR100	1.0	1760015	3	Secondary Data Recor	2.0.0.4	3.0.3.1	Connected Aft Bus		2.000	A	4
	CA	Maretron	DSM250	1.0	1300176	4	Deck Display	1.4.17.5	1.6.6.3	Connected Air Dus-	1	2.000	A	13
	BF	Maretron	ACM100	1.0	1389904	0	A/C Bus	1.0.8.2	1.0.0.5	Main A/C Bus A	0	1.301	A	13
	A0	Maretron	J2K100	1.0	1241404	0	ICE Maker	1.0.13.2	1.2.1.1	mini AC OUS A	0	1.301	A	ł
	90	Maretron	SSC200	20	1120707	0	Primary Heading Sens	5.0.3	5.0.4.1	Midship	0	1.210	A	3
	30	Maretron	GPS100	1.1	1140232	2	Printery meading Sens	1.6.130	2.3.0.1	Backup 1	2	1.210	A A	1
	70	Maretron	TLM100	1.0	1500082	0	Starboard Water	1.1.6	1.1.8.3	backup i	с. Л	1.301	B	2
	74	Maretron	TLM150	1.0	1529901	0	Gasoline Tank	1.1.6	1.1.8.3	Tender Gasoline T	n	1.301	8	2
	86	Maretron	WSO100	2.0	1201734	v	Wind Sensor	2.0.13	2.0.13	Tenuer Gasonne Tim	0	1.210	A	3
	72	Maretron	DST110	D235-51-TS	*	0	Willing Sensor	1.003, 1.022	-	Port Sounder	0	1.300	B	4
	71	Maretron	ALM100	1.0	1469902	5	Engine Room	1.0.6	1.0.6	Engine Room	5	1.301	A	2
	2D	Maretron	GPS200	2.0	15266	0	Primary	3.5	3.7.1.1	Primary GPS Ante		1.301	A	ĥ
	CF	Maretron	DCM100	1.0	1400046	1	N2Kpower	1.0.4	1.0.5.2	System Power	2	1.210	A	1
	73	Maretron	TLM200	1.0	1540111	2	Day Tank	1.1.6	1.1.8.3		0	1.301	B	2
	0A	Maretron	USB100	1.0	1160258	1	Day Yalik	1.8.5b1	1.8.6.2	Connected to Hel	1	1.210	A	3
	cc	Maretron	TMP100	1.0	1480009		Cabin Temperatures	1.1.1	1.1.2.7	Ship's Inside Tern	, л	1.210	A	f
	CE	Maretron	TMP100	1.0	1489901		Engine Room	1.1.1	1.1.2.7	Engine room Rear		1.210	A	ĥ
	1A	Maretron	ALM100	1.0	1460041	0	Deck Alarm	1.0.6	1.0.6	Located Above Po		1.301	A	2
_	D4	Maretron	SIM100	1.0	1429902	2	Smoke Detectors	1.1.1	1.2.2.2	Lucated Above Po	0	1.210	A	2
	08	Maretron	IPG100	1.0	1620002	1	Secondary	3.6.0	4.0.7.6	Secondary Ship's		1.301	A	3
	A3	Maretron	J2K100	1.0	1241755	0	Main Ships HVAC	1.0.13.2	1.2.1.1		0	1.301	A	1
	28	Maretron	VDR100	1.0	1760014	0	Primary Data Recorder	2.0.0.4	3.0.3.1	Connected Fwd Bus	Č	2.000	Ā	4
	04	Maretron	USB100	1.0	1160253	2	a namy commetorider	1.8.3	1.8.6.2	Connected to Nav		1.210	A	1
	94	Maretron	EMS100	2.0	1220251	0	Engine Main	1.4.2.4	1.4.3.1	12AY-W 1659HP	0	1.210	A	ĥ
	BD	Maretron	NBE100	1.0	1240263	6	Fwd Ship's NMEA200	1.0.0	1.1.0.1	and the reason	0	1.301	A	1
	88	Maretron	DSM150	1.0	1800001	0	Captain's Quarters	1.4.17.5	1.6.6.3		0	2.000	A	1
	78	Maretron	SMS100	1.0	1739904	0	Colores of the second	1.0.1.1			0	1.301	A	2
	15	Maretron	DSM250	2.0	1340328	2	Engine Room	1.4.14.4	1.6.6.3		2	1.301	A	13
	14	Maretron	DSM250	3.0	1329901	4	Crew Quarters	1.4.16.5	1.6.6.3		4	2.000	A	13
	DI	Maretron	RIM100	1.0	1459902	1	Fire Suppression Syst	1.1.3	12.2.2		19	1.301	A	1
	C3	Maretron	NBE100	1.0	1240360	0	Aft Ship's NMEA2000	1.0.0	1.1.0.1		0	1.301	A	1
	80	Maretron	DSM250	1.0	1309906	3	Fly_Bridge	1.4.17.5	1.6.6.3		3	2.000	A	13
	70	Maretron	TLM100	1.0	1501234	0	Bow Holding Tank	1.1.6	1.1.8.3		0	1.301	8	5
	6A	Maretron	FFM100	1.0	1679904		Main Engine	1.1.2.1	1.2.2.1	Main Engine Fuel	0	1.301	A	2
	40	Maretron	DCR100	20		0	Linhting Control	1114	1123	ment mighter i det m	0	2,000	4	1

6. Changing the instances from the GX command line

6.1 Introduction

Instead of using Actisense or Maretron software, it is also possible to change the VE.Can aka N2K Device instance from the GX Device shell. To get root access, follow these instructions: Venus OS: Root Access.

Once logged into the shell, follow below instructions. More back ground information of the used commands such as dbus and dbus-spy is found by reading about root access document.

6.1 New method - changing a Device instance

All devices available on the canbus are enumerated under the com.victronenergy.vecan service. And for all devices that support the necessary can-bus commands, the Device instance can be changed. All Victron products support changing their Device instance; and most or all non-Victron products as well.

```
# dbus -y com.victronenergy.vecan.can0 / GetValue
value = {
 'Devices/00002CC001F4/DeviceInstance': 0,
 'Devices/00002CC001F4/FirmwareVersion': 'v2.60-beta-29',
 'Devices/00002CC001F4/Manufacturer': 358,
 'Devices/00002CC001F4/ModelName': 'Cerbo GX',
 'Devices/00002CC001F4/N2kUniqueNumber': 500,
 'Devices/00002CC001F4/Nad': 149,
 'Devices/00002CC001F4/Serial': '0000500',
 'Devices/00002CC005EA/CustomName': 'Hub-1',
 'Devices/00002CC005EA/DeviceInstance': 0,
 'Devices/00002CC005EA/FirmwareVersion': 'v2.60-beta-29',
 'Devices/00002CC005EA/Manufacturer': 358,
 'Devices/00002CC005EA/ModelName': 'Color Control GX',
 'Devices/00002CC005EA/N2kUniqueNumber': 1514,
 'Devices/00002CC005EA/Nad': 11,
 'Devices/00002CC005EA/Serial': '0001514',
 'Devices/00002CC005EB/CustomName': 'SmartBMV',
 [and so forth]
```

To change them, do a SetValue call to the DeviceInstace path like below. Or, perhaps easier, use the dbus-spy tool.

These lines read it, then changes it to 1, then reads it again:

```
root@ccgx:~# dbus -y com.victronenergy.vecan.can0
/Devices/00002CC005EB/DeviceInstance GetValue
value = 0
root@ccgx:~# dbus -y com.victronenergy.vecan.can0
/Devices/00002CC005EB/DeviceInstance SetValue %1
retval = 0
root@ccgx:~# dbus -y com.victronenergy.vecan.can0
/Devices/00002CC005EB/DeviceInstance GetValue
value = 1
```

```
[note that numbers, like can0, and 00002CC005EB can ofcourse be different on your system].
```

6.2 New method - changing Data instance

This applies only the NMEA2000-out feature. See links on top of page for what the NMEA2000 out feature is.

The data instances used for the NMEA2000 out feature are stored in local settings. Here is a snippet of the lines, taken by using the dbus-spy tool that also allows changing entries:

The Data instances are the "Battery-", "DCDetailed-", and so forth instances.

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Settings/Vecan/can0/Forward/battery/256/BatteryInstance0	0	<-
Data instance for main voltage measurement		
Settings/Vecan/can0/Forward/battery/256/BatteryInstance1	1	<-
Data instance for starter or mid-voltage measurement		
Settings/Vecan/can0/Forward/battery/256/Description2		
Settings/Vecan/can0/Forward/battery/256/IdentityNumber	15	
Settings/Vecan/can0/Forward/battery/256/Instance	1	
Settings/Vecan/can0/Forward/battery/256/Nad	233	<-
Source address - no need, also not good, to change this		
Settings/Vecan/can0/Forward/battery/256/SwitchInstance1	0	<-
Data instance for switchbank		
Settings/Vecan/can0/Forward/battery/256/SystemInstance	0	
Settings/Vecan/can0/Forward/solarcharger/0/DcDataInstance0	0	
Settings/Vecan/can0/Forward/solarcharger/0/DcDataInstance1	1	
Settings/Vecan/can0/Forward/solarcharger/0/Description2		
Settings/Vecan/can0/Forward/solarcharger/0/IdentityNumber	25	
Settings/Vecan/can0/Forward/solarcharger/0/Instance	0	
Settings/Vecan/can0/Forward/solarcharger/0/Nad	36	
Settings/Vecan/can0/Forward/solarcharger/0/SystemInsta	0	
Settings/Vecan/can0/Forward/solarcharger/1/DcDataInstance0	0	<-
Battery voltage & current		
Settings/Vecan/can0/Forward/solarcharger/1/DcDataInstance1	1	<- PV
voltage & current		
Settings/Vecan/can0/Forward/solarcharger/1/Description2		
Settings/Vecan/can0/Forward/solarcharger/1/IdentityNumber	24	
Settings/Vecan/can0/Forward/solarcharger/1/Instance	0	
Settings/Vecan/can0/Forward/solarcharger/1/Nad	36	
Settings/Vecan/can0/Forward/solarcharger/1/SystemInstance	0	
Settings/Vecan/can0/Forward/solarcharger/258/DcDataInstance0	0	
Settings/Vecan/can0/Forward/solarcharger/258/DcDataInstance1	1	
Settings/Vecan/can0/Forward/solarcharger/258/Description2		
Settings/Vecan/can0/Forward/solarcharger/258/IdentityNumber	23	
Settings/Vecan/can0/Forward/solarcharger/258/Instance	0	
Settings/Vecan/can0/Forward/solarcharger/258/Nad	36	
Settings/Vecan/can0/Forward/solarcharger/258/SystemInstance	0	

6.3 Old method

(Only allows changing Device instances - not data instances as used in the NMEA2000-out function)

Step 1. List the devices:

```
root@ccgx:~# dbus -y
com.victronenergy.bms.socketcan_can0_di0_uc10
com.victronenergy.charger.socketcan_can0_di1_uc12983
```

It shows a Skylla-i (the charger). di1 in the name means that it is currently on DeviceInstance 1.

Step 2. Change it, for example, to 4:

```
root@ccgx:~# dbus -y com.victronenergy.charger.socketcan_can0_di0_uc12983
/DeviceInstance SetValue %4
retval = 0
```

Step 3. Wait a few seconds, and double check:

```
root@ccgx:~# dbus -y
com.victronenergy.bms.socketcan_can0_di0_uc10
com.victronenergy.charger.socketcan_can0_di4_uc12983
```

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Device instance changed successful!

From: https://www.victronenergy.com/live/ - **Victron Energy**

Permanent link: https://www.victronenergy.com/live/ve.can:changing_nmea2000_instances?rev=1615889965

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