## How to add an Assistant from start to finish

Note: below screenshots are just an example. The same procedure works for other Assistants as well. The used example refers to an Assistant which has later been renamed to PV Inverter support, and is also rarely used on new installations. The Self-consumption Hub-2 Assistant is used instead. It is not necessary, nor possible, to combine it with the PV Inverter support Assistant.

Note for three-phase and parallel systems: some Assistants need to be configured in in all Multis or Quattros in the system, others only in the master of L1 or in all phase-masters. Carefully read the instructions in the Assistant pages while configuring.

## Prerequisite

To work with Assistants, VE.Bus Multis, Inverters and Quattros must be loaded with a a different firmware first. More information about which firmware type to choose for an installation, and the updating instruction, is available in our PDF VE.Bus firmware versions explained.

## Step by step instructions

Open VEConfigure3 on your computer, connect to the Victron product and open the Assistants tab. Don't see the assistants tab? See here.

Then, from the drop down menu select the Grid Converter support

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File Port selection Target Defa Quattro UMains 235 V IMains 0.7 A UOut 235 V IOut 0.4 A Udc 26.1 V Udc ripple 0.1 V Idc 0A Freq. Out 50.2 Hz Freq. In 50.4 Hz SoC 0 Jgnore AC 0 aux. relay 0	0.7 A       Assistant Setup         235 V       Available assistants:         0.4 A       grid converter support (0114)         26.1 V       generator start and stop (010E)         0.1 V       grid converter support (0114)         0.4 A       generator start and stop (010E)         1 V       grid converter support (0114)         0 A       use 1140-interface to set input current limit (0115         50.2 Hz       Lynx lon BMS support (0116)         programmable relay (011E)       relay locker (0104)         Self-consumption Hub-2 v2 (011D)       ✓         0       VE.Bus BMS (0122)	
show VE.Bus monitor <u>Get settings</u> <u>Send settings</u> <u>Victron Energy</u>	Start assistant Save assistant Delete assistant Summary Load assistant	

Click add assistant

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	4/3000/70-50/30)
Quattro UMains 236 V IMains -1.7 A UOut 236 V IOut 0.0 A Udc 28.9 V Udc ripple 0.1 V Idc 7 A Freq. Out 50.2 Hz Freq. In 50.4 Hz SoC Ignore AC 0 aux. relay 0	General Inverter Charger Battery monitor Virtual switch Assistants          Assistant Configuration       Assistant Tools         Assistant Setup       Available assistants:         grid converter support (0114)       Add assistant         Used assistants:       Image: Converter support (0114)
show VE.Bus monitor	
Victron Energy	Start assistant     Save assistant     Delete assistant       Summary     Load assistant

The assistant will appear in the 'Used assistants' box but it will be Italic since it has not been configured yet.

Now Click on Start assistant

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* VE Configure 3 (Quattro 24/3000/70-50/30)			
File       Port selection       Target       Defaults       Options       Special       Help         Imains       236 V       General       Inverter       Charger       Battery monitor       Virtual switch       Assistants         Imains       236 V       Assistant       Configuration       Assistant Tools         Imains       -1.9 A       Assistant Setup       Assistant Setup         Imains       -1.9 A       Imains       -1.9 A         Imains       -1.9 A       Assistant Setup         Available assistants:       grid converter support (0114)       Add assistant         Imains       0.0 A       Imains       -1.9 A         Imains       -1.9 A       Imains       -1.9 A         Imains       -1.9 A       Imains       -1.9 A         Imains       -1.9 A       Assistant Setup       Available assistants:         Imain       Imain       Imain       Imain       Add assistant         Imain       Imain       Imain       Imain       Imain       Imain         Imain       Imain       Imain       Imain       Imain       Imain       Imain         Imain       Imain       Imain       Imain       Imain       Imain			
aux. relay 0 show VE.Bus monitor	+		
Send settings	Start assistant     Save assistant     Delete assistant       Summary     Load assistant		

The Welcome screen is very important and contains important information. Read it carefully.

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e grid converter support		
Welcome This assistant will help you to setup a solar system IMPORTANT: Make sure to read and follow the requirements below introduction)	ill (at the end of the	
<ul> <li>INTRODUCTION:</li> <li>A Multi/Inverter can be used in conjunction with a grid-connecter converter to make an island system.</li> <li>Normally all extra energy (=solar energy minus load) will flow to the This can cause the batteries to become over charged!</li> <li>To prevent this, the solar converter should be limited in power or when the battery voltage becomes too high.</li> <li>Victron Bluesolar Grid Inverters can be limited in power by adjust output frequency of the Multi. So by changing the frequency the process can be regulated.</li> <li>This assistant will help you to setup such a system.</li> <li>When this assistant is used, changing the 'system frequency' on page has no effect on the inverter frequency. (It can still have effect acceptable frequency range of the transfer switch, see the help REQUIREMENTS:</li> <li>Any assistants which have effect on whether or not the incomi accepted must be placed BEFORE this assistant. If any such assistant is used in a Multi phase system they MUS be used in phase 1.</li> <li>All Multis in the system must load this assistant.</li> <li>A Multi-phase system must be symmetrical, this implies:</li> <li>* Each phase must have the same number of Multis/Quattros * Each input must 'switch as group' (see 'VE.Bus System Context)</li> </ul>	ne battery. r shut off ting the r 'charge' the general ffect on the file) ing AC is ST	
(When using 'VE.Bus Quick Setup' most conditions are satisf automatically. Only the Solar power must be balanced per ph Cancel		

Make sure you know the frequency at which the Grid Inverter will switch off, it must be entered on this page

😘 grid converter support	ſ
Disconnect frequency Enter the frequency at which the grid converter disconnects. Note: the assistant assumes that: * solar power will be reduced to minimum at (Disconnect frequency - 0.2Hz) * solar converter will be switched off at (Disconnect frequency + 0.1Hz)	
The solar converter disconnects at 52.90 Hz.	
X Cancel << >>	

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Here enter the total amount of PV power installed in Watts.

grid converter support     Please calculate the relative solar power as:     Total installed solar converter power / Total nr of Multis or Quattros	
Relative solar power is 2500 Watts.	
X Cancel << >>	

The Battery type can be selected here

<ul> <li>grid converter support</li> <li>Battery type</li> <li>Specify the battery type. The sele of the assistant.</li> <li>(Also, when Lithium batteries are seles)</li> </ul>			
<ul> <li>Lithium batteries</li> <li>Other</li> </ul>			
🗶 Cancel	~	>>>	

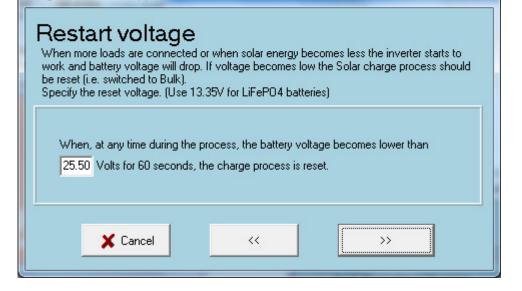
The charger settings can either be used from the Charger page or you can define other settings.

1 grid converter support

The Restart voltage should not be changed unless it is absolutely necessary. It can be set lower maybe but we don't recommend settings it any higher.

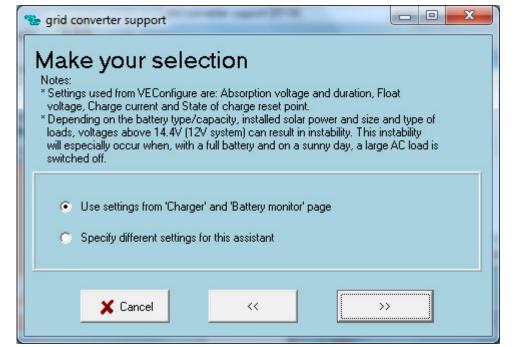
- -

X



Once the assistant set up pages are finish you will the 'grid converter support' is now in normal text.

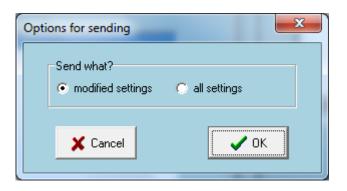
At this point if all the normal settings on the other pages of the software are complete you can select 'send settings'



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Se VE Configure 3 (Quattro 24/3)	
File Port selection Target Defa	Aults       Options       Special       Help         General       Inverter       Charger       Battery monitor       Virtual switch       Assistants         Assistant       Configuration       Assistant Tools       Assistant Setup       Available assistants:       grid converter support (0114)       Add assistant         Used assistants:       grid converter support       grid converter support       Git (0114)       Image: Converter support       Image: Converter support
show VE.Bus monitor <u>Get settings</u> <u>Send settings</u> <u>Victron Energy</u>	Start assistant     Save assistant     Delete assistant       Summary     Load assistant

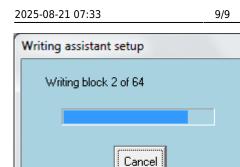
You will be asked which normal settings you want to send.



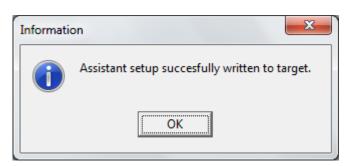
Then you will be asked whether the assistant set up must be sent also.

Confi	rm	×
		Would you like to send the assistant setup to the device? (Be aware: the device will be switched off while the assistants are sent.)
		<u>Y</u> es Cancel

The Inverter/charger will switch off while sending the assistant set up to the Unit. This screen will appear.



When the 'writing' of the assistant is finished this screen will appear, the Inverter/charger will restart, if OK is selected it also restarts.



~~DISQUS~~

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