Commissioning guide for SUN2000 inverters with RS485 communication

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Version	Created by	Date	Remarks
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This document will describe how to commissioning the inverters with RS485 communication Modbus-RTU Protocol.
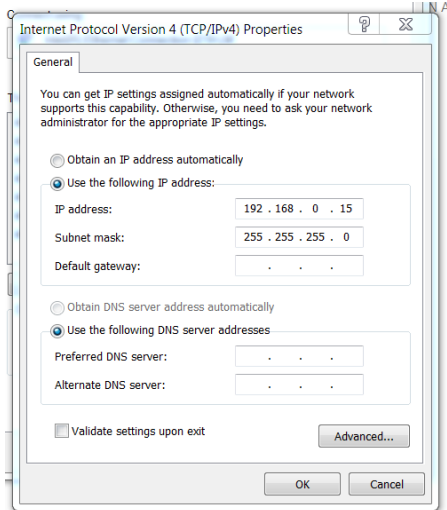
1. Check the connection between inverters and Smartlogger and check if the match resistance is enable for the last inverter from the chain.

2. Prepare the ESNList with the inverters allocate for each substation that include the SN, name and RS485 address. Ask for a template from service team.

SN	Slave Address	FullName
21010735296TH7900645	1	INV.1
21010735296TH7900592	2	INV.2
21010735296TH7900653	3	INV.3
21010735296TH7900655	4	INV.4
21010735296TH7900584	5	INV.5
21010735296TH7900646	6	INV.6
21010735296TH7900607	7	INV.7
21010735296TH7900727	8	INV.8
21010735296TH7900948	9	INV.9
21010735296TH7900576	10	INV.10

3. Set your computer local area connection with an IP in the same range with the Smartlogger.
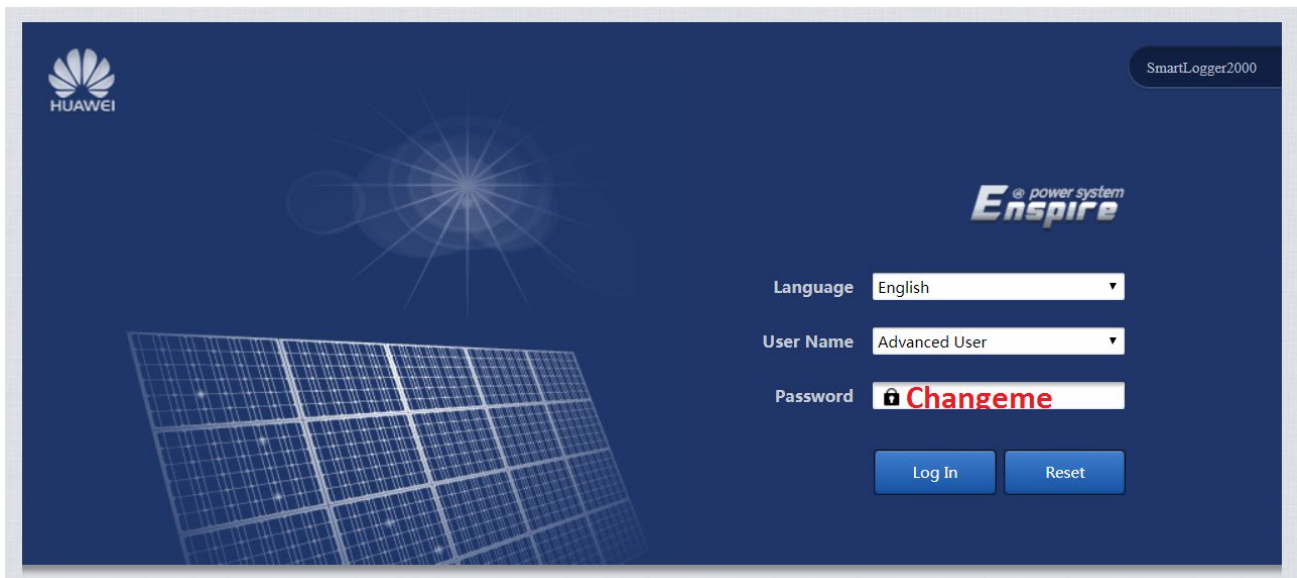
The Smartlogger default IP is: 192.168.0.10
Go to Windows start->Control Panel->Network and Internet->Network and Sharing Center->Change adapter settings->Double click on Local Area Connection->Double click on Internet Protocol Version 4 and set the IP like below:

4. Connect on Smartlogger

Open a browser (Chrome recommended) and type the link: https://192.168.0.10
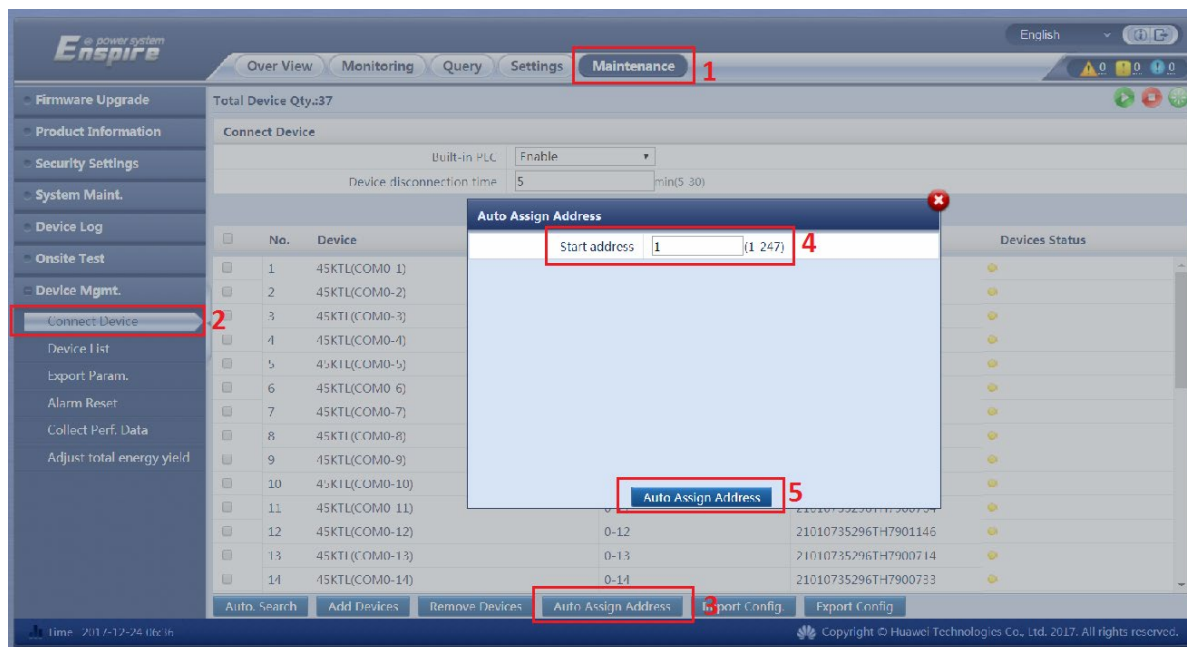Chose user name "Advanced User" and the default password   "Changeme"

5. Add the inverters on Smartlogger

Choose Maintenance menu->Connect Device->Auto Assign Address->Start address 1->Auto Assign Address->Confirm start to allocate address->Confirm the address adjusting->Select Address Adjustment->Confirm Search again->Close.
After this operation all the inverter will communicate with Smartlogger with RS584 address and name allocate by Smartlogger. If the inverters do not communicate with Smartlogger than change the polarity on communication port of the Smartlogger and start the process again.
If you change the polarity and again the inverters do not communicate with Smartlogger than you must check the connection on inverters and if the match resistance is enabke for the last inverter from the chain. Please also check if the communication parameters on inverters and Smartlogger is correctly set.
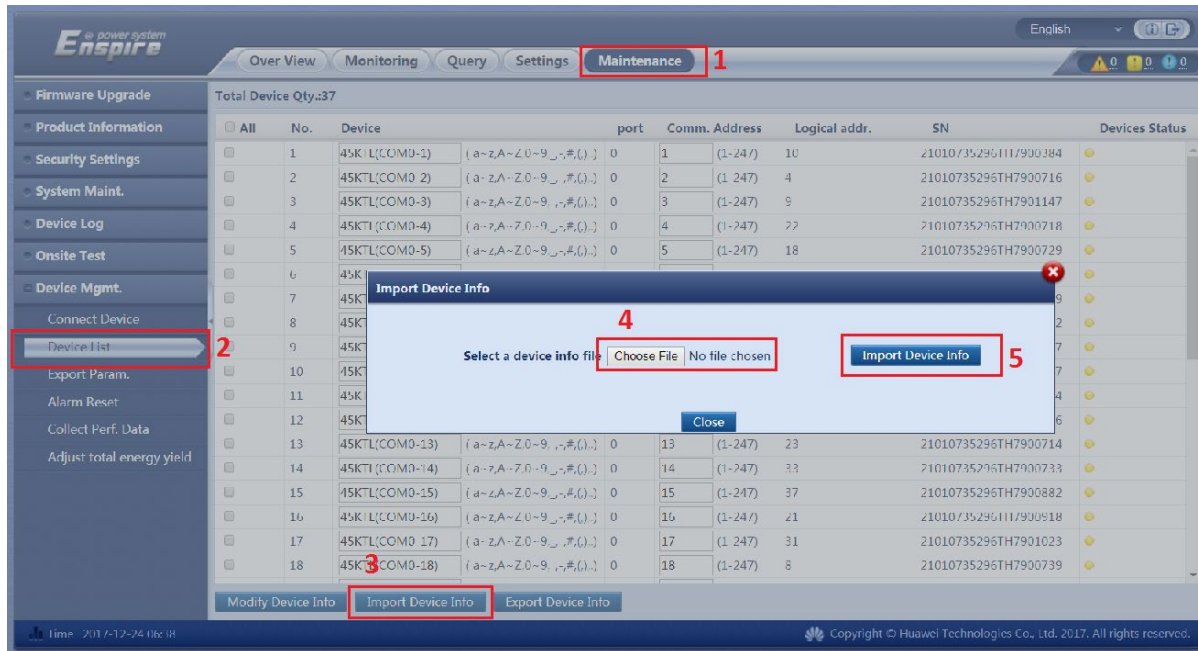The name and address can be change in concordance with the Esn.list that you made on the second   step like we will see below.

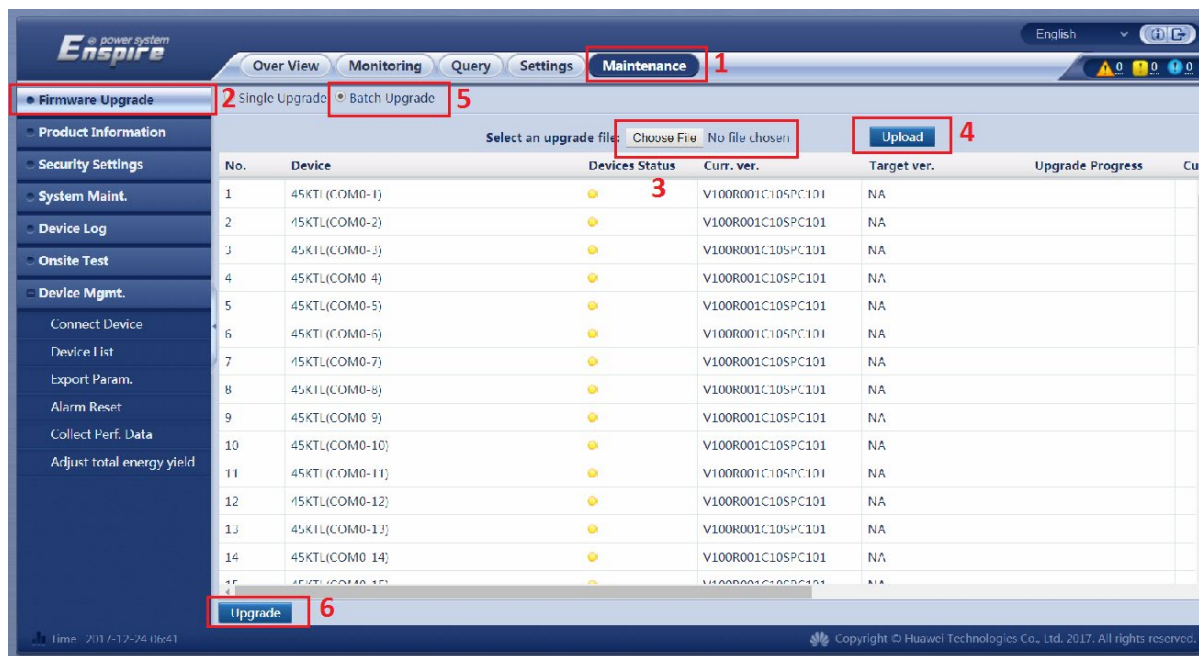6. Change the name and the address of the inverters

After you auto assign the address of inverters, the name and address will not be the same with the Esn.list that you prepare. In order to be the same choose Maintenance menu->Device list->Import device info->choose file (select the file that correspond

with the substation) ->Import device info->Confirm
After this operation your inverters will have the name and address like in the Esn.list accordingly with each substation.
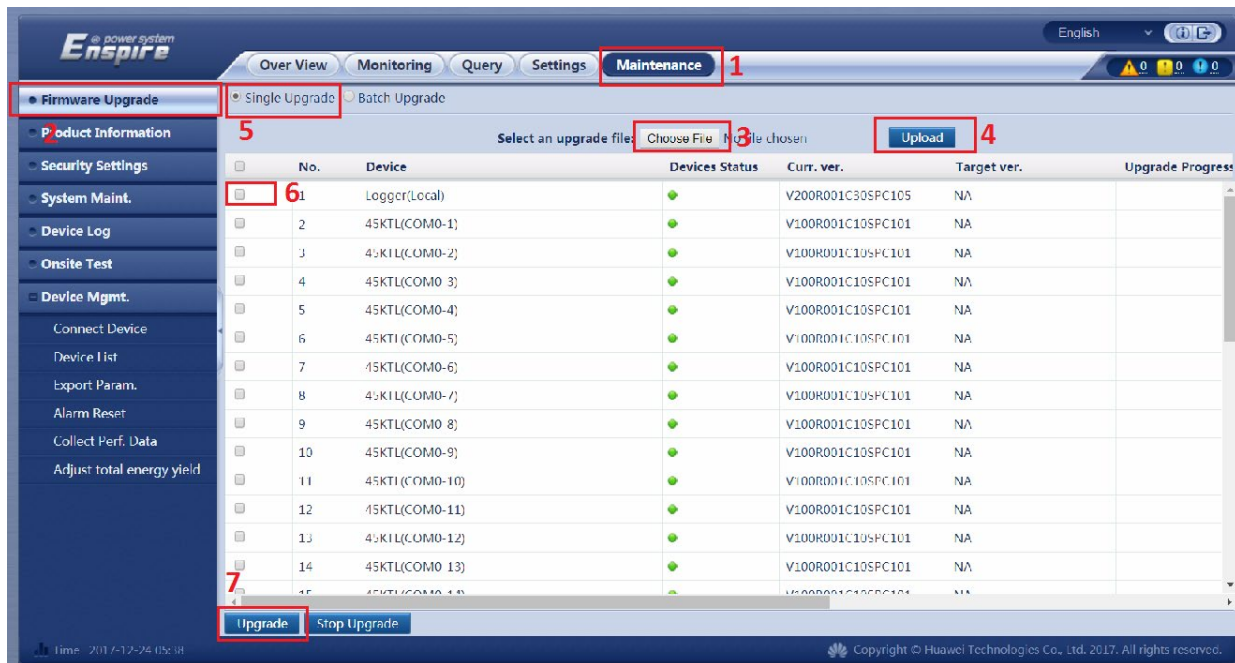

7. Upgrade the inverters

After you set the communication with inverters please upgrade all the inverters with firmware received from service support like below:
Select Maintenance menu->Firmware upgrade->Choose File->Upload->Confirm upload-> after the upload finish select Batch upgrade->Upgrade->Confirm

8. Upgrade the Smartlogger

After you finish the inverters upgrade please upgrade the Smartlogger with the firmware received from service support like below:
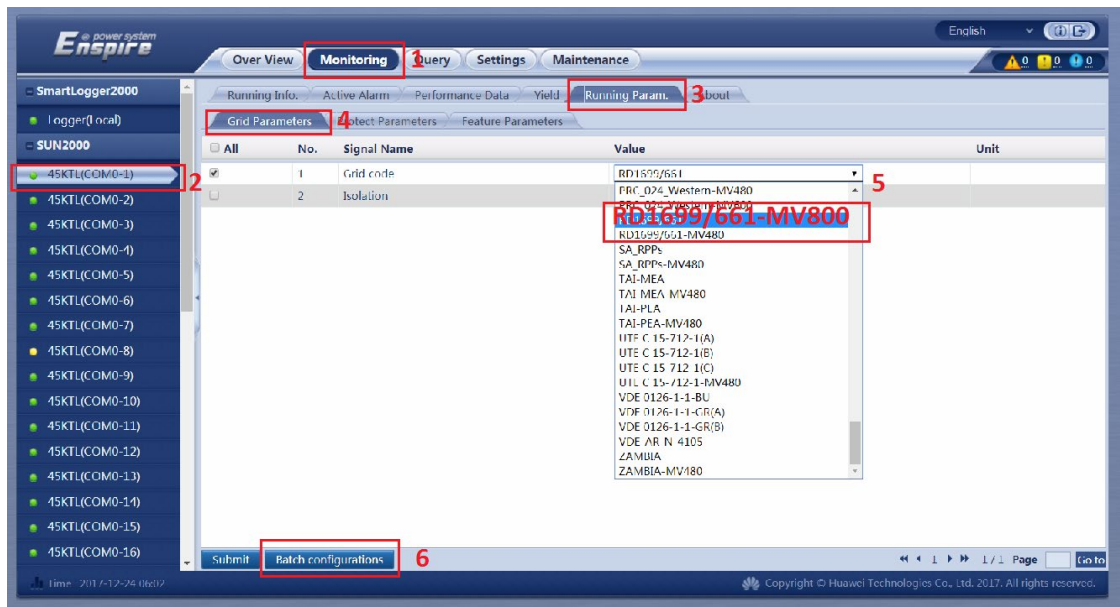Select Maintenance menu->Firmware upgrade->Choose file->Upload->Confirm upload->Select Single upgrade->Select the Smartlogger->Upgrade and confirm.

9. Set the grid code for all the inverters

Select Monitoring menu->Select one inverter-> running parameters->Grid parameters->Select the grid code accordingly to your country ->Batch configuration->Confirm
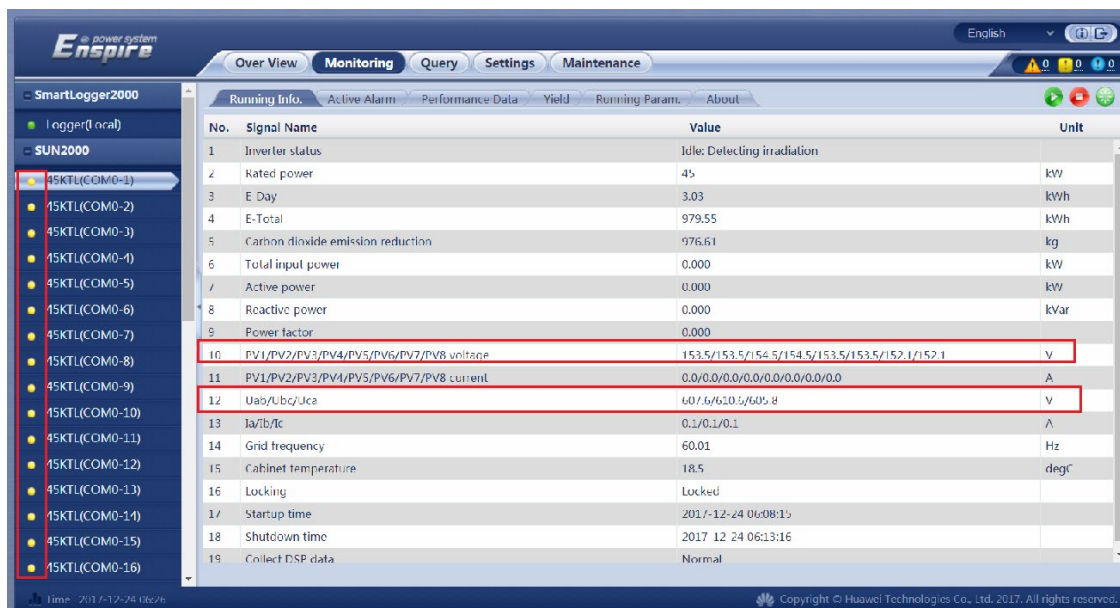After this operation all the inverters will be set with the same grid code accordingly. If you do not know what grid code to set on your inverters please contact the service support in order to help you.
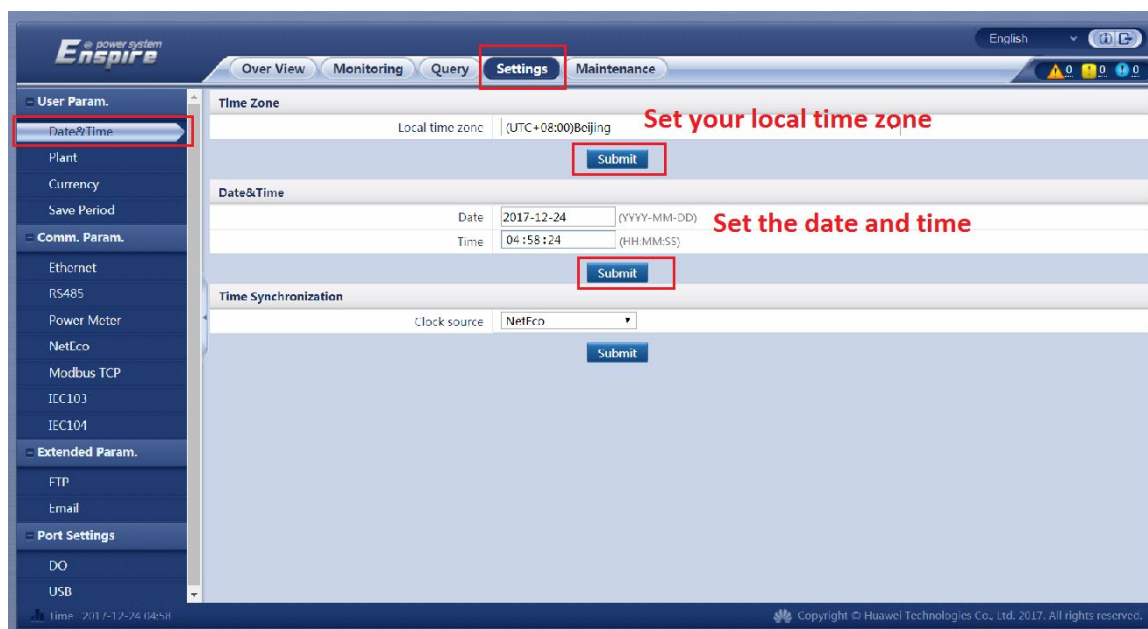
10. Check the inverters communication

After all of this operation go to Monitoring menu and check your inverters communication with Smartlogger.
All the inverters must have the led status green and the DC and AC voltage accordingly.

11.Set local time zone and date and time on Smartlogger

After you connect all the inverters choose "Settings" menu->Date and time and set the Local time zone->Submit. Set date and time and Submit.

After you set the time zone and date&time and submit the Smartlogger will synchronize with the inverters.