



VEBKO ONLINE HELP

Sampled Value

Category	tester
Section	AMT Sequencer Module
Language	English
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In this video, we'll walk through how to transmit *Sampled Value* packets using the *Vebko* test device. First, we connect to the device using the MAC Address and set the data acquisition rate to Fast.

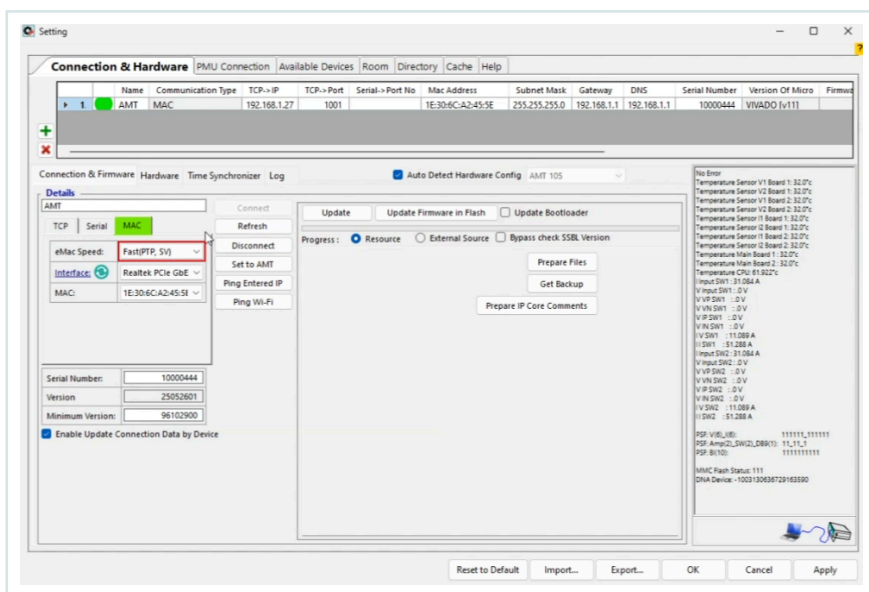


Figure 1

Then, under the Time Synchronizer tab, we set the time synchronization protocol to PTP. Next, we go to the Sequencer room and open the Hardware Configuration window.

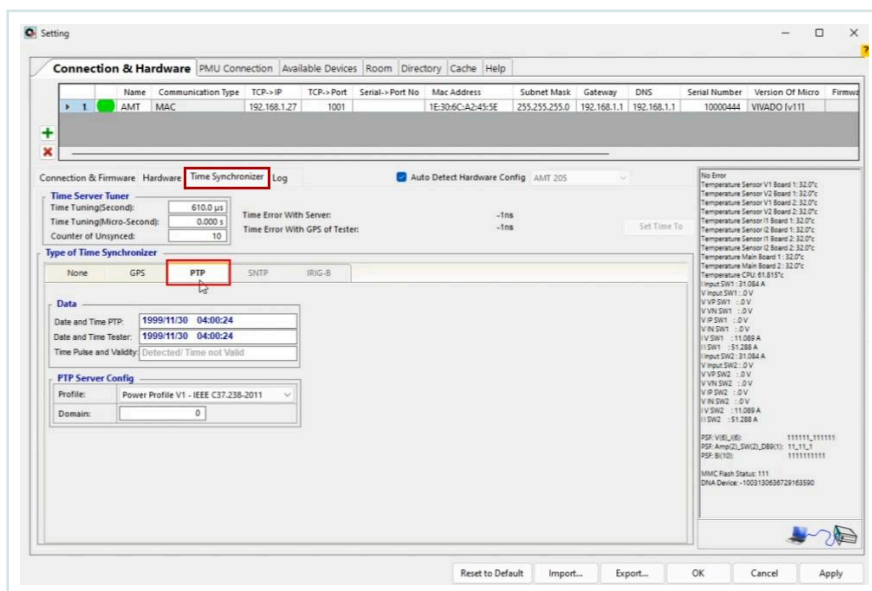


Figure 2

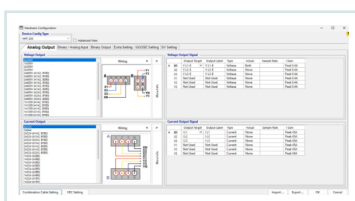


Figure 3

In the SV Setting tab, you can either load an SCL file related to the Sampled Value, or manually define a new stream. In this tutorial, we'll go with the second method.

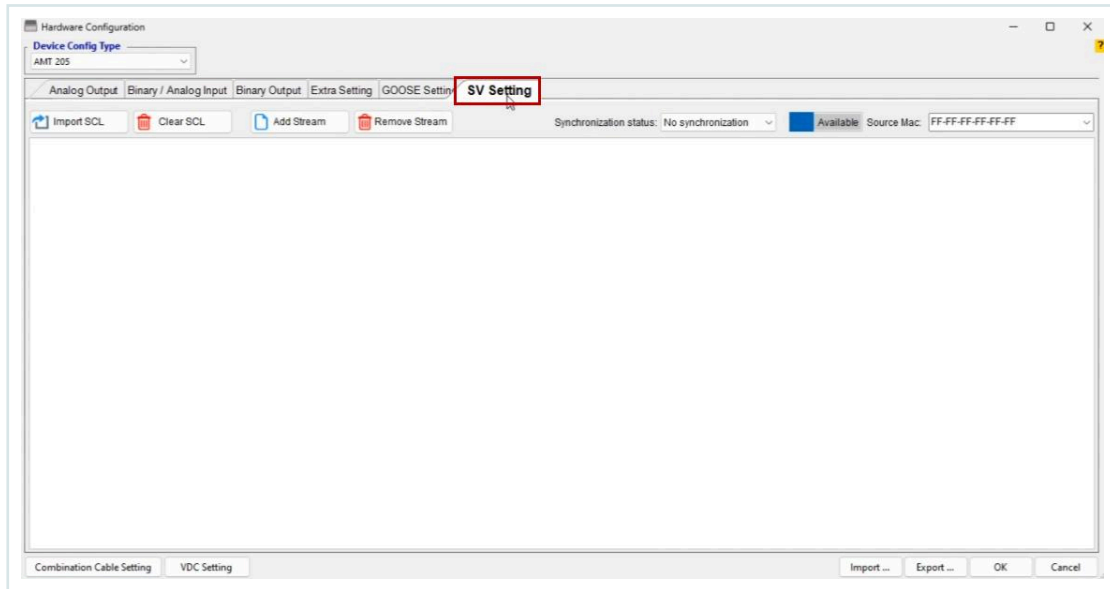


Figure 4

We click the Add Stream button to add a new stream, and then use the plus icon (+) in the first column to define the desired number of Attributes

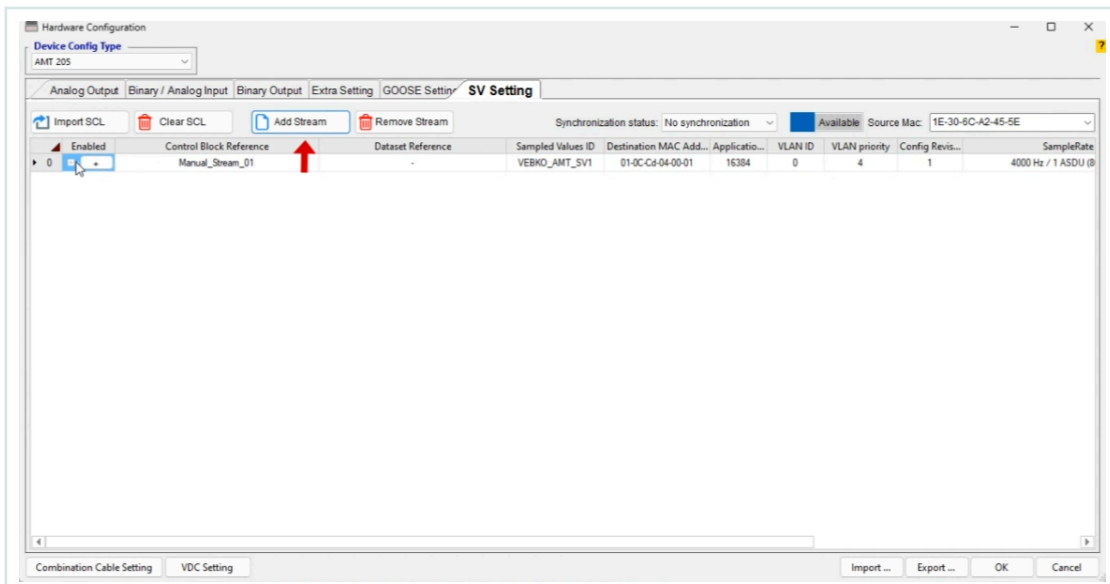


Figure 5

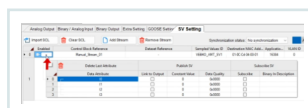


Figure 6

In this test, we've added four Attributes—one configured as a voltage data and the other three as current data.

Delete Last Attribute	
Data Attribute	
0	V0
1	I1
2	I2
3	I3

Figure 7

We link two of these data points to the output of the test device, and assign fixed values to the other two.

Publish SV	
Link to Output	Constant Value
☒	0
☒	0
☐	1
☐	2

Figure 8

We then set the Sample Rate to 4 kHz and specify that each packet should contain only one ASDU.

SampleRate / ASDU
4000 Hz / 1 ASDU (60 SPS @ 50 Hz)

Figure 9

The linked data is displayed under the Analog Output tab. In the Voltage Output Signal and Current Output Signal tables, you can assign each data point to the voltage or current outputs of the device—or define a Virtual output. After applying and confirming the settings, you'll see that two outputs—one voltage and one current—appear in the Table View module.

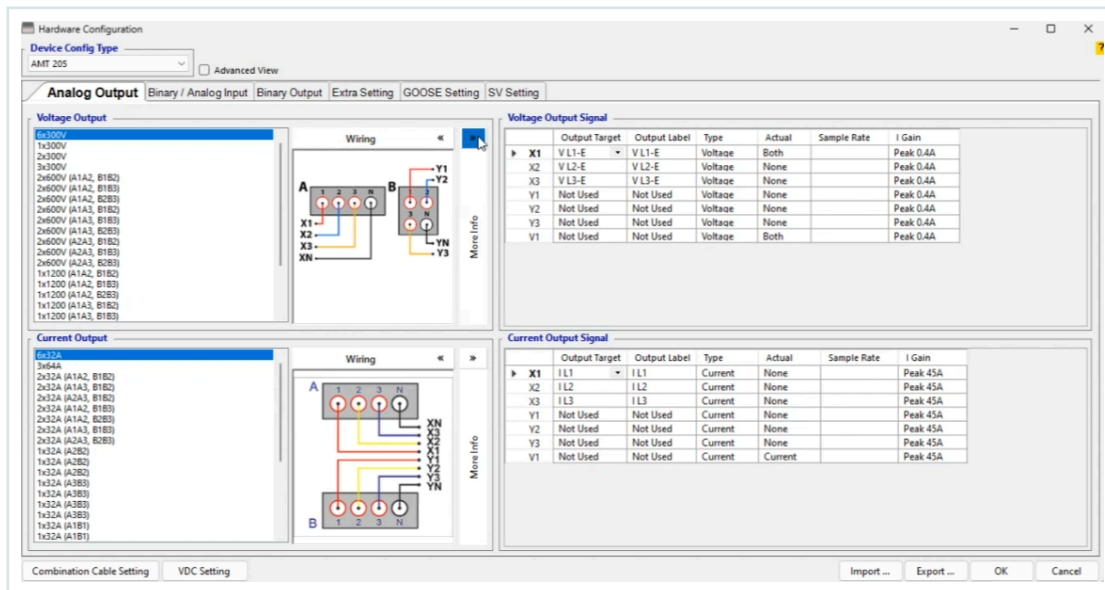


Figure 10

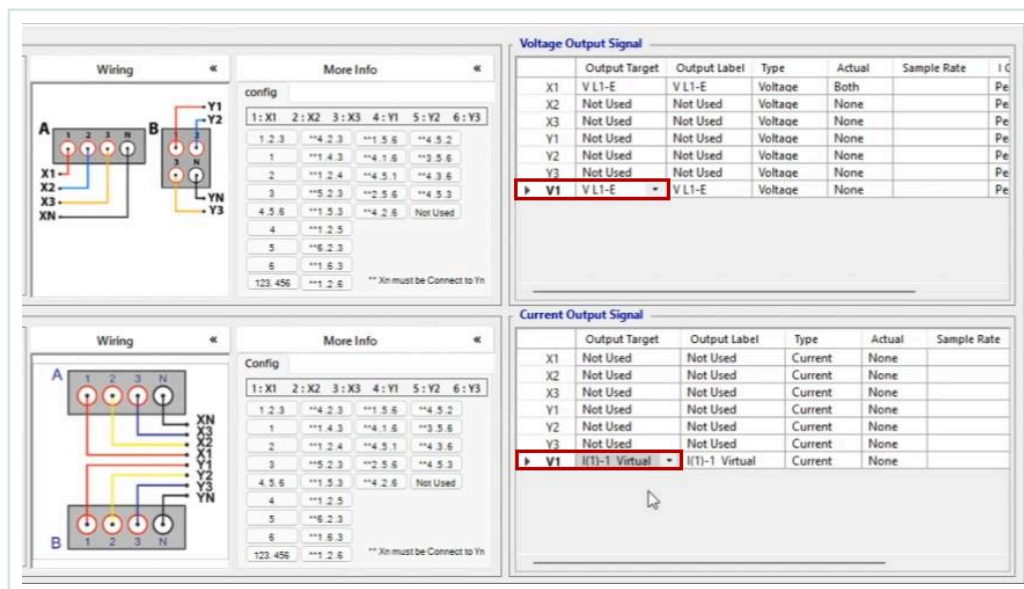


Figure 11

The voltage data is linked to the Phase 1 voltage output of the device, while the current data is defined as a virtual output. To monitor the packets sent by the device, you can use Wireshark software

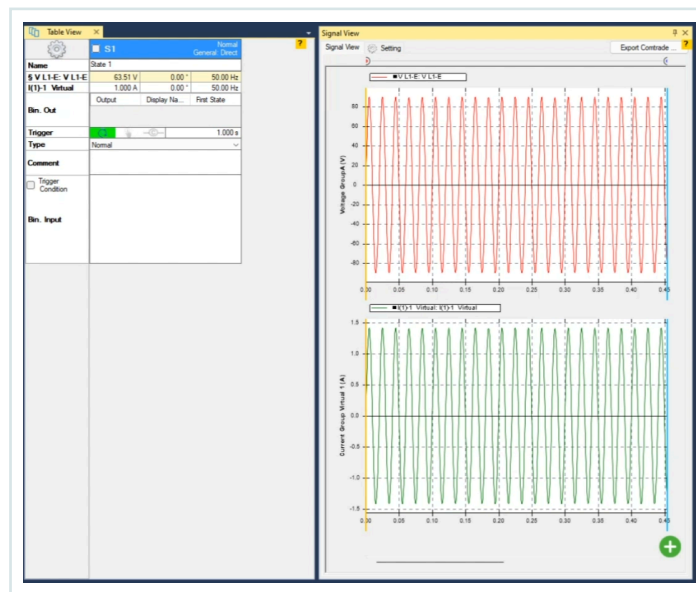


Figure 12

. Once the test starts, packets following the IEC 61850 Sampled Value protocol will be generated and visible in Wireshark. As you can see, based on the configuration, each ASDU contains four Data Attributes—two of them are set to fixed values, while the other two are dynamically changing.

[jg1]Sampled_Value