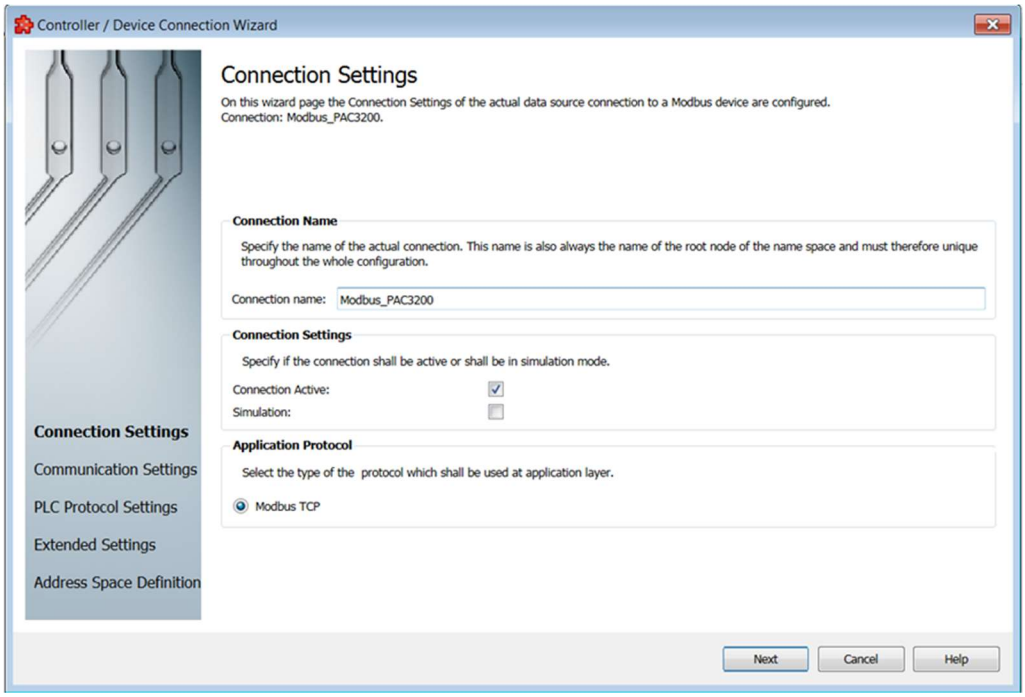
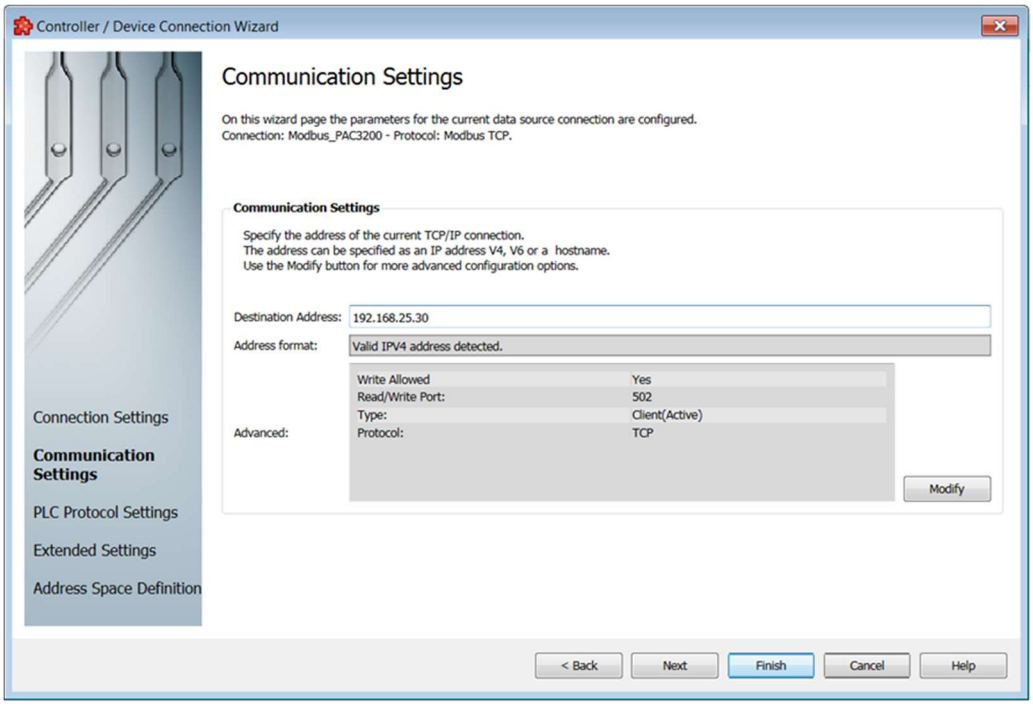
How to connect a SENTRON PAC3200

This manual is supposed to be for the PAC3200, but may work also for other PAC devices.

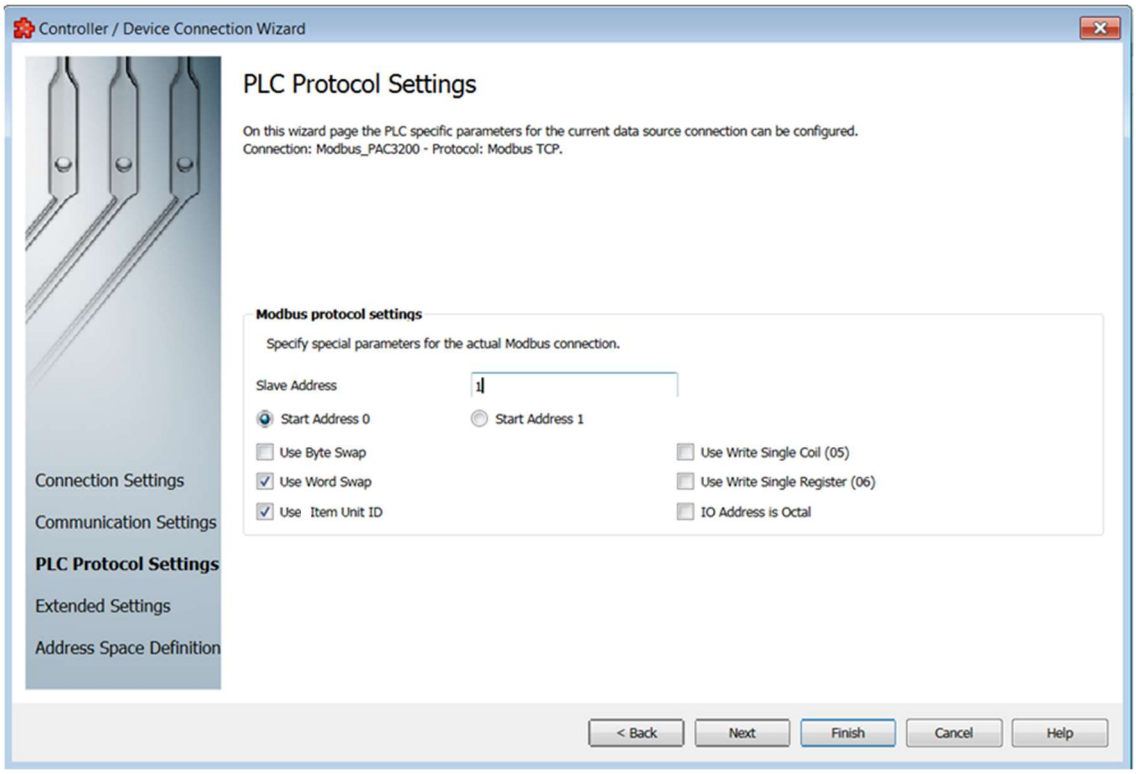
1. Please open dataFEED OPC Suite Configurator go to “Modbus” under section “Data Source” and create a new datasource.
2. Please enter a connection name of your choice.



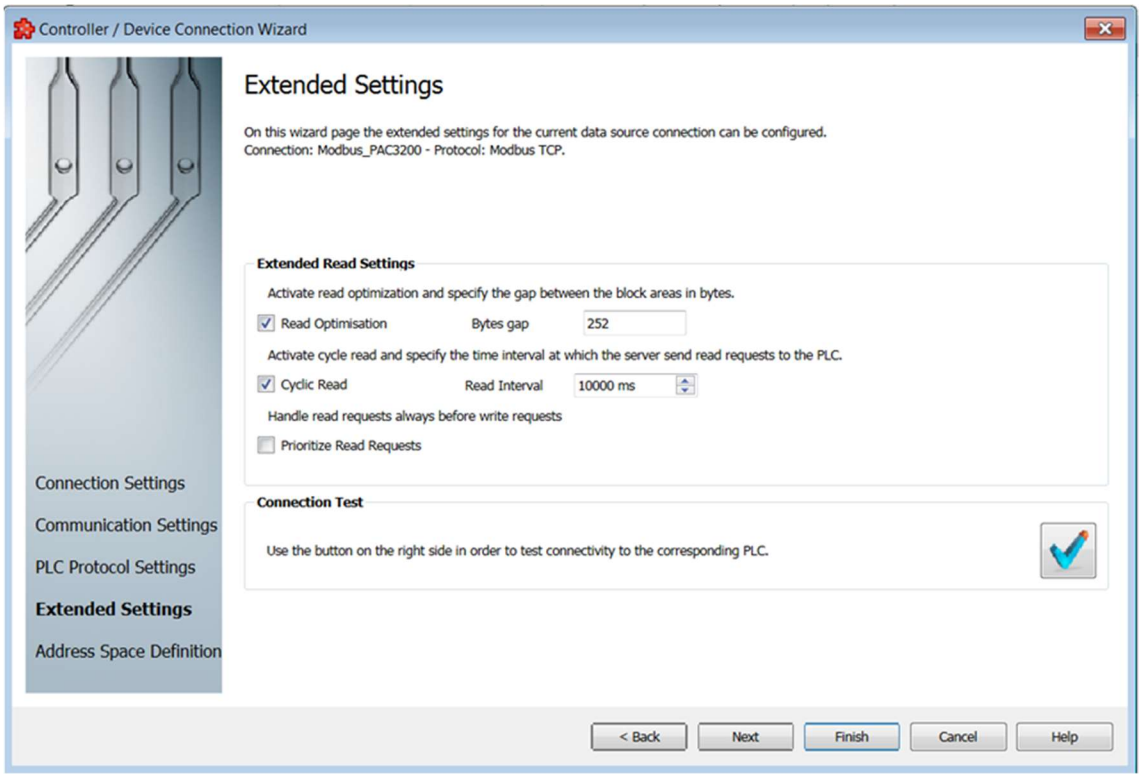
3. Click Next and enter the IP-Address of the PAC device.



4. Click Next and enable the options “Use Word Swap” and “Use Item Unit ID”. Please change Slave Address to 1.



5. Click Next and leave everything to default. Check the connection via the Test button.



6. A so called Alias-File must be created with the (Text-) Editor, containing the names and addresses of the variables of the PAC.
   Please check the manual of the PAC 3200 to obtain all the offset of the desired variables. (cutting below)

Table 3-6 Available measured variables

Offset	Number of registers	Name	Format	Unit	Value range	Access
1	2	Voltage V_{a-n}	Float	V	-	R
3	2	Voltage V_{b-n}	Float	V	-	R
5	2	Voltage V_{c-n}	Float	V	-	R
7	2	Voltage $V_{a\ b}$	Float	V	-	R
9	2	Voltage V_{b-c}	Float	V	-	R
11	2	Voltage V_{c-a}	Float	V	-	R
13	2	Current a	Float	A	-	R
15	2	Current b	Float	A	-	R
17	2	Current c	Float	A	-	R
19	2	Apparent Power a	Float	VA	-	R
21	2	Apparent Power b	Float	VA	-	R
23	2	Apparent Power c	Float	VA	-	R
25	2	Active Power a	Float	W	-	R
27	2	Active Power b	Float	W	-	R
29	2	Active Power c	Float	W	-	R
31	2	Reactive Power a	Float	var	-	R
33	2	Reactive Power b	Float	var	-	R
35	2	Reactive Power c	Float	var	-	R
37	2	Power Factor a	Float	-	0 ... 1	R
39	2	Power Factor b	Float	-	0 ... 1	R
41	2	Power Factor c	Float	-	0 ... 1	R
43	2	THD-R Voltage a	Float	%	0 ... 100	R
45	2	THD-R Voltage b	Float	%	0 ... 100	R

The syntax needed by the dataFEED OPC Suite, is composed as follows:

{variable Name}={RegisterAbbreviation}{datatypeAbbreviation}{Offset}

The {varialbeName} can be chosen by the user (e. g. Current, Voltage…)

The {RegisterAbbrevation} is in the case of PAC always “R” (This represents the HoldingRegister 4)

The {datatypeAbbreviation} depends on the corresponding datatype (See “Help” of dataFEED OPC Suite)

e.g.

Float=R

UnsignedLong=DW

Double=RD

The {Offset} is the number in the table of the manual besides the desired variable.

A possible Alias-File which can be imported later in the dataFEED OPC Suite should look like this.

Voltage_UL-N_L1= RR1

Voltage_UL-N_L2=RR3

Spannung_UL-N_L3=RR5

Total Apparent Power=RR63

Total Active Power=RR65

Total Reactive Power=RR67

Current_L1=RR13

Current_L2= RR15

Current_L3=IRR17

Active Energy Import Tariff 1=RRD801

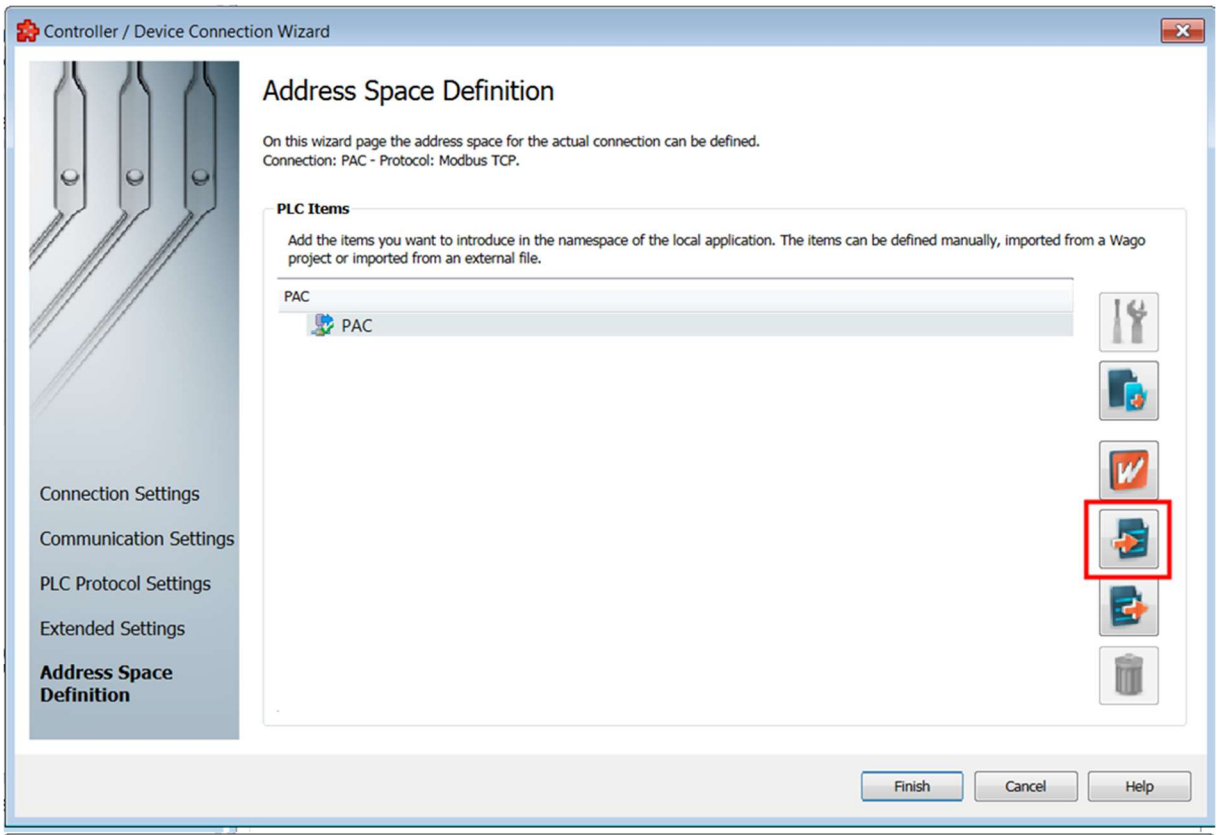
Reactive Energy Import Tariff 1=RRD817

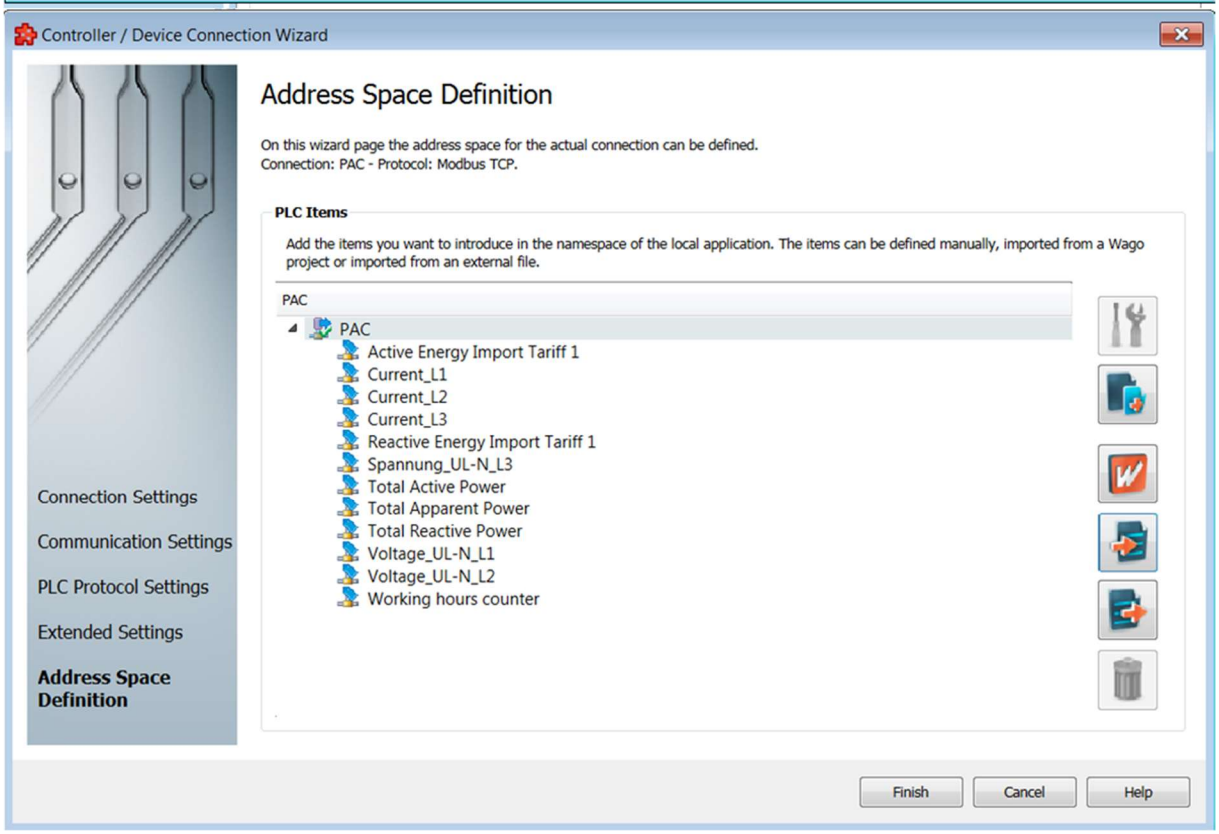
Working hours counter=RDW213

You can also add another word in front of the syntax, which will cause a hierarchal structure (Optional).
For example:

Energy consumption.Active Energy Import Tariff 1=RRD801

Energy consumption.Reactive Energy Import Tariff 1=RRD817





7. Press finish.