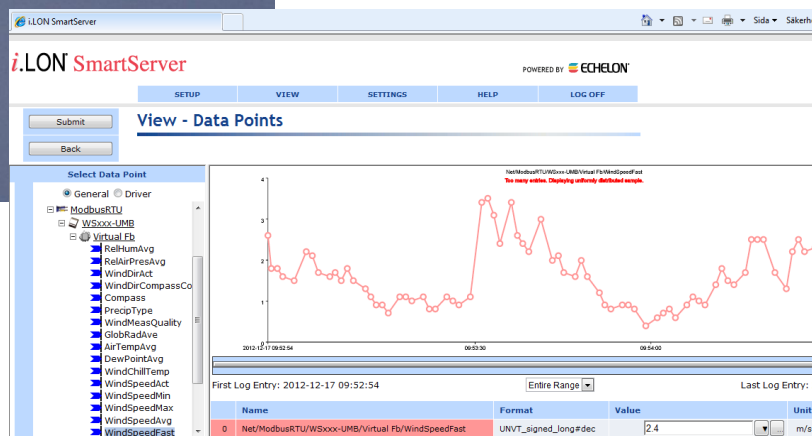
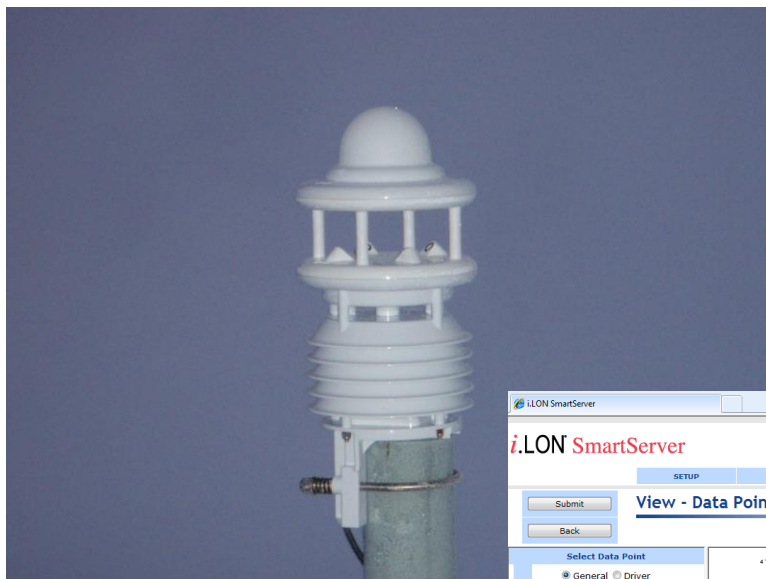


Lufft WSxxx-UMB template instructions



TEROC

Report history

Rev.	Action	Date	Sign.
PA1	Preliminary report issued	2012-12-17	SR
A	Report finished	2013-05-07	SR

Introduction

This instruction provides guidance how to use a Modbus template file made by TEROc to connect a Lufft weather station of type WSxxx-UMB to an i.LON SmartServer made by Echelon. It has been tested with WS600-UMB and a SmartServer 2.0.

It is assumed that the weather station has already been set up for MODBUS RTU and Modbus Parity even, using a PC running the Config Tool software, which can be downloaded from Lufft's web site (free of charge). During the setup, you may wish to make other settings as well, such as Modbus address (in case more than one weather station shall be connected to the same SmartServer) and local declination. See the operating manual of the weather station.

For setup, use the cable supplied by Lufft to connect to the weather station to the PC. Connect the green wire to TX+ and the yellow to TX-, if the USB-RS485 adapter ADAM-4561 is used for this. See the manual of the adapter. Power to the weather sensor must be supplied from a separate source.

Physical connection between the SmartServer and weather station

When setup of the weather station is complete, use the cable supplied by Lufft to instead connect the weather station to the SmartServer. Connect the green wire to RT+ and the yellow to RT- on the RS485 terminals of the SmartServer. Power to the weather sensor would normally be supplied from a separate source. However, for operation of the weather station in 12VDC energy save mode, it may be possible to power the weather station from the SmartServer's 12V <20mA output (this has not been tested by us, see Lufft's manual regarding power consumption).

In addition, it is recommended to insert Lufft's surge protection 8379.USB between the SmartServer and weather station.

Adding a Modbus channel to the SmartServer

See the "Creating and Configuring Modbus Channels" section in the SmartServer User's Guide and the screendump below.

It is recommended to name the channel "ModbusRTU".

Setup - MODBUS Channel Driver

Channels
 Driver
 SS
 Ch
 TU
 -UMB
 .my_domain.com
 8

Name: Net/ModbusRTU
 Description:

MOD-Bus Network Property	Value
Icon	RS485
Hidden	<input type="checkbox"/>
Channel Type	<input type="radio"/> TCP/IP <input checked="" type="radio"/> RS-485 <input type="radio"/> RS-232
<input type="checkbox"/> Use Minimal Offline Time	<input type="text"/> Seconds
MOD-Bus Network Property	Value
Data Rate	19200 bps
Mode	<input checked="" type="radio"/> RTU <input type="radio"/> ASCII
Data Bits	<input type="radio"/> 7 <input checked="" type="radio"/> 8
Parity	<input type="radio"/> None <input type="radio"/> Odd <input checked="" type="radio"/> Even
Stop Bits	<input checked="" type="radio"/> 1 <input type="radio"/> 2

Adding a Modbus device to the channel

First, copy the enclosed Modbus template file “Lufft WSxxx-UMB 2012-12-17.xml” to the root/config/template/modbus directory on the SmartServer using FTP.

Then follow the “Creating and Configuring Modbus Devices” section in the SmartServer User’s Guide, using the template above.

If a single weather station is used, the device can be named e.g. “WSxxx-UMB”. If more than one weather station is used, each should be given a unique name.

Ensure that the Modbus address on the Properties page (Driver mode) is the same as the Modbus address (= UMB address) setting in the weather station in question. The default address is 1.

Feedback

Please provide feedback on this instruction and template by e-mail to sven.ruin@teroc.se