

Application **Modbus to M-BUS Conversion** for PowerStudio

Integrating M-BUS units with PowerStudio

In Northern and Central European installations there are many devices that log consumption, equipped with **M-BUS** communications protocols or interfaces. These equipments measure cold and hot water consumption, as well steam, gas, electricity, etc. Said equipments deliver characteristic parameters of the systems they control, such as, water temperature, volume, flow, pressure or electrical energy consumption, as well as the more basic parameters of an electrical network.

The **M-BUS** (BUS-Meter) protocol is a communications system for reading energy meters that has been designed to auto-

mate data collection by remote control or computer programs. The **PowerStudio** platform is a system used to gather, analyze and exploit the data from these **CIRCUTOR** equipment. The **Deluxe** version enables compiling data from equipments of other manufacturers, they are equipped with **MODBUS** protocol. In this case, a direct integration of equipment using **M-BUS** with **PowerStudio** is not compatible.

There is a simple solution on the market for implementing and adapting **M-BUS** signals to **MODBUS** level, so that **M-BUS** equipment can be integrated into **PowerStudio** platform.

Requirements for integrating M-BUS equipments with PowerStudio

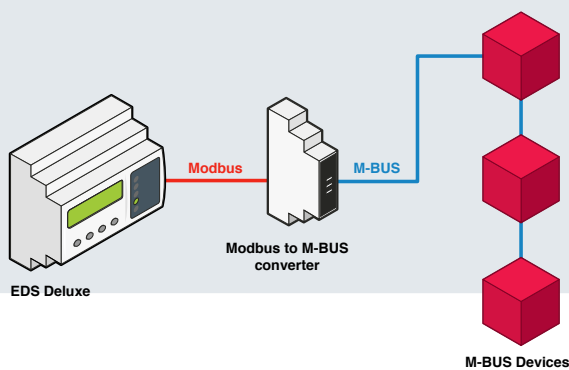
The requirements for integrating **M-BUS** equipments with **PowerStudio** are as follows:

- **PowerStudio SCADA Deluxe** version
- **EDS / EDS-3G** equipment with **Deluxe** version
- **EDS / EDS-3G Deluxe** combined with **PowerStudio SCADA**



EDS and EDS Deluxe

M-BUS protocol integration device



The device has an associated software for PC on Windows®, which allows:

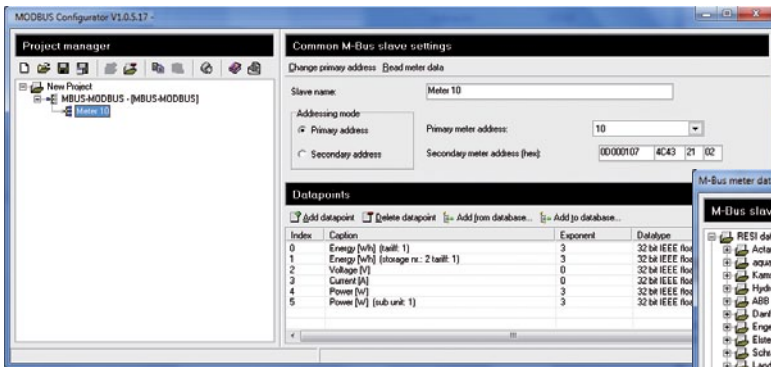
- Serial communications with the MODBUS converter (**RS-232**)
- Auto-detection of the **M-BUS** equipment or slave units
- Creating virtual **MODBUS** equipments, with the possibility of associating peripheral numbers as if they were physical devices
- Select existing memory maps from database of the most known **M-BUS** devices on the market
- Generate and save new memory maps for **M-BUS** devices not listed into the existing database

Use of a **MODBUS to M-BUS** converter is necessary for integrating the **M-BUS** protocol with **PowerStudio**.

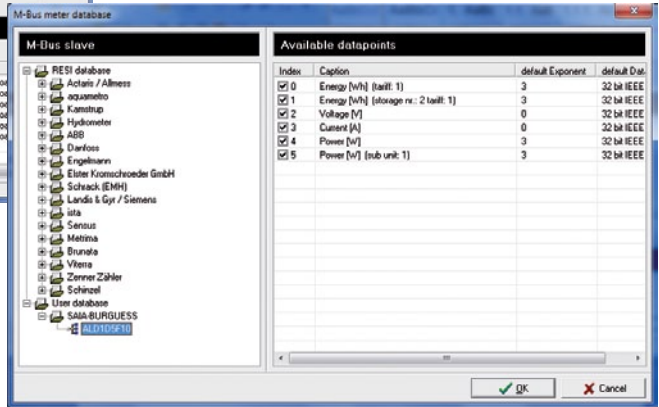
There are two versions of the product, one for up to 8 **M-BUS** slaves, and the other for up to 24 **M-BUS** slaves. This equipment converts all of the parameters of the **M-BUS** slaves devices connected to **MODBUS** protocol. The equipment needs a 24 V_{dc} auxiliary power supply.

References

Type	Description	Code
CMBUS-8	M-BUS 8 slave meters	M540A0
CMBUS-24	M-BUS 24 slave meters	M540B0

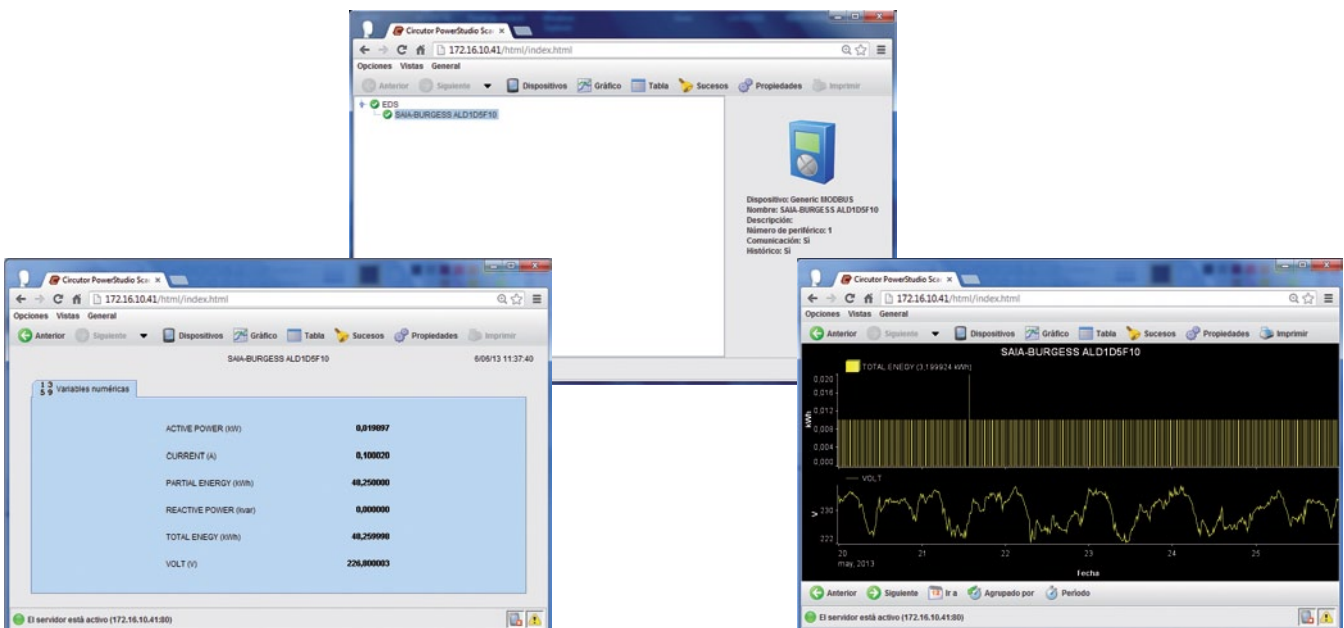
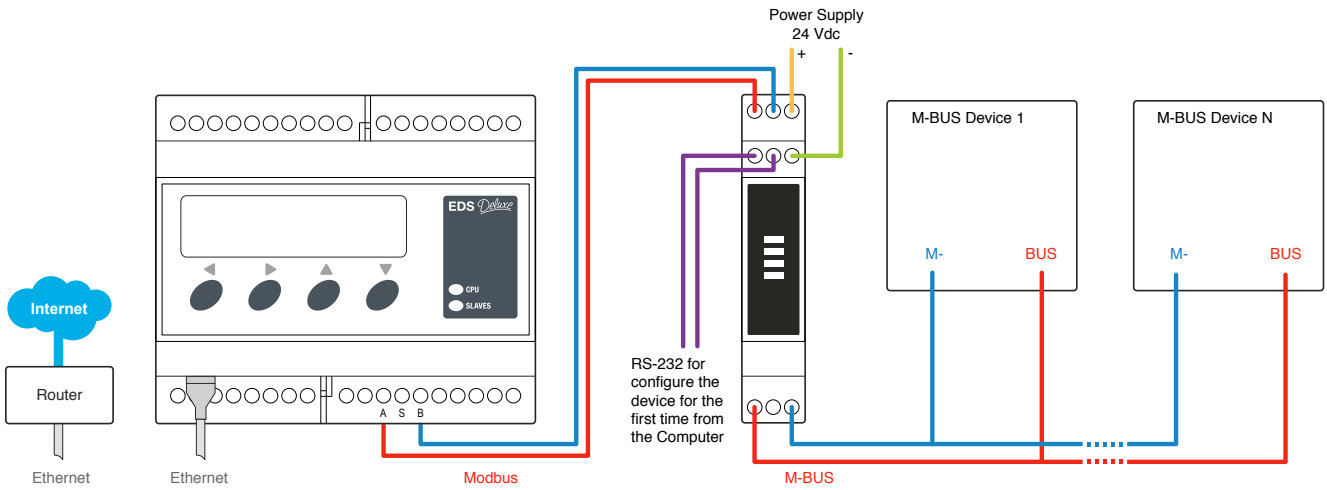


Software for setup with the converter



Database of equipments in the market with M-BUS communications

Connection diagram



PowerStudio SCADA or EDS-Deluxe will serve the data as if it were any other MODBUS slave equipment.

Application

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