



SpiderPLC

The hub for industry 4.0

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The combination of high-performance SpiderControl™ SCADA Server and powerful Spider PLC opens up new dimensions, e.g. calling high-level language functions from NodeJS, NodeRED, Python, PHP or .NET directly via function blocks.

The functional block description (FBD) programming in the browser offers enormous advantages:

- Simple logic functions that can be executed in SpiderRT, e.g. for calculating energy values or collective alarms
- Customer-specific function modules can call functions of external runtimes
- By using PHP, data can be stored in an SQL database, and much more

PLAIN AND SIMPLE CODE WITH YOUR APP OR BROWSER

SCADA on embedded computer becomes the hub for digitalization

The combination of high-performance SpiderControl™ SCADA Server and powerful Spider PLC opens up completely new dimensions, such as calling high-level language functions from NodeJS, NodeRED, Python, PHP or .NET directly via functional blocks. The blocks get their variables from the SCADA server and write their results back to it. This simplifies Edge Computing, IoT and industry 4.0 - like never before!

The functional block programming (FBD) in the browser enables, among other things, the following:

- Simple logic functions that can be executed in SpiderRT, e.g. for calculating energy values or collective alarms
- Customer-specific function modules can call functions of external runtimes
- By using JS the weather service can be read
- By using NodeRED, MQTT or Mindsphere can easily be tied up
- By using PHP data can be stored in a SQL database

Of course SpiderControl™ also offers numerous other application possibilities. The advantage is that these extensive functionalities can be used not only under Windows, but also on embedded platforms (Raspberry Pi), under Linux or Android as well as in virtual machines and in the cloud.

The future is SCADA and HMI:

There are various video tutorials which will show in just a few minutes how fast and easy automation can be today.

· Calling Java Script functions from NodeJS

Own Java Script codes can be added conveniently. They establish the connection to higher-level systems such as Cloud, IT or DB. This is possible because SpiderPLC can call Java Script functions from NodeJS via function blocks.

· Calling Python Functions

The SCADA server obtains its data from the PLC, processes them with a Python function and then transfers them back to the Siemens S7-1200 controller. The programming language Python with its outstanding mathematical functions provides the basis for edge computing and data processing for AI.

· Read from 1st PLC, write to 2nd PLC

The SpiderPLC integrated in SCADA can read from the first PLC and write to the second PLC. A simple example of how quickly an FBD control function can be implemented in SCADA. Programming is done via the browser interface, which is simple and user-friendly. This makes data exchange between manufacturers as easy as it gets.

· Beckhoff PLC writes with SpiderPLC / SCADA in NodeRED and MQTT

Spider PLC / SCADA, NodeJS, NodeRED and Mosquitto MQTT Brokers can be easily installed on a Beckhoff PLC. A functional block program can be created with SpiderPLC to publish variables in MQTT.

More information: www.spidercontrol.net/download/tutorials/