EMPURON **HTTP–SERVER**
Standards Based Data Export for Control Systems

The HTTP-Server **EMPURON HTTPD** provides the read-only access to control systems over the HTTP protocol (at the moment Siemens SINAUT Spectrum®). This gives users the possibility to read real time data, schedules etc. via a standardized internet interface. For security reasons, no possibility to intervene into the control system has been provided.

System requirements

The following control systems are currently supported:

- Siemens SINAUT Spectrum® Release 4.x
- Siemens SINAUT Spectrum® Release 1.8.x
- Siemens EMPOWER Spectrum® Release 3.x
- further Siemens Spectrum®-Releases on request

Interfaces and data formats

The interface of the **EMPURON HTTPD** to the control system has to be addressed via special URLs. An URL consists of a "Technological Address" and optional parameters. Possible parameters could be e.g. a timeframe of a series of values from the archive.

The **EMPURON HTTPD** delivers the requested data in a format, which can be parameterized by the user. This requires template files, which define the data format.

Functions of the EMPURON HTTP-Server

The HTTP-Server **EMPURON HTTPD** is a system adaptor developed by EMPURON, which is deployed together with **EMPURON VISUAL**, but can also used stand alone or for a third-party system. A process variable can be addressed in the control system by an URL, just as well as any HTML page. The **EMPURON HTTPD** offers a standardised interface to control systems via the "Hypertext Transfer Protocol". This enables a standard web browser to be used to access data within the control system.

Access to information of the control system

- Measurement values
- Counter values
- Messages
- Application Data
- Logbook entries
- Lists of warnings and alarm
- Station diagrams (snapshots)

Data sources in the control system

The HTTP server provides the access to the following data sources:

- Realtime database
- Archive system

Timeframes can be retrieved from the archive system.

Examples for Realtime data are:

- The "current state of a switch"
- The "current network load"
- The "current system state"
- An "actual measurement value" etc.

When accessing the archives e. g. the following data can be read form the control system data-bases:

- List of measurements of a defined time period
- Progression of the network load within the last week
- State changes of a switch in a timeframe
- Run-ups of the control system in a time-frame, to prove the availability of the system

Advantages

- External addressing of control system data using standard Web interfaces
- Good throughput by updating long-term archives
- Independence from control system-specific tools
- Usability of standard tools for data query (e.g. Web browser, Microsoft MS-Excel, **EMPURON VISUAL** etc.)
- Free definition of target formats
- Easy installation, even by the operator of the control system

New Functions

- Zyklische Snapshots von Messwerten, Schaltern und Trafopositionen (z.B. täglich oder 15-Minütlich)
- Updates von Werten in das NIM (Online-Werte)
- Updates von HFD-Werten mit Nachrechnen von Werten, solange diese noch im Archiv sind