DAKS-IoT

Precise DAKS Process Control with Node-RED

Typical Areas of Use

Tethering of sensors typical for care (e.g. fall mats)

Fast and easy connection of various IoT/network interfaces

Connection of various network systems and IoT components
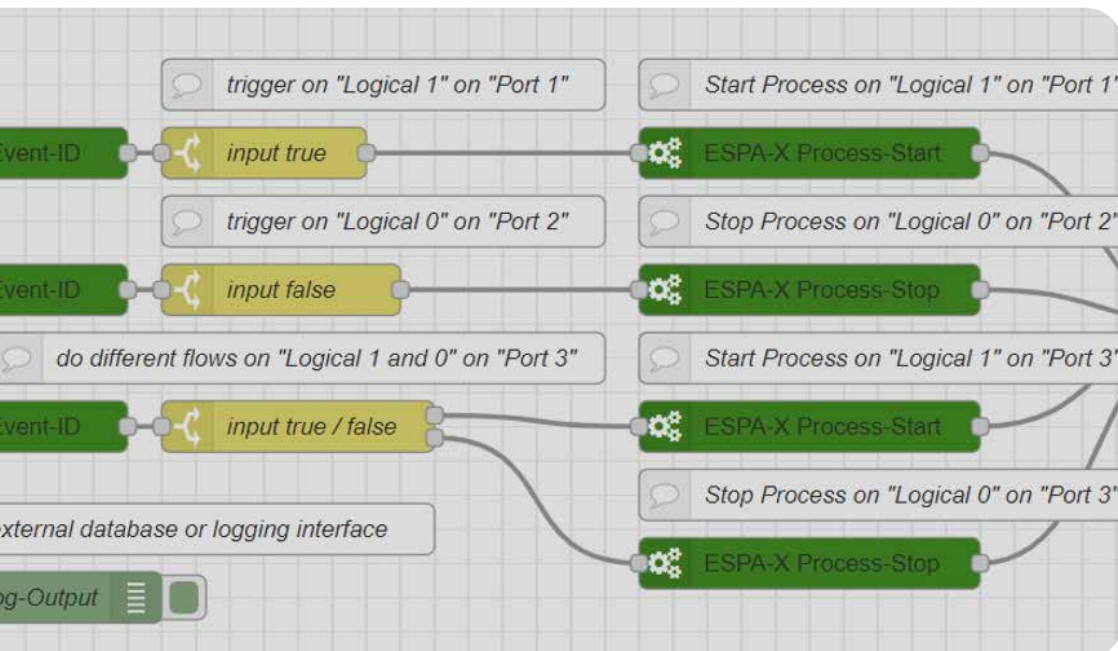
DAKS-IoT offers the possibility to navigate DAKS processes in a precise and clearly visualized manner via the flow-based programming tool 'Node-RED', which is widely used in the IoT environment. The pre-processing and triggering intelligence is mapped via the Node-RED software. The broadcast/conference and subscriber logic, on the other hand, remains in DAKS in the accustomed manner.

Node-RED supports many common industry standards of IoT interfaces and services, e.g. MQTT, Modbus-TCP and REST. As a result, a wide variety of protocols can be implemented quickly and easily with DAKS and without any additional development effort. In addition to this plus in flexibility, Node-RED offers additional intelligence and more differentiated control options.

✔ **Flexible application options:** Combine third-party nodes and protocols with DAKS nodes for a wide variety of use cases.

✔ **Flexible workflows:** Process data individually and precisely by breaking it down into individual data records.

✔ **Flexible contact connections:** DAKS processes can also be started via Wago or other contacts in addition to tetronik contact modules.

DAKS

... it's all about **responsibility**!

tetronik Nodes

ESPA-X Process-Start
ESPA-X Process-Stop
ESPA-X Process-Logout

Event-ID

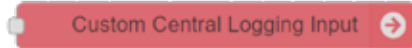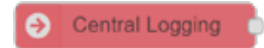### Event definition

Identification and referencing of input events due to

- external input ports (e.g. contact input)
- message content
  (e.g. location / event information)

ESPA-X

Process queueing and activation

- Connection of DAKS-IoT to one or two DAKS servers (the latter with automatic failover) via ESPA-X sessions
- Transmission of basic data for the activation of DAKS processes
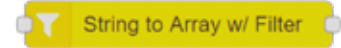- Receipt of the results of DAKS processes

Start / stop control

- Definition or takeover of ESPA-X parameters (e.g. event location/type, DAKS group that is to be alerted).
- Comprehensive parameter validation to ensure the correct start of DAKS processes

Central Logging
Custom Central Logging Input

Logging and monitoring

- Insight into process flows
- Supported protocol levels: *INFO, WARNING, ERROR, CRITICAL, ALARM*

Process Evaluation

Process post-processing

Control of post-processing/further processing based on the process results *(successful/ unsuccessful; confirmations, if necessary)*

String to Array w/ Filter

Variable determination

- Splitting of incoming data strings into many individual variables
- Variable usage for message texts, phone numbers or as part of the event ID in later flow progression
- Simple alternative to Regular Expressions

Product Details / Other Features

- Based on KUNBUS Revolution Pi (top-hat rail mounting)
- Web interface for the configuration of the Node-RED system environment, certificate management, user management, updates, backups
- Protocol Simulator for simulating external host systems / IoT components to DAKS-IoT / a DAKS-server and for evaluating logs
- Requires only one ESPA-X license per DAKS server and no additional licenses

Combination with a wide range of standard and third-party nodes, for example to

- connect host systems
- split data sets into individual events
- create / manipulate variables and texts
- evaluate times of day, weeks, holidays and measured values
- set up delays between activations

Including: Dashboard, Modbus-TCP, Ping, OPC-UA, EIB/ Konnex (known as KNX), TCP/UDP socket, MQTT, BACnet, SNMP, various logical operators, time limit nodes, Syslog, SMTP, various databases (including MySQL)

Order Information

TNK:NRDP-RPI – DAKS-IoT Revolution-Pi Package:
- Kunbus REVLUTION PI Industrial PC with 230 V power supply on DIN rail
- DAKS-IoT software package pre-installed (Debian, DAKS-IoT web service, NodeRED, DAKS-IoT nodes, selected external nodes)

Further relevant order position:
- TNK:DP9L-DIF – Host standard data interface

The tetronik node package is available for free as an open source software via the Node-RED repository at 'node-red-contrib-tetronik-daks-iot' 👆

Picture credits: tetronik GmbH

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Reliable alerting, information and communication

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