CDP Studio

Remote i/o controller and edge computing using the INSYS icom MRO/MRX/SCR series of routers

- Edge computing

- The processing power of Linux on the INSYS icom router range

- Control third party remote I/O over Modbus TCP

- Direct application development with complete tool-chain for easy deployment

INSYS icom routers with CDP Studio support

Description

Running CDP applications on the INSYS icom routers opens some interesting features. Running CDP inside the Linux environment, you may use the router as a standalone controller; it even has more processing power than an average PLC. The router may be used as a controller for attached remote I/O integrated through a Modbus TCP buscoupler to interface sensors and actuators. In addition to standard controller applications, CDP studio has some standard interface modules that extends the usability of the router further:

Ethernet ports
CDP applications have the same freedom as on any IPC for processing of local data, i.e. edge computing

MQTT client
MQTT is useful for remote systems communicating over the LTE radio, as bandwidth usage may be tuned.

SNMP
With SNMP you may collect status etc. from other network/communication gear.

NMEA 0183
Attaching a GPS via NMEA over the RS-232 interface is useful for mobile applications.

Modbus RTU
For communication to Modbus devices connected to the RS-232 interface via a RS-485 adapter.

Preparing the router

CDP is based on C++, so one of the following container images with C++ support must be imported:

- container_forte.tar
- container_nodejs.tar

The containers are imported using the web interface, Please refer to the INSYS icom documentation for details.

CDP Studio uses the rsync utility to deploy and update target applications, i.e. the transfer of the compiled applications to the router from your development system. A package with instructions on how to add rsync is found here:
https://download.cdpstudio.com/tools/rsync.zip

Technical Data

Tool-kit:	INSYS SmartBox ARMv7 32bit
Supported routers:	MRO-series
	MRX-series
	SCR-series

Specifications subject to change without prior notice. E&OE