New!

Development Mode

CUSTOMISED APPLICATIONS

- Relieving the load on the central system through onboard data processing
- Distributed embedded intelligence within your Ethernet network
- Stand-alone measurement and control applications

ADDI-DATA®
SPIRIT OF EXCELLENCE

CUSTOMISED APPLICATIONS

More performance with self-developed applications!

With the intelligent Ethernet I/O modules MSX-Exxxx by ADDI-DATA, you can realise easy and complex measurement and control applications without the need for programming skills. With the new development mode, you can now customise your application exactly to your needs.
Increase the efficiency of your processes and secure your investments!

BENEFITS

- Applications can be customised to your needs
- Onboard data processing relieves the load on the central system
- Stand-alone measurement and control applications
- Distributed embedded intelligence through Ethernet TCP/IP
- Secured investments
- Free development tools

Optimise your application

As the MSX-E modules are designed to operate at temperatures from -40 °C to +85 °C and correspond to IP 65, you can use them directly in production halls. With the new Development Mode, you can now even realise self-developed applications directly on site.

The procedure is easy: First write your program on a computer, then compile it and upload it into the FLASH memory of the MSX-E module through the web server. The MSX-E modules then execute the commands just the way you have defined them!

Relieve the central system

Tasks which you have always solved with the PC can now be realised directly with the Ethernet I/O modules. Thanks to their onboard intelligence and the Development Mode, the modules can manage extended calculations. Acquired values can e.g. be immediately converted into physical values such as temperature, pressure or fill level and/or be filtered.

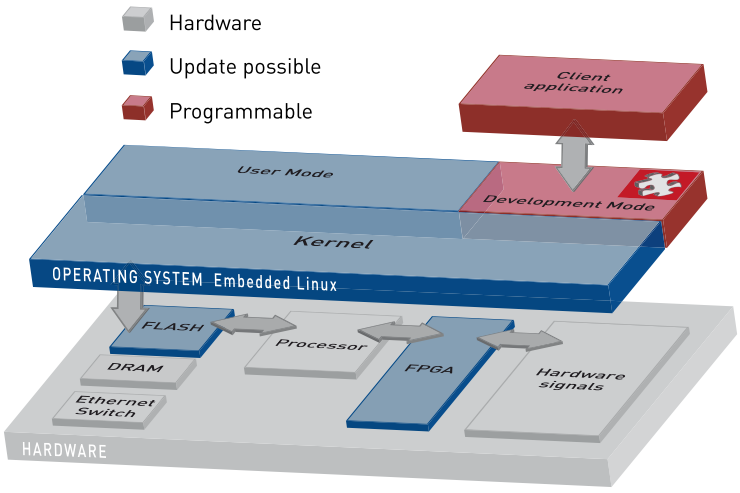
As soon as your application is saved on the modules, the load on the central system is relieved. Therefore, the system can be assigned other tasks.

Stand-alone operating

You can program the MSX-E modules to interact independently with other kinds of hardware within the Ethernet network (TCP/IP): SPS, computer, other MSX-E modules, etc. With the Autostart function, the modules start the saved applications after booting and execute them independently.

Security of investment

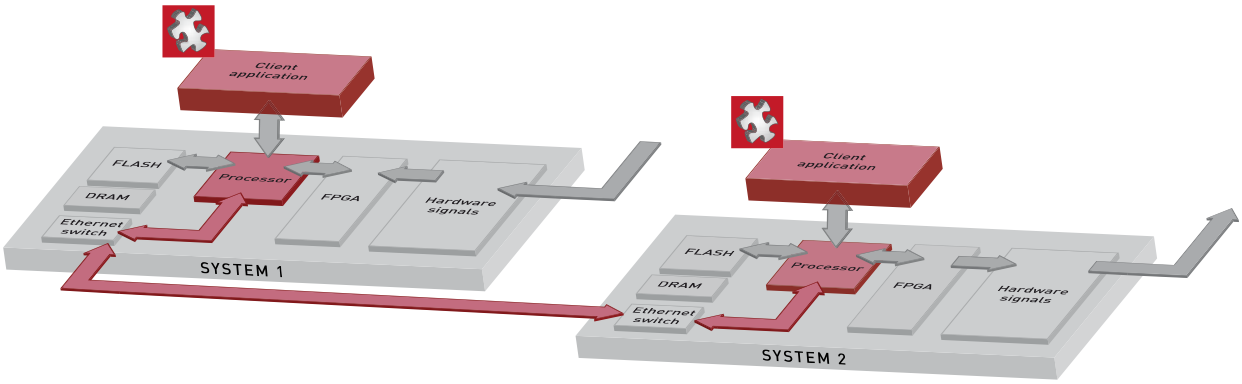
Using the Development Mode of the MSX-E modules to realise your customised applications means to rely on a robust, high-quality hardware with an intelligent core which allows you to benefit for years from today's investment.



The MSX-E modules are organised in two levels: the hardware and the software level. The control part of the hardware (ARM9, Flash, etc.) is common to all module types. The signal part features the specific function of each module type: counter, digital I/O, analog I/O, length measurement, etc.
The Embedded Linux operating system is saved in the FLASH and is loaded at booting through the ARM9 processor into the RAM and FPGA.

The operating system itself consists of a User and a Kernel mode. The Development Mode is a part of the User mode, in which customer applications can be loaded.
As the Development Mode exclusively accesses the functions in the User mode, the vital hardware and software functions of the MSX-E modules remain protected.

Intelligent distributed system



Distribute the intelligence within your network!

Customer applications written with the Development Mode can run either on one or on several modules. The acquired values are calculated and processed directly onboard.

The MSX-E module can access other MSX-E modules or any other Ethernet hardware through the Ethernet switch.
The modules can thus access measurement values and/or variables from external materials and parameter, start or stop their measurement tasks. An additional computer is therefore unnecessary.

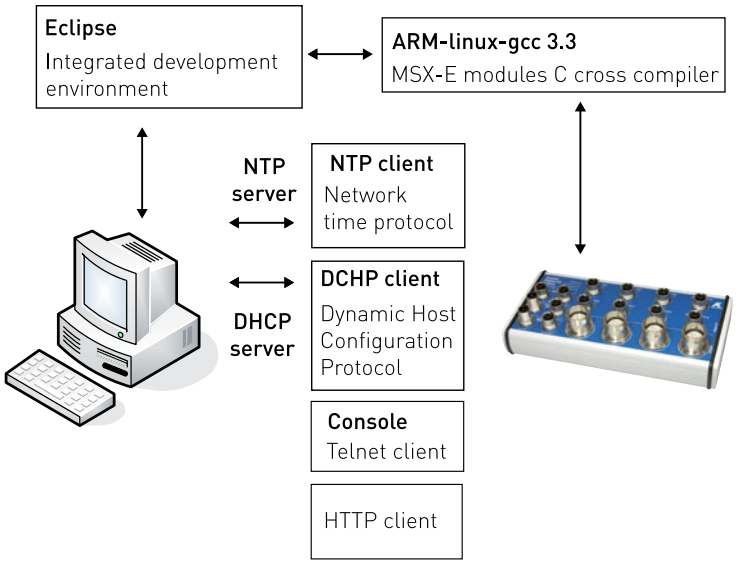
The connection through standard Ethernet allows to realise complex distributed stand-alone measurement and control tasks on site and close to the test item.

Application exemples: see page 4.

Development tools on live DVD!

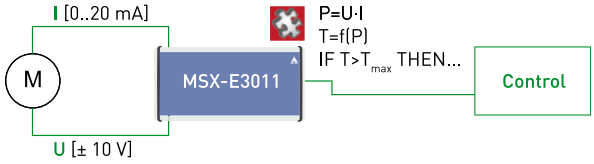
In order for you to write your measurement and control applications fast and easily, we provide a Live DVD with numerous free development tools.
The supplied tools include a cross compiler for ARM.

The Live DVD is based on the Eclipse development environment and the Debian Distribution.



Application examples

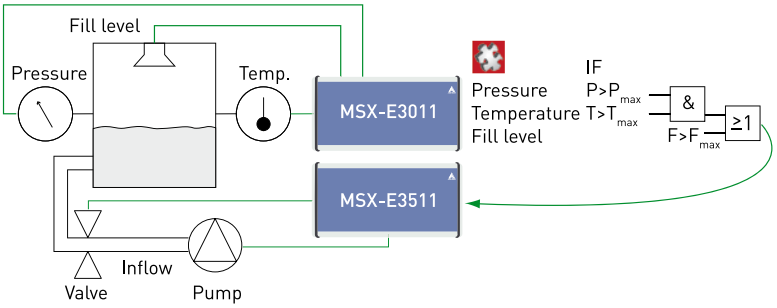
Example 1: Analog inputs - MSX-E3011



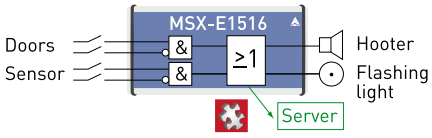
The analog input module MSX-E3011 acquires voltage and current values of motors. The module calculates the electrical power P (P = U*I) using each voltage and current pair of values.
It calculates the temperature through a coefficient and then checks the corresponding temperature. If the temperature exceeds a defined critical value, the module issues a message to the central control unit.

Example 2: Analog outputs – MSX-E3511

The MSX-E3011 is used to monitor tanks (temperature, pressure, fill level).
If a limit value is exceeded, the MSX-E3011 sends a signal to the analog output module MSX-E3511.
The MSX-E3511 switches off the connected frequency-regulated pump and closes the valves (± 10 V).



Example 3: Digital I/O – MSX-E1516



The module MSX-E1516 monitors doors in a secured area. An event mask is defined which reacts to different combinations of the digital inputs.
When doors are opened without authorisation, the module sets off an alarm (hooter and flashing light) through the digital outputs. The alarm signal is sent to the central server through Ethernet.

Learn more details about the examples

We have compiled a detailed instruction manual which describes how to write applications with the Development Mode.
Find more information about it at www.addi-data.com, category Products/Embedded development.

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Please send me information about the following products:

- ☐ Intelligent Ethernet I/O modules
- ☐ Development Mode of the MSX-E modules
- ☐ Please send me the product guide 2009,
  - ☐ digital on CD-ROM
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