ideaOriginal

io.xec

Expandable Ethernet IO controller

How useful would it be if you could control and retrieve data from electrical appliances over an Ethernet network?

Ethernet networks have been used to share data among computers, to support live communications such as voice and video, but what about other appliances?

- What if you wanted to manage the lighting of your facility from anywhere, via your network infrastructure?

- What if you wanted to get the immediate status of a machine on the factory floor?

- What if you want to communicate with a device via RS232, located some hundreds of metres or kilometres away?

- What if…?

The answer for all these questions is **io.xec**. This device acquires many types of electrical signals and translates them to a TCP/IP frame. All the data can be retrieved through HTTP calls, using a well documented HTTP API.

The base hardware can support a huge variety of signals:

- 8 digital inputs photo-coupled
- 4 relay digital outputs
- 4 open collector digital outputs
- 1 analog temperature sensor
- 1 digital temperature and relative humidity sensor
- 1 RS232 port
- 1 analog input 0-10V
- 1 analog output 0-10V
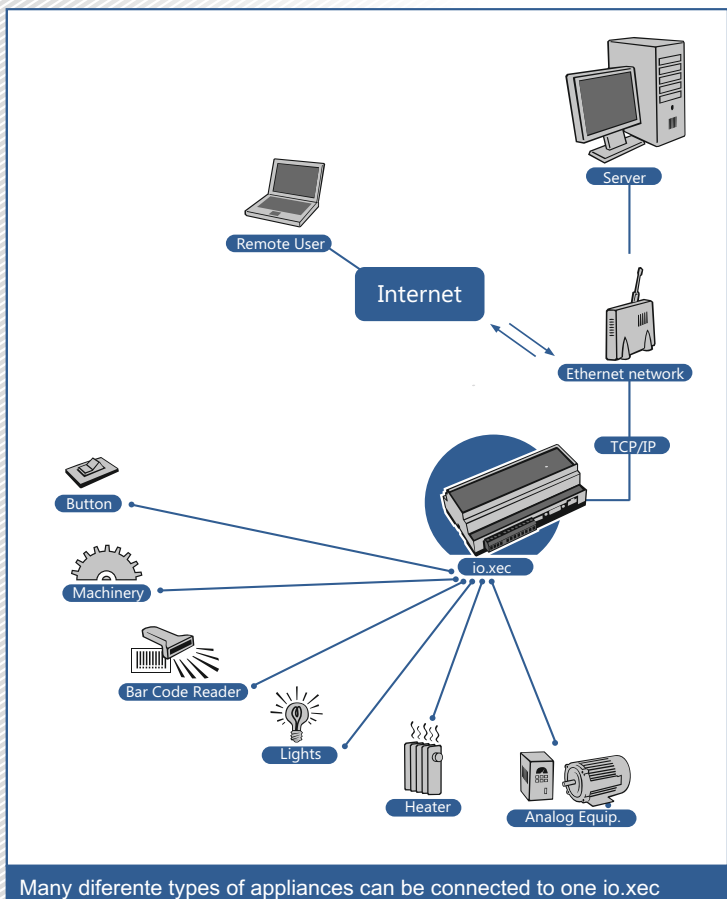- USB port
- 1 expansion port
- 1 fast encoder input (A/B)

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io.xec

How does it work?

There is a huge variety of devices that can be connected to **io.xec** simultaneously. The following diagram shows some examples...

Many diferente types of appliances can be connected to one io.xec

Real distributed automation. Each **io.xec** interacts with one (or more) application server.

Standalone operation

This mode is the bare implementation of a web server linking the user to the hardware. The user can get the status of the inputs and control the outputs. This mode is suited for simple applications or home applications, where no automation tasks are needed.
All you need is a browser (any modern browser will do the job) and you can you access from your laptop, home computer or even smartphone.

Integrated operation

In this mode, interaction with the device is made through low level HTTP calls.

The key feature of io.xec is that it platform independent. Whatever operating system or programming language are used, it will always work and perform the expected tasks, as long as TCP/IP connections can be used. For further information please consult the user's manual.
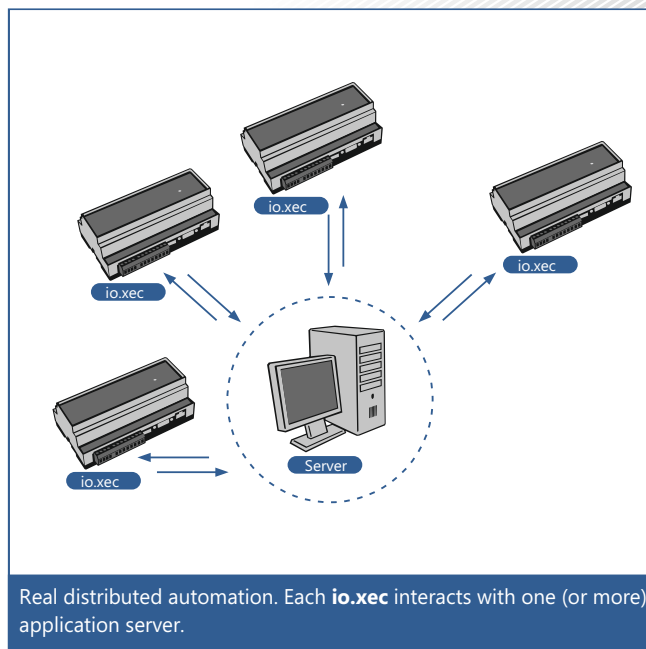
Versions

io.xec comes in 3 versions: **lite**, **standard** and **pro**,. The following table, sums up the major differences between them.

io.xec versions	lite	std	pro
8 inputs	✔	✔	✔
8 outputs	✔	✔	✔
1 analog input	✔	✔	✔
1 analog output	✔	✔	✔
1 analog temperature sensor input	✔	✔	✔
1 digital temp. & RH sensor input	✔	✔	✔
Firmware update	✔	✔	✔
RS-232 port, with TCP serial link		✔	✔
Fast incremental encoder input		✔	✔
Costum application		✔	✔
Data logger			✔

io.xec makes appliances smarter!

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