Flexible room automation with e.control®
Agenda

- Why room automation?
- Installation concepts
  - Conventional room-oriented installation
  - Flexible axis-oriented installation
- Automating an office building (Example)
  - with a traditional room-oriented concept
  - with the flexible axis-oriented e.control® system
- Advantages of spega‘s e.control® system
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Why room automation?

- **Production**
  - Heating boiler
  - Air conditioning
  - Transformer/Main distribution

- **Distribution**
  - Pipe system/Mixer
  - Duct system/Filters
  - Cable routes/Sub-distribution

- **Consumption**
  - Radiator
  - Lighting

- **DDC system**

**Energy saving!**
Energy saving and enhancement of convenience...

...through integration of
- heating/cooling
- lighting
- sunblind control
- sensors
- operation panels...

...is most efficient with the powerful and open LON technology!
Room automation saves energy and costs!

- Lighting: >50%
- Heating: >30%
- Cooling: >20%

Savings per year: > 5 EUR/(m²a)

Surplus revenues / expenditure
100T€/a
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The missing flexibility in conventional systems ...

Conventional room-oriented installation:

+ low installation costs and fire loads
+ high operational availability
+ less space required for technical rooms
- missing flexibility on change of utilisation
...can be solved with an advanced axis-oriented system!

Flexible axis-oriented installation:

+ low installation costs and fire loads
+ high operational availability
+ less space required for technical rooms
+ full flexibility on change of utilisation
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Example of an office building

Today‘s demands for an office building:

+ variable utilisation of office space
+ optimised energy saving
Limits with a conventional room automation concept

Problems are:

1. Installation concept depends on room partitioning
2. Different automation components for different rooms needed
Limits with a conventional room automation concept

Problems are:

3. Room oriented wiring inhibits the change in utilisation...
Limits with a conventional room automation concept

Problems are:

...due to the need of re-wiring!
Flexible e.control® system is the solution!

Axis-oriented installation with e.control®:

1. Optimised installation layout – independent from utilisation ...
2. with only one modular system distribution box required ...
Flexible e.control® system is the solution!

Axis-oriented installation with e.control®:

3. for all axis-wise installed sensors and actuators.
Flexible e.control® system is the solution!

230V AC
LonWorks

Axis-oriented installation with e.control®:

3. for all axis-wise installed sensors and actuators.
4. After specifying room layouts, operation panels are installed!
Flexible e.control® system is the solution!

Axis-oriented installation with e.control®:

3. for all axis-wise installed sensors and actuators.
4. After specifying room layouts, operation panels are installed!
5. Changes can be carried out without re-wiring!
e.control®: flexibility even in software!

Due to the object-oriented software concept of e.control®,
a change in utilisation ...
e.control®: flexibility even in software!

... is just a change of software bindings!
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Advantages of e.control® ...

- fully compliant to Lonmark standards
- applicable for all trades
- fully independent from utilisation
- cost-efficient through high modularity
- can be installed everywhere
- low installation costs
- low fire load
- fast and stable specification procedure
- fast installation through possibility of pre-fabrication
- easy configuration through object-oriented LNS plug-ins