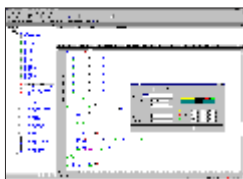**Building Management**

MICROMATIC BM

cpa

the Modular Building Management System

Key features

IEC 61131-3 programming
- integrated development environment
- comprises e editor, compiler and online monitor
- bit, word, integer, long integer and floating point data types

Large memory
- 512K flash + 4Kb permanent EEPROM

Fast 16-bit processing
- 250ns basic instruction

Network performance
- High-level network: Ethernet + TCP/IP
- Low-level network: CAN-BUS
- Fast transmission 100 kbps

Operator panel with IR-receiver + temperature sensor
- Simple configuration tool (template editor with menu functions)

Connection to control system
- Driver for IMPERIO-Control System Software
- OPC driver available

Freely programmable serial interface
- Functions for sending and receiving of strings
- Connection to printers, sensors, scales, modems, GSM devices

High-speed counter
- 4-fold evaluation
- Protection against glitches

Real-time clock

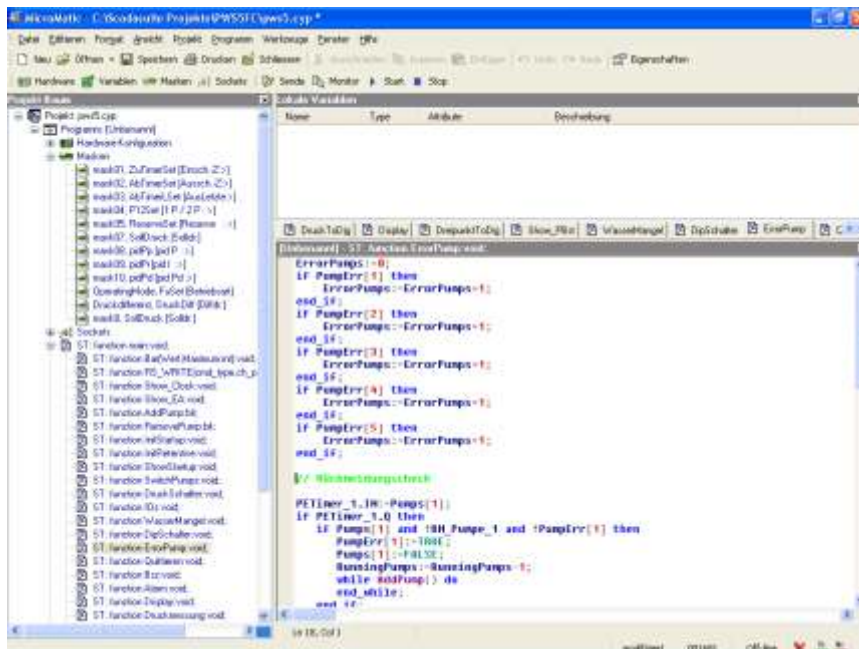# Range of application

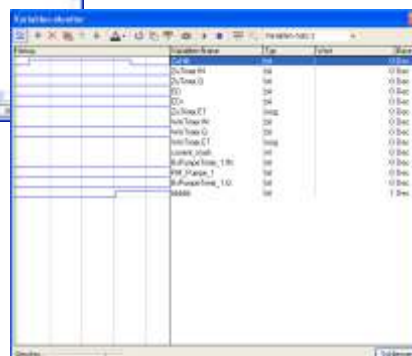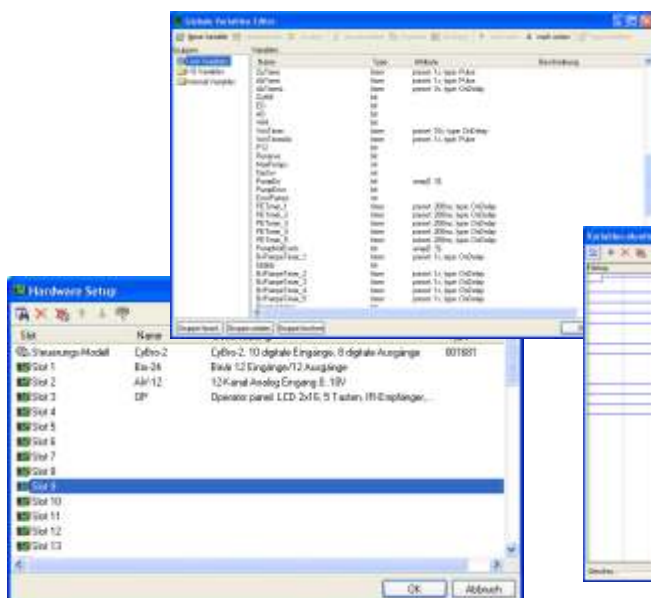Typical fields of application:

- Classic building automation
  - Domestic architecture
  - Nursing- and retirement homes
  - Hospitals
  - Home Automation
  - Prefabricated houses
- Food store chains
- Shopping centers
- Fashion Outlets
- Super markets
- Professional caterers
- Restaurant and food chains
- Boarding houses
- Hotels, hotel chains
- Clothes shops
- Banks and savings banks
- Building centers
- Gas stations
- Automobile industy
- Car dealers
- Chains of opticians
- Refrigerated warehouse chains
- Furniture stores and chains
- other chain stores
- Production plants
- Industrial and commercial building
- Power industry
- Hydro power stations and wind mills
- pumping station controlers (with remote station)
- Railways
- and many more …

Programming

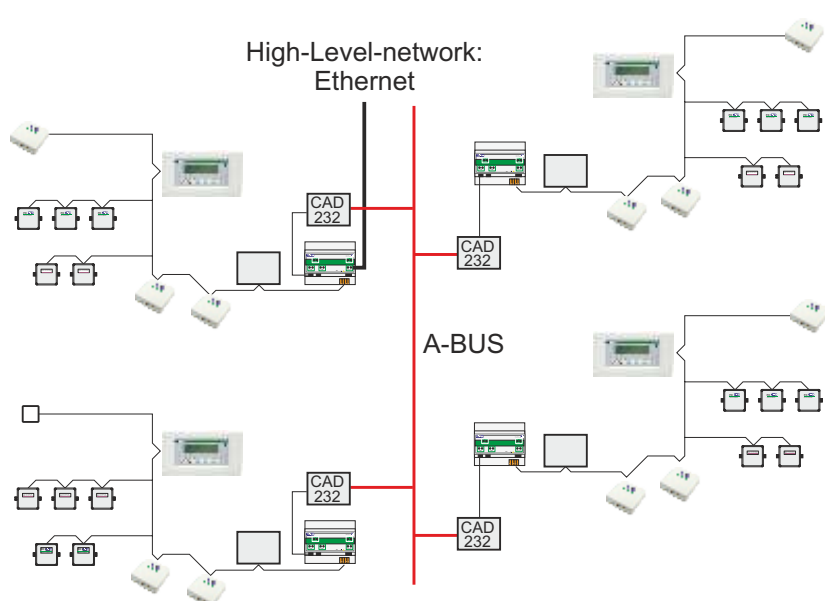- IEC 6113
- IEC 61131-3 programming
- integrated editor, compiler and
- Online-monitor
- Grafic display of trends with monitor variables
- Syntax colouring
- Template generator for operator panel
- Simple network configuration
- interactive declaration of variables
- Project tree for simple project management
- Code helper for direct access on functions and variables
- predefined system variables
- Source code is stored in the PLC
- Adjustable CPU load for PLC function and communication
- Programming via networks possible

Connectability

System structure

High-Level-network:
Ethernet

CAD 232
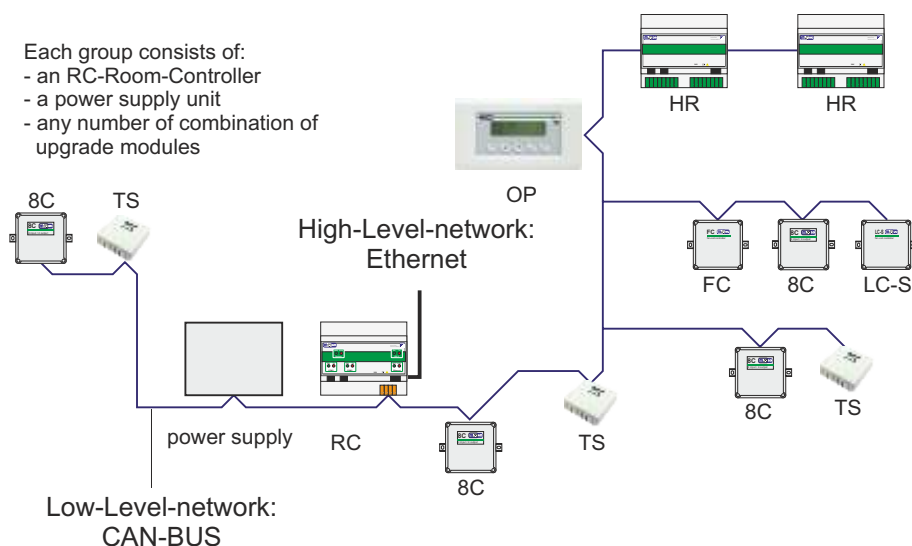
CAD 232

CAD 232

CAD 232

A-BUS

Technical characteristics: A-BUS

Bus length: 1000 m max.
Number of groups: 32 max.
Baud rate: 19200 bps

For the connection of the groups via A-BUS
A RS232/485 converter for each group is required.

Each group consists of:
- an RC-Room-Controller
- a power supply unit
- any number of combination of
  upgrade modules

HR   HR

OP

8C   TS

High-Level-network:
Ethernet

FC   8C   LC-S

Technical characteristics: CAN-BUS

Bus length: 100m max.
Number of nodes: 64 max.
Baud rate: 100 kbps max.
Power supply: 24V DC

8C   TS

power supply   RC   TS

8C

Low-Level-network:
CAN-BUS

Basic components

Room Controller

The room controller is the heart of a MicroMatic BM system. It controls and operates all connected periferal devices.

RC-A - Room-Controller with A-Bus RC-E - Room-Controller with Ethernet RS232 A-Bus Low-Level-Netzwerk CAN-BUS....200m IEX Port High-Level-Netzwerk A-BUS Ethernet	COM1 - RJ-11, programming / networking COM2 - RJ-11, freely programmable RS232 interface Ethernet - RJ-45, UTP, 10M, programming / networking Power supply: 24V (18..26V) Current input: 50mA Compatible with MicroMatic 2

Available extensions

Software

- IEC 61131-3 programming software
- OPC Server
- communication library for Visual Basic, C, Delphi etc.

Accessories

OP-2 OP-BM	2x16 digit LCD display, IR-receiver, temperature sensor and buzzer.
OP-4	2x20 digit LCD display, IR-receiver, temperature sensor, humidity sensor, dimmer input, push- and rotation knob for input
IR - RC	infrared remote control, Switching, controling, dimming
MS - Multisensor	IR-receiver, photometer and motion detector
ES - External Sensor	ES-W External temperature sensor (wall mounted)
TS- Temperature-Sensor	Temperature sensor with connection of an external sensor.

IEX upgrade module

HR - Hotel-Room-Controller	HR Module for hotel rooms or similar applications Controls heating, air condition, lighting, fire alarm and emergency button.
LC-S (Standard)	For analogue controlled loads, Inputs for potentiometer, photo sensor, motion detector and switches.
LC-D (DSI/DALI)	For digital electrically controlled loads. Inputs for potentiometer, photo sensor, motion detector and switches.
FC - Climate-Controller	3 fan speeds, 2 control valve outputs, 2 temperature sensors, 1 external input window contact
8C - Universal 4in / 4out	Universal I/O module with 4 relay outputs and 4 potential-free inputs.
SW-W2 - Switch Module	4 potential-free inputs with open cable ends, 4 LED outputs, for mounting behind wall mounted buttons and switches
O2 - Output Module	2 relais outputs with max. 12 A for direct connection of lamps, blinds, etc. for mounting in wall outlets

technologies for excellence

- **IMPERIO - Process Control Technology**
- **MES - Manufacturing Execution System**
- **BAS - Building Automation System**
- **GCS - Galvanic Control System**
- **CWS - Cable and Wire System**
- **WSS - Water Supply System**
- **WWS - Waste Water Systems**
- **ABACS - Automatic Bath Analysis and Control System**
- **Comatic - Industrial-PLC**
- **MicroMatic - Compact-PLC**
- **Control Cabinet Construction**

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