neuberger.

product

Information about neutral building automation


neuberger. Ebene 2

Automatic. Correct.

ProGrafNT Building Management System | **PMC** Automation Station | **ER** Room Controller
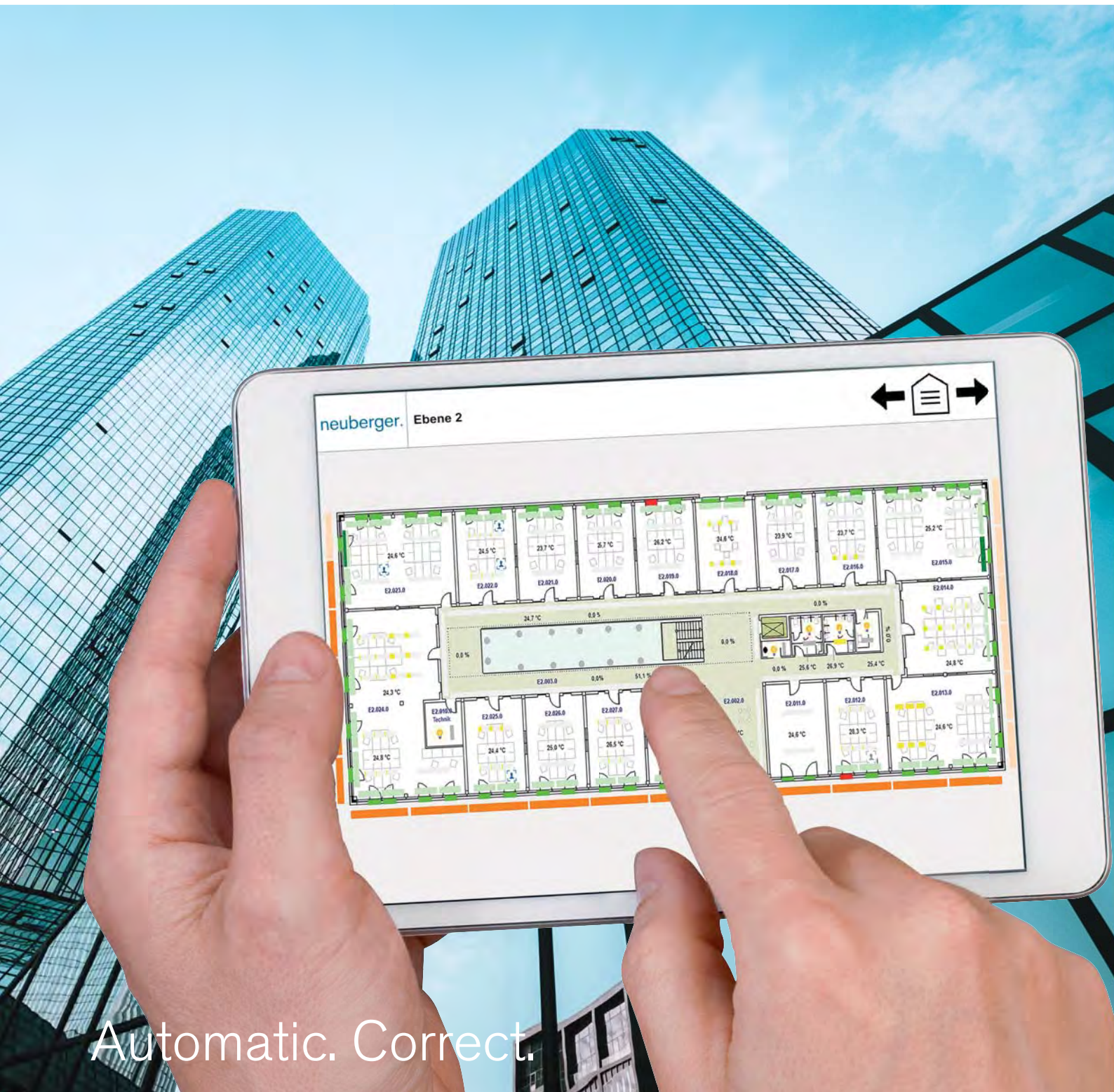
Neutral Building Management System ProGrafNT

With your decision in favour of a Neuberger Building Management System you make the right choice. As all bus systems used are "open", a high flexibility is guaranteed in case of a supplementary system expansion. Through graphical representation, evaluation and recording of all automation levels it will be easy to keep track.

Plant Visualization
- User-friendly, plant-oriented concept for operation and visualization
- Graphic mode for generation or update of the plant displays by the operator
- Graphical processing of control loops and time switch
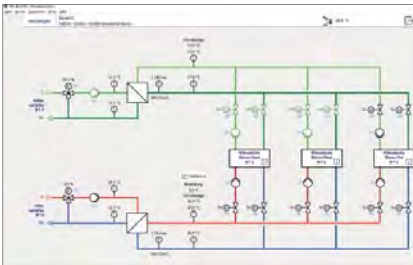
Historical Database / Trending
- Event archive, Minute-, 1/4 hour and hour average values, sum values of energy and operating hour counters
- Analogue and digital archive together in one representation
- Free choice of the archiving time period (e.g. 5 years)
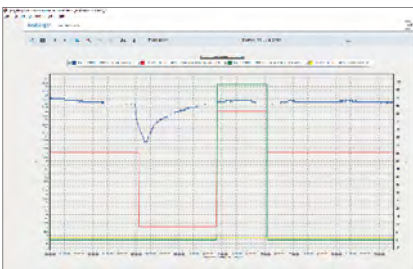
Interfaces
- Open communication (BACnet IP), PROFIBUS FMS, ModBus, LON, OPC, KNX, DSL etc.
- M-Bus, ESPA etc. via communication module
- Direct data transmission (e.g. Excel, Open Office, CSV, TSV, HTML)
- Export to printer, clipboard or via file (xls, csv, tsv, htm)

Operating times
- Graphic time switch program for operating times (e.g. weekly, holiday and special programs)
- Automatic heating time optimization
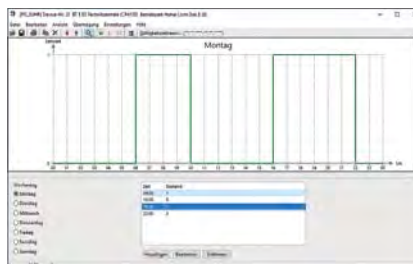
Event and alarm management
- Evaluation through event and alarm lists (database) for plant optimization
- Status window for status messages and news ticker
- Forwarding of alarms to printer, mobile phones, etc.
- Individual reports can be generated, e.g. heating journal, evaluations
- Alarming via mobile phone (SMS, voice output), pager, fax, e-Mail etc.
- Determination of the responsible person(s) through shift plan evaluation

Options
- Remote control and remote maintenance via modem
- Integrated WebServer for Internet/ Intranet Clients, as well as Client/ Server solution with TCP/IP-networking
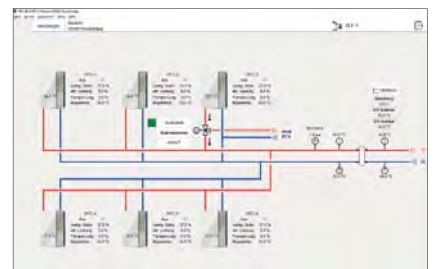
Energy management according to DIN EN ISO 50001
- Data acquisition and monitoring
- Monitoring and diagnosis
- Energy information system with peak load limitation by E-MAX
- Reports and data export

Energy efficiency on the basis of weather forecast

- Integration of weather forecast in control strategies
- Reduction of energy cost with highest comfort
- Requierement-oriented source planning
- Individual methodes for every building

System architecture

- »Ready for Management-BMS«
- Centrally and freely configurable
- Hierarchical networking with Management BMS and SubServers
- Free structure with Multiservers
- Mesh network structure
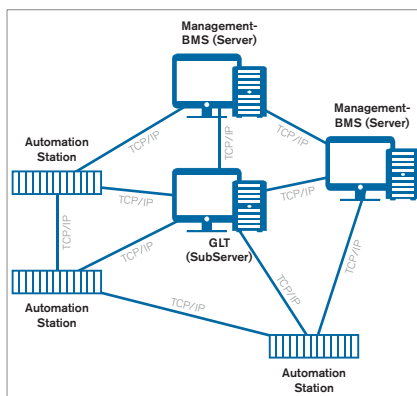
Safety

- Monitoring/Processing/Parametering and Configuring via freely assignable rights and limitations
- Audit Trail with unchangeable entries via user, operator and system processes
- Backup software for automatic data backup, e.g. on system drive or DVD
- Pre-configured for redundance solutions with parallel servers and virtual machines (VM)
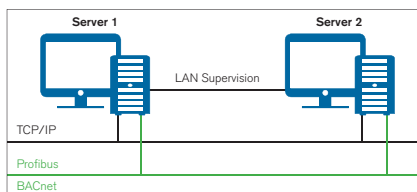
GMP* Validation / Qualification

- Creation and execution in accordance with the FDA directives (GAMP, 21CFR Part 11, GMP-directives)
- ProGrafNT-GMP provides a safe access control and Audit Trail to meet the FDA requirements in 21CFR Part11
- Switching-in of clean room sensors for particles, pressure, flow, humidity, temperature, etc.
- Access control and interlock systems for airlocks with pressure control and alarm signal
- Access management with flexible assignment of individual and group rights as well as configuration of room and time-specific accesses
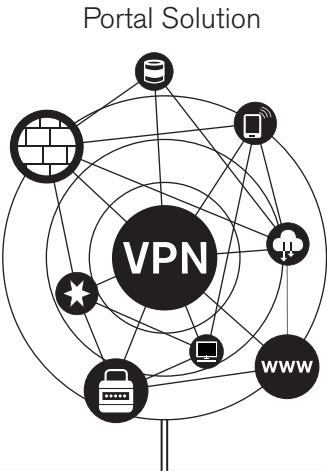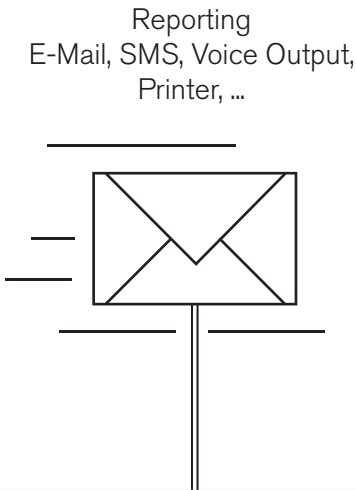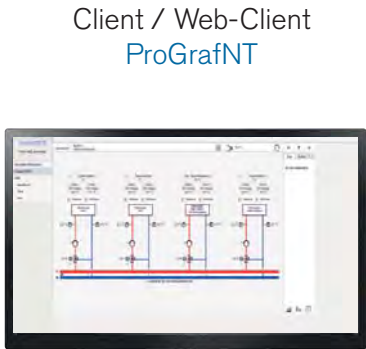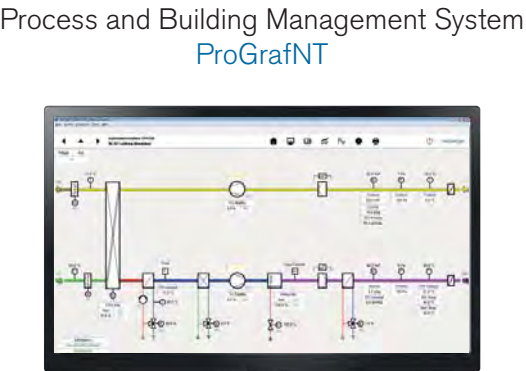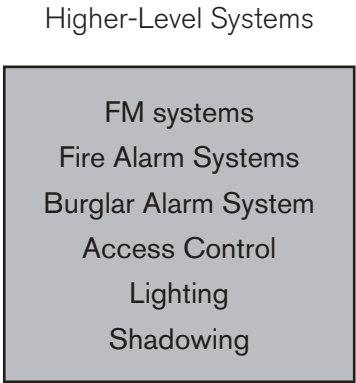

* GMP = Good Manufacturing Practice, the strictest production directives all over the world – pursuant to the standards of the American Food and Drug Administration (FDA)

User-friendly, open, flexible. **Automatic. Clear.**

neuberger.

ProGrafNT -
the neutral management system for your building

Assumes central management tasks as well

Portal Solution

VPN
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Higher-Level Systems

FM systems
Fire Alarm Systems
Burglar Alarm System
Access Control
Lighting
Shadowing

Process and Building Management System
ProGrafNT

Client / Web-Client
ProGrafNT

Operating and Monitoring
Smartphone / Tablet / Operating device

Reporting
E-Mail, SMS, Voice Output, Printer, ...

Internet/Intranet, Ethernet, TCP/IP,
BACnet/IP, OPC, LON

PMC2 / Open.Room -
the flexible and reliable automation systems
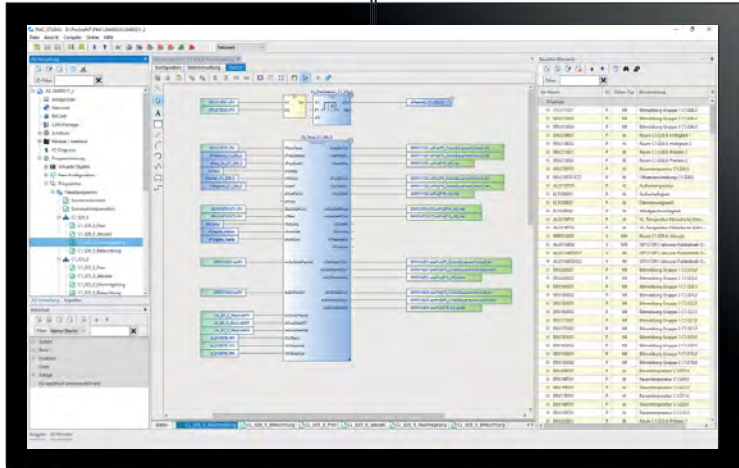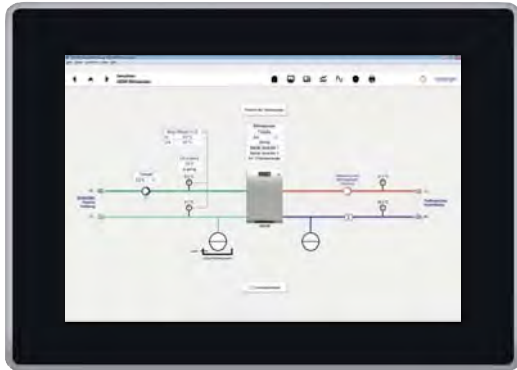
PMC2 Automation Station 4000
for installation in 19" rack
integrated local override/indication device (LO/ID)

WinPMC, PMC_Studio
Programming,
Commissioning

Operating device
Displaying, Parameterizing

CPU module with web interface
Interfaces: 2x Ethernet, LON,
2x USB for programming device,
2x microSD
Protocols: BACnet/IP,
Modbus RTU RS485 / Modbus TCP
group fault signal, LED test,
watchdog relay, archive

Input/output modules
Digital inputs/outputs,
Signal inputs, relay outputs,
LEDs red/green, operating and
closed-circuit current principle,
delay periods

Control/switch modules
Hand switch,
Display operation/fault,
Hardware safety interlock

**Controller module
with local override/indication
device (LO/ID)**
Analogue inputs and outputs
Interfaces:
Ni1000, PT1000, 0-10V, 0/4-20mA,
manual control of regulating signals,
threepoint,

Communication module
Interfaces:
LON, KNX, M-Bus, RS485,
RS232, TTY and many more
Protocols:
Modbus, 3964R-RK512, ASCII

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Portal Solution
Higher-Level Systems
Process and Building Management System
ProGrafNT
Client / Web-Client
ProGrafNT
Operating and Monitoring
Smartphone / Tablet / Operating device
Reporting
E-Mail, SMS, Voice Output, Printer, …

ProGrafNT -
the neutral management system for your building
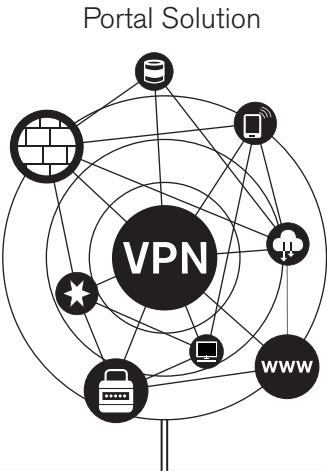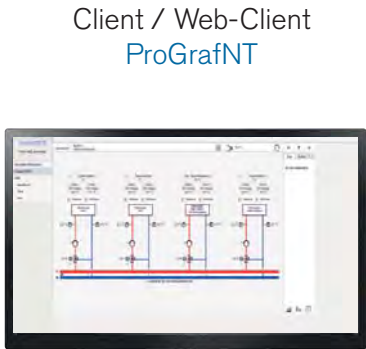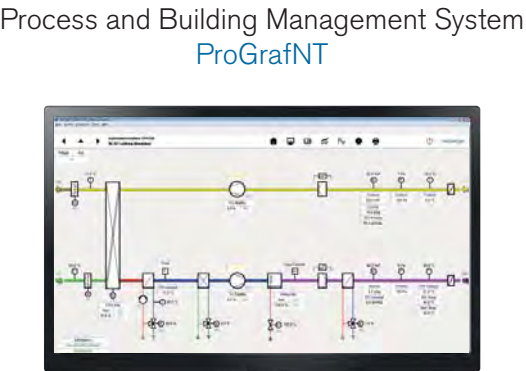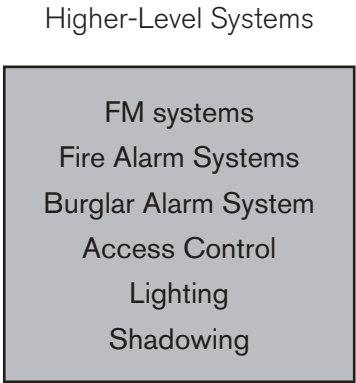
Assumes central management tasks as well

VPN

www

FM systems
Fire Alarm Systems
Burglar Alarm System
Access Control
Lighting
Shadowing

Internet/Intranet, Ethernet, TCP/IP,
BACnet/IP, OPC, LON
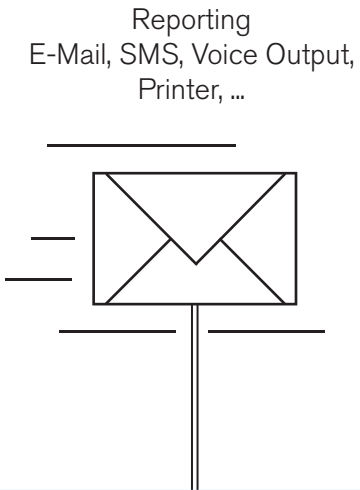
PMC2 / Open.Room -
the flexible and reliable automation systems
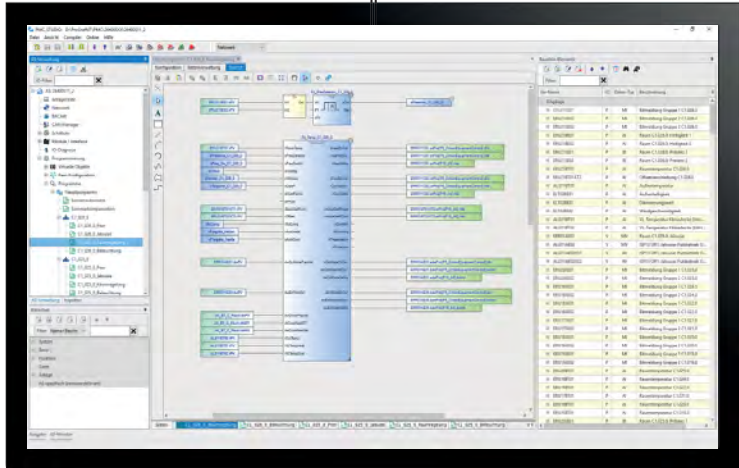
PMC2 Automation Station 6000
for carrier rail mounting

WinPMC, PMC_Studio
Programming,
Commissioning

Operating device
Displaying, Parameterizing

CPU module with web-interface
Interfaces: 2x Ethernet, LON,
2x USB for programming device,
2x microSD
Protocols: BACnet/IP,
Modbus RTU RS485 / Modbus TCP
group fault signal, LED test,
watchdog relay, archive

Communication module
Interfaces:
LON, KNX, M-Bus, RS485,
RS232, TTY and many more
Protocols:
Modbus, 3964R-RK512, ASCII

Input/output modules
digital inputs/outputs,
Signal inputs, relay outputs,
LEDs red/green, operating and
closed-circuit current principle,
adjustable delay times

Controller module
Analogue inputs and outputs,
Interfaces:
Ni1000, PT1000, 0-10V, 0/4-20mA,
three point

neuberger.

ProGrafNT -
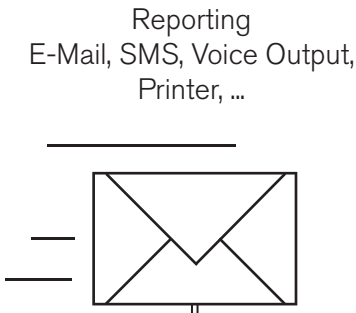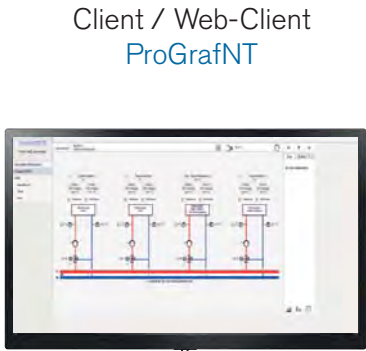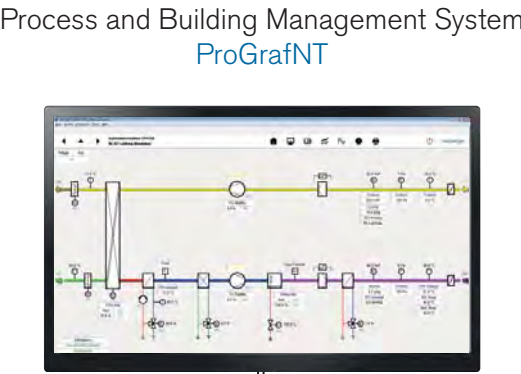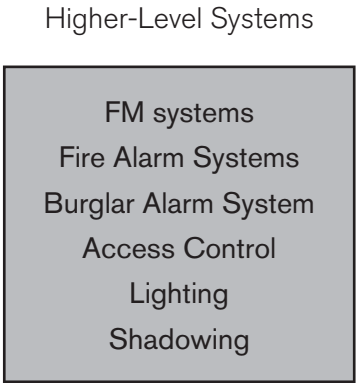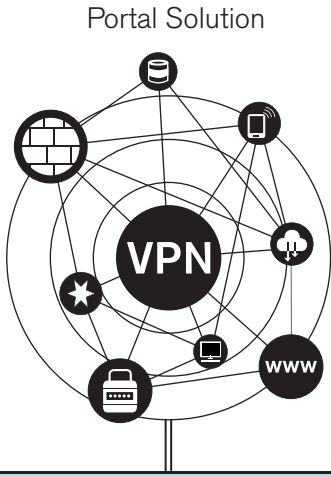**the neutral management system for your building**

Assumes central management tasks as well

Internet/Intranet, Ethernet, TCP/IP,
BACnet/IP, OPC, LON

PMC2 / Open.Room -
the flexible and reliable automation systems

Portal Solution

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Higher-Level Systems

FM systems
Fire Alarm Systems
Burglar Alarm System
Access Control
Lighting
Shadowing

Process and Building Management System
ProGrafNT

Client / Web-Client
ProGrafNT

Operating and Monitoring
Smartphone / Tablet / Operating device

Reporting
E-Mail, SMS, Voice Output,
Printer, …

PMC2 Compat Automation Station DR4000
for carrier rail mounting and wall mounting

WinPMC, PMC_Studio
Programming,
Commissioning

Operating device
Displaying, Parameterizing

neuberger.
DR4000

neuberger.
BD4100   RUN/FAULT ALARM
Trend
ESC

Operating display BD4100
inclusive plain text operation
and free programming

CPU module with web-interface
Interfaces: 2x Ethernet, LON,
2x USB for programming device,
2x microSD
Protocols: BACnet/IP,
Modbus RTU RS485 / Modbus TCP
group fault signal, LED test,
watchdog relay, archive

Inputs and outputs
8x analog inputs (Ni1000, PT1000, 0-10V, 0/4-20mA)
6x analog outputs (0-10V)
8x digital inputs
8x digital outputs (up to 230V)

neuberger.

ProGrafNT -
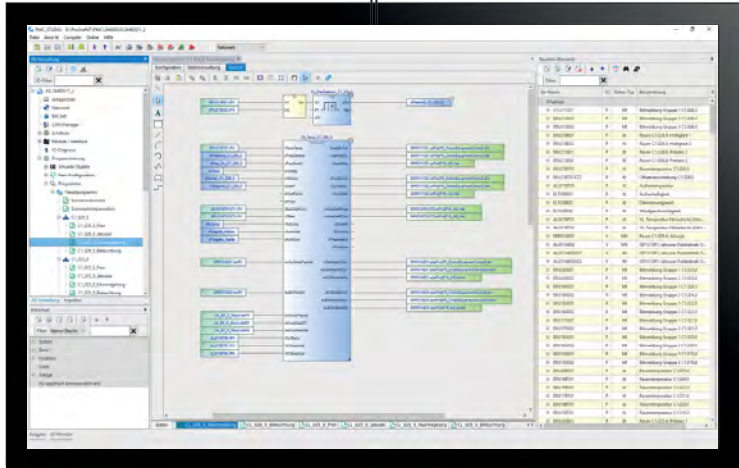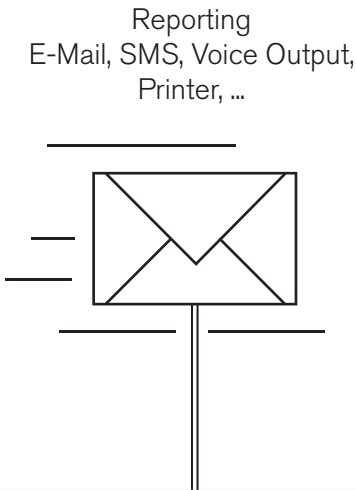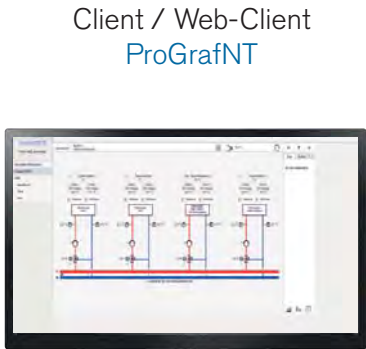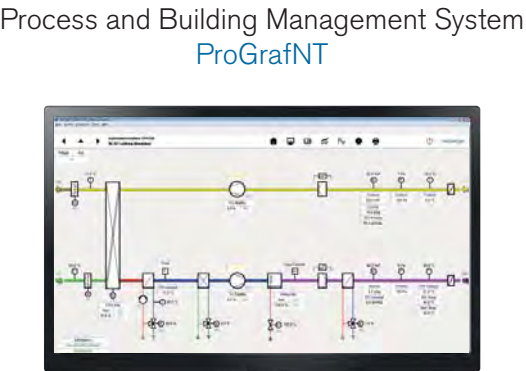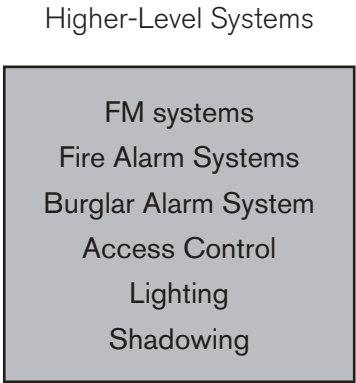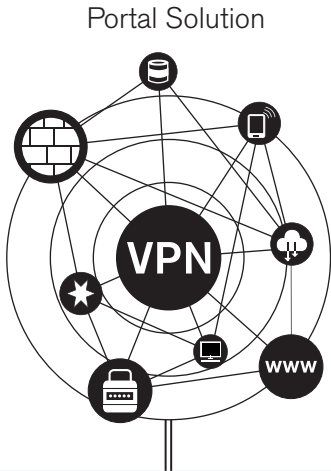## the neutral management system for your building

Assumes central management tasks as well

Internet/Intranet, Ethernet, TCP/IP,
BACnet/IP, OPC, LON

PMC2 / Open.Room -
the flexible and reliable automation systems

Portal Solution

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Fire Alarm Systems
Burglar Alarm System
Access Control
Lighting
Shadowing

Process and Building Management System
ProGrafNT

Client / Web-Client
ProGrafNT

Operating and Monitoring
Smartphone / Tablet / Operating device

Reporting
E-Mail, SMS, Voice Output,
Printer, ...

Room Automation System Open.Room
for control cabinets, ceiling and floor distributors

WinPMC, PMC_Studio
Programming,
Commissioning

Operating device
Displaying, Parameterizing

neuberger. CP8000
ALARM
RUN/FAULT
QUIT
LED TEST
SD-CARD
SERVICE
USB
ETHERNET 0
ETHERNET 1

neuberger. DI8100
neuberger. AI8100
neuberger. DO8100
neuberger. AO8100
neuberger. CM8100
neuberger. CM8300
neuberger. CM8400
neuberger. CM8410
neuberger. CM8420

MODUL BUS

CPU module with web-interface
Interfaces: 2x Ethernet,
2x USB, 2x microSD
Protocols: BACnet/IP,
Modbus RTU/Modbus TCP,
group fault signal, LED test
and many more

Input/output modules
for digital and analog
inputs and outputs
Interfaces:
Ni1000, PT1000,
0-10V, 0/4-20mA

Communication modules
Interfaces: DALI, EnOcean,
KNX, SMI, Modbus RTU, MQTT, ...

neuberger.

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Higher-Level Systems

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ProGrafNT

Client / Web-Client
ProGrafNT

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Smartphone / Tablet / Operating device

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E-Mail, SMS, Voice Output, Printer, ...

ProGrafNT -
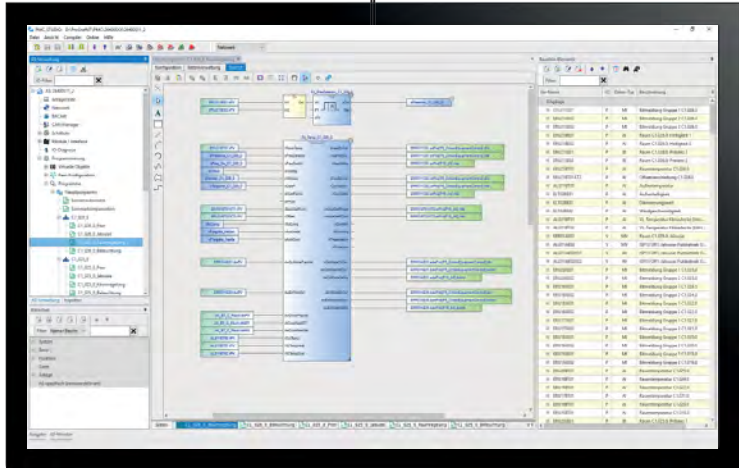## the neutral management system for your building

Assumes central management tasks as well
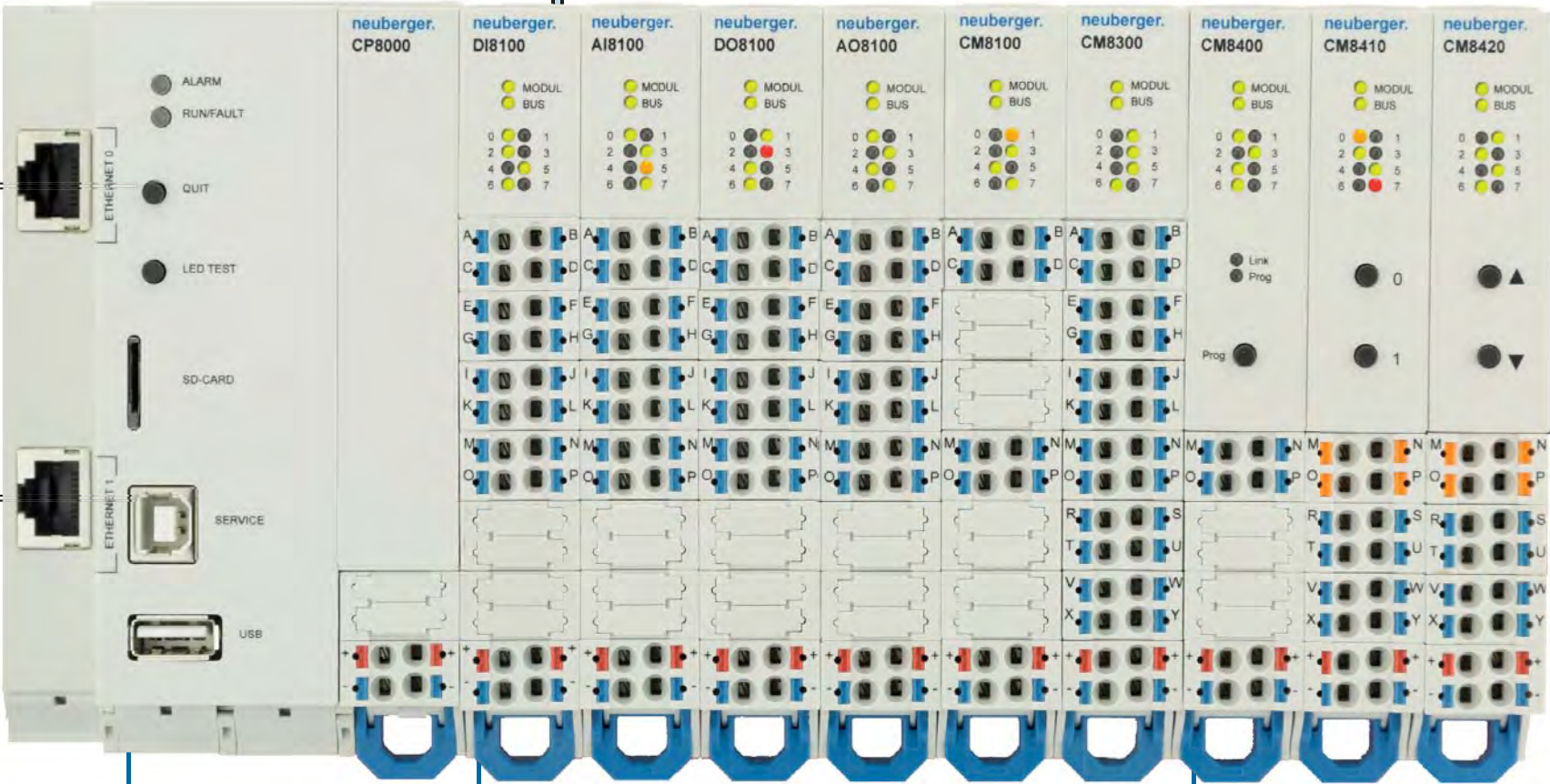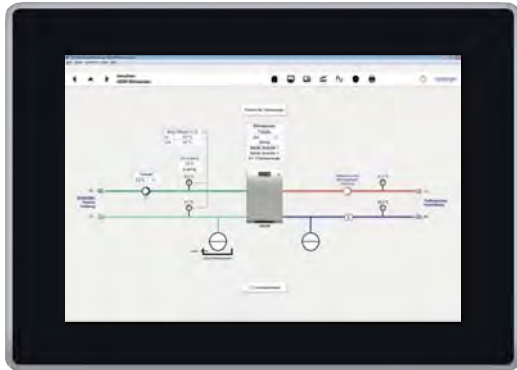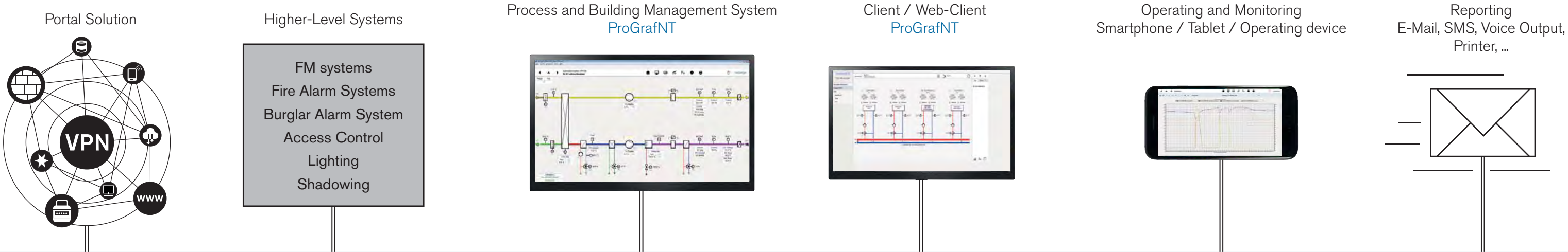
Internet/Intranet, Ethernet, TCP/IP,
BACnet/IP, OPC, LON

PMC2 / Open.Room -
the flexible and reliable automation systems

Operating device
flexible in size, design and function
customer specific

Room Controller ER4000
combines modern design, simple operating concept,
manufacturer-neutral communication and, if desired,
customer-specific design of the control and operating
level

Raum Hohenlohe
− 21.7°C +
Medien   Info

LICHT 1
LICHT 2
JALOUSIE
KOMFORT   ECO

Touch Panels
for web visualization and for
operation of the automation
stations via a local or remote
connection

Compatible with:
PMC2 Automation Station 4000
PMC2 Automation Station 6000
PMC2 Compact Automation Station DR4000
Room Automation System Open.Room

Inputs and outputs
Interfaces:
3x analog inputs (Ni1000 or 0-10V)
2x analog outputs (0-10V)
2x digital inputs (24V AC/DC)
2x digital outputs (24V)

The entire service portfolio from one source

Analysis, planning, solution
- Transparent definition of prices and services
- Realisation of the der implementation, factory and assembly planning
- Detailed scheduling and resource planning for target-oriented execution
- One permanent contact person during all project phases

Hard- and software development
- All systems originate from Neuberger and include the Automation Station as well as BMS-Software
- Your advantages: continuous enhancements , high availability, customer-specific and future proof solutions

Production
- Own production of switchboards and electronics assemblies und Elektronikbaugruppen
- Quality management system according to DIN EN ISO 9001
- Environmental management system according to DIN EN ISO 14001
- All systems are tested in a test field and in a climatic chamber before delivery

Independent through open systems
- All systems are equipped with standardized communication and signal interfaces.
- Simple integration of external systems and equipment e.g. Ethernet TCP/IP, Profibus, OPC, Modbus etc.
- You maintain all programming and configuration tools including application programs

Installation / Commissioning
- All systems are installed and commissioned by highly qualified service technicians from Neuberger
- The service technicians remain your personal contact person even after completion

Unlimited spare parts supply
- Lifelong and unlimited spare parts supply
- No product discontinuations
- Spare parts deliveries on site within 24 hours

You have a goal, we have the experience. **Automatic. Competent.**

neuberger.
weishaupt gruppe

Neuberger
Gebäudeautomation GmbH
Oberer Kaiserweg 6
91541 Rothenburg o.d.T.
GERMANY
Phone: +49 9861 402-0
Fax: +49 9861 402-333
E-Mail: info@neuberger.net
Internet: www.neuberger.net

One stop solution

The Neuberger company, founded in 1968, is a highly qualified supplier of products and solutions in the building automation and pharmaceutical industry.

Since 1995 Neuberger is a part of the Weishaupt Group and delivers everything from one source: planning, products, software, installation, commissioning, maintenance and service support 24 hours / 7 days.

Neuberger Gebäudeautomation provides highest efficiency to enable connection of all technical systems.

Hamburg

Berlin

Neuss

Leipzig

Frankfurt

Stuttgart

Schwendi

Munich

Weiningen (Switzerland)

Celje (Slowenien)

Neuberger Competence Centers
in the Weishaupt branches and subsidiaries

Headquarters in Rothenburg ob der Tauber, Germany