

PROCENTEC

The PROFIBUS and PROFINET Company



COMbricks

2. Monitoring

PROFI
BUS

PROFI
NET

COMbricks™ - The first PROFIBUS and PROFINET-based automation system that unites network components, permanent monitoring with ProfiTrace and remote I/O.

COMbricks is a modular system that allows a mix of automation components on a backplane. Repeater modules can be inserted next to a PROFIBUS slave and at the same time, in a webbrowser over Ethernet, the condition of the installation can be remotely inspected with ProfiTrace OE.

Permanent monitoring, logging and emailing

Permanent and simultaneous monitoring of 4 PROFIBUS networks is a powerful feature of COMbricks. Global projects and a shortage of (qualified) technical staff members are causing significant capacity problems. COMbricks offers a solution by remotely monitoring PROFIBUS installations over the Internet and alerting the user by email.

→ A web server with a ProfiTrace shell visualises the information in an understandable format (ProfiTrace OE). Because of the web browser, additional software is NOT required and a constant connection with a PC to the COMbricks is NOT necessary.



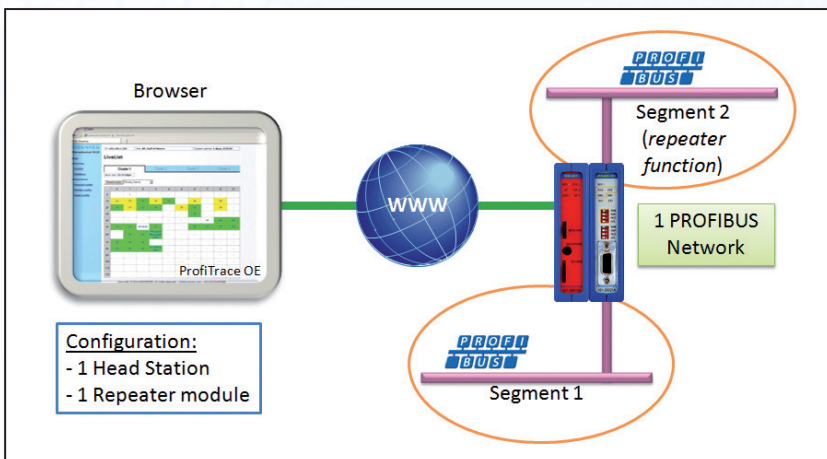
→ The monitoring and logging is performed by the repeater modules which are inserted in the backplane. COMbricks is the first system that has integrated the busmonitor in the network components. Deploying COMbricks repeaters for regular automation means an automatic availability of ProfiTrace OE.

→ Email messages provide real-time alerts should malfunctions be detected in the PROFIBUS installation. These can be relatively set up through the web server.

→ A brand new functionality within ProfiTrace OE is the device location detection. It gives a detailed overview of on which repeater segment the devices are installed.

Applications

- Cross border installations
- Inaccessible networks
- Long commissioning and test cycles
- High availability networks
- Robot cells
- Traffic control installations
- Water treatment
- Offshore installations
- 24-7 service contracts



The minimum configuration is a Head Station and repeater module.

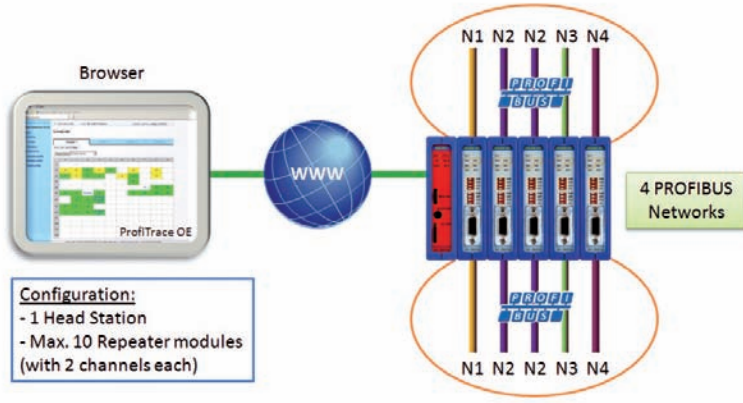
The repeater module does not have to be used as a repeater. Like a regular device, it can be easily connected to the installation for monitoring.

It can either be permanently installed or removed when it has served its purpose.

Monitoring of 4 PROFIBUS networks

Simultaneous monitoring of 4 PROFIBUS networks is a perfect innovation of COMbricks. The user can simply connect surrounding PROFIBUS networks and every network can be set at a unique baudrate.

The modular technology of COMbricks enables the network to be monitored when multiple repeater modules are installed. All transparent messages from the backplane are constantly analysed.



10 Repeater modules with 2 channels each (20 galvanic isolated segments in total) can be inserted into the backplane.

Using DIP switches or the web server, repeater modules can be assigned to a network group, which ensures isolated communication from the repeaters that are assigned to different networks.

Product features

- Simultaneous monitoring of 4 PB networks
- Up to 10 repeater modules (20 channels)
- Hotswap and extendible
- Web server with ProfiTrace functionality
- Logging of all events
- Email alerts
- Ethernet connection
- 24 V redundant power connector
- DIN-rail mounting / IP 20

Troubleshooting

The user can detect a wide range of bus faults and analyse statistics through the web server, email alerts and the log.

- Failure of devices (lost and syncs)
- Retries
- Corrupted messages
- Diagnostic messages
- Protocol errors
- Configuration and parameter errors
- Identification of all available devices

Web server functions

- 20 PC/laptop/mobile phone connections
- Live List
- Statistics
- Record telegrams
- Device location detection
- PROFIBUS and COMbricks logs
- Email alert service settings
- PROFIBUS network administration
- IP-number and access address settings
- Module diagnostics
- Module settings
- Administrator and user passwords

PROCENTEC
COMbricks webservice V0.103b

IP address: 192.168.0.237 MAC address: 9C:B2:06:00:00:16 System uptime: 0 days, 0:08:25
 Site: Boiler 5 Temperature: 30°C System time: 19-Nov-2010 9:05:56
 Company: Oil and Gas Company Country: ALASKA

ProfiTrace OE:

- Status
- Livelist
- Statistics
- Message recording
- System Log
- Network event Log
- User message

Configuration:

- General config
- Backup settings
- IP config
- Password config
- Network config
- E-mail account config
- Event config

Logged in as: Administrator
Logout

Livelist

| Tank 1 | | | | | | | | | | Tank 2 | | | | | | | | | | Valve 1 | | | | | | | | | | Valve 2 | | | | | | | | | | |
|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|----|----|----|----|----|----|----|----|----|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| Baud rate: 1.5 Mbps | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reset livelist | | | | | | | | | | Model_Name | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| 0 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
| 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | |
| 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | |
| 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Built for the future

COMbricks allows you to remotely monitor your PROFIBUS installations from anywhere in the world and will alert you if any faults arise or are likely to arise. It is a brand new method of diagnosing and designing networks in an era where there is a shortage of (qualified) technical staff and a huge amount of pressure on system availability.

The combination of network components and monitoring makes this product an ideal choice for organisations where asset management is paramount. It will also raise awareness amongst technical staff because the installation becomes understandable and predictable.

Monitoring does NOT require additional and frustrating software installations on the PC. As it is accessible through a web browser, most platforms - including mobile phones - are compatible with COMbricks.

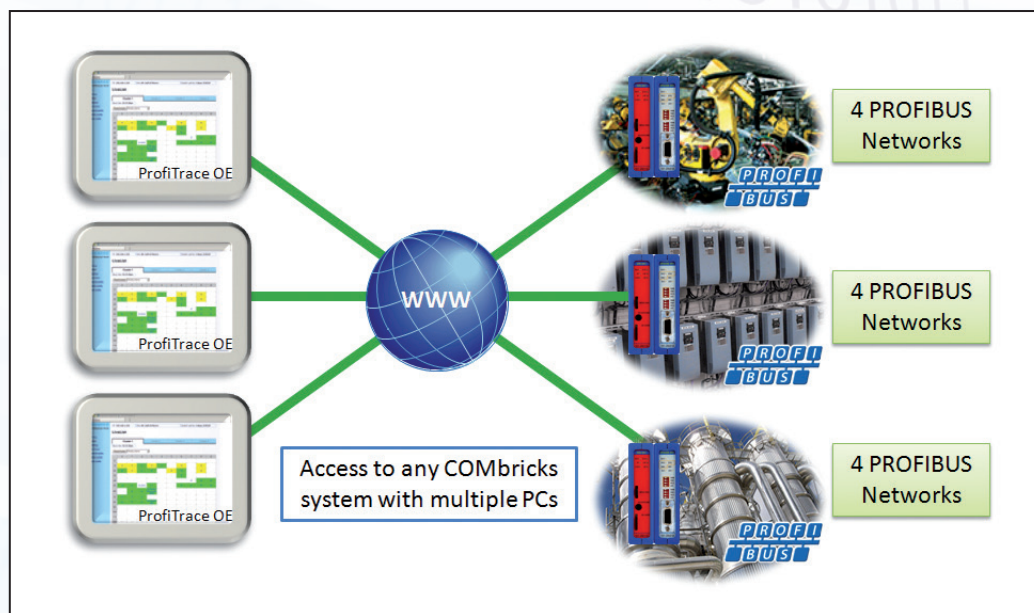
And much more.....

The bus redundancy technology of the repeater modules is very advanced. A redundant system can be built using 10 parallel cables. Most suppliers only allow 2 cables.

Apart from the repeater modules there is also a fibre optic module and currently under development is an RS 485-IS, a wireless and powerpack module for standalone and UPS functionality.

COMbricks can also handle PROFIBUS and PROFINET slave modules that control output modules or read sensors from input modules. The I/O and slave modules can be mixed with the repeater modules on the backplane.

The creation of stable automation hubs that can be used to compile a user defined functionality is the future of industrial automation.



Networking, Monitoring and Control

COMbricks

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Networking - **Monitoring** - Control