Maximizing security.
Creating transparency.
Increasing efficiency.

VisuNet RM Shell 4.1
for Thin-Client Operator Stations

Your automation, our passion.

PEPPERL+FUCHS

VisuNet RM Shell 4.1 – Smart HMI Solutions for Industry 4.0

Configuration, maintenance and support from a single, centralized workstation. Working in conjunction with the innovative VisuNet Control Center, VisuNet RM Shell 4.1 enables extremely efficient remote monitoring of VisuNet Remote Monitors. Ethernet technology makes communication possible within the production process and enables direct access right down to the sensor – across all hierarchical levels. This allows the opportunities and benefits presented by Industrie 4.0 to be fully harnessed, all the way up to Zone 1/21.

Home screen. All local remote protocols are listed on the home screen.

Smart Thin-Client Solutions to Meet Future Demands

With the introduction of the VisuNet RM Shell 4.1, we present the next generation of firmware for the VisuNet remote monitors (RM) that meets the demands of tomorrow in every detail: industrial thin clients that are tailored for virtualized and conventional process control systems.

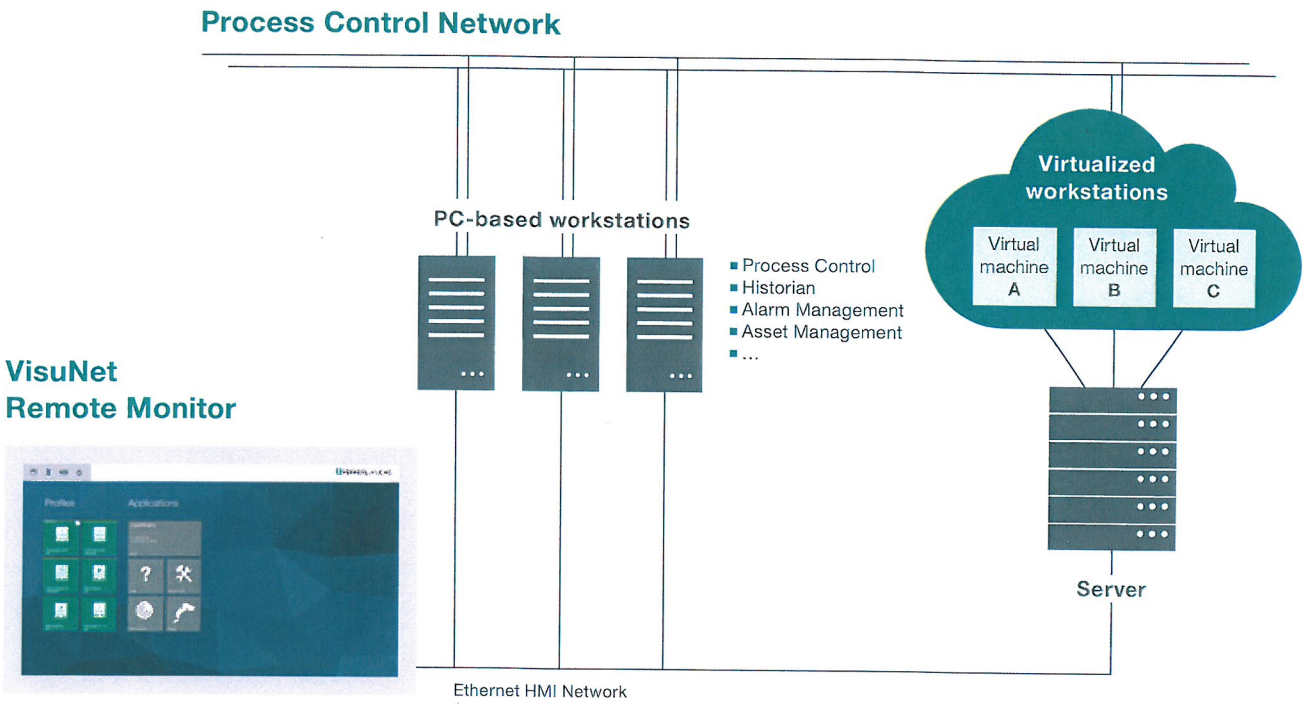
The new VisuNet RM Shell 4.1 supports all common remote protocols, such as Microsoft® RDP 8.1, RealVNC, NetC@P, and Citrix Receiver. The highlight of the current version is the innovative VisuNet Control Center software, which maximizes efficiency by making it possible to manage smart VisuNet Remote Monitors centrally. Configuration, maintenance, monitoring, support, and firmware updates are all carried out from a central workstation via convenient remote access. Hazardous areas and clean rooms no longer need to be entered, saving time and reducing costs.

Simple Integration into Industrie 4.0 Networks

Used in combination with VisuNet RM Shell 4.1 and the innovative Control Center, VisuNet Remote Monitors make it possible to harness the benefits of Industrie 4.0 for the process industry. Ethernet technology simplifies integration into Industrie 4.0 networks and allows both vertical and horizontal access to information from the process plant. This makes communication possible within the production process, while also enabling direct access right down to the sensor, across all hierarchical levels.

The smart HMI system communicates with the process control system or the MES, enabling the process plant to be controlled and monitored conveniently. What's more, the innovative remote management function enables VisuNet Remote Monitors to access Industrie 4.0 sensors for commissioning, configuration, or maintenance via a web browser. The sensors can also be parameterized using online technology. This is just one more way that the HMI system makes optimal use of the opportunities that Industrie 4.0 has to offer, even in explosion-hazardous areas.

Virtualized Process Control Systems to Meet Future Demands



With the RM Shell 4.1, the latest remote protocols (e.g., Microsoft® RDP 8.0) are installed to allow easy connection to conventional, (PC-based) workstations or modern, virtualized workstations, hosted on a server.

VisuNet Remote Monitors – Thin-Client Solutions to Meet the Demands of Tomorrow

With the launch of VisuNet remote monitor (RM) technology in 2007, Pepperl+Fuchs brought thin client technology to the process automation market. VisuNet RMs are patented, industrial-grade thin client solutions that opened up totally new and flexible opportunities by accessing process control systems via Ethernet. Our RM technology is applied in different Pepperl+Fuchs HMI product families, tailored to the different process industry demands in life science, chemical, and petro-chemical process facilities.

Fully Compatible with PC-Based and Virtualized Process Control Systems

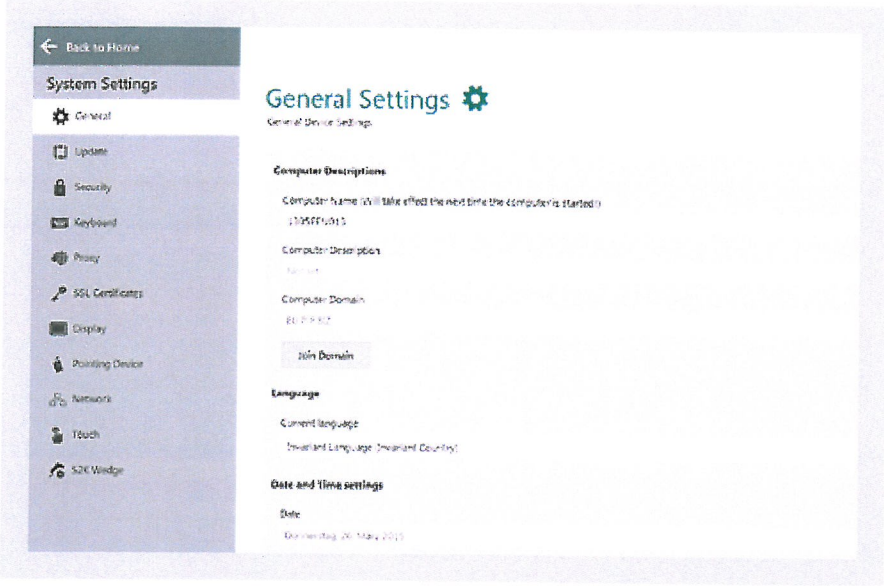
VisuNet remote monitors use standard Ethernet networking to access process control host systems. With virtualization, only the hardware is subjected to the hazardous area; the application is hosted and data is secure in the safe area. The digital communication between the RM and the host system guarantees a consistent, perfect-picture quality, without the configuration headaches common to analog KVM systems.

Browser with Restricted Access to Web Applications

In addition to the remote protocols, the RM Shell 4.1 also offers a restricted web browser, which allows users to define fixed addresses to web applications like web-based Manufacturing Execution Systems (MES). Operators can only access the pre-defined websites. This helps to increase the system security and to reduce the risk of a malware infiltration from unauthorized websites.

Secure, Reliable Connection with Cutting-Edge Features

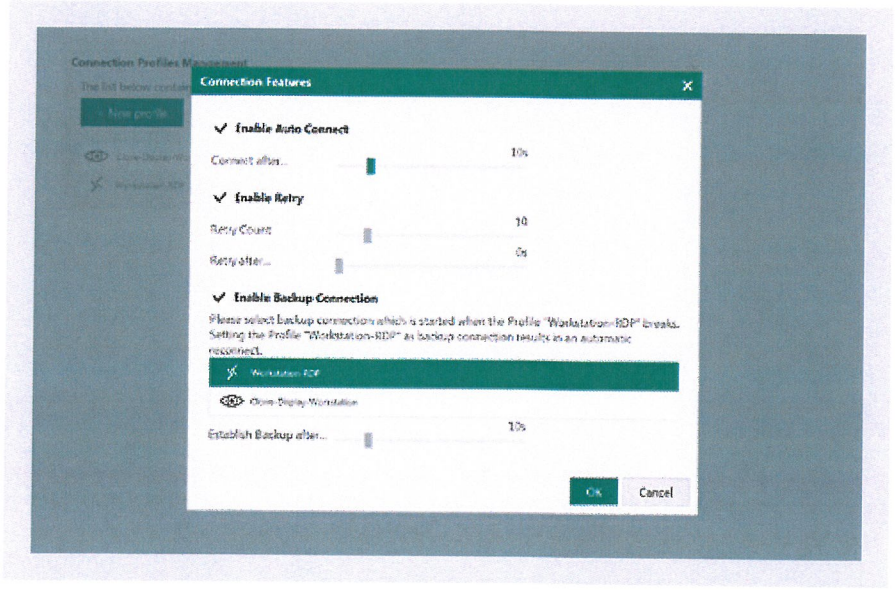
VisuNet RM Shell 4.1 provides the highest security standards by facilitating Microsoft® Enhanced Write Filter (EWF) mechanisms, a built-in firewall, and USB lockdown. These mechanisms prevent data, malware, or viruses from infiltrating the system.



System settings. Consistent design of important settings of VisuNet remote monitors.

Security Mechanisms for Maximum Reliability

Configuration is simplified with predefined, password-protected user roles (operator, engineer and administrator). This streamlines system access and the settings required during the configuration process of a VisuNet RM.



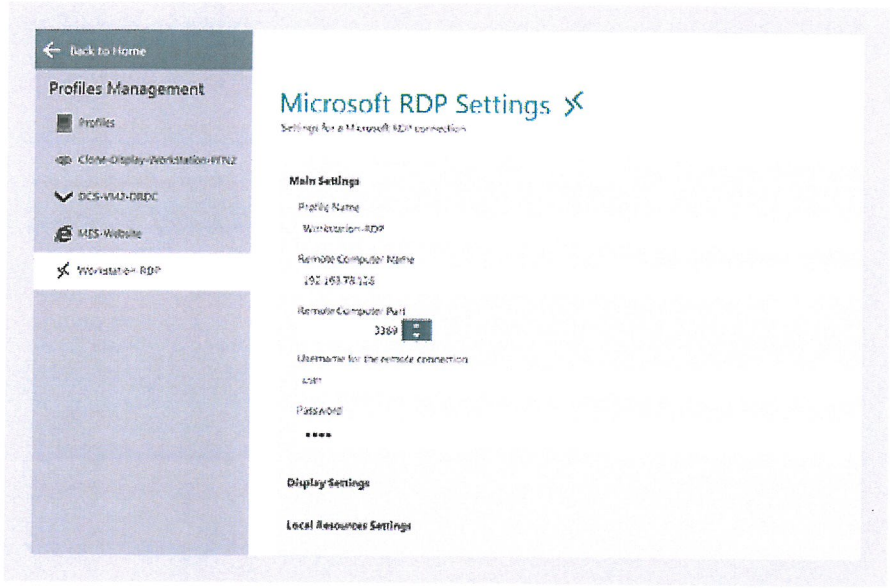
Backup connection and Auto Connect. Backup connections allow users to specify alternate host systems in the event of a host failure.

Additional Functions for Maximum Process Stability

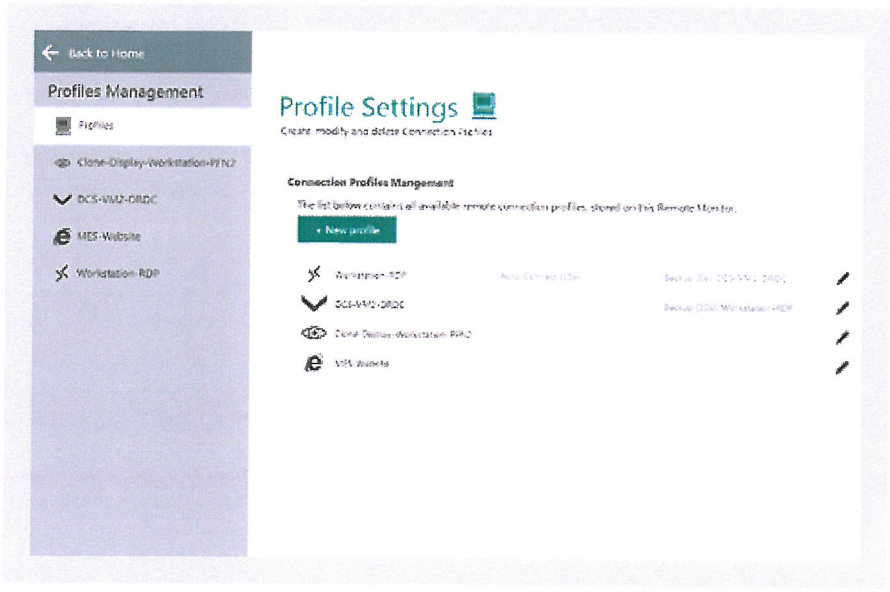
VisuNet RM Shell 4.1 also helps to significantly improve process stability. Additional functions ensure a stable connection to the process control system host and an error-free display of the process images. Even more, the auto-connect function can be used to configure the remote monitors so that they automatically establish a connection to a defined host system after starting up – without any further intervention on the part of the operator. This way, even connections that have been temporarily interrupted can be reestablished in a fully automatic process. Backup host connections can be configured in the RM Shell to automatically connect the RM to a backup host if the primary host fails or is not accessible.

Simplified User Interface for Easy Configuration

The RM Shell 4.1 makes the integration of an RM into the process control system environment simple: all VisuNet RMs provide a straightforward, modern user interface that simplifies the initial configuration of an RM. RM Shell 4.1 completely replaces the Windows® desktop and only shows the important system setup settings that are relevant for the first-time configuration of an RM. This is achieved via a consistent, touchscreen-optimized design among all protocol editors.



Profile management. A unified remote protocol editor for all profile connections (example: RDP, VNC).

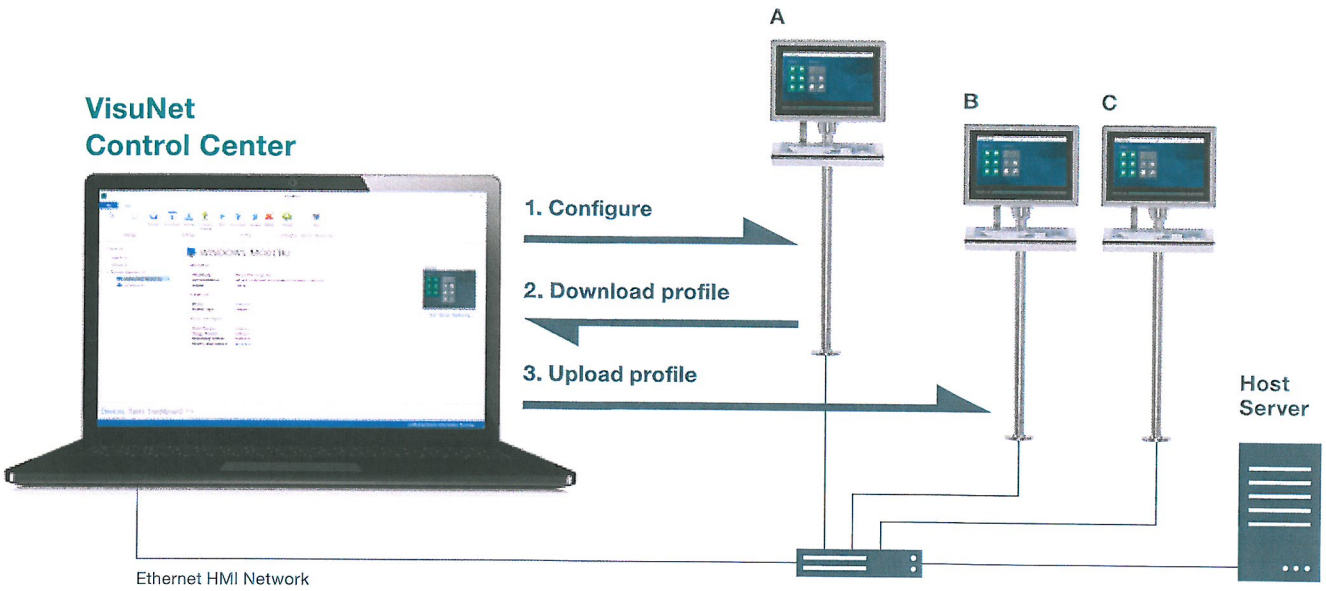


Consistent editors for all remote protocols, including access to advanced features like auto-connect.

Highlights

- VisuNet RM Shell 4.1 – next-generation firmware for VisuNet RMs
- Developed within the Microsoft® Windows Embedded Standard 7 framework to support IT compliance
- Replaces Explorer and restricts operators from system access
- Simplified, touch-optimized User-Interface to support easy system setup (Plug & Play)

Industrie 4.0 Generation Firmware: Efficient Remote Management



Fast commissioning, efficient maintenance, optimum support: With the new VisuNet Control Center, smart VisuNet Remote Monitors are conveniently managed from a centralized workstation via remote access.

Maximum Ease of Use – Tailor-Made for Process Engineers

Designed specifically to maximize user-friendliness, the VisuNet RM Shell 4.1 and the VisuNet Control Center provide a highly functional tool that is tailored precisely to the requirements of process automation and the needs of users. A modern, clean design with a ribbon bar ensures easy operation of the system without any particular IT know-how. This allows users to manage smart VisuNet Remote Monitors quickly and efficiently at any time from any remote location.

Innovative Profile Management with Remote Configuration

The remote configuration function offered by the VisuNet Control Center ensures maximum efficiency. The administrator can connect to a VisuNet Remote Monitor to create a new profile without leaving the central workstation. This eliminates the need to enter hazardous areas and clean rooms. The created profile can then be conveniently transferred to any number of monitors: an extremely simple and economical way to manage profiles.

Session Shadowing: Maximum Transparency, Optimum Support

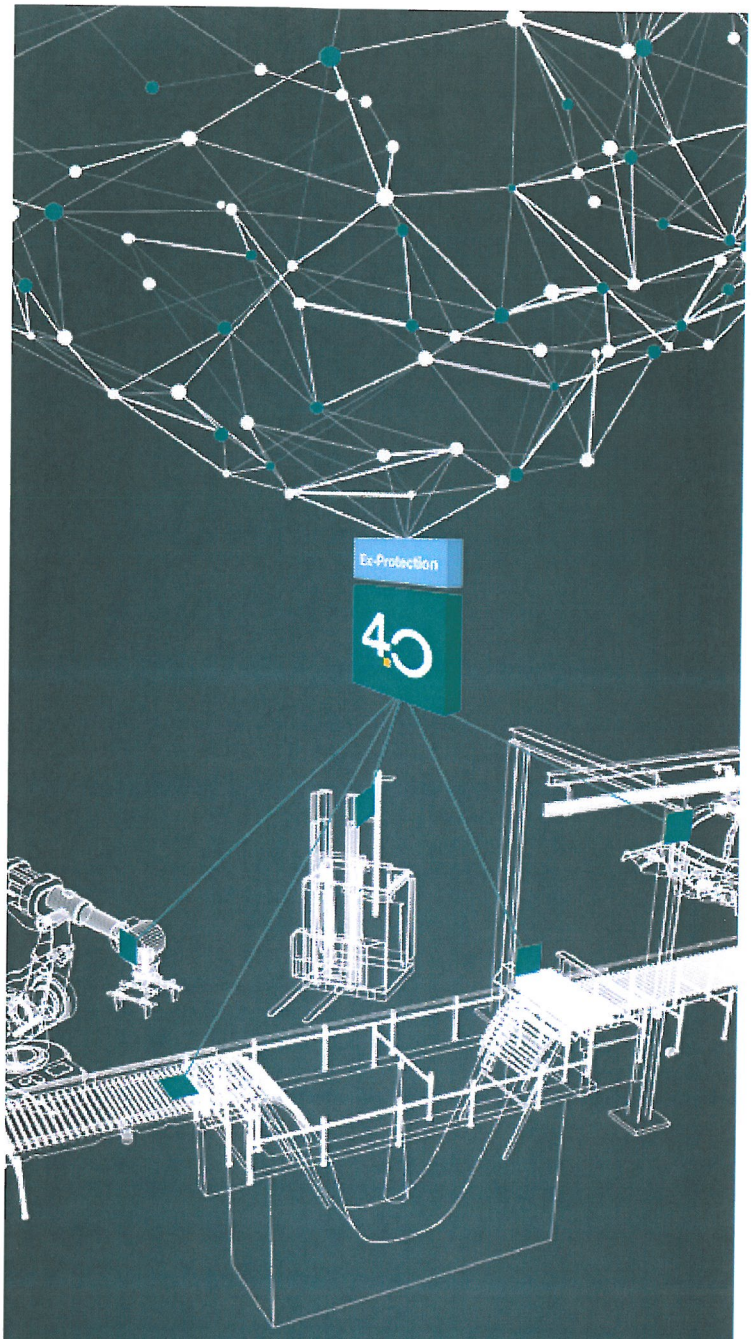
The VisuNet Control Center provides extensive possibilities for support and monitoring using session shadowing. The dashboard function displays all monitors in an overview, ensuring any errors are immediately recognized. If problems occur, the process engineer can immediately connect to faulty VisuNet Remote Monitors and support the user from their central workstation. If no employees are on site, the process engineer can take control through password-protected remote access. The VisuNet Control Center provides fast and cost-effective repairs and delivers maximum process transparency.

Central Management and Control Using Remote Command

Using Remote Command, VisuNet Remote Monitors can be managed in the field from a centralized workstation. This approach offers a significant advantage with fault prevention and maintenance, as all VisuNet Remote Monitors can be shut down and restarted using Remote Command. If a server needs to be rebooted in a controlled manner for maintenance, the smart monitors can be connected to an alternative server via remote access. In this way, VisuNet RM Shell 4.1 and the new Control Center ensure maximum process reliability and efficiency during maintenance.

Efficient Remote Management – For Individual Devices and Groups

Smart VisuNet Remote Monitors can now be managed remotely from the convenience of a centralized workstation via the Control Center. Configuration, networking, and firmware updates can all be performed via remote access in a quick and efficient process, as opposed to separately for each individual device. Entire monitor groups can be managed on demand in a single work step, saving time and reducing costs.



Smart HMI System: Harnessing the Benefits of Industrie 4.0

VisuNet Remote Monitors paired with the innovative remote monitoring systems offered by the Control Center illustrate the incredible range of opportunities that are now possible with Industrie 4.0. Smart HMI systems enable communication within the process for the very first time and have direct horizontal and vertical access to the information from the production system – all the way down to the sensors in explosion-hazardous areas and across all hierarchy levels. It is the perfect solution for harnessing the powerful benefits of Industrie 4.0 for the process industry, all the way up to Zone 1/21.

Your automation, our passion.

Explosion Protection

- Intrinsically Safe Barriers
- Signal Conditioners
- Fieldbus Infrastructure
- Remote I/O Systems
- HART Interface Solutions
- Wireless Solutions
- Level Measurement
- Purge and Pressurization Systems
- Industrial Monitors and HMI Solutions
- Electrical Explosion Protection Equipment
- Solutions for Explosion Protection

Industrial Sensors

- Proximity Sensors
- Photoelectric Sensors
- Industrial Vision
- Ultrasonic Sensors
- Rotary Encoders
- Positioning Systems
- Inclination and Acceleration Sensors
- AS-Interface
- Identification Systems
- Logic Control Units
- Connectivity

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