



THE STRONGEST LINK.

STAHL

HMIs IN THE PROCESS INDUSTRIES

For hazardous and industrial areas

HMI SYSTEM SOLUTIONS FOR ALL AREAS OF APPLICATION

Our ultimate goal is to develop the best HMI solution and technology tailored to the specific application requirements. Each device platform offers HMIs in different technologies – as Thin Client, Panel PC, or KVM system.

Each HMI platform has been engineered for reliable operation in different ambient temperatures, comes with different certificates, and in different screen sizes.

Thanks to the wide range of certificates, you can choose the HMI solution that best suits your needs and country-specific certification requirements.

To meet the trend of Industry 4.0 applications, we offer modern Thin Client solutions for virtual networks that provide flexible access from each operator station. Our latest app-based firmware ensures the highest degree of network communications security and makes administration easy.



MANTA



MANTA GMP



EAGLE



SHARK

R. STAHL – AUTOMATION SOLUTIONS

From explosion-protected HMIs, cameras and CCTV systems, remote I/O and network technology, barriers, and grounding devices we offer a complete automation portfolio for hazardous area applications.

R. STAHL is committed to providing the highest level of reliability and quality “Made in Germany”. By combining products, components and technologies, we create modern automation solutions perfectly matched to the varied requirements of the different industries across the world.

Be it the integration in modern Ethernet networks, the integration of diagnostics in plant asset management systems, wireless communications, or the development of visualisation concepts – we meet any challenge!

R. STAHL AUTOMATION –
MORE THAN YOU EXPECT.



REMOTE I/O



ALL-ROUND CAMERAS



CUSTOMER-SPECIFIC
SYSTEM SOLUTIONS



BARRIERS



WIFI

HMIs IN THE PROCESS INDUSTRIES

EXICOM human-machine interfaces (HMIs) stand out for their high level of compatibility to all DCS systems, such as Emerson DeltaV, Siemens PCS 7, or CENTUM VP. Available in 10", 15", 21.5", 24" screen sizes and in all relevant resolutions, our HMIs are suitable for operation in hazardous areas, Zone 1, 2, 21, 22.

To provide you with the HMI that best suits your application needs, we have developed different HMI device platforms:





MANTA widescreen HMIs are suitable for use in the process industries, pharmaceutical, fine chemicals and life sciences industries; EAGLE HMIs fit in all applications; and SHARK HMIs are suitable for outdoor applications and extreme ambient temperature ranges.

All HMIs are available as Thin Clients, Panel PCs, or KVM systems, as operator stations (OS) or panel-mount (PM) solutions; the range of accessories includes, for example, RFID reader or barcode scanner, etc.



OVERVIEW – HMI PLATFORMS



R. STAHL HMIs				
Device Platform				
	MANTA	MANTA GMP (safe area)	EAGLE	SHARK
Application	Pharmaceutical, chemical, life sciences industry	Pharmaceutical industry, life sciences GMP areas, cleanrooms	Universal HMI, machine and process control, tank farms	Outdoor and harsh environments
Screen Sizes	<ul style="list-style-type: none"> • 24" (1280 x 1024) (1680 x 1050) (1920 x 1080 Full HD) • 24"WU (1920 x 1200) 	<ul style="list-style-type: none"> • 24" (1280 x 1024) (1680 x 1050) (1920 x 1080 Full HD) 	<ul style="list-style-type: none"> • 10" (800 x 600) • 15" (1024 x 768) 	<ul style="list-style-type: none"> • 15" (1024 x 768) • 21.5" (1920 x 1080 Full HD)
Highlights	<ul style="list-style-type: none"> • Certificates for many countries • All relevant screen sizes 	<ul style="list-style-type: none"> • Designed to meet the highest hygienic standards 	<ul style="list-style-type: none"> • International certificates • Resistant to corrosive gases (ISA-S71.04 G3) 	<ul style="list-style-type: none"> • For extreme ambient temperatures • High resistance to shock and vibration
Safe Area	<ul style="list-style-type: none"> • FDA CFR 21 Part 11 	<ul style="list-style-type: none"> • EHEDG and EU-GMP compliance, purity class C • FDA CFR 21 part 11 	-	-
Certificates Zone 2, 22 / Class I, Div 2	ATEX, IECEx, EAC, CNEx	-	ATEX, IECEx, NEC, CEC, EAC, INMETRO, CNEx Marine certificates: DNV, LR, ABS	ATEX, IECEx, NEC, CEC, EAC, CNEx Marine certificates: DNV GL, ABS
Certificates Zone 1, 21	ATEX, IECEx, NEC, CEC, EAC, KGS	-	ATEX, IECEx, NEC, CEC, EAC, INMETRO, CNEx, KGS, PESO Marine certificates: DNV, LR, ABS	ATEX, IECEx, NEC, CEC, EAC, CNEx Marine certificates: DNV GL, ABS
Thin Client	New industrial-grade Remote HMI V5 Firmware			
Panel PC	Atom® E3845 quad-core processors	AMD GX quad-core processors	Atom® E3845 quad-core processors	AMD GX or Intel® i7 dual-core processors
KVM System	Digital DVI3 box	Digital DVI3 box	-	Digital DVI3 box
Operator Station with Enclosure	-30 °C ... +55 °C max. (-22 °F ... +131 °F max.)	0 °C ... +45 °C max. (+32 °F ... +113 °F max.)	-30 °C ... +50 °C max. (-22 °F ... +122 °F max.)	-40 °C ... +65 °C max. (-40 °F ... +149 °F max.)
Panel-Mount Module	-30 °C ... +60 °C max. (-22 °F ... +140 °F max.) with front panel mounting	-	-20 °C ... +55 °C max. (-4 °F ... +131 °F max.)	-

INNOVATIONS



Remote HMI V5 Firmware: SIMPLE – SECURE – RELIABLE

NEW

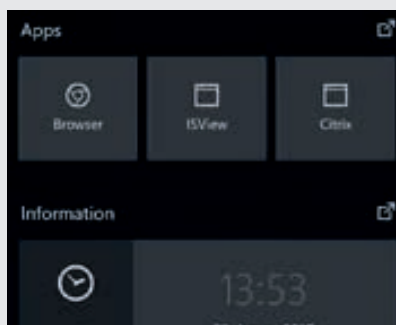
Our Remote HMI V5 Firmware boasts unparalleled performance and the most reliable Thin Client operating system.

Designed as a closed system running on Windows® 10 IoT Enterprise LTSC, the remote firmware features the latest remote desktop services with RDP 10 and VNC.

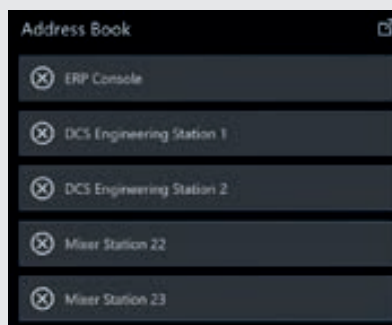
The unique app concept allows the highly secure integration of additional functions and protocols, such as Citrix, web browser and other applications.

Highlights at a glance

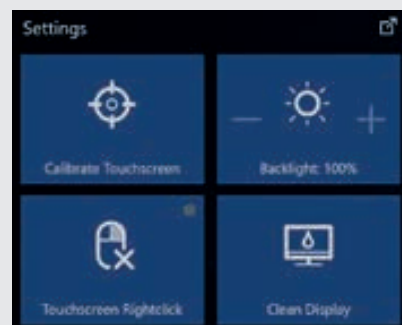
- App-based concept.
- Simple, intuitive navigation menu.
- Closed system based on Windows® 10 IoT Enterprise LTSC.
- Write protection for SSD.
- Customer-specific security concepts.
- Ethernet redundancy.
- Automatic reconnection.
- Fallback mechanism.



Innovative app-based concept



Simple, intuitive navigation menu.



Based on Windows® 10 IoT Enterprise LTSC

Card reader for all hazardous areas

NEW


Versatile user authentication solution for all HMIs, and for single stand-alone applications.

- Certified for use in Zone 1, 2, 21 22.
- Protocols, e.g., MIFARE CLASSIC, DESFIRE, LEGIC MIM, LEGIC ATC, SONY FELICIA, INSIDE SECURE, etc.
- For worldwide applications in ambient temperatures ranging from -40 °C ... +70 °C (-40 °F ... +158 °F).
- Installation directly in the hazardous area.
- Available as USB, RS-422, ASCII or CRYPT variant.

Box PC as Thin Client

NEW

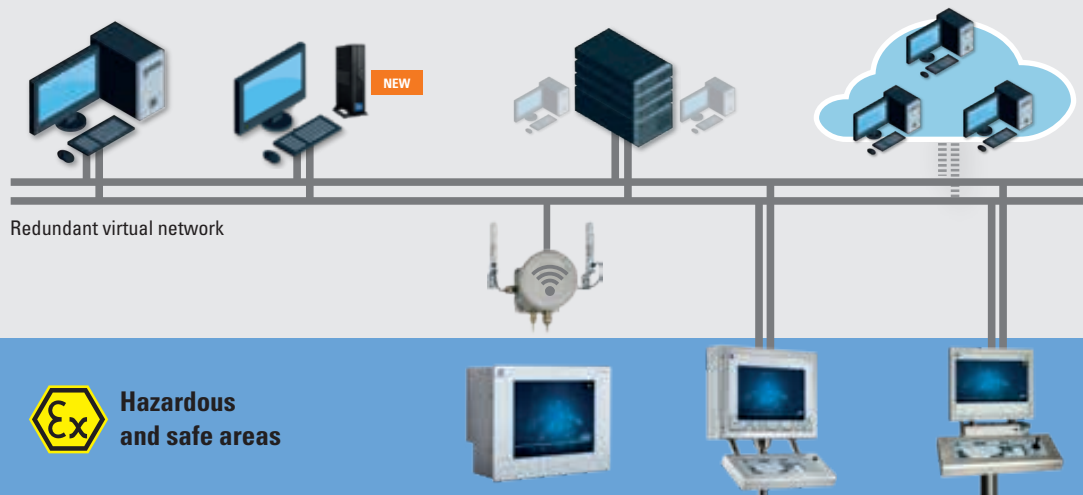

For end-to-end Thin Client solutions from the control centre to the field with integrated Remote HMI V5 Firmware.

- For all industrial area applications.
- Box PC running as a Thin Client.
- Based on Windows® 10 IoT Enterprise LTSC.
- Microsoft support until 2026.
- Integrated UWF and HORM filter.
- Powerful AMD GX dual-core processors with 4 GB RAM.
- Up to modern 4K Ultra HD resolutions.

PC WORKSTATIONS

VIRTUALIZED SERVERS AND WORKSTATIONS

AUTOMATION IN THE CLOUD



APPLICATIONS

INDOOR APPLICATION IN A CHEMICAL PLANT



MANTA dual-monitor setup with user authentication

Ideally suited for applications in the fine chemicals industry – the MANTA platform

In this production plant a dual-monitor Thin Client system solution has been designed for a virtual network in Zone 1.

The network redundancy allows simultaneous access to an ERP or MES system. User authentication is realised via the integrated card reader that allows direct log on the DCS.

The integrated up-to-date Remote HMI V5 Firmware based on Windows® 10 provides a high degree of communications security. All IP and user settings are self-explanatory and easy to configure.

Highlights at a glance

- General-purpose MANTA operator stations are suitable for hazardous area applications.
- Tested with all relevant DCS systems.
- RFID card reader, can be operated with gloves (FDA 21 CFR part 11).
- Barcode scanner portfolio for material entry.
- Almost all international certifications.

OUTDOOR APPLICATION IN A REFINERY



SHARK terminal with sunlight-readable display and RFID reader

Professional filling station and modern HMI solution

For the optimum control and monitoring of all filling operations in an outdoor application, the SHARK 21.5" was used as Thin Client in Zone 1.

The sunlight-readable Full HD display clearly visualises all process operations, even against the light. The HMI has a touch screen and is operable in a $-40\text{ }^{\circ}\text{C}$ to $+65\text{ }^{\circ}\text{C}$ ($-40\text{ }^{\circ}\text{F}$ to $+149\text{ }^{\circ}\text{F}$) temperature range.

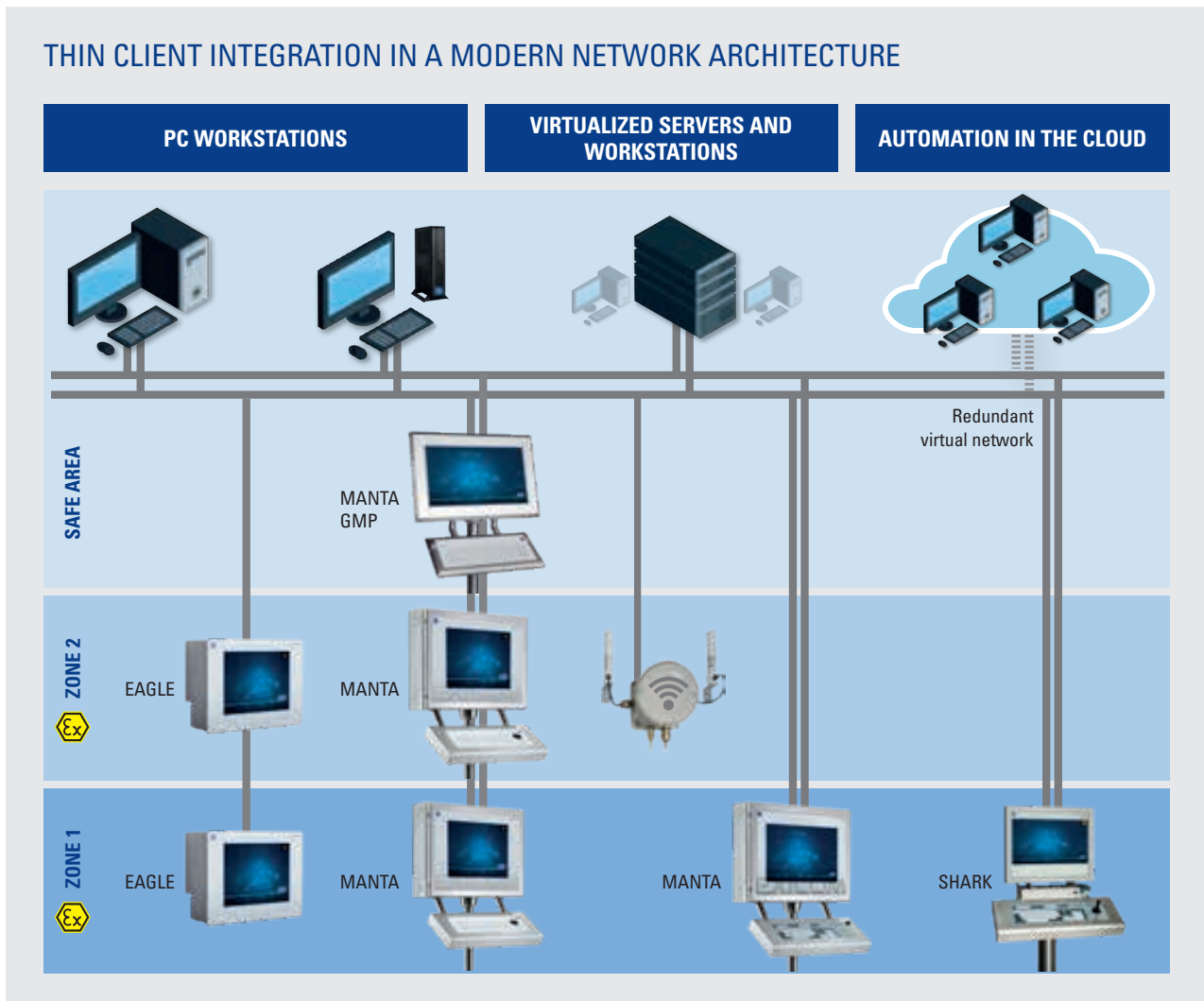
The Thin Client solution also allows network-based access from different terminals to virtual systems. The integrated card reader makes user authentication easy.

Highlights at a glance

- General-purpose system solution for hazardous area applications, even in extreme conditions.
- Tested with all relevant DCS systems.
- Automatic brightness adjustment, based on external lighting.
- Optionally available:
 - Integrated sunshade.
 - Explosion-protected keyboard.
 - RFID card reader.
 - Touch screen, can be operated with gloves.

TECHNOLOGIES

THIN CLIENTS



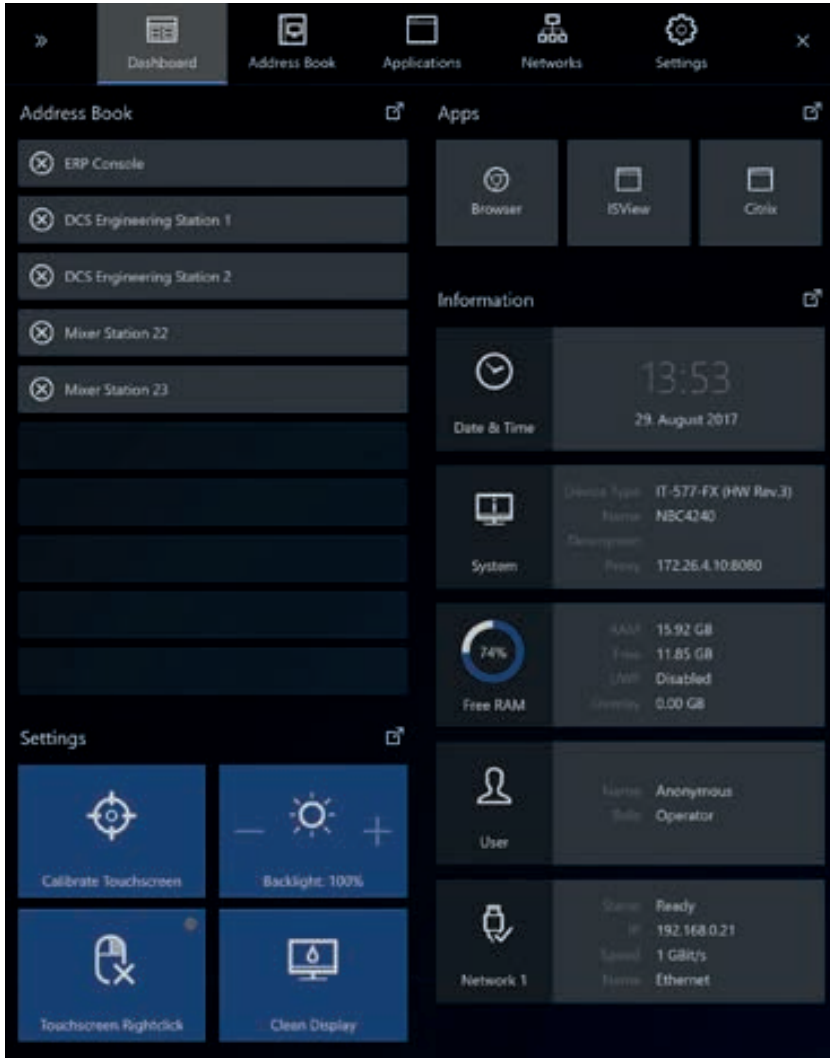
Safe into the future

Our Thin Clients have been designed to address the challenges in the process industry. They seamlessly communicate with PC workstations, virtual servers / workstations as well as with cloud-based systems.

Thin Clients in the field provide most diverse access options to most different systems from any terminal – using single redundant Ethernet, or WiFi over RDP, RealVNC®, Citrix, or Emerson DRDC.

Our new Box PC as Thin Client comes pre-configured with the latest Remote HMI V5 Firmware to provide an integrated security solution from the control centre to the Thin Client in the field, ensuring the highest level of system security.

THIN CLIENT REMOTE HMI V5 FIRMWARE



NETWORK DIAGNOSTICS

- Status display of all existing network connections immediately available.
- Diagnostics in case of IP address conflicts.

INTUITIVE APP CONCEPT

- Simple launch of parameterised applications in kiosk mode.
- Users cannot access Windows level.
- Examples: Citrix, DRDC, web browser,
- CCTV app, ERP system, and many more.

USER-FRIENDLY BASIC SETTINGS

- Touchscreen calibration.
- Brightness adjustment.
- Right mouse-click parameterisation.
- Deactivation of all input devices for cleaning purposes.

ADDRESS BOOK

- Simple, intuitive switching between workstation and servers.
- Parameterising of primary connections.
- Display of availability of workstations and servers.

Remote HMI V5 Firmware: Secure – Simple – Reliable

Our latest firmware version provides top-level protection and security for the communications between field system and process control system, easy-to-use applications, and user-friendly settings.

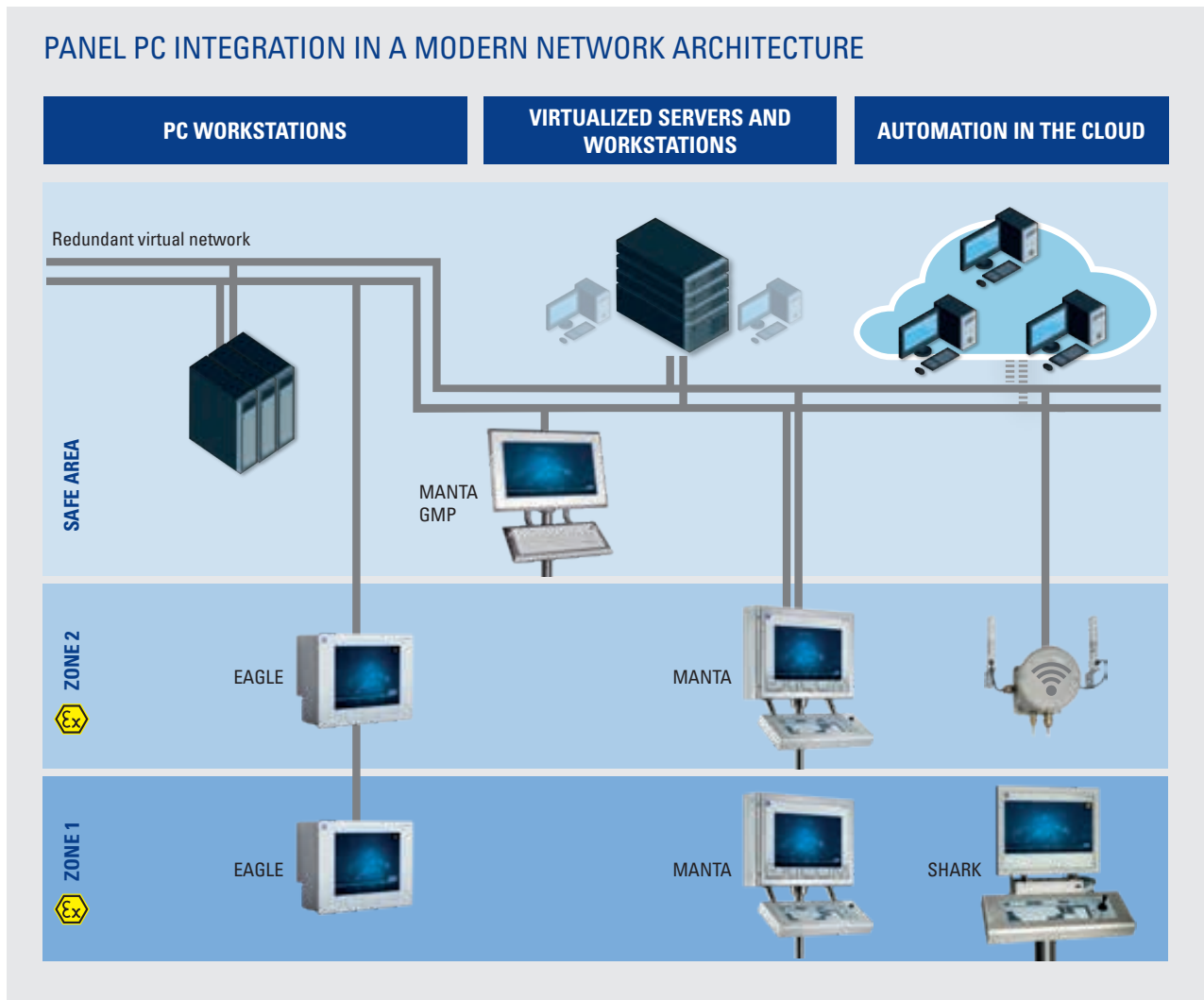
This new firmware version has been completely redesigned to meet even the highest requirements. The intuitive, app-based concept allows launching parameterised applications directly in kiosk mode.

Access to web browsers, Citrix or DRCD applications, and to the ERP or CCTV system is very easy.

The address book app allows easy parameterisation of primary connections, the clear display of all available users, and the simple switching between servers and workstations. Also app-based and user-friendly are the basic settings, the user management, access levels, and the overall network diagnostics.

TECHNOLOGIES

PANEL PCs



For network architectures and local applications

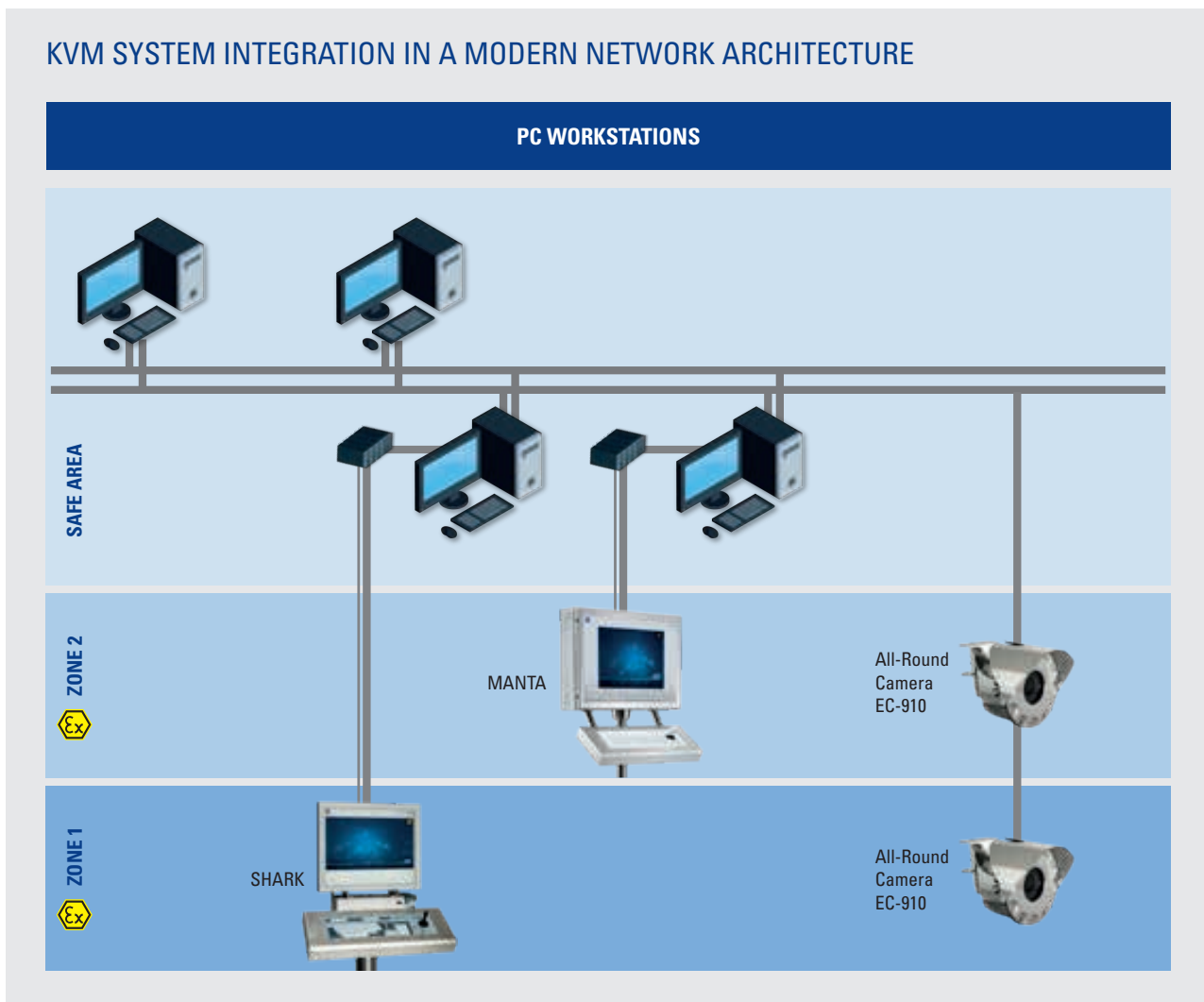
In addition to network-based functions, Panel PCs are suitable to perform site-specific, i.e. local software application purposes. We have designed different systems to address different application needs:

For hazardous area applications, 24" MANTA wide-screen PCs, and 10" or 15" EAGLE Panel PCs. For safe area applications, e.g., in cleanrooms and GMP manufacturing areas, we have designed the new 24" Full HD MANTA GMP Panel PC platform.

Highlights at a glance

- Panel PCs for Zone 1, 2, 21, 22, and safe GMP/cleanroom areas.
- Standard variant comes with Atom® E3845 quad-core processor.
- High-end variant comes with Intel® i7 dual-core processor.
- 4 GB Ram, 64 GB SLC SSD / 128 GB MLC SSD.
- Operating system: Windows® 10 IoT / Windows® 7.
- Filter: UWF / HORM.
- Control centre: device control panel.

KVM SYSTEMS



Fully digital with DVI3 box

KVM systems are simple and reliable, and ideally suited for simple point-to-point connections. The PC installed in the safe area files data to the KVM system in the hazardous area. Software changes and batch engineering functionalities are configured on the PC installed in the safe area.

Our fully digital, backwards compatible DVI3 box allows digital transfer of video data over a distance of up to 150 m using copper cable, and of up to 10 km using fibre optic cable – this makes KVM solutions ideally suited for video processing.

Highlights at a glance

- DVI3 box for fully digital data transmission.
- Transmission distance of up to 150 m using copper cable.
- Using fibre optic cable multi-mode < 550 m / single-mode < 10 km.
- Plug & play, pre-configuration is not needed.
- Also ideally suited for video file transfers / CCTV systems.

MANTA PLATFORM



MANTA operator station in GMP-compliant enclosure for Zone 1, 2, 21, 22, Div 2, and safe areas



Operator station in standard FR enclosure



Panel-mount module

IDEAL FOR APPLICATIONS IN THE PHARMACEUTICAL, FINE CHEMICALS, AND LIFE SCIENCES INDUSTRIES

The 24" and 24"WU MANTA widescreen platforms have been designed to visualise complex production processes in all common resolutions.

MANTA HMIs are suitable for use in Zone 1, 2, 21, 22, Div 2 and safe areas. These HMIs stand out for their brilliant image quality, glass touch screens and GMP compliance. They are available as panel-mount modules (PM) or operator stations (OS) in the field and allow for flexible configuration.

RFID readers and corresponding software in the control system grant access to authorised staff only. They meet the requirements of the FDA 21 CFR part 11 and GAMP. Barcode scanners, connected directly in the hazardous area via cable or Bluetooth, can be used to simplify material entry.

Highlights at a glance

- Suitable for Zone 1, 2, 21, 22, Div 2, and safe areas.
- As Panel PC, Thin Client, or KVM system.
- 24" / 24"WU, in all common resolutions.
- Brilliant image quality, GMP-compliant with glass touch screen.
- FDA 21 CFR part 11-compliant.
- Available as operator station or panel-mount module.

MANTA PLATFORM			
	Panel PC	Thin Client	KVM System
Highlights	<ul style="list-style-type: none"> • Atom® E3845 quad-core processors • Windows® 10 IoT Enterprise LTSB, or Windows® Embedded Standard • 4 GB RAM 	<ul style="list-style-type: none"> • New industrial-grade Remote HMI V5 Firmware • Fully secure process communications • Based on Windows® 10 LTSP 	<ul style="list-style-type: none"> • DVI3 box for fully digital data transmission • Transmission distance of up to 150 m using copper cable • Using fibre optic cable multi-mode < 550 m / single-mode < 10 km
Safe Area	✓		
Certificates Zone 2, 22 / Class 1, Div 2	ATEX, IECEx, EAC, CNEC		
Certificates Zone 1, 21	ATEX, IECEx, NEC, CEC, EAC, KGS		
Screen Sizes	<ul style="list-style-type: none"> • 24" (1280 x 1024) , (1680 x 1050), (1920 x 1080 Full HD) • 24"WU (1920 x 1200) 		
Touch Screen	Analogue resistive (optional)		
Operator Station with Enclosure	-30°C ... +55 °C max. (-22 °F ... +131 °F max.)		
Panel-Mount Module	-30 °C ... +60 °C max. (-22 °F ... +140 °F max.)		
Mounting Options CFR Enclosure	Cleanroom wall, stand pipe, wall mount arm, ceiling		
Mounting Options FR Enclosure	Standard wall, stand pipe, wall mount arm, ceiling		
Customer-Specific Solutions	Upon Request		

MANTA GMP PLATFORM



Operator station for safe GMP areas and up to purity class C-rated cleanrooms



Standard MANTA GMP operator station



Horizontal dual-monitor setup



Vertical dual-monitor setup

FOR APPLICATIONS IN GMP AREAS AND SAFE-AREA CLEANROOMS

The MANTA GMP platform operator stations have been specifically designed for applications in GMP manufacturing environments and cleanrooms in safe areas. The high-quality 24" widescreen HMIs provide process images in best image quality.

Designed to meet the requirements of the pharmaceutical, chemical, and life sciences industries they are available in Thin Client or PC technology. All Thin Clients are configured with our new Remote HMI V5 Firmware.

Thin Clients are ideally suited for real, virtual, or cloud-based operator stations, the industrial Internet of Things (IIoT), and Industry 4.0 applications.

The Panel PCs come in a modular, fanless design. They feature only selected components to meet the highest demands in stand-alone operation, and they are configured with open, fully configurable operating systems.

We also offer customer-specific solutions, e.g., dual-monitor setups or mobile systems.

Highlights at a glance

- For safe-area applications, and applications according to GMP and cleanroom purity class C (EHEDG- and EU GMP-compliant).
- Available as Panel PC or Thin Client with Remote HMI V5 Firmware.
- 24" multi-touch screen ensures brilliant image quality (Full HD).
- FDA 21 part 11- and GAMP-compliant.

MANTA GMP PLATFORM		
	Panel PC	Thin Client
Highlights	<ul style="list-style-type: none"> • AMD GX dual-core processors • Windows® 10 IoT Enterprise LTSC, or Windows® Embedded Standard • 4 GB RAM 	<ul style="list-style-type: none"> • New industrial-grade Remote HMI V5 Firmware • Fully secure process communications • Based on Windows® 10 LTSC
Safe Area	<ul style="list-style-type: none"> • EHEDG and EU GMP compliance, purity class C • FDA CFR 21 part 11 	
Screen Sizes	24" (1280 x 1024 / 1680 x 1050 / 1920 x 1080 Full HD)	
Touch Screen	Capacitive glass touch screen with multi-touch function (optional)	
Operator Station with Enclosure	0 °C ... +45 °C max. (+32 °F ... +113 °F max.)	
Mounting Options	Cleanroom wall, standard wall, stand pipe, wall mount arm, ceiling	
Customer-Specific Solutions	Vertical or horizontal dual-monitor setup, mobile solutions, desktop variants, more upon request	

EAGLE PLATFORM



EAGLE HMIs with 10" / 15" screen – for universal applications in Zone 1, 2, 21, 22, Div 2



Panel-mount module



Operator station in standard FR enclosure



Operator station in CFR enclosure for GMP areas

OUR ALL-ROUND TALENTS

The EAGLE platform units are our all-round talents for operating machinery and processes, for tank farm and filling applications. Thanks to their rugged design, they are certified for worldwide operation in hazardous areas and on board ships, they are resistant to corrosive gases (ISA-71.04 G3), vibration- and shock-proof (IP66).

As a standard, all models are equipped with touch screens, in 10" or 15" screen sizes.

The flexibly configurable operator stations (OS) are mounted inside enclosures and are suitable for operation in temperatures ranging from -30 °C to +50 °C (-22 °F to +122 °F), the panel-mount devices (PM) for ambient temperature ranges from -20 °C to +55 °C (-4 °F to +131 °F).

Highlights at a glance

- For universal applications in Zone 1, 2, 21, 22, Div 2.
- 10" / 15" touch screen HMIs.
- 10" HMIs available with different keyboard options.
- Resistant to shock and vibration.
- Resistant to corrosive gases acc. to ISA-S71.04 G3.

EAGLE PLATFORM			
	Panel PC	Thin Client	Operator Interface (incl. integrated operating/ visualisation software)
Highlights	<ul style="list-style-type: none"> • Resistant to corrosive gases (ISA-S71.04. G3) • Atom® E3845 quad-core processors • Windows® 10 IoT Enterprise LTSB, or Windows® Embedded Standard • 4 GB RAM 	<ul style="list-style-type: none"> • Resistant to corrosive gases (ISA-S71.04. G3) • New industrial-grade Remote HMI V5 Firmware • Highly secure process communications • Based on Windows® 10 LTSP 	<ul style="list-style-type: none"> • Resistant to corrosive gases (ISA-S71.04. G3) • Transmission distance of up to 150 m using copper cable • Using fibre optic cable multi-mode < 550 m / single-mode < 10 km
Certificates Zone 2, 22 / Class I, Div 2	ATEX, IECEx, NEC, CEC, EAC, INMETRO, CNEx Marine certificates: DNV, LR, ABS		
Certificates Zone 1, 21	ATEX, IECEx, NEC, CEC, EAC, INMETRO, CNEx, KGS, PESO Marine certificates: DNV, LR, ABS		
Screen Sizes	<ul style="list-style-type: none"> • 10" (800 x 600, integr. keyboard) <ul style="list-style-type: none"> • 10" (800 x 600) • 15" (1024 x 768) 		
Touch Screen	Analogue resistive		
Operator Station with Enclosure	-30°C ... +50 °C max. (-22 °F ... +122 °F max.)		
Panel-Mount Module	-20 °C ... +55 °C max. (-4 °F ... +131°F max.)		
Mounting Options CFR Enclosure	Cleanroom wall, stand pipe, wall arm, ceiling		
Mounting Options FR Enclosure	Standard wall, stand pipe, wall arm, ceiling		
Customer-Specific Solutions	Upon request		

SHARK PLATFORM



SHARK operator station with barcode scanner and integrated RFID module



Operator station with sunshade



Wall-mounted panel module



Rig Floor HMI

FOR OUTDOOR APPLICATIONS AND HARSH ENVIRONMENTS

"Rugged" – that sums up the SHARK platform HMIs specifically designed for reliable operation in the most adverse ambient conditions and outdoor applications. IP66-rated, they ensure trouble-free operation in temperatures ranging from -40 °C to +65 °C (-40 °F to +149 °F) thanks to the integrated heater and the innovative application of the stack effect.

The display and additional function keys are located behind a chemically hardened, non-glare glass pane.

The standard versions feature state-of-the-art technology, such as multi-touch screens, sunlight-readable, dimmable displays; the 21.5" models have a card reader for access control as an option, further options include Bluetooth, WiFi, and an integrated front camera.

Highlights at a glance

- Extremely rugged HMIs for outdoor applications.
- Available as Panel PC, Thin Client, or KVM system.
- 15" / 21.5" Full HD.
- Sunlight-readable displays with multi-touch screen functionality.
- Temperature range -40 °C ... +65 °C (-40 °F ... +149 °F).

SHARK PLATFORM			
	Panel PC	Thin Client	KVM System
Highlights	<ul style="list-style-type: none"> • Rugged design • Sunlight-readable displays (optionally available for the 15" variant) <ul style="list-style-type: none"> • High resistance to shock and vibration • Integrated card reader (optionally available for the 21.5" variant) 		
Certificates Zone 2, 22 / Class 1, Div 2	ATEX, IECEx, NEC, CEC, EAC, CNEx Marine certificates: DNV GL, ABS		
Certificates Zone 1, 21	ATEX, IECEx, NEC, CEC, EAC, CNEx Marine certificates: DNV GL, ABS		
Screen Sizes	<ul style="list-style-type: none"> • 15" (1024 x 768) • 21.5" (1920 x 1080 Full HD) 		
Touch Screen	Rugged PCAP (optional)		
Technology	<ul style="list-style-type: none"> • AMD GX or Intel® i7 dual-core processors (4 GB, 8 GB) 	<ul style="list-style-type: none"> • New industrial-grade Remote HMI V5 Firmware based on Windows® 10 LTSC 	<ul style="list-style-type: none"> • DVI3 box for fully digital data transmission
Operator Station with Enclosure	-40 °C ... +65 °C max. (-40 °F ... +149 °F max.)		
Mounting Options	VESA 200, stand pipe, wall mouting, yoke mount, panel mount		
Customer-Specific Solutions	Upon request		

ACCESSORIES



Barcode Scanner



Barcode scanner



Barcode 1D



Barcode 2D



Stacked barcode

Barcode scanner systems are used in a wide variety of applications in the process industries. They drive efficiency and guarantee error-free and accurate data input, e.g. necessary to meet FDA requirements and GAMP. Depending on the type of application, we offer hazardous area wired or wireless barcode scanner solutions.

Highlights at a glance

- Barcode scanner for Zone, 2, 21, 22.
- Reads 1D, 2D, stacked codes.
- Available as wireless and wired versions.
- Haptic and acoustic feedback after successful scan.
- Suitable for all device platforms.
- Can also be used as a stand-alone solution.



Card readers for all hazardous areas



Card reader



Key fob



Access ID-card

Our explosion-protected RFID readers have been designed to authenticate all users involved in the production process. In combination with our personalised RFID cards or key fobs, clear user authentication at the HMI is guaranteed, and the authentication information is transmitted to and documented in the control centre. Our RFID reader systems are also suitable for stand-alone operation in hazardous areas.

Highlights at a glance

- Universally applicable user authentication.
- For HMIs and other applications.
- Certified for use in Zone 1, 2, 21, 22.
- Protocols: MIFARE CLASSIC, DES-FIRE, LEGIC MIM, LEGIC ATC, SONY FELICIA, INSIDE SECURE, etc.
- Suitable for use across the world, at temperatures ranging between $-40\text{ °C} \dots +70\text{ °C}$ ($-40\text{ °F} \dots +158\text{ °F}$).
- Can be installed directly in the hazardous area.
- Variants available: USB, RS-422, ASCII, or CRYPT.

ENCLOSURE AND MOUNTING OPTIONS

ENCLOSURE OPTIONS FOR MANTA AND EAGLE PLATFORMS



Universal FR enclosure



CFR enclosure, for GMP areas



Mobile enclosure solution, upon request

MOUNTING OPTIONS FOR MANTA AND EAGLE PLATFORMS



Floor stand and ceiling mount



Wall mount, vertical position



Wall mount, suspended position

OPTIONS FOR MANTA AND EAGLE PLATFORMS



Card reader at keyboard enclosure



Card reader at monitor enclosure
(more options upon request)



Barcode scanner at monitor enclosure

ENCLOSURE OPTIONS FOR SHARK PLATFORMS



Standard enclosure



Standard enclosure with sunshade



Wall mounting solution

ENCLOSURES OPTIONS FOR MANTA GMP PLATFORMS (SAFE AREAS)



Standard enclosure for GMP areas and cleanrooms



Horizontal dual-monitor setup



Mobile solution



Desktop solution



Vertical dual-monitor setup

R. STAHL AUTOMATION – MORE THAN YOU **EX**PECT

AUTOMATION

SAFETY BARRIERS
INTRINSIAC

ISOLATORS
ISAP

REMOTE I/O
IS1+

FIELDBUS
IS//bus

NETWORK PRODUCTS

ZONE 2



ZONE 1



FIELD DEVICE



ISA100.11a



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