

CASE STUDY

Consistently safe in Ex and Non-Ex:

Chemical manufacturer unifies HMIs with ZeroClients and tablet PCs system



The user:

- International producer of specialty chemicals, e.g. for the construction sector
- New production site

The challenge:

- Consistent remote HMI solution for dissolver systems (Ex and Non-Ex)
- Mobile radio solution for data acquisition (Ex and Non-Ex)
- Digital support for maintenance rounds (Zone 1 and Zone 2)

The solution:

- POLARIS REMOTE ZeroClient as HMI solution
- Wireless hand scanner BCS3600
- AGILE S-NI Tablet PC system for inspections

Result and advantages:

- Consistent data management from the inventory management system to the production level
- Ex and Non-ex hardware from a single source
- Uniform IT management of the devices
- Highest IT security through ZeroClient technology
- More freedom of movement thanks to cordless bluetooth scanners
- Up to 7 bluetooth hand scanners paired with one base station
- More efficient and safe maintenance rounds with simplified communication and documentation

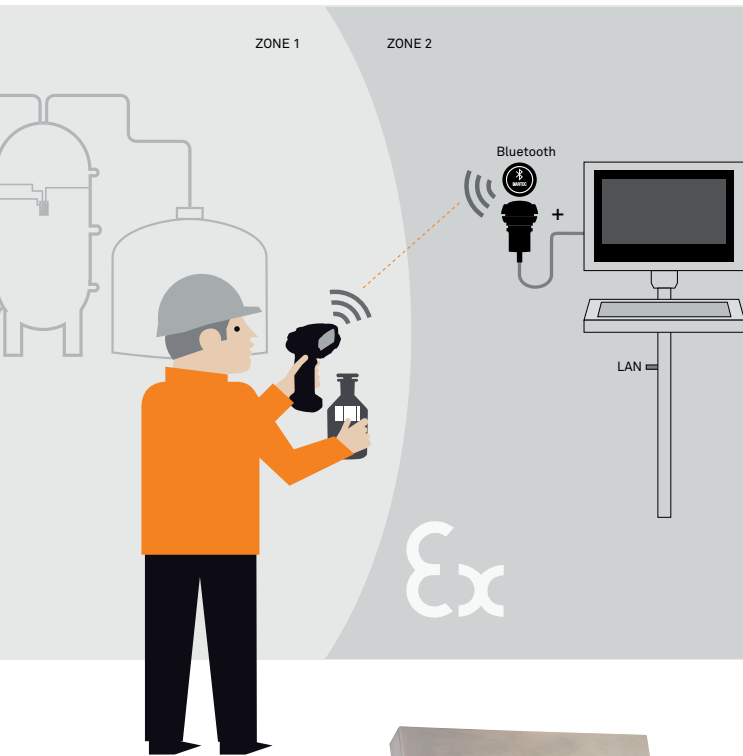
Producing specialty chemicals even more productively and safely - under this premise, an international manufacturer standardised dissolver operation and tours across Ex and Non-Ex areas. The complete solutions from BARTEC are based on the POLARIS REMOTE Zero Client HMI solution, BCS3600 hand scanners and the Agile S-NI tablet PC system.

The company's newly built plant produces innovative specialty chemicals for the construction industry. Approximately 10 dissolvers are used for mixing printing inks, plastisols and adhesives, which, depending on the product, create explosive atmospheres. In order to simplify installation, commissioning and handling, the company was looking for a new, uniform HMI and scanner solution for the respective operating stations.

Complete solution from a single source

As an experienced partner in this sector, BARTEC was able to convince with a total package, including professional consultation, test equipment and project support. Because the security and availability of the operation and monitoring of batch processes (recipes) were key customer requirements, an HMI solution with Zero Client technology was chosen. In terms of a scanner solution, the company decided on robust wireless devices the BARTEC BCS3660.

The ergonomically shaped hand scanner supports all common 1D/2D barcodes, PDFs, text, pictures, OCRs and handles up to 500 read operations per second.



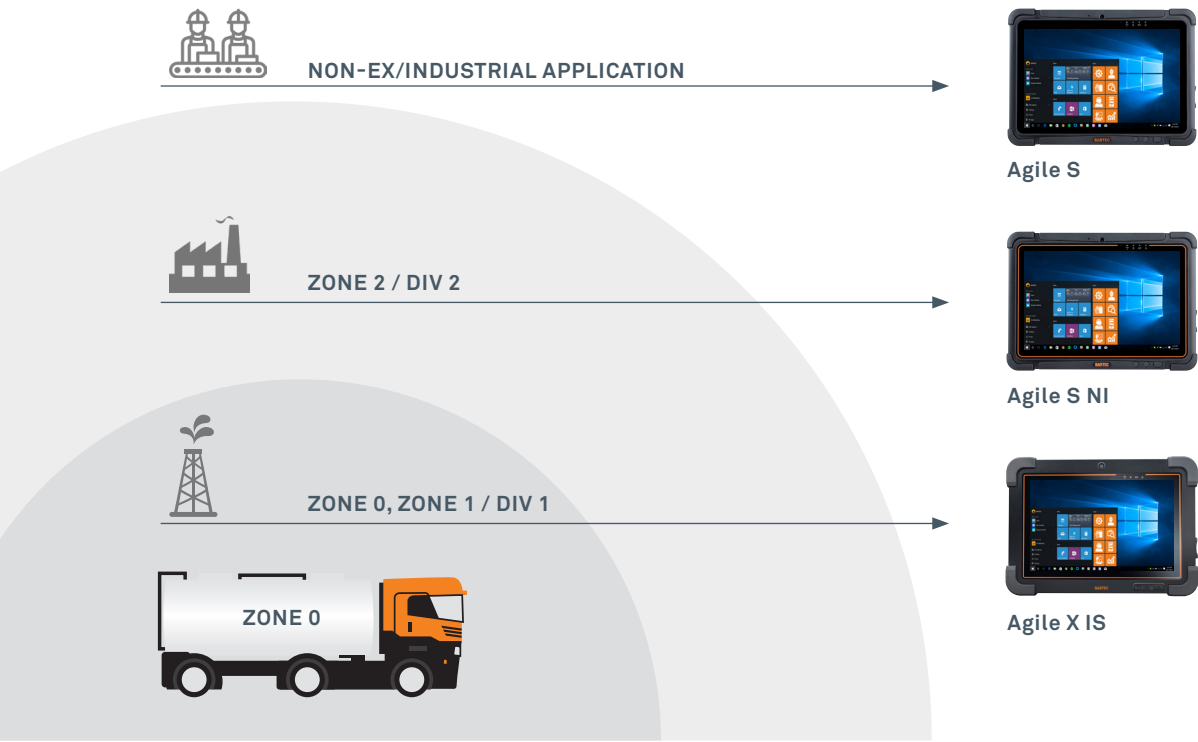
Optimised costs through standardisation

Due to the fact that BARTEC offers both components - ZeroClient and Bluetooth scanners - for Ex and Non-Ex areas, the chemical manufacturer benefits from significant cost advantages in terms of planning, installation and handling. Employees only need to be trained on one system, since the IT management is identical. Another advantage of the ZeroClient principle: In the event of any service case, the devices can be replaced quickly, i.e. without the time-consuming installation of application software. This is because only the RTP protocol is permitted for the remote connection. Since server services are deactivated on the POLARIS ZeroClient terminals, operating errors and manipulation from outside are effectively prevented.



Contemporary HMI, flexibly installable

Depending on the workplace, BARTEC supplied the HMIs either for front installation in an existing housing or as a complete solution in stainless steel housing with a support arm system. A key decision criterion was the 17.3"UHD display with an aspect ratio of 16:9. This format was identified as ideal for the new system, since the classic 4:3 format has become out-of-date in the meantime. However, the frequently available 24-inch models were too large for the application. With the help of BARTEC, the widescreen standard that is common today was successfully introduced in Ex areas, which in turn reduces IT management and software costs.



More freedom of movement thanks to tablet PCs

The company also makes use of BARTEC's expertise in enterprise mobility for maintenance and repair tasks. The chemical manufacturer is meanwhile using several Agile tablet PCs, which are also available for Zone 1, Zone 2 and Non-Ex and thus create a continuous platform with corresponding standardisation

advantages. The durable mobile devices are primarily used for tests as well as for communication and documentation in the field. Thanks to the integrated scanner, software-supported maintenance rounds and equipment checks are also possible.



Consistent data retention

Thanks to the standardisation of the IT systems in Ex and Non-Ex areas, the company now benefits from a consistent data retention between production level and merchandise management system and this with maximum economic efficiency. The customer feedback is correspondingly positive: "With the help of BARTEC, we have found the best solution in each case and are very satisfied with the professional consulting, technology and support. Our central contact person has additionally simplified and accelerated the implementation."



POLARIS REMOTE ZeroClient

POLARIS REMOTE ZeroClient is a modern, safe HMI series for Ex area Zone 1 and allows remote control of a backend computer via a secure RDP (Remote Desktop Protocol) connection. The user-friendly ZeroClient shell is designed by BARTEC in such a way that any potential hazards which may emanate from users or the network are avoided. The wired electrical connections are made via a terminal compartment of protection type "e" (increased safety). Latest display technology ensures optimum contrast at any viewing angle. The Front panel installation allows easy assembly. Upon request, the devices are also available as a complete system solution in a stainless steel housing and additional command and display devices for wall, floor or table mounting. Intrinsically safe input devices may also be connected. The optional touchscreen ensures maximum operating convenience.

