ABB and BARTEC revolutionise field device management

ABB has developed the Field Information Manager (FIM) to enable the setting up, programming and commissioning of hundreds of field devices to be simplified. The BARTEC Agile X Tablet PC series with HART add-on module makes the universal software solution available in mobile form from potentially explosive to non-hazardous areas and leads to further efficiency gains.

Millions of different field devices which must be regularly programmed and maintained are installed in the process industry. In view of what can be complex settings options, there is a huge need for standardised field device management, not merely to cover the diverse types of devices and communications protocols, but also to sustainably simplify everyday work in potentially explosive and non-hazardous areas and to release added efficiency potential through enterprise mobility.

Mobile solution for HART and FDI standards

As an ideal solution, ABB combines the standards-based Field Information Manager (FIM) software tool with the BARTEC Agile X Tablet PC series. Its optional HART add-on module also ultimately permits two-way communication with HART-compatible 4/20 mA field devices. ABB software uses the international standard Field Device Integration (FDI) to harmonise management across various types of devices and connections.

The initial situation:
- High expenditure on field device management
- Lack of a solution for strict management
- High cost due to special equipment with low functional range

The challenge:
- Standardised field device management
- Simplification of routine tasks in the field
- Device consolidation, greater functionality

The solution:
- ABB Field Information Manager (FIM)
- BARTEC Agile X Tablet PC series with HART add-on module and supplementary accessories

The Result:
- Harmonised field device management (FDI) with automatic driver selection and assignment
- Easiest operation, e.g. using shortcuts
- Uniform hardware basis from Zone 1 through to non-hazardous areas
- Added benefits in the field due to integrated scan engine and mobile office (Windows-based tablet PC)

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ABB Field Integration Manager (FIM)

50 % faster than traditional tools: the Windows-based FIM optimises field device management with the help of uniform administration via a user-friendly Windows app. Robust communication with field devices is possible from the control room, from the safe area or directly on the individual device. The suitable device driver is automatically assigned from a library and its modification is also taken into consideration. The FIM automatically detects devices connected by HART or Remote I/O.

If a driver is not in the library, field devices receive a generic driver for standard HART functions. Practically every HART device is supported thanks to the additional availability to use EDD drivers. The FIM handheld edition more over permits offline configuration of HART-compatible 4/20 mA devices in advance and shortens recurring tasks – also by means of templates for simple duplication, the comparison of parameters and the documentation of the device configuration.

thanks to the optional docking station. Added features such as an integrated 2D or RFID scanner furthermore support the digitalisation of processes, while the supplementary carrying system boosts convenience and safety in the field.

About ABB

ABB is a leading global technology company that works closely with its customers in the areas of electrification products, robotics and motion, industrial automation and power grids, energy supply, in industry and in transport and the infrastructure sector to promote the future of industrial digitalisation. The company employs around 135,000 staff in over 100 countries.

BARTEC Agile X: rugged, versatile tablet PC system for Zone 2, Zone 1 and non-hazardous areas. (Source: ABB)

BARTEC Agile X with HART add-on-module

The BARTEC Agile X Tablet PC series is available throughout for Zone 1, Zone 2 and non-hazardous areas. Thanks to the Windows OS, the handheld version of the FIM is installed in under three minutes and is ready to use immediately. Field devices are directly connected using the HART add-on module on the back plus two cables. The measuring range, tag number, unit and attenuation, for example, can then be set on the touchscreen and accelerated by means of shortcuts. This also simplifies specific service functions such as the Partial Stroke or Speed-over-Position test for positioners and valve drives. Additional savings potential arises through the possibility to consolidate devices. Rather than specific handhelds and laptops for potentially explosive and non-hazardous areas, one uniform standard tablet PC solution now suffices and even becomes a full desktop PC
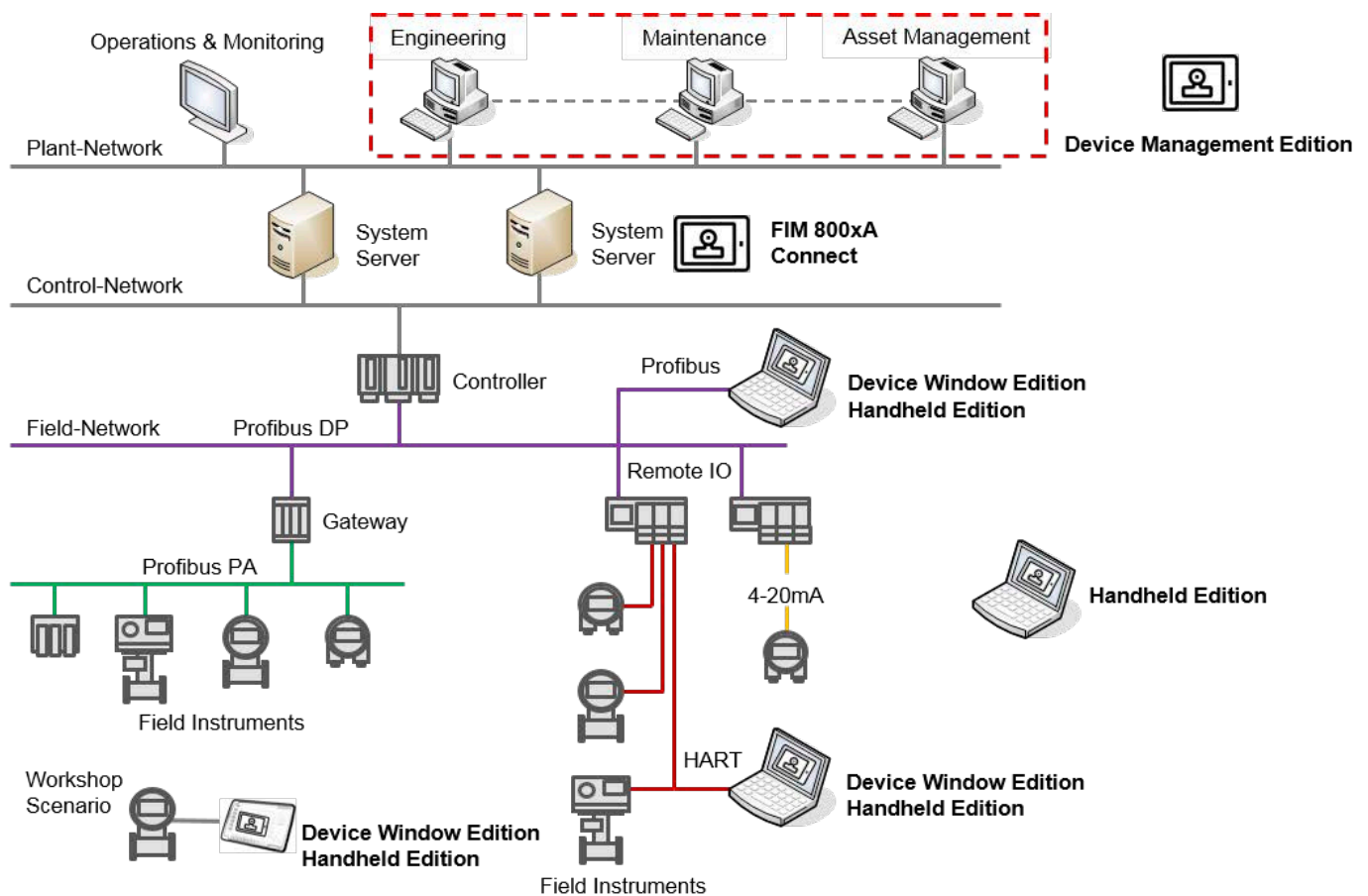
BARTEC Agile X (Zone 2) with mounted HART add-on module

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Sustainable efficiency and safety gains

The ABB FIM and the BARTEC Agile X Tablet PC series with HART add-on module revolutionise the management and everyday work with field devices. Both represent lasting efficiency and safety gains. Now those responsible have access to field device information from anywhere in the system network. Online documentation or expert assistance can be provided in conjunction with Wi-Fi or WWAN access. This makes on-site service deployments considerably more efficient, problems are solved faster and equipment booted up again. Mobile staff can now program, configure and maintain HART devices using just one tool throughout, from potentially explosive to non-hazardous areas. Further efficiency gains are made possible by the tablet PC as multifunctional tool for other process optimisations and as mobile office, using which spare parts can even be directly ordered from the field.

The ABB Field Information Manager supports a wide range of differently connected field devices. The handheld edition simplifies work with HART-compatible 4-20 mA devices in the field. (Source: ABB)

HART add-on module for use with the Agile Tablet PC system and connection cables included in delivery.

„"The BARTEC Agile X Tablet PC series with HART add-on modules is the ideal platform for the direct, robust and mobile provision of the FIM and other Windows apps throughout, from non-hazardous areas through to Zone 1. Our customers are delighted."

Hendrik Deckert, ABB Automation Products

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