

CONTROL TECHNOLOGIES

# Freelance distributed control system

## Version 2019 – What's new

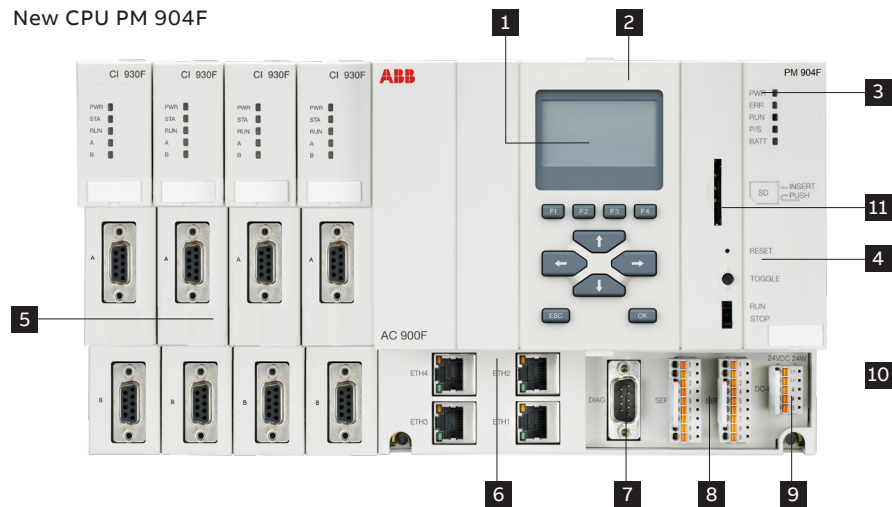


# Compact, scalable and reliable

With this new version, Freelance takes the next step into the future. Freelance 2019 provides significant improvements in all areas: scalability, usability, connectivity, compatibility and security.

01. Battery (underneath display)
02. Display (optional)
03. LEDs: Power, Error, Run/Stop, A/Sec, Battery
04. Switches/Buttons: Reset, Toggle, Run/Stop
05. 4 slots for communication modules
06. 4 x Ethernet 10/100 MB
07. 1 x Diagnosis/ Radio- Clock
08. 2 x serial lines, Modbus or Telecontrol
09. Power 24 V
10. Up to 10 direct I/O modules can be connected
11. SD card slot for loading programs, backup, loading firmware

New CPU PM 904F



Freelance is ABB's user-friendly, cost-effective and robust solution, ideal for all process industries, with the following benefits:

- **Easy to use:** It is easy to install, learn, engineer, commission, back-up, maintain and expand.
- **Scalable:** Projects can start very small with a few I/O's and grow to several thousand I/O's
- **Reliable:** It is a proven, award-winning and patented technology providing high reliability and availability.
- **Value for your money:** The small footprint and ability to run on any PC results in savings in training, installation, engineering and commissioning.

ABB is going to the next big step on the success story of Freelance. With this new version the Distributed Control System is more attractive than ever before for both, new projects and its huge installed base .

## What's new?

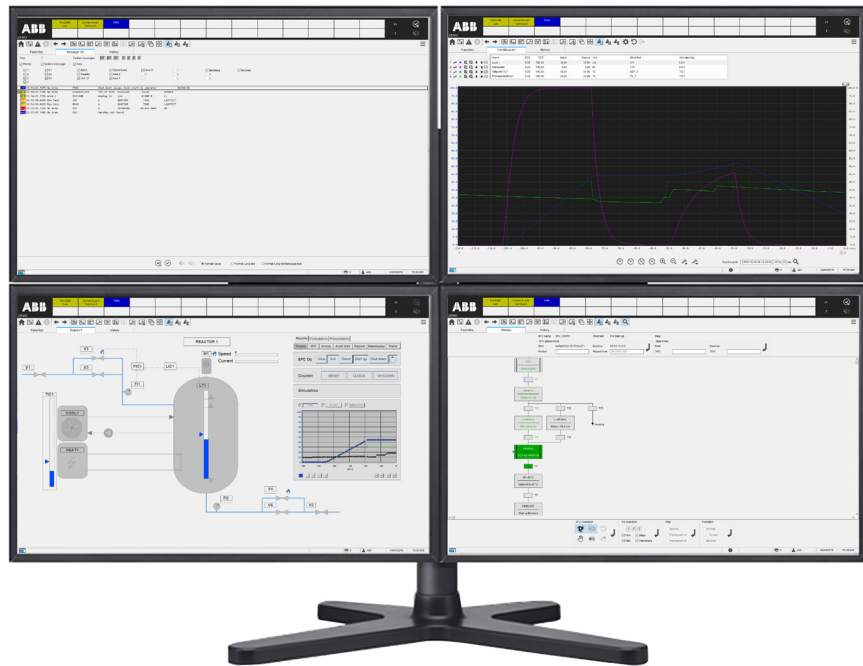
### Additional CPU variant for the AC 900F controller

The new Plus version of the CPU, the Processor Module PM 904F, expands the capabilities of the Standard version, the Processor Module PM 902F.

It supports up to four (4) Communication Interfaces for PROFIBUS or CAN as well as more application memory. In addition there is a specific memory reserved for the permanent storage of variables (cold retain values), that can be used for e.g. for life time counters or metering data..

### Overview of AC 900F Interface - PM 904F

- Four (4) built-in and free configurable Ethernet ports supporting System bus redundancy, Modbus TCP/IP, Send & Receive UDP or TCP and IEC 60870-5-104 Telecontrol protocol
- Two (2) serial ports supporting Modbus RTU/ ASCII or IEC 60870-5-101 Telecontrol protocol
- Four (4) slots for Communication Interfaces:
  - PROFIBUS master modules providing integrated line redundancy
  - CAN bus modules for connection to Freelance Rack I/O
- Direct connection to S700 I/O modules (up to 10). The S700 I/O series provides high density configurable modules that support a mix of inputs and outputs and even analog and digital I/Os in one module for a small footprint.



### Multi Monitor support

Freelance Operations expands its multi monitor support. With Freelance 2019 up to four (4) monitors can be connected to a single operator workplace. The available display types per monitor, as well as the arrangements of the monitors, are easily configured and fulfill the typical requirements on occupational safety and operator effectiveness.

### Freelance Operations

Freelance Operations received various improvements in terms of the User Interface and User Experience. The new Freelance Operations leans on the High Performance HMI style while making sure that experienced users from former Freelance versions still feel confident.

To give some examples: The usage on larger screens or for touch support on Panel PCs has been improved with a bigger icon bar and message line as well as enlarged fonts. For faster navigation, additional tabs for Display History and Display Favorites has been introduced. The Display Explorer and the Trend displays now have additional search functionality. For improved Security, the automatic Logoff after a configurable timeout has now been implemented.

Like previous versions, all exiting user applications are 100% compatible with the new Freelance version.

### Freelance Engineering

With focus on Engineering Efficiency we improved all filtering and sorting functionality. Also the auto routing capabilities in the Function Block

Diagram editor has been improved. With this new version it is possible to backup / restore the whole project application file including all operator graphic displays, logic programs, and even field device parameters directly via SD Card within the controller (AC 700F and AC 900F).

### Security improvements

Freelance extends its User Management capabilities known from "Security Lock" by an alternative solution called "Extended User Management". This new option makes use of Windows User accounts, local as well as domain accounts are supported. With this new option typical requests like a central password management, rules for password complexity, or password aging can be fulfilled.

For compatibility reasons, "Security Lock" is still supported as an option. Customers now have the possibility to choose between these options.

### Benefits of the new version at a glance

- Enhanced scalability: New PM 904F expands the AC 900F controller family in the upper range
- Improved usability: Freelance 2019 provides significant increase of efficiency for Operations and Engineering
- More connectivity: Four (4) communication Interfaces in new AC 900F with PM 904F
- Enhanced Security: New Extended User Management based on Windows User accounts
- As a matter of course, Freelance Version 2019 still supports Freelance hardware from its first version
- Compatibility: Freelance 2019 runs on Windows 10 and Windows 7

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