F-PRO Offliner

v3.3 Rev0

Release Description

DATE: 2025-04-30

FEATURE ENHANCEMENTS

- Added support for F-PRO 4500 v1.0 Firmware (setting version 601)
- Added support for F-PRO 297 v1.3 Firmware (setting version 4)
    - IEEE curve constants updated according to the revised IEEE standards.

CORRECTIONS TO ISSUES

- Major (affects F-PRO 215, 216, 235, 295*)*: Fixed an issue where the Offliner was displaying an improper argument window when invoking the View Setting Summary from the Record Graph and Record Base Central Station software.
- Major (affects FPRO-297): Fixed issue where the DNP 3.0 point map was not handled during the conversion of settings from version 2 to version 3.
- Minor (affects FPRO-297, 298): Fixed an issue where Output Contact 14 was user-configurable on the Output Matrix page.
- Major (affects FPRO-297, 298): Fixed an issue where disabling the 60VTS blocking function did not disable the VTS blocking settings across all the protection functions.
- Major(affects FPRO-297):Fixed issue where an incorrect range of Pickup values was observed for 46/50 & 46/51 functions in offliner for both 1A & 5A.
- Major(FPRO-297):Fixed issue where the Serial Number was not saving in the Relay Identification page.
- Major(FPRO-297):Fixed issue where port numbers could not be changed in the SCADA Communication page if an out-of-range port number was entered.
- Major(FPRO-297):Fixed issue where an incorrect range of Pickup values was observed for 46/50 & 46/51 functions in offliner for both 1A & 5A.
- Major(FPRO-297):(Changed hysteresis settings data type to float and updated the range to 0.05 to 2.00 Hz for all 81U/O frequency functions.
- Major(FPRO-297):Removed ‘Reset Delay’ setting and ensured ‘A’ setting constant value is correctly saved in the 24IT function.

COMPATIBILITY:

F-PRO 116 Firmware Versions	v1.3 and below
F-PRO 215 Firmware Versions	v2.0 and below
F-PRO 216 Firmware Versions	v1.4 and below
F-PRO 235 Firmware Versions	v2.6 and below
F-PRO 295 Firmware Versions	v1.5a and below
F-PRO 297 Firmware Versions	v1.3 and below
F-PRO 298 Firmware Versions	v1.8 and below
F-PRO 4500 Firmware Versions	V1.0
Microsoft Windows	Windows 10 Professional Windows 11 Professional

Minor releases, designated with a letter suffix (e.g. v3.1a), maintain the same compatibility as the base version (e.g. v3.1=v3.1a).

REVISION HISTORY

V3.2 Rev0 – 2024-10-17

- Added support for F-PRO 116 v1.3 Firmware (setting version 3).
- Added a Virtual Inputs page under Identification to provide user-configurable names.
- Added 5 Virtual Inputs in DNP Point Map, Class Data, Prologic Input List, LED, and Output Matrix pages to enable receiving Control Commands via DNP3.0 Protocol.
- ISEF channel is renamed as ISEF/REF in the function settings, matrix and Prologic pages.

V3.1 Rev0 – 2022-01-12

- Enhancement: Added support for F-PRO 116 v1.2 Firmware (setting version 2).
    - Added 50N1, 50N2 and 51N Protection Functions.
    - Added DNP 3.0 serial communication protocol for SCADA communication.
- Enhancement: Added support for F-PRO 298 v1.7 Firmware (setting version 6).
- Major (affects F-PRO 298): Fixed issue where the 81U/O function hysteresis setting was not being used correctly to reset the function. The setting has been changed from a percentage to a fixed value.
- Major (affects F-PRO298): Fixed issue where the Timers settings on the Identification > Output Contacts screen would only accept integer values.
- Minor (affects F-PRO 116): Fixed issue where BFI, 79I, and 79B were available to be selected in the Output Matrix for the 50BF, 79 and 74TCS functions when they should not have been.
- Minor (affects F-PRO 116): Fixed issue where the External Input and ProLogic user defined names were not updated in the LED matrix.

V3.0 Rev0 – 2021-08-26

- Enhancement: Added support for F-PRO 297 Firmware v1.2 (setting version 3):
    - Removed the ability to change the IED IP Address via the Setting File. This prevents the user from inadvertently changing the IP address and losing connection to the IED when changing other settings. The IP Address can be configured via the IED front panel display or the maintenance terminal via USB.

v2.9 Rev0 – 2021-07-05

- Enhancement: Added support for F-PRO 298 Firmware v1.6 (setting version 5):
    - Removed the ability to change the IED IP Address via the Setting File. This prevents the user from inadvertently changing the IP address and losing connection to the IED when changing other settings. The IP Address can be configured via the IED front panel display or the maintenance terminal via USB.

v2.8 Rev0 – 2021-03-26

- Enhancement: Added support for F-PRO 116.
- Enhancement (F-PRO 298): Moved the unit network configuration settings from the SCADA communication screen to the Network screen.
- Enhancement: (F-PRO 298): Added the ability to select the IEC 61850 Communication Alarm in the Output Matrix and LED Matrix.
- Minor (all products): Fixed issue where the minimum current setting in the System Parameter screen was set to default when opening a saved setting file instead of the value in the file.
- Minor (all products): Fixed issue where text and graphics were not displayed correctly with some display resolutions. This only affected Windows 10 installations.
- Minor (F-PRO 298): Fixed issue where the 67N-Direction I2 or 3I0 Sensitivity Level was incorrectly displayed as 0.20 A when a setting file was opened with this setting above 0.20 A and Zero Sequence Polarization Method selected. The I2 or 3I0 Sensitivity Level was being correctly saved to the setting file.
- Minor (all products): Fixed issue where the configured ProLogic names were not shown correctly in a setting group created using Copy Setting Group. The names were shown correctly after closing and opening the setting file.
- Minor (all products): Fixed issue where the Nominal System Frequency was set to 50Hz when Offliner was opened from RCP while connected to an IED configured as 60Hz.
- Minor (F-PRO 298): Fixed issue where the TMS setting option was not configurable in the 24IT screen when ‘Inverse Curve’ was selected as the Curve Type.
- Minor (F-PRO 298): Fixed issue where changing the enable/disable state of 51N/67N-1 or 51N/67N-2 in the Protection Summary screen did not trigger a file save prompt when exiting the setting file. It also did not change the enable/disable state in the 51N/67N screen.

v2.7 Rev0 – 2019-12-27

- Enhancement: Added support to configure the cumulative Auto Reclose Counter alarm in the F-PRO298 relay.

- Enhancement: Added support to configure the Fault Locator feature in the F-PRO298 relay.
- Enhancement: Added support to configure ‘Sequence’ polarization method settings and the ability for the user to select between the 'Sequence' or 'Quadrature' polarization method when configuring the 67 Phase Overcurrent Directional Element in the F-PRO 298 relay.
- Enhancement: Added support to configure the current sensitivity level for the 67N and 67SEF functions in the F-PRO298 relay.
- Enhancement: Added support for the user to select the phase for the ‘Synch Voltage Input’ in the
  F-PRO298 relay.
- Enhancement: Added support for the user to configure the additional 'Voltage Difference' check in the 25 Check Synchronization function in the F-PRO 298 relay.
- Enhancement: Updated the IEEE Curve Constant values in accordance with the IEC 60255-151ed1.0b:2009 standard in the F-PRO 298 relay.
- Enhancement: Increased the 'Pick-up I2' setting range in the 46/50 and 46/51 functions to 25x and 10x nominal current respectively.
- Enhancement: Updated to F-PRO298 Operating Manual v1.4 Rev 0.

v2.6 Rev0 – 2019-07-17

- Enhancement: Added support for DNP3.0 to F-PRO215, 216, 235, 295 relays.
- Enhancement: Added support for 32 and 37 functions in F-PRO297 relay.
- Enhancement: Updated Operating Manuals.
- Minor: Modified the resolution of pickup delay time in 50BF function in F-PRO297 and F-PRO298.

v2.5 Rev0 – 2018-11-09

- Enhancement: Updated F-PRO235 User Manual.
- Enhancement: Updated F-PRO215 User Manual.
- Minor: Modified the pickup range selection of 32 protection function.
- Minor: Modified the resolution of pickup delay time in 50BF function in F-PRO 297 and F-PRO 298.

v2.4 Rev0 – 2018-07-05

- Enhancement: DNP3.0 protocol enhancements in setting version 2 of F-PRO297 and F-PRO298.
- Enhancement: Added 32 Directional power protection function in setting version 2 of F-PRO297 and F-PRO298.
- Enhancement: Added 37 Undercurrent protection function in setting version 2 of F-PRO297 and F-PRO298.
- Enhancement: Added Updated F-PRO298 User Manual v1.1 Rev0.

v2.3 Rev1 – 2018-06-13

- Enhancement: Added F-PRO297 User Manual v1.0 Rev2.
- Enhancement: Added F-PRO298 User Manual v1.0 Rev2.

v2.3 Rev0 – 2018-05-17

- Minor: The range for 3ph pickup voltage in 60 VTS function corrected as 1 to 50Volts.
- Minor: 24IT -DTL V/F pickup range is corrected to 1 to 2 PU.

v2.2 Rev0 – 2018-03-27

- Enhancement: Added F-PRO297 User Manual v1.0 Rev1.

CLASSIFICATION OF CHANGES MADE

The issues fixed in software / firmware upgrades are classified as defined below. While the decision to upgrade installed products is the user's, these classifications provide a guideline for the need and priority of the upgrade.

Critical: Critical changes fix issues/problems that prevent the basic operation of the device and have no workaround. Critical changes merit a product upgrade as soon as possible, if that function is being used under the conditions causing the issue.

Major: Major changes fix problems that prevent the basic operation of the device but do have a workaround. Any major changes merit a product upgrade as soon as possible if the function is being used under the conditions causing the issue and a workaround is not acceptable.

Minor: Minor changes fix non vital issues that do not prevent the basic operation of the device and may or may not have a workaround. Product upgrades for such changes are not necessary unless they apply to and are needed by the user.

Enhancement: Feature enhancements add a capability or extend existing capabilities of the product. Upgrades for such changes need be made only if and when that feature enhancement is desired**.**