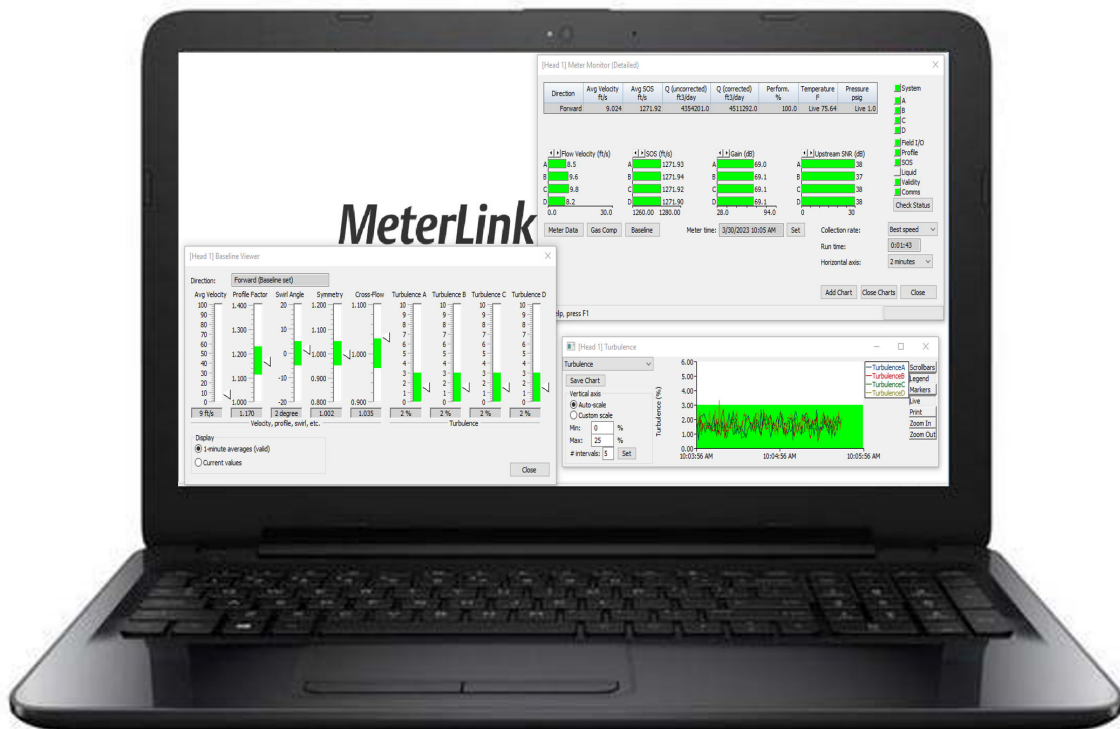# Software Release Summary: MeterLink™ for Rosemount™ Gas and Liquid Ultrasonic Flow Meters

ROSEMOUNT™

EMERSON™

Version 1.94

meterlink-1.94.024.exe SHA-1 checksum 618D835CB5E4DA88D5AE37F1E1EF196BD46BDC97

- General
  — Added support for 3410 Series version 1.62 firmware.
  — Added support for 3410/3810 Series version 1.70 firmware.
  — User authentication reveal password buttons are now on/off vs. momentary previously.
  — Improved support for characters in the Chinese, Japanese and Korean languages in PDF reports (Mass Import User Database and Smart Meter Verification).
  — Supports only Excel 2016 and later.
  — Updated MeterLink help files.
  — Resolved several bugs from earlier production releases.
- Meter – Field Setup Wizard
  — The AGA8 page allows gas composition mole percentages from 0 to 100%, i.e. outside the AGA10 expanded and GERG-2008 intermediate quality ranges.
- Tools – Waveform Viewer
  — Stream files now include additional meter configuration in the stream file header.
- Tools – Gas SOS Calculator
  — Allows gas composition mole percentages from 0 to 100%, i.e. outside the AGA10 expanded and GERG-2008 intermediate quality ranges.
  — Displays the computed SOS's uncertainty per AGA10/GERG-2008.
- Logs/Reports – Maintenance Logs
  — Reduced Excel maintenance log creation time by up to 45%.

Version 1.92

meterlink-1.92.013.exe SHA-1 checksum A26EA78A1224029984118EBA81B20416B5F4ABE4

- General:
  — Added support for 3410/3810 Series version 1.61 firmware. (MeterLink 1.92 or later must be used with 8+n Dual-Configuration meters.)
  — Resolved several bugs from earlier production releases.
- File – Meter Directory:
  — Simplified modifying the default meter name after add, insert, and insert duplicate operations.
- Meter – Meter Monitor (Summary):
  — Added support for 8+n Dual-Configuration meters to the Dual-Configuration Meter Monitor.
- Meter – Field Setup Wizard:
  — Added support for ISO 17089 Modbus configuration in the General page.
- Meter – Mass Import User Database:
  — Simplifies user management by allowing you to maintain an identical user database in a large number of meters on a network.
- Help – Technical Support:
  — Improved and updated MeterLink and Registers Reference help files.

Version 1.90

meterlink-1.90.037.exe SHA-1 checksum: FBF611FCD86CCE41F8D53446A755772CA8AF4B5F

- General:
  — Any earlier MeterLink version must be uninstalled before installing this version. (The meter directory and other data files will not be affected.)

  — Discontinued support for Windows® 7 and 8.1.

  — Added support for Microsoft Excel® 2021.

  — Added support for access privileges for the three user types implemented in authenticating meters (3410/3810 Series version 1.60 and later firmware).

  — Resolved several bugs from earlier production releases.

- Meter - Connect:
  — Added support for connections to authenticating and non-authenticating meters.

  — Added support for cached credentials for authenticating meters.

  — Added support for meter reset mode options, i.e. reset users and cold start meter.

- Meter – Communications Settings:
  — Added support for Modbus TCP access modes.

  — Added support for enabling/disabling the HART protocol.

- Meter – Meter Information:
  — Added meter model number and nominal size for 3410/3810 Series version 1.60 and later firmware.

- Meter – Manage Users:
  — Added support for user management (add/change/delete/import/export) in authenticating meters (3410/3810 Series version 1.60 and later firmware).

- Tools – Transducer Swap-Out:
  — Updated Zero Flow Calibration report templates for export. (Rebranding)

- Tools – Program Download:
  — Added support for upgrading authenticated meters. (MeterLink 1.90 must be used to upgraded to 3410/3810 Series version 1.60 and later firmware.)

- Help – Technical Support:
  — Improved and updated MeterLink and Registers Reference help files.

  — Improved and updated contact information for world areas.

Version 1.80

meterlink-1.80.031.exe SHA-1 checksum: F94B10EA08D20C7492CC15C9287F40EC6FA8224B

This latest version introduces Smart Meter Verification, a new easy-to-understand automatic diagnostic report.

- File – Program Settings:
  — New options determine which meter name to use for logs, folders names, etc. (By default, the meter name from the meter is used without prompting.)

- Meter – Connect:
  — HTTP (instead of FTP) is used for file transfer (database configuration file, program download, meter archive logs, Smart Meter Verification reports) if supported by the meter[1].

- Meter – Meter Monitor:
  — The flow direction-specific baseline swirl angle is used as the center for the green limit band in swirl angle charts.

  — SNR bar chart's maximum scale has changed from 20 to 30 dB.

- Meter – Field Setup Wizard:
  — The Startup page supports configuring the meter model and nominal size data points that are included in Smart Meter Verification reports.[1]

- Tools – Edit/Compare Configuration:
  — The gain limits (GainLowLmt and GainHighLmt read-only data points) are now included in the extended meter configuration as well as the maintenance log and meter archive log configuration worksheets.

- Logs/Reports – Maintenance Log:
  — The extended Inspection Report now uses the new Smart Meter Verification Pass, Warning and Fail icons.

  — The flow profile correction validity (FlowProfileCorrValidity data point) for JuniorSonic meters has been added to the processed validities and the maintenance log raw data worksheet.

- Logs/Reports – Meter Archive Logs:
  — Supports the new status macro data points (PrevDayMacro3, etc.) so that the complete status for each day or hour is available.[1]

  — Supports the Smart Meter Verification result value (Pass, Warning or Fail) in daily and hourly logs.[1]

- Logs/Reports – Smart Meter Verification:[1]
  — Collect scheduled Smart Meter Verification reports from the meter.

  — Create and collect on-demand Smart Meter Verification reports.

- Logs/Reports – Create PDF XML SMV Report:[1]
  — Utility to create a PDF SMV report from an XML SMV report, e.g. if only the XML SMV report is available.

- Meter Status (Meter Monitor, Signal Analyzer, Maintenance Logs/Inspection Report):
  — Validity status color (yellow or red) based on the validity data points' status-level attribute. (Previously, validities were always red.)[1]

- Meterlink Net Monitor:
  — Supports Smart Meter Verification:[1]
    • Displays each meter's last scheduled SMV report result.

    • Collect/open each meter's last scheduled SMV report.

    • Automatic last scheduled SMV report collection.

    • Includes a utility to bundle the most recent scheduled SMV reports in a ZIP file.

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(1) Requires 3410 Series 1.50 or later firmware.

Version 1.70

- Added support in Connect to Meter dialog for meter group selection and filtering

- Added support in Meter Directory dialog for meter group export

- Resize dialogs by dragging an edge with the mouse or clicking the maximize/restore buttons in the title bar:
  — Edit/Compare Configuration
  — Maintenance Logs
  — Meter Archive Logs

- New optional extended Inspection Report:
  — Available for all meter models
  — Clear flow measurement validity and meter status statement with icon
  — Includes a complete list of alarms that were active during the maintenance log
  — Includes the meter's device number and chordal configuration

- Highlights existing document drag-and-drop feature in Trend Maintenance Log with watermark in right pane

- Updated Net Monitor application to include a main window menu to simplify access to Program Settings

- Additional Technical Enhancements:
  — Addresses cases when slash character in user or company name could cause maintenance log macros to crash

Version 1.60

- Transducer Swap-Out Wizard:
  — Support for T-200 transducers and transducer type configuration. (Requires Mark III/3804 1.83 or 3410/3810 Series 1.42 or later firmware.)
  — Export to factory-format Zero Flow Calibration reports

- Status colors (green, yellow and red) added to the Status Summary's alarm lists and the Maintenance Log Inspection Report.

- Meter Archive Logs:
  — Shows the Windows user name or port identifier for each change in the audit log. (Requires 3410/3810 Series 1.42 or later firmware.)
  — Supports charting the new flow analysis gated diagnostic values in the daily and hourly archive logs. (Requires 3410/3810 Series 1.42 or later firmware. The same data points are now logged in both daily and hourly logs.)
  — Daily and hourly log charts' horizontal axes show log record dates (instead of sequence numbers).

- Meter Directory supports user-defined meter groups for meter directory export and Net Monitor filtering.

- The Help menu's Check Microsoft Excel utility allow users to identify and correct common Excel installation problems.

- The SOS calculation method, i.e. AGA10 or GERG-2008, is included in the Gas SOS Calculator's Save and Print output.

- Support for Office 2019.

- Discontinue support for Office 2007.

- MeterLink 1.60 resolves several bugs from earlier production releases. In particular:

— "Connection instances", i.e. new instances of MeterLink run from the Connect to Meter dialog or the Net Monitor, now use the unique record number to identify the meter directory record so that non-unique meter names are handled correctly.

— Fixed inability to enter negative delta times in Transducer Swap Out Wizard.

Version 1.50

■ Added support for 3418 8-Path Gas Ultrasonic Flow Meters

■ The Dual-Configuration Meter Monitor includes a Transmitter Head 2 vs. Transmitter Head 1 speed of sound and flow rate percentage difference trend chart

■ The daily and hourly archive log charts for Dual-Configuration meters include Transmitter Head 2 vs. Transmitter Head 1 speed of sound and flow rate percentage difference trend charts

■ Field Setup Wizard support for:
— Dual-Configuration meter configuration of Transmitter Head 2 to read gas properties, temperature, and pressure from Transmitter Head 1

— Configuration of the new digital output content options (3410/3810 Series firmware version 1.34 and later)

— Configuration of GERG-2008 (AGA8 Part 2, 2017) base-condition correction and speed of sound calculation (3410/3810 Series firmware version 1.35 and later)

■ Speed of sound Calculator support for GERG-2008

■ Usability support for meters with read-only serial ports (3410/3810 Series firmware version 1.34 and later) for pipeline interconnects

■ Signal Analyzer support for performance-related chord status suppression configuration, and displaying path performances in addition to path signal to noise ratios

■ The logged in Windows user name is used for reports by default (The user name continues to be configurable in Program Settings.)

■ Microsoft Excel reports use the Excel Binary Workbook (xlsb) format by default

■ Chord weights (read-only data points) in the extended meter configuration

■ The first release of the MeterLink Net Monitor application, providing easy monitoring of and access to all Rosemount ultrasonic flow meters on a network

■ Improved and expanded context-sensitive online help, including special topics for read-only serial ports and temperature, pressure and gas composition sharing for Dual-Configuration meters

■ Removed gas or liquid meter type configuration from the Meter Directory

■ Includes a work-around for a bug in Windows 10 version 1803 build 17133 ("Spring Creators Update") that prevents making direct (serial) connections to meters

■ Discontinue support for Windows Vista

■ Discontinue support for analog modem connections

■ Fixes for several bugs in earlier production releases, including:
— Table column widths too narrow on high resolution (high DPI) monitors

— Speed of sound calculator calculation status message not displayed or saved

Version 1.40

- Supported data sharing dual-configuration ultrasonic flow meters including a Co-Located Meter Monitor and Signal Analyzer
- Introduced new Transducer Swap-Out Wizard for meters that support zero flow calibration configurations
- Supported diagnostic cord status for Model 3416 dual-configuration ultrasonic flow meters with firmware 1.30 and later
- Removed CFA key requirement for Baseline Viewer
- Discontinued Office 2003 support
- Additional technical enhancements:
  — Improved performance on serial connections (disabled Client for Microsoft Networks and NetBIOS over TCP/IP)
  — Corrected reverse flow alarm volume limit unit conversions in Field Setup Wizard
  — Updated date format for locales in Excel Meter Configuration worksheets
  — Eliminated user interface clipping on Enhanced Excel output generation
  — Streamlined use of Signal Analyzer while in the meter is in acquisition mode
  — Developed work-around for direct connection issues introduced

Version 1.31

- Field Setup Wizard now supports Type 4 CPU Module with additional Frequency/Digital Outputs 4 through 6.[2]
- Field Setup Wizard now supports the GC Modbus TCP interface configuration.
- Unit labels have been added to the chordal velocity and speed of sound tables that appear in the Inspection Report.
- Additional technical enhancements:
  — Fixed issue to ensure all column heading text displays correctly in the Meter Archive Logs dialog.
  — Fixed issue to enable the table of meters in the Connect to Meter dialog to correctly display on any computer.

Version 1.30

- Added support for I/O Expansion Module
- Added support for the diagnostic chord in the new dual-configuration Model 3416 Meter (i.e. alarm indication, configuration and charts).
- Regional dialogs updated to ensure data formatting, including the use of periods or commas, is more consistent by locale.
- Field Setup Wizard now supports GC component data configuration for Rosemount 3410 Series Electronics running on v1.22 firmware and later.
- Field Setup Wizard now supports local display mode configuration for Rosemount 3410/3810 Series Electronics running on v1.22 firmware and later.

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(2) Type 4 CPU Module releasing for sale in June 2016.

- Option added that allows the creation of a Merged Events worksheet in the Microsoft Excel meter archive log.

- Automatically checks for software updates via the Internet.

- Fixed issue to ensure new meter database config XML files install correctly.

- Fixed issue where Excel 2013 charts were not visible.

- Fixed issue with Reset Tracking dialog.

- Fixed issue where Signal Analyzer caused MeterLink to crash or become unresponsive.

- Corrected SOS spread error on the Meter Monitor bar chart for JuniorSonic 2-path meters.

Version 1.21

Provides support for Mark III memory usage changes in Rosemount Mark III v1.78 firmware.

Version 1.20

- Added advanced network configurations, including new wireless connectivity with support for multiple Ethernet configurations. Designated ports now allow the use of port forwarding on a cellular modem/router.
  - This enhancement allows users to connect to multiple meters on a single IP address (i.e. one modem).

  - A new 'Designated Ports' help topic facilitates this network configuration.

- Dims non-pingable Ethernet connection buttons in the Connect to Meter dialog.

- Supports "Connect in a new instance" from the Connect to Meter dialog.
  - This change allows log collection from multiple meters simultaneously to streamline tasks, including monthly maintenance procedures.

- Simplifies the creation of a more functional default meter directory after initial installation.
  - This change ensures first-time users can quickly connect to meters.

- New time-saving Tools Menu enhancements include:
  - Set Transducer Type utility.

  - Reset Tracking utility which simplifies a common maintenance procedure.

  - Reset Velocity Estimation utility.

  - Locate Meter utility.

  - Warm Start Meter utility which enables users to easily reboot from a remote location.

- Additional enhancements for high viscosity liquid metering applications include:
  - Support of profile factor frequency output content.

  - Support of high viscosity calibration configuration.

  - Support of zero calibration.

- Additional technical enhancements:
  - Enables Microsoft Excel's "Trust access to VBA" on start-up.

  - Supports Microsoft Excel 2013.

Version 1.10

- Connects to co-located meters simultaneously from a single meter directory record associated with either meter.

- Combined Meter Monitor (Summary) displays combined values from the currently selected meter and values and status from both the primary and secondary meters.

- Field Setup Wizard supports local display configuration.

- Field Setup Wizard supports HART® 7 meter configuration.

- Displays the name of the currently connected meter in the title bar of dialogs and wizards that read from or write to a meter.

- Supported on Microsoft® Windows® 8.1.

- Communications Analyzer's output for TCP/IP communications includes the meter's IP address.

- Consolidates Program Download log output in the meter connection log (log_meter_*.txt).

Version 1.01

Bug fixes and data files added for Rosemount 3410/3810 Series Ultrasonic Meters.

Version 1.00

- Installs separately from all earlier versions of CUI and replaces CUI for all meters with the exception of Mark II equipped gas ultrasonic meters.

- Does not require a license key.

- Supports Rosemount Gas Mark III, Liquid 3804, and 3410 and 3810 Series Ultrasonic Meters.

- Direct/modem connections using SLIP no longer supported. Direct/modem connections must use PPP.

- Contains register help files for Rosemount Gas Mark III, Liquid 3804, and 3410 and 3810 Series Ultrasonic Meters.

- Supports two meter monitor views: "summary" and "detailed."

- Supports 3410 and 3810 Series' HART output on AO1 and HART output on AO2.

- Edit/Compare Configuration simplifies upgrades by converting Mark II, Gas Mark III and Liquid 3804 configs to 3410 and 3810 Series configs.

- Field Setup Wizard and Outputs Test dialog support the Rosemount 3410 and Rosemount 3810 Series' soft-configurable frequency/digital ("FODO") outputs.

- Communications Settings dialog supports soft configuration of Port A's driver selection and optional Port B handshaking.

- Program Download dialog prevents Rosemount Gas Mark III and Rosemount Liquid 3804 Firmware from being downloaded to Rosemount 3410 and Rosemount 3810 Series Ultrasonic Meters and vice versa.

- Has improved support for Microsoft Excel 2007 and 2010.

For more information: **Emerson.com/global**

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