



# SymphoniePRO

An advanced data logging system that is purpose-built for the renewable energy professional. SymphoniePRO™ is RNRG's most powerful data logger to date, offering significant upgrades in terms of capability and flexibility while building on the unparalleled foundation that is the Symphonie product line; a series of application-specific and user-friendly data loggers.

- Unrivalled ease-of-use via integrated, purpose-built hardware and modern, intuitive desktop software
- Advanced features + flexibility deliver accurate data as cost-effectively as possible



Wind Resource Assessment



Solar Resource Assessment



Solar Monitoring



# Unrivaled Ease-of-Use

Even with significant advancements in capability and flexibility, SymphoniePRO continues and improves on the Symphonie legacy as a data logger that is simple to use, offering everything you need and nothing you don't.



## Integrated Hardware Design

True to the Symphonie name, SymphoniePRO requires limited peripherals and is simple to assemble, meaning fast and easy field installations, every time.

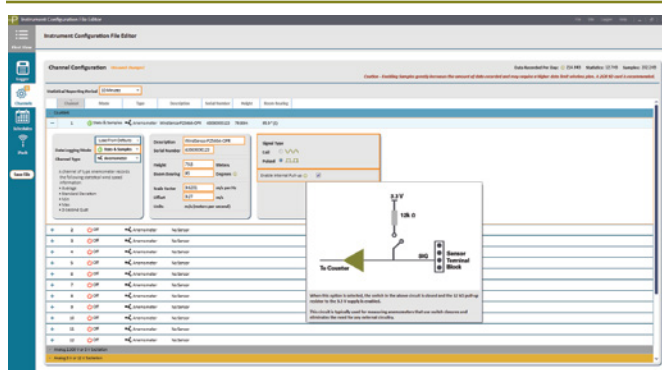
- **Backwards-compatible** with modular communications and autonomous power unit, **iPackGPS**.
- Large wiring panel with integrated bracket mounts quickly and is easily accessible. Color-coded label and dedicated terminals for every wire help ensure **mistake-free wiring**.
- Smart mounting bracket system **speeds physical installation and maintenance** of logger and iPackGPS.
- USB connector for **easy configuration** via PC.
- Logger LCD and keypad with menu-driven navigation are easy to read in all light conditions for real-time data and configuration information.





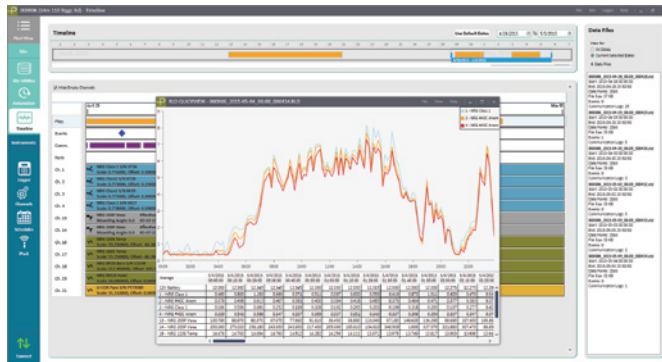
# Modern and Intuitive Desktop Software

SymphoniePRO Desktop Application is engineered to work seamlessly with SymphoniePRO data loggers to configure equipment, process data, and manage your fleet of measurement stations.



## Instrument configuration

No complex programming required – configuration is performed with simple drop-down menus via a USB-connected PC running SymphoniePRO Desktop Application.

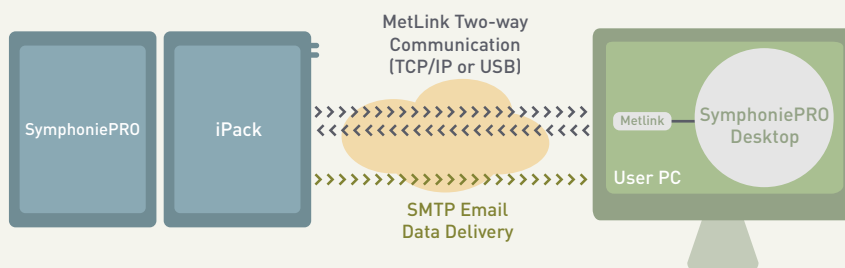
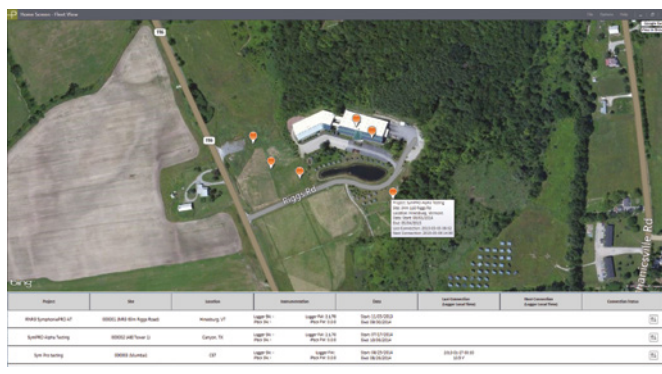


## Processing data

Efficient binary \*.RLD files from the logger scale to fit your configuration and budget. SymphoniePRO Desktop Application processes these into versatile tab-delimited text (ASCII) files for analysis in third-party software. Like past Symphonie loggers, delivery of raw data means you can always re-scale and re-export data during processing.

## Fleet management made easy, including:

- Fleet view with site-by-site status information, connection status, and integrated map with link to Google Earth.
- Site database and sensor history via Timeline, a chronological view of data files, events, communications, and sensor configuration.
- Automation of file download, import, and firmware uploads to logger and/or iPackGPS.
- Have a standard configuration? Equipment configuration (\*.LGR) files can be saved and re-used over and over.



## Flexible Communications

Multiple data delivery options and real-time, bi-directional communication capability – enables live data viewing for site health checks, configuration changes, and firmware upgrades.

# Advanced Features and Flexibility

State-of-the-art technology delivers accurate measurements and provides freedom to perform advanced studies with your preferred configuration.

## Advanced Measurements

Accurate, high-resolution analog measurements via 16-bit ADC.

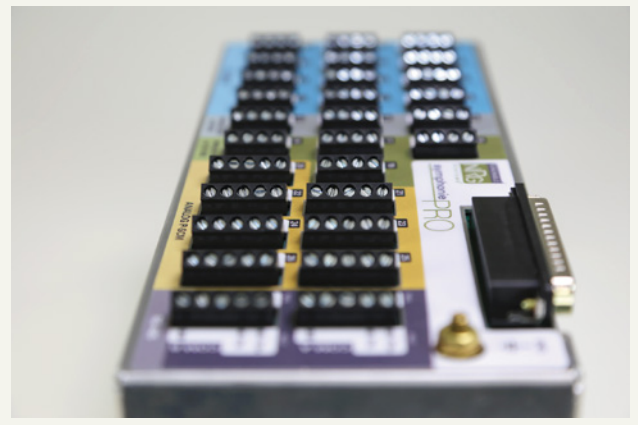
Differential inputs on P-SCM channels improve measurement of small signal sensors, isolating signal from ground noise.

Three-second gust recorded on each wind speed channel in addition to min and max 1-second samples.

Extensive meta data are collected including logger diagnostics, communications information, and events, facilitating intelligent site and fleet management.

Collected data are stored reliably and securely with:

- Redundant storage on internal Flash and industrial-rated SD card.
- Logger access PIN, preventing unauthorized access and data files are 128-bit encrypted.
- SymphoniePRO Wiring Panel, providing channel-by-channel surge protection, tested to IEC 61400-4-5.



## Flexible Data Collection

- 26+ channels provide ample capacity for typical resource assessment campaigns or special projects alike; including 12 counter, 14 analog, and two RS-485 ports.
- Record data at the optimal rate for your application with a user-selectable averaging interval (10-minute default).
- IEC-compliant 1 Hz sample rate with optional storage of 1 Hz sample data by channel – facilitates advanced studies like turbine site suitability or ramp rate studies for integration of utility-scale projects on small grids.
- Compatible with a wide array of industry-standard and specialized devices so your measurement campaign's design is not limited by your data logger.
  - Counter channels and built-in analog channels include native compatibility with industry standard sensors – no peripherals required.
  - Signal Conditioning Modules (P-SCMs) customize analog input circuitry to optimize measurements for third-party devices.
  - Two RS-485 ports each support full or half duplex communication with smart sensors like ultrasonic wind sensors.

