

Release Notes — v1.1.0-beta.30

Generated October 21, 2026

Hy-Link Release Notes

Unreleased (1.1.0-beta.30)

Pre-release build — these changes are staged for the upcoming 1.1.0-beta.30 release.

What's New

Live Monitor Page

A brand-new **Monitor** page is now available, giving you a real-time view of your device's hydrogen readings and measurand data:

- A circular hydrogen gauge with live readings
- Measurand cards for pressure, moisture, and temperature
- Automatic hydrogen unit resolution based on your device's configuration

The Monitor page works across all supported device models and connection types — including when the USB RS-485 adapter is not connected. If the adapter disconnects while the legacy chart view is active, the app will automatically switch to the Monitor page.

Combined Data Log Download

The **Download** page now has a single **Download Data Log** button that retrieves both the customer CSV report and the verbose diagnostics file (.hld) together in one step — no need to run two separate downloads.

A new **All days** checkbox lets you download the complete available data history from your device. When checked, the day-count field is ignored and all available days are included.

Improvements

Connection Settings Are Now Remembered

When you switch between connection modes (for example, between Modbus and DNP3, or between serial and TCP), the app now remembers the settings you entered for each mode. Switching back restores your previous values — you no longer need to re-enter your IP address, port, baud rate, or other parameters each

time. Clicking **Disconnect** to return to the connection screen also preserves your settings from the previous session.

RS-485 Termination Setting Removed from H2000 Series Devices

The **RS-485 Termination Resistor** setting is no longer shown in the Configuration screen for H2000-series (5X3X) devices, which do not support this option. The setting continues to appear for other supported models.

"Liquid Temperature" Label

The temperature measurement previously labeled "Oil Temperature" throughout the interface and documentation has been renamed to **"Liquid Temperature"** to better reflect the range of liquids supported by compatible devices.

Updated H2Scan Logo

The H2Scan logo displayed in the application interface has been updated to a new, higher-quality image.

Smoother Connection Cancellation

Canceling a DNP3 serial connection attempt no longer causes the application to freeze or crash. The cancel action is handled cleanly at every stage of the connection process, and the UI responds immediately.

Moisture and Pressure Readings Display Correctly

Moisture and pressure values now display with 3 decimal places, matching the intended precision for those measurements.

Bug Fixes

App No Longer Crashes When Canceling a DNP3 Serial Connection

Canceling a DNP3 serial connection attempt while it was in progress could cause the application to crash. This has been resolved — the cancel action now stops the connection cleanly at every stage without error.

Saved Configuration Changes No Longer Display "Unknown"

After saving a configuration change on a DNP3-connected device, values would sometimes revert to showing "unknown" instead of reflecting what was just saved. This has been fixed — configuration changes now display correctly after saving.

Download Errors Now Properly Reported

Previously, if a device diagnostics download failed, the error was silently ignored and never shown to the user. Errors are now surfaced in the interface as expected.

Removed

- The standalone **Download Device Diagnostics** button has been removed from the Download page. The **Download Data Log** button now handles both the CSV and diagnostics file in a single operation.

v1.0.0 — 2026-09-10

This is the first major release of HY-LINK, incorporating all features and improvements developed through the pre-release series. Below is a summary of what's included.

What's New

macOS Support

- The macOS installer (.pkg) and application (.dmg) are now **fully code-signed and notarized** with an Apple Developer ID, ensuring a smooth, warning-free installation experience on macOS.
- The macOS application now includes a polished **application icon**.

Windows Installer

- A new **Windows installer** (built with Inno Setup) provides a straightforward setup experience on Windows.

Protocol Switching

- You can now switch a connected device from **Modbus to DNP3** directly within the application — no manual intervention required. The app handles the switch in the background and waits for the device to restart before resuming.

USB Adapter Hot-Plug Detection

- HY-LINK now **automatically detects when a USB serial adapter is connected or disconnected** while the application is running, keeping the connection status accurate without requiring a restart.

Expanded Device Support

- Added support for several new device families and firmware versions, including **X6X00X, 5X3X, X5000XGAS, X5000XOIL, X5846X, 503X**, and **6X** model families with firmware-specific configuration profiles.

Download Progress & Cancellation

- Datalog and diagnostics download dialogs now show **percent complete, elapsed time, and estimated time remaining**.
- Downloads can be **cancelled immediately** using a dedicated Cancel button, which disables itself on click to prevent double-taps.

Version Display

- The **application version number** is now shown in the main window.

Device Status

- **Human-readable device error status and operating mode** are now surfaced in the UI, making it easier to understand what a connected device is reporting.

Owner's Manual

- A comprehensive **HY-LINK Owner's Manual** is now available, covering all application pages, connection procedures for Modbus and DNP3 (serial, TCP, and gateway modes), live monitoring, configuration, data download, and platform-specific guidance for Windows and macOS.



Improvements

- **Faster, more reliable connection cancellation** — Cancelling a connection attempt now works immediately without blocking the UI.
- **Smoother initial data load** — The application now waits for the first complete poll of device data before activating the UI, so you always see real values from the moment the interface appears.
- **Configuration page rendering** — Collapsible sections in the Configuration view now render at their correct size the first time they are displayed.
- **Chart and Configuration views adapt to connected device** — Only the measurements and configuration fields relevant to your specific device model and firmware are shown.
- **Connection indicator positioning** — The connection status circle is now dynamically centred over the page content area, regardless of window size.



Bug Fixes

- Fixed an issue where reading DNP3 octet-string (Group 110) data could return before the data was fully decoded, causing incomplete or missing values.
- Fixed a potential runtime library mismatch on macOS by ensuring the correct OpenSSL version is bundled with the application.
- Fixed connection thread cleanup — cancelled connection threads are now properly released, preventing resource leaks.
- Fixed poll-loop interruption — stopping a background read worker now takes effect immediately rather than waiting for the current sleep interval to expire.

Thank you for using HY-LINK. For support or feedback, please contact your Hitachi Energy representative.

v0.4.2

Released: 2026-06-02

This release corrects the in-app and published documentation that had become inconsistent during recent pipeline work. No application functionality has changed.

Fixed

- **Documentation corrected:** The release notes, changelog, and stakeholder summary documents were out of sync following pipeline tinkering. All three documents (and their `main`-branch baseline counterparts) have been restored to their correct state for this release.
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v0.4.1 (pre-release)

Note: The changes below were included in the pre-release builds leading up to v0.4.2. They are listed here for reference.

What's New

- **DNP3 OctetString (Group 110) write support:** Hy-Link can now write string-typed data points to DNP3 devices using the Group 110 OctetString object type. This unlocks configuration and control of device parameters that require text values over a DNP3 serial connection.
- **Improved DNP3 write reliability:** All DNP3 write operations now use the two-step Select-and-Operate sequence instead of Direct Operate. Gen5/HY-LINK firmware silently ignored Direct Operate commands in some cases; this change ensures writes are acknowledged and confirmed by the device.
- **Cancel button in Configuration:** A **Cancel** button has been added next to the Save button in the Configuration view. Clicking Cancel discards your unsaved edits and re-reads the current values from the device, making it easy to back out of any accidental changes.
- **Release notes displayed in the app:** The Info page now shows the current release notes directly within the application, so you can review what's new without leaving Hy-Link.

Improvements

- **Splash screen version label:** The version string on the splash screen is now right-aligned and properly sized, preventing longer pre-release version strings from being clipped.
- **Application data stored in your Documents folder:** Logs, configuration exports, and reports are now saved under `~/Documents/HY-LINK`, making them easier to find and back up.
- **Release notes encoding fix:** The Info page now correctly reads release notes files that include a UTF-8 BOM, which could previously cause display issues.

- **macOS packaging fix:** Fixed a `hdiutil: resource busy` error that could occur when building the macOS application bundle, ensuring DMG packages are created reliably.
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v0.4.1

This release brings critical fixes to DNP3 communication reliability.

Bug Fixes

DNP3 Communication — Critical Reliability Fixes

- **All DNP3 writes now use Select-and-Operate instead of Direct Operate.** The HY-LINK firmware silently discarded Direct Operate commands, causing writes to appear to succeed while having no actual effect on the device. All write types — binary, analog, and string — now use the correct two-step Select + Operate sequence.
 - **DNP3 Group 110 (OctetString / string) write support added.** String-typed data points can now be written to the device over DNP3, using a robust raw serial path with proper CRC-16/DNP framing.
 - **DNP3 file transfer no longer times out after reconnect.** When the driver switches between OpenDNP3 and raw serial mode (for example during a Group 70 file transfer), the device sometimes sends a link handshake frame immediately after OpenDNP3 disconnects. Previously this frame was discarded, causing the subsequent file transfer request to time out. The driver now preserves pending bytes during the mode switch so the handshake completes correctly.
 - **Fixed DNP3 OctetString writes in file transfer and protocol switch paths.** The file transfer and protocol switch modules have been updated to use the new Select-and-Operate path for string writes.
 - **Minor layout and display bug fixes** in the Configuration screen.
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v0.4.0

This release delivers native macOS support, the HY-LINK Decoder application, an automated release pipeline, and a wide range of application quality and reliability improvements.

What's New

Native macOS Support

HY-LINK is now available as a native macOS application, distributed as a `.dmg` disk image. Both the main app and the HY-LINK Decoder are included, with executable permissions preserved correctly.

HY-LINK Decoder — Windows & macOS

The HY-LINK Decoder tool now ships alongside the main application on both platforms, complete with its own branded application icon on Windows (.ico) and macOS (.icns).

Cancel Button in the Configuration Screen

A **Cancel** button now appears alongside the Save button on the Configuration screen. Clicking Cancel immediately re-reads all edited fields from the connected device, discarding any unsaved changes.

Release Notes on the Info Page

The in-app Info page now displays the current release notes in a readable, formatted view. If the file is unavailable, a friendly fallback message is shown instead.

Automated Release Pipeline

A new release pipeline automatically publishes builds to Buildstash across three release stages (Dev Testing, QA Testing, and Full Release) with human approval gates before promotion to QA and production.



Improvements

- **Consistent data storage on all platforms** — Application logs and reports are now always saved to ~/Documents/HY-LINK on both Windows and macOS, eliminating write failures inside macOS app bundles.
- **Splash screen version no longer clipped** — The version string at startup is now right-aligned and wide enough to display even long pre-release version numbers without truncation.
- **Release notes always up to date** — The build process now ensures the latest generated release notes are bundled into the application before packaging, so the Info page always reflects the current release.
- **Clearer field status indicators** — Field border colours in the Configuration and Circle screens now follow a consistent scheme:  **orange** = required field is empty,  **yellow** = field edited but not yet saved,  **red** = last save attempt failed.
- **Connection error messages include the port name** — Modbus RTU connection error messages now show the configured COM port name, making it easier to diagnose connection problems.
- **Chart legend entries hidden when values are unavailable** — Legend entries are now correctly hidden whenever a polled value is empty or unavailable, not only on certain error types.
- **Version number displayed correctly in the app** — The application version shown throughout the UI is now set automatically at build time and always reflects the correct release label.



Bug Fixes

- Fixed a crash that occurred immediately after launching HY-LINK on macOS, caused by the app bundle's working directory (/) not being writable.

- Fixed a macOS .dmg packaging failure where hdiutil could report "resource busy" due to Spotlight indexing the source folder during image creation.
 - Fixed garbled characters on the Info page release notes caused by a UTF-8 BOM in pipeline-generated documentation files.
 - Fixed the Info page sometimes showing outdated release notes because build jobs ran before the documentation pipeline had finished writing updated files.
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v0.3.0

New Features

- **Cancel button on Configuration page** — A new **Cancel** button appears alongside the Save button whenever you have unsaved changes. Clicking it immediately re-reads the affected fields from the device and discards your edits, restoring the last saved values.
- **Settings page now accessible before connecting** — The Settings page is now always available in the navigation bar, so you can adjust polling rates and other settings without needing an active device connection.

Improvements

- **Clearer field highlight colors** — The color coding for input fields has been refined to better communicate state at a glance:
 - **Orange** border — the field is empty (a value is required).
 - **Yellow** border — the field has been edited but not yet saved.
 - **Red** border — the field failed to save.
- **Better Modbus RTU connection error messages** — When a serial port cannot be opened, the error message now includes the specific COM port name to make troubleshooting easier.
- **Improved date and time formatting** — Date/time fields on the Configuration page now display in your local timezone (previously shown in UTC).
- **Hex and datetime display formats** — Configuration fields that use hex or datetime formats are now rendered correctly.
- **Save and Cancel buttons are context-sensitive** — Both buttons are disabled until you make a change, and are automatically disabled again after values are refreshed from the device.
- **Advanced settings hidden by default** — The advanced settings section on the Settings page is collapsed by default to reduce clutter.

- **Polling interval and log rate units** — The Settings page now shows units (e.g. seconds) next to the polling interval and log rate fields.
- **Chart legend stability** — The monitor chart no longer shows a legend entry for a measurement when its value is empty or invalid.



Bug Fixes

- Fixed an issue where unsaved configuration changes could persist after a device read update.
- Fixed incorrect styling on connection page input fields (empty fields now correctly show an orange border instead of yellow).

v0.2.0



New Features

- **DNP3 protocol support** — You can now connect to devices using DNP3 over TCP or serial. Select DNP3 on the Connect page and enter the required source and destination link addresses.
- **DNP3 datalog download** — Device datalogs can now be downloaded over a DNP3 connection in addition to Modbus.



Improvements

- **Modbus TCP connection error handling** — A clear error message is now shown if the TCP connection to the device fails, including the host and port that were attempted.
- **More reliable DNP3 data point resolution** — Configuration registers (e.g. oil type, baud rate, unit ID) that are accessible over both Modbus and DNP3 are now correctly read and written over DNP3.
- **Improved connection stability during datalog download** — The application now properly transitions in and out of raw I/O mode when downloading the datalog, reducing the chance of communication errors.

v0.1.1



New Features

- **Splash screen** — A branded splash screen is now displayed at startup, showing the application name, version, and copyright.
- **Improved navigation** — Navigation buttons now correctly reflect the active page and toggle between connected/disconnected states.

Improvements

- **Faster startup** — All pages are pre-rendered off-screen before the window appears, eliminating the flash of unrendered content at launch.
- **Serial port list stays current** — The serial port dropdown now refreshes its list of available ports each time it is opened.
- **Download page validation** — The Download button is now disabled when the "Number of Days" field is empty.
- **Save progress indicator** — An indeterminate progress bar is shown alongside the Save button while a save operation is in progress.

Bug Fixes

- The active page's navigation button now correctly shows the selected/highlighted state.
 - Fixed the Connect/Disconnect button icon not updating correctly when the connection state changed.
 - The "unsaved changes" prompt on close is no longer shown when no device is connected.
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v0.1.0

Initial release.