Release notes — IEC 60870-5-104 Driver for Ignition 8.3

Deutsche Fassung: RELEASE_NOTES.de.md

What changes for you when you install a new version of this module: new features, changed behaviour, what was removed and what was fixed. This includes changes in the ToddySoft Connect IEC 60870-5-104 driver inside the module. Every item is described in full in the manual (*Version history* and the sections it points to).

1.3.0 — 2026-11-13

Built on ToddySoft Connect 1.3.0.

First release of this module.

Before you install

- **Restart the gateway after installing or upgrading the module.** Install it through **Install or Upgrade Module**; a `.modl` file copied into `user-lib/modules` is not loaded.
- **Ignition's OPC UA module must be installed and running.** Without it Ignition does not load this module and names the missing module in a warning.
- **The station must accept the gateway as a master.** Add the gateway's address to the station's allowed-master list, and check how many masters may be connected at once.
- **Have the station's configuration at hand:** its common address (CASDU), its field sizes for the common address, the information object address and the originator address (IEC 104 does not negotiate them), the addresses of its command points, and its time zone if its values carry time tags.
- **Licence:** without a licence the module runs in Ignition's two-hour trial, which can be reset as often as needed. A licence comes as an Ignition licence key with an activation token; activating it on the gateway, online or offline, is all there is to do. There is no licence file and no licence setting in the device form.

New

- **An IEC 60870-5-104 controlling station (master) for Ignition:** for RTUs, substation gateways and telecontrol units. TLS and IEC 101 over serial lines are not offered.

- **Every value comes from the station's reports, never from polling.** The station is interrogated when the connection is made; after that every change it reports reaches its tag, also two changes within one second. A time-tagged value carries the station's own time stamp once **Time Zone** is set.
- **The station's points in the tag browser:** one folder per common address, listing every point the station has sent. A point is one tag whatever variant the station sends it in (with or without time tag). A point the station first sends later appears about a second after it arrives.
- **Single and double points, measured values** (normalised, scaled, short float), **step positions and integrated totals**, the last two as folders holding each field as a tag of its own (for example a tap changer's step and its transient flag, a meter's counter).
- **The station's quality on every tag:** invalid and overflow are Bad, not topical and blocked are Uncertain, substituted is Good.
- **Quality bits as tags** (setting **Quality Bits as Tags**, off by default): each quality bit of a point as a Boolean tag of its own beneath it, so every bit can be shown, alarmed and historised on its own.
- **Commands:** single and double commands and set points (normalised, scaled, short float) through the command points named under **Command Points**, with select-before-operate and the station's confirmation. A command the station refuses fails the write at once, with the station's reason in the gateway log.
- **Interrogations on demand:** a general interrogation of the whole station or of one group, and a counter interrogation to read, freeze or reset the integrated totals, each by writing a control tag (for example from a button or a gateway timer script). A test command and clock synchronisation are offered the same way.
- **Station failure is reported:** a status tag turns true, every other tag turns Bad and keeps its last value, and the device reconnects on its own. Once the station is back it is interrogated and every tag is Good again.
- **The link-layer timers and windows** (t0 to t3, k, w) can be set to match the station; the defaults are the standard's.
- **Discover Devices:** the gateway finds stations by connecting to each address of a network on port 2404, and only after you press **Probe addresses**. Ranges of up to 1024 addresses, across routed networks too; a gateway in Docker finds the plant's stations when you type the plant network.
- **Licence diagnosis on the gateway:** a Licence card in the device form shows why a device is or is not licensed, with a report to send to support.
- **An expired licence keeps working for its 30-day grace period**, and the gateway names its end date.
- **Manual** in English and German, including activating, renewing and moving the licence, online and offline.