

CBXi firmware v 8.1.0 : 96 IO and Equation Module

Issue Date: dd MM 2019
Product: CBXi-8R8, CBXi-8R8H
Product Version: 8.1.0

Summary

The **CBXi** range of controller firmware has been updated from 8.0.0 to 8.1.0. This is an enhancement build containing new and updated **Modules**, **extended IO support** and corrections for several issues.

Background

New features have been added to give more flexible control capabilities to the **CBXi** range

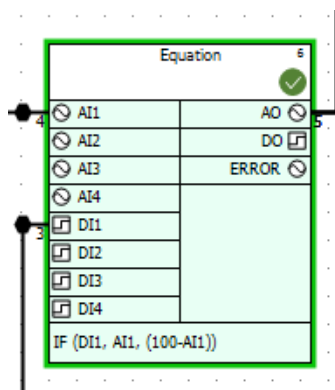
Features

The “**StrategyEngine**” used in the **CBXi** range of **IP** controllers has been enhanced with the addition of a new **Equation** Module and enhancements to the existing **Meter** and **Runtime** modules. These **Modules** are also supported by the **CBT**, **CBV** and **CBX** ranges of **BACnet** Controllers.

To engineer these new **Modules** you will need the current **CXpro^{HD}** version 1.02 or later.

New: Equation Module

The **Equation** module provides a method to create complex mathematical equations, boolean equations or a combination of both. Up to 4 analog inputs and 4 digital inputs can be combined through an equation to produce an analog and a digital output.




For details of this new module, see **CXpro^{HD}** modules help (available from within **CXpro^{HD}**).

Updated: Meter Module

The **Meter** Module has been enhanced with the addition of an **offset** input and an **offset** constant.


The **Total Count** output of the **Meter** Module can now be adjusted by an amount defined either in an internal setup constant within the module or by an optional analog input. Negative values are allowed, but the output will be limited to positive values.

Meter 5	
	
<input type="radio"/> Meter count	Total count <input type="radio"/>
<input type="checkbox"/> Meter sync	Last count <input type="radio"/>
<input type="radio"/> Offset	Last-1 count <input type="radio"/>
	Sync <input type="checkbox"/>
	Max demand <input type="checkbox"/>
Period: 900; Scale: 1.00; Offset:...	

Updated: Runtime Module

The **Runtime** Module has been enhanced with the addition of a **Preset** input and a **Preset** constant.

The **Total Runtime** output of the **Runtime** Module can be set to a “pre-set” value when a reset (**Preset Load**) signal is detected, i.e. there is a “rising edge”(0 → 1) on the **Preset Load** input. The value loaded into the **Total Runtime** output is defined either in an internal setup constant within the module or by an optional analog input. Values less than zero are ignored.

Runtime 6	
	
<input type="checkbox"/> Input	Total runtime <input type="radio"/>
<input type="checkbox"/> Reset	Over max <input type="checkbox"/>
<input type="radio"/> Max runtime	Under max <input type="checkbox"/>
<input type="radio"/> Preset	
<input type="checkbox"/> Preset Load	
Max runtime: 0; Counter units: 2; Preset: 0	

Extended IO

The number of supported **FLX** modules on a **CBXi** controller has been increased to 5, allowing for up to a 96 I/O points. Cylon’s new **FLX-PS24** (a 20 V power supply) is required to power additional two **FLX** controllers.

To support the extended I/O the number of points and modules allowed in a strategy has been increased to 2000. The number of Trend Log has been increased to 144.

Resolved issues

The following issues have been addressed:

- SYSX-228** The **BACnet Alarm** module no longer produces an error on download when a Digital Input from a **FLX** module is connected to it (e.g. point number 101).
- ST-6780** **CBXi** no longer goes into a power cycling loop after a download.
- SYSX-222** **CBXi** firewall rules no longer prevent **BACnet** traffic on ports other than 47808.
- SYSX-225** **CBXi** web UI password changes are now properly registered.
- SYSX-220** Explanatory messages have been added to the restart screen on **CBXi** web UI
- SYSX-214** **CBXi** Router **NAT** capability has been restored
- SYSX-208** In the **CBXi** web UI, the [Enter] button now defaults to submitting rather than cancelling a form.
- SYSX-205** **MODbus TCP** no longer becomes stuck in a read loop.
- SYSX-186** Front-end can now alter point values that have been adjusted by **CBT-STAT**.
- SYSX-58** **CBXi** web UI now supports all common browsers.
- SYSX-64** **CBXi** web UI has been enhanced to assist in diagnosing issues with **BACnet** communications.

Customer Impact

Customers who want to use the new and updated **Modules** or who are affected by the specified issues listed can upgrade to version 8.1.0.

Note: **CXpro^{HD}** version 1.02 or later is required to use the new/updated **Modules** or **Extended IO**