ControlCore Release History

ControlCore V2.10(CC Firmware 1.64)
- Added support for T3-4AO
- Added support for PM-5E
- Added support for Tstat6
- Added LCD local reset (hold Next parameter button 6 seconds) for 5E and PM-5E
- Implemented read only switch for undefined Modbus address (i.e. registers 0-16)
- Fix for COM locking problem which could cause (Access is denied.) com error
- Fix for possible missed communications on device with large programs.

ControlCore V2.04(CC Firmware 1.56)
- Added support for T3-32AI devices.

ControlCore V2.03(CC Firmware 1.54)
- Added password protection. (Pro Version)
- Changed behavior of SEL and DSEL blocks so that when a DYN(none) input is selected the block's evaluation is suspended making it free to be set remotely or by the user.

ControlCore V2.02(CC Firmware 1.52)
- Increased available program space from 7 to 13 pages. (Pro Version)

ControlCore V2.01(CC Firmware 1.50)
- History Page UI improvements (Pro Version)

ControlCore V2.00 (CC Firmware 1.50)
- History Page (Pro Version)
- Adds device scanning control buttons on device pages and global control on COMM nodes.
- Fix for new T38IOA models, adds servicing for WDT all T3 devices.
- Fix for printing device programming page.
- Fix for CTR block simulation.

ControlCore V1.96 (CC Firmware 1.49)
- Increased maximum digitals from 32 to 96 (Pro Version)

ControlCore V1.94 (CC Firmware 1.45)
- Multi level simulation mode, allows mixture of real and simulated devices.
- Mixed input option. Allows analogs to be connected to digitals and vice versa.
- Added Normal/Invert output option for all digital blocks.
- Firmware now supports derivative term for PID loop blocks.
- New minimized format for analog monitors on programming page.
- Improved user interface to remain in run mode on programming page when switching between devices already being scanned.
- Allows multiple COMM ports in same project (Pro Version)

- New RAV & RDV blocks (Pro Version)
- New Scan block to allow stand alone peer to peer communications (Pro Version)
- New TXT block, display text on TSTAT display (Pro Version)

ControlCore V1.92 (CC Firmware 1.43)
- New architecture to support network controllers and Pro / Light versions.
- Support for T3-8IO and T3-8I13O devices.
- Adds printing option for ControlCore program page.
- Improved 7-segment character set for Tstat5ABCD type device display.
- Support for 8th input of Tstat5E type device.
- Improved block paste algorithm to automatically resolve duplicate names and Modbus addresses.
- Fix for Tstat5E LCD display corruption.
- Fix for Tstat5E communications issues caused by changes in firmware 1.39.

ControlCore V1.86a (CC Firmware 1.38)
- Extends default time-out for communication transactions from 250ms to 500ms.

ControlCore V1.86 (CC Firmware 1.38)
- Corrects problem with Tstat5E LCD display, was going blank after a while if display discrete icons were used.

ControlCore V1.86 (CC Firmware 1.36)
- Added an (N.O. / N.C.) option for DI type input blocks. Setting N.O. (normally open) inverts the value.
- IO blocks automatic default naming reorganized so that the default name is consistent with the physical pin and not the order that it was created.
- Digital input parameters now support the optional DYN (dynamic/static) option similar to analog parameters.
- Fix to ensure that errors during a ControlCore program download, through a Modbus gateway, are processed.
- Baud rate setting set to read only, 19.2K
- Support for more COMM ports, two modes show all and show only real serial ports on the PC.
- New “Sequence of operation” tab.
- Default Modbus registers, applies to Tint, AO1, and AO2.
- Indication of Block’s Modbus register when hovering over a block in run mode. Only shows if Block’s Modbus register is actually defined to something.
- Adds the ability to access function block’s dialog box information in run mode. In run mode all fields are read only.
- Adds the ability to move blocks around in run mode.
- Increased communication time-out for CC data scan, from 250 to 400ms. 250 was marginal for a TSTAT5A with a large program.
- Fix for TSTAT5E display, after a long time without change the displayed parameter name could become corrupted.

ControlCore V1.84 (CC Firmware 1.34)

- Fix, TSTAT5E “Admin” mode locks user interface.
- Ensures non sync reported for incomplete ControlCore program downloads.
- Fix for AO1 on Type5E, output value was not constant.
- Fix About box version text font was too large for some installations.
- Fix for starting ControlCore from double click on project (prj) file.

ControlCore V1.82 (CC Firmware 1.30)

- Adds option to rotate TSTAT’s displayed parameter.
- Adds new LCD display block. This block allows an analog value from the strategy to control which parameter is displayed on the TSTATS’s display.
- Displays a “Start Page” to select from previously used projects or new project. Presents a list of all previously used projects, most recently used one at the top. If the file no longer exists it indicates that in the description. Selecting a no longer existing file does same as new. If project is closed it returns to this list.
- Adds enable/disable option for PID blocks, driven by digital input.
- Adds rate parameter for PID blocks.
- Adds lookup table block (TBL). Allows an arbitrary conversion for analog signal. A linear interpolation is done between specified points.
- Adds Delay block (DEL). Provides a delayed on and delayed off option.
- Adds OR blocks.
- Adds AND blocks.
- Adds TST block, simple On/Off Tstat.
- Adds SEL blocks (Analog and Digital)
- Survives loading projects from future versions with new blocks that are of unknown type.
- Protects against partially downloaded configurations. If a configuration is partially downloaded (because of communication errors for example) the TSTAT will not utilize the partially downloaded configuration. Instead it shows a blank display and an empty project.
- Fix PID Editor Forward/Reverse change to Direct/Reverse plus they were labeled backwards with respect to convention.
- Fixes unidentified extra check box on 5E display discrete items.

ControlCore V1.72 (CC Firmware 1.22)

- Checks for HW firmware version to make sure version is supported before download.
- Adds support for TSTAT Type J.

ControlCore V1.70 (CC Firmware 1.22)

- Adds support for TSTAT Type PIR.
- Adds Buildings/Floor information to Device Identification Page and corresponding distribute buttons to copy information to other devices.

- Adds Monitor check box option for display parameters of the Device Display Configuration dialog box.
- Adds distribute button to copy display parameters list to other devices.

ControlCore V1.68 (CC Firmware 1.22)

- Adds ability for TSTAT devices to display temperature parameters in degrees C or F independent of the ControlCore program settings. The new Device Display item option oC/F allows a parameter to be declared as a temperature type. Then the digital output block (oF) , created automatically in the ControlCore program, can be used to control which temperature units the TSTAT display will use, (1=oF, 0=oC).
- Adds support for the block's scale, defined in ControlCore, to be used on the TSTAT device display to limit user input to remain within the defined range.
- Adds support for Modbus broadcasts, i.e. write register commands with device address set to '0'. For security each block has an additional option "Accept Broadcasts". The TSTAT will only respond to the broadcasts if this option is selected.
- Added new SYS block parameter types "`Modbus Packet Err`" (counts number of Modbus packet timing errors detected, and "`Modbus CRC Err`" (counts number of bad CRC values detected.
- Improved Modbus/RS485 communications
    - Added minimum delay (50ms) for Modbus responses. This insures packet synchronization gaps are always detected properly.
    - Changed RS485 receiver to better detect and reject bad packets.
    - Devices no longer send response when CRC errors or 'bad packets' are detected. This prevents any possible interference with ongoing communications with other devices.
- Fixed Device Display Dialog to disable buttons when there is no row selected.
- Fixed Open or New project menu commands to shutdown any active run mode scanning before proceeding.
- Fixed TSTAT5E model hardware code. Previously TSTAT5E were being recognized as a model 5D.
- Fixed analog outputs to be cleared to 0 on reset, even if there is no ControlCore program referencing them.

ControlCore V1.66 (CC Firmware 1.18)

- Added menu option Project/Export Project (CSV), This will dump the contents of the project into a CSV text file, currently only the device's name and the address is included in the file.
- Added support for backlight and display blanking for Tstat model 5E. Both are defined separately on the Device Display Configuration dialog.
- Added calibration feature for internal temperature sensor. The original Temco factory calibration is preserved across firmware updates. Also new SYS block

parameter type (Tint Cal Offset) allows remote access to the offset calibration value.
- Added (Read & Write Non-Volatile parameters) facility in ControlCore. This will allow you to preserve non-volatile parameters across program and firmware updates.
- The TSTAT firmware now differentiates between a structural changes and non-structural changes when a new program is downloaded. Non- volatile parameters are preserved automatically for non-structural program changes.
- Bug Fix: On TSTAT5ABCD When an analog input is used as a DI, the DI doesn't work at all
- Bug Fix: Sometimes (especially when both inputs are shorted) the PIC A/D sends bad values. This special case is detected and the PIC A/D is re-scanned.

ControlCore V1.64 (CC Firmware 1.12)
- Increased maximum analog blocks to 60.
- Authorizations will be preserved across subsequent firmware updates.
- Bug fix, the first top parameter of the Device Display Configuration dialog was not displaying properly.
- Bug Fix, when more than 18 display items were defined TSTAT device didn't display properly.
- Bug fix, when the PUL block shape was set to INVERTED it started in triggered state.
- Bug fix, complex FX blocks were not evaluating properly.