

## ControlCore Release History

### ControlCore V515(Device Firmware 2.02)

- Reworked project tree to accommodate for the new ESP device coming soon
- Bug Fix for iNets broadcast scans
- Added option to format inets hard drive remotely.
- CC to iNet Communications will auto retry on timeout
- Improved Viewer Editor to better support Large Images
- Minor bug fixes

### ControlCore V508(CC Firmware 2.00/iStat, iMod 2.00)

- Added Account Credit Usage Reports
- Minor bug fixes

### ControlCore V500(CC Firmware 2.00/iStat, iMod 2.00)

- Added Viewer Website/Android App Editor & Publisher
- Added Free Cloud History Data option
- RTC Block on iNet Now Considers Timezone Setting for Elapsed Mins/Secs
- Added keep-alive messages for iNet Cloud Connections
- Minor bug fixes

### ControlCore V4.90(CC Firmware 2.00/iStat, iMod 2.00)

- Fixed daylight savings time for iNet

### ControlCore V4.88(CC Firmware 2.00/iStat, iMod 2.00)

- Fixed blank history bug
- Fixed ControlCore crash bug

### ControlCore V4.86(CC Firmware 2.00/iStat, iMod 2.00)

- Fixed ControlCore crash bug in simulate mode
- Fixed bug, inet's history recorder not being initialized after a power failure
- Minor bug fixes

### ControlCore V4.84(CC Firmware 2.00/iStat, iMod 2.00)

- Minor changes for Cloud History cost calculation
- Bug fix for Newly Created RAV which ref. iNet's program iNetContoller.exe V484a, bug fix for selecting a new cloudname

### ControlCore V4.83(CC Firmware 2.00/iStat, iMod 2.00)

- Bug fix on iNet firmware introduced by V4.82

### ControlCore V4.82(CC Firmware 2.00/iStat, iMod 2.00)

- Improved History Recording rate and UI
- Users Can now select which points to record to cloud, in order to create long term & highly detailed history recording without breaking the bank.
- Changed service provider for weather blocks
- Added new iPan Device
- Added new iMod6LCD Device

Support for ISCT01 current sensors  
Fix for CatNet Connection Error introduced in V476

ControlCore V4.76a(CC Firmware 2.00/iStat, iMod 1.94)

XB16 Devices now have Read Only Comm1 & 2 options

ControlCore V4.76(CC Firmware 2.00/iStat, iMod 1.94)

Bug Fix Loading Sequence of Events from old project files

ControlCore V4.74(CC Firmware 2.00/iStat, iMod 1.94)

Minor bug fixes

ControlCore V4.72(CC Firmware 2.00/iStat, iMod 1.94)

CLK block on iNet uses local time zone rather than UTC time.

New Cloud History Data for iNet

Fixed memory leak when using weather blocks on iNet

Minor bug fixes

ControlCore V4.66(CC Firmware 2.00/iStat, iMod 1.94)

Replaced erroneous iNet firmware file included in V464 Build.

ControlCore V4.64(CC Firmware 2.00/iStat, iMod 1.94)

Fixed crash introduced by V4.62 when loading old projects

ControlCore V4.62(CC Firmware 2.00/iStat, iMod 1.94)

Added Point Labeling for Website & Exe Viewers

Added New Staging Block (STA)

Added New Bit Function for F(x) block

Fixed iNetController unexpected DCHP setting after "Apply and Restart"

Minor IU improvements and bug fixes

ControlCore V4.60(CC Firmware 2.00/iStat, iMod 1.92)

New Web Site Viewer and Isquared Accounts

Improved iNet's Weather Value blocks

Fix for WDV block write coil command

Fix for broadcast (dev address=0) wasn't working on COM1

New option to set AI mode via Modbus reg no 200...209

New Modbus Read Only option on all blocks.

Added handling of Clear NV command for iMOD6 and iMOD6D.

Make display of °C/°F controlled values use block's defined decimal point instead of a hard coded format of ##.#.

ControlCore V4.54(CC Firmware 2.00/iStat,iMod 1.86)

RTC blocks use local time for RTC block on iNet

Modbus read only option

ControlCore V4.50(CC Firmware 2.00/iStat,iMod 1.82)

- Added upload device firmware via ControlCorePro
- Removed some syncing dependencies RAV & WAV to & from iNet/NCServer
- Improved iNetController's user interface
- Added self referencing RAV blocks to and from iNet/NCServer
- Added new features to the utility programs that come with ControlCore
- Fixed bug when applying a new comm type

ControlCore V4.42(CC Firmware 2.00/iStat,iMod 1.82)

- Fixes a bug in Set Baud Rate dialog box

ControlCore V4.40(CC Firmware 2.00/iStat,iMod 1.82)

- iStat/iMod Non-volatiles now completely permanent, persist in spite of program changes or even a firmware flash update
- New "Clear Non-volatiles" command
- New option for FX,FXD, and CTR blocks, to control non-volatility
- New display option block to control lock out access to Admin mode
- Admin and User display parameters now independent lists
- New option for SYS blocks "Serial Number", allows access to the device's serial number.
- Minor optimization for iNet and NCServer to simplify syncing
- New internal data recorder implementation, provides more history data
- Improved history display and viewer history item user interface
- New feature, Synchronize devices clocks with iNet's local time
- AI block's Filter parameter can be set dynamic.

ControlCore V4.30(CC Firmware 2.00/iStat,iMod 1.76)

- Collection of Bug fixes and optimization for iNet and NCServer

ControlCore V4.21(CC Firmware 2.00/iStat,iMod 1.76)

- Added "Simulate mode" for NetworkControllers
- Added "Set IP Configuration" & "Update Firmware" to iNetController.exe
- iStat firmware allows it's display to print 8 character numbers.
- iStat/iMod firmware allows RAV/RDV's to reference other RAV/RDV,
- Extensive code clean up and bug fixes for iNet and NCServer
- General code clean up and bug fixes for Control Core

ControlCore V4.11(CC Firmware 2.00/iStat,iMod 1.74)

- Minor Corrections

ControlCore V4.10(CC Firmware 2.00/iStat,iMod 1.74)

- Added "find" btn for NetworkController's ident page
- Code clean up and bug fixes

ControlCore V4.09(CC Firmware 2.00/iStat,iMod 1.74)

Fix for NCServerController on Windows10, ask to run as admin.  
Other minor fixes

ControlCore V4.08(CC Firmware 2.00/iStat,iMod 1.74)

Fixed NC's RAV / WAV to use base 1 modbus register numbers  
Other minor fixes

ControlCore V4.07(CC Firmware 2.00/iStat,iMod 1.74)

Performance enhancements for Viewer and device history displays  
Fix for increment value on iSTAT6 TXT blocks (V1.74 firmware)  
Correction for Modbus RAV/WAV blocks on NC, no longer needs Modbus device to be defined.  
Miscellaneous corrections and enhancements for Network-Controller projects and embedded iNet Network-Controller devices  
Corrects "Device Program Upload" dialog that could appear on new projects created from scratch.

ControlCore V4.06(CC Firmware 2.00/iStat,iMod 1.73)

Added Zipping and Progress bar for uploading a NC project  
Added Digital FX to NC Programming page

ControlCore V4.03(CC Firmware 2.00/iStat,iMod 1.73)

Fixed iStat6 pin labeling for built-in I/O block (Tint , PLC, Day...)  
Fixed display issue for Control Core Basic's iMod6 HW Configuration

ControlCore V4.01(CC Firmware 2.00/iStat,iMod 1.73)

Fixed iMod6 AI & AO block labeling

ControlCore V4.00(CC Firmware 2.00/iStat,iMod 1.73)

Support for new iNET/NCserver supervisory control nodes in ControlCore project trees. (*ControlCore Pro*)  
New Viewer pages and Viewer application generator. (*ControlCore Pro*)  
Allows sorting of devices and communication nodes within the ControlCore project definition tree.  
New WAV and WDV blocks to add write capability to the peer-to-peer facility, includes Modbus Write capability to third party Modbus devices. (*iSTAT/iMod*)  
New option to support 32 bit floats for Modbus read and write commands. (*iSTAT/iMod*)  
Adds a description field for all ControlCore program blocks.  
Adds quick view for Modbus address and block description on programming page.  
Extended formatting options for iSTAT displayed values.  
New 1000 Hz FI(frequency input) and CI(counter input) options for hardware input channels. (*iSTAT/iMod*)  
Adds non-volatile handling for FX blocks, current value will be saved across power cycles. (*iSTAT/iMod*)

New Help button on programming dialogs to jump directly to block's documentation page.

New Manual Override option from ControlCore run mode interface.

Corrected filtering option on iSTAT6/iMOD6, if set beyond "16s Avg / 4.0s Update", there was a potential overflow.

ControlCore V3.28(CC Firmware 2.00/iStat,iMod 1.62)

- Maintain compatibility with ControlCore V4 iStat,iMod firmware.

ControlCore V3.27(CC Firmware 2.00/iStat,iMod 1.62)

- Maintain compatibility with ControlCore V4 iStat,iMod firmware.

ControlCore V3.26(CC Firmware 2.00/iStat,iMod 1.61)

- Maintain compatibility with ControlCore V4 iStat,iMod firmware.

ControlCore V3.25(CC Firmware 2.00/iStat,iMod 1.49)

- Minor correction for copy pasting FX Blocks

ControlCore V3.24(CC Firmware 2.00/iStat,iMod 1.49)

- Increased scan rate for monitor and history displays
- Fix for copy pasting FX Blocks with functions (min, max, etc...)

ControlCore V3.23(CC Firmware 2.00/iStat,iMod 1.49)

- Added support to detect new TSTAT5i hardware code=8 in ccISP

ControlCore V3.22(CC Firmware 2.00/iStat,iMod 1.49)

- RAV/RDV Block automaticity select the corresponding COMM port
- IMod6's led blinks whenever the device does a send on the RS-485.

ControlCore V3.21(CC Firmware 2.00/iStat,iMod 1.47)

- Correction to prevent duplicate Modbus registers when pasting blocks

ControlCore V3.20(CC Firmware 2.00/iStat,iMod 1.47)

- User definable time-out setting for local comm port
- Fix for T3-8I13R HOA switch access in ControlCore program
- Few minor corrections and additions

ControlCore V3.16(CC Firmware 2.00/iStat,iMod 1.44)

- Adds BAUD rate setting for iSTAT6 and iMOD6
- Improved error handling for Modbus Gateway communications option
- Improved timing precision for TSTAT6
- Fix for "fit all" program page setting on large programs

ControlCore V3.15(CC Firmware 1.99/iStat 1.41)

- Corrects issue for Fx block POW() and LOG() functions

ControlCore V3.12(CC Firmware 1.99/iStat 1.41)

- Adds Viewer for Pro versions

ControlCore V3.11(CC Firmware 1.99/iStat 1.41)

Corrected simulation mode for AND / OR blocks with INVERT setting.

ControlCore V3.10(CC Firmware 1.99/iStat 1.41)

Adds Modbus accessible schedule SCH blocks (*iSquared iSTAT6 devices only*).

Adds ccUPLOAD utility

ControlCore V3.01(CC Firmware 1.99/iStat 1.30)

Fix for case insensitive names in FX blocks.

ControlCore V3.00(CC Firmware 1.99/iStat 1.30)

New look and feel user interface with improved functionality

Redesigned runtime core for improved stability and support for network controller

New server gateway communication option

Support for T3-4AO's second COM port

Adjustable baud-rates for T34AO COM communication rates

(9600,19.200,38000,57600,115200)

Increased DATA space for iSTAT6 devices

New lockout device buttons feature for iSTAT6.

ControlCore V2.74(CC Firmware 1.95/iStat 1.22)

Adds support for new EIN Inc 's Zigbee communications modules

ControlCore V2.72(CC Firmware 1.95/iStat 1.22)

Adds support for Tstat6 with CO2 sensor

Adds local history snapshot SNP blocks (*iSquared iSTAT6 devices only*).

ControlCore V2.66(CC Firmware 1.93/iStat 1.11)

Adds RTC block to access real time clock parameters from ControlCore programs, Modbus, and display. (*iSquared iSTAT6 device only*).

Adds support for exp(x),log(x), and pow(x,y) function in FX blocks. (*iSquared iSTAT6 device only*).

ControlCore V2.62(CC Firmware 1.93)

Adds support for iSquared iSTAT6 thermostat device.

Adds 4-20mA scaling option for Analog Inputs and Analog Outputs.

Tstat6 firmware support for Tstat6-220V devices.

Fix for large scans when using ControlCore with a Modbus gateway.

Fix for T38I13R firmware, corrects AI PIC read issue.

ControlCore V2.29(CC Firmware 1.90)

Fix for Tstat6 firmware, large programs on Tstat6 HW Rev 9+ could cause resets to ISP mode.

Fix to identify out-of-sync projects when block order changes.

#### ControlCore V2.28(CC Firmware 1.89)

Adds progress bar for ControlCore program downloads.

Few minor labeling mods on block editor

Includes new ccISP (In-Circuit Serial Programming) tool to flash devices

Includes updated firmware to support New Rev 9 Tstat6 devices.

#### ControlCore V2.27(CC Firmware 1.86)

Swapped AO1/AO2 automatic name to match label on PM5E connector label

Switched to new TCP/IP library

Tstat6, special detection of REV8 button arrangement. Checks if EEPROM HW register[8] = 8

T38I13R, special detection of REV8 HW for LED driver pins are different.

Checks EEPROM HW register[8] for >=8 to use reversed LED driver pins

#### ControlCore V2.24(CC Firmware 1.85)

- Implemented split scan algorithm, fixes issue for peer to peer communications with large programs.

#### ControlCore V2.22(CC Firmware 1.84)

- Fix for importing old projects with TST blocks.

#### ControlCore V2.21(CC Firmware 1.83)

- Fix for Rotate Display on Tstat5E, PW5E and T6

- Fix for COM ports, allows for ports greater than COM9

- Fixed Dynamic REV/NORMAL inputs on TST and PID blocks

- Allows OEM specific Trial Expired Message

- Fix for T34AO, relay outputs were reverse order

#### ControlCore V2.20(CC Firmware 1.79)

Improved "Device > Print Program" formatting

Support for T34AO flashing over RS485 with new Temco ISP (no longer requires JTAG programmer)

#### ControlCore V2.14(CC Firmware 1.78)

Support for PM5E (requires the new PIC version)

Fix for LCD block access on ControlCore Basic.

Increased T34AO ControlCore program space ([Pro Version](#)).

Doubled T34AO analog blocks capacity, 120 blocks ([Pro Version](#)).

Adds a digital version of the FX block.

New display option to control return to default delay, Hw Configuration > Device Display Configurations.

(Sec/Min/Hr) option on all time related block parameters.  
Separate dead-band parameter for increasing and decreasing on TST and PID blocks.  
Option for dynamic control of Reverse/Direct acting parameter of TST and PID blocks.  
TXT blocks value is considered Non-Volatile so its value will be preserved on device re-powering ([Pro Version](#)).  
Sorted block selection lists, simplifies selections on large programs.

#### ControlCore V2.12(CC Firmware 1.72)

Added Analog Input option for 10K Type II Thermistors  
T38I130 output switches available as DI on programming page  
Increased maximum digitals from 96 to 128 ([Pro Version](#))  
New CatNet communication node option  
Added ability to copy and paste COMM nodes via the Device/Cut-Copy-Paste menu command.  
Periodic LCD reset for 5E display blanking issue  
Added remote ISP updated capability ([With Network Controller only](#))  
Added Tstat6 RTC support for scheduling, CLK blocks ([Pro Version](#))

#### ControlCore V2.11(CC Firmware 1.64)

Added ability to copy and paste COMM nodes via the Device/Cut-Copy-Paste menu command.

#### 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.