CCM\CCMx Version 7.5.28 Release Notes

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Overview

This document describes the changes in the CCM firmware since version 7.5.08. This document also summarizes the Known Limitations in this release.

Like version 7.5.07 and version 7.5.08, version 7.5.28 of the CCM firmware works on the traditional CCM7 module used in controllers such as the M2 and the M8, and on the newer CCMx-2, CCMx-4, and CCMx-8 modules used in the Mx controller.

This firmware package includes both a CCM BIOS component (for all controllers) and a STM-RTC component (for Mx controllers). The version numbers of these software components (for some recent releases) are shown in the following table:

CCM\CCMx version	CCM BIOS version	STM RTC version
7.5.28	**7.5.28**	**4.0**
7.5.08	7.5.08	3.0
7.5.07	7.4.59	2.8

CAUTION: If you have an Mx controller running CCMx firmware version 7.5.04 or 7.5.07, you must upgrade to version 7.5.08 **before** downloading version 7.5.28 to that controller. Downloading version 7.5.28 to an Mx controller running CCMx firmware version 7.5.04 or 7.5.07 will lock up that controller.

NOTE: Version 7.5.X of the CCM firmware is supported only by the Velocity security management system. It is not supported by older software such as MOMENTUM or SAM.

New Features and Enhancements

Support Card Reader LED on Mx Controller [DT-94]

A traditional DIGI*TRAC controller requires a MATCH2 reader interface board for connecting some other vendor's card reader, via an industry-standard 6-pin connector which includes a pin for controlling the card reader's LED (or buzzer). An Mx controller's main board provides the functionality of the MATCH2 interface and includes an industry-standard 6-pin connector for each door, to support basic access control applications that only need an entry reader on a door. The LED (or buzzer) of a card reader attached to a 6-pin connector now behaves the same, regardless of whether the connector is on a MATCH2 board or on an Mx controller's main board.

Support multiple access zones for a credential's Access function [DT-105]

The General tab of the Velocity Preferences dialog now includes the **Enable Multi Access Zones** option.

- When this option is **not** activated (which is the default setting), Velocity continues to enforce the limitation that a credential can perform only one access function or control function per controller which applies to only one door group.

- When this option is activated, a credential is still limited to performing only one control function per controller which applies to only one door group. But a credential will be able to perform a specific **access** function on up to 9 door groups per controller.

NOTE: This feature requires CCM firmware version 7.5.28 (or later) to be installed on each controller where you want to enable multiple access zones. For any controller with an earlier version of the CCM firmware, only the first access zone (shown on the Function ▸ DIGI*TRAC tab of the Credential Properties dialog) will be enabled for that credential.

CAUTION: Activating this feature may reduce the credentials capacity of your controllers by up to 50%.

Improve MATCH2 LED wire (Brown) to drive a beeper [DT-131]

Previously the Brown wire was designed to drive an LED, and when a reader's beep wire shared that connection you could not tell the difference between an Access Granted or an Access Denied. A customer requested a steady 3-second sounder for an Access Denied and a very different sound for an Access Granted. Now a ScramblePad will make the following sounds:

- BIP BIP BIP for a "bad read" such as a checksum failure.

- BEEP or BEEP BEEP for "Access Granted" -- one or two beeps, to match the Green LED flashes on the ScramblePad.

- BEEP BEEP BEEP BEEP BEEP -- five beeps for "Access Denied".

Charge batteries faster to attain full recharge more quickly [DT-138]

To more quickly recharge a controller's backup battery (after a prolonged power outage), the duty cycle was increased so that charging occurs during 55 seconds of each minute.

Support new model of TouchSecure reader with keypad [DT-168]

Support a new model of TouchSecure reader which includes a keypad, so it works correctly when connected to a 6-pin Wiegand connector on an Mx controller's main board.

Defects Fixed

Downstream SNIB2 controllers did not generate a logged on message after upgrading their CCM firmware to version 7.5.08 [DT-134]

When two controllers were connected by SNIB2 boards running SNIB2 firmware version 6.42, after upgrading the downstream controller's CCM firmware to version 7.5.08, that controller came back online but did not generate the expected logged on message (or some other related messages).

Improve Mx onboard Wiegand resistance to noisy lines [DT-136]

A card reader connected to a 6-pin connector on an Mx controller's main board might not function properly, if the STM-RTC was misinterpreting noise on the line as valid Wiegand signals. This was fixed by "debouncing" (smoothing out) the Wiegand data signals to ignore noisy spikes.

Quickly entering the PIN on a reader's keypad could cause an "Access Denied: Bad PIN" message [DT-139]

For an HIDRPK40 reader, quickly entering the PIN on the reader's keypad could cause an "Access Denied: Bad PIN" message.

Support the "LED reverse" option [DT-140]

The Card Reader Setup tab of the Door Properties dialog includes the **LED reverse** option, which is intended to mislead unauthorized people from entering or exiting an area, by flashing the reader's red LED (instead of the green LED) when an access is granted.

NOTE: For this option to work properly on a ScramblePad, you must also enable the **Card reader LED on while relay active** option on the ScramblePad Options tab of the Door Properties dialog.

Mx Controller lost "Onboard Wiegand Interface" settings after cycling power [DT-144]

If a card reader was connected to a 6-pin connector on an Mx controller's main board, its configuration information (specified under the **Onboard Wiegand Interface** option on the Card Reader Setup tab of the Door Properties dialog) was not being automatically restored after the power was cycled on that Mx controller.

Improve behavior of the "Card reader LED on while relay active" option for a non-ScramblePad card reader [DT-145] and [DT-147]

A MATCH or MATCH2 board automatically flashes its LED line to drive a ScramblePad's red LED, even if the attached card reader is not a ScramblePad. This was causing a problem when the **Card reader LED on while relay active** option was enabled for a card reader that was not a ScramblePad.

Slow LED response for "Card reader LED on while relay active" option [DT-146]

There was a situation where there was approximately a 2-second delay after the door relay fired until the card reader's LED changed state, while the **Card reader LED on while relay active** option was enabled.

Setting of a ScramblePad's "Report Access Grants" option lost [DT-156]

When configuration settings were downloaded to a controller, the current setting of the **Report Access Grants** option (on the ScramblePad Options tab of the Door Properties dialog) could be lost.

Reporting of Invalid Code added 8 trailing zeros on ordinary cards [DT-160]

In some cases, presenting an invalid card at an ordinary card reader generated an error message in the form
"Invalid Code: 1234567800000000" (instead of the expected "Invalid Code: 12345678").

"Enable bezel tamper" option not being set for a card reader [DT-165]

The "Enable bezel tamper" option on the Card Reader Setup tab of the Door Properties dialog was not being set correctly.

After cold-starting a downstream controller, the first configuration download stalls [DT-166]

When two controllers were connected by SNIB2 boards running SNIB2 firmware version 6.42, after cold-starting the downstream controller, the first configuration download to that controller stalled. (The workaround was to cancel the stalled download and try again.)

Improve DT/SNIB2 state machine to better handle downloads to downstream controllers [DT-169]

Sometimes when downloading a large configuration to a downstream controller, the download would never complete, so it had to be manually deleted and then tried again.

Support third-party keypads on MATCH2 card reader port 2 [DT-170]

When a door had a third-party card reader with a keypad installed for entry and another identical one installed for exiting, a dual credential that requires both a valid card and a valid PIN worked properly for entry but not for exit.

Stabilize startup of Mx controllers [DT-171]

When an Mx controller was cold started, it sometimes stalled during the Power On Self Test (because the STM-RTC code wasn't behaving exactly the same way as the old real-time clock chip).

Ensure "Onboard Wiegand Interface" settings persist for an Mx controller [DT-172] and [DT-173]

If a card reader was connected to a 6-pin connector on an Mx controller's main board, its configuration information (specified under the **Onboard Wiegand Interface** option on the Card Reader Setup tab of the Door Properties dialog) was not being retained, especially when the **Synchronize Velocity database with controllers** option (on the Advanced page of the Velocity Settings dialog was enabled. As a result, the Event Viewer was displaying the number of bits in a card (instead of its UID) for an Access Denied event.

Improve credential downloads to downstream controllers using SNIB1 boards [DT-176]

Credential downloads to downstream controllers using SNIB1 boards were sometimes not completing because the Velocity Spooler was waiting for a "command complete" response from the controller (for every CMD 23).

CCOTZ feature did not work with an Mx controller's onboard Wiegand connectors [DT-178]

Velocity provides several different ID Formats for a credential, and some of them normally require a user to both present a valid card and enter the correct PIN code (at a dual-technology reader which has both a card reader and a keypad). To speed things up during times of high traffic volume, Velocity also provides a **Card or Code Only Time Zone (CCOTZ)** feature that enables you to instruct a dual-technology reader to allow a user with a dual credential to gain access during a specified time zone by either presenting a valid card or entering the correct PIN code (instead of having to do both). To enable the CCOTZ feature for a specific dual-technology reader, open that reader's Properties dialog, click on the Logic tab, select a time zone other than <Never> from the **Enable "card/code-only" access during time zone** drop-down list, and click OK.

The CCOTZ feature was not working for a dual-technology reader connected to a 6-pin Wiegand connector on an Mx controller's main board.

Master Code is sometimes reset during controller boot-up [DT-186]

In certain situations (such as after changing the CCM firmware), when a controller was booting up it erroneously thought the blue Reset button was being pressed, and the Master PIN Code (for User 0) was reset to the default value of 123. This was not an issue on Mx controllers, which do not have a printer port and do not allow keypad programming.

But on DIGI*TRAC controllers (such as an M2 or M8) which have the capability to be programmed using a ScramblePad, you should have disabled the **Enable local system code reset** option (in the Options for Local Keypad Programming Only section) on the Setup tab of the Controller Properties dialog. You should also have disabled the **Accept programming codes** option on the ScramblePad Options tab of the Door Properties dialog, for every door that has a ScramblePad reader.

Known Limitations

Timed Anti-Passback

- As mentioned in the CCM 7.4.12 Release Notes, if you're using the Timed Anti-Passback feature for all users, your user capacity will be cut in half. Therefore if you have 2048 or more credentials and you haven't already installed a memory expansion board, you'll need to add one. Users with the MEB/CB128 might need to special order an MEB/CE64 to augment their capacity.

- If your site has more than 2000 credentials and will need Timed Anti-Passback, the **CMD 98*41*9*8*1*0** command should be added to a command set and put into the "Additional command sets to download" feature (on the General page of the Controller Properties dialog in Velocity).

- **Special notice for upgrades where a site has already had credentials downloaded to the controller:** If the controller has ever had more than 50% of its user capacity used since its last cold-start (regardless of whether the credentials were deleted later), it may be necessary to cold-start the controller's user database. Cold-starting the user's database can be done via **CMD 98*27*0*0*0*0#**, or by pressing the controller's blue Reset button for 30 seconds. A cold-start may be necessary because the new CMD 98*41*9*8*1*0# feature changes how that database is allocated, but only to the extent that space has not already been allocated.

Digi*Trac Annunciator (DTA) and Digi*Trac Annunciator with 2-line LCD (DTA2)

- As of CCM version 7.4.37, the output format for the DTA has been changed to show shorter messages, such as showing **14:20** instead of **08 Oct 2:20 pm**.

- Until Velocity has native support for the new embedded 2-line LCD display, it is necessary to add a **403*READER*65*72#** command for each reader that has an LCD unit. We recommend using the "Additional command sets to download" feature on the General page of the Controller Properties dialog in Velocity.