Application Firmware Read Me

Associated firmware file versions CR900FD, CR1000, CR1400, and CR8000		Associated firmware file versions CR2300, CR2600, CR3600 and CR3600DPM		Associated firmware file versions CR4400 and CR4405		Associated firmware file versions CR6000	
Systems Install	1306	Systems install	1306	Systems Install	1306	Systems Install	1330
Firmware	1306	Firmware	1306	Firmware	1306	Firmware	1330
Boot/Core	1306	Boot/Core	1306	Boot/Core	1306	Boot/Core	1330
Kernel	0073	Kernel	0096	Kernel	0090	Kernel	0073
Uboot	0017	Uboot	0022	Uboot	0023	Uboot	0017
Decoder	CD (16.1.35)	Decoder	CD (16.1.35)	Decoder	CD (16.1.35)	Decoder	CD (21.1.20)
JS Engine	0099	JS Engine	0099	JS Engine	0099	JS Engine	0099

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******* PLEASE NOTE: *******

- This readme file contains information about the latest version of Code Corporations CR900FD, CR1000, CR1400, CR2300, CR2600, CR3600, CR3600DPM, CR4400, CR4405, CR6000 and CR8000 hardware Application Firmware.
- Code readers require a .crz to upgrade the systems firmware. If you receive a .ZIP file you will need to extract the .crz file to successfully update the reader firmware. DO NOT rename the .crz file. Renaming the .crz file will cause the upgrade to fail.
- The trigger LED behavior for a CR1000_01 will remain illuminated during the boot process. Where the trigger LED behavior for all other CR1000 hardware revision will flash on momentarily when the reader is first powered on and then remain off during the boot up process.
- CR1000 with Rev 5 decoder boards configured for RS232 communication mode will enter "Boot Mode" if the serial port application asserts the "Clear to Send" (CTS) signal during boot.
    - Note: Starting the Serial port application after the CR1000 has successfully booted will allow the CR1000 to work with the serial port application.
- The "~" command has not been implemented.
- It is Code's recommendation that you use the latest Configuration Guide to configure your reader. The latest Configuration Guides can be found on the Code web site at http://www.CodeCorp.com/ConfigGuide.
- Detailed information regarding setup and control of firmware in this release is disclosed in the C005066 - Interface Configuration Document (ICD). Contact Code Support for a copy of this document.
- All Code readers configured with the 4.0 imager require Firmware Version 0238 or higher to function properly. Downgrading the reader to an older version of firmware will cause the reader to stop functioning.
- All Code readers configured with the 4.1 imager require Firmware Version 0642 or higher to function properly.
- To enable motion detection for CR1000_01 and CR1000_02 hardware, Stand Detection needs to be disabled (using the latest version of configuration code M0217 - Disable Stand detection)
- By default CR1411_02, CR1421_02, CR1021_04 and CR1011_04 will enter motion detection when positioned in a stand with stand recognition hardware.

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1. NEW FEATURES FOR ALL READERS IN THIS RELEASE

- None

2. NEW FEATURES FOR SPECIFIC READERS IN THIS RELEASE

- None

ENHANCEMENTS/IMPROVEMENTS/FIXES

Firmware Version 1330

CR6000 Readers:

- Updated decoder to CD 21.1.20
- Added processing options for dot peen, laser etched images and curved dot peen images (see registry 30C)

Firmware Version 1306

All Readers:

- Fixed issue with duplicated AIM identifier
- Reverted decoder back to CD 16.1.35

Firmware Version 1304

All Readers:

- Improved cell phone mode

Bluetooth Readers (CR2300, CR2600, CR3600):

- Corrected issue with wireless products sending incorrect Shift-JIS characters

Firmware Version 1278

All Readers:

- Added latest decoder 0394 (CD 17.1.12)
    - Improved low contrast 1D decoding
- Simplified cell phone mode
- Fixed USB HID POS protocol issue

Firmware Version 1276

- Added support for CR4400 Readers

Bluetooth Readers (CR2300, CR2600, CR3600):

- Fixed an issue where readers connected via Bluetooth in Keyboard mode would insert extra characters into data when reading barcodes over 30 characters. This was occurring only when connected to modems running the latest modem firmware, 24xx.

Firmware Version 1262

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All Readers:

- Added latest decoder 0394 (CD16.1.35)
    - Various improvement for 1D symbologies and QR Code
    - Decode 3-bar Pharmacode
    - Allowed no checksum for Code 11
    - Added min length checking for IATA 2 of 5
- Do Simple Age Verification when G(2B4)= 9 and no DL license in the unit
- Updated AGC functionality
- Fixed an issue where the reader did not apply character delays to CodeXML Keystrokes

CR3600 only:

- Removed reference to the Bluetooth address in the Reader Info menu on units running secure firmware

Firmware Version 1220

All Readers:

- CortexDecoder updated to CD 16.1.4
    - Added decoding of light on dark Grid Matrix and mirror Grid Matrix
    - Added decoding of mirror GoCode
    - Fixed issue outputting format control code for Australia Post
    - Allowed Code 11 checksum to be configurable for 1-digit or 2-digit checksum. Previously the 1 or 2-digit checksum was internally determined based on spec but this rule is not always followed in customer applications
    - Fixed DL Parsing to output the full Canadian postal code
    - Enhanced DPM algorithms to allow more than 1 DPM barcode to be decoded in the same image
    - Improved Laser DPM algorithm for Data Matrix and Grid Matrix
    - Improved decoding of poorly printed PDF417
- Fixed an issue where USB enumeration was requesting the wrong power value
- Improved motion detection
- Fixed an issue where reader.processCommand("C","(suffix or suffix)) in JavaScript required a reboot
- Fixed an issue where the first image was always dark when using AGC bypass
- Added a new cellphone-only mode with no illumination
- Added support for CDC mode
- Added handling for multi-byte prefix/suffix values

CR2300, CR2600, C3600 only:

- Added enhanced handling of Chinese font
- Added support to the reader to be discoverable in SPP Bluetooth mode
- Added visual feedback to indicate encrypted BT connection

CR6000 only:

- Removed the ability to turn on glare reduction. This is not needed for the CR6000 and caused issues.

Secure firmware only:

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- Auto delete the license to upgrade firmware after upgrade has completed

Firmware Version 1174

All Readers:

- Fixed an issue in the German Windows Language file that was introduced in firmware 1166.

Firmware Version 1172

All Readers:

- Improved trigger debounce algorithm for handled readers.

Firmware Version 1170

All Readers:

- CortexDecoder updated to CD 15.2.1
    - Improved decoding of high density Data Matrix on curved surface.
    - Improved multi-code decoding in one image and further ensured the same barcode will not be decoded more than once.
    - Improved decoding of low contrast 1D barcodes.
        - Added two 1D barcode security levels 11 and 12 to reject misdecode due to low module size and poor image resolution
- Internal changes to improve manufacturability

Firmware Version 1166

All readers:

- More comprehensive lock function to increase the security of settings on the readers.
- CortexDecoder updated to CD 15.1.22
    - Improved reading of low resolution and damaged barcodes.
    - Added military CAC ID parsing to DL parser.
    - Improved decoding of non-high density Data Matrix and DPM with border damage.
    - For Age Verification, DL parser now outputs the string "00000000" for expiration date when it is not encoded in the driver license.
    - Improved Illinois DL parsing to correct parse a 2003 DL with out of spec fields. Supported DL Parsing of an old out of spec Ohio DL. The JSON formatted output no longer contains data for header and subFile fields to avoid outputting non-printable characters.
    - Improved DPM AGC. Reduced decode time for DPM algorithms for Dark On Light and Light On Dark dot peen algorithms.
    - Added option to output the Royal Mail check character.
    - Appended error correction codewords to Australia Post output by default.
    - Improved DL parsing to output correct JSON string label for out of spec DL.
- Fixed an issue with reader.onDecodeAttempt preventing further reads (Rules files)
- Fixed some internal reporting issues in iOS communications
- Fixed issue introduced in the last build for CR8x readers duplicate block time
- Fixed issue where the reader would reboot with an invalid license file
- Fixed performance issues with German-Win keyboard map

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CR3600 only:

- Fixed an issue where CR3600 real time clock could become inaccurate
- Removed ID verification demo program
- Fixed an issue where the on-screen data-editing feature was not working correctly

Firmware Version 1096

All readers:

- CortexDecoder updated to CD 15.1.5
    - Decode high density QR/DM with severe distortion and/or finder damage
    - Decode 144x144 DM and PDF417 with encoding issue
    - Decode PDF417 with out of spec Numeric Mode
    - Improved JSON output compliance
    - Added BC412 reverse decode and inkjet DPM option
    - Improved DL Dot Peen mode
    - Added IBM BC412 decoding
    - Support extended rectangular Data Matrix
    - Improved GoCode
    - Fixed a DL parsing issue shown in LA driver license
    - Improved PDF417 decoding robustness and speed
    - Fixed decoding issues for 9MP large demo images
    - Fixed issue in Code49. Added ASCII/Numeric output option
    - Reduced locating and error correction time for Ohio DL PDF417
    - Improved decoding of long 1D barcodes
    - Fixed high density Aztec crash
    - Improved quiet zone handling for DM
    - Extended the Diffuse Bright Illumination to decode light on dark images
- Fixed character delay keycode (/,) when connected to a modem or T500
- Fixed suppress response output – removing some extra responses
- Made cabled readers ignore Quick Connect barcodes
- Fixed an issue where a JavaScript event could cause the reader to miss some trigger presses
- Limited the prefix or suffix to a length of 64 bytes
- Improved JavaScript initialization
- Fixed an issue with reader.onStandby method
- By default, don't store data if not connected
- Disabled decoding while paging the reader
- Fixed a problem where the reader would not transmit the first barcode over Bluetooth if a configuration code was scanned prior to connecting to the modem which had firmware older than 2x00 on it
- Fixed an issue where, after deleting the keyboard.profile file, the reader could default to Custom.xml and not English.xml
- Fixed an issue where legacy language pack files were not removed up update
- Fixed a rare issue where scanning a barcode formatted in a certain way could cause the output to repeat indefinitely
- Added the ability to leave targeting LED on during reading (non-default)
- Added the ability to send a ‘Good Read’ signal on Serial cabled readers

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- Fixed an issue where USB enumeration would sometimes fail on certain cash registers
- Multi-byte barcode encoding support. Through settings the readers can correctly interpret barcodes encoded in UTF-8 and produce keyboard output for Microsoft® Windows® only.

Firmware Version 1026

All readers:

- CortexDecoder updated to CD14.2.0
  - Add support for Code 49 symbology
  - Improve pattern motion detection
  - Improved rectangular Data Matrix decoding
  - Improved Light on Dark DPM decoding
  - Improved decoding of high density QR Code with significant damage to the finder areas
  - Fixed high density decoding being timed out prematurely. Made it harder to mis-decode C39 for Security Level 2
  - Improvements to motion detect mode (set to default for all products except for CR6000
    - Won't attempt to decode unless a barcode is seen
    - Turns on targeting
- Fixed handling of leap years in timestamp
- Fixed issue where preserved settings could be reverted to default when .settings.txt was deleted
- Removed support for SD
- Removed the requirement of a license for JavaScript use
- Added the requirement of a license for DL/ID Formatting use (license 5014)
- Updated file names for keyboard maps
- Fixed an issue where buttons could become unresponsive in rare cases
- Fixed an issue where settings could revert back to defaults after the reader being set to defaults, registers being set again to existing values, settings saved and the reader rebooted
- Fixed an issue in Boot Mode where the user could not change the communication mode
- Improved motion detection for DPM readers
- Fixed an issue where custom install scripts with DOS line endings were failing
- Fixed an issue where Bluetooth readers were taking longer than necessary to auto-connect
- Keyboard Mapping support has been changed significantly.
- Keyboard Map file names have been standardized to accepted keyboard map naming conventions as seen in Microsoft® and Apple® operating systems
- UK English and Spanish keyboard maps have been added
- The ability to representation of non-printable characters in four different methods has been extended from just English to all Windows® based keyboards
- When using the latest Code Modem firmware, the reader controls the keyboard map, not the modem. If either the reader or modem is not using the latest firmware, the modem will control the keyboard map used.
- Support for Code 49 barcode symbology
- Flash the data LED when memory is 75% full – 3 times every 5 seconds
- Protect the file system from becoming too full and incapacitating the reader. Threshold is 90% and is configurable

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- CDC VCOM support (primarily for Linux operating systems)
-

CR4405 only:

- Fixed an issue where duplicate data could appear in the iOS app

Firmware Version 0956

- CortexDecoder updated to CD14.1.2
- GoCode 1 and 2, license needed.
- Improved 1D and PDF417 decoding for small 1X
- Improved reading of distorted, high density 2D (Aztec, Data Matrix, and QR codes)
- Improved DPM algorithms to read larger 2D DPM codes.
- Added Security Level option for reading common 1D barcodes to control mis-decode for poorly printed 1D barcodes. Use register 13 to enable/disable the option.
- Fixed QR code settings register 2B.
- Added Trioptic reverse option. See register 85 in ICD
- Improved Codabar decoding.
- Added Enhance Contrast preprocessing. See register 256 in ICD

Added an option to have the reader use "raw" mode in Bluetooth mode, without having to change the quick-connect code (requested for VCOM-configured modems).

Firmware Version 0892

Fixed a problem where the reader would continually reboot when it was using a licensed version of an older decoder.

A decoders.ini file will now be installed during a system install, specifying to use the CortexDecoder unless a decoders.ini file has already been installed. If a decoders.ini file has already been installed the original decoders.ini file will be preserved.

Firmware Version 0888

Added support for the CR8013.

Added a USB keyboard inter digit delay for characters, scan codes, and release codes.

Fixed a problem where the firmware would not prevent a USB CR8000 from being configured for serial communication, even though the hardware does not support it.

Fixed a problem where if the reader was in AGC bypass mode and then went to sleep, after waking from sleep, the reader would not set the imager gain and exposure to the correct "bypass" values.

Fixed a problem where duplicate barcodes could be rejected in such a way that there would be no output at all, rather than just rejecting the duplicated barcodes.

Fixed a problem where the duplicate block time setting used was based solely on if the reader was in the stand, not if "stand detection" was enabled/disabled.

Reduced power consumption between power-on and first use for cabled readers.

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Firmware Version 0858

CortexDecoder was updated to CD13.2.32.

- Initial support for JSON and PS parsing.

Added “host-wakeup” to Bluetooth support.

Fixed a problem where data could become corrupted when repeatedly scanning many large barcodes in rapid succession.

Specifically for the CR44x5:

Added a new error indication when the reader will not communicate with the Apple® iPhone® because the sled battery is too low at boot up.

Fixed a problem where the reader would not detect removal of the battery.

Fixed problem where the reader could continually reboot if the sled battery is too low to supply power to the iPhone.

Fixed a reboot issue when outputting large barcodes in Apple Keyboard mode.

Fixed an issue where the reader would continually reboot when attempting to boot up in USB Pass through mode.

Fixed an issue on the reader using an iPhone running iOS 7 where one or two characters could be lost at the start of data transmission while in Apple Keyboard mode.

Firmware Version 0820

CortexDecoder 0210 (CD13.2.21):

- Fix Intelligent Mail decoding.

Fixed a problem where the CR2600/CR3600 could not connect to some Android devices in Bluetooth Keyboard mode (generally devices that requested a 6-digit pin to be entered).

Fixed several issues with the batch mode operation.

Additional button settings, including “button release” events and special handling of JavaScript events.

Fixed an issue where if the selected keyboard map was “custom”, changing the custom profile would not trigger a refresh of the keyboard map.

Firmware Version 0790

A fix was made to prevent a rare situation where the screen colors would change.

Firmware Version 0788

Fixed a problem where the reader would only attempt to decode from ether the Wide Field or the High Density field (typically the HD field).

CortexDecoder was updated to CD13.2.18.

- Fixed a crash issue in Laser DPM mode introduced in CD13.2.17.

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Firmware Version 0786

Firmware was updated to support the CR3600 and CR3600 DPM.

CortexDecoder was updated CD13.2.17

- Fixed Micro QR AIM ID reporting

Modified Apple Keyboard mode to support changes in Apples changes to Keyboard certification.

Fixed a bug where a Bluetooth configured reader would not attempt to reconnect after losing connectivity to BT Modem.

The battery level color from the “Ib” command was updated to change when the battery Icon display changes from FULL, MEDIUM, and LOW.

Firmware Version 0728

Firmware was updated to support the CR44X5.

CortexDecoder was updated CD13.2.11

- Allow certain Data Matrix and PDF417 to decode even when the encoding does not match the Symbology standard.
- Improved reading of QR Code with ECI and GS1 support. For QR Code, output ECI header when AIM ID is enabled.
- Fixed MSI checksum setting.
- Add strip checksum char for Code11.
- Fixed Han Xin decoding.
- Added direct part marking (DPM) algorithm for dot peen and laser marks.

Several fixes for Bluetooth SPP communication.

Fixed a problem that caused a watchdog timeout when deleting large amounts of buffered data files

A reboot is no longer required when changing the keyboard mapping.

Modified the ‘!’ command to delete all stored data and image files.

Increased allowable file download size from 4.0 MB to 4.5 MB.

Does not require enableSymbologyIdentifierPrefix to be enabled to pass aim symbology information to JavaScript

Firmware Version 0678

Fixed a bug where paging the reader could cause the reader to reboot.

Firmware Version 0676

CortexDecoder™ version was updated to 13.2.5.

Added support for Codablock F

Fixed a bug introduced in firmware 0674 that would prevent some CR2300 and CR2600 readers from entering sleep mode.

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Firmware Version 0674

CortexDecoder™ version was updated to 13.2.2.

Added support for IATA 2 of 5, NEC 2 of 5, postal UPU ID-tags, MaxiCode

The decode performance on the following symbologyies was improved.

- Pharmacode
- Postal codes
- UPC-A
- low contrast 1D(low brightness cell phone, IV bags

AGC's were changed to improved image quality, motion detection, and capability to decode in bright sunlight

Improved Glare reduction.

Expanded XML response to the "Ib" command.

Improved the flash file system management.

Communication improvement when expect response is enabled during high traffic levels.

Firmware Version 0642

CR2600 – Bluetooth® keyboard communication mode is now supported.

Fixed an issue where the firmware would have intermittent communication errors with the image sensor.

CortexDecoder™ version was update to 13.1.9.

Updated the CortexDecoder (13.1.9) with the following improvements.

- Improved PDF417 decoding speeds.
- Improved decoding of low contrast 1D, Data Matrix, and QR/Micro QR.
- Improved decoding of images displayed on cellphone screen.
- Improved decoding of Code 39 with small 1X module size.
- Improved decoding of certain poorly printed Code 39.
- Improved decoding of postal codes and Pharmacode.
- Improved decoding of Matrix 2 of 5, MSI, Telepen.
- Improved decoding of GS1 DataBar Composite with certain printing problem.
- Improved decoding of Data Matrix with poor border quality.
- Fixed Codabar and UPC supplemental decoding issues.

Firmware Version 0638

Fixed an issue where the Bluetooth communication was not being properly disconnected when a CR2600 was paired with a CodeXML M3 modem with firmware 1052.

Firmware Version 0632

Fixed and issue where there was an extra character in the information string report.

Firmware Version 0630

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Added the capability for the end user to create their own custom keyboard mapping files. See C005066 - Interface Configuration Document for more information

Bluetooth® keyboard communication mode is now supported on most Apple and Android devices as well as on Windows® 7 and Windows 8 OS PCs that have Bluetooth® enabled. Windows XP is not currently supported

Fixed a problem where intermittent button presses would occasionally be missed on the CR1000 and CR1400 reader.

Fixed a problem to prevent a clicking sound while the CR2600 is in sleep mode.

The following improvements were made to the CortexDecoder version 13.1.0.

- Improved PDF417 decoding with small module size and/or poor printing.
- Improved decoding of low contrast 1D, Data Matrix, QR and Micro QR symbologies.
- Improved decoding of bar codes displayed on cell phone screen.
- Improved decoding of certain poorly printed Code 39bar codes.
- Fixed partial decoding of MSI Plessey and Matrix 2of5.

Firmware Version 0576 (This version of firmware was release for CR2600 only)

Bluetooth® keyboard communication mode is now supported on most Apple and Android devices as well as on Windows 7 and Windows 8 OS PCs that have Bluetooth® enabled. Windows XP is not currently supported

Bluetooth® Encryption is now supported.

Added check to prevent the user from setting an invalid communication mode that resulted in a continual reboot.

Improved low contrast QR decoding

Improved 1D barcode decoding with small module sizes.

Improved decoding of cell phone images.

Firmware Version 0456

Fixed a problem where the CR1000, CR1400, and CR900FD would log excessive error messages while in boot mode.

Fixed a problem where, if the trigger button was pressed prior to the reader being fully booted up, the reader would reboot.

Fixed a problem where taking a picture using the “$%07” command with no rotation would corrupt the image buffers.

Added support for rotating the image 270 degrees.

Enhanced the Han Xin symbology.

CortexDecoder version 12.3.0 is now the default decoder used for all CR900FD, CR1000, CR1400, CR2600, and CR8000.

Several changes have been made to which symbologies are enabled or disabled by default (See section 4.0 for more information).

CortexDecoder now supports the following symbologies, Code 11, Code 32, Plessey, MSI Plessey, Trioptic, Matrix 2 of 5, and Straight 2 of 5.

Firmware Version 0454

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- Fixed problem where blinking wireless LED (indicating attempting connect) may terminate prematurely in cases where connection attempt time is longer than usual (modem unplugged, out-of-range, connecting to modem in non-preemptive mode). This problem was in 0378.
- Fixed Hong Kong 2 of 5 symbology decoding (SD only).
- Added support for Korean Post symbology (SD only)
- Fixed a problem on the CR2600, where rebooting while in the charger would cause problems for some PCs.
- Reboot handling changes to make it more difficult to get into boot mode.
- Fixed the USB suspend behavior to improve Windows 7 compatibility.
- Modified the 'N' command so that it now sends a 'd' response.
- The 'L' command was modified to list all files alphabetically.
- Added support for the 'C' commands to the CR900FD, CR1000, CR1400, and CR8000. The 'C' sets and saves setting changes in one command. The 'C' command can be used to set and save register values instead of using both the 'P' and '=' commands.
- Fixed a bug in Data Matrix EDIFACT decoding (CortexDecoder™ only).
- Fixed a bug in decoding 10x10 Data Matrix(CortexDecoder™ only).
- Improved low contrast QR decoding (CortexDecoder™ only).
- Improved decoding of linear bar codes (CortexDecoder™ only).
- Improved detection of short linear bar codes at 45 degrees (CortexDecoder™ only).
- Improved decoding PDF417 with short row height (CortexDecoder™ only).

Firmware Version 0378 (CR2600 initial release)

- CortexDecoder™ is the primary decoder used.
- Added support for the 'C' command. The 'C' command writes to both volatile and non-volatile memory.

Firmware Version 0336

- Greatly improved the reader ability to decode bar codes on cell phone and computer screens.
- Changes to French keyboard mapping.
- Installing files up to 4MB is now supported.

Firmware Version 0296 (CR900FD only)

- Platform specific prefix and suffix are now sorted in the .suffix.default.txt and .prefix.default.txt files.
- The "J(prefix)" command will restore the factory default prefix, and the "J(suffix)" command will restore the factory default suffix.
- The "J" and "J1" commands will restore both the factory default prefix and suffix to their defaults.

Firmware Version 0284/0286 (Firmware 0286 is for CR1000 only)

- Fixed a problem with the CR1000 LED boot up sequence.
- Some Changes to French keyboard mapping.

Firmware Version 0272

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- Fixed the ability for the firmware to have separate timers to ignore duplicate codes if the reader is in or out of the stand.
- The default reader type configurations was moved from the .settings.default.txt to the settings.platform.txt file

Firmware Version 0270

- Fixed illumination staying on sometimes after read code if configured to stay on between reads.
- Fixed illumination staying on forever for picture capture if configured to stay on between reads.
- Fixed targeting illumination (flickered sometimes in motion, and would not turn on long enough before reads, if configured).
- Fixed USB Communication problem that was noticed with the WYSE Thin OS.
- Fixed bug where firmware was incorrectly reporting that there was an error installing a .crz file.
- Fixed buffer overflow problem in USB Communication (seen when receiving download from computer with poor USB Communication).
- Fixed problem where vibrate was disabled if the speaker volume was set to 0%.

Firmware Version 0238

- Fixed issues with file names containing the character "Z" in the file name.
- Fixed issues with the "default event delay" (Default Event Delay - register 0X00a2) timing not working correctly.

Firmware Version 0218

- Removed a performance issue, where image capture would take an additional 10ms if a full image was captured after capturing a smaller image (for example, $%06 followed by $%03, the image capture for the $%03 would take an additional 10ms, as would all subsequent $%03 events).
- Improved USB handling of host connections.
- Fixed discrepancies with ICD for 'Z, Z1, Z2' and 'W' commands.
- Fixed '$' command handling from JavaScript.
- Fixed problem with '|run' command.
- Fixed problem where good read line was inverted with rev 6 decode boards.
- Changed JavaScript (setTimeout) to support milliseconds.

Firmware Version 0132

- Rules.js files can now be deleted using the 9 command.
- Reader no longer needs to be rebooted for suffix and prefixes to be processed.
- 'W' command now sends error response for invalid requests.

Firmware Version 0114

- Fixed USB keyboard bug where the reader failed to scan into USB Keyboard mode.
- Enabling motion detection from the command line now takes effect when the command is sent.
- Motion detection Illumination is now dynamically controlled. Motion Detection illumination register (0x012a) is no longer used to control motion detection illumination.

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- Motion detection sensitivity (0x0087) adjustment is now working correctly.
- Enabling Code 39 Trioptic no longer requires an application reboot.
- The Button staydown time (0x0035) no longer causes the reader to scan twice.
- Large error log files prevented the reader from successfully upgrading. Error log files, data files, PGM and JPEG image files are now removed during a system upgrade.
- Change in AGC gain no longer causes the imager to become unstable.

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3. CHANGES TO DEFAULT SETTINGS

Firmware 1306

- None

Firmware 1304

- None

Firmware 1278

- None

Firmware 1276

- None

Firmware 1262

- None

Firmware 1220

CR4405 only:

- Set the default sleep mode to disable (reader will not go to sleep by default)

Firmware 1172

- None

Firmware 1170

- Reverted changes to duplicate block time made in firmware 1096.

Firmware 1166

- Reverted changes to duplicate block time made in firmware 1096.

Firmware 1096

All Readers:

- Changed the overall default for all products to "not store" data if not connected

CR6000 Only:

- Changed the default minimum decode timeout from 5 ms to 360 ms

Firmware 1026

- Keyboard Map is set to Custom (Register 0x02D)
- A file named 'keyboard.profile' will exist on the reader
    - By default, LanguageName = English.xml
- Keyboard map names have changed

New Settings:

- Code 49 is disabled by default (Register 0x02A3)

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- File system is considered full at 90% (Register 0x02D1)

CR4405 Only:

- Sled will wake every 15 minutes to check battery status (Registers 0x02CF and 0x02D0)

Firmware 0956

- NONE

Firmware 0892

- NONE

Firmware 0888

- NONE

Firmware 0858

- NONE

Firmware 0820

- NONE

Firmware 0790

- NONE

Firmware 0788

- NONE

Firmware 0786

- NONE

Firmware 0728

- NONE

Firmware 0676

- NONE

Firmware 0674

- Enabled low contrast 1D by default (Register 0x0256)
- Enabled normal and inverse Data Matrix by default (Register 0x0019)
- Disabled NEC 2 of 5 by default (Register 0x000A)

Firmware 0456

- Disabled Telepen by default (Register 0x000C)
- Disabled Matrix 2 of 5 by default (Register 0x000B)
- Disabled Straight 2 of 5 by default (Register (0x001A)
- Disabled MSI Plessey by default (Register 0x004F)

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- Enabled Rectangular DataMatrix by default (Register 0x0016)

Firmware 0454

- Decoding extras setting (0x024f) is set to 0 (Disabled) by default.
- Korean Post symbology – SD only (0x0250) is set to 0 (Disabled) by default.
- Background Transmit (0x0251) is set to 1 (Enabled) by default.
- ECI Handling (0x0254) is set to 0 by default.

Firmware Version 0336

- Cell phone capture setting (0x0231) is set to 0 (Disabled).

Firmware Version 0272

- Motion Button Stay-Down Time (ms)(0x021A) is set to 2 seconds
- Stand Ignore Duplicate Code (ms) (0x021C) is set to 1 1/2 seconds (CR1000 and CR1400).
- Note: Stand detection (0x01f7) does not need to be enabled for this register to be used.
- Platform configure buttons #4 (0x01F7) - Stand detection enabled by default (CR1400 only)
- Default (Continuous) Event (0x00C4) - Motion detection is enabled by default (CR1400 only)

Firmware Version 0132

- CR1000/1400/4100/8000 - Enable JavaScript (0x010B) is enabled by default.

4. OUTSTANDING ISSUES

Note: Firmware ENHANCEMENTS and OUTSTANDING ISSUES are categorized as critical and noncritical. Critical updates require the user to upgrade firmware and all reader programming guides and manuals.

******* CRITICAL *********

When scanning a barcode with a CR44X5 that exceeds more than 770 characters, all remaining characters will be truncated.

*******NON CRITICAL*******

When the cell phone enhancement feature (0x0231) is enabled a slight degrade in performance is noticed. This degrade in performance is noticed more with small codes.

When a custom .settings.default.txt is loaded onto a CR1000/1400 the default behavior for entering motion detection when inserted into a stand will not function. If this default behavior is wanted it is recommended that the .settings.default.txt file on the reader me downloaded and modified by adding the custom configurations to the file. In the next released version of firmware the default behavior will be added to the system platform file instead of the .settings.default.txt that way the default behavior is not changed when a custom .settings.default.txt file is added to the system (FW 0270 only).

Possible data corruption when reading bar codes exceeding 50 characters has been noticed when the CR1000_01, with a suffix configuration, is paired with some laptops and laptop docking stations.

On some readers it has been noted that when the readers have been in a continuous motion detection mode for an extended amount of time the reader will start to run sluggishly and eventually reboot.

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CortexTools™ fails to upload PGM files from CR2300 and CR2600 when in Bluetooth mode and leaves the reader in a mode where it saves all images. To recover the reader it is recommended that you reset the reader to a factory default and clear all stored data.

5. CONFIGURATION CODES

NEW CONFIGURATION CODES:

M-Code	Ver	Description

EXISTING CONFIGURATION CODES THAT HAVE BEEN MODIFIED:

- None

6. SOFTWARE/READER TOOL COMPATIBILITY

Recently upgraded Code software is available for download from Code website at: www.codecorp.com or contact Code Technical Support. Belkin products are not supported directly by Code Corporation. Please go to: world.belkin.com for support issues.

Software	Version
CortexTools™	1.6.7.0
CortexMobile™	3.2.0
USB VCOM	2.1
T500 Firmware	5040
Modem Firmware	2024, 2224, 2424, 2624

7. TECHNICAL SUPPORT INFORMATION

You may contact Code at:

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Suite 300
Salt Lake City, UT 84123

Voice: 801-495-2200
Fax: 801-495-0280

support@codecorp.com

You can track new product releases, software updates and technical bulletins by visiting the Code web page at http://codecorp.com.

If you have technical questions visit our website at http://codecorp.com/code-support/ for phone numbers and email addresses.

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