

Version 1.8.0 Release Notes (Changes Since Versions 1.7.2 and 1.7.3)

Summary

Horizon version 1.8.0 software supports new media, offers a host of reliability and operational improvements, and repairs defects as detailed below. This software is compatible with all Horizon imagers including LifeImager™ products. Any Horizon imager running software versions 1.5.x through 1.7.3 can be upgraded to version 1.8.0. Imagers running version 1.4.x software must first be upgraded to version 1.6.0 before loading version 1.8.0. If your Horizon imager is running version 1.4.x software, please contact Codonics® Technical Support.

This document details only changes from versions 1.7.2 and 1.7.3 software. If you are upgrading from an older software version, previous Horizon Imager Software Release Notes can be downloaded from the Codonics web site.

Changes to 1.8.0 PostScript® printing requires loading new Windows® PostScript drivers (Version 1.8.0). These drivers can be obtained from the Codonics web site, from a CD (part number 020-056-003) distributed with version 1.8.0 software, or directly from the imager. See Tech Brief 901-068-003 for details.

New Features

This section details new features available with Horizon version 1.8.0 software.

- ◆ **Full support for 11x14 DirectVista® film and paper.** 1.8.0 software provides full support for 11x14 media for use in the Horizon Ci-s™ and GS-s™ imagers, and LifeImager 6021 imagers.

Product Improvements

This section details features which have been improved with Horizon version 1.8.0 software.

- ◆ **Reliability Improvements.**
 - ◆ **DirectVista** film picking motion changed to improve sheet separation (reducing multiple-sheet picks) and reduce pick failures. Note: Extended picking (a special configuration available only through a service utility) is no longer available.
 - ◆ Media picking failures are automatically retried before the imager is placed in a Fault state requiring operator intervention. This effectively reduces the occurrence of media jams.

- ◆ When a print fails due to a jam or other problem, the imager automatically attempts to clear the sheet and retry the print. A failed print will be retried before the imager is placed in a Fault state requiring operator intervention. This effectively reduces the occurrence of media jams.
- ◆ Multiple-picked films (two or more films stuck to each other) will automatically be ejected and the pick operation retried. When a multiple-pick occurs, the pick operation will be retried before the imager is placed in a Fault state requiring operator intervention. Previously, multiple-picked films were not detected resulting in light-printing films (two or more films printed at once).
- ◆ 1.8.0 software provides more reliable, more efficient, and faster **ChromaVista** ribbon management. The result is faster color printing, fewer print jams, improved error detection, and reduced component wear.
- ◆ Media picking motion improved (ramped up to speed) to increase life of pick-tires.
- ◆ Support for new centered side-edge sensors and centered 8x10 and 11x14 **DirectVista** film cassettes. New sensors and cassettes provide improved (reduced) unprinted side margins on film and improved image quality.
- ◆ Eliminated condition where Control Panel ribbon indicator would remain at "WAIT" even though ribbon had been properly identified.
- ◆ Improved detection of empty cassettes, and reduced false empty-detection of non-empty cassettes.
- ◆ Eliminated incidences of false "media contaminated" errors when imager falsely detected jammed sheets.
- ◆ Eliminated false encoder resets. Previously, the system would falsely detect a condition indicating that a motor position had been lost. This caused unexplained jams or aborted prints. (obscure)
- ◆ Eliminated false "unable to open top cover" Control Panel error messages. (obscure)
- ◆ General reliability improvements to print engine firmware.
- ◆ **DICOM Interface Improvements.**
 - ◆ DICOM Lite™ reliability has been improved by limiting the number of connections (based on the SCU IP address) rather than the number of associations. There is no longer an association limit. For more detail on how connections are limited, please see section 2.1.1.2 of the Version 1.8.0 Codonics DICOM 3.0 Conformance Statement (part number 900-229-002) available on the Codonics web site.

- ◆ DICOM connection limit has been increased from 12 associations to 24 connections (based on the SCU IP address). There is no longer an association limit.
- ◆ DICOM "WARNING" and "FAILURE" status reporting for printer N-GET responses can be disabled via the Control Panel Utilities→DICOM Settings→Warning Status and the Control Panel Utilities→DICOM Settings→Failure Status menus. Both of these settings are normally set to "On" but one or both can be set to "Off" in cases where reporting these conditions causes problems on certain host (SCU) systems.
- ◆ The DICOM activity logging level can now be controlled via the Control Panel Utilities→DICOM Settings→DICOM Logging menu. DICOM Logging should be set to "Off" for normal operation or to "On" when providing log files to Codonics Technical Support to troubleshoot DICOM interface problems.
- ◆ Special Called AE Titles of "mcmBracket" and "gcsBracket" allow print jobs to specify MCM and Gamma / Contrast / Saturation bracketing. Previously this could only be done via custom DICOM format configurations "CUSTOM\8" and "CUSTOM\9."
- ◆ The "Requested/Decimate Crop Behavior" has been changed from DECIMATE to CROP to better comply with DICOM "true-size" or "requested image size."
- ◆ Imager serial number is now reported in Printer N-GET responses.
- ◆ Support for 10-bit images. Previously, only 8 and 12-bit images were supported. (obscure)
- ◆ Corrected a problem where an image annotation placed on the top an image was not properly displayed. (obscure)
- ◆ Corrected a problem where true-size images with trimlines would not properly print. (obscure)
- ◆ Corrected a problem where a failed true-size print (when Requested Decimate/Crop Behavior is set to FAIL) caused the Control Panel Active light to flash indefinitely. (obscure)
- ◆ **PostScript Interface Improvements.**
 - ◆ Added support for 11x14 media sizes.
 - ◆ Background parameter changed from Image Setting (incorrect) to Sheet Setting. (obscure)
 - ◆ Improved conversion accuracy from points to pixels for images sent as exact printable area size. This improvement minimizes image clipping. (obscure)
- ◆ **User Interface Improvements.**
 - ◆ Densitometer-calibration user interface now shows the factory settings or most recent input values when entering density values on the Control Panel.
- ◆ Added configuration menu to control Film View for **ChromaVista** film.
- ◆ Support for custom OEM-specific user interfaces.
- ◆ Added DICOM Settings menu (see details in DICOM Interface Improvements above).
- ◆ Added DV Paper Darkness, Usage Info, KDU Info, and Blown Pixel Check to Utilities menu (see details in Service and Production Utility Improvements below).
- ◆ Removed non-functional Utilities→System Log Level menu from control panel. (obscure)
- ◆ Improved reliability when pressing keys while pop-up boxes are displayed. Previously, it was possible to lock up the Control Panel in this situation. (obscure)
- ◆ General Control Panel reliability improvements.
- ◆ **Service and Production Utility Improvements.**
 - ◆ Service tools for viewing print count and error count information are now available from the Control Panel via Utilities→Usage Info screen. This screen will display the imager's operational history. See Tech Brief 901-104-001 (Rev. C or higher) for further details.
 - ◆ Service tool for running a print head "quick scan" to check for blown pixels is now available from the Control Panel via the Utilities→Blown Pixel Check utility. Running this utility will suspend imager operations for about two minutes and check the thermal print head for blown pixels. This utility is useful to determine if a print-streak is due to a surface contaminant or a blown pixel. See Tech Brief 901-105-001 (Rev. C or higher) for further details.
 - ◆ Control Panel DICOM Settings configuration (see details in DICOM Interface Improvements above).
 - ◆ Control Panel Utilities→KDU Info menu for viewing "Keypad Display Unit" operational history.
 - ◆ New Thermal Print Head Pattern test print to diagnose possible print head problems.
 - ◆ Improved "Multi-Modality" test prints with updated images for all media.
 - ◆ Improved diagnostic test prints for small-format media.
 - ◆ Automatic multiple-film detection (see details in Reliability Improvements above) can be disabled or re-enabled via "engine_config" utility. See Tech Brief 901-099-001 (Rev. D or higher) for further details.
 - ◆ Added diagnostic log messages for picking and printing including timing information.
 - ◆ Firmware automatically generates state / timing diagrams for problem diagnosis.
 - ◆ Saving log files to a Zip disk also saves a file called COUNTERS.TXT containing imager usage information. See Tech Brief 901-104-001 (Rev. C or higher) for further details.

- ◆ Saving log files to a Zip disk now saves all files in a directory named with the imager serial number. This allows logs from different imagers to be saved simultaneously on the same disk.
- ◆ Per-slot cassette centering. This allows centering calibration for supply cassettes to be done for each individual supply slot, resulting in more accurately centered images.
- ◆ Failed barcode reads are now correctly tracked in service error count information. Previously failed barcode reads were not always counted.
- ◆ Improved management of platen clutch (improved reliability).
- ◆ Picking and printing errors now tagged as “ERROR” in system log files for easier problem diagnosis.
- ◆ Support for Keypad Display Unit test fixture.
- ◆ Increased current draw at power-on when required by certain power supplies.
- ◆ **Fixed Multi Formatting[®] (FMF) and Variable Multi-Formatting[®] (VMF) improvements** (Note: does not apply to DICOM prints):
 - ◆ Corrected problem with VMF canvas handling which caused problems with A4 **ChromaVista** paper and the SA-2000[®] framegrabber.
 - ◆ NP emulation mode (300 DPI simulation) now supported for devices 1 (unscaled) and 10 (VMF).
 - ◆ FMF setup commands now persist across multiple sheets. Previously, setup commands would only apply to the next sheet printed.
 - ◆ Multiple copies now works correctly when printing FMF jobs from a Zip disk.
 - ◆ SlideMaker[™] images are now correct size for 320 DPI printing. Previously they were too small.
 - ◆ SlideMaker device now supports setup files similar to FMF devices.
 - ◆ FMF sheets now complete successfully when unsupported images are sent. Only the unsupported image(s) will not print. Previously, the entire sheet would not print. (obscure)
 - ◆ An empty VMF (Variable Multi-Formatting) canvas (a sheet with no cells) will no longer result in an error and cause the imager to reboot. Only special custom applications use VMF. Neither DICOM nor PostScript use VMF. (obscure)
- ◆ **Image quality improvements for 8x10 DirectVista film.** Image density uniformity has been improved for 8x10 DirectVista film, particularly with centered cassettes.
- ◆ **More reliable detection of backwards-inserted ChromaVista ribbon.**
- ◆ **DirectVista paper darkness adjustment.** Small differences between printers or changes in environmental conditions sometimes cause **DirectVista** paper to print lighter or darker than desired. The DV Paper Darkness adjustment allows **DirectVista** paper prints to be made lighter or darker as required. The DV Paper Darkness setting should not be used as a substitute for Gamma and Contrast settings which are normally used to adjust image quality.
- ◆ **Improved bracketing prints.** Gamma / Contrast / Saturation (G/C/S) and MCM bracket prints now show all relevant current settings on the bottom of the print. For example, a **DirectVista** film print sent to device 9 (the G/C/S bracket device) will show the current Dmin and Dmax settings at the bottom of the film. Also, bracketing is now “smarter” about bracketing the correct parameters based on image type and media selection.
- ◆ **Added support for bracket printing from Zip disks.** Printing from a Zip disk now supports the Gamma / Contrast / Saturation (device 9) and MCM (device 8) bracket devices.
- ◆ **Crop Warning.** If Image Warnings is enabled, a cropped image will contain the warning label “Warning: Cropped image.” Previously only decimated images were labeled. Note: Currently does not apply to DICOM prints.
- ◆ **Improved detection of color images.** In cases where the media is not explicitly selected, the default color media will be selected if *any* image in a sheet is a color image. Previously, the *first* image on the sheet had to be color for the default color media to be selected.
- ◆ **Decreased Power Off Time.** Time for Horizon Imager to power off has been reduced from approximately two minutes to approximately one minute.
- ◆ **Support for lpr control-file copies and PostScript directives.** The lpr control-file copies directive (‘#’ parameter) now is used to control copies. The PostScript directive (‘o’ parameter) is now ignored. Previously, the copies directive was ignored and the PostScript directive caused the job to not print. (obscure)
- ◆ **Improved support for TIFF images.** Previously, certain types of TIFF images would not print correctly. (obscure)
- ◆ **Incorrect use of “full bleed” printing corrected.** Use of “full bleed” printing for bracket printing and film printing has been eliminated. (obscure)
- ◆ **Software copyright and license information now included on hard drive and software installation Zip disk.** See Tech Brief 901-126-001 for details.

Defects Repaired

This section details product defects that have been repaired by Horizon version 1.8.0 software.

- ◆ **Problems with truncated passwords corrected.** Previously, passwords longer than eight characters would have their extra characters ignored. For example, the stock service password was set to "codonics!" but "codonics" or "codonics123" would be accepted. It is **strongly** recommended that system administrators check that their service password is working correctly after installing 1.8.0 software. See Product Bulletin 111 (903-001-011) for details.
- ◆ **Lost captions problem corrected.** Captions are now preserved after incomplete system shutdowns such as power failures.
- ◆ **Captions now compatible with automatic file system cleanup.** Automated file system cleanup now works correctly when captions are installed. The file system cleanup happens automatically when the imager is rebooted three weeks or more since the last cleanup. Previously, captions had to be uninstalled and reinstalled for the cleanup operation to occur.

- ◆ **Captions now fully supported for FMF and PostScript printing.** Numerous minor defects with captions have been corrected. Landscape printing with captions is now supported. Does not apply to DICOM printing.
- ◆ **Eliminated long waits after failed file conversions.** Previously, corrupted images would cause approximately one minute (per image) processing delays. (obscure)
- ◆ **Film calibration now correctly occurs for manually entered barcodes.** Previously, film calibration would not work correctly when a barcode was manually entered from the Control Panel. (obscure)

Known Issues

- ◆ **PostScript cropping or padding.** Images pre-scaled to the full page size may experience slight cropping or padding due to rounding effects from converting between points and pixels. (obscure)
- ◆ **Captions not supported with DICOM landscape printing.**
- ◆ **Multi Modality and Color test prints are not available in LifeImager products.**

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