# Horizon® Imager Software

# 1.5.0 and 1.5.2 Release Notes

## **Summary**

Horizon Versions 1.5.0 and 1.5.2 Software offers many new features and bug fixes as detailed below.

Versions 1.5.0 and 1.5.2 are identical except that 1.5.2 supports newer media side-edge detection hardware in newer printers.

Important Note: Imagers with newer media side-edge detection hardware cannot run versions of software earlier than 1.5.2. These imagers can be identified by a sticker on the back of the unit which contain a "CNFG" code of x.x or higher.

Important Note: Once Versions 1.5.0 or 1.5.2 Software are installed onto a Horizon Imager it will not operate properly with any earlier version, such as Version 1.4.1. <u>Do not</u> install an earlier software version after installing 1.5.0 or 1.5.2!

#### **Features**

- Real time print head temperature control and dot-history compensation for sharper image detail and more consistent density response.
- Factory "power factor" calibration for more consistent imager to imager density response.
- User calibration of internal densitometer.
- Custom lookup tables for OEM-specific density mapping. Added "Custom 1" lookup table.
- New sensitometry tables for improved density accuracy.
- Increased maximum film Dmax from 300 to 310 (3.10 OD).
- ◆ Improved MCM (Medical Color Matching<sup>TM</sup>) performance. Note: MCM is now optimized for Linear lookup table.
- Improved density uniformity across printed sheets.
- Improved centering of image on printed sheet.
- Film calibration process improved with more accuracy and consistency.
- ◆ Increased printable area on **ChromaVista**<sup>®</sup> paper.

- Support for A4 size media.
- ◆ Support for **DirectVista**<sup>®</sup> clear film.
- Default background color changed to clear / white for all media except DirectVista film.
- Load/Remove Ribbon control-panel menu for easier ribbon management.
- Reworked Open Top Cover control-panel menu for more intuitive operation.
- Clean Barcode Reader control-panel menu for accessing and cleaning barcode reader.
- Support for captions (user-installed graphics appearing on each print).
- DICOM bracket prints now have gray bars around current setting.
- Imager automatically goes online within 10 seconds of clearing fault.
- View installed features from control panel.
- View processor and motherboard temperature from control panel.
- Image Settings control-panel menu moved to administrative level to protect settings from being accidentally changed.
- Scaled scroll bars in control panel. Size of bar reflects how much of the total list or message is being viewed.
- Multi-page help screens.
- Reworked network settings control-panel menus for easier operation and better error checking.
- Simplified control-panel Job Settings names by allowing only upper case entries (since Job Settings names are not case sensitive).
- Added "clear all text" function by simultaneously pressing LEFT-ARROW and RIGHT-ARROW controlpanel keys.
- Fault tones begin earlier; changed from 10 seconds to four seconds.
- UP-ARROW and DOWN-ARROW control-panel keys no longer lighted when only one status message.



- Eliminated "undo" control-panel menus for various reset operations.
- Additional information (including software license code) added to status screen and print.
- Extraneous unsupported features (such as, AppleTalk) removed from status screen and print.
- Reduced cooling delay for opening top cover (for cleaning, ribbon access, and jam clearing).
- Simplified rocker power-switch behavior. Control-panel power key is now required for all power-on regardless of shut-down method.
- Gray wedges moved to left and right side of color step wedge test print.
- Files on 1.5.0 and 1.5.2 software installation disks are write protected.
- Zip disk now automatically ejects when log files are saved or configuration files are saved or loaded.
- DICOM debugging web page now password protected.
- DICOM log files now saved to zip disk with other log files.
- Added "dcmdebug" and "dcmping" service utilities to aid in DICOM troubleshooting.
- Work-around for DICOM SCUs using illegal non-unique instance IDs when creating Film Session and Film Box objects.
- Automatically process a Device-7 job as a PostScript job even if it does not have a valid DSC header (such as "%!PS"). Allows better support for non-standard PostScript.
- Support for 20-sheet cassettes (for promotional use).

#### **Fixes**

- Turn off cooling fans during print head calibration.
- Information screens now use ENTER control-panel key to continue instead of CANCEL key.
- Corrected occasional double entries on control-panel menus.
- Corrected several problems where control panel locks up during unusual circumstances (such as, removing the receive trays as the **Open Top Cover** control-panel menu is entered).
- Corrected confirmation request when changing time setting on control panel.
- Corrected several spelling and grammatical mistakes and inconsistencies on control panel.

- ◆ Telnet welcome message corrected.
- Imager now properly detects end-of-ribbon condition.
- Ribbon no longer advances indefinitely when top cover is opened.
- Ripped ribbon no longer causes take-up spool to spin indefinitely.
- Color prints with mis-sequenced colors are now properly failed and retried.
- Ribbon carriage no longer gets "stuck" after failing to move to top or bottom position (such as, when it gets stuck on a jammed color paper print).
- Imager no longer attempts to print on an unrecognized ribbon.
- Better protection from errors due to static discharge.
- Corrected several "firmware failure" conditions.
  Implemented auto-restart when firmware failures do occur.
- VMF (Variable Multi-Formatting<sup>™</sup>) now uses proper plane order for color fills.
- Eliminated long delay in reporting certain kinds of pick failures (media jams).
- Eliminated errant flashing Activity light when color prints sent to bracket device 9. Eliminated second "TCR" (True Color Rendering™) bracket print.
- Corrected problem where imager would get stuck waiting for print head to heat in certain circumstances.
- Imager will ensure that print head is not in locked position while cooling, thus eliminating long cooling times.
- Corrected problem where ribbon carriage hits donor guide bar in certain circumstances.
- Corrected errant detection of power-fail, causing incorrect hardware reset.
- Shortened 8x10 film calibration print so that the back end does not advance past top of media wall.
- First film printed upon power-up no longer jams.
- Corrected smart card error when using new smart card for the first time.
- All imager configuration changes are now properly saved to the smart card.
- Corrected problem where IP address could not be "enlarged" (more digits added) when smart card was full



- ◆ TCP/IP gateway address can now be set to 0.0.0.0 to disable. IP address now functions properly when gateway is set to this value.
- Network settings are now properly reset by performing a "Reset Network Settings" from the control panel.
- IP address of 127.0.0.1 is now blocked instead of all 127.x.x.x addresses.
- Loading configurations from zip disk now correctly overwrites network settings.
- ◆ Auto film calibration now defaults to "On."
- Corrected problem where system Job Settings (such as, "A-DVP"), which were supposed to be unalterable, could be replaced by remotely installed user Job Settings.
- Job Settings for unsupported media are now correctly mapped to a supported media instead of being dropped.
- Saturation parameter now correctly set via User Settings (though saturation is not yet supported).
- Corrected case sensitivity problems with Job Settings causing system Job Settings to not work correctly in certain situations.
- Corrected problem where rotation parameter was incorrectly applied to calibration prints.
- Corrected clipping of bottom corners of image in 14x17 film prints.
- Empty image files are now detected and cleaned up when making internal test prints.
- Corrected problem where large DICOM Association requests (> 4 KBytes) with many Presentation Contexts locked up DICOM software.
- DICOM jobs with Dmin and Dmax unspecified now correctly use default settings from control panel or User Settings instead of defaulting to 0 and 400.

## **Known Issues**

- Internal pinch roller can develop a flat spot, causing minor banding, if left for several hours after a film calibration print. Workaround is to make normal print immediately after a calibration print. Flat spot is easily removed by making additional prints.
- An internal software defect will cause reduced performance, and will eventually cause the imager to stop processing jobs. Workaround is to reboot imager once per day. See Product Bulletin 101 (903-001-001) for details.

- High-level software occasionally loses communication with the engine software, resulting in "Unable to open top cover" messages when a sheet jams. This condition can be cleared by manually opening the top cover.
- DICOM hosts that leave associations open will cause the Horizon Activity light to flash even though there are no jobs queued.
- FTP server does not support passive mode connections.
- FTP connection terminates when sending files whose filenames have spaces.
- Windows Network Protocol (SMB) not yet supported for PostScript printing.
- Gamma/Contrast bracket prints say "TCR" instead of "Saturation."
- Moving the ribbon carriage up and down several times consecutively can cause ribbon patches to be used twice.
- Sending a text file to device 1 (unscaled) or 2 (scaled) results in an errant sheet being queued for the default color media.
- Unsupported DICOM image compression results in an "out of memory" error at the host.
- Automatic color print detection currently checks only the first image on a sheet.
- An empty VMF canvas (a sheet with no cells) will result in an error and cause the imager to reboot. Only special custom applications use VMF. Neither DICOM nor PostScript use VMF.
- Multi-formatting is not available for PostScript jobs. Each page of a PostScript (Windows) print will print on a separate sheet of the selected media.
- If a corrupt or illegal file is generated by a PostScript client, the job will be ignored by the Horizon imager.
   There is no error or warning indication at the imager in this case.
- Error messages on SA-1000 Network Framegrabber related to Horizon imager status.
- "Checking cassette" message never changes when engine fails initialization on power-up. Work-around is to remove and reinsert cassette.
- Captions not supported with landscape printing.
- Saturation adjustment not yet supported.
- Distribution of points in factory densitometer calibration is different than user-entered points. Therefore, user entered values may differ significantly from factory values even if there are little or no calibration changes.

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