Codonics Virtua Operating Software

Version 2.1.0 Release Notes

Summary

Version 2.1.0 software provides product improvements and corrects defects for the Codonics **Virtua**TM Medical Disc Publisher. The software is compatible with only **Virtua** systems. It is not compatible with **Virtua XR** systems.

This document details only changes from Version 2.0.2 software. If you are upgrading from an older software version, previous **Virtua** Release Notes can be downloaded from the Codonics web site.

Product Improvements

- ◆ Support for new Virtua hardware platform. Version 2.1.0 software supports the latest Virtua system hardware including expanded memory, SATA CD/DVD drive connections, and a faster processor.
- ◆ The DICOM port is now configurable. Previously, the DICOM port was hardcoded to 104. Version 2.1.0 software provides capability to change the DICOM port from either the user interface under the Setup -> Network -> Network Configuration screen, or via the port = 104 (default) parameter in the file \profiles\network\network.default.txt on the SmartDrive. A reboot is required for the new parameter to take effect.
- Patient (HIPAA) logs can now be recorded to disc. When recording systems logs, the patient (HIPAA) logs are now included on the recorded disc. The patient logs are still stored on the SmartDrive.
- ◆ The network speed and duplex are now displayed and can be locked from the user interface. Version 2.1.0 software provides capability to change and lock the network speed and duplex from the Setup -> Network tab.
- The MAC address is available on the user interface. The MAC address can be found by touching the Virtua dashboard which is the area on the user interface with the time remaining, disc quantities, and status indicators.
- Virtua is now capable of operating with only one drive. If an optical drive is not working properly and needs to be disabled, Virtua can now run with only one optical drive.

NOTE: Contact Codonics Technical Support to properly disable the drive.

- Patient Date of Birth (DOB) and Study Date are now options in the Query search fields. The options allow entering of both a specific date as well as a range of dates. For more information on Query/Retrieve, see the Query/ Retrieve Technical Brief (Codonics part number 901-178-001).
- ◆ User interface feedback is provided when retrieving a study. When a study or studies are now retrieved using Query/Retrieve, there is a new Retrieving state and icon provided on the Studies tab. The Retrieving state lets a user know study status especially in situations where a study may take time to transfer. Once the study is retrieved, the icon will change to Receiving state. For more information on Query/Retrieve, see the Query/Retrieve Technical Brief (Codonics part number 901-178-001).
- An accurate calculation is used for the viewer data size when determining disc spanning. Previously, 40 MBs was allocated for a viewer on a study disc. Virtua now uses an accurate calculation to determine the actual viewer data size
- Scheduled Archive discs are verified by default. Since Scheduled Archive discs can not be recreated once they are marked as successfully recorded, Virtua now verifies a Scheduled Archive disc by default to ensure it was properly recorded. The default for verifyDiscsAfterRecord in the file \profiles\scheduling\archiv.default.txt is now set to true.
- Provide capability to turn off the warning "beep." A new parameter, beepingDisabled = false (default) in the file \profiles\system.txt, allows a user to turn off the warning beep.

Defects Repaired

- Memory leak when multiple remote browsers sessions are open. Previously, system performance degraded over the course of eight-10 hours when multiple remote browsers were open to a Virtua.
- ◆ Date and time are provided in the Codonics viewer patient selection screen. If the series date and time are provided with the study when transferred to Virtua, the Codonics viewer will display date and time in the patient selection screen.



- ◆ User interface feedback is provided when a different type of ink cartridge is used than is specified for the job. A short message No Black Ink is provided on the Virtua dashboard when a job is selected that uses black ink, but a black ink cartridge is not in the carrier. The job will still proceed using a color cartridge to create a black label. A short message No Color Ink is provided on the Virtua dashboard when a job is selected that uses color ink but only a black ink cartridge is in the carrier. The job will still proceed using a black cartridge and print in black.
- Additional error messages were added to the Virtua dashboard. Five additional error message options were added to the Virtua dashboard. They are Media Not Blank, Job Aborted, Job Terminated, Record Failed, and Verify Failed. These messages will only appear for approximately 20 seconds.
- Deleting one study in a multi-study job deletes the entire job. If a user chooses multiple studies for a single job and deletes one of the studies while the study is active/queued, the corresponding job is deleted as well.
- Standard DVD media reordering information is now available from the Help Screen. The catalog number for 600 Standard DVD is 1VCA-TD933.

Known Common Issues

This section details common issues with **Virtua** Version 2.1.0 software that are likely to be experienced by most users.

- ◆ Print label quality and ink selection setting is only read from default Job Profile. On standard Virtua models, the printMode parameter is currently only supported in the default Job Profile and cannot be changed once the system is running. Any printMode settings in other Job Profiles will be ignored. On Virtua XR models, the printMode parameter can be set in all Job Profiles and be controlled for each individual job.
- ◆ Two button presses on Controller are required to shutdown (Virtua XR only). Press the green power down button twice on the Controller, or shutdown from the user interface.
- Flash card reader / USB2 port on front of Controller not supported. These interfaces might be supported in a future software release.
- ◆ The system cannot detect the type of media loaded. The Dashboard media indicators will show which bin is configured for which media. Only load the media that is configured for each bin. Loading the wrong kind of media will result in incorrect operation (for example, a DVD disc being labeled as a CD disc). The problem does not occur on Virtua XR.

- Studies can be lost or corrupted if a hard power-off occurs. Loss of power during some operations can result in lost or corrupt data. An uninterruptible power supply and proper shutdown procedure are strongly recommended.
- ◆ Some system configuration parameters cannot be programmed from the Touch Screen. Refer to the *Virtua User's Manual* for instructions on configuring **Virtua** using the SmartDrive.
- ♦ Discs-required counts inaccurate for multi-disc backup jobs. When multi-disc backup jobs (all studies included in the job will not fit on one disc) are queued, the Discs Required count in the Status Details tab and the *X* of *Y* discs-recorded count on the Discs tab might contain inaccurate counts. Typically, the count will not increment until the entire set is completed.
- ◆ Studies / Jobs database capacity is 40 GB. This typically allows storage of between 400 and 2000 studies before old (recorded) studies are removed to make room for new studies. Larger Studies / Jobs databases may be supported in a future software release.
- Compatibility problems with Internet Explorer 7. There
 are minor cosmetic problems when remotely connecting
 with Internet Explorer 7. Internet Explorer 6 is
 recommended for remote connections to Virtua.

Known Uncommon Issues

This section details uncommon or obscure issues with **Virtua** Version 2.1.0 software that are unlikely to be experienced by most users.

- ◆ DICOM association limit may be exceeded. DICOM clients which open many simultaneous associations might exceed Virtua's limit of 24 simultaneous connections. This can cause the system to stop receiving DICOM jobs, requiring the system to be rebooted.
- Simultaneously sending studies with large image sizes from multiple locations to Virtua may cause an out of memory situation. Sending a study (e.g., cine loop) with more than 15 images, each image containing greater than 85MB, from two different locations to Virtua at the same time can cause an out of memory situation.
- Robot Arm Alignment utility failures. Occasionally, the system gets into a state where the Robotic Arm Alignment utility does not work properly. The problem can normally be cleared by rebooting the system. The problem does not occur on Virtua XR.



- Time-remaining indicators for jobs inaccurate if more than one page. If there is more than one page of jobs queued (eight or more jobs), the time-remaining indicator on the Discs tab will not be accurate on any pages other than the first page. Each page starts the timeestimation over again without accounting for the jobs on the previous page.
- Install disc remains in closed drive after software install. The first startup after a software install closes the drive tray. If another reboot is performed, the installation process repeats. To work around this problem, remove the disc as soon as it ejects (during installation) or manually open the drive and remove the disc after installation is complete.
- Opening cover does not always silence error beep. If the system is out of only one media (CD or DVD) and the top cover is opened, the error beep will not stop. The Touch Screen must be touched to stop the error beep.
- Page number incorrect after deleting multiple studies. When deleting multiple studies, the current page number does not correctly update.
- Deleting in-process jobs may cause drives to lock up. Deleting jobs that are recording or printing should be avoided if possible. The problem does not occur on Virtua XR.

Known Issues For International Regions

- **Issues with Arabic Locales:**
 - Arabic characters may be clipped on disc labels.
 - Arabic characters are currently not supported by the Codonics Virtua Medical Image Viewer.

- Cannot set date and time from Virtua user interface in **some Tier 2 locales.** The workaround for this problem is to run the system in the en_US locale (which is the factory setting), set the local time and date correctly, and then change the system to the desired operating locale. A list of Tier 2 locales and instructions for changing the locale are in Version 1.2.1 of the Virtua User's Manual (Codonics part number VIRTUA-MNLU).
- No Unicode support in Viewer. The Codonics Virtua Medical Image Viewer does not correctly display Unicode characters. It is uncommon for DICOM files to be encoded in Unicode.
- Limited Viewer support for international characters. Refer to the Codonics Virtua Medical Image Viewer Release Notes (Codonics part number 901-356-001) for details.
- User interface issue with Hong Kong locale. Problems with date formatting may distort the user interface in the Chinese-Hong Kong - zh_HK locale. For Chinese language, it is recommended that one of the other Chinese locales be used.
- No support for Turkish and Indian locales. The Turkish - Turkey - tr_TR locale may cause errors and should not be used. The Tamil - India - ta_IN locale does not correctly support Tamil characters.

Technical Support

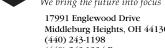
If problems occur during software installation, contact Codonics Technical Support between the hours of 8:30AM and 5:30PM EST (weekends and U.S. holidays excluded).

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