Gear View QC

Release Notes

Version 2.2.0

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Overview

Gear View QC is a PACS QC program for correcting common mistakes in DICOM image data. It provides functionality for viewing, importing, editing, printing, and sending DICOM studies to PACS/ EHR. QC functions include the following:

- Editing patient demographics and study details
- Reassigning studies and series
- Editing DICOM fields at the image, series, study, and patient levels

Gear View QC is intended for use by PACS administrators, physicians, and clinical staff. Users must understand the DICOM image format, as well as the clinical application of the images they modify.

Gear View QC 2.2.0 (August 2015)

CAUTION

- Gear View QC is not intended for diagnostic use.
- Gear View QC is not intended for the long-term storage or management of patient information or data. Verify data integrity before deleting any original information from your PACS.

New features

- Video editing features are now available for MPEG4. You can create excerpts of videos and save them as separate series.
- Gear View QC can now display studies using embedded presentation states.
- You can now display the result of DICOM tag calculations on overlays.
- Gear View QC now supports Windows 8.1.
- You can now change the font size when displaying a structured report.

Enhancements

- GEARView QC is now called Gear View QC.
- Gear View QC automatically makes masks and shutters unavailable when viewing full color ultrasounds.
- You can now display expanded content on the timeline when using the command line.
- You can now configure the number of studies returned in a search.
- You can now set a default search date range.
- Images from CDs now load significantly faster.
- You can now configure whether to show or hide GSPS display.
- You can now configure whether to show or hide group 600x tags.
- You can now configure whether to load private tags.
- Gear View QC can now forward a copy of each image received to a DICOM destination.
- On failed forwarding attempts, Gear View QC retries a specified number of times.
- You can now configure image forwarding through the UI.
- When forwarding to DICOM, the configuration now includes an IP address, port, and AE title.
- When a study folder is open the user now receives a visible alert when new folder items arrive.

- The audit log includes incoming studies that Gear View QC sends to software.
- The audit log shows studies that the user retrieves from the PACS.
- Added support for Q/R SCP for Gear View QC. You can now query Gear View QC from external devices.
- You can now turn scout lines on or off from the shortcut menu of certain images.
- You can now display series as a stack or one image per viewport.

Updates

- Resolved an issue in which, in studies that included both structured reports and images, only the structured reports, or only the images were visible due to duplicated UIDs.
- Resolved an issue in which Gear View QC treated multi-word first or last names as middle names, and displayed the names incorrectly.
- Resolved an issue in which copying a study changed its character set and caused problems with foreign character display.
- Added new SOP classes to prevent association rejection messages.
- Resolved an issue in which users could not find studies confirmed to reside on the Gear View QC server that originated from certain brands of PACS.
- Resolved an issue in which the installer did not include the LUT folder.
- Gear View QC now correctly applies sigmoid window level values.
- Resolved an issue in which missing series modality values resulted in incorrect display.
- Resolved an issue in which certain CT images within series appeared blank, or as black tiles in a layout.
- Resolved an issue in which scout lines did not appear in the correct location on the image.
- Resolved an issue in which Gear View QC displayed series within large (1 GB or more) CT studies out of sequence.
- Improved memory management to avoid Windows error messages when importing or playing back certain series.
- Resolved an issue in which Gear View QC did not set image types correctly after applying a VOI LUT.
- Resolved an issue in which Gear View Basic did not display the Verifying Observer or other information from certain structured reports.

GEARView QC 2.1.3 (March 2014)

Enhancements

- GEARView QC can now display one image per series, selectable by modality.
- You can now show or hide the patient orientation labels with overlays.

Updates

- Resolved an issue in which, when loading a CR image, switching to full screen caused loading to slow down.
- Resolved an issue with moving a study into another study within the same patient.
- Improved display for CR images with Big Endian transfer syntax.
- Resolved an issue in which some US studies displayed without the entire series appearing in the viewer.
- Resolved an issue in which missing MG tags caused an MG image to be hung upside-down.

- Corrected the display of the total number of images in a stack.
- When an image contains DICOM overlays (Group 6000), DX data is now displayed properly.
- GEARView QC now properly displays RLE-compressed image data.
- Improved study loading.

GEARView QC 2.1.x (October 2013)

Enhancements

- GEARView QC now displays Breast Tomosynthesis (DICOM BTO) studies. Two-up comparison viewing mode is supported.
- GEARView QC now supports faster loading for MG, DX, DR, and other large images, including BTO.
- GEARView QC now displays DICOM MPEG4 video and audio.
- You can now export encapsulated MPEGs as MPEGs, and view them with any video viewer.
- You can now hide DICOM markers and overlays (Group 6000).
- GEARView QC now hides presentation states (GSPS objects).
- GEARView QC now supports MRNs containing a backslash (\ ).
- You can now print multiple MG/DR/DX/CR series to one film if the series have at most one image.
- GEARView QC now includes an enhanced log viewer with a simplified user interface.

Updates

- Enhancements in application memory management improve the display of large studies.
- Improved display quality for some MR images.
- GEARView QC now uses a per-frame W/L (5200,9230) to MRI image quality.
- Resolved an issue with simultaneous viewing of multiple images.
- Faster loading of some echo and ultrasound studies.
- Resolved an issue in which CR images were black after importing from some CDs/DVDs.
- Resolved an issue with floating point values in the w/l fields that caused discoloration.
- GEARView QC now properly displays MG images with the SIGMOID VOILUT setting.
- Fixed automatic window/level adjustment to improve display of CR images.
- Resolved an issue in which loading a large multiframe series caused GEARView QC to be non-responsive.
- You can now use commas when querying by patient name.
- The DICOM Print annotation font is now the correct size relative to the layout and film size.
- The GEARView QC server now correctly displays umlauts after retrieval.
- Anonymizing a study with multiple series now applies to all series in the study (specific to fields (0008,0080) and (0008,0090)).
- Resolved an issue in which text within a masked area was not visible.
- A study produced by a Dexa Scan now displays properly.

GEARView QC 2.0.x (December 2012)

Enhancements

- Now includes configurable user access rights by the following groups: Administrator, Power User, Light User, and View Only.
- Supports LDAP/Active Directory with Group Name lookup for user rights, and multiple backup servers.
- Patient and study locking prevents editing of studies by more than one user at a time.
- GEARView QC now supports a distributed user interface using Microsoft ClickOnce technology.
- You can now configure user auto-logout.
- GEARView QC can now launch 3rd-party applications from a patient or study.
- You can now launch PACS Scan from GEARView QC.
- An Inbox folder is now available to receive DICOM studies from outside institutions.
- An Exception folder is now available to resolve MRN/patient ID and patient demographic duplications or mismatches.
- You can configure DICOM ports to forward studies to any folder.
- GEARView QC now supports image-level tag editing macros. The default configuration includes a Mammography DX macro for changing laterality and view position.
- You can now export audit logs to a CSV file.
- You can now export encapsulated PDF's as PDFs instead of as JPEGs.
- GEARView QC now includes a region of interest tool, and the acquired matrix for MR studies.
- All time and date formats are based on the region settings within the operating system, independent of the language setting of the user interface.

Updates

- Resolved an issue in which overlays did not display correctly.
- Resolved an issue in which a multiframe series with audio did not load properly.
- GEARView QC now provides a command line option to launch the viewer in a specific window size.
- You can now run multiple instances of GEARView QC on the same PC.
- GEARView QC can now display images with a long text segment in the DICOM header.
- Improved audio when sending video from MDR® Video to GEARView QC.
- The installer now properly migrates the SQL database values during an upgrade.
- The image detail dialog boxes now close correctly when an auto-logout occurs.
- Resolved an issue in which, for some multiframe ultrasounds, the first frame was duplicated and the final frame did not appear.
- User privilege groups now upgrade successfully.
- Resolved an issue in which the window/level did not display properly in a full screen viewport for a CT study.
- GEARView QC now includes an add button to create a new patient.
- GEARView QC can now properly display images with non-conforming data in the Patient Orientation (0020,0020) DICOM tag. In this case, the image appears without the Patient Orientation data.
- Improved support for Values of Interest (VOI) LUTs for some CR, DX and MG images.
- Resolved color and placement of mask in some US studies.
- Dates of birth now appear in a localized date format.
- Windows Print now reflects pan and zoom changes.

- Added support for these SOP classes: Enhanced XRF Image Storage, MR Spectroscopy Storage, Multiframe Grayscale Word Secondary Capture Image Storage, VL (Visible Light) Image Storage, VL Multiframe Image Storage, Multiframe Single Bit Secondary Capture Image Storage.
- Improved pan and zoom persistence.
- A zoom factor is now displayed on images.
- You can now move markers added to thumbnail images when expanded to full screen.
- You can now apply markers to an entire series.
- Mask and shutter tools now reach the edge of the image when the cursor is moved beyond the image border.
- GEARView QC no longer displays patient search results of greater than 50 matches, and prompts the user to narrow the search.

GEARView QC 1.1.x (June 2012)

Enhancements

- Displays CR, MG, DX, and US multiframe images as one image per thumbnail.
- Displays image orientation labels if the tag (0020,0020) is set.
- Flip and rotate operations apply to all images, and the user can save the edits.
- You can now add text annotations to image masks.
- GEARView QC now supports DICOM printers.
- GEARView QC now stores the modality (0008,0060) with images at the series level, and displays the modality at the series and study levels.
- Improved the user interface of the reconcile dialog boxes.
- Now supports recompression of JPEG compressed images and multiframe datasets when applying: masks, shutters, markers, flip/rotations, or mask/annotations.

Updates

- GEARView QC now supports CR images that contain VOI LUTs.
- Resolved an issue in which thumbnail views were black with W/L values of 0/1,000,000.
- Supports zooming of encapsulated PDFs.
- Supports DICOM raw capture for printing.
- Improved messaging and logging of print job details.
- Resolved an issue in which masks did not save to all images in a compressed multiframe series.
- The installer now provides the option to install the client only, the service only, or both.
- Resolved an issue in which overlays did not appear on MG images.
- Resolved an issue in which US images appeared stretched for non-square pixel aspect ratios.
- Resolved an issue in which, when viewing US images with partial color, grayscale portions of the images did not display.
- Modality Worklist Lookup for reconcile optionally displays Requested Procedure Description (0032,1060) or Schedule Procedure Step Description (0040,0007).
- During DICOM send, you can now start a new DICOM Send of a study for the same patient.
- Send/receive jobs in the job queue now display the number of images sent/received and the DICOM destination. When completed, the job queue now displays the number of images sent/received.
- Opened PET and CT studies appear in grayscale.

- When editing an image level tag, you can apply the edits to the entire study, the entire series, or the current image.
- You can no longer edit the following DICOM tags: Bits Allocated (0028,0100); Bits Stored (0028,0101); High Bit (0028,0102); and Pixel Representation (0028,0103).
- Non-editable items are now unavailable in menus.
- Users cannot create or edit private tags, but can delete them.
- Resolved an issue in which large MG images did not properly display.
- Resolved an issue in which ultrasound images were "tiled" after masking and saving edits.
- Resolved an issue in which masking and saving a US study (vascular) resulted in inverted colors.
- Resolved an issue in which some images did not appear in Stack mode when applying markers in a 2 x 2 layout.
- Resolved an issue in which some image manipulations did not correctly rotate and may have appeared with colors inverted.
- Resolved an issue in which invalid study dates or times did not generate errors.
- Resolved an issue in which US clips could not be maximized and viewed without first playing them back.
- Improved the speed and overall appearance of US series.
- GEARView QC now removes leading spaces from search criteria to enable correct search results.
- The audit log file now correctly updates patient names and the MRN.
- Viewing events (the viewed Series, Study, or Patient) now appear in the audit log.
- GEARView QC now warns the user if an operation will take a long time.
- Resolved an issue in which images were darker than normal when window/level values changed in the middle of a CT.
- Resolved an issue in which GEARView QC did not send some JPEG lossless US images to a DICOM destination after masking.
- GEARView QC now supports queries of patient names that include apostrophes.
- Supports the DICOM tags, Table Feed Per Rotation (0018,9310) and Spiral Pitch Factor (0018,9311).
- Resolved issues user interface issues during upgrades.
- Dates and times are now displayed in a localized format.
- Improved creation of new studies. This feature is especially useful for manually splitting a single CAP (Chest-Abdomen-Pelvis) study into three separate studies.
- You can now delete multiple patients, studies, and/or series from the Patient List.
- Resolved DICOM tag editing issues for DICOM sequence tags, tag deletions, and multi-valued tags.
- Scout lines now appear when two series are perpendicular to each other.
- For multiframe studies, embedded clips with the same Series UID now appear as separate series.
- You can now export images and series as DICOM or JPEG files.
- You can now print images with the Windows Print function.
- For DICOM files without pixel data, GEARView QC displays "No image available" in the viewport.
- GEARView QC now supports Windows 7 x32/x64.
- You can now export images or series as JPEG or DICOM files.
- Improved performance for large studies, including multiframe ultrasound studies.
- Resolved auto window/level and display issues for 8-bit grayscale and 8-bit JPEG images.
- When changing the study date/time, the exam history icons are now updated correctly.
- Corrected an issue in which compressed images with a color palette did not display correctly.

- You can now drag a series within the patient list and create an "unassigned" study for the patient.
- Now handles big-endian data transfers, including compressed big-endian JPEG images.
- If your PACS does not support compressed studies, GEARView QC now automatically decompresses them before sending.
- Correctly removes masks from images and confirms when deleting a mask from a series.
- Query/retrieve now works for eFilm Storage SCP.
- Fixes an "out of memory" issue when retrieving studies from encrypted CDs.
- You can now change the Referring Physician (0008,103E) tag.
- The DICOM tag "Institution Department Name" (0008,1040) is now correctly anonymized.
- Resolved an issue in which patient reconcile searches were not working.
- Improved exception handling for non-existent DICOM sources.
- Improved performance when creating new series/image UIDs.
- GEARView QC now preserves multi-valued DICOM tags correctly.
- Dialog boxes now respond to the Esc and Enter keys.
- The Audit Log window now has a Close button.