Visage®7
Release Notes

Version 7.1.6h

Visage**7**

Table of Contents

1 What's New in Visage 7

This section describes the relevant changes and improvements in the latest software versions of Visage 7.

Each release provides several significant feature enhancements and improved usability and performance of the overall system. The description of changes is grouped by clinical roles:

- Radiologist
- Technologist
- RIS/PACS Administrator
- Referring Physician

Version 7.1.6

Radiologist

- Multi-tabbed Epic EHR integration. Visage 7 supports concurrent tabbed sessions, with tight bi-directional integration to the Epic EHR and secure single-sign on for internal and external users. [10557, 10796, 11337, 11465], [11697, 11787, 11788] (7.1.6b), [12052, 12054, 12055, 12058, 12078, 12267] (7.1.6c)

- A new mode allows using multiple hanging protocols. Each protocol defines the hanging of one or more studies on one or more monitors. [10841], [11820, 11823, 12015, 12019] (7.1.6b), [12031, 1037, 12198, 12218] (7.1.6c)

- New concept "Additional Relevant Priors". While a small number of prior studies is hung automatically, further relevant prior studies are visible in the thumbnail section and can easily be hung by drag-and-drop. [11970] (7.1.6b), [12066, 12041, 12172, 12271, 12272] (7.1.6c)

- Improved strategy for restricting the number of automatically loaded prior studies. The global maximum can be overridden by individual matching rules with a higher maximum. [12090, 12120] (7.1.6c)

- It is now possible to browse through images from multiple studies in the same viewer. This is in particular useful for current prior comparison in mammography reading. [9708, 11662], [11865] (7.1.6b), [12076, 12084, 12085, 12125] (7.1.6c), [12196, 12243, 12310] (7.1.6d)

- The Quadrant Navigation tool has been improved in various ways. For example, image cropping is now available in the overview state and viewers can be excluded from quadrant navigation via the hanging protocol. [11222], [11663, 12010, 12020, 11798, 11873] (7.1.6b), [12086, 12036, 12202] (7.1.6c), [12247] (7.1.6d)

- Vertical alignment and zoom synchronization of mammography images displayed by different viewers has been added to the Quadrant Navigation tool. Exclusion of certain special images from this functionality can be configured. [10819] (7.1.6a), [11878, 12025] (7.1.6b), [12108, 12176, 12254, 12008] (7.1.6c), [12442, 12257, 12502, 12537, 12595] (7.1.6d)

- Laterality/orientation labels for mammography images can now be displayed at the top centers of the respective viewers. [11985] (7.1.6b), [12242] (7.1.6c)

- DICOM MPEG4 videos are handled by the PACS component and can be watched through the thin client. [11430], [11431] (7.1.6a), [11842, 11980, 11999] (7.1.6b)

- Improvements in perfusion analysis. [12661, 12819, 8058] (7.1.6f)

- Toggles for primary and overlay data in fusion display can be accessed via keyboard shortcuts. [12132] (7.1.6c)

- Most of the search fields in the study browser accept a list of patterns, separated by ';' or '|'. [12173] (7.1.6c), [12355] (7.1.6d)

- Improved strategy for placing text labels of measurement tools. [11996] (7.1.6c)

- Date range preset buttons in Study Browser and Quality Assurance screen are user-configurable and support a broad variety of relative time intervals. [12018] (7.1.6c)

- Capabilities of the Link Scrolling tool have been extended to linking 2D and MPR viewers. The tools usability has been simplified for obvious cases. [11834] (7.1.6b), [11880, 12137] (7.1.6c)

- Improved handling of manually selected window/level settings. Manual adjustments of window/level are synchronized into all viewers displaying the same data and can be permanently stored as DICOM presentation states. [10700]

- Better automatic window level if WindowLevel tag is missing in 8 bit data (Barium Swallow). [11815] (7.1.6a)

- Better initial window/level for GE dose reports. [11810] (7.1.6a)

- Usability improvements for user specific customization of system protocols. [11260, 11292]

- Screenshot of statistics tool card can be limited to selected rows. [11227]

- Fixed issue with inverse thumbnails in conjunction with presentation states. [12027] (7.1.6c)

- Fixed some issues in behavior of study navigator window. [12104, 12107] (7.1.6c)

- DICOM structured reports can be loaded and displayed even if the containing study has no image data. [12184] (7.1.6c)

- Undesired zoom behavior upon drag-and-drop in certain linked-viewer configurations. [11813] (7.1.6a)

- Improvements of the tabular representation of lesions in a report. [11761, 12260]

- Fixed possible crash in HxVisageImportTab::showEvent(). [11809] (7.1.6a)

- Fixed potential client crash on auto-logoff. [11903] (7.1.6b)

- Fixed potential crash in lesion tool card after unloading studies. [11807] (7.1.6a)

- Fixed potential crash in report dialogs after changing monitor configuration [11804] (7.1.6a)

- Fixed potential crash on startup (Mac OS X). [11937] (7.1.6b)

- The Structures tool card is available for 2D images and 2D viewers with the restriction that 3D structures cannot be defined there. [11232]

- New tool for in-plane image rotation in 2D and MPR viewers. [11259]

- Several usability improvements when running the thin client on very high resolution displays. [10864, 10872, 10874, 10875]

- Legacy Web client supports Internet Explorer 11 [11742] (7.1.6b)

- Several improvements to the standard set of hanging protocols. [11243], [11643, 11924, 11948, 11986, 12000] (7.1.6b), [12245] (7.1.6c), [12289, 12434, 12478] (7.1.6d)

- Acceleration of client startup. [11782] (7.1.6a), [11979] (7.1.6b), [12113] (7.1.6c)

- Various improvements of thin client stability. [11361, 11617, 11723], [11714, 11848, 11872, 11904, 11907, 11957] (7.1.6b), [11806, 11846, 12129, 12155, 12231, 12252] (7.1.6c), [11572, 12001, 12230, 12345, 12346, 12347, 12406, 12409, 12415, 12420, 12421, 12427, 12432, 12449, 12496, 12539] (7.1.6d), [12756, 12759, 12766, 12816, 12839, 12884, 12757, 12802, 12825] (7.1.6f), [13072] (7.1.6g), [13073, 13168, 13190, 13212, 13238, 13553] (7.1.6h)

- Annotations of 2D freehand ROIs now display the circumference of the contour. [12454] (7.1.6d)

- Annotations of 2D elliptical and freehand ROIs now display the effective diameter of the contour. [11372] (7.1.6d)

- Tools for annotations and simple measurements can be configured to stay active until explicitly deactivated. [11403] (7.1.6d)

- Scale of the y-Axis in line profile is auto-adapted. [12717] (7.1.6f)

- Viewer texts can now display the current view direction as standard angulation (cranio/caudal and LAO/RAO) for positioning a C-arm in the corresponding orientation. [12287] (7.1.6d)

- Several additional DICOM tags of the original images are now passed on to key views. [12377] (7.1.6d)

- DICOM tag ViewCodeSequence is preserved in secondary captures generated from DBT volumes. [12815] (7.1.6f)

- Usability enhancements for creating arrow annotations without text. [12181] (7.1.6d)

- Visibility of orientation cube in key views is now consistent with visibility in the viewer. [10550]

- Enhancements in the support of displays with high color depth like the BARCO Coronis Uniti 12MP display. [12319] (7.1.6d)

- User defined order of columns in Study Navigator persists after client restart. [12212] (7.1.6d)

- Added workaround hint to monitor configuration dialog for having the View tab on multiple monitors under Mac OS 10.9 and later. [12397] (7.1.6d)

- "Close Session" can now be triggered via keyboard shortcut. [12213] (7.1.6d)

- Fixed issue with initial image assignment to viewers in a tile group. [12376] (7.1.6d)

- Fixed issue with overall response classification in lesion workflow. [12334] (7.1.6d)

- Fixed issues with automatic initial selection of window/level. [12369, 12391] (7.1.6d)

- Fixed issue with showing hidden layout via user protocol customization. [12311] (7.1.6d)

- Enhanced handling of color coding of current and prior studies in inconsistent data situations [12598] (7.1.6d)

- Fixed issues with display of reports for studies performed on the same day [12599] (7.1.6d)

- Fixed issue with display of images per series in the Study Browser. [12147, 12418] (7.1.6d)

- Fixed issue with display of study description in Reset Dictation dialog. [12266] (7.1.6d)

- Fixed issues with associated patient IDs. [12298] (7.1.6d)

- Fixed issue with interference between the Triangulation tool and the Link Scrolling tool. [12450] (7.1.6d)

- Fixed issue with the Triangulation tool if not all data sets cover the current point of interest. [12451] (7.1.6d)

- Fixed issue with client freeze during session saving. [11704] (7.1.6d)

- Fixed potential client crash when saving auto prior rules. [12871] (7.1.6f)

- Fixed issue with wrong character set of DICOM structured report. [12978] (7.1.6g)

- Fixed issue with embedded overlays in lossless compressed images. [13055] (7.1.6g)

- Fixed issue with auto-generated screenshots on closing session. [13050] (7.1.6g)

- Fixed issue with W/L for MRA reformats. [13434] (7.1.6h)

- Fixed issue with display of DICOM overlays. [13558] (7.1.6h)

- Fixed issue with status indicator of report icon. [13127] (7.1.6h)

Technologist

- It is now possible to select an image, series or study in the Study Browser or View screen and open it in the Quality Assurance screen. [11942] (7.1.6b), [12013, 12232] (7.1.6c)

- Number, Date and Time of DICOM series and images can be edited via the Quality Assurance screen. [11789] (7.1.6b)

- Choice of font sizes for Image Content QA has been extended to improve usability on high resolution images, e.g. for mammography. [12170] (7.1.6c)

- The Delete button has been removed from the Study Browser. Deletion of studies is only possible through the Quality Assurance screen. [11949] (7.1.6b)

- Deletion of DICOM data in external archive upon manual deletion of DICOM data in Visage can be suppressed now if explicitly requested. [11771] (7.1.6b)

- Improved alignment when printing mammography images in true size on small film sheets. [12203] (7.1.6c)

- A warning is shown if user attempts to QA an incomplete study. [12889]

- Fixed issues in the interface to disc producers (Epson, Rimage). [10489], [12135] (7.1.6c)

- Fixed possible crash after printing image set [11803] (7.1.6a)

- Fixed potential client crash on QA delete. [11840] (7.1.6b)

- Fixed potential client crash on QA series move if source and target study are identical (user error). [11850] (7.1.6b)

- Fixed issue with groups assignment after splitting a study. [11921] (7.1.6b)

- Fixed issue with editing an existing patient via QA. [12329] (7.1.6d)

- Fixed visibility of orientation labels in DICOM print. [12721] (7.1.6f)

- Fixed crash of legacy web client on DICOM print. [12751] (7.1.6f)

RIS/PACS Administrator

- Significantly improved backend throughput supporting large scale enterprise imaging volumes. [11217], [11569, 11871, 12038, 12306, 12324, 12331, 12422] (7.1.6d)

- Extended modality work list to handle many modalities at various locations. [11396], [12394] (7.1.6d)

- Improved and extended handling of HL7 messages:
  - ADT_A18 messages for patient merge are processed. [11344]
  - Support for more messages added. [11347]
  - PV1 segment in order messages can be optional. [11348]
  - ADT messages containing custom Z segments are accepted. [11405]
  - HL7 reports with data type ST in OBX-2 are accepted. [11408]
  - Repetitions for OBR-32 Principal Result Interpreter and other fields are allowed. [11409]
  - ADT patient merge message also updates RISPatient and RISOrder table. [11427]
  - Patient ID handling improved. [11413]
  - Messages with non-standard LAN segment are accepted. [11422]
  - ADT messages are applied to all patients with the specified patient ID. [11489]
  - Study date field is configurable. [11758] (7.1.6a)
  - Messages with non-standard CON segment are accepted [11755] (7.1.6b)
  - Display of report date fixed. [11767] (7.1.6b)
  - Study changes are applied to all studies with identical accession number [11839] (7.1.6b)
  - Formatting issues in reports fixed. [11841] (7.1.6b)
  - Logging/Auditing can be configured [11945] (7.1.6b)
  - Performance improved. [11944, 11982] (7.1.6b)
  - HL7 interface specification updated [11365] (7.1.6b)
  - Reporting status is correctly displayed even if HL7 report comes in before images. [12187] (7.1.6d)
  - HL7 fields OBR-32, -33, and -34 can be used for report display. [12577] (7.1.6d)
  - Messages containing '\' are accepted by replacing with '/'. [12607] (7.1.6d)
  - Patient data is cached in memory avoiding redundant database updates. [12963] (7.1.6g)
  - Insertion date is updated when patients are merged. [13348] (7.1.6h)

- Enhanced support for integration with third-party systems:
  - Web-launcher supports HTTPS access via Firefox, Safari and Chrome. [7574]
  - Web-link mode in client installer added (_WL syntax) [11938] (7.1.6b)
  - Support for CCOW integration using Vergence COM-component. [11992] (7.1.6c)
  - Enhancements in tray app to support situations where multiple Windows sessions are active (Fast User Switch). [11795] (7.1.6b)
  - Changes in vscontrol --weblaunch on MacOS X. [11875] (7.1.6b)
  - Web-launcher is prevented from self-termination under certain circumstances on next call after install (MacOS X). [11936] (7.1.6b)
  - New Event Hook "OnClientExit" [11522] (7.1.6c)
  - OEM passwords are supported for AD users. [11851] (7.1.6b)

- o Multiple issues with thin client control via OEM interfaces fixed. [11433, 11896, 11968] (7.1.6b), [12103, 12153, 12154] (7.1.6c)

  o Accession number is sent when loading saved session via Medicalis. [12151] (7.1.6c)

  o XML file writer API added to script interface. [12996] (7.1.6g)

  o New parameter "clear" in URL integration landing page viewstudy.asp. [13128] (7.1.6h)

- Improved integration with Acuo archive. [11438], [11749] (7.1.6a), [12290, 12419, 12519, 12576] (7.1.6d)

- Improved import of DICOM data:

  o Auto-routing of images received by DICOM portal can be disabled despite Auto-routing rules being active. [11736]

  o Parameters can be changed without restarting the DICOM Portal. [11977] (7.1.6b)

  o Issue with importing presentation states fixed. [11897] (7.1.6b)

  o Issue with nonstandard image content time fixed. [11898] (7.1.6b)

  o Issue with sending AET not captured in legacy DICOM Portal fixed. [12961] (7.1.6g)

- Enhanced volume conversion:

  o Support for Toshiba enhanced DICOM data added. [11276]

  o Support for NM multi-frame images added. [12045] (7.1.6c)

  o Handling of gantry tilted CT images improved. [11608] (7.1.6c)

  o Issue with RLE compressed volumes fixed. [12023] (7.1.6b)

- Improvements and fixed issues in quality assurance (QA):

  o Study description is taken from correct HL7 field in automatic QA. [11838] (7.1.6b)

  o Processing of the result of QA jobs fixed. [11869] (7.1.6b)

  o Automatic QA for "white-space" patient name change fixed. [12208] (7.1.6c)

  o Fixed logging issue of Manual QA when dialog is closed prior to completion. [12207] (7.1.6c)

  o DICOM Structured Report should remain visible after merging two studies. [12071] (7.1.6c)

  o Default value for ApplyToPartner in Deleting can be configured. [12707] (7.1.6f)

  o BodyPart can be updated on automatic order assignment. [12891] (7.1.6g)

  o Comparing patient names made more restrictive. [12965] (7.1.6g)

- Improved behavior of zoom linking group. Linking is always active for viewers showing the same data. Linking toggle activates linking between viewers showing different data. [10425], [12109, 12221, 12233, 12240] (7.1.6c), [12178] (7.1.6d)

- Hanging protocols can specify image orientation and alignment per ImageSet. This will overrule respective settings of the viewer. [11290, 11972] (7.1.6b), [12056] (7.1.6c)

- Hanging protocols can now check aspect ratio and number of monitors for every single layout. This allows writing a single hanging protocol per use case that applies to all monitor configurations. The standard set of hanging protocols has been adapted respectively. [10792, 11544], [11822] (7.1.6a)

- For automatic viewers a minimum number can now be specified in the hanging protocol. [11855] (7.1.6b)

- Improved audit trails for outgoing HL7 messages and delete protection. [10881, 11419]

- Efficiency improvements in logging for DICOM Portal Query audit trails. [12710] (7.1.6f)

- Maximum number of prefetched studies considers existing studies. [10958]

- Backend monitoring includes drives that do not have a drive letter assigned. [11219]

- Per-user customization of layouts has its own user level permission. [11253]

- Deletion of session from delete-protected patient is prevented. [11509]

- Fixed issue in prefetching on the backend related to undefined study instance UID. [11596]

- Issue with server/username during GPO rollout with MSI installer fixed. [11731]

- Series and image level C-FIND and C-MOVE fixed on online systems [11817] (7.1.6a)

- Issue with modality work list configuration fixed. [11811] (7.1.6b)

- Improved strategy for bandwidth controlled network transfer. [11975] (7.1.6b)

- Special auto-logoff timeout for external sessions implemented. [12053] (7.1.6c)

- Fixed issue with installing a 7.1.6 client over a 7.1.4 client while the web-launcher is running [12044] (7.1.6c)

- DICOM images with Jpeg2000 encoding are accepted via CD import and via DICOM connections. [10704, 12521] (7.1.6d)

- Authentication via Active Directory (AD): Priorities can be assigned to Visage-relevant AD roles in order to influence which role a user is assigned to if he/she is in multiple mapped AD groups. [11843] (7.1.6d)

- Certain vendor-specific private DICOM tags that are relevant for further processing in Visage are kept during de-identified Media Export. [12399] (7.1.6d)

- Several improvements of the administration webpages. [12378, 12381, 12458] (7.1.6d)

- Various improvements to overall backend stability. [12117, 12403, 12412, 12433, 12481, 12625] (7.1.6d), [12747, 12795, 12808, 12841, 12795, 12728] (7.1.6f), [13103] (7.1.6g), [13036, 13453, 13462, 13522] (7.1.6h)

- Improvements to handle inconsistent DICOM data. [11853, 12534] (7.1.6d)

- Increased flexibility in configuring rejection of double insertion of images in StorageManager. [12560] (7.1.6d)

- The trigger for prefetching of prior studies can now be limited to the insertion of only new studies, i.e. studies that are not older than a configurable amount of time. [12333] (7.1.6d)

- Access via mobile client can be controlled based on version of the connecting mobile client app. [12570] (7.1.6d)

- Patients with an exam scheduled within the next 3 days will be kept in online cache. [12408] (7.1.6d)

- Allow assigning new StudyInstanceUID on manual order assignment. [12890] (7.1.6f)

- Script Interface supports query of user properties, version numbers, and user level. [12919] (7.1.6f)

- Fixed issues with client update via MSI installer. [12525] (7.1.6d), [13019] (7.1.6g)

- Fixed issue with displaying reports stored on master in certain partner-system configurations. [12295] (7.1.6d)

- Fixed issue with study label assignment on installations with partnered systems and separate database servers. [12321] (7.1.6d)

- Fixed issue with Study Navigator and vscontrol option "--startinviewer never". [12587] (7.1.6d)

- Fixed issue with DICOM printing and top and bottom viewer texts. [12320] (7.1.6d)

- Fixed potential robustness issue in DICOM print. [12744] (7.1.6f)

- Fixed issue with splitting an image into a new series via QA. [12327] (7.1.6d)

- Fixed issue with broken desktop link after client setup. [12674] (7.1.6e)

- Fixed issue with wrong directory in Thin Client's auto update. [12949] (7.1.6g)

- Fixed issue in backend monitoring with metrics on volume conversion. [13023] (7.1.6g)

- Fixed issue with tag RSSRefSOPInstanceUID in modality worklist. [13082] (7.1.6g)

- Improved handling of radiology reports received as DICOM SR. [13100] (7.1.6g)

- Fixed issue with DICOM C-FIND query on IMAGE level. [13469] (7.1.6h)

- Ability to prioritize between multiple pre-fetch nodes. [13158] (7.1.6h)

Referring Physician

- Improved login with secure web access (e.g. SiteMinder). [11961] (7.1.6b), [12535] (7.1.6d)

- Small improvements of Media Viewer. [11935, 11943] (7.1.6b)

Version 7.1.5

Radiologist

- Structured full resolution browsing of image quadrants in mammography and tomosynthesis. [9045]

- Viewer texts for display of mammography images make better use of screen space and clearly indicate laterality and plane of projection. [10034]

- Non-top-level, enhanced, and unknown DICOM tags can be displayed in viewer texts. [11482, 11830] (7.1.5e)

- Performance improvements for loading of large image volumes, e.g. from DBT. [10642]

- Digital Breast Tomosynthesis: New position indicator replaces orientation cube and shows position of currently displayed slice image in DBT volume. [9330]
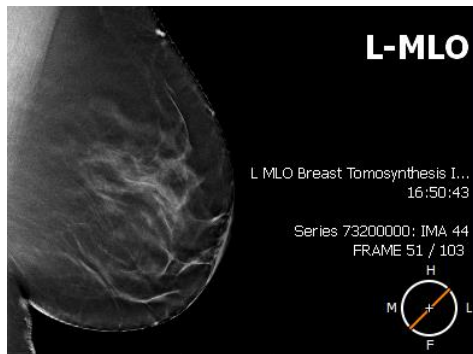

- The new "Balloon Tool" enables definition of 2D and 3D structures by image-aware interactive inflation of a 2D contour. [10487]

- Initial tool for defining 2D and 3D contours can be configured per user or protocol. [9325]

- The study navigator now has a "filter as you type" field. [10902]

  Only studies matching the text typed into this field are shown. Currently loaded studies always remain visible. Matching is performed regarding study date, study description, modalities, accession number, or patient identifier.
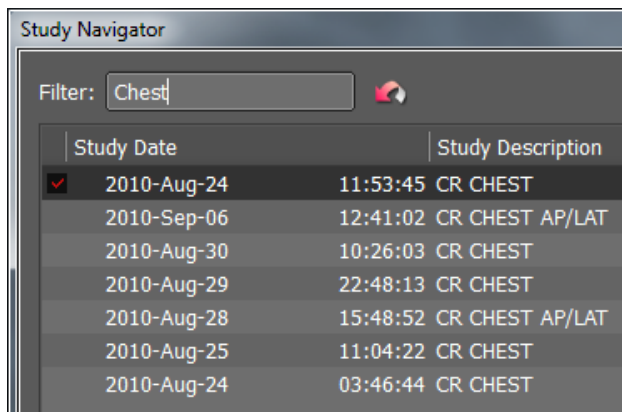

- Search presets in the Study Browser support Issuer of Patient ID. [10688]

- Fixed issue with querying studies in date-time ranges spanning more than one day. [6613], [11887] (7.1.5e)

- The thin client for Mac OS X is now provided as a 64 bit application. [8964]

- The thin client for Mac OS X now also has buttons for fast switching between the different screens, i.e. "Study Browser", "View", "Export" and "Quality Assurance". [5571]

- Improved crosshair visibility on gray scale monitors. [10622]

- Every distance or angle measurement can be displayed on all slices of a stack. [10155]

- Length measurements in Lumen view are reflected by position references in the corresponding CPR view. [10569]
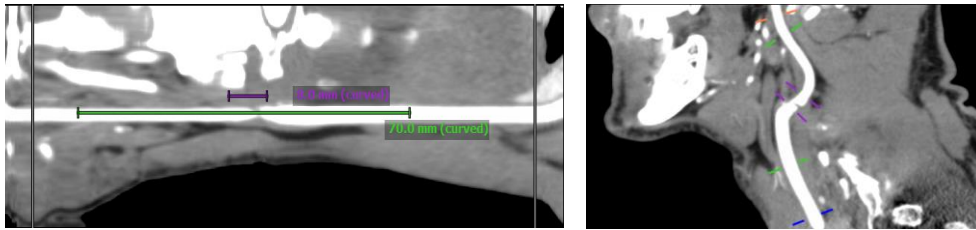

- Status and availability of the "Subtract Baseline Phase" toggle are specific to the active viewer. [10552]

- Subtraction mode is taken into account by "Auto Window Level in ROI" tool. [10553]

- Automatic viewer linking does not switch off subtraction mode. [5091]

- New tool "Magnifying Glasses" allows simultaneous magnification in multiple viewers. [10115]

- Thumbnails for PDF attachments are labeled with the respective series description. [10114, 10298]

- The "Link Scrolling" tool enables linking of multiple MPR groups with each other. [10621], [11266] (7.1.5d)

- Improvements for drag & drop and viewer linking. [6070]

  o Drag & drop between 2D viewers not only swaps data sets but also linking groups, i.e. linking is kept with the data.

  o Linking is preserved upon drag & drop from thumbnail section to viewer if affected viewers are not in any translation, rotation or camera linking group.

  o Unloading a viewer by drag & drop leaves linking unchanged.

- Scope of "Automatically link viewers" tool is restricted to unlinked slice viewers in the current layout. [10592]

- Improved heuristics for automatic viewer linking. [10472]

- Improved default value for property "Maximum Slice Tilt for Automatic Grouping". [10479]

- Consistency of behavior after dragging data into a viewer in full screen mode has been improved. [10674]

- "Save Modified Images" tool applies window/level changes to the images in memory to make them immediately effective in the current session. Adjusted window/level settings are now preserved when prior studies are added to the current session. [7159]

- For Reports/Documents created in PACS Export tab: Allow to review previous versions of a report in the Export Tab. [10683]
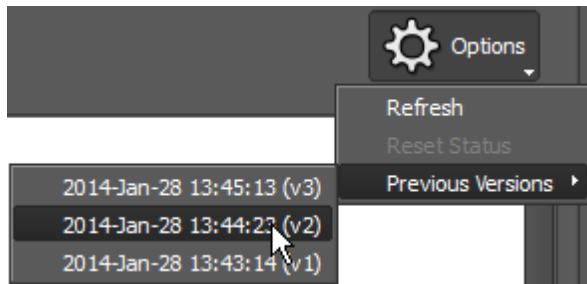
- Fixed issue with updating automatically generated data in PACS reports. [10968]

- Fixed issue with dragging a vessel line segment to insert a new vessel point. [10555]

- Fixed issue with rendering DICOM image data with non-zero intercept. [10523]

- Fixed issue with window/level changes in a layout with active viewer dependency. [10507]

- Fixed issue with display of scout lines in 2D viewers. [11182]

- Improved thin client stability in various aspects. [10782, 10477, 10780, 10238, 10979, 10964], [11242] (7.1.5b), [11313, 11226] (7.1.5d), [11879, 11882, 11883, 11886, 11892, 11905, 11908, 11909, 11911, 11912, 11914, 11956] (7.1.5e)

- Fixed client startup failure on certain monitor configurations. [11220] (7.1.5a)

- Fixed issue with crosshair rotation in MPR viewers. [11239] (7.1.5b)

- Fixed issue with rotation in the Lumen viewer. [11240] (7.1.5b)

- Fixed issue with Permanent Text Label tool. [11257] (7.1.5c)

- Fixed issue with non-functional Cancel button in de-identification dialog of media export. [11231] (7.1.5c)

- Fixed issue with pan/zoom adaptation after dragging and dropping another volume into a viewer. [11235] (7.1.5c)

- Fixed issue with enhanced DICOM sequences in brain perfusion data. [11282] (7.1.5d)

- Fixed issue with initialization of zoom-linked viewers. [11273] (7.1.5d)

- Fixed issues with updating values in Statistics tool card. [11765, 11890, 11910] (7.1.5e)

- Fixed issue with initial zoom level after drag-and-drop of US images. [11888] (7.1.5e)

- Improved handling of W/L values in mobile backend component. [11317, 11334, 11324, 11360, 11316] (7.1.5d)

Technologist

- CDs with anonymized patient data are labeled with a configurable standard text. [10694]

- Each item in the configuration of CD labels can have an attribute "format". This is particularly useful to format DateTime information due to individual requirements. [10691]

- A study's time of day can be changed via manual QA. [10260]

- Number of images per study is displayed in Study Browser, Study Navigator and Quality Assurance Screen. [5859]

- Screenshots of reports in the Export Tab are independent of the printer settings. [10702]

- Screenshot saved as DICOM gets tag SliceLocation based on the original image data. [10402]

RIS/PACS Administrator

- The backend supports Windows Server 2012 R2. [8701, 11123]

- The render server supports openSUSE 13.1. [11884] (7.1.5e)

- Visage 7 administration interface supports Internet Explorer 11. [10707]

- User specific customization of system protocols. [10570, 10603, 10170]

  Layout oriented aspects of a protocol, i.e. order, visibility and default choice, can be customized and saved as a user preference. The customization is expressed and saved as a modification of the original protocol. If the original protocol is changed, the customization can still be applied on top of it.

- Improved diagnostic reporting infrastructure for multiple partner systems. [10705, 10797, 10685]

- Report templates located in the VisageLocal directory are synchronized between partner systems. [10499]

- New mode for handling presentation states: To every loaded series the most recent relevant PR from the same study is applied automatically. Mode can be activated via system/user property. [10921]

- HL7: Overlong study descriptions from order messages are truncated to the allowed length of 64 letters. [10894]

- HL7: Fixed issue with updating patient ID via order update message. [10896]

- Loading data via vscontrol can be repeated after completion of the previous loading procedure. [11026]

- Fixed issues with dialogs displayed by vscontrol. [11153]

- Improvements in the audit trail. [10054, 10898, 10895]

  o Detailed audit trail event for study deletion via Study Browser.
  o Information about modified study level tags in event "HL7 Edit Study".
  o Events "HL7 Edit Study" and "HL7 Edit Patient" have been renamed to "HL7 QA Edit Study" and "HL7 QA Edit Patient" and do not contain a message type anymore. They are logged only if actual database changes were performed.
  o Patient level changes induced by an "HL7 QA Edit Study" message are logged with an additional "HL7 QA Edit Patient" event.
  o Event ManualQAAssignOrder always includes the patient ID of the target patient (specified in the order). If a patient with this patient ID exists already but has different patient-level attributes, the replacements are logged.

- Event logging of failed login due to outdated client version has been improved. [10626]

- Fixed issue with error logging if partner backend is not accessible. [11081]

- The backend status check reports the number of rejected input files ("store failed") but will not trigger an explicit warning. [11154]
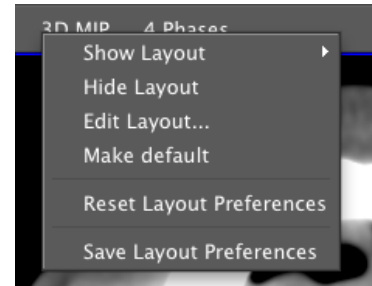
- Storage manager handles invalid date formats more tolerantly. Manual QA is still required after import. [10147]

- Various robustness improvements regarding treatment of invalid DICOM data [10367, 10866, 10986]

- Considerably reduced memory footprint of exconverter processing large enhanced DICOM files. [10584]

- The list of demographic tags relevant for de-identification can be configured on system and user level. [10256]

- Abstract tag TimeSeriesNumber enumerates the time series of a study starting with 1 and sorted by the time stamp of the first phase. [10486]

- Improved flexibility of rules for automatic loading of prior studies. [10088]

  Maximum number of studies can be specified per rule. The oldest prior, i.e. baseline study can be chosen explicitly.

- Patient matching for prefetching can be based on patient ID only, irrespective of the storage manager's configuration. [10870]

- Setting property UI.ShowStudyNavigator to ON_OEM_CALLS_ALWAYS applies to calls via PMCONTEXT as well as via vscontrol. [10542]

- Whether the Windows taskbar is hidden during full screen mode can be configured via the monitor configuration dialog. [10724]

- Fixed issue with deselecting media data for DICOM printing. [11119]

- Relevant length unit is explicitly specified in printer media configuration dialog. [10508]

- Fixed issue with specifying a minimal allowed password length. [10056]

- Fixed issue with communication between a Windows render server and a network-share-based archive. [10490]

- Fixed issue with closing database connections. [10901]

- Backend status page reports whether a temporary license is about to expire.
  [10177] (7.1.5a), [11250] (7.1.5b)

- Fixed issue with receiving the same DICOM image multiple times leading to failure in DICOM printing. [11223] (7.1.5a)

- Access via DICOM query and retrieve can be restricted per AET and user group.
  [9253] (7.1.5c)

- Fixed issue with ungraceful termination of the render server. [11254] (7.1.5c)

- Fixed issue with Visage Ease and queries on partner systems. [11256] (7.1.5c)

- The initial value of the "Do not archive" toggle in the "De-identification and Teaching Files" dialog is controlled via a backend configuration. The factory default is to not archive de-identified copies. [11236] (7.1.5c)

- Robustness improvement of Fast File Server component. [11284] (7.1.5d)

- Improved handling of passwords with unsupported characters. [11288] (7.1.5d)

- Added support for HL7 version 2.2. [11296] (7.1.5d)

- Improved handling of additional user levels during backend updates. [11281] (7.1.5d)

- Extended logging of events from mobile client [11321] (7.1.5d)

Referring Physician

- Robustness improvement of Media Viewer [11272] (7.1.5d)

Version 7.1.4

Radiologist

- New tool "Next Thick Projection Mode" with keyboard shortcut "Shift-T" for switching the projection mode of thick slices between maximum intensity (MIP), minimum intensity (MinIP), and average intensity (AvIP). [10022]

- New tool "Configure Tool Palette" opens the configuration dialog of the tool palette. [10019]

- Tool "Measure Lesion (2 Diameters)" snaps to perpendicular configuration. [10194]

- Value for threshold adjustment of lesion segmentation is no longer shown when defining next lesion. [10192]

- Computed statistics on lesions in export tab are updated when deleting a lesion. [10269]

- Viewers with activated cine auto-trigger start playing automatically if image set is switched by "drag & drop" or if next/previous image set is selected. [10299]

- Improved handling of protocol defined viewer orientations. [10446, 10455, 10456] (7.1.4b)

- When using tool "Automatically Link Viewers", slightly tilted image series may be grouped together by defining a tolerance for the slice orientation. [10126]

- Search mask in study browser window allows selection of multiple study labels. [9471]

- Improved selection of initial window level for bad DICOM parameters. [10282] (7.1.4b)

- Fixed issue with time density graph not showing up for breast MRI series. [10393] (7.1.4a)

- Fixed issue with degenerate values in MRI perfusion series. [10554] (7.1.4b)

- Fixed issues with docked lesion tool card. [9974, 9975] (7.1.4a)

- Fixed issue with voice memos in thumbnail section. [10501] (7.1.4b)

- Improved stability of thin client and server. Fixed issues in server-side rendering, session start-up, DICOM job list, magnifying glass, fusion mode, CR images with empty DICOM tag "[NumberOfFrames]", partnering, and auto prior rules. [9309, 10263, 10279, 10295, 10355, 10380], [10440, 10444, 10449] (7.1.4a), [10457, 10458, 10468, 10498, 10544] (7.1.4b), [10616] (7.1.4c), [10625] (7.1.4d)

Technologist

- Orientation cube is included in output images of 3D rotational batching. [10208]

- De-identification of patient data in media export assigns the same patient ID to studies of one patient and works on export to server and disk producer stations. [10278, 10309]

- PDF files may be attached to MR studies containing PR series. [9976]

- Fixed issue when pasting snapshots into external applications. [10561] (7.1.4b)

- Improved handling of images in Word documents [10742] (7.1.4d)

- Writing of sessions is more robust. [10067, 10078]

- Fixed issues in session list. [10358, 10390] (7.1.4a)

- Improved media export on Epson disc producer [10426] (7.1.4b)

RIS/PACS Administrator

- New user level permission for remembering password in login dialog. [10135], [10373, 10436] (7.1.4a)

- Event hooks are scriptable now. [10611] (7.1.4c)

- New command line options for vscontrol that allow loading of additional image data similar to "Add to View" in the study browser window. [10318]

- Added support for "Issuer of Patient ID" to vscontrol. [10610] (7.1.4c)

- Added support for RLE encoded volume files to render server / thin client. [10871] (7.1.4d)

- New option to prevent sending of ACK in HL7 communication. [9981]

- Several improvements in quality assurance (QA). [10106, 10246, 10292, 10293, 10325]

- Support for more than 10 thin client user levels. [8156]

- Improved compression settings for high bandwidth network type. [10327]

- Enhanced support for multi-frame images. [10272, 10274, 10303, 10304]

- Several improvements in event logging and Trace Log tool. [9771, 10085, 10471, 10475, 10478, 10492, 10493] (7.1.4b), [10615] (7.1.4c)

- Password change is applied on all partner systems [10528] (7.1.4b)

- TCP receive and send buffer sizes configurable. [10442] (7.1.4a)

- Fixed issue on ignoring own AE-title for C-Move. [9920]

- Fixed issue on data migrator stopping when database is inconsistent. [10287]

- More robust backend setup. [9921, 9973, 10007, 10044, 10285, 10286]

Referring Physician

- New token-based image access via embedded links in reports. [10239, 10247, 10248, 10249, 10250, 10251, 10252], [10385, 10387, 10427, 10439, 10443, 10447] (7.1.4a), [10473] (7.1.4b)

- Fixed issues with black thumbnails and zooming in Media Viewer. [10418, 10581] (7.1.4b)

Version 7.1.3

Radiologist

- Improvements for Lesion Tracking:

  Load a particular study by dragging its column head from the Lesion tool card into a viewer. [9378]

  For lesions that have been segmented in a PET series the maximal SUV is shown in the Lesion tool card and in the resulting report. [9351]

Lesion classification via function keys F1 ... F6 in viewer as well as in Lesion tool card. [8776]

Lesion defining tools can be configured for single use. The lesion defining tools "Segment Lesion", "Measure Lesion", "Measure Lesion (2 Diameters)" and "Mark Lesion", which are available while the Lesion Tool is active, stay active until another tool is chosen. By setting the new property "Tools - Lesions - Tool Type" to "Trigger" this behavior can be changed to single use, i.e. the tool is automatically deactivated after a lesion has been defined. This facilitates workflows with frequent changes between lesion defining and slice browsing. [9395]

- Improved column handling in Study Browser. [9182]

Manual changes to column order, width and visibility as well as the choice of sorting column are remembered from session to session.

- Improved tab navigation in Study Browser. [8898]

- ECG data encoded in DICOM tag group 50xx can be displayed as an overlay curve. [9219]

- Playback of pre and post stress cardiac ultrasound cine clips can be synchronized based on ECG information. [9007, 9216]

- A sequence of single images and clips, e.g. from ultrasound examinations, can be shown in one consistent tiled layout and can thus be read in chronological order. [9036, 9392]

Tiles showing clips are labeled with a play icon in the upper left corner of the viewer. Cine animation can be started/stopped by clicking this icon.

Improved stability for browsing in tiled layouts. [9888, 9995] (7.1.3c)

- Cine tool card provides a new slider "Speed" for adapting the speed of cine animations. [9007, 9406]

- Improved responsiveness during loading of studies with large multiframe data sets. [8360, 8717, 9122, 9340]

- Improved loading performance of DICOM data with large LUT sequences. [9560]

- Display of progress bar during study loading is configurable and depends on estimated loading time. [9266]

- Improved handling of DICOM images with display shutters. [9241]

- Viewer context menu can be opened via tool button in Tool Palette. [9160]

- Window/Level presets can be accessed via tool button in Tool Palette. [9121]

- "Next Study from Study Browser" button can load recent session. [8930]

This allows stepping through the most recent sessions of a series of studies using the "Next Study from Study Browser" button in the View Screen. This is useful for presenting a series of cases.

- Image files in TIFF format (in addition to PDF documents and image files in JPEG, PNG, and BMP format) can be attached to a study. [9006]

- New tool to perform automatic window/level computation based on a 2D region of interest. [8957]

- Measurements with tool "Angle (Two Lines)" can be shown on all slices of a stack. [8486]

This can be useful if the two axes that define the angle are optimally defined on two different slices.

- Tool "Magnifying Glass": size of magnified region is always adapted to size of current viewer. [9430]

- Re-added orientation letters in CPR viewer. [9923] (7.1.3a)

- Backend provides URLs linking to studies for inclusion in reports. [9583]

  Following such a web link embedded into a report will open the respective study in the Visage client.

- In an integrated RIS-PACS workflow, the new tool "View Reports (RIS)" allows to access reports in ProMedicus RIS directly from the View screen. [9581]

- Information about lossy compression can be displayed as viewer text. [8908]

- Improved handling of different W/L values in 3D MRI studies. [10047] (7.1.3c)

- Added "on-the-fly" conversion for Digital Breast Tomography (DBT) images. [9802] (7.1.3a)

- Fixed issue on viewer unloading by "drag-n-drop". [9908] (7.1.3a)

- Fixed issue with viewer layout after minimizing/maximizing on multi monitor configuration. [9990] (7.1.3a)

- Fixed issue with protocol-defined values of attribute "FusionWeight". [9948] (7.1.3a)

- Fixed issue with loading of studies with multiple lesion SRs. [10000] (7.1.3c)

- Fixed issue with study navigator not showing studies without images. [10062] (7.1.3c)

- Improved robustness of session loading. [10064] (7.1.3c), [9998] (7.1.3d)

- Improved stability of server component. [10167, 10168] (7.1.3d)

- Fixed issue with automatic reset of MPR viewers to thin-slice mode upon activation of certain tools. [9980, 10015] (7.1.3e)

- Improved robustness of measurement and annotation tools. [10232, 10257] (7.1.3e)

Technologist

- The Import Tab initially displays all studies collapsed, if 8 or more studies are imported at once. [9004]

- Archiving of not yet archived studies can be scheduled and unscheduled via context menu in the Study Browser. [8912]

- New and unified user interface for de-identification in different contexts (import, export, teaching files). [8900]

- Recording functionality of the Cine tool card allows image generation in reverse order. [9483]

- Batch reformatting can be configured to save current user defined window level as default for the resulting image stack. [8578]

- Improved performance of DICOMDIR generation during media export. [8246]

- Media export can be initiated via the File menu in the View and Export screens. [8061]

- Improved handling of snapshots in clipboard. Whether a snapshot is copied automatically to the clipboard can be controlled by a user property. [10142, 10143] (7.1.3d)

RIS/PACS Administrator

- Support of reports sent via HL7 ORU^R01 messages. [8896, 8965, 8966, 9184]

  Visage receives reports via HL7 ORU^R01 messages and matches them to the respective studies. Matching takes also place if studies arrive after the respective reports. Storage of matching reports and studies is handled jointly, i.e. if a study is deleted, the matching report is also deleted.

- Sending out HL7 messages. [8902], [10052] (7.1.3c)

  Visage provides a central queue for outgoing HL7 messages. Messages will be resent, if delivery fails. The maximum number of retries and the time intervals between the retries are configurable through the Visage 7 administration interface.

- A DICOM Modality Worklist can be provided based on information received via HL7. [8972]

- Support of multiple patient IDs for the same patient. [9037]

  Notifications about identity of patient IDs are received via HL7.

- Support for "Issuer of PatientID" for handling IDs from different issuing systems. [9037]

- Media Export supports the Epson disc producer station. [9342]

- Backend setup allows running the database server on a separate host. The server can be a named instance. [8889, 9090, 9300]

- Backend supports SQL Server 2012. [8700]

- Various improvements in the audit trail mechanism. [8905]

- Enhanced auto routing by new rule type "all but". [10048] (7.1.3c)

- Extended external toolbar mechanism. [9148, 9292]

  In addition to the previous options, triggered actions can be querying a URL (HTTP GET) or a call to the ProMedicus RIS via PMContext. Actions that could previously be triggered only by pressing buttons in toolbars can now also be triggered when the client is started, when a study is loaded or when a study is closed.

- Improved integration with ProMedicus RIS.

  Support for extended web interface of ProMedicus Coral RIS. [9814, 9958, 9971] (7.1.3a)

  New command "UNLOAD_DATA" for PMContext. [10074] (7.1.3c)

  When a study is loaded, a "STUDY_LOADED" event is sent to the RIS. [10087] (7.1.3c)

- Added support for Internet Explorer 10 to Visage 7 administration interface. [9297] (7.1.3a)

- Added support for storing Agfa DICOM CC objects. [10178] (7.1.3d)

- Faster processing of configuration changes on the User Management page of the Visage 7 administration interface. [9451]

- Improved robustness and performance of QA operations. [9682], [9898] (7.1.3a)

- Improved loading of studies on OEM calls when the system is partnered and not all requested studies are available. [9915] (7.1.3a)

- Improved disc space management for the case of multiple image root folders. [8909]

- Improved backend status page. [8904]

- Improved import of Enhanced DICOM data. [9391]

- Improved robustness of DICOM import. [8987, 9052, 9187, 9293, 9363, 9375, 9562], [10228, 10262] (7.1.3e)

- Improved handling of password expiration. [8899, 9183]

  Upon login, the user will be asked to change her password, if the password is about to expire soon. If the password has already expired, login is only possible after changing the password.

- Fixed issue in loading of studies containing images and scanned documents. [10018] (7.1.3b)

- Fixed issue with hanging order of current studies on OEM calls. [10149] (7.1.3d), [10261](7.1.3e)

- Fixed issue with partnering when using external address mapping rules. [10154] (7.1.3d)

Referring Physician

- Update of client installer for Mac OS X. [9803]

  The installer will always install the auto-launch service. Besides the installer the thin-client is still provided in a DMG for simple drag-and-drop installation without the auto-launch service.

- Fixed display of search mask on patient search screen if RIS is configured to show only signed reports. [9962] (7.1.3a)

Version 7.1.2

Radiologist

- Significantly enhanced workflow for oncology follow-up reporting. Marked lesions in current and one or more prior exams are displayed and can be edited in the new Lesion tool card.

  Markings are now saved in DICOM SR format and can be stored in Visage or a third party archive. If a prior exam, with marked lesions exists, convenient single-click navigation through those markings is available and automatic (linked) scrolling to the corresponding locations in the current exam.

- Drag and drop of image sets from viewer to viewer by grabbing any viewer text to swap the contents of those two viewers. When mouse is over viewer text a "drag" or "hand" cursor is displayed. Drag and drop from viewer onto thumbnail section unloads the viewer. Data sets are swapped, if possible.

- Improved user interface in thumbnail section: Thumbnails are now grouped by study.

- New tool: Edge Enhancement filter. Enhancement intensity is adjustable interactively. [5276]

- General Improvements for viewing XA images. [8096, 8214]

- Improvement to the batching tool – it is now possible to create stacked or rotational batches (cines) from CPR views.

- Multiple improvements in Neurology option: perfusion result DICOM images are now more interoperable with third party systems [4326], center line editing is easier [6943], result images can now be saved using batching tool. [8077]

- User interface for generation of de-identified studies and assignment of teaching labels. [8475]

  The Study Browser provides a context menu item "De-identification and Teaching Files..." that allows to copy one or more studies and thereby to eliminate personal DICOM information that would allow to identify the imaged person. A teaching label can then be assigned to the copied studies. Both steps are optional. If the studies are not copied, the label is assigned to the original studies.

  This functionality allows to easily preparing a set of studies for demonstration and teaching purposes by copying and de-identifying studies from the clinical routine. Different teaching labels allow handling of multiple sets of such studies for different teaching opportunities.

- Automated loading of relevant prior studies.

  Upon initiation of a new session, Visage7 can automatically load relevant prior studies of the patient the primarily loaded study belongs to. The selection of relevant studies can be done based on simple fixed criteria or more complex configurable rules. The feature can be configured system wide and for individual users.

- Using the oblique viewing functionality in Visage, the current viewing angle is now shown. [8065]

- Size of color bar adjusts if viewer is too small. [7160]

- Viewing of 3D volumes with gantry tilt improved. [8085]

- 3D Crosshair now indicates orientation of MPR planes. [7761]

- Support for Digital Breast Tomography (DBT) SOP class.

- It is now possible to annotate measured values. The actual measurement(s) are represented by a place holder to which you can add custom text.

- Diameter statistics are now shown for 2D freehand ROIs. [8075]

- PDF documents and image files in JPEG, PNG and BMP format can be attached to a study.

- Several issues were fixed for improved stability and performance. [8086, 8143, 8148, 8258]

Technologist

- Viewer text is no longer saved in DICOM snapshots.

- New option "Anonymize" on DICOM (CD) import. Standard Patient demographics and study information can be replaced or deleted. In addition the following DICOM tags now anonymized. [7791, 7829]

  - o ReferringPhysicianName,
  - o ReferringPhysicianAddress,
  - o ReferringPhysicianTelephoneNumbers,
  - o InstitutionAddress,
  - o StationName,
  - o PatientBirthName,
  - o OtherPatientIDs,
  - o OtherPatientNames,
  - o PatientMotherBirthName,
  - o PatientTelephoneNumbers,
  - o InstitutionalDepartmentName,
  - o PhysiciansOfRecord,
  - o PerformingPhysicianName,
  - o OperatorsName,
  - o RequestingPhysician,
  - o RequestingService,
  - o IssuerOfPatientID,
  - o NameOfPhysiciansReadingStudy.

- Quick search in DICOM tags dialog (active from 3 characters) with highlighting and navigation.

- Quick search in tool palette dialog (active from 3 characters) with highlighting and navigation.

- Improved DICOM Job Dialog with additional functionality: User can now monitor transfers from client to server, DICOM send jobs, DICOM retrieve jobs, and DICOM print jobs. User can now refresh status, cancel a running job, delete a job that hasn't run yet, and restart a job that has failed. [7431]

- In Study Browser, when searching for Institution Name, it is possible to see a list of existing Institution Names in system. [7867]

RIS/PACS Administrator

- Improvements to Linking and Protocol Editing. [7841, 8166, 8196, 8227, 8283]

- Storage Commitment for external archiving: In addition to responding to Storage Commit Requests, the Visage system can now request storage commitment from external archive after sending DICOM images. [4161]

- The auto-router has been extended so that it is possible to DICOM forward images only after they were archived in Visage. Another new option allows for automatic resending of images to a remote DICOM server, after a QA operation has been performed. Both features, as well as the above mentioned Storage Commit Request feature, allow for more flexible integration scenarios with offsite or deep-archive architectures.

- Visage desktop integration: In addition to the existing integration methods (vscontrol.exe and the http launcher), visage can now also be called via a custom protocol handler **visage://<command line>**
  The protocol handler is also supported by Visage Ease allowing for App-To-App integration on the iPad/iPhone. Details are described in the Visage OEM Integration Interface Manual (vscontrol manual).

- It is now possible to customize the message shown on client launch in case an auto-update is available or is required. [8100]

- For each Image that cannot be inserted into the Visage system and is moved to the _StoreFailed directory, a text file is created that states the reason for the insertion failure. [8185]

- Improved system logging. [8158, 8159, 8162, 8163, 8164, 8165, 8179, 8180, 8243]

- Reliability and performance of the database access in the backend have been significantly improved.

- Usability of the TraceLog tool has been improved with a filter function for user levels.

- The default user level configuration has been revised.

- QA: It is possible to edit the date of a study. [6859]

- Institution name can be edited during CD import as well as during QA. [7791, 7792]

Referring Physician

- Patient Search Screen ("Referrer Portal") now has search presets as in Study Browser. [7699]

- Number of search results in the Patient Search screen can now be limited. [7425]

Version 7.1.0

The Visage Client comes with a new integrated update mechanism and natively supports 64-bit Windows systems. The Visage Backend provides improved logging and auditing functionality and supports user management via Active Directory and LDAP. The new context-aware online help introduced in 7.0.11 is available in German (in addition to English).

Radiologist

- Native support for 64-bit Windows systems was added to the Visage Client. This allows the client-side memory management to allocate more memory for caching when reading large images, e.g. mammography or ultrasound and avoids memory fragmentation issues.

- A single-click client update mechanism was implemented. It is fully integrated in the application and replaces the old update mechanism via the download page.

- The new context-aware online help introduced in Version 7.0.11 is available in German as an additional language besides English.

- The new tools "Next Study from Study Browser" and "Previous Study from Study Browser" allow loading the next or previous study from the Study Browser list directly from the View window. [7967, 8011]

- The new tool "Reset Dictation" was added to the ProMedicus RIS Integration toolbar. It allows discarding an already dictated report from the currently loaded study. A RIS client update may be required for this feature to work. [8018]

- Support for 2D images was added to the Statistics tool card. [7306]

- A button for toggling R2 Breast CAD findings was added. Issue with CAD performed on prior and shown on current study was fixed. [7619, 7741]

- The manual calibration of an uncalibrated image can be removed again. [7628]

- Issues with zoom level and field-of-view of US images were fixed. [7826, 7827]

- Issue with linking in connection with the Lesion tool was fixed. [7749]

- Issue with multiple studies or series selections when double-clicking in Study Browser was fixed. [7253]

- Issue with updating placeholders in report templates was fixed. [7730, 7784]

- Issue with loading certain RX studies was fixed. [7816]

- Several issues were fixed for improved stability and performance. [6802, 7346, 7612, 7727, 7773, 7808, 7861, 7910]

Technologist

- Support for defining an "active" viewer in the same layout was added. This allows updating the "active" viewer by selecting the series without switching the layout. [7698]

- Support for RF image type was added to plain film protocols. [6443]

- The frame rate of cine animations can be controlled in the Cine tool card.

- Performance of DICOM import from CD/DVD was improved. [7609, 7647]

- The Media Viewer loads images from CD/DVD much faster.

- Snapshots are calibrated by adding the pixel spacing tag. [7625]

- Size and position of the Study Navigator dialog are remembered now. [7705]

- Abstract tags are shown in the DICOM information window. [7624]

- Issue with "View all series/phases side-by-side" was fixed. [8008]

- Issue with distorted snapshots when exporting via clipboard was fixed. [7755]

- Issues with session links on Mac OS were fixed. [7656, 7745]

RIS/PACS Administrator

- The logging and auditing functionality was enhanced. It provides more detailed status information for support cases and facilitates better auditing of system use.

- Real time integration with LDAP/Active Directory was added. It offers a more streamlined user management when integrating Visage with other (clinical) information systems and into existing IT environments.

- Support for prefetching from multiple DICOM nodes was added.

- Prefetch timing for future appointments was optimized. Now prior studies are prefetched only a few days (nights) before the appointment. The number of days can be configured on the admin pages.

- A web services API for user management was introduced. It is described in a separate design document "Visage 7 – WS User Management".

- When creating, editing, or deleting users on the admin pages, the changes may be propagated to all partner systems.

- A button for resetting the synchronization of VisageLocal among partner systems was added to the admin pages. [7485]

- The on-the-fly volume conversion was accelerated by generating the volumes on the backend server in a separate converter process.

- For images imported via the FileInterface the volume conversion is triggered automatically. [6429]

- Issues with the "Pseudo Archive" feature were fixed. [7592, 7700]

- Issues with vscontrol when using user names containing spaces or IWA fixed. [7697, 7735]

- Issue with HL7 order messages without study description fixed. [7606]

- Issue with auto router in conjunction with manual QA fixed. [7615]

- Issue with volume conversion when prefetching large DICOM files fixed. [7740]

- Issue with space manager due to database constraint violation fixed. [7587]

- Issue with installing backend as domain user with local admin rights fixed. [7618]

- Several issues with QA operations were fixed. [7634, 7805, 8015, 8033]

Referring Physician

- A property for defining the default location in the Patient Search window was added. [7569]

- Issues with loading images from partner systems were fixed. The Location field is initialized correctly and the report viewer does not disappear. [7701, 7702]

2 Supported Client Operating Systems

Visage 7 is available for the most recent technology of the following client operating systems.

Windows

- Windows 8
- Windows 7
- Windows Vista
- Windows XP

Mac OS X

- Mac OS 10.9 ("Mavericks")
- Mac OS 10.8 ("Mountain Lion")
- Mac OS 10.7 ("Lion")

3 Restrictions and Known Issues

Visage 7 – Client

- The system operator has to ensure that the local laws and regulatory standards concerning data security and data confidentiality, especially for the health care sector, are fulfilled. Examples are ASTME 1986, ASTME 1987, EN 14484, EN 14485, and ISO 22857. This especially applies when transferring data in networks without using secure data encryption or secure VPN software.

- Please make sure to not run any security software on the client machine that tries to monitor the network access of the Visage Client application. This may severely impact Visage Client performance. [5436]

- Though deprecated, the Visage Client does run on client computers which do not support SSE2 instructions, but only without local rendering. Some functions that require local rendering (e.g. the magnifying glass) do not work. [6382]

- When using the mouse wheel or the PgUp/PgDn keys with thick slices in an orthogonal MPR view, the center of the thick slice is always adjusted to lie on the center of the closest thin slice. This can lead to a different step size than the selected slice thickness. [6291]

- Vessel analysis for multiple DICOM studies should not be performed in a single working session; during vessel analysis the user should avoid switching layouts in the protocol. Furthermore vessel tracing should only be applied to 3D volumetric Image Sets. [5466, 5467, 5469]

- When viewing two images in fusion mode, the 3D bounding box of the overlay image cannot be displayed in the MPR and 3D viewers. [479]

- Remove tools & Fusion: When applying "Remove Inside" to primary and overlay in fusion mode and increasing the slice thickness in the MPR viewers, the removed overlay material is still shown in the MPR viewers. [963]

- The Visage Client currently does not support all characters for user names that can be set in the Visage backend. In particular the characters "%" and "[" must not be used. In general, the characters [a..z], [A..Z], [0..9], "_", and "-" are safe to use. [482]

- Changing the password in a Visage Client that connects to the Visage Server using IWA in an Active Directory setup might result in a soap error after a few minutes. This is caused by cached credentials on the client that still contain the old password. A workaround is to lock the client computer and to unlock it again. Then the new password must be provided and the credentials are synchronized with the Active Directory. [7961]

- vscontrol only works correctly if the firewall does not block the vsclient.exe process. For the windows firewall, this means that the computer administrator must insert vsclient.exe into the firewall exception list. [3275]

- Subtraction of volumes is only possible inside a time series. [3554]

- Animated image display via the Cine tool card gives refresh priority to the active cine viewer. For high frame rates this can result in lower refresh rates in other viewers. For example during animated browsing of an image stack the corresponding scout line in another viewer might not be updated for every animation step. [8748]

- Under certain circumstances selecting structures by point-and-click is not possible. In this case please select them from the list in the Structures tool card. [3715]

- Sending an e-mail link immediately after loading a session might not be possible under certain circumstances. Saving the session will enable the corresponding menu entry. [4073]

- Saving PNG images on a full medium (e.g. USB stick) does not work. Zero length image files are created and the user will not be notified. Please save on medium with enough space. [4077]

- Edit tool card: clearing the voxels of an object does not work while these voxels are selected in the viewer. To work around this issue, first press the "clear" button in the tool card, then select "clear object" from the object context menu. [4135]

- In order to calculate SUVs for Philips PET data, the DICOM images must contain Philips' private DICOM tags to enable converting the pixel data given in 'Counts' (unit = CNTS). Either one of the tags (7053,1000) - 'SUV Scale Factor' or (7053,1009) - 'Activity Concentration Scale Factor' must be present.

  Note: if only 'SUV Scale Factor' is present but not all of the following tags:

  - (0010,1030) - 'Patient's Weight',
  - (0018,1075) - 'Radionuclide HalfLife',
  - (0018,1074) - 'Radionuclide Total Dose',
  - (0018,1072) - 'Radiopharmaceutical Start Time',
  - (0008,0031) - 'SeriesTime',

  the activity concentration in a voxel cannot be determined. In this case, the user may only switch between display of the pixel data values ('Counts') and 'SUV per body weight (Philips) [g/ml]', which is computed by applying the SUV scale factor to the pixel data value. [4349]

- If an external program triggers several DICOM query/retrieve operations subsequently via vscontrol and the first one is not yet finished, all operations except for the first will be silently ignored. [4323]

Visage 7 – Server

- Please make sure that for distributed QA operation the patient matching strategy is configured exactly the same on all partner servers.

- For the Expert Reading Client option, custom protocols can be defined. These protocols can use DICOM tags that are not part of the standard protocols for sorting. When updating from an existing installation with custom protocols the tool TrimHangingProtocolDB can be run in order to remove DICOM tags from the database that are not used by any protocol, this increases the input performance. If you want to add a custom protocol that uses one of these DICOM tags to a freshly set up server, please contact customer support. [5916, 5256]

4 Important Server Installation Notes

The Visage server-side backend and render server software must be installed and configured only by service personnel authorized by Visage Imaging.

- The indications for use and other important notes are described in the section "Intended Use" in the user manual.

- Do not install any third party software on the servers or otherwise manipulate the system.

- For proper operation, Visage must be installed on server and client hardware with adequate specification for the intended use. Please contact Visage Imaging for details. Appropriate environment conditions must be ensured, including power supply, cooling, etc.

5 Regulatory Information

Manufacturer Address	Visage Imaging GmbH Lepsiusstraße 70 12163 Berlin, Germany www.visageimaging.com
US Distributor	Visage Imaging, Inc. www.visageimaging.com
Safety Contact	Safety officer for medical products: Phone: (+49) 30 / 700968-30 Fax: (+49) 30 / 700968-11 Email: support@visageimaging.com
Support Contact	Phone: (+49) 30 / 700968-30 Email: support@visageimaging.com
Product Lifetime	The product lifetime of Visage 7 is regulated to 2 years after the product is discontinued, i.e. two years after the release date of the successor version of the product. Support is guaranteed only within the product lifetime.

This software is CE-compliant and is defined as a class IIa medical device in accordance with Medical Devices Directive 93/42/EEC.

Caution: US federal law restricts the herein described devices to sale by or on the order of a physician.

Some of the specifications described herein may not be currently available in all countries.

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Information in this manual may be subject to changes without prior announcement.