



VivoQuant™ 2020 Release Notes

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Objective

This document provides the official product release notes for VivoQuant 2020.

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Enhancements

Overlapping Regions of Interest Support

- Layer management UI in 3D ROI Operator
- New multi-layer ROI format
- New ROI selection widget
- Blend layers together in slice views
- Copy ROIs across layers
- Reassign 1-n ROIs to a new region across layers
- Upload of multi-layer data point
- Force ROI and layer names to be unique
- Support loading ROIs from external ROI file format (PMOD, DICOM RTSTRUCT)
- Support layer rendering in 3D viewer
- Support Overlap in Brain Atlas tool
- Support Overlap in MAS tool
- Undo/Redo support

VTK Viewer Enhancements

- Colored Surface Renderings
- Color Transfer Functions and presets
- MIP Only mode use full viewport extent
- Enhanced parameters for texture smoothing
- Support for clipping planes
- Set default rendering method
- Adjust histogram widget X-axis
- Added Minimum and Average projection modes
- Change the 'Toggle Auto Rendering' button to a combo box
- Remove sync MIP/slice option

Operator Enhancements

- Distance/Annotation: Display radius and distance in exported csv file
- Distance/Annotation: Ability to save profile plots from VQS
- Distance/Annotation: Allow the saveProfile() VQS function to accept a file path as an argument
- Distance/Annotation: Add VQS function to change annotation label size and font
- Distance/Annotation: Open Autorad calibration using VQS
- Modeling: Accept %ID/G as a valid NucMed unit
- Reorientation/Registration: Allow use of ROI for metric computation
- Operator option to turn off frame info in top right corner

VQS Enhancements

- Integrated Audit Trail messages
- Dynamic manipulation of GUI
- Function to grab the cwd for the DICOM Browser
- Scriptable Anonymization workflow
- Download iPACS data without loading into VQ
- Add interactive mode for VQ.getItem() and other user input functions
- VQS setConfig function only sets transient settings by default

MAS Tool

- Add Joint Label Fusion
- Parameters UI improvement
- Delete data from reference library

Data Loading

- NIFTI: Support for BIDS JSON file
- DICOM: Support 32 bits data
- DICOM: Multi-frame diffusion data loaded as stack of frames in one volume

IPACS Communication

- Chunked IPACS uploads from VQ
- DICOM Browser: Integrated handling of 2FA
- DICOM Browser: Cancel connection dialog

Additional Enhancements

- Analysis: Cortical Thickness Tool
- Analysis: K-Means clustering segmentation algorithm
- Analysis: Multi ROI 2D segmentation tool
- Tile View: Add shift + scroll wheel control
- Worklist: Add 'Completed Date' to task fields
- Data Manager: Configure text shown in the data list
- Upgrade Libraries: Qt, ITK, VTK
- Min Max Tool: Updates all frames

Bug Fixes

- [VQ-72] - MAS Tool: Returns success message if user cancels an addition to the reference library
- [VQ-73] - Splitting Operator: Fix memory leaks with splitFiducials
- [VQ-74] - Static data interpreted as dynamic data: issue with handling MR tags
- [VQ-79] - Dimensions consistency in RMHA files
- [VQ-83] - VTK ROI rendering order error when rotating
- [VQ-86] - Deleting ROI pixels into an existing ROI removes pixels of existing ROI
- [VQ-89] - Filename of ROI saved to iPACS uses repo config over session info
- [VQ-90] - Dynamic MR data not loading correctly
- [VQ-91] - Better support for VOI File loading
- [VQ-93] - MPRView: Crash with multi-image fusion
- [VQ-97] - 3D ROI Tool: Loading multiple .voi files into operator crashes VQ
- [VQ-98] - VQS: Update ITK and VTK thread settings from config while script is running
- [VQ-101] - VTK ROI rendering order error when rotating
- [VQ-102] - DICOMLoader: use wrong tag as dynamic tags for MR data
- [VQ-103] - DICOM: Loading RealWorldValueMappingSequence fails when multiple mappings exist
- [VQ-105] - Cached username/password do not get updated when switching User
- [VQ-107] - Loaded fMRI time series not recognized as dynamic data
- [VQ-110] - Distance/Annotation: take into account non-isotropic voxel sizes
- [VQ-112] - Problem loading 2 bed positions of SPECT recons together
- [VQ-152] - 3D ROI Tool: Conc Max values are incorrect when data units do not match ActivityUnit
- [VQ-540] - ReorientationOp: LoadTransformationFromFile doesn't work when reload data
- [VQ-543] - VQS: ROIs loaded via 'loadRTStructureAsROI' and 'loadVOIAsROI' do not appear in UI
- [VQ-546] - Collapsed dynamic data: data manager tool to view individual frame causes VQ crash
- [VQ-547] - 3D ROI Tool: VQ crashes when attempting to delete 254 ROIs from the UI
- [VQ-555] - VQS: deleteROI() removes from active layer instead of from layer specified params
- [VQ-570] - VQ crashes on Mac OS Mojave Version 10.14.6
- [VQ-600] - Tile View: Pixel data is not displayed in tile view
- [VQ-603] - Loaded mhd file does not show in MIP view
- [VQ-615] - Save png of mean plot failing

Known Issues

- [VQ-74] - Static Data interpreted as Dynamic Data: issue with handling MR tags
- [VQ-75] - Bruker MR: load will generate both EchoTime and EffectiveEchoTime in header
- [VQ-136] - Data Manager: Stack Data unloads the wrong images
- [VQ-137] - Data Manager: Stack Data ignores reference resize setting
- [VQ-138] - Grow Ref to Input Volume Fails with Planar Data
- [VQ-139] - Mac: menu icons have artifacts
- [VQ-140] - VQS: Destination index of deleteROI() is post-delete index
- [VQ-143] - Append Data loads into reference after Brain Atlas Tool has run
- [VQ-144] - Colorbar gets stuck at max if dragged and dropped there
- [VQ-145] - Change SOPInstanceUID when changing image data
- [VQ-146] - File Menu: Gray out "Connect To iPACS" in Unregistered Mode
- [VQ-148] - VQS queryStudies fails on filters with an '&' character in the string
- [VQ-149] - VQ querySeries does not work for local DICOM repositories
- [VQ-150] - Registration: Transform does not apply to WL data properly
- [VQ-151] - Transparency in white light images is not transparent
- [VQ-153] - Distance Operator: landmark detection crashes randomly
- [VQ-154] - Multi-View: Smarter reset of selected hanging protocol
- [VQ-155] - Auto crop: use all frames for collapsed dynamic data
- [VQ-156] - Views: display artifact when viewports change size
- [VQ-157] - Inconsistent resampling between Brain Atlas and Resampling tools
- [VQ-158] - Splitting Operator: Maintain RGB values
- [VQ-557] - Brain Atlas Tool with multiple image types
- [VQ-559] - ROI quantification datapoint "frame" column