

# Release Notes: VivoQuant 2021

Release Date: Friday, 21 January 2022

This VivoQuant 2021 release introduces many enhancements to existing features as well as new modules to support analysis and workflows. This release also addresses a series of bugs and issues from previous releases.

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## Enhancements

The following user stories are part of the VivoQuant 2021 release:

<b>VQ-1640</b>	Worklist Tool: Only open DICOM files automatically when opening or appending a task
<b>VQ-1613</b>	Worklist Tool: Do not insert submit button in JSON forms
<b>VQ-1608</b>	Worklist Tool: Continued YML forms support with eCRF
<b>VQ-1607</b>	Worklist Tool: Sorting by column in the worklist view causes subsequent columns to clear when refreshed
<b>VQ-1558</b>	Worklist Tool: Change the task view table to be scrollable so it can be displayed at any size.
<b>VQ-1547</b>	Worklist Tool: Hide Blocking Queries/Edit Initial Submission Form button and list of related tasks in a form when shown in VQ
<b>VQ-1423</b>	Worklist Tool: Worklist Filter should remember previously chosen project for a repository
<b>VQ-1371</b>	Documentation: update local and online link to manual
<b>VQ-1325</b>	Worklist Tool: Show whether a task is blocked
<b>VQ-1303</b>	Worklist Tool: Open files externally
<b>VQ-1302</b>	Worklist Tool: Handle new submissions endpoint for JSON format
<b>VQ-1190</b>	Worklist Tool: Support JSON forms
<b>VQ-1100</b>	Worklist Tool: Right click menu to perform operations on task data
<b>VQ-1099</b>	Worklist Tool: Show analysis results for tasks
<b>VQ-1098</b>	Worklist Tool: Use the route variable to determine what files VQ shows associated with each task
<b>VQ-1308</b>	MatrixManipulationTool: Improve paste error message
<b>VQ-980</b>	MatrixManipulationTool: Transform operations
<b>VQ-979</b>	MatrixManipulationTool: Copy and paste operations
<b>VQ-978</b>	MatrixManipulationTool: Module and UI creation
<b>VQ-977</b>	MatrixManipulationTool: Import and export transforms
<b>VQ-936</b>	Brain Atlas: Option to save the resulting linear transformations
<b>VQ-933</b>	Worklist Tool: Additional query filters
<b>VQ-932</b>	Worklist Tool: UI Revamp
<b>VQ-931</b>	VivoScript: Quiet flag for VQ.openDat() with planar data
<b>VQ-924</b>	VivoScript: Add step size as an option to getValues() for double inputs
<b>VQ-913</b>	Distance/Annotation Operator: Editing annotation fields
<b>VQ-911</b>	Distance/Annotation Operator: Customizable Columns in the Annotation Table
<b>VQ-909</b>	Build: Update Ceres solver for Windows and Mac version
<b>VQ-889</b>	VivoScript: getTextInteractive() does not use supplied mode to set visibility of entered text
<b>VQ-846</b>	Preprocessing Tool: Handle Decay Correction for dynamic data
<b>VQ-843</b>	Preprocessing Tool: Script control for individual parameters for SUV calculation
<b>VQ-839</b>	VTK Viewer: Add extra debug information on failure to create
<b>VQ-828</b>	Worklist: Integrate REST API for VQS Queries

VQ-827	Brain Atlas: Scale Quant Data
VQ-821	VTK: Grab topmost point if points are overlapping in Opacity ramp
VQ-804	VivoScript: Review editable DICOM fields
VQ-793	Audit Trail: script cancel reason prompt
VQ-792	Audit Trail: audit log for slack messages
VQ-791	Audit Trail: support script versioning
VQ-781	ImageLoader: Support calibration factors for Nifti data
VQ-773	Multi-View: Change "Show ROIs" state for multiple viewports simultaneously
VQ-761	Add Layer name to ROI information tooltip
VQ-754	VTK: Camera spline movement GUI
VQ-745	VTKMIPCropBox: Redesign MIP clipping control with controller and cropping operator
VQ-735	Brain Atlas: Deprecate moving images in the datalist based on their modality
VQ-718	DicomLoader: JPEG2000 support for padded encoded buffer
VQ-677	DICOM Browser - Query DICOM Header for non-downloaded Files
VQ-671	Config: Default settings
VQ-669	Reset button to MIP control
VQ-649	Distance/Annotation: Rectangular annotations
VQ-648	Brain Atlas: VQS function to get the whole dialog and deprecate individual ScriptMaster NMCT functions
VQ-626	Brain Atlas Wizard: VQS functions
VQ-625	Brain Atlas Wizard: Delete Existing Atlas
VQ-624	Brain Atlas Wizard: Atlas name page
VQ-623	Brain Atlas Wizard: Key file page
VQ-622	Brain Atlas Wizard: ROI page
VQ-621	Brain Atlas Wizard: Navigation
VQ-620	Brain Atlas: Custom atlases wizard
VQ-619	Brain Atlas: Create or remove atlases
VQ-610	Registration: Add SyN registration parameters to UI
VQ-599	Distance/Annotation Operator: Viewing and editing an annotation's fields
VQ-132	VivoScript - Query the DICOM header for non downloaded files
VQ-130	Multi-View: Default automatic layout
VQ-127	DICOM: Add Support for FrameContentSequence Stacks
VQ-126	Registration: Add SyN registration an option to VQ registration
VQ-121	3D ROI Tool: Preview Segmentation
VQ-120	Reorientation/Registration Operator: Ability to invert saved transforms
VQ-119	VivoScript: Allow multiple inputs to getText
VQ-118	Brain Atlas: Add UI Option for Adding Custom Atlases
VQ-117	Quant Table - Display units of the mean column
VQ-115	Brain Atlas: Add cropping box dimensions information
VQ-46	Multi View: Save Show/Hide ROI state per viewport
VQ-35	VTK: Improved VivoScript support for VTKViewer Control
VQ-34	Modeling Operator: AUC Calculator
VQ-25	Time Series Operator: View ROIs
VQ-12	3D ROI Tool: Add right-click option to set min/max for auto-segmentation tools

## Bug Fixes

The following bugs have been addressed:

<b>VQ-1641</b>	Worklist: Remember credentials when reloading a task
<b>VQ-1615</b>	Worklist: When a pipeline results in an error, the task view should not try to show any files for the task
<b>VQ-1581</b>	Audit Trail: When the 'Suspended' dialog modal is closed the cancellation reason modal is not displayed.
<b>VQ-1580</b>	Cropping Tool: DICOM dump does not contain the results of dimensions before applying the cropping.
<b>VQ-1579</b>	Reorientation: memory increases after the reorientation is applied.
<b>VQ-1578</b>	Multi View: Hanging Protocol don't change from 'Default' to 'None' when an image is dragged from Data Manager into view.
<b>VQ-1577</b>	Worklist Tool: Get Analysis Results files from the webdisk when a protocol is a subproject of another project on the ipacs
<b>VQ-1572</b>	VTK - The keyboard shortcut is enabled when 'vtkAutoUpdateRendering' is set to false.
<b>VQ-1565</b>	DICOM Repository: A new repository is added after editing a repository
<b>VQ-1561</b>	VTK Viewer: Crash with CPU mode while moving clipping or cropping box
<b>VQ-1559</b>	Worklist Tool: Reopening the same task form does not trigger the vqFormLoaded event so Submit button may not be added
<b>VQ-1553</b>	Annotation: Line Annotation are incorrectly loaded from CSV files
<b>VQ-1478</b>	VTK Viewer: Interaction with a line does not work if there are other types of annotations before it in the annotation list
<b>VQ-1469</b>	Save DICOM: Project dropdown should contain full list of a repository's projects regardless of the project selection in the Data Browser
<b>VQ-1447</b>	Annotations: Rectangle Annotation is incorrectly loaded from CSV
<b>VQ-1434</b>	Worklist: Form displaying with error for last task of the submission
<b>VQ-1431</b>	Worklist: Insert Submit button for iPACS YAML forms
<b>VQ-1422</b>	Worklist: Project should be used in worklist query for older (2.03) ipacs
<b>VQ-1421</b>	VivoScript: Crash when no scriptargs are provided
<b>VQ-1420</b>	Worklist: Crash after sort the Worklist and refresh
<b>VQ-1414</b>	VTK Viewer: Surface rendering does not work on Mac OS
<b>VQ-1397</b>	Worklist: Project Filter dropdown should use full list of all projects on the ipacs
<b>VQ-1082</b>	DataManager: Do not add a derivation description change for internal fields
<b>VQ-990</b>	DICOM Repository - Test option uses data cached
<b>VQ-989</b>	DICOM Repository - Unable to edit repository name
<b>VQ-981</b>	Issue with VQ when loading .gel files
<b>VQ-946</b>	BrukerImport: New bruker PV 360 data files load incorrectly
<b>VQ-929</b>	ScriptMaster: Variable reassign incorrectly interpreted as script eval result
<b>VQ-927</b>	DicomRepository editor in Configuration: Pressing cancel can result in saving a null repository and subsequent VQ crash

VQ-922	Data Browser - Projects list is still displayed after removing all repositories.
VQ-920	Bruker Store Data: project list is only displaying the last used project from DicomBrowser
VQ-917	VivoScript: Application gets closed after clicking on "Edit Script" button
VQ-914	Two buttons inaccessible on Mac when MIP is enabled
VQ-910	Distance/Annotation: Dragging a circle's radius does not correspond to the real radius
VQ-902	VTK Viewer: rotation on volume is still applied when mouse is not moving
VQ-901	VTK Viewer: changing the clipping plane makes the volume disappear or VQ crash
VQ-899	RadionuclideTotalDose units read incorrectly
VQ-897	ROI Preview: Update preview on parameter change for the K-Means Manual option
VQ-896	ROI Preview: Hide preview checkbox for K-Means Automatic and Seed ROIs tabs
VQ-886	Audit Trail: Prompt for cancel reason shows twice if the "Stop Script" button is clicked while an input dialog (Suspend etc) is open
VQ-857	Distance Operator: Pressing Shift on MacOS while drawing a Circle/Line
VQ-840	Display artifact in Preprocessing Tool
VQ-835	Key Files page doesn't accept any Left.csv naming format
VQ-829	SSL Warnings for Revoked and Pinning-Test
VQ-824	Key Files page wording is misaligned
VQ-823	ROI Upload: Cancel has no effect in retry dialog showing upload failure
VQ-814	Hover text for Username and Password in DICOM Repo are switched
VQ-799	DICOM Cache: usage percentage doesn't update properly when it reaches above 100%
VQ-798	Bruker series do not correctly load via the iPACS Data Browser in VQ
VQ-797	DicomWriter: Merged dynamic data seriesType does not change to Dynamic
VQ-765	Layout Operator: Default Hanging Protocol resets an edited layout when switching back from Slice View
VQ-762	ROI: Resampling issue when loading new data
VQ-756	Custom Brain Atlas: Selecting only a subset of ROIs in the ROI selector doesn't save a correct .rmha
VQ-743	VTKMIPCropBox: reset to original extent when cropping operator deactivated.
VQ-740	Custom Brain Atlas: VQ quits when data is loaded and trying to create custom atlas
VQ-739	Filtering: Crash with BFC and Append Data
VQ-726	DICOM Loader: Philips PET calibration factors not parsing properly
VQ-693	Modeling Operator: issue with Fat model plot and curve when excluding image subset
VQ-690	DicomLoader: VQ cannot compute orientation for multi frame group dicom
VQ-559	ROI quantification datapoint "frame"
VQ-557	Brain Atlas Tool with multiple image types
VQ-158	Splitting Operator: Maintain RGB Values
VQ-157	Inconsistent resampling between Brain Atlas and Resampling tools
VQ-156	Views: display artifact when viewports change size

<b>VQ-155</b>	Cropping: Auto crop use all frames for collapsed dynamic data
<b>VQ-154</b>	Multi-View: Smarter Reset of Selected Hanging Protocol
<b>VQ-153</b>	Distance Operator: crash after mouse movement when selected annotation was deleted and annotation list is empty
<b>VQ-149</b>	VivoScript: VQ.querySeries() does not work for local dicom repositories
<b>VQ-148</b>	VivoScript: queryStudies() fails on filters with an '&' character in the string
<b>VQ-146</b>	File Menu: Gray out "Connect To iPACS" in Unregistered Mode
<b>VQ-144</b>	Colorbar gets stuck at max if dragged and dropped there
<b>VQ-143</b>	Append Data loads into reference after Brain Atlas Tool has run
<b>VQ-141</b>	Resample: Downsample to multiple of original size issue
<b>VQ-140</b>	VivoScript: Destination index of deleteROI() is post-delete index
<b>VQ-138</b>	Grow Ref to Input Volume Fails with Planar Data
<b>VQ-137</b>	Data Manager: Stack Data ignores reference resize setting
<b>VQ-136</b>	Data Manager: Stack Data unloads the wrong images
<b>VQ-111</b>	Network: Robust Error Handling and Progress Bars for Network Transfers
<b>VQ-106</b>	Leaving the Multi View causes Show ROI state to reset
<b>VQ-99</b>	3D Viewer: remove .mng output format
<b>VQ-96</b>	iPACSWebDisk SSL error handling
<b>VQ-74</b>	ImageLoader: Static Data interpreted as Dynamic Data -- issue with handling MR tags

## Known Issues

The following known issues have been slated for the VivoQuant 2022 release:

<b>VQ-85</b>	VTK View: MPR slices should be affected by reorientation operator transforms
<b>VQ-94</b>	Data Manager: Min/Max update after image swap
<b>VQ-651</b>	Image Loader: Loading 2D image over 3D volume causes memory allocation error
<b>VQ-1001</b>	Annotation: Annotations can be shown many times
<b>VQ-1394</b>	Splitting Operator: canceling splitting data cause operators to close
<b>VQ-1470</b>	Annotation: Rescaling annotation using VQS is not working fine
<b>VQ-1492</b>	ImageLoader: issue when loading a 4D Phillips DICOM file with PerFrameFunctionGroupSequence