

cvi42®

v.5.14.3 (3401)

Release Notes

What's New in Version 5.14.3

4D Flow: Improvements and New Research Features

- Improved automatic LV mask detection in the Ventricular Flow page
- Report of Kinetic Energy for each mask defined in the Analysis page, and for the LV and respective flow components in the Ventricular Flow page.
- Report of regional 2D axial and circumferential wall shear stress (2D contours are divided into 8 regions)
- Quantification of blood flow from/to one vessel to the other(s)
- Report of the relative spatial position of planes (using the centerline origin)
- Addition of missing relevant information, about patient, study and flow parameters to the 4D Flow scientific reports
- Increase of default particle density for small vessels for better flow visualizations
- Pre-processing parameters saved in workspaces from a cvi42 version previous to v.5.14 are not supported. User needs to re-do the preprocessing. All the other parameters saved in the workspace are still valid.
- The air-filled mask will not include any pixels inside of the "Erase Mask with Contour".

T2*/T2/T1 Mapping: Usability Improvements

T2* Options:

- Removed fitting options. A non-linear fitting is always applied
- Corrections settings: Removed the baseline correction and the BC contour correction methods. By default no correction is applied.

T2 Options:

- Fitting Options: removed the linear weighted option. By default a linear fitting is applied
- Removed Correction settings. There is no correction applied.

T1 Sequence Names were renamed as follows:

- Inversion Recovery MOLLI (previously "Modified Look-Locker (MOLLI/..)
- Inversion Recovery ShMOLLI (previously "shMOLLI (Oxford)")
- Standard Inversion Recovery (previously "Standard Inversion Recovery")
- Saturation Recovery with 2 parameters (for example SASHA) (previously "Saturation Recovery (SASHA) with 2 parameters")
- Saturation Recovery with 3 parameters (for example SMART1) (previously "Saturation Recovery (SASHA) with 3 parameters")
- TI Scout (previously "TI SCOUT")

Auto-Contouring Usability Improvements

- In short-axis (SAX) series, replacement of LV open contours, detected by Ai contouring, with LV closed contours

Storing Report XML files to a Mapped Network Drive

cvi42 can be configured to output report data as an XML file to a configured Mapped Network location.

Client/Server Encryption

SSL encryption for secure communication between the cvi42 server and connected clients is supported. For configuration information refer to the client/installation guide.

Integration with ADAS 3D 2.9.4

This release includes the latest package of ADAS 3D, version 2.9.4. For information on licensing options please contact Circle Cardiovascular Imaging support.

Translation Improvements

Made improvements to the translated UI.

Measurement Accuracy



Note: Calculations for linear and curved measurements have been verified using Phantoms to provide measurement accuracy within a tolerance of 5%.

Mac Client Hardware Support

Apple's M1 hardware is now supported by the current version of cvi42, however the operation of the QP module is unsupported on M1 hardware.



WARNING: The QP module is not supported on Apple M1 chipset.

Reporting

This minor release introduces no new user features; it focuses on security improvements and bug fixes.

Resolved Issues

The following list contains resolved usability related issues, in addition to all other internal issues resolved during the product development process.

Number	Summary
CV-18692	4D flow study crashes upon study selection

CV-19952	Addendum should be renamed
CV-21318	CLONE - Renaming a manual series causes cvi42 to quit
CV-18333	cvi42 Report42: Patient/Study information pop-ups dont adjust to screen size
CV-14461	cvi42 Report: Artifacts from the previous module may be present for the first time going to Report
CV-20465	In-study series preview is not refreshing in certain situations
CV-20575	Referring physician handling in cvi42 report
CV-19914	Regional LV Tissue section diagram is clipped at the right hand side
CV-18905	Renaming a manual series causes cvi42 to quit
CV-19798	Report has too much whitespace and ends up taking too many pages
CV-20337	Report page edit and preview modes are sometimes missing report images
CV-19800	Study indication is not on its own line and when a lot of data is added it wraps
CV-20646	study list refresh showing up constantly
CV-20574	Textbox for patient history not clear

Known Issues

Number	Summary
CV-61	Changing the windows display scaling while cvi42 is running results in an erratic user interface <i>Workaround: After changing the system Windows Display Scaling, the cvi42 client should be restarted to correctly apply the changes.</i>
CV-146	Function SAX: Reference lines in the reference viewer are not displayed after switching the viewer from other modules with multiple screens <i>Workaround: Displaying the cine on SAX or LAX will bring the reference lines back.</i>

CV-1467	Flow 2D: Contour detection with threshold mode is erroneously enabled when flow colour overlay is active <i>Workaround: Turn off flow colour overlay when defining the vessel contour to better see vessel borders</i>
CV-1897	cvi42 Mitral Valve: After defining a contour on the same image plane of the annulus contour, the contour measurement will be reported in both regular measurements and with the annulus-related measurements <i>Workaround: User can delete the capture created</i>
CV-2200	cvi42 Mitral Valve: Measurement captures are not saved in the measurements panel when a MAC annulus is defined on the same image <i>Workaround: No workaround</i>
CV-2536	cvi42 Quantitative Perfusion: Refresh lag on Rest and Stress viewers in module when multiple users are reading the same study simultaneously <i>Workaround: Avoid multiple users opening the same study in Quantitative Perfusion module at the same time</i>
CV-2854	Series sorting does not handle series with inconsistent number of slices or phases <i>Workaround: None</i>
CV-3076	Function SAX module: Copying and pasting SAX reference points from one image to another is forwarding them to all the images. <i>Workaround: No workaround. Place a new reference point instead of pasting it</i>
CV-3362	MPR module: Only 1MPR reference plane is shown on the rendered volume <i>Workaround: None</i>
CV-3479	Flow 2D module: ROI label below the images frames in the Comparison tab do not update if the user loads a new series with same contour type and no label. On-screen report and graph update the contour label and respective values as expected <i>Workaround: Give a label to the ROI contour of the new series</i>
CV-3778	Loading old studies are slower the first time after a system upgrade <i>Workaround: None</i>
CV-4727	cvi42 4D Flow: Rotate View and Preset Views don't work in 4K resolution. <i>Workaround: Reduce the display resolution of the system</i>
CV-4739	User with no Delete Study Data and Export Study Data permission shows error on ADAS 3D exit <i>Workaround: User must be assigned these permissions in order to work on ADAS 3D</i>
CV-4852	Function SAX module: Semi-automatic RV contour detection in the current phase does not work if one of the slices of that phase already has one or more RV contour(s) <i>Workaround: Use Ai detection or delete existing RV contour(s) in the selected phase</i>
CV-6966	cvi42 Report: Importing Findings/Summary Text in Structured Findings also imports Summary Text

	<i>Workaround: Delete the unnecessary Summary Text from the Structured Findings section in the Admin pages</i>
CV-6969	cvi42 client fails to start with multiple monitors on some laptop systems. <i>Workaround: Start cvi42 client on the second monitor, then move it to the main monitor</i>
CV-6970	cvi42 does not appear optimized on some high-resolution displays. <i>Workaround: Adjust the system display resolution or adjust the Display Scaling as needed</i>
CV-9429	cvi42 Report: Too many images causes extreme lag <i>Workaround: Delete report and send again</i>
CV-9665	Multiview cine playback slowdowns on Mac OS machines with AMD graphic cards <i>Workaround: Manually turn off image interpolation before playing multiview cine</i>
CV-9854	cvi42 Report: Text appears in front instead of behind buttons <i>Workaround: scroll past the header, the cvi42 Report header text is gone</i>
CV-10851	Module Femoral: Study specific femoral rendering issue <i>Workaround: Upgrade hardware/drive to meet the minimum system specification</i>
CV-10957	Certain workflow may result in patient data to not be automatically synced between cvi42 and r42 <i>Workaround: Updating the values via entering the Patient Data Module or manual editing in report42</i>
CV-11598	Flow 2D module: Auto Segmentation Flow sometimes results in poor contours <i>Workaround: Deselect and select the contour again, then press "Segment Flow Contour" to adjust the contour to the correct anatomy</i>
CV-13057	Tissue SI: LAX reference lines appear incorrectly sometimes in second LAX viewer <i>Workaround: Load a SAX series into the T2 frame or navigate to a different phase/slice</i>
CV-14462	cvi42 Strain: Exporting STL file doesn't work in Mac OS <i>Workaround: No workaround.</i>
CV-16643	cvi42 4D Flow: Mac Only - Region Growing cannot always be activated with cmd+g in Segmentation Page <i>Workaround: Use the context menu: Clipping - 3D Region Grow Clip to activate region growing.</i>
CV-20816	cvi42 and cvi42 report userid case sensitivity issue with LDAP <i>Workaround: Always use the same case (upper or lower) when entering login information</i>
CV-21082	User is logged out after switching between Worklist and Report multiple times in a row <i>Workaround: User is able to log back in immediately.</i>
CV-21261	Findings/Summary Text Canned Text Checkboxes not Functional when Creating New Text (SQL Sever ONLY) <i>Workaround: After creating the Findings/Summary Text, edit it using the pencil icon on the Findings/Summary Text page. On the edit page, input the desired availability using the canned text checkboxes.</i>

External Libraries – Copyright and Licensing Requirements

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Support

For further information on installing/exchanging the dynamic libraries please contact Circle Cardiovascular Imaging support.

Phone: +1 (403) 338-1870

E-mail: support@circlevi.com

Circle Cardiovascular Imaging Inc.

1100, 800 5th Avenue SW
Calgary, AB, Canada T2P 3T6

Phone: +1 (587) 747 4692

Website: circlevi.com