


CAAS | Quantitative Analysis Software

CAAS Workstation



**PIE MEDICAL
IMAGING**

solutions in
cardiovascular
analysis



Pie Medical Imaging, world market leader in Quantitative Analysis software for cardiology and radiology, is well known for its CAAS (Cardiovascular Angiographic Analysis System) product line. Pie Medical Imaging is dedicated to the development of quantitative analysis software. The CAAS software supports medical professionals in the diagnostic process and during patient treatment. Furthermore, CAAS is used in research studies on the efficacy of novel intervention methods. Pie Medical Imaging is dedicated to quantitative analysis of medical images for more than 25 years.

Why quantification?

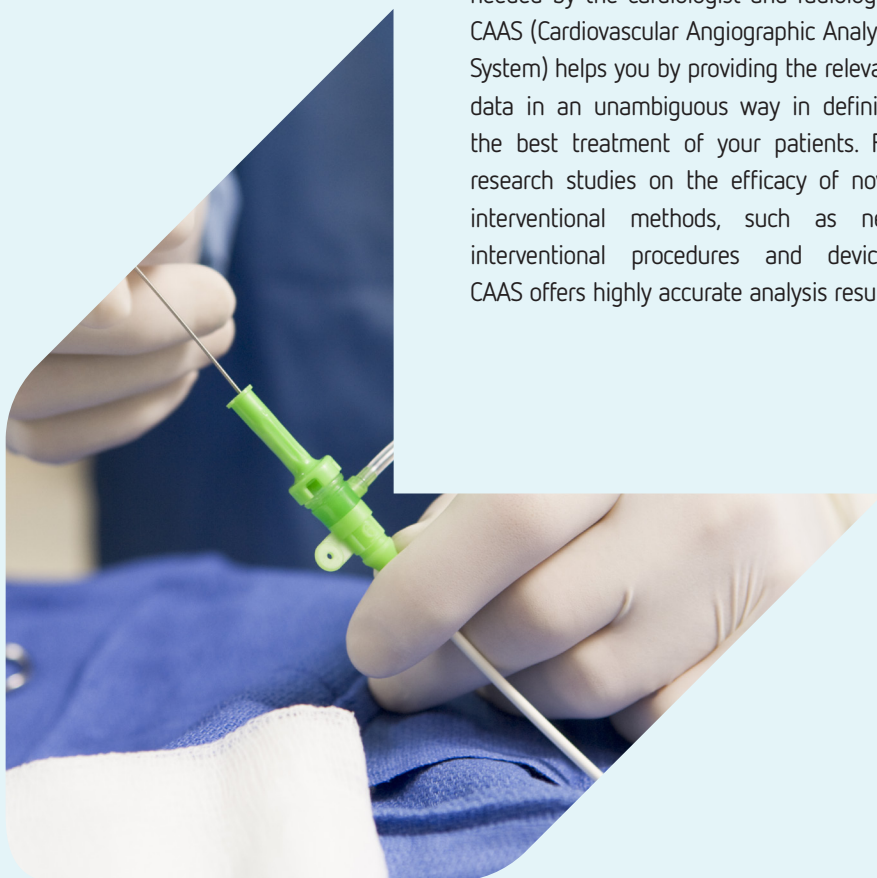
For optimal diagnostics and interventions accurate and reproducible measurements are needed by the cardiologist and radiologist. CAAS (Cardiovascular Angiographic Analysis System) helps you by providing the relevant data in an unambiguous way in defining the best treatment of your patients. For research studies on the efficacy of novel interventional methods, such as new interventional procedures and devices, CAAS offers highly accurate analysis results.

CAAS workstation 7

CAAS Workstation 7 features quantification of coronary and peripheral arteries, analysis of left and right ventricle and enhanced visualization of stent deployment regions. The software is built upon the trusted CAAS analysis algorithms, which have been validated extensively. CAAS Workstation is built up modularly such that the application can be specifically tailored to your quantification needs.

General Functionality

- › Flexible GUI layout for in cathlab and workstation use
- › Workflows tailored to daily clinical needs
- › Support for ECG signal visualization
- › Perform multiple analysis simultaneously and side by side
- › Customizable reports (add comments, snapshots) which can be saved as DICOM and PDF
- › Save results as XML or CSV which can be directly imported, for example MS Excel
- › Add text annotations and save snapshots on the fly
- › Research functionalities for the QCA, QCA3D and QVA Workflow
- › Re-analysis: to resume your analysis at a later stage

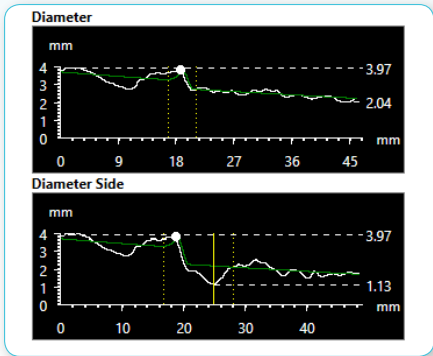
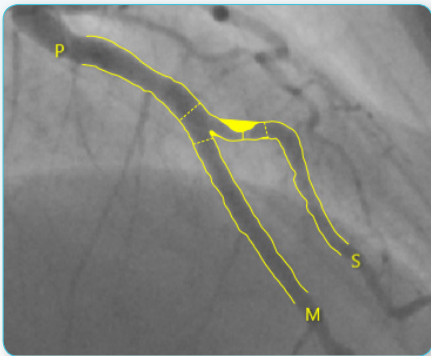
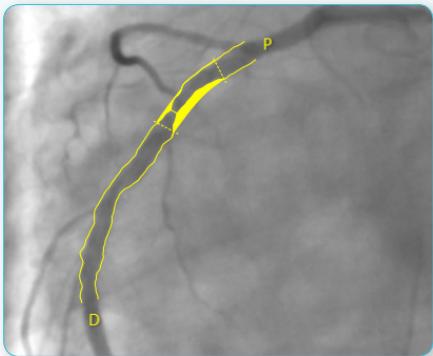


CAAS QCA / QCA3D

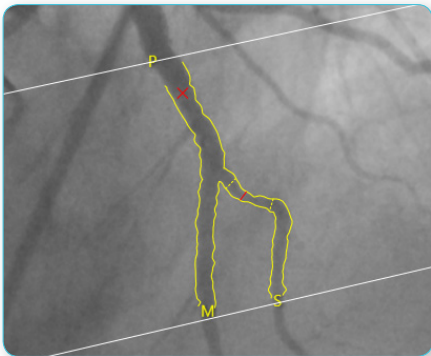
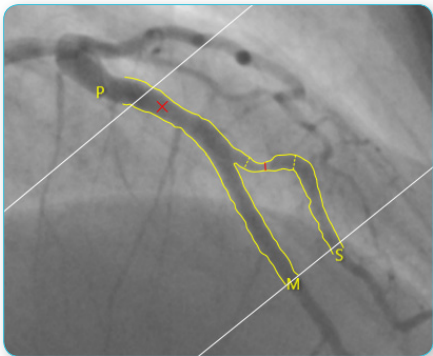
CAAS QCA (Quantitative Coronary Analysis) is the worldwide accepted standard for the assessment of coronary arterial dimensions, and to assist in the selection of the optimal balloon and stent size. CAAS QCA features single vessel and bifurcation analysis including calibration, automatic contour detection and quantification of severity of the stenosis.

QCA can be extended to QCA3D which allows 3D analysis of single and bifurcated coronary arteries based on two angiographic projections without foreshortening or out-of-plane magnification.

QCA2D analysis



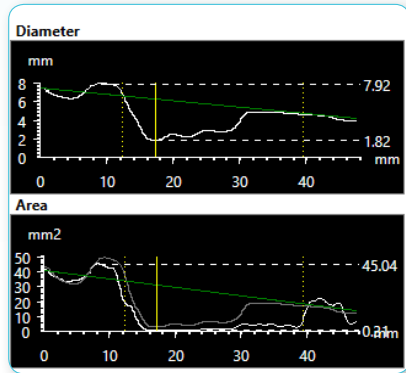
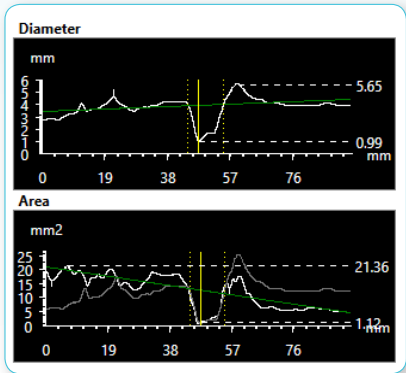
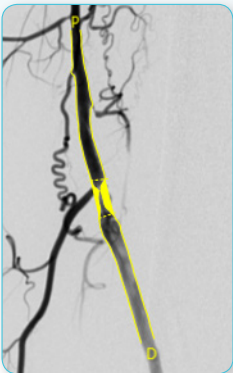
QCA3D analysis



CAAS QVA

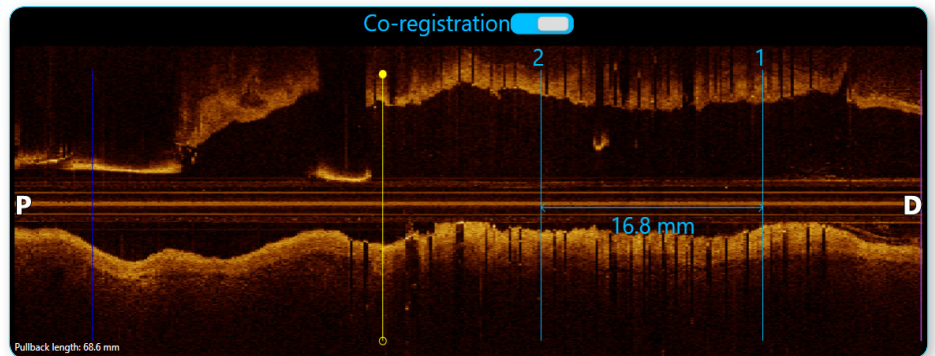
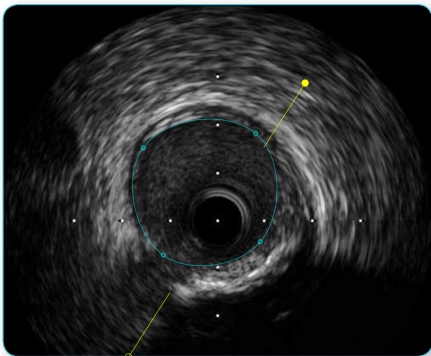
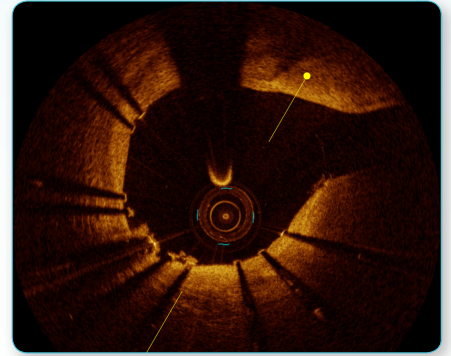
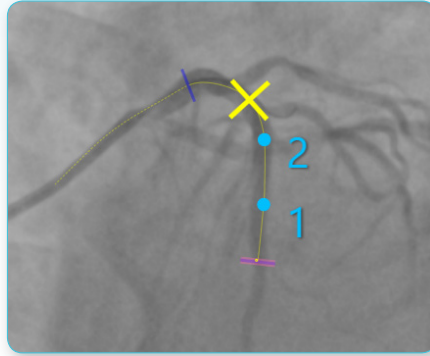
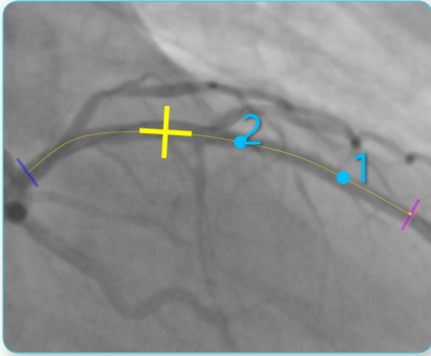
CAAS QVA (Quantitative Vascular Analysis) offers fast and intuitive analysis of peripheral vessels such as the abdominal aorta and the carotid, renal, iliac and femoral arteries.

The CAAS QVA application features single vessel analysis including calibration, contour detection and quantification of the severity of stenosis.



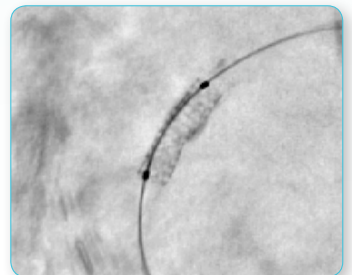
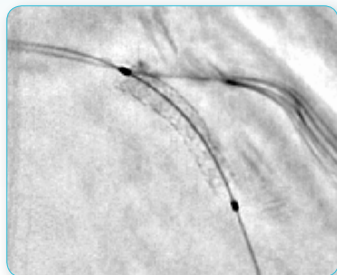
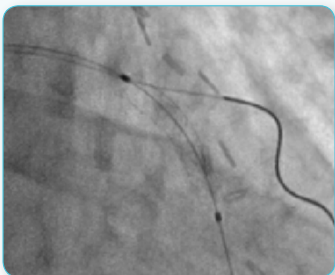
CAAS IV-LINQ

CAAS IV-LINQ offers co-registration of IVUS and OCT pullbacks with angiograms. After co-registration bookmarks and stent landing zone can be positioned in the IVUS or OCT pullback and visualized on the angiogram. Additionally diameter and area measurements can be performed in IVUS/OCT pullbacks.



CAAS Stent Enhancer

CAAS StentEnhancer features enhanced stent visualization. The application automatically enhances the image region where the stent is deployed.

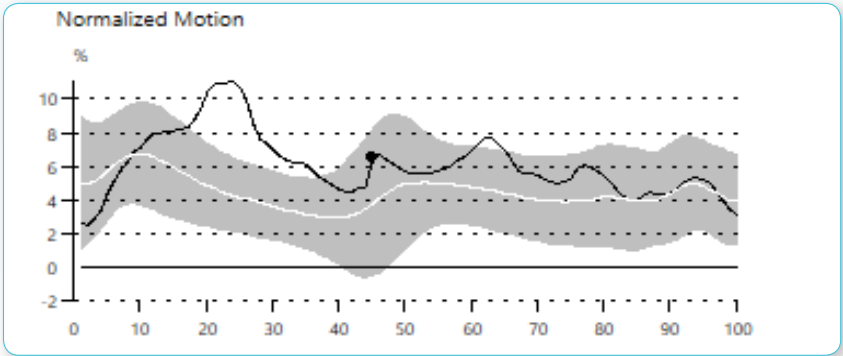
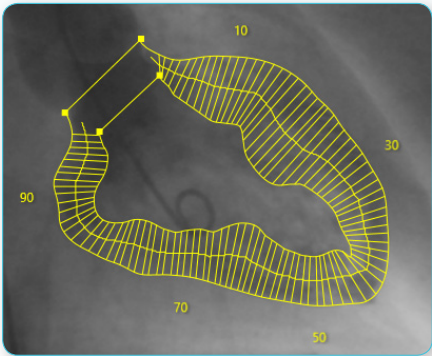


CAAS LVA

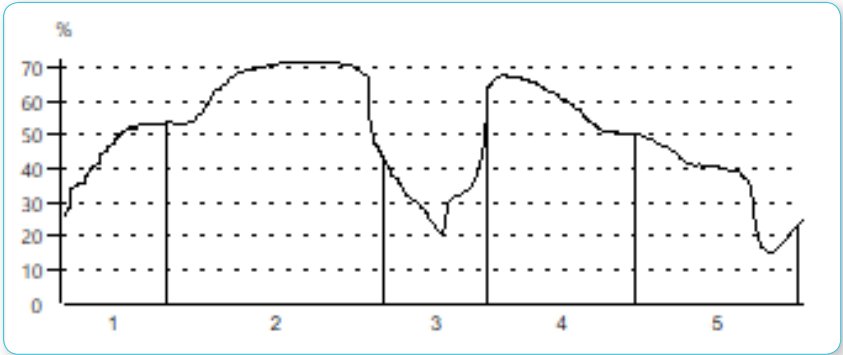
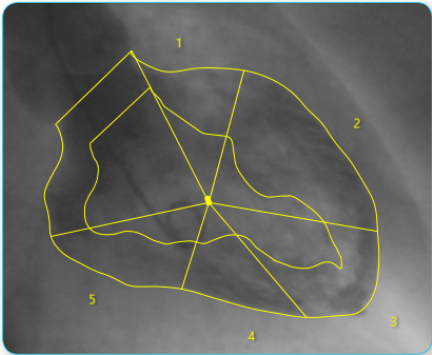
CAAS LVA (Left Ventricular Analysis) is used to assess left ventricular function. The software provides calibration and automatic contour detection resulting in volume calculation and wall motion analysis. CAAS LVA features multiple wall motion analysis possibilities and with the loop under contour

functionality the user can easily check if the images for ED and ES are correct. CAAS LVA is standard available for monoplane analysis and optional biplane analysis (using two projections) can be performed.

Centerline wall motion



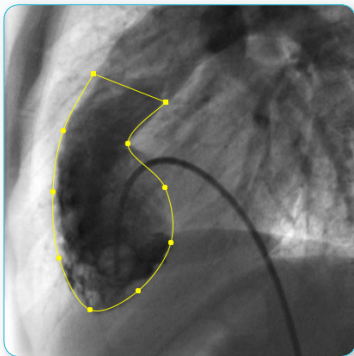
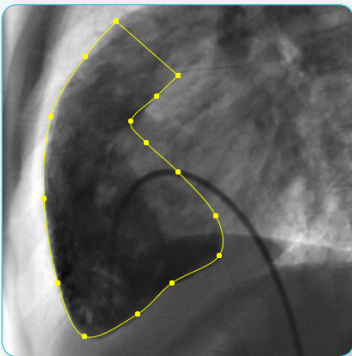
Regional wall motion




CAAS RVA

CAAS RVA (Right Ventricular Analysis) offers analysis of the right ventricle based on angiographic X-ray images. The application offers spline and manual contour detection of the

right ventricle. For the calculation of the ventricular volume seven volume models are implemented.



Ejection Fraction	61 %
ED Volume	74.02 ml
ES Volume	28.85 ml
Stroke Volume	45.17 ml
Cardiac Output	2.71 l/min
ED Volume Index	104.41 ml/m ²
ES Volume Index	40.69 ml/m ²
Stroke Index	63.72 ml/m ²
Cardiac Index	3.82 l/min/m ²



solutions in cardiovascular analysis

Pie Medical Imaging stands for:

- › The gold standard in Quantitative Analysis software
- › Extensive validation for both patient care and research
- › Accurate and reproducible analysis results
- › Fast and intuitive operation
- › Expertise in cardiovascular quantitative analysis software

Quality Assurance:

Pie Medical Imaging develops, produces and sells its products in accordance with international accepted standards. This product of Pie Medical Imaging is FDA 510(k) cleared and MDD compliant (CE marked).

Quality Management System complies with:

- › ISO 13485
- › FDA Quality System Regulation
- › Canadian CAN/CSA ISO 13485



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