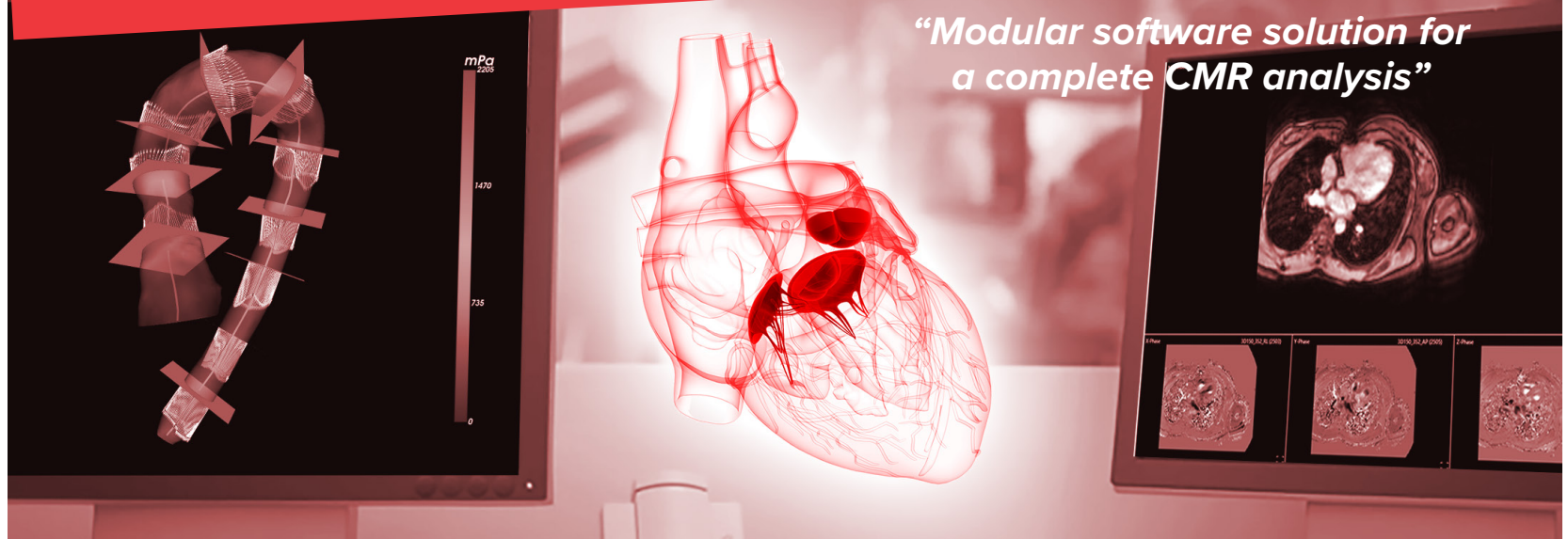


Caas MR Solutions 4D Flow



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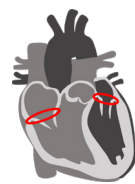
Cardiovascular MR analysis made easy

Caas MR Solutions 4D Flow facilitates your clinical decision making based on cardiovascular MR 4D Flow imaging. This all-in-one post-processing solution provides validated modular workflows that lead to reliable and reproducible results in a few easy steps.

Dedicated workflows for step-by-step analysis



4D Artery



4D Heart



Short analysis time



Acquisition on all major vendors



Easy PACS connection



Accurate and complete reporting

Key product features

- Intracardiac analysis (quantify regurgitation fraction)
- Automated valve tracking (the only one in the market)
- Fastest in the market for visualization and quantification of blood flow
 - Complex CHD (e.g. Tetralogy of Fallot (TOF), transposition of the great arteries)
 - Thoracic aorta hemodynamics (e.g. Bicuspid Aortic Valve (BAV), aneurysm)
 - Hepatic and portal venous flow
 - Intracranial flow
- Replacement of multiple 2D flow image acquisitions by only one 3D volume acquisition

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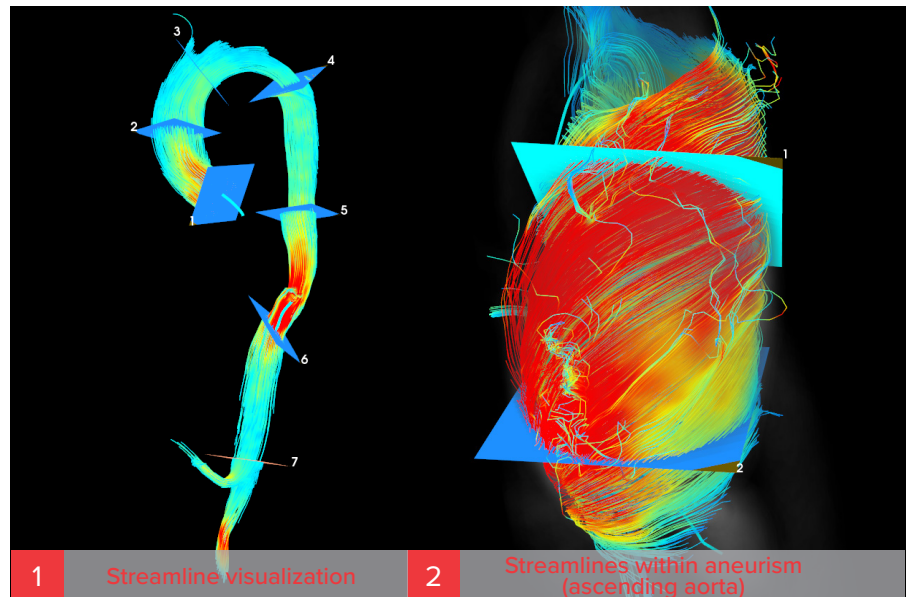
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Quantitative flow analysis and visualization

4D Artery

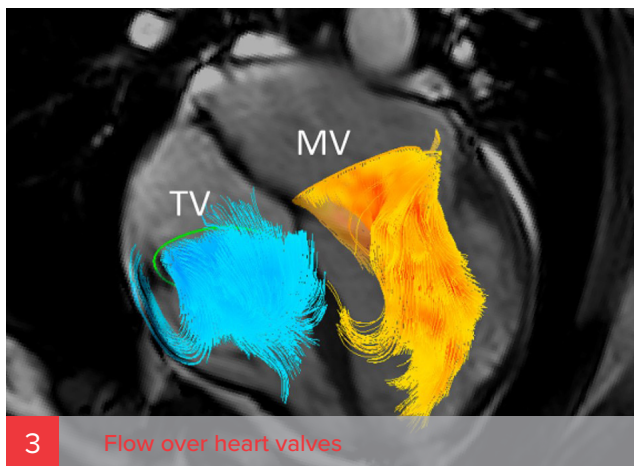
Caas MR 4D Artery enables you to construct a 3D volume of a (cardio)-vascular structure. The software provides multiple options for visualization of blood flow. Blood flow can be visualized by streamlines, time-resolved 3D pathlines, or as color coded vectors.

Next to visualization of blood flow, the wall shear stress (WSS) can also be measured¹. The distribution of the wall shear stress will be presented in a 3D color coded model.



The pressure difference between a reference and an obstruction plane can be calculated¹. This pressure difference is depicted by a color coded pressure map.

4D Heart



Caas MR 4D Heart is used to visualize and measure flow in the heart chambers and over all four heart valves during the heart cycle. Blood flow can be visualized by streamlines over the heart valves.

Automated tracking of a valve plane allows multi-valvular flow for the same cardiac cycle². Speed overlays are available based on the 4D flow data. Results include forward and backward flow and regurgitation fraction.

System requirements

Intel Core 5 processor equivalent or higher, 8GB RAM memory, SSD hard drive, Graphics Card that supports at least OpenGL 3.3, colour screen resolution at least 1280 x 1024, OS: Windows 7 SP1 or higher

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Pie Medical Imaging designs, develops, produces and markets products in accordance with internationally accepted standards and in compliance with applicable regional regulations. Caas MR Solutions is CE marked and 510(k) cleared.

¹ Wall Shear Stress and Pressure Difference Analysis are not 510(k) cleared and therefore not meant for clinical decision making in the US.

² Automated Cardiac Valve Tracking for Flow Quantification with Four-dimensional Flow MRI. V Kamphuis et al, Radiology, 2018.

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