3mensio | Pre-op Planning

3mensio Structural Heart™

Dedicated to planning of aortic and mitral valve replacement and repair procedures and left atrial appendage closures

PIE MEDICAL IMAGING

solutions in cardiovascular analysis

OPTIMIZE YOUR PRE-OP WORKFLOW

Especially designed for and with cardiovascular specialists, 3mensio Structural Heart™ will let you plan aortic and mitral valve procedures and left atrial appendage closures; anytime, anywhere.

Its intuitive graphical user interface simplifies your workflow, enabling you to quickly and accurately visualize and analyze the vasculature, aortic and mitral valve and left atrial appendage. You will obtain one report of each session with multiple series and multiple imaging modalities.
With 3mensio Structural Heart™ you can gain better insight into your patient's pathology and ultimately complete less invasive and more precise procedures.

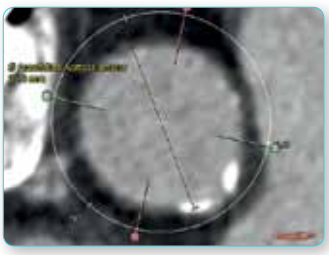
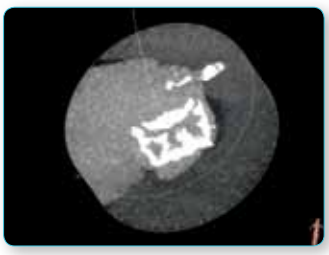
Aortic Root

Automatic Segmentation
Prepare for measurements within a few seconds due to the automatic segmentation of the ascending aorta. Manually adjust the centre lumen line and the annulus plane.

Assesment of Anatomy
3mensio Structural Heart offers several tools to efficiently assess the anatomy of the aortic valve.

> MinIP: inspect the anatomy of the valve without the obstructions of the calcifications.
> Hockey Puck: assess calcifications from all sides
> Simulated Angio View

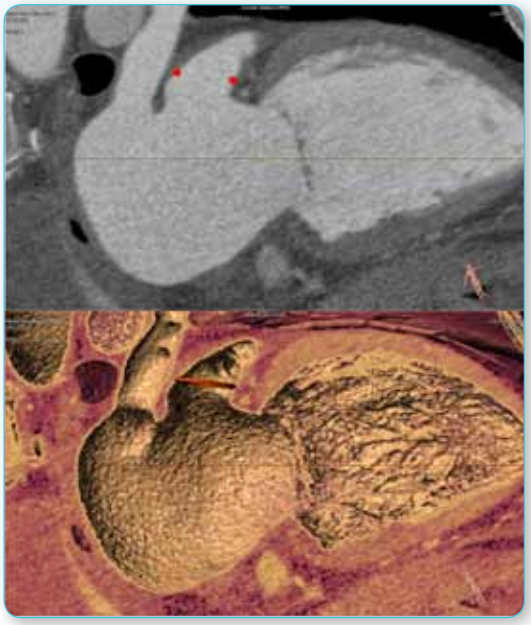
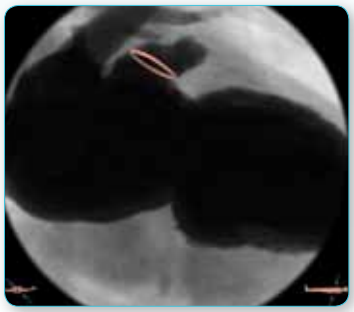
Measurements
> Diameters (perpendicular to the centre line), such as the aortic annulus, the sinotubular junction and the left ventricular outflow tract
> Lengths, for example the distance from the base of the valve to the coronary ostia
> The angulation of the aortic arch
> Calcium scoring.

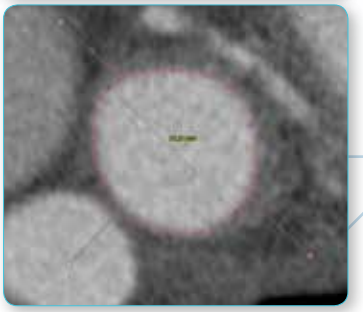





Left Atrial Appendage

Assessment of anatomy, location and size
The Left Atrial Appendage Workflow provides a fast view to assess the anatomical shape and orientation of the LAA in 3D. Simply place two landmarks to localize the ostium.

The application provides diameters along the LAA and lets you indicate a ring to mark the ostium of the appendage. The Angio View is essential for planning of the procedure. Additionally, volume rendered and long-axis views help to understand the anatomical structures in the atrium. Thrombus will easily be recognized throughout the different views.



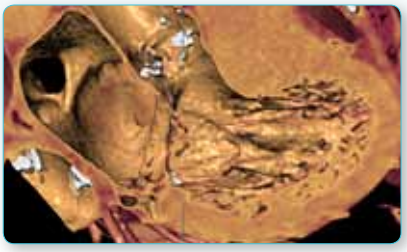
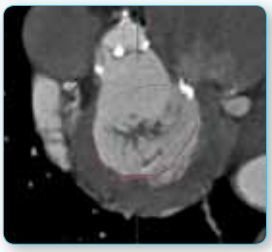
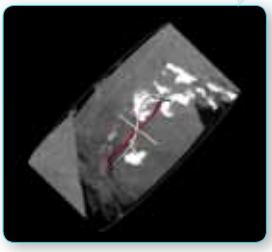
Mitral Valve

Assesment of Anatomy
Determine the anatomy and dimensions of your patient's mitral valve with this dedicated workflow.

After loading the data, you're only one mouse click away from a clear view of the mitral valve cross section. The ED and ES phases and volumes are automatically determined.

You will be able to trace and evaluate the contour of the valve with a few clicks, which gives a clear view of the saddle-like-shape.

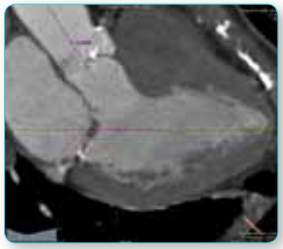
Calcification can be assessed with use of the Hockey Puck.

Measurements
3mensio's Mitral Valve option provides practical tools to assess LV anatomy and perform measurements in 3D space.

Prepare for challenges concerning the access route by determining the angle between the aortic root and mitral valve orientation.

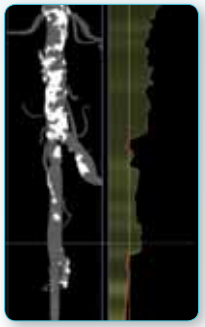
Simulate the optimal C-arm rotation with the Angio View.




Femoral Approach

At the touch of a button, the centre lumen line is presented as a straight line, allowing you to easily and precisely perform length measurements. Use the Stretched View to visualize calcification, vessel diameter and tortuosity of both iliacs in one single overview.

Enter the catheter's French size to see it instantly projected over the complete trajectory. The Angio View lets you simulate the optimal C-arm rotation.

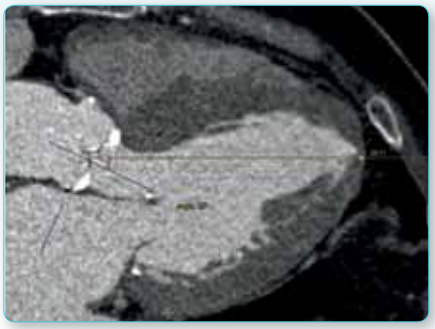


Subclavian Approach

Look into vessel diameters, calcifications and tortuosity, all combined in the Stretched View with this workflow dedicated to the subclavian. Have the software automatically draw a centre line through the lumen and simulate the optimal C-arm rotation using the Angio View. This workflow is what you need to enter the OR fully prepared.


Apex Approach

Assess the possibility of a transapical approach. Perform precise measurements such as the distance from the aortic annulus to the mitral annulus and the angulation of the left ventricular outflow tract. Obtain a detailed view of the septal anatomy and determine the entry angle to the annulus by drawing a straight line from the apex entry point to the center of the valve.




Usability is key

Dedicated workflow assistants

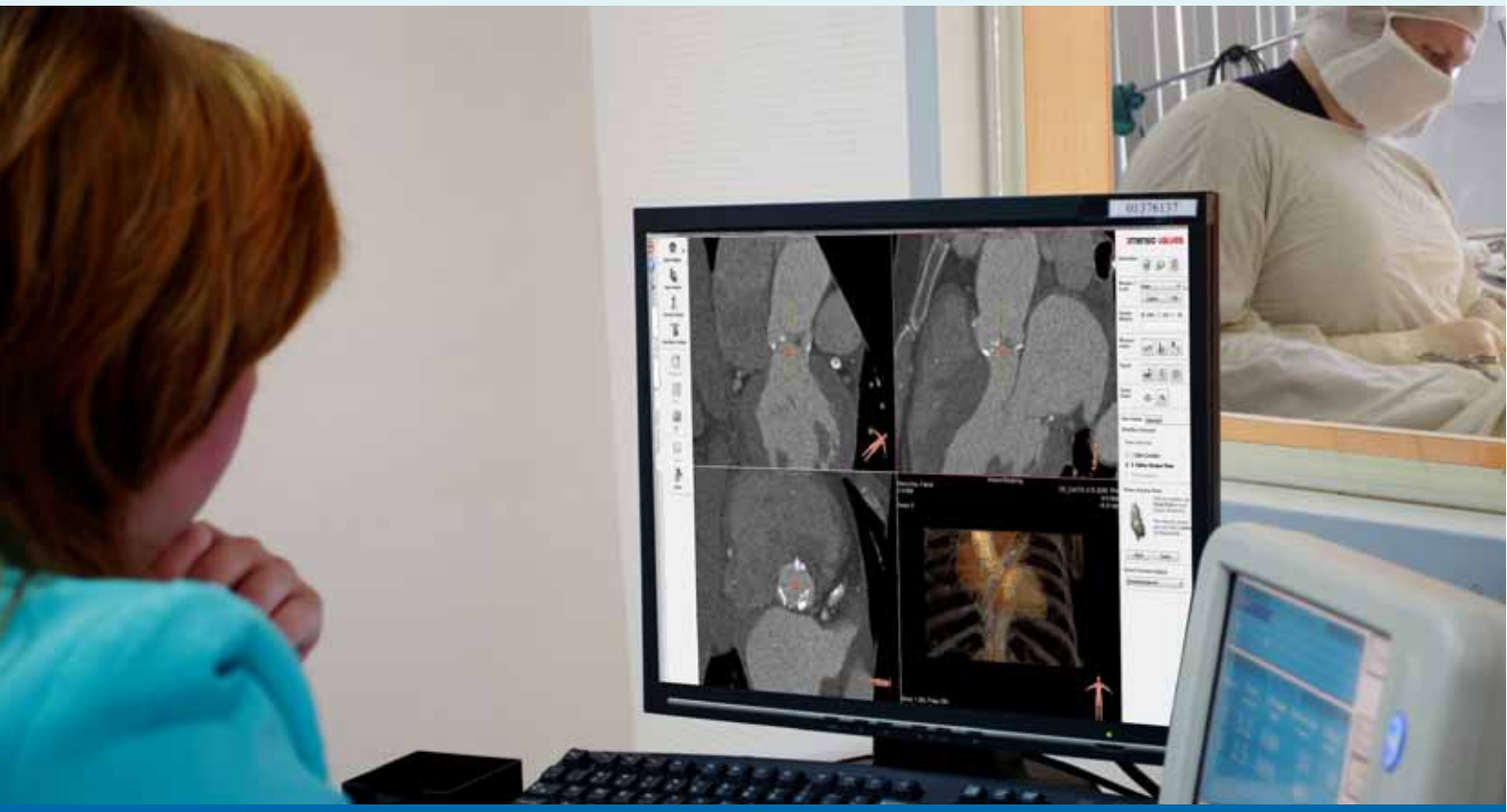
After selecting the desired workflow, you will be guided through the preparations for measurements.

Direct data import

3mensio Structural Heart™ works with all major medical imaging formats of US/echo, XA and CTA and can access multiple data stores on the network, CD, DVD, USB or the internet. Connecting to your PACS is as easy as can be.

Installation

The 3mensio Structural Heart™ software can be installed on virtually any modern Windows-based laptop or desktop, eliminating the need for specialized hardware and facilitating communication with your patients.



Speed up your workflow

- Practical workflow assistants
- Intuitive graphical user interface
- Easily compose your own reports
- Import CTA images from CD, DVD, USB or connect to PACS

Pre-op planning

- Mitral Valve assessment
- Aortic Root assessment
- Left Appendage assessment
- Femoral Approach planning
- Subclavian Approach planning
- Apex Approach planning

PIE MEDICAL IMAGING

solutions in cardiovascular analysis

Pie Medical Imaging stands for:

> 30 years of expertise in cardiovascular image analysis
> Extensive validation for both patient care and research
> Accurate and reproducible analysis results
> Fast and intuitive operation

Quality Assurance:

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

Quality Management System complies with:

> ISO 13485
> FDA Good Manufacturing Practices
> Canadian CAN/CSA ISO 13485
> CMM

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