

AVT

Ultra thin client advanced visualization



BARCO

Visibly yours



Advanced visualization at your fingertips

Today, you need advanced visualization to get the most from your studies. However, until now you have not always been able to access it when and where you need it. AVT is a new advanced visualization solution that provides instant access anywhere, anytime. Forget the limits of the reading room. With AVT, advanced visualization is always at your fingertips.

A true thin client

A basic laptop or desktop computer, and a standard network connection or 2-4 Mbps broadband service: with AVT, that's all you need to access your 3D studies. No expensive diagnostic workstation, no special high-speed network. AVT is designed for the standard equipment you'll find in most hospitals, remote offices, or homes. The time when advanced visualization was limited to the reading room is over. From now on, you can use advanced visualization wherever and whenever you like.

High performance server

AVT is based on a powerful server architecture that can be scaled to your requirements without affecting performance. It's ideal for large, multi-site hospitals or hospital groups. Not only that, the architecture uses state-of-the-art graphics processing and image distribution technology that provides full functionality over low bandwidth, all with a minimal impact on your network.

New level of PACS integration

2D and 3D imaging are part of the same worklist, so there's no sense in completely separating them. That's why AVT can be opened directly with one click from all major PACS solutions. But the integration goes even further. The AVT server can also synchronize patient demographics with the PACS. So when you change any demographic detail, AVT replicates that change in its own data.

Tools for the most demanding users

AVT offers a complete family of advanced visualization tools that give you improved productivity and outstanding results.



AVT Reader

Everything for high-volume, general reading of CT, MR and PET in one simple package.

- Orthogonal, oblique, curved and cross-curved MPR rendering
- MIP, AveIP, MinIP and color volume slabs
- Color, MIP, grayscale volume rendering and shaded surface display
- Targeted color volume review
- Endoscopic fly-through
- 3D segmentation with volume measurement, sculpting, bone removal and table removal
- 2D review and compare



AVT Vessel

Quick, accurate quantitative analysis of CTA and MRA studies. The workflow is streamlined for vascular analysis and stent-graft planning.

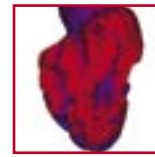
- Calcium thresholding to differentiate between calcium and contrast for increased measurement accuracy
- Automatic segmentation and centerline finding
- Straightened and curved vessel views with length, cross-sectional diameter, cross-sectional area, angle and percentage stenosis measurements
- One-click 3D visualization of the segmented vessel for further analysis
- One-click capture of all key images, along with all profiles and measurements



AVT Cardia-S

Quantitative structural analysis of CT cardiac studies, with a simple and highly-automated workflow.

- Support for up to 6,000 slices over 10 phases
- Automatic heart extraction
- Automatic segmentation and center-line finding of coronary arteries
- Straightened and curved vessel views with diameter and area measurements for quick analysis of coronary arteries
- Automatic color-coding of coronary arteries to aid the stratification of symptomatic patients
- Optional cardiologist layout that presents images in the familiar "cath view" format
- Temporal registration of cardiac phases allowing a complete 4D visualization of heart morphology
- Automatic identification of calcified plaque burden, with calculation of calcium score based on simple point-and-click assignment
- Automated, XML-based structured reporting

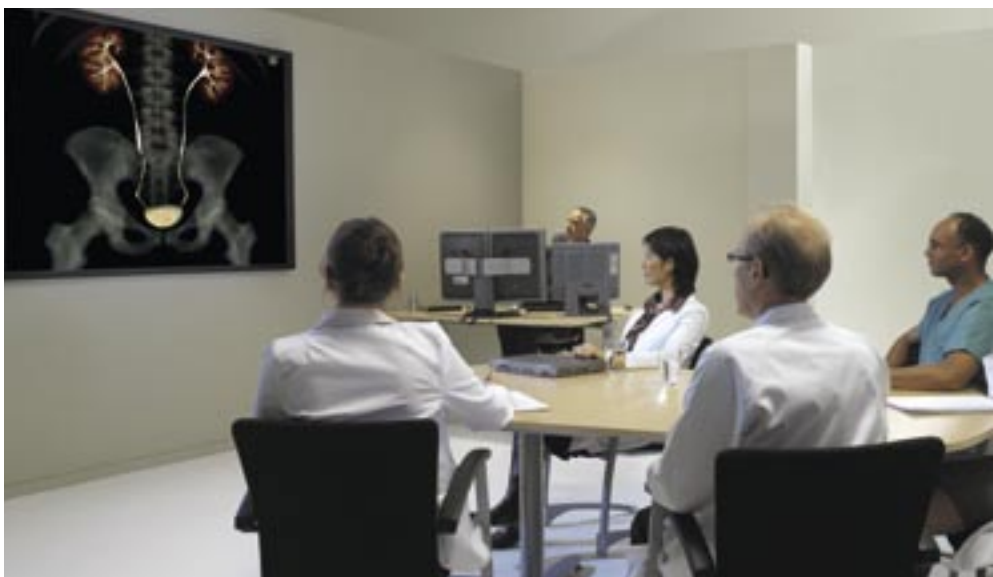


AVT Cardia-F

Quantitative functional analysis of CT cardiac studies. The focused and highly-automated workflow is similar to AVT Cardia-S.

- Support for up to 6,000 slices over 10 phases
- Automatic heart extraction
- Automatic contouring; short- and long-axis alignment; and detection of end-diastolic and end-systolic volumes
- Automatic calculation of LV blood pool volume, stroke volume, ejection fraction, cardiac output and index
- Familiar graph and bullseye plot representation of results
- Temporal registration of cardiac phases allowing a complete 4D visualization of heart function
- Automated, XML-based structured reporting

The commercial availability of Barco AVT Cardia-S and Cardia-F in the USA is subject to obtaining FDA 510(K) clearance.





Advantage for PACS partners

AVT provides PACS partners with a real edge in advanced visualization.

Unique server platform

- Optimized for fast loading of volumetric studies
- Fully scalable
- Uses COTS hardware
- Ability to synchronize demographic data with PACS servers

Outstanding deployment capabilities

- No client hardware or network infrastructure upgrades required
- High performance compression provides low bandwidth operation:
 - Minimal bandwidth consumption
 - Support for remote or home working
- Client software can be downloaded and installed from servers using a web browser

Centralized administration

- Licensing provided concurrently from the server
- Web-based user management and access controls, allowing users to be restricted in their use of applications based on their role type
- Centralized auditing of user and DICOM activity



Off-the-shelf technology

AVT uses powerful, off-the-shelf server technology and graphics cards. This means you are not locked into proprietary hardware development cycles, so you can take advantage of existing supplier arrangements and existing IT infrastructure. What's more, you also benefit from the latest IT technologies at the most competitive prices.

Web-based deployment

To provide effortless and effective administration, AVT is installed and maintained using a web browser. Upgrades to the system can be performed in seconds.

Cost-effective licensing

A concurrent licensing system allows you to make advanced visualization available with maximum cost-effectiveness. Each of the AVT tools is separately licensed, ensuring that you only pay for what you need.

Intelligent pre-processing

An intelligent rules engine examines the DICOM header information of each incoming study. This allows AVT to recognize the type of study and immediately begin preparing it for maximum reading efficiency. Time-consuming processing steps, such as key segmentations, are automatically performed by AVT. The studies are therefore optimized for reading before they are opened.

Live Images for saving your work

Live Image technology enhances the entire AVT range, allowing you to save and restore complex post-processing steps at any time. In other words, you can stop during a read and return to your work at any point. You can also send your work to clinical colleagues for further manipulation.



Request more information

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