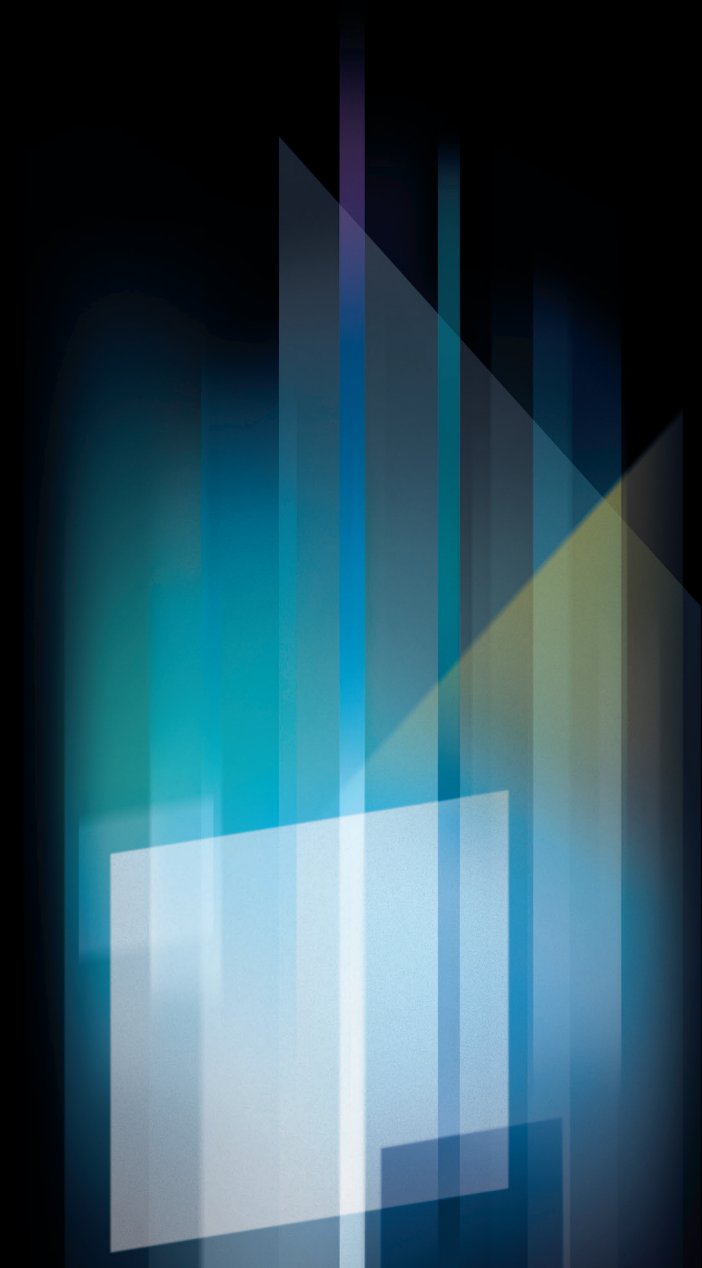


# mim cardiac™

Quantitative Analysis for Cardiac  
PET and SPECT





## Quantitative Analysis for Cardiac PET and SPECT

MIMcardiac® is a quantitative analysis solution for both PET and SPECT. The software also features multi-modality image registration for anatomical correlation with CCTA and MR and for improved comparisons of stress and rest images.

### Robust Edge Detection

Generating quantitative information for cardiac analysis begins with accurate left ventricular segmentation. MIMcardiac provides a robust deformable image segmentation method that generates reliable LV volumes and functional parameters such as ejection fraction.

MIMcardiac's edge detection utilizes deformable template-based alignment for image segmentation, overcoming limitations of traditional threshold-based cardiac segmentation methods, which can have difficulty with large perfusion defects or segmenting low activity areas of the heart such as the base.

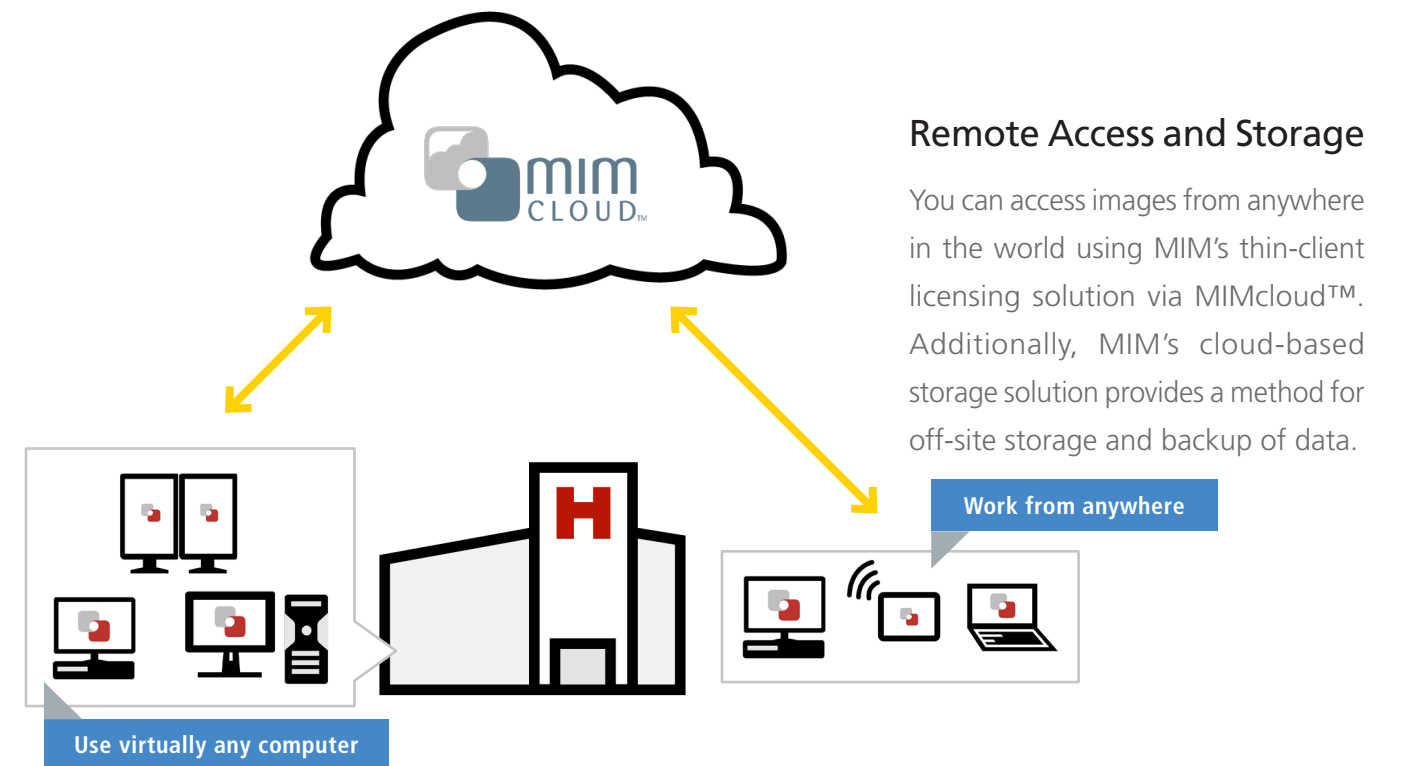
Transient ischemic dilatation (TID) statistics are also provided.

### Perfusion Analysis

Polar mapping of perfusion activity utilizes template-based deformable registration to align the patient's image to a standard template for improved mapping to the polar plots.

Polar plot features include: 17, 19, and 20 segment models; blackout maps, reversibility maps, and z-score maps; segmental scores with summed stress scores (SSS) summed rest scores (SRS), and summed difference scores (SDS), and choice of auto-normalization or max voxel normalization.

A non-attenuated corrected Tc99m sestamibi SPECT normal database is provided. Users can also create their own normal databases.

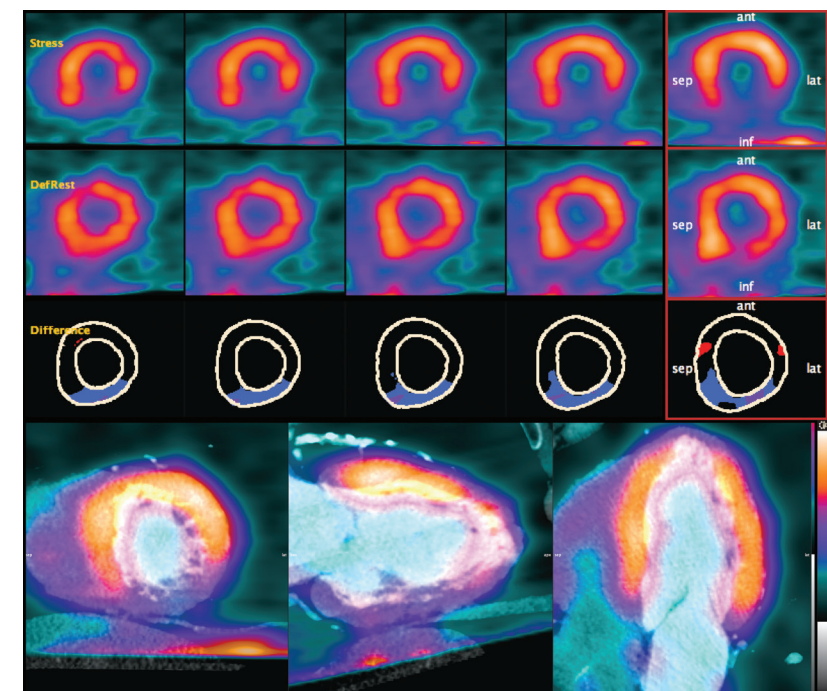


### Stress & Rest Alignment and Serial Change

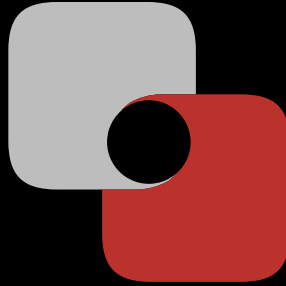
MIMcardiac's fusion technology is also utilized for aligning stress-to-rest images or serial exams making it easier to compare the same area of myocardium between scans.

Perfusion differences are highlighted using a color-coded display overlaid on the patient's image. Difference images allow the patient's own scan to serve as the control for comparison.

Difference images can also be created for viability studies highlighting differences in perfusion and metabolism.



HeartAlign™ is a landmark-based deformable registration method that is used to match a patient's scan to a template or to another image for the same patient. An affine registration is performed for the initial alignment correcting for orientation and size differences. The landmark-based deformable registration is performed next to correct for shape differences between the images. Using this same deformation, contours are transformed back to the original patient image. This method of matching can also be used for stress and rest images or serial exams to help highlight changes.



To learn more, call **866-421-2536** or visit **[mimsoftware.com/contact](https://mimsoftware.com/contact)** to schedule a presentation of MIM.



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