ThinkingMolecular™

With the advent of PET-CT and SPECT-CT, molecular imaging has gone through a rebirth. Consequently, molecular imaging is reshaping the landscape of radiology and medical imaging in general. One of the major changes taking place is the demand for advanced PACS and RIS solutions that meet the special needs of molecular imaging, especially the requirements for sophisticated clinical tools and the handling of large volumetric data. Thinking Systems Corporation has been the industry leader in providing such solutions to customers from small imaging centers to world renowned institutions, as well as some of the world's leading imaging equipment and PACS vendors. Thinking Systems' ThinkingMolecular™, powered by its flagship ThinkingPACS™ and ThinkingRIS™, takes molecular imaging to a new level.

The Thinking Systems Difference

Thinking Systems was the first and is the reigning world leader in providing the most comprehensive and user-friendly PACS/RIS solutions for molecular imaging. Although some modality solution vendors provide products that are capable of communicating with PACS via standard DICOM protocols, these products are typically dedicated modality workstations and thus lack the essential workflow and dataflow that are critical in a PACS environment.

Advanced Features

ThinkingMolecular™ offers cutting-edge molecular imaging technologies not found in any other PACS, including PET-CT and SPECT-CT fusion, image co-registration of separately acquired images, image processing and quantification analysis for both nuclear cardiology and general nuclear medicine, PET brain quantification analysis, PET cardiac quantification analysis, and synchronized side-by-side comparison of current and prior PET/SPECT CT studies. ThinkingMolecular also offers comprehensive connectivity solutions to both DICOM and non-DICOM devices.

Seamless Workflow

Powered by Thinking Systems' ThinkingPACS™ and ThinkingRIS™ with a single database, ThinkingMolecular™ provides seamless workflow from patient registration, exam ordering, scheduling, scanning, diagnostic reading, report generation, to report distribution.

Multimodality Support

Multimodality support is what sets Thinking Systems' ThinkingPACS™ and ThinkingRIS™ apart from all other vendors' PACS and RIS. Clinicians no longer have to hop from one workstation to another. Instead, from one single workstation or web portal, clinicians can access all modalities with the right clinical tools, from general radiology (CT, MR, CR, DR, and ultrasound) to cardiology (nuclear, echo, cath lab, ECG, and cardiac CTA), molecular imaging (PET-CT, SPECT-CT, and nuclear medicine), mammography, advanced 3D processing, and orthopedic templating.
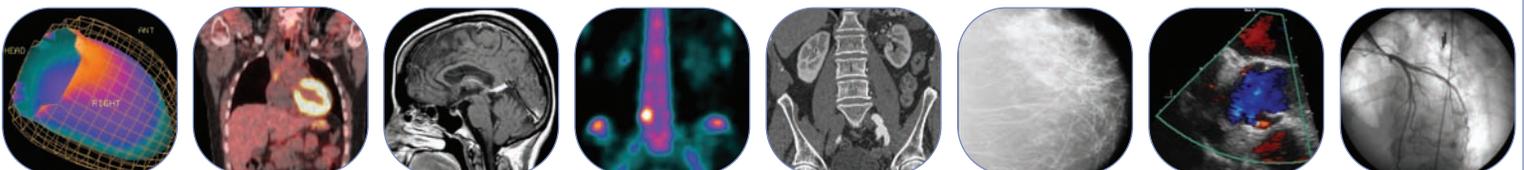
ThinkingMolecular™

Web-based

What makes Thinking Systems' web solutions different is the breadth of technologies — it offers three tiers of technologies with each designed to meet specific needs: thin-client with server-side computing (ThinkingWeb™), thick-client with data streaming (ThinkingNet.Net™), and client-less with HTTP (ThinkingWebLite™).

ThinkingWeb™ provides full workstation functionality via the web on any Windows based computer. The server-side computing technology eliminates the need for data downloading and provides the complete spectrum of tools for all modalities, encompassing radiology, cardiology and molecular imaging with complete features from general radiology review to PET-CT fusion and nuclear cardiology processing and quantification analysis.

ThinkingNet.Net™ is designed to provide a full-fledged diagnostic workstation anywhere in the world with a high speed Internet connection. It utilizes lossless or configurable lossy compression and encryption for real-time secure data streaming via the Web.

ThinkingWebLite™ is designed for client-less, pure browser-based image viewing. It provides quick, easy, and simple image viewing for all modalities on any computer platform with a web browser, such as Windows, Mac, UNIX, and PDA. Ideal for your referring physician network.

Key Features

- PET-CT and SPECT-CT fusion
- Image co-registration of separately acquired images
- Easy alpha-blending adjustment between PET/SPECT and CT
- Fast SUV and Hounsfield unit measurements
- Orthogonal views generation
- Triangulation between PET/SPECT, CT and fused views
- MIP image generation and triangulation from MIP to orthogonal views
- Window/level adjustment and presets
- Synchronized side-by-side comparison between current and prior PET/SPECT-CT studies
- Simultaneous nuclear stress/rest study processing
- Nuclear cardiology quantification analysis with Cedars Sinai's QGS/QPS and Emory Cardiac Toolbox
- Nuclear MUGA processing
- PET Rubidium and FDG cardiac quantification analysis with Emory Cardiac Toolbox
- PET brain quantification analysis with NeuroQ
- SPECT Processing
- Static and dynamic image display of general nuclear medicine with a wide variety of color tables, image specific formats and tools
- Side-by-side comparison between all modalities
- Connectivity with modality scanners and workstations using DICOM or proprietary protocols/formats