NEW PRODUCTS

■ Picker Positron Coincidence Detection Gets 510(k) Clearance

PCD™ Expands Use of PRISM™ XP Cameras

Picker International received a Food and Drug Administration 510(k) clearance to market its Positron Coincidence Detection (PCD™) product on its multi-head nuclear medicine imaging platforms in the U.S. PCD expands the use of PRISM™ XP multi-head cameras for imaging positron-emitting isotopes. The imaging technique uses advanced detector electronics, coincidence circuitry and real-time image processing, which makes the PRISM XP capable of imaging coincident photons from positron-based pharmaceuticals. PCD offers better resolution than collimated SPECT when imaging positron-based pharmaceuticals, such as FDG. In-slice resolution of 4 mm at useful clinical sensitivity can be achieved. PCD also provides higher sensitivity than collimated high-energy imaging, resulting in

better lesion detection. This option will be available on new and installed PRISM XP multi-head cameras.

The Picker technology incorporates PCUBE™. This real-time rebinning processor accepts coordinate pairs from the detectors and calculates the event angle of incidence, then frames the data into image projections. The result is a simple and fast reconstruction time equal to that of a typical SPECT scan. PCD uses a 256 X 256 matrix resolution to preserve the spatial resolution of coincidence imaging. Processing a PET study requires a powerful, state-of-the-art computer platform to process intense data calculations. With Picker's new Odyssey™ FX computer, a 256 X 256 volume can be done in about 25 sec.

PCD uses both PET-type axial filters for maximum event utilization and reduced scatter, as well as three-dimensional acquisition for low-count rate studies. PCD provides PET/NEMA performance characteristics, including a 20-nsec coincidence

window, variable detector integration time, competitive count rates and dual-energy windows for photopeak and Compton.

PCD is available both in a standard 3/8-inch crystal thickness and in a thicker crystal configuration to optimize positron sensitivity. Picker also provides MultiVolume Registration™, which can effectively combine the PCD images with MR, CT and conventional nuclear medicine images.

Odyssey™ FX Computer Series

Picker introduced the next generation in the Odyssey nuclear medicine computing platform, the Odyssey FX series. This fast and versatile platform can be integrated with the broad selection of PRISM™ series gamma cameras or can be used as a stand-alone image processor. More disk space and higher capacity image archive devices allow nuclear medicine technologists to keep patient data on-line for immediate viewing. Odyssey FX computers excel in computation-intensive applications such as iterative reconstruction, attenuation and scatter correction, PET processing and advanced three-dimensional visualization.

The FX series offers three levels of computing platforms. The Odyssey FX 380 is ideal for all types of nuclear medicine procedures. Both the Odyssey FX 451, with greater speed, and the FX 729, with maximum speed, offer an integrated 24-bit graphics accelerator that calculates more than one million three-dimensional vectors and more than 200,000 triangles per second.

An award-winning 64-bit RISC CPU, with a high-speed PCI bus structure, provides increased image processing power. The Odyssey FX system can be arranged adjacent to a gamma camera or up to 200 ft away. This system also can support up to two gamma cameras simultaneously, and offers the option of DIICOM 3.0 to support importing CT, MRI and competitive nuclear medicine images. The FX series includes a comprehensive clinical applications software portfolio that provides a broad range of image processing capabilities. This makes the most demanding clinical exams routine. The Odyssey FX series simultaneously performs acquisition, processing, display and filming activities to increase department performance and throughput. An assortment of digital image printing options is available to prevent the loss of image quality that is common with analog methods. *Picker International, P.O. Box 739, Berea, OH 44017.*
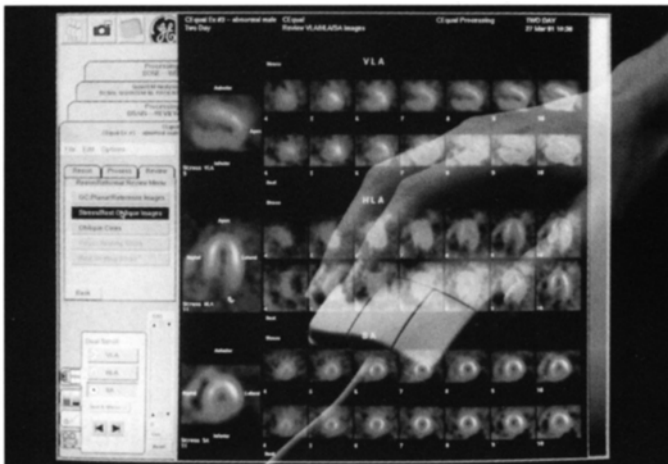
■ GE Adds Customization Software to GENIE™

GE Medical Systems' new Aladdin™ software lets users of GENIE™ Processing and Review Stations customize their systems by modifying applications and developing new protocols with the click of a mouse.

Three powerful, intuitive functions allow users with virtually any level of programming ability to implement such changes as developing processing protocols for applications, such as gallbladder ejection fraction, or changing defaults to automatically display resting images before stress images in CEqual studies. Aladdin's

Arrange function lets users change their presentation of image data to satisfy individual viewing preferences. Its Build function makes it equally easy to generate custom protocols by either modifying or saving existing applications or by changing the Standard Visual Basic script. The Compose function equips users with the same powerful tools as those of GE's own programmers, including the ability to integrate C libraries and functionality.

The user has access to such innovative tools as keyword-sensitive and interactive Help and Index directories, whose listings can be cut and pasted for easy customization. Aladdin also offers a live image screen for previewing modifications as new protocols are built. Aladdin uses a nonproprietary, industry-standard language that allows users' systems to grow as the language evolves. *General Electric Company, P.O. Box 414, Milwaukee, WI 53201. 800-643-6439.*