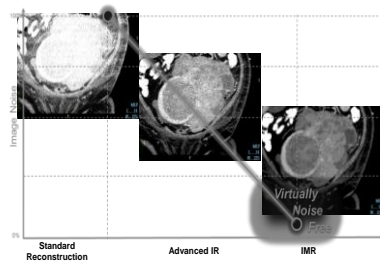


Technology Backgrounder

Computed Tomography

Philips Computed Tomography (CT) is dedicated to reshaping imaging in ways never thought possible through its continued leadership in the scientific advances of iterative reconstruction techniques, workflow, advanced visualization and detector technologies. Philips is focused on how these innovations can improve patient care. At this year's ECR, Philips CT is showcasing new products and solutions that will transform patient-centered imaging in radical new ways.

IMR



Philips CT ushers in a new era of image quality with the introduction of IMR, a unique knowledge-based model approach that transforms CT imaging from data approximation to data restoration. This technology is designed to provide virtually noise free image quality with improvements in low contrast detectability.

*In clinical practice, IRT may reduce image noise depending on the clinical task, patient size, anatomical location and clinical practice. A consultation with a radiologist and a physicist should be made to determine the appropriate dose to obtain diagnostic image quality for the particular task. As with any imaging reconstruction, the quality of the resulting IRT images is dependent on the scanning parameters required for your particular patient, clinical indication and clinical practice.

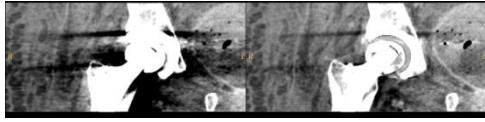
Philips iPatient

iPatient

This year at ECR, Philips CT will showcase iPatient – an advanced platform that delivers focused innovations to facilitate patient-centered imaging, now and in the future. It puts clinicians in control of innovative solutions that:

- Personalize patient-centric workflow that is built for iterative reconstruction techniques and high image quality at low dose levels – driving confidence and consistency
- Increase the ability to do complex and advanced procedures with ease and efficiency
- Offer a new way to work smarter, not harder, because users can plan the results they seek to achieve, not the acquisitions
- Prepare for future innovations with a platform designed to facilitate future advances

iDose⁴ Premium Package



iDose⁴ is an iterative reconstruction technique that gives clinicians control of the dial so they can personalize image quality based on the patient's needs at low dose.

Philips recently introduced the iDose⁴ Premium Package, which includes two leading technologies that can improve image quality* – iDose⁴ iterative reconstruction technique and metal artifact reduction for large orthopedic implants (O-MAR). iDose⁴ improves image quality* through artifact prevention and increased spatial resolution. O-MAR reduces artifacts caused by large orthopedic implants. Together, they produce high image quality with reduced artifacts.

The iDose⁴ Premium Package is available for the Brilliance CT 64-channel scanner and across the Ingenuity and iCT families.

*Improved image quality is defined by improvements in spatial resolution and/or noise reduction as measured in phantom studies

Ingenuity Flex



Philips will unveil a new configuration in the proven Ingenuity family of CT scanners. The Ingenuity Flex Ingenuity Flex, a brand new The Ingenuity Flex is highly flexible, and ideally suited for routine and cardiac CT imaging, and provides valuable advanced clinical applications to help clinicians differentiate their organization.

Philips iCT Family



The iCT family is specifically designed to meet the unique needs of vascular imaging from head to toe. With a focus on clinical collaboration and integration, patient care and economic value, this system provides high image quality with the “lows” that are becoming increasingly important, including low energy, low dose and low injected contrast. Taking CT imaging to a whole new level, the iCT family uses a unique combination of hardware innovations, state-of-the-art acquisitions and iDose⁴ iterative reconstruction technique to offer premium results for stroke, cardiovascular, thoracic and runoff imaging. Not only does this scanner deliver exceptional image quality, its advanced technology provides a unique approach to managing important factors in patient care. It represents a new approach to total vascular imaging through a unique combination of low-kVp scanning and an iterative reconstruction technique that improves low contrast sensitivity.

Key Benefits/Features

- Low-energy imaging for the majority of patients
- Improvement in spatial resolution
- Chest CT similar to the dose of a chest X-ray
- Full cardiac function at or near background radiation levels
- Sub-mSv coronary CTA for the majority of patients
- 72 percent of reference protocols reconstructed in under one minute

Orthopedic Metal Artifact Reduction (O-MAR)

Artifacts from large metal objects, such as orthopedic implants, can be problematic in CT diagnosis and treatment planning by making it difficult to accurately contour anatomic structures and raising the possibility that these artifacts will need to be manually compensated for in the plan. Philips Metal Artifact Reduction for large orthopedic implants (O-MAR) isolates the effects of metal objects in the image data and reduces associated artifacts. The system automatically produces conventional images and metal artifact reduction for large orthopedic implant images for clinician review. This can enhance visualization of critical structures and target volumes.

Key Benefits/Features

- Improved image quality through the reduction of large metal artifacts from orthopedic structures
- Enhanced visualization of critical structures to improve diagnostic confidence for patients with orthopedic implants
- Decreased amount of non-diagnostic scans from windmill artifacts of large metal obstructions

IntelliSpace Portal

The Philips IntelliSpace Portal turns standard configuration computers into an advanced multimodality imaging systems workspace. Users can work on advanced visualization in a preferred environment, using patient data without worrying about the modality of origin or moving to a specialized workstation. Users can also unlock the power of CT, magnetic resonance (MR) and nuclear medicine systems with rich clinical applications that are accessible virtually anywhere, whether in the home, at the office or on the road.



Radiology is the hub of the healthcare facility. Easy clinical workflow and collaboration tools can help streamline daily routines. Reaching out to referring physicians and specialists is easy with Philips' medical networking platform.

Key benefits/Features

- Rich clinical applications that unlock the full potential of imaging systems in order to quickly quantify and diagnose
- Multi-modality access virtually anywhere with advanced clinical applications and new workflow and collaboration tools available virtually anywhere
- Collaborative workflow supported by the ability to access, create and communicate actionable information virtually anywhere

For more information, additional materials and images, go to the [Philips Healthcare news center](#).