



PRECLINICAL IMAGING

ParaVision 360 V3.4

Discover. More! Molecular Imaging

Innovation with Integrity

ParaVision 360 allows for setup, acquisition, and quantification of your preclinical MRI, PET, and CT imaging studies in one single comprehensive software. It enables multimodal workflows within a single and common user interface.

New Daily QA Scan Protocol for PET

- Ensures consistent quantification every day e.g. during longitudinal studies
- Predefined scan parameters and automated processing and readout of the pass/fail results
- Bruker's PET QA Phantom for in-depth evaluation of the performance

New MicroCT Protocol Library

- The protocols are scans that are optimized for species, region, scan time and dose (figure 1)
- Includes both standard contrast and low dose protocols
- "Anatomical Reference" provides optimal settings for multi-modal PET/CT

Improved PET/CT Workflows

- New multi-modal PET/CT protocol library
- Complete instructions for interdependent PET/CT reconstruction steps
- Direct to data analysis with no further processing steps

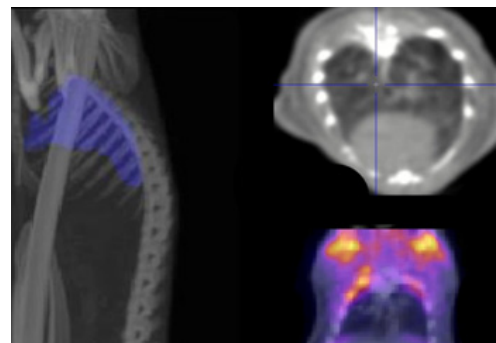
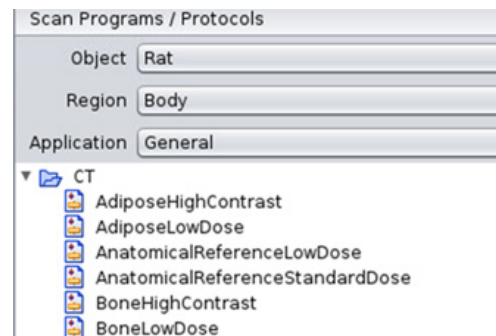


Figure 1 Example of optimized microCT scan protocols (above) and PET/CT image optimized for soft tissue lung imaging (below)

Gated PET Protocols

New 2-channel gated PET protocols makes it possible to choose between ECG + respiration gated or ECG gated only acquisitions, providing the freedom to reconstruct cardiac PET data with or without respiration gating - thereby ensuring maximal counts for each cardiac frame.

Attenuation Correction for PET/MR

ParaVision 360 V3.4 further improves the quality of the PET Attenuation Correction (AC) by adding the RF coil and the animal cradle to the MRI-based measured attenuation map of the animal, ensuring the highest PET quantification accuracy.

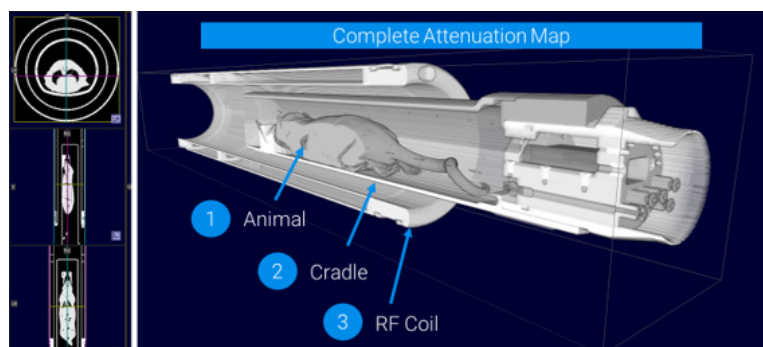


Figure 3: 3D image of the complete AC map including the animal, cradle, and RF coil

Better and Faster PET Reconstruction Methods

Component Based Normalization

A new method for applying normalization correction. Especially beneficial for low activity imaging.

List Mode Reconstruction and FBP-2D Reconstruction in GPU

Increases the processing speed of your FBP PET reconstruction

FBP Fourier Rebinning (FORE)

A method to improve the statistics that can lead to reduced noise and thereby increase the FBP image quality.

Partial Volume Correction filter at the FBP Reconstruction

Enhances image resolution in the FBP image

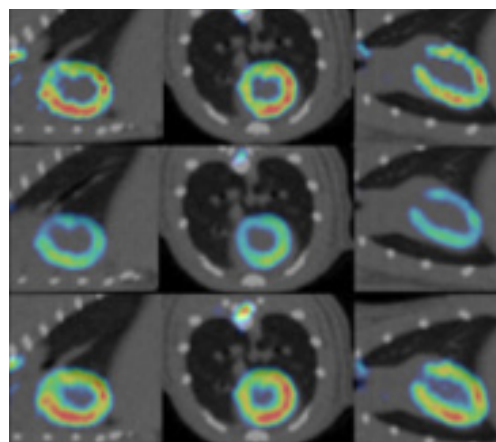


Figure 2: ECG + respiration gated PET/CT images of a mouse heart

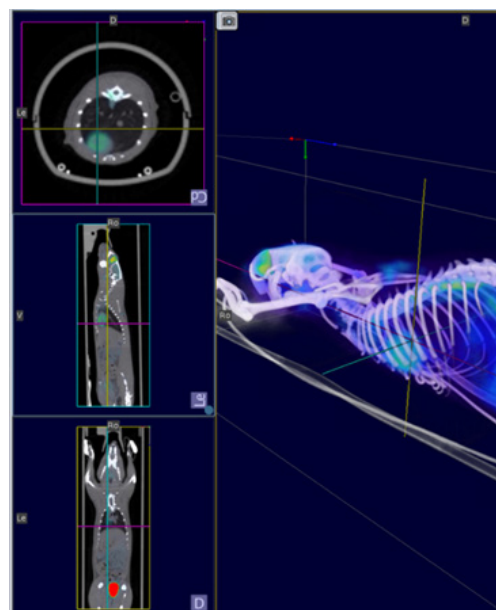


Figure 4: ParaVision 360 3D Image Fusion Viewer

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