Orimtech / I.P.S. MEDICAL

EDAMIS

RADIOGRAPHY, TOMOGRAPHY, TOMOSYNTHESIS AND FLUOROSCOPY IMAGING CAPABILITIES INTEGRATED IN A SINGLE SYSTEM

IPS Medical is steadfastly advancing the development of new technologies, with the goal of providing ever more advanced and high-performing products to the international market.

In this spirit, we have established a prestigious partnership with **the American company Orimtech for the distribution and support of the EDAMIS system**: a revolutionary and unique solution that integrates tomography, tomosynthesis, digital radiography, and fluoroscopy into a single device, specifically designed for large animals such as horses and camels.

EDAMIS represents the future of veterinary diagnostics, combining versatility, precision, and unprecedented technological innovation.

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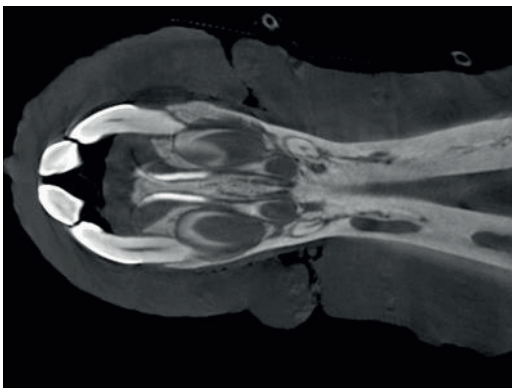
The use of **large-scale industrial robots**, **powerful X-ray source** (100 kilowatts), and **X-ray detectors** from the world's best manufacturers.

Specially designed proprietary algorithms for processing digital radiography and fluoroscopic images. Compensation of the high-level of radiation absorption.

The ability of **performing tomosynthesis and fluoro studies of spine**, including the immediate vicinity of the shoulder and pelvis areas.



Registration and compensation of animal motion to obtain **high spatial resolution images**. No need for deep anesthesia.

Easy to manage: controlling robots and radiation techniques by a consumer **mobile device** in the immediate vicinity of the patient.

Built-in video recording of the study.

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COMMON FEATURES

• Modalities: Radiography, Fluoroscopy, Cone Beam CT, Tomosynthesis.

• Available X-Ray technique factors are defined by the integrated X-Ray generator, tube, tube assembly, and detector. Currently the supported system configuration are based on X-Ray Swiss Genesis (Josef Betschart AG, Switzerland) or CPI Indico IQ 100 (Canada) generator and Varex XRD 4343 RF (Germany) or iRay Mercu1717V (China) panels. COMET generators are also supported.

• Collimation: 4 blade PC-controlled automatic collimator

• Acquisition: Orimtech proprietary acquisition/synchronization system

• Object/patient database

• DICOM support; PACS compatible

• Common advantage: high flexibility in selection of patient-system orientation, source-detector distances and system scanning trajectories for all modalities - fully defined by specific robot models.

CBCT SPECIFICATIONS

• X-Ray factors, techniques, and frame rate: defined by the integrated X-Ray generator, tube, detector.

• Scanned object positioning/orientation: arbitrary (within the system mechanical accessibility), up to 12 User-predefined scanning trajectory protocols

• FOV adjustment and scouting: collimator light and laser, joystick controlled system motion, linear X-Ray scanning in a single or dual orthogonal planes scout scans to allow for further User-PC interactions to definine area of interest for a scan

• Scan angle: 210 degrees

• Field of view: D240mm x 240mm one slab; with optional 2 stitched slabs with up to D240mm x 420mm of total coverage, depending on tube/detector distance configuration.

• Spatial resolution: 250 micron (mostly defined by a tube focal spot)

• Acquisition technique: pulsed, up to 25 FPS.

• Single slab scanning time: 10-60 sec depending on the X-Ray dosage

• Supported scanning trajectories: circular and non-circular; built-in trajectory registration for the best spatial resolution.

• Ability to scan solid moving objects (motion artifact mitigation): supported by integrated Qualysis visual motion tracking subsystem

• X-Ray technique modulation during the scanning process for the optimal patient dose utilization: supported

• CT reconstruction engine: AVRG with support of scatter, beam-hardening and metal artifact reduction.

• HU accuracy: +/-25 HU on CTP486 section (CATPHAN)

• 3D image viewer: Orimtech MPR proprietary, Fovia HDVR is an option

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FLUORO SPECIFICATIONS

- X-Ray factors, techniques, and frame rate: defined by the integrated X-Ray generator, tube, detector.
- Automatic brightness control: hardware and software supported
- Real-time display and playback: supported with Orimtech proprietary dynamic contrast enhancement function
- FOV position control: joystick , PC keyboard and touch screen
- Subtractive fluoroscopy techniques (for contrast studies): supported

RADIOGRAPHY SPECIFICATIONS

- X-Ray factors, techniques: defined by the integrated X-Ray generator, tube, detector.
- Spatial resolution: mostly defined by X-Ray panel; approximately 5LP for XRD 4343 RF
- Imaged object positioning/orientation: arbitrary, within the system mechanical accessibility
- Source-detector distance: arbitrary, within the system mechanical accessibility
- FOV adjustment: collimator light and laser, joystick controlled system motion.
- DR image processing library: Orimtech proprietary, CVIE (Context Vision)-ready

TOMOSYNTHESIS SPECIFICATIONS

- X-Ray factors, techniques, and frame rate: defined by the integrated X-Ray generator, tube, detector.
- Scanned object positioning/orientation: arbitrary (within the system mechanical accessibility) , up to 8 User-predefined scanning trajectory protocols
- FOV adjustment and scouting: collimator light and laser, joystick controlled system motion, linear X-Ray scanning in a single or dual orthogonal planes with further User-PC interactions for defining the scanned area
- Scan angle: 15-90 degrees for angular tomosynthesis examinations, 360 degrees for circular motion.
- Field if view: D240mm x 240mm
- Spatial resolution: 200 micron (mostly defined by a tube focal spot)
- Acquisition technique: pulsed, up to 25 FPS.
- Scanning time: 4-20 sec
- Supported scanning trajectories: circular and non-circular; built-in trajectory registration for the best spatial resolution.
- Ability to scan solid moving objects (motion artifact mitigation): supported by integrated Qualysis visual motion tracking subsystem
- X-Ray technique modulation during the scanning process for the optimal patient dose utilization: supported
- Tomosynthesis reconstruction engine: AVRG (Orimtech)
- 3D image viewer: Orimtech proprietary