



NeuViz
Computed
Tomography

128

128

Neusoft®

Pressured to do more with less?

The NeuViz 128, the latest advance in Neusoft CT innovation, provides remarkable clarity and precision to expand the range of services you can provide while reducing operational costs.

Full-featured, low-dose, workflow optimized and designed with patient comfort in mind, the NeuViz 128 is the CT choice you've been missing.

Comprehensive Low-Dose Design

ClearView Iterative Reconstruction

Robust Cardiac Imaging

Quad Sampling

Micro-STAR Detector

Metal Artifact Reduction

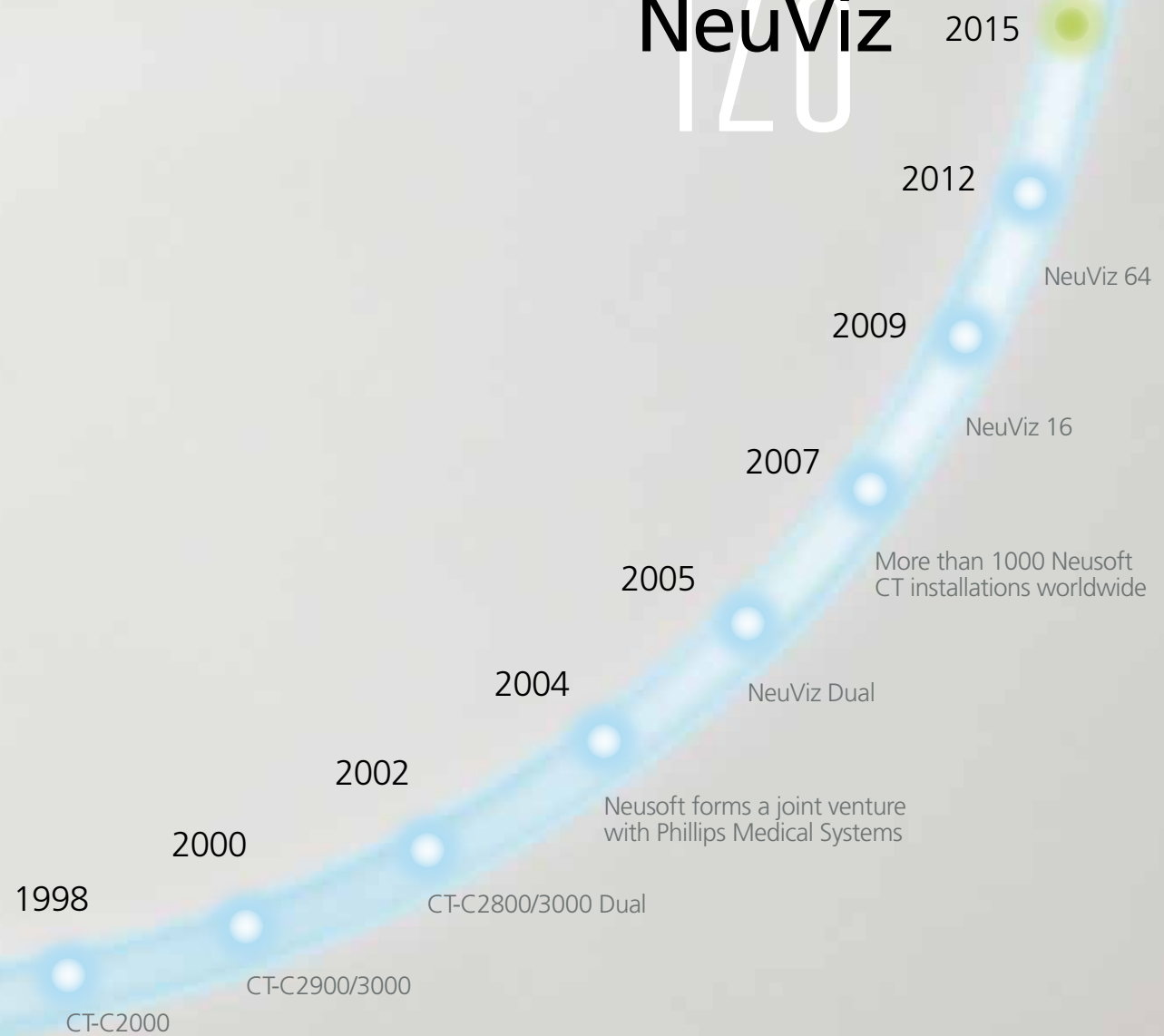
Patient-Centric Design

User-friendly Workflow

World Class Service & Support



120 NeuViz



128 Comprehensive Low-Dose Design



New Detector Design

Modular design delivers excellent x-ray conversion efficiency, enhancing low-dose imaging.



240° Exposure

Dose to the patient and attending physician is reduced.



Organ Safe

Reduces dose to radiosensitive organs — eyes, thyroid and breasts.



Pediatric Protocols

Protocols are designed specifically for pediatric anatomy.



ClearView

Iterative processing in projection and image spaces delivers dose reduction.



Dose Check

Fully implemented Dose Check ensures that a patient cannot be over radiated.



3D-Dose Modulation

Tube current is modulated based on the anatomy in the scan field to deliver an anatomically optimized dose.



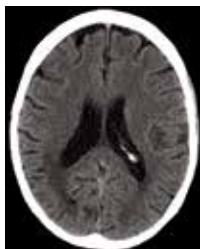
ECG-Dose Modulation

Reduces tube current during non-imaging phases of the cardiac cycle to minimize patient dose.



ClearView Iterative Reconstruction

Clinical Benefit: ClearView transforms noisy, low-dose images into high-quality studies that deliver improved diagnostic capacity.



| Examination Information | | | | | | | | | |
|--------------------------------|--------------------|-----------|-------|-----|----------|---------------|--------------|---------|--|
| Study ID: 252890 | | | | | | | | | |
| Study Time: 04/18/2014 12:21.8 | | | | | | | | | |
| Total DLP: 687.8mGy*cm | | | | | | | | | |
| Estimated Dose Saving: 22.86% | | | | | | | | | |
| # | Series Description | Scan Mode | mAs | kV | NPS [mm] | CTDIvol [mGy] | DLP [mGy*cm] | Phantom | |
| 1 | Scout | Surview | N/A | 100 | 270.625 | 0.0 | 1.5 | 32 | |
| 2 | Head WD | Axial | 275.1 | 120 | 3270.625 | 18.1 | 686.6 | 32 | |

BRAIN SCAN: Dose - 38.1 mGy



| Examination Information | | | | | | | | | |
|---------------------------------|--------------------|-----------|------|-----|----------|---------------|--------------|---------|--|
| Study ID: 166 | | | | | | | | | |
| Study Time: 01/26/2014 08:37:33 | | | | | | | | | |
| Total DLP: 33.5mGy*cm | | | | | | | | | |
| Estimated Dose Saving: 26.01% | | | | | | | | | |
| # | Series Description | Scan Mode | mAs | kV | NPS [mm] | CTDIvol [mGy] | DLP [mGy*cm] | Phantom | |
| 1 | AP Scout | Surview | N/A | 120 | 270.625 | 0.0 | 3.2 | 32 | |
| 2 | Chest | Helical | 88.8 | 80 | 6470.625 | 1.5 | 32.3 | 32 | |

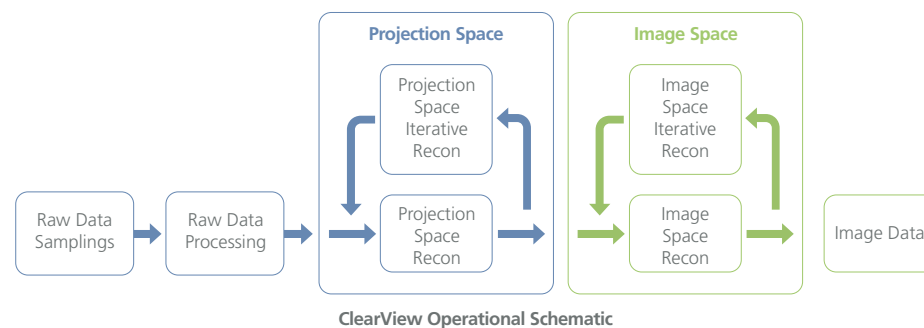
CHEST SCAN: Dose - 1.5 mGy




| Examination Information | | | | | | | | | |
|---------------------------------|--------------------|-----------|-----|----------|----------|---------------|--------------|---------|--|
| Study ID: S-201310291811 | | | | | | | | | |
| Study Time: 2013-10-29 09:45:13 | | | | | | | | | |
| Total DLP: 278.5mGy*cm | | | | | | | | | |
| Estimated Dose Saving: 55.29% | | | | | | | | | |
| # | Series Description | Scan Mode | mAs | kV | NPS [mm] | CTDIvol [mGy] | DLP [mGy*cm] | Phantom | |
| 1 | Surview | N/A | 120 | 270.625 | 0.0 | 0.0 | 0.0 | 32 | |
| 2 | Helical | 146.7 | 120 | 6470.625 | 9.6 | 278.6 | 32 | | |

ABDOMEN SCAN: Dose - 9.6 mGy

By performing iterative image processing operations in both projection and image space, the noise and artifact that often accompany low dose acquisition can be removed. This is done without a reduction in image detail.



Customers enjoy

 Superior image quality
 at half the dose
 of older CT systems.

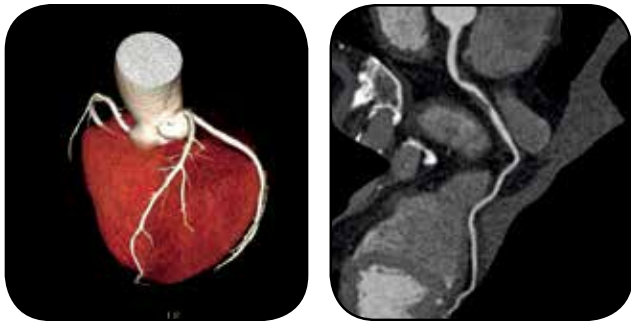
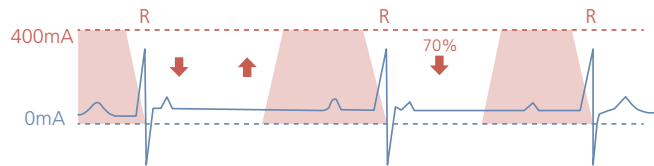
128 Robust Cardiac Imaging

By reducing the tube current during periods of the cardiac cycle when image data is not being acquired, patient dose can be significantly reduced.

Low-dose cardiac images can be acquired and then processed with ClearView reducing patient dose to $\leq 1\text{mSv}$.

Clinical Benefits:

The NeuViz 128 provides superior coronary artery visualization. Reduced kV cardiac scanning lowers patient dose. Adaptive multi-segment reconstruction improves temporal resolution for difficult cardiac rhythms.



Quad Sampling Technology

By dynamically moving the focal spot axially and longitudinally, sampling density is increased 400%. This allows for improved resolution, reduced artifact and extended scanning ranges.



Micro-STAR Detector

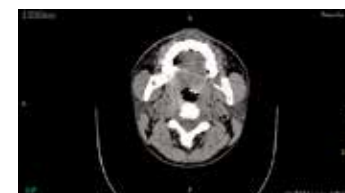
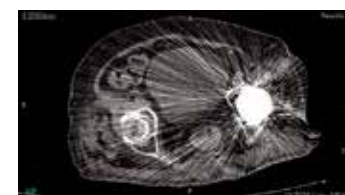
iHD (isotropic High Definition) enables the half-slice acquisition, which delivers 24 lp/cm isotropic resolution.



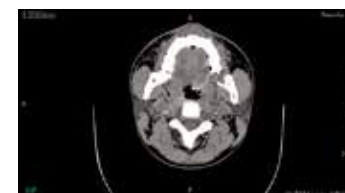
Metal Artifact Reduction

Effective integration of high resolution hardware and software results in superior image and diagnostic quality.

WITHOUT MAR+



WITH MAR+



120 Patient-Centric Features

Patient comfort is enhanced with supportive gantry padding and easily accessible emergency release controls.

A child-friendly digital display improves the scanning experience for pediatric patients.

The new scanner design delivers important information to the patient and the clinician.

Overall study times are reduced for patients by streamlined workflow and advanced scanning technology.



Full Functionality with Intuitive Workflow

The newly designed user interface improves clinician efficiency by guiding the user effortlessly through the examination.

- **Gantry LCD Monitor:** The integrated display panel and illuminated ring on the gantry provide real-time information on scan status.
- **Control Panels:** The bold new design of the control panels includes larger knobs which are easier to operate.
- **Control Box:** Ergonomic design for easier operation for improved workflow.
- **User interface** guides the healthcare provider through the study using a “guided tool bar.”
- **High-speed data acquisition and transmission** increases patient throughput.



Quick, easy-to-use post processing and diagnostic software applications.

- MPR/CMPR, 3D/SSD, MIP/MinIP/AIP/VE/VR
- SAS on supported injectors, Bolus Tracking
- Networking 100/1000 Mbps
- Auto Voice and Film
- Volume Calculation
- Vessel Analysis
- ClearView IR
- Calcium Scoring
- Bone Removal
- Neuro DSA
- ECG gating
- Dental Analysis*
- Brain/Body Perfusion*
- Lung Density and 3D Lung Nodule Analysis*
- Coronary Artery and Cardiac Function Analysis*
- Neusoft Virtual Colonoscopy*
- Tumor Evaluation*
- CCT*
- Retrospective and Prospective Cardiac Imaging
- Organ Safe
- Quad-Sampling
- Pediatric Protocols
- Adaptive Multi-Segment Reconstruction
- Shape Filter
- Advanced Detector Design
- Improved, Intuitive User Interface
- High-Speed RF Data Transmission

* may be optional

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Technical Specifications

| SPECIFICATIONS | NeuViz 128 |
|--|---|
| Minimum room size scan & operator combined | 285 sq/ft |
| Minimum ceiling height | 6' 7" |
| Gantry dimension (L x W x H) | 7' 2" x 3' 1" x 6' 3" |
| Main power requirement | 100 KVa |
| Aperture | 72cm |
| Scan field | 50cm |
| Tilt | plus/minus 30° |
| Rotation times | .375, .5, .6, .8, 1.0, 1.5, 2.0 |
| Partial rotation times | 0.25s, 0.32s, 0.39s, 0.52s, 0.65s, 0.97s, 1.3 |
| Temporal resolution | 62.5ms |
| Focus-to-isocenter distance | 570mm |
| Focus-to-detector distance | 1040mm |
| Detectors | 64 |
| Slices | 128 |
| Number of detector elements | 672 x 64 |
| Total channels per slice | 1344 |
| Number of projections | 4640 |
| Sequence acquisition modes | 128 x .625, 64 x .625, 32 x .625, 16 x .625, 8 x .625, 4 x .625, 2 x .625 |
| Spiral acquisition modes | 128 x .625, 64 x .625, 32 x .625, 16 x .625 |
| Detectors | 99.9% x-ray conversion efficiency, afterglow <= 2 us |
| X-ray tube | CTR2280 |
| Tube current range | 30mA~667 mA |
| Voltage | 80,100,120,140 kV |
| Heat storage | 8.0 Mhu |
| Cooling rate | 931 KHU/min |
| Focal spot (mm) | 0.6x1.2 (Small); 1.1x1.2 (Large) |
| Filter | Al Equivalent Tube: 1.5mm Al |
| Beam-limiting device | Equivalent to 6.68mm Al |
| Generator | 80KW |

| SPECIFICATIONS | NeuViz 128 |
|---|---|
| Maximum table load | 204.12kg/450 lb standard; 299.3kg/660 lb optional |
| Table feed speed | 1mm/s-160mm/s |
| Verticle table/travel range | 430mm-970mm |
| Verticle travel speed | 9 mm/s-15 mm/s |
| Scannable range | 1770mm |
| Host computer | Intel DUAL Core Xenon processor technology; 2.40 Ghz |
| Display | 1,280 x 1,024 resolution |
| Image storage | 500 GB; 960,000 uncompressed images |
| Additional storage | CD-R, DVD, USB drive |
| Scout length | 50-1770mm |
| Scan times | 1.5-18s |
| Scout views | AP, Lateral, Dual |
| Axial reconstructed slice thicknesses | 0.625, 1.25, 2.5, 5, 10mm |
| Dynamic multi-scan | Multiple continuous scans without table movement |
| Spiral acquisition reconstruction slice thicknesses | 0.625, 0.8, 1, 1.25, 1.5, 2, 2.5, 3, 4, 5, 6, 7, 8, 9, 10mm |
| Slice increment | 0.1-2 mm |
| Maximum scan time | 100 seconds |
| Scan length | 1770mm |
| Pitch | .13-2.0mm |
| Real-time display | Yes |
| Scan field | 50cm |
| Recon field | 5-50cm |
| Recon matrix | 512x512, 768x768, 1024x1024 |
| HU scale | -32,768 to +32,767 |
| Recon speed | 30 images/second |
| Cine display rate | 30 images/sec |
| Full DICOM support | Yes |
| Low-contrast resolution | 4mm @ 3HU; 19.8 mGy |
| High-contrast resolution | 0%MTF 17lp/mm |

North America | Sales | Service | Support

Neusoft Medical Systems USA is aligned with the most reputable medical equipment distribution partners in the USA so that you can learn about Neusoft advantages from a trusted adviser.

Remote diagnostic capabilities and North America-based service engineers bring expertise to you immediately, and proactively detect issues before problems can cause downtime and patient inconvenience.

Our North American parts depots, supported by a global logistics network, are ready to promptly respond to your service needs.



Headquarters
Houston, TX

Training Center
Cleveland, OH



Contact Neusoft Medical Systems USA today
to learn more about the NeuViz 128 and FREE software upgrades
for the life of your scanner.

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