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Neusoft Medical Systems

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NeuViz 64 In /Y21.10

Stand-by
19:31
Neusoft

# NeuViz 64 In

## Patient-centric Imaging

Neusoft Medical Systems

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# Neusoft CT

## “A RICH History of Innovation”

Current trends of an aging population together with diverse and complex diseases bring a higher demand for medical imaging equipment providers. Healthcare providers are facing increasing numbers of patients, limited budgets, ever-increasing costs while facing ever-increasing demand for complex procedures, such as coronary CTA.

Neusoft Medical Systems is an excellent value innovator of global healthcare services through continuous focus on meaningful innovation of CT technology.

NeuViz 64 In was developed to be a patient-centric imaging CT, focused on minimizing patient X-Ray dose while maintaining excellent image quality, delivering high patient throughput at a lower cost, performing coronary imaging and a wide variety of easy to use post-processing and diagnostic operations.

In general, the NeuViz 64 In supplies new opportunities for whole body scanning, even coronary CTA.

**2019**
NeuViz Glory

**2017**
NeuViz Prime

**2015**
NeuViz 128

**2014**
**NeuViz 64 In**

**2012**
NeuViz 64

**2009**
NeuViz 16

**2005**
NeuViz Dual

**2002**
CT-C2800 / 3000 Dual

**2000**
CT-C2800 / 3000

**1998**
CT-C2000

# NeuViz 64 In

## Product Highlights

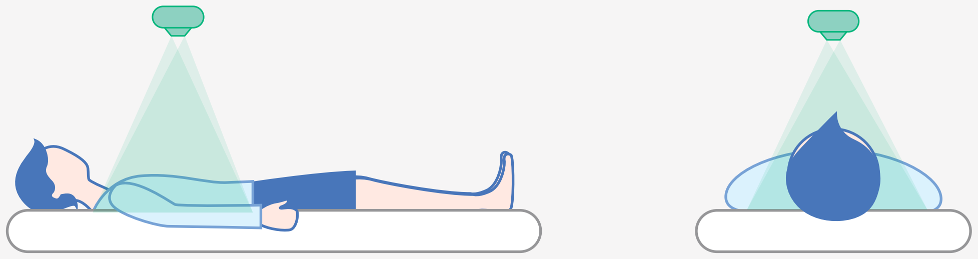
Full-range of Clinical Applications

Optimized Intuitive Workflow

Robust Cardiac Imaging

Low Dose Design

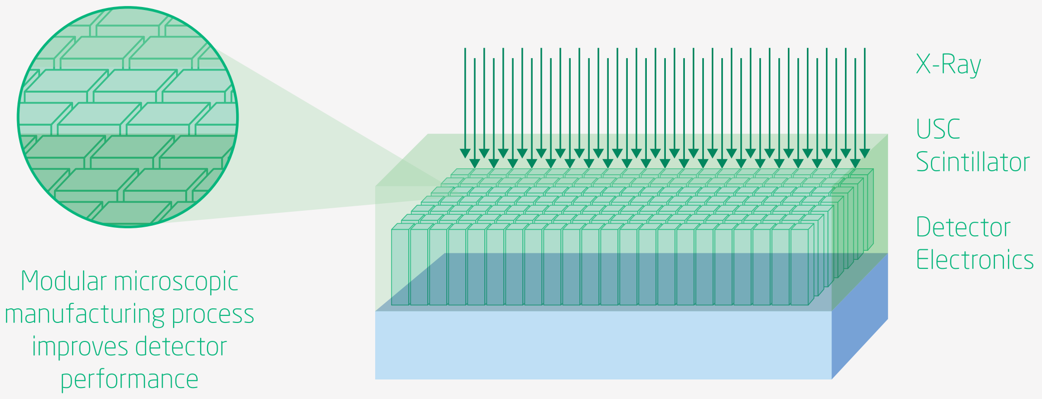
# Quad-Sampling Technology



Unique Quad-Sampling Technology

4640 views per rotation provide high data sampling density. Simply put, this results in a market leading isotropic resolution of 0.32 mm and a pitch up to 1.7.

# Dose Efficient Detector


X-Ray
USC Scintillator
Detector Electronics
Modular microscopic manufacturing process improves detector performance

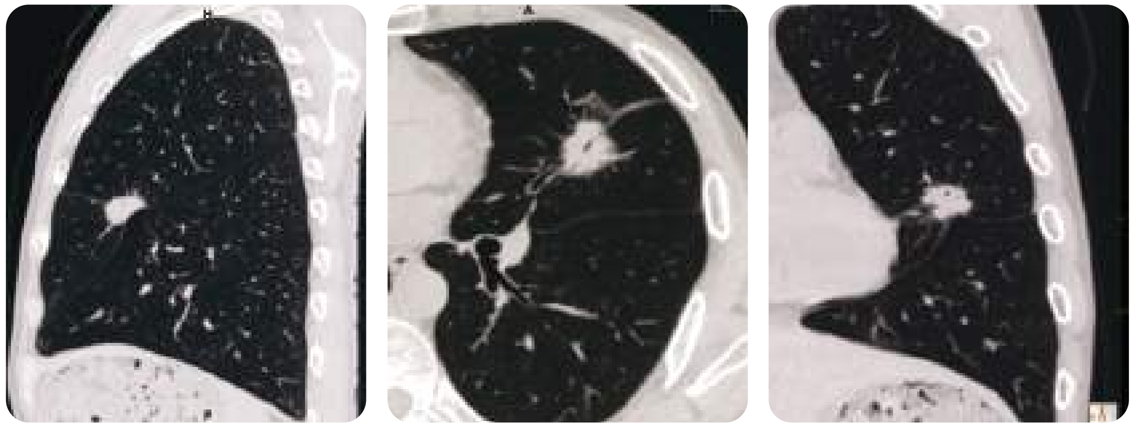
A patented manufacturing process reduces afterglow time (<2 us) and maximizes conversion rate (99.99%) . This results in a perfect balance between low dose and high quality.

# 1024 Reconstruction Matrix

1024 matrix reconstruction technology provides the spatial resolution necessary for lung nodule and inner ear studies.

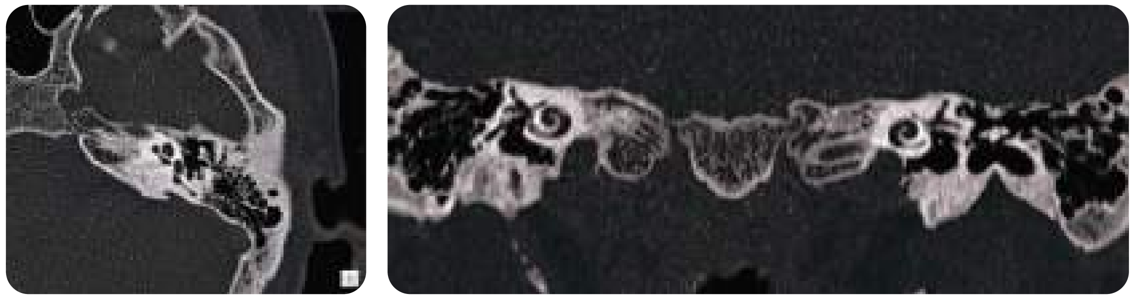
## High Resolution Lung Images

Multiplanar reformation shows a solitary pulmonary nodule in the left upper lobe. This nodule presents with irregular margins, lobulated signs and hollowed pleuras. These are clinical indicators of carcinoma.



## High Resolution Inner Ear Images

Coronal and axial multiplanar reformation shows the small structures of the inner ear such as cochlea and semicircular canals.



# O-Dose Platform

### 240 degree exposure

Dose to the patient and physician reduced.

### Organ-Safe

Reduces dose to radiosensitive organs, such as eyes, thyroid and breasts.

### ClearView

Iterative Processing in projection & image spaces optimizes dose efficiency.

### Auto kV

The kV automatically adjusts to the optimum level based upon the patients anatomy while insuring the best kV for a given exam type is used.

### 3D dose modulation

Tube current modulates based on the anatomy in the scan field for an anatomically optimized dose.

### New detector design

Modular design delivers 99.99% x-ray conversion efficiency, lowering the dose necessary to deliver excellent image quality.

### Pediatric Protocols

Not "scaled down" adult protocols. Designed specifically for pediatric anatomy.

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### ECG dose modulation

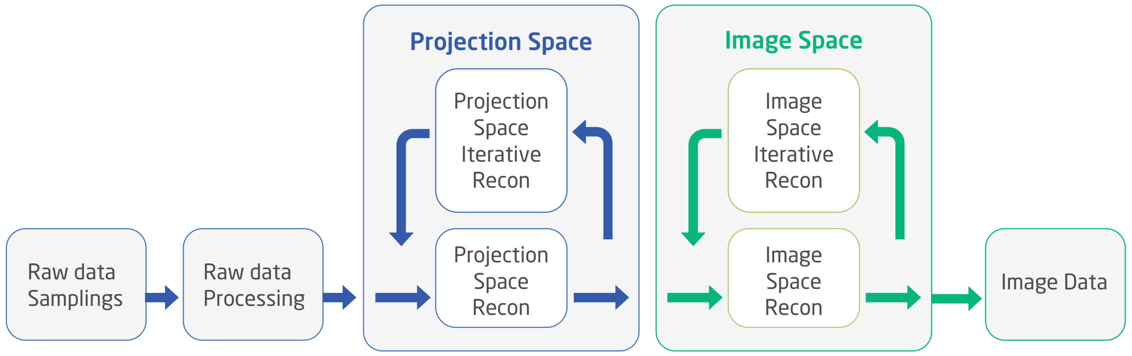
Reduces tube current during non-imaging phases of the cardiac cycle to minimize patient dose.

### Dose check

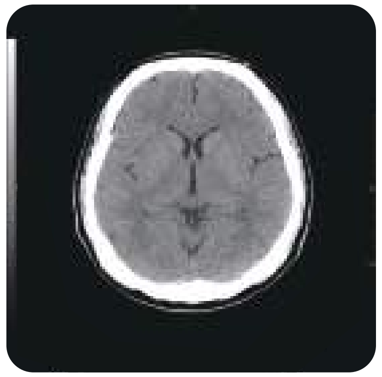
DoseCheck (NEMA XR-25) and SmartDose (NEMA XR-29) are fully implemented. Patient safety is insured.

# ClearView Iterative Reconstruction

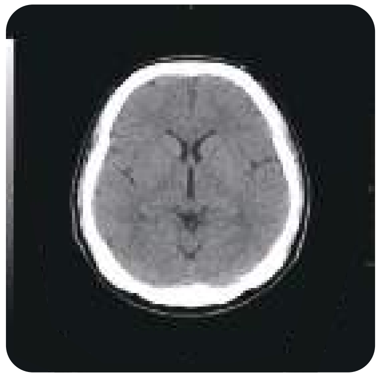
By performing iterative processing operations in both projection and image space, noise and artifacts associated with low dose imaging can be removed, while diagnostic information is retained, yielding a study with high clinical value.


Raw data Samplings
Raw data Processing
Projection Space
Projection Space Iterative Recon
Projection Space Recon
Image Space
Image Space Iterative Recon
Image Space Recon
Image Data

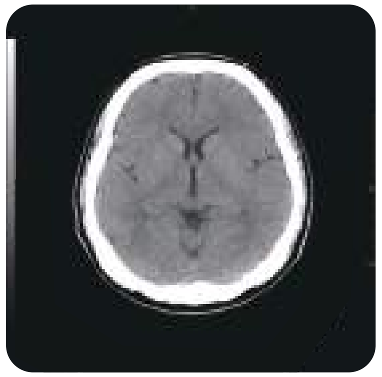
“Removes noise while preserving detail, providing low-dose image quality that is superior to that of full-dose images.”



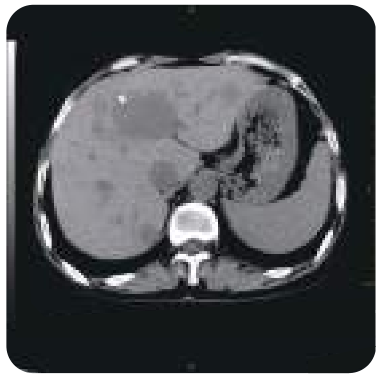
120kV, 260mA, full dose



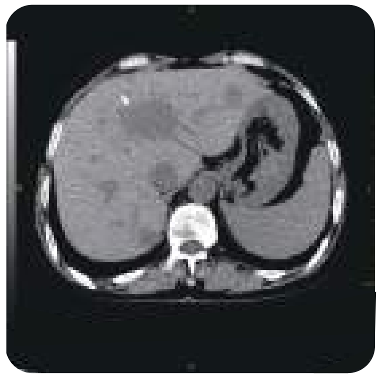
120kV, 169mA, dose reduction



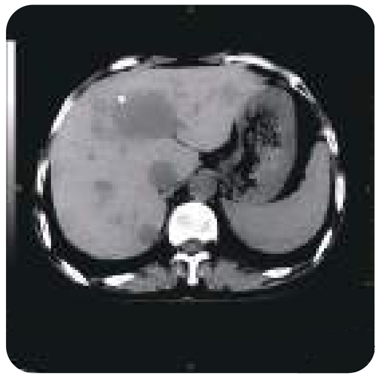
120kV, 169mA,
dose reduction+ClearView



120kV, 180mA, full dose



120kV, 90mA, dose reduction

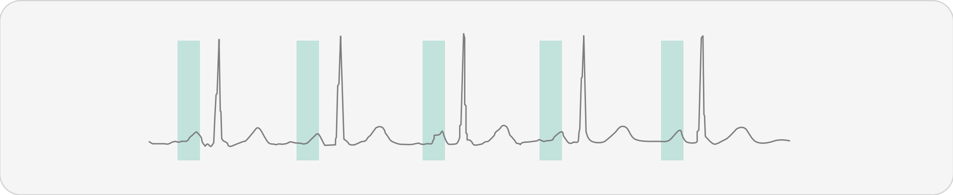


120kV, 90mA,
dose reduction+ClearView

# Low Dose Cardiac Solutions

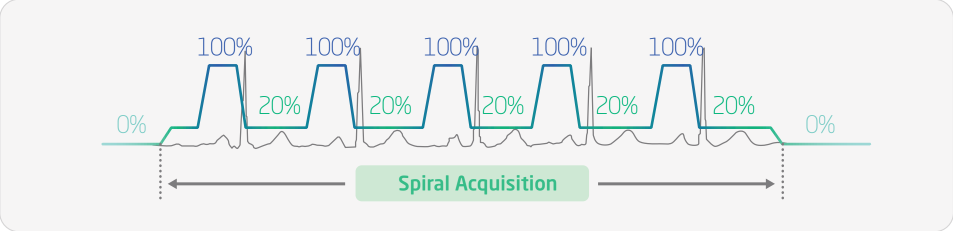
## Prospective Scan

The NeuViz 64 In can support ECG-Triggered prospective cardiac imaging with cardiac acquisition at the end of diastole. Combined with reduced tube current and advanced iterative reconstruction algorithm ClearView, patient dose below 3mSv can be achieved.



## Low Dose Retrospective Scan

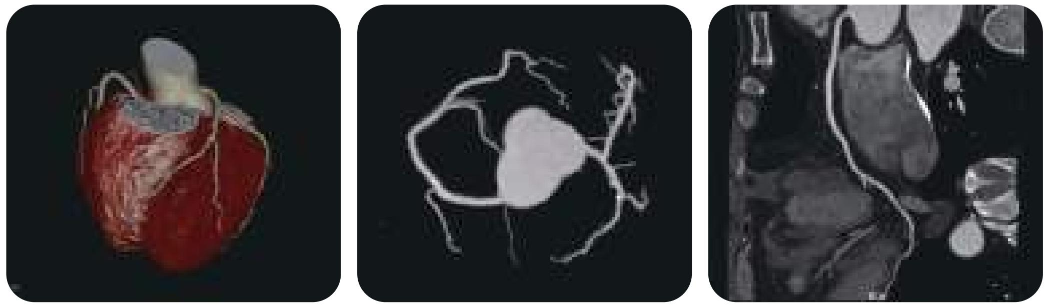
In each cardiac cycle, acquisition is continuous, with simultaneous ECG-Tracking to obtain data. However, tube current would be largely reduced at systole and beginning of diastole to optimize patient dose.


100%
100%
100%
100%
100%
0%
20%
20%
20%
20%
20%
0%
Spiral Acquisition

## Clinical Benefits

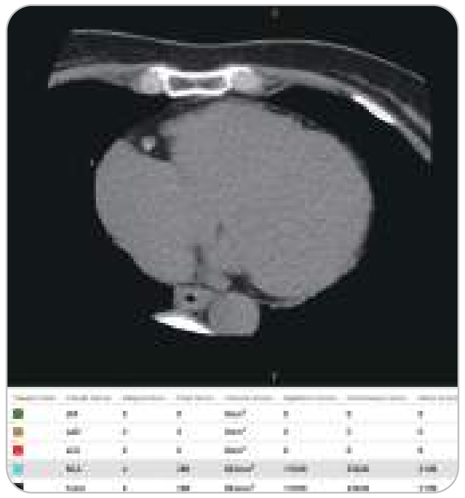
The NeuViz 64 In provides for superior Coronary Artery visualization as demonstrated in the VR and MPR studies pictured below:

Male, 45 years old, 66bpm, 2.77mSv

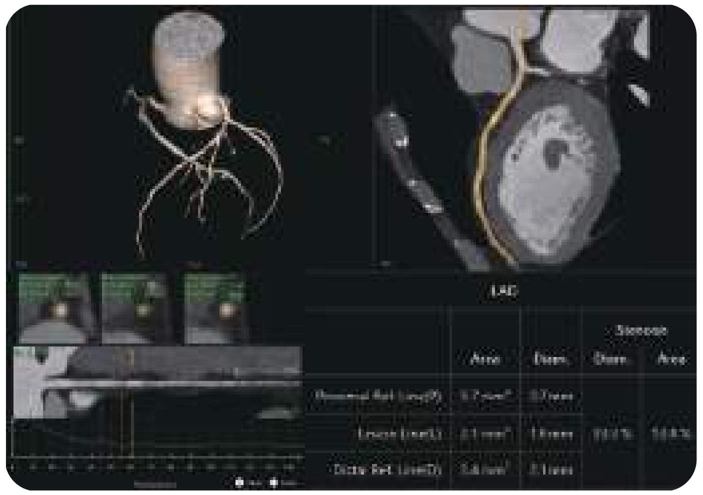


## Post-processing Application Solutions

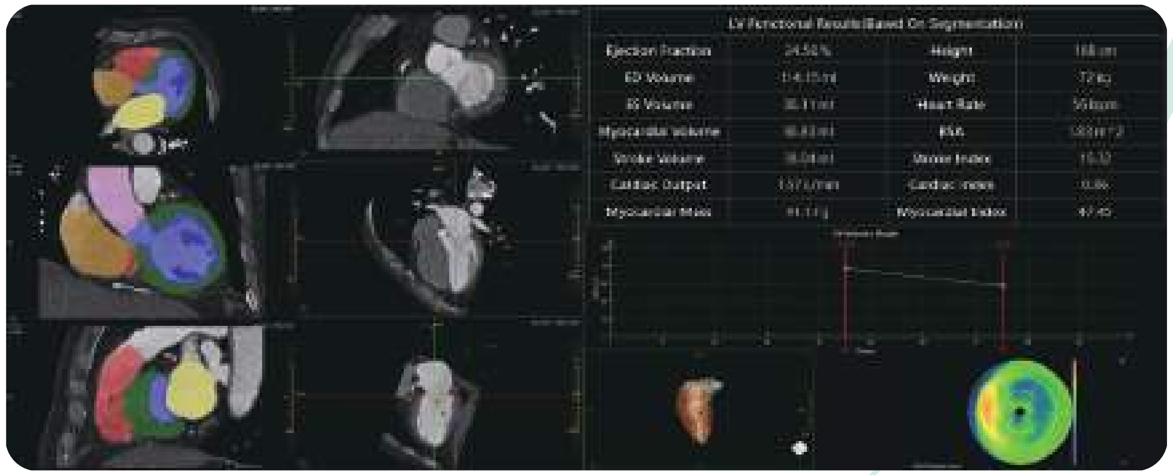
The NeuViz 64 In is designed to offer cardiac solutions which include Cardiac Calcium Scoring, Cardiac Function Analysis and even Coronary Analysis. It delivers one-stop, full-range diagnostic certainty to cardiac imaging.



Cardiac Calcium Scoring


LAD
Stenosis
Area
Diam.
Diam.
Area
Proximal Ref. Line(P)
Lesion Line(L)
Distal Ref. Line(D)

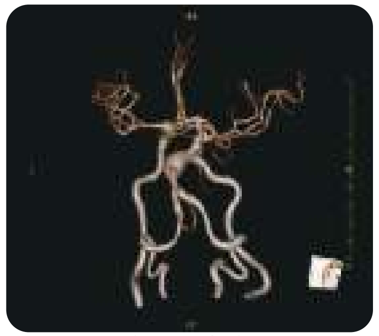
Cardiac Coronary Analysis


LV Functional Results(Based On Segmentation)
Ejection Fraction
ED Volume
ES Volume
Myocardial Volume
Stroke Volume
Cardiac Output
Myocardial Mass
Height
Weight
Heart Rate
BSA
Stroke Index
Cardiac Index
Myocardial Index

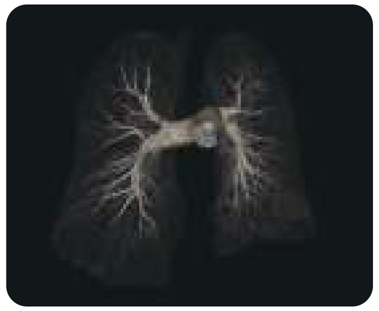
Cardiac Function Analysis

# Full Range of Clinical Applications

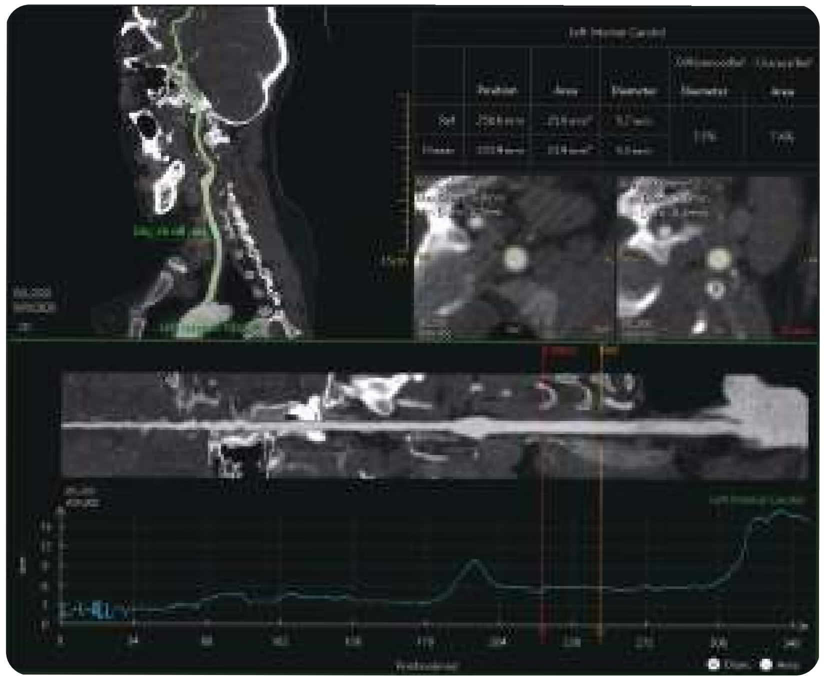
## Advanced Vessel Analysis



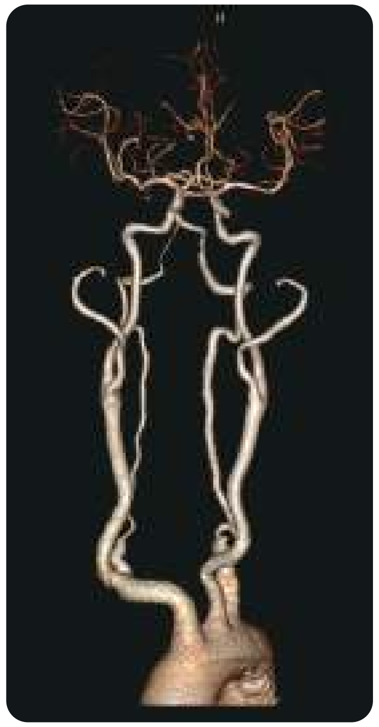
Neuro CTA



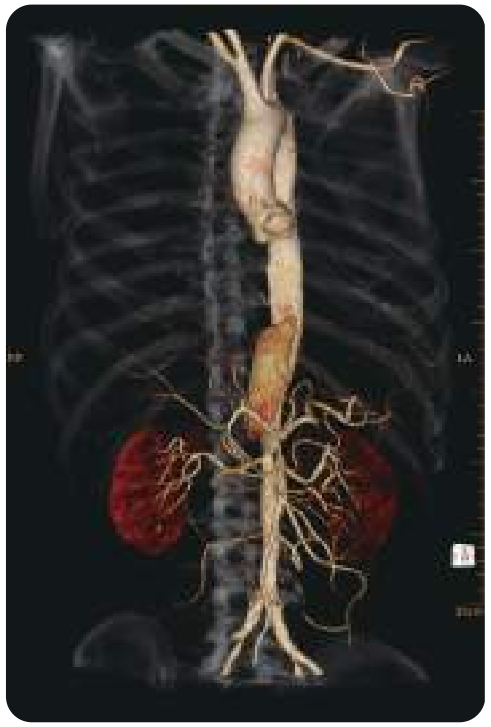
Pulmonary Artery CTA



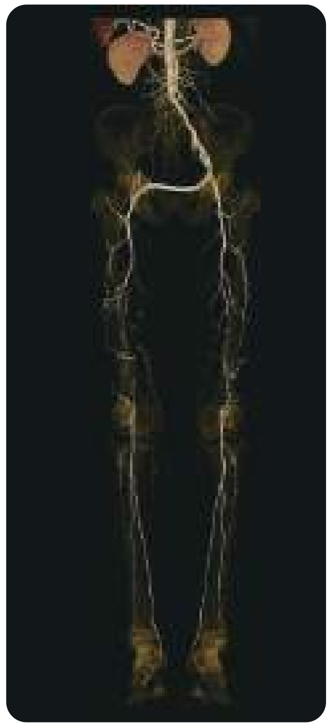
Vessel Measurement



Head & Neck CTA

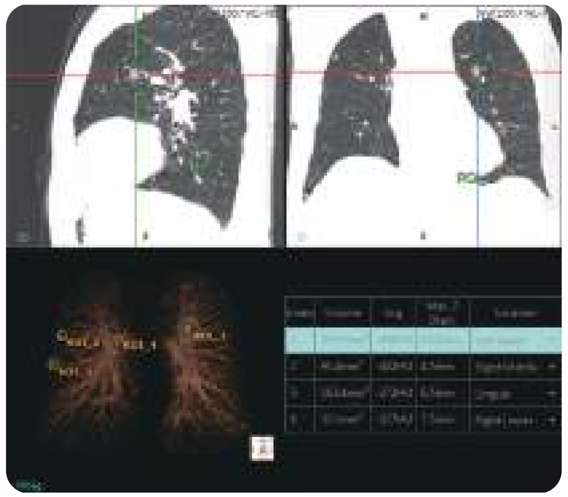


Abdominal Aorta CTA

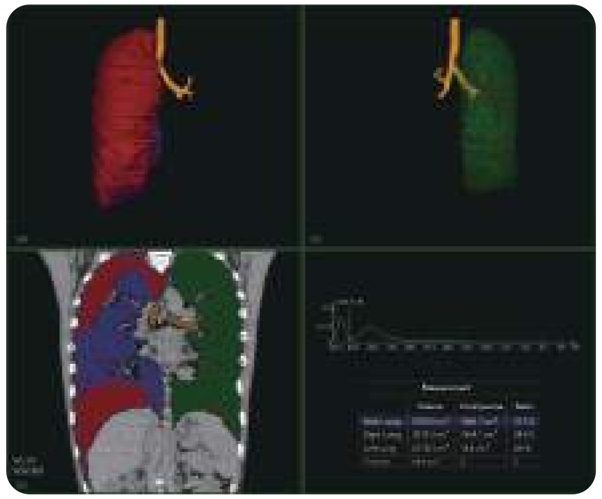


Run-off CTA

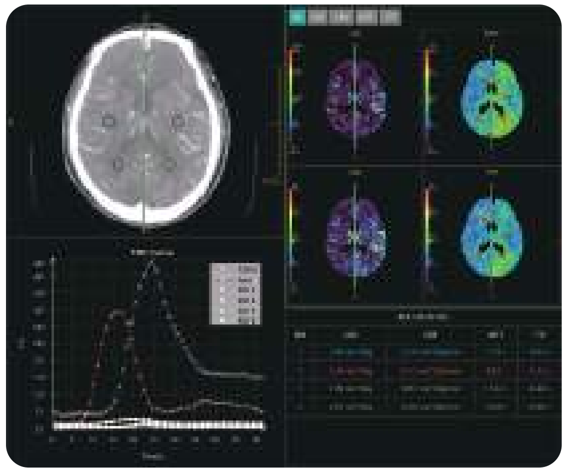
## Lung Nodule Analysis



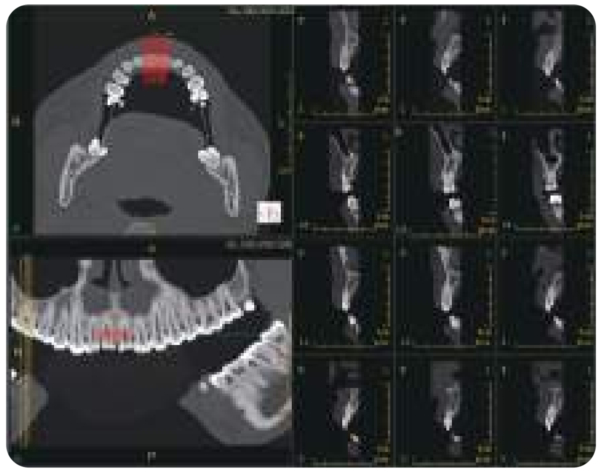
## Lung Density Analysis



## Brain Perfusion



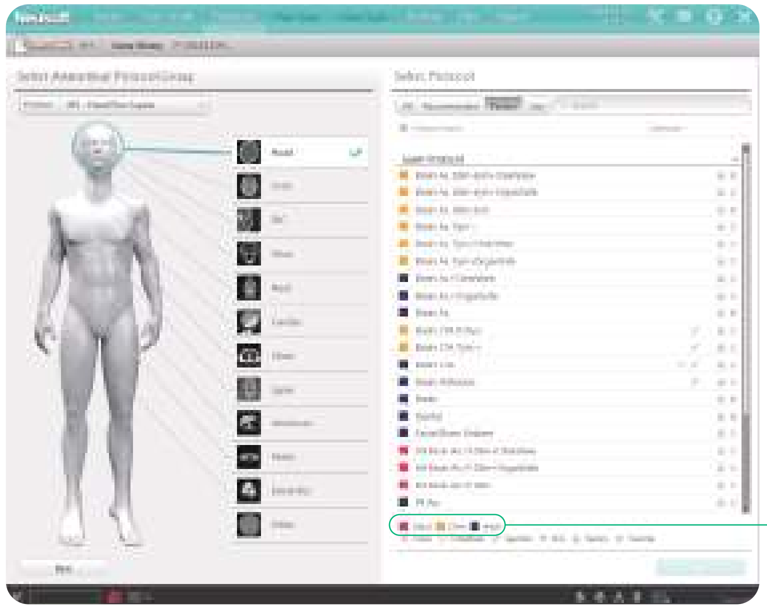
## Dental Analysis



# Optimized, Intuitive Workflow

## Intuitive Operation & Smart Protocol Selection

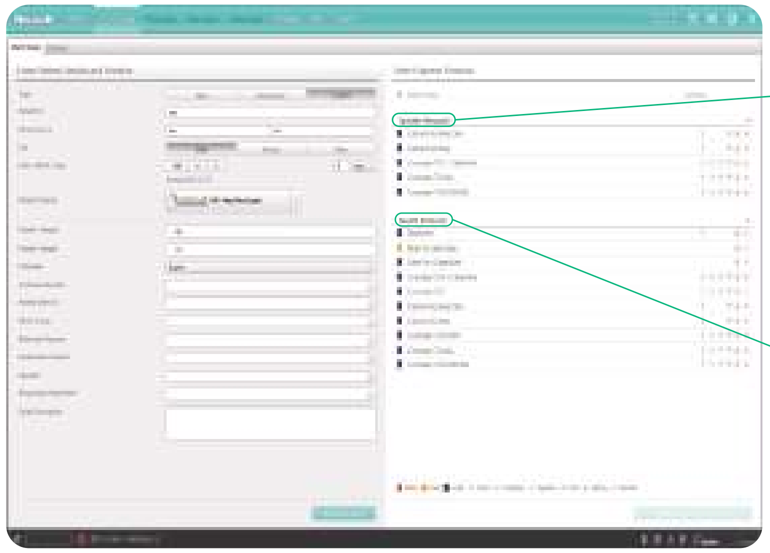
Intuitive workflow and user interface guide healthcare providers using a "guided tool bar", designed to facilitate daily workflow.



01 | Protocols are grouped by human body anatomy which will help technicians choose proper protocols intuitively.

02 | Protocols are divided by different patient ages which are represented by different colors (Pink for infant, orange for child and dark blue for adult), contributing to improved work efficiency with less human error.

🟥 Infant 🟧 Child 🟦 Adult



Favorite Protocols

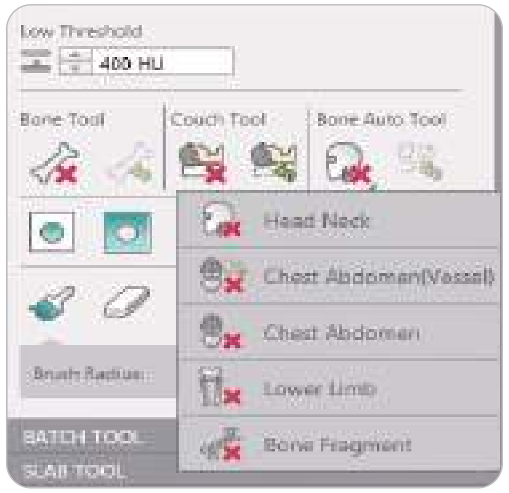
03 | Self-set protocols can add common emergency protocols to favorite protocols. Scanning start by one click, which will ease workflow by reducing operation procedures.

Recent Protocols

04 | Smart protocol management can learn from statistics, these protocols will be listed by use frequency.

## Efficient Post-processing

Post processing is designed to optimize time saving. Key strokes are minimized and process steps automated, streamlining workflow.


Low Threshold
400 HU
Bone Tool
Couch Tool
Bone Auto Tool
Head Neck
Chest Abdomen(Vessel)
Chest Abdomen
Lower Limb
Bone Fragment
Brush Radius:
BATCH TOOL
SLAB TOOL

## RSSF

### (Real-time System Status Feedback)

System status and ECG are clearly displayed.
Breath hold commands are also communicated to the patient.

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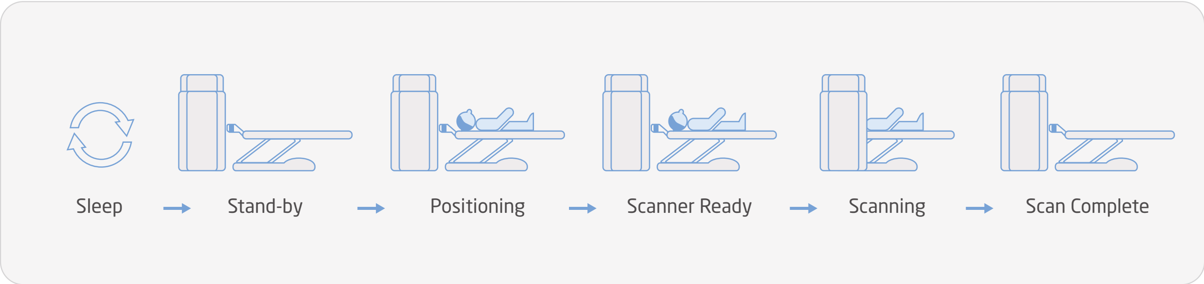
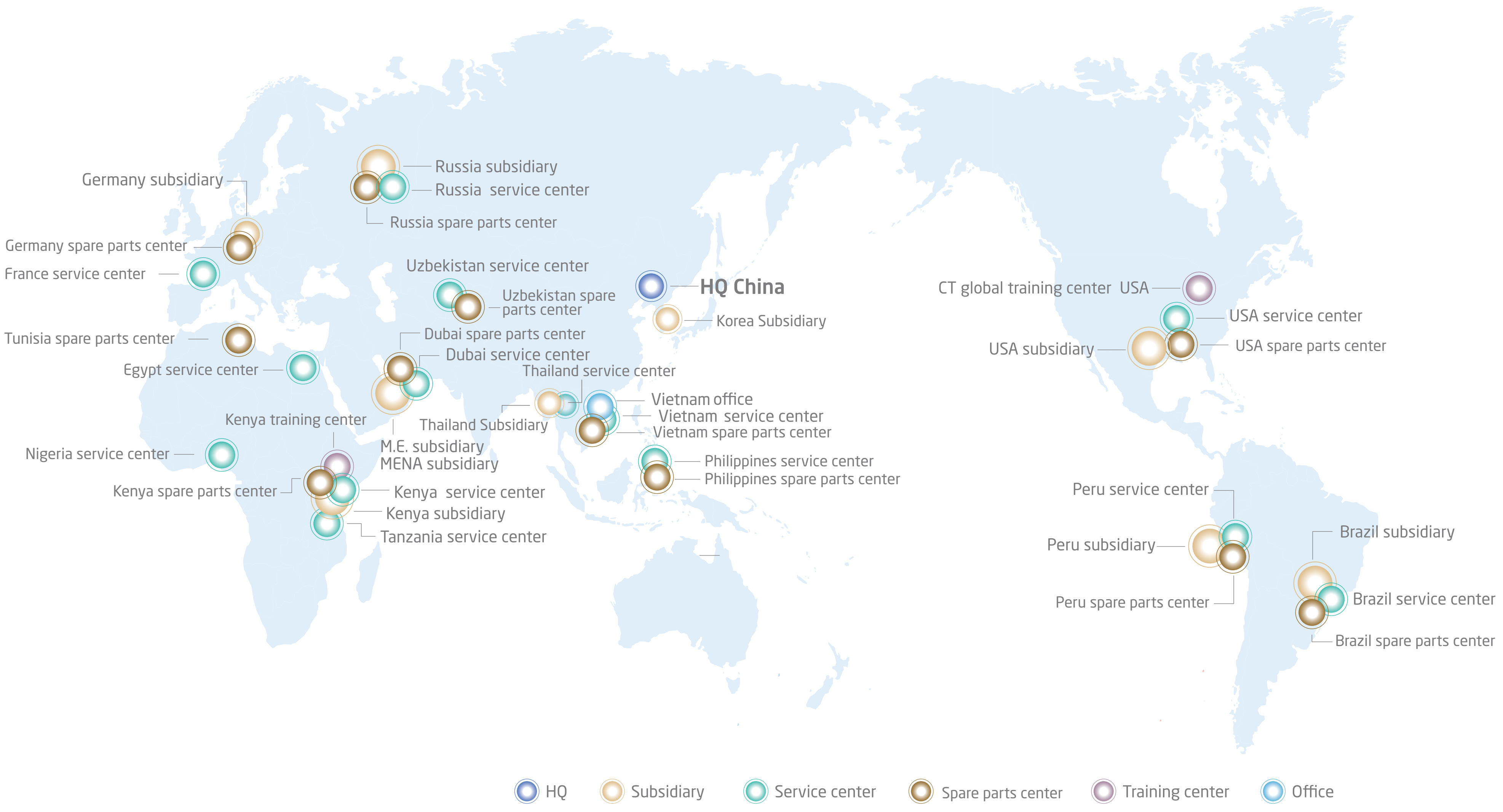

Sleep
Stand-by
Positioning
Scanner Ready
Scanning
Scan Complete

## Emergency Examination without Waiting

Patented RSSF allows emergency scanning without preheating, saving precious time and decreasing exposure. This guarantees the timeliness and safty of emergency scanning.

# Service and Logistics Support

## Neusoft Global Service & Logistics Network


Germany subsidiary
Russia subsidiary
Russia service center
Russia spare parts center
Germany spare parts center
France service center
Uzbekistan service center
Uzbekistan spare parts center
HQ China
Korea Subsidiary
CT global training center USA
USA service center
USA subsidiary
USA spare parts center
Tunisia spare parts center
Dubai spare parts center
Dubai service center
Egypt service center
Thailand service center
Vietnam office
Vietnam service center
Vietnam spare parts center
Kenya training center
Thailand Subsidiary
M.E. subsidiary
MENA subsidiary
Nigeria service center
Philippines service center
Philippines spare parts center
Kenya spare parts center
Kenya service center
Kenya subsidiary
Tanzania service center
Peru service center
Peru subsidiary
Peru spare parts center
Brazil subsidiary
Brazil service center
Brazil spare parts center
HQ
Subsidiary
Service center
Spare parts center
Training center
Office

## After-sales service and support

- Remote service capabilities bring Neusoft expertise to you IMMEDIATELY, no matter where you are!
- Identifying and correcting PROMPTLY and PROACTIVELY, minimizing downtime and patient inconvenience.
- Global logistics network enables fast response regarding parts and supplies.

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