## INNOVATION BY DESIGN

For over 130 years, Toshiba has led the world in developing technology to improve the quality of life. This Made for Life commitment is reflected in our family of leading edge imaging systems for CT, MRI, ultrasound, cath labs, X-ray and nuclear medicine. From creating our first slip-ring scanner in 1985 to introducing the first 64-slice CT system in 2004, Toshiba continues to build upon its legacy with technological innovations that improves patient care while providing lasting quality for a lifetime of value.

#### Toshiba — A History of Leadership

- 1875 Founding of Toshiba
- 1985 First slip-ring CT scanne
   1989 First Helical CT Scanner
- 1993 First Real-time CT Fluoro
- 1998 First 500 ms CT Scanner
- 2003 First 32 slice CT scanner

102 • First 400 ms CT Scanner

*\_ 2004* • First 64 slice CT scanne





#### TOSHIBA MEDICAL SYSTEMS CORPORATION

http://www.toshibamedicalsystems.com

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Design and specifications subject to change without notice.

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# Easy Operation and High-Quality Images for Every User

capabilities and push productivity to new heights. automated MPR generation of true isotropic data expands your diagnostic with a single-console interface. Outstanding reconstruction speed and Introducing the Activion 16 multislice CT system, a new addition to Toshiba's 4- to 64-slice CT systems to provide exceptional image quality Toshiba's multislice family that combines the high technology of









to high-quality images, and powerful diagnostic tools enhancing

Featuring fast and efficient image reconstruction, giving clinicians access

technologies in a single console.

workflow, productivity and clinical outcomes.

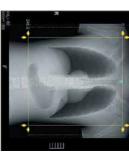
patient care. In the Activion16, Toshiba brings together innovative by manufacturing diagnostic imaging systems to improve the quality of For over 90 years, Toshiba has maintained a global leadership position

## Activion16 - Redefining "Easy Operation"

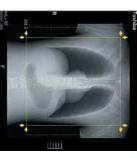
All remaining operations are fully automatic. by following just three steps: "Ready - Set - Go". Examinations can be performed by any operator to the same high standard allowing the operator to focus on the patient rather than system operation. and image transfer parameters to be incorporated into each examination protocol, Activion16 offers on-screen protocol guidelines for every type of CT examination. The sophistication of the system allows all scan, reconstruction,



> Ready select the scan region



> Set perform scan plannning





➤ Go! start scanning

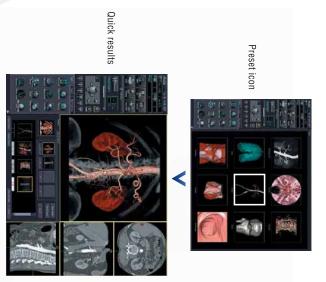


## Fast and Accurate Bone Removal

Toshiba's newly developed user-friendly 3D imaging software permits 3D images to be generated with outstanding ease, while intuitive 3D preset icons ensure easy operation and quick results.

Toshiba's bone removal software provides the operator with an easy and accurate means of removing bone from CT angiographic images.

Extremely high-quality MIP images with bone segmentation can be obtained in just a few clicks. Toshiba provides realtime preview of bone removal on synchronized 3D and MIP images to ensure highly accurate and diagnostic 3D CT angiograms every time.









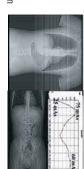
## High Level Technology for Low exposure dose

#### Personalized dose control

noise level specified by the user. maintaining high image quality throughout the entire anatomy based on the current to the patient's body habitus to reduce the exposure dose while Realtime exposure control with  ${}^{\text{sure}}\textsc{Exposure}^{\text{\tiny{TM}}}$  automatically adjusts the tube

- Up to 40% dose reduction
- Automatic tube current modulation
- Dose optimized for each patient's anatomy
- Intelligent dose reduction with QDS reconstruction

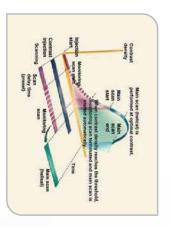




#### Industry-leading CT bolus tracking

continuous mode with a low-dose technique and automatically triggers <sup>SURE</sup>Start™ monitors contrast uptake in the target region using intermittent or scanning at the optimal level of enhancement in order to.

- Increase examination efficiency by avoiding repeat procedures
- Improve image quality by optimizing contrast utilization
- Reduce contrast usage by eliminating the need for a test bolus



### Advanced CT algorithms

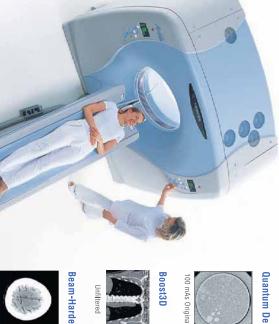
#### **Advanced CT algorithms**

with <sup>SURE</sup>IQ™ to enhance image quality while applying low dose techniques. The Activion16 employs a variety of post processing filters named anatomically

- to half while keeping the low and high contrast resolution Quantum Denoising software, reduces the exposure
- Advanced raster artifact suppression technique (Boost3D™), an adaptive filter process applied to raw data that removes high noise

due to low dose scanning technique

2 path Beam Hardening Correction, a double reconstruction technique that compensates for changes in effective photon energy when passing tissue with high density e.g. bones



#### **Quantum Denoising Software**







100 mAs QD Filte



Subtraction





**Beam-Hardening Correction** 







### Options for Activion16

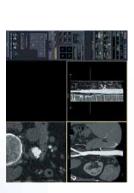
## SURESubtraction Cerebrovascular imaging reaches new heights

sureSubtraction in brain CTA is revolutionary new technology that provides 3D DSA images for the complete and accurate assessment of the blood supply to the brain. With superb accuracy, low-dose precontrast images are automatically subtracted from a regular post-contrast study, providing unsurpassed detail of the intracranial internal carotid artery and the carotid siphon. Surgical aneurysm clips and coiling devices are removed, permitting unobstructed postoperative assessment.



#### Vessel View

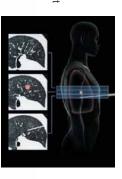
Vessel View automatically provides curved planar reformations (CPRs) of selected arteries in just two clicks. For fast angiographic diagnosis, the automatically generated curved planar images can be freely rotated around the curved path in both anatomical and straightened CPR views. Cross-sectional images perpendicular to the curved path are automatically displayed, allowing complete assessment of the arterial lumen and walls. Quantitative percentage stenosis measurements are easily obtained based on either the minimum luminal diameter or total luminal area.



#### Real-time multislice CT fluoroscopy

Because real-time CT fluoroscopy tracks biopsy needle movement without delay, interventional procedures are easier, quicker and more accurate than ever.

- Shows the needle in 3 continuous images in real time for precise positioning and control
- Improves the accuracy of biopsy procedures
- Offers patient greater safety and less discomfort





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