

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 MRI, CT, ultrasound, cath labs, X-ray and nuclear medicine. From creating our first X-ray tube in 1915 to introducing the first Dynamic Volume CT Scanner in 2007, Toshiba continues to build upon our legacy with technological innovation that improves patient care while providing lasting quality for a lifetime of value.

Toshiba — A History of Leadership

- 1875 • Founding of Toshiba
- 1915 • First X-ray Tube
- 1973 • First Real-time Ultrasound Scanner
- 1989 • First Helical CT Scanner
- 1990 • First Tissue Doppler Imaging System
- 1993 • First One-million-pixel CCD
- 1997 • First Open, Superconducting Magnet
- 2000 • First All-digital Multipurpose X-ray System
- 2003 • First 64-slice CT Scanner
- 2005 • First Compact Dual Plane Cath Lab with Flat Panel Detectors
- 2007 • First Dynamic Volume CT Scanner



TOSHIBA MEDICAL SYSTEMS CORPORATION

<http://www.toshibamedicalsystems.com>

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TOSHIBA
Leading Innovation >>>

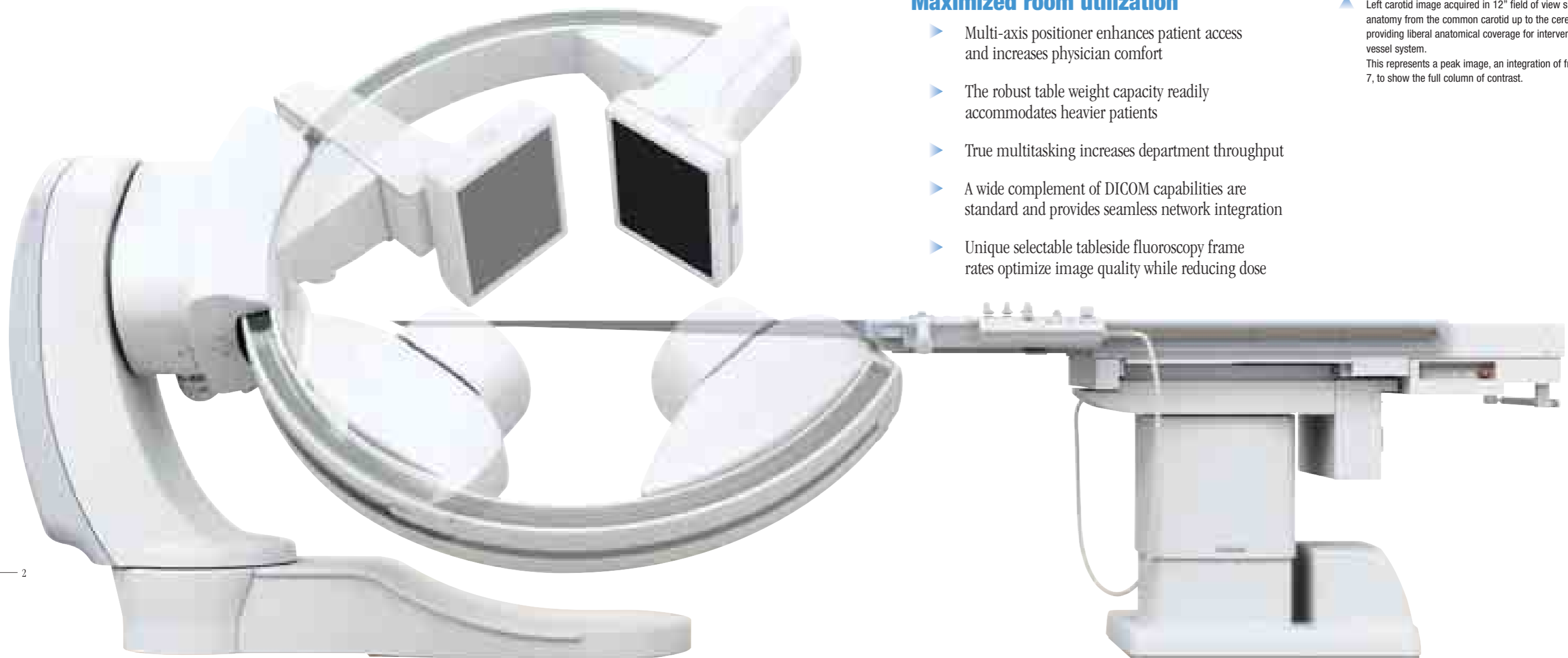
INFX-8000V
-Type S-
— Vascular single-plane system —
12" x 16" Flat Panel Detector

INFX-8000V

Comprehensive imaging system designed for interventional procedures

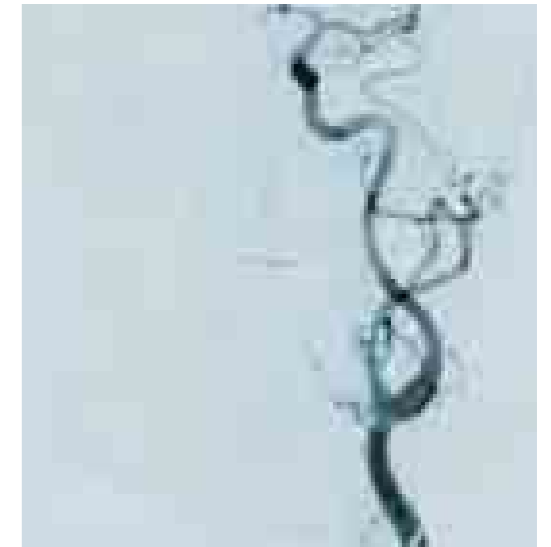
The versatile multi-axis floor mounted C-arm of INFX-8000V provides unprecedented access to the patient. The unique design ensures head-to-toe and fingertip-to-fingertip coverage for diagnostic and interventional procedures.

The system's innovative ergonomics and workflow features boost room utilization, increase patient throughput and provide patient care.



High-resolution interventional images

- ▶ From small to large patients, the sophisticated processing power and unique floor mounted rotating detector design provide comprehensive imaging of all anatomy
- ▶ Fluoroscopy frame rates of 1, 2, 3, 5, 7.5, 10, 15, 20, 30 fps reduce dose with optimal image quality
- ▶ New generation filter made it possible the reduction of noise with high spatial resolution and less lag. The new filter enhances high-definition images of small devices and structures (Super Noise Reduction Filter: SNRF).



Maximized room utilization

- ▶ Multi-axis positioner enhances patient access and increases physician comfort
- ▶ The robust table weight capacity readily accommodates heavier patients
- ▶ True multitasking increases department throughput
- ▶ A wide complement of DICOM capabilities are standard and provides seamless network integration
- ▶ Unique selectable tableside fluoroscopy frame rates optimize image quality while reducing dose

▶ Left carotid image acquired in 12" field of view shows the anatomy from the common carotid up to the cerebral vessels providing liberal anatomical coverage for interventions in this vessel system. This represents a peak image, an integration of frames 4 to 7, to show the full column of contrast.

Unique positioning for quick access to all anatomy

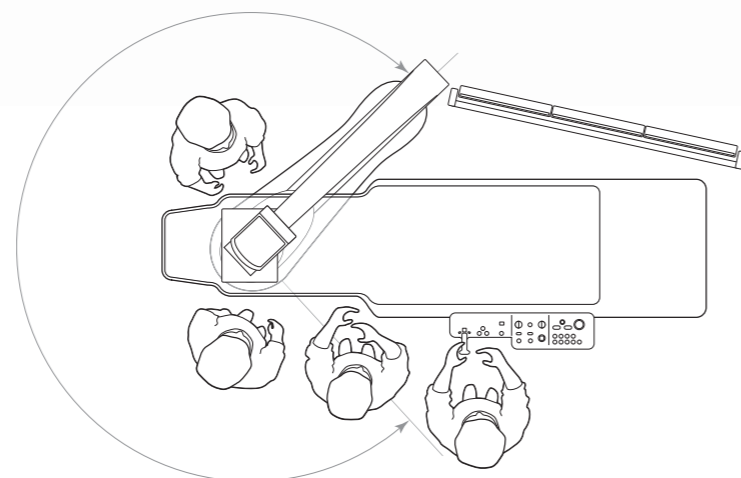
Designed with input from leading clinicians, the Infinix multi-axis floor mount system takes full advantage of the examination room space and ensures the utmost in clinical teamwork and patient care. Its compact footprint with unprecedented clinical coverage expands overall room efficiency and utilization.

Anatomical coverage without compromise

Head-to-toe, fingertip-to-fingertip coverage sets a new standard for patient access. Direct right-left coverage enables a convenient radial approach and easy imaging of off-center anatomy.



An exceptional collaborative environment is created by the system's unique C-arm positioning and quiet, high performance X-ray tube.



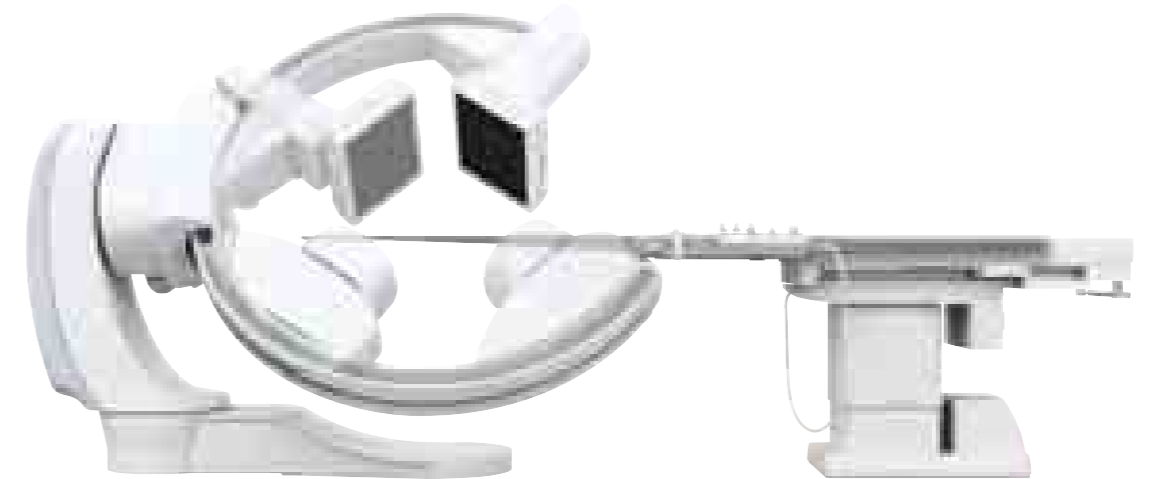
Fast, easy flat panel positioning

Manual or automatic, portrait or landscape orientations, these positions can be achieved with the simple touch of a button.



High-speed C-arm motion in any direction

An overall C-arm speed of 20 degrees per second in any direction delivers complex angulations quickly and accurately. High-speed C-arm positioning can be pre-programmed or manual to significantly enhance productivity.



Superb patient access

The multi-axis floor mounted C-arm provides easy patient access from either side, freeing space to accommodate the anesthesiologist and other specialists.



Superior imaging capabilities for patients small to large

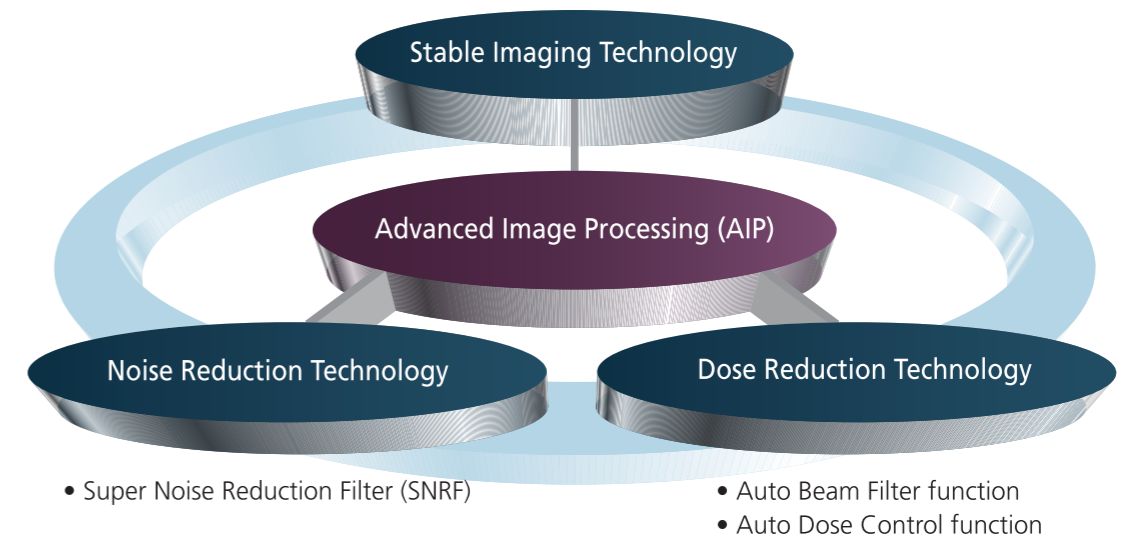
The 12" x 16" flat panel detector is designed for low-noise, high-resolution fluoroscopic imaging. With four selectable fields of view, the operator can optimize the view based on anatomical region. With imaging at up to 30 fps, the optimum fluoroscopic image for interventional exams is achieved.

Powerful image processing

- ▶ Flat panel detector processing provides a wide range of edge enhancement and noise suppression refinements; as many as 23 parameters can be changed to manage the image
- ▶ Four modes of fluoroscopy are standard at tableside. Frame rates from 1-30 fps can be selected at time of installation

Advanced Image Processing (AIP) provides superb image quality for visualization of vessels and device.

- Digital Pattern Recognition Filter (DPRF)
- Advanced Digital Compensation Filter (ADCF)



Unique Guide View provides a clinical “roadmap”

Toshiba’s “Guide View” provides a superimposed roadmap over live fluoroscopy images, facilitating accurate device placement within a targeted vascular anatomy.

- ▶ Unique technology enhances visualization (in black or white) of the catheters or guide wires



Innovative table design

To accommodate large patients, the table has a weight capacity of 484 lbs. when fully extended, and when retracted, the table provides an additional 220 lbs. of weight-bearing capacity.



Quick and easy execution of the full range of vascular exams

Efficient tableside control

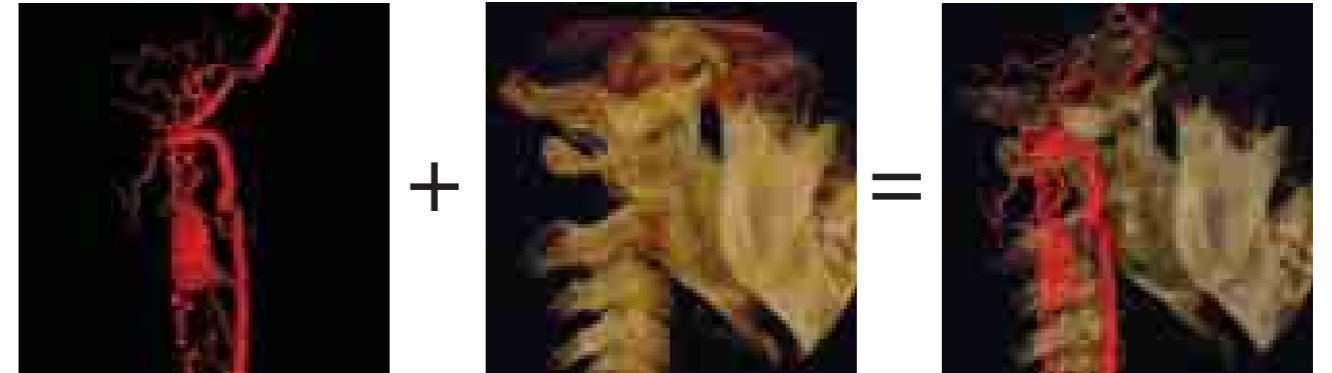
The ergonomic and tactical tableside controls (including control of the digital processing functions) allow easy, anatomy-based movements. Positioning in any direction is intuitively directed with the tableside Hyperhandle control that facilitates movement at 20 degrees per second.

- ▶ A single unit control allows selection of up to four levels of fluoroscopy dose
- ▶ During image review, a single keystroke enables system setup from any selected image
- ▶ Automated functionality includes immediate review after acquisition and image archiving without interruption
- ▶ Tableside access to other functions is easily achieved through a specially-designed graphical user interface



3D-Angio

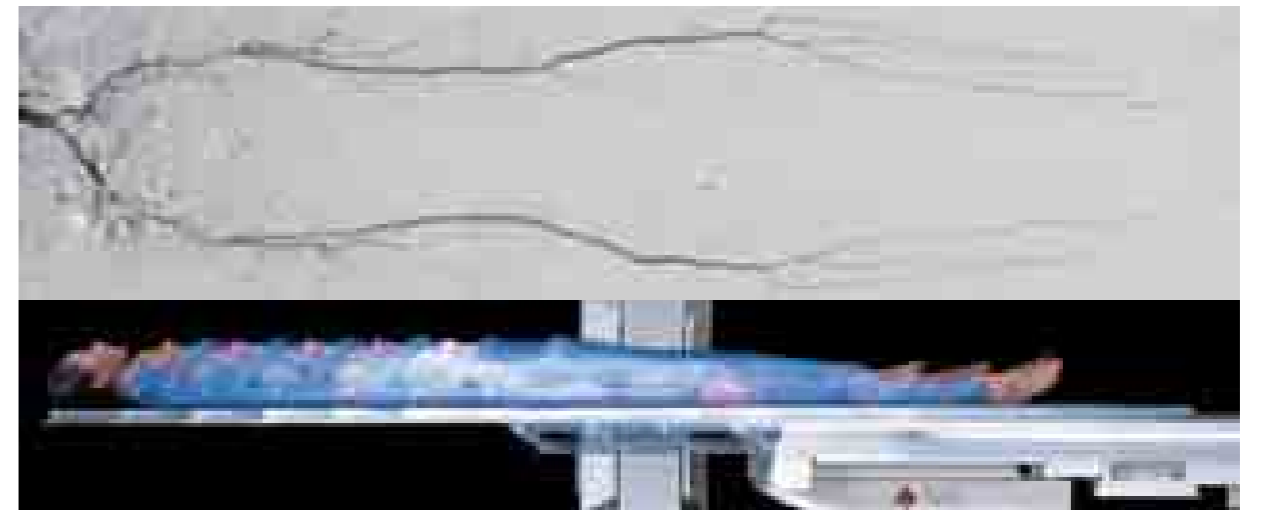
Easy setup and execution of mask and arterial phase are used to create bone or device fusion.



▶ A sampling of the wide range of images that can be acquired during a DSA rotation injection. For 3D reconstruction, images are acquired over a 200-degree arc at 1024 x 1024 resolution.

Peripheral DSA

Oriented for wide coverage, the 12" x 16" flat panel provides full imaging of the lower extremities. After programmed setup, the table is stepped by manual activation while watching the bolus flow for accurate reliable results. Typically, a single injection can cover the total peripheral anatomy.



Dose-reduction technology for the patient and staff



X-ray beam filter

Toshiba's beam filtration can dramatically reduce absorbed patient dose and radiation scatter. At tableside, clinicians can select the mode of choice to limit dose and optimize image quality.

Variable dose mode

With the touch of a tableside button, the operator can choose from four pre-programmed fluoroscopy modes. Different combinations of pulse rates, dose level, and image processing parameters optimize various study protocols.



▲ Clinicians enjoy the added advantage of increased productivity and patient care with complete tableside control.

Virtual collimation

After fluoroscopy, virtual collimation uses software to simulate collimator and beam filter positions. This lets operators adjust collimation without additional fluoroscopy, further reducing radiation dose.

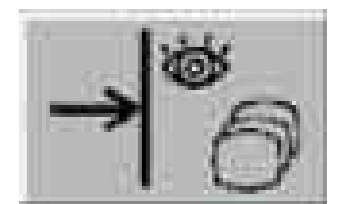


Electronic zoom

Electronic zoom digitally enlarges images in real time during fluoroscopy, without increasing dose. This eliminates the need to use smaller fields of view on the detector for magnification purposes, which would increase the dose required.

Fluoroscopic acquisition

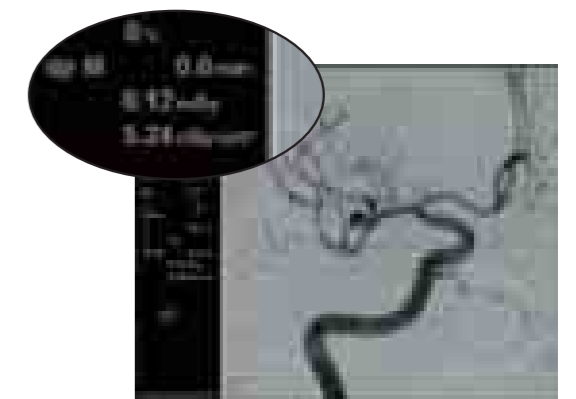
Operators can capture still and dynamic images for future reference during fluoroscopy. These archived images represent an alternative to fluorography and a major reduction in dose exposure.



F-STORE: Fluoroscopic images for up to the last 10 seconds can be recorded on the image disk after fluoroscopy is completed.

Dose display

Radiation dose can be monitored in real time. The operator can observe dose levels on a digital display in the examination room.



Advanced system design drives higher productivity

INFX-8000V is equipped with Sequential Navigation for physicians to quickly “navigate” through an exam (e.g., carotid, renal or runoff). INFX-8000V executes the preferred angles, projections, and acquisition parameters, all from memory. One touch of a button is all it takes to navigate through the routine settings for each exam type. Operators have the freedom to change any parameter throughout the procedure without disrupting Sequential Navigation.

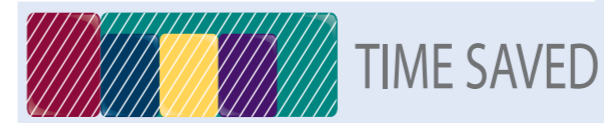
▶ INFX-8000V can store virtually any number of customized exam types for any number of operators. This feature is unique to Toshiba and dramatically boosts productivity.

- ▶ Customizable exam parameters include:
- C-arm position and angulation
 - Table height
 - Source-to-image distance
 - Compensation filter settings
 - Acquisition rate
 - Image size
 - Field-of-view
 - Generator settings
 - Digital processing

More efficient exams with parallel processing and true multitasking
Simultaneously processing and transferring image data during acquisition yields quick, efficient exams. For example, during fluoroscopy and fluorography, operators can prepare for the next scheduled patient, process and save images from a previous (or current) study, and transfer or archive images to an associated network.

The advantages of parallel processing

For One Procedure



INFX-8000

For One Lab



patient workflow on INFX-8000



other models



patient workflow on other models

time lapse

▨ parallel & background processing

■ patient registration
■ retrieve archived images

■ fluoroscopy & radiography
■ playback & display

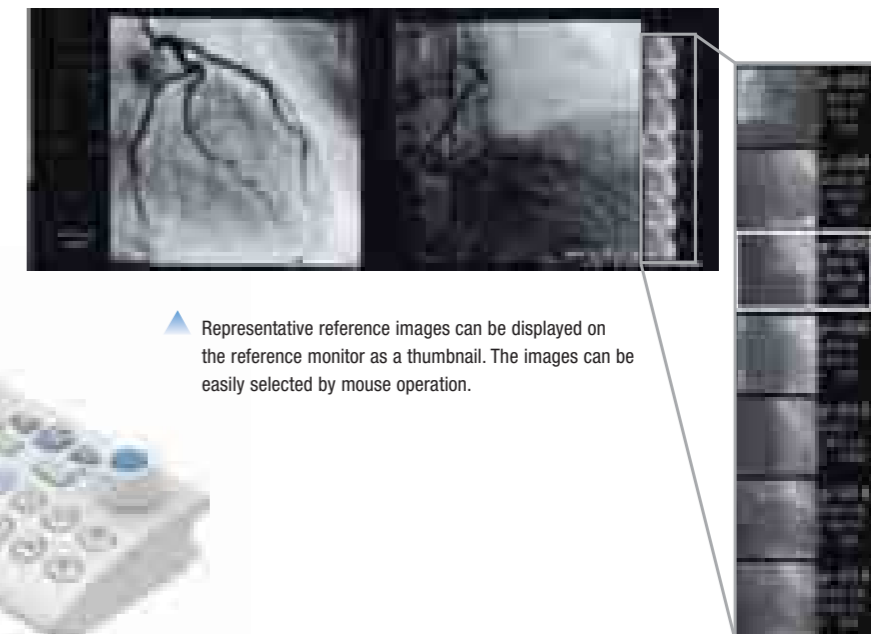
■ filming & analysis

■ image storage

■ HIS/RIS feedback

Live monitor

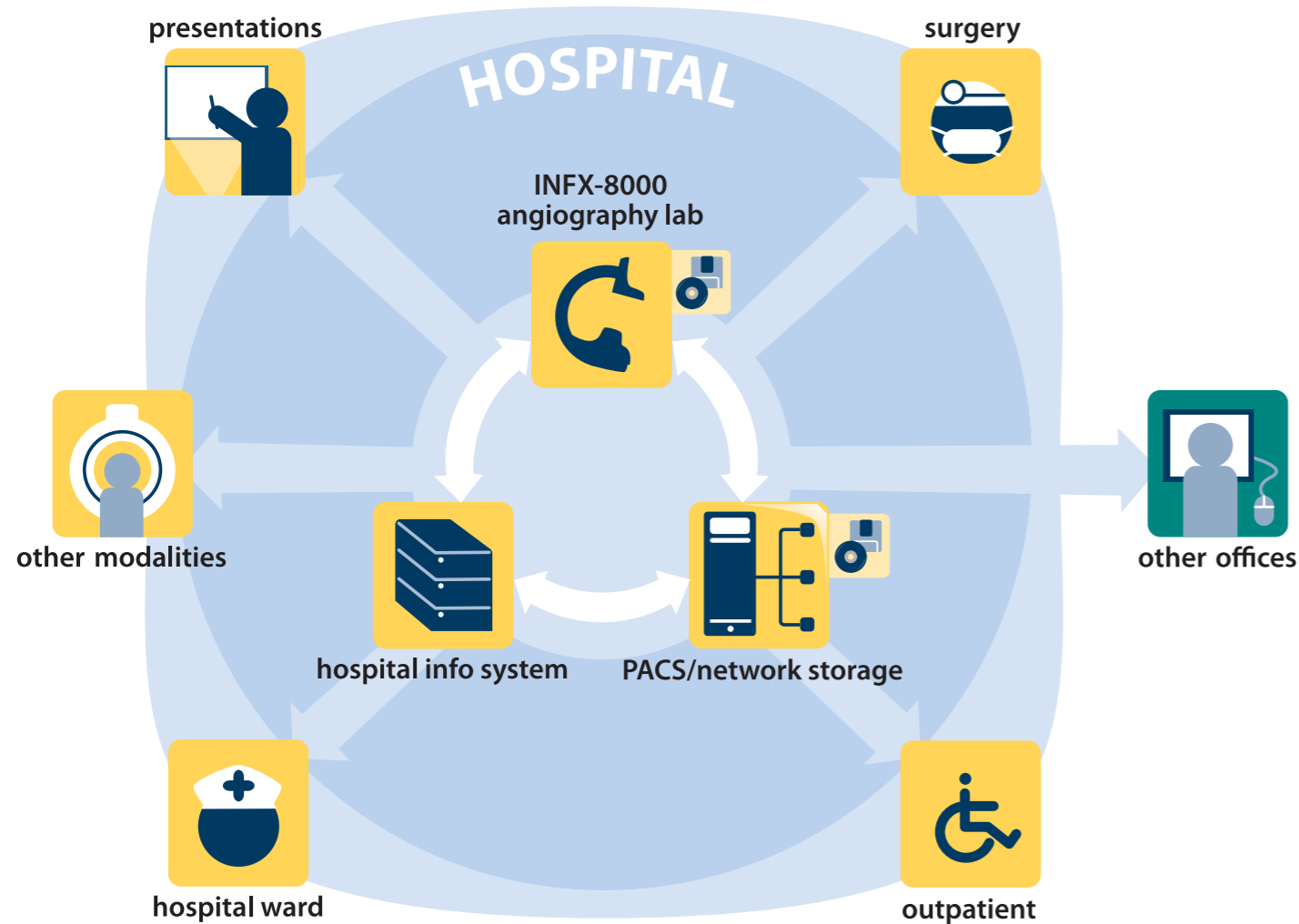
Reference monitor



▲ Main console take over the same design with the table side hyper handle for user friendliness.

Access to patient information with seamless network integration

The INFX-8000V comes standard with the six major DICOM Service Classes enabling efficient network integration. These DICOM features allow open access to patient information while reducing examination time and enhancing overall department workflow.



INFX-8000: Dynamic viewing and flexible network integration permits rapid export and retrieval of images. Open communications with HIS/RIS provides rapid transfer of patient information.



PACS/network storage: Provides online dynamic review of patient images. Storage and transfer of multi-modality images are handled at high speed.



Presentations: Viewed online via CD-R/DVD-RAM, images can be used for educational presentation or patient consultation.

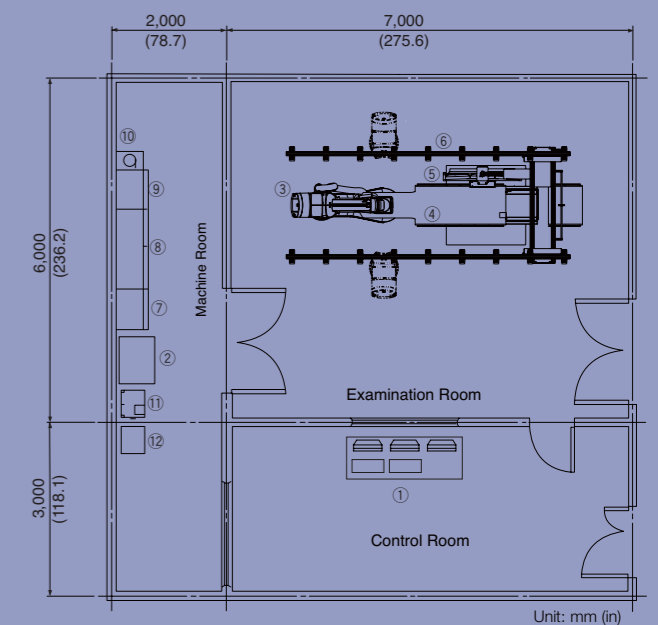


DICOM CD-R/DVD-RAM: Serve as long-term and portable storage media for valuable image data.

Compact design for easy siting



A typical system layout



- | | |
|--|---------------------------------------|
| ① System console | ⑦ System trans. cabinet |
| ② DFP-8000A main unit | ⑧ Power cabinet |
| ③ Floor-mounted C-arm support (CAS-880A) | ⑨ CAS cabinet |
| ④ Catheterization table (CAT-850B) | ⑩ Cabinet side cover |
| ⑤ Ceiling-suspended monitor | ⑪ X-ray tube heat exchanger (HEX-125) |
| ⑥ Ceiling rails | ⑫ FPD coolant circulator |