Canon

Interventional Radiology / Hybrid

Alphenix

Redefine Intervention

See New Possibilities Beyond the Image

The Alphenix family of interventional systems deliver images with greater clarity and precision. Combined with industry-leading dose optimization technologies, enhanced workflow, and a new set of features, Alphenix continues Canon Medical's commitment to supporting you and your mission to provide patients with safe, accurate and fast imaging.

Maquet Magnus is a product by Getinge.

Technology to help you deliver the best possible outcomes for your patient.

WorkRite

WorkRite technologies help you optimize workflow and provide an unprecedented range of patient access and coverage.

ImagingRite

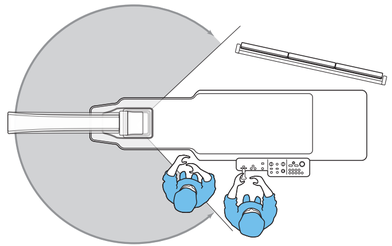
ImagingRite technologies enable you to deliver high-quality imaging and offer a full complement of fully customizable advanced imaging tools.

DoseRite

DoseRite technologies provide a comprehensive dose management suite of tools designed to help you minimize patient X-ray exposure.

Unparalleled flexibility and access to your patient.

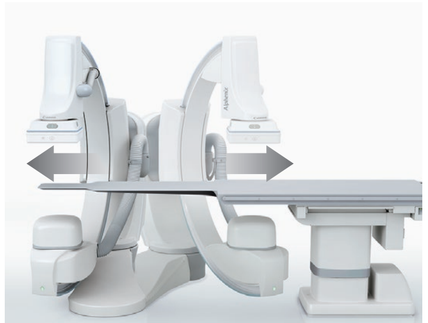
Every patient is different. The Alphenix, with its WorkRite technologies, provides you with unprecedented access to the patient and flexible anatomical coverage from any angle.



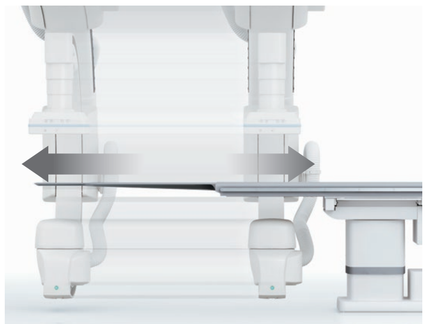
Create and automate customized Smart Parking* routes that avoid obstacles.

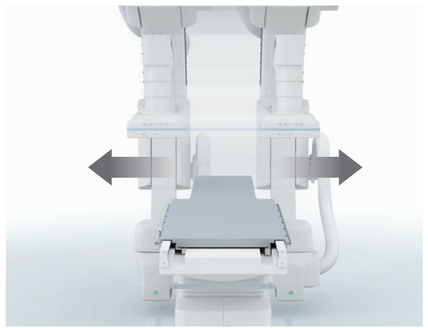
*: Only available for Alphenix Sky+ and Alphenix Hybrid+

Multi-access floor-mounted C-arm allows for head-to-toe and fingertip-to-fingertip coverage for greater clinical flexibility



Ceiling-mounted C-arm provides unparalleled full-body lateral access without moving the patient or the table





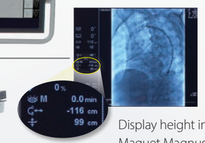
Seamless integration with Getinge for versatile operation.

The state-of-the-art Alphenix system is perfectly suited for deployment with the modular and flexible Maquet Magnus operating table.

Touch sensor will prevent further movement on contact with the patient

Fully customizable auto position options for each protocol

Collision prevention for table-top tilt and C-arm movement to ensure safe and efficient operation



Display height information of the Maquet Magnus table on the fluoroscopic monitor

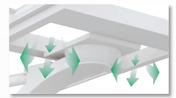
Directly adjust table height via the Alphenix table side controls

Convenient emergency switch locks table and C-arm operation simultaneously

Install exactly the right hybrid combination for you.

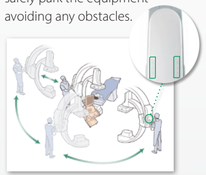
We start with a comprehensive review to identify your needs. Then we create a customized hybrid interventional OR solution specific to you.

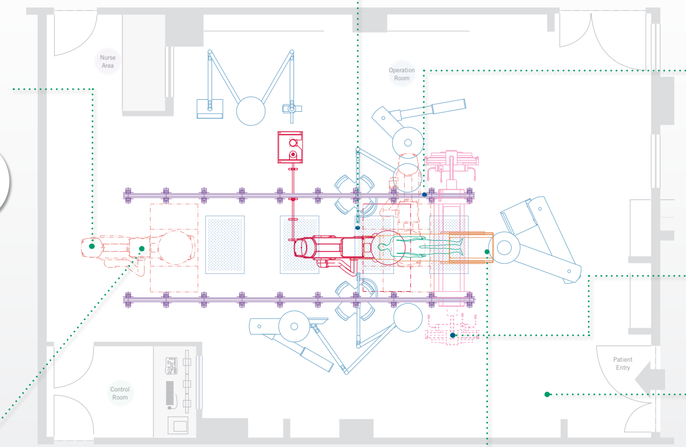
The ceiling of the system is designed to facilitate optimal laminar flow.



Wide rail intervals allow for a more hygienic operating environment.

Control switches on the rear of the C-arm allow the operator to safely park the equipment avoiding any obstacles.





Mounting the monitor suspension on the same rails as the system allows for flexible monitor positioning on either side of the table,

Compact footprint allows the flexible hybrid OR system to be an option even in the most space-limited environments.

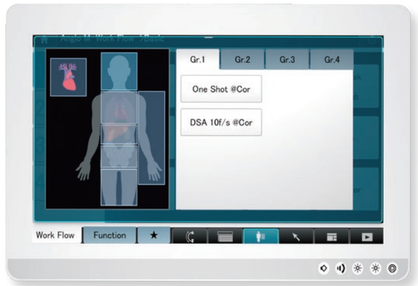
Park the C-arm well out the way of the operating table to create an optimal operating space.

Easily switch between carbon fibre tabletop and general purpose OR tabletop according to the procedure.

A fast, seamless, and intuitive work experience.

Easily select acquisition protocols and C-arm positions using the tableside Alphenix tablet.

Startup screen
Easily register or select your desired clinical protocol on the tableside tablet.



Program tabs
The intuitive graphical interface allows you to select the appropriate acquisition program by clinical region.

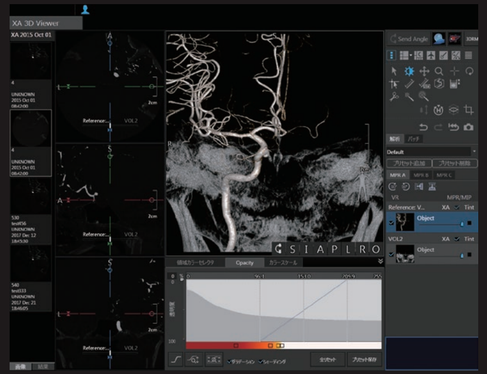
Related functions
Additional functions customized for each workflow can be readily accessed when needed.

Intuitively select the position of the C-arm
Quickly register, select and move the C-arm into position from the menu screen.

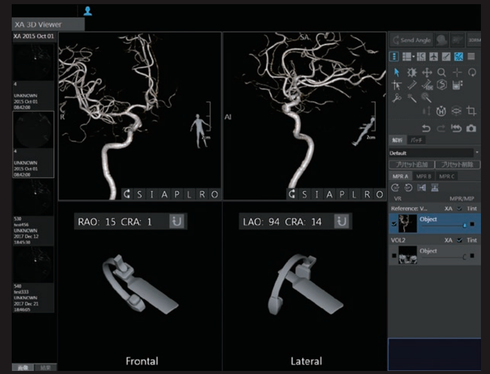
*: Alphenix tablet is available as an option.

A feature-rich workstation to enhance your productivity.

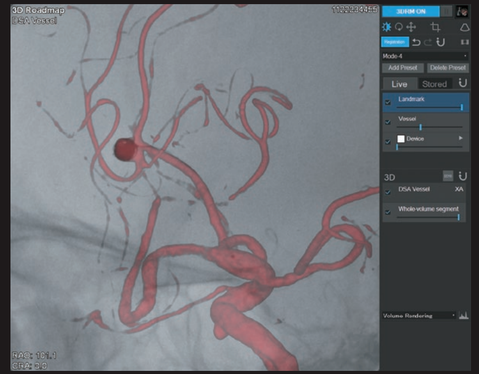
Integrated applications help you plan, analyze, and perform interventional procedures.



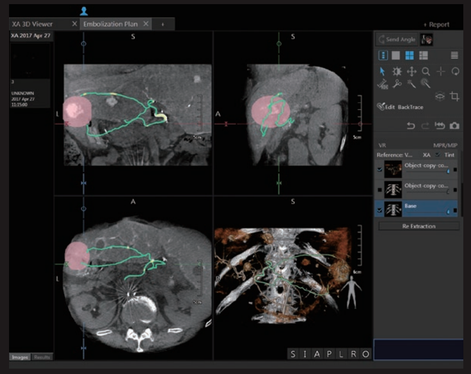
3D viewer The GUI has been refreshed for easy operation and workflow. Viewing of 3D volume data, multi-segmentation of clinical regions, and editing features such as trimming are available.



BP Auto angle Biplane positions can be registered as planned working angles, allowing biplane positioning to be performed easily.



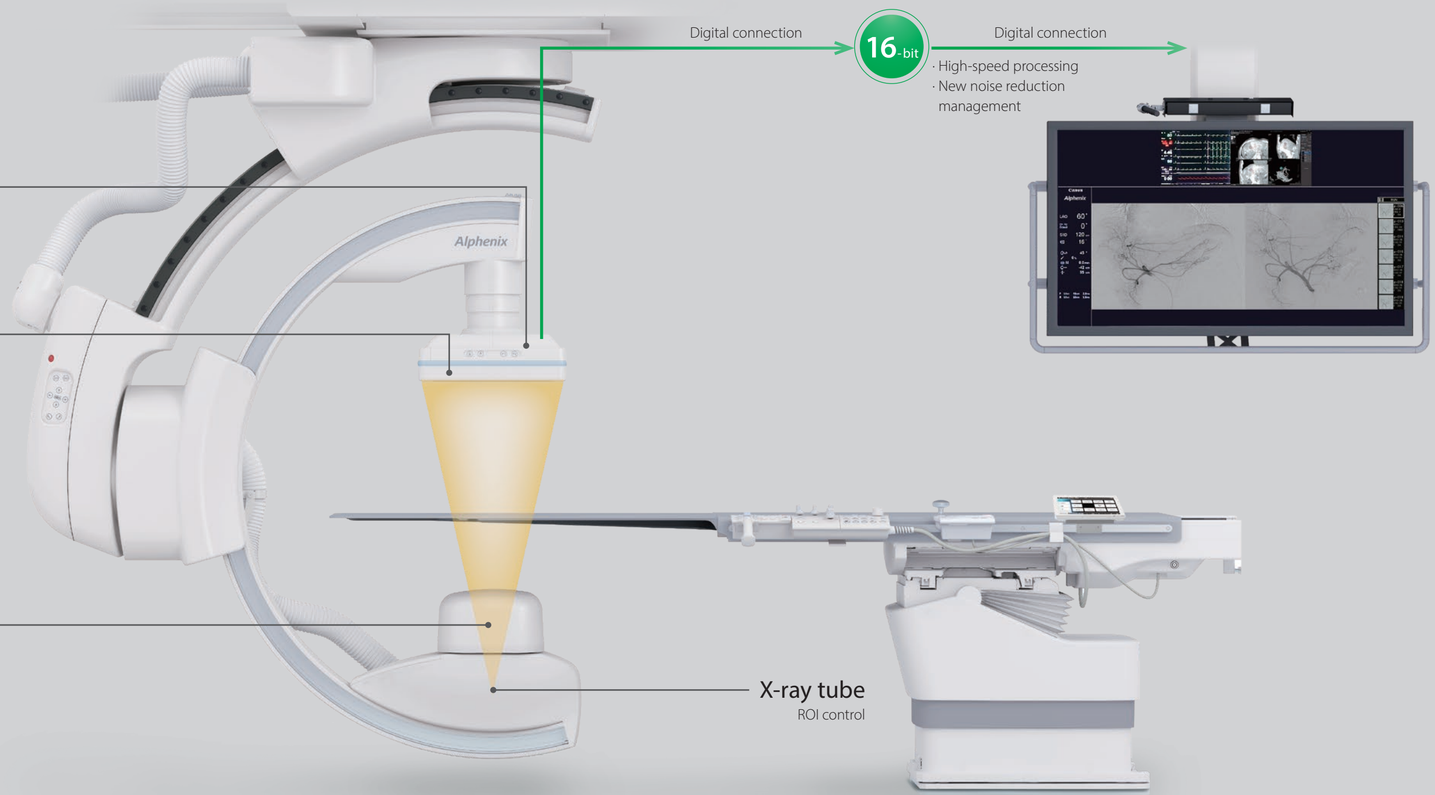
3D/Multi-modality Roadmap* The GUI has been refreshed for easy operation and workflow. Any segmented regions of 3D volume data from Alpha CT (CBCT), CT, or MR can be selected and fused with fluoroscopy for easy reference.



Embolization Plan* A comprehensive planning tool that allows for quick and intuitive analysis prior to embolization procedures. Starting with imported CT or Alpha CT volume data, the corresponding feeding vessels are segmented. This segmented data can be fused on fluoroscopy as an overlay to assist in guiding the procedure.

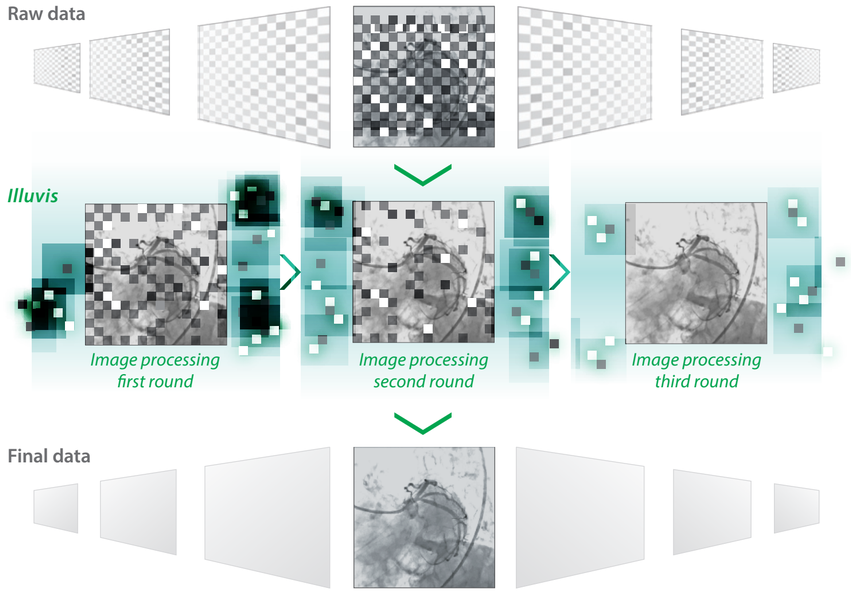
*: option

Optimize image quality while reducing the exposure dose.



ImagingRite

Powerful imaging and processing tools.

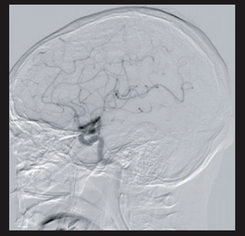


Illuvis technology takes advantage of new hardware and software improvements to reduce noise, enabling you to see through the clutter. Each frame is triple-processed in realtime to reduce background noise and enhance features.

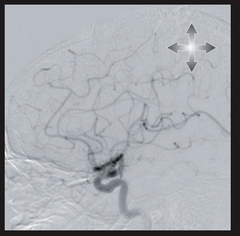
Clearer, sharper images in an instant.

Real time Auto Pixel Shift

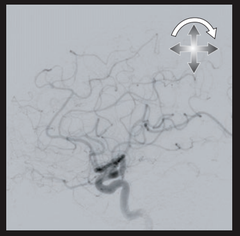
Automatically correct position shifting of the mask image generated by body motion during DSA or 2D roadmapping.
Real time auto pixel shift automatically corrects position shifting.



Manual auto pixel shift no longer required



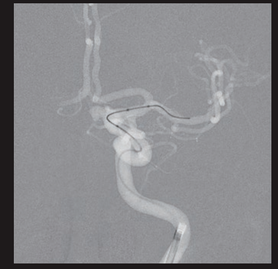
Conventional auto pixel shift: only parallel movement in the vertical or lateral direction.



New auto pixel shift: parallel movement in the vertical/lateral direction + rotation

Instant Roadmap

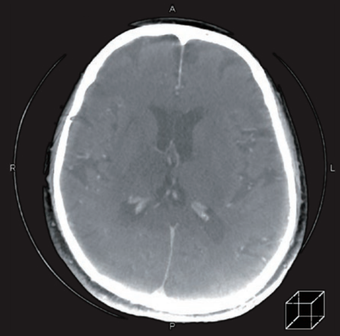
Simplified operation allows the immediate smooth transition from DSA acquisition to 2D roadmap.
2D Roadmap enables clinicians to create a roadmap from an injection or previous acquisition to assist with guidance of catheters and devices during fluoroscopy.



Enhanced visualization with advanced 3D tools.

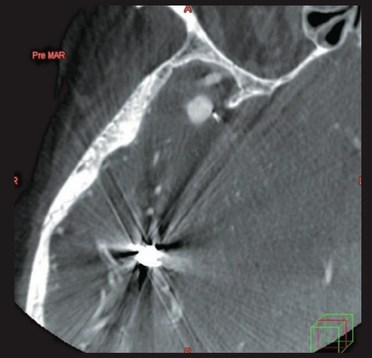
Alpha CT

To supplement 3D imaging, CT-like Imaging is available to support visualization of anatomy or pathology during interventional procedures. Alphenix systems utilize low contrast imaging to provide a view of three overlapping carotid/cerebral stents of varying radiopacity.

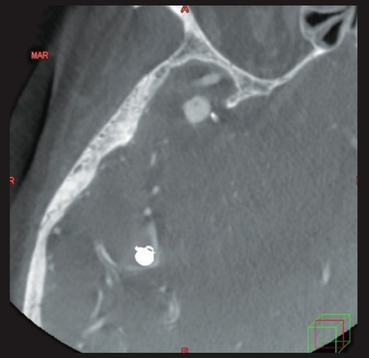


Metal artifact reduction (MAR)

It was previously difficult to observe areas near metal objects such as stents and embolization coils due to metal artifacts.
This reconstruction technology reduces metal artifacts present in images.



Without MAR



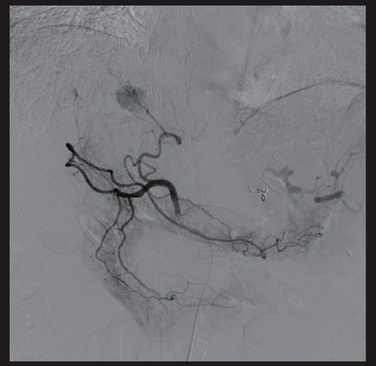
With MAR

Stent imaging

In order to visualize devices such as stents with high resolution, a dedicated reconstruction mode is provided to support the most advanced intravascular interventional procedures.

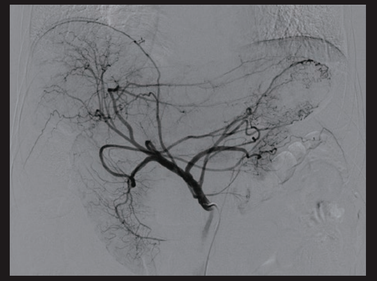
Clinical gallery

In TACE, even small feeding arteries can be identified



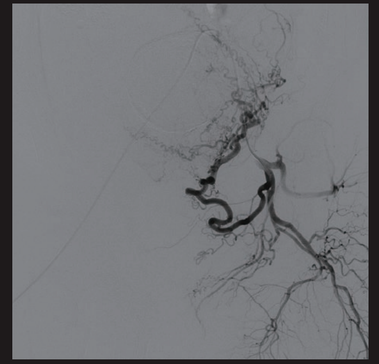
TACE

TACE

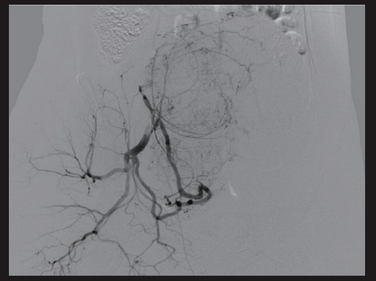


TACE

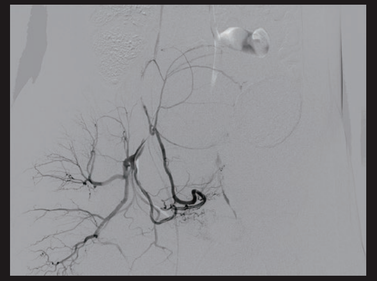
In UAE, the feeding arteries are cleary visualized



UAE



UAE



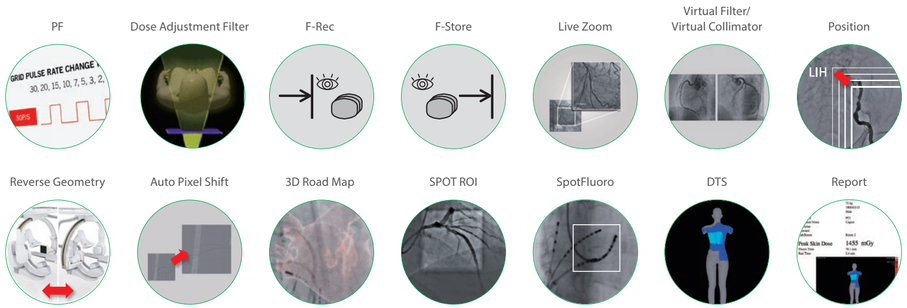
UAE (Post IR)

Optimize exposure dose while delivering high-quality imaging.

DoseRite

- X-ray beam filter to reduce patient dose and scatter radiation
- Removable grid
- Live zoom to digitally increase image size without performing field of view magnification
- Variable dose mode to pre-programmed combinations of pulse rate, dose level and image processing parameters
- Virtual collimation and filtration to adjust collimation without additional fluoroscopy

Dose Management for Everyone.

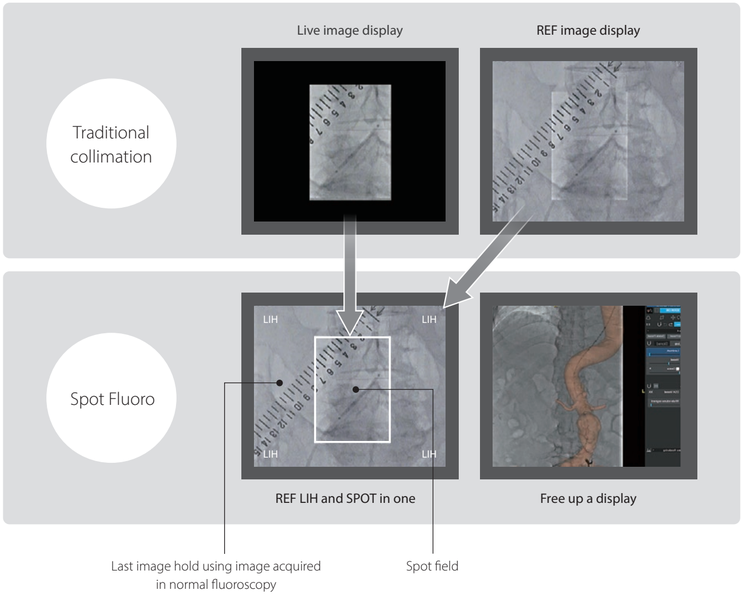


Asymmetric collimation allows reductions in patient dose.

DoseRite SPOT Fluoro: Industry's first spot fluoroscopy technology.

Conventional X-ray collimation has two disadvantages: black areas caused by the collimator blades are distracting for the interventionist, and there is an increased exposure dose for the patient because the system compensates for the reduction of scatter radiation due to collimation in the ABC Region of Interest (ROI).

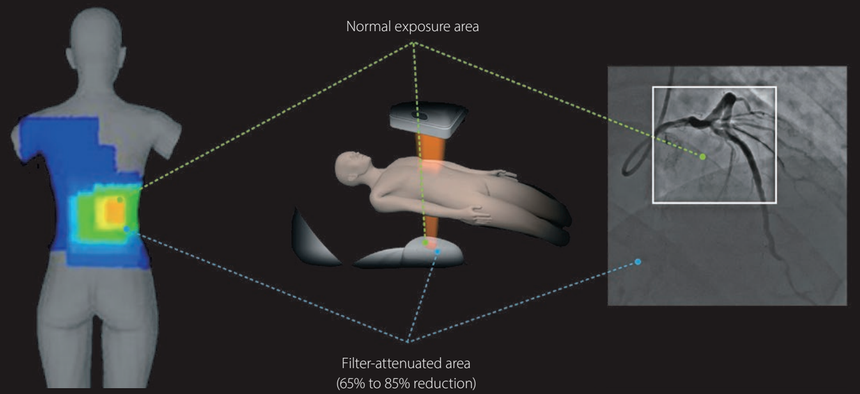
SPOT Fluoro can reduce the cumulative dose area product by more than 50%.
Moreover, scatter radiation can also be reduced by more that 50%.
SPOT Fluoro reduces unnecessary exposure and radiation burden to both the patient and the clinical staff present in the cath lab.

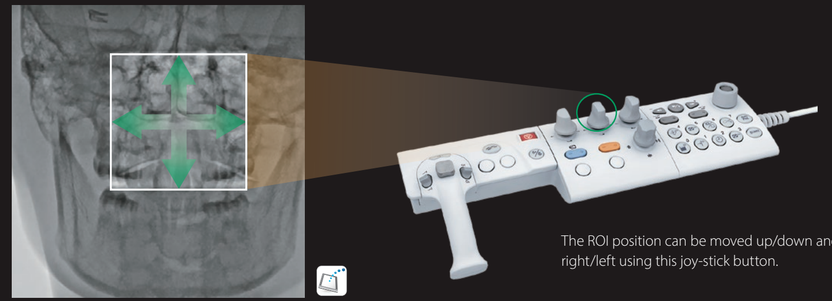


See more of interest, with less exposure.

DoseRite SPOT ROI*

Spot ROI provides dose reduction outside of the region of interest, while still allowing visualization of the surrounding anatomy utilizing an X-ray attenuation filter. During device placement visualization not only of the device, but also the surrounding anatomy is critical for success.





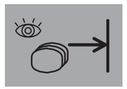
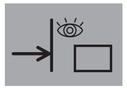
The ROI position can be moved up/down and right/left using this joy-stick button.

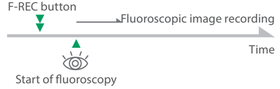
* Only available for Alphenix Core+ and Alphenix Biplane

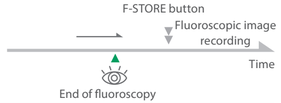
Advanced dose management tools.

Fluoroscopic acquisition

Using the footswitch, the operator can capture still and dynamic images for future reference.

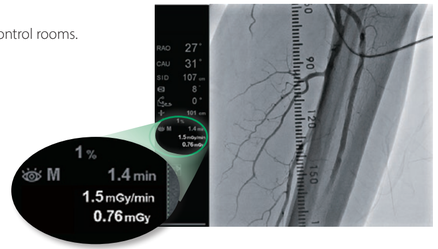
F-REC		Fluoroscopic images acquired after pressing the fluoroscopy start button are recorded. Images can be recorded for up to 90 seconds or 1020 frames. (Dynamic image recording)
F-STORE		Fluoroscopic images acquired in the last 10 seconds are recorded. Press the F-STORE button after fluoroscopy is completed to save the run as part of the patient file. (Dynamic image recording)
F-REC (S)		The LIH (last image hold) image acquired in fluoroscopy is recorded. (Still image recording)





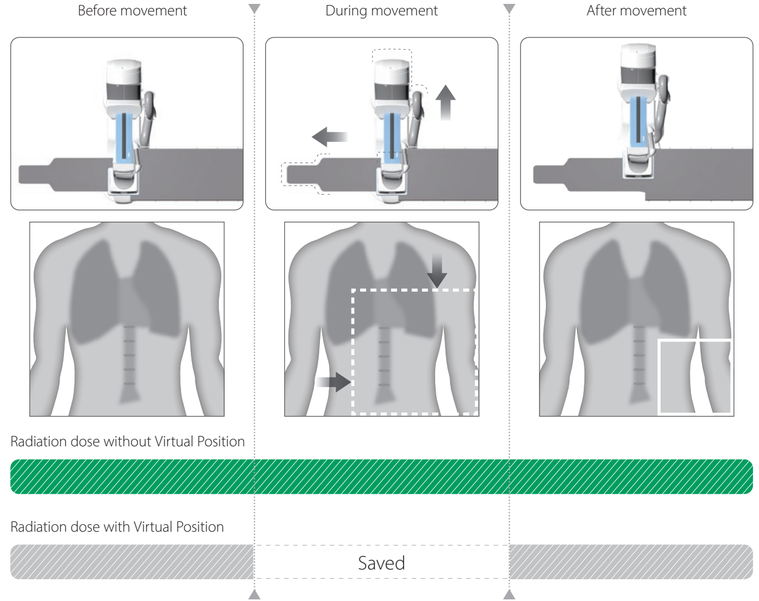
Real time display of exposure dose

The operator can observe real time dose levels on a digital display in the examination and control rooms.



Virtual Position

Virtual Position provides the desired ROI for the next image using Last Image Hold (LIH) while panning the table or during C-arm movement, enabling the operator to avoid unnecessary X-ray exposure.



By applying a graphical outline on the Last Image Hold (LIH) image, Virtual ROI can provide the ROI position for the next image after the C-arm or the tabletop is moved. By anticipating the position, unnecessary exposure during movement of the arm or tabletop is prevented.

Visualize estimated peak skin dose in real time, and act on it.

Dose Tracking System* (DTS)

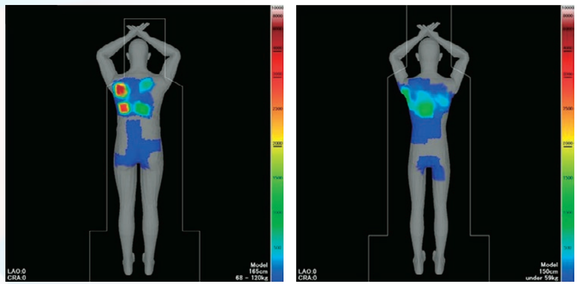
Visualize and record in realtime

Enhanced dose awareness is available through the DTS tool, providing estimated skin dose in realtime. Displayed as a 3D color map on a realistic patient graphic, this data can be used to exclude regions of previous high exposure both during and in subsequent procedures.

Guide the procedure

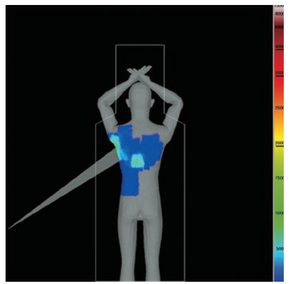
Each patient's estimated peak skin dose is represented on a 3D color map. Live data can be displayed allowing the clinical staff to avoid regions of previous high exposure. During long procedures, such as PCI, CTO or EP, the operator can choose alternative approaches to optimize patient radiation dose while continuing the treatment.

Multiple 3D patient models are defined in advance and a patient model is selected for each study.



without DTS　　with DTS

With DTS, the operator can chose different angulations during long procedures, such as CTO, to avoid regions.



DTS makes it possible to show the maximum accumulated skin dose on the patient's body and peak skin dose in the field of view in real time.

*: option

Work with unprecedented access.

Unique multi-access floor and ceiling mounted C-arm positioners were developed through extensive collaboration with leading clinicians. This resulted in designs that optimize C-arm positions in order to assist clinicians in providing optimal patient care.

Alphenix *Hybrid+*

Advanced ceiling-mounted & integrated with hybrid OR

Dedicated for use with an operating table, advanced ceiling-mounted C-arm offers unprecedented flexibility and full body 3D imaging capability with fast acquisition.

Table

Maquet Magnus

Alphenix *Hybrid*

Ceiling-mounted & integrated with hybrid OR

This is a dual-track ceiling-suspended C-arm system dedicated for use with an operating table.

Table

Maquet Magnus

Alphenix *Sky+*

Advanced ceiling-mounted system

Advanced ceiling-mounted C-arm offers unprecedented flexibility and full body 3D imaging capability with fast acquisition.

Selectable table

Standard type or Tilting type

Alphenix *Sky*

Ceiling-mounted system

Unique ceiling-mounted C-arm offers unparalleled motorized longitudinal and lateral coverage to support upper extremity examinations.

Selectable table

Standard type or Tilting type

Alphenix *Biplane*

Multi-access biplane system

Combining the exceptional flexibility of a floor-mounted and ceiling-mounted C-arm combination, the biplane system is an ideal choice for vascular and neuro diagnostic and interventional procedures.

Selectable table

Standard table or Tilting table

Alphenix *Core+*

floor-mounted multi-access single-plane system

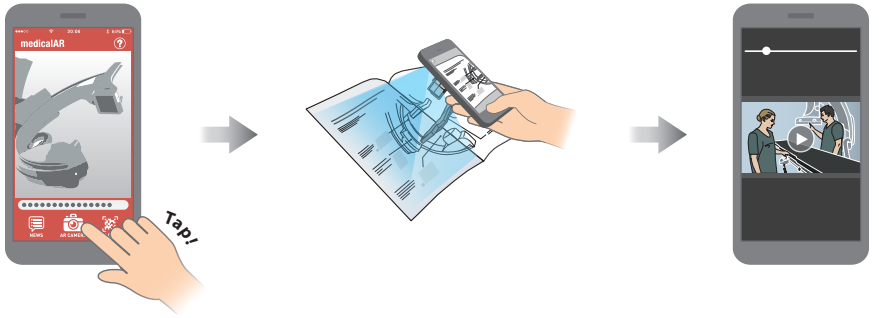
Providing patient access unmatched by other systems, the 5-axis floor-mounted C-arm is ideally suited for a wide range of applications.

Selectable table

Standard table or Tilting table

How to Use the medicalAR App

Images with the icon can be viewed in motion.
To download the app, scan the QR code or visit our website:
https://global.medical.canon/about/medicalAR



1. Launch the app and start AR Camera.
2. Scan a page that includes image with the icon.
3. When a trigger image is captured, linked content will be displayed.

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https://global.medical.canon

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Canon Medical Systems Corporation meets internationally recognized standards for Quality Management System ISO 9001, ISO 13485. Canon Medical Systems Corporation meets the Environmental Management System standard ISO 14001.

Disclaimer: Some features presented in this brochure may not be commercially available on all systems shown or may require the purchase of additional options. Please contact your local representative from Canon Medical Systems for details.

Made For life