GE Healthcare

Innova IGS 6

IGS 630 Configuration
Biplane Image Guided System
For Interventional Neuroradiology
and Combo use

Innova IGS 6 with AutoRight™

Advanced visualization for your evolving practice

PERFORM FAST INTERVENTIONS

Ergonomics, advanced anti-collision system and unique offset C-arm allow rapid Groin-to-Reperfusion time during mechanical thrombectomies.

HIGH DEFINITION 3D IMAGING FOR NEURO INTERVENTIONS

Understand complex vasculature, rule out hemorrhage and identify large vessel occlusions using high resolution CBCT and advanced 3D visualization tools.

GET THE RIGHT IMAGE AT THE RIGHT DOSE AUTOMATICALLY

AutoRight™ [1a] is the 1st AI-based interventional image chain[1b] in the industry, trained on 6,000+ datasets for automatic IQ-Dose optimization. Benefit from high DQE detectors, tailored to your clinical specialty.

IMPROVE OUTCOMES WITH AUGMENTED REALITY GUIDANCE

Perform any procedures while significantly reducing radiation dose and contrast media with intuitive ASSIST solutions.[2] Maximize clinical tools adoption with GE Clinical consultants.

GE HEALTHCARE SERVICE, DELIVERING PEACE OF MIND

Robust and reliable system with up to 99% guarantied uptime[3] and up to 38% reduction in unplanned downtime.[4]

Built on reliable foundations, the Innova IGS 6 interventional biplane X-ray system delivers innovative 2D and 3D imaging solutions for the head, the neck and spine.*

With advanced applications and the capacity to customize, it helps you master the most complex cases, while a comprehensive set of versatile features can enable your lab to expand its mix of procedures to other interventional radiology and cardiovascular applications

So you have the right tools. For each patient. Every day.

Simplify your workflows

The Innova IGS 6* features dedicated biplane gantry design, customization and automation capabilities to accelerate procedures. **So you can focus on the patient.**

Like all GE systems, Innova IGS 6* is designed from the ground up using the tried and trusted GE imaging chain. It is optimized to provide the image clarity you need while helping you keep dose as low as possible.

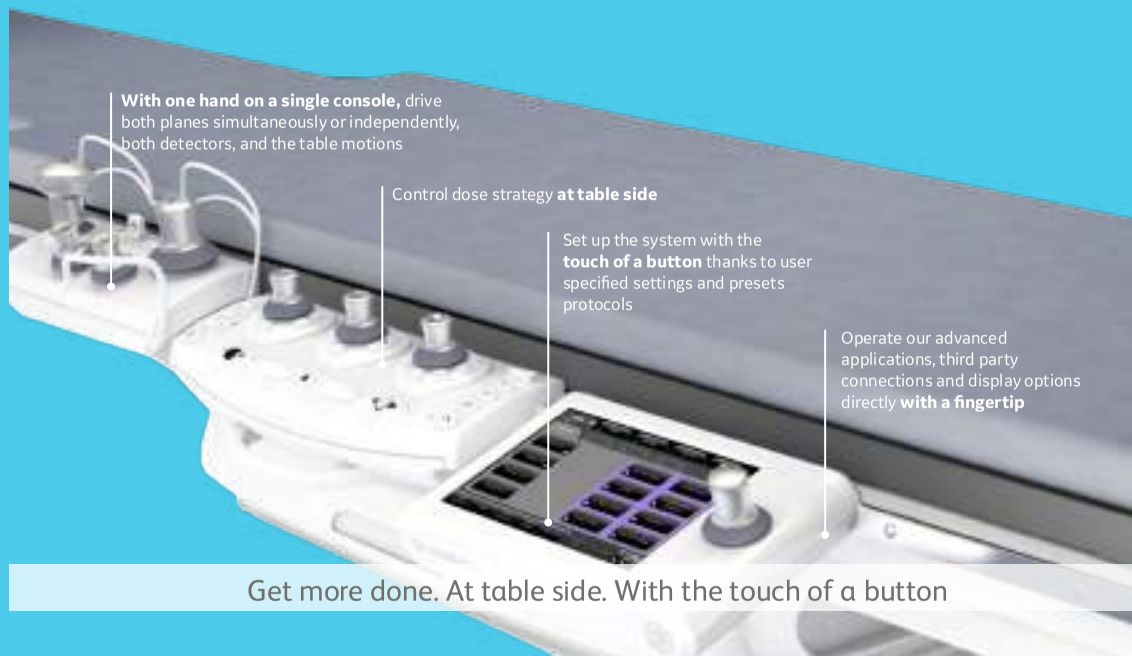
Empowered with the multi-modality Advantage Workstation, plan, guide and assess procedures with confidence using dedicated advanced applications.

User interface meant for simplicity

- Control your system and images with integrated, intuitive and robust table-side controls
- With simple menus, the Central touchscreen lets you control the system, modify imaging parameters, configure your large display monitor and manipulate advanced applications – all at table-side.
- The full-color, 148 cm (58 in) medical grade large display lets you view multiple images from up to 16 sources, using up to 120 customized layouts.† Zoom in comfortably without loss of detail or pixilation to get the clinical focus you need.
- Save up to 63 positions (7 positions for each 9 users) on-the-fly from table side with the press of a button. The Auto-positioner allows you to reach gantry positions with the click of a button, from table-side or from the control room.

Exclusive Gantry Ergonomy

- The off-set position of the C-arm provides maximum positioning flexibility and patient access for coverage from groin to head, without the need to move the L-arm to the side.
- Thanks to the exclusive design of the C-arm, you get unrestricted access to the patient's head for anesthesia and nursing even when lateral plane is in place.
- The C-arm design allows to perform 3D rotational acquisitions of the spine and torso as well as patients' head while intubated.
- A detector size optimized for neuro interventions. With its 31 cm (12.2 in) square detector on each plane, there is no compromise on image quality between the planes. It maximizes the anatomical coverage while allowing to reach the desired working angles.



Get more done. At table side. With the touch of a button

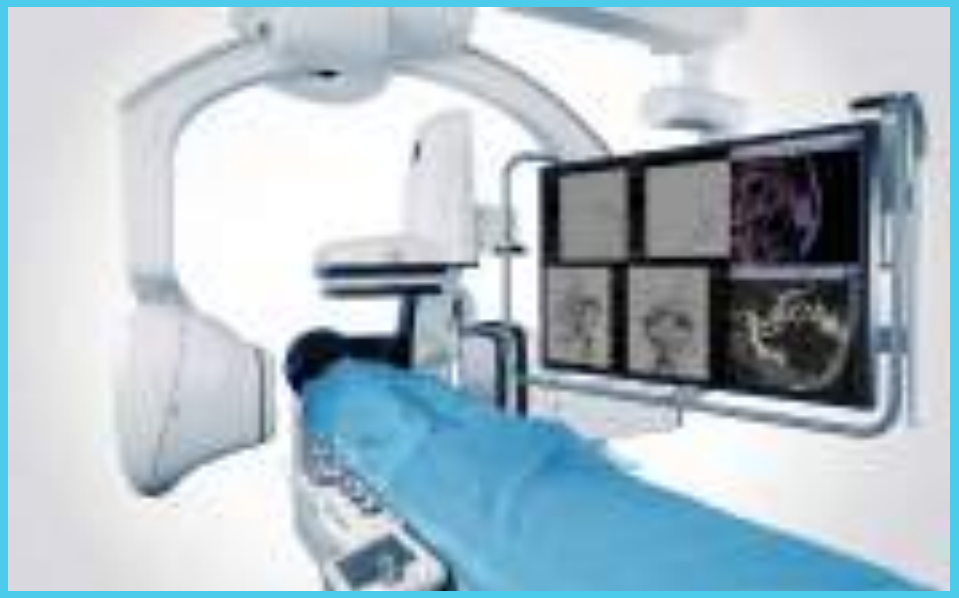


Table optimized for endovascular work

- Innova IGS 6* comes with the Omega V table, which allows +/- 180° table rotation around its vertical axis.
- It allows a total load of 304 kg (780 lbs.) to accommodate heavy patients up to 204kg (450 lbs.).
- The 333 cm (131") long table top accommodates catheters and provides additional area for placement of sterile items.
- With table panning, imaging coverage is as long as 195 cm (76") allowing to image from head to foot for the vast majority of patients.

Accelerated gantry motions and faster positioning

- Sensors on the frontal plane positions the frontal detector automatically to avoid collisions with patient and the other plane.
- Thanks to a gantry L-arm rotating at +/- 100° around its vertical axis, patients can be accessed easily from head to toe, from their right or left sides.
- The combination of movements of the C-arm and the L-arm permits +/- 55° cranial and caudal angulations.
- If CPR or surgery must be performed in emergency, total patient access can be provided at any time.
- Off-isocenter Imaging - Each plane serves a purpose. The lateral plane can be iso-centered or off iso-centered to allow visualizing vessels from two different centering positions with one injection.
- Off-isocenter acquisition helps visualize both the origin of the vessel (lateral) and the distal area (frontal/AP) with just one injection and one acquisition.

Support that never sleeps

Your partner to help optimize patient care

1 Expert Service Delivery

- Customized and flexible offerings with service interventions guaranteed within 30 min remotely & within 4 hours on site, to achieve up to 99% uptime.[3]
- Dedicated and highly trained local experts, with 3830 modality-trained field engineers, 130 online engineers, and 160 customer agents in 17 centres in Europe.[5]
- Remote diagnostic solutions 24/7 (InSite, iLinq) leading to 27% remote fix and 81% issues fixed in less than one visit on site.[6]

3 Education and Training

- Optimize equipment performance with customizable clinical application training with on-site, remote, and online options.
- Over 350 accredited continuing programmes and over 100 application specialists in Europe.[5]
- Connect to the GE Cares Community and learn how to capitalize on online resources to facilitate trainings and increase your professional skills.

2 OnWatch[7] Convert unplanned to planned

We created OnWatch to maximize your efficiency by helping to ensure that your angiography system is operating when you need it to. OnWatch service measures key parameters from your equipment. It looks ahead to help limit disruption from unplanned downtime, creating a less stressful experience for you, your staff and your patients. This visionary technology drives progress in patient care, enhances efficiency and can help minimize the costs associated with downtime.

UNPLANNED DOWNTIME[4]

TIME BEFORE RESUMING SCHEDULE[4]

TIME TO REPAIR[4]

*Join us now on **GECARES.COM***

Connect with other healthcare professionals and grow your network. Interact with key opinion leaders and view their publications.

Share your experience, publish content and stay up to date with the latest clinical trends shared by your peers.

Learn new techniques and increase your skills in your daily practice. Access online trainings, educational contents, clinical webinars built by experts for experts.

AutoRight™

AutoRight™, Automated Image Acquisition

6P with embedded neural networks (NNs)

- **Up to 6 Parameters device control**
- **Automatic optimisation of acquisition parameters** in real time, based on the imaged anatomy (6P)

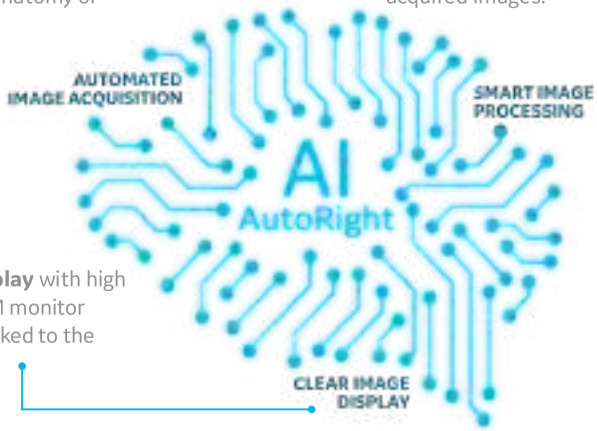
AutoRight helps remove the burden of manual adjustment, lets you focus attention on patients.

AutoRight™, Intelligence inside

Providing you with the right image at the right dose, automatically

Automated image acquisition with dose and IQ optimisation in real time, whatever the patient anatomy or C-Arm angulation

Smart image processing to retain and present only the useful part of the information embedded in the acquired images.



Clear image display with high luminance DICOM monitor that is digitally linked to the image processor.

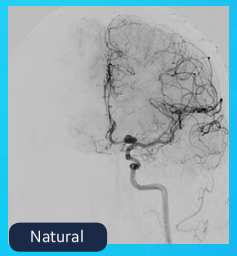
Helps focus your attention on patient

- AutoRight is the **1st AI-based**, interventional image chain in the industry, trained on **6,000+ datasets**
- Automatic adjustment of up to **6 parameters** in real time to optimise image quality and dose
- **2/3** of hardware and software renewed in the image chain

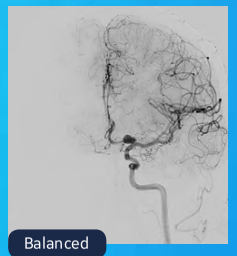
Powered By Edison

myIQ: you decide what's best for you![8]

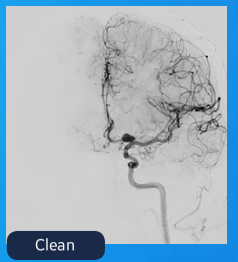
Image quality is not one-size-fits all for physicians.
On the contrary, preferred « looks » vary greatly from one clinician to another. myIQ lets you decide what's best for you! Configure your preferred looks with your local GE application support and get the best image quality for you. Where no two people are the same, why would your image system need to be?



Genuine look with limited digital processing. GE historical DSA look for devotees.



Respectful of X-ray characteristics, maintain small detail visibility, while reducing background noise.



Filters out most of the noise, ideal to image proximal and large vessel anatomies.

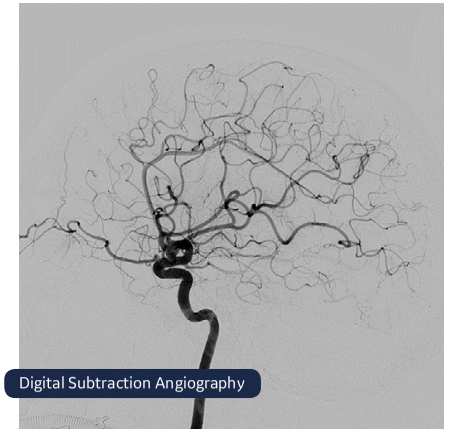
Sharp small details bright and constrated.

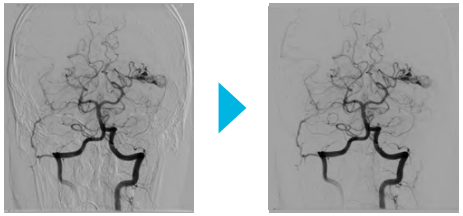
Create the image you need

Digital Subtraction Angiography
Enhance visibility of vessels

The capability to image fine anatomical details is at the core or interventional neuroradiology. The Innova IGS 6 allows to reveal vascular structures through segmented DSA.
Auto pixel-shifting allows to minimize impact of patient motions on image quality. Frame rate can go up to 7.5 fps for both planes simultaneously.

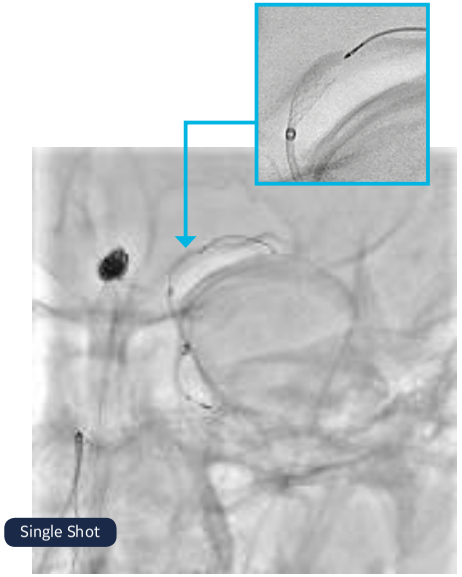
Improved de-noising and sharpening algorithms constantly enhance image quality in real time and after post-processing, without any compromise on the imaging plane.


Digital Subtraction Angiography

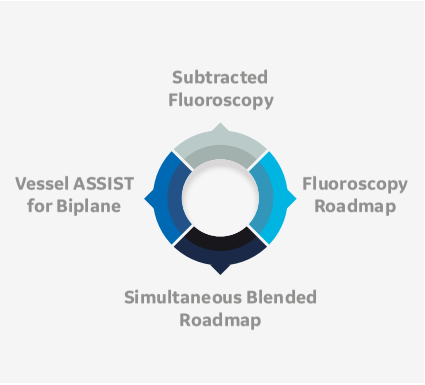


Single Shot
Enhance visibility of intracranial devices

Single Shot customizes the GE exclusive Digital Range Management to highlight the devices on flattened background.
Optimized for spatial resolution this acquisition helps you see the devices during their deployment with one foot pedal press.


Single Shot

Roadmapping applications can help you advance wires, catheters and devices through neurovascular structures, correcting for patient movement and performing on-the-fly adjustment of vessel transparency and pixel-shifting, all while minimizing contrast injections and X-ray radiation.
The Innova IGS 6 features 2 dimensional roadmapping modes with fluoroscopy and blended roadmap, or 3 dimensional with Vessel ASSIST.[14]
Subtracted fluoroscopy is ideal for visualization of liquid embolic material, by providing full subtraction upon each new fluoroscopy pedal press.



Blended Roadmap
Navigation clearly in complex anatomy

This fast, easy, and potentially dose - and contrast - saving roadmapping application superimposes any Digital Subtracted Angiography image with 2D fluoroscopy, helping you view the advancement of guidewires and devices through vessels. Realtime pixel shifting quickly corrects for patient movement. Vessel transparency and image landscaping can be separately adjusted on the fly during fluoroscopy, all from the Central touchscreen. Blended roadmap also automatically adjusts to change of field of view.


Blended Roadmap

AngioViz
Visualize vascular flow

AngioViz facilitates understanding of vascular flow by displaying a DSA series in a single color-coded image of peak opacification, time to peak and combinations of those. AngioViz automatically synchronizes different DSA series for flow comparison of pre- and post-interventional runs.


AngioViz

Advanced applications

Empowered with the multi-modality Advantage Workstation, perform interventions with confidence using efficient, integrated and easy to use advanced applications.

Advantage Workstation

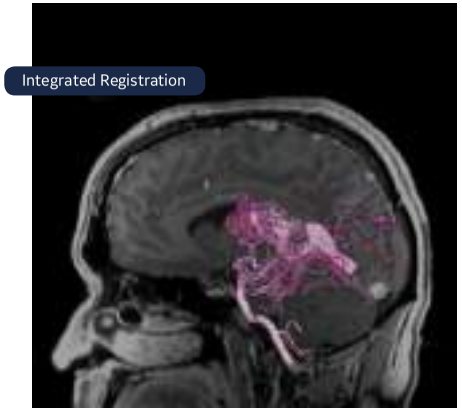
Multimodality visualisation, analysis & navigation

The Advantage workstation (AW) VolumeShare has been created as a multimodality review workstation. By integrating datasets from interventional systems, as well as CT, MRI and PET, it provides remarkable convenience to compare and fuse image information. Now, interventional radiologists can perform processing, integration and image overlay at a single workstation with one user interface, even remotely with the AW server option.

Integrated Registration†

Multi-modality image management

Integrated Registration[29] lets you fuse and register two volumetric acquisitions from the same or different acquisition modalities. With it, you can easily compare 3D anatomical images from CT, MR with PET, SPECT, and X-ray angiography[9] for a more comprehensive analysis, and overlay them with live fluoroscopy.
Quickly compare 3D anatomical images from CT, MR PET, SPECT, and 3DCT HD†[10] by fusing two volumetric acquisitions and up 20 different volumes.



Unprecedented 3D images in the neuro suite

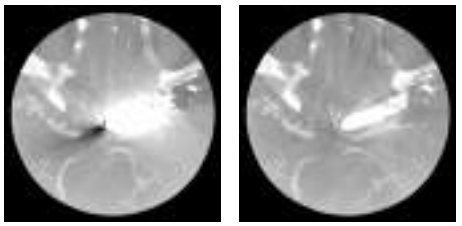
3DCT HD†[10]

Next-generation 3D imaging

Interventional procedures are becoming increasingly complex and clear 3D visualisation of soft tissue, anatomical structure and small interventional devices is crucial. CT-like imaging made available for interventional procedures has the potential to address even the most formidable challenges. 3DCT HD provides exceptional fine image details and quality on cross-sections to help you clearly visualise soft tissues, bones and small devices during your interventional procedures.

	3DCT HD
Spin duration	5, 7, 13 sec.
Frame rate	50 fps
Reconstructed 3D model resolution	512x512x512 256x256x256

After intra-op rotational acquisition, the Volume Rendered 3D and cross-sectional images are automatically reconstructed and displayed for planning and immediate assessment, with full 3D review from within the sterile field using the in-room wireless AW mouse.[11]



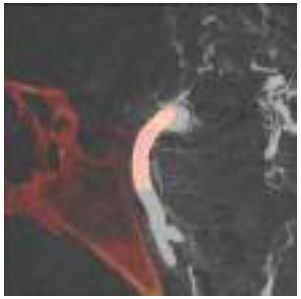
Metal Artefact Reduction†[12]

3DCT HD MAR[10,12] reduces streak artifacts induced by the presence of small metallic devices such as coils or clips within the 3D field of view.

Subtracted 3D†[13]

Subtracted 3D enhances 3DCT HD by producing subtracted 3D vascular images from automated sequential mask and contrast spin acquisitions. Clinicians may use Subtracted 3D to quickly visualize vessels without the need to remove surrounding bone, tissue, and implanted devices. Interventional devices such as coils, stents, glue, and clips, as well as calcified plaque, are visible on the mask image and can be fused onto the subtracted image.

Vessels
Higher spatial resolution and automatic streak artifact reduction to image small vessels



Devices
Higher spatial resolution & Automatic reduction of metallic artifacts to visualize devices

Soft tissue
Scatter reduction for flatter images and higher tissue differentiation

Ischemic stroke thrombectomy

GE helps stroke teams achieve fast reperfusion of acute ischemic stroke patients and efficient secondary prevention supporting them with optimization of operational processes, innovative imaging, digital and education solutions

INCREASED CHANCES OF RECOVERY BY UP TO 31%

with endovascular treatment of ischemic stroke[28]

DOOR-TO-REPERFUSION TIME FROM 83MIN to 36MIN

while clinical outcome improves[27]

19MIN AVERAGE GROIN-TO-REPERFUSION TIME

during thrombectomies[26] at Valley Baptist Medical Center

Transport

REDUCE TRANSPORT TO THE HOSPITAL

GE can help you think through your regional organization facilitating discussions within the regional stroke network and evaluating the impact of different organization models

Diagnostic

CONVENTIONAL WORKFLOW

FAST AND STANDARDIZED DIAGNOSTIC IMAGING

REVOLUTION CT WITH FASTSTROKE

Simplifies and organizes the display for fast, efficient evaluation of patients scanned for stroke evaluation

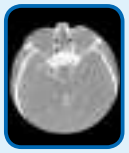
MR SIGNA™ ARCHITECT WITH 48 CHANNEL HEAD COIL AND READYVIEW

READY View advanced 3D post processing

DIRECT-TO-ANGIO

FAST DIAGNOSTIC IN THE ANGIO SUITE

Rule out hemorrhage with Soft Tissue 3DCT-HD



Evaluate vessel occlusion location and size with intra-venously injected 3DCT-HD

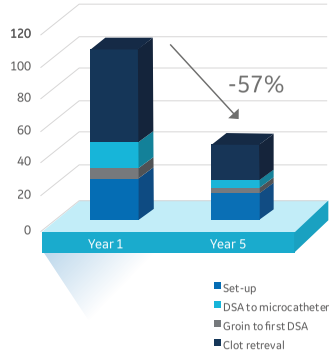
REDUCE TRANSPORT WITHIN THE HOSPITAL

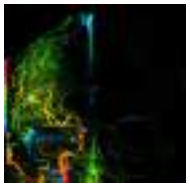
GE can help you think through your intra-hospital pathway organization

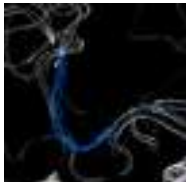
Treatment

FAST INTERVENTIONAL IMAGING IN THE ANGIO SUITE

ANGIO SUITE DOOR-TO-REPERFUSION TIME (min)[27]







Standardization of stroke brain imaging helps maintain fast and high quality imaging even for exams happening out-of-hours. GE developed a specific framework leveraging analytics to approach optimization and standardization of protocols

1 MEASURE CURRENT

2 OPTIMIZE PROTOCOLS

3 OPTIMIZE TIME

Prevention & Rehabilitation

IDENTIFICATION OF STROKE RISK FACTORS

ULTRASOUND SOLUTIONS
designed for rapid assessment of atherosclerotic disease

AMBULATORY ECG SOLUTION
for detection of atrial fibrillation

Cloud Server & software analysis for remote ambulatory ECG analysis and interpretation

SERVICES

EDUCATION

On site Education

E-Learning gecares.com your community

VOT Virtual Onsite Training

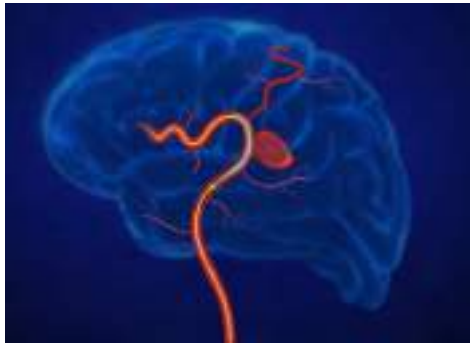
CONSULTING THROUGH GE PARTNERS

Advisory services

Advanced analytic capabilities

Vessel ASSIST

Vessel ASSIST[14] delivers accurate and easy anatomy segmentation and accurate vessel quantification from 3D volumes.
It also offers advanced 3D roadmap and augmented reality capabilities to guide catheter with confidence, whether you wish to perform a stenting of an intracranial aneurysm with an intraluminal or intrasaccular flow diverter.
peripheral chronic total occlusion recanalization, a uterine fibroid embolization, a tumor embolization prior to laparoscopic partial nephrectomy or a prostate artery embolization among others.



Vessel ASSIST enables:

With 3DCT HD and Virtual Dilution visualize the relationship between the vessels and the most complex devices such as intrasaccular or intraluminal stents, without the need to dilute your contrast injections.

WITH ASSIST FOR **VENOUS STENTING,** USERS ACHIEVED

a reduction of the occurrence of delayed flow in the cortical veins[15]

WITH ASSIST **USERS** EXPERIENCED

an increase of operator's confidence to identify critical vascular structure & device position[15]

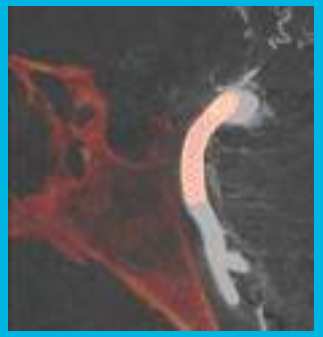
VESSEL ASSIST ENABLES

robust and high quality assessment of the stent-to-vessels relationship

Aneurysm embolization with Flow Diverter stent

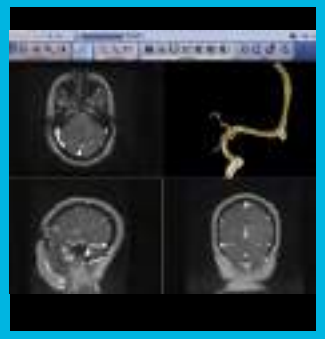
PLAN
Segment and size the anatomy of interest in CBCT.[1] Plan the stent positioning on the 3D model and prepare 3D landmarks to help guide the deployment.

GUIDE
Export segmented anatomy, centerline and landmarks and overlay them on live fluoroscopy on the frontal or lateral plane for augmented 3D fusion guidance.



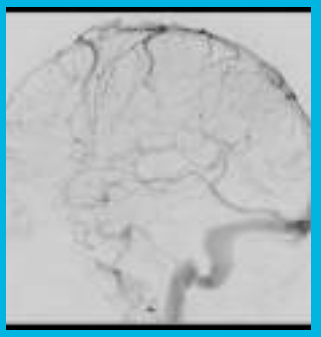
ASSESS
With 3DCT HD[2] and Virtual Dilution[3] visualize the relationship between your device and vessel with robust image quality and without changing your contrast injection protocols.

MR-guided Cerebral Venous Sinus Stenting



PLAN
Segment and size the anatomy of interest with 2 clicks in MR venogram.[4] Plan the stent positioning on the 3D model and prepare 3D landmarks to help guide the deployment.

GUIDE
Import segmented anatomy, vessel contours and landmarks and overlay them on live fluoroscopy on the frontal or lateral plane for augmented-MR biplane fusion guidance.



ASSESS
Confirm stent positioning and venous blood flow in biplane DSA runs.

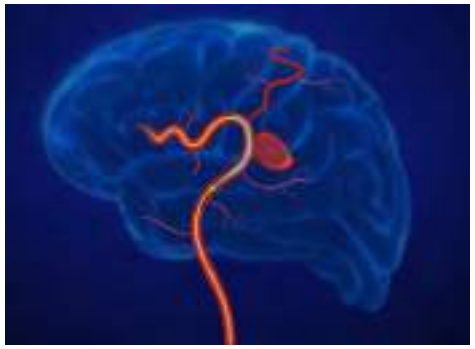
1. Requires VesselIQ Xpress, part of Vessel ASSIST.
2. 3DCT HD is an option sold separately. Includes 3DXR. Requires AW workstation and Volume Viewer. Available only on Innova IGS 5, Innova IGS 6, Discovery IGS 7 and Discovery IGS 7 OR.
3. Virtual Dilution is a GE created customized protocol which requires Volume Viewer and Integrated Registration. These applications are sold separately.
4. Require AW workstation with Volume Viewer and Volume Viewer Innova.

Embo ASSIST With Virtual Injection

Simulate your embolisation procedures with Virtual Injection

Embo ASSIST[16] with Virtual Injection, powered by Edison, is a 3D Visualization software solution designed to help clinicians simulate injections dynamically and thus perform embolization procedures with confidence

It offers simulation capabilities for complex procedures such as arterio-venous malformation, distal aneurysm or tumor embolization.



Embo ASSIST enables:

AUGMENT
THE LIVE IMAGING
using 3D overlay of selected vessels

ONE CLICK
SEGMENTATION
of vasculature from a CBCT acquisition

HELP
TO VISUALIZE AND ANTICIPATE
the destination of potential injections

Arterio-Venous Malformation embolization

PLAN
With 3DCT HD[1] and Split Phase[2], visualize arterial and venous phases details. Developed to automatically track vessel pathways to anticipate navigation challenges. Designed to allow you dynamically test embolization strategies with Virtual Injection and define optimal catheter positions.

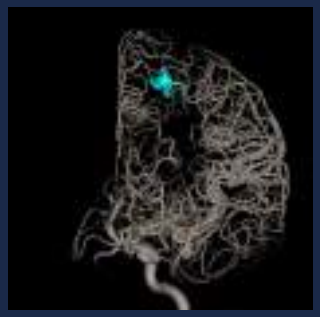
GUIDE
Export automatically segmented vessels and landmarks of potential embolization points for augmented-3D fusion guidance. Overlay them on live fluoroscopy on the frontal or lateral plane.

ASSESS
Visualize the embolized vessels in 3D and their relationship to the other structures with 3DCT HD subtracted.

Distal aneurysm embolization

PLAN
Virtually and dynamically interrogate vessels to understand the relationship with distal aneurysm. Automatically track vessel pathways to anticipate navigation challenges.

GUIDE
Export automatically segmented vessels and landmarks of potential embolization points for augmented-3D fusion guidance. Overlay them on live fluoroscopy on the frontal or lateral plane.



ASSESS
Visualize the embolized vessels in 3D and their relationship to the other structures with High Definition 3DCT.

1. 3DCT HD is an option sold separately. Includes 3DXR. Requires AW workstation and Volume Viewer. Available only on Innova IGS 5, Innova IGS 6, Discovery IGS 7 and Discovery IGS 7 OR.
2. Split Phase is a GE created customized protocol which requires Volume Viewer. Application sold separately.

Needle ASSIST

Improve speed and accuracy

Performing needle procedures in the interventional suite frees up your CT system and provides exceptional access to the patient. However, under fluoroscopic guidance, it may be challenging and time-consuming to find the right entry point and advance the needle while avoiding critical structures.

Needle ASSIST[17] provides real-time visualization of needle positions in the 3D space, it can help medical professionals improve their accuracy, reduce dose and support efficiency efforts when performing needle interventions, while having a limited impact on workflow. The potential reduction in dose and time ultimately helps increase the procedure volume in the angio suite. This ultimately can result in maximizing ROI, free-up CT scan time for improved CT-ROI for diagnostic purposes.

Needle ASSIST enables:

3D SPACE RECONSTRUCTION FOR THE NEEDLE VISUALISATION AT **-98%** RADIATION DOSE[18] OF A FULL CBCT WORKFLOW

TO RECONSTRUCT A NEEDLE IN 3D WITH TWO FLUOROSCOPIC IMAGES WITH AN ACCURACY[19] BETTER THAN **2.5mm**

Stereo 3D

1 First fluoroscopic shot and computation of second angulation.

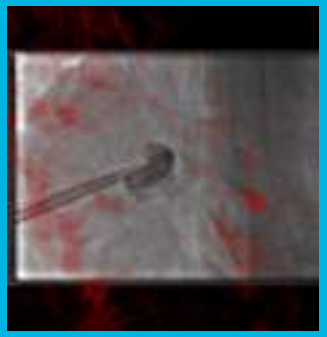
2 Second angulation reached thanks to autopositionner and second fluoroscopic shot.

3 Validation of registration and automatic needle detection.

4 Automatic needle reconstruction and display on the CBCT.

Spine Kyphoplasty

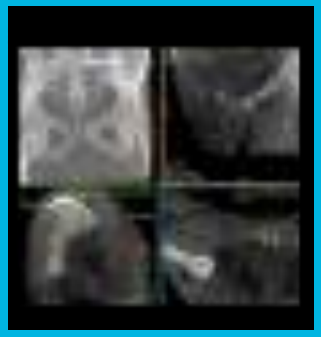
PLAN
With high definition CBCT image the spine with just one fast 3D spin. Determine the optimal pedicle entry point and target defining the needle path directly on oblique CBCT cross sections



GUIDE
Export the needle trajectories to live fluoroscopy for augmented 3D fusion guidance following C-arm and table movements and use automatically computed bull's eye and progress views for each trajectory. 3D bone rendering helps you visualize mis-registrations and correct for small patient motion from tableside.

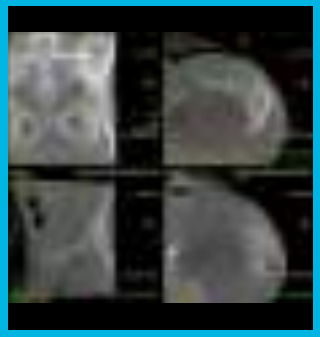
ASSESS
Evaluate cement placement with high definition CBCT for immediate quality control of technical success of the procedure.

Pelvic bone osteosynthesis



PLAN
Define optimal needle entry points and pathways directly on oblique CBCT cross sections.

GUIDE
3D fusion guidance all at table-side. Visualize and correct mis-registrations in both translation and rotation.



ASSESS
All at table-side, reconstruct a needle in 3D with 2 fluoroscopic images with accuracy and to review the location of the reconstructed needle on the 3D anatomy.

Optimized for a wide range of specialties

Cardiac and structural heart

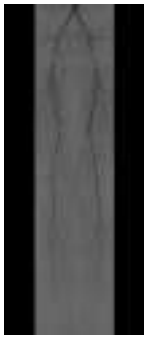
Whether it is for percutaneous coronary or valvular interventions, the Innova IGS 6 features transform itself in one of the most efficient monoplane systems. The off-set C-arm allows head to groin coverage without the need to move the L-am. Combined with the 30 cm detector size it provides open access to the patient at all times & steep angulations, with +/- 55 deg cranial to caudal angulations.

PCI ASSIST[20,21]
Increased visibility at same dose[22]

Quantitative Analysis Package[20]
Stenosis and Left Ventricle measurements

Calcification Enhancement[23]
improves the visualization of moving contrasted structures

Valve ASSIST 2[23]
Fuse in real time 2D fluoro with 3D anatomy from CT/X-ray



InnovaBreeze[24]
Follow the contrast while looking at subtracted images in real time. Image both legs at the same time with the 30 cm detector.

Interventional radiology

The Innova IGS 6 provides positioning flexibility and head to toe coverage necessary for peripheral vascular and abdominal interventions.
The 30 cm panel size allows DSA and Cone Beam CT acquisitions on large Field Of View to image the entire anatomy of interest.

3DCT HD[10]
Allows to image large organs such as Liver

Liver ASSIST V.I.[25]
Simulates injection points in real-time

Vessel ASSIST[14]
2D-3D Fusion image guidance for complex CTOs

References

* nnova IGS 6 refers here to IGS 630 configuration

† Optional feature, not available on all IGS configurations. Refer to your sales representative

1a. AutoRight refers to intelligent image chain features of GEHC's Interventional x-ray systems, from image acquisition to image processing and display, available on Innova IGS 5, Innova IGS 6, Discovery IGS 7 and Discovery IGS 7 OR. Not available for sale in all region.

1b. Based on competitive analysis, among major players in interventional imaging.

2. ASSIST solutions are composed of multiple medical devices. For more information, please refer to GEHC's web site. www.gehealthcare.com/assist. Performance obtained from following publicly available peer reviewed papers: Novel integrated 3DCT and fluoroscopy fusion for LAAC. Value of Image Fusion Coronary angiography for the detection of CABG, Impact of Hybrid rooms with Image fusion on radiation exposure during endovascular Aortic repair, Percutaneous Bone Biopsies: comparison between CBCT and CT guidance, Significant patient radiation exposure reduction during complex liver IR procedures using a new generation angiography imaging room, Comparison of the number of image acquisitions and procedural time required for TACE of Hepatocellular Carcinoma with and without tumor feeder detection SW. In clinical use outcomes will vary depending on the system, settings, clinical task, patient size, anatomical location, clinical practice and ASSIST solutions.

3. This type of contract may not be available in your area. Contact your sales representative for more information.

4. Vascular OnWatch study documented infographic

5. GE internal data

6. Statistics for imaging equipment in 2018 in Europe.

7. OnWatch is an optional feature, not available in all countries and sold separately.

8. myIQ is a customization of image display available on Innova IGS 5, Innova IGS 6, Discovery IGS 7 & Discovery IGS 7 OR. Refer to your sales representative. System is delivered with default settings. Customization requires a GEHC representative.

9. For XA modality series, Integrated Registration currently supports only 3D X-Ray Angiography Images (stored as CT Image storage DICOM objects) acquired with GE Innova equipment and reconstructed with the Innova 3DXR application.

10. 3DCT HD is an option sold separately. Includes 3DXR. Requires AW workstation and Volume Viewer.

11. Optional features on Innova IGS 6.

12. Option sold separately. Metal artifacts generated typically by coils and clips in the CBCT FOV.

13. Requires AW workstation.

14. Vessel ASSIST solution includes Vision 2, VesselIQ Xpress and Autobone Xpress, and requires AW workstation with Volume Viewer and Volume Viewer Innova. These applications are sold separately. Not available for sale in all regions.

15. Magnetic Resonance Venogram 3D Live Guidance During Venous Sinus Stenting Treatment and Safety, T Link et al. in J NeuroIntervent Surg 201/; 10(Suppl 2). Technical note: Bl-plane 3D guidance technique for neuro-interventional procedures: feasibility and potential benefits, A Santillan et all. in J NeuroIntervent Surg 201/; 10(Suppl 2). The Statements by GE's customers published here are based on results that were achieved in the customer's unique setting. Results may not be replicable by other GE users.

16. Embo ASSIST solution includes FlightPlan For Embolization, Vision 2, VesselIQ Xpress, Autobone Xpress and requires AW workstation with Volume Viewer, Volume Viewer Innova. These applications are sold separately. Not available for sale in all regions.

17. Needle ASSIST solution includes TrackVision 2, stereo 3D and requires AW workstation with Volume Viewer, Volume Viewer Innova. These applications are sold separately. Not available for sale in all regions.

18. Based on the dose of the procedure step needed for needle visualization using a CBCT acquisition vs. a Stereo 3D process. Full 3D anatomic information is provided with the CBCT acquisition, while the Stereo 3D process provides specific information for 3D needle visualization. In both cases, the needle visualization is next used to assess its location. The stated dose reduction does not reflect the entire interventional procedure, but rather to a specific step in the procedure. The dose for the CBCT acquisition is from typical exposure settings (Innova CT 40°/s, 30fps, IQ Standard, Normal, Nominal FOV). The dose from the Stereo 3D process is from three spatially separated, 2-seconds fluoroscopic acquisitions, with typical exposure settings (3.75 fps, IQ Standard, Normal, Max Dose Reduction, Nominal FOV). The dose data for all acquisitions are from the Air Kerma per IEC 60601-2-43 conditions, provided in the interventional X-Ray user manual. In clinical practice, the use of Stereo3D may reduce patient radiation dose depending on the clinical task, patient size, anatomical location and clinical practice.

19. The accuracy is defined to be the perpendicular distance between the needle tip in the Stereo 3D image and the shaft of the needle in the CBCT image. This accuracy does not reflect the error in the direction parallel to the needle shaft. The perpendicular accuracy was determined by engineering analysis using rigid phantom data. This idealized accuracy of the Stereo 3D reconstruction is obtained with the 2 fluoroscopic images taken at optimal angulation and without table motion at any step of the reconstruction procedure.

20. Option sold separately.

21. PCI ASSIST solution includes StentViz and StentVesselViz, features of Interventional X-ray systems Innova IGS 5, Innova IGS 6, Discovery IGS 7 and Discovery IGS 7 OR.

22. Improvement vs. same test without PCI ASSIST. IQ & visibility improvement is measured on Innova IGS530 with phantoms using various Plexiglas Thicknesses, acquisition parameters and the NEMA spoke wheel tool (ref 1), calculating the ratio of the contrast of the moving wires to the background noise level. The amount of IQ improvement related to PCI ASSIST depends on the acquisition parameters, clinical task, patient size, amount of motion in the image, anatomical location, and clinical practice. Ref1: A new tool for benchmarking cardiovascular fluoroscopes; S. Balter, Radiation Protection Dosimetry, Vol. 94, No. 1–2 pp. 161–166 (2001).

23. Valve ASSIST 2 solution includes TAVI Analysis, HeartVision 2 and requires AW workstation with Volume Viewer, Volume Viewer Innova. These applications are sold separately.

24. Applicable to IGS 630 configuration.

25. Liver ASSIST V.I. solution includes Hepatic VCAR and FlightPlan For Liver that can be used independently. It also requires an AW workstation with Volume Viewer and Volume Viewer Interventional. These applications are sold separately. Not available for sale in all regions.

26. Results obtained at Valley Baptist Medical Center, Harlingen, TX, USA for stroke patients receiving mechanical thrombectomy and enrolled in the STRATIS registry. The Statements by GE's customers described here are based on results that were achieved in the customer's unique setting. Since there is no " typical " hospital and many variables exist i.e. hospital size, case mix , there can be no guarantee that other customers will achieve the same results

27. Endovascular Treatment Outcomes Using the Stroke Triage Education, Procedure Standardization, and Technology (STEPS-T) Program, Hassan et al. in Interv Neuroradiol. 2018 Feb;24(1):51-56. doi: 10.1177/1591019917740100.

28. EXTEND-IA Trial. Campbell BC et al: Endovascular therapy for ischemic stroke with perfusion-imaging selection. N Engl J Med 2015; 372: 1009-1018 / DOI:10.1056/NEJMoa1414792
Endovascular treatment improved the functional outcome at 90 days, with more patients achieving functional independence (score of 0 to 2 on the modified Rankin scale, 71% vs. 40%, p=0.01).

29. Requires an AW workstation with volume Viewer and Volume Viewer Innova. These application are sold separately.

GE Healthcare

About GE Healthcare

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GE Healthcare is a leading global medical technology and digital solutions innovator. GE Healthcare enables clinicians to make faster, more informed decisions through intelligent devices, diagnostic pharmaceuticals, data analytics, applications and services, supported by its Edison intelligence platform. With over 100 years of healthcare industry experience and around 50,000 employees globally, the company operates at the center of an ecosystem working toward precision health, digitizing healthcare, helping drive productivity and improve outcomes for patients, providers, health systems and researchers around the world.

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