



Image Guiding Solutions

Interventional neuroradiology

**Upgrade your system
workstation and applications,
enhance your clinical practice**



GE HealthCare

2D and 3D applications to augment your imaging outcomes

Boost your clinical practice and confidence with cutting-edge apps

3D visualization

3D CT HD²

High-quality imaging of anatomical structures

Your win

Different rotation speeds for various clinical objectives

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

Stent positioning

Virtual Dilution⁵

Visualize the relationship of flow-diverter stents with vessels

Your win

- Greater confidence⁶ : Improved inter-reader agreement vs. conventional 2D DSA alone, with comparable X-Ray exposure
- No contrast injection required

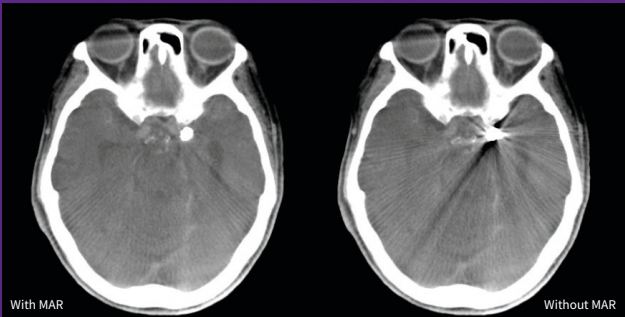
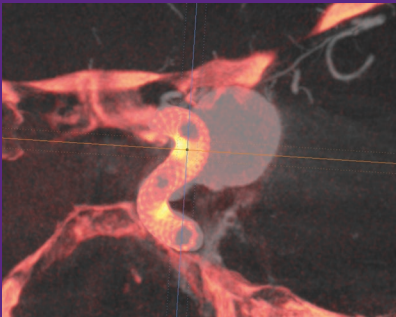
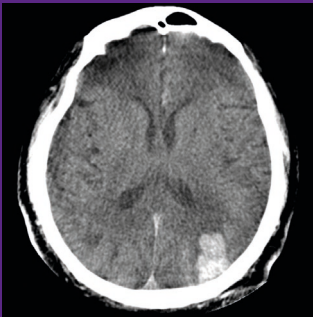
Image quality

MAR⁷

Integrated solution to reduce artifacts due to small metallic devices

Your win

- Automatic artifact reduction from devices such as aneurysm coils and clips
- Improved image quality of 3D CT HD² acquisitions



Interventional neuroradiology upgrade: what added value for your practice?

Are you facing challenges like visualization of the complex brain anatomy for accurate treatment planning and guidance when using your monoplane or biplane system?

Consider upgrading your system with ASSIST*, the comprehensive versatile suite to help address your interventional neuroradiology team's main challenges and improve outcomes in stroke, AVM (Arteriovenous malformation) and aneurysm procedures.

Arteriovenous malformation embolization

AVM treatment planning requires a comprehensive visualization of the AVM vasculature complexity and its access.

Your upgraded solution: Embo ASSIST AI¹ with 3D CT HD²

AI-based augmented guidance solution designed to define optimal embolization strategies

Access automatic AI-based segmentation and, in 1-click mode, simulate vessel injection and extraction points. Use 3D models of pathways to navigate catheter and leverage digital zoom to limit dose.

Visualize targeted vessels on 3D CT HD² directly from the interventional room to confirm catheter location before embolization.

Your win

- Simplified planning and guidance
- Supported embolization strategy

Your outcomes

- Easy visualization of AVM angioarchitecture
- Dynamically tested embolization strategy
- Augmented 3D guidance



Vessel extraction and injection points simulation

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A very intuitive software, easy to use, that provides quickly the information. It helps understand complex malformations during the planning phase, as well as allowing you to navigate and anticipate embolization results. It improves treatment accuracy and generates time savings, thus allowing a reduction in radiation dose.

Prof. René Anxionnat
Interventional
Neuroradiologist,
University Hospital
of Nancy, France

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Aneurysm treatment with flow diverter stent

Cerebral aneurysm treatments require a meticulous preparation and the use of multiple 3D modalities to reach the right level of visualization.

The complex anatomy of vessels and aneurysms, and the relationships between them, remains a challenge in planning flow-diverter stent selection and positioning.

Your upgraded solution: Vessel ASSIST³ with Integrated Registration

Planning, guidance and assessment of aneurysm embolization

Vessel ASSIST³ delivers:

2-click segmentation and vessel quantification from 3D volumes.

Advanced 3D roadmap, augmented imaging on frontal or lateral planes.

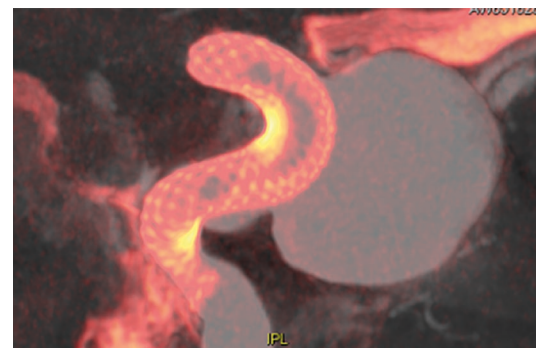
Integrated Registration⁴ delivers:

3D CT HD² comparison with fused 3D anatomical image from multiple modalities

Virtual Dilution⁵ for stent positioning assessment.



Segmentation and sizing with Vessel ASSIST³



Positioning assessment with Virtual Dilution

Your win

- Simplified segmentation
- Aneurysm sizing
- Catheter guidance
- Treatment assessment

Your outcomes

- Easy and accurate anatomy analysis
- Accurate vessel quantification from 3D volumes
- Use of multiple 3D modalities in clinical routine


Stay technologically and clinically current with access to recent applications

Your upgrade package to stay at the forefront of technology

IGS workstation upgrade



AW workstation

Get access to the full ASSIST suite at table side 

You buy

- Operating system hardware and software upgrade
- Volume Viewer Innova Enhanced
- Reconstruction engine evolution
- Application refresh

You get

- Intuitive user interface
- Simplified workflow
- Increased storage capability
- Cybersecurity risk reduction
- 20% faster processing⁸



Interventional neuroradiology imaging upgrade

New ASSIST, 2D, 3D applications

Stroke

- 3D CT HD²

Arteriovenous malformation

- Embo ASSIST AI¹
- 3D CT HD²

Aneurysm

- Vessel ASSIST³
- Integrated Registration⁴
- Virtual Dilution⁵
- 3D CT HD²
- MAR⁷



Disclaimers:

* The Interventional neuroradiology upgrade includes an AW VS7 with Z4G4, Vessel ASSIST, Embo ASSIST AI. These applications are sold separately.

** 3D CT data from Product Data Sheet.

Prof. René Anxionnat is a paid consultant for GE HealthCare and was compensated for participation in these testimonials. The statements by Prof. René Anxionnat presented here are based on their own opinions and on results that were achieved in their unique setting. Since there is no “typical” hospital and there are many variables, e.g., hospital size, case mix, etc., there can be no guarantee that other customers will be able to achieve the same results.

1. Embo ASSIST AI solution includes FlightPlan for Embolization with AI Segmentation option and requires AW workstation with Volume Viewer, Volume Viewer Innova, Vision 2, VessellQ Xpress, AutoBone Xpress. These applications are sold separately. FlightPlan for Embolization with AI Segmentation may not be available in all countries.
2. 3D CT HD is an option sold separately. Includes 3DXR. Requires AW workstation and Volume Viewer.
3. Vessel ASSIST solution includes Vision 2, VessellQ 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 countries.
4. Integrated Registration requires an AW workstation with volume Viewer and Volume Viewer Innova. These applications are sold separately.
5. Virtual Dilution is a GE HealthCare created customized protocol which requires Volume Viewer and Integrated Registration. These applications are sold separately.
6. Hassan AE, et al. Visualization of flow diverter stent wall apposition during intracranial aneurysm treatment using a virtually diluted cone beam CT technique (Vessel ASSIST). *Neuroradiology*. 2021;63(1):125-131.
7. MAR is an optional feature of 3DXR, which is included in 3D CT HD, a 3D application of the Allia™ systems and Innova™ IGS 6 and Discovery™ IGS 7, and removes metal artifacts generated by coils in the CBCT field of view.
8. AW workstation - As compared to previous AW system. Based on CPU specifications, memory speeds and PassMark® Software CPU Performance Test benchmark results (www.cpubenchmark.net/high_end_cpus.html). Not all applications may achieve this improvement.

