

Making the difference where it really matters

Philips Dynamic 3D Roadmap

Philips 3D Roadmap provides dynamic 3D image guidance for navigating through vascular and cardiac structures anywhere in the body. It overlays real-time 2D fluoroscopy images on a 3D reconstruction of the vessel tree acquired with 3D-RA or XperCT*. The resulting roadmap shows the progress of a guide wire, catheter, or coil in real-time. It is designed to improve visualization and navigation for complex neuro, cardiac, vascular, and oncology interventions.

* only available on the Allura FD20 and Allura FD20 biplane systems.

Key advantages

- Provides full 3D view to enhance navigation of guide wire and catheter through complex vascular structures
- Helps to overcome the limitations of 2D roadmaps in visualizing overlapping vessels
- Offers a high level of precision thanks to real-time compensation for gantry, table, and small patient movements

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Accurate 3D guidance for complex interventions

Digital 2D roadmap is routinely used in interventional procedures. However, the static images produced by this technique are very limited in their ability visualize overlapping vessels. It is also time-consuming, because every time the position of the X-ray equipment is changed a new DSA (Digital Subtraction Angiography) run has to be performed. Philips 3D Roadmap technique offers a real-time alternative, by providing a dynamic roadmap based on the real-time registration of “live” 2D fluoroscopy and a 3D angiographic volume.

Superb clinical assistance

Philips dynamic 3D Roadmap combines the excellent 3D image quality of an Allura 3D-RA or XperCT volume with live 2D fluoroscopy imaging. The live image shows the advancement of guide wires, catheters, and coils in real-time. The 3D image is automatically adjusted to any gantry changes and any lateral or longitudinal table movement to ensure a high level of accuracy.

During neuro interventions, 3D Roadmap can automatically compensate for small mismatches of up to 1 centimeter between the live fluoroscopy and 3D image that can, for example, be caused by small patient movements.

All results are displayed in both the control and exam room and can be viewed on Philips FlexVision display in the enlarged full-screen mode or with digital zoom to enhance visualization.



3D Roadmap during TIPPS



3D Roadmap during carotid artery stenting

Dynamic to enhance accuracy

The 3D Roadmap is dynamic to enhance navigational accuracy during interventions. When the following parameters are changed, the 3D roadmap is instantly updated and automatically moves in sync to the new setting:

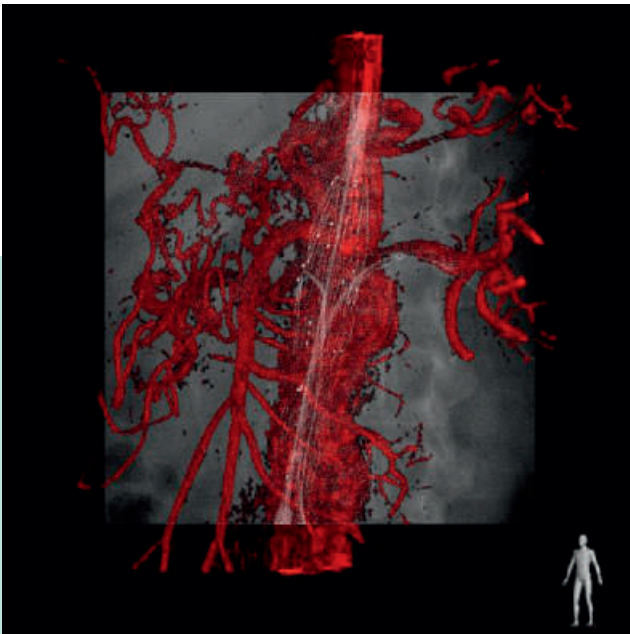
- The angulation of the C-arc
- The rotation of the C-arc
- The field of view
- The source to image distance

Intuitive control and functionality

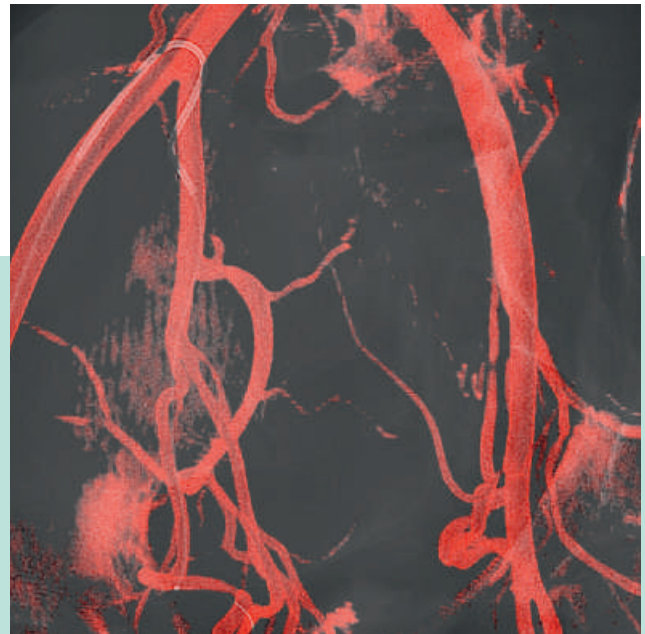
3D Roadmap can be fully controlled from the tableside in the exam room using the Xper module.

Runs and snapshots can be saved for reporting and archiving purposes. The 3D viewing options that can be operated tableside include:

- Landmarking to adjust the intensity of the anatomical reference surrounding the vessels
- 3D blending to fade in/out the 3D view
- WW/WL settings to control the contrast/brightness



3D Roadmap during aortic graft placement



3D Roadmap during Uterine Fibroid embolization

Convenient archiving

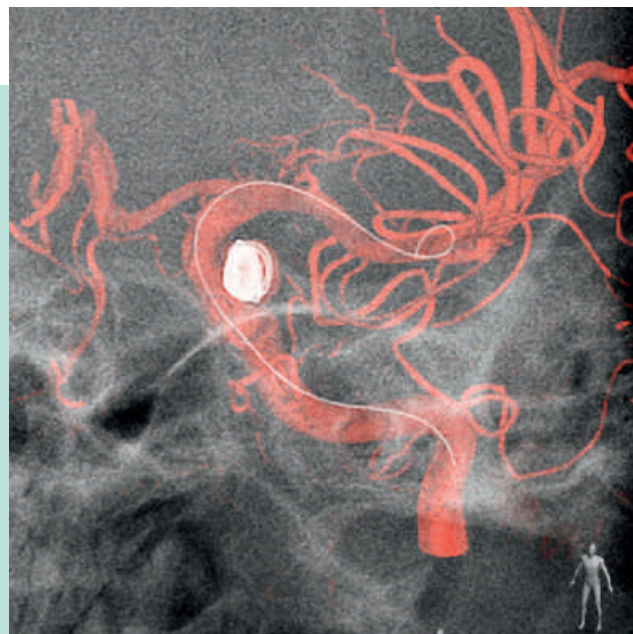
3D Roadmap runs are stored together with the 3D-RA or XperCT volume in the same patient file, and can be reviewed at any time. 3D Roadmap images can be sent to:

- Any DICOM-compatible workstation as DICOM Secondary Capture images
- Any PC in standard PC and JPEG formats

3D Roadmap images can be stored/ archived:

- On a PACS system as DICOM Secondary Capture images
- On a CD, DVD, or USB flash drive

For more information about how 3D Roadmap can improve guidance of your interventions, please contact your local Philips representative.



3D Roadmap during intracranial aneurisms treatment

Please visit www.philips.com/interventionalradiology



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