



PHILIPS

Ultrasound

Fusion and Navigation



Enhance clinical confidence with your interventional procedures

Image fusion and needle navigation

With advanced capabilities such as rapid Auto Registration, semi-automated tumor contouring, contrast-enhanced ultrasound (CEUS), and the specially designed mC7-2 transducer, Philips Fusion and Navigation can help you meet your operational goals while elevating patient care in interventional procedures.

“The Philips image fusion and navigation system has been extremely valuable to us. Cases we normally perform with CT-fluoroscopic guidance are now routinely performed in the IR suite. This has improved workflow by reducing the need to find time on our busy CT scanner. It has also reduced radiation exposure for the patient, staff and operator.”*

Ezana M. Azene, MD, PhD

Vascular and Interventional Radiologist, Gundersen Health System, La Crosse, WI

* Customer experience. Results may vary.

No need to wait for imaging suite availability

Image fusion and needle navigation from Philips can help you move procedures to the interventional radiology suite by leveraging the power of multiple imaging modalities.



Auto Registration in
< 1 minute

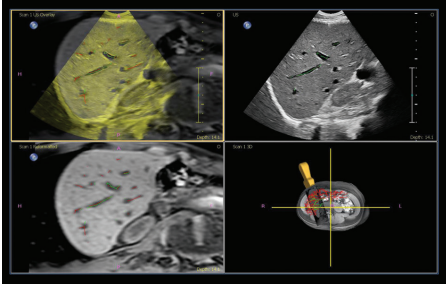


↓ 64% reduction
in procedural
needle manipulations



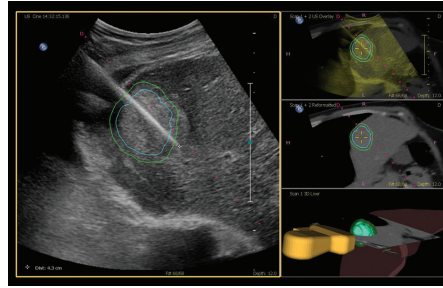
↓ 45% reduction
in procedural
CT scanning

Top tools keep you ahead in interventional procedures



Auto Registration for rapid multi-modality fusion

Achieve successful alignment of CT or MR volumes to ultrasound in <1 minute for the effective characterization of lesions. Gain more time to focus on the procedure ahead and spend less time on performing the registration necessary for accurate fusion. Registration of two imaging modalities by conventional methods can be time-consuming and technically challenging, often taking up to 10 minutes to achieve successful fusion.



Tumor contour to easily plan and target lesions

This semi-automated tool helps outline a 3D contour around a structure of interest, improving procedure guidance even in challenging cases where the lesion may not be visually obvious under ultrasound.

The lesion can be rendered in 3D or 2D via a complementary modality and overlaid on the live ultrasound or CT, helping visualize the location in relation to surrounding critical structures.



mC7-2 micro-convex transducer designed for procedure guidance

This small-footprint ergonomic transducer allows imaging in tight intercostal spaces, helping reduce rib shadowing on images, as well as providing a more direct needle approach for procedures.

The CIVCO Verza biopsy guide can be directly attached to the transducer, allowing needle guidance with a minimal blind zone. Embedded electromagnetic sensors provide an ergonomic solution for fusion and navigation by not requiring external tracking accessories.

“Auto Registration simplifies fusion imaging so that more time can be spent evaluating pathology while optimizing the patient experience.”*

Dr. Andrew McNeill, Consultant Radiologist, Freeman Hospital NHS, UK

* Customer experience. Results may vary.

Only with Philips

CT-only workflow

This is the industry's only interventional workflow with CT-only needle navigation on an ultrasound system. Image fusion and needle navigation unlocks flexibility and opens up new possibilities by making image fusion and the use of ultrasound imaging completely optional.

Continuous patient tracking

Needle location in relation to CT is tracked and updated in real time for procedural visualization, allowing providers to tackle complex cases and anatomy, even where ultrasound imaging is not possible. Once the registration step is complete, the patient can move, change position, and the field generator can be moved in or out of the procedure space without losing anatomical landmarks or diminishing tracking accuracy.

Increase efficiency and boost productivity

Image fusion and needle navigation can help you harness the power of multiple modalities by fusing PET/CT, MR, or cone beam CT images, to live ultrasound, enabling you to conduct procedures in the IR suite, or whichever procedure setting best supports your practice, potentially allowing for more predictable and high-volume scheduling.

The bottom line: **reduce CT scanning time by 45%**, which is a total patient radiation dose equivalent to three head CT scans or one full body scan.¹

Learn more at
www.philips.com/ultrasound-IR

Reference

1. Kim E, Ward TJ, Patel RS, Fischman AM, Nowakowski S, Lookstein RA. CT-guided liver biopsy with electromagnetic tracking: results from a single-center prospective randomized controlled trial. *AJR Am J Roentgenol.* 2014;203(6):W715-W723. doi:10.2214/AJR.13.12061