

ACUSON SC2000 Ultrasound System

syngo® TrueFusion¹

Integrated efficiency in TEE guidance

[siemens-healthineers.com/ultrasound](https://www.siemens-healthineers.com/ultrasound)

Cardiology



Summary for internal use

syngo TrueFusion seamlessly integrates advanced ultrasound and angiography imaging for efficient communication and target-oriented device navigation in treating structural heart disease.

The advanced application provides the ability to fuse Artis live fluoroscopy (X-ray images) with landmarks, image overlay and valve models derived from transesophageal echo (TEE) scans on the ACUSON SC2000™ Ultrasound System, PRIME edition.

syngo TrueFusion is based on the co-registration of an Artis angiography and an ACUSON SC2000™ Ultrasound System, PRIME edition. The machine learning-based detection algorithm uses an internal model of the Siemens Healthineers Z6Ms 3D TEE transducer to ensure efficient automated co-registration with eSie sync.

Guiding structures for fusion can be identified and provided directly from the integrated ultrasound system.

Key features

Dedicated probe design

- HW markers built in to unambiguously detect probe in X-ray
- 3 ball markers (tantalum spheres > for side views), 2 holes (for frontal projections)

Automated Co-Registration with eSie Sync

- eSie Sync efficiently integrates co-registration of Artis imaging and ACUSON SC2000™ PRIME into the workflow with machine learning-based probe detection and automated registration updates

Direct export of fusion landmarks and live image overlay from the PRIME system

- TEE landmarks can be marked directly on the ACUSON SC2000™ Ultrasound System, PRIME edition and sent for fusion with the Artis live fluoroscopy images
- In addition to landmarks, ultrasound images can be displayed onto the Artis live fluoroscopy screen for live image overlay

eSie Valves™ structures as automated anatomical landmarks for fusion

- Assessment of valvular anatomy with one-click eSie Valves modeling provides automated landmarks for fusion with live fluoroscopy
- Fusion of annulus landmarks can support device orientation to correct deployment angle

Angio-TEE view synchronization

- Synchronizing the image orientation of TEE and angio facilitates orientation and communication within the team
- Automated adjustment of C-arm angulation to TEE or landmark orientation can help save fluoro time

True integration – easy fusion access

- Automated co-registration updates with every step on the fluoro pedal
- Landmarks can be sent for fusion anytime during procedure directly from ACUSON SC2000™ PRIME system

Key benefits

- Facilitates orientation during complex structural heart procedures through anatomical and functional landmarks fused with live fluoroscopy
- Improves communication between echocardiographer and interventionalist through sharing of perspectives
- Potentially saves contrast and fluoro time
- Potentially shortens the learning curve in challenging procedures due to more intuitive anatomical orientation

Our unique selling points

- Truly integrated workflow without the need for a 2nd person to operate the workplace
- Automated co-registration updates with eSie Sync
- Ability to send eSie Valves model over to X-ray for better visualization of valve anatomy during interventional procedures

Comparison to competition

The only other vendor offering Angio-TEE Fusion currently is Philips, with the EchoNavigator.

Advantage with EchoNavigator:

Enables real-time overlay of 2D and 3D TEE images.

Challenge with EchoNavigator:

Currently cardiac echocardiographers need to work on the ultrasound machine as well as EchoNavigator workstation in order to fuse echo and X-ray images. Or, the interventionalist at the tableside or an extra tech needs to control the extra WS. This may complicate workflow/communication and add cost.

TrueFusion:

Our solution provides a more efficient workflow and facilitates communication using live image overlay and landmarks for TrueFusion™ from the ACUSON SC2000™ Ultrasound System PRIME edition.

¹ TrueFusion represents a workflow consisting of syngo TrueFusion (syngo X Workplace) and TrueFusion echo-fluoro guidance (ACUSON SC2000™ Ultrasound System, PRIME edition).

The products/features are not commercially available in all countries. Due to regulatory reasons their future availability cannot be guaranteed. Please contact your local Siemens Healthineers organization for further details.

syngo® is a registered trademark owned by Siemens Healthcare GmbH.

Siemens Healthineers Headquarters

Siemens Healthcare GmbH
Henkestr. 127
91052 Erlangen, Germany
Phone: +49 9131 84-0
siemens-healthineers.com

Manufacturer

Siemens Medical Solutions USA, Inc.
Ultrasound
22010 S.E. 51st Street
Issaquah, WA 98029, USA
Phone: 1-888-826-9702
siemens-healthineers.com/ultrasound