GE Healthcare

Accomplish more.

LOGIQ 9

Demand more.

In the fast-paced environment of radiology today, you require the right tools to help you accomplish more. From routine 2D imaging and powerful Volume Ultrasound capabilities, to comprehensive information management, you demand more from your ultrasound system than ever before.

As the world's #1 ultrasound company, GE delivers:

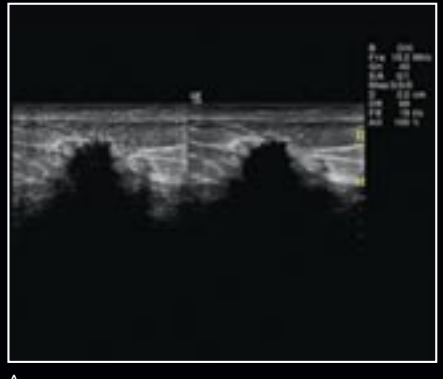
LOGIQ® 9, GE's premium ultrasound system, enables you to comfortably acquire and construct volumetric images in real time, then interrogate the images in any plane to explore the smallest details with stunning clarity. With a new adjustable flat monitor and floating keyboard, you'll instantly see SonoErgonomics™ is build right in.

LOGIQworks,™ GE's powerful ultrasound IT solution, allows you to perform your processing and diagnosis from the comfort of a workstation. So advanced, you can virtually rescan a patient after they have left the exam room.

GE Healthcare's latest technology breakthroughs address the total ultrasound suite – from the inside out – bringing you enhancements in image quality, productivity, comfort and workflow. From new Volume Imaging Protocol (VIP) and integrated diagnostic workstations, to new ergonomic features and voice-activated operation – the latest breakthroughs are changing how ultrasound is done in the radiology department.

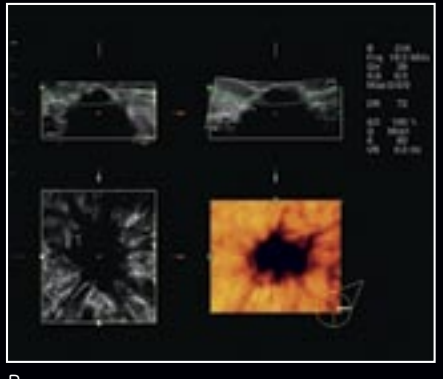
See more.

DualView



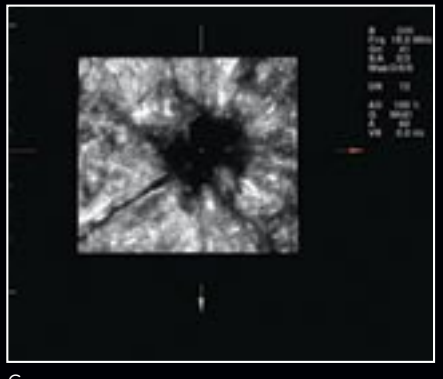
A

4D multiplanar view



B

Surface rendering



C

In LOGIQ 9, GE has developed advanced technology that gives you improved resolution and stunning image quality, leading to enhanced diagnostic capabilities that help you get more clinical information than ever before.

Volume Ultrasound

With the LOGIQ 9, you can acquire and construct volumetric images real-time with 4D transducers. And, our leading edge 2D technology gives you the capability to reconstruct volumes from cine loops and manipulate data to view sagittal, transverse or coronal, as well as oblique planes – seeing anatomical relationships never before visualized.

Our latest volume enhancements deliver more:

- Volume Calculation (VOCAL) automatically calculates volumes based on trackball tracing of the region of interest for evaluating irregular structures.
- Inversion Mode makes it easier to visualize volumes compared to conventional ultrasound techniques by automatically providing surface renderings of hypoechoic structures, beneficial for the evaluation of contiguous multiple cysts or irregular fluid collection.
- Volume Contrast Imaging (VCI-Static) delivers unmatched B-Mode contrast resolution and speckle suppression in each of the three cut planes, helpful in evaluating solid organs and cystic structures.

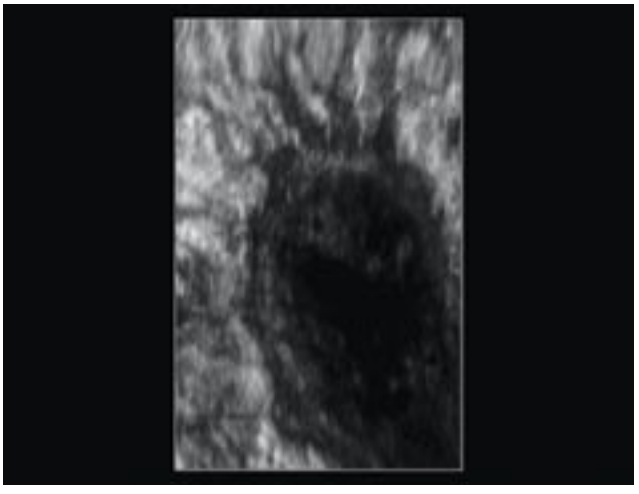
Volume rendering

D

The power of Volume Ultrasound

Utilizing GE's exclusive DualView mode (Figure A) allows the clinician to simultaneously display a 2D fundamental image of the breast on the left and with SRI-HD and CrossXBeam™ applied on the right side. The combination of the two technologies allows better delineation of the spiculations and margins of the mass.

The 4D16L transducer displays the anatomy in a real time multiplanar mode. The coronal plane, not available with conventional imaging, is displayed on the bottom left of the image enabling better visualization of the ductal extension of this mass. The curved rendering capability allows the operator to display a surface render customized specific to the anatomy (Fig B). A surface rendering can also be created, allowing better characterization of the architecture of this mass (Figure C). A volume calculation of the mass can be performed using VOCAL (Figure D).

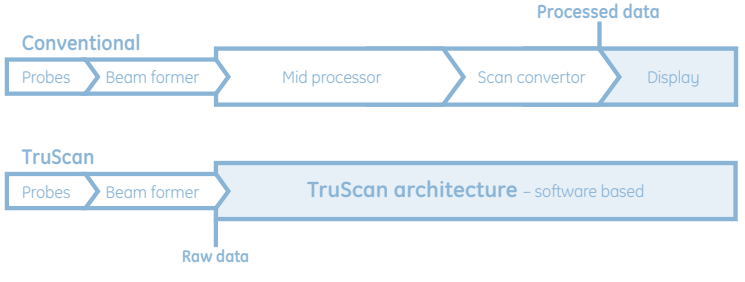


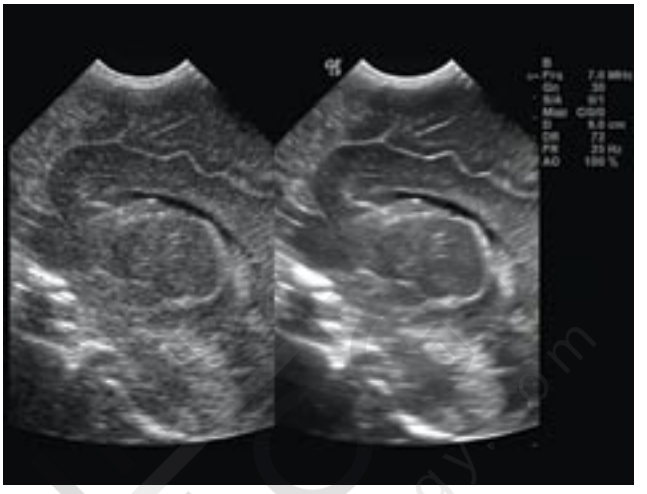
The virtual rescan

GE's exclusive TruScan™ architecture makes the virtual rescan possible. TruScan allows raw image data to be stored early in the image chain for optimum flexibility during post processing and analysis. With access to raw image data, you are able to compensate for variations in image acquisition by virtually rescanning the patient after they have left the exam room.

With raw data, the virtual rescan allows you to:

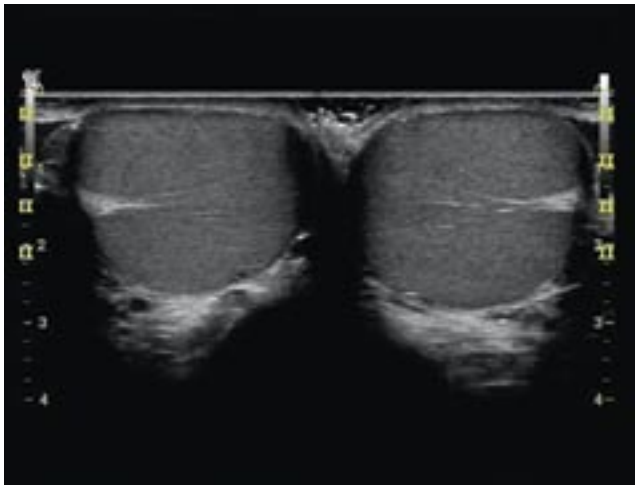
- Optimize images acquired under difficult scanning conditions:
  - Add time gain controls
  - Modify B-Mode gain and dynamic range
  - Achieve one-touch Automatic Optimization
  - Change baseline shift, sweep speed and Doppler gain
- Take measurements; add or edit annotations
- Adjust time gain controls
- Analyze and manipulate volume data
- Construct 3D volume images from a cine loop





Fewer speckles, more definition

High Definition Speckle Reduction Imaging (SRI-HD) heightens your visibility through improved, high-definition contrast resolution. SRI-HD is a new adaptive, real-time software algorithm that suppresses speckle artifact while maintaining true tissue architecture.

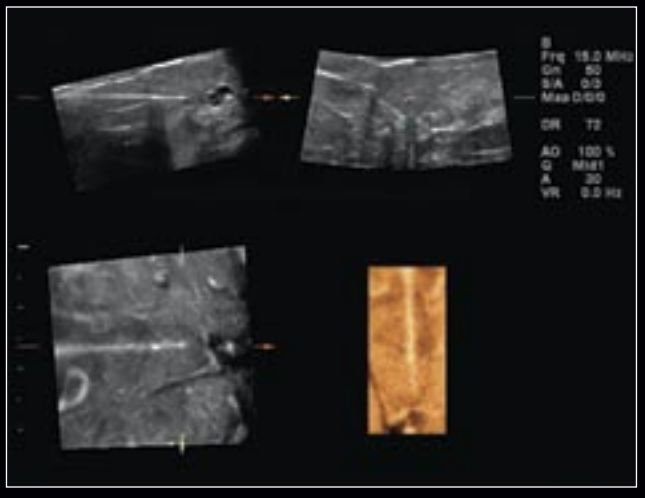


Uncompromised penetration and resolution

Matrix array transducers with multiple rows of elements help you achieve uniform resolution throughout the field of view, which reduces volume averaging and improves overall image consistency in both near and far fields. GE's matrix technology diminishes the compromises between penetration and resolution.

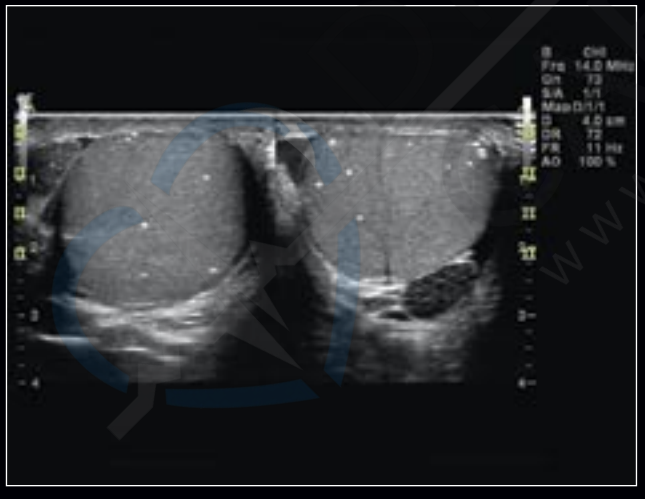
Visualize more.

Small parts

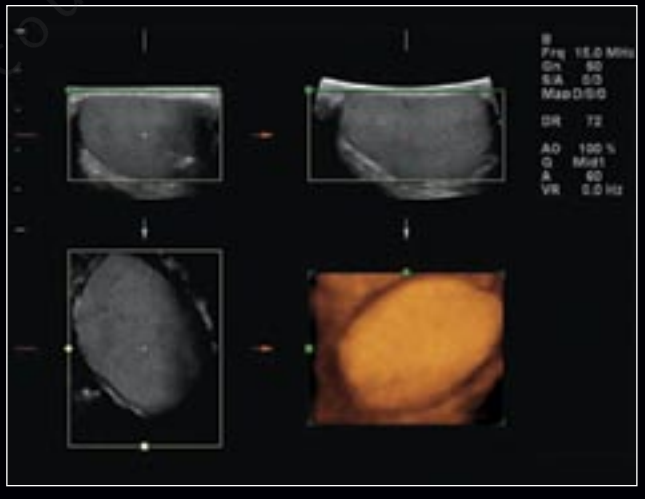


RealTime 4D multiplanar view of needle localization of breast biopsy

Thyroid mass using SRI-HD, LOGIQview and matrix technology

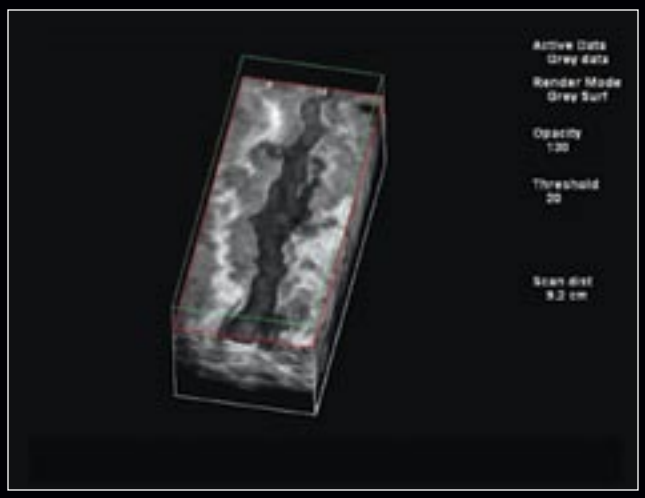


DualView of scrotal microcalculi using Coded Harmonics, CrossXBeam, SRI-HD and matrix technology

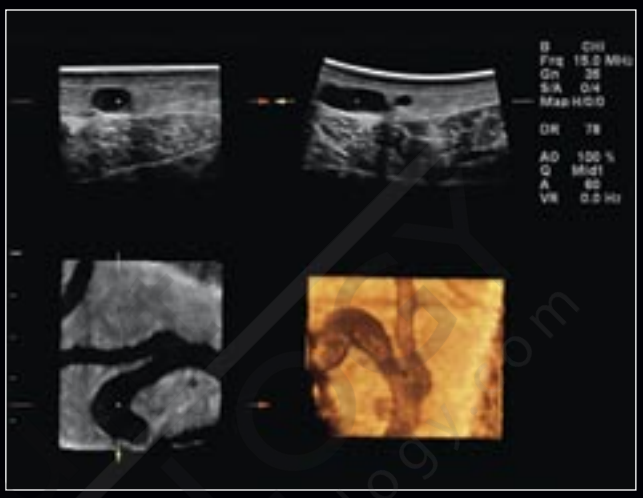


Multiplanar view of normal testicle

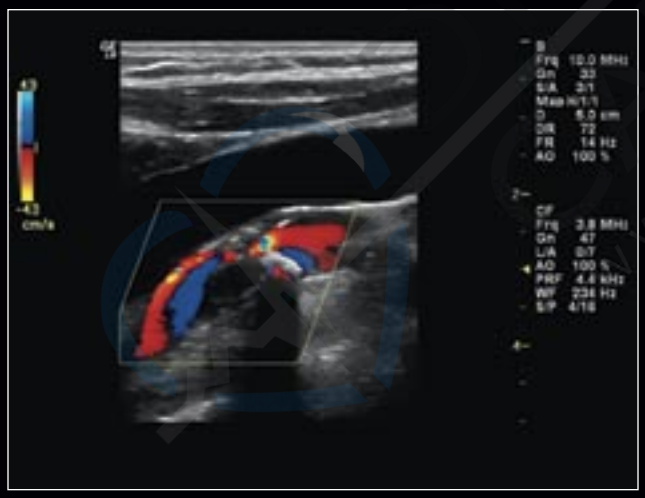
Vascular



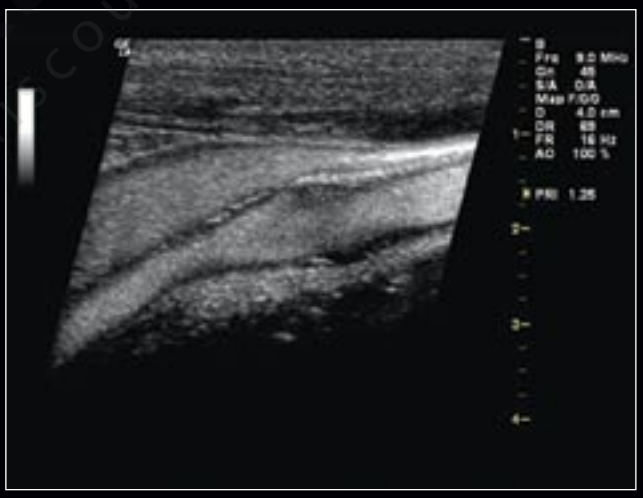
3D cube view of greater saphenous vein in the coronal plane



Multiplanar view of varicose leg vein using Coded Harmonics



Internal carotid stenosis using color Doppler and SRI-HD



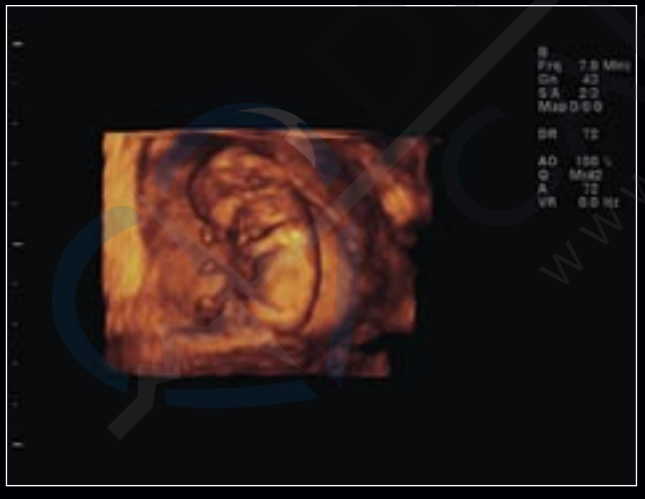
Carotid using B-Flow

Abdominal

DualView of liver metastases using CrossXBeam and SRI-HD

Celiac trunk using color and pulsed Doppler, CrossXBeam, SRI-HD and matrix technology

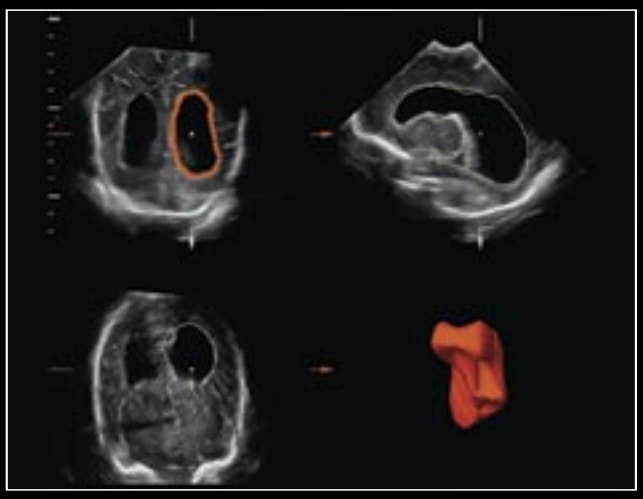
Obstetrics



Volume rendering of first trimester fetus

First trimester fetus using SRI-HD

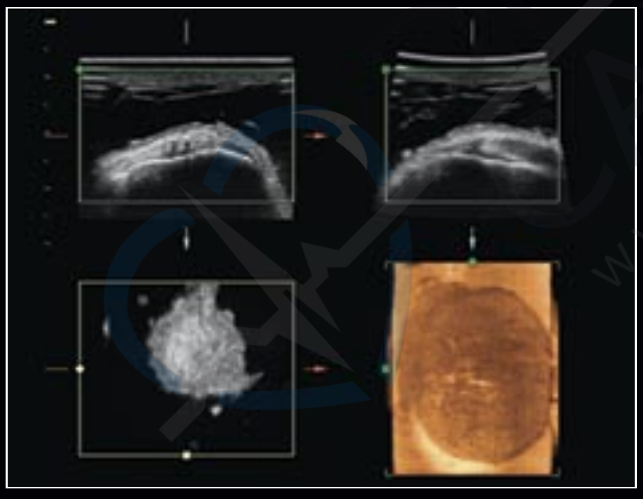
Pediatrics



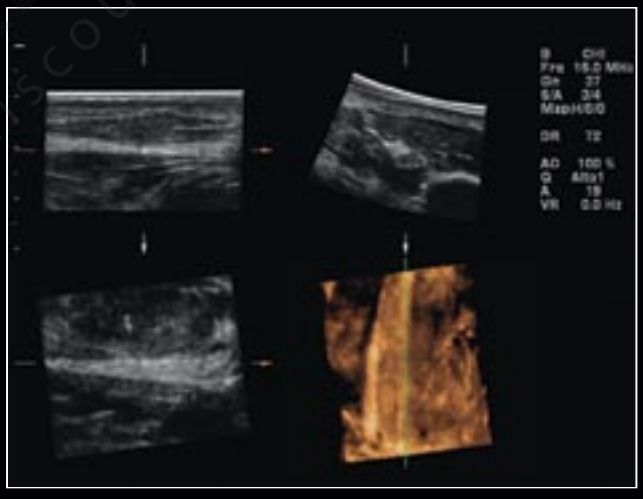
Multiplanar view of neonatal hydrocephalus using VOCAL

Multiplanar view of pediatric hydronephrosis using VOCAL

Musculoskeletal



Multiplanar view of shoulder



Multiplanar view of bicipital tendon using Coded Harmonics and SRI-HD

Be more comfortable.

And that's just the beginning. The LOGIQ 9 breakthrough introduces innovative ergonomic features designed with the sonographer in mind – we call it SonoErgonomics™ – and it brings you more comfort, exponentially.

A Position your screen to the most comfortable viewing location for each study with the adjustable 17" flat-panel monitor. It even folds flat for clear visibility during transport. Infinite positioning flexibility affords you an exceptional scanning experience with less neck strain.

B Keep everything within arm's reach with a floating keyboard console that elevates, rotates and extends for ultimate flexibility in positioning, helping to reduce reaching and hyperextension.

C Get one-touch efficiency from redundant keystrokes with color touch screen and programmable keys. It's easy on your eyes and fingertips.

D Voice-activated operation is now possible with the latest in wireless speech recognition technology. Voicescan, accurately recognizes more than 150 voice commands for a variety of system functions, including trackball movements. Enjoy the ultimate in freedom – perform multiple tasks simultaneously.

E Easily transport your LOGIQ 9 system with four swivel wheels, two that automatically lock.

F Move a significant amount of scan time to the comfort of your workstation. With LOGIQworks, VIP and virtual rescans, you can now sit, versus stand and reduce the amount of time reaching.

G Gel warmers make the patient exam more comfortable.

E

F

G


A
B
C
D

Get more.

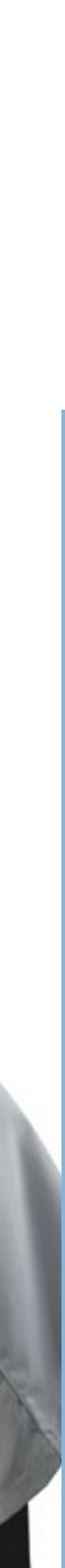
With GE, you get more than a great ultrasound system, superb image quality and innovative tools and features – you get a full productivity solution.

By combining the expertise of the world's leading provider of healthcare IT and ultrasound systems, GE's unique combination of LOGIQ 9 and LOGIQworks offers a revolutionary workflow solution for today's ultrasound practice.

GE's Volume Imaging Protocol (VIP) takes productivity to the next level. VIP is a method of scanning on the LOGIQ 9, which uses volume data sweeps to image an entire organ in a matter of seconds – much like is done in CT or MR. Data transfers via DICOM to LOGIQworks, enabling a 3D virtual rescan of the raw data/volume dataset in any plane. Having more data with volume sweeps helps increase diagnostic confidence.

By incorporating VIP at your facility you can:*

- Reduce probe time up to 60%
- Reduce potential rescans up to 50% for sonographers
- Improve physician workflow
- Improve department throughput up to 30%
- Decreased facility backlog



Accomplish more.

For more than a century, GE Healthcare has been inventing medical technologies. In ultrasound, our continuous stream of breakthroughs have redefined the standards for image quality, accelerated the development of new applications and increased clinical efficiency for users worldwide.

Find out how LOGIQ 9 and LOGIQworks can help you accomplish more in your radiology department, contact your GE Healthcare representative, call 888 202 5528 or visit us on the web at www.gehealthcare.com/ultrasound.

* Benefits reported by Celebration Health Florida Hospital using VIP.

For more than 100 years, scientists and industry leaders have relied on General Electric for technology, services and productivity solutions. So no matter what challenges your healthcare system faces – you can always count on GE to help deliver the highest quality services and support. For details, please contact your GE Healthcare representative today.

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imagination at work

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