



CARESTREAM Mammography  
Workstation and PACS

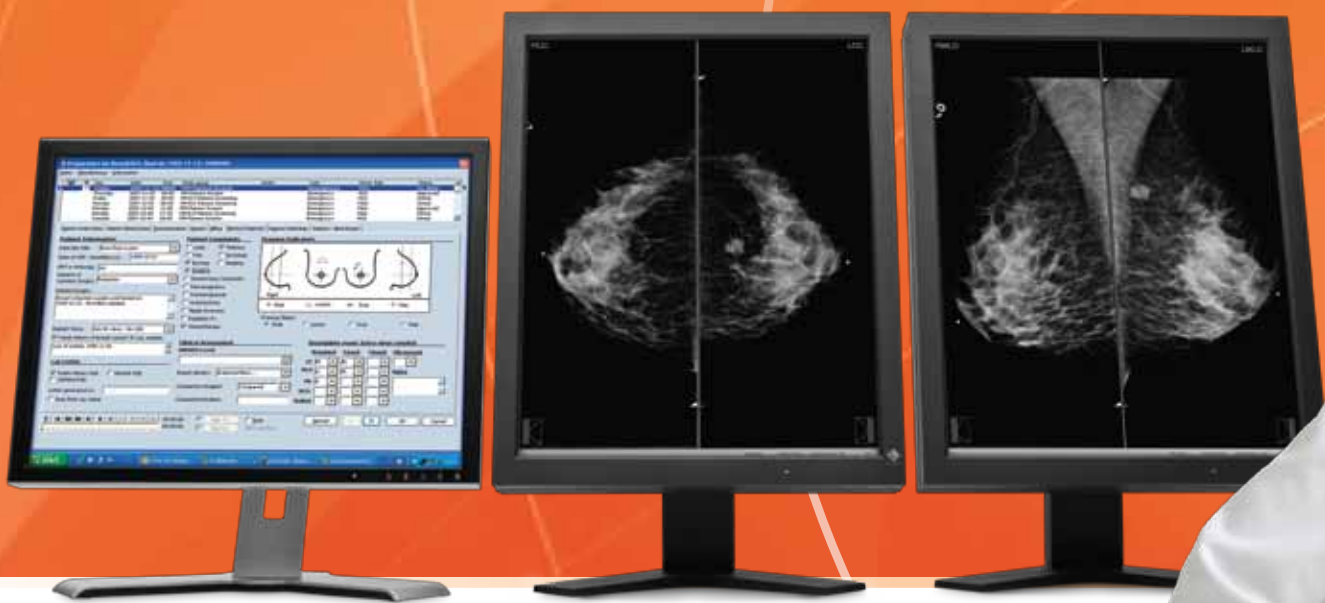
Mammography as you've never seen it before



Whether you're planning a move to digital mammography or you've already transitioned to digital, it's important to streamline your operation while maintaining the quality you need. As cost pressures escalate, optimizing your workflow and making the most of existing equipment becomes increasingly critical. At the same time, shortage of radiologists and pressure to manage costs require you to accomplish more with fewer resources. All of these factors demand more efficient use of people and technology.

Making mammography work flow even better.

Now there's **ONE** Solution.



The Carestream Health solution allows you to read mammography like never before. Optimized workflow and advanced diagnostic tools with seamless collaboration provide you with the necessities for a confident interpretation. Whatever your situation, you'll want to know about the workflow, cost and performance benefits of Carestream Health mammography solutions.

## Any Procedure, Any Time

### One Chair, One Desktop, One Solution

This scalable web-based solution enables 'anytime, anywhere' access to all relevant patient information and tools – so you maximize resource utilization by removing limitations on where work can occur. Likewise, one graphical user interface (GUI) facilitates all reading, eliminating the need for expensive dedicated workstations and saving the time traditionally spent switching between systems or communicating between sites.

### True multi-modality reading experience

Some may lead you to believe that reading mammography procedures on a workstation is considered multi-modality. With the Carestream Mammography Workstation, you are not just limited to mammography procedures. Not only mammography but all general radiology procedures can be read from a single desktop without limitations, including FFDM, CR, MRI, US, NM, CT, digitized images, and more. This means the system can display any procedure on any monitor of the SAME workstation for a true multi-modality reading experience. Just think of the time you can save by not having to move to a different workstation or having to restrict the display of a procedure to a specific monitor.

### Electronic patient record

A patient record consists of more than just images; it can contain paperwork, lab results, order forms, surgery movie clips, and other such static and dynamic data. Traditionally, managing this information has been very difficult, many times forcing you to digitize this information when possible and store it in different locations depending upon the data type. The CARESTREAM PACS eliminates and simplifies this by allowing you to store all additional patient information as part of the patient record in its 'native' format.

### Flexible display configurations

Whether you are limited by space or require a monitor combination for reading all of your procedures, CARESTREAM PACS supports virtually any combination of color and grayscale displays to meet your needs. A color administrative display is available for display of your worklist, MIS/RIS, or third party integrations. Even better, there is no restriction to which monitor can be used for each procedure, maximizing your diagnostic reading capabilities and efficiency.



# A truly scalable and integrated PACS solution

## Just your size

With simplified architecture and flexible workflow, CARESTREAM PACS scales to suit any size facility – breast clinic, hospital, imaging center, or multi-site enterprise – regardless of size, number of sites, or working environment.

This mammography solution is available as a standalone dedicated mammography workstation, mammography PACS, or as part of an existing CARESTREAM PACS. The standalone and mammography PACS configurations can be integrated with other manufacturers' PACS solutions to meet your needs.

Growing with Carestream Health doesn't require a forklift upgrade, since your equipment can be reconfigured as needed to meet your growing demands. This can result in substantial savings when migrating to a larger configuration.

## Freedom of choice

This "universal" PACS solution interoperates with a broad range of modalities, CAD systems, archives, PACS and Information Systems. Doing so lets you view, manage, and store information seamlessly throughout your enterprise, while leveraging your existing investment.

This is accomplished through the support of industry standard protocols, including DICOM-3, HL-7, and TCP/IP.

## No strings attached

Traditionally, it was believed that a workstation or PACS needed to be from the same manufacturer as the acquisition device, locking you into one manufacturer's offerings. With the development of IHE (Integrating the Healthcare Enterprise) standards, this interoperability statement is no longer true. The CARESTREAM Mammography Workstation goes to great lengths to maintain interoperability, allowing you the flexibility of choosing the best solution for you without being locked into a single manufacturer.

## Integrate with your information system seamlessly

CARESTREAM RIS provides native patient booking, scheduling, and mammography-specific reporting to all users. This immediate access to current patient images and information boosts efficiency and reduces opportunities for error by eliminating multiple data-entry points.

If you already have a third party MIS/RIS, it can be seamlessly integrated with CARESTREAM Mammography PACS through our desktop integration and highly configurable HL-7 interface.

## Your choice of mammography storage solutions

Readily tailored to meet the unique demands of your mammography facility, Carestream Health offers a choice of onsite and hosted offsite archiving solutions.

The Clinical Data Archive is a vendor neutral enterprise archive for both DICOM and non-DICOM data. It provides a seamless integration with local workflow, immediate on-demand access from anywhere, with business continuity and data protection flexibility.

eHealth Managed Services is a hosted archive and disaster recovery solution. This service is managed by Carestream Health so you never have to worry about IT resources or obsolete technology. Your data is accessible from anywhere and supports a financially smart, pay as you go business model.

If your needs are on a smaller scale, CARESTREAM Shelf Management Archive provides a managed archive solution to store patient information on DVD. An indexed database is maintained so retrieval is quick and efficient. DVD burning can be scheduled to automate the process.

## Take it to go

Create CDs or DVDs the patient can take with them using CARESTREAM CD Direct. An integrated viewer is installed directly on the disk, so images can be viewed from any PC.



# Streamline your image viewing and management

## Read the way you want to

Customize hanging protocols to suit individual user preferences. Different layouts are available for exams with and without history to eliminate blank windows and screens due to missing images. Special layouts for implant, unilateral, bilateral, and diagnostic exams are automatically applied based upon the type of exam.

Historical exams can be tiled or stacked in a 'history channel' format for quick comparison. The 'history channel' is a new way of reading that allows you to scroll through a series of historical views very quickly and observe any changes over time.

## Hold our unique workflow controller

Our proprietary workflow controller provides screening functionality with push-button ease. Developed in direct response to radiologists' input and requirements, this hand-held controller:

- Reduces hand movements with an ergonomic design that incorporates a track ball and buttons for your most commonly used functions.
- Allows any pre-configured or custom operation to be mapped to any control button through an intuitive, easy-to-use graphical user interface.
- Lets you assign virtually any key-press and mouse-movement sequence to a single button for custom operations. Rests on a companion cradle for use or storage on the reading table.

Other navigational input devices include a 5 button mouse or a desktop control pad that can be programmed to most commonly used functions.

## History at your fingertips

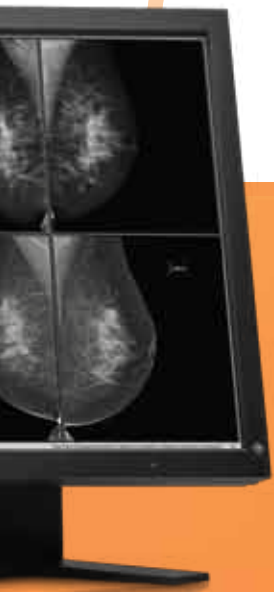
Integrating with a third party PACS has never been better; the Take-over Tool provides CARESTREAM Mammography PACS with a view of all studies in your existing system. This allows prior exams to be dynamically retrieved as needed or automatically pre-fetched to giving you only the relevant exams you want.

## Double Reading

Customized study status names and transitions allow various reading status to be supported. This is particularly useful when an exam is read by more than one Radiologist.

### UNIQUE WORKFLOW CONTROLLER

Provides screening functionality with push button ease.



“Carestream Health's workstation is extremely well designed. It is easy to use but offers all the tools needed for reading of breast exams. After just 30 days, our radiologists were reporting a 20 per cent increase in reading volumes”

**Rick Adams,**  
PACS Administrator  
St. John Medical Center,  
Tulsa, Oklahoma, USA.

# Get the mammography viewing tools you demand

**CARESTREAM PACS provides an advanced mammography toolset to help you read both screening and diagnostic exams thoroughly and efficiently.**

## Pan, zoom, and mag

Pan and zoom images or magnify a region of interest.

## Annotations and measurements

Identify, measure, and label areas of interest with tools including text annotations, oval graphics (electronic grease pencil), line measurements, and more.

## Breast tissue invert and window/level

Adjust only breast tissue without any change to the background. Carestream Health's proprietary skin line detection algorithm allows this feature to apply to all images, including digitized images.

## Mirrored and configurable annotations

Patient demographic annotations are mirrored to not cover the tissue area for display and printing. The size of each is configurable to highlight those most important.

## Auto alignment and sizing

Mammography images are automatically aligned with the chest wall at the edge and the breast tissue is zoomed to fit the breast tissue to the display window, eliminating the need to manually adjust the images. Studies from different vendors (with different pixel pitch) are scaled to the same physical size for ease of interpretation.

## Intelli Zoom

View images at full 1:1 resolution in a sequence of steps. Automatic identification of the skin line minimizes the number of steps and eliminates blank views.

Segments for studies from different vendors are displayed at the same physical size for an accurate interpretation and assessment of disease progression.

## Image map

It's always clear what part of the image is displayed with this navigational map.

## Teaching files

Flag interesting cases for teaching or demonstration purposes. Add descriptions, findings, and other useful information to each while automatically making patient and facility information anonymous.

## Export

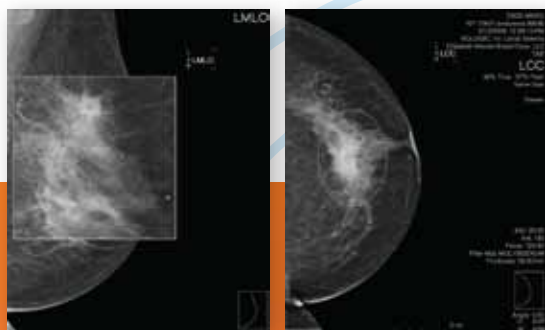
Export selected images in DICOM, bmp, jpg, or tiff file format to a selected drive location. To aid in developing presentations, selected images can be exported directly into Microsoft Powerpoint, if installed.

## Image Processing

If additional image processing or LUTS are present (e.g. from other vendors software), the default look is automatically applied with ability to select other available looks.

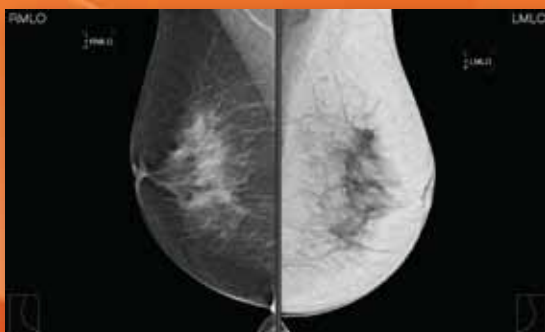
## Image Quality

Test Patterns and a Quality Control Manual provide you with the steps needed to maintain image quality of your workstations at all times.

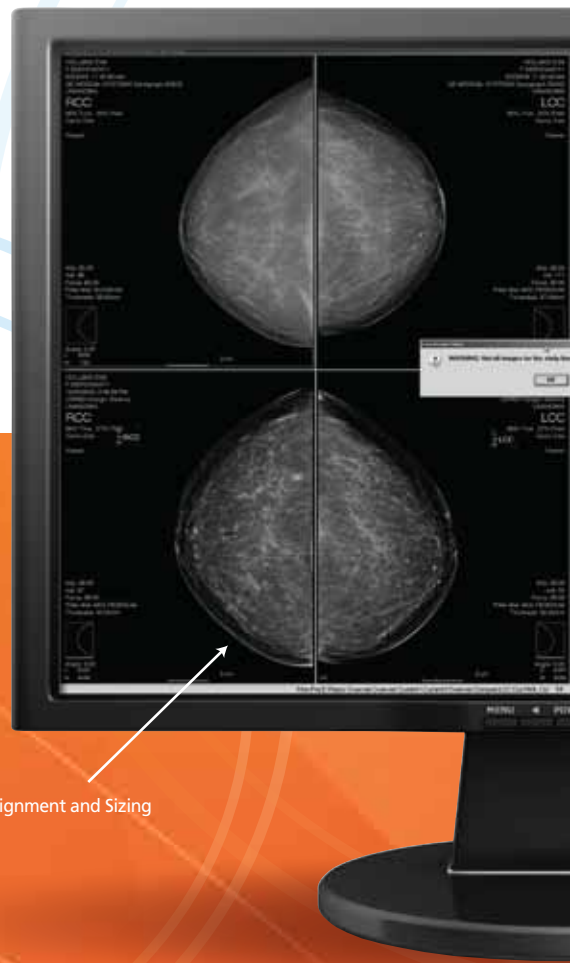


Magnifying Glass

Annotations and Measurements



Breast Tissue Invert and W/L



Auto Alignment and Sizing

# The diagnostic confidence you need for improved patient care

## Store and display digital mammography CAD results

Digital mammography CAD results are received and stored as DICOM mammography CAD Structured Reports (SR). These results identify masses, calcification clusters, and individual calcifications, depending upon what was reported by the CAD system

The Mammography PACS overlays the CAD findings as markers on the original images, that can be toggled on and off by the user with a single control. Marker shapes are presented with the shape specified by the CAD manufacturer

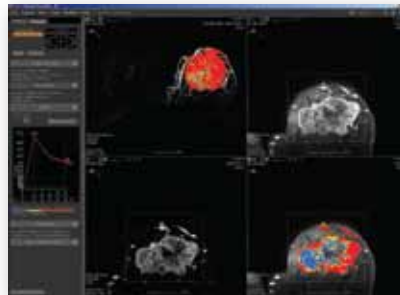
Indications to the user include the status of a CAD report, the number of densities and calcifications, along with the manufacturing name and software version.

Configurable rules allow the CAD structured reports to be automatically archived, depending on your site's policy.

## Improve Breast MRI diagnosis with CAD

CARESTREAM Mammography PACS integrates with Confirma CADstream to provide a comprehensive breast MRI CAD solution. Launched from a control in the Mammography PACS toolbar with automatic user login provides a seamless integration that extends the PACS functionality.

CADstream-generated results can be sent to the Mammography PACS in DICOM format and archived along with other patient data for a comprehensive patient record.



## Confirma CADstream offers the following key capabilities:

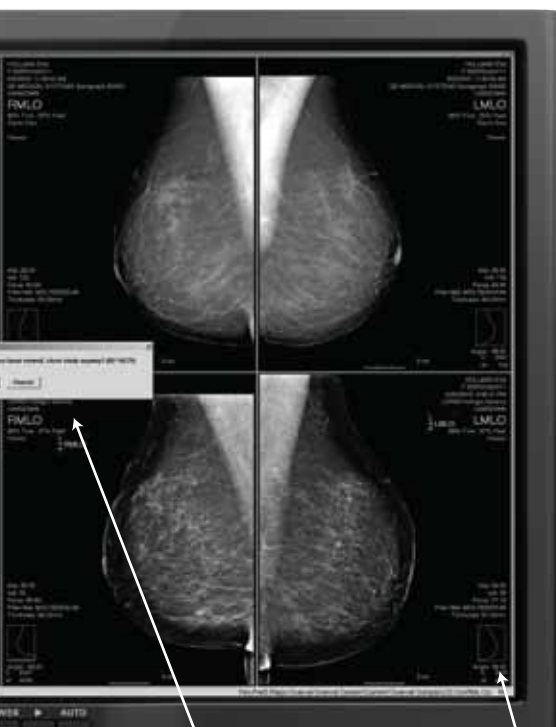
- Automated analysis
- Patient monitoring capabilities automatically calculate changes to size and kinetics
- Adaptive 2D/3D motion correction
- Automatically creates lesion (volume) characterization with 3D renderings and data calculations for each lesion
- Angiogenesis Maps and Curves provide kinetic data
- Portfolio for reporting
- Subtraction images with motion correction
- Multiplanar Reformating (MPR) for viewing multiple planes to localize lesions and their relationship to other anatomy.
- Maximum Intensity Projections (MIPs)
- With SureLoc, radiologists can more efficiently calculate coordinates for MR-guided interventions at the point of procedure
- CADalog provides instant study recall of a patient's prior studies.

## Unread image alert

An unread image alert provides you the confidence that you have viewed all images in the most recent exam. A visual indication of missed images is provided at all times during reading, along with a notification when attempting to close.

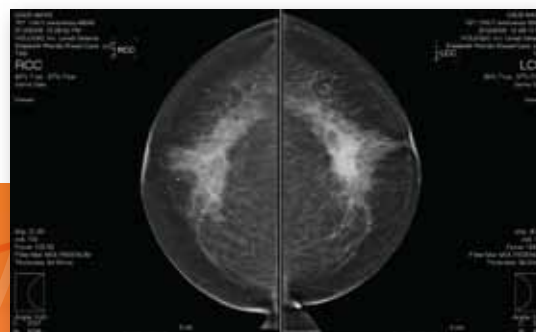
## Old study alert

In the event that the most recent study has not been selected for reading, this alert warns of this when the selected study is loaded.

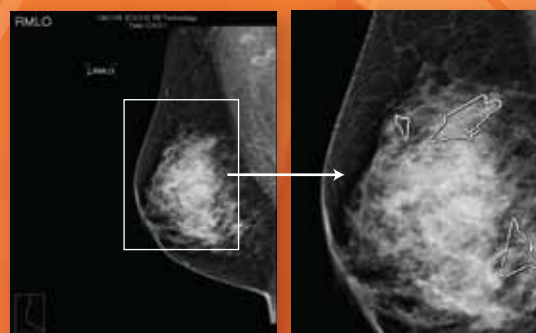


Unread Image Alert

Image Map



Mirrored Annotations



Mammography CAD results

[mammo.carestreamhealth.com](http://mammo.carestreamhealth.com)

### More Information

To learn more about the CARESTREAM Mammography Workstation and PACS, contact your local authorized distributor or Carestream Health representative.



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# Carestream