Gear View Basic
User Help

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Documentation Notice

Regulatory and compliance

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General warnings and precautions

To ensure patient safety and adhere to HIPAA Privacy Rule involving patient health information, the Healthcare provider shall assign an unique Accession Number and Medical Record Number (MRN) to identify individual patient's health record affiliated with the patient to prevent erroneous medical data and duplicate identification with other patients.

Symbols glossary

ISO - 15223-1 - Medical devices - Symbols to be used with medical device labels, labeling, and information to be supplied.

3082 - Manufacturer: Indicates the medical device manufacturer.

ISO - 15223-1 - Medical devices - Symbols to be used with medical device labels, labeling, and information to be supplied.

Authorized representative in European Community: Indicates the authorized representative in the European union. Symbol is accompanied by the name and address of the authorized representative adjacent to the symbol.

ISO - 15223-1 - Medical devices - Symbols to be used with medical device labels, labeling, and information to be supplied.

2497 - Date of Manufacture: Indicates the date when the medical device was manufactured.

ISO - 15223-1 - Medical devices - Symbols to be used with medical device labels, labeling, and information to be supplied.

2493 - Catalog number: Indicates the manufacturer's catalog number so the medical device can be identified.

ISO - 15223-1 - Medical devices - Symbols to be used with medical device labels, labeling, and information to be supplied.

2498 - Serial number: Indicates the manufacturer's serial number so that a specific medical device can be identified.

ISO - 15223-1 - Medical devices - Symbols to be used with medical device labels, labeling, and information to be supplied.

1641 - Consult instructions for use: Indicates the need for the user to consult the instructions for use.

ISO - 15223-1 - Medical devices - Symbols to be used with medical device labels, labeling, and information to be supplied.

0434A - Caution: Indicates the need for the user to consult the instructions for use for important information such as warnings and cautions.

ISO - 15223-1 - Medical devices - Symbols to be used with medical device labels, labeling, and information to be supplied.

2610 - Patient number: Indicates a unique number associated with an individual patient.

Medical Devices Directive 2017/745/EC

CE Marking: Indicates that a product complies with applicable European Union regulations.

Quantity: Indicates the number of units.

Directive 2012/19/EU on waste electrical and electronic equipment (WEEE).

Table of Contents

What is Gear View Basic?

Gear View Basic is a small-footprint DICOM viewer program that gives patients and healthcare personnel a simple way to view medical images and related results. You can burn the Gear View Basic program onto CDs, DVDs, or USB flash drives to create a complete and portable medical record. Gear View Basic is not labeled for diagnostic use.

Warnings, precautions and contraindications

The following is a list of precautions that you must follow before using Gear View Basic.

- Report any malfunction or security risks such as unauthorized access, modification, interference, and adverse and security incidents that occur in relation to Gear View Basic to PACSgear Technical Support @community.hyland.com.

Start Gear View Basic

To start Gear View Basic, complete the following steps.

1. Use one of the following options.
   - Insert the CD or other medium that contains studies into a drive or port on the PC.
   - Navigate to the directory containing the studies and double-click the **start.hta** file.
2. Click **VIEW IMAGES**.

3. If the **Encryption Password** dialog box appears, in the **Password** box, type the password that was created when studies were burned to the medium, and then complete one of the following options.
   - To view the studies, click **View**.
   - To decrypt and copy the studies to a directory of your choice and then exit the program, click **Export**.

   Note: After export, the studies are in DICOM format and are available to import to PACS. If you view the studies, Gear View Basic decrypts them, copies them from the Gear View Basic installation directory, and then opens them in patient tabs.

Change the default group 600x display state

Change the default group 600x display state

To show or hide group 600x overlays, complete the following steps.

1. In Windows, open the [drive:]{Gear View Basic folder}\config\options.xml file in an XML editor.
2. Between the <AllowCADOverlays> and </AllowCADOverlays> tags, type `Yes` or `No`.
3. Save the file and exit the editor.

Change the default private tag loading option

You can configure Gear View QC to skip loading of private tags. To change the default private tag loading option, complete the following steps.

1. In Windows, open the *[drive:]{Gear View Basic folder}\config\options.xml* file in an XML editor.
2. Between the `<SkipPrivateGroups>` and `</SkipPrivateGroups>` tags, type `Yes` or `No`.
3. Save the file and exit the editor.

Change the default GSPS display state

To show or hide grayscale presentation states in the Presentation submenu, complete the following steps.

1. In Windows, open the [drive:]{Gear View Basic folder}\config\options.xml file in an XML editor.
2. Between the <AllowGSPS> and </AllowGSPS> tags, type `Yes` or `No`.
3. Save the file and exit the editor.

Open a study in the Patient List tab

Open a study in the Patient List tab

The Patient List tab is the main screen, and lists all of the available patients and studies. To open a study, use one of the following options.

- To open all studies of a single patient, double-click the patient name.
- To open a single study, open the tree of a patient and double-click the name of the study that you want to open.

Change the language

To change the user interface language, complete the following steps.

1. Click the settings  button and click **Language**.
2. On the **Language** submenu, click a language.

What are patient tabs?

What are patient tabs?

Patient tabs display the images in patient studies. A patient tab opens when you double-click a patient, study, or series on the Patient List tab. Any number of patient tabs can be open at the same time, depending on your available PC memory. The separate studies in a patient tab are accessible from the exam history icons near the top of the screen. The icons appear in chronological order, with most recent studies first. Each horizontal row of image thumbnails in a patient tab represents one study, and each thumbnail in a study is a series of one or more images.

What is an exam header?

An exam header is the black box to the left of the first thumbnail in a study that contains exam information such as the date/time and name of the exam. You can right-click the exam header to open a shortcut menu.

Open series in viewports

You can open a series in a half- or full-screen viewport. Half-screen viewports are useful to compare two different series, or two different images from the same series. To open a series in a half- or full-screen viewport, use one of the following options.

- To open the series in a full-screen viewport, double-click a thumbnail, or click the full screen button at the bottom of the thumbnail.
- To open the series in a half-screen viewport, click the compare button.
- To open two series in side-by-side half-screen viewports, click the compare button of the first thumbnail, and then a second thumbnail.

About series linking

When you open two series in half-screen viewports, their scrolling behavior becomes “linked” by default if: 1) the series are from the same study; and 2) the series reside on the same plane as determined by the relevant DICOM patient orientation tags. When Gear View Basic links two series, scrolling one series causes the other series to scroll as well. The second series scrolls, as closely as possible, to the same location as the first series. To identify linked series, Gear View Basic displays the word “Linked” at the lower left of each series.

Move through images and pages in a single series

To cine or move through images or pages in thumbnails or viewports, use one of the following options.

- Click the Play button.
- Move the pointer over the series and use your mouse to scroll.
- Press C on the keyboard.
- Drag the cine slider.
- If viewing MPEG files, click < or > to move forward or backward one frame.
- If viewing a structured report or encapsulated PDF, click < or > to move forward or backward one page.

Move through images in multiple series

To scroll from series to series when you open a study in a viewport, complete the following step.

- Press the LEFT or RIGHT ARROW key.

Move between linked mammography series

When you open mammography studies (modality = MG) in half-screen viewports, you can move to the next or previous two linked mammography series with matching laterality (for example, RMLO/LMLO to RCC/LCC). To do so, complete the following step.

- Press the LEFT or RIGHT ARROW key.

Hide text overlays

You can hide text overlays for clearer viewing.

- To hide text overlays, use one of the following options.
  - Right-click a thumbnail or open series and click Text On/Off.
  - Click a thumbnail or open series and press A on the keyboard.

Change the font size in a structured report

You can change the font size of text in a structured report while viewing, but you cannot save the change. To change the font size, complete the following steps.

1. Open a structured report in a half- or full-screen viewport.
2. Right-click the structured report and complete one of the following options.
   1. To increase the font size, click **Font Size Up**.
   2. To decrease the font size, click **Font Size Down**.

   Note: You can repeat the same action several times; the number of possible repetitions depends on image properties.

Show scout lines

When you turn on scout lines, they appear in one or more series that are perpendicular to the series you point to with the mouse. To show scout lines, complete the following step.

- Right-click a thumbnail or open series and click Scout on/off.

View image details

Images include embedded DICOM fields that provide information about the patient associated with the images. To view this information, complete the following steps.

1. Right-click the series and click **Image details**.
2. To display only user-specified details, in the **Image details** dialog box, select the **Show private groups** check box.
3. To find a specific tag, complete the following substeps.
   1. In the **Find** box, type part or all of the tag, its description, or its value.
   2. Click **Find next**.

Adjust the window/level

Adjust the window/level

To adjust the window or level setting of a series, complete the following steps.

1. Right-click the series, click **Tools**, and then click **Window/level**.

The pointer changes to the window/level cursor.

2. Drag the cursor horizontally or vertically over an image or thumbnail to adjust the window or level.

Zoom in on or out of an image

To zoom in or out on an image, complete the following steps.

1. Right-click a thumbnail or open series, click **Tools**, and then click **Zoom**.

   The pointer changes to the zoom tool.
2. Drag the zoom tool vertically over the image to zoom in or out.

Pan an image

To pan an image, complete the following steps.

1. Right-click a thumbnail or open series, click **Tools**, and then click **Pan**.

   The pointer changes to the pan tool.
2. Drag the pan tool in any direction over the image.

   Note: You can only pan left and right in the full-screen viewport. You cannot pan an edge of an image beyond an edge of the viewport.

Measure objects in an image

Gear View Basic displays measurement values from the modality that generates the images. If the modality is incorrectly configured or defective, measurements may not be correct. To measure objects in an image, complete the following steps.

1. Right-click a thumbnail or open series, click **Tools**, and then click **Measure**.
2. On the image, click a start point and an endpoint.

   A line appears between the two points. The distance between the points appears in millimeters below the line.
3. Optional. To take a new measurement, you can drag either of the two points to a new location.
4. Optional. To delete the measurement line, place the pointer over an endpoint until the line turns yellow and press the **Delete** key.

Measure a pixel value

To measure the grayscale or RGB values of a pixel on an image, complete the following steps.

1. Right-click the image, click **Tools**, and then click **Measure pixel**.
2. Move the pointer over any point on the image and click and hold the mouse button.

   The grayscale or RGB values appear near the pointer.

Measure an angle

To measure an angle on an image, complete the following steps.

1. Right-click the image, click **Tools**, and then click **Measure angle**.
2. On the image, click a start point, a vertex, and an endpoint.

   Lines appear between the vertex, the start point, and the endpoint. The measurement of the angle appears in degrees inside the angle.
3. Optional. To measure a new angle, drag any of the three points to a new location.

Measure a Cobb angle

To measure a Cobb angle on an image, complete the following steps.

1. Right-click the image, click **Tools**, and then click **Measure Cobb angle**.
2. On the image, click a start point and endpoint for the first line, and a start point and endpoint for the second line.

   The two lines appear, with a third line between them. The measurement of the Cobb angle appears under the third line.
3. Optional. To measure a new Cobb angle, drag any of the four points to a new location.

Measure a region of interest (ROI)

To measure an ROI on an image, complete the following steps.

1. Right-click the image, click **Tools**, and then click **Measure ROI**.
2. Click once on the image and release the mouse button.
3. Move the pointer to draw the ellipse around the region of interest.
4. Click again to place the ellipse.

   Gear View QC displays the area of the ellipse, the average pixel value of the area, and the standard deviation of all pixel values in the area.
5. Optional. To measure a new ROI, drag any of the four ellipse handles to a new location.

Invert a grayscale image

To invert black and white values on a grayscale image, complete the following step.

- Right-click the series, click Tools, and then click Invert.

  Note: This command has no effect on color images.

Flip or rotate an image

To avoid medical misinterpretation, after rotating or flipping an image, series, or study, visually verify the orientation before saving the changes.To flip or rotate an image, complete the following step.

1. On the series shortcut menu, click **Flip/rotate** and complete one of the following options.
   - To rotate the image ninety degrees clockwise, click **Rotate right 90**
   - To rotate the image ninety degrees counterclockwise, click **Rotate left 90**
   - To rotate the image one hundred and eighty degrees, click **Rotate 180**
   - To flip the image horizontally (on its vertical axis), click **Flip horizontal**
   - To flip the image vertically (on its horizontal axis), click **Flip vertical**

View a tiled layout

You can display series with multiple images as a “tiled” layout of slices. To select a tiled layout, complete the following steps.

1. Open a study in a viewport.
2. Right-click the study, click **Layout**, and then select a layout from the submenu.
3. Optional. Use the UP ARROW or DOWN ARROW keys or mouse wheel to scroll images one-by-one

through the tiles, or use the PAGE UP or PAGE DOWN keys to scroll them screen-by-screen.

Note: If there are not enough slices to fill the layout, portions of the layout appear blank.

View a grayscale presentation state

Prerequisite Turn on text overlays.

Some grayscale series include group 6000 DICOM tags that may define presentation states. To view images in these states, complete the following steps.

1. Open the series in a half- or full-screen viewport.
2. Right-click the series, click **Presentation**, and then select one of the presentation states in the shortcut menu.

Apply a window/level preset

Gear View Basic includes a selection of preset window or level values appropriate for different body parts or viewing objectives. The presets that are available differ depending on the image or modality. To edit options that are related to presets, refer to Edit window/level presets. To apply a window/level preset to a series, complete the following steps.

1. Right-click the series, click **Window/level presets**, and then click a preset in the submenu.

   Note: If the images are in color, the submenu includes lookup table (LUT) settings.

2. Optional. To finely adjust the window or level setting, use the window/level tool. See Adjust the window/level.

Edit window/level presets

To control which presets appear in the window/level presets submenu, and the names and values of those presets, complete the following steps.

1. In Windows, open the {Gear View Basic installation folder}\config\presets.xml file using a text editor.
2. To edit preset names and their values, edit the text within double quotation marks.
3. To add a preset, copy everything between and including an opening and closing preset tag and edit the text within the double quotation marks.
4. To delete a preset, delete everything between and including an opening and closing preset tag.
5. Save the file.

Reset image edits

To “reset” means to undo edits that are not saved. The edits that you can reset are flip/rotation, window/level, invert, and measurements. Other edits cannot be reset, such as changes to patient details. To reset image edits, complete the following step.

- Right-click the series and click Reset.

Load highest quality files

Prerequisite This feature is only available when both compressed and raw (or uncompressed) images are available on the source medium.

To load high-quality uncompressed files, complete the following step.

- Right-click the series and click Load highest quality.
  Gear View Basic loads the uncompressed file, displaying the highest possible image quality.

Print an image

Print an image

To print an image in a thumbnail or viewport, complete the following steps.

1. Move to the image in the series that you want to print.
2. Right-click the image and click **Print image**.
3. In the print dialog box, set the print options and click **OK**.

   Note: If there are not enough slices to fill the layout, portions of the layout appear blank.

Export an image or series

You can save an image or series to a directory that you specify as a JPEG, PDF, or DICOM (*.dcm) file. To export an image, complete the following steps.

1. Right-click the series and click **Export**.
2. In the submenu, click one of the following.

   Note: The commands available in the submenu differ depending on the source image. The PDF option is only available if the images or series are encapsulated PDFs.

   - **Save image as JPEG**
   - **Save image as PDF**
   - **Save image as DICOM**
   - **Save series as DICOM**

   Note: Gear View includes GSPS data only if you click **Export series as DICOM**.
3. Select a destination folder and click **Save**.

Keyboard shortcuts

Window/level preset shortcuts

The following table contains example keyboard shortcuts for window/level presets. The configured presets differ by modality. You can edit keyboard shortcuts in the file: *{Gear View Basic installation folder}\config\presets.xml*.

Key	Preset
F4	Abdomen
F5	Bone
F6	Brain

Key	Preset
F7	Liver
F8	Lung
F9	Mediastinum
F10	Myelogram

Other shortcuts

The following table contains other useful keyboard shortcuts for Gear View Basic.

Key	Action
PAGE UP/PAGE DOWN	Scrolls up or down one screen in layout view
UP/DOWN	Scrolls up or down one image in layout view
RIGHT/LEFT	Jumps to the next or previous series in layout view
A	Shows or hides overlays
B	Switches to the measure Cobb angle tool
C	Starts or pauses the selected cine loop
I	Inverts the current image (grayscale only)
M	Switches to the measure line tool
N	Switches to the measure point tool
O	Measure ROI
P	Switches to the pan tool
Q	Reassign tool
R	Resets the current image
S	Shows or hides scout lines
V	Switches to the measure angle tool
W	Switches to the window/level tool

Key	Action
Z	Switches to the zoom tool
Home	Jumps to first image of the selected series
End	Jumps to last image of the selected series
Delete	Deletes the highlighted measurement overlay

Preventative maintenance and cleaning

There are no cleaning requirements for Gear View Basic software. License and maintenance may include upgrades from previous versions, security patches and updates, which are handle through technical support and solutions provided via service agreements, licenses, Terms and Conditions, etc. For support visit Hyland Community @community.hyland.com. For accessories and equipment used with Gear View Basic, please follow the manufacturer's instructions provided on proper preventive maintenance and cleaning activities.

Safe disposal

Follow your local IT Department guidance on safe disposal of software, equipment and accessory products to comply with EU WEEE Directive, FDA HIPAA, EU GDPR privacy and security requirements in connection with personal and health-related data and other applicable local governmental standards and regulations.