



4DView

Quick Guide

Voluson™

A Healthier Future for Women

gehealthcare.com

Getting Started with 4DView

4DView provides off-line volume manipulation of Voluson volumes allowing for further analysis, research activities, training and more. Here is an overview of key settings and functions to help you get started with 4DView.

Open **.vol files** that have been saved from the system or 4DView

Open and/or **Import .4dv folders or files** that have been exported from the Voluson Archive in Voluson Format Uncompressed or Voluson Format Compressed

Save newly manipulated volumes back into the 4DView Archive

File Edit View Settings Help

- Open... Ctrl+O
- Close
- Save... Ctrl+S
- Archive
- Save To Archive...
- DICOM Send...
- DICOM Print...
- Send Email...
- Export 3D Calc Cine Sequence...
- Export 4D Img. Cine Sequence...**
- Export Graphic...
- Export Mesh...
- Export Raw Data...
- Copy to Clipboard Ctrl+B
- Print... Ctrl+P
- Print Preview
- Print Setup...
- 1 C:\Users\...\10000031.vol
- 2 I0000001.vol
- 3 D:\EC340\...\10000609.vol
- 4 demo.vol
- Exit

Settings Help

- HD Rendering
- Render devices >
- TUI one by one
- Worksheet All Pages
- Use Tablet for Measurements
- ROI Direction...
- Date Format...
- Info Block Settings...
- Patient Dialog Settings...
- Title Bar Settings...
- Annotation Settings...
- Measure setup...
- DICOM Configuration...
- Archive Configuration...
- Email Configuration...
- Language Settings...
- Select Skin...**

Export images in **PC formats**




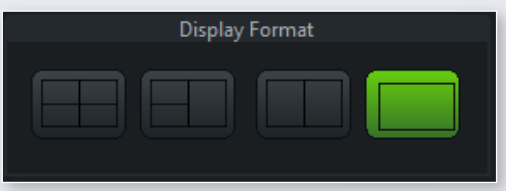
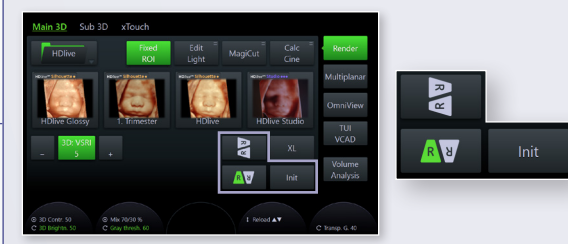
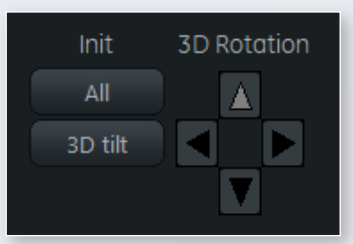
Even change appearance to look like your Voluson!

Select Skin

Cancel OK

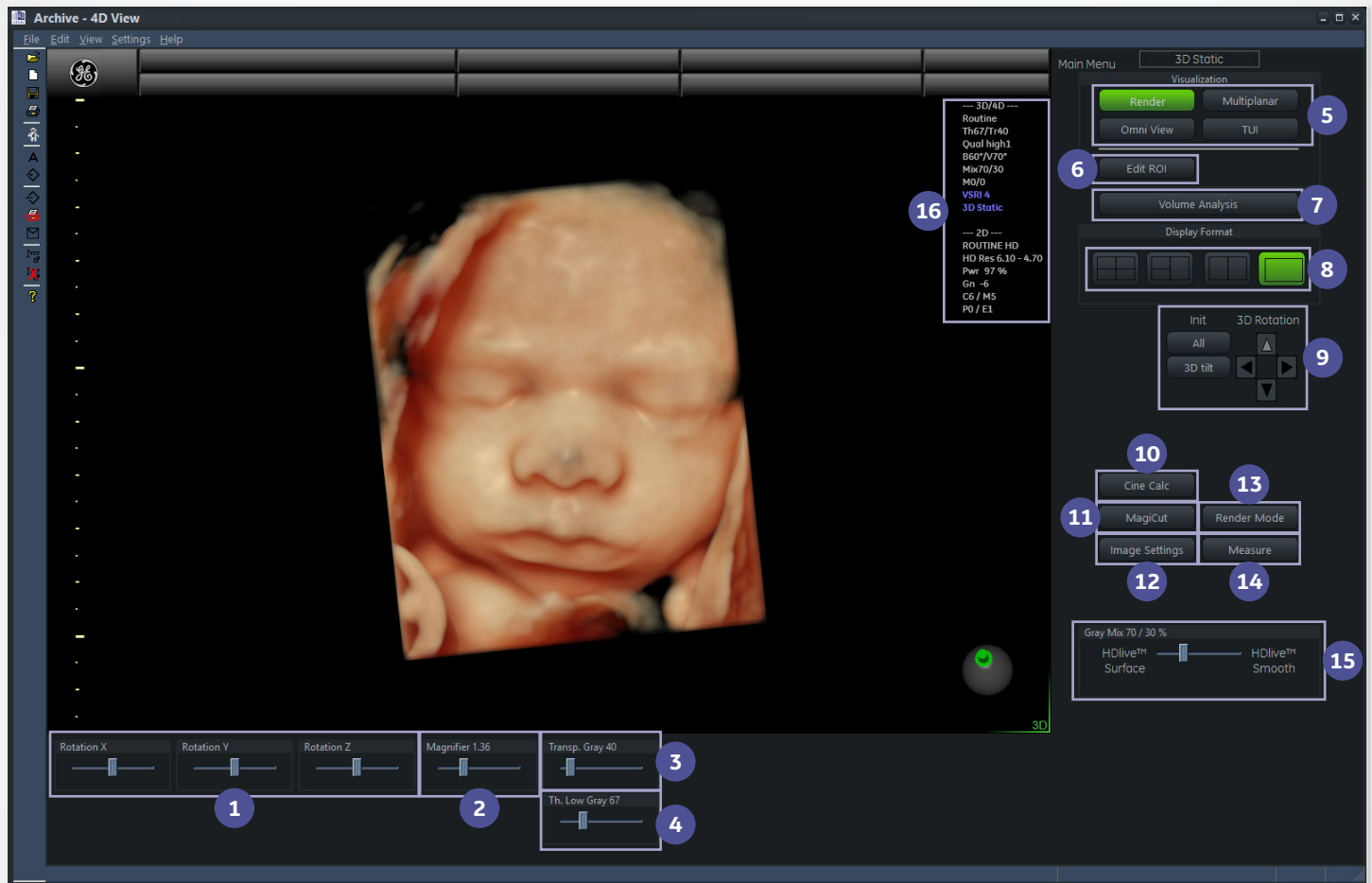
Getting Started with 4DView

4DView is meant to be an extension of your Voluson so most controls are the same as the system. Below are comparative settings seen on each:

| | Voluson | 4DView |
|----------------------------|---|--|
| Screen Display |  |  |
| 3D/4D Rotation Controls |  |  |
| Display Format |  |  |
| 3D Orientation and Initial |  |  |
| Visualization Modes |  |  |

4DView Main Menu

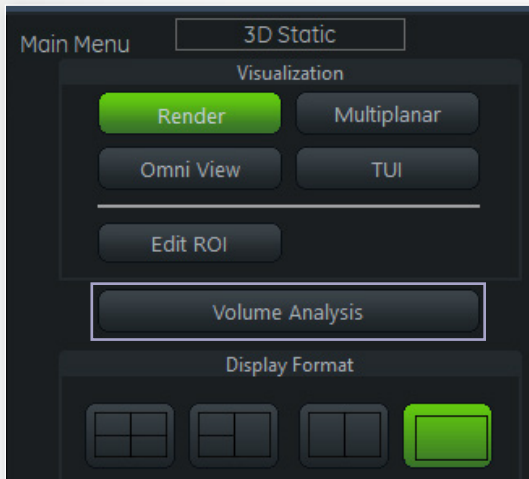
Overview of the Main Menu items:



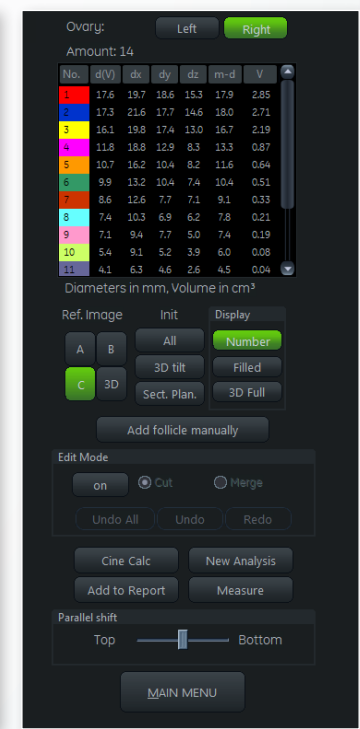
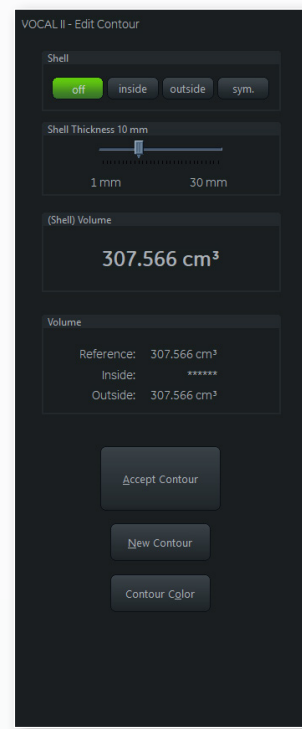
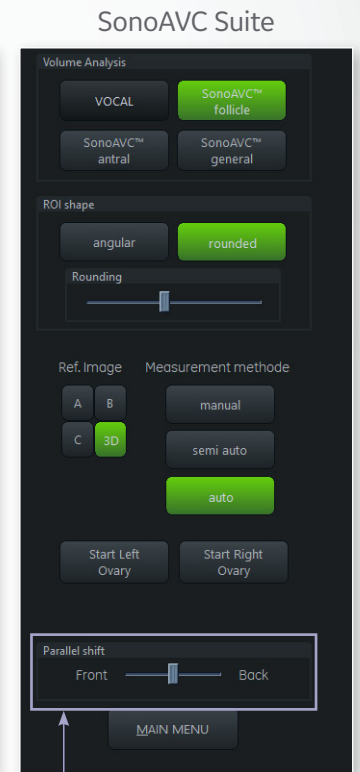
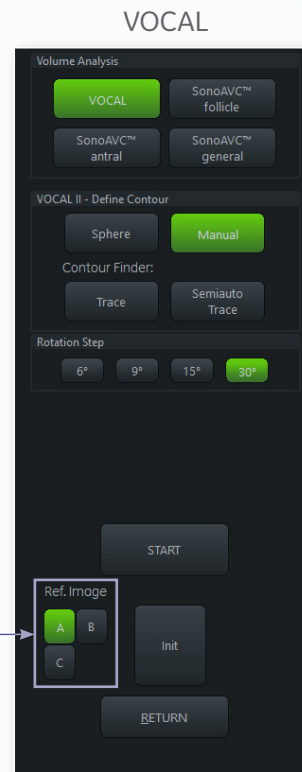
- | | | | |
|---|--------------------------|----|------------------------|
| 1 | Rotational Sliders X,Y,Z | 9 | Image Rotational Tools |
| 2 | Magnifier | 10 | Cine Calc |
| 3 | Transparency Gray | 11 | MagiCut |
| 4 | Threshold Low Gray | 12 | Image Settings |
| 5 | Visualization Tools | 13 | Render Mode |
| 6 | Edit/Fix ROI | 14 | Measure |
| 7 | Volume Analysis | 15 | Render Mix |
| 8 | Display Format | 16 | Info Block |

4DView Volume Analysis

Overview of Volume Analysis menu details:



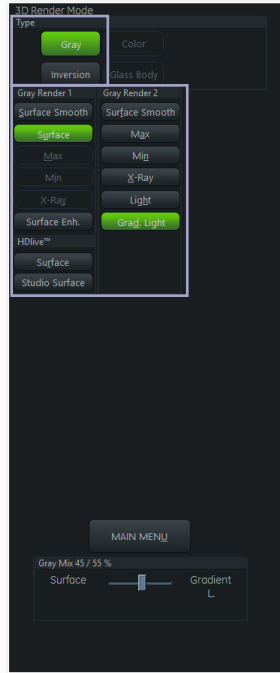
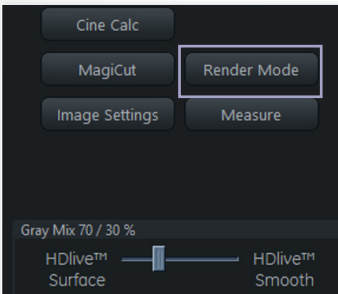
➤ If applicable, certain items are copied into these menus to prevent the need to revert back to the main menu



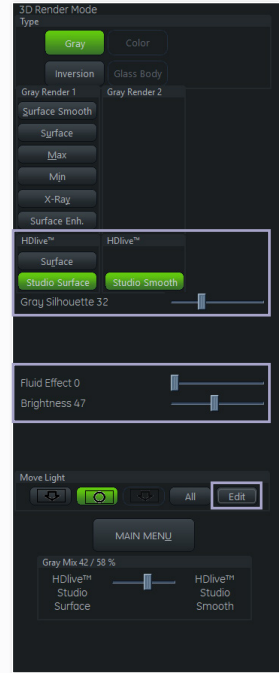
➤ Menus after completing Analysis

4DView Render Modes

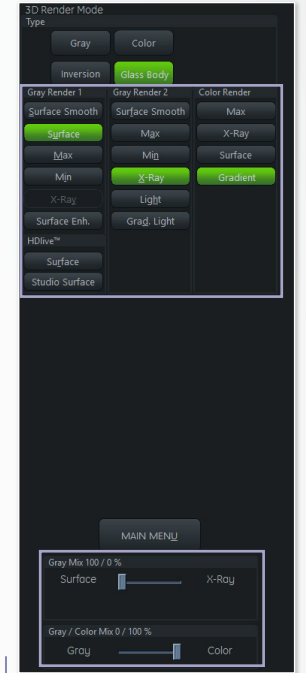
Details of parameters available in Render Modes:



- Render Modes – Gray
 - Choose between render types
 - Select alternate render modes
 - Adjust Mix



- Render Modes – HDlive™
 - Choose between HDlive and HDlive Studio
 - Adjust Silhouette
 - Add/Edit light properties



- Render Modes – Color
 - Choose between Glass Body & Color only
 - Select alternate render modes
 - Adjust both color and gray mixes

Tip

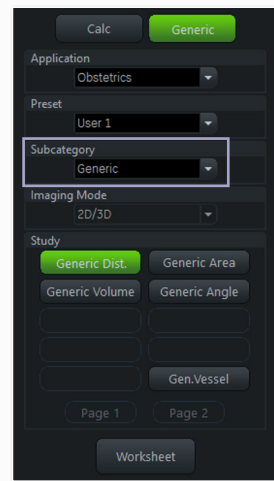
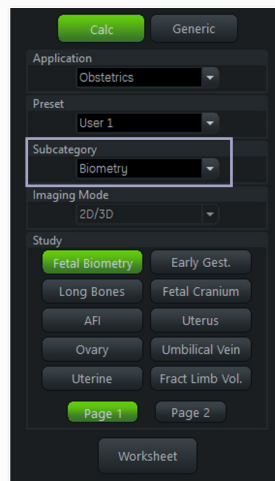
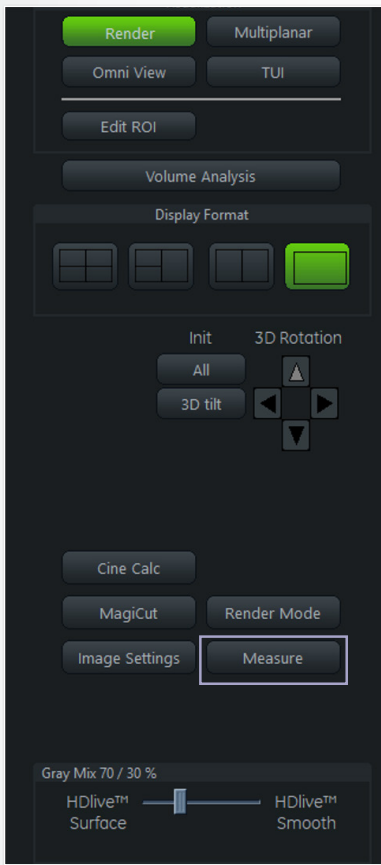
➤ In HDlive modes, move light source via center mouse key

➤ As of 4DView 18 Ext 3 the following controls for moving the light source on a Windows® PC or Mac® are available:

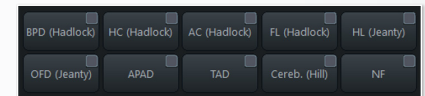
| | With a “Windows mouse” having a middle wheel | With a Windows touchpad without middle button | With an Apple® keyboard |
|---------------------------|--|---|------------------------------------|
| All Lights Direction | Middle Mouse Button | Left Mouse Button + Shift | Mouse click+ Shift |
| Point/Spot Light Distance | Middle Mouse Button + Left Ctrl | Left Mouse Button + Shift + Left Ctrl | Mouse click+ Shift + Left Command |
| Spot Light Size | Middle Mouse Button + Right Ctrl | Left Mouse Button + Shift + Right Ctrl | Mouse click+ Shift + Right Command |
| Spot Light Direction | Middle Mouse Button + Alt | Left Mouse Button + Shift + Alt | Mouse click+ Shift + Option |

4DView Measurements

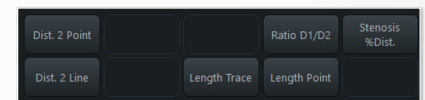
The Measure tool in 4DView allows for OB/GYN calculation as well as generic measurement options similar as on your Voluson:



Calculations

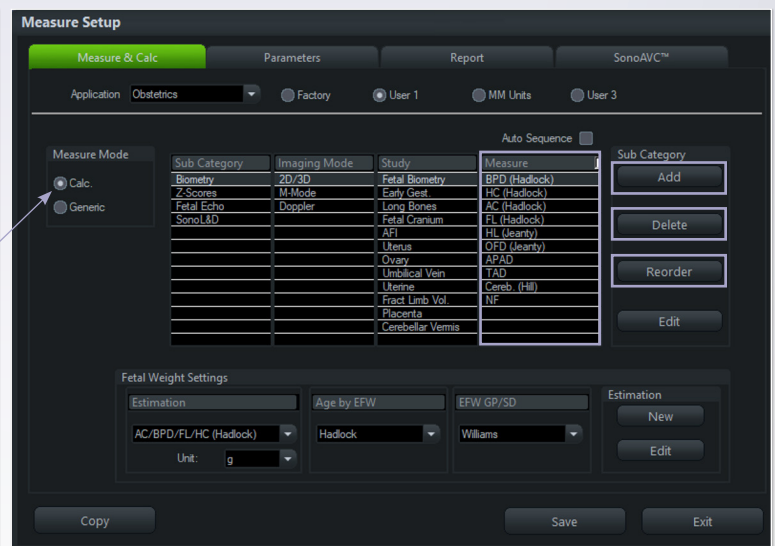
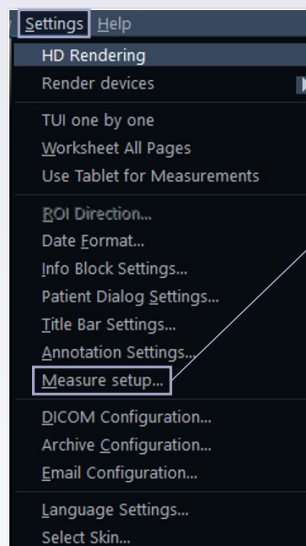


Generic



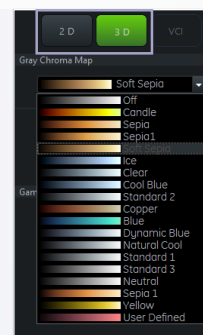
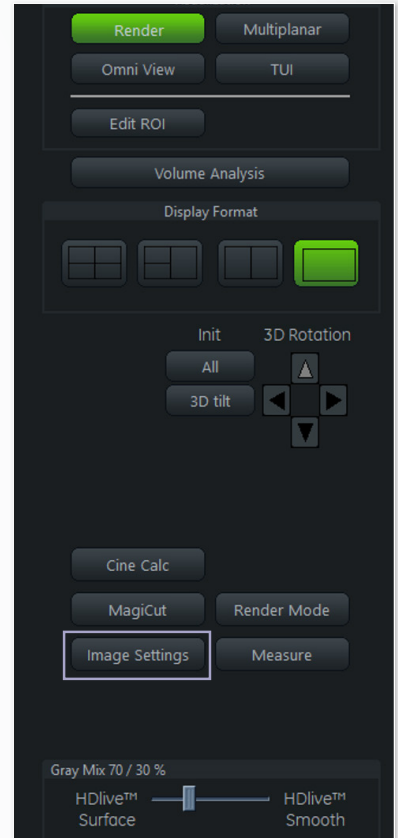
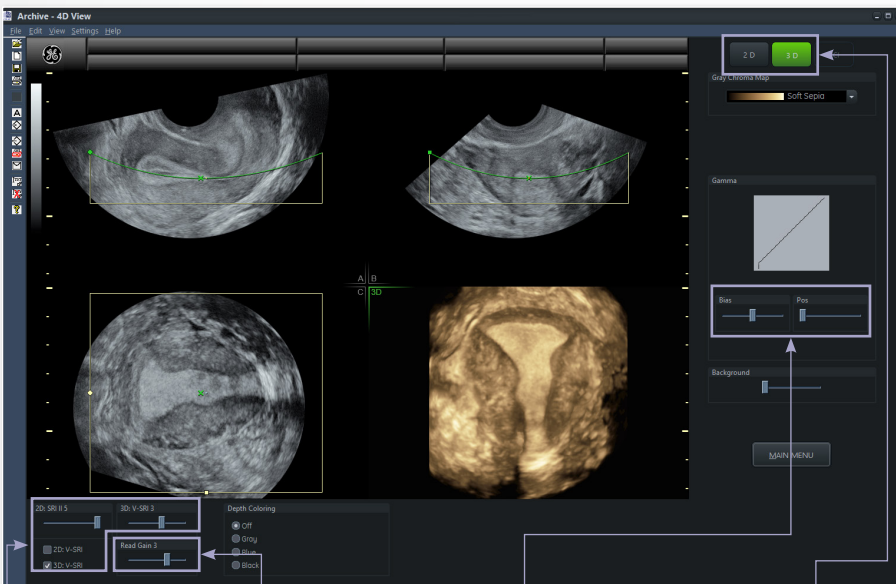
➤ Measurement packages can be customized

- Enter measurement configuration from Settings menu
- Measurements can be added, deleted or reordered based on personal preference



4DView Image Settings

Modify various imaging parameters to enhance the image quality of the volume with the Image Settings tool.



Adjust SRI or V-SRI* levels on both multiplanar (2D) or rendered image (3D)

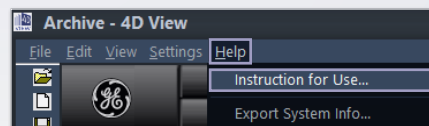
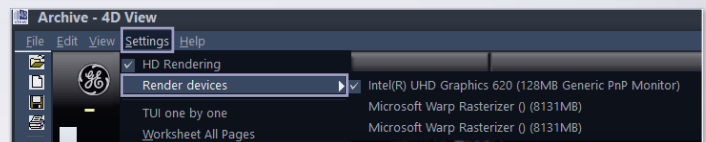
Modify gain level

Modify contrast & brightness. Click on Gamma curve to reset

Adjust tint maps for both multiplanar (2D) and rendered image (3D)

Tips

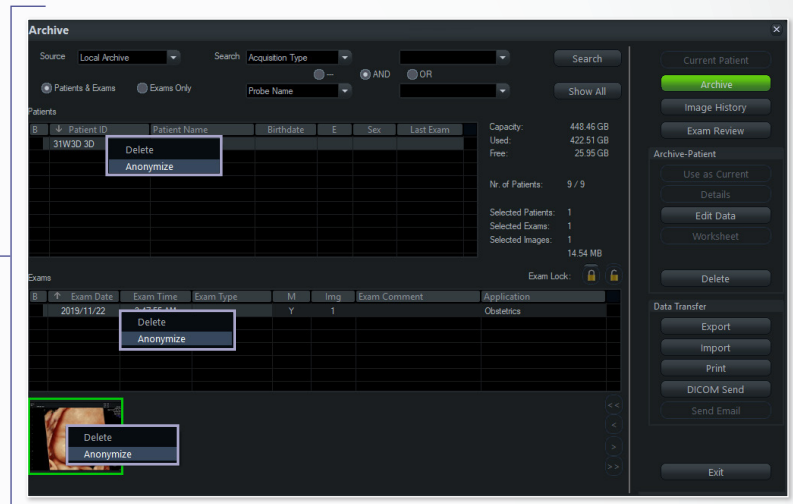
- Note that some image settings are based on the performance of the PC's graphic card
- Refer to Instruction for Use to confirm compatibility



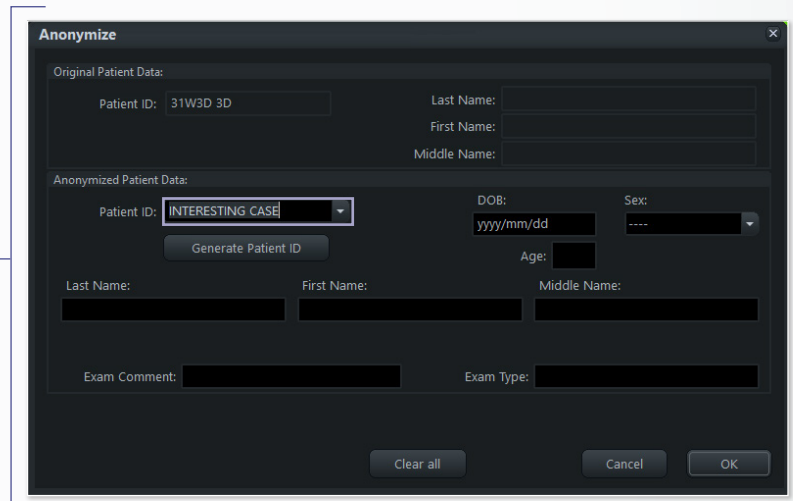
4DView Archive Anonymization Tool

Volume files can be anonymized to remove all patient identifiers.

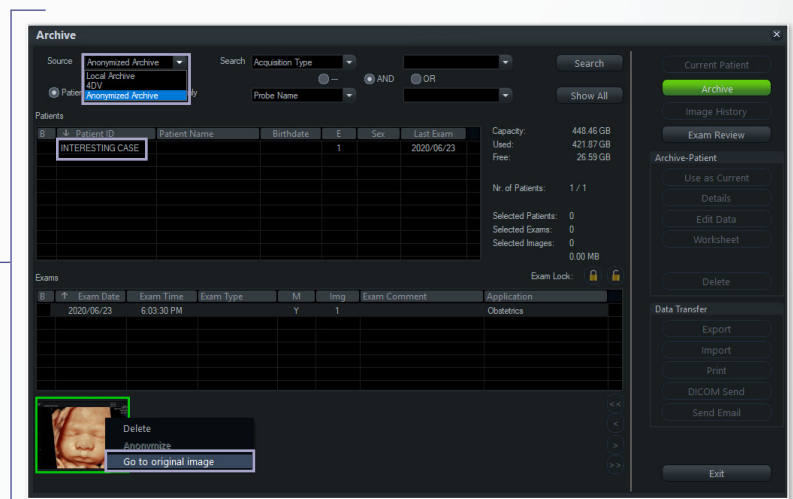
➤ Right-click on a patient, exam or image and choose Anonymize via left click



➤ Enter information in each field as desired; only Patient ID is mandatory. Selecting OK removes all patient data



➤ A parallel Archive is created with newly anonymized data. Original data remains in Local Archive. As long as original patient images are not deleted from Local Archive, Anonymized images can be linked back via right click. Certain images (i.e. pictures taken of the report page) are not anonymizable and will not be included.



4DView Tips & Tricks

Additional tools are available when working with volumes:

- Choose to hide portions or all Info Block information from the image



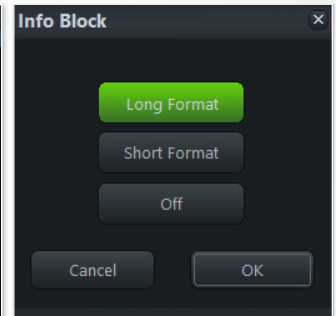
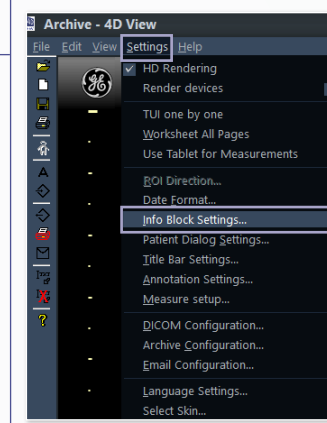
Short Format

```
Routine
Th67/Tr40
Qual high1
B60°/V70°
Mlx70/30
VSRI 4
3D Static
```

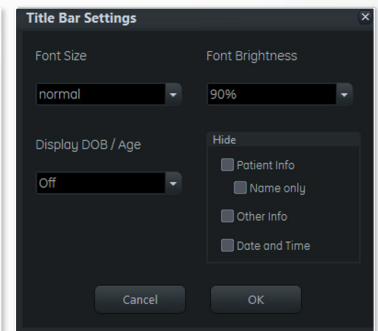
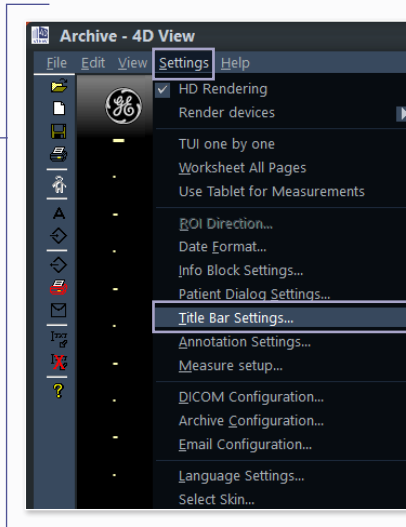
Long Format

```
--- 3D/4D ---
Routine
Th67/Tr40
Qual high1
B60°/V70°
Mlx70/30
M0/0
VSRI 4
3D Static

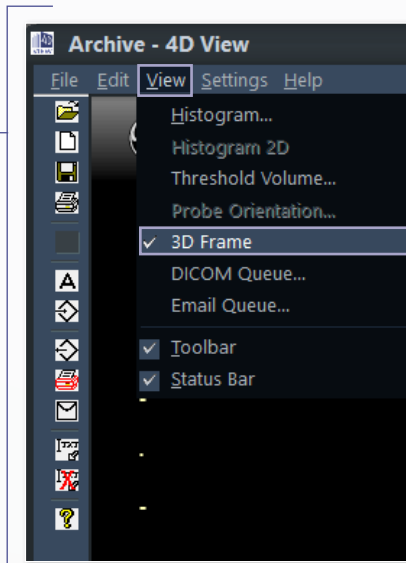
--- 2D ---
ROUTINE HD
HD Res 6.10 - 4.70
Pwr 97.9%
Gn -6
C6 / M5
P0 / E1
```



- Adjust and choose display options of Title Bar



- Show 3D Frame - helpful when teaching orientation, confirming situs and more





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