

MedDream DICOM Viewer v8.4.0

IHE XDS-I.b
PASSED

FDA K222320
510(k)
CLEARED

CE 0197
Class IIb certified



**NEW
RELEASE**

8.4.0 medDream

HTML5 ZERO-FOOTPRINT DICOM Viewer

NEW FEATURES



CAD marks

CAD SR findings on mammography images.



Curved MPR

Curved Planar Reconstruction (CPR) feature.



DICOM Overlay

DICOM Overlay in GUI (enable/disable).



Lossy compression

Displaying the compression type and ratio.

IMPROVEMENTS



MIST Oblique

MIP thickness up to 600 mm.



Zoom

Zooming is mirrored when Align & Lock Left/Right is activated.



Fusion

Transparency level and Color palette tools in MIST Oblique.



Crosshair

Works between 2D views and MIST Axial, Coronal, Sagittal reconstructions.



Advanced PET Fusion

Opening multiple PET reconstructions. Spin feature - rotating the Sagittal/Coronal reconstructions around the X axis.



KO/PR saving

User information, selecting description from the list (configurable).



Montage

Shortcut. Patient ID, Name, and Study Date are shown. Comparison study is highlighted. Window can be minimized.



Hanging Protocols v2

Possibility to open MIST Oblique for the series automatically.

MEASUREMENTS



Horizontal line

Horizontal tool for NM modality studies.



Flexpoly and Area

Statistical information is shown.

INTEGRATION



Communication API

- Get DICOM tags and show in the viewport;
- Get Hanging Protocols list and set them.

Viewport API

- Refactored the functionality;
- Set created annotations as read-only, change color;
- Get Patient's Date of Birth.

NEWS



New design: MedDream | SendToPACS functionality

User-friendly, modern design based on the MedDream user interface!

ISO/IEC 27001:2022

New certification: ISO/IEC 27001:2022

The world's best-known standard for information security management systems (ISMS).

Release notes

MedDream DICOM Viewer v8.4.0 (2024-04-15):

- New functionality: displaying **mammography CAD SR findings** information on images, show/hide function available;
- New functionality: created possibility to show **DICOM Overlay** in GUI (possibility to enable/disable);
- New functionality in MIST Oblique - **Planar Reconstruction (CPR) Curved**;
- New functionality: **Horizontal tool** for NM studies;
- New functionality: the viewport will display the compression type and ratio for **lossy compression images**;
- Possibility to add/remove plugins and change some settings in application.properties without restarting MedDream;
- New functionality - MedDream Auto Login by Active Directory SSO;
- New functionality - **Advanced PET**: opening multiple PET reconstructions. Sagittal or Coronal reconstructions possibility to rotate around X axis;
- Improved **Flexpoly** and **Area measurements**: added statistical information as in Ellipse measurement;
- Improved **Zoom** functionality: zoom is mirrored when Align & Lock Left/Right is activated;
- Improved Multi series layouts: added 3x2, 3x3, 4x3 combinations;
- Improved/fixed Live Share functionality: measurements can be shared;
- Improved/fixed **Montage** functionality: added a shortcut to add image into Montage, improved montage saving (remain the same layout as in view), added in montage view patient ID, name, and study date; Comparison study date is marked with a gray color; Added possibility to minimize Montage window.

Release notes

MedDream DICOM Viewer v8.4.0 (2024-04-15):

- Improved **Crosshair** functionality - to work between MIST Oblique and other views in the viewports;
- Improved **MIST Oblique** - Added possibility to set bigger MIP values in created reconstructions;
- Improved **Fusion** functionality - possibility to use Fusion with MIST Oblique. Added fusion management tools to set transparency level and Color palette functionalities.
- Improved 4D Tools functionality - added possibility to mark matching description series, improved filtering and marking functions.
- Improved **KO/PR saving** - added user information on saving PR, possibility to select PR description from the list (configurable); to store inversion information in PR.
- Improved **HP v2 version** - added the possibility to set the matching series number in the series conditions, and the possibility to automatically start MIST Oblique for the series.
- Improved ECG functionality - the grid color was changed.
- Improved ANONYMOUS_VIEW permission - Accession Number value is included in the anonymization list.
- Improved Token functionality: added possibility to configure basic-auth validation;
- Improved **Communication API**: added method to get DICOM tags information and show it in the viewport; added methods to get Hanging Protocol list and set them.
- Improved **Viewport API**: breaking changes in Viewport API functionality, check documentation before updating. Possibility to set created annotations as read-only, set different colors; Method to get Patient Date of Birth;
- Updated dependencies and 3rd party libraries.

New feature: CAD marks

CAD

Displaying CAD SR findings on mammography images. Possibility to show/hide.

Indicating the CAD findings:

- the number of each type in the image;
- the number in the image;
- the total number in the series.

Mass: 1, Calc: 1
CAD: 2 / 12

The screenshot displays the medDream WEB DICOM viewer interface. The main window shows a mammography image with CAD marks (asterisks and triangles) overlaid on the breast tissue. The marks are labeled with percentages: 17%, 23%, and 82%. The interface includes a top toolbar with various navigation and viewing tools, and a bottom toolbar with CAD-specific controls. A red arrow points to the 'CAD' button in the bottom toolbar. The left sidebar shows a list of images with their respective views and counts. The bottom status bar displays CAD findings: 'Mass: 1, Calc: 0' and 'CAD: 1 / 12' (highlighted in a red box), and 'Mass: 1, Calc: 1' and 'CAD: 2 / 12' (highlighted in a red box).

New feature: DICOM Overlay



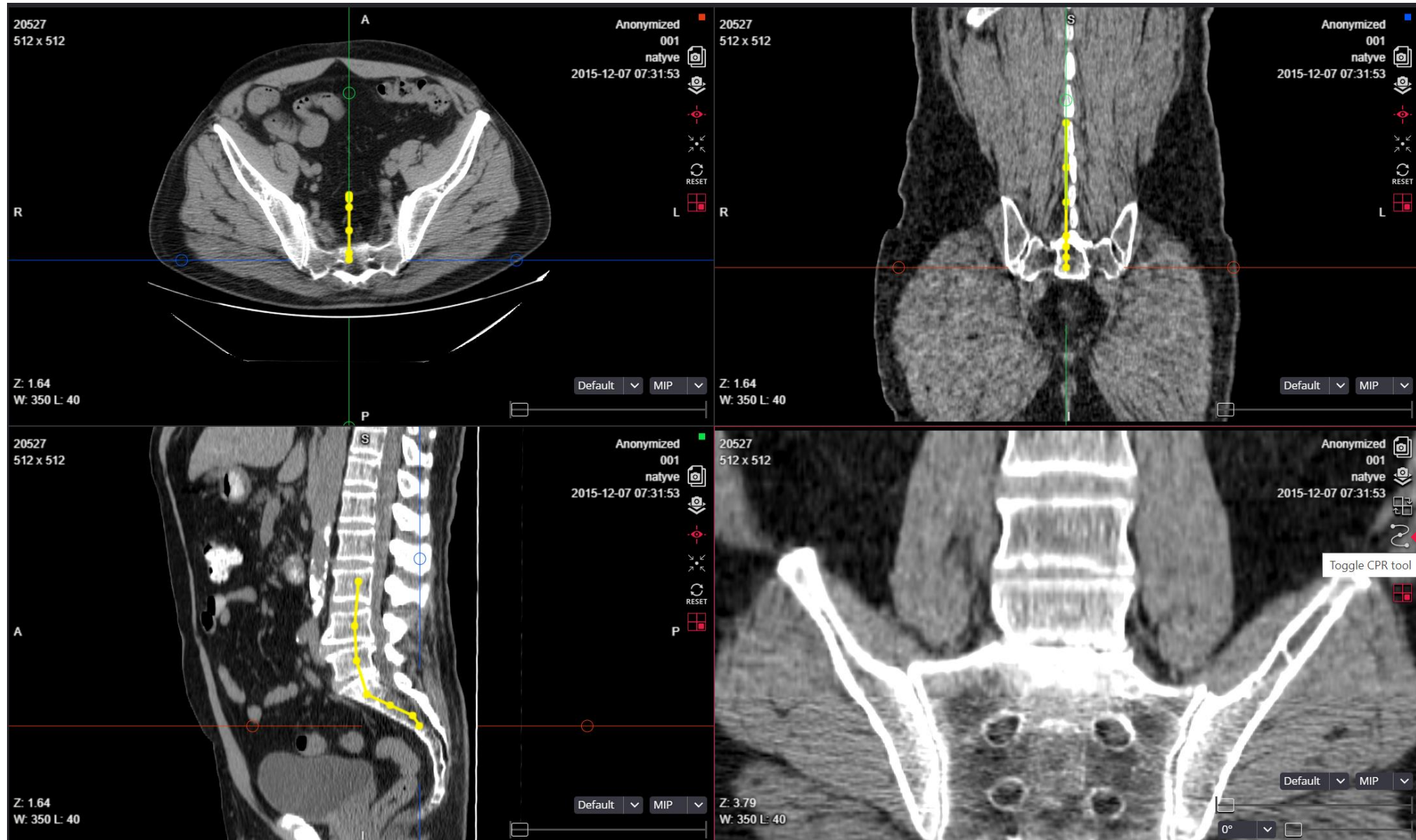
Showing DICOM Overlay in GUI. Possibility to show/hide.

The screenshot displays the medDream WEB DICOM viewer interface. The top navigation bar includes various tool icons such as Window, Pan, Zoom, Measure, Rotate, Segment, Magnify, Scroll, Hangup, Link, Sync, Reference, Info, Fusion, Cine, Montage, Channels, Layout, Thumbnail, Forward, Export, LiveShare, Print, and More. The left sidebar shows a list of image series under the 'Anonymized' folder, including 'Cardiac^KPJ_CCTA_Routine (Adult)', '1/21 <MIP Thin Collection>', '2/16 NATIVE', '3/22 MIP', and '4/2 NEW'. A red arrow points to the 'Show DICOM Overlay' option in the 'Windowing (W)' menu. The main viewing area is split into two panels: 'SRA' (left) and 'SAR' (right). The SRA panel shows a cross-sectional view of the heart with labels 'SVG TO DIAGONAL' and 'AIR'. The SAR panel shows a similar view with labels 'RCA' and 'AIR'. Both panels display technical details like 'Spin: 113', 'Tilt: -25' for SRA and 'Spin: 126', 'Tilt: 5' for SAR. The bottom status bar shows image dimensions and zoom levels for both panels.

New feature: Curved MPR

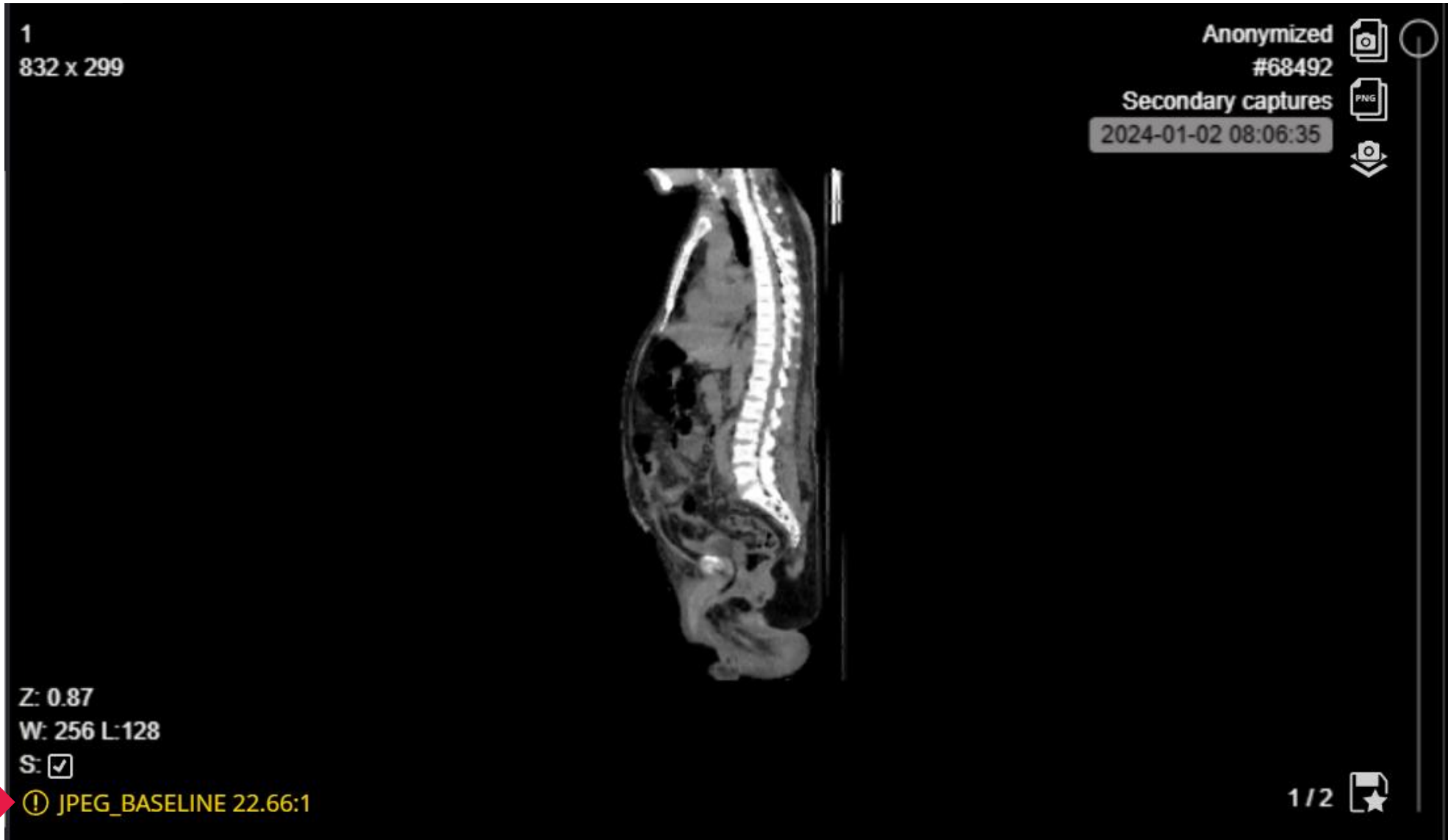


Curved Planar Reconstruction (CPR) feature.



New feature: Lossy compression

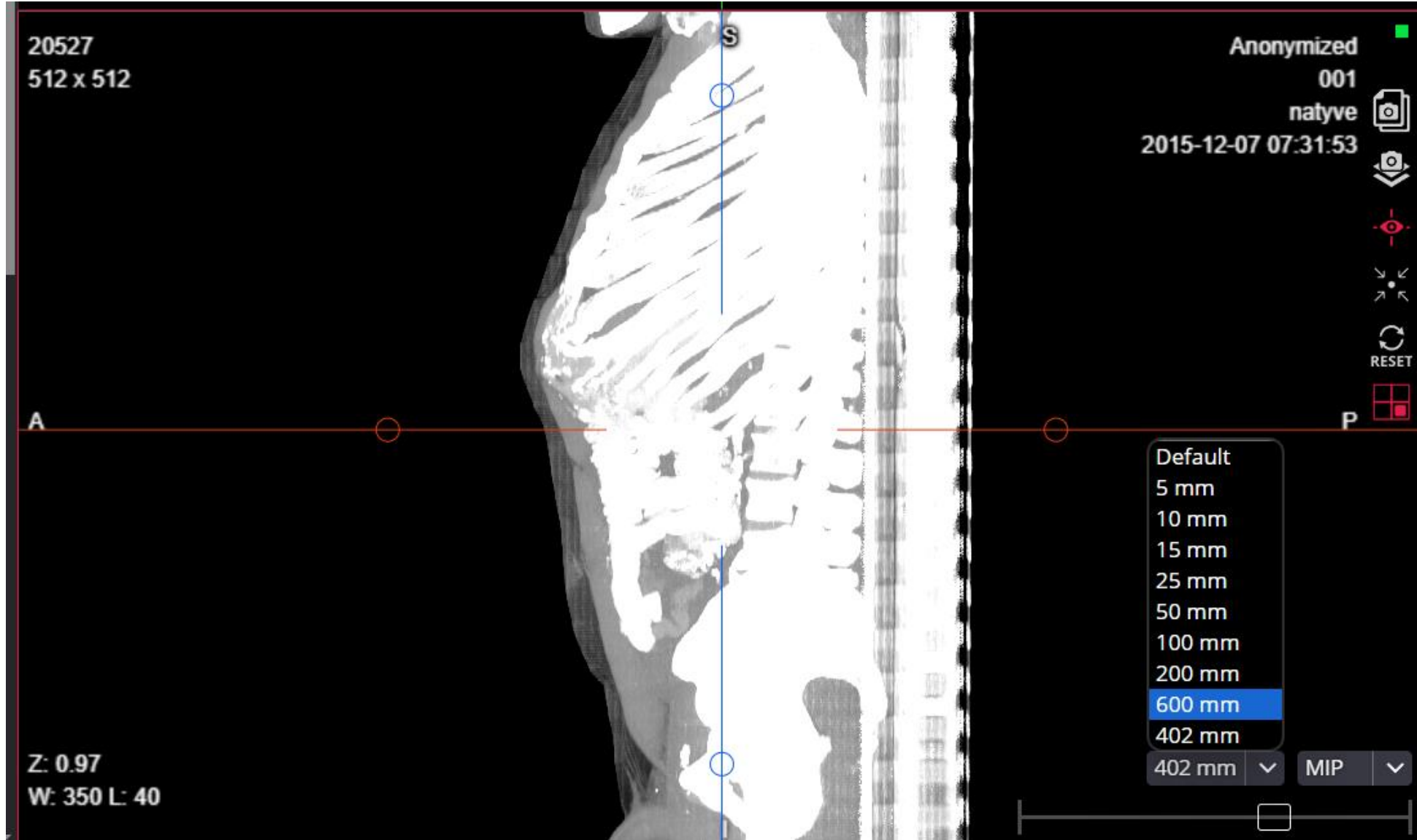
ⓘ JPEG 2000 20:1 Displaying the compression type and ratio for lossy compression images.



Improvements: MIST Oblique



Possibility to set MIP thickness values **up to 600 mm** in created reconstructions.

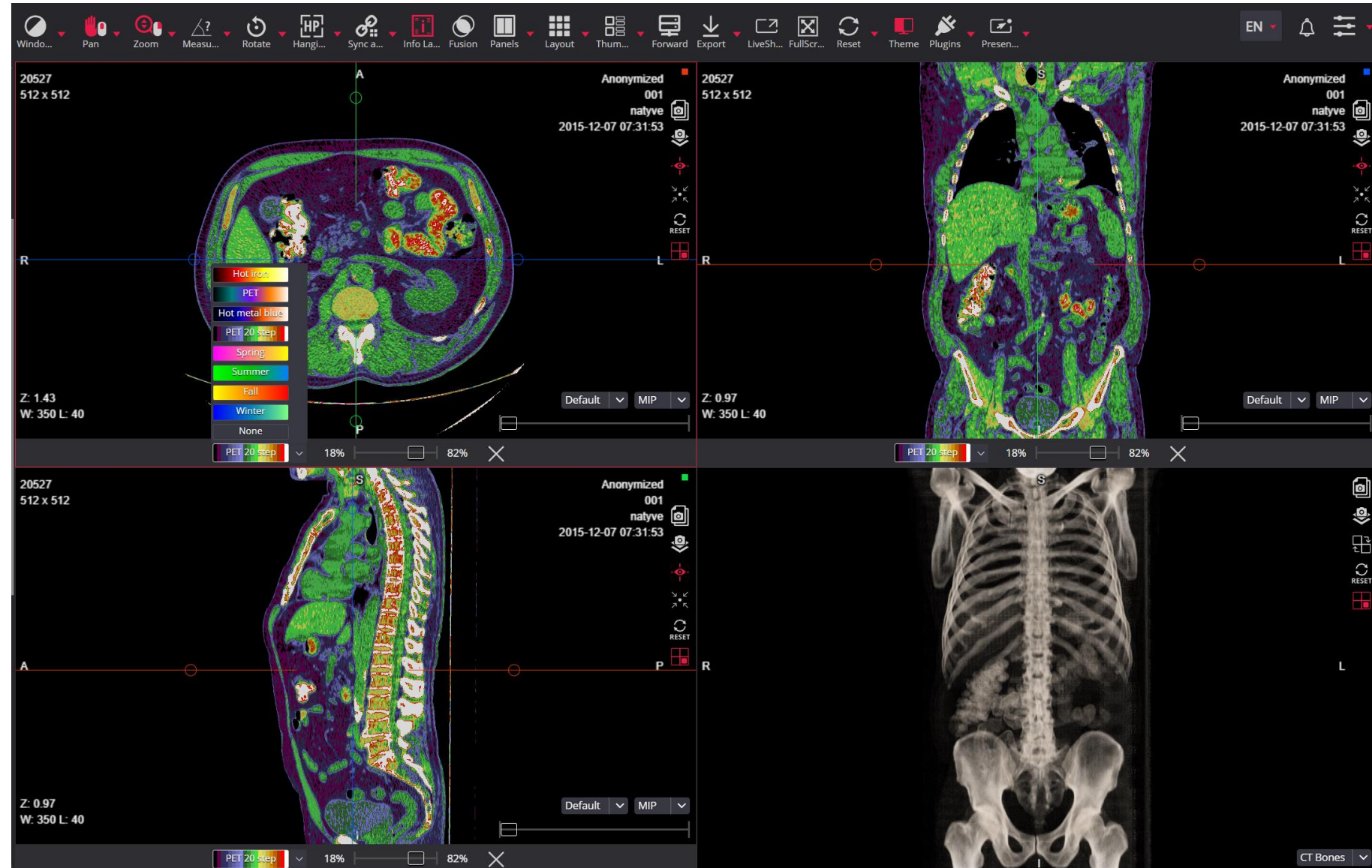


Improvements: Fusion



Possibility to use Fusion tools in MIST Oblique.

Set **Transparency** level
and use **Color palette**.

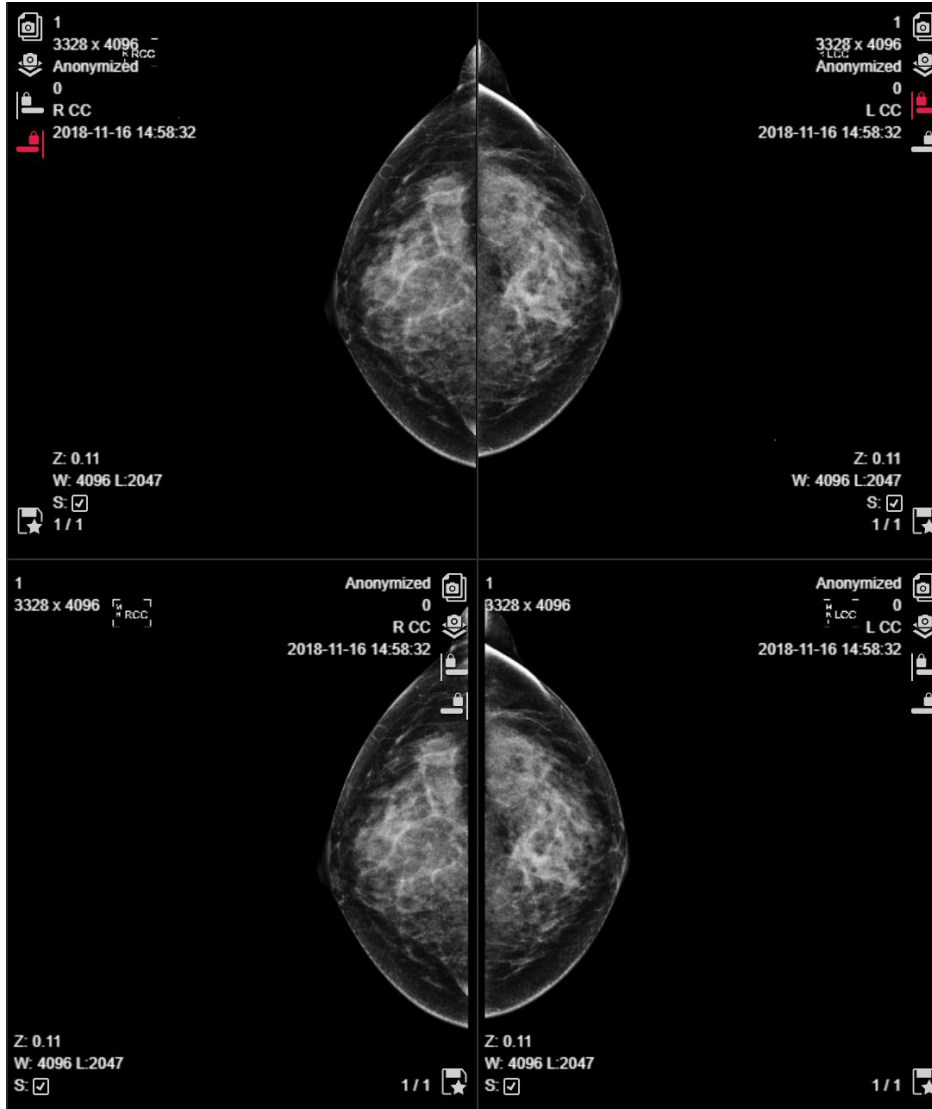


Improvements: Zoom

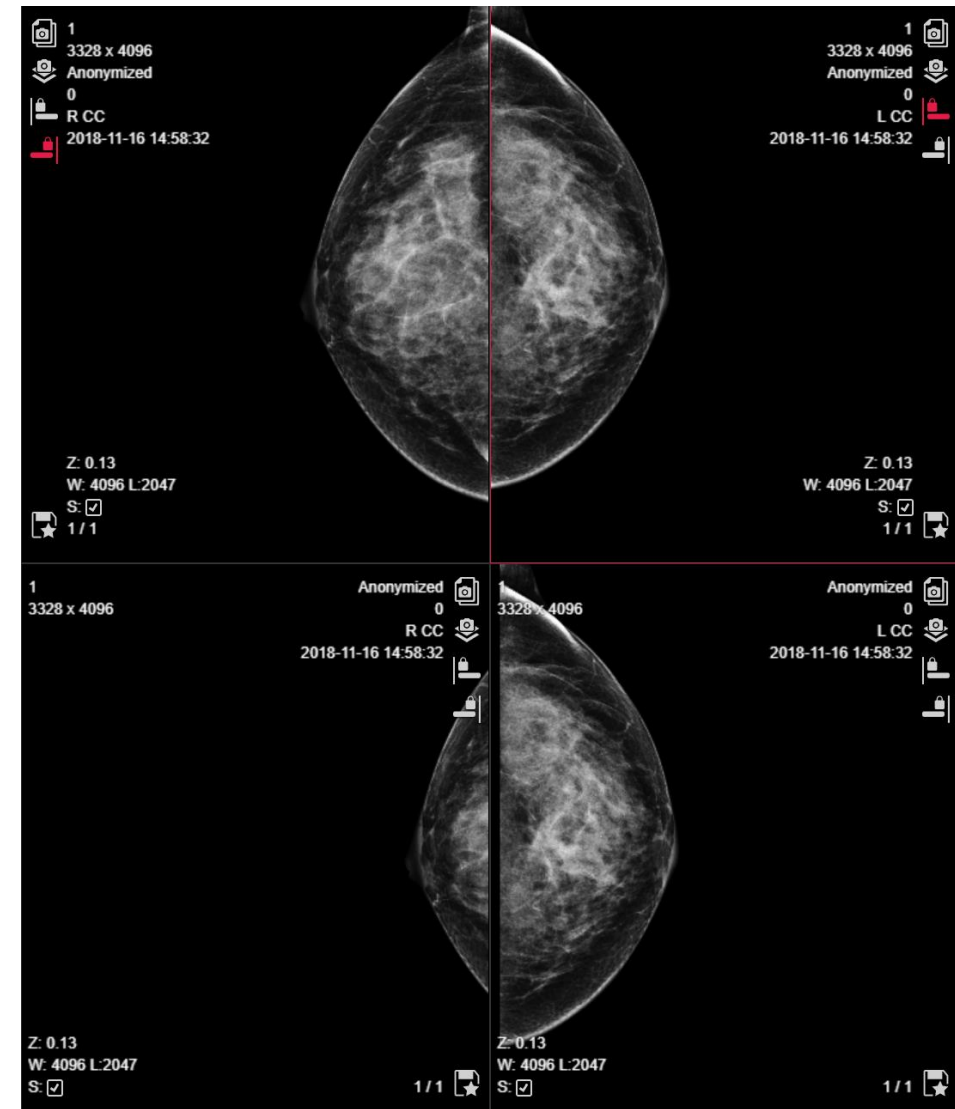


Zooming is mirrored when Align&Lock Left/Right is activated.

Align&Lock
is activated:



Zooming was
mirrored:



Align&Lock
is not
activated:

Zooming was
not mirrored:



Improvements: Crosshair

Works between 2D views and MIST Axial, Coronal, Sagittal reconstructions.



Improvements: Advanced PET Fusion

Advanced PET. Opening multiple PET reconstructions.

MPR DICOM Theme Key O

- MIST Oblique Shift + Q
- MIST Axial Shift + I
- MIST Coronal Shift + O
- MIST Sagittal Shift + P
- MIST Advanced PET

medDream WEB DICOM viewer

Windo... Pan Zoom Measu... Rotate Prev. HP Hangl... Next HP Sync a... Info La... Fusion Layout Thum... Export LiveSh... FullScr... Reset Theme Crossh... Presen... Panels Spin

EN

Anonymized

NEURO

CT 2015-04-30

CT 1/2 CT SCOUT HEAD IN

2

CT 2/47 CTAC 3.75 thick

47

CT 3/121 Standard 1.25

121

PT 4/47 2D SMEGENYS DEMENCIJA...

47

PT 5/47 2D SMEGENYS DEMENCIJA ...

47

1 512 x 512 Standard 1.25 2015-04-30 09:27:53

A

R L

Azimuth rotation: 0° Z: 2.55 W: 400 L: 40

Hot iron 50%

1 512 x 512 Standard 1.25 2015-04-30 09:27:53

S

R L

Azimuth rotation: 0° Z: 2.85 W: 400 L: 40

Hot iron 50%

1 512 x 512 Standard 1.25 2015-04-30 09:27:53

S

A P

Azimuth rotation: 0° Z: 2.85 W: 400 L: 40

Hot iron 50%

1 256 x 256 2D SMEGENYS DEMENCIJA NAC 2015-04-30 09:27:53

A

R L

Inverted Azimuth rotation: 0° Z: 2.60 max: 32767

Default MIP

1 256 x 256 2D SMEGENYS DEMENCIJA NAC 2015-04-30 09:27:53

S

R L

Inverted Azimuth rotation: 0° Z: 2.91 max: 32767

Default MIP

1 256 x 256 2D SMEGENYS DEMENCIJA NAC 2015-04-30 09:27:53

S

L R A

Inverted Azimuth rotation: 181° Z: 2.91 max: 32767

400 mm MIP

New feature: Spin



Spin - rotating the Sagittal or Coronal reconstructions around the X axis.

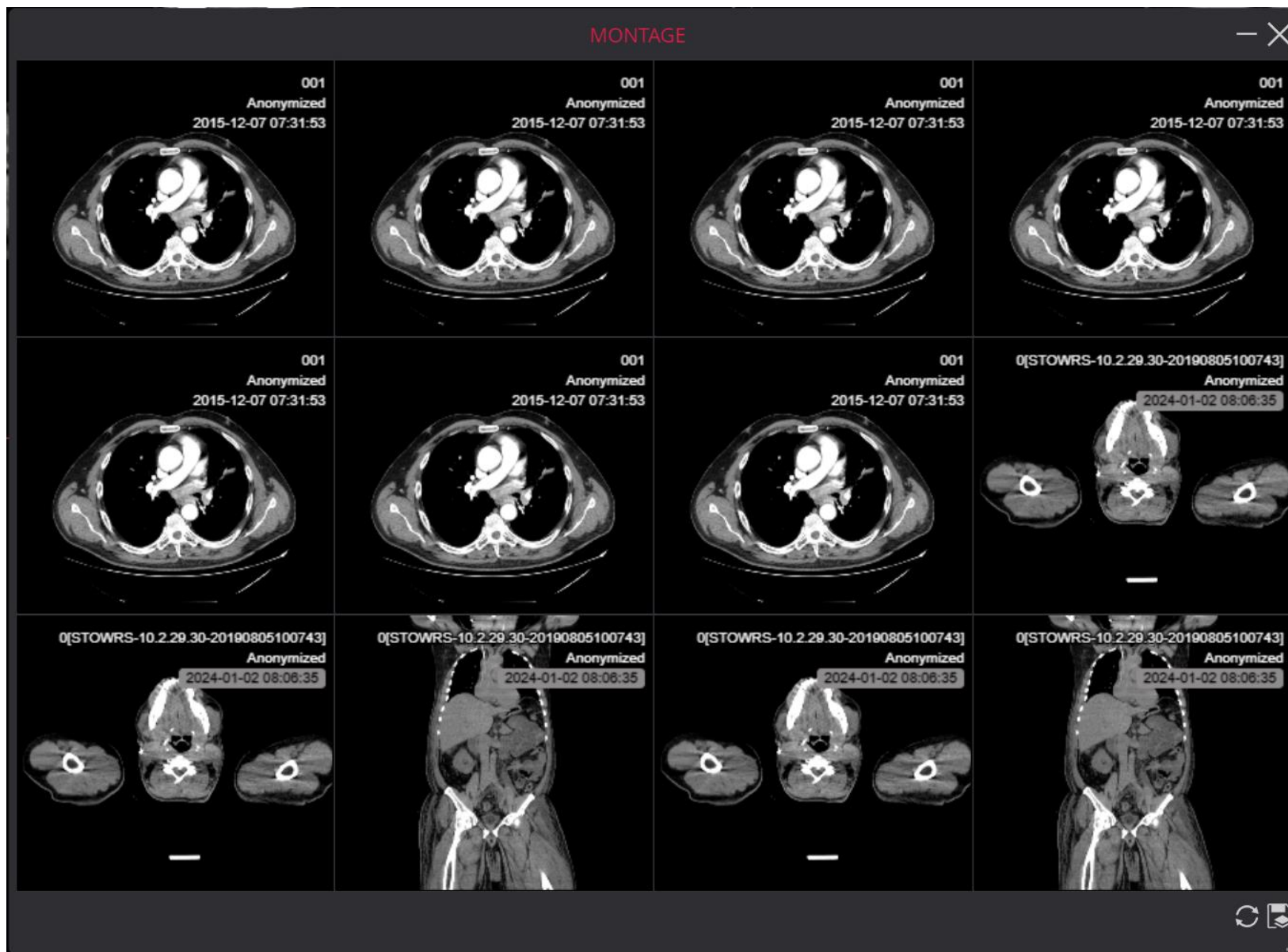
Possibility to Auto Spin Forward or Backward.



Improvement: Montage

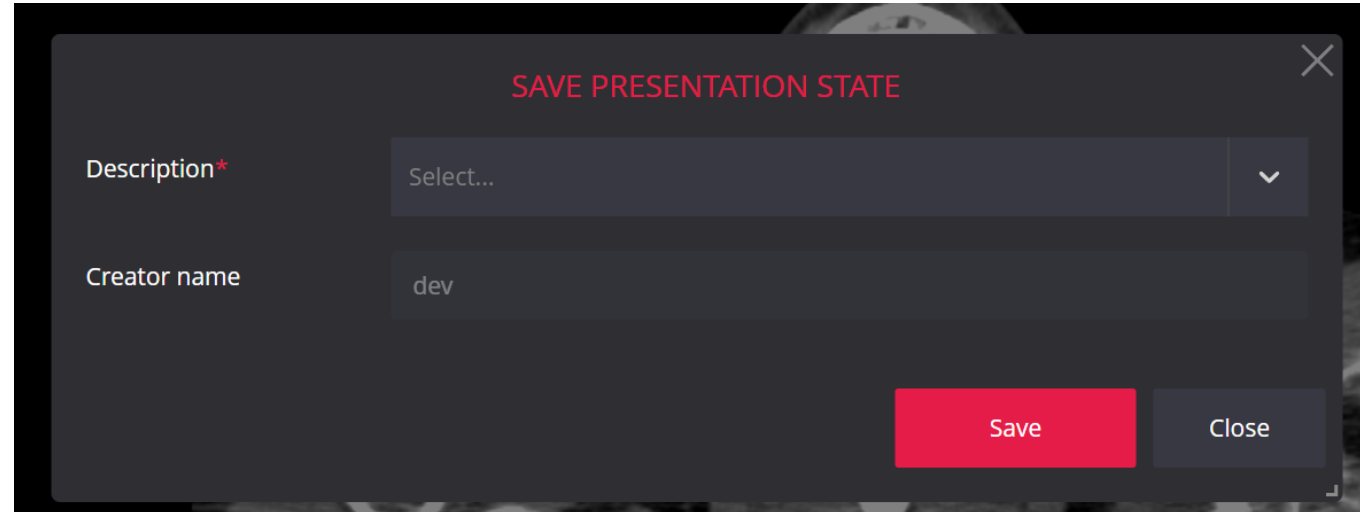


- Shortcut can be assigned.
- Patient ID, Name, and Study Date are shown.
- Comparison study is highlighted.
- Window can be minimized.



Improvement: KO/PR saving

User information, selecting description from the list (configurable).

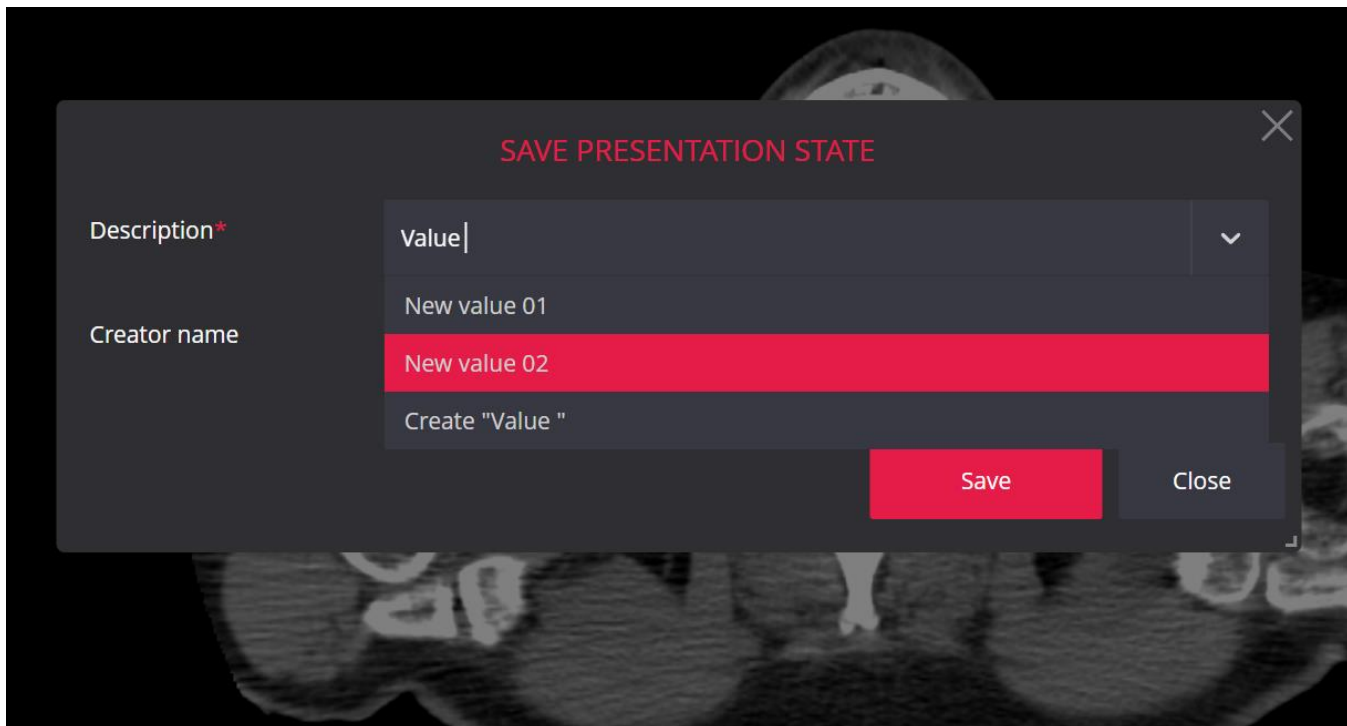


SAVE PRESENTATION STATE

Description* Select... ▼

Creator name dev

Save Close



SAVE PRESENTATION STATE

Description* Value | ▼

Creator name

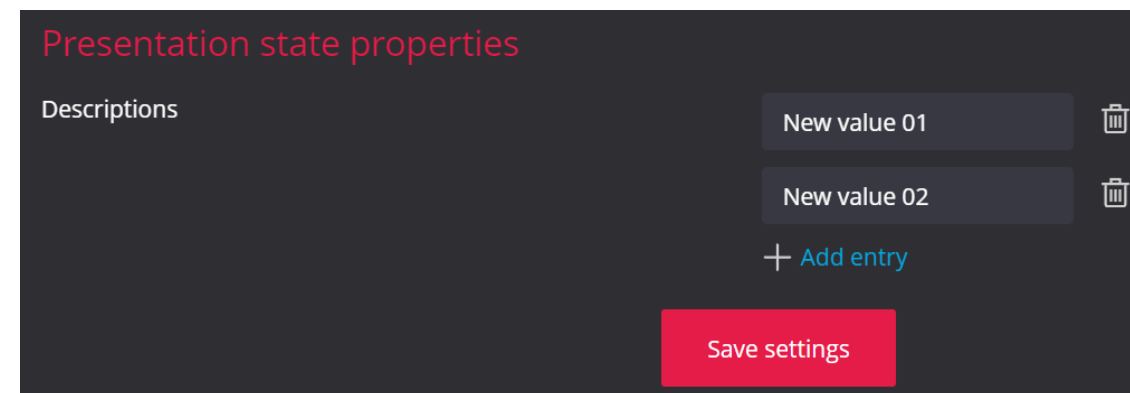
New value 01

New value 02

Create "Value "

Save Close

Settings:



Presentation state properties

Descriptions

New value 01 🗑️

New value 02 🗑️

+ Add entry

Save settings

Improvement: Hanging Protocols v2

CREATE PROTOCOL

+ Add condition + Add condition group

Condition query text form

Views

1x1

MIST MPR

DISABLED OBLIQUE AXIAL CORONAL SAGITTAL

Prior study number

Width

Windowing

Center

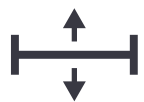
Rotation

+ Add condition + Add condition group

Create Close

Possibility to start MIST Oblique for the series automatically and to set the matching series number in the series conditions.

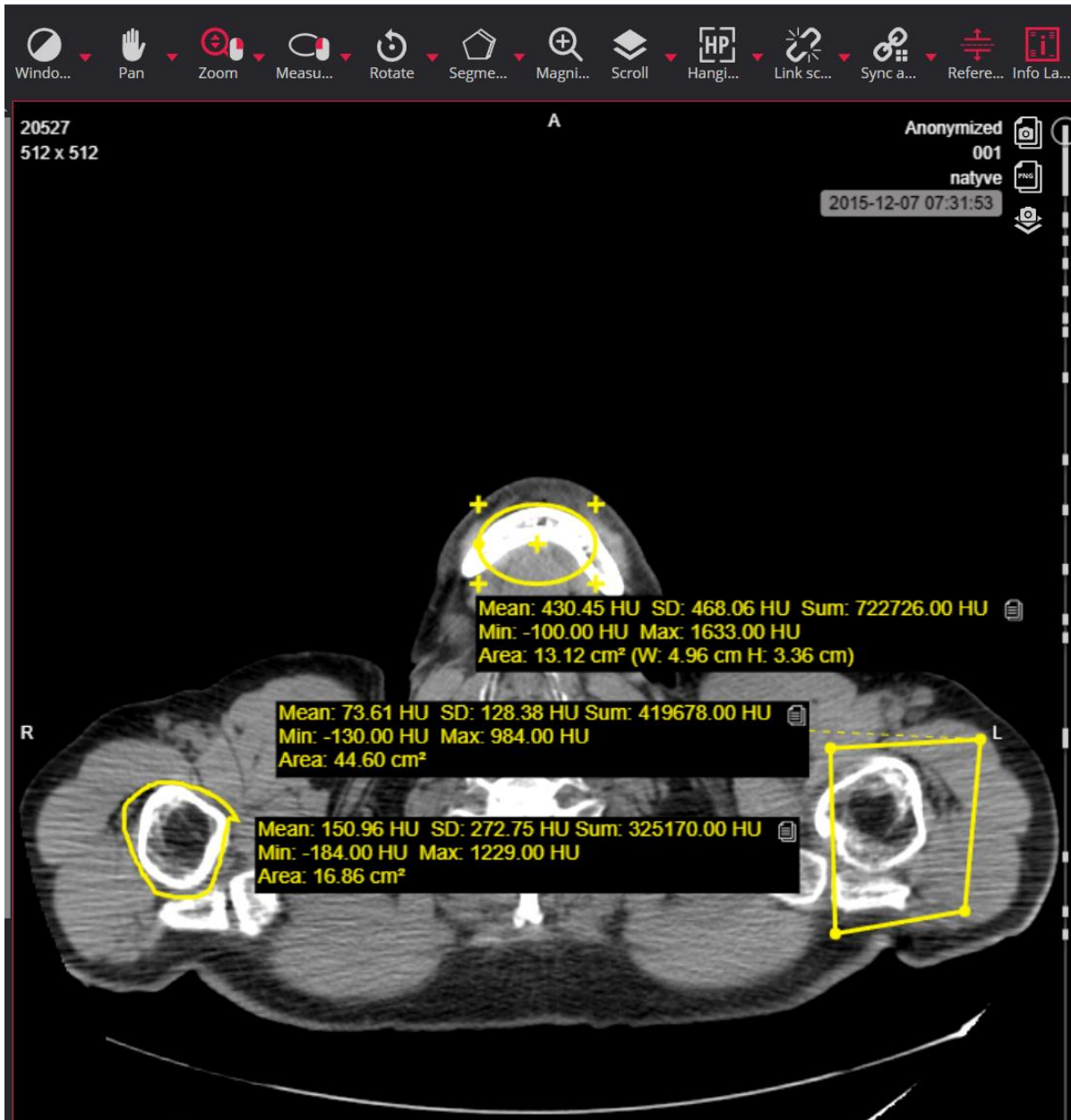
New measurement: Horizontal line



Horizontal tool for NM modality studies.

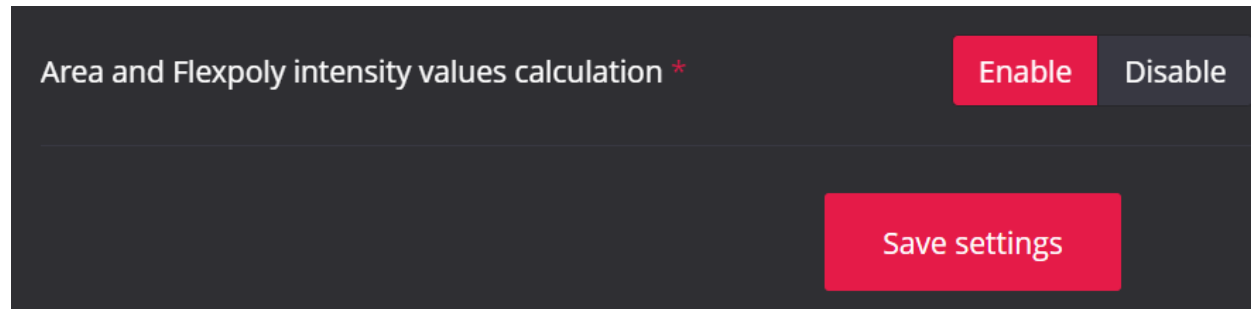
The screenshot displays the medDream WEB DICOM viewer interface. The top toolbar includes various tools such as Window, Pan, Zoom, Measure, Rotate, Segme, Magni, Scroll, Hang, Link sc, Sync a, Refere, Info La, Fusion, Cine, Monta, Chann, Panels, Layout, Thum, Forward, Export, LiveSh, and More. The left sidebar shows a list of studies under 'Anonymized', including 'NM 1/180 Unknown' and 'NM 2/2 Secondary captures'. The main viewing area shows two axial MRI slices of a brain. A measurement menu is open in the center, listing various measurement tools. The 'Horizontal Line' tool is highlighted with a red arrow. The menu items include: Line, Angle, Cobb Angle, Polyline, Area, Ellipse, Rectangle, Volume, Height Difference, CTR, Flatfoot, Goniometry, Vertebra Angle, Spine Labeling, Time-Intensity Curve, ROI, Closed polygon, Flexpoly, Pencil, Arrow, Text, Continuous measurement, Intensity, Show Angles, Horizontal Line, Calibration line, Delete Selected (Shift + D), and Delete All (Ctrl + Delete). The interface also shows patient information like 'Anonymized 0', 'Unknown', and '00:00:00' for both slices. The bottom status bar indicates 'Z: 2.84', 'Max: US 8711.00', 'S: [checkbox]', '48 / 180', and '71 / 180'.

Improvement: Flexpoly and Area



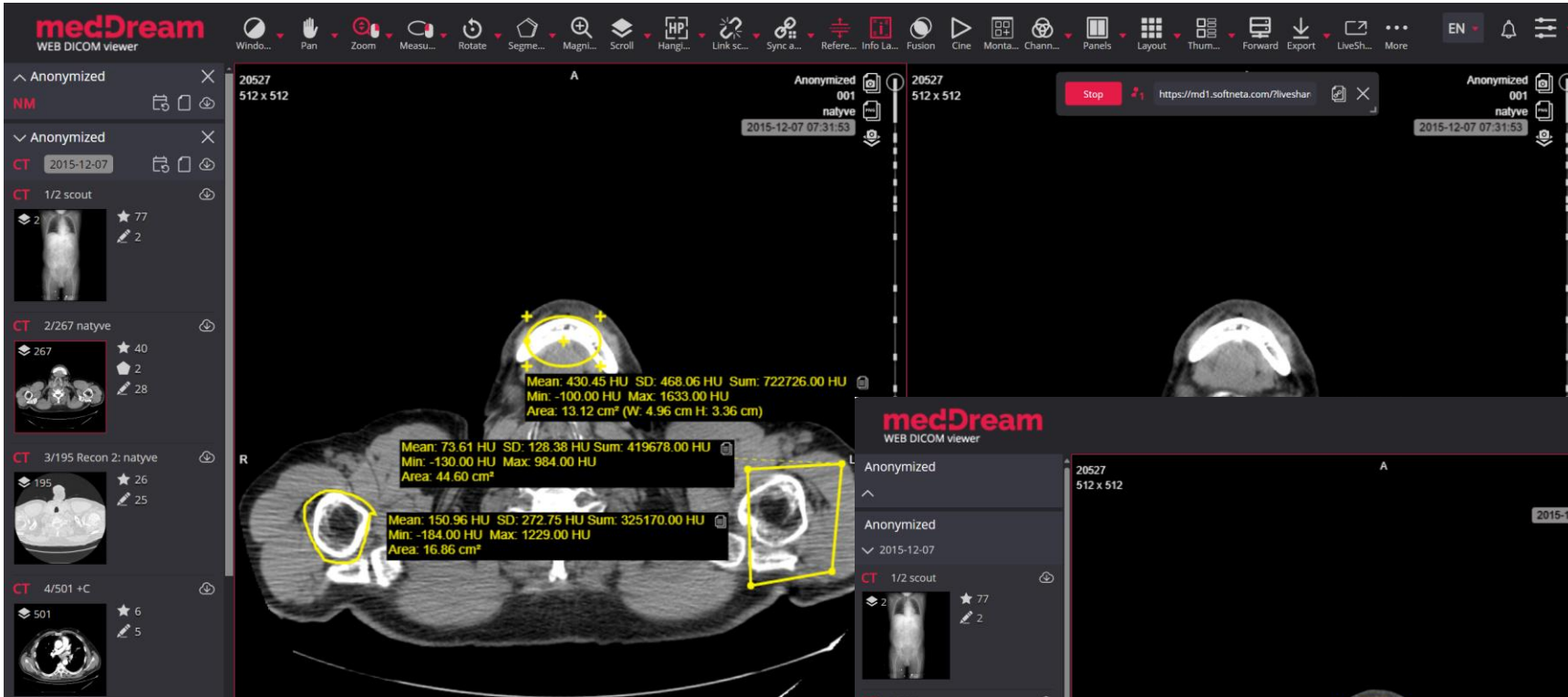
Statistical information is shown (Mean, SD, Sum, Min, Max, Area) as in the Ellipse measurement.

Settings:

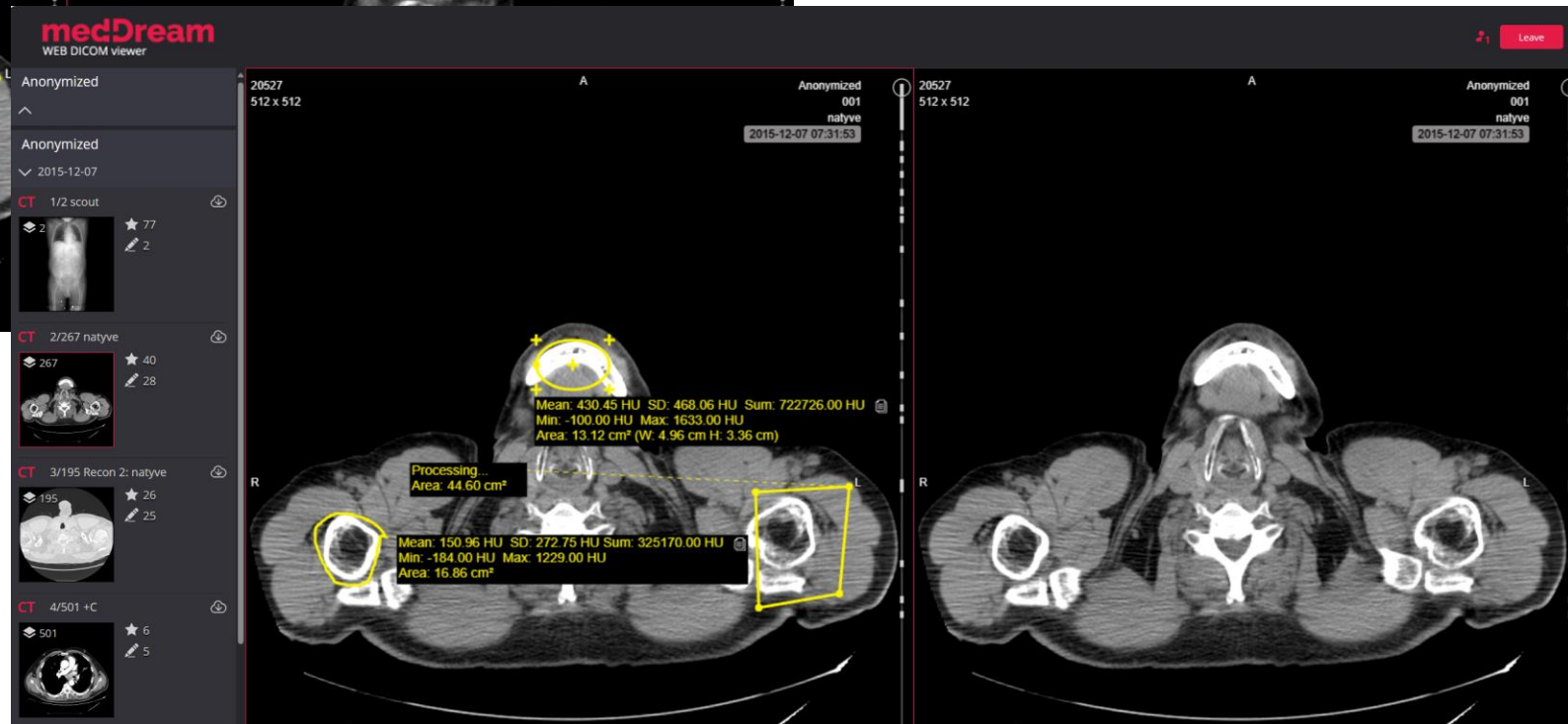


Improvement: Live Share

Host view:

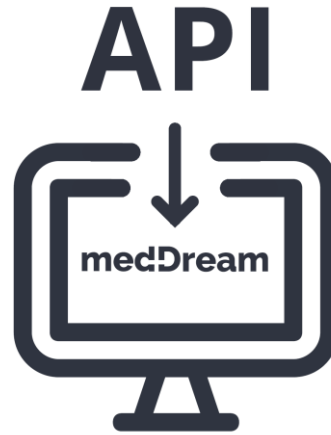


Guest view:



Measurements could be shared during Live share session.

Improvement: Integration via API



Communication API:

- Get DICOM tags and show in the viewport;
- Get Hanging Protocols list and set them.

Viewport API:

- Refactored the functionality;
- Set created annotations as read-only, change color;
- Get Patient's Date of Birth.

MedDream | SendToPACS functionality design update



SendToPACS – desktop application.

The screenshot shows the main interface of the SendToPACS application. At the top, there are buttons for 'Add File', 'Add Folder', and 'Remove File'. Below these is a table with columns for '#', 'File type', 'File name', 'Status', and 'File path'. The table contains 15 rows of DICOM files, with the 13th row highlighted in red. At the bottom, there are two tabs: 'NON-DICOM files info' and 'DICOM files info', with the latter being active.

#	File type	File name	Status	File path
6	DICOM	image-00005.dcm		C:\Users\Renata\Documents\KITA\Tyrimas\serie-00010\image-...
7	DICOM	image-00006.dcm		C:\Users\Renata\Documents\KITA\Tyrimas\serie...
8	DICOM	image-00007.dcm		C:\Users\Renata\Documents\KITA\Tyrimas\serie...
9	DICOM	image-00008.dcm		C:\Users\Renata\Documents\KITA\Tyrimas\serie...
10	DICOM	image-00009.dcm		C:\Users\Renata\Documents\KITA\Tyrimas\serie...
11	DICOM	image-00010.dcm		C:\Users\Renata\Documents\KITA\Tyrimas\serie...
12	DICOM	image-00011.dcm		C:\Users\Renata\Documents\KITA\Tyrimas\serie...
13	DICOM	image-00012.dcm		C:\Users\Renata\Documents\KITA\Tyrimas\serie...
14	DICOM	image-00013.dcm		C:\Users\Renata\Documents\KITA\Tyrimas\serie...
15	DICOM	image-00014.dcm		C:\Users\Renata\Documents\KITA\Tyrimas\serie...
16	DICOM	image-00015.dcm		C:\Users\Renata\Documents\KITA\Tyrimas\serie...
17	DICOM	image-00016.dcm		C:\Users\Renata\Documents\KITA\Tyrimas\serie...
18	DICOM	image-00017.dcm		C:\Users\Renata\Documents\KITA\Tyrimas\serie...
19	DICOM	image-00018.dcm		C:\Users\Renata\Documents\KITA\Tyrimas\serie...
20	DICOM	image-00019.dcm		C:\Users\Renata\Documents\KITA\Tyrimas\serie...

The screenshot shows a 'DICOM FILES INFO' dialog box overlaid on the application interface. The dialog contains a 'Worklist' section with a search bar and a list of DICOM file studies. Below this is a form for entering patient and study information, including fields for Patient ID, Birth date, Last name, First name, Middle name, Prefix, Suffix, Study ID, Date, time, Accession no, and Description. There are also dropdown menus for Sex, Ideographic/Phonetic, and Charset. At the bottom, there are buttons for 'Restore', 'Save', and 'Cancel', and a 'Send' button at the very bottom right.

DICOM FILES INFO

Worklist

DICOM file studies: xxxxxxxxxxxx Pavardenis Vardenis xxxxxxxxxxxx

Patient ID: xxxxxxxxxxxx Sex: Other

Birth date: xxxxxxxxxxxx

Last name: Pavardenis Ideographic: _____ Phonetic: _____

First name: Vardenis

Middle name: _____

Prefix, Suffix: _____

Study ID: xxxxxxxx Charset: Latin alphabet No. 1

Date, time: 2023-10-31 09:04:12 Anonymize:

Accession no: xxxxxxxxxxxx

Description: STUBURAS L/S

Buttons: Restore, Save, Cancel, Send

SendToPACS now has modern, user-friendly design based on the MedDream user interface!

New certification: ISO/IEC 27001:2022

ISO/IEC 27001:2022

Softneta management system is certified in accordance with ISO/IEC 27001:2022 standard.

ISO/IEC 27001 is the world's best-known standard for **information security management systems (ISMS)**.

<https://www.iso.org/standard/27001>

