



LIFEx v6.30

LIFEx application

— LIFEx —

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How to open and view DICOM images



LIFEx version 6.30

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How to open and view Dicom images ?

Pre-requisites :

- Create an account on www.lifexsoft.org
- Install the LIFEx software



To open a Dicom image, drag & drop the folder containing Dicom files in the left panel.

The screenshot displays the LIFEX software interface. On the left, a file browser window titled 'PTMRDemo' shows a folder structure with 'MR_Anonym' and 'PT_anonym' (checked). A red arrow indicates the action of dragging the 'PT_anonym' folder to the 'Drop here' area in the tool palette on the right. The tool palette includes sections for 'Applied to one ROI' (File, Tools, Measure, Draw, Threshold) and 'Applied to all ROI' (Tools). The status bar at the bottom shows 'Directory Preference' and 'Quit' buttons.



Other option: click on Patient icon and on Local Disk or DICOMDIR icon.

The screenshot shows the LIFEX software interface. The title bar reads "Series loading". On the left side, there is a toolbar with several icons; the "Patient" icon (a person with a plus sign) is highlighted with a red box and a mouse cursor. Below the toolbar is a "Nodes" list with two items: "LocalDisk" and "DICOMDIR", both of which are also highlighted with red boxes. Below "LocalDisk" is "LocalHost" and below "DICOMDIR" is "New". At the bottom left, there is a "Status" bar with icons for "Directory Preference" and "Quit". In the main area, there are two filter panels: "Filter (on patient level)" with fields for "Name" and "ID", and "Filter (on study level)" with fields for "Start" and "End", and buttons for "J-2", "J-1", "J", "yest.", and "today". Below these filters are two large empty panels labeled "Studies" and "Series". At the bottom right, there is a "Load" button.



A new window appears: look for the folder containing your Dicom images, click on a Dicom **file** and click on Open.

The screenshot shows the LIFEx software interface. At the top, there are filter boxes for 'Filter (on patient level)' and 'Filter (on study level)'. The main area displays a list of DICOM files under the 'Patients' tab. An 'Open' dialog box is open in the foreground, showing a list of files with their paths. A mouse cursor is pointing to one of the files in the list. At the bottom right of the dialog, there are 'Open' and 'Cancel' buttons, with another mouse cursor pointing to the 'Open' button.

Path: PT_anonym

1.2.840.113619.2.363.688426.1443790727.385801	1.2.840.113619.2.363.688426.1443790727.602956	1.2.840.113619.2.363.688426.1443790727.802079	1.2.840.113619.2.363.688426.1443790727.802079
1.2.840.113619.2.363.688426.1443790727.68131	1.2.840.113619.2.363.688426.1443790727.612095	1.2.840.113619.2.363.688426.1443790727.810857	1.2.840.113619.2.363.688426.1443790727.810857
1.2.840.113619.2.363.688426.1443790727.620703	1.2.840.113619.2.363.688426.1443790727.620703	1.2.840.113619.2.363.688426.1443790727.819610	1.2.840.113619.2.363.688426.1443790727.819610
1.2.840.113619.2.363.688426.1443790727.629577	1.2.840.113619.2.363.688426.1443790727.629577	1.2.840.113619.2.363.688426.1443790727.828380	1.2.840.113619.2.363.688426.1443790727.828380
1.2.840.113619.2.363.688426.1443790727.430336	1.2.840.113619.2.363.688426.1443790727.638082	1.2.840.113619.2.363.688426.1443790727.837011	1.2.840.113619.2.363.688426.1443790727.837011
1.2.840.113619.2.363.688426.1443790727.440705	1.2.840.113619.2.363.688426.1443790727.648455	1.2.840.113619.2.363.688426.1443790727.845537	1.2.840.113619.2.363.688426.1443790727.845537
1.2.840.113619.2.363.688426.1443790727.450636	1.2.840.113619.2.363.688426.1443790727.657114	1.2.840.113619.2.363.688426.1443790727.858256	1.2.840.113619.2.363.688426.1443790727.858256
1.2.840.113619.2.363.688426.1443790727.459879	1.2.840.113619.2.363.688426.1443790727.665913	1.2.840.113619.2.363.688426.1443790727.867126	1.2.840.113619.2.363.688426.1443790727.867126
1.2.840.113619.2.363.688426.1443790727.468090	1.2.840.113619.2.363.688426.1443790727.675011	1.2.840.113619.2.363.688426.1443790727.878538	1.2.840.113619.2.363.688426.1443790727.878538
1.2.840.113619.2.363.688426.1443790727.476499	1.2.840.113619.2.363.688426.1443790727.683445	1.2.840.113619.2.363.688426.1443790727.891205	1.2.840.113619.2.363.688426.1443790727.891205
1.2.840.113619.2.363.688426.1443790727.485008	1.2.840.113619.2.363.688426.1443790727.693958	1.2.840.113619.2.363.688426.1443790727.899677	1.2.840.113619.2.363.688426.1443790727.899677
1.2.840.113619.2.363.688426.1443790727.493610	1.2.840.113619.2.363.688426.1443790727.702736	1.2.840.113619.2.363.688426.1443790727.909604	1.2.840.113619.2.363.688426.1443790727.909604
1.2.840.113619.2.363.688426.1443790727.501741	1.2.840.113619.2.363.688426.1443790727.711595	1.2.840.113619.2.363.688426.1443790727.918431	1.2.840.113619.2.363.688426.1443790727.918431
1.2.840.113619.2.363.688426.1443790727.509880	1.2.840.113619.2.363.688426.1443790727.720343	1.2.840.113619.2.363.688426.1443790727.927082	1.2.840.113619.2.363.688426.1443790727.927082
1.2.840.113619.2.363.688426.1443790727.518019	1.2.840.113619.2.363.688426.1443790727.728880	1.2.840.113619.2.363.688426.1443790727.939299	1.2.840.113619.2.363.688426.1443790727.939299
1.2.840.113619.2.363.688426.1443790727.527838	1.2.840.113619.2.363.688426.1443790727.737820	1.2.840.113619.2.363.688426.1443790727.948195	1.2.840.113619.2.363.688426.1443790727.948195
1.2.840.113619.2.363.688426.1443790727.535905	1.2.840.113619.2.363.688426.1443790727.746611	1.2.840.113619.2.363.688426.1443790727.957031	1.2.840.113619.2.363.688426.1443790727.957031
1.2.840.113619.2.363.688426.1443790727.548872	1.2.840.113619.2.363.688426.1443790727.756214	1.2.840.113619.2.363.688426.1443790727.965685	1.2.840.113619.2.363.688426.1443790727.965685
1.2.840.113619.2.363.688426.1443790727.559568	1.2.840.113619.2.363.688426.1443790727.765071	1.2.840.113619.2.363.688426.1443790727.974176	1.2.840.113619.2.363.688426.1443790727.974176
1.2.840.113619.2.363.688426.1443790727.570652	1.2.840.113619.2.363.688426.1443790727.775486	1.2.840.113619.2.363.688426.1443790727.984248	1.2.840.113619.2.363.688426.1443790727.984248
1.2.840.113619.2.363.688426.1443790727.581661	1.2.840.113619.2.363.688426.1443790727.784237	1.2.840.113619.2.363.688426.1443791317.939268	1.2.840.113619.2.363.688426.1443791317.939268
1.2.840.113619.2.363.688426.1443790727.592670	1.2.840.113619.2.363.688426.1443790727.793033	1.2.840.113619.2.363.688426.1443791317.969828	1.2.840.113619.2.363.688426.1443791317.969828

File name: 1.2.840.113619.2.363.688426.1443790727.385801

File type: All Images (dcm, tiff, jpg, png, bmp), not DICOMDIR

Open Cancel



The image description appears, select the series and click on the bottom icon (here PT).

Protocol: LIFEx

Series loading

Filter (on patient level)

Name :

ID :

Filter (on study level)

Start:

End:

 yest. today

Nodes

Patients

Nom	ID	Date o...
LIFExPTMRDemo	LIFExPT...	

LocalDisk

DICOMDIR

LocalHost

New

Drag images

Drop here

from Files: .dcm, .mri, DICOMDIR (alone), from dir

Status

Directory Preference Quit

Studies

ID	Description	Date	InstanceUID
31		02/10/2015	1.2.840.113619.6.363.32106440

Series

N°	Description	Modality	nb imgs	InstanceUID
5	Head to Thighs 3D MAC	PT		1.2.840.113619.2.363.3



The Dicom images is displayed in
- three new windows since volume
- a new windows if 2D image.

Cor: LIFEx - Cor

SIGNA PET/MR
Ex:31
Head to Thighs 3D MAC
Y: 96 pi,
HFS
Head to Thighs 3D MAC, (96, 96, 207)=1.43 SUV
Acc:
02/10/15
15:21:55(SUV)

LIFE:PTMRDemo
LIFE:PTMRDemo
M 54Y 66.0 Kg
LIFE:PTMRDemo
Z: 207 pi,
HFS
Acc:
02/10/15
15:21:55

alpha(%)
100

Activity (SUV)
29.80

Actual Frame Duration: 240000 ms
Radionucleide Total Dose:258000 kBq
Radiopharmaceutical Start Time:11:48:00
Radionucleide Half Life:109.7 min
W:11.802 L:5.901

Mag: x0.3
2.7 thk/0.0 sp
zip: 414 x 192 pi
DFOV: 129.3 x 60.0 cm
vx:3.1x3.1x2.7mm=27.0mm3

Ax: LIFEx - Ax

SIGNA PET/MR
Ex:31
Head to Thighs 3D MAC
Z: 207 pi,
HFS
Acc:
02/10/15
15:21:55

LIFE:PTMRDemo
LIFE:PTMRDemo
M 54Y 66.0 Kg
LIFE:PTMRDemo
Z: 207 pi,
HFS
Acc:
02/10/15
15:21:55

alpha(%)
100

Actual Frame Duration: 240000 ms
Radionucleide Total Dose:258000 kBq
Radiopharmaceutical Start Time:11:48:00
Radionucleide Half Life:109.7 min
W:11.802 L:5.901

Mag: x1.7
2.7 thk/0.0 sp
zip: 192 x 192 pi
DFOV: 60.0 x 60.0 cm
vx:3.1x3.1x2.7mm=27.0mm3

Sag: LIFEx - Sag

SIGNA PET/MR
Ex:31
Head to Thighs 3D MAC
X: 96 pi,
HFS
Head to Thighs 3D MAC, (96, 269, 119)=0.42 SUV
Acc:
02/10/15
15:21:55(SUV)

LIFE:PTMRDemo
LIFE:PTMRDemo
M 54Y 66.0 Kg
LIFE:PTMRDemo
Z: 207 pi,
HFS
Acc:
02/10/15
15:21:55

alpha(%)
100

Actual Frame Duration: 240000 ms
Radionucleide Total Dose:258000 kBq
Radiopharmaceutical Start Time:11:48:00
Radionucleide Half Life:109.7 min
W:11.802 L:5.901

Mag: x0.3
2.7 thk/0.0 sp
zip: 414 x 192 pi
DFOV: 129.3 x 60.0 cm
vx:3.1x3.1x2.7mm=27.0mm3

Applied to one ROI:

File: Load, Save, Delete
Tools: New, Empty, CheckTex
Measure: Max, Angle, Dist
Draw: Circle3D, 2D, Circle2D, Click
Threshold: n, 40%, Nestle

Applied to all ROI:

Tools: Hide, Show, Sort

Drag ROIs
Drop here

from files:
- nii
- nii.gz
- RTSSTRUCT

Status

Success loading
Series PT: end of loading

Directory Preference Quit



To change the look up table, click between the eye icon and the name of image file, and select a color map.

The screenshot displays a medical imaging software interface with three main windows showing PET/CT scans in Coronal (Cor), Axial (Ax), and Sagittal (Sag) views. A dialog box titled "Choose the color map ?" is open, showing a vertical color bar with a mouse cursor pointing to the rainbow color map. The interface includes a top toolbar with icons for Patient, Film, Panel, and L1. A left sidebar contains a file list with a red box highlighting the file name "01_PET TAP 618SG5" and a mouse cursor pointing to it. A right sidebar contains toolbars for "Applied to one ROI" and "Applied to all ROI". The status bar at the bottom shows "Success loading" and "Series PT: end of loading".

Protocol: LIFEX

Cor: LIFEX - Cor

SIGNA PET/MR
Ex:31
Head to Thighs 3D MAC
Y: 96 pi,
HFS
Head to Thighs 3D MAC, (26, 96, -2)=0.00 SUV
Acc:
02/10/15
15:21:55 (SUV)
alpha(%)
100

LIFE:PTMRDemo
LIFE:PTMRDemo
M 54Y 86.0 Kg
LIFE:PTMRDemo

Ax: LIFEX - Ax

SIGNA PET/MR
Ex:31
Head to Thighs 3D MAC
Z: 207 pi,
HFS
Head to Thighs 3D MAC, (1, 48, 207)=0.00 SUV
Acc:
02/10/15
15:21:55

Sag: LIFEX - Sag

SIGNA PET/MR
Ex:31
Head to Thighs 3D MAC
X: 96 pi,
HFS
Head to Thighs 3D MAC, (96, 53, 392)=0.01 SUV
Acc:
02/10/15
15:21:55 (SUV)
alpha(%)
100

LIFE:PTMRDemo
LIFE:PTMRDemo
M 54Y 86.0 Kg
LIFE:PTMRDemo

Actual Frame Duration: 240000 ms Mag: x0.3
Radionuclide Total Dose:258000 kBq 2.7 thk/0.0 sp
Radiopharmaceutical Start Time:11:48:00 zip: 414 x 192 pi
Radionuclide Half Life:109.7 min DFOV: 129.3 x 60.0 cm
W:11.802 L:5.901 vx:3.1x3.1x2.7mm=27.0mm3

Actual Frame Duration: 240000 ms Mag: x0.3
Radionuclide Total Dose:258000 kBq 2.7 thk/0.0 sp
Radiopharmaceutical Start Time:11:48:00 zip: 414 x 192 pi
Radionuclide Half Life:109.7 min DFOV: 129.3 x 60.0 cm
W:11.802 L:5.901 vx:3.1x3.1x2.7mm=27.0mm3

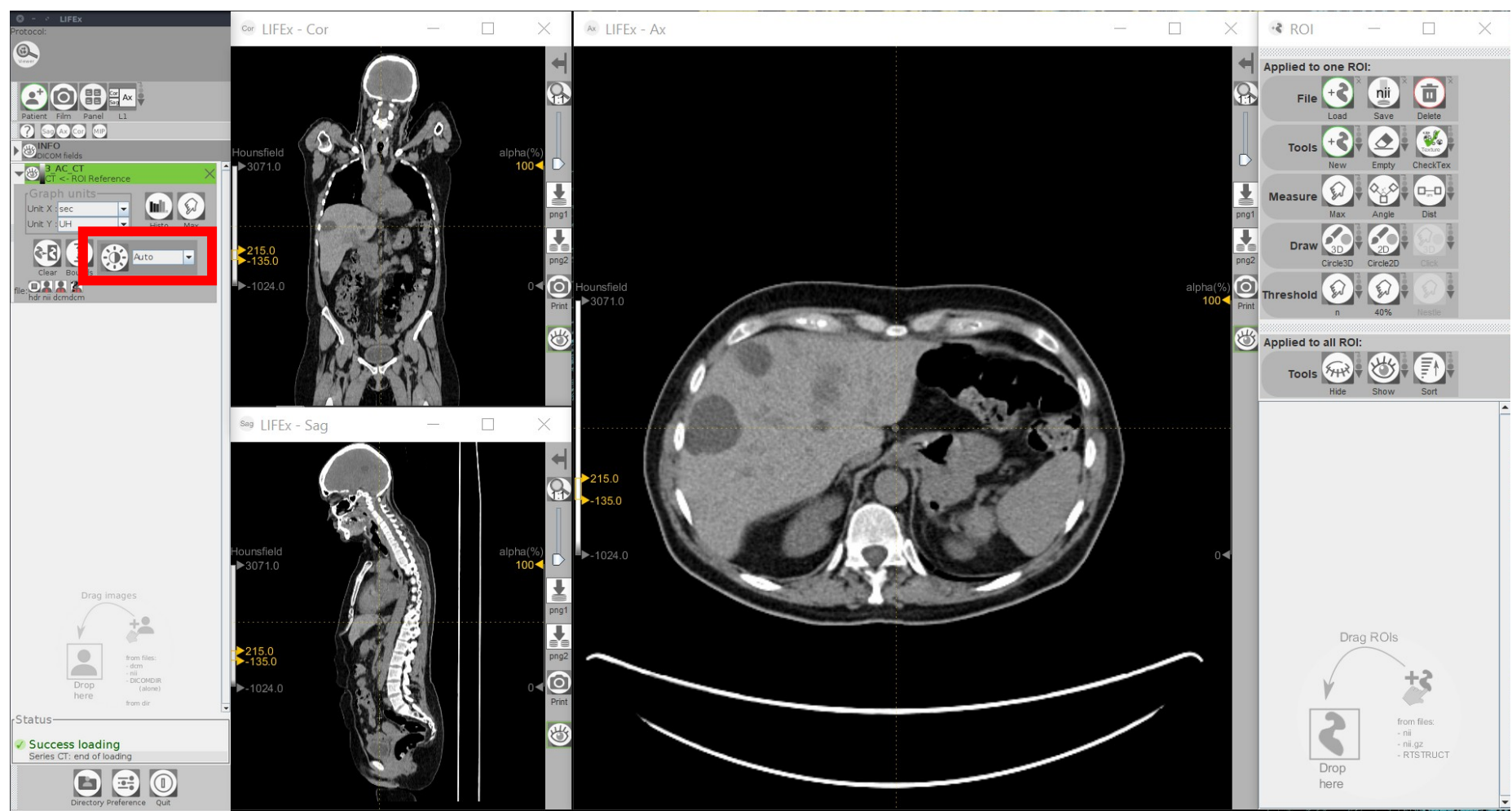
Actual Frame Duration: 240000 ms Mag: x1.7
Radionuclide Total Dose:258000 kBq 2.7 thk/0.0 sp
Radiopharmaceutical Start Time:11:48:00 zip: 192 x 192 pi
Radionuclide Half Life:109.7 min DFOV: 60.0 x 60.0 cm
W:11.802 L:5.901 vx:3.1x3.1x2.7mm=27.0mm3

Drag ROIs
Drop here

from files:
- nii
- nii.gz
- RTSTRUCT



For CT images, display parameters are automatically set. Click here to choose the most appropriate display window.





Click on the "hdr" icon to view the Dicom header.

The screenshot displays a medical imaging software interface with several key components:

- Top Panel:** Shows patient information: **SIGNA PET/MR Ex:31**, **LIFE:PTMRDemo**, **Head to Thighs 3D MAC**, **M 54 Y 66.0 Kg**, **LIFE:PTMRDemo**, **Z: 207 pi**, **HFS**, **Head to Thighs 3D MAC, (-67, 96, 87)=0.35 SUV**, **Acc: 02/10/15 15:21:55**, **alpha(%) 100**.
- Central View:** A PET scan image with a red ROI box. A **alpha(%) 100** slider is visible on the right.
- Left Panel:** Contains navigation and tool icons. The **hdr** icon is highlighted with a red box.
- Bottom Panel:** Displays technical parameters for the scan:
 - Actual Frame Duration: 240000 ms**
 - Mag: x0.3**
 - Radiionuclide Total Dose: 258000 kBq**
 - Radiopharmaceutical Start Time: 11:48:00**
 - Radiionuclide Half Life: 109.7 min**
 - W: 11.802 L: 5.901**
 - vx: 3.1x3.1x2.7mm=27.0mm3**
- Right Panel:** Shows **Applied to one ROI:** and **Applied to all ROI:** toolbars with icons for File, Tools, Measure, Draw, Threshold, and other functions.
- Bottom Right:** A **Drop here** area for ROIs, with a note: **from files: - nii - nii.gz - RTSTRUCT**.



Click on the eye icon to mask Dicom information on the image display.

The screenshot displays a medical imaging software interface with three main view windows: Cor LIFeX - Cor, Ax LIFeX - Ax, and Sag LIFeX - Sag. Each view shows a PET scan of a human body with activity levels (SUV) and alpha (%) indicators. The Cor view shows a full-body scan with activity levels of 29.80, 11.80, and 0.00. The Ax view shows a cross-section of the body with activity levels of 29.80, 11.80, and 0.00. The Sag view shows a side view of the body with activity levels of 29.80, 11.80, and 0.00. A sidebar on the right contains various tools and options, including 'Applied to one ROI', 'Applied to all ROI', and 'Drag ROIs'. The status bar at the bottom indicates 'Success loading' and 'Series PT: end of loading'.



CTRL + left click to move the images.

The screenshot displays the LIFEX software interface with three main image windows: 'LIFEx - Cor' (top), 'LIFEx - Ax' (right), and 'LIFEx - Sag' (bottom). Each window shows a PET scan image with a vertical 'Activity (SUV)' scale on the left (0.00, 11.80, 29.80) and an 'alpha(%)' slider on the right (0, 100). The interface includes a top toolbar with icons for Patient, Film, Panel, and L1. A left sidebar contains an 'INFO' section with patient details and a 'Graph units' section. A bottom-left status bar shows 'Success loading' and 'Series PT: end of loading'. A right-hand panel titled 'ROI' contains sections for 'Applied to one ROI' and 'Applied to all ROI', each with various tool icons like File, Tools, Measure, Draw, and Threshold. A 'Drag ROIs' section at the bottom of the right panel shows a 'Drop here' area with a plus sign icon.





Click on the arrow to move the visualization window.

The screenshot displays the LIFEX software interface with several windows and panels:

- Protocol Panel (Left):** Shows patient information: "2001_PET TAP 6185G5" and "PT <- ROI Reference". It includes a "Graph units" section with "Unit X: sec" and "Unit Y: SUV", and a "Status" section showing "Success loading" and "Series PT: end of loading".
- LIFEX - Cor (Top Left):** A coronal PET scan window. A red square highlights a right-pointing arrow on the right side of the window. Below the scan, a graph shows "Activity (SUV)" with values 29.80, 11.80, and 0.00, and "alpha(%)" with values 100 and 0.
- LIFEX - Ax (Center):** An axial PET scan window showing a cross-section of the brain with a central dark spot. A graph on the right shows "Activity (SUV)" with values 29.80 and 11.80, and "alpha(%)" with values 100 and 0.
- LIFEX - Sag (Bottom Left):** A sagittal PET scan window. A graph on the left shows "Activity (SUV)" with values 29.80, 11.80, and 0.00, and "alpha(%)" with values 100 and 0.
- ROI Panel (Right):** A control panel for Regions of Interest (ROIs). It includes sections for "Applied to one ROI:" and "Applied to all ROI:", each with various tool icons like "File", "Tools", "Measure", "Draw", and "Threshold". At the bottom, there is a "Drag ROIs" section with a "Drop here" area and a list of supported file formats: ".nii", ".nii.gz", and ".RTSTRUCT".



Click on X to close image.

The screenshot displays a medical imaging software interface with the following components:

- Top-Left Panel:** Contains a 'Viewer' logo and a red box highlighting a close button (X) next to the text '2001_PET_TAP_618SG5 PT <- ROI Reference'.
- Top-Cor View:** Labeled 'Cor LIFEx - Cor', showing a coronal PET scan of a human torso. Activity (SUV) values are shown as 11.80 and 0.00. An alpha(%) slider is set to 100.
- Top-Ax View:** Labeled 'Ax LIFEx - Ax', showing an axial PET scan of a human head. Activity (SUV) values are shown as 11.80 and 0.00. An alpha(%) slider is set to 100.
- Bottom-Sag View:** Labeled 'Sag LIFEx - Sag', showing a sagittal PET scan of a human torso. Activity (SUV) values are shown as 11.80 and 0.00. An alpha(%) slider is set to 100.
- Right Panel:** Contains toolbars for 'Applied to one ROI' and 'Applied to all ROI', with various icons for file operations, tools, measurement, drawing, and thresholding.
- Bottom-Left Panel:** Includes a 'Status' section with a green checkmark and the text 'Success loading Series PT: end of loading', and buttons for 'Directory Preference' and 'Quit'.



If you have questions, please read the online documentation:
<http://www.lifexsoft.org/index.php/resources/documentation>

or contact us: contact@lifexsoft.org