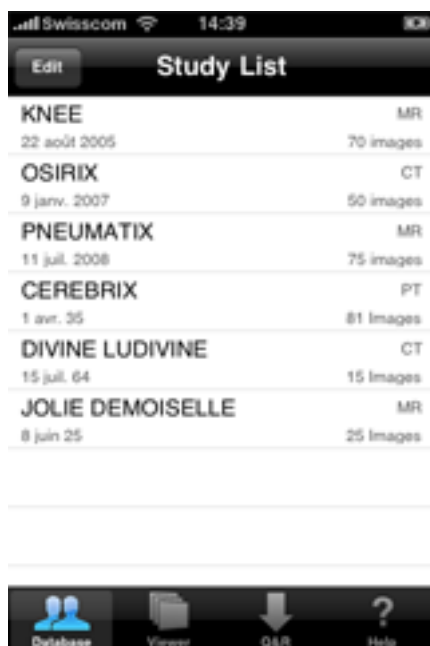


User Manual

Database



The Database button displays the list of studies stored locally on the iPhone.



Tap on any of them to display the list of Series it contains.

In the Series list, tap a thumbnail to load the Series in the Viewer. The loaded Study/Series will appear in the database with a little blue viewer icon, making it easier to locate.



Adding Images

To add images please refer to the Images Transfers section.

Limitations

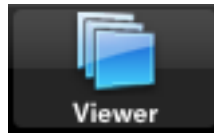
OsiriX cannot display images greater than 1024x1024 pixels.

To display Black & White images with one dimension greater than 1024 pixels, OsiriX will resize the image to make it smaller than 1024. In that case, OsiriX will display the following warning message:



Image NOT at full resolution.

RGB images with one dimension greater than 1024 pixels are not supported and will not be imported in the database.

Viewer



Here is a quick description of the Viewer features:

- The toolbar, located on the top, contains:
 - Window level/width presets for CT (Abdomen, Bones, Brain, Lungs and Full Dynamic). 
 - The tools: image manipulation, length measurement and area measurement.
 - Shutter button. This button saves the image in your Photo album. The image created is a snapshot of the screen with measurements, annotations, etc. This image can then be sent by e-mail. 



- The image view area contains several labels: Patient Name, Series Description, Window Level & Width, Zoom factor, Angle of rotation.
Note: tap on any label to lock the setting to the current value (lock the rotation to 0° for example). Locked label are gray, unlocked ones are white.
- A slider at the bottom of the image to scroll through the image stack.
- Two arrow buttons at the extremities of the slider to go to next/previous image. If you keep your finger pressed on these buttons it will continuously scroll through the stack (cine mode).

Image Manipulation



The image manipulation tool allows you to change the window level and width, zoom in and out, rotate and pan the image. This tool is selected by default.

With one finger, you can:

- Change the window level, by moving vertically.
- Change the window width, by moving horizontally.
- Pan the image (*Only if the wl/ww label is locked*)
- Double tap to toggle the zoom level between 100% and fit-to-screen.
- Swipe left/right to go to previous/next Series.

With two fingers, you can:

- Pinch to zoom in and out.
- Rotate the image (*if the angle label is unlocked - which is the default*).
- Pan the image.

Measurements



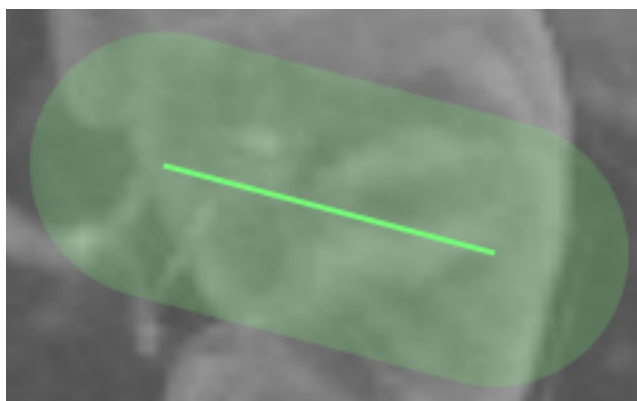
Two different tools are available: length and area.

- The length measurement tool:
Define a line between your 2 fingers. Once the line has been created you can refine it by simply moving its extremities, or move it (if you grab it by its center).

- The area measurement tool:
Define a circle between your 2 fingers. Once the circle has been created you can move it with one finger.

For both tools:

- When you tap on a measurement, a colored area appears around it. This is the area where you can place your finger to manipulate it.
- You can double tap anywhere (but not on the measurement) with one finger to erase it (and then start over).



When you use these tools, an information bubble appears. This bubble displays the data of your measurement (such as length, area, mean, standard deviation, min and max values). You can move this bubble using one finger and minimize it with a double tap (single tap on the mini-bubble to maximize it).

Area: 1.93 cm²
Mean: 286.96 SDev: 30.46
Min: 145.00 Max: 404.00

To change the color of the measurements, see the Settings section.

Images Transfers

OsiriX being a DICOM compliant device, all transfers are done through the DICOM protocol.

In order to add your device to an existing DICOM network, you will need:

- A DICOM network accessible through WiFi
- Your device to be able to connect to the same WiFi network

Once your device is connected to the WiFi network, you will need to declare it as a DICOM node on the DICOM network. If you have a Mac running OsiriX 3.3 (or higher), you can directly go to Connecting to the Mac. Otherwise, you will need to get the following informations and ask your network manager to add your device to the DICOM network:

- IP address
- Listener AETitle
- Listener Port

These informations are available in the "Q&R" tab of OsiriX:



Once the device is declared as a DICOM node, it can receive images from other DICOM workstations on the network. Of course, OsiriX needs to be launched on the iPhone in order to listen to incoming DICOM communications.

Standard DICOM Query and Retrieve

DICOM Q&R configuration

OsiriX supports the standard DICOM Query and Retrieve protocol. This feature allows you to search for and retrieve images from a PACS server or a DICOM-compliant Workstation from your iPhone and directly download them to OsiriX database on your iPhone.

To enable this feature, you will need to specify a new "DICOM Server" (such as a PACS Server) in your DICOM Q&R list.

First you will need to ask you PACS or IT manager the following informations about the DICOM Server you want to connect to:

- The server's IP address,
- the port number it uses for DICOM communications
- and its AETitle.

To add the new DICOM server to your list, proceed as follows:

- Tap on the Q&R button of the tab bar
- Tap on the "Edit" button (upper left corner)
- Tap on "Add new Node" in the "DICOM Query & Retrieve Servers" section or on the green "plus" button.
- Enter all the parameters of the server (Address, Port and AETitle as described above). The "description" field can be anything understandable.
- Tap "Save"
- Tap "Done": Your new server is now in the list!

DICOM Q&R usage

You can now select the DICOM server that was added to the list. On the next screen you will be able to set the search criteria (filter) for retrieving the images you want from the remote server or workstation. The fields that can be used for search criteria are:

- the patient's name

- the accession number
- the patient's birth date
- the modality
- the acquisition date

You can fill multiple criteria for more selective search.

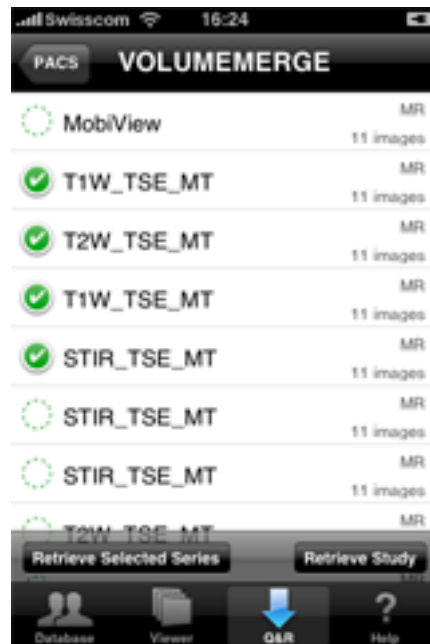


Then tap the "Query" button in the lower right corner. The result of your search will be displayed as a list of studies.



To retrieve a particular Study, select it in the list and tap the "Retrieve Study" button located in the lower right corner.

To retrieve one or more Series of a Study, select the Study from the list and then select the Series (a green check mark will be displayed) and tap the "Retrieve Selected Series".



The new images will progressively be transferred and added to your local database (tap the "Database" tab to select them for display).

Connecting to the Mac

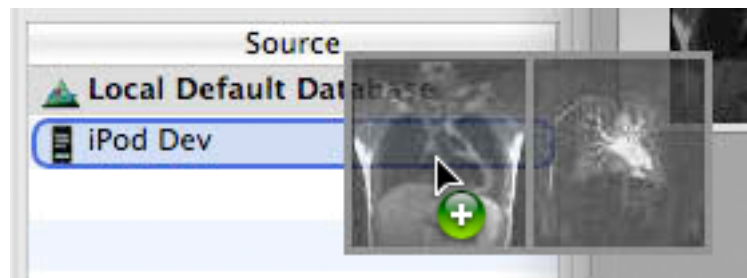
On the Mac, things are easier if you are using OsiriX 3.3 (or higher).

Sending images from the Mac to the iPhone

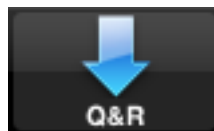
To send images from your Mac:

- Make sure that the Mac and the iPhone are on the same WiFi network (same sub-net).
- On the Mac: Turn on "Search for other DICOM Nodes over Bonjour" (in OsiriX > Preferences > Locations).
- On the iPhone: Turn on Bonjour (in Settings > OsiriX).

When OsiriX is open on your iPhone, it will appear in the "Sources" list of OsiriX on the Mac. To send images, you simply have to drag and drop them on the device in this list.



Requesting images from the Mac on the iPhone



From the "Q&R" tab, you can directly ask your Mac to send you images:

- Make sure that the Mac and the iPhone are on the same WiFi network (same sub-net).
- On the Mac: Turn on "Activate the HTTP Web Server" (in OsiriX > Preferences > Listener).
- On the iPhone: Turn on Bonjour (in Settings > OsiriX).

The go to the "Q&R" tab of OsiriX on the iPhone. Your Mac will appear in the servers list.



If your Mac is not on the same subnet, you can still add it manually using the "Edit" button of the "Q&R" interface.

Once you get your Mac on the list, select it and you will be able to remotely browse the content of it's OsiriX database and transfer images that you need.



Search and browse the remote database.



Navigate to the Study level and select the Series that you want to transfer to your iPhone.



Tap the "Send" button to trigger a DICOM send from the Mac workstation to your iPhone.

Limitations

When you send images to your iPhone, you should keep in mind that:

- WiFi transfers on the iPhone are not fast...

- The device resources (CPU, memory and storage) are limited. It is not a workstation.
- Each time you sync your iPhone with your computer, iTunes makes a back up of it. The more images you have on the device, the slower the back up will be.

Settings

The settings of OsiriX can be found in the "Settings" application of your iPhone/iPod.



It contains the following options:

- Listener AETitle & Port. This is where you can change these informations. These are capital settings if you want to receive images from a DICOM Workstation.
- Bonjour publishing (On/Off). Allows the device to automatically appear in OsiriX on the Mac.
- ROI color. Allows you to choose the colors of the measurements.
- Snapshot. You can turn on or off this feature. You can also choose to see or hide the Patient Name in the snapshots.
- User Manual (On/Off): if you turn it off, this Manual will not appear in OsiriX (but you can turn it on at any time).



More

If you can't find the answer to a question in this Manual, please e-mail us at:

iphone@osirix-viewer.com