

# CreateROIMask: an Osirix Plugin

## Introduction

This Osirix plugin “CreateROIMask” converts rois\_series files into 3 dimensional mask saved with the Analyze format.

## Installation requirements:

-MacOS X 10.5 Leopard.

-Osirix. To download Osirix go to <http://www.osirix-viewer.com/Downloads.html>.

This plugin has been tested for Osirix v.3.3.2 32-bit.

## Installation

Double-click the plugin icon and OsiriX will install it for the current user.

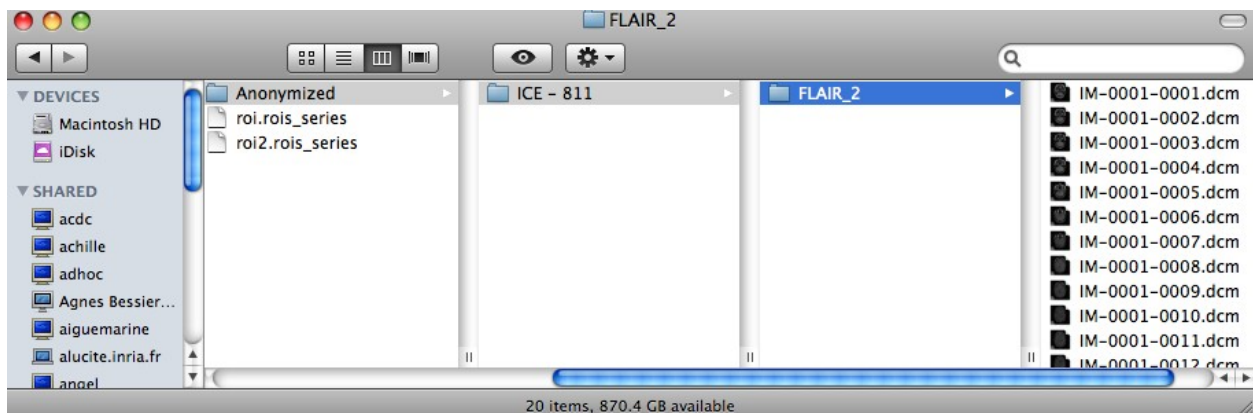
## Use

### 1. Organize the data

1. In the case you have folders with rois\_series files and dcm files

For each mask that you want to generate, create a new directory *dir* containing:

- the rois\_series files to use to create the mask.
- a sub directory *dcm* containing the dicom series used to create the masks. It can be a succession of sub directories: a sub directory, containing another sub directory... with dicom files in the last subdirectory.

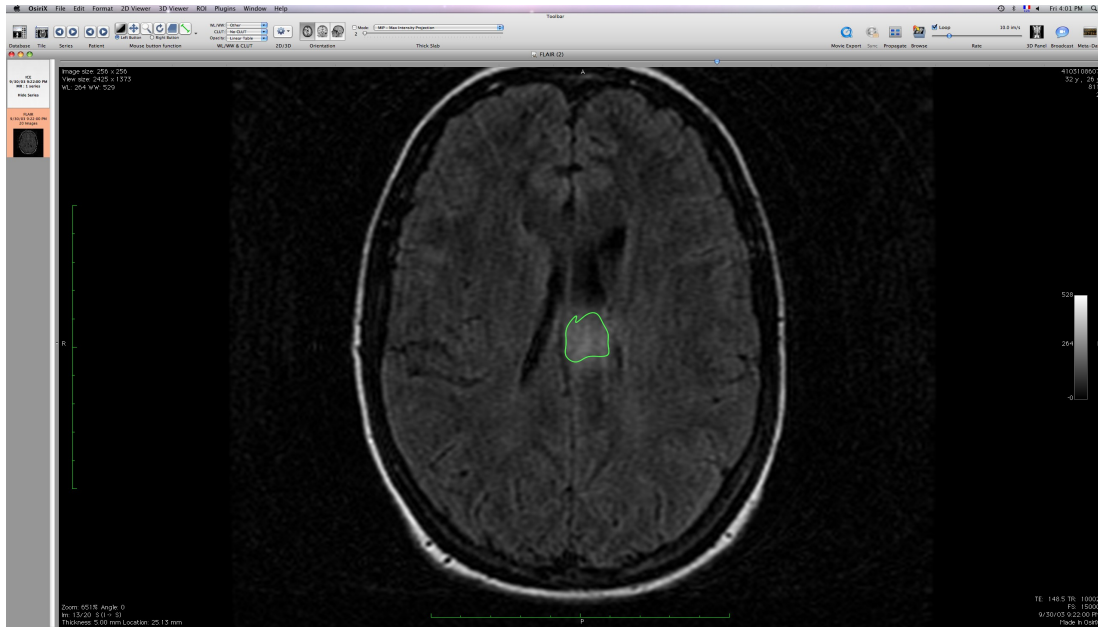


*Folders organization*

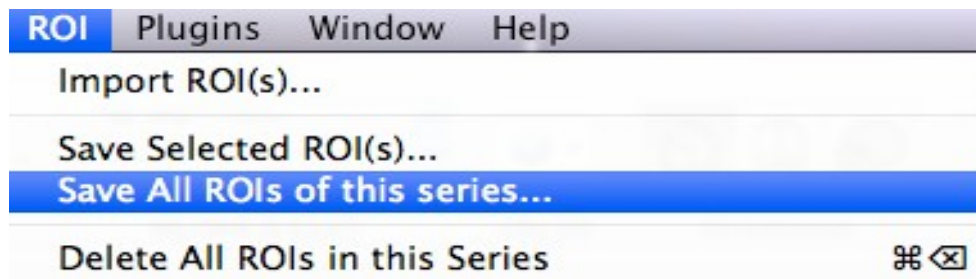
2. In the case you have data with ROI(s) in the Osirix database

For each mask that you want to create, corresponding to one series of images:

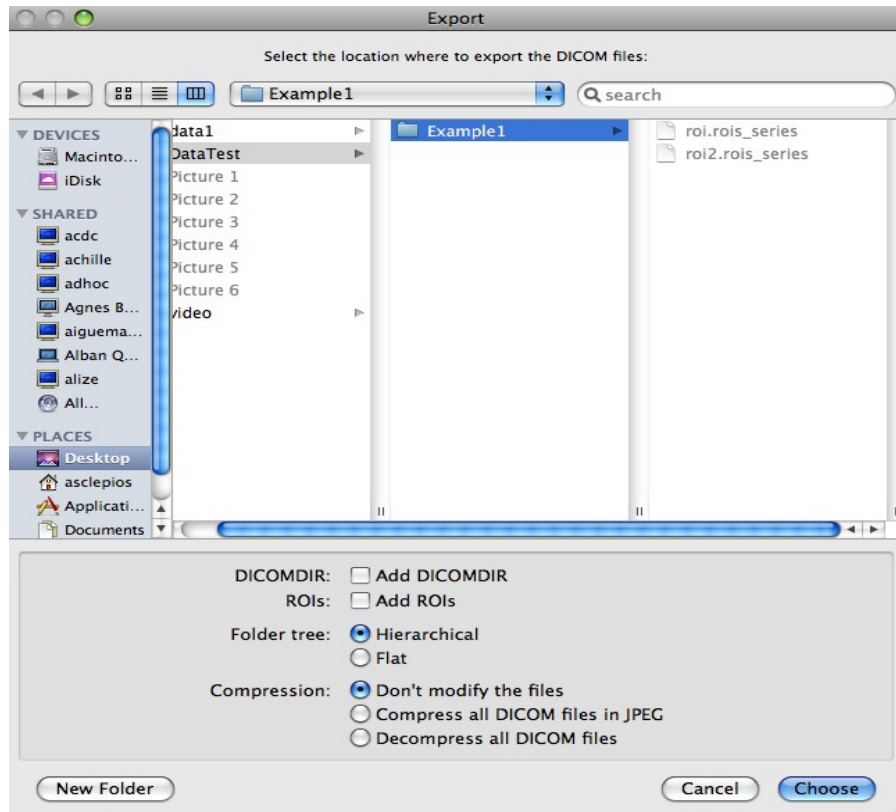
- open the series
- save all the ROIs of the series in a new folder *dir* (Menu->ROI->Save all the ROIs of this series...)
- export the series in the folder *dir* (Button “Export” or Menu->File->Export->Export to DICOM file(s)) without adding ROIs.



*Visualization of the series with ROI(s)*



*Save all the ROIs in a rois\_series file*



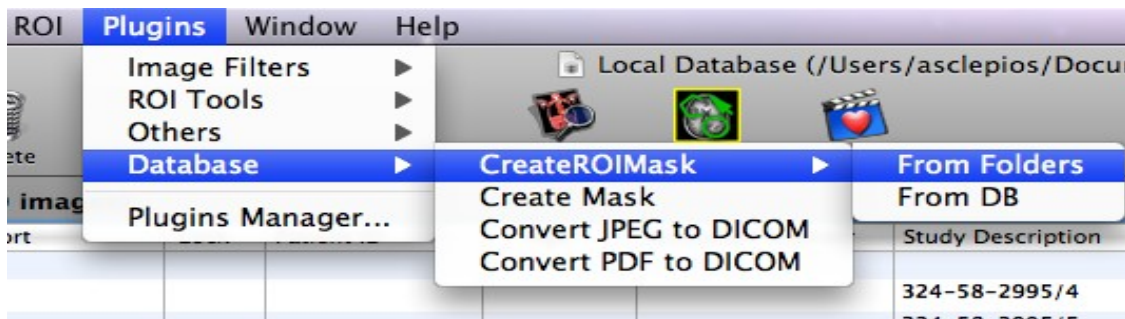
*Export the DICOM files (without ROIs)*

## 2. Run the plugin

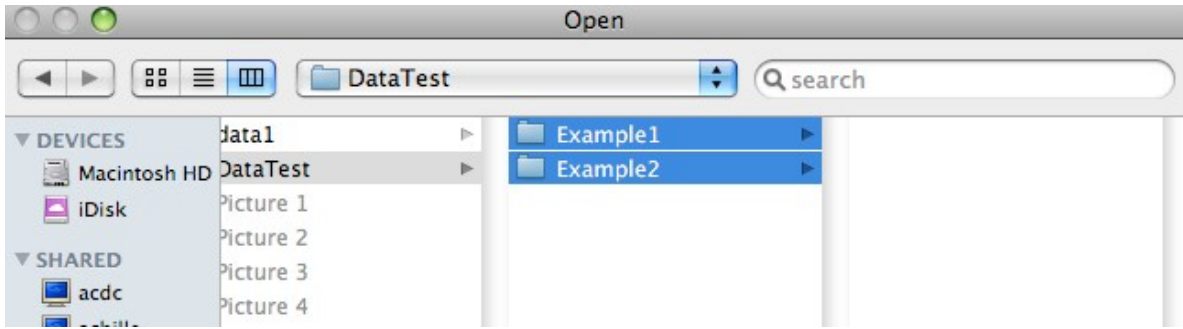
- Run Osirix
- Click in the menu on “Plugins->Database->CreateROIMask->From Folders”.
- A panel appears: select the directories where are located the rois\_files to convert. Press the “Ok” button. Be careful, the dicom directory must only contains dicom files (no hidden files), if it is not the case some errors could occur.
- The process starts.
- A final message will pop up to indicate if any errors occurred.

For more details about how to run the plugin, please read the Example documentation.

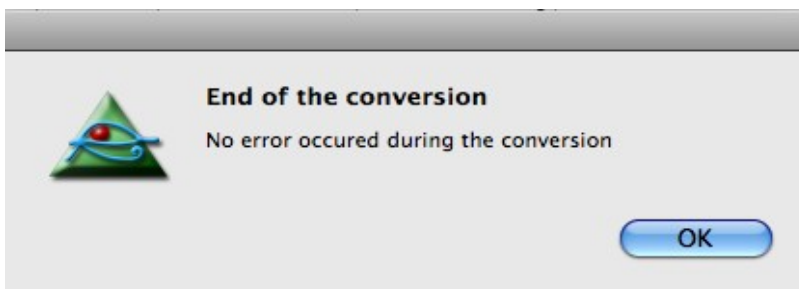
If you want to see the Log messages (and error messages), you can launch the Console application (that you can find in Applications/Utilities) while working with Osirix.



*Run the plugin CreateROIMask “From Folders”*



Select directories containing the rois\_series and DICOM files



End of the conversion

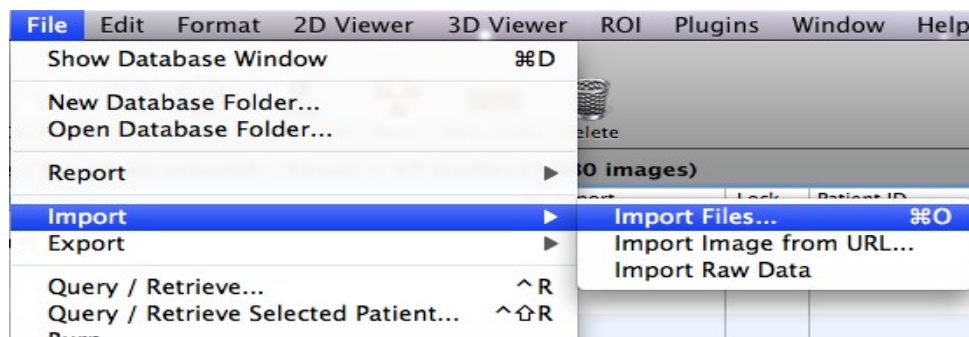
### 3. Results

For each selected directory, the process will create a 3 dimensional mask using the same dimensions than the dicom series (volume dimensions and voxel dimensions). The created mask is a black volume containing white ROIs corresponding to the ROIs saved in the rois\_series files. This mask will be saved in Analyze format in the files *dir/dcm.hdr* and *dir/dcm.img* (*dir*: the name of the directory containing the rois\_series files, *dcm*: the name of the sub directory containing the dicom).

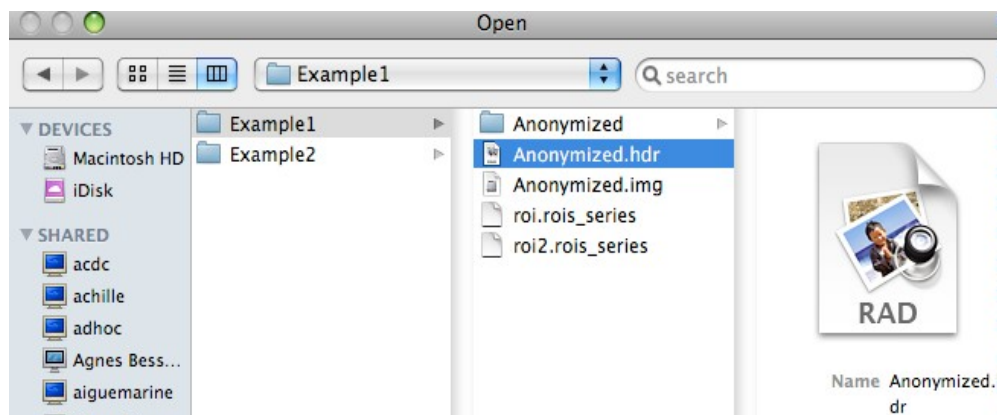
If the directory does not contain any rois\_series files, nothing happens.

Careful: if the directory *dir* already contains a *dcm.hdr* and *dcm.img* files, they will be replaced!

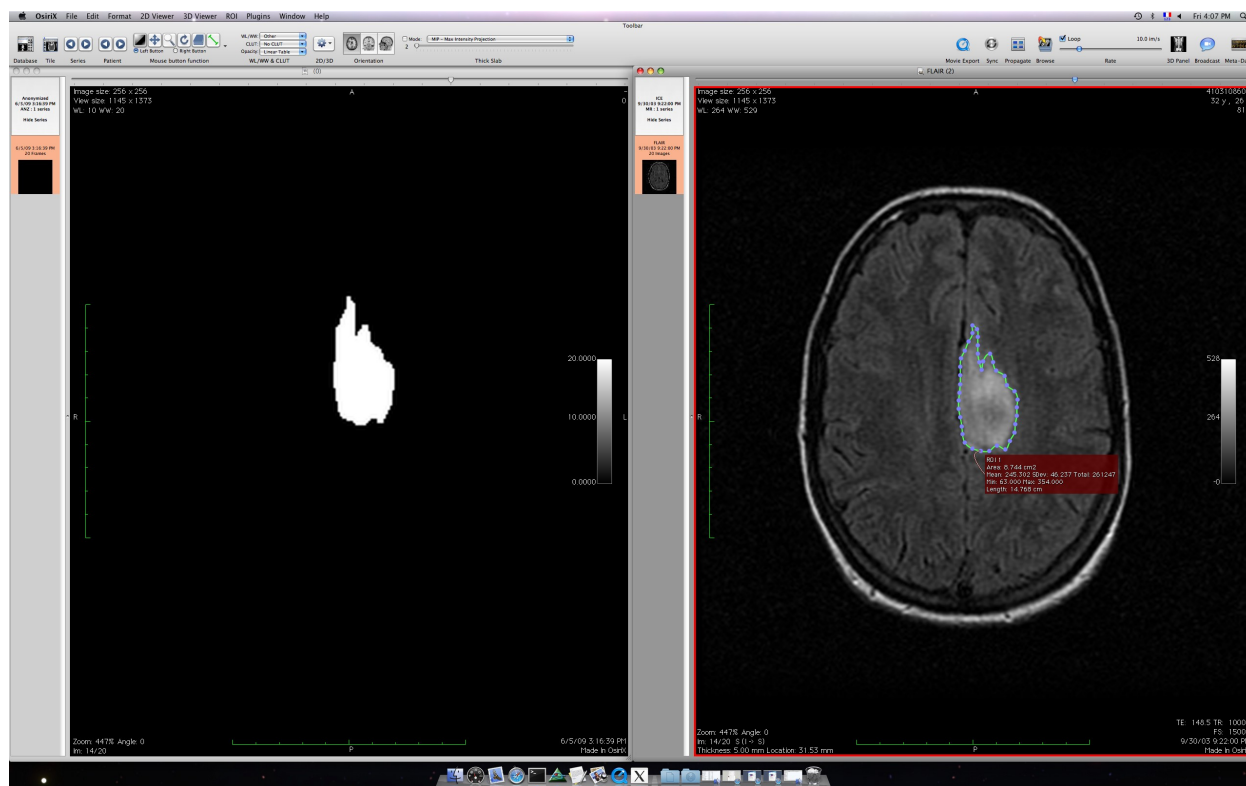
You can visualize the result in Osirix by importing it: click on “import”, select the .hdr: the mask will be added to your database.



## Import the results



*Select the .hdr created during the conversion*



*Visualize the results: on the left the created mask, on the right the dicom with the ROI*

## Contact

This plugin has been created by Aurelie Canale – Asclepios team – INRIA Sophia-Antipolis. To have any further information you can send an email to the mailing list [osirixplugin-commits@lists.gforge.inria.fr](mailto:osirixplugin-commits@lists.gforge.inria.fr).