

UNIVERSITY OF CRETE
DEPARTMENT OF COMPUTER SCIENCE

Multimedia Technology

Spring 2018

2nd assignment

A sequence of 30 MRI images is given in a three-dimensional array. The duration of the sequence is assumed to be one minute, approximately as the duration of the cardiac cycle. In order to obtain a smooth rendering, it is proposed to linearly interpolate 3 image frames between two given frames. The total number of image frames resulting is 120 with a time period of 0.5 seconds. You are then asked to create an animated GIF file. To this end it will be required to limit the number of image values to 256 (8 bits), with linear transformation, and create the necessary look-up table. Give the result in a web page. Also convert the animated GIF file in MP4 video file and visualize it in the same page as `<video>` (HTML5). Compare the two visualization modes. Give in the same webpage a report of the algorithmic steps.

Matlab function : *imwrite*

Image sequence data :

<http://www.csd.uoc.gr/~hy474/data/cardia.mat>