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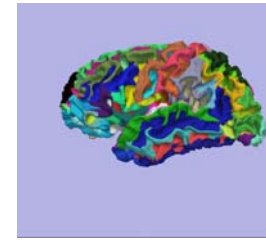
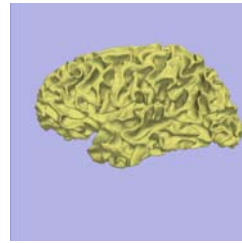
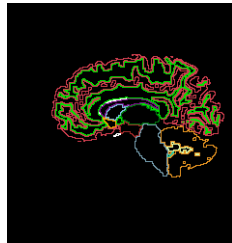
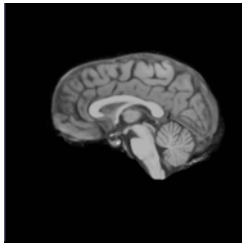
HST.583 Functional Magnetic Resonance Imaging: Data Acquisition and Analysis  
Fall 2008

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# The life cycle of Medical Imaging Data

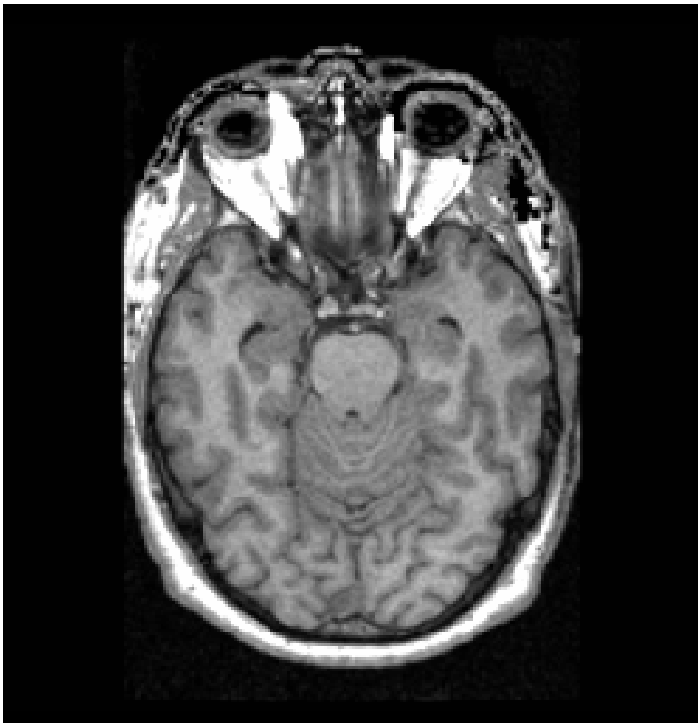
## *Course Report*

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# Question 1

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The size of a file containing an uncompressed 256x256 image of short data is 145408 bytes. Where are the pixel data located and how do you access them ?

# Question 2

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A header file contains the following information:

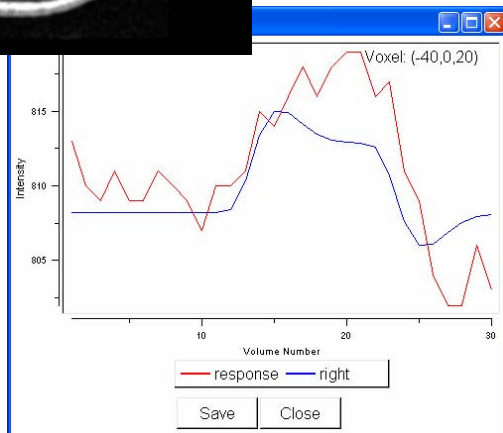
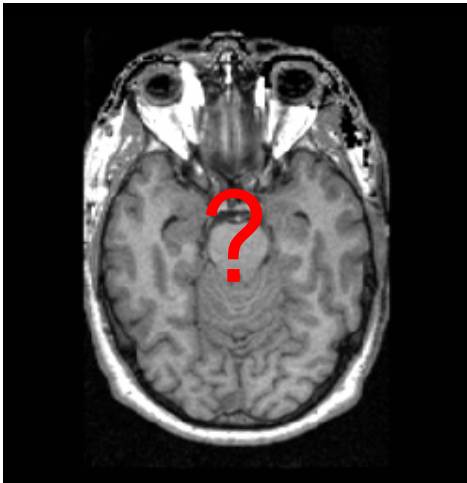
Datatype = short

Bits stored = 11

Highest bit = 15

Describe how an image reader would read a single pixel value.

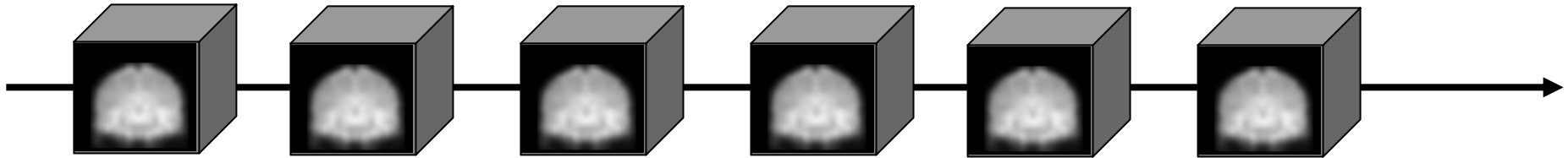
# Question 3



What areas in the brain are expected to have paradigm related signal changes during the left hand condition?

# Question 4

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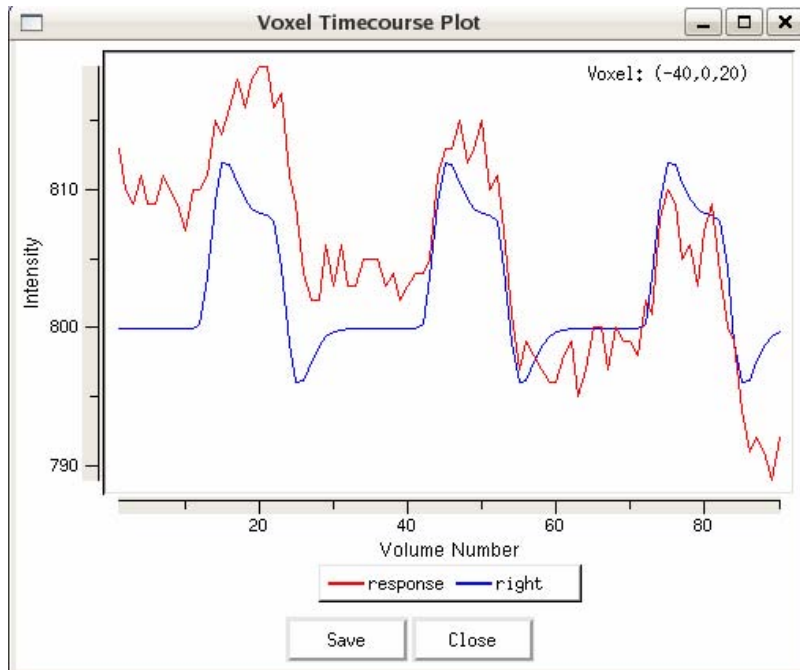
The stimulus schedule for the right hand condition in the dataset fMRI data2 (90 functional volumes) is

- Name = right
- Onset = 10 40 70
- Duration = 10 10 10

What is the stimulus schedule for the left hand condition ?

# Question 5

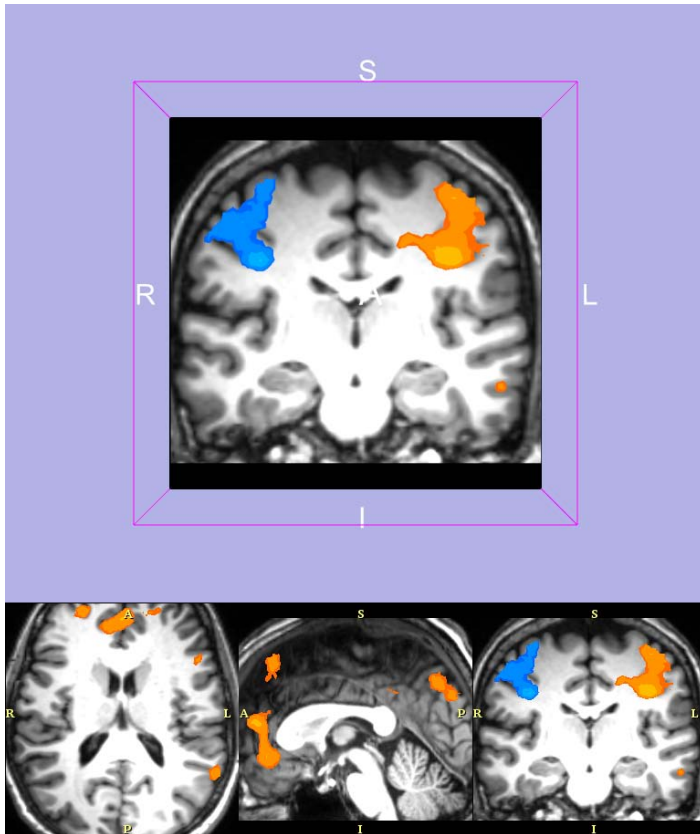
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Perform the same fMRI analysis we did in the lab using the dataset fMRI-data2. Compare the voxel time course and the peristimulus graphs in a region of positive activation. Describe your findings.

# Question 6

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What would be the result of selecting a p-value lower than 0.001 on the activation map ?