28 March 2012

Project Statement

This API is being developed for a new Radiological Application for Diagnostic Imaging and Storage (RADIS) for Hendrick Medical Center, our client. The objective of our API is to simplify programming future image processing software to promote accurate diagnoses and increase portability within the medical field. The API needs to interpret data from standard medical imaging formats in provide feedback to doctors on any abnormalities.

Abnormal indications will be categorized as follows: normal, abnormal within limits, and abnormal by identifying tumors, scarring, aneurisms and lesions. A list of possible diagnoses will then be provided to the doctor. The diagnoses will be presented in the list based on the probability of correctness as determined by the results of the image processing and the history of the patient provided to the system by the doctor.

This API will allow for increased portability. Doctors will be able to make medical decisions from offsite locations. It should also help with the accuracy of the diagnosis which would then make treatment more effective. The ultimate goal would be to make this system usable for all kinds of specialists: Orthopedists, Oncologists, Neurologists, and Endocrinologists. Although we will strive to accomplish that we may not have the data necessary or the time for such a broad development.