Public Abstract
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Image analysis, in computer science, is defined as the process of extracting useful data from digital images for the purpose of accomplishing a goal. Examples of this might include tracking objects in satellite imagery or finding edges of a vessel network in a microscopic image. Doing this manually can prove to be very time consuming, and is prone to human error. Many advanced techniques and algorithms exist to help automate this process for researchers in the field. By comparing results of an image analysis with ground truth, researchers are able to determine how accurate their algorithms are. Currently there are very few tools to help researchers in gathering and analyzing this ground truth.

We propose a generic, expandable, web based tool called Firefly to help researchers in establishing and visualizing ground truth for differing datasets, and automating the analysis of these datasets. This is done using the interactive and multimedia features that Flash Player provides running in the browser, and using a centrally located database for the storage of the data. The overall goal is to develop web-based services for the analysis of video datasets including data management and image processing of large timeseries datasets with web access to all of the original and processed imagery and results. Firefly is one component of this goal.