

# CogniSoft Vision SDK

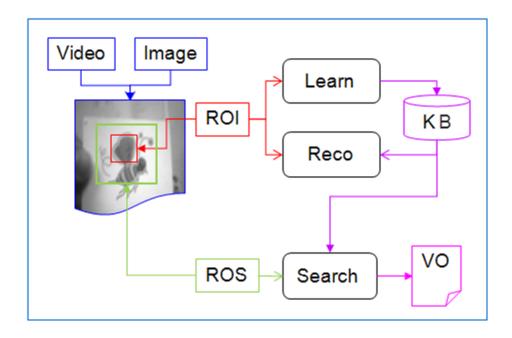
The CogniSoft Vision SDK provides additional functionality, adding support for 2-dimensional image data manipulation/processing. The SDK also adds driver support for communication and control of the V1KU module. In addition, the SDK provides access to the individual components of the board including the CM1K chip, the Aptina sensor, the flash memory and the board I/O's.

#### Supported Languages

- C, C++ (un-managed)
- C#, VB.NET (managed)
- Java
- Matlab
- Python

### Concepts

- Image: from video sensor or from file
- KB: knowledgebase
- ROI: region-of-interest
- ROS: region-of-search
- VO: visual objects (search results)





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#### **Function Library**

- Get/Set region-of-interest
- Get/Set region-of-search
- Learn region-of-interest
- Recognize region-of-interest
- Search region-of-search
- · Get search results
- Get closest search results
- Control capture and retrieval of images from the camera sensor
- Read the current feature vector
- Access to manually control the modules and registers of the V1KU
- Read image vectors stored in the neurons
- Plot vector as 1-d, 2-d images
- Clusterize search results
- Get visual object list
- Get visual object map
- View knowledgebase
- Control camera registers
- Save project file
- Load project file
- Build codebook

### Package

- Drivers and libraries for all of the supported languages
- Example source code for all of the supported languages
- Example applications demonstrating common 2-d image task, using the CogniSoft Vision API