

Histogram implies Detect

Feature matching implies Detect

BM implies Detect

Histogram Matching implies Distance Measure

BM implies Distance Measure

BM Pyramidal implies Distance Measure

## Background Subtraction Method (from OpenCV)

XOR-Group

### BackgroundSubtractorKNN

Number of frame affecting model\*(nb\_frame, int)  
- Threshold to tell if  
is close to a cluster(thresholdSquare, float)  
- detect shadows ?(shadows, bool)

### BackgroundSubtractorForegroundDiscrimination (BackgroundSubtractorFGD)

- FGDPParams\*

### BackgroundSubtractorGMG

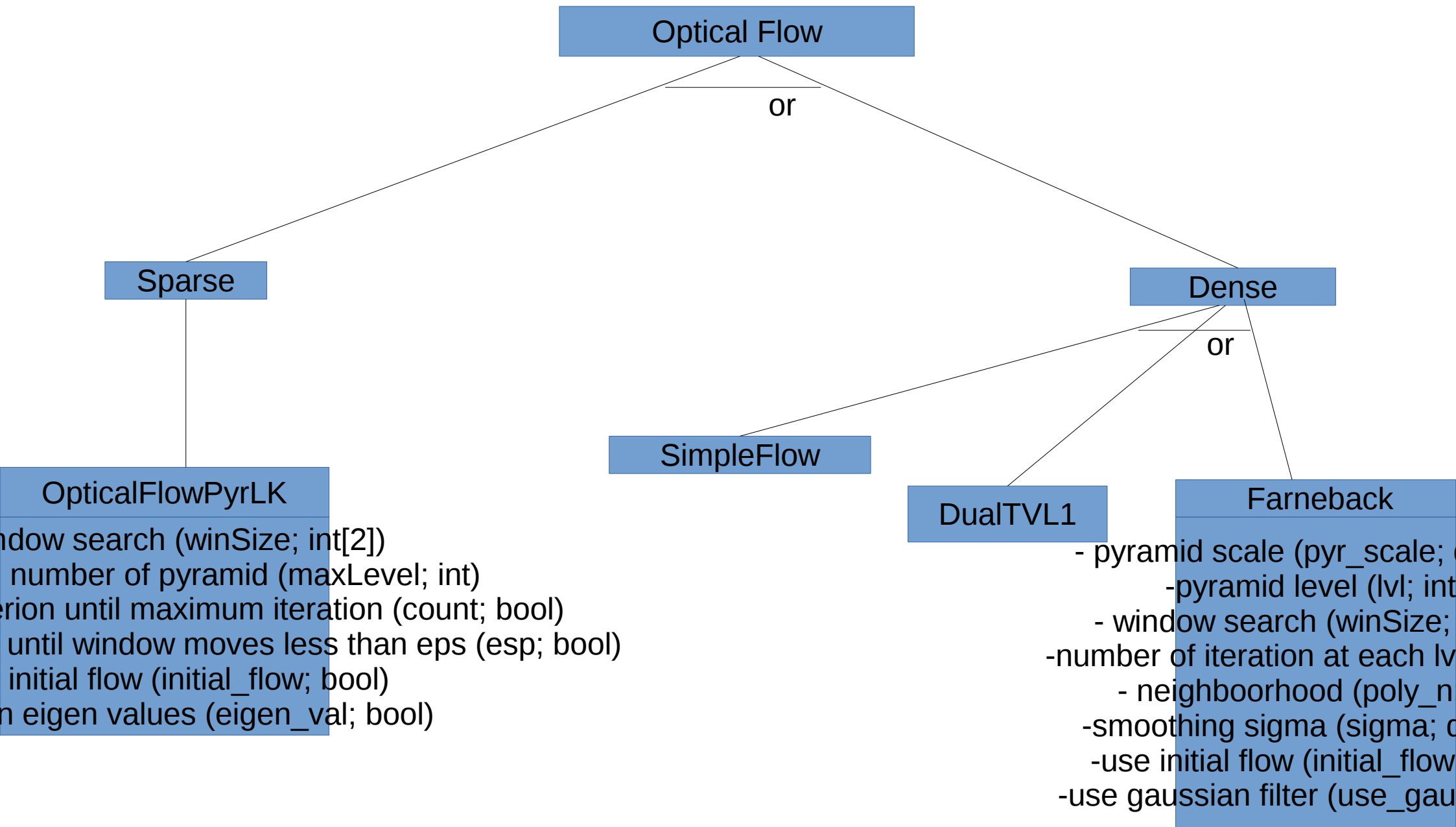
- Number of frame affecting model\*(nb\_frame, int)  
- Threshold to decide whether  
Background or foreground\*(decisionThreshold, float)

### BackgroundSubtractorMixtureOfGaussian2 (BackgroundSubtractorMOG2)

- Number of frame affecting model\*(nb\_frame, int)  
- Threshold between model and a pixel  
To tell if the model holds(thresholdSquare, float)  
- detect shadows ?(shadows, bool)

### BackgroundSubtractorMixtureOfGaussian (BackgroundSubtractorMOG)

Number of frame affecting model\*(nb\_frame, int)  
- Number of mixture model per pixel(nb\_mixture, int)  
- Learning rate\*(decisionThreshold, float)  
- Robustness to brightness changes\*(noiseRob, float)



Histogram Matching

-number of bins (nb\_bins; int)

Color Space

or

RGB

GrayScale

XYZ

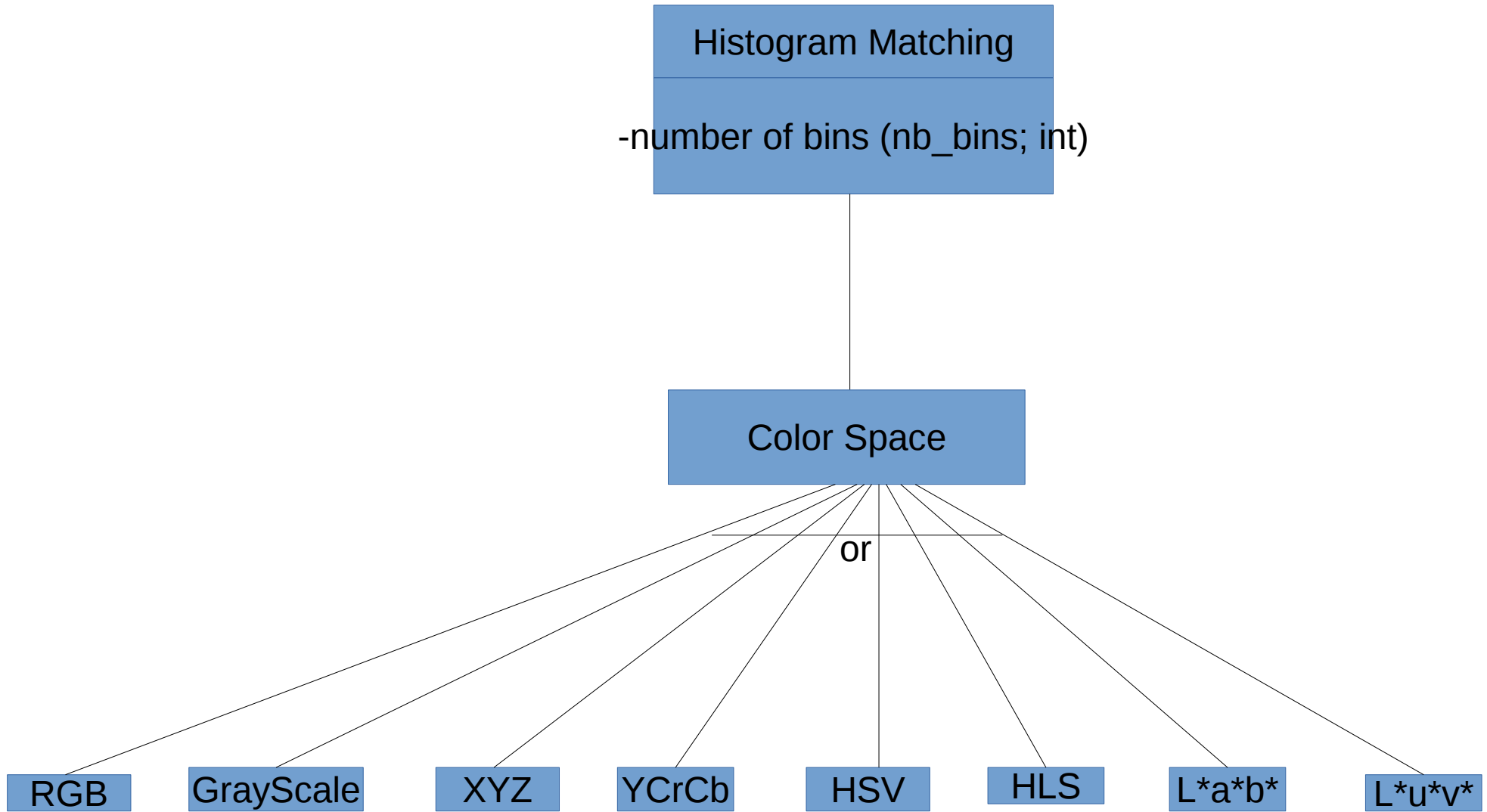
YCrCb

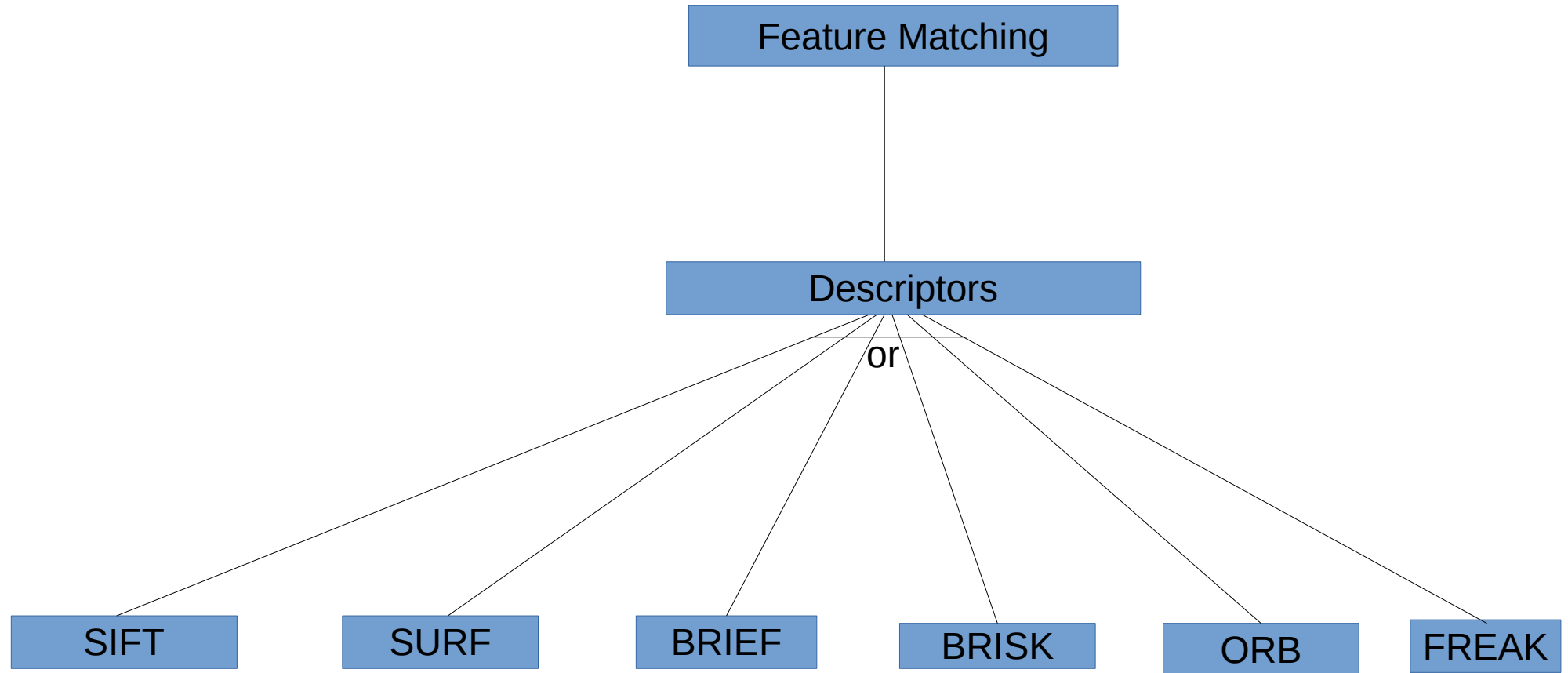
HSV

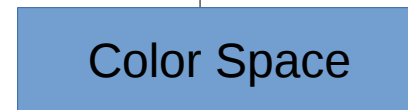
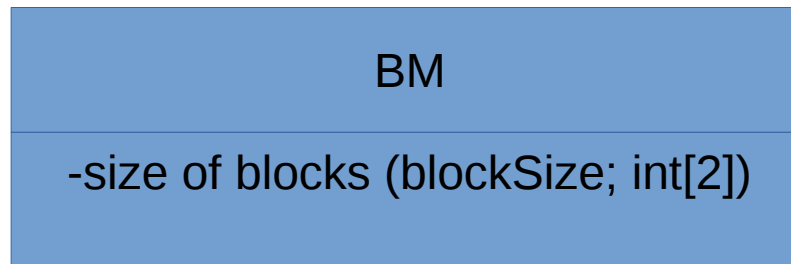
HLS

L\*a\*b\*

L\*u\*v\*







or

RGB

GrayScale

XYZ

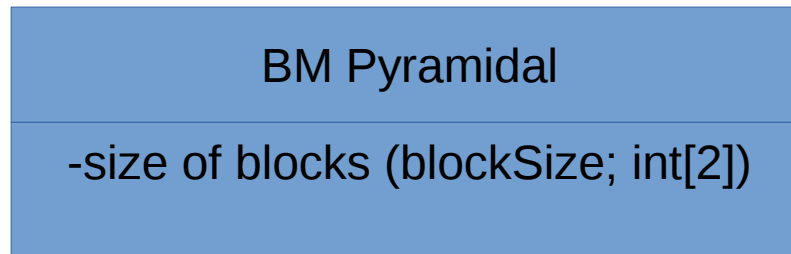
YCrCb

HSV

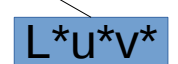
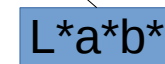
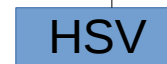
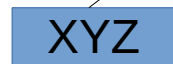
HLS

L\*a\*b\*

L\*u\*v\*



or



## Cascade Classifier

- filename (filename; string)
- scaling factor (scaleFactor; float)
- number of neighbor to consider (neighbor; int)
  - minimum size of objects (minSize; int[2])
  - maximum size of objects (maxSize; int[2])



Camshift

?

## Kalman Filter

or

### Kalman Filter 32F

- Dimensionality of the state (dynamParams; int)
- Dimensionality of the measurement (measureParams; int)
- Dimensionality of the control vector (controlParams; int)

### Kalman Filter 64F

- Dimensionality of the state (dynamParams; int)
- Dimensionality of the measurement (measureParams; int)
- Dimensionality of the control vector (controlParams; int)

