Halcon Lib

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Here are the classes, structs, unions and interfaces with brief descriptions:

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File Index

2.1 File List

Here is a list of all files with brief descriptions:

Chapter 3

Class Documentation

3.1 HalconLib Class Reference

`#include <HalconLib.h>`

Public Member Functions

- HalconLib ()
- ~HalconLib ()
- void setRootPath (const char *pPath)

  Set image files root path.
- void initWindow (NSView *View)

  Set a view to display image.
- void displayPic (const char *pFilePath)

  Display a image in view.
- void displayPic (HImage pImage)

  Display a image in view.
- BOOL trainModel ()

  Train shape model with image in view.
- BOOL trainModel (HImage pImage)

  Train shape model with selected image.
- BOOL trainModel (HImage pImage, int pIndex, BOOL isDraw=TRUE, BOOL isSave=TRUE)

  Train shape model with selected image.
- BOOL trainModel (HImage pImage, BOOL isDraw, BOOL isSave, const char *pRegion, int pIndex)

  Train shape model with selected image and set its name.
- BOOL saveModel (const char *pRegion, int pIndex)

  Save trained model in local.
- void testRegion (const char *pFilePaht, int index)

  Test saved region data.
- BOOL modelTest (HImage pImage, const char *pRegion, int pIndex)

  Test all model with selected image.
- void addRegion (const char *pRegion)

  Add a class name in vec.
- void showResult (int pImgIndex, int pIndex)

  Display an image in view via its class name and index.
- HTuple detectSample (HImage pImage, const char *pRegion, int pIndex)

  Input a sample and its class name and index, output its detected score.
- HTuple detectSample (HImage pImage, const char *pRegion, int pIndex, HTuple *hv_Row, HTuple *hv_↩ Column, HTuple *hv_Angle, HTuple *hv_Scale, HTuple *hv_I)

  Input a sample and its class name and index, output its detected score.

3.1.1 Constructor & Destructor Documentation

3.1.1.1 HalconLib::HalconLib ( )

3.1.1.2 HalconLib::~HalconLib ( )

3.1.2 Member Function Documentation

3.1.2.1 void HalconLib::addRegion (const char * *pRegion*)

Add a class name in vec.

Parameters

pRegion	Class name

3.1.2.2 HTuple HalconLib::detectSample (HImage *pImage,* const char * *pRegion,* int *pIndex*)

Input a sample and its class name and index, output its detected score.

Parameters

pImage	Sample image ptr
pRegion	Sample's class name
pIndex	Sample's index

Returns

Detected score

3.1.2.3 HTuple HalconLib::detectSample (HImage *pImage,* const char * *pRegion,* int *pIndex,* HTuple * *hv_Row,* HTuple * *hv_Column,* HTuple * *hv_Angle,* HTuple * *hv_Scale,* HTuple * *hv_I*)

Input a sample and its class name and index, output its detected score.

Parameters

pImage	Input a sample and its class name and index, output its detected score
pRegion	Sample image ptr
pIndex	Sample's class name
hv_Row	Detected row
hv_Column	Detected col
hv_Angle	Detected angle
hv_Scale	Detected scale
hv_I	Detected index

Returns

Detected score

3.1.2.4 void HalconLib::displayPic (const char * *pFilePath*)

Display a image in view.

Parameters

pFilePath	Image path

3.1.2.5 void HalconLib::displayPic (HImage *pImage*)

Display a image in view.

Parameters

pImage	Image ptr

3.1.2.6 void HalconLib::initWindow (NSView * *View*)

Set a view to display image.

Parameters

View	A NSView

3.1.2.7 BOOL HalconLib::modelTest (HImage *pImage,* const char * *pRegion,* int *pIndex*)

Test all model with selected image.

Parameters

pImage	Sample image
pRegion	Sample's name
pIndex	Sample's index

Returns

Test done?

3.1.2.8 BOOL HalconLib::saveModel (const char * *pRegion*, int *pIndex*)

Save trained model in local.

Parameters

pRegion	Model name
pIndex	Model index

Returns

Saved?

3.1.2.9 void HalconLib::setRootPath (const char * *pPath*)

Set image files root path.

Parameters

pPath	Image files root path

3.1.2.10 void HalconLib::showResult (int *pImgIndex*, int *pIndex*)

Display an image in view via its class name and index.

Parameters

pImgIndex	Image's class name
pIndex	Image's index

3.1.2.11 void HalconLib::testRegion (const char * *pFilePaht*, int *index*)

Test saved region data.

Parameters

pFilePaht	Region data path
index	Region data index

3.1.2.12 BOOL HalconLib::trainModel ( )

Train shape model with image in view.

Returns

Trained?

3.1.2.13 BOOL HalconLib::trainModel (HImage *pImage*)

Train shape model with selected image.

Parameters

pImage	Image ptr

Returns

Trained?

3.1.2.14 BOOL HalconLib::trainModel (HImage *pImage*, int *pIndex*, BOOL *isDraw* = TRUE, BOOL *isSave* = TRUE)

Train shape model with selected image.

Parameters

pImage	Image ptr
pIndex	Region index
isDraw	Draw region manually/automatic
isSave	Save drew region or not

Returns

Trained?

3.1.2.15 BOOL HalconLib::trainModel (HImage *pImage*, BOOL *isDraw*, BOOL *isSave*, const char * *pRegion*, int *pIndex*)

Train shape model with selected image and set its name.

Parameters

pImage	Image ptr
isDraw	Draw region manually/automatic
isSave	Save drew region or not
pRegion	Image name
pIndex	Region index

Returns

Trained?

The documentation for this class was generated from the following files:

- /Users/Leakey/git/HalconLib/HalconLib/HalconLib.h
- /Users/Leakey/git/HalconLib/HalconLib/HalconLib.mm

3.2 HalObj Class Reference

`#include <HalObj.h>`

Public Member Functions

- HalObj ()
- void setRootPath (const char *pPath)
- void initWindow (NSView *View)
- void displayPic (const char *pFilePath)
- void displayPic (HImage pImage)
- BOOL trainModel ()
- BOOL trainModel (HImage pImage)
- BOOL trainModel (HImage pImage, int pIndex, BOOL isDraw=TRUE, BOOL isSave=TRUE)
- BOOL trainModel (HImage pImage, BOOL isDraw, BOOL isSave, const char *pRegion, int pIndex)
- BOOL saveModel (const char *pRegion, int pIndex)
- void testRegion (const char *pFilePaht, int index)
- BOOL modelTest (HImage pImage, const char *pRegion, int pIndex)
- void addRegion (const char *pRegion)
- void showResult (int pImgIndex, int pIndex)
- HTuple detectSample (HImage pImage, const char *pRegion, int pIndex)
- HTuple detectSample (HImage pImage, const char *pRegion, int pIndex, HTuple *hv_Row, HTuple *hv_↩ Column, HTuple *hv_Angle, HTuple *hv_Scale, HTuple *hv_I)

Public Attributes

- HalconLib hobj

3.2.1 Constructor & Destructor Documentation

3.2.1.1 HalObj::HalObj ( )

3.2.2 Member Function Documentation

3.2.2.1 void HalObj::addRegion (const char * *pRegion*)

3.2.2.2 HTuple HalObj::detectSample (HImage *pImage,* const char * *pRegion,* int *pIndex*)

3.2.2.3 HTuple HalObj::detectSample (HImage *pImage,* const char * *pRegion,* int *pIndex,* HTuple * *hv_Row,* HTuple * *hv_Column,* HTuple * *hv_Angle,* HTuple * *hv_Scale,* HTuple * *hv_I*)

3.2.2.4 void HalObj::displayPic (const char * *pFilePath*)

3.2.2.5 void HalObj::displayPic (HImage *pImage*)

3.2.2.6 void HalObj::initWindow (NSView * *View*)

3.2.2.7 BOOL HalObj::modelTest (HImage *pImage,* const char * *pRegion,* int *pIndex*)

3.2.2.8 BOOL HalObj::saveModel (const char * *pRegion,* int *pIndex*)

3.2.2.9 void HalObj::setRootPath (const char * *pPath*)

3.2.2.10 void HalObj::showResult (int *pImgIndex,* int *pIndex*)

3.2.2.11 void HalObj::testRegion (const char * *pFilePaht,* int *index*)

3.2.2.12 BOOL HalObj::trainModel ( )

3.2.2.13 BOOL HalObj::trainModel (HImage *pImage*)

3.2.2.14 BOOL HalObj::trainModel (HImage *pImage,* int *pIndex,* BOOL *isDraw* = `TRUE`, BOOL *isSave* = `TRUE`)

3.2.2.15 BOOL HalObj::trainModel (HImage *pImage,* BOOL *isDraw,* BOOL *isSave,* const char * *pRegion,* int *pIndex*)

3.2.3 Member Data Documentation

3.2.3.1 HalconLib HalObj::hobj

The documentation for this class was generated from the following files:

- /Users/Leakey/git/HalconLib/HalconLib/HalObj.h
- /Users/Leakey/git/HalconLib/HalconLib/HalObj.mm

Chapter 4

File Documentation

4.1 /Users/Leakey/git/HalconLib/HalconLib/HalconLib.h File Reference

```
#include "HalconCpp.h"
#import <Cocoa/Cocoa.h>
#include <vector>
#include <iostream>
#include <fstream>
```

Classes

- class HalconLib

Functions

- void SaveDebug (const char *msg)

  Save a debug log.
- void checkPath (char *pFilePath)

  Check whthin the path exist or not, and create if path is not exist.

4.1.1 Function Documentation

4.1.1.1 void checkPath (char * *pFilePath*)

Check whthin the path exist or not, and create if path is not exist.

Parameters

pFilePath	Path to be checked

4.1.1.2 void SaveDebug (const char * *msg*)

Save a debug log.

Parameters

msg	Log to be saved

4.2 /Users/Leakey/git/HalconLib/HalconLib/HalconLib.mm File Reference

```
#include "HalconLib.h"
```

Functions

- void SaveDebug (const char *msg)
  Save a debug log.
- void checkPath (char *pFilePath)
  Check whthin the path exist or not, and create if path is not exist.

Variables

- HTuple hv_HomMat2D
- HObject ho_ModelContours
- HObject ho_TransContours

4.2.1 Function Documentation

4.2.1.1 void checkPath (char * *pFilePath*)

Check whthin the path exist or not, and create if path is not exist.

Parameters

pFilePath	Path to be checked

4.2.1.2 void SaveDebug (const char * *msg*)

Save a debug log.

Parameters

msg	Log to be saved

4.2.2 Variable Documentation

4.2.2.1 HObject ho_ModelContours

4.2.2.2 HObject ho_TransContours

4.2.2.3 HTuple hv_HomMat2D

4.3 /Users/Leakey/git/HalconLib/HalconLib/HalObj.h File Reference

```
#include "HalconLib.h"
#include <iostream>
#include <fstream>
```

Classes

- class HalObj

Functions

- void SaveDebug (const char *msg)

  Save a debug log.
- void checkPath (char *pFilePath)

  Check whthin the path exist or not, and create if path is not exist.

4.3.1 Function Documentation

4.3.1.1 void checkPath (char * *pFilePath*)

Check whthin the path exist or not, and create if path is not exist.

Parameters

pFilePath	Path to be checked

4.3.1.2 void SaveDebug (const char * *msg*)

Save a debug log.

Parameters

msg	Log to be saved

4.4 /Users/Leakey/git/HalconLib/HalconLib/HalObj.mm File Reference

```
#include "HalObj.h"
```

Functions

- void SaveDebug (const char *msg)

  Save a debug log.
- void checkPath (char *pFilePath)

  Check whthin the path exist or not, and create if path is not exist.

Variables

- HTuple hv_HomMat2D
- HObject ho_ModelContours
- HObject ho_TransContours

4.4.1 Function Documentation

4.4.1.1 void checkPath (char * *pFilePath*)

Check whthin the path exist or not, and create if path is not exist.

Parameters

pFilePath	Path to be checked

4.4.1.2 void SaveDebug (const char * *msg*)

Save a debug log.

Parameters

msg	Log to be saved

4.4.2 Variable Documentation

4.4.2.1 HObject ho_ModelContours

4.4.2.2 HObject ho_TransContours

4.4.2.3 HTuple hv_HomMat2D

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