

Halcon Lib

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Chapter 1

Class Index

1.1 Class List

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

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Chapter 2

File Index

2.1 File List

Here is a list of all files with brief descriptions:

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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 plmage)
Display a image in view.
- BOOL [trainModel](#) ()
Train shape model with image in view.
- BOOL [trainModel](#) (HImage plmage)
Train shape model with selected image.
- BOOL [trainModel](#) (HImage plmage, int plIndex, BOOL isDraw=TRUE, BOOL isSave=TRUE)
Train shape model with selected image.
- BOOL [trainModel](#) (HImage plmage, BOOL isDraw, BOOL isSave, const char *pRegion, int plIndex)
Train shape model with selected image and set its name.
- BOOL [saveModel](#) (const char *pRegion, int plIndex)
Save trained model in local.
- void [testRegion](#) (const char *pFilePaht, int index)
Test saved region data.
- BOOL [modelTest](#) (HImage plmage, const char *pRegion, int plIndex)
Test all model with selected image.
- void [addRegion](#) (const char *pRegion)
Add a class name in vec.
- void [showResult](#) (int plmgIndex, int plIndex)
Display an image in view via its class name and index.
- HTuple [detectSample](#) (HImage plmage, const char *pRegion, int plIndex)
Input a sample and its class name and index, output its detected score.
- HTuple [detectSample](#) (HImage plmage, const char *pRegion, int plIndex, HTuple *hv_Row, HTuple *hv_↔
Column, HTuple *hv_Angle, HTuple *hv_Scale, HTuple *hv_l)
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

<i>pRegion</i>	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

<i>pImage</i>	Sample image ptr
<i>pRegion</i>	Sample's class name
<i>pIndex</i>	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

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

Returns

Detected score

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

Display a image in view.

Parameters

<i>pFilePath</i>	Image path
------------------	------------

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

Display a image in view.

Parameters

<i>plmage</i>	Image ptr
---------------	-----------

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

Set a view to display image.

Parameters

<i>View</i>	A NSView
-------------	----------

3.1.2.7 BOOL HalconLib::modelTest (HImage *plmage*, const char * *pRegion*, int *plindex*)

Test all model with selected image.

Parameters

<i>plmage</i>	Sample image
<i>pRegion</i>	Sample's name
<i>plindex</i>	Sample's index

Returns

Test done?

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

Save trained model in local.

Parameters

<i>pRegion</i>	Model name
<i>pIndex</i>	Model index

Returns

Saved?

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

Set image files root path.

Parameters

<i>pPath</i>	Image files root path
--------------	-----------------------

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

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

Parameters

<i>plmgIndex</i>	Image's class name
<i>pIndex</i>	Image's index

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

Test saved region data.

Parameters

<i>pFilePaht</i>	Region data path
<i>index</i>	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

<i>pImage</i>	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

<i>pImage</i>	Image ptr
<i>pIndex</i>	Region index
<i>isDraw</i>	Draw region manually/automatic
<i>isSave</i>	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

<i>pImage</i>	Image ptr
<i>isDraw</i>	Draw region manually/automatic
<i>isSave</i>	Save drew region or not
<i>pRegion</i>	Image name
<i>pIndex</i>	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 plmage)
- BOOL [trainModel](#) ()
- BOOL [trainModel](#) (HImage plmage)
- BOOL [trainModel](#) (HImage plmage, int plIndex, BOOL isDraw=TRUE, BOOL isSave=TRUE)
- BOOL [trainModel](#) (HImage plmage, BOOL isDraw, BOOL isSave, const char *pRegion, int plIndex)
- BOOL [saveModel](#) (const char *pRegion, int plIndex)
- void [testRegion](#) (const char *pFilePaht, int index)
- BOOL [modelTest](#) (HImage plmage, const char *pRegion, int plIndex)
- void [addRegion](#) (const char *pRegion)
- void [showResult](#) (int plmgIndex, int plIndex)
- HTuple [detectSample](#) (HImage plmage, const char *pRegion, int plIndex)
- HTuple [detectSample](#) (HImage plmage, const char *pRegion, int plIndex, 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 plmage, const char * pRegion, int plIndex)`

3.2.2.3 `HTuple HalObj::detectSample (HImage plmage, const char * pRegion, int plIndex, 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 plmage)`

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

3.2.2.7 **BOOL** HalObj::modelTest (HImage *plmage*, 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 *plmgIndex*, 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 *plmage*)

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

3.2.2.15 **BOOL** HalObj::trainModel (HImage *plmage*, **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

<i>pFilePath</i>	Path to be checked
------------------	--------------------

4.1.1.2 void SaveDebug (const char * msg)

Save a debug log.

Parameters

<i>msg</i>	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

<i>pFilePath</i>	Path to be checked
------------------	--------------------

4.2.1.2 void SaveDebug (const char * msg)

Save a debug log.

Parameters

<i>msg</i>	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

<i>pFilePath</i>	Path to be checked
------------------	--------------------

4.3.1.2 void SaveDebug (const char * msg)

Save a debug log.

Parameters

<i>msg</i>	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

<i>pFilePath</i>	Path to be checked
------------------	--------------------

4.4.1.2 void [SaveDebug](#) (const char * *msg*)

Save a debug log.

Parameters

<i>msg</i>	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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