

Package ‘ROpenCVLite’

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Type Package

Title Helper Package for Installing OpenCV with R

Version 4.90.1

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Description Installs 'OpenCV' for use by other packages. 'OpenCV' <<https://opencv.org/>> is library of programming functions mainly aimed at real-time computer vision. This 'Lite' version installs the stable base version of 'OpenCV' and some of its experimental externally contributed modules. It does not provide R bindings directly.

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Imports utils, pkgbuild, parallel

SystemRequirements cmake

RoxygenNote 7.3.0

Biarch false

Encoding UTF-8

Depends R (>= 4.0.0)

Suggests covr, knitr, rmarkdown

VignetteBuilder knitr

URL <https://swarm-lab.github.io/ROpenCVLite/>,
<https://github.com/swarm-lab/ROpenCVLite>

BugReports <https://github.com/swarm-lab/ROpenCVLite/issues>

NeedsCompilation no

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ROpenCVLite-package *ROpenCVLite: A package to install OpenCV within R*

Description

This is a utility package that installs OpenCV within R for use by other packages. This Lite version does not contain any of the contributed modules of OpenCV.

Author(s)

Simon Garnier, <garnier@njit.edu>

See Also

Useful links:

- <https://swarm-lab.github.io/ROpenCVLite/>
- <https://github.com/swarm-lab/ROpenCVLite>
- Report bugs at <https://github.com/swarm-lab/ROpenCVLite/issues>

defaultOpenCVPath *Default Install Location of OpenCV*

Description

This function returns the location at which OpenCV should be installed by default.

Usage

```
defaultOpenCVPath()
```

Value

A character string.

Author(s)

Simon Garnier, <garnier@njit.edu>

Examples

```
## Not run:  
  defaultOpenCVPath()  
  
## End(Not run)
```

installOpenCV	<i>Install OpenCV</i>
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Description

This function attempts to download, compile and install OpenCV on the system. This process will take several minutes.

Usage

```
installOpenCV(install_path = defaultOpenCVPath(), batch = FALSE)
```

Arguments

install_path	A character string indicating the location at which OpenCV should be installed. By default, it is the value returned by defaultOpenCVPath .
batch	A boolean indicating whether to skip (TRUE) or not (FALSE, the default) the interactive installation dialog. This is useful when OpenCV needs to be installed in a non-interactive environment (e.g., during a batch installation on a server).

Value

A boolean.

Author(s)

Simon Garnier, <garnier@njit.edu>

Examples

```
## Not run:  
  installOpenCV()  
  
## End(Not run)
```

`isCmakeInstalled` *Check Cmake Installation*

Description

This function checks that Cmake is installed on the system.

Usage

```
isCmakeInstalled()
```

Value

A boolean.

Author(s)

Simon Garnier, <garnier@njit.edu>

Examples

```
isCmakeInstalled()
```

`isOpenCVInstalled` *Check OpenCV Installation*

Description

This function checks that OpenCV is installed and accessible.

Usage

```
isOpenCVInstalled()
```

Value

A boolean.

Author(s)

Simon Garnier, <garnier@njit.edu>

Examples

```
isOpenCVInstalled()
```

opencvConfig	<i>C/C++ configuration options</i>
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Description

This function returns the configuration options for compiling C/C++-based packages against OpenCV installed by [ROpenCVLite](#).

Usage

```
opencvConfig(output = "libs", arch = NULL)
```

Arguments

output	Either 'libs' for library configuration options or 'cflags' for C/C++ configuration flags.
arch	architecture relevant for Windows. If NULL, then <code>R.version\$arch</code> will be used.

Value

A concatenated character string (with `cat`) of the configuration options.

Author(s)

Simon Garnier, <garnier@njit.edu>

Examples

```
## Not run:
if (isOpenCVInstalled()) {
  opencvConfig()
  opencvConfig(output = "cflags")
  opencvConfig(arch = R.version$arch)
}

## End(Not run)
```

OpenCVPath

Install Location of OpenCV

Description

This function returns the location at which OpenCV is installed.

Usage

```
OpenCVPath()
```

Value

A character string.

Author(s)

Simon Garnier, <garnier@njit.edu>

Examples

```
## Not run:  
OpenCVPath()  
  
## End(Not run)
```

opencvVersion*OpenCV Version*

Description

This function determines the version of OpenCV installed within R.

Usage

```
opencvVersion()
```

Value

A character string.

Author(s)

Simon Garnier, <garnier@njit.edu>

Examples

```
if (isOpenCVInstalled()) {  
    opencvVersion()  
}
```

removeOpenCV

Remove OpenCV

Description

This function removes OpenCV from the system.

Usage

```
removeOpenCV()
```

Value

A boolean.

Author(s)

Simon Garnier, <garnier@njit.edu>

Examples

```
## Not run:  
installOpenCV()  
  
## End(Not run)
```

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