Package 'ROpenCVLite'

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Type Package

Title Helper Package for Installing OpenCV with R

Version 4.90.2

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Maintainer Simon Garnier <garnier@njit.edu>

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.

License GPL-3

Imports utils, parallel

SystemRequirements cmake

RoxygenNote 7.3.2

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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Repository CRAN

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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

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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 *Install OpenCV*

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	*C/C++ configuration options*

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 `R.version$arch` 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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