

Package ‘Rmosek’

October 12, 2022

Version 1.3.5

Title The R to MOSEK Optimization Interface

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Description This is a meta-package designed to support the installation of Rmosek (≥ 6.0) and bring the optimization facilities of MOSEK (≥ 6.0) to the R-language. The interface supports large-scale optimization of many kinds: Mixed-integer and continuous linear, second-order cone, exponential cone and power cone optimization, as well as continuous semidefinite optimization. Rmosek and the R-language are open-source projects. MOSEK is a proprietary product, but unrestricted trial and academic licenses are available.

URL <http://www.mosek.com/>

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License LGPL (≥ 2.1)

SystemRequirements MOSEK (≥ 6) and MOSEK License (≥ 6)

Suggests pkgbuild

NeedsCompilation no

Repository CRAN

Date/Publication 2019-08-01 12:50:11 UTC

R topics documented:

export	2
mosek_attachbuilder	2

Index	5
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export	<i>Unknown exported objects to be built</i>
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Description

Unknown exported objects to be built:

- mosek
- mosek_clean
- mosek_version
- mosek_read
- mosek_write

Please use 'Rmosek::mosek_attachbuilder' to complete the installation of Rmosek.

See Also

[mosek_attachbuilder](#)

mosek_attachbuilder	<i>Attach builder functions to the search path (install,update,remove)</i>
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Description

This function [attach](#) a database to the search path with utilities to manage Rmosek in respect to the system requirement (i.e., MOSEK):

<code>install.rmosek</code>	Install Rmosek package.
<code>update.rmosek</code>	Update Rmosek package.
<code>remove.rmosek</code>	Remove Rmosek package.

These utilities are equivalent to, and accept the same arguments as, [install.packages](#), [update.packages](#) and [remove.packages](#), differing only in default argument values and the transmission of Rmosek-specific configuration variables (see details below).

Usage

```
mosek_attachbuilder(what_mosek_bindir,
                    pos=2L, name="Rmosek:builder", warn.conflicts=TRUE)
```

Arguments

what_mosek_bindir	The path to the MOSEK 'bin' directory to build against. Should look like <MSKHOME>/mosek/<MSKVERSION>/tools/platform/<PLATFORM>/bin, where <MSKHOME> is the folder in which the MOSEK Optimization Suite has been installed. If NA, it uses the MOSEK binary directory of the last build (if any). If "", it attaches a generic builder.
pos	Integer specifying position in <code>search()</code> where to attach.
name	Name to use for the attached database. Names starting with <code>package:</code> are reserved for <code>library</code> .
warn.conflicts	Logical. If TRUE, warnings are printed about <code>conflicts</code> from attaching the database, unless that database contains an object <code>.conflicts.OK</code> . A conflict is a function masking a function, or a non-function masking a non-function.

Details

The attached `*.rmosek` functions (`install`, `update`, `remove`) wrap the corresponding `utils::*.packages` functions with autoconfigured default argument values:

```
pkgs = "Rmosek"
repos = "https://download.mosek.com/R/<MOSEKMAJORVER>.<MOSEKMINORVER>"
```

configuration variables:

MSK_BINDIR	MOSEK 'bin' directory. If empty, autoconfigured from mosek executable on PATH.
MSK_HEADERDIR	MOSEK 'h' directory. If empty, autoconfigured from 'MSK_BINDIR'.
MSK_LIB	MOSEK library file. If empty, autoconfigured from 'MSK_BINDIR'.

and installation styles:

using_pkgbuild	Logical. Whether to execute in the 'pkgbuild' environment as is recommended on Windows to resolve Rtools.
using_sysenv	Logical. Whether to transmit configuration variables via <code>Sys.setenv()</code> as opposed to <code>configure.vars</code> .

Examples

```
## Not run:
#
```

```
# Build Rmosek for the given MOSEK Optimization Suite.
#
mosek_attachbuilder("<MSKHOME>/mosek/<MSKVERSION>/tools/platform/<PLATFORM>/bin")
install.rmosek()

#
# Update Rmosek for the MOSEK Optimization Suite of the last build (if any).
#
mosek_attachbuilder()    # Note: path is read from packageDescription("Rmosek")
update.rmosek()

#
# Build Rmosek (from offline package file) for the given MOSEK Optimization Suite.
#
mosek_attachbuilder("<MSKHOME>/mosek/<MSKVERSION>/tools/platform/<PLATFORM>/bin")
install.rmosek("<RMOSEKPATH>/Rmosek.tar.gz", repos=NULL)

## End(Not run)
```

Index

`attach`, [2](#)

`conflicts`, [3](#)

`export`, [2](#)

`install.packages`, [2](#)

`library`, [3](#)

`mosek (export)`, [2](#)

`mosek_attachbuilder`, [2](#), [2](#)

`mosek_clean (export)`, [2](#)

`mosek_read (export)`, [2](#)

`mosek_version (export)`, [2](#)

`mosek_write (export)`, [2](#)

`NA`, [3](#)

`remove.packages`, [2](#)

`search`, [3](#)

`update.packages`, [2](#)