Package 'ompr.roi'

September 5, 2022

Type Package

Title A Solver for 'ompr' that Uses the R Optimization Infrastructure ('ROI')

Version 1.0.1

Description A solver for 'ompr' based on the R Optimization Infrastructure ('ROI'). The package makes all solvers in 'ROI' available to solve 'ompr' models. Please see the 'ompr' website <https://dirkschumacher.github.io/ompr/> and package docs for more information and examples on how to use it.

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RoxygenNote 7.1.2

Encoding UTF-8

URL https://github.com/dirkschumacher/ompr.roi

BugReports https://github.com/dirkschumacher/ompr.roi/issues

Depends R (>= 3.4.0)

Imports ROI (>= 0.3.0), slam, methods, Matrix, ompr (>= 1.0.1)

Suggests testthat, magrittr, ROI.plugin.glpk

ByteCompile Yes

NeedsCompilation no

Author Dirk Schumacher [aut, cre]

Maintainer Dirk Schumacher <mail@dirk-schumacher.net>

Repository CRAN

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R topics documented:

as_ROI_model *Export to ROI::OP*

Description

This function can be used to transform an ompr model to a ROI::OP object.

Usage

```
as_ROI_model(model)
```

Arguments

model	an ompr model

Value

an object of S3 class ‘ROI::OP‘

ompr.roi *A Solver for 'ompr' that Uses the R Optimization Infrastructure ('ROI')*

Description

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with_ROI *Configures a solver based on 'ROI'*

Description

This function makes all solvers in the R package 'ROI' available to solve 'ompr' models.

Usage

```
with_ROI(solver, ...)
```

Arguments

solver	the 'ROI' solver name (character vector of length 1)
...	optional parameters passed to ROI_solve Note: it does only support column duals. It currently does not export row duals.

Value

a function: Model -> Solution that can be used together with `solve_model`. You can find `ROI`'s original solver `message` and `status` information in `<return_value>$ROI`. The `ompr` status code is `"success"` if `ROI` returns `code = 0` and is `"error"` otherwise.

References

Kurt Hornik, David Meyer, Florian Schwendinger and Stefan Theussl (2016). ROI: R Optimization Infrastructure. <https://CRAN.R-project.org/package=ROI>

Examples

```
## Not run:
library(magrittr)
library(ompr)
library(ROI)
library(ROI.plugin.glpk)
add_variable(MIPModel(), x, type = "continuous") %>%
 set_objective(x, sense = "max") %>%
 add_constraint(x <= 5) %>%
 solve_model(with_ROI(solver = "glpk", verbose = TRUE))

## End(Not run)
```

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