

# Package: ompr.roi (via r-universe)

September 4, 2024

**Type** Package

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

**Version** 1.0.2.9000

**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.

**License** MIT + file LICENSE

**RoxygenNote** 7.2.3

**Encoding** UTF-8

**URL** <https://github.com/dirkschumacher/ompr.roi>

**BugReports** <https://github.com/dirkschumacher/ompr.roi/issues>

**Depends** R (>= 3.5.0)

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

**Suggests** testthat, magrittr, ROI.plugin.glpk

**ByteCompile** Yes

**Repository** <https://dirkschumacher.r-universe.dev>

**RemoteUrl** <https://github.com/dirkschumacher/ompr.roi>

**RemoteRef** HEAD

**RemoteSha** 553835bf98b06b97df2e9927b0fc493ef4ab443b

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ompr.roi-package	<i>A Solver for 'ompr' that Uses the R Optimization Infrastructure ('ROI')</i>
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### 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 examples on how to use it.

### Author(s)

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### See Also

Useful links:

- <https://github.com/dirkschumacher/ompr.roi>
- Report bugs at <https://github.com/dirkschumacher/ompr.roi/issues>

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as_ROI_model	<i>Export to ROI::OP</i>
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### 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'

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with_ROI	<i>Configures a solver based on 'ROI'</i>
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### 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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