Package 'ROI.plugin.ipop'

May 18, 2017

Version 0.2-5

Date 2017-05-17

Title ROI Plug-in {ipop}

Description Enhances the R Optimization Infrastructure ('ROI') package
by registering the ipop solver from package 'kernlab'.

Imports methods, ROI (>= 0.2-5), kernlab, slam

License GPL-3

URL http://R-Forge.R-project.org/projects/roi

NeedsCompilation no

Author Florian Schwendinger [ctb],
Stefan Theussl [aut, cre],
Diethelm Wuertz [ctb]

Maintainer Stefan Theussl <Stefan.Theussl@R-Project.org>

Repository CRAN

Date/Publication 2017-05-17 23:20:40 UTC

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`Example-1` *Linear Problem 1*

Description

$$maximize \;\; 2x_1 + 4x_2 + 3x_3$$

$$subject\ to:$$

$$3x_1 + 4x_2 + 2x_3 \leq 60$$

$$2x_1 + x_2 + 2x_3 \leq 40$$

$$x_1 + 3x_2 + 2x_3 \leq 80$$

$$x_1, x_2, x_3 \geq 0$$

Examples

```
require("ROI")
mat <- matrix(c(3, 4, 2,
                2, 1, 2,
                1, 3, 2), nrow=3, byrow=TRUE)
x <- OP(objective = c(2, 4, 3),
        constraints = L_constraint(L = mat,
                                   dir = c("<=", "<=", "<="),
                                   rhs = c(60, 40, 80)),
        maximum = TRUE)


opt <- ROI_solve(x, solver = "ipop")
opt
## Optimal solution found.
## The objective value is: 7.666667e+01
solution(opt)
## [1]  0.000000  6.666667 16.666667
```

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