

NAME

CUTEST_cnames – CUTEst tool to obtain the names of the problem and its variables.

SYNOPSIS

CALL CUTEST_cnames(status, n, m, pname, VNAMES, CNAMES)

For real rather than double precision arguments, instead

CALL CUTEST_cnames_s(...)

and for quadruple precision arguments, when available,

CALL CUTEST_cnames_q(...)

DESCRIPTION

The CUTEST_cnames subroutine obtains the names of the problem, its variables and general constraints.

The problem under consideration is to minimize or maximize an objective function $f(x)$ over all $x \in R^n$ subject to general equations $c_i(x) = 0$, ($i \in 1, \dots, m_E$), general inequalities $c_i^l \leq c_i(x) \leq c_i^u$ ($i \in m_E + 1, \dots, m$), and simple bounds $x^l \leq x \leq x^u$. The objective function is group-partially separable and all constraint functions are partially separable.

ARGUMENTS

The arguments of CUTEST_cnames are as follows

status [out] - integer

the output status: 0 for a successful call, 1 for an array allocation/deallocation error, 2 for an array bound error, 3 for an evaluation error,

n [in] - integer

the number of variables for the problem,

m [in] - integer

the total number of general constraints,

pname [out] - character

a 10-character string containing the name of the problem,

VNAMES [out] - character

an array of 10-character strings containing the names of the variables,

CNAMES [out] - character

an array of 10-character strings containing the names of the general constraints.

AUTHORS

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SEE ALSO

CUTEst: a Constrained and Unconstrained Testing Environment with safe threads,

N.I.M. Gould, D. Orban and Ph.L. Toint,

Computational Optimization and Applications **60**:3, pp.545-557, 2014.

CUTEr (and SifDec): A Constrained and Unconstrained Testing Environment, revisited,
N.I.M. Gould, D. Orban and Ph.L. Toint,
ACM TOMS, **29**:4, pp.373-394, 2003.

CUTE: Constrained and Unconstrained Testing Environment,
I. Bongartz, A.R. Conn, N.I.M. Gould and Ph.L. Toint,
ACM TOMS, **21**:1, pp.123-160, 1995.

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