NAME

CDIMSE – CUTEr tool to determine number of nonzeros to store the Hessian of the Lagrangian.

SYNOPSIS

CALL CDIMSE(NE, NZH, NZIRNH)

DESCRIPTION

The CDIMSE subroutine determines the number of nonzero elements required to store the Hessian matrix of the Lagrangian function for the problem decoded into OUTSDIF.d in the constrained minimization case. The matrix is stored in sparse "finite element" format.

By convention, the signs of the Lagrange multipliers V are set so the Lagrangian function can be written as $L(X, V) = f(X) + < c(X), V >$.

ARGUMENTS

The arguments of CDIMSE are as follows

NE [out] - integer
the number of "finite-elements" used,

NZH [out] - integer
the dimension of the array needed to store the real values of the Hessian, taking all the elements into account (i.e. the dimension of the array HI),

NZIRNH [out] - integer
the dimension of the array needed to store the integer values of the Hessian (i.e. the dimension of the array IRNHI).

AUTHORS

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SEE ALSO

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, TOMS, **21**:1, pp.123-160, 1995.