NAME

UDIMSE – CUTEr tool to determine the number of nonzeros required to store the sparse Hessian matrix in finite element format.

SYNOPSIS

CALL UDIMSE(NE, NZH, NZIRNH)

DESCRIPTION

The UDIMSE subroutine determine the number of nonzeros required to store the Hessian matrix of the objective function of the problem decoded into OUTSDIF.d at the point X in the case where the only possible constraints are bound constraints. This Hessian matrix is stored as a sparse matrix in finite element format, using square symmetric elements.

ARGUMENTS

The arguments of UDIMSE 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.

cdimse(3M).