NAME

UOFG – CUTEr tool to evaluate function value and possibly gradient.

SYNOPSIS

CALL UOFG(N, X, F, G, GRAD)

DESCRIPTION

The UOFG subroutine evaluates the value of the objective function of the problem decoded into OUTSDIF.d at the point X, and possibly its gradient in the case where the only possible constraints are bound constraints.

ARGUMENTS

The arguments of UOFG are as follows

N [in] - integer
the number of variables for the problem,

X [in] - real/double precision
an array which gives the current estimate of the solution of the problem,

F [out] - real/double precision
the value of the objective function evaluated at X,

G [out] - real/double precision
an array which gives the value of the gradient of the objective function evaluated at X,

GRAD [in] - logical
a logical variable which should be set to .TRUE. if the gradient of the objective function is required and .FALSE. otherwise.

NOTE

A call to UOFG is more efficient than two separate calls to UFN and UGR.

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.

cofg(3M).