NAME

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

SYNOPSIS

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

DESCRIPTION

The COFG 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 constrained minimization case.

ARGUMENTS

The arguments of COFG 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 COFG is more efficient than two separate calls to CFN and CGR.

AUTHORS

I. Bongartz, A.R. Conn, N.I.M. Gould, D. Orban and Ph.L. Toint

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.

uofg(3M).