NAME

ve09ma – CUTEr VE09 test driver

SYNOPSIS

ve09ma

DESCRIPTION

The *ve09ma* main program test drives VE09 on SIF problems from the CUTEr distribution.

VE09 is a subroutine for the solution of the general, large, quadratic programming problem within a feasible region defined by simple bound and linear equlaity constraints. It uses an active set approach in which the variables are partitioned into free and fixed variables, the latter being fixed at one of their bounds. The status of each variable is revised after every iteration.

VE09 is part of the HARWELL SUBROUTINE LIBRARY, and was written by Nick Gould. It is available from the United Kingdom Atomic Energy Authority, Harwell, subject to certain license agreements. It is copyrighted jointly by the UKAEA and SERC (Science and Engineering Research Council).

USAGE

To build the *precision* precision version, the VE09 *precision* subroutine and dependencies should be concatenated in a new file called ve09.f. This file should then be compiled (but not linked) and the resulting object file ve09.o placed in the direcotory $MYCUTER/*precision*/bin/.

NOTE

If no VE09.SPC file is present in the current directory, the default version is copied from $CUTER/common/src/pkg/ve09/. Default specifications are as follows:

1000	MAXIT,	the maximum number of iterations,
F	CONVEX,	the indicator for convexity of the QP.

The reader is referred to the paper quoted below, the documentation of the routine in the Harwell Subroutine Library or the code itself if he or she wishes to modify these parameters.

ENVIRONMENT

CUTER

Parent directory for CUTEr

MYCUTER

Home directory of the installed CUTEr distribution.

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.

N.I.M. Gould, CSS Report 204, Harwell Laboratory, A.E.R.E., Harwell, 1986.

sdve09(1), ve09(1).