NAME

la04ma – CUTEr LA04 test driver

SYNOPSIS

la04ma

DESCRIPTION

The *la04ma* main program test drives LA04 on SIF problems from the CUTEr distribution.

LA04 is a subroutine for the solution of the general, large, linear programming problem within a feasible region defined by simple bound and linear equlaity constraints. It uses a steepest-edge simplex 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.

LA04 is part of HSL (formerly the Harwell Subroutine Library), and was written by John Reid. It is available from Hyprotech UK Ltd, subject to certain license agreements. It is copywritten jointly by CCLRC and Hyprotech UK.

USAGE

To build the *precision* precision version, the LA04 *precision* subroutine and dependencies should be concatenated in a new file called la04.f. This file should then be compiled (but not linked) and the resulting object file la04.o placed in the direcotory $MYCUTER/*precision*/bin/.

NOTE

If no LA04.SPC file is present in the current directory, the default version is copied from $CUTER/common/src/pkg/la04/. Default specifications are as follows:

1000	MAXIT, the maximum number of iterations.
6	IOUNIT, output unit (<= 0 to supress)
T	WRITES, write the solution to a file?

The reader is referred to the paper quoted below, the documentation of the routine in HSL 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.

LA04, a Fortran 77 code for steepest-edge simplex linear programming, J.K. Reid, Report RAL

TR-2001-???, Rutherford Appleton Laboratory, 2001.

sdla04(1), la04(1).