

NAME

cutest2matlab – CUTEst to Matlab problem interface.

SYNOPSIS

cutest2matlab *problem[.SIF]*

DESCRIPTION

cutest2matlab builds the interface between a problem described in standard input format (SIF) and the CUTEst evaluation tools for Matlab. The command is actually a shortcut to a call to the CUTEst script

```
runcutest -A ARCH -p matlab -D problem[.SIF]
```

where ARCH is the value provided by the environment variable MYMATLABARCH (or MYARCH if MYMATLABARCH has not been set). Checks are performed to see if ARCH exists, a version of CUTEst using the architecture ARCH has been installed and if this architecture uses the gfortran compiler required by Matlab's mex interface.

A successful run of cutest2matlab will create a binary file mcutest.mexglx (32bit Linux), mcutest.mexa64 (64bit Linux) mcutest.mexmaci (32bit OSX) or mcutest.mexmaci64 (64bit OSX). This must be placed on the Matlab search path before calling the Matlab CUTEst tools.

ENVIRONMENT**CUTEST**

Directory containing CUTEst.

MYMATLAB

Directory containing Matlab's mex executable.

MYMATLABARCH

The default architecture that uses gfortran compatible with Matlab's mex.

MYARCH

The default architecture.

MASTSIF

A pointer to the directory containing the CUTEst problems collection. If this variable is not set, the current directory is searched for *problem.SIF*. If it is set, the current directory is searched first, and if *problem.SIF* is not found there, \$MASTSIF is searched.

AUTHORS

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

SEE ALSO

CUTEst: a Constrained and Unconstrained Testing Environment with safe threads,
N.I.M. Gould, D. Orban and Ph.L. Toint,
Technical Report, Rutherford Appleton Laboratory, 2013.

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,
ACM TOMS, **21**:1, pp.123-160, 1995.

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