cutest2matlab(1) cutest2matlab(1)

### **NAME**

cutest2matlab - CUTEst to Matlab problem interface.

#### **SYNOPSIS**

cutest2matlab problem[.SIF]]

## DESCRIPTION

**cutest2matlab** builds the interace 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.

#### 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.

runcutest(1).

29 Jan 2013 1

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29 Jan 2013 1