

**NAME**

CUTEST\_timings – CUTEst tool to find the CPU time used by a CUTEst evaluation subroutine.

**SYNOPSIS**

CALL CUTEST\_timings( status, name, time )

For real rather than double precision arguments, instead

CALL CUTEST\_timings\_s( ... )

and for quadruple precision arguments, when available,

CALL CUTEST\_timings\_q( ... )

**DESCRIPTION**

The CUTEST\_timings subroutine obtains the CPU time used by an individual CUTEst evaluation subroutine.

**ARGUMENTS**

The arguments of CUTEST\_timings are as follows

**status** [out] - integer

the output status: 0 for a successful call, 26 for a call to an unknown evaluation routine,

**name** [in] - character variable of variable length that either contains

the name of a CUTEst subroutine, or one of the words 'start' or 'stop'. Supported values are:

'start' starts to record timings for the CUTEst evaluation tools -  
recordings are initially turned off

'stop' pauses the recording until another 'start' occurs

name is the name of a CUTEst evaluation tool,

where name is one of strings

'cutest\_ccf', 'cutest\_ccfg', 'cutest\_ccfsg', 'cutest\_cch',  
'cutest\_cchprods', 'cutest\_ccifg', 'cutest\_ccifsg',  
'cutest\_cdh', 'cutest\_cdhc', 'cutest\_cdimchp',  
'cutest\_ceh', 'cutest\_cfn', 'cutest\_cgr',  
'cutest\_cgrdh', 'cutest\_chcprod', 'cutest\_chprod',  
'cutest\_cifn', 'cutest\_cigr', 'cutest\_cisgr',  
'cutest\_cidh', 'cutest\_cish', 'cutest\_cjprod',  
'cutest\_clfg', 'cutest\_cofg', 'cutest\_cofsg',  
'cutest\_csgr', 'cutest\_csgreh', 'cutest\_csgrsh',  
'cutest\_csh', 'cutest\_cshc', 'cutest\_cshcprod',  
'cutest\_cshp', 'cutest\_cshprod', 'cutest\_csprod',  
'cutest\_ubandh', 'cutest\_udh', 'cutest\_ueh',  
'cutest\_ufn', 'cutest\_ugr', 'cutest\_ugrdh',  
'cutest\_ugreh', 'cutest\_ugrsh', 'cutest\_uhprod',

'cutest\_uofg', 'cutest\_ush', 'cutest\_ushp' or  
'cutest\_ushprod',

**time** [out] - real that gives the recorded time for the named tool  
(or 0.0 if name is 'start', 'stop' or an unrecognised tool).

## AUTHORS

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## SEE ALSO

*CUTEst: a Constrained and Unconstrained Testing Environment with safe threads*,  
N.I.M. Gould, D. Orban and Ph.L. Toint,  
Computational Optimization and Applications **60**:3, pp.545-557, 2014.

*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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cutest\_ccifg(3M), cutest\_ccifsg(3M), cutest\_cdh(3M), cutest\_cdhc(3M), cutest\_cdimchp(3M),  
cutest\_ceh(3M), cutest\_cfn(3M), cutest\_cgr(3M), cutest\_cgrdh(3M), cutest\_chcprod(3M), cutest\_ch-  
prod(3M), cutest\_cifn(3M), cutest\_cigr(3M), cutest\_cisgr(3M), cutest\_cidh(3M), cutest\_cish(3M),  
cutest\_cjprod(3M), cutest\_clfg(3M), cutest\_cofg(3M), cutest\_cofsg(3M), cutest\_csgr(3M), cutest\_cs-  
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