

**NAME**

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

**SYNOPSIS**

CALL CUTESt\_timings\_threaded( status, name, time, thread )

**DESCRIPTION**

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

**ARGUMENTS**

The arguments of CUTESt\_timings\_threaded 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\_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\_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\_csjprod',  
'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).

**thread** [in] - integer

statistics are for the specified thread; threads are numbered from 1 to the value threads set when calling CUTESt\_usetup\_threaded or CUTESt\_csetup\_threaded.

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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.

sifdecode(1), cutest(3M), cutest\_ccfg\_threaded(3M), cutest\_ccfg\_threaded(3M),  
cutest\_cch\_threaded(3M), cutest\_cchprods\_threaded(3M), cutest\_ccifg\_threaded(3M),  
cutest\_ccifsg\_threaded(3M), cutest\_cdh\_threaded(3M), cutest\_cdhc\_threaded(3M), cutest\_cdim-  
chp\_threaded(3M), cutest\_ceh\_threaded(3M), cutest\_cfn\_threaded(3M), cutest\_cgr\_threaded(3M),  
cutest\_cgrdh\_threaded(3M), cutest\_chcprod\_threaded(3M), cutest\_chprod\_threaded(3M),  
cutest\_cidh\_threaded(3M), cutest\_cish\_threaded(3M), cutest\_cjprod\_threaded(3M),  
cutest\_clfg\_threaded(3M), cutest\_cofg\_threaded(3M), cutest\_cofsg\_threaded(3M),  
cutest\_csgr\_threaded(3M), cutest\_csgreh\_threaded(3M), cutest\_csgrsh\_threaded(3M),  
cutest\_csh\_threaded(3M), cutest\_cshc\_threaded(3M), cutest\_cshcprod\_threaded(3M),  
cutest\_cshp\_threaded(3M), cutest\_cshprod\_threaded(3M), cutest\_csjprod\_threaded(3M),  
cutest\_ubandh\_threaded(3M), cutest\_udh\_threaded(3M), cutest\_ueh\_threaded(3M),  
cutest\_ufn\_threaded(3M), cutest\_ugr\_threaded(3M), cutest\_ugrdh\_threaded(3M),  
cutest\_ugreh\_threaded(3M), cutest\_ugrsh\_threaded(3M), cutest\_uhprod\_threaded(3M),  
cutest\_uofg\_threaded(3M), cutest\_ush\_threaded(3M), cutest\_ushp\_threaded(3M), cutest\_ush-  
prod\_threaded(3M)