

**NAME**

CUTEST\_udimen – CUTEst tool to get the number of variables involved.

**SYNOPSIS**

CALL CUTEST\_udimen( input, status, n )

**DESCRIPTION**

The CUTEST\_udimen subroutine discovers how many variables are involved in the problem decoded from a SIF file by the script *sifdecode*.

The problem under consideration is to minimize or maximize an objective function  $f(x)$  over all  $x \in R^n$  subject to the simple bounds  $x^l \leq x \leq x^u$ . The objective function is group-partially separable.

**ARGUMENTS**

The arguments of CUTEST\_udimen are as follows

**input** [in] - integer

the unit number for the decoded data; the unit from which OUTSDIF.d is read,

**status** [out] - integer

the output status: 0 for a successful call, 1 for an array allocation/deallocation error, 2 for an array bound error, 3 for an evaluation error,

**n** [out] - integer

the number of variables for the problem,

**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.

cutest\_cdimen(3M), sifdecode(1).

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