

NAME

sifdecode – SIF-decoding script.

SYNOPSIS

sifdecode [-s] [-h] [-k] [-o *O/I*] [-l *secs*] [-f] [-b] [-a *I/2*] [-show] [-param *name=value*[*,name=value...*]] [-force] [-debug] *problem*[*.SIF*]

DESCRIPTION

sifdecode applies the SIF decoder to the problem *problem.SIF* to produce the OUTSDIF.d file and the problem-dependant Fortran subroutines. It can be conveniently called from the command line with the `-h`, `-o`, `-show`, `-param` and `-debug` options. Other options are useful when *sifdecode* is called by other interfaces which require the decoding of a SIF file, as for instance a CUTEr interface.

sifdecode Options

You can start sifdecode with the following options:

- s** Run sifdecode in single-precision mode, if available. Double precision is the default.
- h** Print a short help message.
- k** Keep the generated executable after use. May be useful when solving a particular problem with the same solver with different parameters. Deleting the executable after use is the default.
- o *O/I***
Regulate the output level of *sifdecode*. Verbose mode is **-o 1**, silent mode is **-o 0**. Silent mode is the default.
- l *secs***
Set a limit of *secs* second on *VA15* runtime. Unlimited cputime is the default.
- f** Use automatic differentiation in Forward mode
- b** Use automatic differentiation in Backward mode
- a *I/2***
`-a 1` uses the older HSL automatic differentiation package AD01 and `-a 2` uses the newer HSL automatic differentiation package AD02. `-a 2` is the default.
- show**
displays possible parameter settings for *problem*[*.SIF*]. Other options are ignored.
- param**
Cast *problem*[*.SIF*] against explicit parameter settings. Several parameter settings may be given as a comma-separated list following `-param` or using several `-param` flags. Use *sifdec -show problem* to view possible settings. If a setting is not allowed in the SIF file, no action is taken unless `-force` is present.
- force**
Forces the setting of the parameters named using `-param` to the given values, even if those values are not predefined in the SIF file.
- debug**
Links all the libraries, creates the executable and stop to allow debugging. This option automatically enables `-k`, and turns off all compiler options except `-g`.

problem

problem.SIF is the name of the file containing the SIF information on the problem to be solved.

ENVIRONMENT**SIFDEC**

Parent directory for SifDec.

MYSIFDEC

Home directory of the installed SifDec distribution.

MASTSIF

A pointer to the directory containing the CUTEr/SifDec 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

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SEE ALSO

CUTEr (and SifDec): A Constrained and Unconstrained Testing Environment, revisited,
N.I.M. Gould, D. Orban and Ph.L. Toint, 2002.

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.

cob(1), fil(1), gen(1), hrb(1), knit(1), lmb(1), mns(1), nps(1), osl(1), prx(1), sdcob(1), sdfil(1), sdgen(1), sdhrb(1), sdknit(1), sdlmb(1), sdmns(1), sdnps(1), sdosl(1), sdprx(1), sdsnp(1), sdten(1), sdunc(1), sdva15(1), sdve09(1), sdve12(1), sdve14(1), sdvf13(1), snp(1), ten(1), unc(1), va15(1), ve09(1), ve12(1), ve14(1), vf13(1).