

NAG Library Function Document

nag_glopt_bnd_mcs_optset_int (e05jfc)

1 Purpose

nag_glopt_bnd_mcs_optset_int (e05jfc) may be used to supply individual integer optional arguments to nag_glopt_bnd_mcs_solve (e05jbc). The initialization function nag_glopt_bnd_mcs_init (e05jac) **must** have been called before calling nag_glopt_bnd_mcs_optset_int (e05jfc).

2 Specification

```
#include <nag.h>
#include <nage05.h>

void nag_glopt_bnd_mcs_optset_int (const char *optstr, Integer ivalue,
    Nag_E05State *state, NagError *fail)
```

3 Description

nag_glopt_bnd_mcs_optset_int (e05jfc) may be used to supply values for integer optional arguments to nag_glopt_bnd_mcs_solve (e05jbc). It is only necessary to call nag_glopt_bnd_mcs_optset_int (e05jfc) for those arguments whose values are to be different from their default values. One call to nag_glopt_bnd_mcs_optset_int (e05jfc) sets one argument value.

Each integer optional argument is defined by a single character string in **optstr** and the corresponding value in **ivalue**. For example, the following allows the function evaluations limit to be defined:

```
nf = 1000;
e05jfc ('Function Evaluations Limit', nf, &state, &fail);
```

A complete list of optional arguments, their symbolic names and default values is given in Section 12 in nag_glopt_bnd_mcs_solve (e05jbc).

4 References

None.

5 Arguments

- 1: **optstr** – const char * *Input*
On entry: a string identifying an integer-valued optional argument (as described in Section 12 in nag_glopt_bnd_mcs_solve (e05jbc)).
- 2: **ivalue** – Integer *Input*
On entry: an integer value associated with the optional argument in **optstr**.
- 3: **state** – Nag_E05State * *Communication Structure*
state contains information required by other functions in this suite. You must not modify it directly in any way.
- 4: **fail** – NagError * *Input/Output*
The NAG error argument (see Section 3.6 in the Essential Introduction).

6 Error Indicators and Warnings

NE_ALLOC_FAIL

Dynamic memory allocation failed.

NE_BAD_PARAM

On entry, argument $\langle value \rangle$ had an illegal value.

NE_INTERNAL_ERROR

An internal error has occurred in this function. Check the function call and any array sizes. If the call is correct then please contact NAG for assistance.

NE_NOT_INIT

Initialization function `nag_glopt_bnd_mcs_init` (e05jac) has not been called.

NE_OPT_NOT_READ

The supplied optional argument is invalid. A keyword or keyword combination was not recognized.

NE_OUT_OF_RANGE

Attempt to assign a non-positive value of **Function Evaluations Limit** (nf): $nf = \langle value \rangle$.

Attempt to assign a non-positive value of **Local Searches Limit** ($loclim$): $loclim = \langle value \rangle$.

Attempt to assign a non-positive value of **Static Limit** ($stclim$): $stclim = \langle value \rangle$.

7 Accuracy

Not applicable.

8 Parallelism and Performance

Not applicable.

9 Further Comments

`nag_glopt_bnd_mcs_optset_file` (e05jcc) or `nag_glopt_bnd_mcs_optset_string` (e05jdc) may also be used to supply integer optional arguments to `nag_glopt_bnd_mcs_solve` (e05jbc).

10 Example

See Section 10 in `nag_glopt_bnd_mcs_optset_file` (e05jcc).
