NAG Library Function Document

nag_glopt_bnd_mcs_optget_int (e05jkc)

1 Purpose

nag_glopt_bnd_mcs_optget_int (e05jkc) is used to get the value of an integer nag_glopt_bnd_mcs_solve (e05jbc) optional parameter. nag_glopt_bnd_mcs_optget_int (e05jkc) can be used before or after calling nag_glopt_bnd_mcs_solve (e05jbc), but the initialization function nag_glopt_bnd_mcs_init (e05jac) **must** have been called before calling nag_glopt_bnd_mcs_optget_int (e05jkc).

2 Specification

```
#include <nag.h>
#include <nage05.h>
void nag_glopt_bnd_mcs_optget_int (const char *optstr, Integer *ivalue,
     Nag_E05State *state, NagError *fail)
```

3 Description

nag_glopt_bnd_mcs_optget_int (e05jkc) obtains the current value of an integer-valued optional parameter. For example

```
e05jkc ('Local Searches Limit', &loclim, &state, &fail);
```

will result in the value of the optional parameter **Local Searches Limit** being output in `loclim`.

The default values of the optional parameters **Function Evaluations Limit**, **Splits Limit** and **Static Limit** depend on the problem parameter n_r (the number of non-fixed variables). A default value for each of these optional parameters will be set in the first call to the solver nag_glopt_bnd_mcs_solve (e05jbc): before that time, getting the value of any of these optional parameters using nag_glopt_bnd_mcs_optget_int (e05jkc) will not return a meaningful result.

A complete list of optional parameters, 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 parameter (as described in Section 12 in nag_glopt_bnd_mcs_solve (e05jbc)).

2: **ivalue** – Integer * *Output*

On exit: if **fail.code** = NE_NOERROR on exit, **ivalue** contains the integer value associated with the optional parameter 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 2.7 in How to Use the NAG Library and its Documentation).

6 Error Indicators and Warnings

NE_ALLOC_FAIL

Dynamic memory allocation failed.
See Section 2.3.1.2 in How to Use the NAG Library and its Documentation for further information.

NE_BAD_PARAM

On entry, argument ⟨*value*⟩ 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.

An unexpected error has been triggered by this function. Please contact NAG.
See Section 2.7.6 in How to Use the NAG Library and its Documentation for further information.

NE_NO_LICENCE

Your licence key may have expired or may not have been installed correctly.
See Section 2.7.5 in How to Use the NAG Library and its Documentation for further information.

NE_NOT_INIT

Initialization function nag_glopt_bnd_mcs_init (e05jac) has not been called.

NE_OPT_NOT_READ

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

7 Accuracy

Not applicable.

8 Parallelism and Performance

nag_glopt_bnd_mcs_optget_int (e05jkc) is not threaded in any implementation.

9 Further Comments

None.

10 Example

See Section 10 in nag_glopt_bnd_mcs_optset_file (e05jcc).