# 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 argument. 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 argument. For example

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

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

The default values of the optional arguments **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 arguments 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 arguments using nag_glopt_bnd_mcs_optget_int (e05jkc) will not return a meaningful result.

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 *                                                                   *Output*

*On exit*: if **fail**.**code** = NE_NOERROR on exit, **ivalue** contains the 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_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.

**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.

## 7    Accuracy

Not applicable.

## 8    Parallelism and Performance

Not applicable.

## 9    Further Comments

None.

## 10    Example

See Section 10 in nag_glopt_bnd_mcs_optset_file (e05jcc).