

# NAG Library Function Document

## nag\_glopt\_bnd\_mcs\_optget\_real (e05jlc)

### 1 Purpose

nag\_glopt\_bnd\_mcs\_optget\_real (e05jlc) is used to get the value of a real nag\_glopt\_bnd\_mcs\_solve (e05jbc) optional argument. nag\_glopt\_bnd\_mcs\_optget\_real (e05jlc) 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\_real (e05jlc).

### 2 Specification

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

void nag_glopt_bnd_mcs_optget_real (const char *optstr, double *rvalue,
    Nag_E05State *state, NagError *fail)
```

### 3 Description

nag\_glopt\_bnd\_mcs\_optget\_real (e05jlc) obtains the current value of a real-valued optional argument. For example

```
e05jlc ('Local Searches Tolerance', &loctol, &state, &fail);
```

will result in the value of the optional argument **Local Searches Tolerance** being output in loctol.

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 a real-valued optional argument (as described in Section 12 in nag\_glopt\_bnd\_mcs\_solve (e05jbc)).
- 2: **rvalue** – double \* *Output*  
*On exit:* if **fail.code** = NE\_NOERROR on exit, **rvalue** contains the real 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.  
See Section 3.2.1.2 in the Essential Introduction 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 3.6.6 in the Essential Introduction for further information.

### NE\_NO\_LICENCE

Your licence key may have expired or may not have been installed correctly.  
See Section 3.6.5 in the Essential Introduction 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 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).

---