NAG Library Function Document

nag_opt_nlp_option_get_double (e04wlc)

1 Purpose

nag_opt_nlp_option_get_double (e04wlc) is used to get the value of a double optional argument. nag_opt_nlp_option_get_double (e04wlc) can be used before or after calling nag_opt_nlp_solve (e04wdc).

2 Specification

```c
#include <nag.h>
#include <nage04.h>

void nag_opt_nlp_option_get_double (const char *string, double *rvalue, Nag_E04State *state, NagError *fail)
```

3 Description

nag_opt_nlp_option_get_double (e04wlc) obtains the current value of a double option. For example

```c
e04wlc ("LU Factor Tolerance", &factol, &state, &fail);
```

will result in the value of the optional argument **LU Factor Tolerance** being output in `factol`.

A complete list of optional arguments, their abbreviations, synonyms and default values is given in Section 12 in nag_opt_nlp_solve (e04wdc).

4 References

None.

5 Arguments

1: string – const char *

   *Input*

   On entry: a single valid keyword of a double optional argument (as described in Section 12 in nag_opt_nlp_solve (e04wdc)).

2: rvalue – double *

   *Output*

   On exit: the double value associated with the keyword in `string`.

3: state – Nag_E04State *

   *Communication Structure*

   `state` contains internal information required for functions in this suite. It must not be modified 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 \textit{value} had an illegal value.

NE_E04_OPTION_INVALID
The supplied option string is invalid. Check that the keywords are neither ambiguous nor misspelt. The option string is ‘\textit{value}’.

NE_E04WCC_NOT_INIT
The initialization function nag_opt_nlp_init (e04wcc) has not been called.

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.

7 Accuracy
Not applicable.

8 Parallelism and Performance
Not applicable.

9 Further Comments
None.

10 Example
See Section 10 in nag_opt_nlp_option_set_file (e04wec).