

NAG Library Function Document

nag_opt_sparse_nlp_option_get_double (e04vsc)

1 Purpose

nag_opt_sparse_nlp_option_get_double (e04vsc) is used to get the value of a double optional parameter. nag_opt_sparse_nlp_option_get_double (e04vsc) can be used before or after calling nag_opt_sparse_nlp_solve (e04vhc).

2 Specification

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

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

3 Description

nag_opt_sparse_nlp_option_get_double (e04vsc) obtains the current value of a double option. For example

```
e04vsc ("Feasibility Tolerance", &featol, &state, &fail);
```

will result in the value of the optional parameter **Feasibility Tolerance** being output in featol.

A complete list of optional parameters, their abbreviations, synonyms and default values is given in Section 12 in nag_opt_sparse_nlp_solve (e04vhc).

4 References

None.

5 Arguments

- 1: **string** – const char * *Input*
On entry: a single valid keyword of a double optional parameter (as described in Section 12 in nag_opt_sparse_nlp_solve (e04vhc)).
- 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 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_E04_OPTION_INVALID

The supplied option string is invalid. Check that the keywords are neither ambiguous nor misspelt. The option string is '*<value>*'.

NE_E04VGC_NOT_INIT

The initialization function `nag_opt_sparse_nlp_init` (e04vgc) 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 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.

7 Accuracy

Not applicable.

8 Parallelism and Performance

`nag_opt_sparse_nlp_option_get_double` (e04vsc) is not threaded in any implementation.

9 Further Comments

None.

10 Example

See Section 10 in `nag_opt_sparse_nlp_option_set_file` (e04vkc).
