NAG Library Function Document

nag_opt_sparse_convex_qp_option_set_integer (e04ntc)

1 Purpose

nag_opt_sparse_convex_qp_option_set_integer (e04ntc) may be used to supply individual Integer optional arguments to nag_opt_sparse_convex_qp_solve (e04nqc). The initialization function nag_opt_sparse_convex_qp_init (e04npc) **must** have been called before calling nag_opt_sparse_convex_qp_option_set_integer (e04ntc).

2 Specification

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

```
void nag_opt_sparse_convex_qp_option_set_integer (const char *string,
     Integer ivalue, Nag_E04State *state, NagError *fail)
```

3 Description

nag_opt_sparse_convex_qp_option_set_integer (e04ntc) may be used to supply values for Integer optional arguments to nag_opt_sparse_convex_qp_solve (e04nqc). It is only necessary to call nag_opt_sparse_convex_qp_option_set_integer (e04ntc) for those arguments whose values are to be different from their default values. One call to nag_opt_sparse_convex_qp_option_set_integer (e04ntc) sets one argument value.

Each Integer optional argument is defined by a single character string in **string** and the corresponding value in **ivalue**. For example, the following allows the iteration limit to be defined:

```
itnlim = 1000;
if (m > 500) itnlim = 500;
e04ntc ("Iterations", itnlim, &state, &fail);
```

Optional argument settings are preserved following a call to nag_opt_sparse_convex_qp_solve (e04nqc) and so the keyword **Defaults** is provided to allow you to reset all the optional arguments to their default values before a subsequent call to nag_opt_sparse_convex_qp_solve (e04nqc).

A complete list of optional arguments, their abbreviations, synonyms and default values is given in Section 12 in nag_opt_sparse_convex_qp_solve (e04nqc).

4 References

None.

5 Arguments

1: **string** – const char * *Input*

On entry: a single valid keyword of an Integer optional argument (as described in Section 12 in nag_opt_sparse_convex_qp_solve (e04nqc)).

2: **ivalue** – Integer *Input*

On entry: an Integer 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_BAD_PARAM

On entry, argument ⟨*value*⟩ had an illegal value.

NE_E04_OPTION_INVALID

The supplied option is invalid. Check that the keywords are neither ambiguous nor misspelt. The option string is '⟨*value*⟩' and **ivalue** = ⟨*value*⟩.

NE_E04NPC_NOT_INIT

Initialization function nag_opt_sparse_convex_qp_init (e04npc) 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.

7 Accuracy

Not applicable.

8 Parallelism and Performance

Not applicable.

9 Further Comments

nag_opt_sparse_convex_qp_option_set_file (e04nrc) or nag_opt_sparse_convex_qp_option_set_string (e04nsc) may also be used to supply Integer optional arguments to nag_opt_sparse_convex_qp_solve (e04nqc).

10 Example

See Section 10 in nag_opt_sparse_convex_qp_solve (e04nqc) and nag_opt_sparse_convex_qp_option_set_file (e04nrc).