

## NAG Library Function Document

### nag\_opt\_sparse\_convex\_qp\_init (e04npc)

#### 1 Purpose

nag\_opt\_sparse\_convex\_qp\_init (e04npc) is used to initialize the function nag\_opt\_sparse\_convex\_qp\_solve (e04nqc).

#### 2 Specification

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

```
void nag_opt_sparse_convex_qp_init (Nag_E04State *state, NagError *fail)
```

#### 3 Description

nag\_opt\_sparse\_convex\_qp\_init (e04npc) initializes the structure **state** for the function nag\_opt\_sparse\_convex\_qp\_solve (e04nqc).

#### 4 References

None.

#### 5 Arguments

- 1: **state** – Nag\_E04State \* *Communication Structure*  
**state** contains internal information required for functions in this suite. It must not be modified in any way.
- 2: **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  $\langle value \rangle$  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.

#### 7 Accuracy

Not applicable.

#### 8 Further Comments

The time taken by nag\_opt\_sparse\_convex\_qp\_init (e04npc) is negligible.

## 9 Example

See Section 9 in `nag_opt_sparse_convex_qp_solve` (e04nqc) and `nag_opt_sparse_convex_qp_option_set_file` (e04nrc).

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