

## NAG C Library Function Document

### **nag\_opt\_sparse\_nlp\_init (e04vgc)**

#### 1 Purpose

nag\_opt\_sparse\_nlp\_init (e04vgc) is used to initialize the function nag\_opt\_sparse\_nlp\_solve (e04vhc).

#### 2 Specification

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

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

#### 3 Description

nag\_opt\_sparse\_nlp\_init (e04vgc) initializes the structure **state** for the function nag\_opt\_sparse\_nlp\_solve (e04vhc).

#### 4 References

None.

#### 5 Arguments

1:	<b>state</b> – Nag_E04State *	<i>Communication Structure</i>
<b>Note:</b> <b>state</b> is a NAG defined type (see Section 2.2.1.1 of the Essential Introduction).		
<b>state</b> contains internal information required for functions in this suite. It must not be modified in any way.		
2:	<b>fail</b> – NagError *	<i>Input/Output</i>
The NAG error argument (see Section 2.6 of 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 consult NAG for assistance.

#### 7 Accuracy

Not applicable.

#### 8 Further Comments

The time taken by nag\_opt\_sparse\_nlp\_init (e04vgc) is negligible.

## 9 Example

See Section 9 of the documents for nag\_opt\_sparse\_nlp\_solve (e04vhc) and nag\_opt\_sparse\_nlp\_option\_set\_file (e04vkc).

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