

## nag\_ip\_init (h02xxc)

### 1. Purpose

**nag\_ip\_init (h02xxc)** is the options structure initialisation function for Chapter h. This function or **nag\_ip\_read (h02xyc)** must be called before making any use of the options structure.

### 2. Specification

```
#include <nag.h>
#include <nagh02.h>
```

```
void nag_ip_init(Nag_H02_Opt *options)
```

### 3. Description

The integer programming (IP) functions of Chapter h have a number of optional parameters, which are set by means of a structure of type `Nag_H02_Opt`. Optional parameter values may be assigned to members of an options structure directly in the program text and/or by supplying the optional values in a file which can be read by the function **nag\_ip\_read (h02xyc)**.

If optional parameter values are assigned directly in the program text and no use is made of **nag\_ip\_read (h02xyc)**, then **nag\_ip\_init** **must** be called before any assignments are made to the options structure. Initialization is still required even if no assignments are made to the structure before it is passed to the IP function.

If the file reading function **nag\_ip\_read (h02xyc)** is used then this will automatically initialise the options structure if this has not already been done. Any direct assignment to the options structure made **after** a call to **nag\_ip\_read (h02xyc)** must **not** be preceded by a call to **nag\_ip\_init** otherwise the values set by **nag\_ip\_read (h02xyc)** will be lost. Direct assignments to the options structure made **before** calling **nag\_ip\_read (h02xyc)** must, of course, still be preceded by a call to **nag\_ip\_init**.

The purpose of **nag\_ip\_init** is to initialise the options structure members with null values which indicate to the IP function that the optional parameter a structure member represents is not to be changed from its default value.

### 4. Parameters

#### options

Output: the initialised options structure.

### 5. Error Indications and Warnings

None.

### 6. Further Comments

None.

### 7. See Also

**nag\_ip\_read (h02xyc)**  
**nag\_ip\_free (h02xzc)**  
Chapter Introduction.

### 8. Example

For an example of the use of **nag\_ip\_init** see the example program for **nag\_ip\_bb (h02bbc)**.