

## nag\_ode\_ivp\_adams\_free (d02qyc)

### 1. Purpose

nag\_ode\_ivp\_adams\_free is the function for freeing memory from the structure of type Nag\_ODE\_Adams. This memory will have been allocated to pointers within this structure during calls to the NAG C Library function nag\_ode\_ivp\_adams\_setup (d02qwc). This allocated memory is used by functions nag\_ode\_ivp\_adams\_roots (d02qfc) and nag\_ode\_ivp\_adams\_interp (d02qzc).

### 2. Specification

```
#include <nag.h>
#include <nagd02.h>
```

```
void nag_ode_ivp_adams_free(Nag_ODE_Adams *opt)
```

### 3. Description

The NAG C Library functions nag\_ode\_ivp\_adams\_setup (d02qwc), nag\_ode\_ivp\_adams\_roots (d02qfc) and nag\_ode\_ivp\_adams\_interp (d02qzc) use a structure of type Nag\_ODE\_Adams to retain and communicate information between calls of these functions. During this process memory is allocated to several pointers within the structure; nag\_ode\_ivp\_adams\_free may be used to free this memory when all calls to the functions nag\_ode\_ivp\_adams\_setup (d02qwc), nag\_ode\_ivp\_adams\_roots (d02qfc) and nag\_ode\_ivp\_adams\_interp (d02qzc) have been completed. A call to nag\_ode\_ivp\_adams\_free may also be made prior to re-entering nag\_ode\_ivp\_adams\_setup (d02qwc) with the parameter state = **Nag\_NewStart**.

### 4. Parameters

#### opt

Input: the structure used in calls to the functions nag\_ode\_ivp\_adams\_setup (d02qwc), nag\_ode\_ivp\_adams\_roots (d02qfc) and nag\_ode\_ivp\_adams\_interp (d02qzc).

Output: all memory allocated to this structure will have been freed and the pointers set to **NULL**.

### 5. Error Indications and Warnings

None.

### 6. Further Comments

None.

### 7. See Also

nag\_ode\_ivp\_adams\_setup (d02qwc)  
nag\_ode\_ivp\_adams\_roots (d02qfc)  
nag\_ode\_ivp\_adams\_interp (d02qzc)

### 8. Example

For examples of the use of nag\_ode\_ivp\_adams\_free see the example programs for the functions nag\_ode\_ivp\_adams\_roots (d02qfc) and nag\_ode\_ivp\_adams\_interp (d02qzc).

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