NAG Library Function Document

nag_ode_ivp_adams_free (d02qyc)

1   Purpose

nag_ode_ivp_adams_free (d02qyc) 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 (d02qyc) 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 (d02qyc) may also be made prior to re-entering nag_ode_ivp_adams_setup (d02qwc) with the argument **state** = Nag_NewStart.

4   References

None.

5   Arguments

1:    **opt** – Nag_ODE_Adams *   *Input/Output*

On entry: 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).

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

6   Error Indicators and Warnings

None.

7   Accuracy

Not applicable.

8   Parallelism and Performance

nag_ode_ivp_adams_free (d02qyc) is not threaded in any implementation.

9 Further Comments

None.

10 Example

See Section 10 in nag_ode_ivp_adams_roots (d02qfc) and nag_ode_ivp_adams_interp (d02qzc).