

## nag\_ode\_ivp\_rk\_free (d02ppc)

### 1. Purpose

**nag\_ode\_ivp\_rk\_free (d02ppc)** is the function for freeing memory from the structure of type `Nag_ODE_RK`. This memory will have been allocated during a call to the function `nag_ode_ivp_rk_setup (d02pvc)` and `nag_ode_ivp_rk_interp (d02pxc)`. The structure is used to communicate information between the functions `nag_ode_ivp_rk_range (d02pcc)`, `nag_ode_ivp_rk_onestep (d02pdc)`, `nag_ode_ivp_rk_interp (d02pxc)`, `nag_ode_ivp_rk_reset_tend (d02pwc)`, and `nag_ode_ivp_rk_errass (d02pzc)`.

### 2. Specification

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

```
void nag_ode_ivp_rk_free(Nag_ODE_RK *opt)
```

### 3. Description

A structure of type `Nag_ODE_RK` is used to communicate information between the Runge–Kutta functions. On completion of the integration the user can free this memory by a call to `nag_ode_ivp_rk_free`.

### 4. Parameters

**opt**

Input: the structure used to communicate between the Runge–Kutta functions.

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_rk_setup (d02pvc)`

### 8. Example

See the Runge–Kutta example programs.

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