

NAG Toolbox for MATLAB

e04nt

1 Purpose

e04nt may be used to supply individual integer optional parameters to e04nq. The initialization function e04np **must** have been called before calling e04nt.

2 Syntax

```
[cw, iw, rw, ifail] = e04nt(string, ivalue, cw, iw, rw)
```

3 Description

e04nt may be used to supply values for integer optional parameters to e04nq. It is only necessary to call e04nt for those parameters whose values are to be different from their default values. One call to e04nt sets one parameter value.

Each integer optional parameter is defined by a single character string in **string** and the corresponding value in **ivalue**. For example, the following allows the iteration limit to be defined:

```
itnlim = 1000;  
if (m > 500)  
    itnlim = 500;  
end  
[cw, iw, rw, ifail] = e04nt('Iterations', itnlim, cw, iw, rw);
```

Optional parameter settings are preserved following a call to e04nq and so the keyword **Defaults** is provided to allow you to reset all the optional parameters to their default values before a subsequent call to e04nq.

A complete list of optional parameters, their abbreviations, synonyms and default values is given in Section 11 of the document for e04nq.

4 References

None.

5 Parameters

5.1 Compulsory Input Parameters

1: **string – string**

A single valid keyword of an integer optional parameter (as described in Section 11 of the document for e04nq).

2: **ivalue – int32 scalar**

An integer value associated with the keyword in **string**.

3: **cw(*)** – **string array**

Note: the dimension of the array **cw** must be at least **len_{cw}** (see e04np).

4: **iw(*)** – **int32 array**

Note: the dimension of the array **iw** must be at least **len_{iw}** (see e04np).

5: **rw(*)** – **double array**

Note: the dimension of the array **rw** must be at least **len_{rw}** (see e04np).

5.2 Optional Input Parameters

None.

5.3 Input Parameters Omitted from the MATLAB Interface

None.

5.4 Output Parameters

1: **cw(*)** – **string array**

Note: the dimension of the array **cw** must be at least **len_{cw}** (see e04np).

2: **iw(*)** – **int32 array**

Note: the dimension of the array **iw** must be at least **len_{iw}** (see e04np).

3: **rw(*)** – **double array**

Note: the dimension of the array **rw** must be at least **len_{rw}** (see e04np).

4: **ifail** – **int32 scalar**

0 unless the function detects an error (see Section 6).

6 Error Indicators and Warnings

Errors or warnings detected by the function:

ifail = 1

The initialization function e04np has not been called.

ifail = 2

The supplied option is invalid. Check that the keywords are neither ambiguous nor misspelt.

7 Accuracy

Not applicable.

8 Further Comments

e04ns may also be used to supply integer optional parameters to e04nq.

9 Example



```
string = 'Print file';  
ivalue = int32(6);  
[cw, iw, rw, ifail] = e04np();  
[cw, iw, rw, ifail] = e04nt(string, ivalue, cw, iw, rw);  
[ivalueOut, cw, iw, rw, ifail] = e04nx(string, cw, iw, rw)
```

```
ivalueOut =  
        6  
cw =  
    array elided  
iw =  
    array elided  
rw =  
    array elided  
ifail =  
        0
```
