

NAG Toolbox for MATLAB

x02dj

1 Purpose

x02dj returns the ROUNDS parameter of the model of floating-point arithmetic (see Section 2.1.1 in the X02 Chapter Introduction).

2 Syntax

```
[result] = x02dj()
```

3 Description

x02dj indicates the rules obeyed by the model numbers for the computed results of the following basic arithmetic operations: addition, subtraction, multiplication, negation, absolute value, and comparisons.

If ROUNDS is **true**, then the computed result must be the nearest model number to the exact result (assuming that overflow or underflow does not occur); if the exact result is midway between two model numbers, then it may be rounded either way.

If ROUNDS is **false**, then: if the exact result is a model number, then the computed result must be equal to the exact result, otherwise the computed result may be either of the adjacent model numbers on either side of the exact result.

4 References

None.

5 Parameters

5.1 Compulsory Input Parameters

None.

5.2 Optional Input Parameters

None.

5.3 Input Parameters Omitted from the MATLAB Interface

None.

5.4 Output Parameters

1: **result** – logical scalar

The result of the function.

6 Error Indicators and Warnings

None.

7 Accuracy

None.

8 Further Comments

None.

9 Example

```
[result] = x02dj()  
result =  
    1
```
