1 SUMMARY

To **print out a single dimensioned array** in tabular form.

The array is printed as a series of subtables, in an E format to a number of significant figures specified by the user. Each member of the array is identified by an integer printed alongside its entry in the table. The column length is chosen by the user.

ATTRIBUTES — **Version:** 1.0.0. **Types:** `OA02A; OA02AD`. **Original date:** June 1968 (modified January 1985) **Origin:** M.J.Hopper, Harwell.

2 HOW TO USE THE PACKAGE

2.1 Argument List

The single precision version

        CALL OA02A(B,M,NC,NSF)

The double precision version

        CALL OA02AD(B,M,NC,NSF)

B   is a `REAL` (`DOUBLE PRECISION` in the D version) array of length `M` whose contents are to be printed. It is not altered.

M   is an `INTEGER` variable which the user must set to the length of array `B`. It is not altered. **Restriction:** `M>0`.

NC   is an `INTEGER` variable which the user must set to the number of entries to be printed in each column. It is not altered. **Restriction:** `NC>0`.

NSF is an `INTEGER` variable which the user must set to the number of significant figures to be printed in each entry of the table. It is not altered. **Restriction:** `NSF>0`.

2.2 Common area

The single precision version

        COMMON/OA02B/LP

The double precision version

        COMMON/OA02BD/LP

LP   is an `INTEGER` variable with default value 6, set by `BLOCK DATA,` that specifies the stream number for printing.

3 GENERAL INFORMATION

Use of common: see section 2.2.

Workspace: none.

Other routines called directly: none.

Input/output: Output is printed on stream `LP` (see section 2.2).

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Restrictions:
$\quad$ M > 0
$\quad$ NC > 0
$\quad$ NSF > 0

4 METHOD

A straightforward calculation is made.

5 EXAMPLE OF USE

The following program fills an array of length 25 with random numbers and prints them in columns of length 3 with 7 significant figures.

```
C   EXAMPLE OF THE USE OF OA02A
      REAL B(25)
      DO 10 I=1,25
      B(I)=FA01AS(I)
   10 CONTINUE
      M=25
      NC=3
      NSF=6
      CALL OA02A(B,M,NC,NSF)
      STOP
      END
```

This produces the following output

```
1 0.332617E 00   4 0.598121E-01   7 0.165380E 00  10 0.729059E 00  13 0.425124E 00  16 0.595084E 00
2 0.599175E-01   5 0.445025E 00   8 0.228865E 00  11 0.348339E 00  14 0.944325E 00  17 0.245292E 00
3 0.907664E 00   6 0.822879E 00   9 0.817824E 00  12 0.532172E 00  15 0.610361E 00  18 0.957257E 00

19 0.424101E 00  22 0.129676E 00  25 0.210039E-01
20 0.587704E 00  23 0.363515E 00
21 0.521940E 00  24 0.574255E 00
```

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