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**Library:** MATHLIB
**Submitter :**
**Submitted:** 29.08.1968
**Language :** Fortran
**Revised:** 01.12.1994

# Maximum and Minimum Elements of Arrays

Function subprograms MAXIZE, MAXRZE, MAXDFZ and MINIZE, MINRZE, MINDFZ give give the positions of the maximum and minimum elements of a one-dimensional array.

On CDC and Cray computers, the double-precision versions MAXDZE and MINDZE are not available.

**Structure:**

FUNCTION subprograms
User Entry Names: MAXIZE, MAXRZE, MAXDZE, MINIZE, MINRZE, MINDZE
Obsolete User Entry Names: MAXFZE $\equiv$ MAXRZE, MINFZE $\equiv$ MINRZE

**Usage:**

In any arithmetic expression, for t = I (type INTEGER), t = R (type REAL), t = D (type DOUBLE PRECISION),

MAXtZE(A(J),N) and MINtZE(A(J),N)

has the INTEGER value of the location of, respectively, the maximum and minimum elements of the N successive elements of the array A, **relative to the element** A(J), where A is of type t.

**Notes:**

1. If there is more than one location at which the maximum or minimum is attained, the first location is returned as the function value in each case.
2. If N $<$ 1 the function value is 1.
3. Clearly, N+J should not exceed the dimension of the array A.
4. The obsolete older entries MAXFZE (for MAXRZE) and MINFZE (for MINRZE) are kept for a transitional period. They will eventually disappear.

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