

**NAME**

DAYOF – Return the day number corresponding to a given date.

**SYNOPSIS**

**DAY=DAYOF(**DATE**)**

DAY is the INTEGER\*4 number of the day corresponding to DATE

DATE is a CHARACTER\*9 date "dd Mmm yy" in the Unix epoch

**DESCRIPTION**

The Unix epoch counts 01 Jan 70 as day 1, so year numbers "yy" less than 70 are assumed to indicate years 2000...2069 CE. The routine works by counting up the days elapsed from 01 Jan 70 to the given date. First it uses routine DTB to convert the year string to a 2-digit date, and adds either 1900 (for years 70...99) or 2000 (for years 00...69). Then it adds up the days in the years from 1970 to the year before the year given, using LEAPYR to decide whether each year has 365 or 366 days. Next it compares the month string "Mmm" to the month name abbreviations to find the number of the month, and adds up the days in the months of the given year from January to the month before the given month, using LEAPYR to decide whether February has 28 or 29 days. Finally it uses DTB to convert the day string "dd" to a 2-digit number, and adds in that number of days.

Because DATE allows only 2 digits for the year this routine knows nothing about dates before 01 Jan 1970 or after 31 Dec 2069.

**SEE ALSO**

DATEOF, which returns the date corresponding to a given day number

LEAPYR, which is used by this routine

**DIAGNOSTICS**

If the year "yy" is negative, or if the month name "Mmm" is not in the list of abbreviations, or if the day "dd" is impossible for the given month, the routine returns a result of 0.

**BUGS**

The month name must exactly match, in capitalization as well as spelling, one of the strings Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec.

**LINKAGE**

gfortran source.f -L\${HOME}/lib -lmisc

**AUTHOR**

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**EXAMPLE**

```
INTEGER*4 DAYOF
CHARACTER*9 DATE/'02 Sep 83'/
WRITE(6,901) DATE, DAYOF(DATE)
901 FORMAT('date ',A9,' was day ',I4)
STOP
END
```

This example produced the following output:

```
unix[1] a.out
date 02 Sep 83 was day 4993
unix[2]
```