
Subject: Re: equivalent of c function: gmtime
Posted by [sjt](#) on Thu, 09 Jun 1994 09:02:08 GMT
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fitz@nextone.lanl.gov wrote:

: I understand that systime(arg) will return either the number of
: seconds elapsed from Jan 1, 1970 or a string with the current date
: and time. Does anyone know of procedures that are the equivalent
: of the C functions: gmtime, asctime, difftime, etc? In particular,
: given the seconds from Jan 1, 1970, is there a way to get a string
: giving the day, date, and time?

: ---

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This isn't exactly what you need in that it works from 1950.0 rather than 1970, but that should be easy to change.

function invsec, stime

```
;  
;+  
; INVSEC  
; This function converts seconds since 1950.0 into year,day,hour,min, and  
; sec.  
;  
; Call:  
; time = invsec(stime)  
;  
; Return value:  
; time float 5-element array with year, day, hour, min, sec  
;  
; Argument:  
; stime double Seconds since 00:00 UT on 1 Jan 1950 AD.  
;  
; History:  
; Original, converted from Fortran: 11/11/91; SJT  
;-
```

```
sc = stime mod 60.d0
```

```
sec = float(sc)
```

```

min = long(stime)/60
hour = min/60
min = min mod 60
day = hour/24
hour = hour mod 24
year = day/365          ; Warning this will not work after
                        ; about 3400 or 3500 AD (when there
                        ; have been 365 leap years).

day = (day mod 365) - (year+1)/4    ; Won't work after 2100
if (day lt 0) then begin
  year = year - 1
  day = day + 365 + ((year+2) mod 4 eq 0) ; Won't work after 2100
endif

day = day + 1
year = year + 1950

return, float([year, day, hour, min, sec])

end

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"If all else fails--read the instructions!"

O__
-- V`

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