Subject: Y10K
Posted by Richard G. French on Mon, 20 Sep 1999 07:00:00 GMT
View Forum Message <> Reply to Message

Thanks, Ray!
But am I the only astronomer around who is worried about our shortsighted failure to plan for the Y10K problem?
Dick French

Ray Sterner wrote:
>
>
> There may be a number of routines like this floating around, but
> here is another one.
> Two digit years may be politically incorrect right now, but they'll
> soon be back in use
> so a good way to deal with them is useful. The routine below is
> very simple but should
> not break any time soon (I think it might have a problem when years
> need more than 16
> bit integers, but it will be easy to fix and there is time to worry
> about that later). I included
> a keyword to give a base year so 500 years from now somebody could
> deal with 2 digit years
> from the mid-twentieth century without a lot of trouble.
>
> One of these days I'll try to get my IDL library updated. I thought
> this routine might be useful
> right now.
>
> --
>
> Ray Sterner sterner@tesla.jhuapl.edu
> The Johns Hopkins University North latitude 39.16 degrees.
> Applied Physics Laboratory West longitude 76.90 degrees.
> Laurel, MD 20723-6099
>
> ---------- ----------
>
> ;---------- --
> ;+
> ; NAME:
> ; YY2YYYY
> ; PURPOSE:
> ; Convert a 2 digit year to a 4 digit year.
> ; CATEGORY:
> ; CALLING SEQUENCE:
> ; yyyy = yy2yyyy(yy)

```
>  ; INPUTS:
>  ;       yy = 2 digit year.          in
>  ; KEYWORD PARAMETERS:
>  ;       Keywords:
>  ;         /PAST means 4 digit year is current or past.
>  ;           Use this for birthdates or any dates known to be past.
>  ;           By default closest 4 digit year is returned.
>  ;         BASE=base  Use the year given in base instead of the
>  ;           current year to figure out the 4 digit years.
>  ; OUTPUTS:
>  ;       yyyy = 4 digit year.        out
>  ; COMMON BLOCKS:
>  ; NOTES:
>  ;       Notes: 2 digit years will always be useful, so a
>  ;        good way to convert them to 4 digit years is also
>  ;        useful.  This routine should not break in the future.
>  ; MODIFICATION HISTORY:
>  ;       R. Sterner, 1999 Aug 2
>  ;
>  ; Copyright (C) 1999, Johns Hopkins University/Applied Physics Laboratory
>  ; This software may be used, copied, or redistributed as long as it is not
>  ; sold and this copyright notice is reproduced on each copy made.  This
>  ; routine is provided as is without any express or implied warranties
>  ; whatsoever.  Other limitations apply as described in the file disclaimer.txt.
>  ;-
>    ;------------------------------------------------------------ --
>         function yy2yyyy, yy0, past=past, base=base, help=hlp
>
>         if (n_params(0) lt 1) or keyword_set(hlp) then begin
>           print,' Convert a 2 digit year to a 4 digit year.'
>           print,' yyyy = yy2yyyy( yy)'
>           print,'   yy = 2 digit year.          in'
>           print,'   yyyy = 4 digit year.        out'
>           print,' Keywords:'
>           print,'   /PAST means 4 digit year is current or past.'
>           print,'     Use this for birthdates or any dates known to be past.'
>           print,'     By default closest 4 digit year is returned.'
>           print,'   BASE=base  Use the year given in base instead of the'
>           print,'     current year to figure out the 4 digit years.'
>           print,' Notes: 2 digit years will always be useful, so a'
>           print,'  good way to convert them to 4 digit years is also'
>           print,'  useful.  This routine should not break in the future.'
>           return,''
>         endif
>
>         yy = yy0 + 0                        ; Force input to be numeric.
>
>          ;------------------------------------------------------------ --
```

```
>       ;  Find current year (or working year from BASE)
>       ;---------------------------------------------------------- --
>       if n_elements(base) ne 0 then begin
>         yn = base+0                  ; Work with year given in base.
>       endif else begin
>         t = systime()                ; Current time.
>         yn = strmid(t,strlen(t)-4,4)+0  ; Pick off year.
>       endelse
>
>       ;---------------------------------------------------------- --
>       ;  Current century
>       ;---------------------------------------------------------- --
>       cn = 100*fix(yn/100)             ; Current century.
>
>       ;---------------------------------------------------------- --
>       ;  Make list of potential centuries
>       ;---------------------------------------------------------- --
>       list = [cn-100,cn]               ; List of last and current centuries.
>       if not keyword_set(past) then $   ; If not restricted to past years
>         list = [cn+100,list]           ;   then include next century.
>
>       ;---------------------------------------------------------- --
>       ;  Set up storage for output
>       ;---------------------------------------------------------- --
>       yy4 = yy                         ; Copy input to output variable.
>
>       ;---------------------------------------------------------- --
>       ;  Loop through all input years
>       ;---------------------------------------------------------- --
>       for i=0,n_elements(yy)-1 do begin
>         t = yy(i)                    ; Grab i'th year.
>         if t lt 100 then begin         ; 2 digits?
>           lst = list + t             ; Possible 4 digit years.
>           d = abs(yn-lst)              ; Years away from now.
>           w = where(d eq min(d))       ; Look for closest to now (or base).
>           t = lst(w(0))                ; Pull it from list.
>         endif
>         yy4(i) = t                   ; Insert 4 digit year.
>       endfor
>
>       return, yy4                      ; Return 4 digit year.
>
>       end
```