
Subject: Y10K

Posted by [Richard G. French](#) on Mon, 20 Sep 1999 07:00:00 GMT

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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:

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>
>
> 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.
>
> --
>
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>
> -----
>
> ;----- --
> ;+
> ; NAME:
> ;   YY2YYYY
> ; PURPOSE:
> ;   Convert a 2 digit year to a 4 digit year.
> ; CATEGORY:
> ; CALLING SEQUENCE:
> ;   yyyy = yy2yyyy( yy)
```

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> ; 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
> ;
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> ; 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=help
>
>     if (n_params(0) lt 1) or keyword_set(help) 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.
>
> ;----- --

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> ; 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

```
