Subject: A routine for converting 2-digit years.
Posted by Ray Sterner on Mon, 20 Sep 1999 07:00:00 GMT
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<!doctype html public "-//w3c//dtd html 4.0 transitional//en">
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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.
<p> One of these days I'll try to get my IDL library updated.
I thought this routine might be useful

  right now.
<pre>--

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<pre> ---------- ---------- </pre>

<pre> ;---------- --
;+
; NAME:
 ;   ; YY2YYYY
; PURPOSE:
 ;   ; Convert a 2 digit year to a 4 digit year.
; CATEGORY:
; CALLING SEQUENCE:
 ;   ; yyyy = yy2yyyy(yy)
; INPUTS:
 ;   ; yy = 2 digit
year.   & nbsp;   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.   & nbsp; 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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; 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.   & nbsp;   in'
           print,'   yyyy = 4 digit year.   & nbsp; 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   &amp ;nbsp;   &amp
;nbsp;   &amp ;nbsp;   ; Work with year given in base.
         endif else begin
           t =
systime()   & amp;nbsp;   &
amp;nbsp;   & amp;nbsp; ; Current time.
           yn =
strmid(t,strlen(t)-4,4)+0 ; Pick off year.
         endelse

         ;----------
--
         ; Current century
         ;----------
--
         cn =
100*fix(yn/100)   & nbsp;   &
nbsp;   ; 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]   &nb sp;   &nb sp;
;   then include next century.

          ;----------
--
         ; Set up storage for output
          ;----------
--
         yy4 =
yy   &nbs p;   &nbs
p;   &nbs p;   &nbs p; ;
Copy input to output variable.

          ;----------
--
         ; Loop through all input years
          ;----------
--
         for i=0,n_elements(yy)-1 do begin
           t =
yy(i)   & nbsp;   &
nbsp;   & nbsp;   ; Grab i'th year.
           if t lt 100 then
begin   & nbsp;   ; 2 digits?
             lst = list +
t   ;
;   ; Possible 4 digit years.
             d =
abs(yn-lst)   ;
;   ; Years away from now.
             w = where(d eq
min(d))   &am p;nbsp; ; Look for closest to now (or base).
             t =
lst(w(0))   & amp;nbsp;   &
amp;nbsp;   ; Pull it from list.
           endif
           yy4(i) =

t   ;
;   ;   ; Insert 4 digit year.
          endfor

          return,
yy4   &nb sp;   &nb
sp;   &nb sp;   ; Return 4 digit year.

          end</pre>

<pre></pre>
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