
Subject: Re: polyfill problem

Posted by [Andy Loughe](#) on Fri, 24 May 1996 07:00:00 GMT

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Recently a few users indicated that polyfill reacts poorly on many map projections. I have written a simple "wrapper" which prevents bad boy polygons from being drawn at all (providing a better solution doesn't fit my job description). Please let me know if this doesn't work as advertised. Instead of calling polyfill, call my_polyfill within your procedures.

```
;
; Name ..... my_polyfill.pro
;
; Description ..... Before executing polyfill, check that
;                   the (x,y) coordinates are valid.
;
; Parameters ..... x,y contain vertices of the polygon.
;
; Keywords ..... See documentation for polyfill.
;
; Originator ..... Andrew F. Loughe, NOAA/ERL/CDC, 21 MAY 1996.

pro my_polyfill, x, y, _EXTRA=e

on_error, 2

; Convert the x,y coordinates to the normalized system.
result = CONVERT_COORD(x, y, /data, /to_normal) ; DEFAULT: From /data

; Check that /normal or /device might have been set.
if ( KEYWORD_SET(e) ) then begin
  names = TAG_NAMES(e)
  for i = 0, N_TAGS(e)-1 do begin
    if ( names(i) eq 'NORMAL' ) then $
      result = CONVERT_COORD(x, y, /normal, /to_normal) ; From /normalized
    if ( names(i) eq 'DEVICE' ) then $
      result = CONVERT_COORD(x, y, /device, /to_normal) ; From /device
  endfor ; i-loop
endif ; KEYWORD_SET(e)

; Check that the normalized coordinates are within the bounds
; set by !x.window and !y.window
out_of_bounds = 0
if ( MIN(result(0,*)) lt !x.window(0) or $
```

```
MAX(result(0,*)) gt !x.window(1) or $  
MIN(result(1,*)) lt !y.window(0) or $  
MAX(result(1,*)) gt !y.window(1) ) then out_of_bounds = 1
```

```
if (out_of_bounds eq 1) then print, '(x,y) coordinates are out of bounds!'  
if (out_of_bounds eq 0) then polyfill, x, y, _EXTRA=e
```

```
end
```

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Andrew F. Lough [\[afl@cdc.noaa.gov\]](mailto:afl@cdc.noaa.gov), <http://cdc.noaa.gov/~afl>
University of Colorado, CIRES * Campus Box 449 * Boulder, CO 80309
phone: (303) 492-0707 fax: (303) 497-7013
"Give me ambiguity or give me something else!"
