
Subject: Re: Angstrom symbol

Posted by [Eric Deutsch](#) on Thu, 25 May 1995 07:00:00 GMT

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abraham@ast.cam.ac.uk (Roberto Abraham) wrote:

> Hi, I'm a new user of IDL so apologies if this is a FAQ (although I
> did do a quick check of the FAQ List so hopefully it isn't!). Can somebody
> tell me how to make IDL print out an Angstrom symbol? It seems to be
> part of the default font table if one knows how to use the ISO
> encoding to specify the character, which unfortunately I don't and can't
> figure out from the documentation.

If you are interested in generating PostScript plots using the printer's
hardware font and hardware Angstrom symbol, my solution to this problem
can be found at

http://www.astro.washington.edu/deutsch/local_IDL.html

If you can't access this site, here's one of the program examples that
is there. The program shows a little bit how to deal with the difference
between vector fonts and printer hardware fonts. Hope this helps...

Eric

```
; This MAIN_PROGRAM is a demo of how to make publication quality output in
; IDL using Postscript fonts. The program can also be run on X displays
; with the Hershey Triplex font, but special characters will not come out
; looking the same (the price you pay for better quality printed output.)
; See also charsets.pro which prints out the characters sets to the printer.
; Send comments or changes to: deutsch@astro.washington.edu (Eric Deutsch)
;
; You can run this program with something like:
; IDL> setps,/landscape ; direct output to landscape Postscript
; IDL> .run psspecxmpl.pro ; run this program to generate spectrum
; IDL> psclose,auto='sol' ; send output to printer queue sol
```

```
wl=indgen(2000)*4+1000 ; generate wavelength array
spec=sin(wl/1850.)*3+4+randomu(seed,2000) ; generate a noisy sine wave
```

```
if (!d.name eq 'PS') then begin ; If Postscript output mode
  !p.font=0 ; select hardware fonts
  device,/helv,/isolatin1 ; Helvetica ISOLatin fontset
  ang=string(197B) ; Angstrom sym char string
  thk=4 ; thick borders are nice
endif else begin ; If screen or other output mode
  !p.font=-1 ; select Hershey fonts
```

```
xyouts,0,0,/norm,'!17' ; Set to Triplex Roman font
ang='!3'+string(197b)+'!X' ; only Simplex Angstrom
thk=1 ; use regular thickness
endelse
```

```
; Now create the plot. Note that !U is for superscript (Up) and !N is
; for Normal letter sizes.
```

```
plot,wl,spec,yr=[0,10],xstyle=1, $
  xtitle='Wavelength ('+ang+')', $
  ytitle='Flux (10!U-13!N erg cm!U-2!N s!U-1!N '+ang+'!U-1!N)', $
  title='Artificial Spectrum', $
  xcharsize=1.5, ycharsize=1.5, xthick=thk, ythick=thk
```

```
; print a legend-style string with some fancy characters. !9 switches to
; the Postscript Symbol font. !X switches back to the initial font.
; string(nnnB) is a way to generate a string containing a character of
; ASCII value nnn (You NEED the 'B').
```

```
xyouts,2000,9,/data,'H!9b!X: !9s '+string(179B)+'!X 4.23'+string(215B)+ $
  '10!U-13!N '+string(177B)+' 0.54',charsize=2
```

```
; also here's a fancy example of printing world coordinates. !S is save
; a position and !R is to restore to that position.
```

```
degSYM='!9'+string(176B)+'!X'
minSYM='!9'+string(162B)+'!X'
secSYM='!S.!R!9'+string(178B)+'!X'
```

```
xyouts,2000,8.2,/data,charsize=2,'!9a!X(1950)=15!Uh!N37!Um!N 23!S.!R!Us!N31'+$
  ' !9d!X(1950)=+56'+degSYM+'34'+minSYM+'15'+secSYM+'2'
```

```
end
```

```
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```

Eric Deutsch
