
Subject: Re: Controlling axis labels in IDL plots?

Posted by [Liam E. Gumley](#) on Thu, 13 Apr 2000 07:00:00 GMT

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Rachel Howe wrote:

>

> I'm getting very finicky about my IDL plots. (I use direct graphics

> only, no objects --

> conceptually I'm still in the v3.6 era).

> I've learned to use the !p, !x and !y system variables, their associated

> keywords,

> and the axis command, to override most of the defaults, but one thing

> eludes me.

> Does anyone know how the distance of the axis label from the axis is

> determined in a single-panel 2d plot?

> There doesn't seem to be any way to control it directly, but it must be

> some arcane function of the plot area, position/margin settings, and

> character size. If anyone knows an algorithm, I'd be delighted to hear

> it.

> Or would it be easier to give up and just use

> XYOUTS to put the annotations where I want them?

Here's a quick and dirty method which can be used to push the X and Y axis labels further away from the axes using the !C (carriage return) font positioning code:

```
;- Set a reasonable character size and create data
```

```
device, set_character_size=[10, 12]
```

```
x = findgen(200) * 0.1
```

```
y = sin(x)
```

```
;- Default axis label positions
```

```
plot, x, y, xtitle='X AXIS', ytitle='Y AXIS'
```

```
;- Move X axis label down one character
```

```
IDL> plot, x, y, xtitle='!CX AXIS', ytitle='Y AXIS'
```

```
;- Move Y axis label left one character
```

```
IDL> plot, x, y, xtitle='X AXIS', ytitle='Y AXIS!C'
```

I find this particularly useful when adding titles to maps which have a box grid:

```
window, /free
```

```
map_set, -30, 130, scale=40e6, $
```

```
  xmargin=[2, 2], ymargin=[2, 4], title='MAP TITLE!C'
```

```
map_continents
```

```
map_grid, /box, charsize=0.75
```

Unless you add the trailing !C to the title, it is displayed at the same height as the top row of longitude labels. If this method doesn't suit your needs, I think you will have to resort to manually positioned labels.

Cheers,
Liam.

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