Subject: Re: Is there a way to plot with axis breaks in IDL? Posted by mankoff on Sat, 03 Apr 2010 18:21:03 GMT

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```
On Apr 2, 6:12 am, David Fanning <n...@dfanning.com> wrote:
> I've made plots like this before. It is not particularly
> difficult to do *a* plot. It is more difficult to write
> this kind of functionality in a general way.
>
```

I think I just came up with a fairly generic implementation here: http://code.google.com/p/kdm-idl/source/browse/trunk/plotbre ak.pro

For example I was able to produce the following graphic (including equivalent of OPLOT command) with the following two lines of code. http://kenmankoff.com/tmp/plotbreak.png

```
plotbreak, time, p, $
       position=pos, $
       xrange0=[0,1000], $
       xrange1=[1000,3000], $
       breakpct=66, $
       key0={ytitle:'Population (Phytoplankton)', $
           xtitle:'Time (days)', $
           xtickn:['0','20','40','60','80',' '],$
           title: 'Predator v. Prey', $
           thick:2},$
       key1={xtitle:'Time (days)', $
           yst:5,thick:2,$
           xtickn:['100','150','200','250','300'] }
plotbreak, time, z, $
       position=pos, $
       breakpct=66, $
       xrange0=[0,1000], $
       xrange1=[1000,3000], $
       key0={NOERASE:1,color:253,thick:3,yst:5,xst:5}, $
       key1={color:253,thick:3,xst:5,$
           ytitle: 'Population (Zooplankton)'}
```

A truly generic algorithm, which would be difficult, would be recursive and let me specify BREAKPCT=[10,30,80,90,95] rather than just as a single percentage (66% in the above example). It should also be recursive in X and Y. That algorithm, when complete, could then easily be used to draw, for example, a calendar with the weekends

(first and last column) thinner than the middle weekdays. I'll leave that as an exercise to the reader.

