
Subject: Re: Reversal of z axis object
Posted by [davidf](#) on Fri, 30 Jul 1999 07:00:00 GMT
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Waleed Al-Nuaimy (asger@gsiukltd.freemove.co.uk) writes:

- > Hi. I'm trying to get my Z axis object to point downwards, i.e. have 0
- > at the top and
- > numbers increasing down the axis.
- >
- > Using a negative ZCOORD_CONV reverses the numbers but also gives me
- > mirror-image characters. Reversing the TickValues doesn't work either?

I'm not absolutely sure about this, but somehow I vaguely recall that this was a problem that was suppose to get fixed. I'd check with RSI on this one.

Cheers,

David

--

David Fanning, Ph.D.
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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: Reversal of z axis object
Posted by [davidf](#) on Sun, 01 Aug 1999 07:00:00 GMT
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David Fanning (davidf@dfanning.com) writes:

- > Waleed Al-Nuaimy (asger@gsiukltd.freemove.co.uk) writes:
- >
- >> Hi. I'm trying to get my Z axis object to point downwards, i.e. have 0
- >> at the top and
- >> numbers increasing down the axis.
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- >> Using a negative ZCOORD_CONV reverses the numbers but also gives me
- >> mirror-image characters. Reversing the TickValues doesn't work either?
- >
- > I'm not absolutely sure about this, but somehow I vaguely
- > recall that this was a problem that was suppose to get fixed.
- > I'd check with RSI on this one.

I was just working through my Tips database, looking for tips to put on my web page, and I came across this article posted earlier this year by Mark Hadfield. Might be exactly what you are looking for.

Cheers,

David

--

Subject: Re: Reversing an axis with IDLgrAxis
From: "Mark Hadfield" <m.hadfield@niwa.cri.nz>
Date: Tue, 2 Feb 1999 15:08:04 +1300

> OK, I give. I would like to plot an axis (object graphics) with values
> descending rather than ascending in the normal positive direction. I can do
> this using (XY)COORD_CONV, but when I do, the tick text and axis title are
> reversed as well (mirror image) and I can't figure out how to reverse them
> back to read normally.

Plot against the inverse of the variable and get the labels you want via the TICKFORMAT property. The TICKFORMAT_NEGATIVE function below is designed to do this.

Mark Hadfield, m.hadfield@niwa.cri.nz <http://katipo.niwa.cri.nz/~hadfield/>
National Institute for Water and Atmospheric Research
PO Box 14-901, Wellington, New Zealand

```
;+
; NAME:
;   TICKFORMAT_NEGATIVE
;
; PURPOSE:
;   This function is designed for use with the TICKFORMAT property of
IDLgrAxis.
;   Given a real value, it returns a string representing the inverse of that
value.
;
; CATEGORY:
;   Miscellaneous
;   Object graphics
;
; CALLING SEQUENCE:
;   Result = FUNCTION_NAME(Direction, Index, Value)
;
; INPUTS:
```

```

; Direction: Axis direction, required by the TICKFORMAT interface but
; ignored.
;
; Index: Axis index, required by the TICKFORMAT interface but
; ignored.
;
; Value: The real value to be formatted.
;
; OUTPUTS:
; The function returns a scalar string.
;
; EXPLANATION:
; IDLgrAxis objects always have the values increasing from left to right.
; The axis can be reversed, but then the axis labels are seen from behind!
; So to get an axis with values decreasing from left to right, we have to
; plot the inverse of the variable and reformat the axis labels.
;
; TO DO:
; Allow format control via the DATA keyword.
;
; MODIFICATION HISTORY:
; Mark Hadfield, Jun 1998:
; Written.
;-

```

```
function TICKFORMAT_NEGATIVE, Direction, Index, Value
```

```
    return, (format_axis_values(-Value))[0]
```

```
end
```

```
--
```

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