
Subject: Re: Reversing an axis with IDLgrAxis

Posted by [Mark Hadfield](#) on Tue, 02 Feb 1999 08:00:00 GMT

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> 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.

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```
;+
; 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
```
