Subject: Re: character size in normal coordinates
Posted by davidf on Sun, 22 Nov 1998 08:00:00 GMT
View Forum Message <> Reply to Message

Martin Schultz (mgs@io.harvard.edu) writes:

> My guess would be :
>
>   pixsize = !d.y_ch_size * !p.charsize   ; or your own charsize --> gives
> size in pixels
>   normsize = convert_coord(pixsize,/device,/to_normal)
> UGLY! That doesn't work! Well, then
>   normsize = pixsize/!d.y_size

Careful here. The expression:

   normsize = pixsize / !D.Y_Size

is going to evaluation to 0, almost always. :-)

Try:

   normsize = pixsize / Float(!D.Y_Size)

This one has bit me enough that I almost always
remember it. :-)

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting
Phone: 970-221-0438 E-Mail: davidf@dfanning.com
Coyote's Guide to IDL Progamming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: character size in normal coordinates
Posted by Martin Schultz on Sun, 22 Nov 1998 08:00:00 GMT
View Forum Message <> Reply to Message

Axel Schweiger wrote:

> How does one convert the character size into normal coordinates.
> --
> # Axel Schweiger

>

My guess would be :

```
   pixsize = !d.y_ch_size * !p.charsize       ; or your own charsize --> gives
size in pixels
   normsize = convert_coord(pixsize,/device,/to_normal)
 UGLY! That doesn't work! Well, then
   normsize = pixsize/!d.y_size
```

[or maybe you'll have to use !d.x_ch_size and !d.x_size for better results ...]

Hope this gives you an idea at least,
Martin.

--
 -- -------
Dr. Martin Schultz
Department for Engineering&Applied Sciences, Harvard University
109 Pierce Hall, 29 Oxford St., Cambridge, MA-02138, USA

phone: (617)-496-8318
fax : (617)-495-4551

e-mail: mgs@io.harvard.edu
Internet-homepage: http://www-as.harvard.edu/people/staff/mgs/
 -- -------

Subject: Re: character size in normal coordinates
Posted by davidf on Mon, 23 Nov 1998 08:00:00 GMT
View Forum Message <> Reply to Message

David Foster (foster@bial1.ucsd.edu) writes:

> Since !D.[X|Y]_CH_SIZE give the width and height of the rectangle
> that encloses the "average" character in the current font, in
> device units (usually pixels) [from the Online help on !D]:
>
> x_ch_norm = !D.X_CH_SIZE / !D.X_SIZE
> y_ch_norm = !D.Y_CH_SIZE / !D.Y_SIZE
>
> would be my guess. If your window is 100 pixels wide, and your
> object is 50 pixels wide, then in normalized coordinates that
> would be .5 . Or am I having a bad hair day?

I would say your hair will be turning prematurely gray

unless you cast one of those values on the right-hand
side of the equation to FLOAT. :-)

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting
Phone: 970-221-0438 E-Mail: davidf@dfanning.com
Coyote's Guide to IDL Progamming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: character size in normal coordinates
Posted by David Foster on Mon, 23 Nov 1998 08:00:00 GMT

Axel Schweiger wrote:
>
> How does one convert the character size into normal coordinates.
> --
> #-- -----------------
> # Axel Schweiger

Since !D.[X|Y]_CH_SIZE give the width and height of the rectangle
that encloses the "average" character in the current font, in
device units (usually pixels) [from the Online help on !D]:

x_ch_norm = !D.X_CH_SIZE / !D.X_SIZE
y_ch_norm = !D.Y_CH_SIZE / !D.Y_SIZE

would be my guess. If your window is 100 pixels wide, and your
object is 50 pixels wide, then in normalized coordinates that
would be .5 . Or am I having a bad hair day?

Dave
--

~~~~~~ ~~~~~~
  David S. Foster   Univ. of California, San Diego
   Programmer/Analyst   Brain Image Analysis Laboratory
   foster@bial1.ucsd.edu Department of Psychiatry
   (619) 622-5892   8950 Via La Jolla Drive, Suite 2240
              La Jolla, CA 92037
  ~~~~~~ ~~~~~~

Subject: Re: character size in normal coordinates
Posted by Martin Schultz on Mon, 23 Nov 1998 08:00:00 GMT

David Fanning wrote:

> Martin Schultz (mgs@io.harvard.edu) writes:
>
>> My guess would be :
>>
>>   pixsize = !d.y_ch_size * !p.charsize   ; or your own charsize --> gives
>> size in pixels
>>   normsize = convert_coord(pixsize,/device,/to_normal)
>> UGLY! That doesn't work! Well, then
>>   normsize = pixsize/!d.y_size
>
> Careful here. The expression:
>
>   normsize = pixsize / !D.Y_Size
>
> is going to evaluation to 0, almost always. :-)
>
> Try:
>
>   normsize = pixsize / Float(!D.Y_Size)
>
> This one has bit me enough that I almost always
> remember it. :-)
>
> Cheers,
>
> David
>
> --
> David Fanning, Ph.D.
> Fanning Software Consulting
> Phone: 970-221-0438 E-Mail: davidf@dfanning.com
> Coyote's Guide to IDL Progamming: http://www.dfanning.com/
> Toll-Free IDL Book Orders: 1-888-461-0155

Ouch !! But ... if you use !p.charsize you already have a float variable.
IDL> help,!p,/stru
[...]
  CHARSIZE   FLOAT   1.40000
[...]

Martin

--

-- -------
Dr. Martin Schultz
Department for Engineering&Applied Sciences, Harvard University
109 Pierce Hall, 29 Oxford St., Cambridge, MA-02138, USA

phone: (617)-496-8318
fax : (617)-495-4551

e-mail: mgs@io.harvard.edu
Internet-homepage: http://www-as.harvard.edu/people/staff/mgs/
-- -------

Subject: Re: character size in normal coordinates
Posted by David Foster on Tue, 24 Nov 1998 08:00:00 GMT
View Forum Message <> Reply to Message

David Fanning wrote:
>
> David Foster (foster@bial1.ucsd.edu) writes:
>
>> Since !D.[X|Y]_CH_SIZE give the width and height of the rectangle
>> that encloses the "average" character in the current font, in
>> device units (usually pixels) [from the Online help on !D]:
>>
>> x_ch_norm = !D.X_CH_SIZE / !D.X_SIZE
>> y_ch_norm = !D.Y_CH_SIZE / !D.Y_SIZE
>>
>> would be my guess. If your window is 100 pixels wide, and your
>> object is 50 pixels wide, then in normalized coordinates that
>> would be .5 . Or am I having a bad hair day?
>
> I would say your hair will be turning prematurely gray
> unless you cast one of those values on the right-hand
> side of the equation to FLOAT. :-)
>
> Cheers,
>
> David

Doh!

God I hate this pitfall!

Dave

--

~~~~~~ ~~~~~~

David S. Foster   Univ. of California, San Diego
 Programmer/Analyst   Brain Image Analysis Laboratory
 foster@bial1.ucsd.edu Department of Psychiatry
 (619) 622-5892   8950 Via La Jolla Drive, Suite 2240
                 La Jolla, CA 92037

~~~~~~ ~~~~~~