

Hi, Craig

I tried your `inputform_float` and It seems that it won't do max precision with '(d)',

```
IDL> print,inputform_float(-22.1234567890, '(d0)', /dconvert)
-22.123457D
```

```
IDL> print,inputform_float(-22.1234567890, '(d)', /dconvert)
-22.1234570D
```

Craig Markwardt wrote:

```
> David, the "D" format (without zeroes) is probably what you want. I
> have a utility routine in INPUTFORM which converts a floating point
> number to a string. It tries both the G and E formats and takes the
> shortest version that is still correct. See below.
>
> Craig
>
> ;; Convert a floating style value to a string. Note the conversion
> ;; happens twice, once as a E and once as a G. The shortest correct
> ;; version of the two is used.
> ;; X - number to convert, scalar or array, float or double
> ;; FORMAT - optional format to use (set to '(E)' or '(D)' for max precision)
> ;; DCONVERT - set this if the output should be double precision
> function inputform_float, x, format, dconvert=dcon
>   n = n_elements(x)
>   str = string(x(*), format=format)
>   sz = size(x) & tp = sz(sz(0)+1)
>
>   ;; Sorry, there appears to be no other way to make nice looking
>   ;; floating point numbers.
>   str1 = string(x(*), format='(G0)')
>   if tp EQ 4 then x1 = float(str1)
>   if tp EQ 5 then x1 = double(str1)
>   wh = where(x-x1 EQ 0, ct)
>   if ct GT 0 then str(wh) = str1(wh)
>   str1 = 0
>   str = strtrim(str,2)
>
>   p = strpos(str(0), 'E') ;; Make sure at least one element is float-type
```

```

> ;; Note, the space is needed in case the string is placed inside
> ;; another expression down the line.
> if p LT 0 then begin
>   if keyword_set(dcon) then str(0) = str(0) + 'D' $
>   else str(0) = str(0) + 'E'
> endif
> if keyword_set(dcon) then begin
>   ;; Convert from floating to double
>   p = strpos(str, 'E')
>   wh = where(p GE 0, ct)
>   for i = 0L, ct-1 do begin
>     str1 = str(wh(i))
>     strput, str1, 'D', p(wh(i))
>     str(wh(i)) = str1
>   endfor
> endif
> ;; Construct format like (N(A,:","))
> fmt = '('+strtrim(n,2)+'(A,:","))'
> return, string(str, format=fmt)
> end
>
>
>
> --
> -----
> Craig B. Markwardt, Ph.D.   EMAIL: craigmnet@REMOVEcow.physics.wisc.edu
> Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
> -----

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