
Subject: Re: printing floats/integer (ACK, new function defined here
GetFormatString.pro)

Posted by [R.G.S.](#) on Thu, 08 Mar 2001 17:35:09 GMT

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ACK, I sent off the first version of this code before finishing
a small piece (i.e. how I returned out of error situations).
Here is the "final code".

Cheers,
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```
function getformatstring,number
```

```
; this should be big enough to show everything  
showallformatcommand = '(f50.25)'
```

```
nsiz = size(number,/st)  
case nsiz.type of  
;0: Undefined  
;1: Byte  
;2: Integer  
;3: Longword integer  
4: begin; Floating point  
s = STRING(FORMAT=showallformatcommand, number)  
s = strtrim(s,1) ; remove leading blanks  
slen = strlen(s)  
dpos=strpos(s, '.') ; find decimal position  
if dpos eq -1 then begin  
; this shouldn't happen  
print,'Error: no decimal place found'  
return," ; null string  
endif else begin  
; chop off lagging 0s  
zpos=0  
doflag=1  
while doflag do begin ; find how many lagging zeros there are  
char = strmid(s,zpos,1,/reverse)  
if char eq '0' then begin  
zpos=zpos+1  
endif else begin  
doflag=0  
endelse  
endwhile
```

```

endelse
end
5: begin; Double-precision floating
s = STRING(FORMAT=showallformatcommmand, number)
s = strtrim(s,1) ; remove leading blanks
slen = strlen(s)
dpos=strpos(s, '.') ; find decimal posiiton
if dpos eq -1 then begin
; this shouldn't happen
print,'Error: no decimal place found'
return," ; null string
endif else begin
; chop off lagging 0s
zpos=0
doflag=1
while doflag do begin ; find how many lagging zeros there are
char = strmid(s,zpos,1,/reverse)
if char eq '0' then begin
zpos=zpos+1
endif else begin
doflag=0
endelse
endwhile
endelse
end
;6:; Complex floating
;7: String
;8: Structure
;9:; Double-precision complex
;10: Pointer
;11: Object reference
;12:; Unsigned Integer
;13:; Unsigned Longword Integer
;14:; 64-bit Integer
;15:; Unsigned 64-bit Integer
else: begin
print,'Error: Number not a supported type.'
return," ; null string
endelse
endcase

d =slen-dpos-zpos-1
w = dpos+d+1 ; 1 for the decimal place
formatstring = strcompress("(f"+string(w)+".'"+string(d)+"")",/rem)
return,formatstring

end ; end of function

```

```
.  
;  
; ***** main level code here *****  
a = 123121.22222200000d  
;must become 1.22222 without leading or trailing spaces.  
print,'Normal print command:'  
print,a  
print,'Print command with GetFormat:'  
print,a,format=getformatstring(a)  
  
end
```
