Subject: Re: Simple number formatting problem
Posted by Ben Tupper on Wed, 02 Aug 2000 07:00:00 GMT

Paul van Delst wrote:

>
> Good lord! Maybe it's coz you use a Mac....?? :o)
>
>

Actually, I wrote it when I was on windows/unix.   It is not elegant but it
is handy.

Ben

--
Ben Tupper
Bigelow Laboratory for Ocean Science
West Boothbay Harbor, Maine
btupper@bigelow.org
    note: email address new as of 25JULY2000

Subject: Re: Simple number formatting problem
Posted by Paul van Delst on Wed, 02 Aug 2000 07:00:00 GMT

Ben Tupper wrote:
>
> Hello,
>
> I been down this street before. Try using the PARSE_FILENAME() function
> below.   I also added a sort_extension rotuine which worked on the files
> called Untitled.01, Untitled.12, untitled.03

[bunch of stuff snipped...]

Good lord! Maybe it's coz you use a Mac....?? :o)

The Fortran news group has regular questions about this exact same
thing. As David's answer points out, the use of iw.w formatting is oh so
helpful.

paulv

p.s. F95 has a new formatting option, i0, which would print out 1 as

"1", 10 as "10" etc. i.e. the leading blanks removed. Maybe this should
go on a future IDL feature request list....? :o)
--
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Subject: Re: Simple number formatting problem
Posted by Ben Tupper on Wed, 02 Aug 2000 07:00:00 GMT
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Hello,

I been down this street before. Try using the PARSE_FILENAME() function
below.   I also added a sort_extension rotuine which worked on the files
called Untitled.01, Untitled.12, untitled.03

Here's the output of sort_extension:

IDL> sort_extension
Macintosh HD:pemaquid:untitled.01has extension 01
Which is a float value of   1.00000
And is position   0 in the file list
Macintosh HD:pemaquid:untitled.03has extension 03
Which is a float value of   3.00000
And is position   1 in the file list
Macintosh HD:pemaquid:untitled.12has extension 12
Which is a float value of   12.0000
And is position   2 in the file list

+++++START
;+
; NAME:
; PARSE_FILENAME
;
; PURPOSE:
; This function returns a 3 column array of a parsed filename.
; Each column contains the path, filename and extension respectively.
;
; CATEGORY:
; String processing.
;
; CALLING SEQUENCE:
; result = PARSE_FILENAME(Filename)
;

```
; INPUTS:
; Filename : a string or array of strings of the complete path and
;  extension to a file.
;
;
;
;
; OUTPUTS:
; This function returns a 3,n string array. the number of rows is
determined
; by the number of elements in the input parameter.
;  F = PICKFILE(/READ, FILTER = ['pro', 'dat'])
;
; RESTRICTIONS:
; Directories are divided by a forward slash (/) in UNIX or a
; backslash (\) in WINDOWS or a colon (:) in MACOS.
; Three character file extensions are appended with a dot (.).
; MODIFICATION HISTORY:
;  Written by: Ben Tupper, August, 1999
;
; 26 SEP 99 Increased Dot position by one
; 18 JAN 00  Corrected how the FileName is extracted
;      when there is no '.ext'
;-



FUNCTION parse_filename, filelist

OS = StrLowCase( !version.os_family)

case os of

 'unix': separator = '/'
 'windows': separator = '\'
 'macos': separator = ':'

endcase

n = n_elements(filelist)  ; get the number of files that qualify
If n LT 1 Then Return,-1

slash = rstrpos(filelist,separator) +1 ; get the last slash position plus
one
dot = strpos(filelist,'.')  ; get the dot position

len = dot - slash   ; calc the length of the name

parsed = strarr(3,n)
```

```
    ;get the filename
for i = 0,n-1 do $
 If  Dot[i] NE -1 Then parsed[1,i] = strmid(filelist[i],slash[i], len[i])
Else $
   Parsed[1,i] = StrMid(filelist[i],slash[i])

len = slash    ;get the path
for i = 0,n-1 do parsed[0,i] = strmid(filelist[i],0, len[i])

len =  strlen(filelist) - dot-1

   ; get the extension if it exists
For i = 0,N-1 Do Begin
If Dot[i] NE -1 Then $
 parsed[2,i] = strmid(filelist[i],dot[i]+1, len[i]) $
Else $
 parsed[2,i] = Strmid(filelist[i],Slash[i], len[i] - Slash[i])
EndFor

return, parsed

end


PRO SORT_Extension

Files = FindFile('Macintosh HD:pemaquid:untitled*')
Parsed = Parse_FileName(Files)
Floated = Float(StrTrim(Parsed[2,*],2))
Sorted = Sort(Floated)

For i = 0, N_elements(Files)-1 Do Begin
  Print, Files[i] + 'has extension ' +  Parsed[2,i]
  Print, 'Which is a float value of ', Floated[i]
  Print, 'And is position ', Sorted[i], ' in the file list'
EndFor

END
++++++END
```

Simon de Vet wrote:

> Trivial problem, no doubt, but I've never been able to get my brane
> around formatting options.
>
> I have a list of files, with the extension .01, .02, .03 ... .12. The
> preceding portion is indentical in all cases.
>

> I'd like to be able to load these in a loop, but I first need to convert
> the counter value into this format.
>
> My current, and very ugly, technique is to have an array filled with
> ['01', '02', ... '12'], and then reference the appropriate entry. It
> works, but I don't like it.
>
> Any ideas?
>
> Simon

--
Ben Tupper
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btupper@bigelow.org
   note: email address new as of 25JULY2000

Subject: Re: Simple number formatting problem
Posted by davidf on Wed, 02 Aug 2000 07:00:00 GMT
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Simon de Vet (simon@mathstat.dal.ca) writes:

> Trivial problem, no doubt, but I've never been able to get my brane
> around formatting options.
>
> I have a list of files, with the extension .01, .02, .03 ... .12. The
> preceding portion is indentical in all cases.
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> I'd like to be able to load these in a loop, but I first need to convert
> the counter value into this format.
>
> My current, and very ugly, technique is to have an array filled with
> ['01', '02', ... '12'], and then reference the appropriate entry. It
> works, but I don't like it.

I'd try something like this:

```
  IDL> base = 'myfile'
  IDL> ext = '.dat'
  IDL> for j=1,12 do print, base + String(j, Format="(I2.2)") + ext
```

Cheers,

David

--
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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: Simple number formatting problem
Posted by Luis Alonso on Thu, 03 Aug 2000 07:00:00 GMT
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> p.s. F95 has a new formatting option, i0, which would print out 1 as
> "1", 10 as "10" etc. i.e. the leading blanks removed. Maybe this should
> go on a future IDL feature request list....? :o)

strtrim do remove leading blanks. and it would not be longer to write than
the Format thing.

What i really thougt is that the print command shoud print numbers without
any kind of formatting (means no leading blanks, no cutting out decimals...)
unless the format command is used.

It is a pain to keep on writing that strtrim stuff...
And when i need formated print i actually use the format keyword.

That's one other wish for me. Although i know it won't be wellcomed because
of back compatibility

Greets
            Luis Alonso