
Subject: Sort without loops

Posted by [Ian Dean](#) on Wed, 17 Aug 2005 09:08:07 GMT

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Hi All,

I have a large string array (~100000 elements) that need sorting on two fields within each string.

e.g. array=['F;100', 'ABC;6', 'DE;2', 'DE;10', 'DE;1']

Order required is a) sort items to left of ';' followed by b) sort items numerically to right of ';'.

This would produce:

ABC;6 DE;1 DE;2 DE;10 F;100

A simple sort (sort(array)) produces:

ABC;6 DE;1 DE;10 DE;2 F;100

The only way I've found is to convert the RH part to I4.4 format within a loop and search on the new values:

.....

```
for j=0, n_elements(array)-1 do begin
    parts=strsplit(array[j], ';', /extract)
    RH=string(fix(parts[1]), format='(I4.4)')
    new[j]=parts[0]+RH
endfor
order=sort(new)
```

...

i.e

new array is F;0100 ABC;0006 DE;0002 DE;0010 DE;0001

which is then sorted correctly.

Is there a clever way of sorting on two fields like this without using a loop. The above algorithm is faaaar slower than just using sort.

I hope I have made this as clear as mud. #

In expectation,
Ian
