Subject: Removing (or replacing) substrings in a string array Posted by on Wed, 22 Jan 2014 14:13:08 GMT

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Say I have a string array where each string may or may not begin with a dot (".") and may or may not end with a dot. What is an efficient (non-loop?) way of removing those dots in IDL 7?

The reason I specify IDL 7 is that I realize this could be done with strsplit in IDL 8 but in IDL 7 straplit does not support string arrays.

Alternatively, if I could make it so those dots are not there in the first place, that's even better. What I'm trying to do it to parse an array of strings, where the fields are separated by dots but I cannot identify the substrings by their position. What I can do is to identify them with regular expressions because they all have different forms. And stregex supports string arrays also in IDL 7.

So I can do something like strmid(stregex(strlist,'\.[0-9]{5}\.',/extr),1,5) if I know I have a five-digit number surrounded by dots. I remove the dots with the strmid command.

But any field can also be first or last, so to find it I need to do stregex(strlist,'(\.|^)[0-9]{5}(\.|\$)',/extr). But then one of the dots will be missing in those cases when the field really is first or last, so the simple strmid operation does not work.

And some fields can have variable lengths but be identified by an initial character, so I could find it with something like stregex(strlist,'(\.|^)f[+-][0-9]+(\.|\$)',/extr). In this case strmid does not work even when there is a dot at the end, because I don't know its position.

Would be great if I could tell stregex to return everything but the dots (if present) but I don't know if that is possible. Can't you do something like that with regular expressions in the shell? Or was it in elisp?

I wanted to educate myself and went looking for "Making Regular Expressions Your Friends" by Mike Galloy but the links seem to be dead in http://michaelgalloy.com/2006/06/11/regular-expressions.html and the link in http://www.exelisvis.com/docs/Learning_About_Regular_E.html leads to a page telling me that "The mgunit project site has moved to Github" and when I follow the provided link to github I can't find the document.

Hmmm... I guess if I substitute '.'+strlist+'.' for strlist in all stregex calls I don't have to worry about the case where there are no dots. But that seems not so elegant and it still does not solve the problem with unknown lengths.