
Subject: Re: Renaming tags in an array of structures
Posted by [Michael Williams](#) on Fri, 17 Sep 2010 14:16:03 GMT
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On Sep 17, 3:30 pm, Paul van Delst <paul.vande...@noaa.gov> wrote:

> Michael Williams wrote:

>> I have an array of structures:

>

>> IDL> x = {a: 1, b:2, c: indgen(5)}

>> IDL> xx = replicate(x, 10)

>

>> In this case, I want to rename the 'b' tag to 'foo' and the 'c' tag to

>> bar.

>

> Can one inquire why you would like/need to do this?

I'm reading in a FITS file (data format used in astronomy) that I did not create. The library function I'm using to do this (mrdfits from astroidl) returns an array of structures. The names of the tags are specified in the fits file itself.

It so happens that in this new file I'm working with, these names do not match the choices used for the same data in all my other files. For example, let's say I want to plot old_data.speed against new_data.speed. But new_data doesn't have a .speed tag. It calls it .velocity. If it's just one tag and just one case, then hard coding something would work, but as the number of tags grows this becomes ugly and error prone. It would be much easier and more general to just rename tags. Unfortunately that seems to be non-trivial in IDL.

In my case, the best thing to do is probably to edit the FITS file at source and change the header so that the tag names match. That may not be possible (or desirable from a data purity point of view) in all circumstances, and renaming data structures or changing the metadata associated with a structure should of course be possible in a modern language! Hence this question :-)

-- Mike
