Subject: Re: Looping through structures
Posted by Paul Van Delst[1] on Tue, 01 Mar 2016 18:16:45 GMT
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Hello,

On 03/01/16 12:53, Wayana Dolan wrote:
> So I am analyzing a years worth of data, which I got in the form of
> structures for each month.
>
> For example
>
> StrucJan has arrays (is tags the correct word?) called, lon, lat,
> gas_conc (we are measuring gas concentration). And StrucFeb also has
> the tags lon, lat, and gas_conc. Each month is in the same format.
>
> I've got a bunch of code that does calculations with the January
> data. But I'm not sure how to loop over it so it does all the same
> calculations with the February data, and then the march, april, may
> etc. data (all of which are in the same format with the exact same
> tags).
>
> Hopefully this makes sense!

Some methods are below...(not sure anonymous structures are required or not)

IDL> structjan={lat:1.0, lon:2.0, gas_conc:380.0}
IDL> structfeb={lat:3.0, lon:4.0, gas_conc:394.0}
IDL> structmar={lat:5.0, lon:6.0, gas_conc:403.0}

* Array
IDL> structyear = [structjan, structfeb, structmar]

IDL> help, structyear
STRUCTYEAR   STRUCT   = -> <Anonymous> Array[3]

IDL> help, structyear[2].gas_conc
<Expression>   FLOAT   =   403.000

* Hash
IDL> structyear=hash()
IDL> structyear['jan']=structjan
IDL> structyear['feb']=structfeb
IDL> structyear['mar']=structmar

IDL> help, structyear['mar'].gas_conc

<Expression>   FLOAT   =   403.000

* List
IDL> structyear=list()
IDL> structyear.add, structjan
IDL> structyear.add, structfeb
IDL> structyear.add, structmar

IDL> help, structyear[2].gas_conc
<Expression>   FLOAT   =   403.000

The usefulness of these to you depends mostly (I think) on how your
processing code cycles through the months. E.g. array and year assume
jan-dec is 0-11. Hash assumes a key (doesn't have to be a month string,
can be an integer number too.)

cheers,

paulv