Subject: Re: i don't see how to summarize it into an object name... :)
Posted by Andi Walther on Thu, 17 Sep 2009 19:05:46 GMT
View Forum Message <> Reply to Message

On Sep 17, 6:29 pm, pp <pp.pente...@gmail.com> wrote:
> On Sep 17, 12:56 pm, "Thibault ." <garthalg...@yahoo.fr> wrote:
>
>
>
>> Hi,
>
>> In a routine, I have created arrays named arr_1, arr_2 and arr_3.
>> I saved them in a file in myfile.sav.
>
>> Then when I restore the file, I want to plot my different arrays.
>
>> Since i am lazy I would like to make a for loop to do the plots
>> (actually thats because i have more than 3 arrays...) but how can I
>> call at each iteration the arrays?
>
>> To illustrate what i'd like to do is:
>
>> for i=1,3 then begin
>
>> plot,arr_i
>
>> endfor
>
>> Of course it does not work but its to show the idea...
>
>> Is there a simple way to handle this?
>> thanks
>
> There are two simple ways: pointers and structures.
>
> With pointers, you make a pointer array. Then when you create each of
> your arrays, you make a copy of it to store in the target of one
> element of that pointer array. Something like:
>
> parr=ptrarr(3)
> for i=0,2 do begin
> *do stuff to make i-th array, into an array called arr*
> parr[i]=arr
> endfor
>
> Then when you restore it, you can plot all of them with:
>
> for i=0,2 do plot,*parr[i]

>
> With pointers each array is found by an index into the pointer array.
> If the number is small and they represent different things, it might
> be more convenient to use a structure, so that they also get
> associated with names. For instance, say you have 3 arrays called
> temperature, pressure, and density:
>
> sarr={temperature:temperature,pressure:pressure,density:dens ity}
>
> Then they could be plotted with
>
> names=tag_names(sarr)
> for i=0,n_elements(names)-1 do plot,sarr.(i),title=names[i]
>
> Which would save you from keeping track of which index is which
> variable. And you could also access things by their names directly, as
> in plot,sar.temperatures. But if you have a large number of arrays of
> similar content (say, temperature values resulting from different
> sources), a pointer array is more likely to be nicer.
>
> For more complicated structures it may be easier to use the function
> create_struct.
>
> Either way, this was assuming that you can go back to the program that
> made the save file, and make the pointer array or the structure to put
> into the save file. If that is not the case, the nicest way probably
> is to use Craig Markwardt's cmrestore, which can give you the contents
> of a save file in a pointer array or in a structure:
>
> http://cow.physics.wisc.edu/~craigm/idl/cmsave.html

```
for i=1,3 then begin

   dummy = execute(plot,arr_'+string(i,format='(i1)')

endfor
```
