Subject: Re: Defining structuretype during runtime?? QUESTION!! (no reply)
Posted by Thomas A McGlynn on Mon, 11 Sep 1995 07:00:00 GMT
View Forum Message <> Reply to Message

jackel@canlon.physics.uwo.ca (Brian Jackel) wrote:
> In article <42n2sj$dhk@news.tuwien.ac.at> "Christian Oehreneder
> (PHOTO-Dissertand)" <coehrene> writes:
>
>> MY PROBLEM AGAIN:
>
>>> Schalom!
>>>
>>> I want to store variables of different type together in structure. The
>>> type of each structure elemet is defined DURING RUNTIME.
>>> How can I create a structure, whos tag types and tag number are defined
>>> at runtime?
>>>
>>> Thanks in advance
>>>   Chris
>>>
>
> Have you considered using the intrinsic function "CREATE_STRUCT"?
> Note that this will make named or anonymous structures.

There's a problem using CREATE_STRUCT if you don't know the number of elements in the structure in advance. It requires a separate argument for each value. I've built and seen other versions of functions that return structures where the both the names and values can be passed in as arrays. This gives the greatest flexibility in defining structures on the fly. E.g., one can call:

```
str = mrd_struct(['a','b','c'],['0.', '1L', 'intarr(30,30)'])
```

to create a structure with three elements, a scalar real, a scalar long and a 30x30 integer array. Using create_struct directly you've got problems if you don't know the number of elements in the structure.

You can implement this internally using the IDL create_struct to build the structure by concatenation, the
execute function (for short structures), or by dynamically compiling functions defining the appropriate structure.

Good luck.

Tom McGlynn
Goddard Space Flight Center
mcglynn@grossc.gsfc.nasa.gov