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Subject: Re: Defining structuretype during runtime?? QUESTION!! (no reply)

Posted by [Juergen Paff](#) on Thu, 07 Sep 1995 07:00:00 GMT

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"Christian Oehrener (PHOTO-Dissertand)" <coehrene> wrote:

>> Schalom!

>>

Dto.

>> I want to store variables of different type together in structure. The

>> type of each structure element is defined DURING RUNTIME.

>> How can I create a structure, whose tag types and tag number are defined

>> at runtime?

>>

>> Thanks in advance

>> Chris

>>

>

I'm not sure I understood completely what you're up for, but here are some remarks that may help:

(You didn't mention what you're using, Wave or IDL. But I assume the hints below are valid for both systems. They at least hold for Wave)

1) You cannot redefine a struct that has a name. Fortunately, there are unnamed structures. They can be defined at will, f.i.

```
my_struct={ , tagname1: value_of_type_tagtype1, $
            tagname2: value_of_type_tagtype2, $
            tagname3: value_of_type_tagtype3, $
            ; and so on.
            }
```

2) As you learn (name and) type only at run time, you might want to use the command

```
return_status=execute(string_argument)
```

string\_argument has to be a string that contains a command that is valid at run time. Consider the following situation:

The type of tag1 is stored in string type1, and the name in string name1, and analogous for tag2, tag3. Consider further that values of the appropriate time are stored in variables with names value1, value2, and value3.

Then you could use the code:

```
status=execute( $
    "my_struct={ , '+name1+': '+value1+', '+ $
                name2+': '+value2+', '+ $
                name3+': '+value3+' } " )
```

At run time, this would fill in the contents of the string variables, and then execute the resulting command.

If you don't know the values yet, you could use a default initialization:

```
"my_struct={ , '+name1+': '+type1+'(0), '+ $  
    '+name2+': '+type2+'(0), '+ $  
    '+name3+': '+type3+'(0) }' "
```

Note: The above initialization with '0' may cause problems if type is, f. i., complex. If things like this can happen, you need to catch them with some ifs.

Okay, looks a little messy. However, this 'execute' command is incredibly helpful. You generate the code you need at runtime by glueing together the appropriate strings.

Note: There may be some errors in the above code, I couldn't test it.

Hope you got the gist.

In case I misunderstood you completely: plse send me mail.

Good luck            Juergen

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