
Subject: Re: writing recursive functions

Posted by [davidf](#) on Wed, 02 Jun 1999 07:00:00 GMT

[View Forum Message](#) <> [Reply to Message](#)

Martin Downing (m.downing@abdn.ac.uk) writes:

```
> My aim is to write a function that (recursively) call itself, that can be
> compiled on the fly as with standard code.
> So - whats the problem, well if you _could_ write a function for factorials
> using recursion as:
>
> -----
> ; fact.pro : take 1
> ; example of recursion (I know there's a factorial function!!)
> function fact , n=n
>     res = float(n)
>     if res gt 1 then $
>         res = res * fact(n=res-1)
>     return, res
> end
> ; (I used a keyword as otherwise it compiles thinking fact() is a variable)
> -----
>
> ...This will not compile
```

How about this, using Forward_Function to indicate that FACT is a function and not a variable. You could go back to using n as a positional parameter. :-)

```
function fact , n=n
forward_function fact
    res = float(n)
    if res gt 1 then $
        res = res * fact(n=res-1)
    return, res
end
```

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting

Phone: 970-221-0438 E-Mail: davidf@dfanning.com

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Toll-Free IDL Book Orders: 1-888-461-0155
