
Subject: Re: Recursive function/procedure
Posted by [Martin Schultz](#) on Fri, 23 Apr 1999 07:00:00 GMT
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Tri VU KHAC wrote:

- >
- > Hi folks,
- > How to write a recursive function/procedure ?
- > What are programming problems of this technique in IDL ?
- > Thanks for help.
- > Best regards,
- > Tri

since the first question has been answered let me address the second one:

as always with recursive procedures, you must take care not to run into infinite loops (and there is some limitation as to how many recursions you can make although I don't know the number now). Hence, a "safe" recursive procedure would look like this:

```
pro recurse,level

    MAX_LEVEL = 1000 ; or whatever is reasonable

    if (n_elements(level) eq 0) then level = 0 ; main entry level
    if (level gt MAX_LEVEL) then begin
        message,'Maximum number of iterations exceeded!' ; optional +
    ,/Continue
        return
    endif

    ; *** do your stuff here

    recurse,level+1

    ; *** do more stuff here

    return
end
```

Regards,
Martin.

--

Dr. Martin Schultz

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Subject: Re: Recursive function/procedure
Posted by [ronn](#) on Fri, 23 Apr 1999 07:00:00 GMT
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In article <372050FC.85669B9@info.fundp.ac.be>,
Tri VU KHAC <tvk@info.fundp.ac.be> wrote:
> Hi folks,
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> Thanks for help.
> Best regards,
> Tri
>
>
Tri,

I have a couple of sections of using recursion (procedures, functions and methods!) in my new book. Check out my web site at www.rkling.com for details.

-Ronn

-----== Posted via Deja News, The Discussion Network ==-----
<http://www.dejanews.com/> Search, Read, Discuss, or Start Your Own

Subject: Re: Recursive function/procedure
Posted by [mgs](#) on Fri, 23 Apr 1999 07:00:00 GMT
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In article <7fpsdj\$pe1\$1@nnrp1.dejanews.com>, wbiagiot@suffolk.lib.ny.us wrote:
> Tri VU KHAC <tvk@info.fundp.ac.be> wrote:
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>> Thanks for help.
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>>

I have a recursive program on my site at <http://www.ivsoftware.com/>.
Select the IDL Code link and look for bitex.

--

Mike Schienle
mgs@ivsoftware.com
<http://www.ivsoftware.com/>

Interactive Visuals, Inc.
Remote Sensing and Image Processing
Analysis and Application Development

Subject: Re: Recursive function/procedure
Posted by [wbiagiot](#) on Fri, 23 Apr 1999 07:00:00 GMT
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Tri VU KHAC <tvk@info.fundp.ac.be> wrote:

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>

Hi Tri,

Well, writing a recursive routine is pretty much the same in any language.
Here's a quick example:

PRO My_routine, My_mode_parameter

```
CASE (My_mode_parameter) OF
0: BEGIN ; Perform all 3 actions
    My_routine, 1
    My_routine, 2
    My_routine, 3
    END
1: BEGIN
    <action 1>
    END
2: BEGIN
    <action 2>
    END
3: BEGIN
```

```
<action 3>
END
ELSE:
ENDCASE
```

END ; PRO

Hope this helps.

-Bill

-----== Posted via Deja News, The Discussion Network ==-----
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Subject: Re: Recursive function/procedure
Posted by [Brian Jackel](#) on Sat, 24 Apr 1999 07:00:00 GMT
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Tri VU KHAC wrote:

```
>
> Hi folks,
>
> I did not see anyone tells about this problem:
>
> function AAA, a,b,C=c,D=d
>   return, AAA(a, b, C=c, D=d)
> end
>
> Creating this function is very stupid. But the problem is not in this
> function.
> Writing this function is correct, I think. But if you compile this, the
> compiler says there is a syntax error:
>
>   return, AAA(a, b, C=c, D=d)
>                   ^
> Syntax error.
>
> However, if I do a litle strick:
> +remove the two last parameters (c,d)
> +compile this function (no error here)
> +add the two last parameters (c,d)
> +re-compile this function - well, it passes with no error.
>
> Now this function already works very well.
> Could you tell me why ? How to avoid this stupid doing ?
> Best regards,
```

Take a look at the FORWARD_FUNCTION command.

--

Brian Jackel

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Posted by [VU KHAC Tri](#) on Sat, 24 Apr 1999 07:00:00 GMT
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Syntax error.

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