

---

Subject: temporary() problem

Posted by [spluque](#) on Tue, 24 Sep 2013 20:25:52 GMT

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

---

Hi,

I'm not sure I understand why the variable 'a' below gets undefined after calling a procedure using temporary():

```
IDL> a='a, b, c'
IDL> help, a
A          STRING    = 'a, b, c'
IDL> .run "test.pro"
% Compiled module: TEST.
IDL> test, a
IDL> help, a
A          UNDEFINED = <Undefined>
```

The contents of test.pro:

```
PRO TEST, str
  ostr=strsplit(temporary(str), ' ', /extract)
END
```

Why is temporary() messing with the top level environment?

Seb

---

---

Subject: Re: temporary() problem

Posted by [David Fanning](#) on Tue, 24 Sep 2013 20:32:54 GMT

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

---

spluque@gmail.com writes:

> I'm not sure I understand why the variable 'a' below gets undefined after calling a procedure using temporary():

```
>
> IDL> a='a, b, c'
> IDL> help, a
> A          STRING    = 'a, b, c'
> IDL> .run "test.pro"
> % Compiled module: TEST.
> IDL> test, a
> IDL> help, a
```

```
> A      UNDEFINED = <Undefined>
>
>
> The contents of test.pro:
>
> PRO TEST, str
>   ostr=strsplit(temporary(str), ' ', /extract)
> END
>
>
> Why is temporary() messing with the top level environment?
```

Because variables are passed by reference in IDL, not by value (copied into the procedure). In this case, you are working with the variable str itself, not a copy of the variable.

Cheers,

David

--

David Fanning, Ph.D.  
Fanning Software Consulting, Inc.  
Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>  
Sepore ma de ni thue. ("Perhaps thou speakest truth.")

---

Subject: Re: temporary() problem  
Posted by [Paul Van Delst\[1\]](#) on Tue, 24 Sep 2013 21:29:08 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On 09/24/13 16:32, David Fanning wrote:

```
> spluque@gmail.com writes:
>
>> I'm not sure I understand why the variable 'a' below gets undefined after calling a procedure
>> using temporary():
>>
>> IDL> a='a, b, c'
>> IDL> help, a
>> A      STRING    = 'a, b, c'
>> IDL> .run "test.pro"
>> % Compiled module: TEST.
>> IDL> test, a
>> IDL> help, a
>> A      UNDEFINED = <Undefined>
>>
>>
```

```
>> The contents of test.pro:
>>
>> PRO TEST, str
>>   ostr=strsplit(temporary(str), ' ', /extract)
>> END
>>
>>
>> Why is temporary() messing with the top level environment?
>
> Because variables are passed by reference in IDL, not by value (copied
> into the procedure). In this case, you are working with the variable str
> itself, not a copy of the variable.
```

I would go with the explanation that temporary() is "messaging" with the top level environment because that's what the programmer wrote it to do.

"Why is the computer doing what I told it to do, not what I want it to do?"

:o)

For the OP, try this for some obfuscatory fun:

```
IDL> a=['qwerty','a,b,c']
IDL> help, a
A      STRING   = Array[2]
IDL> print, a
qwerty a,b,c
IDL> .run "test.pro"
% Compiled module: TEST.
IDL> test, a[1]
IDL> print, a
```

---

Subject: Re: temporary() problem

Posted by [David Fanning](#) on Tue, 24 Sep 2013 21:39:39 GMT

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

---

Paul van Delst writes:

```
> I would go with the explanation that temporary() is "messaging" with the
> top level environment because that's what the programmer wrote it to do.
>
> "Why is the computer doing what I told it to do, not what I want it to do?"
```

This comes later in the syllabus, when we talk about "programming philosophy, prayer, and metaphysics." ;-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

Sepore ma de ni thue. ("Perhaps thou speakest truth.")

---

Subject: Re: temporary() problem

Posted by [spluque](#) on Tue, 24 Sep 2013 22:43:47 GMT

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

---

Thanks to both of you! Clearly, I wasn't paying attention to the book section on argument passing mechanism. Now I've learnt not to use temporary() directly on arguments!

Cheers,  
Seb

On Tuesday, September 24, 2013 4:39:39 PM UTC-5, David Fanning wrote:

> Paul van Delst writes:

>

>

>

>> I would go with the explanation that temporary() is "messaging" with the

>

>> top level environment because that's what the programmer wrote it to do.

>

>>

>

>> "Why is the computer doing what I told it to do, not what I want it to do?"

>

>

>

> This comes later in the syllabus, when we talk about "programming

>

> philosophy, prayer, and metaphysics." ;-)

>

>

>

> Cheers,

>

>

>

> David

>  
>  
>  
> --  
>  
> David Fanning, Ph.D.  
>  
> Fanning Software Consulting, Inc.  
>  
> Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>  
>  
> Sepore ma de ni thue. ("Perhaps thou speakest truth.")

---