
Subject: object suggestion for future IDL versions

Posted by [John Persing](#) on Mon, 21 Jun 1999 07:00:00 GMT

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I don't know if anybody else has had this problem, but it occurs with objects that take advantage of inheritance. The object may take advantage of the inherited methods by using the notation

```
self->method_name, arg1, arg2, etc
```

But if the new object redefines any of the inherited methods (for example "assign"), it cannot make reference to the inherited method. So say our new object is just like the inherited object, except that when the data is changed, a time stamp is placed on the data so

```
PRO dat_new__define
struct = {dat_new, time_stamp:", INHERITS dat_old}
END
```

can define our new object. Ideally, I think, we would want to extend the assign method like this

```
PRO dat_new::assign, field_string, value
self->assign, field_string, value
self.time_string = STRING(SYSTIME())
END
```

I am not exactly sure if this is the way objects should work, but this is the way I want them to work. The work around is to put an extra level of abstraction in the definitions of the parent methods, or provide the new object with a new method name. The former solution leads to a duplication of every method, and more dangerously, two ways to do everything. The latter solution presents the even more dangerous possibility that the parent object method is available to edit the data without updating the time stamp. So I have settled on the solution of cut and pasting the parent definition of the method and making the one-line change that I need to in the new method.

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}3 John Persing }3

<http://www.frii.com/~persing> persing@frii.com

Half of all Americans earn less than the median income!!!!!!

Subject: Re: object suggestion for future IDL versions

Posted by [davidf](#) on Mon, 21 Jun 1999 07:00:00 GMT

John Persing (persing@frii.com) writes:

```
> I don't know if anybody else has had this problem, but it occurs with
> objects that take advantage of inheritance. The object may take advantage
> of the inherited methods by using the notation
>
> self->method_name, arg1, arg2, etc
>
> But if the new object redefines any of the inherited methods (for example
> "assign"), it cannot make reference to the inherited method.
```

Not so. If a method is called on an object, IDL searches the current class for a method of that name. Failing to find it, IDL search all the inherited classes in the order in which they are inherited for the method.

Providing a method of the same name of a superclass method is called method overriding and is supported by the above mechanism. But you can always call a specific superclass method by directly specifying the superclass name in the method call.

```
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> struct = {dat_new, time_stamp:", INHERITS dat_old}
> END
>
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>
> PRO dat_new::assign, field_string, value
> self->assign, field_string, value
> self.time_string = STRING(SYSTIME())
> END
```

You have it almost right. But the ASSIGN method should be called like this:

```
self->DAT_OLD::assign, field_string, value
```

Cheers,

David

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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/>

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[Note: This follow-up was e-mailed to the cited author.]
