
Subject: Reference counting

Posted by [Robbie](#) on Wed, 12 Sep 2007 06:32:43 GMT

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I am using reference counting to automatically free pointers which are no longer in use. I've come across a problem when I use save and restore. I find that I really need to recalculate the number of references after I restore an object. Is there any way to programmaticaly determine the number of references to a pointer?

Thanks

Robbie

Example code attached:

```
pro refcount::GetProperty, VALUE=value  
  
if (arg_present(value) and (n_elements(*self.value) gt 0)) then value  
= *self.value  
  
end
```

```
pro refcount::SetProperty, VALUE=value  
  
if (n_elements(value) gt 0) then *self.value = value  
  
end
```

```
function refcount::Copy  
  
obj =  
obj_new('refcount',P_VALUE=self.pValue,P_REFERENCE=self.pReference)  
  
*self.pReference++  
  
return, obj  
  
end
```

```
pro refcount::Cleanup  
*self.pReference--  
  
if (*self.pReference le 0) then begin  
    ptr_free, self.pReference  
    ptr_free, self.pValue  
  
endif  
  
end
```

```
function refcount::init, P_VALUE=pValue, P_REFERENCE=pReference,  
VALUE=value  
  
if (n_elements(pValue) gt 0) then self.pValue = pValue $  
  
else self.pValue = ptr_new(/ALLOCATE_HEAP)  
  
if (n_elements(pReference) gt 0) then self.pReference = pReference $  
  
else self.pReference = ptr_new(1)  
  
if (n_elements(value) gt 0) then *self.pValue = value  
  
return, 1b  
  
end
```

```
pro refcount__define, struct  
struct = {refcount, $  
    pValue: ptr_new(), $  
    pReference: ptr_new() $  
}  
  
end
```

```
pro refcount_example1  
  
a = obj_new('refcount',VALUE=indgen(100))  
  
b = a -> copy()  
  
obj_destroy, [a,b]  
  
help, /heap  
  
end
```

```
pro refcount_example2_restore  
  
restore  
  
obj_destroy, [a]  
  
help, a  
  
end
```

```
pro refcount_example2  
  
a = obj_new('refcount',VALUE=indgen(100))  
  
b = a -> copy()  
  
save, a  
  
obj_destroy, [a,b]  
  
help, a, b  
  
refcount_example2_restore  
  
help, /heap  
  
end
```
