
Subject: "include" a file

Posted by [JDS](#) on Fri, 26 Jun 2009 19:50:56 GMT

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Various other languages have the option to include and evaluate the program contents of another file at runtime. IDL has the "@" operator, but that happens at compile time, so you need to know which file to include in advance. I find myself needing to drop small "parameter" files in individual directories for a routine to process as it crawls through. I could certainly prepare an IDL .sav file, or some other data format, parse that, and set-up structures and variables as needed, but that makes editing and updating the file very painful. What IDL needs is a way to "include" a file directly, and evaluate its contents. Finding nothing, I came up with the following concept:

```
;; include -- Include and evaluate the IDL command contents of a file.
;; To use, give the variable "include_file" in the same scope the name
;; of a valid file containing IDL commands (batch syntax only), then
;; batch include this file, ala:
```

```
;;
;; include_file='/path/to/file'
;; @include
;;
_inc_lines=replicate(",file_lines(include_file))
openr,_inc_un,include_file,/get_lun
readf,_inc_un,_inc_lines
_inc_wh=where(~stregex(_inc_lines,'\$(;.*)?[ \t]*$',/
BOOLEAN),_inc_cnt)
_inc_start=0L
for _inc_i=0L,_inc_cnt-1 do begin
    _inc_parts=_inc_lines[_inc_wh[_inc_i]]
    if _inc_wh[_inc_i] gt _inc_start then $
        _inc_parts=strjoin( $
            reform((stregex(_inc_lines[_inc_start:_inc_wh
[_inc_i]-1],$
                '*(.*) *$\$(;.*)?[ \t]*$', $
                /SUBEXPR,/EXTRACT))[1,*])) +
        _inc_parts
    _inc_void=execute(_inc_parts)
    _inc_start=_inc_wh[_inc_i]+1L
endfor
free_lun,temporary( $ ; Clean-up all variables
    (_inc_parts=temporary( $
    (_inc_wh=temporary( $
    (_inc_lines=temporary( $
    (_inc_void=temporary( $
    (_inc_cnt=temporary( $
```

```
(_inc_i=temporary( $  
(_inc_start=temporary(_inc_un)))))))))))))
```

This works just fine, collapsing multi-line commands, and executing them, at the cost of temporarily polluting the current scope with "_inc_" variables (these are left undefined after the @include). You have to use "batch syntax", aka as "standalone single line command" syntax, but for my purposes this isn't a major limitation. It uses execute, so won't work in the IDL_VM, and if you try to do it many times in a loop, you might regret it. But for quickly setting up human-editable parameter lists, I find it works great.

Do others encounter this problem, and has anyone solved it in a different way?

JD
