Macros

How can I search for a phrase in all SAS files in a directory and subdirectories?

```
/*************************************************************************
***************/
/***
            ***/
/***   Search for any given text string in all *.sas files in a direct
ory         ***/
/***   and all sub-
directories.                                                          ***/
/***
            ***/
/*************************************************************************
***************/
/***
            ***/
/***    Sample call: %findit(lookin  = c:\mycode\reports
           ***/
/***                         ,lookfor = data _null_)
            ***/
/***
            ***/
/***                  %findit(lookfor = %nrstr(%printit))
            ***/
/***
            ***/
/*************************************************************************
***************/


%macro findit( lookin  = c:\code
              ,lookfor = ????
    ) ;
  %local count lookin lookfor i j ;
  options nonotes nomlogic nomprint nomprintnest nosymbolgen ;

  *** Assign a fileref to the directory and open it *** ;

  %let rc = %sysfunc(filename(filrf,&lookin)) ;


  %let did = %sysfunc(dopen(&filrf)) ;



  ** Ensure Directory is available *** ;

  %if &did eq 0 %then
```


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```
  %do ;
    %put ERROR: Directory &lookin cannot be opened or does not exist.
;
    %goto endmac ;


  %end;

  *** Close the directory and clear the fileref *** ;

  %let rc = %sysfunc(dclose(&did)) ;

  %let rc = %sysfunc(filename(filrf)) ;

  %let lookin  = %lowcase(&lookin)  ;
  %let lookfor = %lowcase(&lookfor) ;

  *** Get Directories and subdirectories from location *** ;

  filename dirlist pipe "dir &lookin /b /s /a:d" ;

  data dirs (drop = count);
      length dir $ 100 ;
     if _n_ = 1 then
      do ;
        count + 1 ;
        dir = "&lookin" ;
        call symputx('dcount',put(count,6.)) ;
  output ;
      end ;
    infile dirlist end = last ;
   *** Handle empty Directory List *** ;
   if _n_ = 1 and last then goto endstep ;
    input dir :$100. ;
      count + 1 ;
      if last then call symputx('dcount',put(count,6.)) ;
      output ;
   endstep:
  run ;

  data _null_ ;
    set dirs ;
   call symputx('dir'!!strip(put(_n_,3.)),dir) ;
  run ;

  %do i = 1 %to &dcount ;

    *** Get *.sas files in directory *** ;
    filename saslist pipe "dir &&dir&i /b" ;
```


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```
    data sasfiles_&i (drop = count) ;
      infile saslist end = last ;
        *** Handle empty directories *** ;
     if _n_ = 1 and last then
        do ;
       call symputx('fcount',put(count,6.)) ;
       stop ;
     end ;
      input sasprog :$100. ;
        count + 1 ;
        if not find(lowcase(sasprog), '.sas') then
        do ;
          count + (-1) ;
       if last then call symputx('fcount',put(count,6.)) ;
          delete ;
        end ;
        if last then call symputx('fcount',put(count,6.)) ;
    run ;

    %if &fcount > 0 %then
    %do ;
      proc sql noprint ;
        select sasprog into :sas_&i._1 %if &fcount >1 %then - :sas_&i.
_&fcount ;
        from sasfiles_&i
        ;
      quit ;

      %do j = 1 %to &fcount ;
        data found_&i._&j ;
          infile "&&dir&i\&&sas_&i._&j" scanover missover lrecl = 256
pad ;
           _infile_ = lowcase(_infile_) ;
          input @"&lookfor" found $ ;
            if length(found) then
            do ;
           put ;
           put "LOOKFOR: Program file: &&dir&i.\&&sas_&i._&j.." ;
              put _infile_ ;
            end ;
        run ;
      %end ;

      proc datasets lib = work nolist ;
        delete dirs sasfiles_: found_: ;
      quit ;
    %end ;
  %end ;
```


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```
  %endmac :
  options notes ;
%mend findit ;


%findit(lookin  = c:\myfiles\reports
       ,lookfor = data _null_)

%findit(lookfor = %nrstr(%printit))
```

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