

An Animated Guide: A Program to Read information from Program Headers and Produce Reports for Programming Managers By Russ Lavery

This poster presents a program that, when run on a Windows machine, will recursively search under a list of top level directories and produces a table containing information on every SAS program and SAS table under those directories.

1) Start by using a Standard Header

The program will be read as if it were a text data file.
The 19 red items in the header will be read as variables and their blue text will be read as values for those variables.

2) Use Standard Comments.

Comments using the formats shown below in blue will be read as data and end up in a program documentation report.

```
/******  
**  
** section 1 : reads raw data files  
*****;  
** comment 1 Business rule;  
some SAS code  
/*This comment will not end up in the documentation */  
** comment 2 Business rule;  
some more SAS code  
/*This comment will not end up in the documentation */  
*This comment will not end up in the documentation ;  
  
/******  
**  
** section 2 : merge files  
*****;  
** comment 3 Merge files and do cool stuff;  
Additional SAS code  
  
/******  
**  
** section 3 : Create output files  
*****;  
** comment 4 Explain the use of the following export;  
Some SAS code to export data  
** comment 5 Explain the use of the following export;  
Some more SAS code to export code
```

```
*where to put the PDF of documentation- the Headers and comments*/  
%let SendDocTo =E:\SASHeaders\DocumentationOnProgs.pdf;  
%put &SendDocTo;
```

```
data a_Dirs2Search;  
/*where to search*/  
infile datalines truncover;  
input @1 Dir2Search $char30;  
call symput("DirNo"||left(Put(_n_,4)), strip(Dir2Search));  
call symput("NDirs" , left(put(_n_,4.0)));  
datalines;  
F:\SASHeaders\Prod  
F:\SASHeaders\Dev  
F:\SASHeaders\Users  
;run;
```

3) Inside the program code, you must tell SAS:

- 1) Where to put the PDF report that contains the header and the specially fomatted comments
- 2) What top level directories you want recursively searched

The “shell” of this complicated header can be produced in just 9 keystrokes, using a SAS abbreviation. Download the abbreviation file from russ-lavery.com.

```
/******  
** Start entries after the *. Start in col 31 or 32  
Program: 1 * X_Required_45CharMax_X  
Dev/Active/Inactive/AH: 2 * X_Required_45CharMax_X  
Programmer: 3 * X_Required_45CharMax_X  
Program Owner: 4 * X_Required_45CharMax_X  
Business Owner: 5 * X_Required_45CharMax_X  
Date Pgm. Started: 6 * X_Required_IS08601_EG19  
Date First Into Production: 7 * X_Required_IS08601_EG19  
Most Recent Into Production: 8 * X_Required_45CharMax_X  
Client: 9 * X_Required_45CharMax_X  
Study: 10 * X_Required_45CharMax_X  
Purpose: 11 * X_Required_60CharMax_X  
*****  
Preceding: 12 (prog name or NONE) Programs that must be run before this can be run (prog  
name or NONE)  
X_Optional_45CharMax_X  
X_Optional_45CharMax_X X_Optional_45CharMax_X  
Concurrent: 13 (prog name or NONE) Programs that can be run concurrent with this  
X_Name/NONE_45CharMax_X  
X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X  
Following: 14 (prog name or NONE) Programs that Can only be run after this finishes  
X_Name/NONE_45CharMax_X  
X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X  
Driver files: 15 (file name or NONE) External files containg metadata to control program  
execution  
X_Name/NONE_45CharMax_X  
X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X  
Infiles: 16(table name or NONE) perm files USED by this program  
X_Name/NONE_45CharMax_X  
X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X  
Outfiles: 17(table name or NONE) perm files CREATED by this program  
X_Name/NONE_45CharMax_X  
X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X  
Macros Called: 18(macro name or NONE) perm macros called by this program  
X_Name/NONE_45CharMax_X  
X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X  
Formats Called: 19(format name or NONE) perm formats called by this program  
X_Name/NONE_45CharMax_X  
X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X  
Maintenance: this is not currently parsed  
Date: XX/XX/XXXX Programmer: XX Issue: XXXXXXXXXXXXXXXXXXXX  
Date: XX/XX/XXXX Programmer: XX Issue: XXXXXXXXXXXXXXXXXXXX  
*****/
```

RUN the program and get several tables / files of output – only two are shown :

A) This table of information from the header can be queried by a manager to track programming activity.

B) A table (not shown here) is also produced that shows information about every SAS variable found in a SAS table under the top level directories. This table is similar to the SAS dictionary tables, but does not require that a libref be established.

C) A PDF is produced that shows, for all found programs, the header and the comments that used the formats shown in 2)

Program	#_of_sections	Active	Programmer	Program Owner	Business Owner	Date Started	Date1st Into Prod	Recent Into Prod	Client	Study	Attribute	Value	Purpose	FullPath
_Summary.sas	8	Active	Elmer Fuadd	Ping Programmer	Sam Summary	7/16/2002	7/16/2002	7/16/2002	X2	122	Preceding	SfirstPr og.wsas	a simple summary	F:\SASHeaders\Prod\I_Summary\Programs\I_Summary.sas
_Summary.sas	7	Active	Elmer Fuadd	Ping Programmer	Sam Summary	7/16/2002	7/16/2002	7/16/2002	X2	122	CONCURRENT	S_AllInOne.sas	a simple summary	F:\SASHeaders\Prod\I_Summary\Programs\I_Summary.sas
_Summary.sas	6	Active	Elmer Fuadd	Ping Programmer	Sam Summary	7/16/2002	7/16/2002	7/16/2002	X2	122	CONCURRENT	S_together.sas	a simple summary	F:\SASHeaders\Prod\I_Summary\Programs\I_Summary.sas
_Summary.sas	6	Active	Elmer Fuadd	Ping Programmer	Sam Summary	7/16/2002	7/16/2002	7/16/2002	X2	122	FOLLOWING	S_PostProcessing.sas	a simple summary	F:\SASHeaders\Prod\I_Summary\Programs\I_Summary.sas
_Summary.sas	5	Active	Elmer Fuadd	Ping Programmer	Sam Summary	7/16/2002	7/16/2002	7/16/2002	X2	122	DRIVER FILES	S_SomeFile.xls	a simple summary	F:\SASHeaders\Prod\I_Summary\Programs\I_Summary.sas
_Summary.sas	4	Active	Elmer Fuadd	Ping Programmer	Sam Summary	7/16/2002	7/16/2002	7/16/2002	X2	122	INFILES	Ssashep.ctmon	a simple summary	F:\SASHeaders\Prod\I_Summary\Programs\I_Summary.sas
_Summary.sas	3	Active	Elmer Fuadd	Ping Programmer	Sam Summary	7/16/2002	7/16/2002	7/16/2002	X2	122	INFILES	Ssashep.s hoses	a simple summary	F:\SASHeaders\Prod\I_Summary\Programs\I_Summary.sas
_Summary.sas	3	Active	Elmer Fuadd	Ping Programmer	Sam Summary	7/16/2002	7/16/2002	7/16/2002	X2	122	INFILES	Ssashep.air	a simple summary	F:\SASHeaders\Prod\I_Summary\Programs\I_Summary.sas
_Summary.sas	3	Active	Elmer Fuadd	Ping Programmer	Sam Summary	7/16/2002	7/16/2002	7/16/2002	X2	122	OUTFILES	Sreports.SCSN	a simple summary	F:\SASHeaders\Prod\I_Summary\Programs\I_Summary.sas
_Summary.sas	3	Active	Elmer Fuadd	Ping Programmer	Sam Summary	7/16/2002	7/16/2002	7/16/2002	X2	122	OUTFILES	Sreports.SCSN	a simple summary	F:\SASHeaders\Prod\I_Summary\Programs\I_Summary.sas

F:\SASHeaders\Users\Frank\Air\Frank\Feeing.sas 07:32 Friday, July 15, 2011

FullPath=F:\SASHeaders\Dev\I_Maintain\Programs\I_Maintain.sas

Obs	CharString
1	*****
2	** Start entries after the *. Start in col 31 or 32
3	Program: 1
4	Dev/Active/Inactive/AH: 2
5	Programmer: 3
6	Program Owner: 4
7	Business Owner: 5
8	Date Pgm. Started: 6
9	Date First Into Production: 7
10	Most Recent Into Production: 8
11	Client: 9
12	Study: 10
13	Purpose: 11
14	*****
15	Preceding: 12 (prog name or NONE) Programs that must be run before this can be run (prog name or NONE)
16	X_Optional_45CharMax_X
17	X_Optional_45CharMax_X X_Optional_45CharMax_X
18	Concurrent: 13 (prog name or NONE) Programs that can be run concurrent with this
19	X_Name/NONE_45CharMax_X
20	X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X
21	Following: 14 (prog name or NONE) Programs that Can only be run after this finishes
22	X_Name/NONE_45CharMax_X
23	X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X
24	Driver files: 15 (file name or NONE) External files containg metadata to control program execution
25	X_Name/NONE_45CharMax_X
26	X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X
27	Infiles: 16(table name or NONE) perm files USED by this program
28	X_Name/NONE_45CharMax_X
29	X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X
30	Outfiles: 17(table name or NONE) perm files CREATED by this program
31	X_Name/NONE_45CharMax_X
32	X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X
33	Macros Called: 18(macro name or NONE) perm macros called by this program
34	X_Name/NONE_45CharMax_X
35	X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X
36	Formats Called: 19(format name or NONE) perm formats called by this program
37	X_Name/NONE_45CharMax_X
38	X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X
39	Maintenance: this is not currently parsed
40	Date: XX/XX/XXXX Programmer: XX Issue: XXXXXXXXXXXXXXXXXXXX
41	Date: XX/XX/XXXX Programmer: XX Issue: XXXXXXXXXXXXXXXXXXXX
42	*****

F:\SASHeaders\Users\Frank\Air\Frank\Feeing.sas 07:32 Friday, July 15, 2011 2

FullPath=F:\SASHeaders\Dev\I_Maintain\Programs\I_Maintain.sas

Obs	CharString
43	*****
44	** Start entries after the *. Start in col 31 or 32
45	Program: 1
46	Dev/Active/Inactive/AH: 2
47	Programmer: 3
48	Program Owner: 4
49	Business Owner: 5
50	Date Pgm. Started: 6
51	Date First Into Production: 7
52	Most Recent Into Production: 8
53	Client: 9
54	Study: 10
55	Purpose: 11
56	*****
57	Preceding: 12 (prog name or NONE) Programs that must be run before this can be run (prog name or NONE)
58	X_Optional_45CharMax_X
59	X_Optional_45CharMax_X X_Optional_45CharMax_X
60	Concurrent: 13 (prog name or NONE) Programs that can be run concurrent with this
61	X_Name/NONE_45CharMax_X
62	X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X
63	Following: 14 (prog name or NONE) Programs that Can only be run after this finishes
64	X_Name/NONE_45CharMax_X
65	X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X
66	Driver files: 15 (file name or NONE) External files containg metadata to control program execution
67	X_Name/NONE_45CharMax_X
68	X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X
69	Infiles: 16(table name or NONE) perm files USED by this program
70	X_Name/NONE_45CharMax_X
71	X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X
72	Outfiles: 17(table name or NONE) perm files CREATED by this program
73	X_Name/NONE_45CharMax_X
74	X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X
75	Macros Called: 18(macro name or NONE) perm macros called by this program
76	X_Name/NONE_45CharMax_X
77	X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X
78	Formats Called: 19(format name or NONE) perm formats called by this program
79	X_Name/NONE_45CharMax_X
80	X_Name/NONE_45CharMax_X X_Name/NONE_45CharMax_X
81	Maintenance: this is not currently parsed
82	Date: XX/XX/XXXX Programmer: XX Issue: XXXXXXXXXXXXXXXXXXXX
83	Date: XX/XX/XXXX Programmer: XX Issue: XXXXXXXXXXXXXXXXXXXX
84	*****