

Introduction to FSREPORT

Prepared by



INTRODUCTION

The FSREPORT interactive window was created to allow graphical support of online report creation and viewing. It is currently available under the windowing platforms. It was designed from the character based REPORT window (Interactive PROC REPORT).

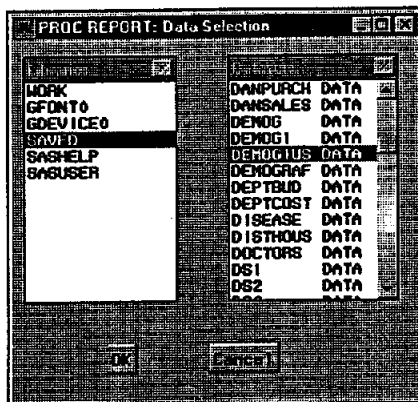
THE FSREPORT ENVIRONMENT

Starting an FSREPORT Session

An FSREPORT session can be started by typing FSREPORT on the command line.



Select the SAS data set you wish to run a report on.



Then hit . The following screen will be displayed.

NO	SEX	AGE	HEIGHT	WEIGHT	STATE	CHILDREN	CARS	SALARY	CMR
18	M	65.5	72	S	0	0	0	8008	low
21	F	63	62	M	2	1	1	25419	high
22	F	54	62	S	1	1	1	14200	low
22	M	64	60	S	0	1	1	13592	low
26	M	66	76	D	1	1	1	1	low
26	M	67	62		2	0	0	11008	low
28	F	56	52	S	0	0	0	12050	low
30	F	56	63	P	1	1	1	18675	high
31	M	67	66	M	0	2	2	26200	high
36	M	61	65	M	2	1	1	30380	high
36	F	63	71	W	1	1	1	10520	low
36	M	66	74	M	2	1	1	25700	high
40	M	66	61	M	2	1	1	19483	high
42	M	71	75	M	1	2	2	29700	high
42	M	74	68	M	3	2	2	26975	high
43	F	62	73	M	2	0	0	13640	low
44	M	70	68	M	1	2	2	24500	high
46	M	68	72	P	3	1	1	37800	high
49	M	71	76	M	1	2	2	16750	high

Opening A SAS Data Set

When you are in the report session, it is possible to open up another SAS data set to create a report on. The report layout you create can be used with any other SAS data set with the same variable names used in the report.

Select File, Open, Data Set.

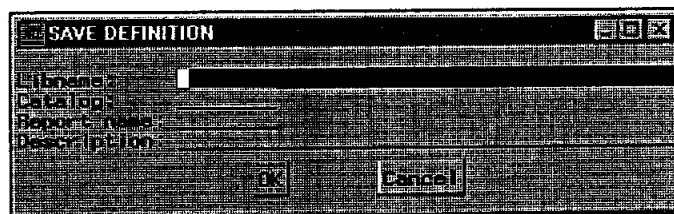
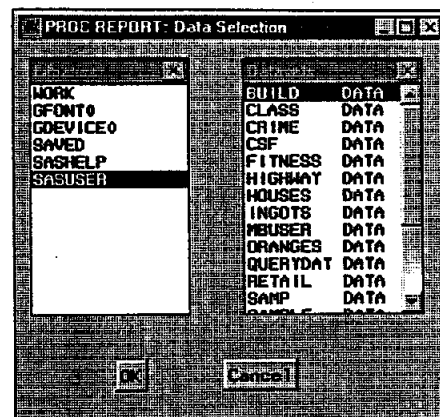
This window appears for you to make your selection.

For now, let's out of this and use the current data set we are already working with.

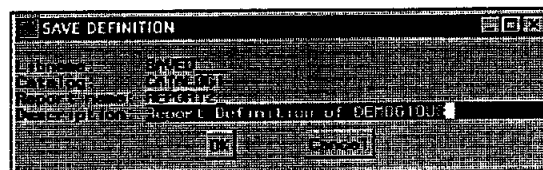
Saving The Report Definition

Alternatively, you can save the Report definition as a member of a catalog. Select File, Save, Report definition.

A window prompts you for the location.



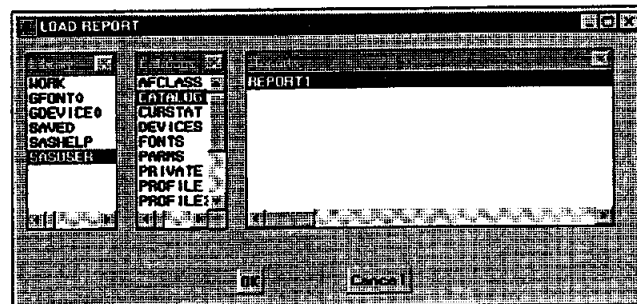
We choose the save the report definition to the Library SAVED, Catalog CATALOG1, and entry in the catalog called REPORT2. The entry type is REPORT by default. SAS takes care of this part.



Select to save the definition.

Opening A Report Definition

It is possible to use FSREPORT while pulling up an existing Report Definition created in an earlier session. Select File, Open, Report Definition to see a listing. Select the Library and Catalog the Report definition is stored in.



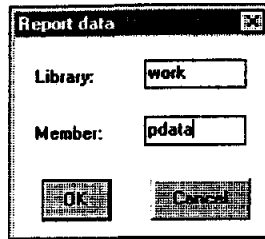
Saving The Report Data

After organizing the report, it is possible to save the restructured data to a SAS data set. Select File, Save, Report data.

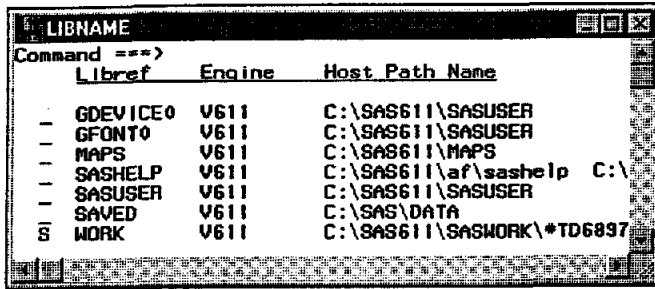
The Report data screen appears allowing you to specify the location.

In this example, we place it into WORK.PDATA.

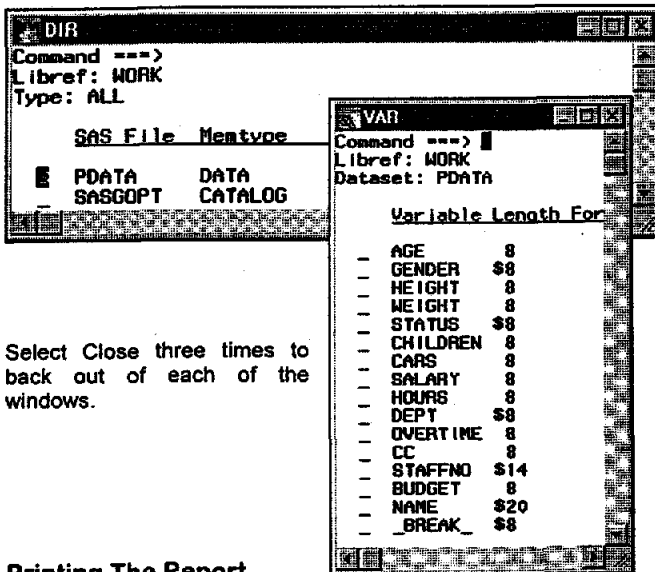
Select **OK** to save the report data to a SAS data set. To verify this worked, select Globals, Access, Display libraries.



The LIBNAME window appears. Select on the WORK library.



The DiRectory window appears showing the SAS data set. Select the SAS data set to see its internal structure.

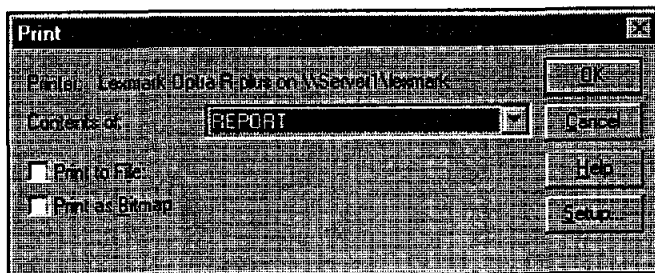


Select Close three times to back out of each of the windows.

Printing The Report

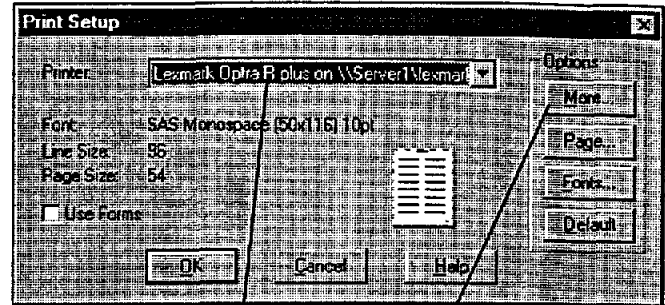
It is possible to print the report by selecting File, Print.

The following window appears allowing you to specify the setup or any options.

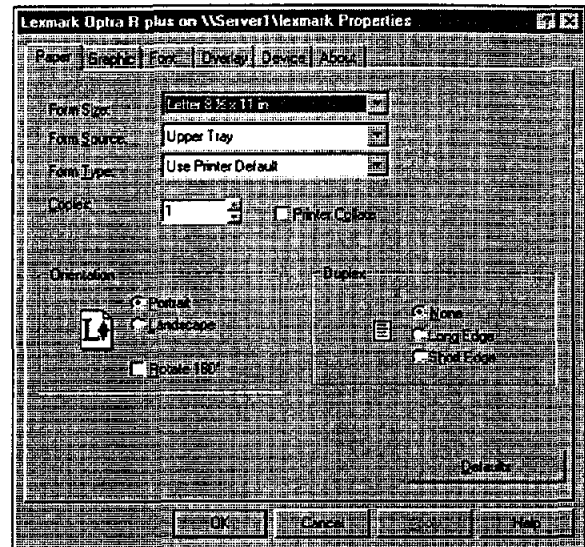


If we select **Setup**, this is the standard windows style setup for this platform.

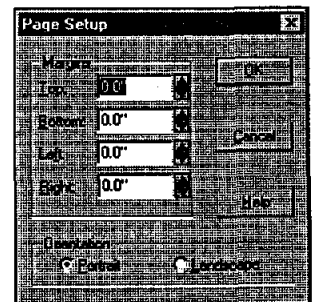
The Print Setup screen is displayed.



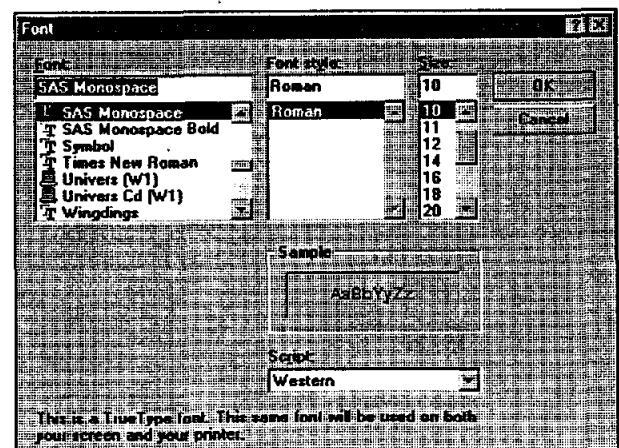
We can select the printer. If we select More, the Properties window for the printer is displayed.



If we back out of the Properties window and select Page, the Page Setup window is displayed allowing us to adjust our margins and change the orientation of the report.



If we back out and select Fonts, the Font window is displayed. This allows us to select the default font for the report when it is printed.



To back out of any of these windows, simply click on **Cancel**.

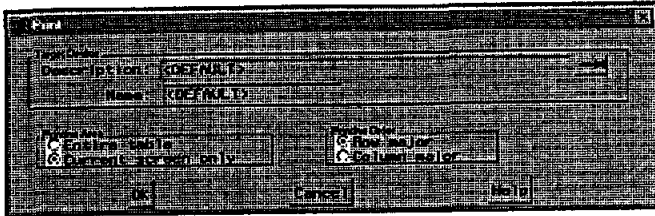
Alternative Report Printing

To print the report, simply select the selection you want to print or do not select anything for the entire report. Right click to pull up this menu. This menu gives you the ability to clear any current selections on the report.



Let's examine Print Setup...

This screen allows you to define how the report prints and where it will go.



Alternatively, to print, select Print from the Popup menu.

Ending An FSREPORT Session

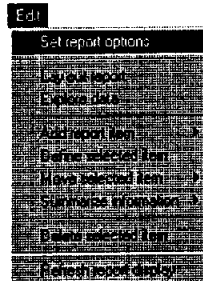
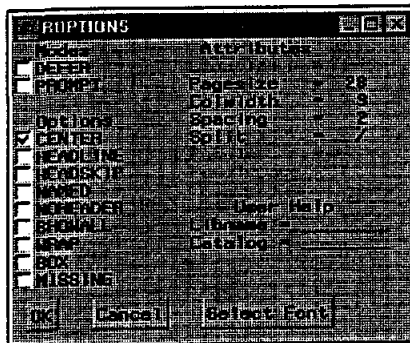
Once you are satisfied with the way the report looks, you can End out of the session and return to Display Manager by selecting File, End.

CREATING REPORTS

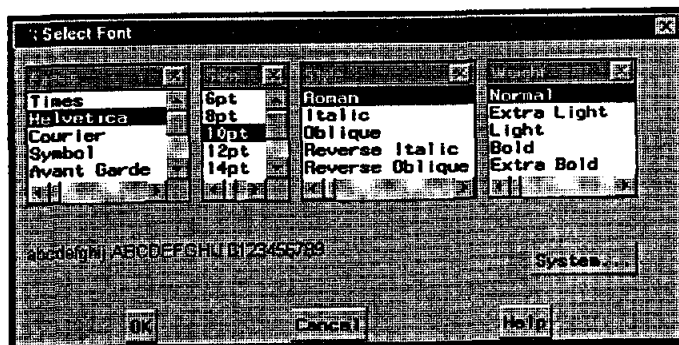
Setting Report Options

Let's examine how we can set options on a report. We will explore the Edit pull down selection.

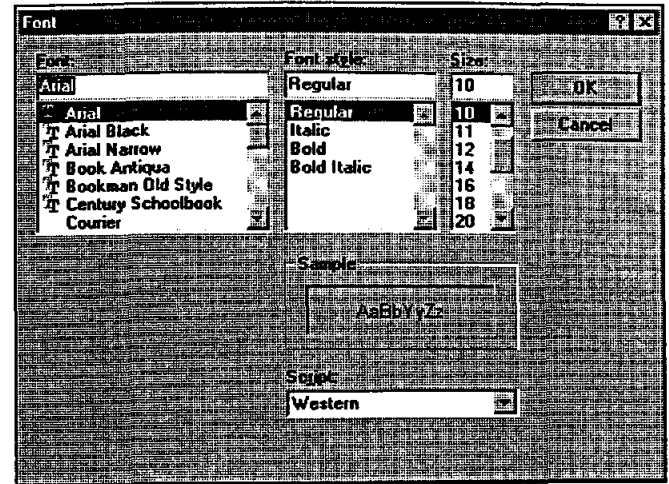
The options available with FSREPORT are listed in the following window. There are check boxes for each option. To turn an option on, simply check the item. It is not checked, the option is off. Other options that require values can be set.



The Font can be selected by clicking on **Select Font** to display the following window.



If these fonts are not appropriate, consider the **System...** button to give you the full selection of Operating System fonts.



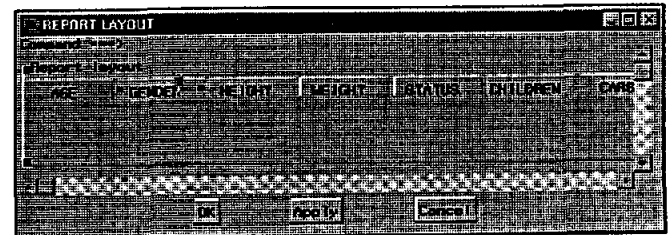
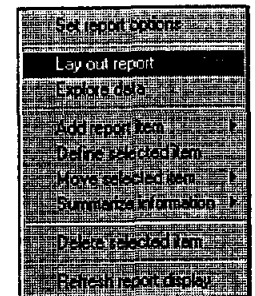
Select **OK** and **OK** after you have made your selections.

Rearranging Columns On The Report

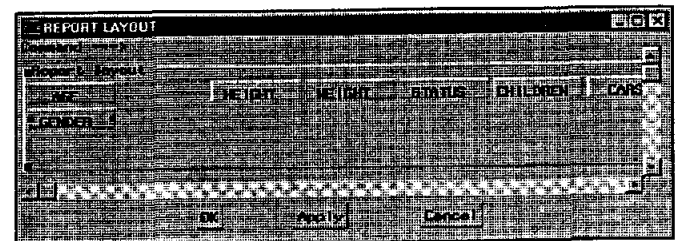
It is possible to rearrange columns on the report by selecting Edit, Lay out report.

This feature is one of the biggest differences between PROC REPORT and FSREPORT. You have the ability to adjust the column order as you desire while working in the report.

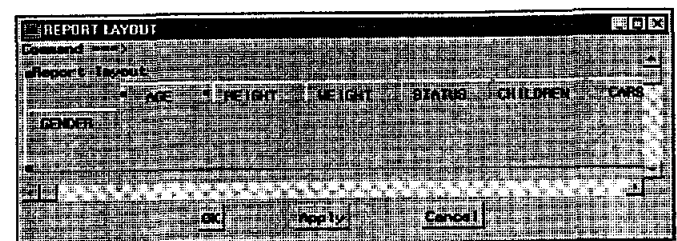
Place your cursor on a column you would like to move. We point to GENDER.



Hold the left mouse button down and pull the column label over.



Do the same for AGE. Move it to the right.



When you select **OK**, the report is reordered.

REPORT							
GENDER	AGE	HEIGHT	WEIGHT	STATUS	CHILDREN	CARS	
M	18	85.5	72	S	0	0	5
F	21	63	62	M	2	1	2
F	22	54	52	S	1	1	1
M	22	64	60	S	0	1	1
M	26	66	75	D	1	1	1
M	26	67	82		2	0	1

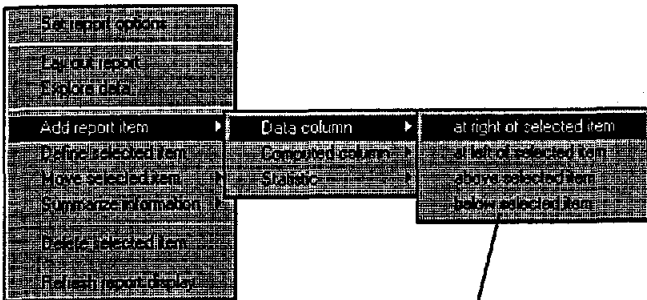
Adding A Report Item

It is possible to add a report item such as an additional column on the report. Point to the column label where you want to add an item.

REPORT							
GENDER	AGE	HEIGHT	WEIGHT	STATUS	CHILDREN	CARS	
M	18	85.5	72	S	0	0	5
F	21	63	62	M	2	1	2
F	22	54	52	S	1	1	1
M	22	64	60	S	0	1	1
M	26	66	75	D	1	1	1
M	26	67	82		2	0	1

Click the right mouse button and select Add report item.

The following selection appears. You can select to add a column of data, a column created from a computation, or a statistic.



After making your selection, the next screen appears prompting you for the location of the item relative to where you are in the report.

Make a selection and then it prompts you with the selection of the available variables. In this example, we select NAME. It becomes highlighted.

DATA COLUMNS
NAME
BUDGET
AGE
GENDER
HEIGHT
WEIGHT
STATUS
CHILDREN
CARS
SUNNY
DRIVE
HOURS
DEPT
VERTIME
CC
STOEFNO

Then we click in the upper left and close the window.

The new item appears in the report.

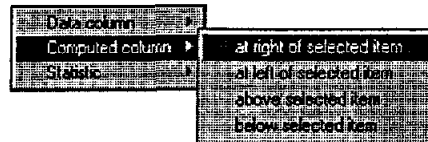
REPORT							
GENDER	AGE	NAME	HEIGHT	WEIGHT	STATUS		
M	18	Dave Derry	85.5	72	S		
F	21	Julia Pendlebury	63	62	M		
F	22	Norman Harvey	54	52	S		
M	22	Harold Hicks	64	60	S		
M	26	Mary Molesworth	66	75	D		

Adding A Computed Column

FSREPORT also allows you to add a computed column in the report. Highlight the target column to insert next to.

REPORT							
GENDER	AGE	NAME	HEIGHT	WEIGHT	STATUS		
M	18	Dave Derry	85.5	72	S		
F	21	Julia Pendlebury	63	62	M		
F	22	Norman Harvey	54	52	S		
M	22	Harold Hicks	64	60	S		
M	26	Mary Molesworth	66	75	D		

Right click, select Add report item and Computed column. Then select the relative location.



You are prompted for the name of the computed variable.

COMPUTED VAR	
Use left to name:	
☐ Character data	
Length:	
Edit Program	OK Cancel

Let's specify the name RETIRE.

Click **Edit Program** to get the following screen.

COMPUTED VAR	
Variable name: RETIRE	
☐ Character data	
Length:	
Edit Program	OK Cancel

COMPUTE	
Code:	
00002	

We can specify the computed calculation in this window.

COMPUTE	
Code:	
00002	

Close the window.

Select **OK** and the new column appears in the report.

COMPUTED VAR	
Variable name: RETIRE	
☐ Character data	
Length:	
Edit Program	OK Cancel

REPORT							
GENDER	AGE	RETIRE	NAME	HEIGHT	WEIGHT		
M	18	47	Dave Derry	85.5	72		
F	21	44	Julia Pendlebury	63	62		
F	22	43	Norman Harvey	54	52		
M	22	43	Harold Hicks	64	60		
M	26	39	Mary Molesworth	66	75		
M	28	37	Bob Bobington	67	82		
F	28	37	Mark Bamford	56	52		
F	30	35	Jeremy Kidd	56	63		
M	31	34	Helan Corderford	67	69		
M	36	29	Mark Chapel	61	66		
F	36	29	Jennifer Dawson	63	71		
M	38	27	Julio Jennings	68	74		
M	40	25	Shirley Walters	66	81		
M	42	23	David Oullery	71	75		
M	42	23	Oawn Duval	74	68		
F	43	22	Steve Jones	62	73		
M	44	21	Brian Ellows	70	68		

Defining Columns

We also have the ability to redefine each column on the report. This feature affects formatting, usage and many other topics. Highlight the column whose definition you wish to modify.

Click the right mouse button and select Define selected item.

The following screen appears.

We will change this to the usage of Order instead of Display.

In the DEFINE statement, you specify a report item's usage with one of the following:

ACROSS	DISPLAY
ANALYSIS	GROUP
COMPUTED	ORDER

ACROSS Usage

When using a column as an ACROSS variable, a column is created for each formatted value. The columns are ordered by the ascending, formatted values. To change this, consider using the DESCENDING and ORDER= selections when defining the variable.

ANALYSIS Usage

An analysis variable is designed to create a statistic on a numeric variable for all observations that make up the contents of a data value or cell in the report.

COMPUTED Usage

Computed variables can be defined in the report. They are calculated when the report executes and are stored on the output data set if it is created.

DISPLAY Usage

Display variables are simply displayed as is in the report. This the default and they do not affect ordering or grouping.

GROUP Usage

Group classification attempts to group observations by unique values. This is typically used for summarization. The default is to order the resulting rows by the ascending formatted values. This classification looks for variables using a statistic. These values are collapsed with the statistic, according to the group.

ORDER Usage

This orders the resulting report by the variables defined as ORDER. The observations are ordered according to their ascending, formatted values by default. Repeated values in subsequent observations are not displayed.

For this example, we will select ORDER, then hit **Apply**.

The data is now ordered according to GENDER with subsequent values of F and M not displayed.

AGE	GENDER	WEIGHT	WEIGHT	STATUS	CHILDREN	CARS	SALARY	GRA
57	F	53	62	M	2	2	35620	high
61		55	62		2	1	25410	
21		63	62		2	1	25410	
46		65	66		2	1	15840	
51		67	66		5	0	22760	
61		57	66		3	1	22532	
45		62.5	72		1	1	15410	
60		66.5	71		3	2	20882	
34		78	72		2	1	26512	
56		52	60		3	2	47520	
52		66	66		5		22760	
55		67	71		2	1	14640	low
43		62	73		2	0	13640	
25		67	74		1	1	6670	
24		52	65		0	1	12512	
55		67	81		2	1	13640	
56		61	61		0	2	13760	
36		53	69		1	0	9670	
36		69	55		2	1	14640	

Changing Data Fonts

Selecting Define from the menu again brings up the following window.

We have the ability to change data fonts at will. Select

Select Data Font.

The following screen appears.

When changing your selection of fonts, consider using a fixed space font. Proportional spaced fonts don't always line up in a column.

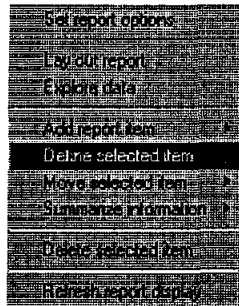
When you are finished, select **OK**.

When viewing the report, the new fonts are displayed.

AGE	GENDER	HEIGHT	WEIGHT	STATUS	CHILDREN	CARS	SALARY	GRS
57	F	63	62	M	2	2	33520	high
61		55	62		2	1	25410	
21		63	62		2	1	25410	
46		65	66		2	1	15840	
51		67	68		5	0	22780	
61		57	69		3	1	22592	
45		62.5	72		1	1	15410	
60		66.5	71		3	2	20692	
34		76	72		2	1	26512	
56		52	60		3	2	47520	
52		66	69		5		23760	
55		67	71		2	1	14640	low
43		62	73		2	0	13640	
26		67	74		1	1	8670	
24		52	65		0	1	12512	
65		67	61		2	1	13640	
56		61	61		0	2	13780	

Defining Other Columns

We can define additional columns by using the Define selected items option. Here we highlight Age and select:



The following screen is displayed.

We change the usage of AGE to ORDER.

Select **OK** and the following screen is displayed.

AGE	GENDER	HEIGHT	WEIGHT	STATUS	CHILDREN	CARS	SALARY	GRS
19	M	65.5	72	S	0	0	9006	low
		65	78		0	0	10980	
19	F	56	59	S	0	0	12675	low
		54	62	S	0	0	7672	low
20	M	69	73	S	0	1	14900	low
21	F	63	62	M	2	1	25410	high
		67	63	S	0	0	11200	low
22	F	54	52	S	1	1	14200	low
		52	62		0	1	14980	
		64	60	S	0	1	13592	low
23	F	64	66	P	1	1	10512	low
		78	60	S	0	1	12640	low
		59	66	S	0	1	18620	high
		66	75		1	1	14060	low
24	F	52	65	M	0	1	12512	low
		63	71	S	0	0	12600	low
25	F	52	66	P	2	1	14512	low

Moving Selected Items

Items can be moved to different locations around the report. Select the column you wish to move.

AGE	GENDER	HEIGHT	WEIGHT	STATUS	CHILDREN	CARS	SALARY	GRS
19	M	65.5	72	S	0	0	9006	low
		65	78		0	0	10980	
19	F	56	59	S	0	0	12675	low
		54	62	S	0	0	7672	low
20	M	69	73	S	0	1	14900	low
21	F	63	62	M	2	1	25410	high
		67	63	S	0	0	11200	low
22	F	54	52	S	1	1	14200	low
		52	62		0	1	14980	
		64	60	S	0	1	13592	low
23	F	64	66	P	1	1	10512	low
		78	60	S	0	1	12640	low
		59	66	S	0	1	18600	high
		66	75		1	1	14060	low
24	F	52	65	M	0	1	12512	low
		63	71	S	0	0	12600	low
25	F	52	66	P	2	1	14512	low

Then select Move selected item from the pull down menu. Now select the location. And click on the destination item. The result is shown.

GENDER	AGE	HEIGHT	WEIGHT	STATUS	CHILDREN	CARS	SALARY	GRS
F	19	56	59	S	0	0	12675	low
	21	63	62	M	2	1	25410	high
	22	54	52	S	1	1	14200	low
		52	62		0	1	14980	
	23	64	66	P	1	1	10512	low
		78	60	S	0	1	12640	low
	24	52	65	M	0	1	12512	low
	25	52	66	P	2	1	14512	low
		56	54	S	0	1	13065	low
	26	67	74	M	1	1	8670	low
	28	56	52	S	0	0	12680	low
	30	56	63	P	1	1	16675	high
	34	78	72	M	2	1	26512	high
	35	59	67	M	2	2	16100	low
	36	53	66	M	1	0	9670	low
		63	71	W	1	1	10520	low
	38	68	66	M	2	1	14640	low

Summarizing The Report

We have a selection available for summarizing the report. Select Summarize information from the Edit pull down menu, then specify the destination of the summarization.

The follow screen appears to allow you to specify what will happen during summarization.

At bottom of report

Options

☐ Overline summary

☐ Double overline summary

☐ Underline summary

☐ Double underline summary

☐ Skip line after break

☐ Page after break

☐ Summarize analysis columns

☐ Suppress break value

Colors

Data foreground = **BLACK**

Data background =

Select Font

Edit Program OK Cancel

We have the ability to underline, overline, skip a line, page break, summarize the columns with statistics and suppress the left hand summarization label.

We select the following.

At bottom of report

Options

☐ Overline summary

☐ Double overline summary

☐ Underline summary

☒ Double underline summary

☐ Skip line after break

☐ Page after break

☒ Summarize analysis columns

☐ Suppress break value

Colors

Data foreground = **BLACK**

Data background =

Select Font

Edit Program OK Cancel

Click **OK** to see the summarization.

GENDER	AGE	HEIGHT	WEIGHT	STATUS	CHILDREN	CARS	SALARY	GRA
T	19	56	59	S	0	0	12675	low
	21	63	62	M	2	1	25410	high
	22	54	52	S	1	1	14200	low
	52	62			0	1	14990	
	23	64	66	P	1	1	10512	low
	78	80	S		0	1	12640	low
	24	52	65	M	0	1	12512	low
	25	52	66	P	2	1	14512	low
	58	54	S		0	1	13085	low
	26	67	74	M	1	1	8670	low
	28	56	52	S	0	0	12050	low
	30	56	63	P	1	1	16975	high
	34	78	72	M	2	1	28512	high
	35	59	57	M	2	2	10100	low
	36	53	69	M	1	0	9670	low
	63	71	W		1	1	10520	low
	38	69	56	M	2	1	14840	low

We have the ability to move to different pages in the report. Select **View** to see the options.

If we select **Display page**, The **Display page** prompt displays asking you what page you would like to go to.

We enter 999 to go to the last page of the report.

Display page

Enter page number: **999**

OK Cancel

GENDER	AGE	HEIGHT	WEIGHT	STATUS	CHILDREN	CARS	SALARY	GRA
	56	64	62	P	2	1	19008	high
	56	73	69	M	2	2	45650	high
	58	65	69	W	3	1	23923	high
	63	65	70	M	3	1	22750	high
	64	72	70	M	3	2	41900	high
	6960 S		7200		163	117	2191356	

Resetting The Display

When you need to refresh the display from the current settings, select **Refresh report display** from the **Edit** pull down menu.

REPORT

GENDER	AGE	HEIGHT	WEIGHT	STATUS	CHILDREN	CARS	SALARY	GRA
T	19	56	59	S	0	0	12675	low
	21	63	62	M	2	1	25410	high
	22	54	52	S	1	1	14200	low
	52	62			0	1	14990	
	23	64	66	P	1	1	10512	low
	78	80	S		0	1	12640	low
	24	52	65	M	0	1	12512	low
	25	52	66	P	2	1	14512	low
	58	54	S		0	1	13085	low
	26	67	74	M	1	1	8670	low
	28	56	52	S	0	0	12050	low
	30	56	63	P	1	1	16975	high
	34	78	72	M	2	1	28512	high
	35	59	57	M	2	2	10100	low
	36	53	69	M	1	0	9670	low
	63	71	W		1	1	10520	low
	38	69	56	M	2	1	14840	low

Subtotaling The Report

Subtotals are available on the report. Specify **Summarize** information from the **Edit** pull down menu after highlighting the variable on which you want to break. This example highlights **Gender**. Select **After detail lines**. The following selection screen appears.

BREAK

Breaking AFTER GENDER

Options

☐ Overline summary

☐ Double overline summary

☐ Underline summary

☐ Double underline summary

☐ Skip line after break

☐ Page after break

☐ Summarize analysis columns

☐ Suppress break value

Colors

Data foreground =

Data background =

Select Font

Edit Program OK Cancel

We have the ability to select colors of the data. Type a question mark in this field.

The **COLORS** selection menu appears.

COLORS

Command

BLUE

RED

GREEN

WHITE

ORANGE

BLACK

MAGENTA

GRAY

BRN

For this example we will keep with the default color of **BLACK**.

BREAK

Breaking AFTER GENDER

Options

☒ Overline summary

☐ Double overline summary

☒ Underline summary

☐ Double underline summary

☐ Skip line after break

☐ Page after break

☒ Summarize analysis columns

☐ Suppress break value

Colors

Data foreground = **BLACK**

Data background =

Select Font

Edit Program OK Cancel

After making the selections, select **OK**.

To see some subtotals, we select **View** and **Display** next page of report.

GENDER	AGE	HEIGHT	WEIGHT	STATUS	CHILDREN	CARS	SALARY	GRADE
F	57	53	82	M	2	2	33520	high
F	60	88.5	71	M	3	2	20592	high
F	61	55	62	M	2	1	25410	high
F	57	68			3	1	22592	
F	65	87	61	M	2	1	13840	low
F		2070	2125		53	32	587177	
M	18	85.5	72	S	0	0	8008	low
M		65	78		0	0	10980	
M	19	54	62	S	0	0	7872	low
M	20	69	73	S	0	1	14900	low
M	21	67	63	S	0	0	11200	low
M	22	84	60	S	0	1	13592	low
M	23	89	66	S	0	1	18600	high
M		68	75		1	1	14080	low
M	24	63	71	S	0	0	12600	low
M	25	65	78	D	2	1	53970	high
M		56	88	P	1	0	13008	low

Notice the new summarized subtotals.

To change the summarization information, simply highlight the column Gender, then select Edit.

And you can edit the summarization previously selected.

Here we wish to change the font. Click on **Default Font** to obtain the following display.

Once a new font is selected, select **OK**.

Subtotal Computations

From the Break display, select **Edit Program** to specify computations on the subtotals. The following window appears.

Type in the computation or LINE statements. These statements allow simple display of text at the subtotal sections in this example.

When you have completed the selection, close the window, then click **OK**.

To see the results, select View and Display next page of report.

CHILDREN	CARS	SALARY	GRADE	HOURS	DEPT	OVERTIME	CC	STA
2	2	33520	high	35	A		80	003
3	2	20592	high	35	D		40	001
2	1	25410	high	35	A		80	005
3	1	22592		35	B		80	003
2	1	13840	low	35	C		80	001
						8781.81		
53	32	587177		1070		62801.1	1320	
This is the result of a line statement								
0	0	8008	low	35	A	8578.94	80	004
0	0	10980		35	B		40	006
0	0	7872	low	25	C	6958.3	20	002
0	1	14900	low	35	D		80	005
0	0	11200	low	35	F	5880.72	20	008
0	1	13592	low	35	A	178.57	100	001
0	1	18600	high	35	C		20	001
1	1	14080	low	35	F		80	005
0	0	12600	low	35	C		80	008
2	1	53970	high	25	B		100	001
1	0	13008	low	35	F		0	004
1	1		low	35	A		40	004

Deleting Selected Items

Items in the report can be deleted. Select the item you wish to delete.

CARS	SALARY	GRADE	HOURS	DEPT	OVERTIME	CC	STA
0	8008	low	35	A	8578.94	80	004
1	25410	high	35	A		20	005
	14200	low	35	A		80	008

Select Edit from the pull down menus and Delete selected item. The item is removed.

Subsetting The Report

The report has the ability to subset the data as needed. Given the following report,

CARS	SALARY	GRADE	HOURS	DEPT	OVERTIME	CC	STA
35	A	8578.94	60	004	2500	Dave Derry	
35	A		20	005	2800	Julia Pendleton	
35	A		60	008	2800	Norman Henry	

select Search to display the Where... selection. After selecting Where..., the following prompt appears.

Enter a where clause to subset the data.

Select **OK** when finished and the report is subsetting.

AGE	SENDER	PHONE	WEIGHT	STATUS	CHILDREN	CARS	SALARY	HOUS
21	F	63	62	M	2	1	25410	35
22	F	64	52	S	1	1	14200	35
26	F	56	52	S	0	0	12060	35
30	F	58	63	P	1	1	16875	35
36	F	63	71	W	1	1	10520	35
43	F	62	73	M	2	0	13640	35
55	F	87	71	M	2	1	14840	25
57	F	53	62	M	2	2	33620	35
61	F	55	52	M	2	1	25410	35
22	F	52	82	S	0	1	14990	35
24	F	52	85	M	0	1	12512	35
25	F	52	68	P	2	1	14512	35
26	F	87	74	M	1	1	8870	35
45	F	62.5	72	M	1	1	15410	35
48	F	65	66	M	2	1	15840	35
51	F	87	68	M	5	0	22760	35
61	F	57	69	M	3	1	22592	35
23	F	84	66	P	1	1	10512	35
85	F	87	51	M	2	1	13640	35
23	F	78	80	S	0	1	12840	35

The **Where** clause can be augmented. From the pull-down menus, select **Search**, and try the **Where also...** selection.

The following screen appears.

Where also

Enter where also clause:

OK Cancel

Select the following.



Where also

Enter where also clause: status="S"

OK Cancel

Select **OK** when finished to see the resulting report.

REPORT									
AGE	SEX	REPORT	WEIGHT	HEIGHT	CHOL	TRIG	LDL	HDL	TC
22	F		54	52	\$	1	1	14200	35
28	F		56	52	\$	0	0	12050	35
22	F		52	52	\$	0	1	14880	35
23	F		78	80	\$	0	1	12840	35
25	F		58	54	\$	0	1	13005	35
19	F		56	59	\$	0	0	12675	35

Where selections can be removed one at a time when you select, from the pull-down menu Undo last where.

REPORT									
AGE	SEX	HEIGHT	WEIGHT	STATES	CITIZEN	CAPS	SALARY	HOOR	
21	F	63	62	M	2	1	25410	35	
22	F	54	52	S	1	1	14200	35	
26	F	56	62	S	0	0	12090	35	
30	F	58	63	P	1	1	16975	35	
36	F	63	71	W	1	1	10420	35	
43	F	62	73	M	2	0	13640	35	
55	F	67	71	M	2	1	14840	25	
57	F	53	62	M	2	2	33620	35	
61	F	55	52	M	2	1	28410	35	
22	F	52	62	S	0	1	14890	35	
24	F	52	65	M	0	1	12512	35	
26	F	52	69	P	2	1	14512	35	
26	F	57	74	M	1	1	8670	35	
45	F	82.5	72	M	1	1	15410	35	
48	F	65	66	M	2	1	15840	35	
51	F	57	68	M	5	0	22760	35	
61	F	57	69	M	3	1	22692	35	
23	F	64	60	P	1	1	10512	35	
65	F	67	61	M	2	1	13640	35	
23	P	78	60	S	0	1	12840	35	

Moving Through The Report

We have the ability to go to different pages in the report. From the Pull-down menus, select **View** and this menu appears.

View Local Global Options W

Display next page of report
Display previous page of report
Display page...

Display page allows you to go to a specify page.

Select **OK** to see the page.

REPORT									OK	Cancel
AGE	GENDER	HEIGHT	WEIGHT	STATUS	CHILDREN	CARS	SALARY	HOUSING		
46	F	63	78	W	3	1	47520	35		
56	F	52	80	M	3	2	47520	25		
19	F	56	58	S	0	0	12675	35		
35	F	59	57	M	2	2	10100	25		
52	F	66	68	M	5		23760	35		

Alternatively, to see the next page, select **Display next page of report.**

ADVANCED FSREPORT TOPICS

Accessing The Code

After creating the report by making these selections, we have the ability to see the actual statements being created. Select **Locals, List REPORT statements**, to see the actual code.

[illegible]

Once the code is displayed, we can save it to a text file or catalog entry. Select **File, Save as** and specify the location. In this example, we specify an external text file.

The screenshot shows a 'Save as' dialog box with a menu open. The menu options are: Cancel, Exit, Send page, Run, and Exit. The 'Write to file...' option is highlighted in the background.

The directory window appears.

Save As - SOURCE

File name: PREPORT.SAS

Save as type: SAS Files (*.sas)

Buttons: Save, Cancel, Help

We select a location of PREPORT.SAS and click on .

To use the code in the program editor, select **Windows, PROGRAM EDITOR**.

Issue an include command similar to the following.

```
Command ---> INC 'C:\SAS611\PREPORT.SAS'
0001
0002
0003
```

The program appears and is available for editing and submission.

```
PROGRAM EDITOR - Preport.sas
Command --->
00001 PROC REPORT DATA=SAS.DEMOGIUS LS=256 PS=28 SPLIT="/" CENTER ;
00002 COLUMN AGE GENDER HEIGHT WEIGHT STATUS CHILDREN CARS SALARY HOURS DEPT ;
00003 OVERTIME CC STAFFNO BUDGET NAME;
00004
00005 DEFINE AGE / SUM FORMAT= BEST3. WIDTH=9 SPACING=2 RIGHT "AGE";
00006 DEFINE GENDER / DISPLAY FORMAT= $8. WIDTH=8 SPACING=2 LEFT "GENDER";
00007 DEFINE HEIGHT / SUM FORMAT= BEST3. WIDTH=9 SPACING=2 RIGHT "HEIGHT";
00008 DEFINE WEIGHT / SUM FORMAT= BEST3. WIDTH=9 SPACING=2 RIGHT "WEIGHT";
00009 DEFINE STATUS / DISPLAY FORMAT= $8. WIDTH=8 SPACING=2 LEFT "STATUS";
00010 DEFINE CHILDREN / SUM FORMAT= BEST3. WIDTH=9 SPACING=2 RIGHT "CHIL";
00011 DEFINE CARS / SUM FORMAT= BEST3. WIDTH=9 SPACING=2 RIGHT "CARS";
00012 DEFINE SALARY / SUM FORMAT= BEST3. WIDTH=9 SPACING=2 RIGHT "SALARY";
00013 DEFINE HOURS / SUM FORMAT= BEST3. WIDTH=9 SPACING=2 RIGHT "HOURS";
00014 DEFINE DEPT / DISPLAY FORMAT= $8. WIDTH=8 SPACING=2 LEFT "DEPT";
00015 DEFINE OVERTIME / SUM FORMAT= BEST3. WIDTH=9 SPACING=2 RIGHT "OVER";
00016 DEFINE CC / SUM FORMAT= BEST3. WIDTH=9 SPACING=2 RIGHT "CC";
00017 DEFINE STAFFNO / DISPLAY FORMAT= $14. WIDTH=14 SPACING=2 LEFT "STAF";
00018 DEFINE BUDGET / SUM FORMAT= BEST3. WIDTH=9 SPACING=2 RIGHT "BUDGET";
00019 DEFINE NAME / DISPLAY FORMAT= $20. WIDTH=20 SPACING=2 LEFT "NAME";
00020
00021
00022 RUN;
```

AGE	GENDER	SALARY	STATUS	CHILDREN	CARS
50	F	8000	D	2	1
11	F	5800	M	1	1
28	F	15000	M	3	1
34	F	18000	M	2	1
34	F	0	M	2	1
65	F	10000	M	2	1
32	F	0	M	2	2
23	F	0	M	3	2
56	F	30000	M	3	2
54	F	0	M	3	2
52	F	15000	M	5	2
60	F	13000	M	3	2
56	F	15000	M	0	2
12	F	0	S	0	0
16	F	0	S	0	0
6	F	0	S	0	0
22	F	13000	S	0	1

Select **Edit, Define** selected item.

The Definition window is displayed. Specify the usage of **GROUP**.

DEFINITION

Header = GENDER

Usage: ☒ DISPLAY ☒ ORDER ☒ GROUP ☒ COMPUTED

Format: \$8. Data: for background

Spacing: 2 Data: background

Width: 8 Label: foreground

Label: background

Formatted: Select Data Font

Left: Select Label Font

Character: Select Label Font

Options: ☐ NO PRINT ☐ NO CARS ☐ NO SALARY ☐ NO HOURS

Apply Edit Cancel OK

Hit **OK** to see the grouped report.

REPORT					
AGE	STATUS	SALARY	CHILDREN	CARS	CITY
50	D	8000	F	2	1
59		20000	M	5	2
305	M	121800	F	28	18
258		128300	M	20	10
86	S	43000	F	0	2
83		17800	M	0	2
23	SEP	18000	F	1	1
55		12000	M	2	1
48	W	30000	F	3	1

Now select **Edit, Explore data**. The following prompting window appears to allow you to select the values you want.

You can specify specific values of grouped columns or **All levels**.

EXPLORE

Select column to include in report

Remove column

Remove column

Remove column

GENDER: All levels

STATUS: All levels

SALARY: All levels

CHILDREN: All levels

CARS: All levels

OK Apply Rotate columns Cancel

Changing The REPORT Profile

Another option from the Locals menu is **Display REPORT profile**.

This allows you to specify Prompting, Windows or Command line, and the location of the currently used profile. This allows us to use this report facility in a customized fashion. Select **OK** when finished.

PROFILE

Menu: Library

Menu: Catalog

Report window menu:

Compute window menu:

Report options:

☒ WINDOWS

☐ PROMPT

☐ COMMAND

OK Cancel

Exploring Data

It is possible to use the report to group data and then drill down through the grouped values. Let's assign a variable as a usage of **Group**. Select **GENDER**.

We will select GENDER of F and STATUS of D, M, SEP.

The EXPLORE dialog box has three panes. The first pane (GENDER) has 'All levels' selected. The second pane (STATUS) has 'D', 'M', and 'SEP' selected. The third pane is empty. Buttons at the bottom include OK, Apply, Rotate columns, and Cancel.

Select **OK** to see the following report.

	STATUS	SALES	GENDER	CLERK	AGE
50	F	8000	D	2	1
505	M	121600	M	28	19
23	SEP	18000	F	1	1

A vertical menu with options: 'SE report column', 'Copy data to clipboard', 'Explore data', 'Add variable', 'Remove variable', 'Move variable up', 'Move variable down', 'Delete variable', and 'Refresh data'. 'Explore data' is highlighted.

Going back to Explore data allows us to modify it again.

The window reappears.

The EXPLORE dialog box is shown with columns reordered. The first pane (STATUS) has 'All levels' selected. The second pane (GENDER) has 'D', 'M', and 'SEP' selected. The third pane is empty. Buttons at the bottom include OK, Apply, Rotate columns, and Cancel.

Select **Rotate columns** to change the order of column appearance.

The EXPLORE dialog box is shown with columns reordered. The first pane (STATUS) has 'All levels' selected. The second pane (GENDER) has 'D', 'M', and 'SEP' selected. The third pane is empty. Buttons at the bottom include OK, Apply, Rotate columns, and Cancel.

Hit **OK** to see the following reordered report.

	STATUS	SALES	GENDER	CLERK	AGE
50	D	8000	F	2	1
505	M	121600	F	28	19
23	SEP	18000	F	1	1