

PROC REPORT: YOUR MULTI-PURPOSE REPORTING TOOL

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Introduction

PROC REPORT provides SAS users with an interactive tool for the production of customized reports and output data sets. PROC REPORT combines features of the PRINT, TABULATE, and SUMMARY procedures into a powerful, multi-purpose reporting tool that can be appreciated by both beginning and experienced SAS users.

This tutorial will present new features of PROC REPORT available in release 6.11 of the SAS System ® for Windows and OS/2. The emphasis of the tutorial will be on use of PROC REPORT in a windowing environment, for several reasons:

1. Many of the enhancements in release 6.11 are to the PROC REPORT interface. These enhancements make the use of PROC REPORT in a windowing environment much more intuitive than in previous releases.
2. There are many other sources of information available on the use of PROC REPORT. Many of the other sources, however, primarily address running PROC REPORT in a batch environment.
3. The PROC REPORT interface is a component of the SQL Query window (a "point and click" interface for the SQL Procedure). The Query window can provide an end-user with easy access to data on multiple platforms. However, to create customized reports from the Query window requires use of the PROC REPORT interface.

PROC REPORT concepts

Before beginning our discussion of the recent enhancements to PROC REPORT, it will be helpful to review some basic concepts essential to fully exploiting the capabilities of PROC REPORT.

1. PROC REPORT uses two types of variables: report variables and data step variables. REPORT variables are columns on your report - even if they are not displayed on the report (i.e. designated as NOPRINT). Data step variables are "work" variables that are controlled entirely

by the SAS language statements you incorporate into your report.

A report variable:

- * is a column on your report, and may also be referenced in COMPUTE windows.
- * is initialized by PROC REPORT at the beginning of each report row.

A data step variable:

- * appears in one or more COMPUTE windows.
- * is initialized to missing prior to construction of the report rows.
- * has its value retained across all rows of a report until it is explicitly reassigned
- * will not display on the report unless you include it on a Line statement.

2. Before PROC REPORT constructs the rows of your report :

- * It reads the input data, applying any data set options or Where statement you may have specified.
- * It then sorts and groups the data according to how you have defined the report variables.
- * It calculates all statistics used in your report. Report statistics include those associated with an analysis variable and those that are added above or below a variable. It is important to remember that analysis variables must always be referenced by their compound name (example - PAID.SUM), even if your report is a simple listing of the input data.

Note: Display variables that have statistics added above or below them are treated similarly to analysis variables and, therefore, must be referenced by their compound name.

- * It calculates statistics for any summaries on your report, regardless of whether they are displayed on the report. This includes:

- Summary lines for the entire report
- Summary lines at break points in the report.

After the above steps have completed, PROC REPORT begins construction of the report, starting at the top row or summary break and proceeding to the bottom row or break. As PROC REPORT builds each row of a report, it assigns values to the columns in a row from left to right. This is why SAS statements entered in a COMPUTE window associated with a report variable can only

reference columns that precede that variable on the report row.

3. When you create a report using the PROC REPORT interface, you will often want to save the report for future use. This may be done in two ways:

(1) You may save the PROC REPORT statements that are generated by the REPORT interface,

(2) You may save the report definition. A report definition is a SAS catalog entry (entry type of REPT) that defines how the report is constructed. A report definition does not include the following: specification of the input data set, any global statements such as TITLE and FOOTNOTE, any data set options, the WHERE statement, the "OUT=" option.

Note: For reports that are produced on a frequent basis, you may find it helpful to save both the report statements and the report definition. The report statements can provide useful documentation of the report definition.

Creating a report

To create a report, begin by updating the titles and footnotes in your SAS session, if they need to be changed. Then, in the Program Editor window, enter the statement to initiate PROC REPORT.

Example:

Title1 'Strange Company';
Title2 'Monthly Claims Report';
Footnote 'South Region';

```
PROC REPORT DATA=CLAIMS.MONTH
PROMPT HEADLINE HEADSKIP MISSING ;
  WHERE REGION EQ 'South' ;
RUN;
```

The options I normally include on the PROC REPORT statement are:

- * **PROMPT** This option causes the Prompt facility to be active, prompting the user to select and define the columns on the report.
- * **HEADLINE** Underline the column headings.
- * **HEADSKIP** Skip a line after the column headings and the report rows.
- * **MISSING** If this option is omitted, PROC REPORT will not include observations with a missing value in any group, order or across variable.

Any of the PROC REPORT options may be selected in the interface if excluded from the REPORT statement. Likewise, the ones selected on the PROC REPORT statement may be de-selected in the interface.

Note: There is a new option for the PROC REPORT statement which we will not discuss in this tutorial. The option is NOEXEC, which allows you to create a report definition without actually creating a report.

If you intend to only use a subset of the specified data set, enter your WHERE statement immediately following the PROC REPORT statement. It is advantageous to enter your WHERE statement when you initiate PROC REPORT, rather than entering it in the interface:

- * There is no limitation on the size of a WHERE statement entered on the PROC REPORT statement.
- * You will avoid unnecessarily reprocessing the data.

When you are ready to initiate PROC REPORT, choose (from the action bar):

Locals ==> Submit.

The data set we are using for this tutorial contains medical claims history for a fictional company. A PROC CONTENTS report for this data set is displayed in Exhibit 1.

#	Variable	Type	Format	Label
14	CHARGES	Num	DOLLAR12.	Amount Charged
7	CITY	Char	\$20.	City
13	CLAIM_NO	Char	\$7.	Claim Num
15	COVERED	Num	DOLLAR12.	Amount Covered
12	DIAG_CD	Char	\$DIAGDES	Diagnosis
3	FRSTNAME	Char	\$18.	First Name
10	JOB	Char	\$25.	Occupation
2	LASTNAME	Char	\$21.	Last Name
16	PAID	Num	DOLLAR12.	Amount Paid
11	PAT_AGE	Num	Z4.	Pat Age
5	PAT_SEX	Char	\$PATSEX.	Pat Sex
4	PAT_SSN	Num	SSN.	Patient SSN
1	REGION	Char	\$5.	Region
8	STATE	Char	\$2.	State
6	STREET	Char	\$30.	Street
9	ZIP	Char	\$5.	Zip Code

Exhibit 1

The first window you will see after submitting the report is entitled "Prompt". This option allows you to limit the number of observations used while selecting and defining the REPORT columns through use of the Prompt facility. When you exit the Prompter, the limit is removed. Unless the SAS data set you are using is very small, I recommend choosing the "100 observations" limit.

Next, you will be prompted to select the variables you wish to include on your report. Use your mouse to select the variables, in the order they are to be displayed on the report. Any variable you intend to reference must be selected, even if it will not be displayed on the report. When you have selected your variables, close the Data

Columns window. The Prompter will now ask you to define how each variable on the report is to be used. In release 6.11 of the SAS System, PROC REPORT will allow you to see the report format change as you make selections through the Prompter. The DEFINITION windows you will see will have default selections which you may change if you wish. The first DEFINITION window will prompt you to define the variable usage on the report. The alternatives are:

DISPLAY

This will give you detail information, a report line for every observation in the data set. You will not be able to perform any grouping on your report if you have any variables defined as display variables (with the exception of display variables that have statistics added above or below them).

ORDER

This option should only be used for a detail report (one with no group variables). The report will be ordered by the specified variable.

Note: PROC REPORT will automatically change all display and group variables to order if you define any one variable as order.

GROUP

This will cause the report to be sorted and summarized by the specified variable. If you wish to have a summarized report, all character variables should be specified as group or across.

Note: PROC REPORT will automatically change all display and order variables to group if you define any one variable as group. This is one of the best PROC REPORT enhancements in release 6.11. In earlier releases, I would often receive the error message "Groups are not created because the usage of VARNAME is DISPLAY" (VARNAME = report variable name) when changing the usage of variables.

ACROSS

Across variables are similar to group variables, except that the groups that are created are displayed horizontally rather than vertically.

ANALYSIS

This option is chosen for numeric variables that you may want to summarize (or display some other statistic). Numeric variables representing SAS date and time values will be initially defined as analysis variables, but should, in most cases, be changed to another usage type.

After you select one of the choices listed above, you must choose the OK button to continue. The OK button will effect your selection immediately and display the result. The APPLY button will apply your selection, but will not advance to the next window. The EXIT PROMPTER button will assign the default selections to the report variables and exit the prompter. After you have indicated how a report variable is to be used, you will be prompted to specify the variable attributes - the format, width, and column heading. Make sure the width for each variable is sufficient to display the selected format. The Prompter will ask you to specify whether you wish to display a subtotals line for any group or order variables. For any numeric variable defined as analysis, you will be asked to assign a statistic for the variable.

When the Prompter has completed, you will be in the interactive REPORT window (PROC REPORT interface) where you can make changes to the report, save the report data and/or definition, and print the report. There are six action bar selections in the interactive report window which are specific to the REPORT procedure: File, Edit, Search, View, Locals, and Help. The other three selections (Globals, Options, and Window) are relevant to your entire SAS Display Manager session.

Release 6.11 Enhancements

The action bar selections specific to PROC REPORT have been enhanced significantly in release 6.11. Listed below are options that are new or are referenced differently in the REPORT interface.

File

Open ==>

Data Set

This option allows you to import another data set into the report you are creating in the PROC REPORT interface. The data set being imported must contain the same variable names as the data set being currently accessed.

REPORT Definition

This option, referenced in earlier releases as simply RLoad, allows you to import another report definition into the interface, using the data set you are currently accessing

Save ==>

REPORT Data

One of the most useful enhancements to PROC REPORT in release 6.11 is this feature, allowing you to create an output SAS data set containing one observation for every report line. If you have any breaks in your report, a variable named `_BREAK_` will be included in your data set and an observation representing each break line will be created. Observations representing break lines will contain either the name of the variable for the break line or `_RBREAK_` if the observation represents a report break.

REPORT Definition

This option was formerly referenced as `RStore`. It allows you to save your report definition in a SAS catalog.

Edit

Set REPORT Options

The `ROPTIONS` window was listed in the `Locals` pmenu in earlier releases, but is now in the `Edit` pmenu. The options and attributes listed in the `ROPTIONS` window may also be included on the `PROC REPORT` statement that you use to initiate the procedure. There are two new report options available in this window.

Box - This option will display the report in a format similar to `PROC TABULATE` output.

Missing - This option, which I described earlier, was previously only available by specification on the `PROC REPORT` statement.

Lay Out REPORT

The `LAYOUT` window is new to `PROC REPORT`. It displays the components of your report in a format that allows for quick and easy manipulation. Your report items (which include variables, spanning titles, summaries) are presented as rectangular boxes that can be dragged and dropped to rearrange or delete those items.

The `LAYOUT` window has several features which can assist you in the creation or modification of your reports.

1. If you have any variables defined as `NOPRINT`, the `LAYOUT` window is the best way to access them. All report items are displayed in the `LAYOUT` window, even those not displayed on the report.

2. If you wish to move and/or delete several report variables, you can do this easily in the `LAYOUT` window. To move report items, simply rearrange the boxes to be in the order you prefer. To delete a report item, simply drag the box out of the `LAYOUT` window.

3. If your data set is very large and you have several report changes you wish to make, you can apply an observation limit within the `LAYOUT` window while you make your changes. This option is similar to the observation limit in the `PROMPT` facility; it is removed when you exit the `LAYOUT` window. To use this feature, simply choose:

Edit ==> Observation limit.

In the `Observation Limit` window, enter the number of observations you want to use while in the `LAYOUT` window.

4. The `LAYOUT` window provides a quick way of adding summary breaks to your report:

Edit ==> Add summary.

* You can add a summary break or multiple summaries without specifying break options. The default options when you add summary breaks are as follows:

Top of REPORT -Summarize analysis columns

Bottom of REPORT -Summarize analysis columns
Double overline summary

Before Detail -Summarize analysis columns

After Detail -Summarize analysis columns
Overline summary
Skip line after break

* The `LAYOUT` window also provides a "point and click" method for entering text and report variables into a `COMPUTE` window associated with a report break. I find this method to be more time consuming and confusing than simply selecting the "Edit program" button in the `BREAK` window and entering my Line statements in the `COMPUTE` window.

Additional tips for using the `LAYOUT` window:

* The action bar selection

Edit ==> Properties

is equivalent to a double-click of mouse button 1 (MB1).

-Double-click in the `LAYOUT` window with no report items selected; you will activate the `ROPTIONS` window.

-Double-click on a report variable; you will activate the `DEFINITION` window for that variable.

- Double-click on a report summary; you will activate the `BREAK` window for that summary.

- * If your report has any summaries, you should select

Edit ==> Zoom layout

from the action bar. This will allow you to see and manipulate the entire report layout.

- * If you are rearranging the order of your report items, you can use your mouse to move more than one variable at once. To group multiple boxes so that you can treat them as one item:

1. Position the pointer below one of the boxes.
2. Press and hold down MB1.
3. Move the pointer up into the box.
4. Slide the pointer through the other boxes being grouped.
5. Release MB1.

- * You can resize the boxes in the LAYOUT window to make them wider than the default size. This may be necessary if you have stacked variables, such as an analysis variable with multiple statistics under it.

Explore Data

The EXPLORE window is new to PROC REPORT. It can only be accessed if you have at least one variable defined as group or order. The EXPLORE window contains three list boxes containing unique values for the first three group or order variables on your report.

The EXPLORE window:

- * provides a quick way of seeing all of the distinct values for a group or order variable;
- * affords you the opportunity to experiment with rearranging or deleting the report variables represented by the three list boxes;
- * gives you the opportunity to experiment with subsetting the data based on selected values for the variables represented in the EXPLORE window.

The EXPLORE window is especially useful when your report is very large and you desire a quick view of the categories created for your group variables.

Define a Selected Item

The DEFINITION window has been enhanced to include additional selections for report variables.

Statistic -

For analysis variables, two additional statistics are available for selection:

PCTN - This statistic will show the percentage of the total frequency count that the frequency count for a row represents. This percentage is expressed as a fraction. To view it as a percentage, use the PERCENT. format.

PCTSUM - This statistic will show the percentage of the sum for all rows in the report that the sum for a row represents. To view it as a percentage, use the PERCENT. format.

ID column -

The ID option specifies that the report variable you are defining and all columns to its left should appear at the left of every page of a report. The ID option is very useful when you have more columns than can appear on one report page. It ensures that you can identify each row of the report. You may want to use the ID option in conjunction with the PAGE option to control the display of columns on each report page.

Edit Program -

- * CALL DEFINE - Format attribute

The CALL DEFINE statement, which may be used in COMPUTE blocks associated with report items, has been enhanced to support a new attribute - format.

Example -

Suppose our report is displaying a total paid claims amount for each insured person. We are using the dollar12. format for display of the report variable PAID. However, if the value of PAID for a patient in Georgia exceeds \$100.00, we want to display the literal "Over \$100" instead of the actual amount. We can achieve this result with the format attribute of the CALL DEFINE statement. The format we will use is called PAIDLIM and was created with the following statements (prior to execution of PROC REPORT).

```
PROC FORMAT ;
  VALUE PAIDLIM
    0-100 = [DOLLAR12.]
    100<-HIGH = 'OVER $100';
RUN;
```

In the COMPUTE window associated with the report variable PAID, we will enter the following statements:

```
IF STATE EQ 'GA' THEN
  CALL DEFINE(_COL_, 'FORMAT', 'PAIDLIM.');
```

- * CALL DEFINE - Command attribute

Another new feature is available for use with the CALL DEFINE statement and the command attribute. A command string may be executed by double-clicking MB1 on a value in a report column.

You will most likely want to use this feature only when you are creating a report or report definition that will be used on an ongoing basis and will be run using the REPORT interface.

Example -

Suppose our report is displaying summarized data, but we want to provide the user with quick access to the underlying detail data for values displayed in a report variable column. This will essentially provide a drill-down feature to the report.

To provide drill-down capabilities on the report variable DIAG_CD (Diagnosis Code), enter the following statements in the COMPUTE window associated with DIAG_CD.

```
STRING='FSVIEW CLAIMS.MONTH;
WHERE DIAG_CD="||DIAG_CD||" ';
CALL DEFINE(_COL_,'COMMAND',STRING);
```

Now, when you double-click on any displayed Diagnosis Code value, PROC REPORT will execute PROC FSVIEW with a WHERE statement that will limit the data to observations that have the same value in DIAG_CD as the value you selected in the PROC REPORT interface. When you close the FSVIEW window, you will return to the REPORT window.

In the above example, if the data set variable referenced in the WHERE statement was numeric, the pair of double quotes surrounding the single quotes (after the "=") would be omitted.

Tips on using the DEFINITION window-

1. A very handy shortcut is available for opening the DEFINITION window: double-click MB1 on the column heading
2. When adding or changing attributes, if you insert a question mark in the entry field for Format, Statistic, Order, Justify or Data Type, PROC REPORT will display a selection window with alternative selection values.
3. If you open the DEFINITION window and then decide not to make any changes, select OK rather than CANCEL (in most cases, less processing time will be required).

The remaining selections within the Edit pmenu are not new to PROC REPORT. However, the pmenu selections have been enhanced to be much more intuitive.

Example -

To add a grand totals line at the end of your report, the following action bar and pmenu selections are needed to

open the BREAK window to specify your "bottom of report" parameters.

Release 6.10

Edit ==> RBreak ==> After detail

Release 6.11

Edit ==> Summarize information ==> At bottom of report

View

Display Page...

This option allows you to specify the REPORT page number you wish to view. This new feature provides a quick way of going to the top or bottom of a report - specify 1 or 9999 in the page number entry. An even easier way of paging through your report is to set PF keys to "page", "pageback", "page 1" and "page 9999".

Locals

The Locals pmenu has been changed to no longer include Message and RKeys selections. The two selections in the Locals pmenu are: **List REPORT statements**, and **Display REPORT profile**.

List REPORT Statements

This pmenu selection, previously referenced simply as List, will display the PROC REPORT statements needed to reproduce the report you are currently creating in the REPORT interface. You may save the report statements displayed in the SOURCE window, in two different ways:

- (1) You may select

File ==> Save as

and specify a file into which the statements will be saved.

- (2) You may copy and paste the statements into the program editor and save them from there after making desired changes to the report statements.

Display REPORT Profile

This option was previously referenced as Profile. The NORKEYS option has been removed from the PROFILE window.

Help

In release 6.11, you will find extensive documentation on PROC REPORT. When you select **Help** from the action bar in the PROC REPORT interface and select **Extended Help** from the pmenu, you will see the REPORT Index screen. From this screen, you can view PROC REPORT online documentation. If you are not in the PROC REPORT interface, you can access the Report: Index screen by making the following selections.

1. Select **Help** from the action bar.
2. Select **Extended Help** from the Help pmenu.
3. On the SAS SYSTEM HELP: Main Menu screen, select **ONLINE DOCUMENTATION**.
4. On the next screen, select **PROC REPORT** under the **BASE SAS SOFTWARE** heading.

Conclusion

PROC REPORT has been a powerful reporting tool since its production release in version 6.07 of the SAS System. Until the introduction of release 6.11, however, the PROC REPORT interface had been difficult for novice SAS users to grasp. Now, SAS users with varying amounts of experience can utilize the capabilities of PROC REPORT to produce customized reports and corresponding data sets.

Proc Report Example

This example will graphically demonstrate some of the features that have been discussed in this paper. To begin, submit the following code:

```
PROC REPORT DATA=CLAIMS.MONTH PROMPT
  NOCENTER HEADLINE HEADSKIP MISSING;
RUN;
```

The first window that you will see is the PROMPTER window (exhibit 2).

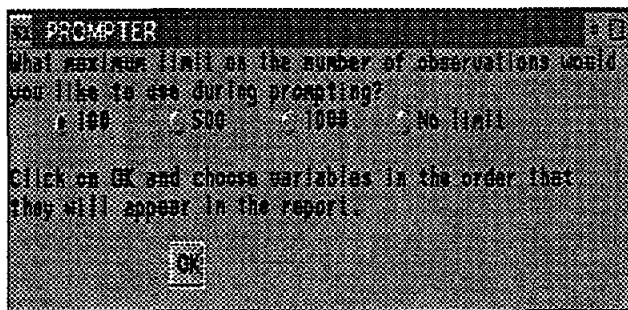


Exhibit 2

After you choose the number of observations that you would like to use during prompting, you will proceed to the DATA COLUMNS window (exhibit 3).

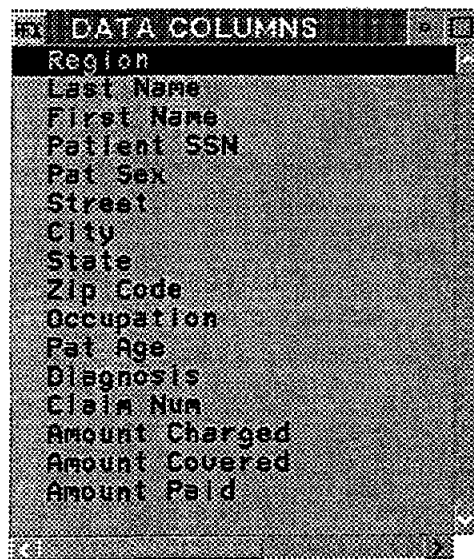


Exhibit 3

Select the columns that you would like to appear in the report by clicking on them with MB1. The order that you select the variables is the order that they will initially appear in the report. After you have selected the appropriate columns, close the DATA COLUMNS window. Choose **STATE**, **LAST NAME**, **FIRST NAME**, **AMOUNT CHARGED**, **AMOUNT COVERED**, and **AMOUNT PAID**.

The definition window will let you choose how the field is displayed. Choose **GROUP** observations into categories (Exhibit 4) for the **STATE** variable. Then select **OK**.

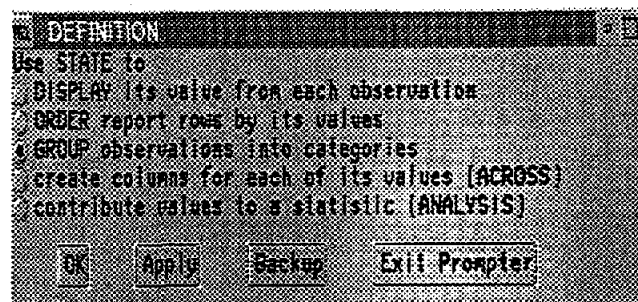


Exhibit 4

The next definition window (Exhibit 5) will ask you to set the attributes for **STATE**. Select **Exit Prompter** to enter the interactive REPORT window.

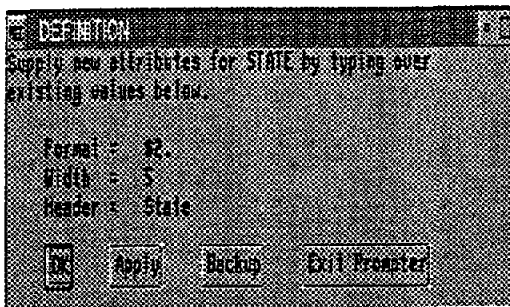


Exhibit 5

The first page of the report will appear as in Exhibit 6.

State	Last Name	First Name	Amount Charged	Amount Covered	Amount Paid
AL	Engle	Ver	\$167	\$150	\$15
	Fawcett	Jeff	\$150	\$150	\$0
	Ion	Sam	\$125	\$100	\$25
	Jackson	Keith	\$1,000	\$1,000	\$0
	Jan	Jane	\$100	\$275	\$175
	Neuner	L. ee	\$200	\$100	\$100
	Shadow	The	\$500	\$200	\$300
	Tide	Rail	\$225	\$225	\$0
	Zeebree	Wes	\$0-00	\$0-00	\$0-00
	Barbely	Charles	\$0-00	\$0-00	\$0-00
AZ	Beal	Fazlie	\$105	\$105	\$0
	Carey	Marish	\$125	\$125	\$0
	Carson	Johnny	\$275	\$250	\$25
	Chichen	San Diego	\$100	\$100	\$0
	Crawford	C. ndy	\$287	\$387	\$100
	Foreman	George	\$176	\$250	\$74
	Frog	Kernit	\$50	\$50	\$0
	Henderson	Spawell	\$50	\$50	\$0
	Hoppselhoff	David	\$245	\$100	\$145
	Idiot	Joe	\$100	\$775	\$675
CA	Ireland	Kathy	\$25	\$0	\$25
	Kentel	Carl	\$0-75	\$0	\$0-75
	Lephern	Fughern	\$0-00	\$0-00	\$0-00
	Luna	Jay	\$150	\$650	\$500
	Martin	Steve	\$210	\$210	\$0
	McKee	John	\$0-00	\$300	\$300
	McGrath	Jerry	\$225	\$225	\$0
	McKee	Ed	\$1,000	\$550	\$450
			\$234,780	\$84,334	\$150,446

Exhibit 6

We will now add two summary breaks to the report using the default summaries in the LAY OUT REPORT window. Choose EDIT ==> Lay Out REPORT.

The REPORT LAYOUT window will appear (Exhibit 7).

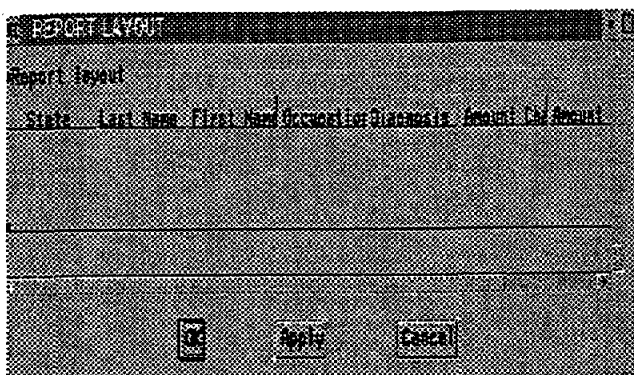


Exhibit 7

Now choose EDIT ==> Add Summary ==> At bottom of report.

PROC REPORT will sum the analysis columns and place a grand total at the bottom of the report as shown in Exhibit 8.

STATE	Last Name	First Name	Amount Charged	Amount Covered	Amount Paid
TX	Alman	Troy	\$500	\$400	\$100
	Begwell	Jeff	\$500	\$500	\$0
	Ryan	Molan	\$0-00	\$450	\$450
TX			\$1,000	\$1,350	\$350
VA	Brief	Dee	\$250	\$250	\$0
VA					
VA			\$250	\$250	\$0
WA	Griffey, Jr.	Ken	\$250	\$250	\$0
WA					
WA			\$250	\$250	\$0
WI	Houde	Mighty	\$0-75	\$475	\$475
WI					
WI			\$0-75	\$475	\$475
			***** \$234,780	***** \$84,334	***** \$150,446

Exhibit 8

To see the summary listed in the Lay out REPORT window, select EDIT ==> Zoom Layout (Exhibit 9).

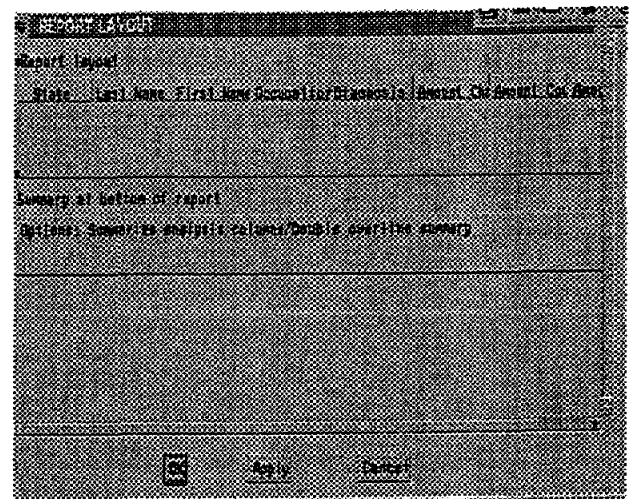


Exhibit 9

To add a summary line after each break after STATE, choose EDIT ==> Add Summary ==> After detail lines. You will then be presented with the Report Columns window (Exhibit 10). Choose STATE as your break variable and then close the window.

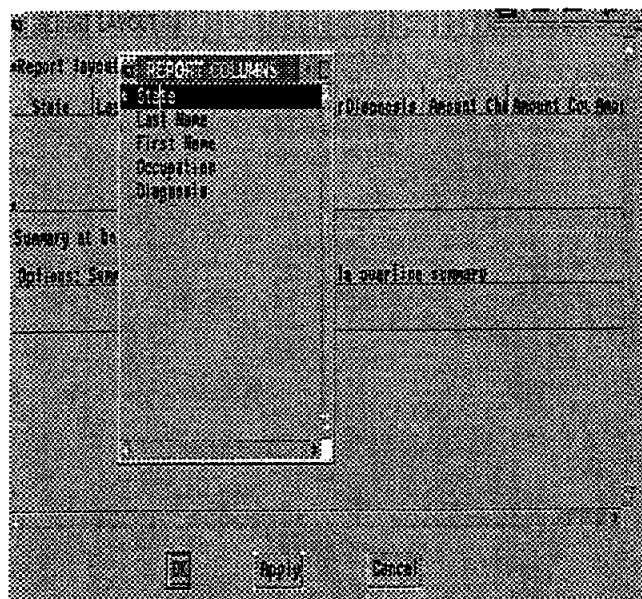


Exhibit 10

The first page of the report will now look like Exhibit 11.

State	Last Name	First Name	Amount Charged	Amount Covered	Amount Paid
AL	Engle	Mar	\$367	\$350	\$25
	Fenworthy	Jeff	\$220	\$350	\$25
	Ian	Sam	\$125	\$100	\$7
	Jackson	Keith	\$1,200	\$1,200	\$75
	Jan	Jana	\$200	\$275	\$25
	Newcar	Lisa	\$200	\$100	\$10
	Shadow	The	\$500	\$200	\$20
AZ	Tide	Roll	\$325	\$325	\$10
	Zeehom	Ne	\$400	\$400	\$25
			\$2,567	\$3,100	\$2,567
AZ	Berkely	Charles	\$400	\$400	\$30
			\$400	\$400	\$30
CA	Bea	Fozzie	\$45	\$45	\$4
	Caray	Mariah	\$125	\$125	\$12
	Carson	Johnny	\$275	\$250	\$20
	Chichen	San Diego	\$100	\$100	\$10
	Crawford	Cindy	\$387	\$387	\$38
	Foreman	George	\$276	\$250	\$25
	Frog	Kermit	\$50	\$50	\$5
	Henderson	Spanola	\$50	\$0	\$0
	Huggelhoff	David	\$245	\$100	\$10
	Idiot	Joe	\$600	\$775	\$625
	Ireland	Kathy	\$25	\$0	\$0
	Kentugi	Evil	\$475	\$0	\$0

Exhibit 11

To save the report data as it appears in the current report, select **File** ==> **Save** ==> **Report data**

Enter the name of the library where you want the data to be stored in the library field and the new data set name in the member field (Exhibit 12). Select OK and the new data set will be created.

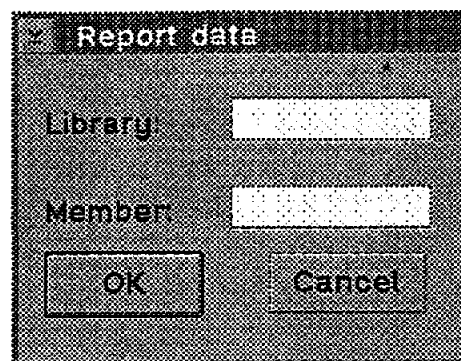


Exhibit 12

If you would like to use the current layout of your report with another data set, you can open an existing data set into the report by selecting **File** ==> **Open** ==> **Data set**. Select the data set library and name from the Data Selection window (Exhibit 13). This will discontinue use of the current data set and incorporate the new data set into the report. Remember that the variables in the report must be present in the new data set..

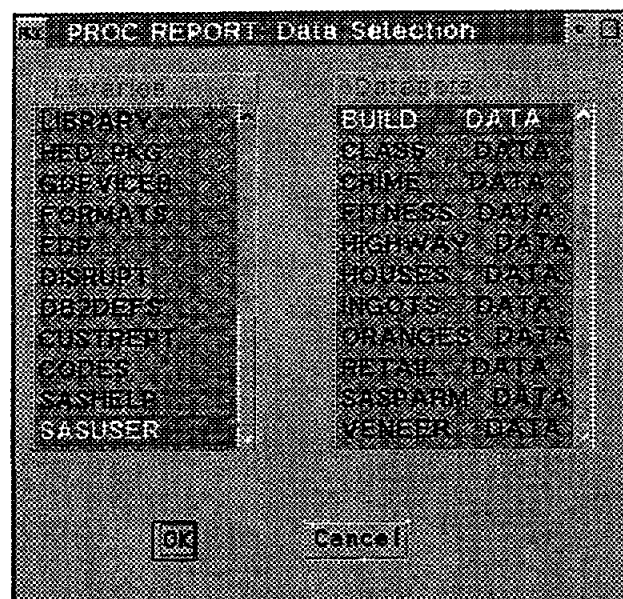


Exhibit 13

The report can be subset for specific values of any group or order variables by using the Explore Data option. To invoke this feature, choose **Edit** ==> **Explore data**. You will be presented with the Explore window (Exhibit 14).

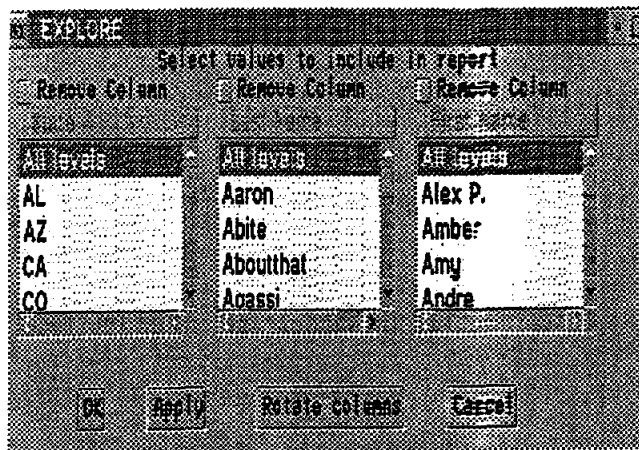


Exhibit 14

In the STATE column, click on AL with MB1 to select only Alabama (Exhibit 15). Next, click on All Levels with MB1 to de-select all of the states. Choose OK. This will limit the report to include only claims where the patient was a resident of Alabama.

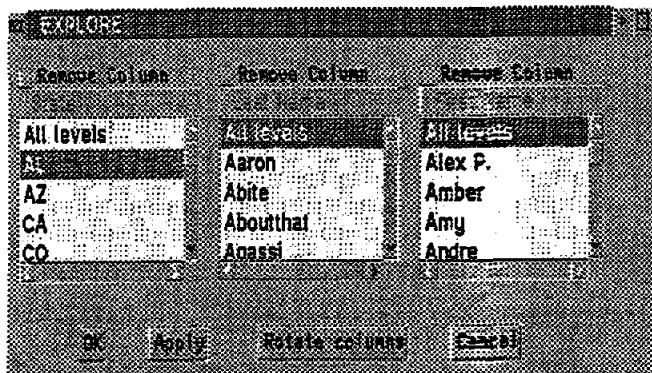


Exhibit 15

Exhibit 16 shows the results of limiting the report to only Alabama. Notice how both of the summaries that we added using the Layout window are still in effect.

STATE	Last Name	F. rst Name	Amount Charged	Amount Covered	Amount Paid
AL	Eagle	War	9367	9350	935
	Fannerty	Jeff	9250	9250	925
	Lee	Sam	9125	9100	91
	Jackson	Keith	91,000	91,000	915
	Jim	Jane	9300	9275	925
	Hawker	L. ab	9200	9100	910
	Shadow	The	9500	9200	920
	Tide	Roll	9325	9325	910
	Zachary	Ree	9400	9400	935
AL			93,567	93,100	92,50
			93,567	93,100	92,50

Exhibit 16.

To reset the report to include all states, choose **Edit** ==> **Explore data**. De-select Alabama by clicking on AL with MB1 and then reselect All levels. Choose OK. The report will now include all of the states in the data set.

NOTES

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