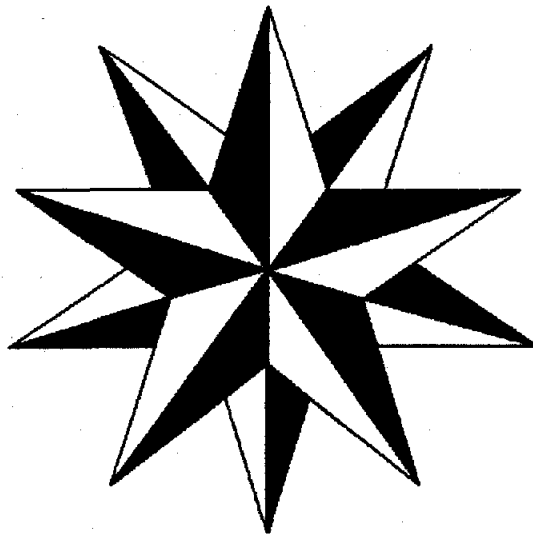


**PRINTING SAS REPORTS
WITHOUT PROC PRINT**



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PRINTING SAS REPORTS WITHOUT PROC PRINT

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There are only two kinds of SAS steps:

1. DATA
2. PROC

You can categorize the two steps this way:

1. In PROC steps you, the SAS programmer, supply the parameters and the SAS system does the work. Granted, you must select the correct parameters for the PROC but if you supply the parameters correctly you should attain your desired result.
2. In DATA steps you must supply the statements, assignments, IF-THEN logic, DO loops, etc., so SAS can process your data. DATA steps are much more open-ended than PROC steps and thus you gain flexibility and complexity.

PROC PRINT provides an easy way to print a SAS dataset. For a beginning SAS programmer it is the most used PROC. The detail information is spaced across the page, and the column titles are the variable names or labels. The titles are centered. If you wish to print all the variables and you do not care what order they are printed across the page all you really have to code is PROC PRINT.

```
PROC PRINT DATA=SASDB.EMPPAY (OBS=5) ;  
VAR EMP_1ST EMP_LAST EMP_ADDR EMP_CITY EMPSTATE;  
TITLE1 'SIMPLE REPORT USING PROC PRINT';
```

The contents of SAS dataset EMPPAY are displayed in Appendix A. The output of the PROC PRINT follows.

SIMPLE REPORT USING PROC PRINT

OBS	EMP_1ST	EMP_LAST	EMP_ADDR	EMP_CITY	EMPSTATE
1	RUTH	LENZEN	642 RAY RD	SAN FRANCISCO	CA
2	LEN	AMADON	4005 ROSA LN	SAN FRANCISCO	CA
3	KEITH	POWELL	4619 LAKE ST	LOS ANGELES	CA
4	FELIX	HOWARD	112 OAK DR	SAN FRANCISCO	CA
5	RONALD	NALL	3160 SATSUMA	LOS ANGELES	CA

The same report could be generated with a SAS DATA step shown below with printed output following.

<pre> 1. DATA _NULL_ ; 2. SET SASDB.EMPREGS(KEEP= 3. EMP_1ST EMP_LAST EMP_ADDR EMP_CITY 4. EMPSTATE OBS=5); 5. FILE PRINT HEADER=TITLCLS ; 6. RETAIN N 0 ; 7. N + 1 ; 8. PUT @5 N 3. @12 EMP_1ST @23 EMP_LAST @35 EMP_ADDR @54 EMP_CITY @74 EMPSTATE ; 9. RETURN ; 10. TITLCLS: 11. PUT / 12. @5 'OBS' 13. @12 'EMP_1ST' 14. @23 'EMP_LAST' 15. @35 'EMP_ADDR' 16. @54 'EMP_CITY' 17. @70 'EMPSTATE' 18. / ; 19. RETURN ; 20. TITLE1 'SIMPLE REPORT USING FILE AND PUT 21. STATEMENTS' ; 22. TITLE2 'REPORT FORMAT CAN BE MADE TO LOOK 23. LIKE PROC PRINT FORMAT' ; 24. RUN ; </pre>	<pre> 1. _NULL_ does not create a SAS data set which saves I/O time and disk space. 2. SAS data set for source data. 3. List of variables used along with number of observations processed. 4. Send print to default assigned print file. Link to TITLCLS at top of each page. 5. Retain value of accumulator N for counting the number of the observation. 6. Increment observation counter. 7. Put the variables at the respective columns. N is put in 3. format. 8. End of main program. Returns to top of DATA step. 9. This is a statement label that prints the HEADER referred to in 4. 10. Writes a blank line after TITLE2 in 15. 11. Writes the characters in quotes at the respective columns. 12. Space between column headers and data. 13. End of routine to run TITLCLS. 14. First title line. 15. Second title line. 16. Run the DATA step. </pre>
--	--

SIMPLE REPORT USING FILE AND PUT STATEMENTS
REPORT FORMAT CAN BE MADE TO LOOK LIKE PROC PRINT FORMAT

OBS	EMP_1ST	EMP_LAST	EMP_ADDR	EMP_CITY	EMPSTATE
1	RUTH	LENZEN	642 RAY RD	SAN FRANCISCO	CA
2	LEN	AMADON	4005 ROSA LN	SAN FRANCISCO	CA
3	KEITH	POWELL	4619 LAKE ST	LOS ANGELES	CA
4	FELIX	HOWARD	112 OAK DR	SAN FRANCISCO	CA
5	RONALD	NALL	3160 SATSUMA	LOS ANGELES	CA

A valid question at this point would be: "Why would you want to print a report with a DATA step when PROC PRINT is so easy?" The most inclusive answer would be that you want to use the power and flexibility to print your report in a way that is not possible with PROC PRINT.

Consider a report of wages of our employees totalled by state with a grand total. Again PROC PRINT could do this report for us but we may want to do more. The SAS code follows with explanation. Portions of the report follows on the next page.

```

1.  PROC SORT DATA= SASDB.EMPPAY
2.      (KEEP= EMP_1ST EMP_LAST EMPSTATE EMP_SSN
        YTDWAGES )
3.      OUT=PAYSORT ;
4.      BY EMPSTATE EMP_LAST EMP_1ST ;
5.  OPTIONS TPS=33
        OBS=50 ;
6.  DATA NULL ;
7.      SET PAYSORT END=LAST_REC ;
8.      BY EMPSTATE ;
9.      FILE PRINT
10.     HEADER=H
11.     LINESLEFT=LL
12.     NOTITLES ;
13.     LENGTH     MONTHLIT $ 9 ;
14.     RETAIN      MONTHLIT
15.              STATEWAG
16.              TOTALWAG 0 ;
17.     IF _N_ = 1 THEN
18.         MONTHLIT =
19.         SCAN(PUT(TODAY(),WORDDATE18.),1) ;
20.     STATEWAG + YTDWAGES ;
21.     FULLNAME= TRIM(EMP_LAST)||', '||
22.     TRIM(EMP_1ST);
23.     PUT @8      FULLNAME
24.         @32     EMP_SSN
25.         @42     YTDWAGES    DOLLAR14.2 @ ;
26.     IF LAST.EMPSTATE THEN DO ;
27.         STATENAME = SNAME(EMPSTATE) ;
28.         PUT OVERPRINT @42 '_____ '
29.         / @8      'TOTAL FOR ' STATENAME
30.         @42     STATEWAG    DOLLAR14.2 @ ;
31.         TOTALWAG + STATEWAG ;
32.         IF LAST REC THEN DO ;
33.             PUT @42 '_____ '
34.             / @8      'GRAND TOTAL FOR ALL STATES'
35.             @42     TOTALWAG    DOLLAR14.2 ;
36.             END ;
37.         ELSE PUT _PAGE_ ;
38.         STATEWAG = 0 ;
39.     END ;
40.     ELSE DO ;
41.         PUT ;
42.     IF LL < 4 THEN PUT _PAGE_ ;
43.     END ;
44.     RETURN ;
45. H: PUT @23 'SOME BIG CONGLOMERATE '
46.     / @12 'PAYROLL REPORT THROUGH THE '
47.     'MONTH OF ' MONTHLIT
48.     // @8 'EMPLOYEE NAME'
49.     @32 'SS NUMBER'
50.     @46 'YTD WAGES'
51.     / ;
52. RETURN ;
53. RUN ;

```

1. Data set to sort
2. Variables used
3. Sorted SAS dataset
4. Sort variables
5. Terminal page size = 33 bytes
Last observation processed #50
6. Do not create SAS data set
7. LAST REC referenced in 28.
8. Sorted order referenced in 22.
9. Send output to print.
10. Link to label H at top of page.
11. Lines remaining on page. See 38.
12. Clear out all titles.
13. MONTHLIT has length of 9.
14. MONTHLIT used throughout program.
15. STATEWAG initialized to 0.
16. TOTALWAG initialized to 0.
17. On only the first observation...
18. Assigns the value of the current month.
19. Accumulate state wages.
20. Write name as SMITH, JOHN
21. Write variable values at respective columns.
Hold the line for possible state totals.
22. For last observation for a state
23. SAS function SNAME gives state name from
two-character postal code.
24. Underscore. OPTIONS OVF must be on.
25. Next line, then print literal at column 8.
26. Print STATEWAG at column 14 using format.
27. Accumulated TOTALWAG from STATEWAG.
28. After last observation do until line 32.
29. Underline for GRAND TOTAL.
30. Next line, print literal at column 42.
31. Print TOTALWAG at column 42 using format.
32. End of DO loop begun in 28.
33. Write the page for the state.
34. Reset STATEWAG for next state.
35. End of loop begun in 22.
36. Else condition for line 22.
37. Finishes line 21.
38. If less than 4 lines on page, go to next
page.
39. End of DO in line 36.
40. Main code ends here. Return to top.
41. Label for header. Ends in colon.
42. First title line.
43. Second title line.
44. Skip two lines before printing column headers
at respective column positions.
45. Blank line between headers and data.
46. End of H (header) routine.
47. Run the DATA step.

SOME BIG CONGLOMERATE
PAYROLL REPORT THROUGH THE MONTH OF MAY

EMPLOYEE NAME	SS NUMBER	YTD WAGES
AMADON, LEN	318129122	\$10,530.00
BRASHEAR, BRUCE	623738492	\$10,790.00
BREEDEN, JOEL	629316113	\$14,820.00
BROWN, SIMON	617826514	\$13,000.00
.	.	.
SIMONSEN, JACK	981061137	\$18,980.00
SIMPSON, FRANK	515096318	\$0.00
SMITH, DONALD	332908566	\$9,620.00
STANYER, BILL	106829117	\$11,700.00
STEWART, KENNETH	616368825	\$9,360.00
TENNISON, HARVEY	223108612	\$16,510.00
WALKER, CHARLES	119186749	\$17,680.00
WEISBERG, EARL	722383401	\$15,860.00
TOTAL FOR CALIFORNIA		<u>\$473,182.00</u>

SOME BIG CONGLOMERATE
PAYROLL REPORT THROUGH THE MONTH OF MAY

EMPLOYEE NAME	SS NUMBER	YTD WAGES
BENHAM, WILLIAM	121837713	\$19,500.00
IVEY, ANTON	428761906	\$18,850.00
POSEY, PATRICK	725060134	\$8,000.00
ROCKWELL, ELIZABETH	801591212	\$10,400.00
WALLACE, CARL	622817115	\$11,440.00
WRIGHT, GEORGE	112839124	\$10,400.00
TOTAL FOR GEORGIA		<u>\$78,590.00</u>
GRAND TOTAL FOR ALL STATES		<u>\$551,772.00</u>

This time we will print a list of phone numbers of our employees in two column format, i.e.,

SMITH, JOHN.....756-8723

Additionally we are asked to make the last page of our phone directory to have equal columns, i.e., we have 199 employees and 104 would fit

on the first page (52 per column). The second page would thus have 95 employees. Rather than print 52 in the left column and 43 in the right column, we want to be able to print 48 in left column and 47 in right column. PROC PRINT definitely cannot do this job and we must resort to a DATA step to print the phone directory. The output follows on the next two pages.

```

1.  PROC SORT DATA=SASDB.EMPPAY (KEEP=EMP_LAST
    EMP_1ST WORKFONE)
2.      _OUT=EMPSORT ;
3.      BY EMP_LAST EMP_1ST ;
4.      RUN ;
5.  OPTIONS TLS=80 TPS=60 NODATE NONUMBER ;

6.  DATA NULL ;
7.      FIRSTLINE = 5 ;
8.      TITLELINE = FIRSTLINE - 2;
9.      LASTLINE = 56 ;
10.     LINES_PG = 2 * (LASTLINE - FIRSTLINE + 1) ;
11.     NO_PAGES = CEIL(COUNT/LINES_PG);

12.     LEFTOVER = MOD(COUNT,LINES_PG) ;

13.     DOTS 32 = REPEAT ('.',31) ;
14.     DO PG = 1 TO NO_PAGES ;
15.         IF PG= NO_PAGES AND LEFTOVER NE 0
16.             THEN LASTLINE=CEIL(LEFTOVER/2) +
                (FIRSTLINE - 1) ;

17.     DO COL = 7,42 ;
18.         DO LINE = FIRSTLINE TO LASTLINE ;
19.             OBS + 1 ;
20.             SET EMPSORT NOBS=COUNT POINT=OBS;
21.             FILE PRINT
22.             N=PAGESIZE

23.             HEADER = HEADING ;
24.             FULLNAME = TRIM(EMP_LAST)||
                ' '||TRIM(EMP_1ST);
25.             PHONENUM = SUBSTR(WORKFONE,1,3)
                ||'-'||SUBSTR(WORKFONE,4,4);
26.             COL_FONE = COL + 24 ;
27.             PUT #LINE
28.                 @COL DOTS 32
29.                 @COL FULLNAME
30.                 @COL_FONE PHONENUM ;
31.             IF OBS=COUNT THEN STOP ;
32.         END ;
33.     END ;
34.     PUT _PAGE_ ;
35.     END ;
36. RETURN ;
37. HEADING:
38. PUT # TITLELINE
39.     @7 'EMPLOYEE NAME'
    @29 'WORK PHONE'
    @42 'EMPLOYEE NAME'
    @64 'WORK PHONE' ;
40. RETURN ;
41. TITLE1 ' ' ;
42. TITLE2 'ALPHABETICAL LISTING OF EMPLOYEES
    AND THEIR WORK PHONES' ;
43. RUN ;

```

1. Sort SAS dataset using only variables needed in report.
2. Output SAS dataset
3. Sort order.
4. Run PROC SORT.
5. If using SAS Display Manager, set terminal page size to 80, terminal line size to 80, no date on report, no page numbers.
6. Do not create a SAS data set from DATA step.
7. First line for detail line.
8. Title line is two before detail line
9. Number of last detail line.
10. With two columns we can print twice the number of lines available.
11. Number of pages. COUNT is number of observations in EMPSORT (NOBS=COUNT). CEIL function returns smallest integer $\geq$ (COUNT/LINE_PG).
12. The number of lines to print on the last page.
13. 32 dots to fill each column.
14. DO loop to print the pages.
15. Special DO loop for the last page.
16. Set the number of the last line on the last page. The last line is half the number of lines remaining plus the number of lines for the titles and column headers.
17. The two columns start in columns 7 and 42.
18. Print detail data from the first line to the last line (for two columns).
19. Increment the observation number.
20. Source SAS data set. COUNT is the total number of observations and OBS is the number of the current observation.
21. Write to SAS output print file.
22. The N=PAGESIZE or N=PS option of the FILE statement tell SAS to hold an entire page in the output buffer until the page is full or until you tell SAS to release it.
23. Link to HEADING at top of each page.
24. Create FULLNAME from last name, followed by a comma and a space, then the first name.
25. Place a dash (-) in PHONENUM.
26. PUT PHONENUM 24 from start of each column.
27. PUT at line number by loop in 18.
28. Fill line with 32 dots.
29. PUT FULLNAME at column from 17.
30. PUT PHONENUM 24 columns from first position.
31. STOP when all observations are written.
32. End of line DO loop in 18.
33. End of column DO loop in 17.
34. Write the entire page.
35. End of pages DO loop in 14.
36. Return to beginning of DATA step.
37. Label for heading. SAS links to here at top of each page.
38. Write column header literals at respective columns.
40. End of heading routine in 37.
41. Blank title line.
42. Second title line.
43. Run the DATA step.

ALPHABETICAL LISTING OF EMPLOYEES AND THEIR WORK PHONES

EMPLOYEE NAME	WORK PHONE	EMPLOYEE NAME	WORK PHONE
ABEL, GREGORY.....	756-0024	FISCHER, ARNOLD.....	756-3876
ABSHIRE, JERRY.....	756-0346	FISHER, JAMES.....	756-4070
AGEE, JOSEPH.....	756-0410	FITZHUGH, ROY.....	756-4104
AINSWORTH, JERRY.....	756-0412	FLYNN, JACQUELINE.....	756-4184
AKARD, HENRY.....	756-0505	FONTANA, ED.....	756-4360
ALLEN, MARK.....	756-0520	FREEMAN, ARTHUR.....	756-4361
AMADON, LEN.....	756-0736	FULLERTON, KEITH.....	756-4387
ANTHONY, BOB.....	756-1339	GANTZ, BENJAMIN.....	756-4393
ATWELL, PETE.....	756-0754	GARRISON, RAYMOND.....	756-4528
AVERY, RICHARD.....	756-0856	GEIGER, STUART.....	756-4530
BAGNALL, VERNICE.....	756-0929	GILMER, LEWIS.....	756-4586
BAXTER, DAVID.....	756-1095	GOODWIN, RAY.....	756-4673
BEACH, PAUL.....	756-1115	GRAHAM, THOMAS.....	756-4797
BENHAM, WILLIAM.....	756-1250	GRANGER, PHILLIP.....	756-5058
BICKMAN, EDWARD.....	756-1256	GRIER, ROBERT.....	756-5154
BLAIR, LESLIE.....	756-1298	HAGAN, WALLACE.....	756-5215
BRASHEAR, BRUCE.....	756-1419	HAMILTON, DAVID.....	756-5390
BRATTON, ROYCE.....	756-1500	HANSON, SCOTT.....	756-5483
BREEDEN, JOEL.....	756-1506	HAWKINS, GREG.....	756-5651
BREEN, VICTOR.....	756-1539	HAYWOOD, DAVID.....	756-5764
BRET, BARRY.....	756-1590	HENDRICK, BOSCALJON.....	756-6230
BROWN, SIMON.....	756-1721	HIFFMAN, FRED.....	756-6250
BURCH, WAYNE.....	756-1808	HIGGINS, ROBERT.....	756-6263
BURGEN, JAMES.....	756-1901	HILL, FORREST.....	756-6483
CAMPBELL, EARL.....	756-1963	HOLCOMB, DENNIS.....	756-6583
CAREY, WILLIAM.....	756-2003	HOLLIS, GARY.....	756-6759
CARGILL, ALBERT.....	756-2141	HOPKINS, CLINTON.....	756-7014
CARLSON, TINA.....	756-2144	HORN, ROGER.....	756-7112
CARR, SUE.....	756-2214	HORST, HARVEY.....	756-7246
CHANDLER, GEORGE.....	756-2266	HOSEK, JEFF.....	756-7356
CHILDS, GEORGE.....	756-2336	HOUSE, JOHN.....	756-7408
CHURCH, DANNY.....	756-2357	HOUSLEY, CONRAD.....	756-7408
CLARKE, TERESA.....	756-2425	HOWARD, FELIX.....	756-7451
CONLEY, ROBERT.....	756-2498	HOYLE, ELLEN.....	756-7604
COOK, WILBURN.....	756-2682	IVERSON, ELMER.....	756-7781
COURTNEY, FRANK.....	756-2718	IVEY, ANTON.....	756-7885
DABBS, ROGER.....	756-2756	IVEY, CAROLINE.....	756-7904
DAVENPORT, MELVIN.....	756-2957	JACKSON, JOHN.....	756-8127
DECKER, MELVIN.....	756-3083	JARRETT, TURNER.....	756-8220
DIETER, DONALD.....	756-3262	JEFFERSON, LANE.....	756-8243
DOBBS, STEVE.....	756-3296	JONES, DONALD.....	756-8269
DOUGAN, TIMOTHY.....	756-3318	JOPLIN, AL.....	756-8383
DRUMMOND, GARY.....	756-3372	JUDD, PHILIP.....	756-8384
EDWARDS, VERNON.....	756-3539	KELLY, ANDREW.....	756-8419
EGGERT, VANCE.....	756-3547	KENT, SCOTT.....	756-8461
ERWIN, FRED.....	756-3570	KEOMIG, VERNON.....	756-8643
EVANS, JOHN.....	756-3574	KERBY, ROBIN.....	756-8686
EVERS, RUTH.....	756-3600	KIDWELL, FRANK.....	756-8713
EVERTS, ROY.....	756-3623	KLEIN, IRWIN.....	756-8844
FIELD, CAROL.....	756-3662	LANE, DONALD.....	756-9398
FIELDS, RICHARD.....	756-3709	LANE, SARAH.....	756-9343
FINLEY, RONALD.....	756-3850	LANGSTON, FLOYD.....	756-9414

NOTE: Each column has 52 names and numbers.

ALPHABETICAL LISTING OF EMPLOYEES AND THEIR WORK PHONES

EMPLOYEE NAME	WORK PHONE	EMPLOYEE NAME	WORK PHONE
LANSING, JOHN.....	756-9545	RICHMOND, TERRY.....	757-4642
LENZEN, RUTH.....	756-9854	RIGSBY, MARY.....	757-4945
LINDGREN, CHRIS.....	756-9923	ROBERTS, LENA.....	757-4988
LINDSTROM, PATRICK.....	756-9939	ROCKWELL, ELIZABETH.....	757-5339
LONG, DANIEL.....	756-9945	ROWELL, DONALD.....	757-5523
LOPEZ, GRACE.....	756-9948	SANDERS, LOUIS.....	757-5580
LOVELL, GERALD.....	757-0113	SAUNDERS, WILLIAM.....	757-5860
LUTHER, BYRON.....	757-0204	SCHAFER, SCOTT.....	757-5924
MADDEN, ANNA.....	757-0321	SCOTT, LEO.....	757-5956
MAYFIELD, JOHN.....	757-0392	SEAGRAVES, MORRIS.....	757-5966
MCBETH, DAN.....	757-0548	SHEPHERD, RUTH.....	757-6115
MCDAVID, BEN.....	757-0673	SHULTZ, BUCK.....	757-6243
MCEVOY, DAVID.....	757-0685	SIDWEBER, RAYMOND.....	757-6327
MEAD, FRANK.....	757-1072	SIMMONDS, EUGENE.....	757-6435
MEELY, ROBERT.....	757-1191	SIMONSEN, JACK.....	757-6525
MERCHAN, IRA.....	757-1381	SIMPSON, FRANK.....	757-6578
MILLER, BARRY.....	757-1561	SMALLEY, JAYNE.....	757-6602
MOORE, STELLA.....	757-1683	SMITH, DONALD.....	757-6610
MOORING, SAMUEL.....	757-1714	SNOW, LOUIS.....	757-6624
MORAN, JACK.....	757-1776	SPEERS, ROBERT.....	757-6704
MORAN, LOUIS.....	757-1760	STANYER, BILL.....	757-7010
MOREY, BERNARD.....	757-1857	STEWART, KENNETH.....	757-7363
MORGAN, JOHN.....	757-1948	SUTER, LARRY.....	757-7733
MOTT, MARK.....	757-2160	TENNISON, HARVEY.....	757-7750
NALL, RONALD.....	757-2227	THOMPSON, TRAVIS.....	757-7781
NARMOUR, HOWARD.....	757-2316	THORNBURG, ROBERT.....	757-7811
NASH, CAROL.....	757-2319	TONROY, NANA.....	757-7836
NATHAN, RICHARD.....	757-2321	TOVAR, LARRY.....	757-7858
NEEDHAM, JERRY.....	757-2528	TRENT, KEVIN.....	757-7925
NEEDUM, TOM.....	757-2672	TURNER, FRED.....	757-7938
NOLAND, HECTOR.....	757-2712	TURNER, SUSAN.....	757-7980
OLVERA, STEPHEN.....	757-2996	VICKERY, PATRICK.....	757-8189
OSBORN, CHARLES.....	757-3161	WALKER, CHARLES.....	757-8245
OTTO, STEVE.....	757-3223	WALKER, PRICE.....	757-8275
OWEN, DONALD.....	757-3252	WALLACE, CARL.....	757-8313
PARKER, PATRICIA.....	757-3362	WASHBURN, JAMES.....	757-8660
PARKER, PETE.....	757-3294	WEEKS, TERRI.....	757-8743
PATMAN, DIANE.....	757-3398	WEIR, BARRY.....	757-8826
PATTERSON, RODNEY.....	757-3438	WEISBERG, EARL.....	757-9084
PELTON, PETER.....	757-3692	WHITE, RONALD.....	757-9183
POSEY, PATRICK.....	757-4007	WILKES, DONALD.....	757-9362
POWELL, KEITH.....	757-4015	WOLF, RAY.....	757-9554
PRICE, MICHAEL.....	757-4022	WORDEN, PAUL.....	757-9559
PULLIAM, PATRICIA.....	757-4176	WREN, CLIFTON.....	757-9628
PULLIAM, PATRICK.....	757-4179	WRIGHT, GEORGE.....	757-9633
REDMOND, MARCUS.....	757-4311	YATES, GARY.....	757-9837
RHODES, BRAD.....	757-4510	YOUNG, LISA.....	757-9877
RHODES, ROY.....	757-4453		

NOTE: The list of phone numbers is balanced on the last page if the number of names is odd. The left column has 48 names (MAX is 52 per column) and right column has 47 names.

Appendix A

CONTENTS OF USR.EUC8.SASDB(EMPPAY)

CONTENTS PROCEDURE

CONTENTS OF SAS MEMBER SASDB.EMPPAY

CREATED BY OS JOB LDPARKMG ON CPUID 66-3084-020269
 AT 13:02 FRIDAY, APRIL 20, 1990 BY SAS RELEASE 5.18 DSNAME=USR.EUC8.SASDB
 OBSERVATIONS PER TRACK -291 BLKSIZE=15330 LRECL=158
 GENERATED BY PROC SORT
 NUMBER OF OBSERVATIONS: 199 NUMBER OF VARIABLES: 20
 MEMTYPE: DATA

----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
16	ACT_CODE	CHAR	1	125			
15	ACT_STAT	CHAR	1	124			
13	BIRTHDAT	NUM	8	108	MMDDYY8.		
17	CURRRATE	NUM	8	126	DOLLAR10.2		
4	EMP_ADDR	CHAR	24	33			
5	EMP_CITY	CHAR	15	57			
3	EMP_LAST	CHAR	12	21			*LAST NAME
1	EMP_NUM	CHAR	5	4			
EMPLOYEE*NUMBER							
8	EMP_SSN	CHAR	9	83			
7	EMP_ZIP	CHAR	9	74			
2	EMP_1ST	CHAR	12	9			
*FIRST NAME							
6	EMPSTATE	CHAR	2	72			
14	HIREDATE	NUM	8	116	MMDDYY8.		
10	HOMEFONE	CHAR	7	99			
12	RACE	CHAR	1	107			
11	SEX	CHAR	1	106			
9	WORKFONE	CHAR	7	92			
19	YTDCOMM	NUM	8	142	DOLLAR14.2		
20	YTDTAX	NUM	8	150	DOLLAR14.2		
18	YTDWAGES	NUM	8	134	DOLLAR14.2		

References

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