

An Introduction to Proc Transpose

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YEAR	HOME	POSITION
2006	Seven Oaks	PRACTICAL CARE AIDE
2006	Cummer Lodge	PRACTICAL CARE AIDE
2006	True Davidson Acres	REGISTERED PRACTICAL NURSE
2006	Kipling Acres	PRACTICAL CARE AIDE
2006	Bendale Acres	CLEANER HEAVY DUTY
2006	Fudger House	PRACTICAL CARE AIDE
2006	Castleview-Wychwood	REGISTERED NURSE HOMES & HOSTELS
2006	Admin. and Sup. Services	SUPPORT ASSISTANT C
2006	Lakeshore Lodge	FOOD SERVICES WORKER
2006	Wesburn Manor	CLEANER HEAVY DUTY
2006	Carefree Lodge	REGISTERED NURSE HOMES & HOSTELS
2006	True Davidson Acres	PRACTICAL CARE AIDE
2006	Wesburn Manor	PRACTICAL CARE AIDE
2006	Bendale Acres	SUPPORT ASSISTANT C
2006	Castleview-Wychwood	PRACTICAL CARE AIDE
2006	Carefree Lodge	FOOD SERVICES WORKER
2006	Seven Oaks	REGISTERED PRACTICAL NURSE
2006	True Davidson Acres	REGISTERED PRACTICAL NURSE
2007	Fudger House	PRACTICAL CARE AIDE
2007	Seven Oaks	REGISTERED NURSE
2007	Castleview-Wychwood	PRACTICAL CARE AIDE
2007	Cummer Lodge	PRACTICAL CARE AIDE
2007	True Davidson Acres	PRACTICAL CARE AIDE
2007	Cummer Lodge	PRACTICAL CARE AIDE
2007	Cummer Lodge	PRACTICAL CARE AIDE
2007	Cummer Lodge	PRACTICAL CARE AIDE
2007	Kipling Acres	REGISTERED NURSE HOMES & HOSTELS
2007	Seven Oaks	PRACTICAL CARE AIDE
2007	Castleview-Wychwood	FOOD SERVICES WORKER
2007	Fudger House	CLEANER HEAVY DUTY
2007	Cummer Lodge	PRACTICAL CARE AIDE
2007	Seven Oaks	FOOD SERVICES WORKER
2007	Cummer Lodge	CLEANER HEAVY DUTY
2007	Carefree Lodge	ADMINISTRATOR
2007	Castleview-Wychwood	PRACTICAL CARE AIDE
2007	Cummer Lodge	PRACTICAL CARE AIDE
2007	True Davidson Acres	PRACTICAL CARE AIDE

YEAR	HOME	COUNT	PERCENT
2006	Admin. and Sup. Services	3	1.7857
2006	Adult Day Centres	1	0.5952
2006	Bendale Acres	16	9.5238
2006	Carefree Lodge	12	7.1429
2006	Castleview-Wychwood	16	9.5238
2006	Cummer Lodge	18	10.7143
2006	Executive Office	1	0.5952
2006	Fudger House	15	8.9286
2006	Kipling Acres	19	11.3095
2006	Lakeshore Lodge	17	10.1190
2006	Seven Oaks	22	13.0952
2006	True Davidson Acres	19	11.3095
2006	Wesburn Manor	9	5.3571
2007	Admin. and Sup. Services	3	1.4634
2007	Bendale Acres	24	11.7073
2007	Carefree Lodge	11	5.3659
2007	Castleview-Wychwood	24	11.7073
2007	Cummer Lodge	35	17.0732
2007	Executive Office	1	0.4878
2007	Fudger House	18	8.7805
2007	Kipling Acres	23	11.2195
2007	Lakeshore Lodge	12	5.8537
2007	Regional Services	1	0.4878
2007	Seven Oaks	29	14.1463
2007	Supportive Housing	1	0.4878
2007	True Davidson Acres	18	8.7805
2007	Wesburn Manor	5	2.4390
2008	Admin. and Sup. Services	3	1.1070
2008	Adult Day Centres	1	0.3690
2008	Bendale Acres	41	15.1292
2008	Carefree Lodge	8	2.9520
2008	Castleview-Wychwood	32	11.8081
2008	Cummer Lodge	47	17.3432
2008	Executive Office	1	0.3690
2008	Fudger House	20	7.3801
2008	Kipling Acres	31	11.4391
2008	Lakeshore Lodge	23	8.4871
2008	Regional Services	2	0.7380
2008	Seven Oaks	27	9.9631
2008	True Davidson Acres	18	6.6421
2008	Wesburn Manor	17	6.2731

* Without proc transpose, you have the drudgery of doing this fifteen times, and knowing all possible values in advance, annoying even with a macro. *;

```
data col2;  
set home_count;  
if home='Bendale Acres';  
format Bendale_Acres 5.;  
Bendale_Acres = count;  
keep year Bendale_Acres;
```

* ... *;

```
data outcome;  
merge col2 col3 col4 col5 col6 col7 col8 col9 col10 col11 col12  
col13 col14 col15;  
by year;
```

```
PROC TRANSPOSE <DATA=input-data-set> <LABEL=label> <LET>  
<NAME=name> <OUT=output-data-set> <PREFIX=prefix>; BY  
<DESCENDING> variable-1  
<...<DESCENDING> variable-n>  
<NOTSORTED>;  
COPY variable(s);  
ID variable;  
IDLABEL variable;  
  
VAR variable(s);
```

```
proc sort data=sasuser.TASS_demo; by year;
proc freq data=sasuser.tass_demo; by year;
tables home/noprint list out=home_count; /* additional tables possible. */
```

```
data home_count;
set home_count;
format count 5.;
```

```
PROC EXPORT DATA= WORK.home_count
    OUTFILE= "C:\sas\code\tass\proc_freq_output.dbf"
    DBMS=DBF REPLACE;
RUN; /* output of proc freq before transposition. */
```

- * Now transpose the table with proc transpose. *;
- * By variables are not transposed. *;
- * The value of the id variable becomes the column name. Is converted to SAS-friendly variable name if necessary. *;
- * The var variable (could be more than one) is the dependent variable, and is mapped to the column. *;

```
proc transpose data=home_count out=home_count_transposed ;
by year ;
id home;
var count;
run;
```

```
data home_count_transposed
(drop=_name__label_); /* the name and label of the variable that held the values now mapped to the
columns. */
retain year Bendale_Acres Carefree_Lodge Castleview_Wychwood Cummer_Lodge Executive_Office
Fudger_House
Kipling_Acres Lakeshore_Lodge Seven_Oaks True_Davidson_Acres Wesburn_Manor
Admin__and_Sup__Services Adult_Day_Centres
Regional_Services Supportive_Housing; /* Only use retain statement if column sequence matters. */
set home_count_transposed;
* Now output to spreadsheet with proc export. *;
PROC EXPORT DATA= WORK.home_count_transposed
OUTFILE= "c:\sas\code\tass\LTC_Departures.xls"
DBMS=EXCEL REPLACE;
SHEET="Home";
RUN;
```

```
110 proc freq data=sasuser.tass_demo; by year;
111 tables home/noprint list out=home_count; /* additional tables possible. */
112
```

NOTE: There were 644 observations read from the data set SASUSER.TASS_DEMO.

NOTE: The data set WORK.HOME_COUNT has 41 observations and 4 variables.

NOTE: PROCEDURE FREQ used (Total process time):

real time	0.01 seconds
cpu time	0.01 seconds

```
113 data home_count;
114 set home_count;
115 format count 5.;
116
```

NOTE: There were 41 observations read from the data set WORK.HOME_COUNT.

NOTE: The data set WORK.HOME_COUNT has 41 observations and 4 variables.

NOTE: DATA statement used (Total process time):

real time	0.01 seconds
cpu time	0.01 seconds

```
117 PROC EXPORT DATA= WORK.home_count
118     OUTFILE= "C:\sas\code\tass\proc_freq_output.dbf"
119     DBMS=DBF REPLACE;
NOTE: "C:\sas\code\tass\proc_freq_output.dbf" was successfully created.
NOTE: PROCEDURE EXPORT used (Total process time):
```

```
    real time      0.09 seconds
    cpu time       0.00 seconds
```

```
120 RUN; /* output of proc freq before transposition. */
121
122 * Now transpose the table with proc transpose. *;
123 * By variables are not transposed. *;
124 * The value of the id variable becomes the column name. Is converted to SAS-friendly variable name if necessary. *;
125 * The var variable (could be more than one) is the dependent variable, and is mapped to the column. *;
126
127 proc transpose data=home_count out=home_count_transposed ;
128 by year ;
129 id home;
130 var count;
131 run;
```

NOTE: There were 41 observations read from the data set WORK.HOME_COUNT.

NOTE: The data set WORK.HOME_COUNT_TRANSPOSED has 3 observations and 18 variables.

NOTE: PROCEDURE TRANSPOSE used (Total process time):

```
    real time      0.01 seconds
    cpu time       0.01 seconds
```

```
132
133 data home_count_transposed
134 (drop=_name__label_); /* the name and label of the variable that held the values now mapped to the columns. */
135 retain year Bendale_Acres Carefree_Lodge Castleview_Wychwood Cummer_Lodge Executive_Office
Fudger_House
136 Kipling_Acres Lakeshore_Lodge Seven_Oaks True_Davidson_Acres Wesburn_Manor
Admin__and_Sup__Services Adult_Day_Centres
137 Regional_Services Supportive_Housing; /* Only use retain statement if column sequence matters. */
138 set home_count_transposed;
139 * Now output to spreadsheet with proc export. *;
```

NOTE: There were 3 observations read from the data set WORK.HOME_COUNT_TRANSPOSED.

NOTE: The data set WORK.HOME_COUNT_TRANSPOSED has 3 observations and 16 variables.

NOTE: DATA statement used (Total process time):

```
real time      0.00 seconds
cpu time       0.00 seconds
```

```
140 PROC EXPORT DATA= WORK.home_count_transposed
141      OUTFILE= "c:\sas\code\tass\LTC_Departures.xls"
142      DBMS=EXCEL REPLACE;
143      SHEET="Home";
144 RUN;
```

NOTE: New file "c:\sas\code\tass\LTC_Departures.xls" will be created if the export process succeeds.

NOTE: "Home" was successfully created.

NOTE: PROCEDURE EXPORT used (Total process time):

```
real time      0.46 seconds
cpu time       0.09 seconds
```

YEAR	BENDALE_ACRES	CAREFREE_LODGE	CASTLEVIEW_WYCHWOOD	CUMMER_LODGE	EXECUTIVE_OFFICE
2006	16	12	16	18	1
2007	24	11	24	35	1
2008	41	8	32	47	1
	FUDGER_HOUSE	KIPLING_ACRES	LAKESHORE_LODGE	SEVEN_OAKS	TRUE_DAVIDSON_ACRES
	15	19	17	22	19
	18	23	12	29	18
	20	31	23	27	18
	WESBURN_MANOR	ADMIN_AND_SUP	ADULT_DAY_CENTRES	REGIONAL_SERVICE	SUPPORTIVE_HOUSING
	9	3	1		
	5	3		1	1
	17	3	1	2	

Thanks!