

SAS V8 SUNKEN Treasures

Charles Patridge

Email: Charles_S_Patridge@prodigy.net

Web: <http://www.sconsig.com>

GOTCHAs

[Proc Transpose or Proc Contents](#)

```

data test;
  infile cards missover;
  input @2 date ddmmyy8. premiums losses expenses;
  if premiums = . then premiums = 0;
  if losses = . then losses = 0;
  if expenses = . then expenses = 0;
  profit = premiums - (losses + expenses);
  percent = 100 * (profit / premiums) ;
  year = year(date);
  format date monyy7.;
  cards;
01/01/01 20000 4000 3000
01/02/01 15000 7000 5000
01/03/01 23000 8000 6000
01/04/01 19000 5000 3500
01/05/01 32000 9000 7600
01/06/01 22000 8500 4400
01/07/01 27000 9900 5500
  ;;;;
run;

proc sort data=test out=test; by year; run;

proc transpose data=test out=tranpose;
by year; id date;
format date monyy7.;
var premiums losses expenses profit percent;
run;

```

test data set

OBS	DATE	PREMIUMS	LOSSES	EXPENSES	PROFIT	PERCENT	YEAR
1	JAN2001	20000	4000	3000	13000	65.0000	2001
2	FEB2001	15000	7000	5000	3000	20.0000	2001
3	MAR2001	23000	8000	6000	9000	39.1304	2001
4	APR2001	19000	5000	3500	10500	55.2632	2001
5	MAY2001	32000	9000	7600	15400	48.1250	2001
6	JUN2001	22000	8500	4400	9100	41.3636	2001
7	JUL2001	27000	9900	5500	11600	42.9630	2001

tranpose data set

OBS	YEAR	_NAME_	JAN2001	FEB2001	MAR2001	APR2001	MAY2001	JUN2001	JUL2001
1	2001	PREMIUMS	20000	15000	23000.00	19000.00	32000.00	22000.00	27000.00
2	2001	LOSSES	4000	7000	8000.00	5000.00	9000.00	8500.00	9900.00
3	2001	EXPENSES	3000	5000	6000.00	3500.00	7600.00	4400.00	5500.00
4	2001	PROFIT	13000	3000	9000.00	10500.00	15400.00	9100.00	11600.00
5	2001	PERCENT	65	20	39.13	55.26	48.13	41.36	42.96

```
data summary;
  set transpose end=eof;
  retain prem prof;
  ytd = sum(of jan2001--jul2001);
  if _name_ = "PREMIUMS" then prem = ytd;
  if _name_ = "PROFIT"    then prof = ytd;
  if _name_ = "PERCENT"  then ytd = 100 * prof / prem ;
  drop prem prof;
run;

proc printto file="sas_v8_transpose.lis" new; run;
options ls=80 center date number ;
proc print data=summary;
var _name_ jan2001--jul2001 ytd;
format jan2001--ytd 7.0;
run;
proc printto; run;
```

OUTPUT Using SAS Version 6.12

OBS	_NAME_	JAN2001	FEB2001	MAR2001	APR2001	MAY2001	JUN2001	JUL2001	YTD
1	PREMIUMS	20000	15000	23000	19000	32000	22000	27000	158000
2	LOSSES	4000	7000	8000	5000	9000	8500	9900	51400
3	EXPENSES	3000	5000	6000	3500	7600	4400	5500	35000
4	PROFIT	13000	3000	9000	10500	15400	9100	11600	71600
5	PERCENT	65	20	39	55	48	41	43	45

OUTPUT Using SAS Version 8.2

Obs	_NAME_	JAN2001	FEB2001	MAR2001	APR2001	MAY2001	JUN2001	JUL2001	ytd
1	premiums	20000	15000	23000	19000	32000	22000	27000	158000
2	losses	4000	7000	8000	5000	9000	8500	9900	51400
3	expenses	3000	5000	6000	3500	7600	4400	5500	35000
4	profit	13000	3000	9000	10500	15400	9100	11600	71600
5	percent	65	20	39	55	48	41	43	312

WHY???

```
data summary;  
  set tranpose end=eof;  
  retain prem prof;  
  ytd = sum(of jan2001--jul2001);  
  if _name_ = "PREMIUMS" then prem = ytd;  
  if _name_ = "PROFIT"   then prof = ytd;  
  if _name_ = "PERCENT"  then ytd  = 100 * prof / prem ;  
  drop prem prof;  
run;
```

In version 6.12, the contents held within NAME are stored in UPPER Case. But in version 8.2, the contents are stored in mixed/lower case.

Hence, the above code in RED executes but fails the test and results are incorrect.

How to correct this from happening???

Use `OPTIONS VALIDVARNAME=V6;`

USING `VALIDVARNAME=V6` in Version 8.2 results in

Obs	_NAME_	JAN2001	FEB2001	MAR2001	APR2001	MAY2001	JUN2001	JUL2001	YTD
1	PREMIUMS	20000	15000	23000	19000	32000	22000	27000	158000
2	LOSSES	4000	7000	8000	5000	9000	8500	9900	51400
3	EXPENSES	3000	5000	6000	3500	7600	4400	5500	35000
4	PROFIT	13000	3000	9000	10500	15400	9100	11600	71600
5	PERCENT	65	20	39	55	48	41	43	45

It is exactly the same in Version 6.12

However, using `VALIDVARNAME=V6` will not work in Version 6.12, so be careful. You may need to code to figure out which version of SAS is executing.

```
%if &sysver ne 6.12 %then %do;  
  options validvarname=v6;  
%end;
```

Or, insert an extra statement using UPCASE function:

```
data summary;
  set tranpose end=eof;
  retain prem prof;

  _name_ = upcase(_name_);

  ytd = sum(of jan2001--jul2001);
  if _name_ = "PREMIUMS" then prem = ytd;
  if _name_ = "PROFIT"   then prof = ytd;
  if _name_ = "PERCENT"  then ytd  = 100 * prof / prem ;
  drop prem prof;
run;
```

Using the UPCASE function (only) in Version 8.2 results in

Obs	_NAME_	JAN2001	FEB2001	MAR2001	APR2001	MAY2001	JUN2001	JUL2001	ytd
1	PREMIUMS	20000	15000	23000	19000	32000	22000	27000	158000
2	LOSSES	4000	7000	8000	5000	9000	8500	9900	51400
3	EXPENSES	3000	5000	6000	3500	7600	4400	5500	35000
4	PROFIT	13000	3000	9000	10500	15400	9100	11600	71600
5	PERCENT	65	20	39	55	48	41	43	45

But "ytd" is still in lower case which could cause more problems later on.