

# QUEST

Queensland Users Exploring  
SAS Technology



# AGENDA

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- ✘ Welcome and Tips & Techniques
  - + Michael Esposito, QUEST Chairperson
- ✘ Tips and Techniques with AMO
  - + Alan Tsuji, SAS Institute Australia
- ✘ *Short Break (Quick beer/s & Quiz)*
- ✘ An Introduction to SPM
  - + Euan Kennedy, Department Of Communities
- ✘ *Networking!!! (Many beers...)*

# HOUSEKEEPING

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- + Please fill in the evaluation forms
  - × Interested in joining the QUEST committee?
  - × Interested in presenting at a future QUEST?
  
- + Courtesy to the presenters
  - × No talking during the presentation, unless encouraged by presenter
  - × Keep questions to the end

# TIPS & TECHNIQUES - #1

- + Q: How to determine the number of distinct levels of a variable?
- + A: PROC FREQ with the NLEVELS option.

Number of Variable Levels

Variable	Levels	Missing Levels	Nonmissing Levels
type	4	1	3
origin	3	0	3

# TIPS & TECHNIQUES - #2

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+ COMPRESS(<source> <,chars>  
<,MODIFIERS>);

A – adds (A - Z, a - z) to the list of characters

D - adds numerals to the list of characters

K - keeps the characters in the list

P - adds punctuation marks to the list of characters

S - adds space characters to the list of characters  
(blank, horizontal tab, vertical tab, carriage  
return, line feed, and form feed).

# TIPS & TECHNIQUES - #3

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- + Q: What effect does NODUPREC option have in PROC SORT?
- + A: “If you specify this option, then PROC SORT compares all variable values for each observation to those for the previous observation that was written to the output data set. If an exact match is found, then the observation is not written to the output data set.”

# TIPS & TECHNIQUES - #3

```
data test1;  
  input var1 $ var2 $ extra ;  
cards;  
aa ab 3  
aa ab 1  
aa ab 2  
aa ab 3  
;  
run;
```

```
685 proc sort data=test1 out=test2 nodup;  
686 by var1 var2 ;  
687 run;
```

NOTE: There were 4 observations read from the data set WORK.TEST1.

NOTE: 0 duplicate observations were deleted.

NOTE: The data set WORK.TEST2 has 4 observations and 3 variables.

NOTE: PROCEDURE SORT used (Total process time):

real time	0.01 seconds
cpu time	0.01 seconds

# TIPS & TECHNIQUES - #3

```
data test3;  
  input var1 $ var2 $ extra ;  
cards;  
aa ab 3  
aa ab 3  
aa ab 1  
aa ab 2  
;  
run;  
  
688  proc sort data=test3 out=test4 nodup;  
689  by var1 var2 ;  
690  run;
```

NOTE: There were 4 observations read from the data set WORK.TEST3.

NOTE: 1 duplicate observations were deleted.

NOTE: The data set WORK.TEST4 has 3 observations and 3 variables.

NOTE: PROCEDURE SORT used (Total process time):

real time	0.00 seconds
cpu time	0.00 seconds

# TIPS & TECHNIQUES - #4

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## + PROC GLMSELECT (SAS STAT v9.2)

- × Performs effect selection in the framework of general linear models.
- × Provides graphical summaries of the selection search
- × Supports new effect selection methods – LAR & LASOO
- × “Combines” REG & GLM into one easy to use PROC

# TIPS & TECHNIQUES - #4

