

Beyond the Comma Delimited File for Bringing Data into a SAS Dataset

Paper CC13

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Some trivia

“Q” is the only letter in the alphabet that does
not appear in the name of any state of the
United States.

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Introduction

- Motivation: "Help! I got this AE data in a Word document and I need it in a SAS® dataset within the hour!"
- SAS has developed a number of tools over the years like Microsoft Excel and Access with PROC IMPORT, but there are times when this will not do the job
- It is back to the INFILE and INPUT statements within a datastep

Lets look at the basic styles of input, Part 1

- List Input

```
input city $ distance;  
cards;  
Amsterdam 370  
Montreal 5200  
Auckland 22720  
;
```

- Column Input

```
input city $ 1-11 distance 13-20;  
cards;  
Rome          1430  
Mexico City 10640  
Hong Kong    13200  
;
```

Lets look at the basic styles of input, Part 2

- Formatted Input

```
input @1 city $11. @13 distance 5.;  
cards;  
Stockholm      1450  
Los Angeles    8780  
Bangkok        12860  
;
```

- Delimited Input

```
infile cards dlm='~';  
input city $ distance;  
cards;  
Paris~330  
New York~5530  
Sydney~215660  
;
```

Lets look at the basic styles of input, Part 3

- "Double Space" Delimiter Input

```
input city $ & distance;  
cards;  
Frankfurt 640  
Rio de Janeiro 11060  
Singapore 10810  
;
```

- Named Input

```
input city= $ distance=;  
cards;  
city=Copenhagen distance=953  
distance=6800 city=Nairobi  
city=Tokyo distance=15260  
;
```

Combining two or more styles

DATA

2009-01-15	HYPERMAGNESEMA	MILD
2009-01-15	ABDOMINAL CRAMPS	MODERATE
2009-01-28	NAUSEA	MODERATE

INPUT STATEMENT

```
input startdt yymmdd10. event $ & severity $;
```

Named Styles to Transfer Data

```
1 data _null_;  
2     set sashelp.class (obs=5);  
3     put (_all_) (=);  
4     run;
```

```
Name=Alfred Sex=M Age=14 Height=69 Weight=112.5  
Name=Alice Sex=F Age=13 Height=56.5 Weight=84  
Name=Barbara Sex=F Age=13 Height=65.3 Weight=98  
Name=Carol Sex=F Age=14 Height=62.8 Weight=102.5  
Name=Henry Sex=M Age=14 Height=63.5 Weight=102.5
```

Using this output and the Named Input style, it is possible to bring the data back into a dataset using the following code:

```
data class;  
    length Name $8 Sex $1 Age Height Weight 8;  
    input Name= $ Sex= $ Age= Height= Weight=;  
cards;  
Name=Alfred Sex=M Age=14 Height=69 Weight=112.5  
Name=Alice Sex=F Age=13 Height=56.5 Weight=84  
Name=Barbara Sex=F Age=13 Height=65.3 Weight=98  
Name=Carol Sex=F Age=14 Height=62.8 Weight=102.5  
Name=Henry Sex=M Age=14 Height=63.5 Weight=102.5
```

A More Complex Example

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Listing 4 Adverse Events

Subject Number: 1.001

```
-----  
#001  Event: HYPERMAGNESEMA  
       Preferred Term: Hypermagnesaemia  
       Body System: Metabolism and nutrition disorders  
       Start Date: 2009-01-15  Stop Date: 2009-01-25  
       Severity: MILD          Relationship: NONE          Action: NONE  
-----  
#002  Event: ABDOMINAL CRAMPS  
       Preferred Term: Abdominal pain  
       Body System: Gastrointestinal disorders  
       Start Date: 2009-01-15  Stop Date: 2009-01-27  
       Severity: MODERATE     Relationship: NONE          Action: NONE  
-----  
#003  Event: NAUSEA  
       Preferred Term: Nausea  
       Body System: Gastrointestinal disorders  
       Start Date: 2009-01-28  Stop Date: 2009-02-02  
       Severity: MODERATE     Relationship: POSSIBLE     Action: STUDY DRUG HELD  
-----
```


The Code

```
data ae_data;
  length ptnum $5 aenum $3 event $100 pt $100 soc $100
    startdt $10 stopdt $10 severity $10 relation $10 action $20;
  retain ptnum '';
  infile 'filename and location' length=len;
  input flg $varying200. len @;
  if flg=:'Subject Number:' then do;
    input @17 ptnum $5.;
  end;
  else if flg=:'#' then do;
    input @2 aenum $3. @14 event $ & /
      @23 pt $ & / @20 soc $ & /
      @19 startdt $ @42 stopdt $ /
      @17 severity $ & @43 relation $ & @63 action $ &;
    output;
    call missing(aenum,event,pt,soc,startdt,
      stopdt,severity,relation,action);
  end;
run;
```

Can everything be done?

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Listing 4 Adverse Events

Subject Number: 1.001

#001 Event: HYPERMAGNESEMA
Preferred Term: Hypermagnesaemia
Body System: Metabolism and nutrition disorders
Start Date: 2009-01-15 Stop Date: 2009-01-25
Severity: MILD Relationship: NONE Action: NONE

- Yes and no, but it is beyond this paper

Questions and Contact Information

Questions?

Contact Information

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