

DATA Step

How can I suppress 'bad data' issues when making an explicit character to numeric conversion?

The INPUT statement includes several modifiers which provide greater control of bad data issues when reading in raw data. The INPUT function will also accept the ? or ?? modifier to suppress bad data messages in the LOG. e.g.

```
data test ;
  num = '2300231' ;
  output ;
  num = '0023' ;
  output ;
  num = '23*36' ;
  output ;
  num = '-3' ;
  output ;
  num = '+3' ;
  output ;
  num = '23e4' ;
  output ;
run ;

data test1 ;
  set test ;
  actual_num = input(num,10.) ;
run ;

data test2 ;
  set test ;
  actual_num = input(num,? 10.) ;
run ;

data test3 ;
  set test ;
  actual_num = input(num,?? 10.) ;
  put _all_ ;
run ;
```

will generate the LOG:

```
38      data test1 ;
39      set test ;
40      actual_num = input(num,10.) ;
41      run ;
```

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NOTE: Invalid argument to function INPUT at line 40 column 18.

num=23*36 actual_num=. _ERROR_=1 _N_=3

NOTE: Mathematical operations could not be performed at the following places. The results of the operations have been set to missing values.

Each place is given by: (Number of times) at (Line):(Column).

1 at 40:18

```
42
43     data test2 ;
44         set test ;
45         actual_num = input(num,? 10.) ;
46     run ;
```

num=23*36 actual_num=. _ERROR_=1 _N_=3

NOTE: There were 6 observations read from the data set WORK.TEST.

NOTE: The data set WORK.TEST2 has 6 observations and 2 variables.

```
47
48     data test3 ;
49         set test ;
50         actual_num = input(num,?? 10.) ;
51         put _all_ ;
52     run ;
```

```
num=2300231 actual_num=2300231 _ERROR_=0 _N_=1
num=0023    actual_num=23      _ERROR_=0 _N_=2
num=23*36   actual_num=.      _ERROR_=0 _N_=3
num=-3      actual_num=-3     _ERROR_=0 _N_=4
num=+3      actual_num=3      _ERROR_=0 _N_=5
num=23e4    actual_num=230000 _ERROR_=0 _N_=6
```

NOTE: There were 6 observations read from the data set WORK.TEST.

NOTE: The data set WORK.TEST3 has 6 observations and 2 variables.

From which we can see that both forms of the modifier suppress the NOTE: Invalid argument to function INPUT... message. The ?? modifier also resets the automatic _ERROR_ flag to 0.

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