



Don't Be a SAS® Dinosaur: Modernize Your SAS Programs

by Warren Repole

Summary Reports: Format Summary Statistics

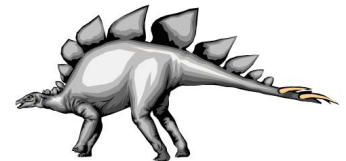
Scenario:

You want to generate a report of summary statistics with each statistic formatted differently and having a custom column header.

The MEANS procedure can generate the statistics, but it has very limited features for customizing the report.

The old way: Create and Print a Summary Data Set

The original approach is to create an output data set from PROC MEANS, generating the report using PROC PRINT in order to customize the display through LABEL and FORMAT statements.



```
proc means data=sashelp.class mean max nway;
  class Sex;
  var Height;
  output out=summary mean=Average max=Tallest;
  title "Default PROC MEANS report";
run;
proc print data=summary label;
  var Sex _freq_ Average Tallest;
  label _freq_="Students";
  format Average 5.2 Tallest 4.1;
  title "Formatting applied in PROC PRINT";
run;
```

Please direct all correspondence to:

Warren Repole, 1705 Palm Springs Dr, Vienna VA 22182-2331

sasdinosaur@repole.com

www.repole.com/dinosaur

The new way: Create a Table Template for PROC MEANS (available in SAS Version 8)

An alternate approach is to create a custom ODS table template to alter the default column headers and formats for PROC MEANS output.

```
ods path work.temp(write) sashelp.tmplmst;
proc template;
  edit base.summary;
    edit NObs;
      header="Students";
    end;
  edit Mean;
    header="Average" format=5.2;
  end;
  edit Max;
    header="Tallest" format=4.1;
  end;
end;
run;
proc means data=sashelp.class mean max;
  class Sex;
  var Height;
  title1 "Formatting applied in PROC MEANS";
run;
ods path sashelp.tmplmst;
```

Advantages of the alternate approach:

- There is only one pass through the data.
- No additional data sets are created.
- The custom template can be used in other applications if the definition is stored permanently.

Disadvantages of the alternate approach:

- The syntax and usage of PROC TEMPLATE may be unfamiliar and tends to be rather verbose. In particular, the manipulation of headers and spacing within the PROC MEANS output may not be straightforward.

Additional documentation for this technique can be found in *SAS® 9.2 Output Delivery System User's Guide*. Cary, NC: SAS Institute Inc.

Visit <http://support.sas.com/documentation/onlinedoc/sas9doc.html> for SAS 9 documentation.

Go to <http://www.repole.com/dinosaur/meanstemplate.html> for the sample code and output for this topic.

These techniques are mentioned in other SAS references and publications:

SAS Sample 25067 (<http://support.sas.com/kb/25/067.html>)

The Little SAS Book: A Primer, Third Edition; Lora D. Delwiche and Susan J. Slaughter, 2003.