

ODS basics

Michael Jadoo

Economist in the Bureau of Labor Statistics

ABSTRACT

The Output Delivery System (ODS) is a method within SAS® to control the output from PROC/DATA steps. This feature will allow one to create output from either a DATA step or PROC step in many different formats. This paper will go over a few statements that will create popular output that is used in many offices.

INTRODUCTION

ODS can be used to create output in different forms to various destinations which include your normal output window (LISTING), HTML, RTF, and PDF. ODS provides a method of delivering output in a variety of formats, and makes the formatted output easy to access. Using the ODS statements one can also control the output's font, size, and colors.

THE BASIC SYNTAX OF ODS STATEMENT

```
ODS RTF FILE='X:\USER\RTF_EXAMPLE.RTF' ;
```

```
PROC PRINT DATA=SASHELP.CLASS (OBS=5) ;
```

```
RUN;
```

```
ODS RTF CLOSE;
```

Please take note of the top part of this proc step. The ODS statement is creating an RTF file. One can put a PDF or HTML in this spot. To start the syntax of ODS one needs to identify the file location for the output. Next, one needs to create the file name and end with the respective extension.

Finally, at the bottom of this PROC step we need to close the file by putting the ods statement type of file made and the word close. Think of this as a sandwich. At the top and bottom is the bread slices which are the ODS syntax that opens and closes everything that goes into the output. Then in the middle is the important part of the sandwich the meat which in this case is the PROC step.

Obs	Name	Sex	Age	Height	Weight
1	Alfred	M	14	69.0	112.5
2	Alice	F	13	56.5	84.0
3	Barbara	F	13	65.3	98.0
4	Carol	F	14	62.8	102.5
5	Henry	M	14	63.5	102.5

Figure 1. Output of above code

OTHER OPTIONS USING ODS

Another option when create an ODS output is to close the destination of the normal output window during your SAS session. With this option one only needs to be concerned with the primary output type of the ODS statement. To close the output window use the option ODS LISTING CLOSE before the ODS statement.

```
ODS LISTING CLOSE;
```

```
ODS RTF FILE="C:\EXAMPLE\SALES.RTF";
```

```
PROC UNIVARIATE DATA=SASHELP.PRICEDATA;
```

```
HISTOGRAM SALE/CFILL=SKYBLUE;
```

```
RUN;
```

```
ODS RTF CLOSE;
```

```
ODS LISTING;
```

If one wants to allow the output window to function normally again just include the ODS LISTING syntax at the bottom of your code.

OTHER METHODS AVAILABLE USING ODS

The ODS statement in SAS allows the user to produce output in different formats. Here I show example using PDF, RTF, EXCEL, and CSV.

Using ODS PDF statement:

```
ODS PDF FILE="D:\REG1.PDF";  
PROC PRINT DATA=SASHELP.CLASS (OBS=5) ;  
  
RUN;  
  
ODS PDF CLOSE;
```

Using ODS RTF statement:

```
ODS RTF FILE="C:\NEWCLASS.RTF";  
PROC PRINT DATA=SASHELP.CLASS;  
  
TITLE 'I LOVE SAS!';  
  
RUN;  
  
ODS RTF CLOSE;
```

Using ODS EXCEL statement:

```
ODS EXCEL FILE="C:\FOOTER.XLSX" OPTIONS (ABSOLUTE_COLUMN_WIDTH='16') ;  
PROC PRINT DATA=SASHELP.CLASS;  
  
RUN;  
  
ODS EXCEL CLOSE;
```

Using ODS CSV statement:

```
ODS CSV FILE="C:\ODS_CSV.CSV";  
PROC PRINT DATA=SASHELP.CLASS;  
  
RUN;  
  
ODS CSV CLOSE;
```

CONCLUSION

In conclusion, ODS statements can be very useful in producing output in my many different popular formats. In this paper I cover a few options using the very basic syntax.

REFERENCES

SAS. "Base SAS ODS (Output Deliver System)". 27 September 2017. <
<http://support.sas.com/rnd/base/ods/>>

CONTACT INFORMATION

Your comments and questions are valued and encouraged. Contact the author at:

Michael Jadoo
Mike_jadoo@yahoo.com