

Don't miss the hidden gems among the new features of SAS ODS for report creation

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- **There are very helpful new features for SAS ODS out there..**
- **Don't miss these hidden gems!**



Example output

Headline

Subtitle 1

Subtitle 2

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- bullet point 2
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- bullet point 3
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Useful new features - An Overview

(of my selection for this talk)

- **ODS LAYOUT**
- **PROC ODSTEXT, PROC ODSLIT**
- **report writing interface**
- **Cascading stylesheets**



ODS LAYOUT

- Gridded Layout example

Obs	Name	Sex	Age	Height	Weight
2	Alice	F	13	56.5	84.0
3	Barbara	F	13	65.3	98.0
4	Carol	F	14	62.8	102.5
7	Jane	F	12	59.8	84.5
8	Janet	F	15	62.5	112.5
11	Joyce	F	11	51.3	50.5
12	Judy	F	14	64.3	90.0
13	Louise	F	12	56.3	77.0
14	Mary	F	15	66.5	112.0

Obs	Name	Sex	Age	Height	Weight
1	Alfred	M	14	69.0	112.5
5	Henry	M	14	63.5	102.5
6	James	M	12	57.3	83.0
9	Jeffrey	M	13	62.5	84.0
10	John	M	12	59.0	99.5
15	Philip	M	16	72.0	150.0
16	Robert	M	12	64.8	128.0
17	Ronald	M	15	67.0	133.0
18	Thomas	M	11	57.5	85.0
19	William	M	15	66.5	112.0

Gridded Layout code

```
ods pdf file="C:\TEMP\ODS_Layout_Gridded.pdf";

/** define gridded layout with two columns */
ods layout start columns=2;

/** headline text is put into first row of layout, spanning two layout
columns */
ods region column_span=2;
ods pdf text="A headline";

/** first table (layout row two, layout column one) */
ods region;
proc print data=sashelp.class (where=(sex='F')) ;
run;

/** second table (layout row two, layout column two) */
ods region;
proc print data=sashelp.class (where=(sex='M')) ;
run;

ods layout end;
ods pdf close;
```

ODS LAYOUT

- Absolute Layout example**

Obs	Name	Sex	Age	Height	Weight
1	Alfred	M	14	69.0	112.5
5	Henry	M	14	63.5	102.5
6	James	M	12	57.3	83.0
9	Jeffrey	M	13	62.5	84.0
10	John	M	12	59.0	99.5
15	Philip	M	16	72.0	150.0
16	Robert	M	12	64.8	128.0
17	Ronald	M	15	67.0	133.0
18	Thomas	M	11	57.5	85.0
19	William	M	15	66.5	112.0

Obs	Name	Sex	Age	Height	Weight
2	Alice	F	13	56.5	84.0
3	Barbara	F	13	65.3	98.0
4	Carol	F	14	62.8	102.5
7	Jane	F	12	59.8	84.5
8	Janet	F	15	62.5	112.5
11	Joyce	F	11	51.3	50.5
12	Judy	F	14	64.3	90.0
13	Louise	F	12	56.3	77.0
14	Mary	F	15	66.5	112.0

Absolute Layout code

```
ods pdf file="C:\TEMP\ODS_Layout_absolute.pdf";

/** define an absolute layout */
ods layout start;

/** first region:
    8 centimeters from left and 14 centimeters from top
***/
ods region width=10cm height=9cm x=8cm y=14cm;
proc print data=sashelp.class (where=(sex='F')) ;
run;

/** second region */
ods region width=10cm height=9cm x=1cm y=5cm;
proc print data=sashelp.class (where=(sex='M')) ;
run;

ods layout end;
ods pdf close;
```

PROC ODSTEXT

```
ods pdf file="C:\TEMP\ODS_ODSTEXT.pdf";  
data work.text;  
    length paragraphNumber 8;  
    length text $32;  
    paragraphNumber = 1; text = 'test text 1'; output;  
    paragraphNumber = 2; text = 'test text 2'; output;  
run;
```

```
proc odstext data=work.text;  
    p "This is paragraph" || put(paragraphNumber,2.) ||  
    ", with item: " || text;  
run;  
ods pdf close;
```

This is paragraph 1, with item: test text 1
This is paragraph 2, with item: test text 2

PROC ODSLIST

```
ods pdf file="C:\TEMP\ODS_ODSLIST.pdf";  
proc odslist data=sashelp.class;  
  item;  
    p "child name: " || name;  
  list;  
    item;  
      p "age of child: " || put(age, 2.);  
      p "height of child: " || put(height, 3.);  
    end;  
  end;  
end;  
run;  
ods pdf close;
```

```
• child name: Alfred  
  ° age of child: 14  
  height of child: 69  
• child name: Alice  
  ° age of child: 13  
  height of child: 57  
• child name: Barbara  
  ° age of child: 13  
  height of child: 65  
• child name: Carol  
  ° age of child: 14  
  height of child: 63  
• child name: Henry  
  ° age of child: 14  
  height of child: 64  
• child name: James  
  ° age of child: 12  
  height of child: 57
```

Report writing interface table output

```
ods pdf file="C:\TEMP\ODS_ODSRWI1.pdf";  
data _null_;  
  declare odsout o();  
  o.table_start();  
    o.row_start();  
      o.format_cell(text: 'text 1');  
      o.format_cell(text: 'text 2');  
    o.row_end();  
    o.row_start();  
      o.format_cell(text: 'text 3');  
      o.format_cell(text: 'text 4');  
    o.row_end();  
  o.table_end();  
  o.delete();  
run;  
ods pdf close;
```

text 1	text 2
text 3	text 4

Report writing interface image output

```
ods pdf file="C:\TEMP\ODS_ODSRWI2.pdf";  
data _null_;  
    declare odsout obj();  
    obj.image(file: "&_dir.\WEBJPG_RGB_HMS.jpg");  
    obj.delete();  
run;  
ods pdf close;
```

Cascading stylesheets example

```
ods pdf cssstyle='C:\TEMP\css1.css'  
file="C:\TEMP\ODS_CSS.pdf";  
    proc print data=sashelp.class;  
    run;  
ods pdf close;
```

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
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15	Philip	M	16	72.0	150.0
16	Robert	M	12	64.8	128.0
17	Ronald	M	15	67.0	133.0
18	Thomas	M	11	57.5	85.0
19	William	M	15	66.5	112.0

Cascading stylesheets code (parts of css used for example)

```
.body {  
    background-color: #FFFFFF;  
    color: #000000;  
}  
  
.data {  
    background-color: #FFA500;  
    color: #000000;  
    font-family: "Lucida Grande", Arial, sans-serif;  
    font-size: 11pt;  
}  
  
.header {  
    background-color: #D0D0D0;  
    color: #000000;  
    font-family: "Lucida Grande", Arial, sans-serif;  
    font-size: 12pt;  
    font-weight: bold;  
    text-align: left;  
}
```

Conclusion

- **These new features are an important complement to the existing reporting features**
- They will hopefully help you implementing reports more effectively with SAS ODS



Thank you for your attention

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