

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

Presentation CS01

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



Example output

Headline

Subtitle 1

Subtitle 2

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo d.

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet.

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kas.

Info Box Headline

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod temp:

- bullet point 1
subtext
- bullet point 2
subtext
- bullet point 3
subtext

www.analytical-software.de



HMS Analytical Software GmbH
Rohrbacher Straße 26, 69115 Heidelberg
Tel.: +49 6221 6051 0 info@analytical-software.de
Fax: +49 6221 6051 99 www.analytical-software.de

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
5	Henry	M	14	63.5	102.5
6	James	M	12	57.3	83.0
7	Jane	F	12	59.8	84.5
8	Janet	F	15	62.5	112.5
9	Jeffrey	M	13	62.5	84.0
10	John	M	12	59.0	99.5
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
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

Dr. Patrick René Warnat

HMS Analytical Software GmbH
Rohrbacher Str. 26
69115 Heidelberg
Germany

www.analytical-software.de/en/start/