



## Creating a Table of Contents for MS Word using AutoFormat and Cascading Style Sheets

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# Overview

- Motivation
- Methods to create a table of contents
- CSS Method to create a TOC
- Style Sheets
- Conclusion

# Motivation

- If it looks like a duck, quacks like a duck...
- Word TOC can be created based on Heading 1/Heading 2/Heading 3
- If text in document LOOKS like Heading 1/Heading 2/Heading 3 will Word recognize them as 'Headings' and use in TOC?
- Can the TOC incorporate BY GROUP titles?

# Creating a TOC – Method 1

- Using options statement in ODS RTF
  - CONTENTS=Yes/TOC\_DATA options
- Pros:
  - Easy
- Cons:
  - Multiple redundant listings for the same proc

```
ODS RTF FILE='C:\temp\test_method1.rtf'  
CONTENTS=yes TOC_DATA;
```

```
ODS PROCLABEL='this is my sample title';
```

# Creating a TOC – Method 1

Car Analysis.....	2
Make=Ford.....	2
Table Type .....	2
One-Way Frequencies .....	2
Make=Honda.....	3
Table Type .....	3
One-Way Frequencies .....	3
Make=Hyundai.....	4
Table Type .....	4
One-Way Frequencies .....	4
Average Mileage .....	5
Summary statistics .....	5

# Creating a TOC – Method 2

- Wordstyle option in ODS RTF statement
  - Need to embed RTF commands in the text lines
- Pros:
  - Can customize in code
- Cons:
  - Experimental and undocumented
  - By Group processing?

# Creating a TOC – Method 2

```
ODS RTF FILE='C:\temp\test_method2.rtf'  
  WORDSTYLE="{\s1 Heading 1;}{\s2 Heading 2;}" ;
```

```
ODS ESCAPECHAR='\';
```

```
ODS RTF TEXT='\R/RTF"\s1 " Car Analysis';
```

# Creating a TOC – Method 2

Car Analysis .....	1
By Model.....	1
Average Mileage .....	3



# Creating a TOC – Method 3

- RTF Syntax
  - Commands embedded in title, text or prepage statements
- Pros:
  - Versatile and programmable
  - By Groups (untested)
  - For full report automation, best method
- Cons:
  - Additional syntax knowledge
- Output and code similar to Method 2

# Creating a TOC – CSS Method

1. Create a stylesheet
2. Use stylesheet in ODS RTF output
3. AutoFormat
4. Insert TOC in Word

# Cascading Style Sheets

- Used primarily in webpage design
- Useful for separating content and data
- Reusable
- Different versions: CSS2, CSS3
- SAS currently supports **CSS2**

# Cascading Style Sheets

Formatting instructions

```
.title{...}  
.header1{...}  
.table{...}  
.tableheader{...}
```

Contents

```
<header1>This is my  
header</header1>  
  
<table>  
  
....  
</table>
```

Final Presentation

*This is my header*

<u>Cell1</u>	<u>Cell2</u>
Cell3	Cell4

If you want to change the appearance of the document, change the formatting instructions (not content) and the presentation changes.

# Cascading Style Sheets

- SAS has CSS templates predesigned
- Template class names are unique to implementation so modifying a SAS template is recommended
- Can be aligned with corporate style sheets if desired
- Style sheets viewable in source code from websites
- EG Style Editor
- Can be edited in any text editor

# Cascading Style Sheets

```
.systemtitle{  
    font-family: Arial, Helvetica, sans-serif;  
    font-size:16pt;  
    font-weight: bold;  
    color: black;  
    text-align:left;  
}
```

# Creating a TOC – CSS Method

```
ODS RTF FILE="c:\temp\TOC.rtf"
```

```
  CSSSTYLE="H:\...\stylesheet_test3.css"
```

```
  BODYTITLE
```

```
  STARTPAGE=never;
```

# Creating a TOC – CSS Method

```
TITLE 'Car Analysis';
```

```
PROC FREQ DATA=cars (where= (make in ("Honda",  
  "Hyundai", "Ford")));
```

```
BY make;
```

```
  TABLES type;
```

```
RUN;
```

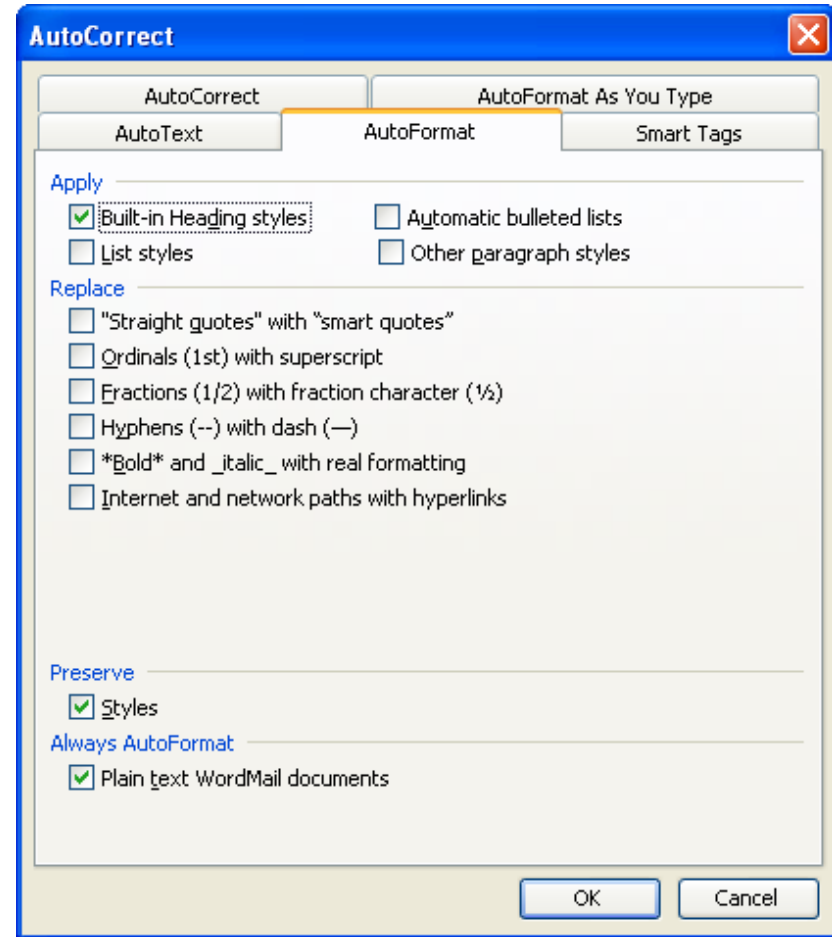
```
....
```

```
ODS RTF CLOSE;
```



# Creating a TOC – CSS Method

- AutoFormat in Word
- Format
  - AutoFormat>Options
- OK
- Insert TOC



# Creating a TOC – CSS Method

Car Analysis .....	1
Make=Ford .....	1
Make=Honda .....	1
Make=Hyundai .....	1
Average Mileage .....	1

# Creating a TOC – CSS Method

- Pros:
  - Familiar syntax
  - By Group headings
  - ‘Standard’ Word format
- Cons:
  - Need to create CSS file for each format used in the document, ie prepage, usertext
  - Manual steps in Word
  - If titles appear on multiple pages they will appear in the TOC multiple times.

# Conclusion

- Multiple methods of creating TOC
- For customized, routine reports use Method 3
- For quick reports with readable TOC CSS style method is useful, especially where text will be written around tables/graphs

# References

- Zender, Cynthia. 2009. “CSSSTYLE: Stylish Output with ODS and SAS 9.2”. Proceedings of the SAS Global Forum 2009 Conference. Cary, NC. SAS Institute Inc. 014-2009
- Small, Electra. 2007. “Creating Table of Contents in RTF Documents”. Proceedings of the SAS Global Forum 2007 Conference. Cary, NC. SAS Institute Inc. 097-2007.

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# Questions?

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