

Paper 073-2010

I've Got the Styles You Need

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ABSTRACT

The TEMPLATE procedure is used to modify the layout of the output to create a neat, consistent, useable output file. The problem is that the TEMPLATE procedure has a great deal of language elements and the user is just trying to fix the output and get back to work. While there are great papers on learning and using the TEMPLATE procedure, having someone give you their completed template that solves your problems can be a wonderful thing. I'm going to do just that. I will give you Styles created from PROC TEMPLATE that meet CTD requirements as well as a few other styles that are either useful or fun. This paper will focus on the implementation and selection of styles.

INTRODUCTION

SAS[®] programmers provide their results to others in a variety of formats. Once the data is prepared correctly, then the output is placed into a file format that is acceptable for the group that will be using the output. This paper will present a style that is commonly used in the Pharmaceutical industry and could be used in other environments as well. Other useful or humorous styles will also be presented and provided to anyone interested. This paper and the corresponding styles focus on the RTF destination.

BACKGROUND OF STYLES

When SAS[®] introduced the ODS, SAS[®] output began going directly to RTF format. When opening RTF output in a word processor, the RTF file gives instructions such as: margin size, page orientation, bold text, font size, etc. There are many specifications that are required. SAS[®] provided several different styles that could be used including: BRICK, BROWN, BEIGE, BARRETT'SBLUE, PRINTER, and MINIMAL among a few others. These styles are available when SAS starts up. The style "minimal" is very basic as the name implies and can be used in some instances. I have not observed many practical applications of the other SAS[®] styles. The SAS[®] user must create code using PROC TEMPLATE to create styles that match their specific needs.

PROC TEMPLATE

This procedure creates styles that are stored in SAS[®] Item Stores with the extension of "SAS7BITM". One style can be created by code that references an already existing style. In this case the referenced style will be used for all formatting unless specified otherwise in the new style. This is the easiest way to use PROC TEMPLATE in my experience. There are SAS[®] papers that describe how to use PROC TEMPLATE, how to create styles, and how to start from scratch to define all elements. These papers can be found by common internet searches. It takes time and effort to develop styles that are useful to a company.

REFERENCING STYLES

Once an item store has been created that contains styles, the output procedure must know where to find it and what the name is. A reference to an item store might look like this:

```
Libname mystuff "c:/mystuff";  
Ods path mystuff.synstyles(read);
```

This example stores the Item Store file "synstyles.sas7bitm" in the folder c:/mystuff. This file could contain one or many different styles. However, since the SAS[®] default templates are not referenced, there would have to be at least one complete style in this file. If the SAS[®] styles were used as references (or Parent) in the styles, then the ODS statements would look like this instead:

```
Libname mystuff "c:/mystuff";  
Ods path mystuff.synstyles(read) sashelp.tmplmst(read);
```

In this case the user created styles could reference the SAS[®] styles as "Parent" styles and only specify the changes desired. The styles I'm providing follow this pattern and require referencing the SAS[®] style as shown above.

RTF VS PDF

The two formats of output used most frequently are RTF and PDF. While the FDA and other regulatory agencies request documents in PDF, RTF is useful when additional modifications have to be made to the process through Microsoft Word. Some companies with more resources have the tools and expertise to manipulate the PDF output to meet their needs. Other companies prefer RTF files so that they may cut, copy, and paste the document as needed. Then the RTF files are converted to PDF before the submission. I am providing one PDF style and the rest will be RTF. The primary style needed in the pharmaceutical industry is provided for both formats.

PHARMACEUTICAL STYLE RATIONALE

In the pharmaceutical industry much of the output created will end up in reports that are filed with the FDA. There are many different paths companies take to get from SAS[®] output to their final reports. The software that the company has can determine what method a client uses. Companies that copy and paste from Word and then create PDF files later on will benefit from a style that matches RTF output to CTD standards. The style to do that is SYNCTD. This style takes into account the requirement of the "ICH eCTD Specification V3.2.2." Page 7-1 and 7-2 of this document describes the font size (9 – 10), fonts (Times New Roman, Arial, Courier), and margins (2cm top, 0.8 cm else for landscape) that should be used. These standards do allow for several variations that would remain compliant. Larger margins can be used and other fonts could be used as long as the guidelines are followed.

STYLES CONTAINED IN CATALOG

At the end of this paper is a summary of the styles contained in the catalogs along with a brief description. Here are some additional details on each of the styles contained.

SYNCTD / SYNCTDPDF STYLE

This style uses Times New Roman 9 font, 1 inch margin at the top and .4 inches elsewhere. Times New Roman is the font we see most often within the industry. Font size 9 was chosen to allow for maximum amount of data to be presented on the page while staying within the standards. This is helpful when squeezing data onto the page whether horizontally or vertically. The margins are slightly larger than what is described as the minimum. On the sides this ensures that there is not any data cut off when printing. On the top it leaves room for binding or documentation that others may want to add such as Appendix numbers. Again, depending on the process each company takes there could be a need for more or less room in the margins. These settings work well in a majority of settings I encounter. This style has been used in submissions (SYNCTD requires conversion to PDF).

In addition this and the other styles will: remove grid lines, bold the column headings, and eliminate cell padding.

SYNCTD2 STYLE

This style is like the SYNCTD style just mentioned except that it has margins close to the minimum allowed. This does not leave room for much else to be done to the document afterwards, but it does allow more space for the output while still being within CTD guidelines. This is useful if more space is needed and no additional space is needed after completing the work. The margins were not shrunk too low as some printers give warning messages if the margins get very small.

SYNFDA STYLE

This style matches the previous standards given by the FDA. It has margins of 1.5 inches on top and 1 inch elsewhere. It uses Times New Roman 8 font. This has been replaced with the SYNCTD style in our work environment, but it could be useful if larger margins are desired.

SYNSPACE STYLE

This style uses Times New Roman 8 font, .5 inch margin at the top and .2 inches elsewhere. The purpose of this style is to give the maximum amount of space possible to the programmer. This can be useful for reports that do not have formatting requirements and can benefit from putting more data on the page. This does not meet CTD requirements, but could be useful in other industries or for internal documents.

SYN03 STYLE

This style uses Times New Roman 9 font with .03 inch margin on all sides. This was created to give space and flexibility. It could be used in portrait or landscape. It leaves a lot of space on the page to work with.

SYNTRUE

This style uses a true type font, Arial 9. Arial is also one of the standard PDF fonts which is accepted by the FDA. Certain output works better with true type fonts that line up. The margins used are .75 inches on top and 0.4 elsewhere.

SYNVADER

This style uses Times New Roman 12 font and has black throughout the style.

SYNYODA

A new style you want, huh? Mmmmmm, get your boss in a better mood with this green style if fired first you aren't.

NOTES ABOUT STYLES

- I am providing two versions of the same styles. One of the versions is for SAS[®] 9.2 and the other is for SAS[®] 9.1 and earlier. In my experience the SAS[®] 9.1 created styles have not worked with programs run in 9.2.
- It has been observed that the margins are interpreted slightly differently in SAS[®] V8.2. The margins will be slightly larger than indicated if used in SAS[®] 8.2. Only the SAS[®] 9.1 styles will work with 9.2.
- The orientation of the page is assumed to be landscape, so the top margin is the top of a landscape oriented page.
- The font size, styles, colors and many other aspects of the styles can be modified within individual programs. In The Proc Report for example.

ADDITIONAL STEPS

These styles may handle your primary programming needs. However, they might give you an idea of other things that you can do with your own styles. SAS[®] has a seemingly endless set of possibilities with the tools they provide. By learning PROC TEMPLATE styles can be created that will meet your companies' needs.

RECEIVING YOUR STYLE CATALOG

I'm happy that you have an interest in receiving these styles and will provide them to you. If attending the conference drop off your business card and I will e-mail it to you. Otherwise, send an e-mail request to rhull @ Synteract.com I would appreciate it if you would provide your name, company, and title. I enjoy hearing from other SAS[®] users on what they're doing with it. I'm not involved in marketing. I will send you the style with any e-mail request. Be sure your system will accept zip files.

If you would like a style definition that is not included please let me know what you are interested in. I would like to take a couple of the most popular requests and create styles that match them. Send your requests in April 2010 and I will send out an updated version in May 2010.

CONCLUSION

SAS[®] styles are very useful for standardizing your output. Take advantage of these styles to meet the needs of your company without having to create your own style. These styles are flexible to allow for different needs and can save you development work.

REFERENCES

"INTERNATIONAL CONFERENCE ON HARMONISATION OF TECHNICAL REQUIREMENTS FOR REGISTRATION OF PHARMACEUTICALS FOR HUMAN USE" ICH eCTD Specification V3.2.2, July 16th, 2008.
http://estri.ich.org/eCTD/eCTD_Specification_v3_2_2.pdf

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CONTACT INFORMATION

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

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TABLE 1. INCLUDED STYLES

STYLE	FONT	MARGINS	COMMENTS
SYNCTD	Times New Roman 9	TOP=1 inch, Other margins = 0.4 inches	This follows the CTD requirements and leaves a little extra space in the margins. Minimum font size.
SYNCTDPDF	Times New Roman 9	TOP=1 inch, Other margins = 0.4 inches	Used for PDF output. This follows the CTD requirements and leaves a little extra space in the margins. Minimum font size.
SYNCTD2	Times New Roman 9	TOP = 2 cm, Other margins= 1 cm	Minimum font, minimum margins, still CTD compliant.
SYNSPACE	Times New Roman 8	TOP=0.5, Other margins=0.2 inches	Font goes down to 8, small margins. Not CTD compliant.
SYN03	Times New Roman 9	0.3 inch margins everywhere	Consistent small margins. Multipurpose, not CTD compliant.
SYNTRUE	Arial 9	.75 top, Other margins= 0.4	Uses a true type font.
SYNVADER			Just for fun
SYNYODA			Just for fun
SYNFDA	Times New Roman 8	TOP = 1.5 in, Other margins= 1 in	Previous FDA style.

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