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A SAS® Tip-of-the-Day Web Page on an Intranet

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INTRODUCTION

For the past four years I have posted a SAS tip of the Day on the Federal Reserve Board's SAS Consulting Web site, which is part of the Board's intranet site, FedWeb. In this paper, I will discuss design considerations for the tips and display some tips. I also discuss and display the Web pages on the SAS Consulting site that provide links to the tips.

Overview.

I started the Tip of the Day in April 2008 with about 100 tips already written. I post one tip per day, except for holidays or when I go on extended vacation. As of December 2011, there are 136 tips.

Sources of the tips.

The tips come from a variety of sources, including the following.

1. Federal Reserve Board SAS Sample library.

I started a SAS sample library in 1999. To create the initial group of tips, I converted some sample programs into tips.

2. User questions.

This is the primary source of new tips. For example, in June 2011, a user asked how to remove from a SAS data set all numeric variables that are missing in every observation. After sending her a solution, I realized that this topic could be of general interest and turned it into the July 1, 2011 tip of the day.

3. Material from my conference papers.

I used some material in my SAS Global Forum, SAS Users Group International (SUGI), and NorthEast SAS Users Group (NESUG) conference papers for SAS Tips. The main issue was ensuring that the tip is a manageable size. My “Tales from the Help Desk” papers were a good source for tips.

4. Posts on the SAS-L internet newsgroup and sascommunity.org site.

I credit the author and provide a link to the original post.

5. SUGI and NESUG conference papers.

I credit the author and provide a link to the paper. Usually I greatly simplify the data and the material to make the tip sufficiently simple and narrowly defined, and its size manageable.

6. SAS manuals.

I usually generalize and simplify the material, and provide a link to the manual for more details.

Preparation and maintenance.

1. Creating new tips.

When I identify a topic for a new tip, I write a tip. This takes anywhere from a few minutes to a few hours.

2. Updating the web site with the Tip of the Day.

Every morning, I take about 5 minutes to do the following.

- Update the SAS Consulting web site home page with the current tip (see Figure 1 below).
- Add a link to the current tip to the Tip of the Day Archive page for the current month (see Figure 2 below).
- Add a link to the current tip to an archive page that contains links to all tips (see Figure 3 below).

3. Preparing tips for the following month.

Mid-month, I prepare the tips for the next month. This takes about 90 minutes and involves the following steps.

- Any new tips are added as the first tips of the month.
- I copy and update the dates for the oldest existing tips, which are used for the rest of the month.
- I create a Tip of the Day Archive page for the new month. A link to this page is added to the Tip of the Day Archive main page (Figure 4) on the first day of the next month.

Tip of the day design considerations.

I suspect that users might employ the tips as follows.

1. To learn by example how to accomplish a specific task, they can read a tip or copy it to a file or a SAS session to execute.

2. To accomplish a small piece of a larger programming task, they can copy a tip into their application and change it as necessary to conform to their application.

3. The easiest way to copy code from a tip is to drag the mouse over the code in the browser and copy-and-paste the code into the desired destination.

Given that expected usage, the tips were designed as follows.

1. Most of the tips are small and simple, and perform a clearly defined task.

2. Data are created at the top of the tip before the rest of the code, with a DATALINES statement in a separate DATA step. The tips are self-contained and easy to incorporate into an application because users can copy the code but use their own data. An exception to this standard is that in tips that illustrate reading external files, data are read from external files.

3. Some programs (regressions, frequency counts, etc.) require certain types of data values and a meaningful quantity of data. Otherwise, the tips use as little data as possible, and the following conventions are used when feasible. These conventions make it easier to follow the flow of data values as they are transformed in a tip.

- The number of observations and variables is similar but not equal. For example, three observations/two variables or two observations/three variables is used instead of three observations/three variables.
- Data values are unique. For data with three observations/two variables or two observations/three variables, the values 1-6 are frequently used.

4. Most tips are independent of the platform and SAS software release. Tips specific to a platform or SAS software release contain documentation noting the limitations. The tip title also reflects the limitations if this can be done without making the title excessively long.

5. The web page shell for the tips is a standard page used for all of our SAS Consulting pages, and is similar to the page shell frequently used in the Board's Division of Information Technology on our internal web site.

6. The tips use minimal HTML tags.

How users access the tips.

Users can access the tips from one of the following web pages.

1. The Board's main SAS Consulting page (Figure 1) has the following.

- A link to the current day's tip
- A link to the SAS Tip of the Day Archive page

2. The SAS Tip of the Day Archive page (Figure 4) provides access to previous tips in two ways.

- Links to old tips by month. Figure 2 shows a Tip of the Day Archive page for a typical month.
- A link to an archive page that contains links to all tips (Figure 3). This page is useful for search purposes.

Links are ordered chronologically, newest to oldest.

Monthly tip emails

I maintain e-mail lists of SAS users. The first message I send to the lists each month includes a list of tips from the previous month. I don't send the list of tips as a standalone message because I am wary of overwhelming users with e-mails.

Tip of the day: some examples

Figures 5-9 show some examples of Tips of the Day.

CONCLUSION

This paper discussed the SAS Tip of the Day that I have posted on the Federal Reserve Board's intranet for the past four years. I discussed design considerations for the tips and displayed some tips. I hope this will inspire readers to consider similar endeavors at their sites.

For more information, contact the author, Bruce Gilsen, at bruce.gilsen@frb.gov or 202-452-2494.

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Figure 1 Board SAS Consulting web site home page

Figure 2 June 2011 Tip of the Day Archive Page

Figure 3 Page with links to all old tips

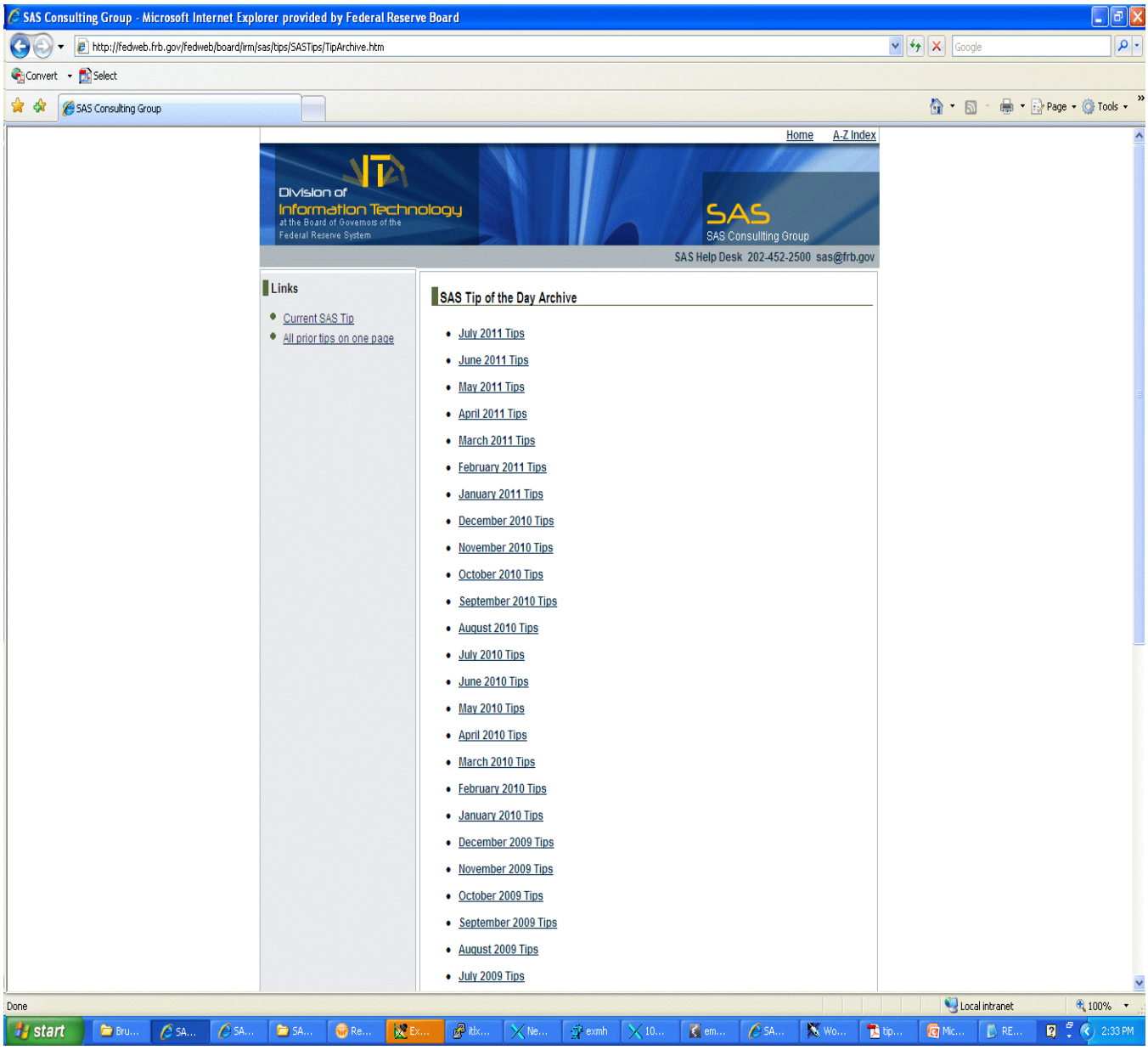

Figure 4 Tip of the Day Archive Page

Figure 5 July 1, 2011 tip (Part 1 of 2)

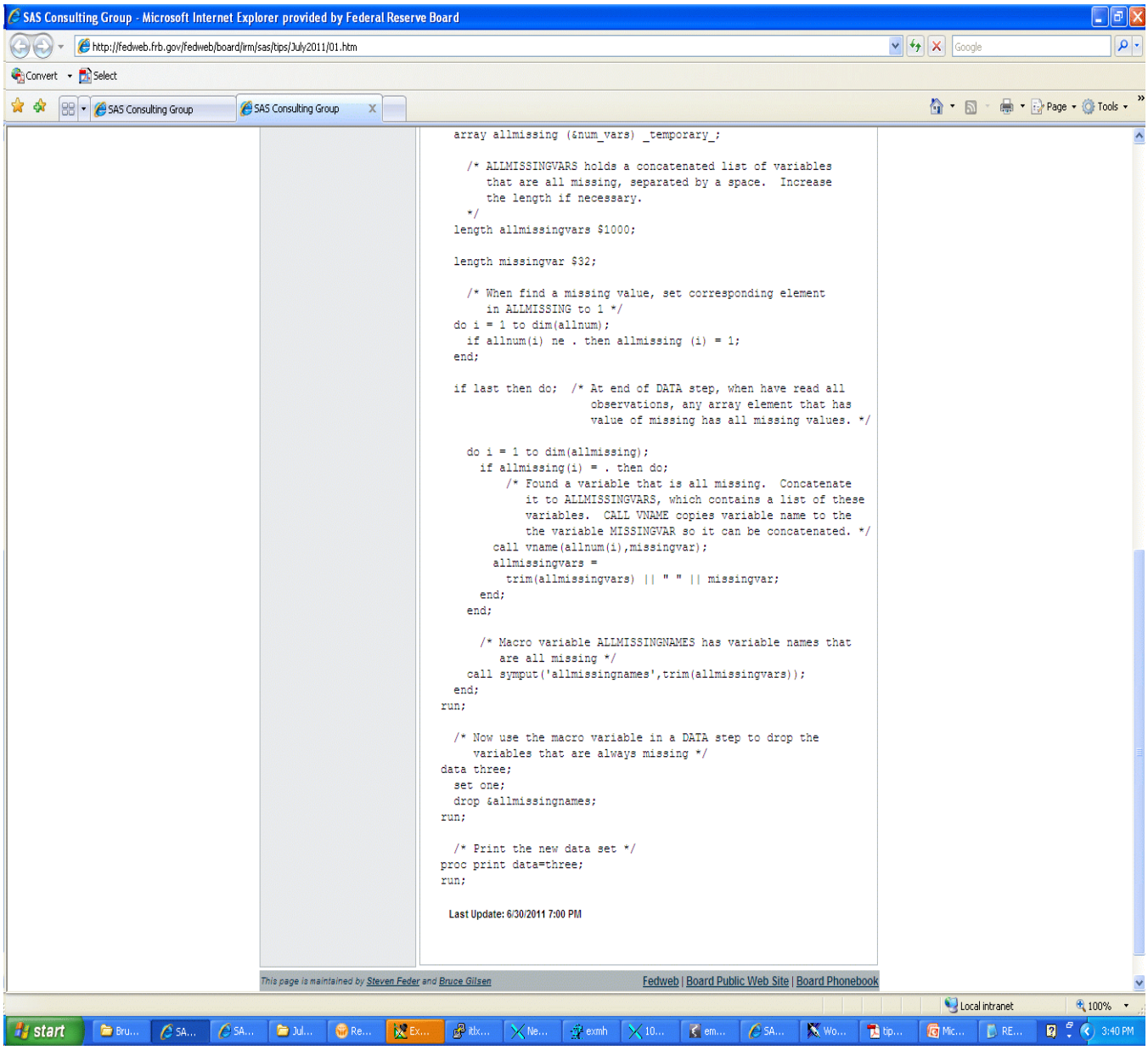

Figure 6 July 1, 2011 tip (Part 2 of 2)

Figure 7 June 30, 2011 tip

Figure 8 June 20, 2011 tip (Part 1 of 2)

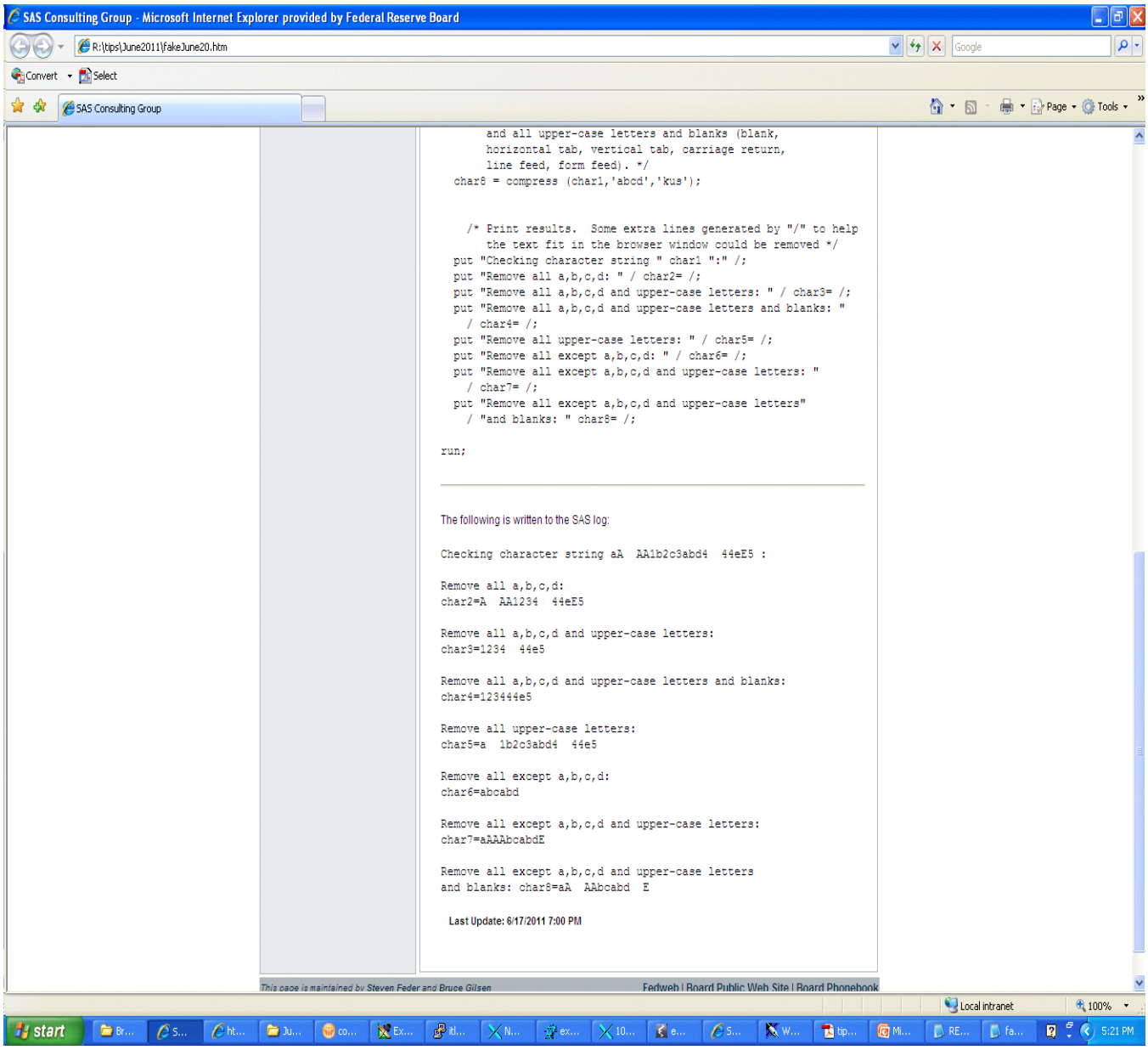

Figure 9 June 20, 2011 tip (Part 2 of 2)