

## Effective SAS User Support: Utilize the Power of the Intranet

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### ABSTRACT

This paper features the Bank of America in-house SAS web site. This web site provides our users a central site to obtain information about the SAS system. We use this site to provide:

- Latest SAS news
- Sample code
- Documentation
- Upgrades
- License updates
- Frequently asked questions

This paper is intended for all users of the SAS System who are interested in user support.

### INTRODUCTION

The power of the intranet allows us to support our SAS users in every aspect possible. Examples, downloads, FAQ's, course materials, updates, and the latest news are only part of our in-house SAS web site. Our SAS users can find answers around the clock without having to pick up the phone or wait for someone to get back to them. This site is a supplement to our help desk, in that it empowers our users to learn at their convenience.

This paper discusses how Bank of America utilizes the intranet to support SAS users nationwide. It also explains why we created an internal SAS web site and the thought process that went into all aspects of the site. It covers our thoughts on site design and our decision to include license updates, patches, and upgrades.

### GETTING STARTED

First, we had to determine the purpose of our site. We knew we needed a site, but why? Our department supports over 300 SAS users nationwide. We needed a way to supplement our help desk during and, especially, after hours. The purpose of this site is to be a centralized place that supports our users quickly and efficiently.

Once we agreed that the purpose of the site was to support the SAS users, we needed to find out what they wanted. We sent questionnaires out to active users through the help desk. The questionnaire asked what would the user like to see on this site, what type of information would be helpful, how could we best serve them? All of the comments and ideas from our users drove the effort to build out the new site.

### APPEARANCE AND NAVIGATION

There were many things we needed to incorporate into our site, so it was important to house the content in a reliable and easy-to-navigate look and feel. We set out to create a site where everything was only one click from the home page so that it would not take any effort from our users to find the answers to their questions. One way we accomplished this was to provide a left side navigational bar. This bar is consistent throughout our site and contains links to our architecture structure, to our department's home page, to the company home page, and to outside vendors such as SAS, DM Review, and conference links. The left side bar also allows you navigate the current page you are visiting.

Another key element that we considered in the appearance and navigation of our user site was the order of information. The

design of the page puts the most important items at the top. This way, the users see the top five things going on in Bank of America's SAS users community in one glance. The static content is kept on the bottom. In creating any site, one must consider how much time and effort they want to spend on maintaining it. This is why we chose a standard font and created style sheets. Also, a large percentage of the information on our site will not need to be frequently updated or replaced.

### ATTRACTING VISITORS

We knew before creating this site that our users had very little time to surf the intranet to find information. With this in mind, we decided to use the site to deliver things that are imperative to their jobs. By forcing them to use our site, we are guaranteeing that at least 200 users will see what we have created and how it could help them.

How can we force them to our site? By using the intranet as the source for users to update their SAS license and upgrade their SAS version, users would have to visit our site at least twice per year. This guaranteed us that active users would visit our site, but how would we get novice users to visit? Ongoing communication is the key, so we include the site in the training course we teach, refer every helpdesk ticket to our site, and discuss it in Data User forums. When the site first went into production, we announced it via company-wide electronic mail.

How do you get users coming back? Again, with the updating and upgrading of SAS, we knew the active users would come back at least twice a year. However, twice a year is not acceptable. To keep the information fresh, we created a tips section on our home page. Here, the users can find quick tips on how to improve their code, an option they can use, and other kinds of helpful hints. We even have a contest to encourage users to submit tips to us. As an added feature, we keep the tips rotating so every time you visit our site you see a new tip. This way you don't get bored with seeing the same tip a hundred times.

By incorporating the users in the development of our site, the users know that we value their input. It also demonstrates our desire to enable them to do their jobs better and more efficiently.

### SUPPLEMENTING THE HELP DESK

The helpdesk is our first opportunity to make a positive impression on our users. Another purpose of our site was to provide our help desk with quick and reliable information. By using our site, the help desk is able to resolve the "quick hit" questions, such as getting access to the warehouse using SAS, installation problems, sign on errors, associates who did not update license in time, printing problems, and more.

We engaged the help desk by asking them what they needed from us to provide the best possible support. Their needs resulted in a supplement page that only the help desk staff can access. This page stores logon, core, profile, and setinit files. It also has procedures and tips on how to answer the questions they get everyday. This way we are helping our users by empowering our help desk.

### CONTENTS OF THE SITE

## UPDATING SAS LICENSE

One of the most important ways our site supports our users and supplements our help desk is the online functionality allowing users to update their SAS license quickly and easily. With over 300 SAS users spread across the country, it would be impossible to manage each individual license. Therefore, Bank of America owns an enterprise license of SAS. All licenses expire at the same time and have the same grace period, and our web site provides a centralized location where our users can go to renew. This saves us time, expense, and headaches from having to update licenses all year long.

The "Update SAS License" page is set up to allow users to download the setinit file to update their license at any time. The one challenge we faced was communicating the importance of updating their license before it expired. When it is time to renew, we put a notice at the top of our SAS home page and send out a company-wide email alerting the users that it is time to update their license.

Once the user actually gets to our site they navigate to the page where we gather all of their information. All we require from the user is their first, middle, and last names, user id, and mail code. We include the SAS license agreement on the site where the user agrees to the conditions of use. The information that is entered by the user is collected in a SQL Seven Server database. This database allows us to get an accurate count of SAS licenses we have but, more importantly, how many active SAS users there are. The report created gives us a way of predicting how many licenses we need to purchase next year, predict numbers for future growth, tell us if we need to increase our staff for supporting the predicted number of users, and plan for training classes.

After the user has entered all of their information and agreed to the terms, we pass them to the SAS license update instructions page. This page stores the link to the setinit file along with instructions on how to download the file. To make it as easy as possible for the users, we have created a script that searches for the home directory of SAS on their hard drive. When the user clicks on the icon to download the file, the file will open in their program editor. All the user is required to do is submit the setinit program. The user sees a snapshot of what their log should say to verify that their license was updated correctly.

If a user has any difficulties updating their license, we have our help desk number posted on every page. We also have a page that contains instructions on how to update their license if they let the license expire. After the grace period ends, the news alert on the home page will be moved and stored on the downloads page for future reference. These pages are very low maintenance. We use the same pages and instructions year after year. The only thing required to do is upload the new setinit file to our upload facility.

## UPGRADES AND PATCHES

The concept behind providing upgrades and patches via our site is the same as the license updates in that it makes what could be a very difficult process much easier. Making upgrades and patches available on the web saves us from sending CD's out to our users and having them re-install all of SAS every time there is an upgrade or patch needed. This is another opportunity for us to gather information about our users. When users utilize this page, we learn where they are located geographically and we can capture the most accurate count of active users. By keeping track of who has upgraded and who hasn't, we are more prepared to help our help desk

with questions from our users. If they are having a problem related to the reason we implemented a patch, it is helpful to know whether or not they have upgraded. All upgrades and patches are listed in the news section of our home page and always located on the downloads page. This way if a user did not immediately upgrade they can do so at any times.

## DOCUMENTATION

Documentation is a necessity for supporting users. Users request documentation everyday and there is no such thing as "too much". The web site gave us a place to store all of the documentation that had been requested from users and also documents that we have created or gathered from past conferences. Users request documentation on where, why and when should we use a procedure, how to customize their SAS session, how to allocate a remote library, new features and options added with upgrades and patches, and on many other topics. We also create documentation with the help desk tickets we receive. Once we have resolved the problem, we document the solutions and put it on the web. If the same problem arises our team can direct the user to the web and work is not duplicated.

## COURSES

Our group trains associates how to extract and analyze data from the warehouse using SAS. The courses consist of getting familiar with the SAS environment, using the query window, allocating libraries remotely, sample queries extracting data, loading and updating tables using PROC DBLOAD, finally extracting and analyzing the data using PROC UNIVARIATE, PROC MEANS, and PROC REPORT.

We wanted a way to allow the user to easily access the material without having to carry around their class book, so we put it on the web. The course section of the web site supplements the book that is used in class. With such extensive examples within the course, this gives the user an opportunity, instead of having to type all of the examples into SAS, to download the examples from the site right into the SAS program editor. Another reason for creating this section is if an associate is away from the office, they do not have to carry around their class book for reference. They have the material available to them electronically through the intranet.

The course section helps our group many ways. It allows us to direct a user to our site to remind them that the course is at their fingertips at all times. It also allows us to announce an upcoming class, introduce our instructors, locations of the classes, and how to register for them. This is the best way to get our users gathering data from the warehouse and using their skills to the fullest.

## EXAMPLES

Users request examples everyday, with nearly every help desk call. We added this section because every support group is required to provide examples to the users. The web site gave us a place to store all of our examples and to create our own virtual library.

The Examples page is a valuable feature to our users. They have requested more real life examples on how to extract, manipulate, and analyze data using SAS. In addition to the examples our team has created for class, we also make use of the real-life examples from the questions coming into the help desk. Furthermore, we encourage that our users help us out by sending their own programs they feel would be helpful other users. By using their materials, our users know that their input is very important to the way we run our organization. Their

input also helps us to better understand how they are using the tools and the data.

The web site provides easy access to SAS examples. The examples are downloadable right into SAS. This way the user again does not need to carry around those big bulky SAS books or our course books to reference for examples, options, or what procedure to use.

### **FREQUENTLY ASKED QUESTIONS**

The frequently asked questions (FAQ) page allows the user to search for answers to their questions before calling the help desk. This page is a working page, meaning it is housed in a database that is growing all the time. If we get the same question more than once through the help desk, we add this question and answer to the FAQ database. We have also included the capability for the users to create their own FAQs. Again, this is a way to get the users involved in the way we support them and supplement the help desk.

### **CONCLUSION**

The intranet is a useful tool for communicating to a large constituency of people. It is the ideal media for providing self-serve user support information because it is easy to keep current, easy to access, and available 24 hours a day. Using it as the only source to provide documentation ensures that everyone has access to the same information. We have found it to be an important part of supporting Bank of America's SAS user community.

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