ABSTRACT

In December 1985, B.C. Telephone Company implemented an in-house developed Office Information System (called OISTAR) running on VM/CMS. The design of OISTAR's matrix menu system made it easy to add new functions for clients using a common format. When SAS Institute released version 5.08 with the new SAS/AF functions and prototypes a decision was made to put up a SAS Workbench on OISTAR giving users a friendly interface to sophisticated tools.

INTRODUCTION

OISTAR

OISTAR is B.C. Telephone's professional office system. It provides convenient and easy-to-use services plus ready access to key information, tools and applications. It is being used by over 4600 employees in B.C. Tel.

The matrix menu in Figure 1 is the first screen that an OISTAR user sees after logging on. OISTAR is a menu driven application. This means you are presented with a selection of features and you choose the one you want. The main OISTAR menu has four columns of items logically grouped together; other menus that can be reached from this menu can have from one to four columns depending on the subject. To access a function on a menu the client can either:

1. position the cursor in the appropriate column and press a PF key
2. type an address string (eg. 38 17 to bring up the SAS Workbench)
3. uses a personal synonym (eg. SASBENCH)
4. bring up an index of all OISTAR functions with PF11 Jump.

OISTAR and Workbenches

Shortly after OISTAR was implemented, a FOCUS Workbench (based on InfoBuild's TALK series of programs) was piloted. Having all of the commonly used tools and programs on one matrix menu proved to be very popular and our clients soon began asking for Workbenches in our other supported products. We knew that Release 5.0 of the SAS System would have new features that would give us the ability to build a Workbench for our SAS System clients and in September 1987 we released our first version of the SAS Workbench.

SAS WORKBENCH

The following sections describe the basic activities that are available on the SAS Workbench (see Figure 2 - SAS Workbench).
Manage SAS Files - SAS Services PF1

When you activate this function, you will see a standard CMS 'Filelist' screen listing all the files with a filetype of SAS. Generally you would only assign filetype SAS to any SAS System program file you create. From this screen, you can edit, delete and copy programs included in the list.

Manage SAS Datasets - SAS Services PF2

When you activate this function, you will see another menu with five options for SAS Dataset management. This function is part of the SAS/AF Sample Menu system and allows you to:
1. Create a SAS data set
2. Modify a SAS data set
3. Browse or list a SAS data set
4. Define labels and formats
5. Return to OISTAR

SAS System Datasets are files with a special format that the SAS System can understand. Once created they cannot be viewed directly from VM/CMS, so instead you can use this function.

Full Screen SAS - SAS Services PF3

This function takes you directly to the interactive SAS System environment with the Display Manager System (DMS) in effect.

On-Line Help - SAS Services PF6

This function will include hints, tips and suggestions on how to use the SAS Workbench and base SAS software more effectively.

SAS Feedback - SAS Services PF7

This function allows you to comment on the Workbench and suggest changes or enhancements that you would like to see. When this function is selected, a self-addressed electronic note comes up (see Figure 3) which can be sent directly to our support staff. The Feedback Items are reviewed and a response is sent back within the day.

Full Screen SAS - SAS Services PF3

More Services - SAS Services PF8

Once the SAS Workbench is expanded this function will branch to a subsequent menu of related items; this new menu could have anywhere from one to four columns depending on the number of extra functions.

Graphics - Application Services PF1

PF1 Graphics and PF2 Statistics currently access separate subsets of the SAS/AF Sample Menu System; in the future they will directly access new SAS Prototypes for Graphics and Statistics. This function is a menu approach to a limited subset of business graphics (including Vertical and Horizontal Bar, Block, Pie and Y vs X Plots). Once the graph type is chosen the client is given one screen to fill in to designate the dataset and variables to graph and a second screen to decide on Titles.

Statistics - Application Services PF2

This function gives the client access to statistical procedures for:
1. Computing Simple Statistics for Numeric Variables
2. Computing Detailed Univariate Statistics
3. Creating Frequency Tables and doing Cross-Tabulation
4. Computing Correlation Co-efficients

Generate Reports - Application Services PF3
This function was accessing a subset of the SAS/AF Sample Menu System until very recently. It now utilizes the new SAS Report Writing Prototype which includes basic business graphics, statistics, report writing capabilities and dataset management utilities.

A Quick Resource Booklet for the Report Writing SAS Prototype Application is available from SAS Institute and guides the novice through the various screens with example applications.

SAS/OR - Application Services PF5

The SAS Operations Research function is a self-contained SAS/AF prototype which has been developed by SAS Institute. SAS/OR gives the client access to:

1. project scheduling
2. linear and mixed integer programming
3. network, inventory and trans-shipment models

A Quick Resource Booklet is also available for the Operations Research SAS Prototype Application from SAS Institute.

SAS/Forecasting - Application Services PF6

The SAS Forecasting function is a self-contained SAS/AF prototype which has once again been developed by SAS Institute. The Forecasting screens lead the client through all the steps necessary to do some fairly sophisticated forecasting. The author of this paper for example, uses it regularly to project the growth of users on the VM/CMS computer.

Again, a Quick Resource Booklet for the Forecasting SAS Prototype Application is available from SAS Institute and it guides the novice from data creation through forecast production.

SAS/ORACLE/FOCUS/DYNAPLAN/MVS - Product Interfaces PF1-S

These functions are not currently available but are reserved for products that will permit interfacing the SAS System to the other Supported products at B.C. Telephone.

CONCLUSIONS

There are approximately 300 SAS users in the company. The SAS Workbench combines all of the activities needed to write SAS System applications and meets the requirements of both the novice and experienced users.

Our future plans include adding more SAS/AF Prototypes to the Workbench as they are developed, expanding the Workbench concept into the TSO and PC environments, and creating better links with Corporate data. Our main goal is to give the power of the SAS System of products to anyone in the company regardless of their expertise or previous experience.

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REFERENCES

- OISTAR User’s Guide
- SAS Workbench User Guide
- SAS/AF User’s Guide
- SAS Prototype Application: Forecasting
- SAS Prototype Application: Operations Research
- SAS Prototype Application: Report Writing

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