

Enterprise Guide®: Should it be your everyday SAS® editor?

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ABSTRACT

Longtime SAS programmers have for years used the SAS Program Editor window and may have recently switched to the Enhanced Editor. Now there is a new kid on the block named Enterprise Guide that may tempt you to switch. This paper will take a look at some of the features of Enterprise Guide (including the new 3.0 release) and compare features against our old SAS editors.

INTRODUCTION

Enterprise Guide (EG) is a desktop application for managing your SAS work. In EG, you can access data (SAS or otherwise) that resides either locally or remotely. At first glance, it may appear that EG is another attempt at creating SAS/ASSIST software, however, it is definitely worth another glance. EG provides for you a framework to not only create your SAS code but also a way for you to organize, manage, and document your code.

As of mid-May 2004, EG is currently available to the public as release 2.2. Release 3.0 is scheduled for June 2004, trailing the production release of SAS 9.1.2 by a month or two.

As a very cursory introduction, this paper will review 10 reasons that you may want to consider using EG as your SAS editor of choice. Following the David Letterman model, we will start with number 10 and work our way down to number 1. Of course, your rankings may vary from mine.

TOP 10 Reasons to Begin Using Enterprise Guide

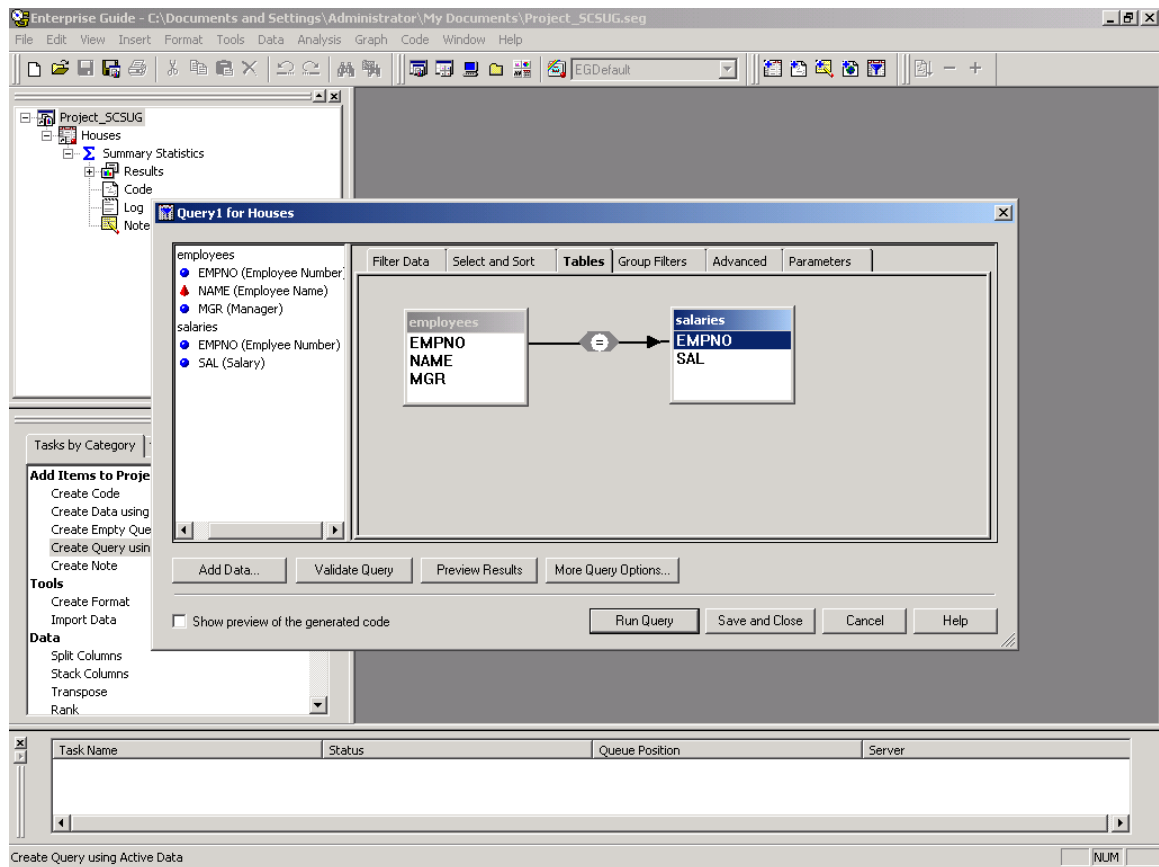
10) Now ships with BASE SAS

At SUGI 29, it was announced that EG would start shipping with BASE SAS as of version 9.1. If this is indeed the case then it shows the confidence SAS Institute has in EG as a tool that can be helpful to everyone that uses SAS software. There is now one less software acquisition battle you have to undertake if you are interested in using EG.

9) Visual Query building

Users of Microsoft Access have long had the ability to link tables together using a visual drag-and-link process that is very intuitive. EG now provides this capability.

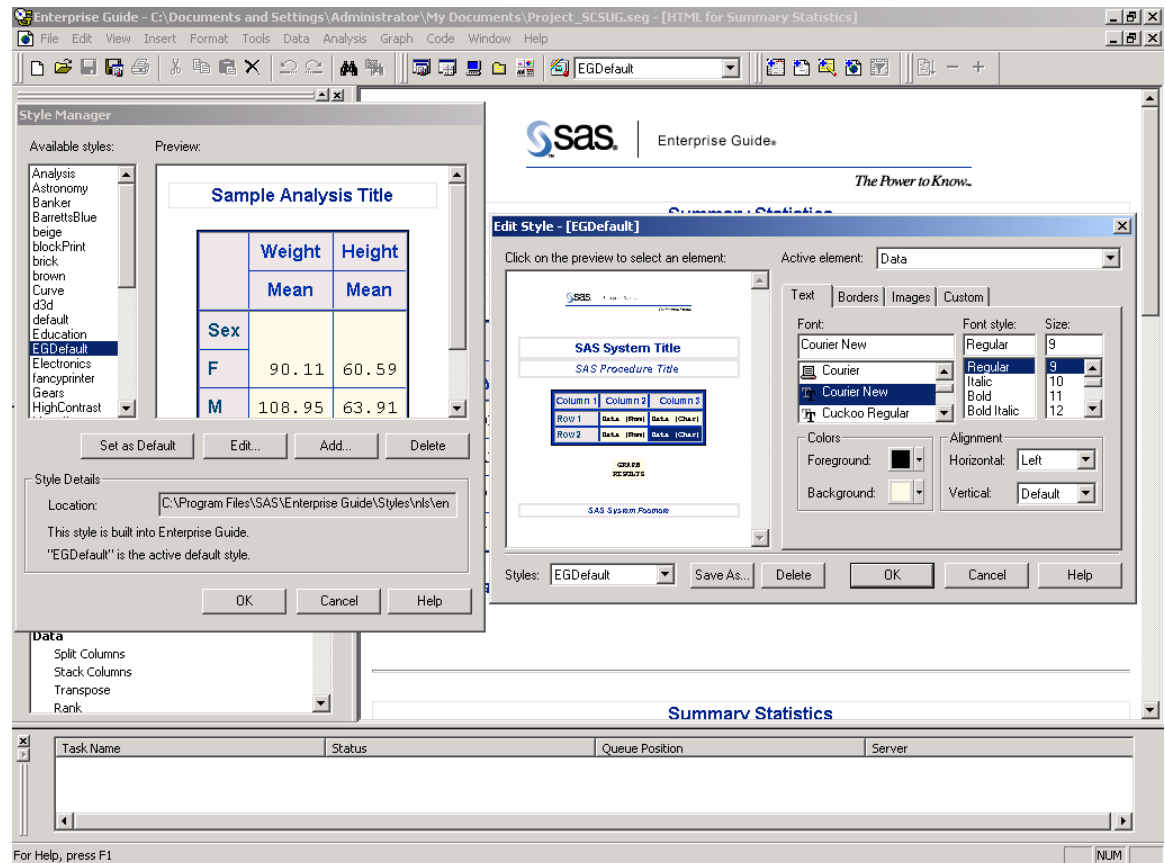
As tables are brought into the query window, links are automatically created for fields with identical names and variable types. Links can always be manually removed. Likewise, you can create a link between any two variables if the system didn't detect an automatic join condition.



8) Customize output layout without using Proc Template.

For those of you that have used ODS and wanted to get the output looking just so, you may have experienced some of the pains of trying to code with Proc Template in order to alter a style. EG allows you to create your own customized style using a point-and-click method.

As the screen print below shows, you simply point to the element that you want to alter and then change the associated feature (font, size, color, etc.).



7) Generate SAS/GRAPH code!

Even the strongest advocates of SAS/GRAPH have to admit that remembering the syntax often means remembering to have the documentation with you. EG gives you a high degree of control over your graph and may leave you with very little tweaking to do. SAS/GRAPH provides such a high degree of control that you may always tweak it a little more but EG will often get you very close to the desired goal. You can always insert your own code changes into the EG produced template.

This code was developed in EG in about 15 seconds:

```

GOPTIONS xpixels=&_EGCHARTWIDTH ypixels=&_EGCHARTHEIGHT;

/* Symbol Statements */
;

/* Axes Statements */
AXIS1
    label=('Salary')
    MINOR=NONE
;

AXIS2
    label=('Frequency')
    MINOR=NONE
;

TITLE;

FOOTNOTE "Generated by the SAS System (&_EGSERVERNAME, &SYSSCPL)
on %SYSFUNC(DATE(), EURDFDE9.) at %SYSFUNC(TIME(), TIMEAMP8.)";

PROC gchart DATA=WORK._eggrph_
;
    hbar3d SAL /
    RAXIS=AXIS2
    MAXIS=AXIS1
    AUTOREF
    SHAPE=Block
    PATTERNID=MIDPOINT
    COUTLINE=BLACK
    FRAME
;

    BY MGR ;

RUN;QUIT;

GOPTIONS RESET=ALL;

/* End of task code. */

PROC DELETE DATA=WORK._eggrph_; RUN;
TITLE;FOOTNOTE;RUN;

```

6) Documentation (insert notes)

You can insert notes within your projects to help you document your process. The notes are yellow in color to resemble a Post-It note. You may insert notes wherever it makes sense to you and they can be one word or pages and pages.

5) Generate code templates

Purists may say that this overlaps with number 7 (generate GRAPH code) but so what. This feature is potentially such a time saver that we don't mind the overlap. EG will produce a large amount of SAS code and it always remembers to put the semicolons in place.

4) Time savings.

In all likelihood you will begin to see time savings by doing your coding in EG. These savings will come from obvious and not-so-obvious sources including:

- Quicker code generation (your not typing it yourself)
- Less debugging (again, your not typing it yourself)
- Better organization (it is easier to go to a specific point in the program to begin your editing)
- Better documentation (most of us are horrible at documenting and EG makes it a little less painful)

3) Stored Processes

Stored Processes are sort of like macros on steroids. Essentially you take a macro and program and register it in your metadata repository. The macro is then available for you and other authorized users to invoke. When invoked, then end-user is prompted to provide any specified parameters using a very intuitive Windows-like GUI.

Stored processes will also be available within the new add-in for Microsoft Office that will allow Excel and Word users to invoke the power of SAS.

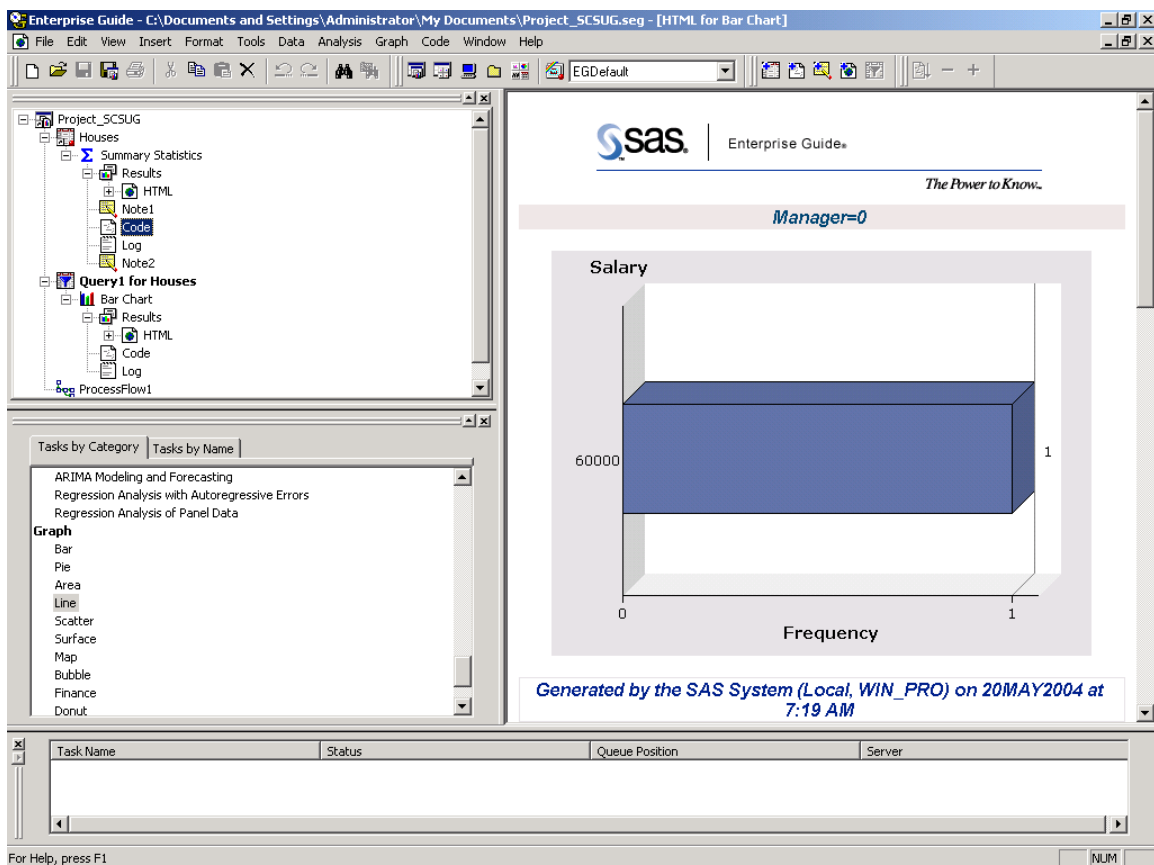
2) Version 3.0 Enhancements

Promised enhancements include:

- access to metadata
- improved interface
- improved menus
- improved Process Flow builder.

1) Project organization

EG puts related data, tasks, code, and results all within a project folder thus encapsulating the key components of a given project. This could be the end of endless searching of your various directories trying to match your program code with output that you've created. You can even keep notes and log information within the project. The upper left quadrant of the screen print below shows a related group of data, notes, results, log, and code that was created starting with the sample HOUSES data set. You can simply save this project, come back the next work day and you have everything organized and in front of you. Or, if you need to hand the project over to a colleague who is conversant in SAS, you can pretty much tell them where the project is and they can likely deduce the process themselves in a very short time!



SUMMARY

Enterprise Guide has a number of features that will make it attractive to a wide range of users. Beginners will like the ease with which they can apply basic procedures to data, making them productive users in a much faster timeframe. Beginners and experienced users alike will benefit from the organization that it provides. If your organization is struggling with Standard Operating Procedure rules in hopes of making SAS code more enduring and transportable to other users, EG may fill a key role.

References

White, James and McDaniel, Stephen, “Developing Custom SAS Tasks for SAS Enterprise Guide and the SAS Add-In for Microsoft Office”, May 2004, SUGI 29, Montreal, Canada.

McDaniel, Stephen; McDaniel, Annette; and Smith, Gregory, “SAS Enterprise Guide 3.0 for SAS Programmers – A roadmap to Combining the Best of Both Worlds”.

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