With the increasing adoption of SAS Grid environments, the old-school programming environment (SAS Display Manager System – DMS) is unable to operate in a Grid environment due to the way that SAS Grid is deployed. As we move away from directly interacting with SAS we are being forced into using environments like Enterprise Guide (EG) and SAS Studio. As an old-school programmer I am pre-disposed to dislike these new-fangled environments and their fancy code-writing wizards ... after all who wants to be replaced by a robot?

Having made the move to a SAS Grid we made the choice to adopt SAS Studio as our front end for access to SAS because of several reasons: there are many similarities between DMS and Studio, the centralised distribution of the web-based Studio and the ability to customise and develop tasks and utilities and centralised deployment of them. SAS Studio is still, at heart, a SAS editor but it has a multitude of added features that can enhance your programming experience.

**SAS Studio and DMS Similarities**

The functionality of the Studio environment is quite similar to the classic SAS Display Manager.

- It has program, log and output tabs (program, log and output windows previously). Files and libraries menu, and library browser menus.
- You then add the creation of Tasks and Utilities and Snippets.

As with Display Manager, multiple program windows and tabs that have a Code, Log and Results tab can be opened in Studio.

The code editor has the same colour-coding that the Enhanced editor uses in DMS/reps.

We can still highlight sections of code and submit these sections using the running man icon ...

**What’s New in the Code Editor?**

The code editor now has code prediction as well as context sensitive and syntax guidance help. It is very easy to follow at full web-based help documentation.

The help context sensitive code prediction is pulled from the code library that we opened and this is reflected in the programming environments.

The code tab now has code prediction as well as context sensitive and syntax guidance help.

**The LOG tab**

The LOG tab shows the SAS LOG for the code just executed.

At the top is a summary of all the Errors, Warnings and Notes.

It is quite useful as you can double click on a node, warning or error and the cursor will be taken directly to that line in the LOG tab.

If you want to view previous programs then you can switch back to the Code tab and click on the Submission history button.

If it's panel opened from 4:32:34 AM then the tab would have read...

The submission history lasts for as long as the run is disposed.

**Results/Output Data tabs**

The default output for SAS via EG/HTML is why the output looks so different from an DMS/LSM/RMS type.

The “code” output window is no longer available but the results are available in the pre-configured results panel.

Any datasets that are produced during the program execution are available in the Output Data tab for this.

The data browser is much more advanced than the browser from DMS. To reach this mode you need to go through the parent browser.

It allows you to see the variable availability by double clicking on the column section. You can also filter/thesearched variables to be displayed.

Filters are also able to be added to each variable. The code behind these filters and variable selections can be used (and saved) if required.

**Tasks, Utilities and Snippets**

The real difference between DMS and Studio is the addition of Graphical User Interface (GUI) Tasks, Utilities and Snippets. Tasks and Utilities can be used to create SAS code based on the results of a GUI. Snippets are code fragments which are basically the...the only one that was typed. This works for...

Enhanced (for version 3.6 of Studio) with...feature is available for macro variables.

Additional Roles section).

There are more options available to us to customise the reports further (the...

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