

VIEWS

International SAS Programmer Community



News, Hints, Tips and Information
for SAS® Users

Issue 68, 2nd Quarter 2022

Did You Know?

If you have a useful hint or tip, please send it to the Editor, and share it with the VIEWS membership.

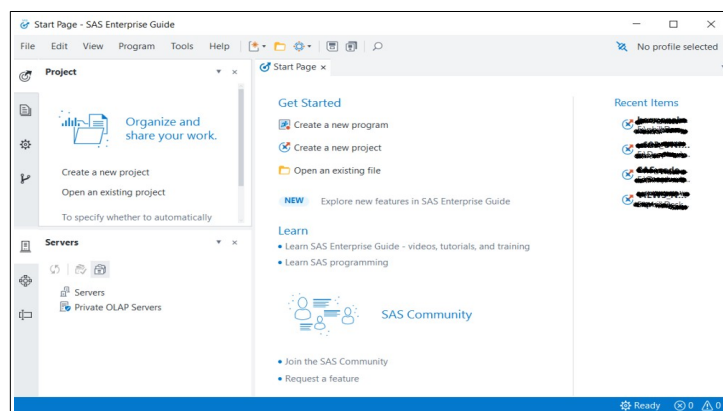
It is glorious summer, although you might not find all Brits celebrating the warmer weather! This newsletter issue includes another useful SAS programming tip from Nina L Werner (see issue 43 for her first tip), and some extracts from my SAS conference papers about Enterprise Guide and unique keys. As usual I have publicised some SAS-related events for the next few months, and I have also added some more SAS formats, options and functions that you may or may not have come across before, but you might find interesting, and even useful.

If you would like to contribute an article, to re-visit and improve an existing article, or just discuss the possibility of doing so, please feel free to send an email to me at views-uk@hollandnumerics.org.uk.

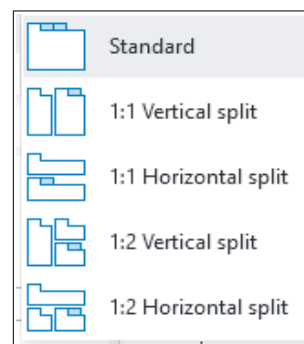
Philip R Holland (Newsletter Editor)

User-specified Screens in Enterprise Guide Version 8 and beyond

[EG 8] Enterprise Guide version 8.1 changed the initial view, when it was opened, by adding a Start Page (similar to Microsoft Visual Studio and other IDEs (Integrated Development Environments)) to direct users to recent projects, but the programming window was mostly unchanged.



There were, however, improvements made to how a user could arrange the individual windows within Enterprise Guide, and the examples in the drop-down list helped users to choose their preferred screen layout.



Finally, for now, Enterprise Guide version 8.2 now allows windows to float or be docked, and added an optional dark theme.

Philip R Holland, Newsletter Editor

Extract from "How Many Shades of Guide: SAS Enterprise Guide to 8.3 and SAS Studio to 3.81 with SAS 9.4"
by Philip R Holland

Membership of VIEWS is **free** and you can register for notification of all future VIEWS News issues by registering at blog.hollandnumerics.org.uk, and then emailing views-uk@hollandnumerics.org.uk, or using the blog site menu, to request access to the VIEWS UK forum. Members will receive an email notification whenever a new issue of the free quarterly VIEWS News is published on the web site, please inform us when you change your email address, otherwise your registration may be cancelled.

Ask The Consultant

This part of VIEWS News is where you can get your technical questions answered. Send your questions to the Editor.

Sorting, but Case-Insensitive

Q: How can you sort data without case-sensitivity?

A:[SAS] I recently had to sort a list of ~6K email addresses alphabetically. I needed to disregard upper/lower case.

I could have converted each email address to lower-case first, but PROC SORT has options to achieve this in a single step.

Here is the code which accomplished it.

```
PROC SORT DATA = email_list NODUPKEY
  SORTSEQ = LINGUISTIC (STRENGTH = PRIMARY)
  ;
  BY email_addr;
RUN;
```

Nina L Werner, Wisconsin

Check for Unique Key Variables Used in Merge

[SAS 6] If merging data by key variables assuming unique keys, then it is prudent to test whether there are multiple occurrences of these keys to avoid generating extra records:

```
SELECT key1, key2, key3
FROM dsn1
GROUP BY key1, key2, key3
HAVING COUNT(*) > 1
;
```

For example, does **sashelp.class** have multiple occurrences of sex + age + 1st letter of name combinations?

```
PROC SQL;
  SELECT sex
         ,age
         ,SUBSTR(name, 1, 1) AS first_letter
         ,COUNT(*) AS count
  FROM   sashelp.class
  GROUP BY
         sex
         ,age
         ,CALCULATED first_letter
  HAVING COUNT(*) > 1
  ;
QUIT;
%PUT Duplicate count = &sqlobs.;
```

There are 2 occurrences of **sex=M**, **age=12** and **first_letter=J**, so the key variables are not unique:

Sex	Age	first_letter	count
M	12	J	2

The automatically populated **&sqlobs** macro variable will contain the count of duplicate key combinations, and the log will include the following:

```
Duplicate count = 1
```

Replacing the calculated **first_letter** with **name** will result in no duplicate keys, and the log will include the following lines, as the **&sqlobs** macro variable will still be populated:

```
NOTE: No rows were selected.
Duplicate count = 0
```

Philip R Holland (Newsletter Editor)

Extract from "The Art of Defensive Programming: Coping with Unseen Data" by Philip R Holland

Formats, Options, and Functions

This section is devoted to the description of useful, or unusual, SAS Formats, Options, and Functions. Please read the SAS documentation to find out more about them.

[SAS 9.4] The SAS format **\$CSTRw.** looks for the last non-blank character of a character argument and passes a copy of the string with a null terminator after the last non-blank character.

[SAS] The PROC COMPARE option **MAXPRINT()** specifies 2 limits: (1) how many lines are displayed for each variable, and (2) how many lines are displayed overall. The default settings are **MAXPRINT(50, 32000)**, unless you use the **ALLOBS** option (or both the **ALLVAR** and **TRANSPOSE** options). In that case, the default is **MAXPRINT(1000, 32000)**.

[SAS 9.4] The SAS function **TYPEOF()** is used exclusively in SAS Graph Templates to return a value that indicates whether the argument is character or numeric.

In Brief

- Back issues of *VIEWS News* are available from the VIEWS UK forum at **blog.hollandnumerics.org.uk**. Please register for free membership on the blog, and then request free access to the VIEWS UK forum.
- The SAS Professional Forum group on LinkedIn, which currently has over 37,700 members. Everyone is welcome to request to join, but discussions here are restricted to SAS-related topics: **www.linkedin.com/groups?gid=70702**.
- The SAS Opportunities group on LinkedIn, which currently has over 15,200 members. Everyone is welcome to request to join, but discussions here are also restricted to SAS-related topics: **www.linkedin.com/groups?gid=805217**.
- In the UK and Ireland the SUGUKI group had been holding regular meetings in London, and also occasional meetings in Bristol, Dublin, Edinburgh, Leeds and Manchester. Unfortunately the pandemic necessitated running webinars instead. For more details and to register for future events please go to **meetup.com/SUGUKI**.
- Fancy joining the SAS EMEA Analytics Explorers, then please send your **country**, **name**, **email address** and **company** with your permission to pass these details on to SAS to **views-uk@hollandnumerics.org.uk**. Other regions include Asia Pacific, Canada, Latin America and US, but to join these communities based on where you live, you will now need to provide this information to a current member of these communities, instead of me.
- WPS Community Edition provides users with free access to WPS Analytics software including a SAS language compiler with coding and workflow tools on unlimited data volumes. A Community Edition licence key will be issued that will activate the software for up to six months. At the end of this term, users may be invited to renew their licence and to upgrade to the latest available version of the software. No technical support service is offered with the Community Edition. Download from **www.worldprogramming.com/try-or-buy/editions**. Note that the software is made available without warranty or indemnity, and is not made available to US residents.

Diary

Are you organising an event that would be of interest to the VIEWS readership? Let us know as we are interested in all non-profit making events related to SAS.

August 2022

7-10 **Joint Statistical Meeting EXPO**, Washington, DC

The JSM EXPO is a focal point for learning about, networking with, and celebrating the statistical community. See ww2.amstat.org/meetings/jsm/2022/expo2022.cfm for more details.

September 2022

27-29 **SAS Explore**, Virtual

A virtual conference for SAS Technologists. For more details please go to the SAS Events web site at www.sas.com/en_us/events/sas-global-forum.html.

November 2022

13-16 **PhUSE EU Connect**, Belfast, N Ireland

PHUSE Connect events bring together our global Community to collaborate on hot topics, share perspectives and discuss different approaches to guiding the healthcare industry landscape, both now and in the future. at www.phuse-events.org.

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