Unit 1-2 Exercises

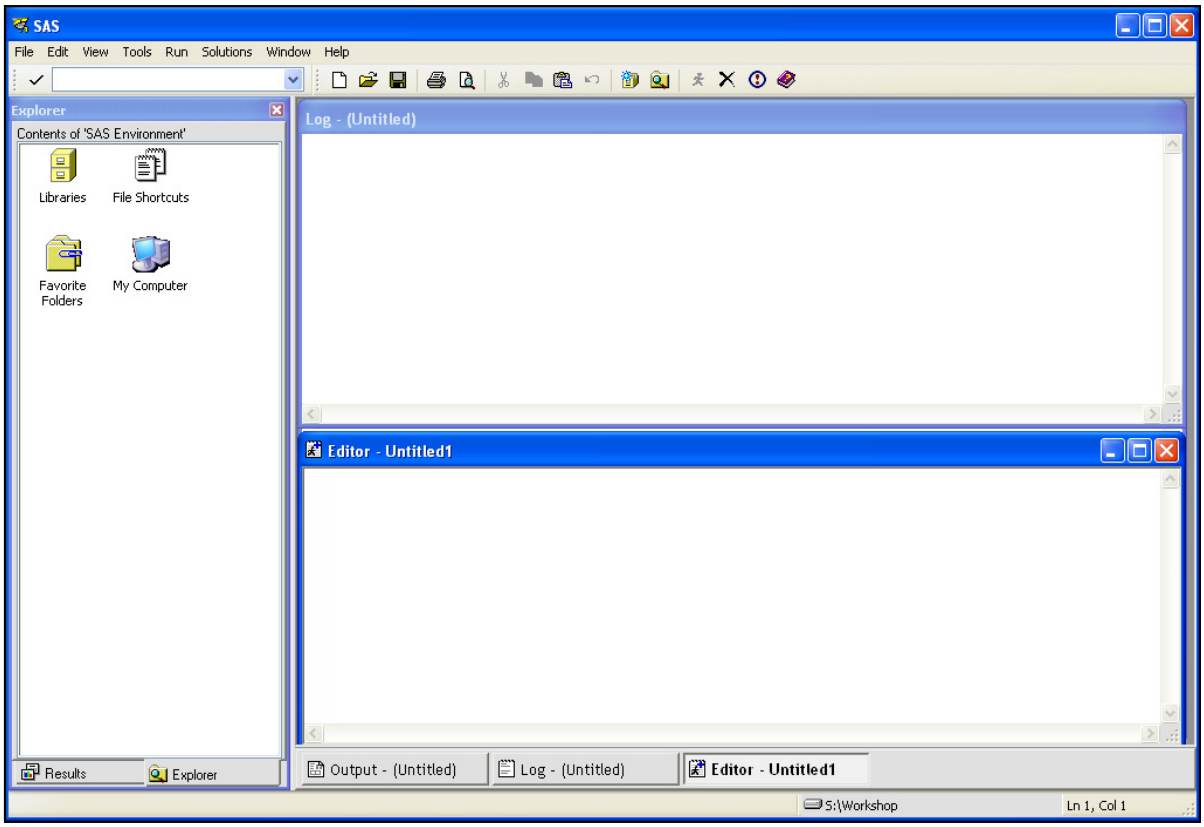
Submitting a SAS Program with SAS Windowing Environment – Windows

- Start a SAS session.
- Include and submit a SAS program.
- Examine the results.
- Use the Help facility.

Starting a SAS Session

1. Double-click the **SAS** icon to start your SAS session.

   The method that you use to invoke SAS varies by your operating environment and any customizations in effect at your site.



Including and Submitting a SAS Program

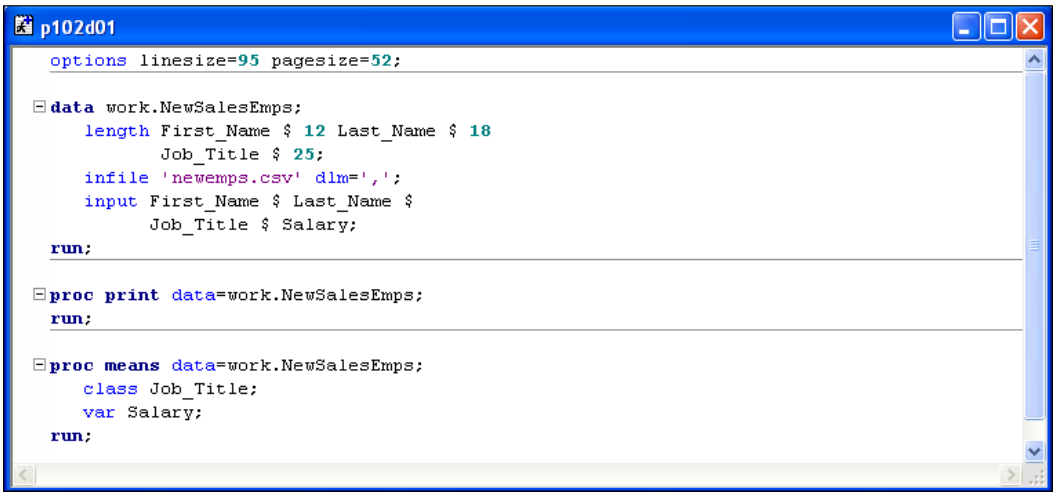
1. To open a SAS program into your SAS session, select **File** ⇨ **Open Program** or click  and then select the file that you want to include. To open a program, your Enhanced Editor must be active.

   You can also issue the INCLUDE command to open (include) a program into your SAS session.

   a. With the Enhanced Editor active, on the command bar type **`include`** and the name of the file containing the program.

   b. Press ENTER.

   The program is included in the Enhanced Editor.



   You can use the Enhanced Editor to do the following:

   - access and edit existing SAS programs
   - write new SAS programs
   - submit SAS programs
   - save SAS programs to a file

   In the Enhanced Editor, the syntax in your program is color-coded to show these items:

   - step boundaries
   - keywords
   - variable and data set names

2. To submit the program for execution, issue the SUBMIT command, click  , or select **Run** ⇨ **Submit**. The output from the program is displayed in the Output window.

Examining the Results

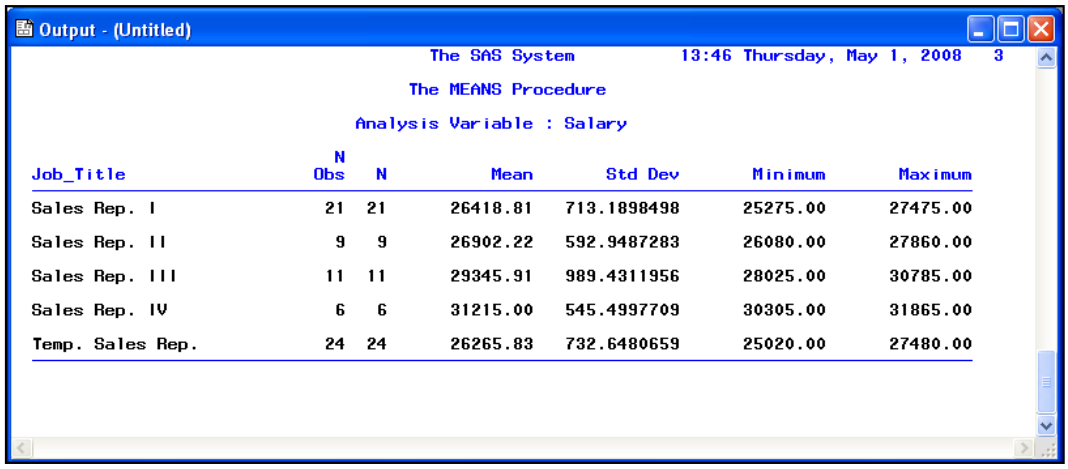
The Output window

- is one of the primary windows and is open by default
- becomes the active window each time that it receives output
- automatically accumulates output in the order in which it is generated.

You can issue the CLEAR command or select **Edit** ⇨ **Clear All** to clear the contents of the window, or you can click  (the NEW icon).

To scroll horizontally in the Output window, use the horizontal scroll bar or issue the RIGHT and LEFT commands.

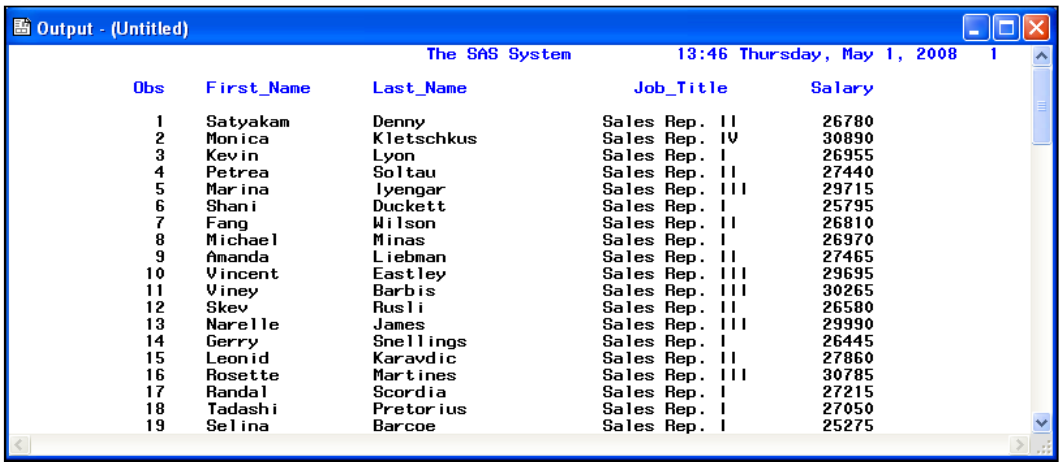
In the Windows environment, the Output window displays the last page of output generated by the submitted program.



To scroll vertically in the Output window, use the vertical scroll bar, issue the FORWARD and BACKWARD commands, or use the PAGE UP or PAGE DOWN keys on the keyboard.

You also can use the TOP and BOTTOM commands to scroll vertically in the Output window.

1. Scroll to the top to view the output from the PRINT procedure.



Obs	First_Name	Last_Name	Job_Title	Salary
1	Satyakam	Denny	Sales Rep. II	26780
2	Monica	Kletschkus	Sales Rep. IV	30890
3	Kevin	Lyon	Sales Rep. I	26955
4	Petrea	Soltau	Sales Rep. II	27440
5	Marina	Iyengar	Sales Rep. III	29715
6	Shani	Duckett	Sales Rep. I	25795
7	Fang	Wilson	Sales Rep. II	26810
8	Michael	Minas	Sales Rep. I	26970
9	Amanda	Liebman	Sales Rep. II	27465
10	Vincent	Eastley	Sales Rep. III	29695
11	Viney	Barbis	Sales Rep. III	30265
12	Skev	Rusli	Sales Rep. II	26580
13	Narelle	James	Sales Rep. III	29990
14	Gerry	Snellings	Sales Rep. I	26445
15	Leonid	Karavdic	Sales Rep. II	27860
16	Rosette	Martines	Sales Rep. III	30785
17	Randal	Scordia	Sales Rep. I	27215
18	Tadashi	Pretorius	Sales Rep. I	27050
19	Selina	Barcoe	Sales Rep. I	25275

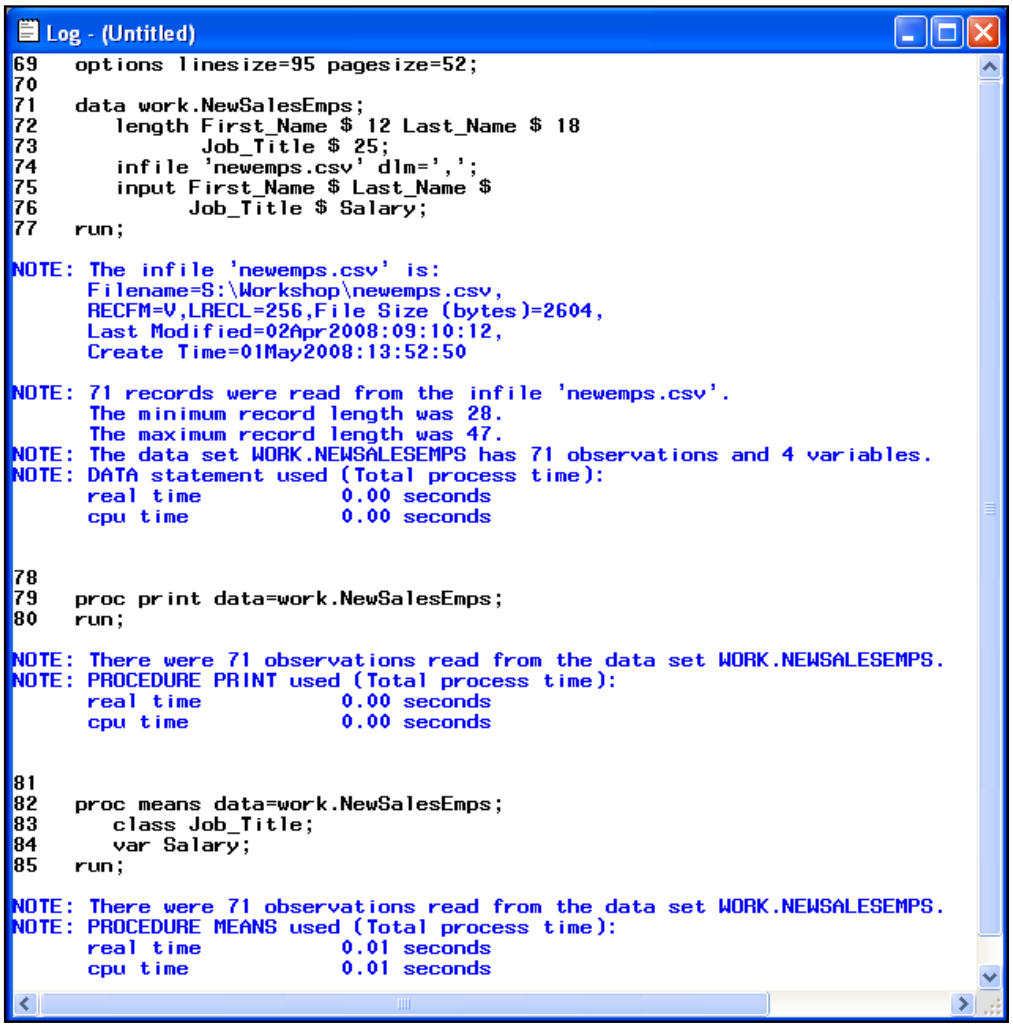
2. To open the Log window and browse the messages that the program generated, issue the LOG command, select **Window** ⇨ **Log**, or click on the log.

   The Log window

   - is one of the primary windows and is open by default
   - acts as an audit trail of your SAS session; messages are written to the log in the order in which they are generated by the program.

3. To clear the contents of the window, issue the CLEAR command, select **Edit** ⇨ **Clear All**, or

   you can click  (the NEW icon).



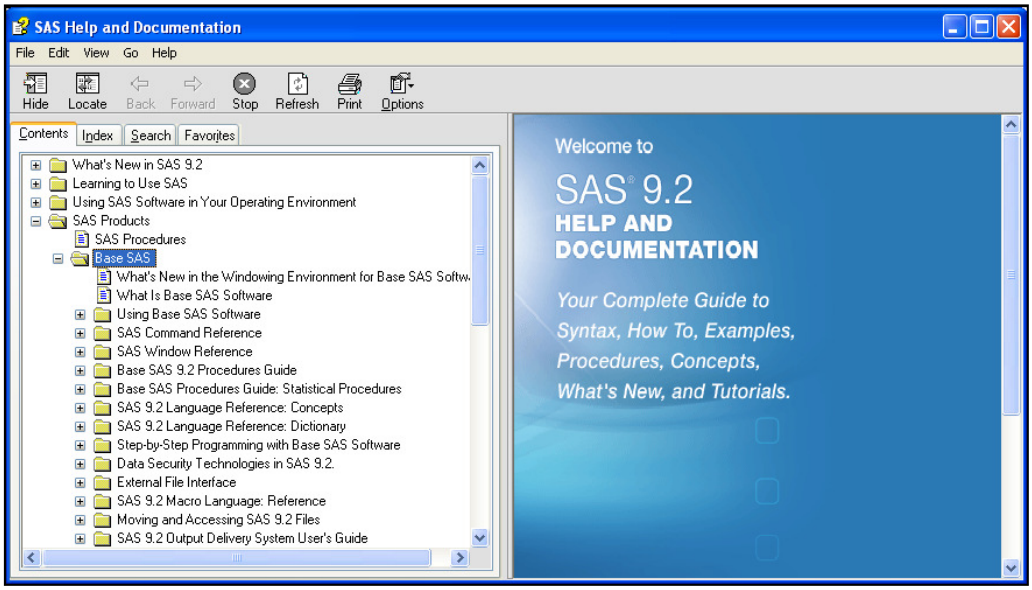
The Log window contains the programming statements that are submitted, as well as notes about the following:

- any files that were read
- the records that were read
- the program execution and results

In this example, the Log window contains no warning or error messages. If the program contains errors, relevant warning and error messages are also written to the SAS log.

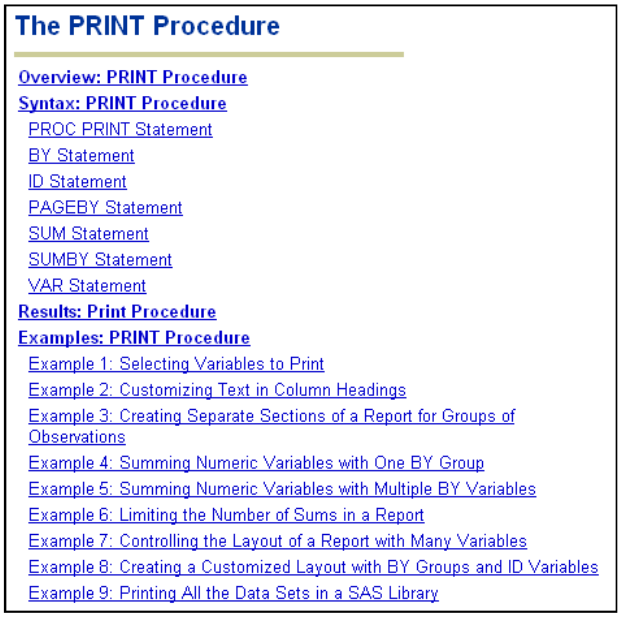
Using the Help Facility

1. To open the Help facility, select **Help** ⇨ **SAS Help and Documentation** or click  .
2. Select the **Contents** tab.
3. From the Contents tab, select **SAS Products** ⇨ **Base SAS**.



The primary Base SAS syntax books are the *Base SAS 9.3 Procedures Guide* and *SAS 9.3 Language Reference: Dictionary*. The *SAS 9.3 Language Reference: Concepts* and *Step-by-Step Programming with Base SAS Software* are recommended to learn SAS concepts.

4. For example, select **Base SAS 9.3 Procedures Guide** ⇨ **Procedures** ⇨ **The PRINT Procedure** to find the documentation for the PRINT procedure.



1. Submitting a Program and Using the Help Facility

a. With the appropriate Editor window active, include a SAS program.

Windows	Select **File** ⇨ **Open Program** and select the **p102e01.sas** program.

b. Submit the program for execution. Based on the report in the Output window, how many rows and columns are in the report?

rows: _____ columns: _____

c. Examine the Log window. Based on the log notes, how many observations and variables are in the **`Work.country`** data set?

observations: _____ variables: _____

d. Clear the Log and Output windows.

e. Use the Help facility to find documentation about the LINESIZE= option.

Go to the CONTENTS tab in the SAS Help and Documentation. Select **SAS Products** ⇨ **Base SAS** ⇨ **SAS 9.3 Language Reference: Dictionary** ⇨ **Dictionary of Language Elements** ⇨ **SAS System Options** ⇨ **LINESIZE= System Option**.

What is an alias for the LINESIZE= system option? _____

2. Identifying SAS Components

a. With the appropriate Editor window active, type the following SAS program:

```
proc setinit;
run;
```

b. Submit the program for execution, and then look at the results in the Log window.

The SETINIT procedure produces a list of the SAS components licensed at a given site.

c. If you see SAS/GRAPH in the list of components in the log, include a SAS program.

Windows	Select **File** ⇨ **Open Program** and select the **p102e02.sas** program.

d. Submit the program for execution. View the results in the GRAPH window.

e. Close the GRAPH window.

3. Setting Up Function Keys

a. Issue the KEYS command or select **Tools** ⇨ **Options** ⇨ **Keys** to open the KEYS window.

The KEYS window is a secondary window used to browse or change function key definitions.

b. Add the following commands to the F12 key:

```
clear log; clear output
```

c. Close the KEYS window.

d. Press the F12 key and confirm that the Log and Output windows are cleared.

4. Exploring Your SAS Environment – Windows

a. Customize the appearance and functionality of the Enhanced Editor by selecting **Tools** ⇨ **Options** ⇨ **Enhanced Editor**. For example, select the Appearance tab to modify the font size.

b. In the Help facility, look up the documentation for the Enhanced Editor.

From the Contents tab, select **Using SAS Software in Your Operating Environment** ⇨ **SAS 9.3 Companion for Windows** ⇨ **Running SAS under Windows** ⇨ **Using the SAS Editors** ⇨ **Using the Enhanced Editor**.