

# Entering and Running SAS® Programs

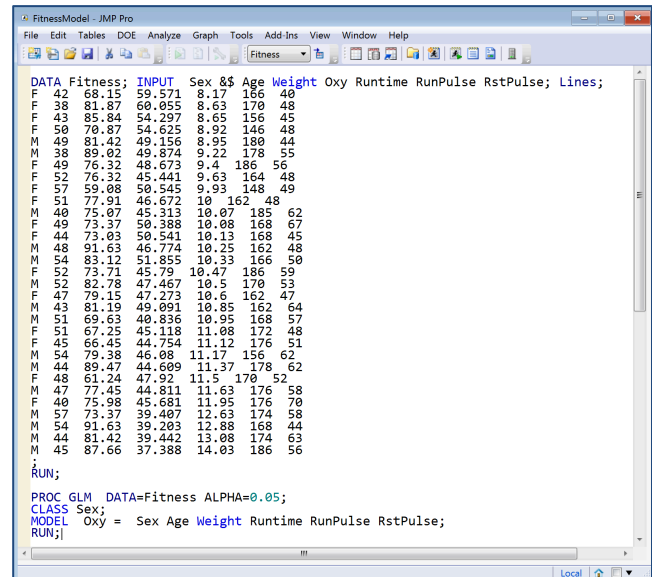
Write and submit your own SAS programs or submit existing SAS programs. This enables JMP® to be used as a client to SAS, leveraging the depth and breadth of statistical and analytical techniques in SAS.

## Entering SAS Programs

- To bring an existing SAS program into JMP:
  - From an open JMP window, select **File > Open**.
  - Browse to the desired SAS program file, and click **Open**. The SAS file will open in the SAS Program Editor window in JMP.
- To create (or cut and paste) a new SAS program from within JMP, select **File > SAS > New SAS Program** to open the SAS Program Editor.

The SAS Program Editor is color-coded for easy reference:

- Dark Blue: PROC and DATA statements.
- Blue: Keywords.
- Magenta: Text strings.
- Green: Constants.

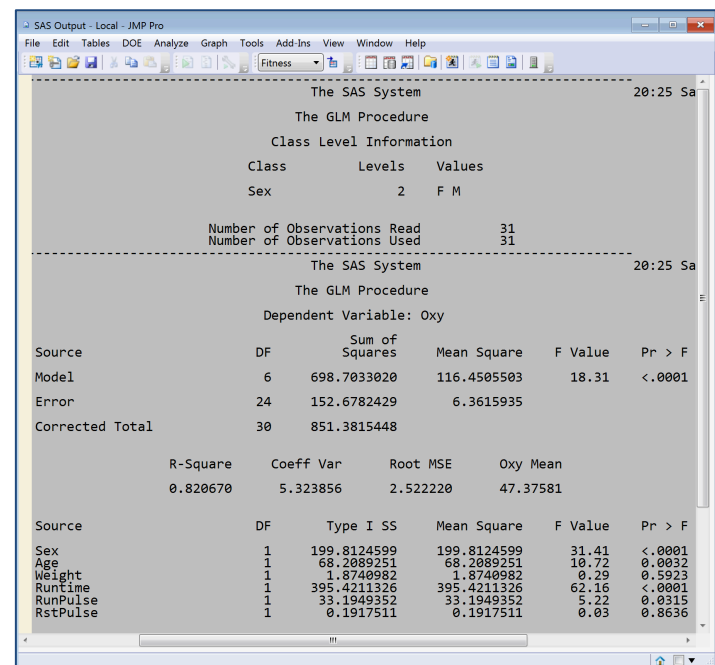


```
DATA Fitness; INPUT Sex $ Age Weight Oxy Runtime RunPulse RstPulse; Lines;
F 42 68.15 59.571 8.17 166 40
F 38 81.87 60.055 8.63 170 48
F 43 85.84 54.297 8.65 156 45
F 50 70.87 54.625 8.92 146 48
M 49 81.42 49.156 8.95 180 44
M 38 89.02 49.874 9.22 178 55
F 49 76.32 48.673 9.4 186 56
F 52 76.32 45.441 9.63 164 48
F 57 59.08 50.545 9.93 148 49
F 51 77.91 46.672 10 162 48
M 40 75.07 45.313 10.07 185 62
F 49 73.37 50.388 10.08 168 67
F 44 73.93 50.541 10.13 168 45
M 48 91.63 46.774 10.25 162 48
M 54 83.12 51.855 10.33 166 50
F 52 73.71 45.79 10.47 186 59
M 52 82.78 47.467 10.5 170 53
F 47 79.15 47.273 10.6 162 47
M 43 81.19 49.091 10.85 162 64
M 51 69.63 40.836 10.95 168 57
F 51 67.25 45.118 11.08 172 48
F 45 66.45 44.754 11.12 176 51
M 54 79.38 46.08 11.17 156 62
M 44 89.47 44.609 11.37 178 62
F 48 61.24 47.92 11.5 170 52
M 47 77.45 44.811 11.63 176 58
F 40 75.98 45.681 11.95 176 70
M 57 73.37 39.407 12.63 174 58
M 54 91.63 39.203 12.88 168 44
M 44 81.42 39.442 13.08 174 63
M 45 87.66 37.388 14.03 186 56
;
RUN;
PROC GLM DATA=Fitness ALPHA=0.05;
CLASS Sex;
MODEL Oxy = Sex Age Weight Runtime RunPulse RstPulse;
RUN;
```

## Running SAS Programs

To run the SAS program from the SAS Program Editor in JMP:

- Select **Edit > Submit to SAS**. (If prompted to connect to SAS, enter the appropriate details and click **OK** – see the first note below).
- The code will be sent to SAS, and the SAS output will be returned to JMP according to the **SAS Integration** preference settings.
- To view the SAS log and/or output windows if they are not already open, select **File > SAS > Open SAS Log Window** or **File > SAS > Open SAS Output Window**, respectively.



```
The SAS System
20:25 Sa

The GLM Procedure
Class Level Information
Class      Levels      Values
Sex         2          F M

Number of Observations Read      31
Number of Observations Used      31

The SAS System
20:25 Sa

The GLM Procedure
Dependent Variable: Oxy

Source      DF      Sum of Squares      Mean Square      F Value      Pr > F
Model        6      698.7033020      116.4505503      18.31      <.0001
Error       24      152.6782429      6.3615935
Corrected Total 30      851.3815448

R-Square      0.820670
Coeff Var     5.323856
Root MSE     2.522220
Oxy Mean     47.37581

Source      DF      Type I SS      Mean Square      F Value      Pr > F
Sex         1      199.8124599      199.8124599      31.41      <.0001
Age         1      68.2089251      68.2089251      10.72      0.0032
Weight      1      1.8740982      1.8740982      0.29      0.5923
Runtime     1      395.4211326      395.4211326      62.16      <.0001
RunPulse    1      33.1949352      33.1949352      5.22      0.0315
RstPulse    1      0.1917511      0.1917511      0.03      0.8636
```

Notes:

To submit SAS code, JMP must be connected to SAS. For information on connecting to SAS, either locally or on a server, see the **Connecting to SAS** one-page guides under **Using SAS from JMP** at [jmp.com/learn](http://jmp.com/learn). For information on setting SAS preferences, see the **Setting SAS Integration Preferences** one-page guide.