

Chapter 10

Marking Observations

Chapter Table of Contents

MARKING INDIVIDUAL OBSERVATIONS	156
MARKING BY NOMINAL VARIABLE	158
MARKING BY INTERVAL VARIABLE	159
ADJUSTING MARKER SIZE	160

Chapter 10

Marking Observations

You can assign markers to use for displaying observations in box plots, scatter plots, and rotating plots. The markers appear with each observation in the data window. You can assign markers for observations you select, and you can let SAS/INSIGHT software assign markers automatically based on the value of a variable. You can control the size of the markers in any plot.

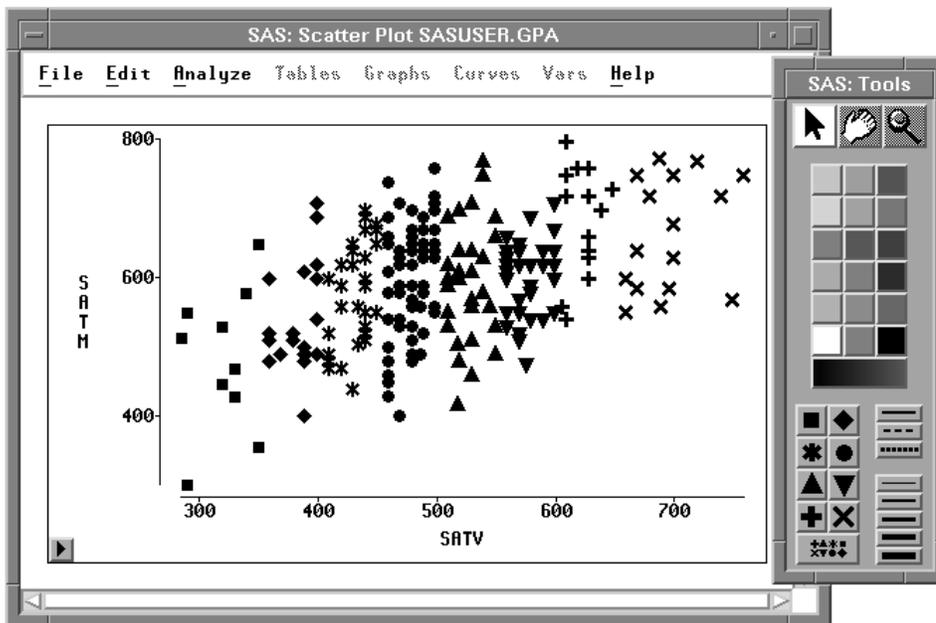


Figure 10.1. Marking Observations

Marking Individual Observations

You can set the marker shape for any observations you select.

⇒ **Open the GPA data set.**

⇒ **Create a scatter plot of SATM versus SATV.**

Use the techniques described in Chapter 5, “Exploring Data in Two Dimensions.”

⇒ **Click on an observation to select it.**

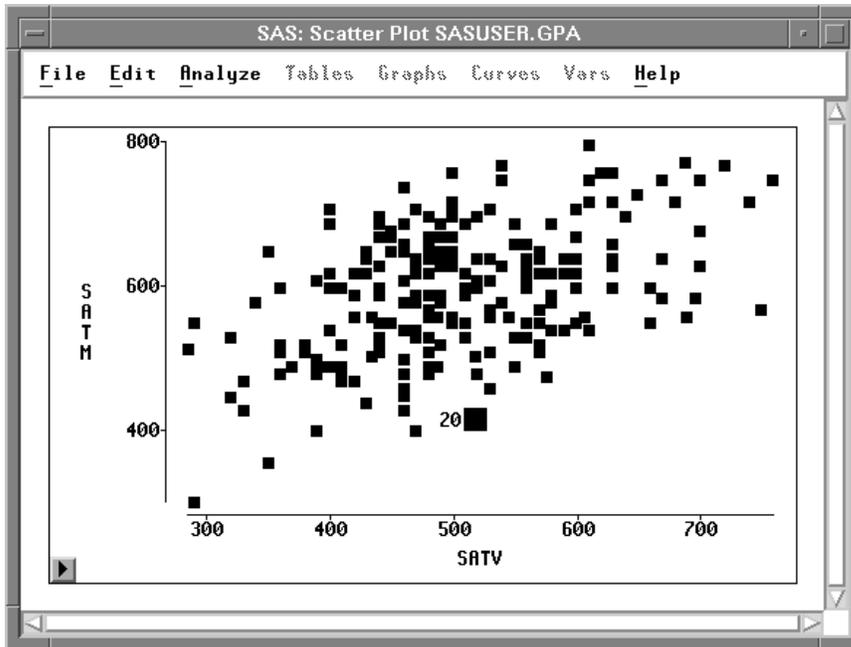


Figure 10.2. Scatter Plot

⇒ **Choose Edit:Windows:Tools.**

This toggles the display of the tools window, as shown in Figure 10.4.

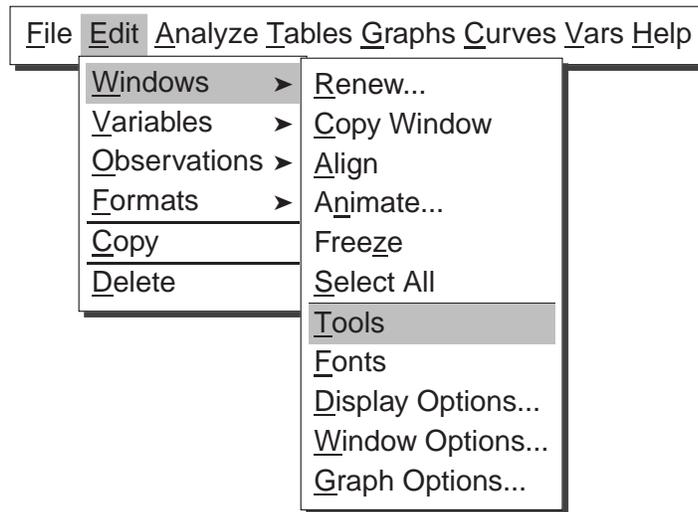


Figure 10.3. Edit:Windows Menu

⇒ **Click on the upward-pointing triangle in the tools window.**

This changes the marker for the selected observation from a square to a triangle. The marker also changes to a triangle in the data window and in any other windows.

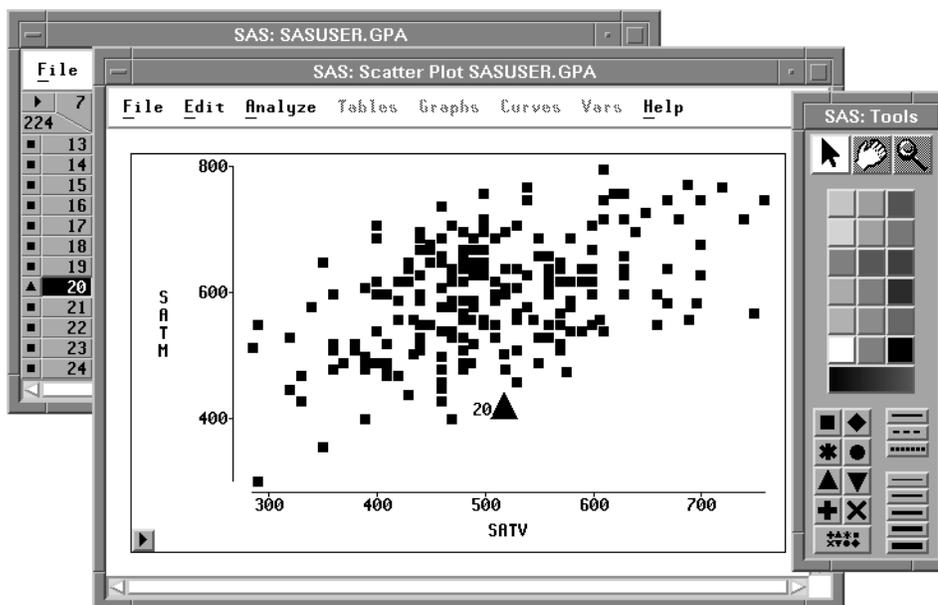


Figure 10.4. Changing a Marker

Similarly, you can select a group of observations in a brush and assign markers for the group. Markers provide a convenient way to track observations across multiple windows. They also enable you to keep track of observations when they are deselected.

Marking by Nominal Variable

You can assign markers automatically based on the value of a nominal variable. This is a good way to distinguish quickly between groups of observations.

⇒ **Select `SEX` in the data window.**

⇒ **Click on the multiple markers button at the bottom of the markers window.**

SAS/INSIGHT software assigns a different marker for each value of the nominal variable. In this case, observations with a value of **MALE** are displayed with crosses, and observations with a value of **FEMALE** are displayed with squares.

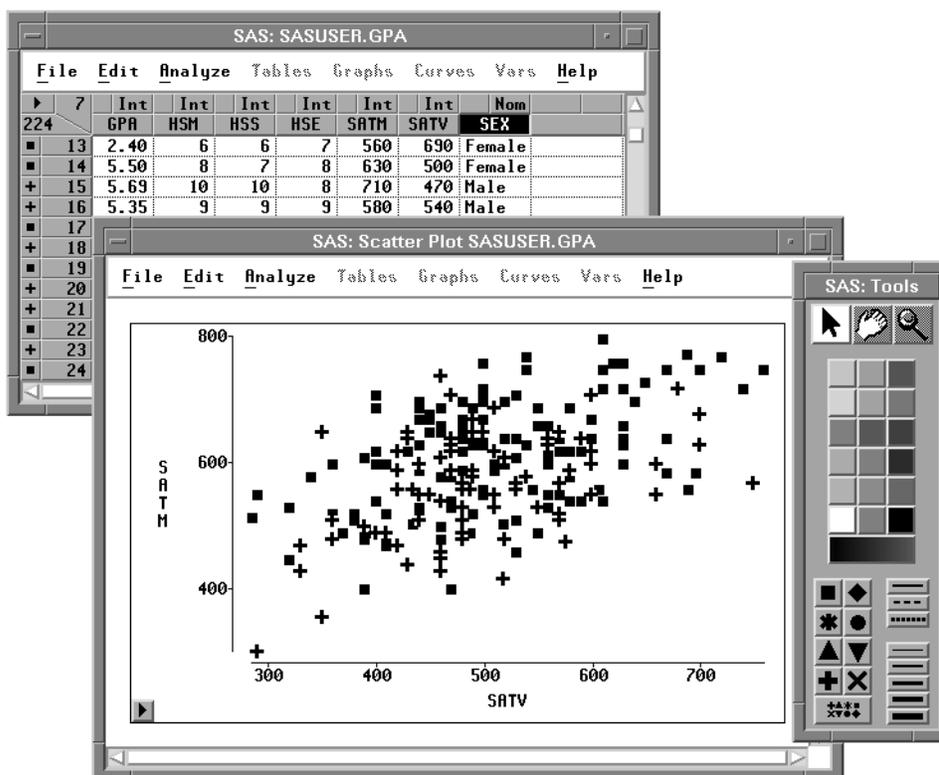


Figure 10.5. Assigning Markers by **SEX**

Marking by Interval Variable

You can also assign markers based on the value of an interval variable.

⇒ Select **GPA** in the data window.

⇒ Click on the multiple markers button at the bottom of the markers window.

SAS/INSIGHT software assigns three markers to the observations depending on the value of **GPA** for that observation. Observations with values in the upper third of the range of **GPA** are assigned upward-pointing triangles. Observations with values in the middle third of the range of **GPA** are assigned squares. Observations with values in the lower third of the range of **GPA** are assigned downward-pointing triangles. These markers show a rough picture of the correlation between grade point average and SAT scores.

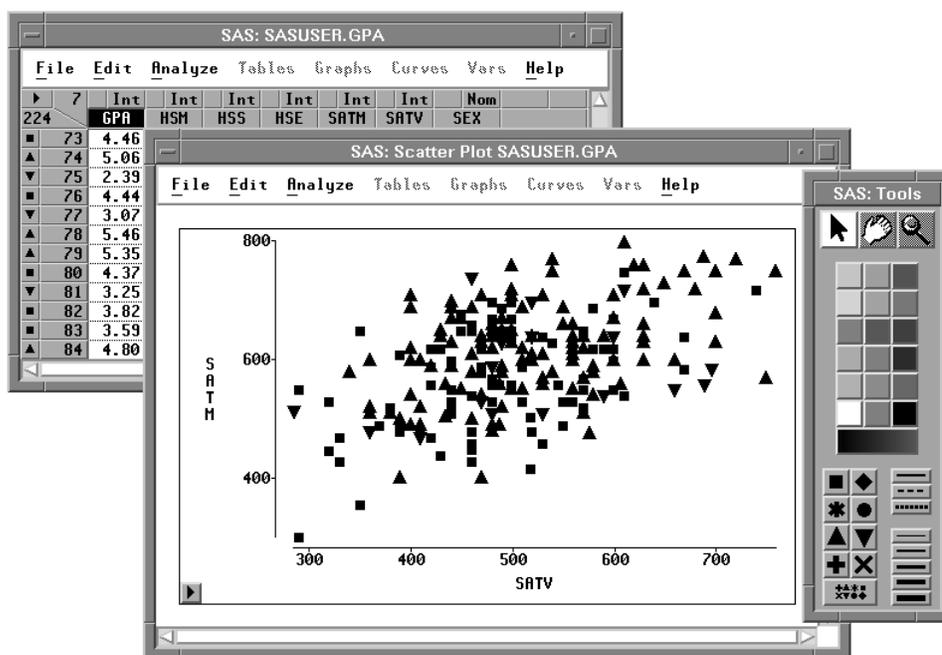


Figure 10.6. Assigning Markers by GPA

Adjusting Marker Size

You can adjust marker size by using the scatter plot pop-up menu.

- ⇒ **Click on the button in the lower left corner of the scatter plot.**
Choose **Marker Sizes:1**. This assigns markers their minimum size.

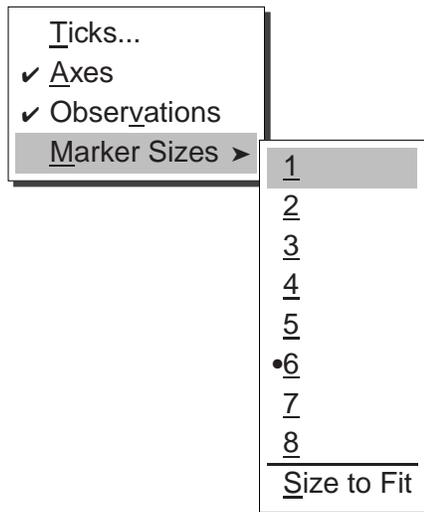


Figure 10.7. Marker Sizes Menu

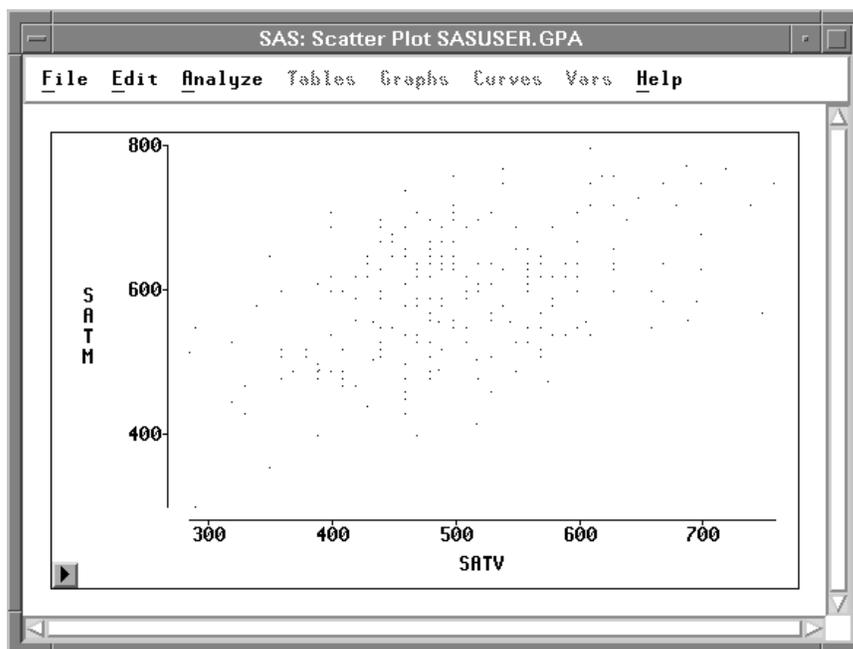


Figure 10.8. Markers at Minimum Size

- ⇒ **Choose Marker Sizes:8 from the pop-up menu.**
This assigns markers their maximum size.

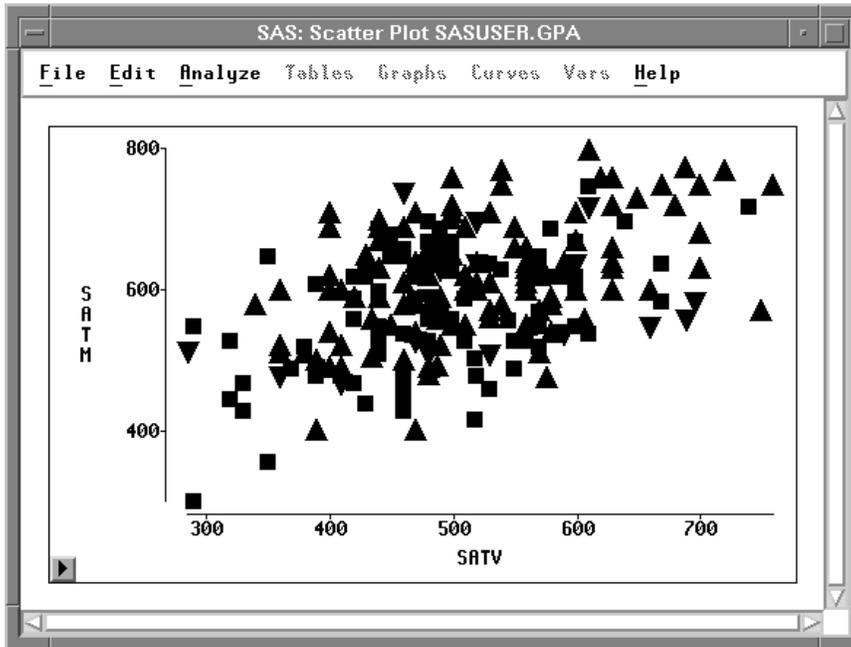


Figure 10.9. Markers at Maximum Size

- ⇒ **Choose Marker Sizes:Size to Fit from the pop-up menu.**
This assigns markers their default size.

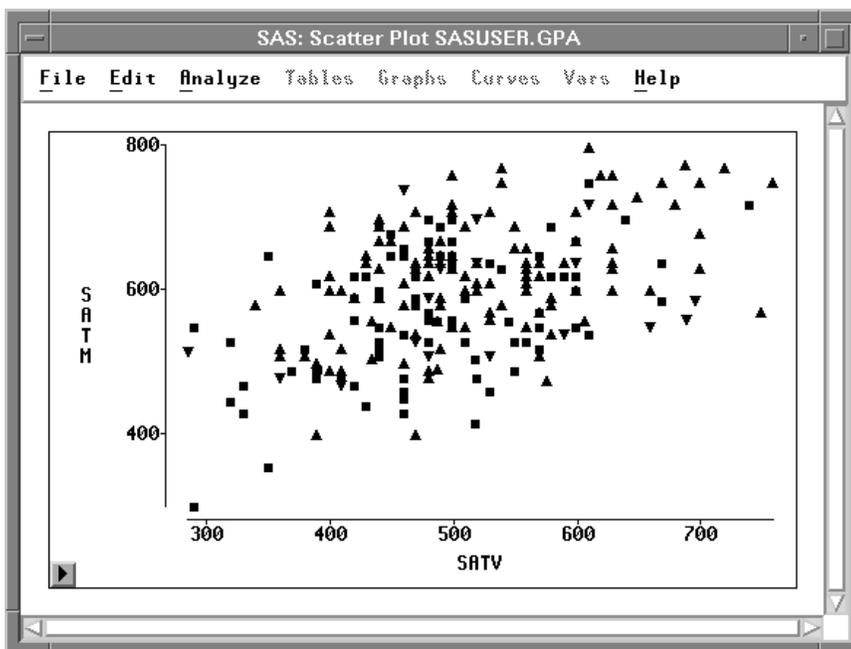


Figure 10.10. Default Marker Size

The default marker size is determined by the size of your graph, the resolution of your display, and the setting of the **Marker Size** option. You can set the **Marker Size** option as described in Chapter 29, “Configuring SAS/INSIGHT Software.”

† **Note:** For large data sets, markers require plenty of memory. If your data set contains hundreds of observations and your host has insufficient memory, you can improve performance by using the default square marker for all observations.

If you have a color display, it is often clearer to distinguish observations by color. Turn to the next chapter to see how to assign colors.

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