Chapter 7
Adjusting Axes and Ticks

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Adjusting Axes and Ticks

With SAS/INSIGHT software, you have control over the appearance of axes. In all graphs, you can specify major and minor tick marks. In two-dimensional graphs, you can adjust axis position dynamically. In three-dimensional graphs, you can place axes at the center or the minimum of the data range.

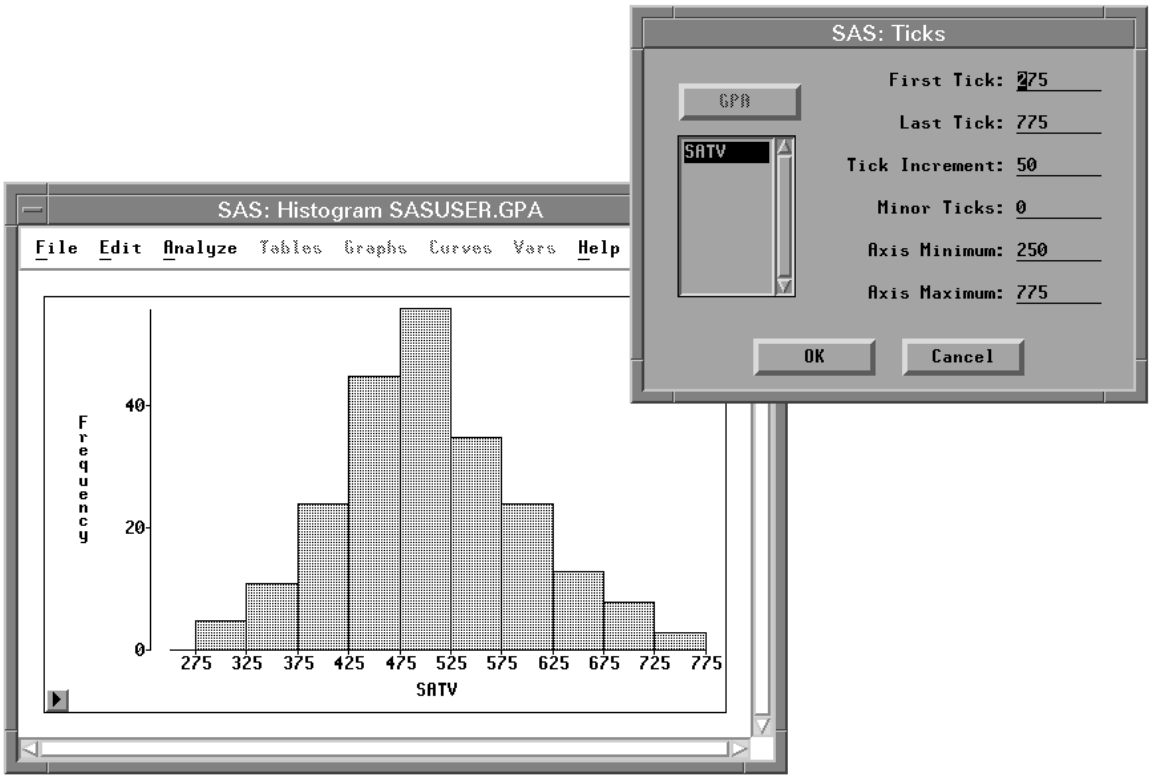

Figure 7.1. Adjusting Histogram Ticks

Adjusting Ticks

Major tick marks have an associated tick label, if space permits. *Minor* tick marks are smaller marks evenly spaced between the major tick marks. By default, the number of minor tick marks is 0.

You can change the default tick marks in a histogram of verbal SAT scores by following these steps.

⟹ **Open the GPA data set and create a histogram of verbal SAT scores.**

⟹ **Select the variable on the axis of interest.**

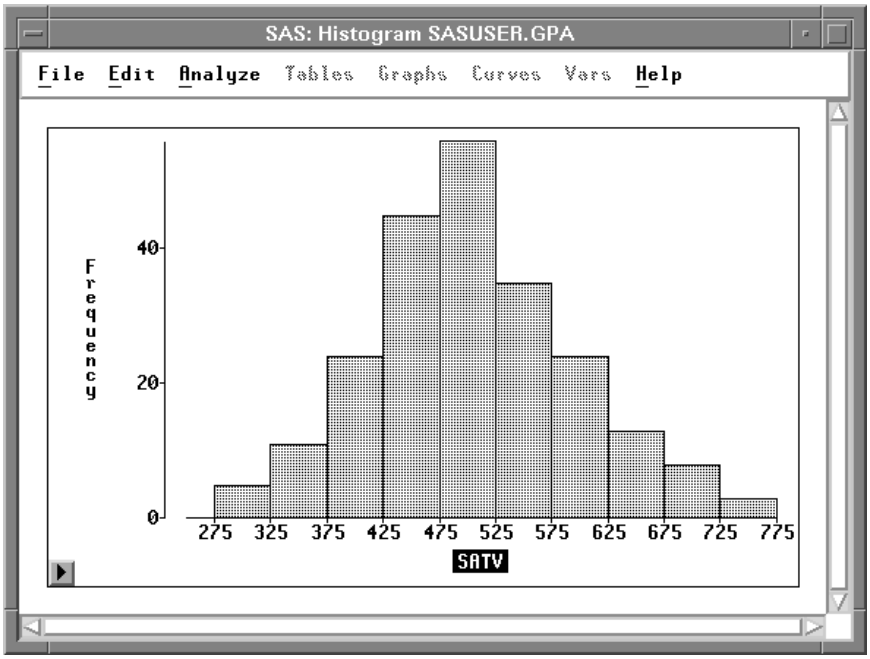

Figure 7.2. Selecting Variable **SATV**

⟹ **Click on the button in the lower left corner to display the histogram pop-up menu.**
Choose **Ticks** from the pop-up menu to display the Ticks dialog.

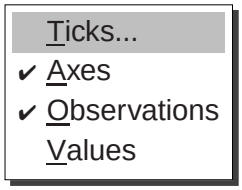

Figure 7.3. Histogram Pop-up Menu

Figure 7.4 shows the Ticks dialog for the **SATV** axis in the histogram.

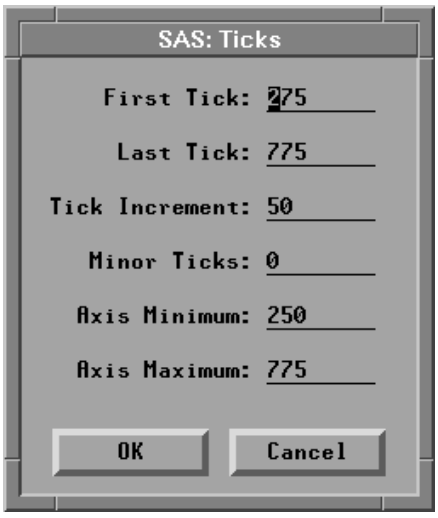

Figure 7.4. Ticks Dialog

⟹ **Change the values in the Ticks dialog.**
Set the first tick to 200, the last tick to 800, the axis minimum to 175, and the axis maximum to 825.

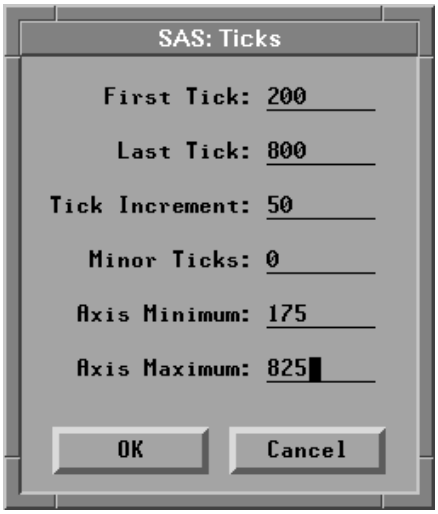

Figure 7.5. Changing Ticks

⟹ **Click OK to redraw the histogram with the new tick specifications.**

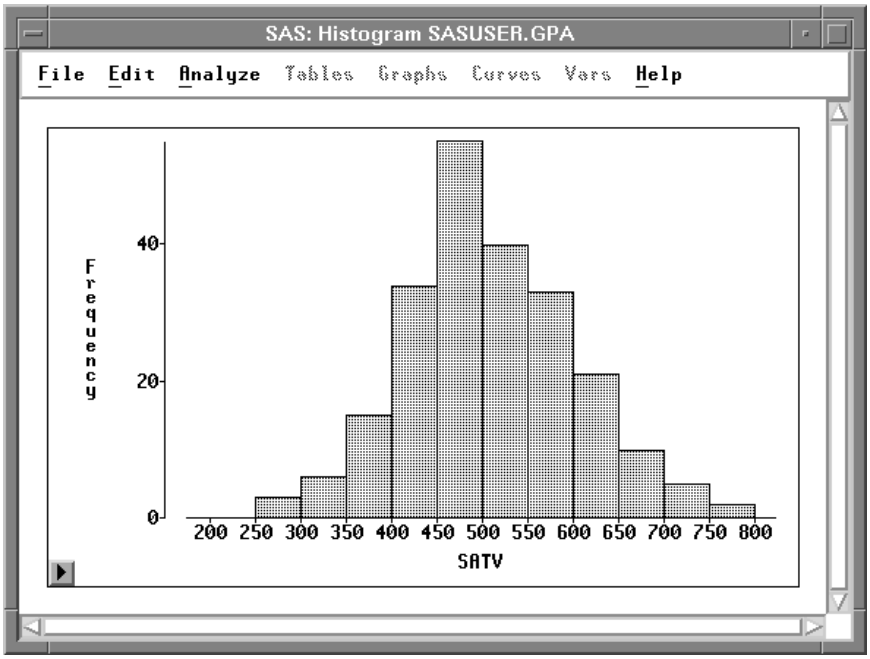

Figure 7.6. Histogram with New Ticks

You can use the **Ticks** dialog similarly to scale axes in all other two-dimensional and three-dimensional graphs.

Adjusting 2D Axes

You can adjust horizontal and vertical axes in all two-dimensional graphs. For example, Figure 7.7 shows tick labels truncated because the axis does not have space to show them completely. To increase the axis space, point to the axis with the mouse. Note that the cursor changes to a hand when it is positioned over the axis.

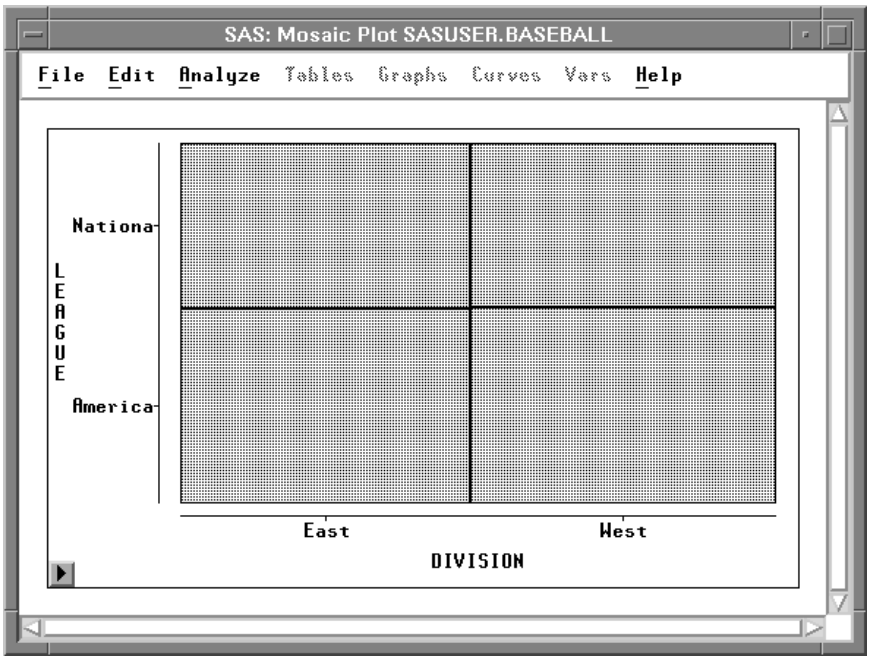

Figure 7.7. Adjusting an Axis

Press the mouse button and drag the axis to a new position. When you release the mouse button, the axis moves to its new position.

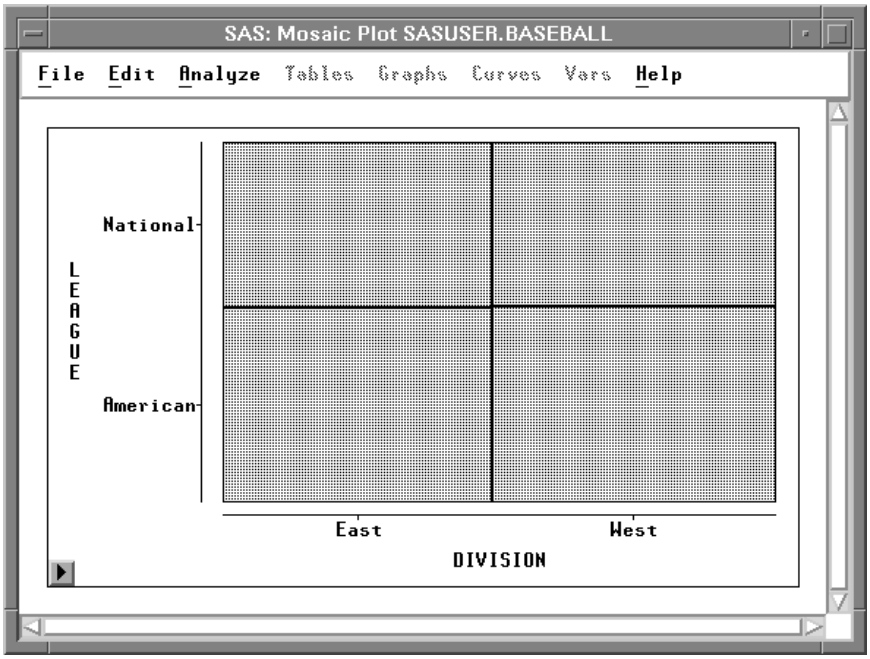

Figure 7.8. Axis at New Position

Adjusting 3D Axes

The rotating plot pop-up menu provides control over the position of the axes. Display the pop-up menu and choose from the **Axes** submenu.

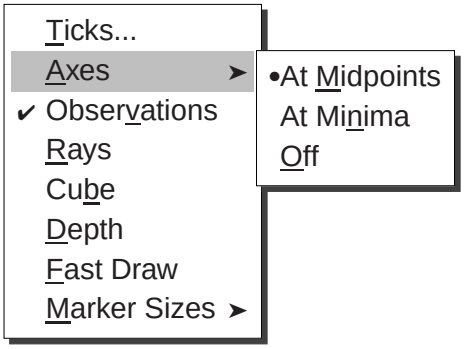

Figure 7.9. Rotating Plot Pop-up Menu

If you are doing exploratory work and are primarily interested in the shape of the point cloud, choose **Axes:At Midpoints** to display the axes centered in the plot. This display minimizes interference of the axes with your view of the data, in part because tick marks and tick labels are not displayed.

Choose **Axes:At Minima** to display axes at the minimum data values if you have spatial data and are interested in observation positions. These axes span the range of the data. All tick marks and tick labels are also displayed.

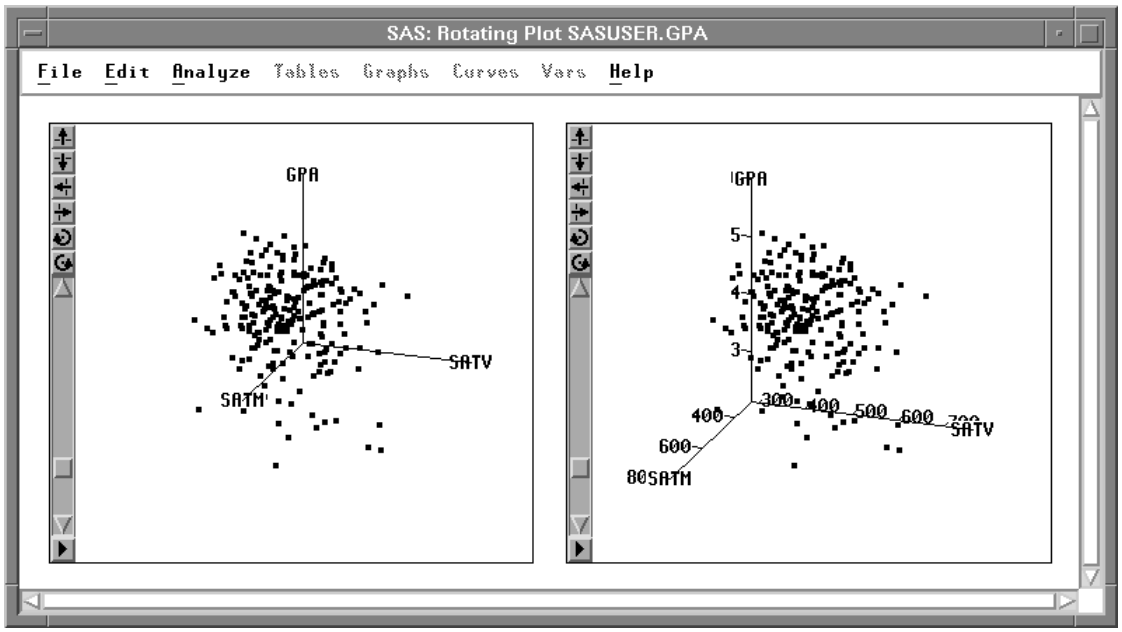

Figure 7.10. Axes at Midpoints and at Minima

Axes:At Midpoints is the default setting. To change the default, click the **Output** button in the Rotating Plot Variables dialog and set the **Axes:At Minima** option. Choose **File:Save:Options** to save your options.

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