Chapter 3
# Examining Data

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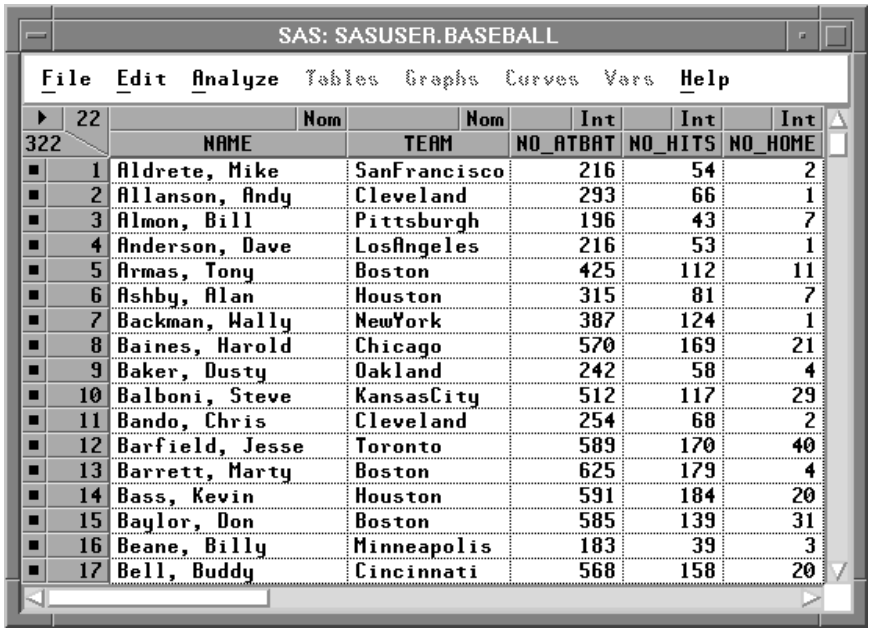
# Chapter 3
# Examining Data

SAS/INSIGHT software displays your data as a table of rows and columns in which the rows represent observations and the columns represent variables. You can use SAS/INSIGHT software to view your data, arrange variables, sort observations, and find and examine observations of interest.




| 322 | NAME | TEAM | NO_ATBAT | NO_HITS | NO_HOME |
|---|---|---|---|---|---|
| 1 | Aldrete, Mike | SanFrancisco | 216 | 54 | 2 |
| 2 | Allanson, Andy | Cleveland | 293 | 66 | 1 |
| 3 | Almon, Bill | Pittsburgh | 196 | 43 | 7 |
| 4 | Anderson, Dave | LosAngeles | 216 | 53 | 1 |
| 5 | Armas, Tony | Boston | 425 | 112 | 11 |
| 6 | Ashby, Alan | Houston | 315 | 81 | 7 |
| 7 | Backman, Wally | NewYork | 387 | 124 | 1 |
| 8 | Baines, Harold | Chicago | 570 | 169 | 21 |
| 9 | Baker, Dusty | Oakland | 242 | 58 | 4 |
| 10 | Balboni, Steve | KansasCity | 512 | 117 | 29 |
| 11 | Bando, Chris | Cleveland | 254 | 68 | 2 |
| 12 | Barfield, Jesse | Toronto | 589 | 170 | 40 |
| 13 | Barrett, Marty | Boston | 625 | 179 | 4 |
| 14 | Bass, Kevin | Houston | 591 | 184 | 20 |
| 15 | Baylor, Don | Boston | 585 | 139 | 31 |
| 16 | Beane, Billy | Minneapolis | 183 | 39 | 3 |
| 17 | Bell, Buddy | Cincinnati | 568 | 158 | 20 |

**Figure 3.1.** Data Window

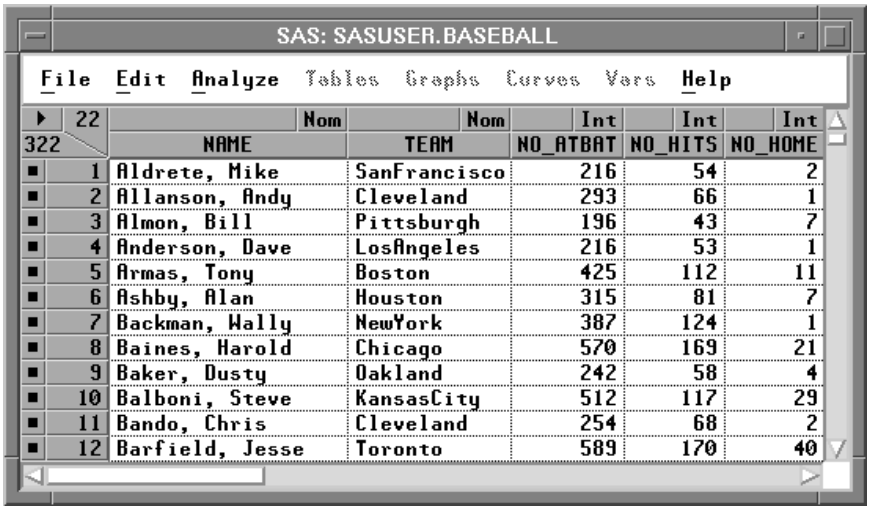
# Invoking SAS/INSIGHT Software

Using one of the methods mentioned in Chapter 2, "Entering Data," invoke SAS/INSIGHT software to display the data set dialog. ⟹ **In the dialog, point and click to choose a library and data set.**

A *library* is a location where data sets are stored. Point to the list on the left and click on any library to see a list of data sets stored there. Point to the list on the right and click on any data set to select it for opening. Then click on **Open** to open a window on the data.

**Figure 3.2.** Data Set Dialog

As a shortcut, you can click twice rapidly on the data set (a *double-click*) instead of clicking once on the data set and once on the **Open** button.




| 322 | NAME | TEAM | NO_ATBAT | NO_HITS | NO_HOME |
|---|---|---|---|---|---|
| | Nom | Nom | Int | Int | Int |
| 1 | Aldrete, Mike | SanFrancisco | 216 | 54 | 2 |
| 2 | Allanson, Andy | Cleveland | 293 | 66 | 1 |
| 3 | Almon, Bill | Pittsburgh | 196 | 43 | 7 |
| 4 | Anderson, Dave | LosAngeles | 216 | 53 | 1 |
| 5 | Armas, Tony | Boston | 425 | 112 | 11 |
| 6 | Ashby, Alan | Houston | 315 | 81 | 7 |
| 7 | Backman, Wally | NewYork | 387 | 124 | 1 |
| 8 | Baines, Harold | Chicago | 570 | 169 | 21 |
| 9 | Baker, Dusty | Oakland | 242 | 58 | 4 |
| 10 | Balboni, Steve | KansasCity | 512 | 117 | 29 |
| 11 | Bando, Chris | Cleveland | 254 | 68 | 2 |
| 12 | Barfield, Jesse | Toronto | 589 | 170 | 40 |

**Figure 3.3.** Data Window

Each variable in SAS/INSIGHT software has a *measurement level* that determines the way it is treated in graphs and analyses. The measurement level for each variable

appears above the variable name. You can assign two measurement levels: *interval* and *nominal*.

| | |
|---|---|
| Interval | variables contain values that vary across a continuous range. For example, **NO_ATBAT** is an interval variable in Figure 3.3. |
| Nominal | variables contain a discrete set of values. For example, **NAME** is a nominal variable in Figure 3.3. |

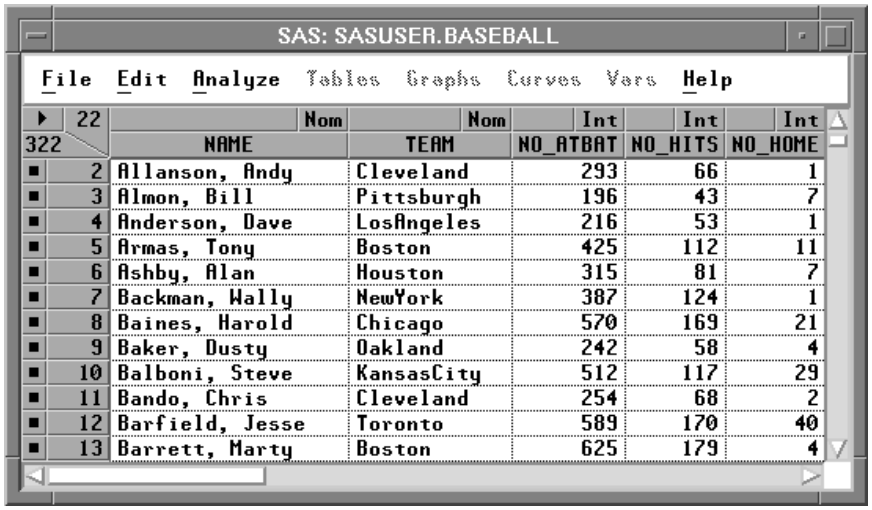
Each observation in SAS/INSIGHT software has a *marker*, a graphic shape that identifies the observation in graphs. The marker for each observation appears to the left of the observation number.

The number of observations and the number of variables in the data set appear in the upper left corner of the data window. The data window in Figure 3.3 shows that **SASUSER.BASEBALL** has 322 observations and 22 variables.

# Scrolling the Data Window

Most data sets are too large to fit in a data window, so the window contains *scroll bars* to scroll the data through the window. The appearance of scroll bars varies depending on your host. Most scroll bars have small *arrow buttons* at the ends and a *slider* between the buttons to indicate the current position and relative size of the displayed area.

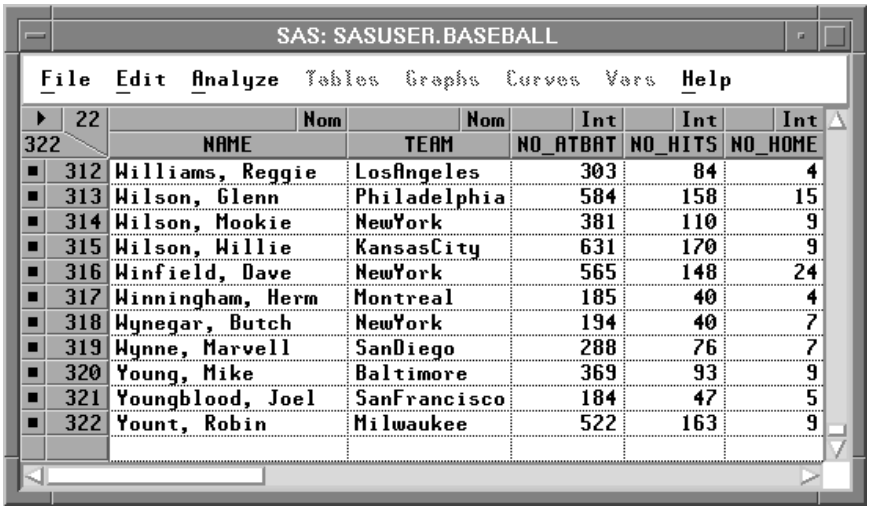
⟹ **Click the arrow button at the bottom of the vertical scroll bar.**
This scrolls down one observation.




| 322 | NAME | TEAM | NO_ATBAT | NO_HITS | NO_HOME |
|---|---|---|---|---|---|
| 2 | Allanson, Andy | Cleveland | 293 | 66 | 1 |
| 3 | Almon, Bill | Pittsburgh | 196 | 43 | 7 |
| 4 | Anderson, Dave | LosAngeles | 216 | 53 | 1 |
| 5 | Armas, Tony | Boston | 425 | 112 | 11 |
| 6 | Ashby, Alan | Houston | 315 | 81 | 7 |
| 7 | Backman, Wally | NewYork | 387 | 124 | 1 |
| 8 | Baines, Harold | Chicago | 570 | 169 | 21 |
| 9 | Baker, Dusty | Oakland | 242 | 58 | 4 |
| 10 | Balboni, Steve | KansasCity | 512 | 117 | 29 |
| 11 | Bando, Chris | Cleveland | 254 | 68 | 2 |
| 12 | Barfield, Jesse | Toronto | 589 | 170 | 40 |
| 13 | Barrett, Marty | Boston | 625 | 179 | 4 |

**Figure 3.4.** Scrolling Down One Observation

⟹ **Drag the slider on the vertical scroll bar all the way down.**
This scrolls to the last observation.




| 322 | NAME | TEAM | NO_ATBAT | NO_HITS | NO_HOME |
|---|---|---|---|---|---|
| 312 | Williams, Reggie | LosAngeles | 303 | 84 | 4 |
| 313 | Wilson, Glenn | Philadelphia | 584 | 158 | 15 |
| 314 | Wilson, Mookie | NewYork | 381 | 110 | 9 |
| 315 | Wilson, Willie | KansasCity | 631 | 170 | 9 |
| 316 | Winfield, Dave | NewYork | 565 | 148 | 24 |
| 317 | Winningham, Herm | Montreal | 185 | 40 | 4 |
| 318 | Wynegar, Butch | NewYork | 194 | 40 | 7 |
| 319 | Wynne, Marvell | SanDiego | 288 | 76 | 7 |
| 320 | Young, Mike | Baltimore | 369 | 93 | 9 |
| 321 | Youngblood, Joel | SanFrancisco | 184 | 47 | 5 |
| 322 | Yount, Robin | Milwaukee | 522 | 163 | 9 |

**Figure 3.5.** Scrolling to the Last Observation

Similarly, clicking the arrow button at the top of the vertical scroll bar scrolls up one observation, and dragging the slider all the way to the top scrolls to the first observation. The horizontal scroll bar works the same way, except that it moves the data by variable instead of by observation.

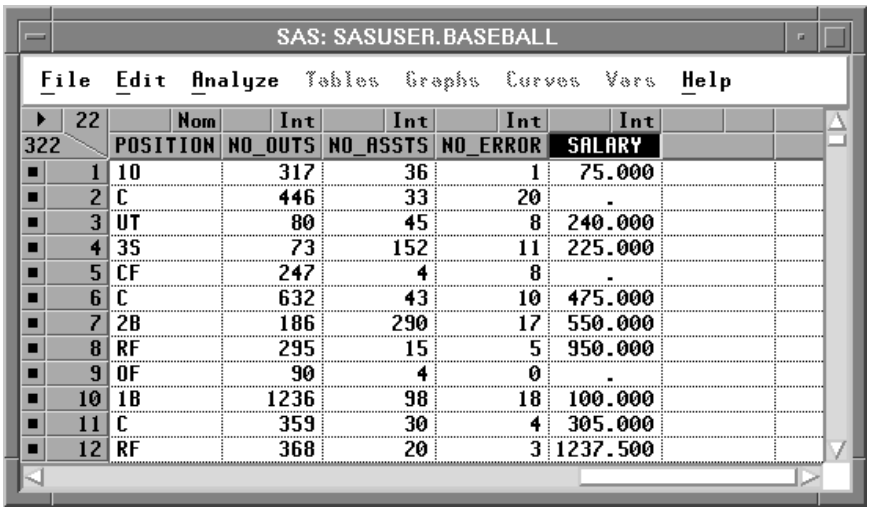
† **Note:** On many hosts you can click *within* the scroll bar to scroll the width or height of the window. Some hosts offer additional buttons on the scroll bars, and some hosts respond to more than one button on the mouse. Refer to your host documentation for details and experiment by clicking on the scroll bars in the data window.

# Arranging Variables

Using scroll bars, you can view all of your data, but the variables and observations may not always be arranged as you would like. For example, suppose you are interested in the salaries of the players in the data set **SASUSER.BASEBALL**. To move the **SALARY** variable to the first position in the data window, follow these steps.

⟹ **Scroll the data window to the SALARY variable.**
**SALARY** is the last variable, so drag the slider on the horizontal scroll bar all the way to the right.

⟹ **Point to the SALARY variable name.**
Then click with the mouse to select the variable **SALARY**. The variable becomes highlighted when you select it.




| 322 | POSITION | NO_OUTS | NO_ASSTS | NO_ERROR | SALARY |
|---|---|---|---|---|---|
| 1 | 10 | 317 | 36 | 1 | 75.000 |
| 2 | C | 446 | 33 | 20 | . |
| 3 | UT | 80 | 45 | 8 | 240.000 |
| 4 | 3S | 73 | 152 | 11 | 225.000 |
| 5 | CF | 247 | 4 | 8 | . |
| 6 | C | 632 | 43 | 10 | 475.000 |
| 7 | 2B | 186 | 290 | 17 | 550.000 |
| 8 | RF | 295 | 15 | 5 | 950.000 |
| 9 | OF | 90 | 4 | 0 | . |
| 10 | 1B | 1236 | 98 | 18 | 100.000 |
| 11 | C | 359 | 30 | 4 | 305.000 |
| 12 | RF | 368 | 20 | 3 | 1237.500 |

**Figure 3.6.** Selecting the Last Variable

⟹ **Click on the menu button in the upper left corner.**
This opens the data pop-up menu. Click on **Move to First**.

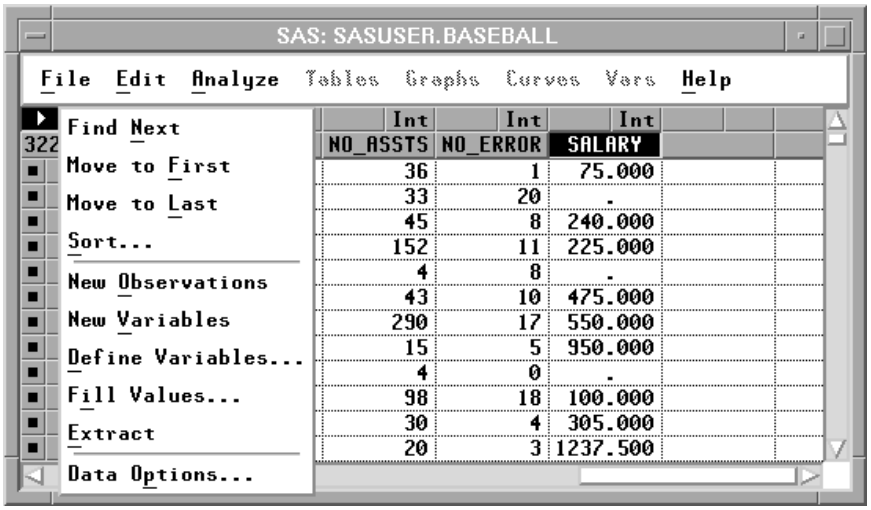
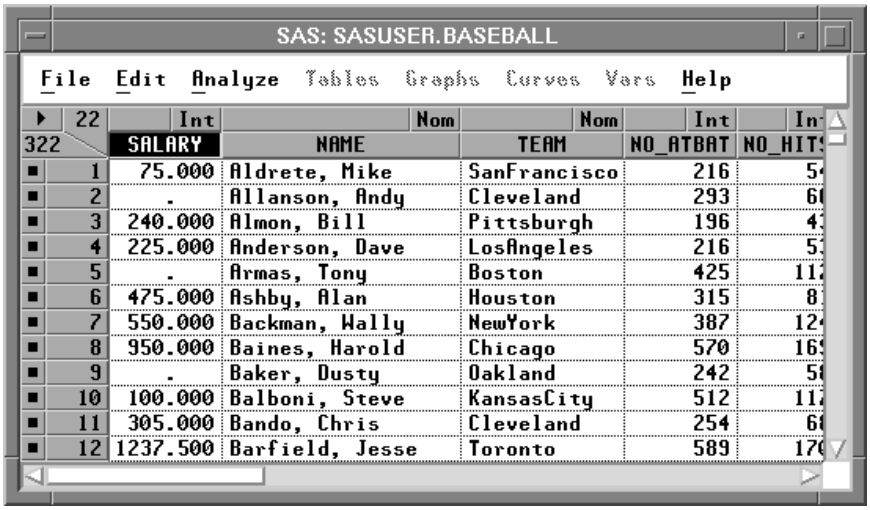



**Figure 3.7.** Data Pop-up Menu

This moves the selected variable to the first position. Note that the **Data** menu also has a **Move to Last** choice, so you can easily move variables to the last position.




| | 322 | SALARY | NAME | TEAM | NO_ATBAT | NO_HIT |
|---|---|---|---|---|---|---|
| ■ | 1 | 75.000 | Aldrete, Mike | SanFrancisco | 216 | 5 |
| ■ | 2 | . | Allanson, Andy | Cleveland | 293 | 6 |
| ■ | 3 | 240.000 | Almon, Bill | Pittsburgh | 196 | 4 |
| ■ | 4 | 225.000 | Anderson, Dave | LosAngeles | 216 | 5 |
| ■ | 5 | . | Armas, Tony | Boston | 425 | 11 |
| ■ | 6 | 475.000 | Ashby, Alan | Houston | 315 | 8 |
| ■ | 7 | 550.000 | Backman, Wally | NewYork | 387 | 12 |
| ■ | 8 | 950.000 | Baines, Harold | Chicago | 570 | 16 |
| ■ | 9 | . | Baker, Dusty | Oakland | 242 | 5 |
| ■ | 10 | 100.000 | Balboni, Steve | KansasCity | 512 | 11 |
| ■ | 11 | 305.000 | Bando, Chris | Cleveland | 254 | 6 |
| ■ | 12 | 1237.500 | Barfield, Jesse | Toronto | 589 | 17 |

**Figure 3.8.** Variable in First Position

You can also move individual variables to different locations by using the *hand tool*.

⟹ **Choose Edit:Windows:Tools.**

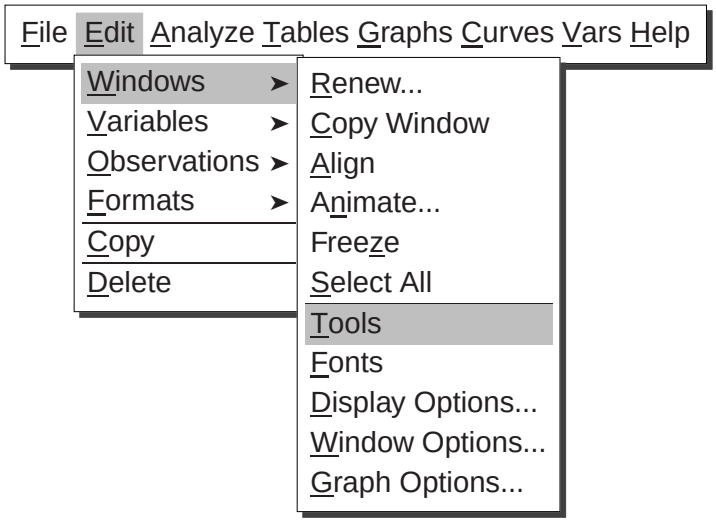



**Figure 3.9.** Edit:Windows Menu

The tools window is shown in the next figure.

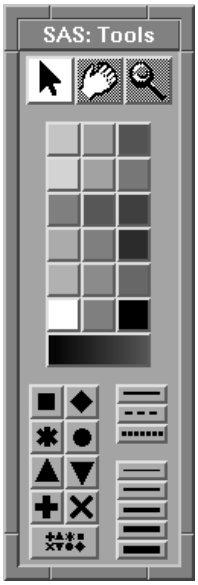


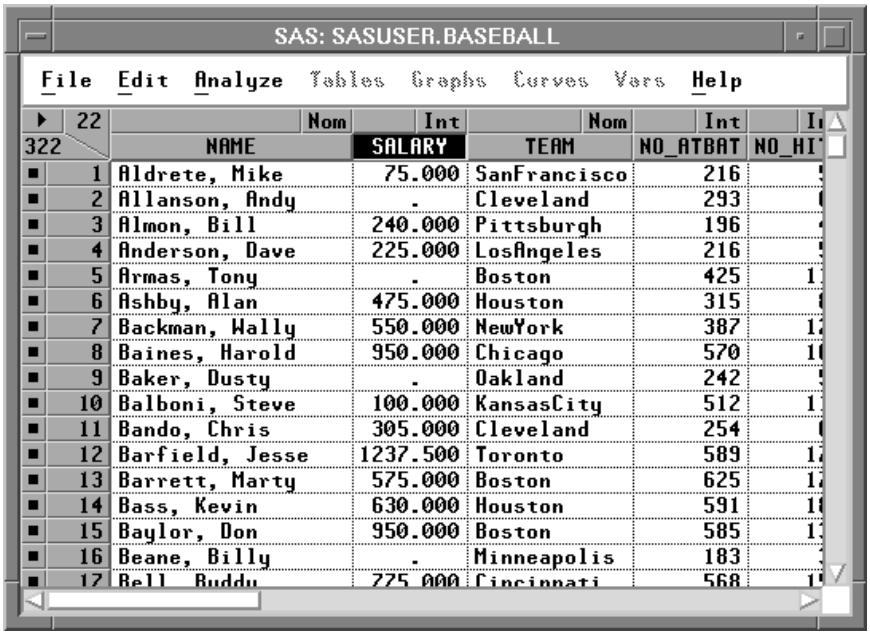

**Figure 3.10.** Tools Window

⟹ **Click the Hand tool at the top of the Tools window.**
The cursor changes to a hand. Move the hand to the variable named **Salary**.

⟹ **Press the left mouse button and hold it down.**
A dotted rectangle should appear as the outline of the variable column.

⟹ **Drag the rectangle so that its middle is on the border between Name and Team.**

⟹ **Release the left mouse button.**
The **Salary** variable has become the second variable in the data window.




| 322 | NAME | SALARY | TEAM | NO_ATBAT | NO_HI |
|---|---|---|---|---|---|
| 1 | Aldrete, Mike | 75.000 | SanFrancisco | 216 | |
| 2 | Allanson, Andy | . | Cleveland | 293 | |
| 3 | Almon, Bill | 240.000 | Pittsburgh | 196 | |
| 4 | Anderson, Dave | 225.000 | LosAngeles | 216 | |
| 5 | Armas, Tony | . | Boston | 425 | 1 |
| 6 | Ashby, Alan | 475.000 | Houston | 315 | |
| 7 | Backman, Wally | 550.000 | NewYork | 387 | 1 |
| 8 | Baines, Harold | 950.000 | Chicago | 570 | 1 |
| 9 | Baker, Dusty | . | Oakland | 242 | |
| 10 | Balboni, Steve | 100.000 | KansasCity | 512 | 1 |
| 11 | Bando, Chris | 305.000 | Cleveland | 254 | |
| 12 | Barfield, Jesse | 1237.500 | Toronto | 589 | 1 |
| 13 | Barrett, Marty | 575.000 | Boston | 625 | 1 |
| 14 | Bass, Kevin | 630.000 | Houston | 591 | 1 |
| 15 | Baylor, Don | 950.000 | Boston | 585 | 1 |
| 16 | Beane, Billy | . | Minneapolis | 183 | |
| 17 | Bell, Buddy | 775.000 | Cincinnati | 568 | 1 |

**Figure 3.11.** Variable in Second Position

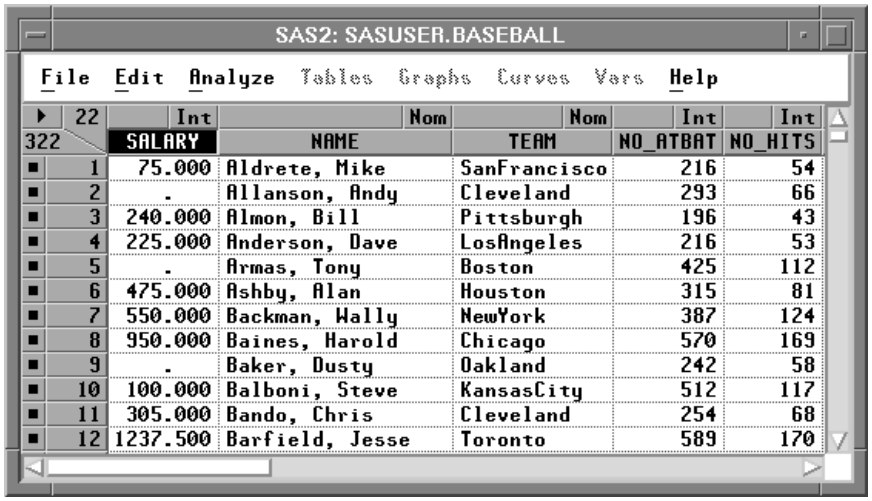
⟹ **Use the Hand tool to move Salary back to the first position.**

⟹ **Click the arrow tool in the Tools window to restore the cursor.**

# Sorting Observations

It is often useful to examine data ordered by the values of a variable. Suppose you want to sort the baseball data by players' salaries stored in the **SALARY** variable. Follow these steps.

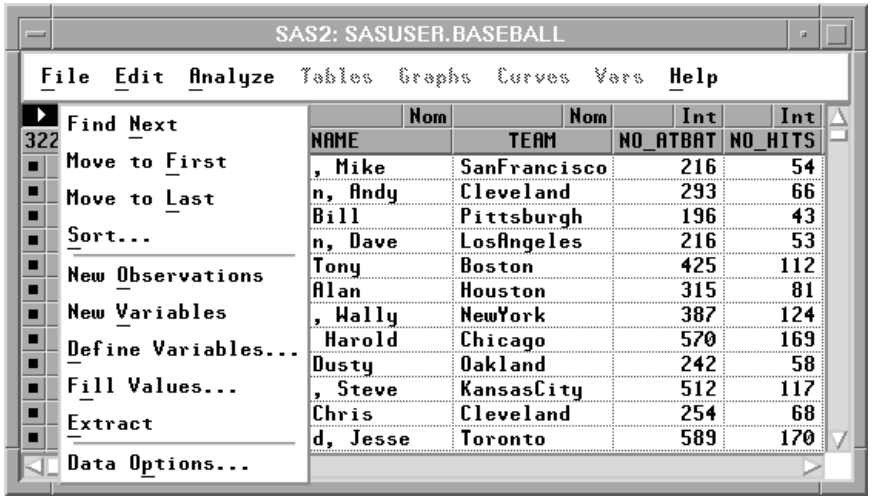
⟹ **Point and click to select the SALARY variable.**




| 322 | SALARY | NAME | TEAM | NO_ATBAT | NO_HITS |
|---|---|---|---|---|---|
| 1 | 75.000 | Aldrete, Mike | SanFrancisco | 216 | 54 |
| 2 | . | Allanson, Andy | Cleveland | 293 | 66 |
| 3 | 240.000 | Almon, Bill | Pittsburgh | 196 | 43 |
| 4 | 225.000 | Anderson, Dave | LosAngeles | 216 | 53 |
| 5 | . | Armas, Tony | Boston | 425 | 112 |
| 6 | 475.000 | Ashby, Alan | Houston | 315 | 81 |
| 7 | 550.000 | Backman, Wally | NewYork | 387 | 124 |
| 8 | 950.000 | Baines, Harold | Chicago | 570 | 169 |
| 9 | . | Baker, Dusty | Oakland | 242 | 58 |
| 10 | 100.000 | Balboni, Steve | KansasCity | 512 | 117 |
| 11 | 305.000 | Bando, Chris | Cleveland | 254 | 68 |
| 12 | 1237.500 | Barfield, Jesse | Toronto | 589 | 170 |

**Figure 3.12.** Selecting a Variable

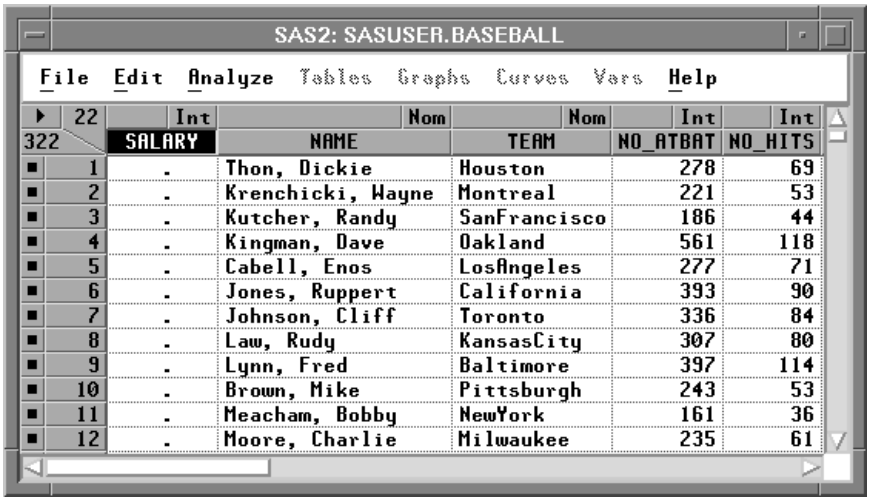
⟹ **Click on the menu button in the upper left corner.**
This opens the data pop-up menu. Click on **Sort**.




| 322 | NAME | TEAM | NO_ATBAT | NO_HITS |
|---|---|---|---|---|
| | , Mike | SanFrancisco | 216 | 54 |
| | n, Andy | Cleveland | 293 | 66 |
| | Bill | Pittsburgh | 196 | 43 |
| | n, Dave | LosAngeles | 216 | 53 |
| | Tony | Boston | 425 | 112 |
| | Alan | Houston | 315 | 81 |
| | , Wally | NewYork | 387 | 124 |
| | Harold | Chicago | 570 | 169 |
| | Dusty | Oakland | 242 | 58 |
| | , Steve | KansasCity | 512 | 117 |
| | Chris | Cleveland | 254 | 68 |
| | d, Jesse | Toronto | 589 | 170 |

**Figure 3.13.** Sorting Observations

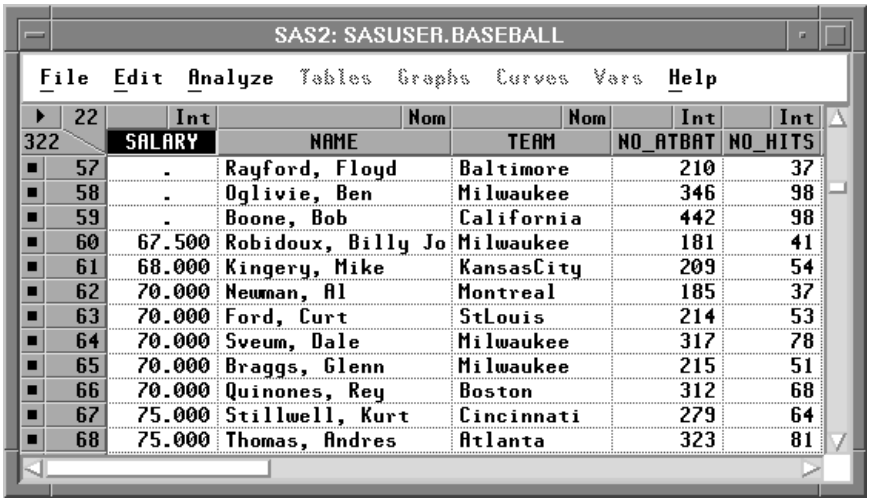
The data are now sorted by **SALARY** in ascending order.




| 322 | SALARY | NAME | TEAM | NO_ATBAT | NO_HITS |
|---|---|---|---|---|---|
| 1 | . | Thon, Dickie | Houston | 278 | 69 |
| 2 | . | Krenchicki, Wayne | Montreal | 221 | 53 |
| 3 | . | Kutcher, Randy | SanFrancisco | 186 | 44 |
| 4 | . | Kingman, Dave | Oakland | 561 | 118 |
| 5 | . | Cabell, Enos | LosAngeles | 277 | 71 |
| 6 | . | Jones, Ruppert | California | 393 | 90 |
| 7 | . | Johnson, Cliff | Toronto | 336 | 84 |
| 8 | . | Law, Rudy | KansasCity | 307 | 80 |
| 9 | . | Lynn, Fred | Baltimore | 397 | 114 |
| 10 | . | Brown, Mike | Pittsburgh | 243 | 53 |
| 11 | . | Meacham, Bobby | NewYork | 161 | 36 |
| 12 | . | Moore, Charlie | Milwaukee | 235 | 61 |

**Figure 3.14.** Sorted Data

The periods (.) displayed in the observations for **SALARY** are *missing values*. Missing values are placeholders that indicate no data are available. Missing values are treated as less than any other value, so when the data are sorted, missing values appear first. If you scroll the data, you can see that the missing values are followed by the smallest salaries.




| 322 | SALARY | NAME | TEAM | NO_ATBAT | NO_HITS |
|---|---|---|---|---|---|
| 57 | . | Rayford, Floyd | Baltimore | 210 | 37 |
| 58 | . | Oglivie, Ben | Milwaukee | 346 | 98 |
| 59 | . | Boone, Bob | California | 442 | 98 |
| 60 | 67.500 | Robidoux, Billy Jo | Milwaukee | 181 | 41 |
| 61 | 68.000 | Kingery, Mike | KansasCity | 209 | 54 |
| 62 | 70.000 | Newman, Al | Montreal | 185 | 37 |
| 63 | 70.000 | Ford, Curt | StLouis | 214 | 53 |
| 64 | 70.000 | Sveum, Dale | Milwaukee | 317 | 78 |
| 65 | 70.000 | Braggs, Glenn | Milwaukee | 215 | 51 |
| 66 | 70.000 | Quinones, Rey | Boston | 312 | 68 |
| 67 | 75.000 | Stillwell, Kurt | Cincinnati | 279 | 64 |
| 68 | 75.000 | Thomas, Andres | Atlanta | 323 | 81 |

**Figure 3.15.** Sorted Data, Missing and Nonmissing

# Finding Observations

Sometimes you want to find observations that share some characteristic. For example, you might want to find all the baseball players who primarily played first base. To do so, follow these steps. The figures in this section are based on the **NAME** variable appearing as the first variable. If you just completed the previous two sections on moving variables and sorting observations, move the **SALARY** variable to the last position and sort the observations on **NAME**. Make sure no variables are selected.

⟹ **Choose Edit:Observations:Find.**

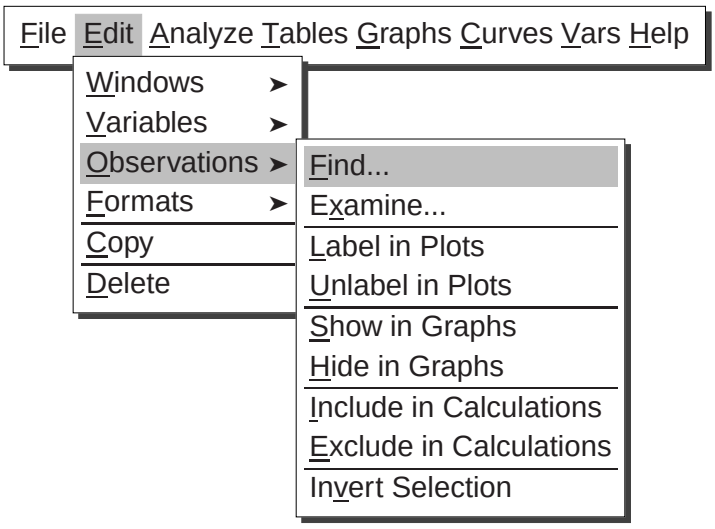



**Figure 3.16.** Finding Observations

This displays the **Find Observations** dialog.

**Figure 3.17. Find Observations** Dialog

⟹ **Select the POSITION variable.**
Scroll the list of variables at the left to see the **POSITION** variable. Then point and click to select **POSITION**. Notice that the list of values at the right now contains all

the unique values of the **POSITION** variable. By default, the equal (=) test and the first value are selected.

**Figure 3.18.** Selecting **POSITION**

⟹ **Select the values 13, 1B, and 1O.**
On most hosts, you can either **Shift**-click or **CTRL**-click to select these values. The players selected primarily played first base. Note that players with **POSITION** = **O1** also played some first base, but they played primarily in the outfield.

⟹ **Click the Apply button to find the data.**
This selects observations without closing the **Find Observations** dialog. Clicking the **OK** button closes the **Find Observations** dialog after selecting the observations.

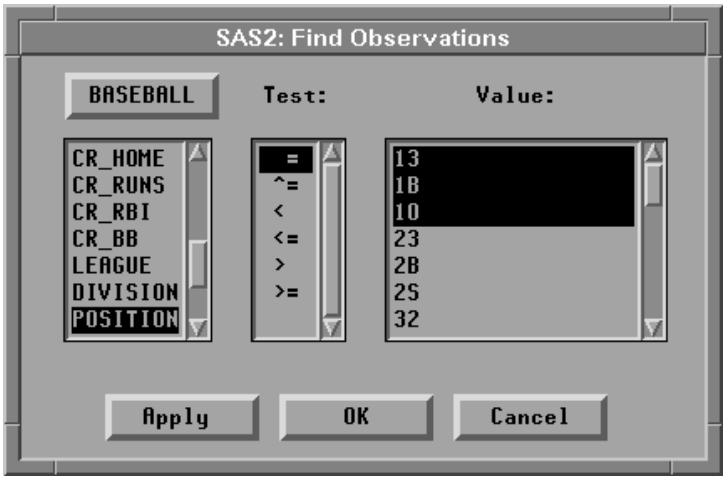
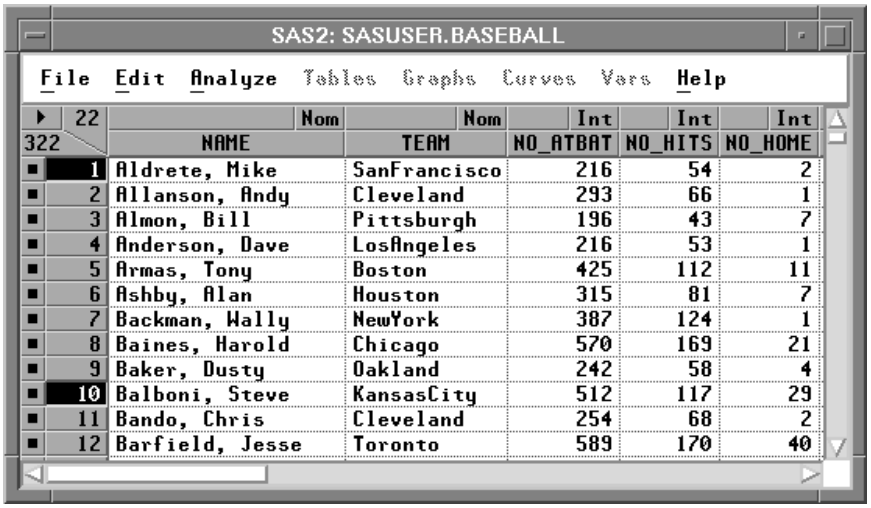



**Figure 3.19.** Selecting First Basemen

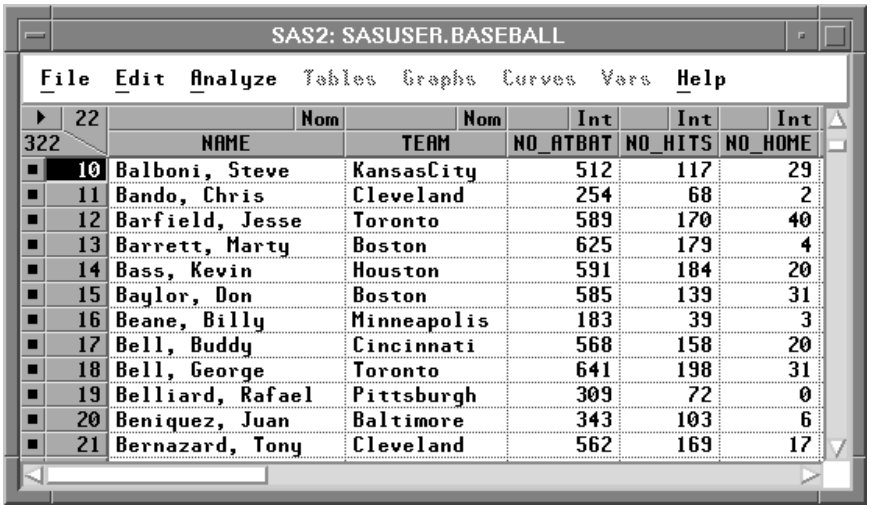
Now all observations where **POSITION** is **13**, **1B**, or **1O** are highlighted.




| 322 | NAME | TEAM | NO_ATBAT | NO_HITS | NO_HOME |
|---|---|---|---|---|---|
| 1 | Aldrete, Mike | SanFrancisco | 216 | 54 | 2 |
| 2 | Allanson, Andy | Cleveland | 293 | 66 | 1 |
| 3 | Almon, Bill | Pittsburgh | 196 | 43 | 7 |
| 4 | Anderson, Dave | LosAngeles | 216 | 53 | 1 |
| 5 | Armas, Tony | Boston | 425 | 112 | 11 |
| 6 | Ashby, Alan | Houston | 315 | 81 | 7 |
| 7 | Backman, Wally | NewYork | 387 | 124 | 1 |
| 8 | Baines, Harold | Chicago | 570 | 169 | 21 |
| 9 | Baker, Dusty | Oakland | 242 | 58 | 4 |
| 10 | Balboni, Steve | KansasCity | 512 | 117 | 29 |
| 11 | Bando, Chris | Cleveland | 254 | 68 | 2 |
| 12 | Barfield, Jesse | Toronto | 589 | 170 | 40 |

**Figure 3.20.** First Basemen Found

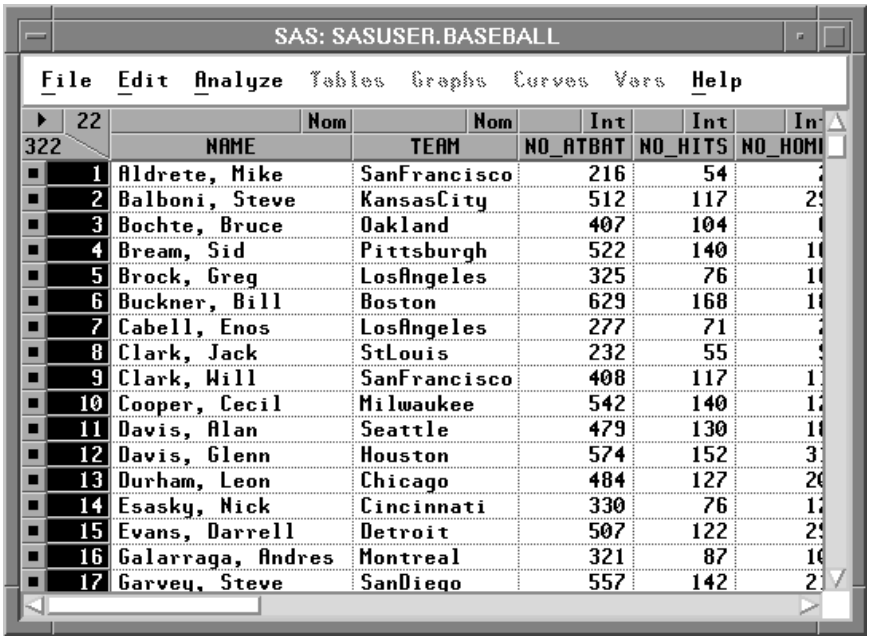
⟹ **Choose Find Next from the data pop-up menu.**
The data window scrolls so the next observation with **POSITION** = **13**, **1B**, or **1O** is at the top.




| 322 | NAME | TEAM | NO_ATBAT | NO_HITS | NO_HOME |
|---|---|---|---|---|---|
| 10 | Balboni, Steve | KansasCity | 512 | 117 | 29 |
| 11 | Bando, Chris | Cleveland | 254 | 68 | 2 |
| 12 | Barfield, Jesse | Toronto | 589 | 170 | 40 |
| 13 | Barrett, Marty | Boston | 625 | 179 | 4 |
| 14 | Bass, Kevin | Houston | 591 | 184 | 20 |
| 15 | Baylor, Don | Boston | 585 | 139 | 31 |
| 16 | Beane, Billy | Minneapolis | 183 | 39 | 3 |
| 17 | Bell, Buddy | Cincinnati | 568 | 158 | 20 |
| 18 | Bell, George | Toronto | 641 | 198 | 31 |
| 19 | Belliard, Rafael | Pittsburgh | 309 | 72 | 0 |
| 20 | Beniquez, Juan | Baltimore | 343 | 103 | 6 |
| 21 | Bernazard, Tony | Cleveland | 562 | 169 | 17 |

**Figure 3.21.** Finding the Next Observation

⟹ **Choose Move to First from the data pop-up menu.**
This enables you to see all the selected observations in one place, in this case at the top of the data window.




| 322 | NAME | TEAM | NO_ATBAT | NO_HITS | NO_HOMI |
|---|---|---|---|---|---|
| 1 | Aldrete, Mike | SanFrancisco | 216 | 54 | |
| 2 | Balboni, Steve | KansasCity | 512 | 117 | 2 |
| 3 | Bochte, Bruce | Oakland | 407 | 104 | |
| 4 | Bream, Sid | Pittsburgh | 522 | 140 | 1 |
| 5 | Brock, Greg | LosAngeles | 325 | 76 | 1 |
| 6 | Buckner, Bill | Boston | 629 | 168 | 1 |
| 7 | Cabell, Enos | LosAngeles | 277 | 71 | |
| 8 | Clark, Jack | StLouis | 232 | 55 | |
| 9 | Clark, Will | SanFrancisco | 408 | 117 | 1 |
| 10 | Cooper, Cecil | Milwaukee | 542 | 140 | 1 |
| 11 | Davis, Alan | Seattle | 479 | 130 | 1 |
| 12 | Davis, Glenn | Houston | 574 | 152 | 3 |
| 13 | Durham, Leon | Chicago | 484 | 127 | 2 |
| 14 | Esasky, Nick | Cincinnati | 330 | 76 | 1 |
| 15 | Evans, Darrell | Detroit | 507 | 122 | 2 |
| 16 | Galarraga, Andres | Montreal | 321 | 87 | 1 |
| 17 | Garvey, Steve | SanDiego | 557 | 142 | 2 |

**Figure 3.22.** Collecting the Selected Observations

# Examining Observations

You can examine selected observations in detail by following these steps. The figures in this section are based on the data being sorted on the **NAME** variable and the observations selected where **POSITION** is **13**, **1B**, or **1O**. The previous sections on sorting and finding observations provide examples of how to sort and select.

⟹ **Choose Edit:Observations:Examine.**

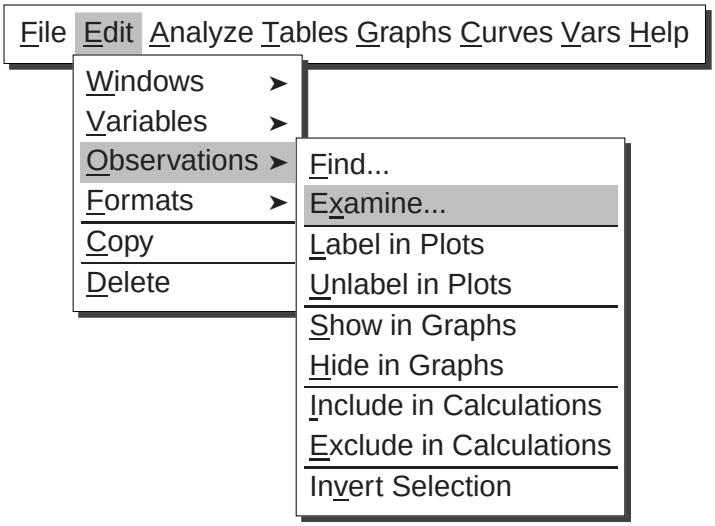



**Figure 3.23.** Finding Observations

This displays the **Examine Observations** dialog. The list on the left shows the observation number for the selected observations: first basemen. The list on the right displays the variable values for the highlighted observation.

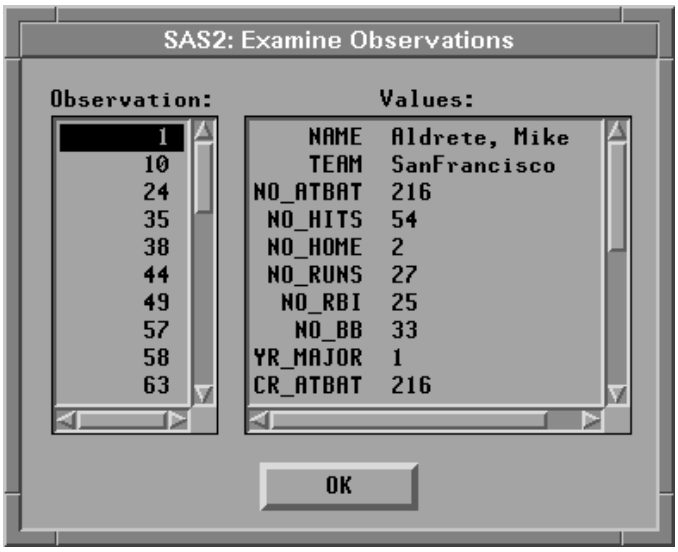



**Figure 3.24.** Examine Observations Dialog

Scroll down the list on the right to see the rest of Mike Aldrete's statistics. Point and click on observation number **58** to see Will Clark's statistics. Scroll down the list on the left until you can point and click on observation number **246** to see Pete Rose's statistics. Click **OK** to close the dialog.

You can also use the **Examine Observations** dialog directly from a graph or chart. To examine observations from a box plot of player salaries, follow these steps.

⟹ **Choose Analyze:Box Plot/Mosaic Plot ( Y ).**
This calls up the **Box Plot/Mosaic Plot** dialog.

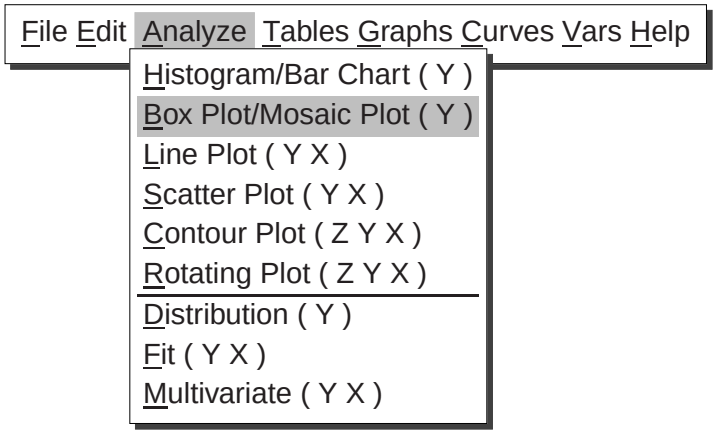



**Figure 3.25.** Creating a Box Plot

⟹ **Assign SALARY the Y role and LEAGUE the X role.**
Click on **SALARY** in the variable list on the left, then click on **Y** at the top. Similarly, click on **LEAGUE** in the list on the left, then click on **X** at the top.

⟹ **Click OK to create a box plot of SALARY by LEAGUE.**

**Figure 3.26.** Box Plot Variable Roles

⟹ **Double-click on the marker representing the highest salary in the National League.**

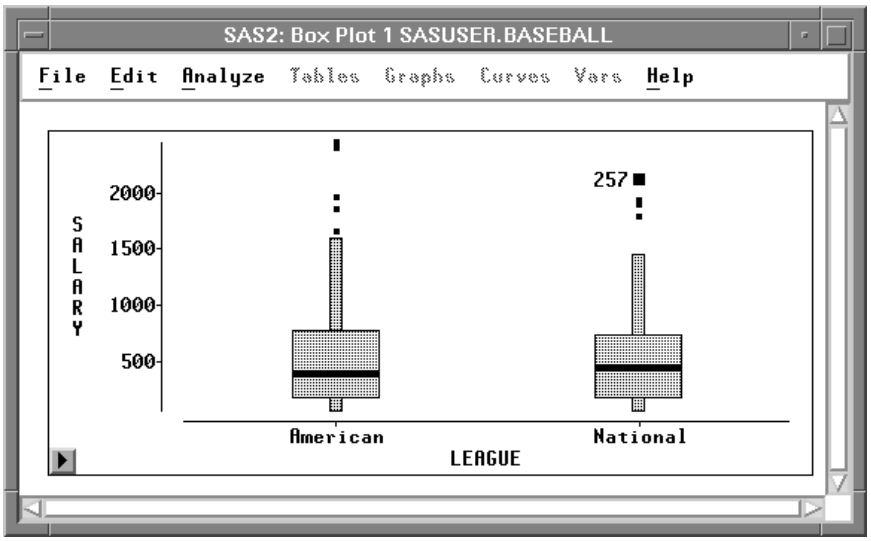



**Figure 3.27.** Box Plot of **SALARY** by **LEAGUE**

Clicking on the observation identifies the point in the graph with its observation number. Double-clicking displays the **Examine Observations** dialog for the selected observation. In 1986, Mike Schmidt had the highest salary in the National League.

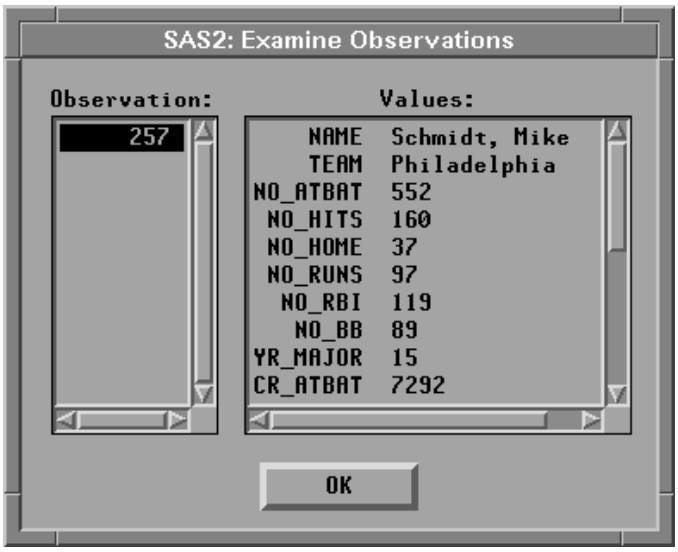



**Figure 3.28.** Examining Observations

⟹ **Double-click on the upper whisker for the American League.**
This displays the values for all observations within the whisker. Then click in the Observation list to see the values for each observation.

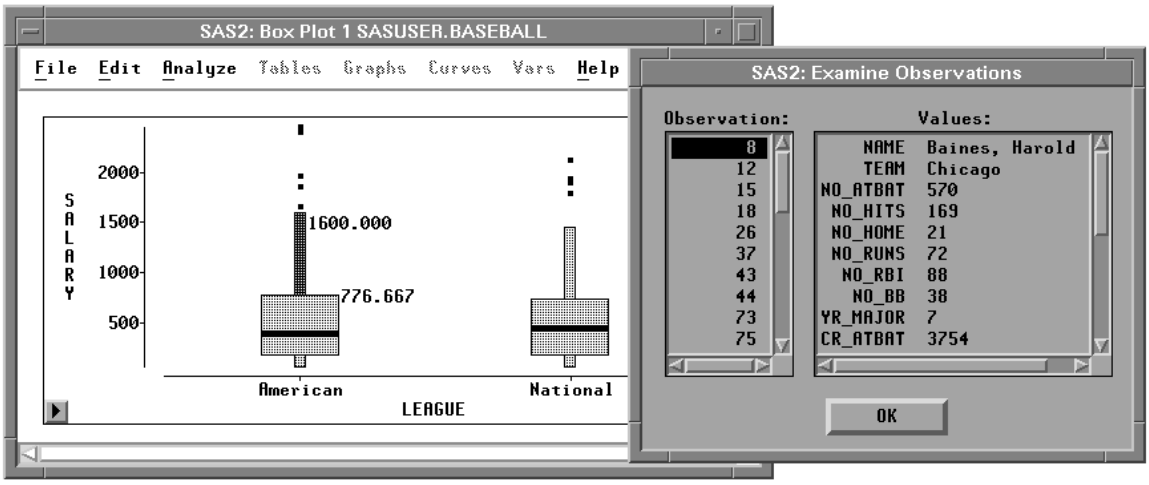



**Figure 3.29.** Examining Whisker Observations

⟹ **Click OK to close the dialog.**

# Closing the Data Window

There are several other features of the data window, and you can find them by exploring the data pop-up menu on your own. For detailed information, see Chapter 31, "Data Windows," in the Reference part of this manual. One more feature important enough to describe here concerns what happens when you close a data window.

† **Note:** When you close the data window, you close all windows using that data set. When you close all your data windows, you exit SAS/INSIGHT software.

You can open as many data windows as you like by choosing **File:Open**. You can close any window by choosing **File:End**. Depending on your host, there may be other ways to close windows as well.

You will be prompted with a dialog to confirm that you want to close the data window. In the Confirm dialog, you can click **OK** to close the data window, or you can click **Cancel** to abort the action and leave the data window open. Try it to be sure you know how to exit SAS/INSIGHT software when you are ready, but click **Cancel** in the Confirm dialog to abort the closing.

⟹ **Choose File:End.**

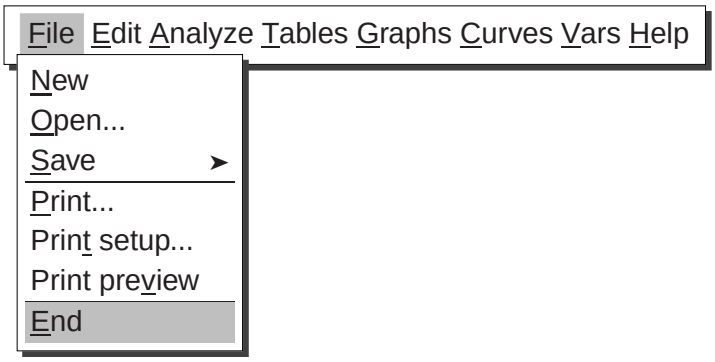



**Figure 3.30.** File Menu

Choosing **File:End** displays the Confirm dialog.

**Figure 3.31.** Confirm Dialog

⟹ **Click Cancel.**

This aborts the closing and returns you to the data window. If you had clicked **OK**, you would have closed the data window and exited SAS/INSIGHT software.

Now that you know how to examine data in a data window, turn to the next chapter to learn how to explore data in one dimension.

⊕ **Related Reading:** Data Windows, Chapter 31.

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