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Practice: Creating Sorted Bar Charts in JMP

In this practice, you create sorted bar charts for the **Scrapped Parts** data. Recall that these are data about scrapped parts collected on 811 batches over a three-month period. For each batch with one or more scrapped parts, the data table includes

- the number of pieces scrapped per batch,
- the product line,
- the product family, and
- the total value of the scrapped parts per batch.

Earlier, we examined the data by **Product Line**. In this practice, you analyze the data by **Product Family**.

1. Open the file **Scrapped Parts.jmp** from the course folder.

2. Use **Graph Builder** to create a bar chart for **Product Family**. **Hint**: In the side panel options under **Bar**, change the **Label** to **Label by Value**.

3. Which product family had the most batches with scrapped parts? How many batches had scrapped parts for this product family?

   Small, 450 batches from this product family had one or more scrapped parts.

4. Add **Pieces** as a **Freq** variable, and then sort the bars in descending order. Which product family had the most scrapped parts? How many parts were scrapped for this product family? **Hint**: To sort the bars in descending order, right-click the X axis and select **Order By**, and then **Pieces, descending**.

   Small, 4364 of the scrapped parts were from this product family.

5. For the previous analysis, in the side panel options under **Bar**, change **Summary Statistic** to **Sum**, and change the **Label** to **Label by Percent of Total Value**. What percent of the scrapped parts were from the product family in the previous question?

   65%

6. Remove **Pieces** from the **Freq** zone, and drag **Total Value** to the **Y** zone. Which product family had the highest percent of the total value of the scrapped parts? What percent of the total value of scrapped parts was from this product family?

   Large, 54% of the total value of scrapped parts was from this product family.

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