

# Trend (Run) Chart

**What:** Trend Charts are a first step to understand how much a process varies from time to time. The best trend charts are those that are used as working documents, with notes and information recorded on them, including changes to the process - both good and bad.

**When:** Trend charts should be used whenever you need to evaluate data over time, particularly during the **Measure** phase of the D-M-A-I-C cycle.

- How:**
- 1) Set up a chart:** We recommend using the MS Excel Spreadsheet. Decide on the appropriate time increment for your data (hourly, daily, weekly, monthly, etc.).
  - 2) Collect new data or organize existing data into a table. One easy way to do this is with an Excel spreadsheet. If a spread sheet is not available use graph paper. On the left side place the range (Min - bottom, Max – top) and interval (how often the data is collected) across the bottom.
  - 3) Use the chart-building function in Excel or another statistics software package to organize the data into a chart.
  - 4) Incorporate the following elements to build a useful chart:
    - A clear **Title** to describe the subject of the chart.
    - **Labels** on the vertical Y-axis and horizontal X-axis to describe the measurement and the time period.
    - A **Legend** to differentiate the plotted lines - in this case, the actual vs. the goal.
    - Appropriate **Scales** that are narrow enough to show variation.
    - **Limited Characteristics** on each chart to avoid confusion from too many lines.
    - An appropriate **Time Frame**.
    - Notations on any **major spikes**.
    - **Targets or Goals** should be noted on the chart for reference.
    - Note **Who Prepared** the chart in case there are questions about the chart or the data.

