

Demo: Adding Phases to Control Charts

In this video, we show how to add a phase variable to an X-bar and R chart using the Control Chart Builder.

We'll use the Metal Parts example to see whether there a difference in Thickness before and after implementing process changes. The target thickness is 40 hundredths of an inch.

First, we select Control Chart Builder from the Analyze menu under Quality and Process.

We drag the column Thickness into the Y drop zone. JMP creates an Individual and Moving Range chart.

Measurements were taken on five consecutive parts every hour. We drag and drop Hour over the range chart to create an X-bar and R chart for Thickness.

Finally, we drag the variable Before/After Change to the Phase zone. Note that, if you want to remove the phase variable, you can simply right-click the variable and select Remove.

The data are divided into the two phases, Before and After, with separate means and control limits.

These values are reported in the Limit Summaries table.

The grand mean for the new (after) process is very close to the target thickness.

Statistical Thinking for Industrial Problem Solving

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