Attribute Control Charts – P and NP Charts

This page provides information on creating P and NP attribute control charts. P charts are used to plot the proportion of nonconforming (defective) items, while NP charts are used to plot the number of nonconforming items.

P Charts

1. From an open JMP® data table, select Analyze > Quality and Process > Control Chart > P Control Chart
2. Select one or more continuous variables from Select Columns, and click Process.
3. Select the column defining the number of trials (i.e, sample size) for the n Trials role. Click OK.

In the example below, the proportion of defective washers per lot is plotted on a P chart. Note: If sample sizes are not constant, the control limits will vary.

NP Charts

1. From an open JMP data table, select Analyze > Quality and Process > Control Chart > NP Control Chart
2. Select one or more continuous variables from Select Columns, and click Process.
3. Select the column defining the number of trials (i.e, sample size) for the n Trials role. Click OK.

In the example below, the number of defective washers per lot is plotted on an NP Chart.

Tips:

- The process variable must be sorted in time order.
- Many options, such as tests for special causes and capability analysis, are available from the red triangles.

Notes: For information on capability analysis or producing other types of control charts, see the one-page guides under Quality, Reliability and DOE at jmp.com/learn. For additional details, see the book Quality and Process Methods (under Help > Books) or search for “attribute control chart” in the JMP Help.