Attribute Control Charts – C and U Charts

This page provides information on creating C and U attribute control charts. C charts are used to plot the number of nonconformities (or defects) in a sample, where the sample size is constant. U charts are used to plot the number of nonconformities per unit, where the sample size (or number of units) can vary.

C Charts

1. From an open JMP® data table, select Analyze > Quality and Process > Control Chart > C.
2. Select one or more continuous variables from Select Columns, and click Process.
3. Type a Constant Size (or select a constant Sample Size variable), select a Sample Label, and click OK.

In the example below, the number of Flaws per Bolt of fabric is plotted on a C chart.

U Charts (or DPU Charts)

1. From an open JMP data table, select Analyze > Quality and Process > Control Chart > U.
2. Select one or more continuous variables from Select Columns, and click Process.
3. Select a Unit Size variable (the sample size), select a Sample Label, and click OK.

In the example below, the number of defects (# defects) per unit inspected (Unit Size) is plotted on a U Chart. Hint: Since the Unit size is not constant, the control limits vary.

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.