

Defect (Non-conformity) c Chart

The previous section discusses the proportion of defects in samples (p Chart.) This section examines another defect process in which there is a count of defects in a sample lot. In this chart it is assumed that the occurrence of defects are independent, that is, the occurrence of a defect in one lot is unrelated to the occurrence in another lot. It is expected that the count of defects is quite small compared to the total number of parts potentially defective. For example, in the production of light bulbs, it is expected that in a sample of 1000 bulbs, only a few would be defective. The underlying assumed distribution model for the count chart is the Poisson distribution where the mean and variance of the counts are equal. Illustrated below is an example of processing a file labeled Defects.LAZ.

Figure 1 SPC Defects (Conformity) Chart Specifications Dialog

Sample	Number of Nonconformities
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1	12.00
2	15.00
3	8.00
4	10.00
5	4.00
6	7.00
7	16.00
8	9.00
9	14.00
10	10.00
11	5.00
12	6.00
13	17.00
14	12.00

15	22.00
16	8.00
17	10.00
18	5.00
19	13.00
20	11.00
21	20.00
22	18.00
23	24.00
24	15.00
25	9.00
26	12.00
27	7.00
28	13.00
29	9.00
30	6.00

Total Nonconformities = 347.00

No. of samples = 30

Poisson mean and variance = 11.567

Lower Control Limit = 1.364, Upper Control Limit = 21.770

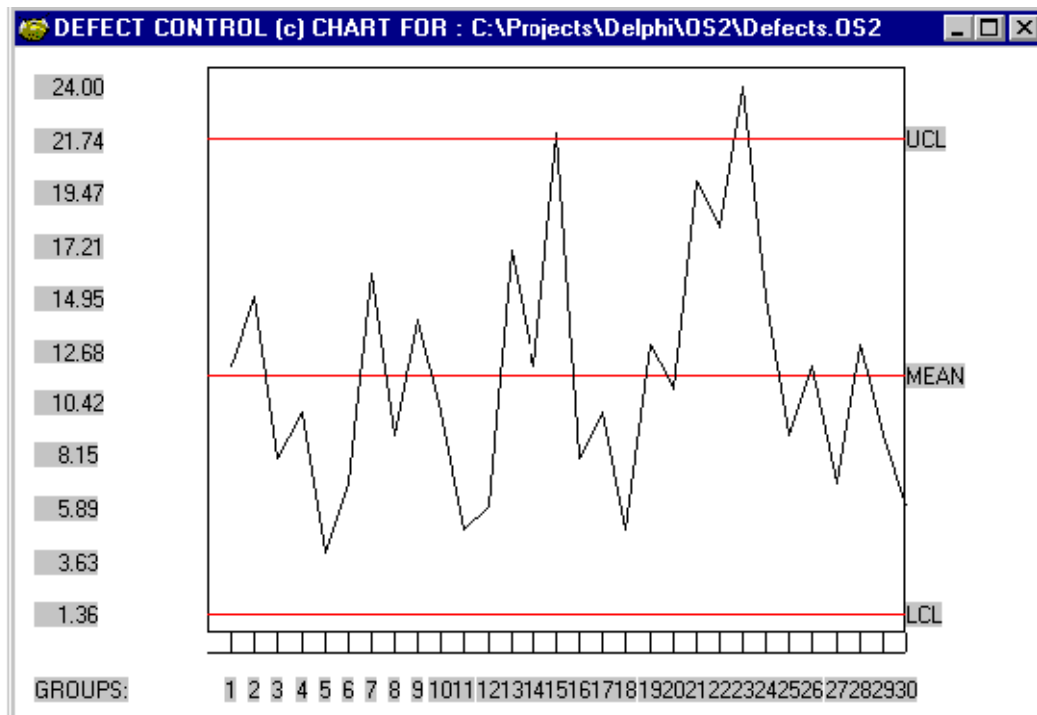


Figure 2 An SPC cChart