DATA FILES

The enclosed disk contains the data sets that are used in the text and the exercises. The first four digits of each filename indicates the chapter in which the data set is used for the first time. The next two digits indicate whether the data arises from a table (tb) or exercise (ex). The last two digits refer to the number of the table (or exercise). The first two digits of filenames that arise from projects are given by "ps"; the next two refer to the number of the project, while the last 4 digits give a description of the project.

The files can also be found on the web site www.wiley.com/college/ledolter/qualitytools.

- ch07ex01: Chapter 7: Data on compressive strength of concrete blocks in 100lb per square inch.
- ch07ex02: Chapter 7: Length of life (in hours) of 50 ordinary household light bulbs.
- ch07ex03: Chapter 7: The length of life (in weeks) for 25 bulbs.
- ch07ex04: Chapter 7: Hours to failure of 40 motors with a new Class-H insulation.
- SURVEY.DAT: Chapter 7. Data for exercise 7.
- STUDENT.DAT: Chapter 7. Data used for exercise 16.
- ch07ex17: Chapter 7: Annual 1996 salary and the educational background for a sample of 25 employees at a large Iowa manufacturing company.
- ch07ex18: Chapter 7: The length of the call and the amount of the donation for a charity donation drive.
- ch07ex19: Chapter 7: Machine utilization and pretax profit over the last 25 months.
- ch07ex20: Chapter 7: The flat width (in inches) of the sheet of film on baby diaper backsheets.
- ch07ex21: Chapter 7: Quarterly returns (in percentages) over a five year period for the "Liquid Gold Fund" and the "Portfolio Index".
- ch07ex22: Chapter 7: Quarterly percent changes in stock price indices across four countries for the period from 1980 through 1989.
- ch07tb01: Chapter 7: Width and gauge measurements on 95 steel flats.
- ch07tb2a: Chapter 7: Deviations from target bore size using tool 1 (without adjustment).
- ch07tb2b: Chapter 7: Deviations from target bore size using tool 2 (without adjustment).

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ch07tb2c: Chapter 7: Deviations from target bore size using tool 3 (without adjustment).

- ch07tb2d: Chapter 7: Deviations from target bore size using tool 4 (with feedback control).
- ch07tb2e: Chapter 7: Deviations from target bore size using tool 5 (with feedback control).
- ch07tb03: Chapter 7: Intervals and frequencies for the 95 width measurements.
- ch07tb04: Chapter 7: Intervals and frequencies for the 95 gauge measurements.
- ch07tb05: Chapter 7: Carbon monoxide emissions (in grams per mile) of 794 cars.
- ch07tb06: Chapter 7: Number of deaths for given age groups.
- ch07tb07: Chapter 7: Thickness of ears of paint cans (in 10^{-5} inches): 150 observations.
- ch07tb9a: Chapter 7: Daily afternoon weekday lead concentration (in microgram per cubic meter) at the San Diego Freeway in Los Angeles (Fall 1976).
- ch07tb9b: Chapter 7: Daily afternoon weekday lead concentration (in microgram per cubic meter) at the San Diego Freeway in Los Angeles (Fall 1977).
- ch12ex07: Chapter 12: The hardness on 25 samples of four titanium buttons.
- ch12ex08: Chapter 12: The number of dry cell batteries in a test and the number of defective units for 14 consecutive samples.
- ch12ex09: Chapter 12: Numbers of motor vehicle fatalities with number of alcohol related fatalities from 1973 1984 in Manitoba.
- ch12ex10: Chapter 12: Breaking strength of carbon fibers in samples of size n = 5.
- ch12ex15: Chapter 12: Averages and ranges of samples of size n=5 part weights.
- ch12ex17: Chapter 12: Numbers of jobs executed in January 1996 and abnormal endings for a large company.
- ch12ex18: Chapter 12: The pH value of 15 shampoo batches.
- ch12ex19: Chapter 12: The amount of force needed to pull apart certain wood-laminates that are produced in large quantities in a furniture production facility.
- ch12ex20: Chapter 12: Response times of an on-line system.
- ch12ex23: Chapter 12: Averages and ranges for measurements of a dimension of molded plastic rheostat knobs.

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ch12t(a): Chapter 12: Constants for Selected Control Charts.

- ch12tb01: Chapter 12: Dimensions of packing cartons (in centimeters, from front to back).
- ch12tb02: Chapter 12: Weight of bread loaves in decagram (1 kilogram = 100 decagram).
- ch12tb03: Chapter 12: Probability of an out-of-control signal (w) and average run length (ARL) for level shifts of delta standard deviations; x-bar charts with subgroup sizes of n=1, n=5, and n=10.
- ch12tb04: Chapter 12: Magnetic ink character recognition: number of read checks (n), number of misread checks (d), and proportion of misread checks (in percent).
- ch12tb05: Chapter 12: Number of machine jams when filling bottles of shampoo. Data were taken in September 1992.
- ch12tb06: Chapter 12: Concentration of an active ingredient in a liquid detergent (grams/gallon).
- ch12tb07: Chapter 12: EWMA signals and control limits for the concentration data in Table 12.6. Smoothing constant lambda = 0.2, starting value EWMA₀ = 50.035, and standard deviation s =1.923.
- ch13tb01: Chapter 13: Thickness of chrome and gold deposits for twenty subgroups of size two.
- ch15ex02: Chapter 15: The losses from the 2³ factorial runs investigating RCA's picture-tube manufacturing facility.
- ch15ex03: Chapter 15: A 2^3 factorial experiment where the line widths at the center and the corners of a rectangle were measured.
- ch15ex04: Chapter 15: The weight losses (in milligrams) from seven runs on two different fabrics.
- ch15ex08: Chapter 15: Yield of a chemical process (in ounces).
- ch15ex09: Chapter 15: A 2⁴ factorial experiment to investigate possible effects on etch rates.
- ch15tb01: Chapter 15: Shoe wear example; soles A and B. 20 subjects in a paired experiment.
- ch15tb02: Chapter 15: Replicated 2² factorial experiment. Average yields are listed first. Yields of replicates are shown in parentheses.
- ch15tb03: Chapter 15: A 2³ factorial experiment.

ch15tb04: Chapter 15: A 2³ factorial experiment. Design and calculation columns.

- ch15tb05: Chapter 15: Estimated effects in the 2³ factorial experiment.
- ch15tb06: Chapter 15: Fillweight experiment.
- ch15tb07: Chapter 15: Estimated main and interaction effects in the fillweight experiment.
- ch15tb08: Chapter 15: The 2⁷⁻⁴ fractional factorial design.
- ch15tb09: Chapter 15: The fillweight experiment.
- ch15tb10: Table 15.10: Estimated main and interaction effects in the 2^{5-1} fractional factorial experiment with M = PTWD. The estimates are the same as in Table 15.7.
- ch16ex01: Chapter 16: An experiment that involves five controllable factors, each studied at three levels.
- ch16ex02: Chapter 16: An experiment with five controllable factors in eight different arrangements.
- ch16tb01: Chapter 16: Results of an experiment with three controlled factors.
- ch16tb02: Chapter 16: Results for Example 1: Integrated Circuit Fabrication.
- ch16tb03: Chapter 16: Results for Example 2: Nylon Tubing.
- ch16tb04: Chapter 16: Results for Example 3: Leaf Springs for trucks.
- ch17ex04: Chapter 17: Data on steam consumption, temperature and operating days.
- ch17ex05: Chapter 17: Data on oxygenation rate (Y), velocity (X1) and depth (X2) of selected rivers.
- ch17ex08: Chapter 17: Data on water content and run time of styrofoam which has been preexpanded by adding water, allowed to dry, and then formed in a molding machine.
- ch17ex10: Chapter 17: The sales volume over the last twelve months for twenty sales representatives for a new product.
- ch17tb01: Chapter 17: Data on weight and fuel consumption. 1978-79 model years.
- ch17tb02: Chapter 17: Maximum traction coefficients under loads of 100 kg and 150 kg, respectively.

- ch17tb03: Chapter 17: Data on tensile strength of 60 aluminum specimen.
- ch17tb04: Chapter 17: Data on 11 variables and 45 cars.
- ch17tb05: Chapter 17: Output from fitting all possible regressions.
- pr03evap: Project 3: Assembly defects of a car air-conditioning evaporator.
- pr04burr: Project 4: The number of weekly "burr rejects" on two machines; machine 3 and machine 4 for twelve consecutive weeks.
- pr05anod: Project 5: Measurements before deburring and after anodizing two locations on fifty parts collected randomly over a representative period of time.
- pr06ores: Project 6: Results after a chemical solution is then sprinkled over 35,000 tons of crushed ore.
- pr09milk: Project 9: The number of colonies of bacteria present per millimeter of processed whole milk after holding the sample for two days under refrigeration at 45 degrees Fahrenheit. Results for samples from 36 consecutive days under old and new training methods.
- pr10thck: Project 10: The effective thickness of a socket, measured in hundredths of a millimeter using a special gauge designed to measure the thickness (t = 1,2,...,20).
- pr11hogs: Project 11: Weekly records on a breeding herd for the period from July 1995 through June 1996.
- pr14thk1: Project 14: Findings on how the response variable, paint coat thickness, depends on a set of six input factors.
- pr14thk2: Project 14: Findings on how the response variable, paint coat thickness, depends on four input factors.
- pr14thk3: Project 14: Findings on how the response variable, paint coat thickness, depends on three input factors.
- pr16wine: Project 16: Data on rain, temperature, etc. for the years 1952 through 1980 in the Bordeaux region.