- .CHR = chromatogram or data file. The chromatogram is the graphic depiction of raw analytical data in binary format.
- .ASC = ASCII file. You can save your raw data in binary format (.CHR), ASCII format (.ASC), or both.
- .THU = thumbnail file. PeakSimple keeps thumbnail snapshots of your .CHR files to facilitate browsing. In PeaskSimple version 3.21 and newer, you can elect to not save thumbnails to save disk space.
 - .3D = three dimensional file. Load multiple chromatograms (.CHR files) for viewing in the 3D display window. Save the 3D display in a .3D file for later viewing.
- .TEM = temperature file. TEM files contain the column oven temperature program information: initial and final temperatures, hold times and ramping rates. .TEM, .GRA, and .FLO files perform the same function for different applications; the only real difference between them is their extension. The user selects which application and file extension to use in the Channel details window: on the right side under "Control by," are three radio buttons with the choices Temperature, Pressure, or Gradient.
- .GRA = gradient file for HPLC. Gradient files contain the solvent and sample mixing percentages for one or two pumps. PeakSimple uses this extension when the "Gradient" radio button under "Control by" in the Channel details window is selected.
- .FLO = pressure flow file. PeakSimple uses this extension when you select the "Pressure" button under "Control by" in the Channel details window. This is useful when varying the carrier gas pressure, making use of the Electronic Pressure Controllers (EPCs) in your SRI GC. The user must move a wire to switch from temperature to pressure control.
- .EVT = event files. Events are controlled by turning relays ON and OFF. Event tables allow you to automatically turn relays ON/OFF at specified times during an analysis. Integration events can also be automatically performed using an event table.
- .CPT = components file. Each channel has it's own Components table that displays the list of expected components, their retention times, and calibration files. All component information is input by the user.
- .CAL = component calibration file. The calibration curve is calculated from user-generated results obtained at several different concentrations that span the expected range to be encountered in actual samples. Calibration is required for each component you expect to be present in your sample, and for each detector to be used in the analysis. When a component calibration file is saved, it will appear in the Components window, next to the appropriate component.
- .LOG = results log file. Use the Post-run actions window to have PeakSimple add the results to the results log after the analysis.
- .RES = results file. The results file displays analytical results in ASCII format. The results window is accessed through the View menu. The results log (.LOG) may be viewed by clicking a button in the results window.
- .CON = Control files contain user-defined analytical parameters such as column oven temperature program (.TEM files), components (.CPT files), and relay event tables (.EVT files), as well as print information and many other parameters.
- .QUE = autosampler queue files. The autosampler queue lets you load multiple control files for use with an autosampler. In batch reprocessing mode, the autosampler queue is used to re-run data under the parameters of a particular control file.