TRAINING SYLLABUS

SYLLABUS DETAILS (1-DAY):

Advanced Analysis consists of 5 tools offered as an addition package to PSpice A/D. These tools are Smoke Analysis, Sensitivity Analysis, Optimizer Analysis, Monte Carlo analysis, and Parametric Plotter Analsysis

Smoke Analysis
This covers the stress analysis tool and involves setting up the components to contain various "smoke" parameters that are essentially the maximum operating conditions that you would see in a device data sheet. This is transient simulation base which is then hand to the Smoke tool for analysis of maximum operating conditions setup within each "parameterized" component.

Sensitivity Analysis
This covers the analysis of how component value deviations would affect a "goal" characteristic for a circuit. Something like Bandwidth or Gain are affected by individual component values of the circuit so by specifying a value tolerance for the components, Sensitivity can tell you how each component value deviation will affect that goal measurement.

Optimizer
This covers the ability to re-characterize a circuit for a different set of performance goals. The Optimizer is given a list of components to vary in a circuit to achieve a different set of measured goal responses, continually altering these component values until the new goal sets are achieved (if that is possible with the given circuit arrangement). It can also operate on a given set of curves to essentially manipulate device values/parameters for a curve-fit situation.

Monte Carlo
This covers the about 98% of the same capability as the PSpice A/D tool, with the exception of the ability to split the positive versus negative tolerance ranges independently, and the ability to plot a cumulative histogram type of performance.

Parametric Plotter
This covers the ability to manipulate any number of device parameters of a circuit. With PSpice A/D, you only have the ability to manipulate (i.e. sweep) two parameters in a given simulation. With the Parametric Plotter, that limitation is lifted and allows any number of parameter manipulations in a simulation.