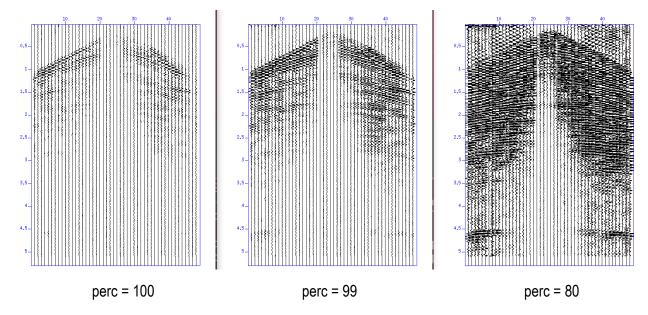# Plot option "perc"

Most of the plotting programs have the optional parameter "perc." Use of this option is probably unnecessary when viewing simple synthetic data, such as the output of *suplane*, but I use it all the time when I view complex synthetic data and any real data.

```
$ suxwigb < ozle01.su perc=99 &
```

Simply put, the reason for this discussion of "perc" is because I find that the default value 100 is often dull and unrevealing. It is defined as "percentile for determining clip." Below are three examples of "perc" values.

perc = 100   perc = 99   perc = 80

I think a value like 80 can be useful but is often extreme. The first time I plot a file, I use 99 (or 98) to get an improvement over 100. Other values (95, 90, etc.) can be useful, but I like to start with 99 or 98. Most importantly, I try to **always** use perc because it just about always reveals more detail when a value other than the default "100" is used.

Below are the lines of code in program xwigb.c that use the perc option.

```
315              /* if necessary, determine clip from percentile */
316              if (!getparfloat("clip",&clip)) {
317                    perc = 100.0;  getparfloat("perc",&perc);
318                    temp = ealloc1float(nz);
319                    for (iz=0; iz<nz; iz++)
320                          temp[iz] = fabs(z[iz]);
321                    iz = (nz*perc/100.0);
322                    if (iz<0) iz = 0;
323                    if (iz>nz-1) iz = nz-1;
324                    qkfind(iz,nz,temp);
325                    clip = temp[iz];
326                    free1float(temp);
327              }
```

I am not a "C" programming expert, but I think this is the way "perc" is used in xwigb:

1. Read the entire input seismic dataset to find the absolute value of the largest negative or positive value.
2. Divide that largest value by the perc value as a decimal. The default value of 100 is 1. An input value of 99 becomes 0.99.
3. The result of that division is used to scale (multiply) all input data samples for the plot.