

The input parameters of the Crest Factor minimize program can be entered by choosing the "Set multisine data" submenu on the Tools menu or loading special input file from the File menu. The input file has to be in the following format:

Input file: (see the attached 'cfp.dat' sample)

```
Amplitude
2.0
2.0
2.0
2.0          ----->  These are the absolute values of the desired nonzero
2.0          real amplitudes at the corresponding frequencies.
2.0
2.0
Frequency
48000        ----->  Carrier frequency.
4096         ----->  Segment length.
22
24
26
27           ----->  Integer multiples of the frequency spacing (harmonic
28             numbers).
29
30
```

MATLAB executable files:

```
crest.p      : determines the phase offset for minimum Crest Factor.
cfpinp.p     : reads amplitude and frequency parameters from input file.
cfpout.p     : writes the minimum Crest Factor and phase offset to output file.
cfgui.p      : makes the graphical user interface.
cfcalc.m     : starts the CF Calc program (must be called from the MATLAB Command
                Window).
```

The calculation can be launched selecting the "Minimize the Crest Factor" submenu on the Tools menu or clicking the "Calc" button. The number of the iterations and gridpoints on the time scale must also be given on "Iterations" as well as "Gridpoints" editboxes. During the calculation the actual multisine is plotted in a distinct window.

The results of the CF calculation can be saved to an output text file if the "Save min CF and phase offset to file" submenu is selected on the File menu after the iteration procedure.

Output file: (see the attached 'res.dat' sample)

```
Crest Factor:
 1.7576
Phase Offset:
-0.0043
-1.3663
-2.5971          ----->  Result of a sample min CF calculation for the above
1.6821           input parameter file ('cfp.dat').
-1.7556
-1.9018
-0.4176
```