

# Variable-Amplitude Fatigue Crack Growth



Bulletin 500-01

The FTA Variable-Amplitude (VA) FCGR software provides additional functionality to the standard Fatigue Crack Growth Rate package by allowing the use of user-generated waveforms far more complex than those permitted by the basic application.

## Variable-Amplitude FCGR Software

The software supports a wide variety of file types, including spectra characterized by load peaks and valleys (end-point files); repetitive load peak and valley test sequences (block files); and customized waveform shapes that allow computation of crack size within one cycle and more flexibility than the custom waveform feature of the steady-state application (segment files).

## Software Features

- ▲ Crack monitoring using compliance or reversing DCPD
- ▲ K-control or load control
- ▲ A waveform output having a constant loading rate with upper and lower frequency limits
- ▲ A command correction compensation based on endpoint errors: each endpoint error is associated with the unique combination of the previous, current and next endpoint
- ▲ A real time damage parameter used to estimate the success in attaining peak loads in a spectrum test
- ▲ The storage of command correction factors unique to each spectrum and test conditions so that endpoint errors can be minimized at the beginning of duplicate tests
- ▲ A validation log for cataloguing missed endpoints beyond a user-specified error threshold
- ▲ An End Point File Filter for identifying and removing non-turning endpoints from end-point files
- ▲ Typical errors of less than 0.1% of full range

## Request a Quote

Contact us at [FTAsales@labtesting.com](mailto:FTAsales@labtesting.com) to learn more.

