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# Random Import/Automatic Profile Generation

## Random Define Import tab

Clicking the "Import" tab on the Random Test Settings dialog box accesses this dialog box.

Use this dialog box to automatically generate a spectrum profile from input data. The input can be a set of frequency/amplitude breakpoints, a time/acceleration history stored in a text file, or can be measured from an analog input channel on the VibrationVIEW I/O unit.

## To input data from a file, perform the following procedure:

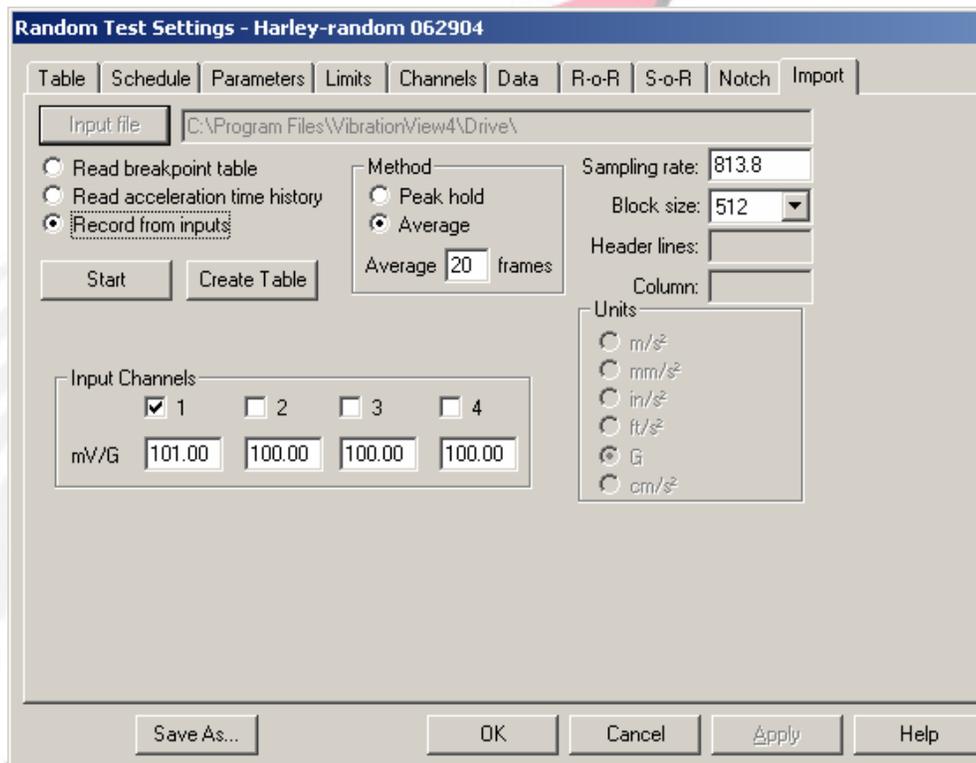
1. Select the input type using the radio buttons directly below the "Input file" button.
2. Click the "Input file" button to select the file from which to read the data. The file will be scanned, and the dialog box will be updated to reflect the contents of the file.
3. Set the sampling rate, number of header lines, the column number for the acceleration data, and the acceleration units used in the file.
4. Select the spectrum generation method. The import procedure divides the file into 1024-sample blocks, computes the spectrum for each block, and then combines them according to the selected method. "Average" will average all of the spectra together using a uniform average. "Peak hold" will extract the peak values over all of the blocks at each frequency.
5. Click the "Create Table" button to process the file and create the frequency/amplitude breakpoint table from the input file.



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**To input data from an analog input channel on the VibrationVIEW I/O unit, perform the following procedure:**

1. Select the "Record from inputs" radio button, as shown in the figure below.
2. Select the spectrum generation method. "Peak hold" will keep the peak acceleration level seen at each frequency. "Average" will perform an exponentially-weighted average of the input data, with the amount of averaging determined by the Average XX frames parameter. Higher averaging values will result in more averaging and therefore smoother spectra.
3. Select the input channel, mV/G setting and desired sampling rate. The sampling rate should be 2.6 times the highest desired frequency to be used in the test. An anti-aliasing filter on the input will remove the higher frequency components from the signal.
4. Connect the input source to the selected analog input channel on the VibrationVIEW I/O unit.
5. Start playback on the input source (e.g. if using a DAT record, click the Play button).
6. Click the "Start" button to start recording. When finished, click the "Stop" button.
7. Click the "Create Table" button to process the input and create the frequency/amplitude breakpoint table from the data.



**Note:** The Random Import feature is an optional feature and requires the software key be programmed to enable it.