

VibSimul

Vibration Simulator for Mechanical Engineering Students

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NOTE: The program VibSimul1 and VibSimul2 are not designed for fun. If you expected something for killing time, you are on the wrong track.

The programs VibSimul1 and VibSimul2 can help the students to understand the physical meanings of various parameters used in Mechanical Vibration. They plot the time and frequency responses, show physical parameters, evaluate the response at the given time or frequency ratio, and animate the motions of the system.

Since these programs have been developed on Mac SE and tested on Mac Plus. They are written in Microsoft Fortran with Toolbox utilities, you should have it on your Mac to run.

The purposes of writing the programs are:

- (1) how effectively the microcomputers are utilized in the class
- (2) how much helpful these pgms are for undergraduate students

The technical paper has been submitted in the ASME conference and accepted for presentation. Since the programs are self-explanatory and interactive, the manual is not written.

During the implementation, there has been a problem with window management. I'm still not quite sure about it, but anyhow I succeeded in programming by trial and error. At any rate, if you are an instructor of vibration class, you can find the programs like this very helpful for your students to understand.

VibSimul1 Single degree of freedom system with base motion

VibSimul2 Two degrees of freedom system

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