SYSTEM AND METHOD FOR IMPROVED MESH GENERATION AND PCBA MESH GENERATION

ABSTRACT

[0057] The system for improved pre-processing of input data files before mesh generation and for improved mesh generation of PCBAs in accordance with the present invention uses a file characterization module for characterizing the input data files that are received by the system. A characterization database is referred to for the selection of the best mesh type to be applied given the nature of the input data files. There are different mesh types and are suitable for simulating different materials and components having a variety of different characteristics. By providing a file characterization module, the guesswork required to assign a mesh type to a particular component or material is taken out. When meshing PCBAs, the large number of mounted components on the PCB makes for complicated and tedious calculations. The present system merely determines the base surface of each component and then extrapolates the base surface using the known height of the component.

[0058] FIG. 1 accompanies the abstract.