

### 5.2.4 Improvement Plan using CARA Software

Improvement plan for the classrooms was done by using computer aided room acoustic (CARA) simulation through changing the materials with the suggestion by Acoustical Society of America (ASA, 2000) as the references. This software based on the sound source imaging method and a combination of backtracking procedure also can compute and optimize acoustic room. CARA can display the sound coloration, location, speech intelligibility, reverberation time and sound level as in Figure 5.2.

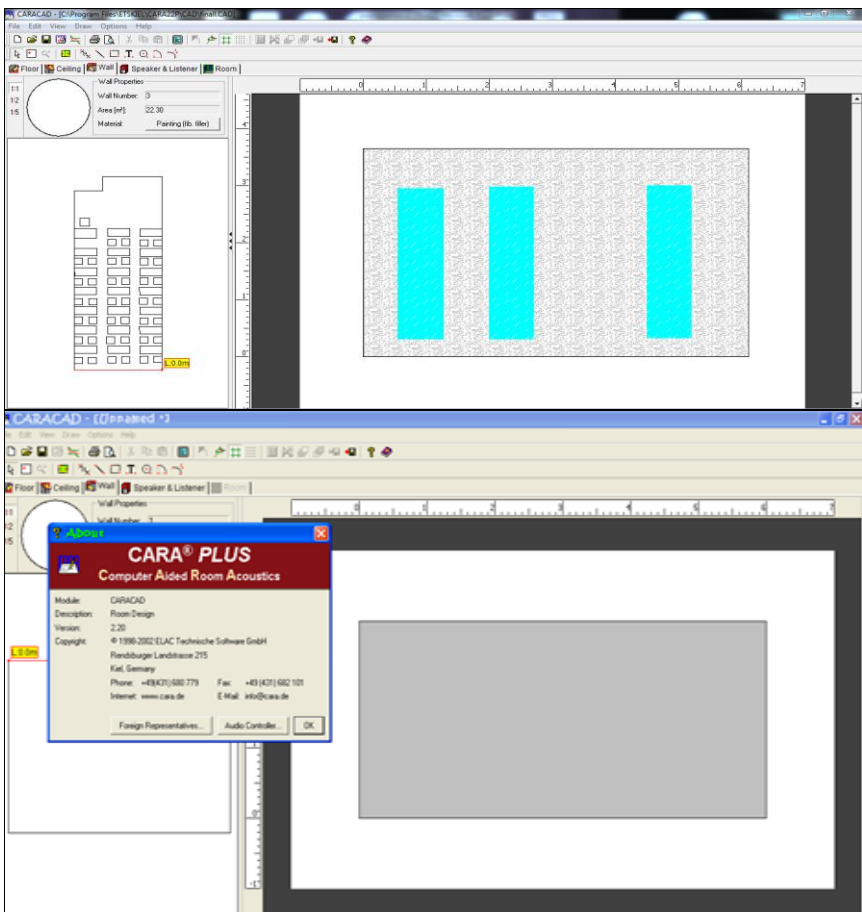


Figure 5.2 Framework of CARA software