Guideline for Running the Software

The software platform used for virtual prediction was developed to automatically perform the virtual prediction of BAEP. Its five main functions were: loading the virtual prediction model, arranging the virtual background advertisements and television cameras, importing the statistical rule of television broadcast, simulating the television broadcasting and automatically calculating the BAEP according to the virtual prediction algorithm.

The steps to calculate the BAEP are as follows:

Step-1: Double click the executable file "Application.exe " to run the program.

Step-2: Prepare the premises for Calculating the exposure parameters of background advertisements.

The premises include the type of sport events, the size of venue, the number and locations of background advertisements, the number and the layout of television cameras, and the rule of television broadcast.

Step-3: Loading the stadium model into the software platform.

The virtual prediction model includes: the virtual three-dimensional stadium model, the playing field or court model, the virtual background advertisement model, the virtual television camera model.

Step-4: Setting the virtual background advertisements and television cameras

According to the analysis of the previous sport videos of a sport event, the sport venue, the background advertisements, the television cameras, and the playing field were loaded and arranged in the virtual three-dimensional prediction platform, which fulfills the preparation for the premises of the virtual prediction method.

Step-5: Calculating the exposure parameters

After all the other procedures had been completed, the rule of television broadcast was imported into the virtual three-dimensional prediction software platform, and the BAEP was automatically calculated according to the virtual prediction algorithm during the simulated television broadcast. The results are saved into *.csv files.