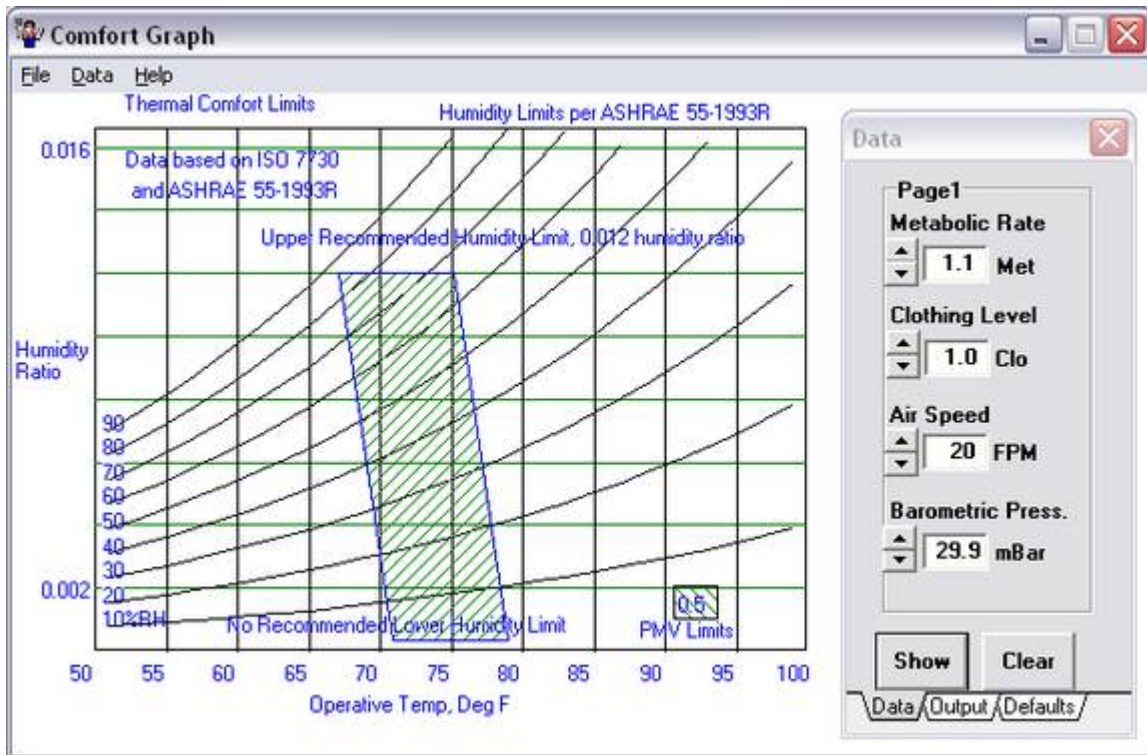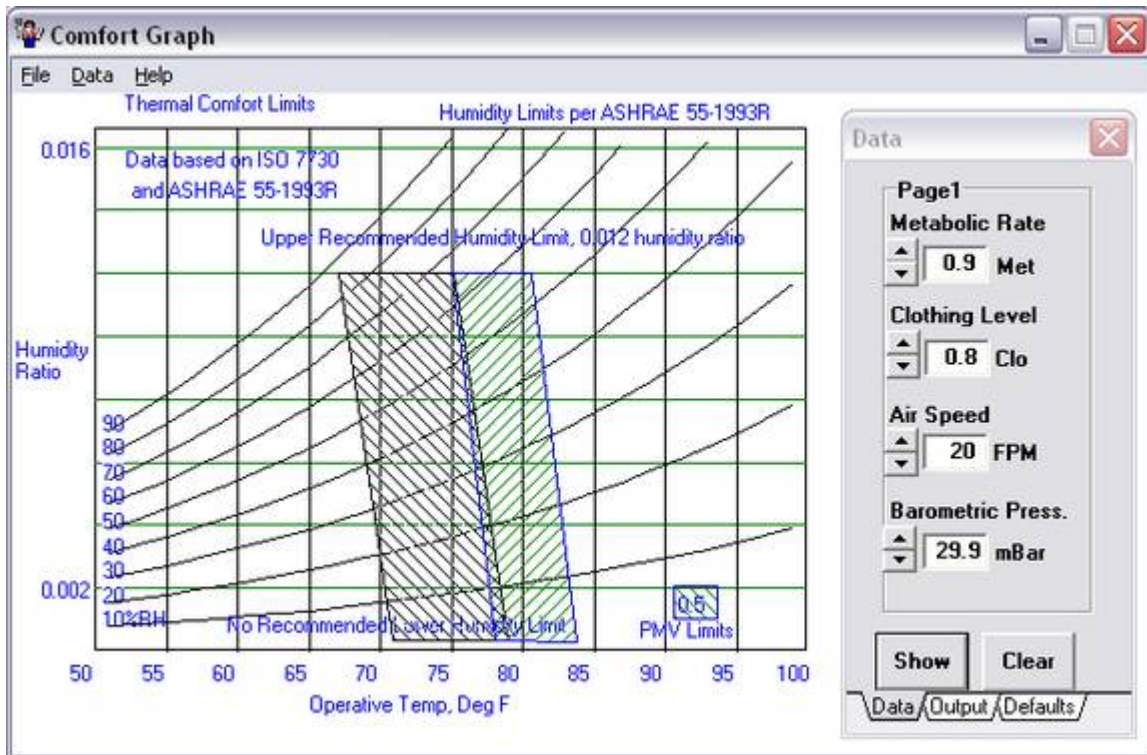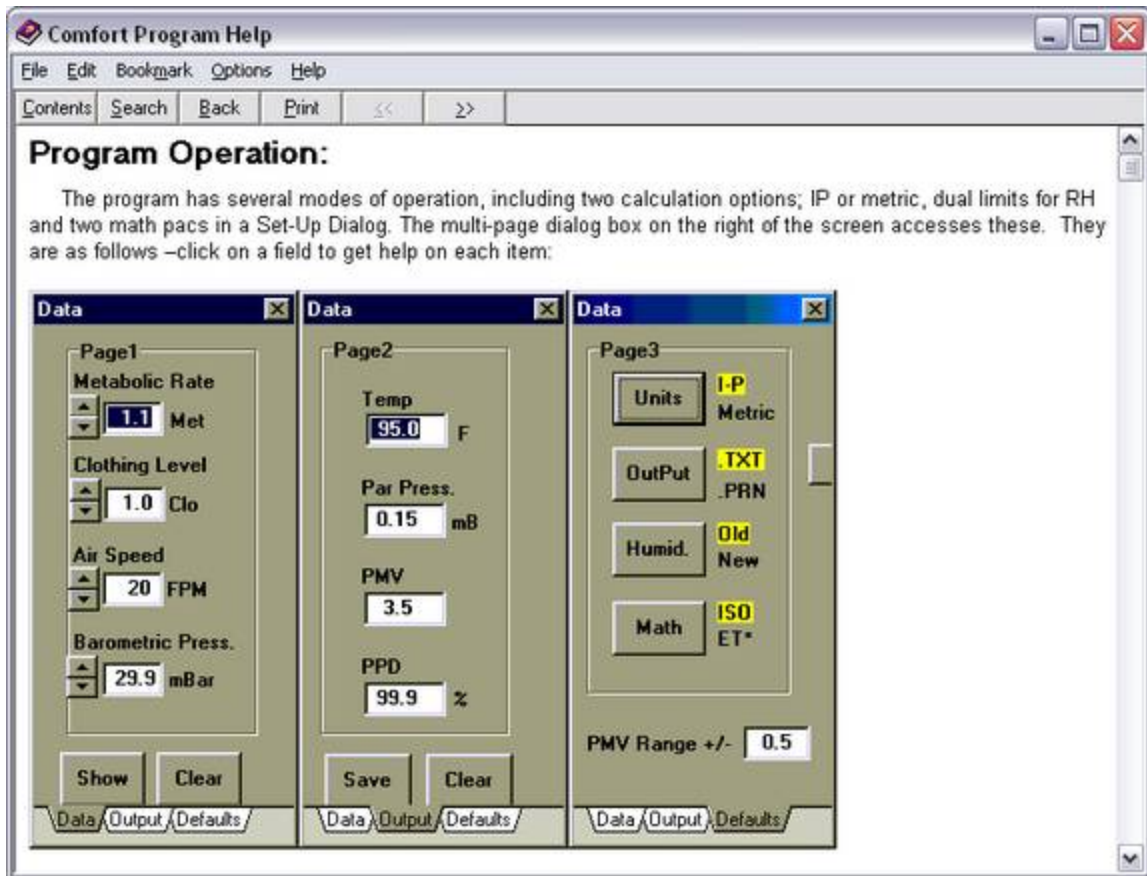The ASHRAE Comfort Standard (55-2010) is often used to determine the acceptable limits of temperature, airspeed, and humidity for building occupants in both mechanically and naturally conditioned spaces. In mechanically conditioned spaces, the standard utilizes the PMV (Predicted Mean Vote) math, and the graphical solution is one means of compliance. An occupant's comfort level is highly influenced by their metabolic rate and clothing levels. The Comfort.exe program allows one to see the effects of changing these key variables. In use for many years, this program was used to generate the graphs used in the 2004 release of Standard 55. The use of this graph may aid in proving compliance to LEED 2009 Comfort requirements.

When the user changes a parameter in the Data box, and presses show, a second comfort envelope is presented over the first.

The program has several help screens in a user help manual, and comfort terms are defined as well.

Program Operation:

The program has several modes of operation, including two calculation options; IP or metric, dual limits for RH and two math pacs in a Set-Up Dialog. The multi-page dialog box on the right of the screen accesses these. They are as follows –click on a field to get help on each item:

The program can output results to either a text file, using an embedded text editor, or to excel spreadsheet format.


```
                        PMV Calculation
                        Date: 4/7/2010

        Thermal Comfort Calculation in accordance with PMV-ET*


Run   Air    R.H.   Rad    Air  Act. Clo    Predicted Percent
 #    Temp          Temp   Spd              Mean Vote Discomfort
                                               PMV       PPD
      øF     %      øF     FPM  Met. CLO                  %


 1    79.9   25     79.9    20  0.9  0.8       0.06      5.06
 2    75.2   39     75.2    20  0.9  0.8      -0.69     14.93
 3    76.1   30     76.1    20  0.9  0.8      -0.61     12.74
```