



ResVent 62.2

News Release

Residential Ventilation Application

December 1, 2010

ResVent 62.2™ for the iPhone, iPod touch, and iPad has been released by R.J. Karg Associates of Bethel, Maine. This mobile application calculates the minimum whole-building ventilation requirements of ASHRAE¹ 62.2, *Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings*. ResVent 62.2 is available for purchase at the Apple App Store for \$19.99.

ResVent 62.2 features a choice of ASHRAE 62.2-2007 or 62.2-2010, new or existing dwellings; reports to view on your hardware or e-mail; slider controls for easy data entry; range control of sliders; a picker wheel for easy selection of over 200 weather locations; fan run-time calculator; calculation of the “infiltration credit” and “alternative compliance supplement” for existing homes; our special math-on-the-fly feature; a comprehensive help screen and more.

The timely release of this application will allow residential energy professionals to comply with the ventilation requirements of *Home Energy Auditing Standard* (BPI²) *Workforce Guidelines for Home Energy Upgrades*³ (DOE/NREL) and *Healthy Indoor Environment Protocols for Home Energy Upgrades*⁴ (EPA). All of these important documents call for the use of ASHRAE 62.2.

R.J. Karg Associates has been writing software for compliance with the ASHRAE ventilation requirements for over twelve years. The current edition⁵ of ZipTest Pro building diagnostics software calculates minimum whole-building ventilation requirements for ASHRAE 62.2.

Your ventilation design will be fast, easy, and accurate with ResVent 62.2⁶. Please review the following 12 captioned screen shots for an introduction to the capabilities of this unique mobile application.

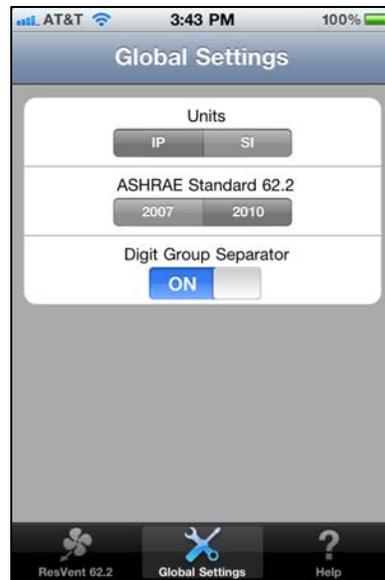


1. The projects screen shows the Smith Home and the Default project template. You may add as many projects as you wish, this is only limited by the memory of your hardware.

The “_Default” project allows you to set the best default values for all your new projects.

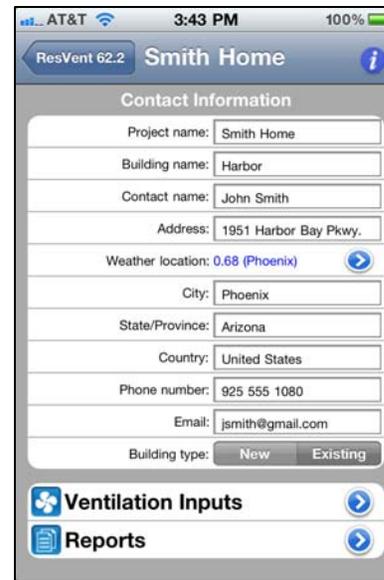
For your new projects you may use the default project or any of you own as the starting point.

Notice the three choices at the bottom of the screen: ResVent 62.2, Global Settings, and Help.



2. The Global Settings screen allows you to select inch/pound or metric units. Inch/pound is selected on the example screen.

You may also select to calculate the minimum requirements of ASHRAE 62.2-2007 or ASHRAE 62.2-2010. The input entries and results change according to your choice.



3. This is the Contact Information screen for the sample Smith Home.

Notice the blue arrow/circle to the right of “Weather location”. Touching this icon moves you to the “Select City” screen for the selection of the weather factor.

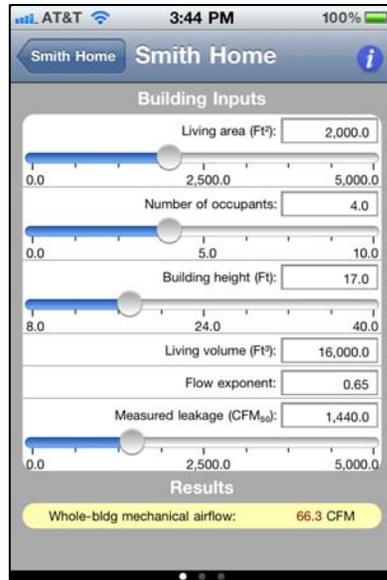
Next to “Building Type” you may choose a new or existing building. Your choice will change the inputs and results.

At the bottom of the screen you may select the “Ventilation Inputs” for the project or view or e-mail a report for the project.



4. The weather picker wheel on the Select City screen allows you to easily and quickly choose the appropriate weather data for your project. You may select the United States or Canada for over 200 weather locations.

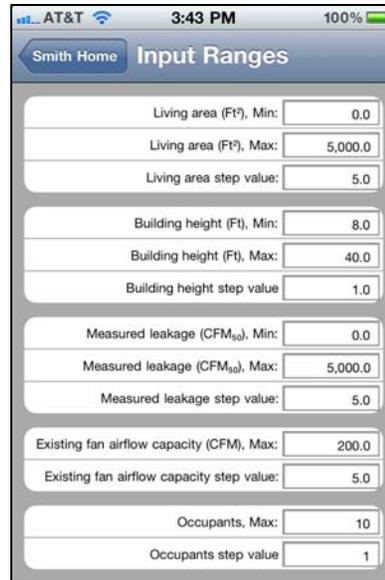
Touch the project name icon at the top left of the screen to return to the Contact Information screen. From this screen, touch Ventilation Inputs at the bottom of the screen to move to the Building Inputs screen.



5. The Building Inputs screen allows entry of most of your data. This example is for an existing dwelling using ASHRAE 62.2-2010.

Notice the sliders for easy data entry. You may set the minimum, maximum, and step value for these bars on the Input Ranges screen.

The “Whole-bldg mechanical airflow” at the bottom of the screen changes instantly as you change your inputs. This makes it easy to do “what-if” analysis for your project.

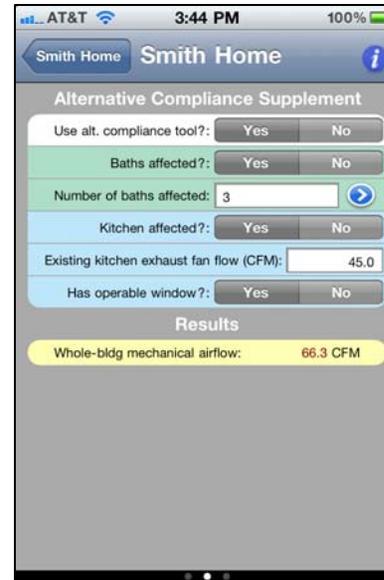


6. The Input Ranges screen allows you to set the minimum, maximum, and step values for the slider bars.

This screen appears when you touch the blue “i” icon on the top right of most of the screens.

For example, the “Living area” slider is set to a minimum of zero, a maximum of 5,000, and a step value of 5. As the slider is moved with your finger, the value will increase/decrease in increments of 5.

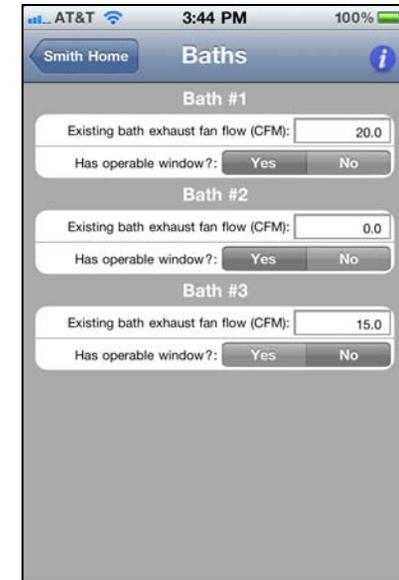
Set these values for the housing stock you are working with.



7. The Alternative Compliance Supplement screen only appears if you have selected ASHRAE 62.2-2010 in the Global Settings for an existing—not new—dwelling.

You are asked if you wish to use the alternative compliance tool. If you answer yes, the appropriate rows appear for your data entry.

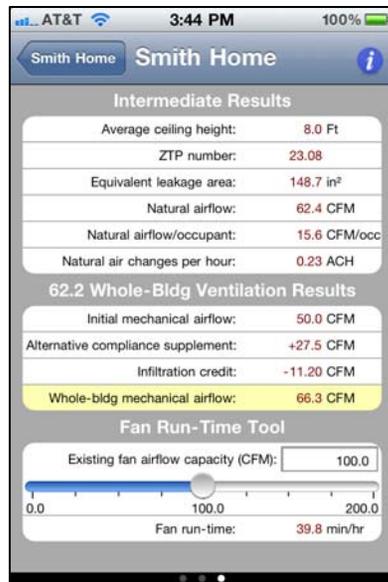
You are given the choice of as many as five bathrooms. The example above has three. The blue arrow/circle icon takes you to the next screen for the bathroom data entry. Kitchen data is entered on the screen above.



8. This screen, activated by the blue arrow/circle icon on the previous screen, is for entering the data for up to five bathrooms as part of the 62.2-2010 alternative compliance supplement for existing dwellings.

Enter the measured CFM of each existing bathroom exhaust fan and enter “Yes” or “No” for “Has operable window”.

Touch the project name icon at the top left of the screen to return to the Alternative Compliance Supplement screen.



9. This is the final results screen for the example existing dwelling using ASHRAE 62.2-2010.

The Intermediate Results box displays results for the data you entered.

The 62.2 Whole-Bldg Ventilation Results show the derivation of the final required whole-building minimum mechanical airflow in the yellow shaded row.

The Fan Run-Time Tool allows you to calculate the minutes per hour an existing fan must run to meet the minimum whole-house ventilation requirements.



10. This is the Contact Information again, but notice the Building Type selected is "New" rather than "Existing", as in the previous example.

If you touch the Ventilation Inputs row, you will be moved to the Building Inputs and Results screen shown in the next panel.



11. For this new house example, you can use the sliders for entering the square footage of the house and the number of occupants. Again, the result, shaded in yellow, will change instantly.

The Fan Run-Time Tool allows you to calculate the minutes per hour an existing fan you have must run to meet the minimum whole-house.



12. The detailed, hyperlinked help screen is clearly written for quick and easy understanding of the application.

Notes:

¹ ASHRAE is the American Society of Heating, Refrigerating and Air-Conditioning Engineers. Related ASHRAE publications can be purchased at www.ashrae.org. We recommend ASHRAE 62.2-2010, *Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings*; *62.2 User's Manual*; and ASHRAE Guideline 24-2008, *Ventilation and Indoor Air Quality in Low-Rise Residential Buildings*.

² BPI is Building Performance Institute. The *Home Energy Auditing Standard* (BPI-101) was recently approved and is available at http://bpi.org/tools_downloads.aspx?selectedTypeID=STD.

³ *Workforce Guidelines for Home Energy Upgrades* by DOE/NREL is under public review until January 7, 2011.

⁴ *Healthy Indoor Environment Protocols for Home Energy Upgrades* by EPA is under public review until December 9, 2010.

⁵ ZipTest Pro³ building diagnostics software for the Texas Instruments TI-89 calculator calculates minimum whole-building requirements for ASHRAE 62.2-2007 and 62.2-2010, and much more. Please refer to www.karg.com/software.htm.

⁶ ResVent 62.2 was designed by Rick Karg (www.karg.com), Steven Roth (www.carmelsoft.com), and Charlie Holly, PhD (www.kennebechp.com). The programming was done by Carmel Software of San Rafael, California (www.carmelsoft.com).