

Hourly Analysis Program (HAP) v4.41 replaces v4.40

UPDATE DESCRIPTION

Hourly Analysis Program v4.41 includes the following change:

- Increases the limit on air systems per project from 250 to 5000 to accommodate larger projects, particularly those involving LEED® Energy and Atmosphere Credit 1 analyses.

In addition, the following problems in v4.40 were corrected:

- The Equipment Wizard incorrectly set the VAV box minimum default to 0.04 CFM/sqft rather than 0.4 CFM/sqft (0.20 L/s/sqm instead of 2.03 L/s/sqm). However, the default could be easily overridden.
- When using the Zone Configuration screen in the Equipment Wizard, the Wizard failed to assign a space to its air system if the space name contained a "[" character.
- For certain situations involving large buildings (more than 100 zones), the Equipment Wizard did not correctly assign spaces to air systems generated by the Wizard.
- For certain situations involving large buildings (more than 149 zones), an *Error 9 - Subscript Out of Range* error occurred when exiting a Full Wizard or Equipment Wizard session via the Finish button.
- When specifying cooling equipment performance as EER for DX fan coil or WSHP systems in which fan performance was defined as total static, the derivation of compressor power from EER was incorrect. A similar problem occurred when defining heating equipment performance as COP.
- While running an air system simulation in a project containing more than 250 air systems, an *Error 9 - Subscript Out of Range* message sometimes appeared.
- While running an air system simulation for a fan coil or WSHP system in which fan performance was defined in terms of BHP or kW, or when using the "App G Fan kW" option, an *Error 6 - Overflow* message appeared if a very specific set of conditions for operation in an unoccupied period occurred.
- When using the User-Defined sizing option for a VAV system containing parallel fan powered mixing boxes (PFPMBX), the program would not allow the PFPMBX fan airflow value to exceed the primary supply airflow for the zone. This limit should not have been imposed.
- When generating the *Annual Cost Summary*, *Annual Energy & Emissions Summary*, or the *LEED NC 2.2 EA Credit 1 Summary* report for multiple buildings, data for one or more buildings on the report was sometimes missing. This problem only occurred in specific situations and could be resolved by regenerating the report.
- The Gross Wall Area value shown on the *LEED NC 2.2 EA Credit 1 Summary* omitted the area of doors and was therefore incorrect if doors were defined for the building.
- When converting a HAP v4.3 project that used ASHRAE Standard 62-2001 as the project ventilation standard, the converted data incorrectly reset the ventilation standard to ASHRAE Standard 62.1-2004.
- When importing a gbXML file that contained improperly formatted data, an *Error 91 - Object Variable or With Block Variable Not Set* message appeared.
- After importing a gbXML file, the display of unit labels or unit of measure drop-down lists were sometimes incorrect. For example a drop down list for ventilation units of measure listed "BTU/hr/person" instead of "CFM/person" (W/person instead of L/s/person).
- When running on a computer using a non-English language version of Windows (e.g., French, Spanish, German, etc...) an *Error 0* message sometimes appeared when exiting from a Full Wizard or Equipment Wizard session.
- When running on a computer using a non-English language version of Windows (e.g., French, Spanish, German, etc...) an *Error 3061* message sometimes appeared when opening the Plant window to create or edit a plant.
- When running on a computer using a non-English language version of Windows (e.g., French, Spanish, German, etc...) a message sometimes appeared when saving Building input data indicating the data could not be saved.

More detailed explanations of program additions and problem corrections are provided in section 1.2 ("What's New in HAP?") in the program's on-line help system.

INSTALLATION PROCEDURES

If you are using the patch installer to update an existing installation of HAP v4.40 to v4.41, please use the first procedure below. If you are a new customer using the full installer to install HAP v4.41 for the first time, please use the second procedure below.

To perform a patch install, please use the following procedure:

- Download the **e20p-hap441.exe** file from the internet site and save it in a folder on your hard disk.
- Run Windows Explorer and double-click on the **e20p-hap441.exe** file. This launches the patch installer.
- Follow the instructions which appear on your screen.

To perform a full install, please use the following procedure:

- **Note:** When installing HAP on a computer for the first time, you must install X Builder Framework first before installing HAP. The X Builder Framework installer and installation instructions are provided on the same web page from which you downloaded HAP v4.41.
- Download the **e20-hap441.exe** full install file from the internet site and save it to your hard disk.
- Run Windows Explorer and double-click the **e20-hap441.exe** file to start the installation.
- During installation you will be required to enter your customer number and unlock code that you obtained from Carrier when you licensed the software.

Use the following procedure to run HAP v4.41:

- From the Windows Desktop, press the Start button and choose the "Programs" option.
- Choose the "Carrier E-CAT and E20-II Programs" group on the Programs Menu and then click on the "Hourly Analysis Program v4.41" item in this group.

Make sure your computer meets the minimum requirements:

- Hard Disk Space: Maximum 100 megabytes. Typical: 25-30 megabytes.
- Random Access Memory: At least 64 megabytes
- Display Monitor: At least VGA with 800x600 resolution and 256 colors.
- Operating System: Windows 98, 2000, XP, Vista or Windows NT (with service pack 4 or later).
- X-Builder Framework v1.03L or later.

PREVIOUS VERSION INFORMATION

1. Data from HAP v4.40 is usable by HAP v4.41 immediately. No conversion is needed.
2. Data from HAP versions v4.0 thru v4.3 can be converted for use in HAP v4.41 using the "Convert HAP v4.x Data" option on the Project Menu. The data from an earlier version can be an active project or an archive file. Please refer to the on-line help system for details (see section 1.5 of the help system).
3. HAP v4.41 will automatically replace HAP v4.40. It is not necessary to uninstall HAP v4.40 prior to installing v4.41.

PROGRAM DOCUMENTATION

The *HAP Quick Reference Guide* has not been changed. The current edition has a publication date of 7/2008.

The program's on-line help system provides complete documentation for the program. This includes a copy of the *Quick Reference Guide* material plus detailed discussions of program inputs, reports and calculation procedures.