

HAP v4.50 replaces HAP v4.41

UPDATE DESCRIPTION

HAP v4.50. This update to the Hourly Analysis Program (HAP) provides feature enhancements which relate to two major themes:

- 1. Theme 1 - Making HAP Easier to use for LEED® Energy and Atmosphere Credit 1 Analysis.** Building upon features first introduced in v4.40, HAP v4.50 includes further enhancements designed to make you more productive in LEED projects. This applies both to existing projects registered under LEED NC-2.2 and new projects registering under LEED 2009. Specific modifications include:
 - Ability to specify whether a project should use procedures for LEED NC-2.2 or LEED 2009.
 - Ability to specify whether a project should use procedures from ASHRAE Standard 90.1-2004 or 90.1-2007.
 - Feature to have program automatically set equipment efficiency per ASHRAE 90.1 requirements.
 - Option to calculate baseline fan power allowance per ASHRAE 90.1-2007.
 - LEED Summary Report with format and content required for LEED 2009.
 - Unmet load hours calculated for the LEED Summary Report according to definition in ASHRAE 90.1-2007.
 - Ability to specify equipment performance in terms of SEER and HSPF.
- 2. Theme 2 - Expanding Features for Preliminary or Schematic Design.** Also building upon features first introduced in v4.40, HAP v4.50 expands the features for quickly and efficiently performing schematic design analyses. Specific enhancements include:
 - Expanded Full Wizard Session feature to allow creation of 100% of the data needed for an energy analysis.
 - New "Weather Wizard" for quickly defining project weather data.
 - New "Utility Rate Wizard" for faster, easier input of electric and fuel rates.

Further information on these and many other enhancements in HAP v4.50 can be found in the "What's New" window that appears upon program startup and in the "What's New" section of the on-line help system (section 1.2).

INSTALLATION PROCEDURES

To install HAP v4.50 please use the procedures listed below. When installing to a network server, please refer to the Network_Primer PDF document in the \Document folder of the CD-ROM for additional guidelines.

Make sure your computer meets the minimum requirements:

- Hard Disk Space: Maximum 300 megabytes. Typical 80-90 MB.
- Random Access Memory: At least 128 megabytes
- Display Monitor: At least VGA with 800x600 resolution and 256 colors.
- Operating System: Windows 98, NT, 2000, XP, Vista or Windows 7.
- X Builder Framework v1.04c or later.

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 download HAP v4.50.
- Download the **e20-hap450.exe** full install file from the internet site and save it to your hard disk.
- Run Windows Explorer and double-click the **e20-hap450.exe** file to start the installation
- During installation you will be required to enter the customer number and unlock code that you obtained from Carrier.

Use the following procedure to run HAP v4.50:

- 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 double click on the "Hourly Analysis Program v4.50" item in this group.

PREVIOUS VERSION INFORMATION

1. Data from HAP versions v4.0 thru v4.4 can be converted for use in HAP v4.5 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).
2. HAP v4.5 will not replace HAP v4.4 when it is installed. Therefore, when it is no longer needed, HAP v4.4 can be uninstalled separately using the following procedure:
 - From the Windows desktop press Start and then choose Control Panel.
 - On the Settings Menu choose Control Panel.
 - In the Control Panel, double-click on the “Add/Remove Programs” icon.
 - In the Add/Remove Programs dialog select “Hourly Analysis Program v4.41” and then press “Add/Remove”.
 - Wait for the first uninstall wizard window to appear. Choose the “automatic” option and then press the Next button. On the second wizard window press the Finish button. HAP v4.41 will then be uninstalled.

PROGRAM DOCUMENTATION

The *HAP Quick Reference Guide* has been updated. The new manual is dated 12/2009. This manual includes an overview of the program, tutorials, example problems and application advice. An electronic copy of this manual, in Adobe Acrobat PDF format, is installed with HAP and can be displayed via the Help Menu while running the program. The electronic copy of the manual is also provided in the \Manual folder on the program CD.

The program’s on-line help system provides complete documentation for the program. This includes a copy of the material from the manual plus detailed discussions of program inputs, reports and calculation procedures.