

January 23, 2006

Re: **MICROPAS®7 v7.1 IECC Version**

Welcome to MICROPAS7 v7.1. This version is an update to v7.0 that was released in July, 2005. The main reason for this update is to make the program consistent with new federal appliance efficiency requirements. **We recommend that you switch to this version as soon as possible for all compliance work.**

For more general information about how to use MICROPAS7 for IECC code compliance, see the information beginning on page 2.

Changes

Major changes made to this version include:

1. **Air Conditioners.** The federal requirements for typical residential air conditioners increase to SEER 13 beginning January 23, 2006. This version adjusts the standard design energy to reflect the SEER 13 requirement making compliance tougher.
2. **Gas Water Heaters.** This version uses a 0.575 Energy Factor (EF) storage gas water heater with no kitchen pipe insulation in the standard design when a 50 gallon gas water heater is specified. This makes the program compatible with federal requirements that went into effect in January 2004 making compliance tougher.
3. **Electric Water Heaters.** This version compares an electric water heater in the proposed design to an electric water heater in the standard design when an electric water heater is specified. This makes compliance easier.

We also fixed a number of minor problems with this release. Note that v7.0 updates posted at the Micropas web site beginning in September 2005 already include the above changes.

Converting Files

A file converter that imports files from version 7 is provided under the other operations menu. To convert all files between versions at once use '/All' for the file name. For users who have modified the Appendix IV library in version 7.0, you can merge these with the Appendix IV library supplied with version 7.1 using '/AppendixIV' as the file name in the convert function. To convert HVAC location data use '/HVACLocation' as the file name in the convert function.

If you have any questions about MICROPAS or these changes, please call us at 800-755-5908. You can reach me at Extension 1 or Dee Anne Ross at Extension 2.

Sincerely,

Ken Nittler
Enercomp, Inc.

July 23, 2005

Re: **MICROPAS®7 v7.0 IECC Version**

Thank you for your MICROPAS7 IECC order. This version is specifically designed for use with the 2003 IECC including the Southern Nevada amendments that are effective August 1, 2005.

Overview

This is a new version of MICROPAS that has been carefully modified to meet the requirements of Southern Nevada.

1. The software automatically generates compliance documentation in accordance with Chapter 4 of the 2003 IECC including the Southern Nevada amendments. If the 2003 IECC and Southern Nevada amendments are silent on an issue, the software follows the California Title-24 Alternative Calculation Method rules that have been in use for many years.
2. Duct leakage and building air infiltration are the only Home Energy Rating System (HERS) verification features recognized for compliance. Other HERS verified features may be accessed when running the optional Nevada HERS (N-HERS) version for use with above code programs like ENERGY STAR®.
3. If you are using other versions of MICROPAS, you will find that the operation of the program has not changed. Screens will look the same. Editing, running and printing are virtually unchanged. If you are new to MICROPAS, read the "How to Use" section of the *MICROPAS User's Manual*.
4. The IECC version follows documentation provided in the *MICROPAS User's Manual* except for the inputs noted below.

IECC Runs

This section covers the requirements to make the software correctly generate an IECC run.

1. Under RUN FEATURES, COMPLIANCE RUN must be set to 'IECC', IECC YEAR must be set to '2003' and SOURCE OR SITE ENERGY must be set to 'SOURCE' as shown in Figure 1.
2. Under SITE AND WEATHER DATA, WEATHER DATA TYPE must be set to 'Fullyear', WEATHER DATA FILE NAME must be set to 'NVLASVEG' and HEATING DEGREE DAYS must be set to the appropriate value. Southern Nevada amendments recognize 2238 HDD as the appropriate value for Las Vegas area. See Figure 2.
3. Assembly U-factors are from 2003 IECC appendix. Users may add assemblies in accordance with 2003 IECC rules.

Figure 1

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MICROPAS7 v7.00 Existing-MP7BASE New-MP7BASE Program-EDIT
RUN FEATURES
RUN
1> RUN TITLE (25 char) ..... Sample
2> PROJECT TITLE (25 char) ..... Sample Micropas Run
3> DOCUMENTATION AUTHOR (25 char) ..... Sample Author
BUILDING
4> TYPE (Single, SingleAttached, MultiFamily) ..... Single
5> CONSTRUCTION (New only in this version) ..... New
6> FRONT ORIENTATION (Compass deg or Cardinal) ..... 0
7> NUMBER OF STORIES (1 or more) ..... 1
8> FUEL TYPE (NaturalGas, Propane) ..... NaturalGas
9> COMPLIANCE RUN (IECC, Research, N-HERS) ..... IECC
14> IECC YEAR (1992, 1993, etc.) ..... 2003
15> SOURCE OR SITE ENERGY (Source, Site) ..... Source

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Figure 2

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MICROPAS7 v7.00 Existing-MP7BASE New-MP7BASE Program-EDIT
SITE AND WEATHER DATA
1> WEATHER DATA TYPE (FullYear, ReducedYear) ..... FullYear
3> WEATHER DATA FILE NAME (CTZ03S05, NVLASVEG, etc) NVLASVEG
10> HEATING DEGREE DAYS (65 deg F base) ..... 2238

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Installation

MICROPAS7 installs in its own directory (C:\MP70IECC) and leaves existing copies alone. If you are using any custom printing settings in MICROPAS6, you will need to duplicate them in MICROPAS7. The CD will install MICROPAS and well as the print utility and places two shortcuts on your desktop. In addition, the installer will place a bookmarked copy of the *Micropas User Manual* on your computer for electronic reference.

Converting Files

The file conversion function in MICROPAS7 looks for files in your MICROPAS6 directory (usually \MP60). If you placed MICROPAS6 or your input files in a different directory, you will need to change the disk settings in MP7 to match the directory where your files are stored. After you have converted your files, you will need to check the data to make sure it is consistent with the new standards. This is especially true for the opaque characteristics section where U-factors have been changed.

Thanks for your business. Any time you have questions or problems with either the program or the standards, please don't hesitate to call us at 800-755-5908. You can reach me at Extension 1 or Dee Anne Ross at Extension 2.

Sincerely,

Ken Nittler
Enercomp, Inc.