

Announcing RELAP5-3D Version 4.2.1

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June, 2014

RELAP5-3D Version 4.2.1 will be released by June 30, 2014.

Improvements and New Code Features

A number of improvements in compiler options have brought the code's calculations on PC and Linux computer platforms much closer together. For version 4.2.1, various new features and improvements have been implemented. Some of these additions include:

- A fix for restart cases using the MA18 solver. The restart capability using this solver did not work previously. It has now been corrected.
- Corrected errors with Hydrogen and Nitrogen fluids. Specifically, these tpf files did not compile correctly with Intel Fortran compilers above version 11.1.
- The nucleate boiling heat transfer coefficient multiplier was implemented. This option is controlled with Word 13 in the 20 word format for the 1CCCG801 through 1CCCG899 (and 1CCCG901 through 1CCCG999) cards.
- The plot file for problems using the "moving" option was damaged in the previous version. It has been corrected for this version.
- Controlling the compressor speed with a control variable was not functioning correctly, this issue was corrected.
- Card 1 Option 15 was institutionalized. The code could previously violate the Courant limit. With this change, the code no longer violates the Courant limit. Using Card 1 Option 15 results in an input error. The previous functionality of the code can be accessed using Card 1 Option 22.
- Some problems that did not previously pass verification testing for restart or backup have been corrected.
- Numerous user problems have been found and fixed in this version.

Manuals and Documents

The normal RELAP5-3D code manuals have been updated for 4.2.1 and will be released with the code. A new report comparing the Developmental Assessment results when running on Windows and LINUX has been written and is available upon request.

4.2.1 Release Date

RELAP5-3D is now a more robust tool. The expected release date is June 30, 2014.