Release Notes

INSTED Ver. 8.2.1

TTC TECHNOLOGIES, INC.

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Release Features

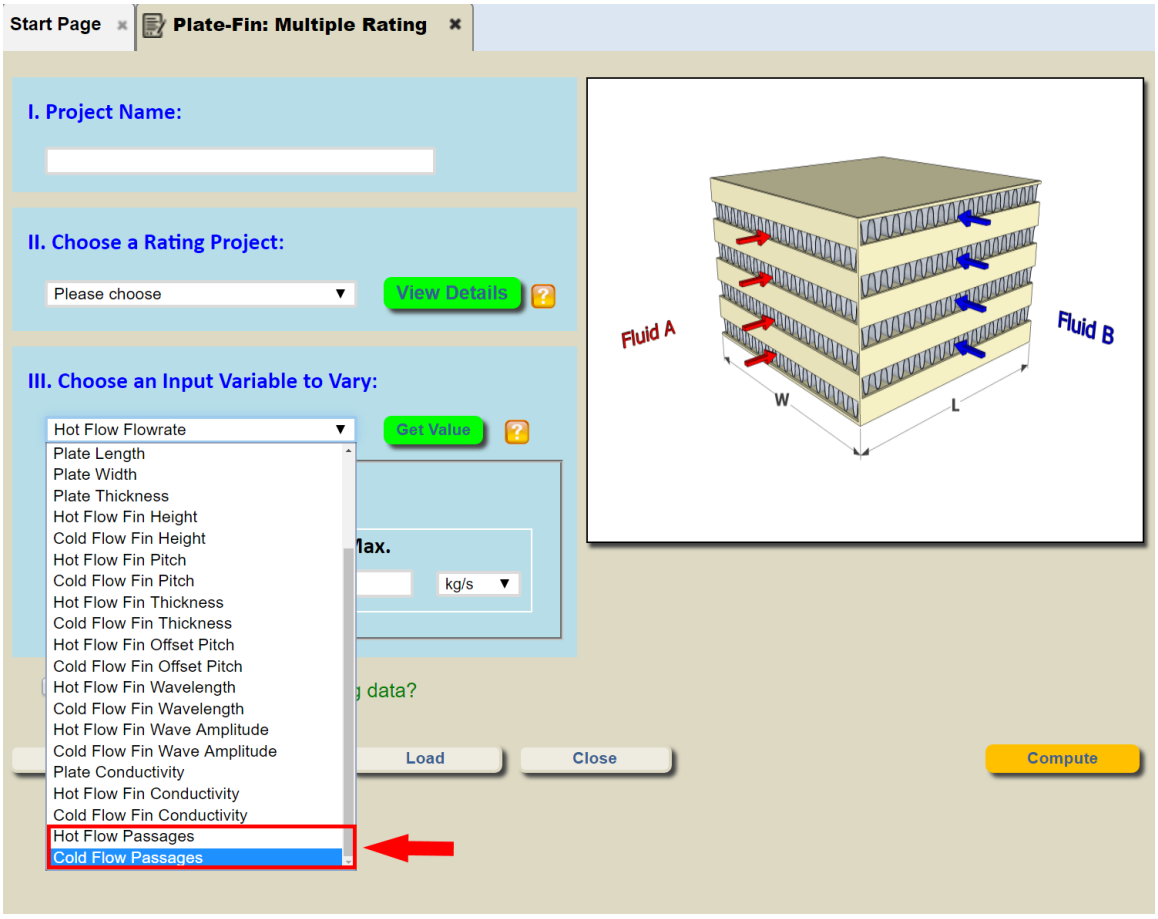
INSTED Ver. 8.2.1

The latest version of INSTED (Ver. 8.2.1) includes the enhancements, changes, and bug fixes to INSTED 8.2.

Improved Plate-Fin Solver

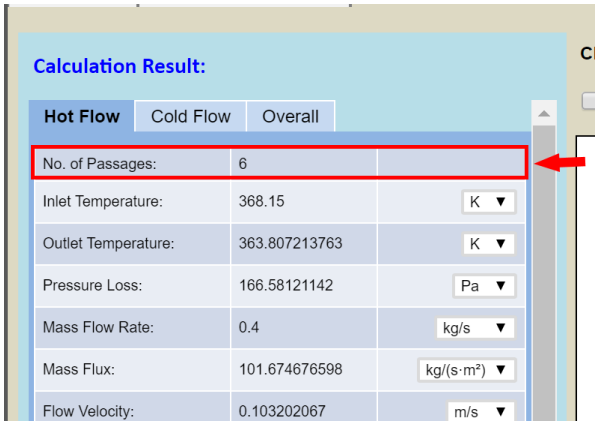
- The plate-fin solver is optimized so that the calculations involving REFPROP fluids become much faster. The boost of the calculation speed is especially significant for the plate-fin rating when using the predefined mixture (such as air) in REFPROP.

- For multiple rating module, the following new parameters are added to allow to be varied during the calculation:
    - Number of passages for hot flow
    - Number of passages for cold flow



Improvements on user interface

- New outputs of “No. of Passages” are added for both hot and cold streams for the rating result of plate-fin.



- “Bulk” calculation method is disabled when rating a plate-fin heat exchanger with multi-passes or multi-partitions.

Issues Fixed in the Plate-Fin Module

- In INSTED Ver. 8.2 there was a bug when using Manglik and Bergles Correlations to calculate the Colburn and friction factors of offset-strp fins. This issue has been fixed in INSTED Ver. 8.2.1.

- In INSTED Ver. 8.2 there was bug when generating downloadable Excel file for multiple rating calculations. The file was generated even before all the calculations were completed so that the calculation results of several rating points may miss in the Excel file. This issue has been fixed in INSTED Ver. 8.2.1.

- In INSTED Ver. 8.2 there was bug when generating downloadable Excel file, the fin geometry data is not added to the file when Kays & London fins were used. This issue has been fixed in INSTED Ver. 8.2.1.

- In INSTED Ver. 8.2 there was bug when generating downloadable Excel file, the side/end bar width and height were not outputted to the correct column in the Excel sheet. This issue has been fixed in INSTED Ver. 8.2.1.

- In INSTED Ver. 8.2 there was bug when generating downloadable Excel file, when the Kays & London fins with multiple layers of fins were used (such as 1/2-11.94 (D)), the overall plate spacing was outputted as fin height in the Excel sheet. This issue has been fixed in INSTED Ver. 8.2.1.