TRIFLEX® Version 3.3.4 Enhancements & Modifications
January 16, 2012
Page 1

Enhancements

1. ***Automatic PDF Printing*** – This version of TRIFLEX introduces an automated sequence allowing the user to produce the complete set of output reports for a specific case to a PDF formatted file. The instructions for doing so are included in the Documents directory of the installation folder.
2. ***Swing Arms*** – A swing arm support has been added to TRIFLEX in conjunction with structural members such that an axial loading or thermal expansion of a component will result in a corresponding lateral displacement if the component is supported by the swing.
3. ***Dampers*** – The handling of dampers in TRIFLEX was made more consistent with the specification of occasional loading.
4. ***PCF Conversion*** – PCF file conversion was taken out of the auspices of being handled by an external executable and brought into the main program itself, allowing much more in the way of features and accuracy.
5. ***PDMS Conversion*** – PDMS conversion has been enhanced, providing additional detail and conversion compatibility with the original PDMS plant design drawing.
6. ***Worksheet Ripple*** – A new feature has been added allowing the ripple of temperature and pressure data directly from the input spreadsheet. Select a column of temperature or pressure to be rippled and this data can be copied into other case columns of temperature and pressure as desired.
7. ***Column Header File*** – If the column header file cannot be located at the user specified location, a warning message will now be issued and the user will be allowed to select the file from another location. This prevents the "?" column headings which would appear in previous versions when no column header file could be found.
8. ***Time History Forcing Functions*** – Added to the location column in the nodal excitation page of the Time History definition are the Pressure, Temperature, and Weight variations which may be specified for the entire piping system, using the functions specified in the Function Definition page.

Modifications

1. ***Internal Databases*** – Several materials as specified in the updating of our piping codes have been added and or corrected to currently accepted values in our material, flange, valve, piping, structural steel, and spring hanger databases.
2. ***Ripple This Case*** – The default of the Ripple This Case check box on the process tab of the component dialog has been changed from normally checked to normally unchecked. What this implies is if a case is to be rippled on the process tab, it must be specifically asked for, else the rippling to that case will not occur.

3. ***Stress Intensification Factors*** – The In-Plane / Out-of-Plane SIFs are now correctly applied to the in-plane and out-of-plane moments in the evaluation of code stresses for branch connections and elbows in those piping codes such as ASME B31.3 which require the distinction.
4. ***Flange Loading Dialog*** – The safety factor field on the flange loading dialog was corrected to be interpreted as the standard engineering definition of safety factor such that it provided an allowable loading less than the maximum capacity as calculated by Kellogg or the NRC equations.
5. ***Input Parameter Graphics*** – The dialog for input parameter graphics was modified to list cases by case number rather than alphabetically by case name and retain the users selection in subsequent dialog entries.
6. ***Piping Code Compliance Report Highlighting*** – The columns highlighted when overstress or out of range values were encountered while running the code compliance report have been corrected to display in the correct columns along with the percent overage if applicable.
7. ***Case Definition Dialog*** – A bug has been corrected wherein the user could select Seismic Equivalent Loading as well as Occasional Wind loading in the same case. These two options are mutually exclusive and the ability to select both simultaneously has been removed.
8. ***API 610 Non-Integer Pipe Size*** – Previously should the user specify a non-integer pipe size in the API 610 dialog, the API 610 calculation routine would round that pipe size to the nearest integer and that value would be listed in the accompanying report. Now the report lists the value entered by the use in the setup dialog.
9. ***B31.8 Hoop Stress*** – B31.8, 2010 has included a Thick Wall formula for calculating hoop stress in addition to the thin wall formula that was previously required, with the option that the user could choose which one he wished to use.