

PSV Plus 5.2 RELEASE NOTES

The following notes apply to Release 5.2 of PSV Plus, January 2008 and earlier versions.

Backward Compatibility with 4.2 or earlier releases:

The **calculation files** with extensions *.vap*, *.liq*, *.stm*, *.mxa*, *.mxc*, *.mxd*, prepared with previous versions of PSV Plus can be immediately opened and used with this new release.

The **MS Access databases** (extension *.mdb*) created with PSV Plus 4.2 or earlier **are not compatible** with the 5.1 version, due to the revised software architecture.

New features of Releases 5.1 & 5.2

- ü Added new extended on-line manual in HTML format;
- ü Added Fluid Properties calculations;
- ü Added Line Sizing for two-phase inlet and outlet lines sizing;
- ü Added 'Global Settings' form to set the general calculation defaults to be used for all valves included in a database.
- ü Included Compressibility Factor in the control valve failure form;
- ü Added the 'Calculated Scenario' menu to give better visibility to the scenario's for which the relieving rate can be computed;

New features of Release 4.2

- ü Added the "export to MS Excel" feature for reports generated in MS Access environment (i.e. Process Data Sheets, Summary Calculation Sheets for PSV, Relief Load Summary);
- ü Completely redesigned the Fire load calculation form, to give a more intuitive interface showing all the available options;
- ü Units of Measurement added to the Fire calculation form;
- ü Units of Measurement quick selection buttons added to Vapor, Liquid, Steam and Mixed phase PSV calculation forms and to main Scenario Load calculation forms;
- ü Units of Measurement added for Line sizing data;
- ü Added "kPa" in the list of available Units of Measurement;
- ü Added Cold Flare, HP Flare, LP Flare, Wet HC Burn Pit, Cryogenic Burn Pit description in the "Discharge to" pick list;
- ü Modified Summary Calculation Relief Load Summary Report Calculation Sheet graphics to include revision index and Issue type description and added the Fire Area field;
- ü Added a form in the database environment to add Emergency depressurization valves to the Relief Load Summary;
- ü Added a Report in the database environment to be used as a cover page for Process Specifications issue, including items and revision indexed;
- ü Added Thermal Expansion Scenario to calculate relieving rate following this contingency;
- ü Added Control Valve failure Scenario detailed calculation, including the estimation of failing Control Valve CV @ full opening. Applicable also to gas break-through situations;
- ü Added the Print All option to print all the calculation reports in a database with one click;

New features of Release 4.1

- ü Provided seamless integration between PSV Plus calculation modules and Database driven application;
- ü Added Piping contribution field to the fire calculation form, to account for piping contribution to wetted / unwetted areas calculation;
- ü Added Scenario's calculation forms;
- ü Added Pipe schedules for lines sizing routines;
- ü Added Relief Load Summary Report;
- ü Changed default value for Latent Heat in the Fire calculation form to 50 btu/h;
- ü Added multi-task environment, allowing the user to open more than one calculation form at a time;
- ü Added automatic calculation for Ksh coefficient in Steam calculation module;
- ü Added screen resolution code to make PSV Plus to appear always the same;
- ü Added reports for all the scenario's calculation;
- ü Fixed Report to show only the current PSV calculation (i.e. one PSV report at a time) and to immediately update any change to calculation data;
- ü Fixed typing problem for numeric field to allow for 'Backspace' pressing;
- ü Implemented Summary Calculation Sheet for PSV report in the database driven application;
- ü Added fields to select the Sizing Case, and the Scenario case to include in the Relief Load Summary;

Planned main new features for next PSV Plus versions

- ü Physical properties for two-phase cases;
- ü Link to Hysys physical properties calculation;
- ü Link to Flarenet flare header calculation program;
- ü As suggested by our Customers.