

## General enhancements

### Version 2.9-160 (08/06/2026)

- The zoom slide control in the flowsheet environment has been changed from a linear scale to an exponential scale. This gives a more intuitive response.
- The input data table reports have been enhanced to display all data and can now be copied to Excel with correct alignment

### Version 2.9-157 (18/05/2026)

- Due to a retrograde bug in the windows development environment some of the editor windows could be resized. These windows are not a fixed size. The main windows and the graphics' windows are still resizable.
- Some versions of windows, some of the applications had runtime issue reporting that a windows %nc control was called in an improper sequence. This message was incorrect and the underlying issue has been resolved

### Version 2.9-156 (28/10/2025)

- The selectable fonts now the standard windows 11 Font
- The editor dialogues have been optimised for windows 11 fonts
- The stream data editor / excel interface becomes unstable in some situation
- The stream data editor Paste stream/Paste stream New would corrupt the stream data in some circumstances

### Version 2.9-155 (17/02/2025)

- The multiple utilities targeting objective has now been expanded to include total cost and CO<sub>x</sub> emission.
- The background colour for graphics plots can now be configured independently for the display and printing. This is to save expensive printer ink.

### Version 2.9-154 (21/11/2024)

- The default size of the XY graphics can now be defined in response to the availability of increasingly high resolution screens.

### Version 2.9-153 (9/10/2024)

- Due to issues with instances of the CPIsuite.ini file corruption, the stored graphics attributes are now checked to ensure that they are within bounds.
- The unit text used in the Excel Interface would become corrupt in some circumstances. This has been resolved.
- Due to align issues with non-English versions of window, the ability to configure which font is used for the interface has been included.

### Version 2.9-152 (12/09/2024)

- The font scale factor was not being read for the configuration file correctly. This has been resolved.
- The number of available colours for the flowsheet editors and XY plots has been increased.
- The colours and shading method have been enhanced for the flowsheet editors

- The shading resolution and shading light bias can now be user configured

### Version 2.9-148 (18/09/2023)

- All internal capital cost correlations have been updated to 2021 using the CECPI indices. A facility has been added to the economic data to display the capital cost correction indices as a function of time
- Due to instability issues with the installation on Win 11 systems additional diagnostics have been added to the license file sub-system.
- The ability to add notes to all the major units has been included to aid documentation.

### Version 2.9-146

- The technical support contact phone numbers have been updated
- New Development environment libraries
- The “delete stream” function in the stream data editor would corrupt the stream data in some situations. This has been resolved.

### Version 2.9-145

- The “check for updates” was not downloading the updated installation image when requested. This has been corrected.
- An option has been added to automatically check for any software updates at program startup. This facility can be disabled in the “Preferences”.
- The stream data editor was not consistently refreshing the stream numbers. This has been resolved.
- Due to a limitation in windows, when using a “Menu style” other than **None** the maximum length of menu entries is truncated to about 30 characters. In some applications this caused the menus to be displayed incorrectly.

### Version 2.9-144

- The default stream film heat transfer coefficient has been changed from 2 to 0.6 kW/(m<sup>2</sup>.K)
- The user preferences were not being reset to default when loading data files. This has now been resolved
- The simulated anneal has additional feature to automatically determine initial and final annealing “temperatures” based on the initial and current best solution
- The Annealing history can be sanitised to eliminate excessive value due to non-feasible trails (maybe using penalty functions).
- The default backup name has been changed from “BACKUP~.XXX” to ~\$<filename.xxx> or ~\$BACKUP.XXX. This is to permit concurrent running of application. These are now deleted if an application terminates correctly
- Issues relating to data alignment when using the “HTML viewer” option have been resolved
- The card index style editors input sheet with copy/paste functionality now have accelerator keys (Copy = Ctrl+Ins, Paste = Shift+Ins, Paste New = Ctrl+Shift+Ins)
- Alt+F2 will toggle the report viewer between the standard report viewer and a HTML based viewer. The HTML viewer is primarily focussed on examining large reports with web style links and decorated text (Size/bold/colour etc.). There are functions

available to copy the report text to external applications but it currently lacks a print function. The standard report viewer has a greater range of functions currently available.

### Version 2.9-142

- New Development environment libraries
- Restructure on-line help
- Details of how to obtain technical support have been revised and updated
- A function has been included to permit user to check if there is an updated version of the software available to download
- An issue relating to the pinch range targeting feedback window has been resolved
- An issue relating to the pinch range targeting report (no utilities) has been resolved

### Version 2.9-140

- The horizontal and vertical scaling factors for the flowsheet windows (PFD) were being reversed in the CPISuite.ini file. This has been corrected
- Latest version of the compiler and interface library has been implemented
- The license manager KeyView has been revised to permit a single transferable license system to be implemented
- The Licence contact information can be modified in the Preferences\licence sheet

### Version 2.9-136

- An option has been added to the program preference that will warn the user if a print operation will produce a large volume of output. This is to avoid unnecessarily wasting print resources

### Version 2.9-134

- The Excel interface has been enhanced to allow user to specify the location of the template file rather than the default of the application folder which the user may not have access rights to.

### Version 2.9-133

### Version 2.9-132

- The interface to the external MILP solver has been enhanced to give better feedback in the case of issues accessing or running the solver
- A new interface option has been implemented in some editors that can control the input limits for values. The limits are not applied to the displayed value but (on error) an alert icon appears and the text colour changes to red. For integers the associated variable is the same user input (the value is set at the lower or upper limit). When a real value is not completely formed then its stored value will be the most recent value that is available. The user can control if the limits checking is applied in the system setting. See on-line help (General\Common features\Editing features) for more details
- Updated compiler and runtime libraries

### Version 2.9-130

- A rationalisation of how the HEN grid diagram options are stored internally
- X-Y plots with integer axis would not use the user specified axis under certain circumstances. This has been resolved.
- The way the flow sheeting environment is configured has been rationalise across all packages
- The flowsheet Treeview functionality has been made more consistent across all packages
- Issues relation to the pop-up help associated with icon based button has been resolved

### Version 2.9-128

- Some inconsistency's on how flowsheet pictogram were resized due to multiple connections have been resolve

### Version 2.9-127

- Button style have been modernised and icons added.
- Support for Windows XP and Vista has been withdrawn from some of our software vendors so we may not be able to provide support for these platforms if an issue arises

### Version 2.9-125

- Software support website now including in university CEAS website. All relevant links in the software and on-line help systems have been revised
- The auto-login procedure for the PIRC member's restricted area is no long valid for the new website. The required login information is supplied to the PIRC member when the menu item is selected in the application.
- All temporary file used by the applications (diagnostics/report/data log) are now based on the process ID so multiple instances of an application can now run simultaneously without conflict
- New versions of the Silverfrost ftn95 and Clearwin user interface library installed to support issue relating to win 8/8.1/10
- Issues relating flowsheet environment not refreshing in certain circumstances due to new Clearwin library have been resolved.
- A direct Excel interface has been added to the stream data editor which permits the bidirectional data transfer.

### Version 2.9-117

- Utilities targeting. The ability to include a constant offset when "linking" utilities has been implemented
- The embedded web address for the CPI and PIRC website has been revised to suit the new web serve requirement. The automated login system for PIRC members is no longer available (from applications or third party websites)
- An issue relating to the stream data/Excel interface has now been resolved
- An issue relating to initialising the interface to the on-line help from within the applications on Win 8/8.1/10 causing the application to crash has now been resolved. The on-line help now functions as expected.

- Due to a number of “false positives” from some anti-virus software the applications and installation images have been enhanced to contain version, publisher and copyright information.
- Installation help documentation revised to include the latest capabilities
- Due to the requirement of some sites with complex installation issues the help file (.CHM) location is now configurable if required.
- The “Save/Save As” dialogues have been revised to match MS style application
- The driving force plots (DFP) have been enhanced to include area information
- Area targeting reports have been revised to give detail of process and utility area contribution. Area target can now also give details on how much area should be on a given stream
- An issue relating to application crashing due to missing system fonts on win 10 has been resolved

### Version 2.9-100

- Revise installation images for the AspConv and HysConv utilities
- The menu layout in application has been revised to match MS office style
- An issue relating to stream data being transferred between application via the clipboard has now been resolved
- The default folder for project file is now configurable
- The flowsheet image can now be directly saved to a file for inclusion in reports etc.
- ESC now closes most editor and flowsheet sub-function
- Flowsheet pictogram colour revised and enhanced
- Point targeting option enhanced (STAR/SPRINT/WORK/COLOM)
- Flowsheet drawing function upgraded to latest version from development environment
- An issue relating to default colour mode (VGA vs RGB) due to change in the development environment defaults
- Upgraded to latest version of development environment
- An option has been added to the XY plot to control trailing “0’s” and border on plots
- An issue relating to the XY plot axis information initiation has been resolved

### Version 2.9

- The on-line help file (.CHM) location is now set to be relative to the application executable (xxx.exe\..\help\), simplifying the installation procedure
- An issue relating to the default installation folder in the installation script has now been resolved
- An issue with “spin boxes” in editors has caused them to be temporarily disabled
- An issue relating to initialising the interface to the on-line help from within the applications on Win 8/8.1/10 is causing the application to crash. Adding “-nohelp” to the application shortcut disables the on-line help and permits the application to function
- Project development environment upgraded to FTN95 to provide support for latest version of windows
- The interface to the third party graphic libraries has been revised to remove obsolete function calls
- Units conversion editor – The list of units is now on a “per application” basis to streamline the user options
- XY Plot – Individual graphic titles can be switched off to help sanitise output

## Version 2.8

- XY plot – line type default changed (dots and dashes)
- Issue relating to physical properties calculated Cv, Cp and Gamma and reconciling difference to HYSYS/Aspen
- Project description – Client ID and Project ID added for improved case study management
- An issue relation to the project description has been resolved

## Version 2.1

- The utility data editor can now invert the utility temperature profile to enable its type to be changed (hot to cold etc.).
- The utility data editor has been enhanced to allow the data to be copied to/from a spread sheet via the clipboard.
- An issue with the units conversion not being correctly applied to fuel data has been resolved.
- The stream data editor has been enhanced to allow more streams to be displayed.
- An issue with the utility editor ignoring threshold and in fixed load information in copy/paste operation has been resolved.
- The composite curve XY plot has been enhanced to place both composite on the clipboard simultaneously.
- An issue relation to the operating hours not being converted properly has been resolved.
- The stream data-spreadsheet interface has been extended to incorporate capital cost classes
- The ability to specify the number of significant digits or number of decimal places has been added to the conversion units.
- Basic interface function to EXCEL have been added to the equation editor.
- An issue with the equation sheet crashing has been resolved.
- An issue relating to multiple pinches has been resolved.
- An issue with colours selection in XY plots has been resolved.
- Additional options have been added to the grid function in XY plots.
- The text size in user text boxes on the flowsheet can now be sized.
- Editor page keys have now been changed to Ctrl+Home & Ctrl+End to comply with windows standards
- An issue relation to the sort order in the utility editor has been resolved

## Version 2.0

- Additional stream sort orders have been added to the design grid and a network editor.
- An issue with the aspen converter crashing has been resolved.
- A tool has been added to the stream data editor to allow "safe side" regression to reduce the number of stream segments.
- The ability to generate stream data from the physical properties calculator has been implemented.
- An issue with using Ctrl+P to print data has been resolved.
- The when pasting data from the clipboard in the stream data editor the choice of append or replace has been implemented.
- The stream data editor has been enhanced with additional tools for changing HTC and local DT contributions.

- The steam profile tool has been enhanced to display and calculate the difference between to operating points.
- The stream data editor has been enhanced to include stream copy/paste/segment merging and de-segmentation tools and the ability to trim the stream data within temperature limits
- Additional controls on the displaying of XY plot titles and conversion units have been implemented.
- An issue with utility capital costing not being incorporated in range targeting has been resolved.
- targeting utility placement now has the ability to have fixed and threshold loads.
- A problem with the axis labelling on integer based plots has now been resolved.

## Version 1.8

- Default units sets can now be imported/exported form data files
- The font size on PFD icons are now user scalable
- Default colours for PFD changed and configuration menu rationalised.

## Version 1.7

- PFD environment - the display of units names is configurable
- The ability to call an external MILP solver (GAMS) has been implemented to augment the internal solver. This is a commercially available solver which is more efficient at handling larger problems.
- The "New" wizard has been re-written to keep the window open between processing steps
- Page keys changed from PgUp/PgDn to Ctrl+PgUp/ Ctrl+PgDn to avoid conflicts with the equation editor
- The locate function in the PFD environment has been revised
- A problem with the PFD where the environment could be closed when in a sub-task leaving the program to hang. The close is now intercepted and rejected with error message
- In the PFD environment the Reset connections options added to overcome node placement problem in legacy files due to changes in icon size
- Plots of FT vs. P and Ft Vs Xp have been added to the exchanger capital cost editors
- Units editor The Dollar conversion removed. currency conversion now handle only when calling internal correlation's
- In some of the packages it is possible to specify the output number of decimal places
- Components can now be flagged as "inert" to exclude then from equilibrium calculations.
- Flat style toolbars implemented
- Updated Salflibc.Dll library utilised
- Obsolete unit classes have been withdrawn.
- Filled and shaded graphic entities have been added and default background colour changed.
- On-line interface to Aspen Properties implemented.
- IF-ELSE blocks added to equation editor, also simultaneous linear equation function made available to equation model as well as a stand alone function.

## Version 1.6

- Size problems when portrait printing from PFD environment has been resolved
- XY plots - line co-ordinate data and attributes can now be saved to a file.

- XY plots - individual data set can be switched Off/On
  - Toolbar added to report windows
  - Toolbar added to stream data editor
  - Coloured text added to stream data editor
  - Coloured text added to utility data editor
  - Text based reports can now be viewed using the default HTML viewer. Additional text attributes and index links have been added.
  - Toolbars buttons updated with a flat format inline with common windows packages
  - Currency conversion has been simplified. The user can now change the internal currency used by the packages.
  - PFD -A problem with edit boxes re opening if mouse not fully on drawing surface has been resolved.
  - Support for fixed format data files has been withdrawn.
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- Fugacities added to physical properties calculator
  - A problem with using the HYSYS interface when it was in holding mode has been resolved
  - Using report window to write to a read-only file cause program to crash . This has now been resolved
  - Equation compiler had problem with negative exponents. this has now been resolved
  - In some applications the menus were becoming overcrowded. It is now possible to select short menus with the less commonly used option on a fly-out menu
  - X-Y graphics can now have INTEGER axis where appropriate and now both the X any Y axis can be inverted dynamically
  - Aspen column converter updated to work with Aspen 10.2, requires zetool.dll not stf.dll
  - The packages can now executed from folder with spaces in them (i.e. \program files\cpi) without corruption of the graphics fonts

## Version 1.5

- A "New Project" wizard, which takes users step by step through the process of setting up a new problem.
- Improvements to the graphical output system, such as legends, user-defined notations, and the ability to obtain the stream population at specific points on composite curves.
- Extensions and improvements to the help system, to keep it in-line with the new technology
- Due to the increasing functionality of the programs the main toolbar has been made user configurable.
- Feedback help can now be displayed in the status bar. If this option is selected the program will display the help message for the main window icons in the status bar. PLEASE NOTE: there is a problem with Windows NT which will cause a program failure if this option is used.
- The main program window layout is now configurable. This allows the user to control how much of the desktop is utilised by the program. Graphic images from the PDF editors can be transferred to other applications via the clipboard.
- The graphic line type and colours are now user configurable
- User annotations can be added to XY graphs.
- The physical properties system now has an interface to the IK-Cape Open system.
- Reports windows can now be configured to maximise on start-up
- Help System totally revised to bring it inline with windows standards which include search and print functions. It can now be accessed outside of the application

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