MANCHESTER 1824
The University of Manchester

WORK release enhancements

This release history summarises **WORK** enhancements, model additions, report improvements, and resolved issues across versions, with the newest changes listed first.

For non-program-specific changes, see the general enhancements section.

Version 2.9-160 (08/06/2026)

- The zoom slider control in the flowsheet environment now uses an exponential scale instead of a linear scale, giving a more intuitive response.
- 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 (21/04/2026)

No release notes are currently listed for this version.

Version 2.9-156 (10/06/2025)

No release notes are currently listed for this version.

Version 2.9-155 (17/02/2025)

No release notes are currently listed for this version.

Version 2.9-154 (21/11/2024)

No release notes are currently listed for this version.

Version 2.9-148 (18/09/2023)

- ShellDMR, APCI, and Expander cycle models have been added.
- Various issues relating to data corruption when reading and saving project files have been resolved.

Version 2.9-146

No release notes are currently listed for this version.

Version 2.9-142

- New development environment libraries have been added.
- Online help has been restructured.

Version 2.9-140

- Compressor driver selection functionality has been moved into the **STAR** application.
- Exergy targeting returned an infeasible solution in some circumstances. This has been resolved.
- The Cryoman model has been added for simulation and optimisation.

Version 2.9-125

- An issue causing data corruption during coldbox multistage (GA) optimisation initialisation has been resolved.

Version 2.9-100

- An issue where mixed refrigerant optimisation did not return the correct composition has been resolved.
- An issue relating to multistage cold box models has been resolved.
- An issue where cold streams in the coldbox changed to hot streams due to the cooling effect of pressure drop has been resolved.
- An issue with sub-cooled liquid entering the coldbox system has been resolved.

Version 2.1

- Stochastic optimisation (GA/SA) formulation has been added to refrigerant-level optimisation.
- An issue where driver selection did not include fixed turbine or powerhouse information in optimisation has been resolved.
- The mixed refrigerant report has been enhanced.

Version 2.0

- Capital costing has been added to refrigeration system targeting, and optimisation for total cost has been included.
- An issue with "must be used" in driver selection has been resolved.
- An issue where driver selection did not retain the selected solution has been resolved.
- An issue with fuel energy limits in driver selection resulting in non-optimal solutions has been resolved.
- An issue where mixed refrigerant crashed when an intermediate temperature was specified below the exit temperature has been resolved.

Version 1.8

- A problem saving the physical properties counter to the data file has been resolved.
- Units conversion is now correctly applied to Omega plots.

Version 1.7

- Different refrigeration cycles can now have different pure refrigerant compositions.
- The Standard Point targeting tool has been added.
- A problem calculating the correct temperatures in the PRICO model when there was no vapour flow has been corrected.

Version 1.6

- A problem with units' conversion on composition profiles has been resolved.
- Energy and capital reports added.

Version 1.0

- Initial release of program
- Incorporating Exergy and Refrigeration function from **STAR**