

DDB

Version 2026

Release Notes



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1 Installation notes

The current software release can be installed in parallel to any previous release. However, if a previous release is uninstalled after the installation of the current release, then settings like the file type associations will get broken. In that case, a repair installation of the current release should solve the problem.

An officially supported Microsoft Windows version at release time is required.

2 General

- The DDBPR files can now contain data set information (like QRX files).

3 Components

Added support for drag and drop of component list files.

4 Flash Point Calculation

The text output does now contain information about the system, model parameters and pure component properties.

5 Literature

- Added history for the quick search.
- Added support for “DOI” search.

6 Mixture Prediction

- Multi-system calculation for CPE, HE, VLE
- Added support for calculation using the TREND DLL. It is a preliminary release with limited functionality.
- The GC-COSMO profiles are now created on the fly from the stored structure. So, the GC-COSMO calculation using private components is now supported.

7 Regression Mix

AZD, LLE, SLE, VLE data is shown in one diagram (if available).

8 Miscellaneous

The simulator interface does now support aspenOne™ v15 as well as AVEVA™ PRO/II™ 2024 and 2025.

As usual, this release contains general bug fixes and performance improvements.

9 Dortmund Data Bank Progress (2026)

9.1 Overall Statistics

The Dortmund Data Bank 2026 contains more than 72,800 new data sets and more than 468,400 new data points.

DDB	2025		2026		Absolute Gain		Relative Gain	
	Sets	Points	Sets	Points	Sets	Points	Sets	Points
AAE	6750	95400	7000	99300	250	3900	3.70 %	4.09 %
ACM	2800	14900	3000	16000	200	1100	7.14 %	7.38 %
ACT	128700	128700	129100	129100	400	400	0.31 %	0.31 %
AZD	62400	62400	62750	62700	350	300	0.56 %	0.48 %
CPE	8400	96700	8800	100300	400	3600	4.76 %	3.72 %
CRI	4400	26200	4500	26500	100	300	2.27 %	1.15 %
EGLE	5150	32300	5300	32800	150	500	2.91 %	1.55 %
ELE	15900	201000	16050	202900	150	1900	0.94 %	0.95 %
ESLE	55150	377000	55750	381600	600	4600	1.09 %	1.22 %
GLE	33400	162900	33900	166300	500	3400	1.50 %	2.09 %
HE	25550	368900	26050	373200	500	4300	1.96 %	1.17 %
HPV	53900	450300	54950	458000	1050	7700	1.95 %	1.71 %
LLE	43000	394800	43950	403400	950	8600	2.21 %	2.18 %
PCP	460000	2543800	482300	2613100	22300	69300	4.85 %	2.72 %
POLYMER	24850	276800	25450	285300	600	8500	2.41 %	3.07 %
POW	15600	15600	15850	15800	250	200	1.60 %	1.28 %
SLE	101700	881800	107000	932500	5300	50700	5.21 %	5.75 %
VE	92950	1045200	95350	1064600	2400	19400	2.58 %	1.86 %
VLE	45650	652500	46400	661500	800	9000	1.75 %	1.38 %
ECND	24600	267000	30400	328500	5800	61500	23.58 %	23.03 %
GHD	7200	48900	7600	50800	400	1900	5.56 %	3.89 %
MDEC	9700	86300	11450	98400	1750	12100	18.04 %	14.02 %
MFLP	1860	11800	2110	14300	250	2500	13.44 %	21.19 %
MPVT	27700	451700	31400	489800	3650	38100	13.15 %	8.43 %
MSFT	12550	126800	13900	139700	1350	12900	10.76 %	10.17 %
MSOS	44200	493300	48400	535000	4200	41700	9.50 %	8.45 %
MTCN	6750	63600	7050	65700	300	2100	4.44 %	3.30 %
VIS	79600	818100	85800	879000	6200	60900	7.79 %	7.44 %
X other	85750	754600	99850	817800	14100	63200	16.44 %	8.38 %
Total	1470400	10769300	1543200	11237700	72800	+468400	4.95 %	4.35 %

Disclaimer:

Numbers presented may differ for a specific delivery because of corrections or other necessary changes.

The data base short terms are:

AAE: Adsorbent/Adsorptive equilibria – ACM: Activity coefficients at infinite dilution of a solute in a binary solvent – ACT: Activity coefficients at infinite dilution of a solute in a pure solvent – AZD: Azeotropic data points – CPE: Heat capacities and excess heat capacities – CRI: Critical data of mixtures – DIF: Diffusion coefficients – ECND: Electrical conductivities – EGLE: Gas solubilities in electrolyte-containing mixtures – ELE: Vapor-liquid equilibria of electrolyte-containing mixture – ESLE: Salt solubilities – GHD: Gas hydrate data – GLE: Gas solubilities (gas-liquid equilibria) – HE: excess enthalpies – HPV: Vapor-liquid equilibria (at least one component has a normal boiling point below 0°C) – LLE: Liquid-liquid equilibria (miscibility gaps) – MDEC: Mixture dielectric constants – MFLP: Mixture Flash Points – MPVT: Mixture P-v-T data – MSFT: Mixture surface tensions – MSOS: Mixture speeds of sound – MTCN: Mixture thermal conductivities – PCP: Pure component properties (several dozen different properties) – POLYMER: Polymer related data (VLE, LLE, etc.) – POW: Octanol-Water partition coefficients – SLE: Solid-liquid equilibria (solubilities) – VE: volumes, densities and excess volumes of mixtures – VIS: Mixture viscosities – VLE: Vapor-liquid equilibria (all components with a normal boiling point above 0°C) – X: Different thermodynamic properties.

9.2 Pure Component Properties Data Bank Parts

The PCP parts are defined as shown in the following table:

Partial DDB	Data Sets	Data Points	Components
PCP-VAP	223000	579400	80700
PCP-VIS	51550	411000	7100
PCP-HCP	95500	733500	26500
PCP-PVT	119750	851600	20050
PCP-ENTH	25350	91500	8900
PCP-SFT	9800	46500	3700
PCP-Other	11250	57400	2400

The packages contain these properties:

PCP-VAP: Vapor Pressure, Critical Data, Triple Point, Melting Point, Heat of Vaporization, Heat of Fusion, Boiling Point, Heat of Sublimation, Standard Heat of Vaporization, Standard Heat of Melting, Standard Heat of Sublimation, Freezing Point (Supercooled Liquid to Crystal/Solid only), Decomposition Temperature, Heat of Crystallization, Hypothetical Vapor Pressure (often pS(VL) of Solid Compounds)

PCP-VIS: Dynamic Viscosity, Kinematic Viscosity, Thermal Conductivity

PCP-HCP: Molar Heat Capacity (c_p), Heat of Vaporization, Heat of Fusion, Mass Heat Capacity, Enthalpy (H0), Enthalpy (H298), Enthalpy (H-H298/T), Enthalpy (H-H0/T), Transition Temperature, Heat of Transition, Molar Heat Capacity (c_v), Mass Heat Capacity (c_v), Ideal Gas Heat Capacity, Molar Saturation Heat Capacity, Heat of Sublimation, Entropy of Vaporization, Entropy of Fusion, Entropy of Transition, Entropy of Formation, Mass Saturation Heat Capacity, Gibbs Energy of Sublimation, Entropy of Sublimation, Standard Heat of Vaporization, Standard Heat of Melting, Standard Heat of Sublimation, Heat of Crystallization

PCP-PVT: Density, Virial Coefficients, Volume, P-v-T, Speed of Sound, Virial Coefficients (Berlin form), Thermal Expansion Coefficient, Compressibility (isothermal), Compressibility (isentropic), Compressibility Factor (isothermal), Compressibility Factor (isentropic), Joule-Thomson Coefficient (isenthalpic dT/dP), Compressibility (adiabatic)

PCP-ENTH: Entropy, Std. Heat of Combustion, Std. Heat of Formation, Gibbs Energy of Form./T, Gibbs Energy of Form., G function (G-G0)/T, Enthalpy (H298/T), Gibbs Energy, Gibbs Energy (G-G0), Gibbs Energy (G-G298), Enthalpy, Entropy (S-S0), Entropy (S-S298), G function (G-G298)/T

PCP-SFT: Surface Tension

PCP-Other: Dielectric Constant, Diffusion Coefficient, Flash Point, Dipole Moment, Molar Polarization