

# DDBSP 2016

## Educational Version

### Feature Matrix

**DDBSP** - Dortmund Data Bank Software Package



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	Educational Basic		Educational Professional		DDBSP Full Edition	
<b>Retrieval</b>						
Search, table, plot, print, data export	•		•		•	
<b>Prediction</b>						
Predict $g^E$ models (NRTL, Wilson, UNIQUAC)	○ <sup>1</sup>		•		•	
Predict group contribution (UNIFAC, Mod. UNIFAC (Dortmund), ASOG)	○ <sup>1</sup>		•		•	
Predict EOS (PSRK, VTPR)	○ <sup>1</sup>		•		•	
Predict COSMO-RS, COSMO-SAC	○ <sup>1</sup>		•		•	
Predict with Aspen (VLE, LLE, $h^E$ , $v^E$ , $cp^E$ , $\gamma^\infty$ )	○ <sup>1</sup>		•		•	
Predict with PRO/II, UniSim Design (VLE, LLE)	○ <sup>1</sup>		•		•	
Flash EOS (PSRK, VTPR)					•	
Flash EOS (several mixing rules)					•	
<b>Regression</b>						
Simple fit $g^E$ – temperature independent (NRTL, Wilson, UNIQUAC)	•		•		•	
Fit EOS – temperature dependent (several mixing rules and alpha functions)	○ <sup>2</sup>		○ <sup>2</sup>		•	
Extended fit PCP			○ <sup>3</sup>		•	
RecPar (simultaneous correlation of temperature dependent parameters for $g^E$ models)	○ <sup>4</sup>		○ <sup>5</sup>		•	
<b>PCP Property Estimation with Group Contribution (GC) Models from Structures</b>						
Artist (structure editor)	•		•		•	
Structures (components)	750		48,350		48,350	
GC models / properties	27	24	27	24	100	52
<b>Process Synthesis</b>						
Azeotropic point prediction, contour lines, residual curves					•	
Entrainer Selection					•	
<b>Private Data Management</b>						
Literature	•		•		•	
Components, Structures	•		•		•	
Mixture / Pure Component Data			•		•	
<b>Included Parameters</b>						
Antoine Constants (components)	30		5,525		5,525	
<b>Included Experimental Data (DDB)</b>						
PCP Data (components)	30		30		36,750	
Data Sets (all properties)	77,500		77,500		944,450	
Data Points (all properties)	568,650		568,650		7,061,800	
Systems (all mixture properties)	1020		1020		143,650	

<sup>1</sup>for the included 30 components only

<sup>2</sup>Redlich-Kwong EOS regression only

<sup>3</sup>for selected properties and equations including Wagner 2-5, DIPPR 101, 102, 104, 105 and 106

<sup>4</sup>3-Suffix-Margules regression only

<sup>5</sup>NRTL, Wilson, UNIQUAC regression only