

# DDBSP 2009 Teaching Edition – Feature Matrix

	Teaching Basic		Teaching 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)	•		•		•	
Predict COSMO-RS	•		•		•	
Flash EOS (PSRK, VTPR)					•	
Flash EOS (several mixing rules)					•	
<b>Regression</b>						
Simple Fit $g^E$ – temperature independent (NRTL, Wilson, UNIQUAC)	•		•		•	
Simple Fit EOS (limited mixing rules, fixed alpha function)	•		•		•	
Fit/Predict EOS – temperature dependent (several mixing rules and alpha functions)					•	
Extended Fit PCP			○ <sup>2</sup>		•	
Recval (simultaneous correlation of temperature dependent parameters for $g^E$ models)	○ <sup>3</sup>		○ <sup>4</sup>		•	
<b>PCP Property Estimation with Group Contribution (GC) Models from Structures</b>						
Artist (Structure Editor)	•		•		•	
Structures (components)	750		25,600		25,600	
GC Models / Properties	26	24	26	24	85	50
<b>Process Synthesis</b>						
Azeotropic Point Prediction					•	
Entrainer Selection					•	
Contour Lines					•	
Residual Curves					•	
<b>Private Data Management</b>						
Literature	•		•		•	
Components, Structures	•		•		•	
Mixture / Pure Component Data			•		•	
<b>Included Parameters</b>						
Antoine Constants (components)	30		4500		4500	
<b>Included Experimental Data (DDB)</b>						
PCP Data (components)	30		30		19,536	
Data Sets (all properties)	53,900		53,900		537,32	
Data Points (all properties)	400,000		400,000		3,795,486	
Systems (all mixture properties)	873		873		115,475	

1 for the included 30 components only

2 for selected properties and equations including Wagner 2-5, DIPPR101-102, DIPPR 104-106

3 3-Suffix-Margules (regression) and Raoult's Law (prediction) only

4 NRTL, Wilson, UNIQUAC (regression) and Raoult's Law (prediction) only