# DDBSP 2015
# Teaching Edition

# Feature Matrix

**DDBSP** - Dortmund Data Bank Software Package


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| | Teaching Basic | Teaching Professional | DDBSP Full Edition |
|---|---|---|---|
| ***Retrieval*** | | | |
| Search, Table, Plot, Print, Data Export | ● | ● | ● |
| ***Prediction*** | | | |
| Predict $g^E$ models (NRTL, Wilson, UNIQUAC) | ○[1] | ● | ● |
| Predict Group Contribution (UNIFAC, Mod. UNIFAC (Dortmund), ASOG) | ○[1] | ● | ● |
| Predict EOS (PSRK, VTPR) | ○[1] | ● | ● |
| Predict COSMO-RS | ○[1] | ● | ● |
| Predict with Aspen (VLE, LLE, $h^E$, $v^E$, $cp^E$, $\gamma^\infty$) | ○[1] | ● | ● |
| Predict with PRO/II, UniSim Design (VLE, LLE) | ○[1] | ● | ● |
| Flash EOS (PSRK, VTPR) | | | ● |
| Flash EOS (several mixing rules) | | | ● |
| ***Regression*** | | | |
| Simple Fit $g^E$ – temperature independent (NRTL, Wilson, UNIQUAC) | ● | ● | ● |
| Fit/Predict EOS – temperature dependent (several mixing rules and alpha functions) | | | ● |
| Extended Fit PCP | | ○[2] | ● |
| RecPar (simultaneous correlation of temperature dependent parameters for $g^E$ models) | ○[3] | ○[4] | ● |
| ***PCP Property Estimation with Group Contribution (GC) Models from Structures*** | | | |
| Artist (Structure Editor) | ● | ● | ● |
| Structures (components) | 750 | 44,400 | 44,400 |
| GC Models / Properties | 27 / 24 | 27 / 24 | 99 / 52 |
| ***Process Synthesis*** | | | |
| Azeotropic Point Prediction | | | ● |
| Entrainer Selection | | | ● |
| Contour Lines | | | ● |
| Residual Curves | | | ● |
| ***Private Data Management*** | | | |
| Literature | ● | ● | ● |
| Components, Structures | ● | ● | ● |
| Mixture / Pure Component Data | | ● | ● |
| ***Included Parameters*** | | | |
| Antoine Constants (components) | 30 | 5,475 | 5,475 |
| ***Included Experimental Data (DDB)*** | | | |
| PCP Data (components) | 30 | 30 | 32,950 |
| Data Sets (all properties) | 75,300 | 75,300 | 894,600 |
| Data Points (all properties) | 555,350 | 555,350 | 6,704,350 |
| Systems (all mixture properties) | 1000 | 1000 | 138,400 |

[1] for the included 30 components only
[2] for selected properties and equations including Wagner 2-5, DIPPR 101, 102, 104, 105 and 106
[3] 3-Suffix-Margules regression only
[4] NRTL, Wilson, UNIQUAC regression only