Setup your SimDist Application using the dedicated DVLS SimDist Kits

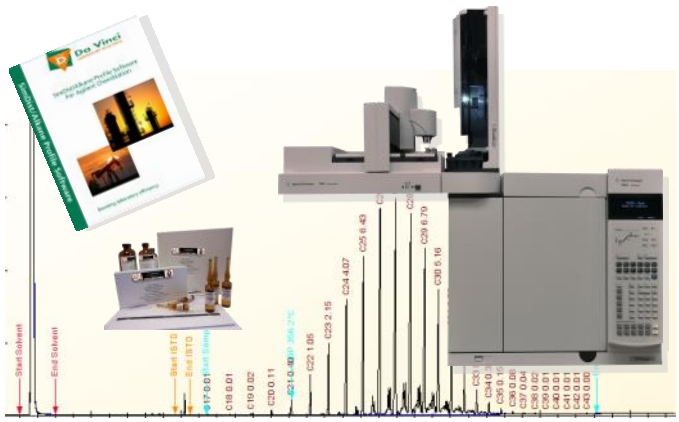
Da Vinci Laboratory Solutions offers a range of specialized SimDist kits to determine the true boiling point distribution and report the properties of petroleum streams.

Dedicated Kits

The SimDist kits comply with all standard test methods of ASTM, DIN, EN and IP.

Each kit is dedicated to a test method and includes the following components:

- GC programmable temperature sample inlet
- GC column
- Calibration, reference or quality control samples
- PetroReporter software



ASTM/IP/ISO Compliance of the DVLS SimDist Kits								
Test Method	**ASTM D3710**	**ASTM D7096**	**ASTM D2887 IP 406 ISO 3924**	**ASTM D5442**	**ASTM D7213**	**ASTM D 6352**	**ASTM D7169**	**ASTM D7500**
Up to Carbon #	C15	C16	C44	nC44	C60	C90	C100	C110
Sample Types	Gasoline Naphtha	Gasoline with oxygenates	Jet Fuel Diesel Fuel	Wax	Lube Oil based stocks	Lube Oil based stocks	Residues Crude Oil	Distillates Lube oil based stock

IP/DIN/EN Compliance of the DVLS SimDist Kits				
Test Method	**DIN 51.435**	**IP 480 Type A EN 15199-1**	**IP 507 EN 15199-2**	**IP 545 EN 15199-3**
Up to Carbon #	C60	C120	C120	C120
Sample Type	Lube Oil based stocks	Lube Oil Middle Distillates	Residues Heavy Distillates	Crude Oil

PetroReporter Software

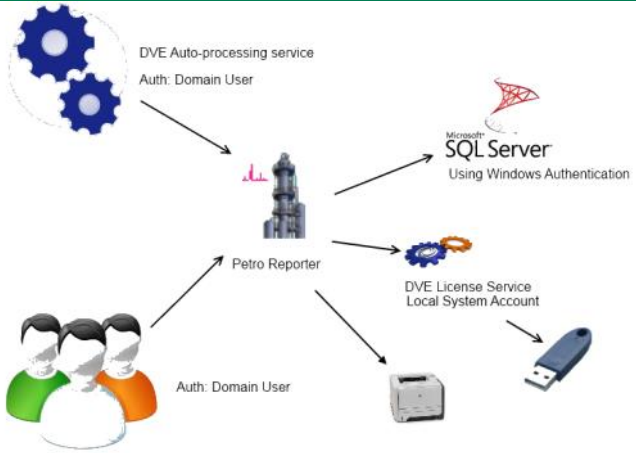
The DVLS PetroReporter is a software package that automates the data processing of various sample types.

- Universal software package for SimDist, DHA and Gas applications
- Available as stand-alone system or as a client/ server configuration
- Compatible with multiple data platforms
- Includes predefined settings per sample type
- On-screen editors allow customized sample types
- Incorporates three levels to define the user access

Boosting laboratory efficiency

SimDist Reports
Generated with the DVLS PetroReporter

Client Server Configuration



The DVLS PetroReporter software can be used as a stand-alone system or in a network configuration. The client/server architecture allows to control the software remotely from any PC workstation in the laboratory.

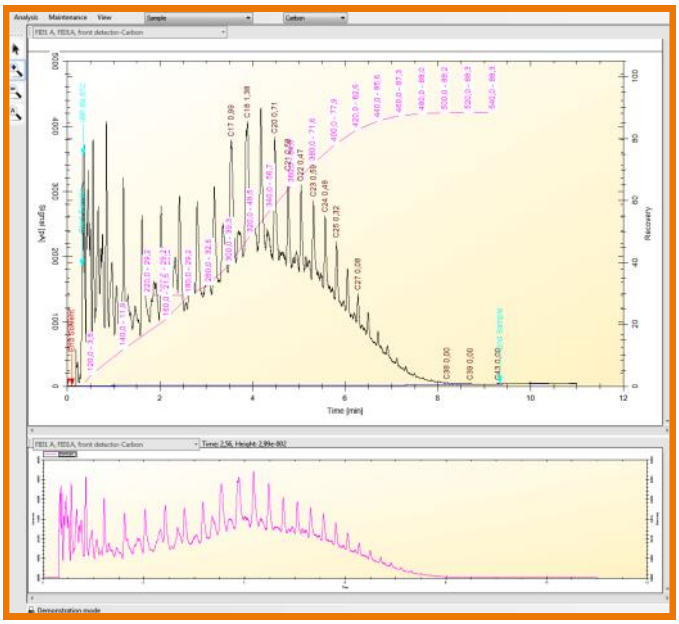
Compatibility

The DVLS PetroReporter is compatible with all chromatographic data systems (CDS) of major suppliers including:

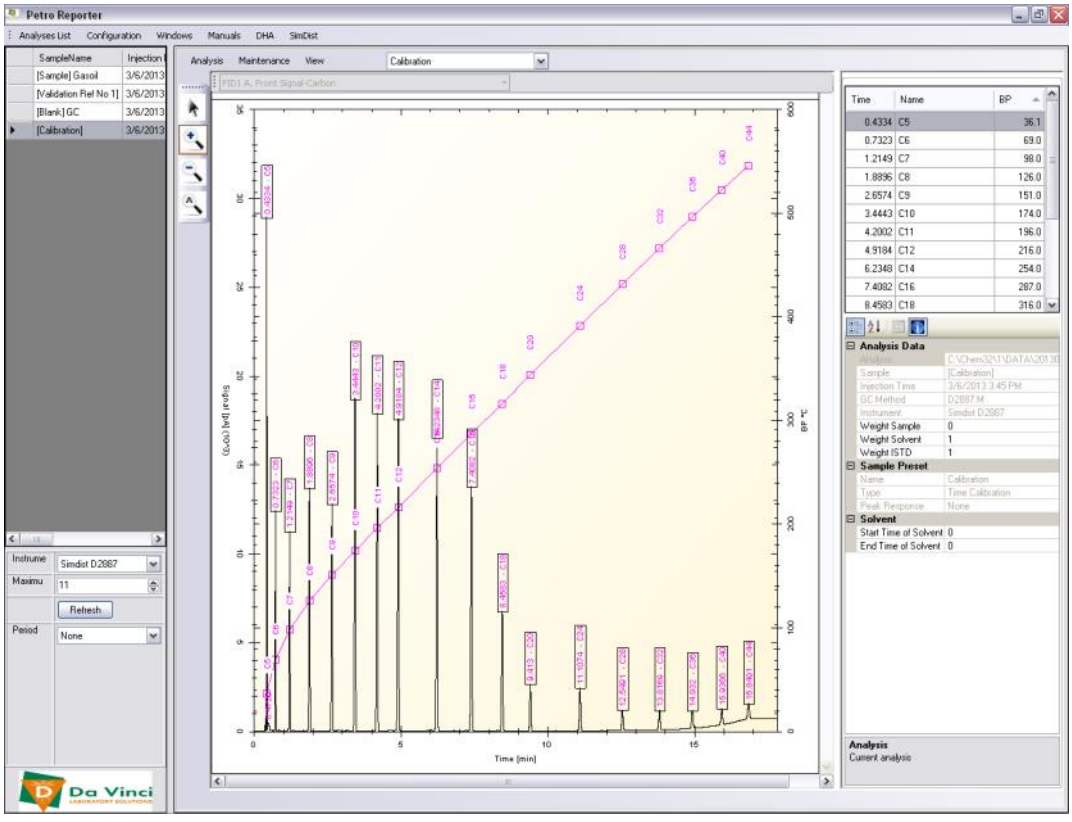
- Agilent EZChrom Elite 3.2, 3.3, 3.3.1 and 3.3.2
- OpenLab EZChrom A01.00
- Agilent ChemStation 04.01, 04.02, 04.03
- OpenLab ChemStation A01.00
- Other CDS systems on request

User-Friendly Editors

The PetroReporter uses sample presets to preconfigure the sample types. On-screen editing enables customizable settings, resulting in automatically updated analyses.
Just drag and drop the calibration peaks to optimize the n-alkane calibration. By clicking the analysis data in the on-screen property grid and correcting the parameters, the chromatogram automatically displays the updated analysis.

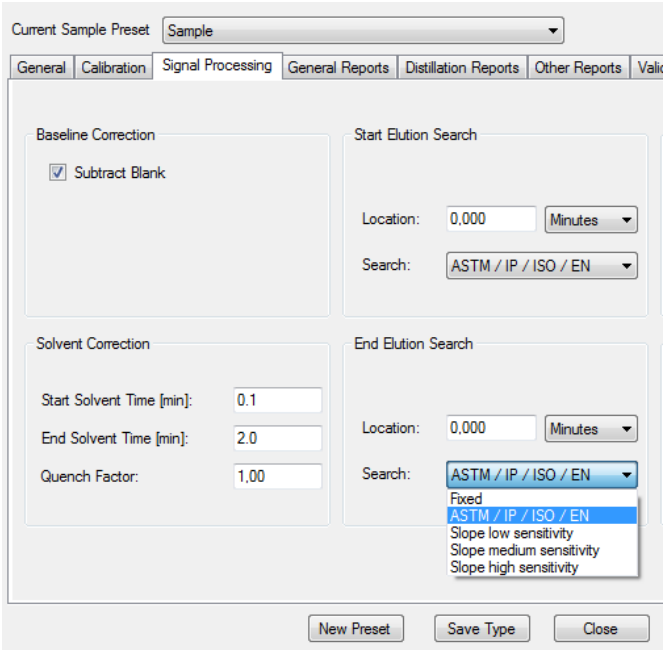


Chromatograms of the uncorrected and corrected signal

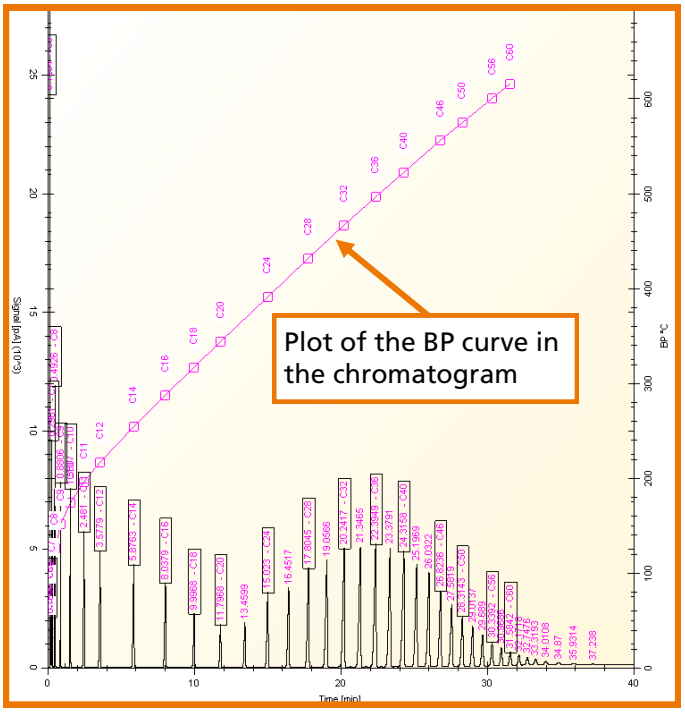


D2887 Calibration Screen

SimDist Reports
Generated with the DVLS PetroReporter



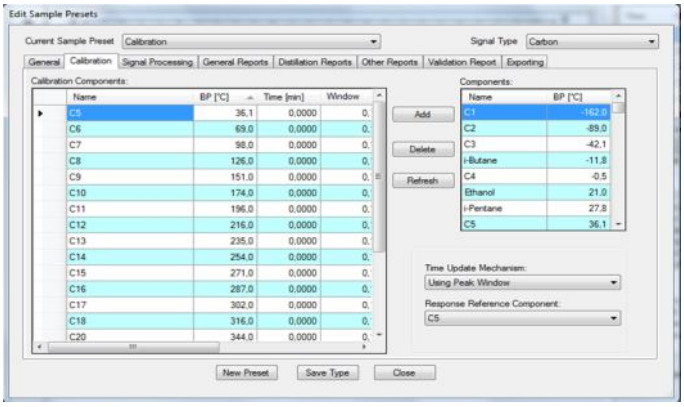
Customer defined solvent quenching for "start" and "end" elution slope calculation



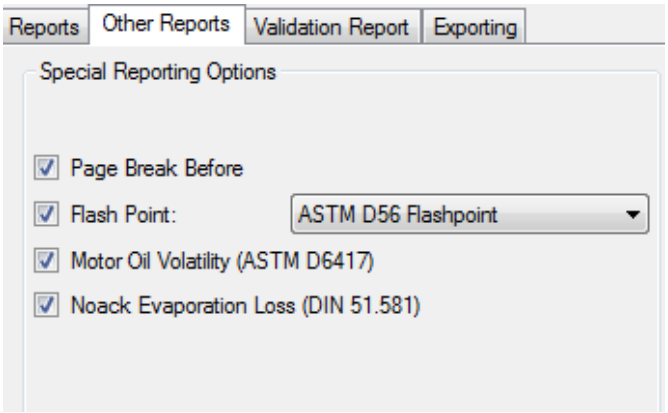
Wide Range of Report Options

The PetroReporter sofware assists the analysts in reporting the petrochemical properties:

- TBP Distillation Percent report
- TBP Distillation Boiling Point report
- Alkane Profile report
- Volume Correlation report for (customizable) ASTM D86, ASTM D86/STP 577 or ASTM D1160
- Chromatogram
- Flash Point report
- MOV report
- Noack Evaporation report



SimDist Boiling Point curve and calibration report



Special Calculations

Property	Results	Unit
ASTM D56 Flashpoint	76.7	Centigrade
Motor Oil Volatility	95.8	mass%
Din 51.581 (noack)	547.2	mass%

Cut Point Distribution Report

BP °C	Recov Mass%	BP °C	Recov Mass%	BP °C	Recov Mass%	BP °C	Recov Mass%
119.1	0.5	200.0	7.6	280.0	46.7	360.0	93.1
140.0	1.1	220.0	13.1	300.0	60.7	380.0	97.2
160.0	2.2	240.0	21.2	320.0	75.2	400.0	99.0
180.0	4.3	260.0	32.6	340.0	84.9	413.6	99.5

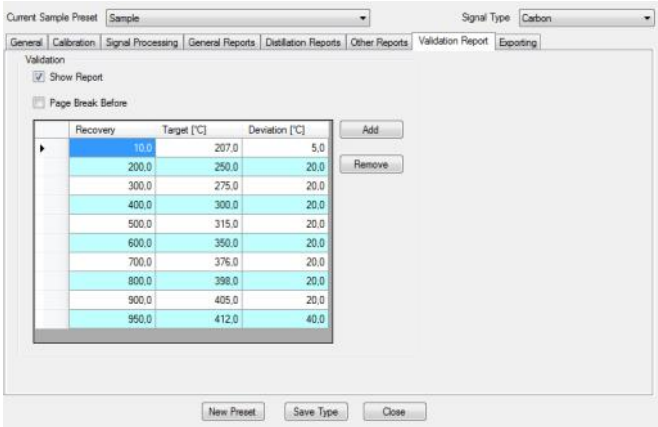
SimDist Special Calculation and Cut Point reports

Distribution Report

Rec Mass%	TBP °C	Rec Mass%	TBP °C	Rec Mass%	TBP °C	Rec Mass%	TBP °C
IBP	89,6	25,0	166,4	50,0	323,9	75,0	390,3
5,0	127,4	30,0	270,3	55,0	335,4	80,0	408,0
10,0	135,4	35,0	287,2	60,0	347,8	85,0	434,6
15,0	147,2	40,0	301,4	65,0	361,1		
20,0	157,5	45,0	313,3	70,0	375,0		

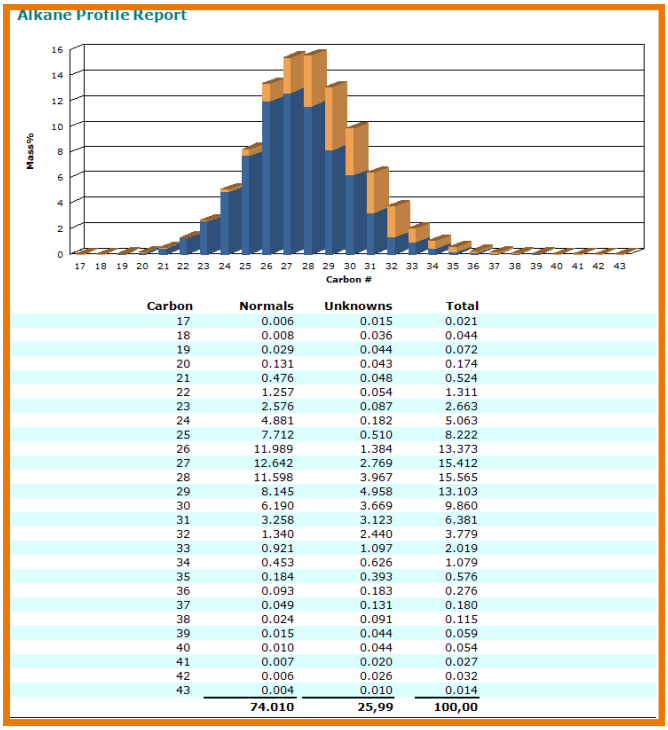
SimDist Reports
Generated with the DVLS PetroReporter

The validation report option is used to set the target data for the analysis of reference standards. Performing a reference analysis allows to check if the analysis results are within specifications.



Setting the validation report options

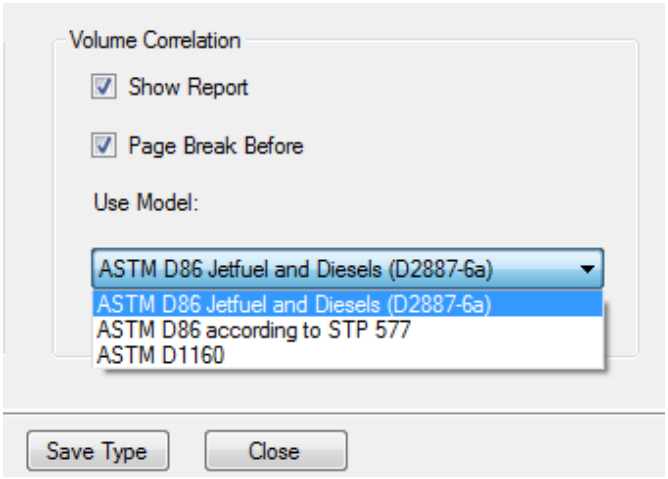
The Alkane profile option calculates the wax content from the sample. By isolating the n-alkanes the PetroReporter generates the total n-alkane profile of a sample.



Carbon	Normals	Unknowns	Total
17	0.006	0.015	0.021
18	0.008	0.036	0.044
19	0.029	0.044	0.072
20	0.131	0.043	0.174
21	0.476	0.048	0.524
22	1.257	0.054	1.311
23	2.576	0.087	2.663
24	4.881	0.182	5.063
25	7.712	0.510	8.222
26	11.989	1.384	13.373
27	12.642	2.769	15.412
28	11.598	3.967	15.565
29	8.145	4.958	13.103
30	6.190	3.669	9.860
31	3.258	3.123	6.381
32	1.340	2.440	3.779
33	0.921	1.097	2.019
34	0.453	0.626	1.079
35	0.184	0.393	0.576
36	0.093	0.183	0.276
37	0.049	0.131	0.180
38	0.024	0.091	0.115
39	0.015	0.044	0.059
40	0.010	0.044	0.054
41	0.007	0.020	0.027
42	0.006	0.026	0.032
43	0.004	0.010	0.014
	74.010	25,99	100,00

Calibration and Reference Standards Included

As the authorized distributor of both AccuStandard and UcalibrateIT, we offer you a wide range of calibration, reference and quality controls samples to validate the SimDist analysis.



Select the required model to generate a correlation report. The incorporated models in the PetroReporter are:

- ASTM D86 Jet Fuel and Diesel (D2887)
- ASTM D86 according to STP 577
- ASTM D1160

Part #	Description
DM-SI-AG-BA-10 Base SimDist Kit	• PetroReporter software • SimDist License for 1 instrument • Inlet • FID Graphite Ferrules • FID SimDist Jet • Syringe
Add one of the following kits	
DM-SI-HT-XX-10 High Temp SimDist Kit	• Column • Calibration sample light • Calibration sample heavy • Reference oil
DM-SI-ER-10 SimDist Extended Range Kit	• Column • Calibration n-Alkane mixture • Reference oil
DM-SI-MR-10 SimDist Mid Range Kit	• Column • Calibration n-Alkane mixture • Reference oil
DM-SI-LR-10 SimDist Low Range Kit	• Column • Calibration Mixture

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