

Comprehensive, Fast, Flexible Mass Spectrometry Software



Achieve unprecedented simplicity and

TraceFinder software is the solution

Thermo Scientific™ TraceFinder™ software makes the challenging steps of targeted and untargeted analysis simple, fast and productive. It is the only software that can be used to develop methods, acquire and process data, and generate reports with the

full portfolio of Thermo Scientific quantitative mass spectrometers. Tracefinder software integrates the full range of popular front end chromatography systems, providing laboratories with the suite of features required to address their analytical demands. Now, regardless of the MS expertise of the user, the analytical requirements of every laboratory can be addressed with one software solution.



TraceFinder empowers you to tackle the everyday challenges in your laboratory

Challenge	TraceFinder
Maintain or increase laboratory productivity	One software for both HRAM and triple quadrupole MS platforms. Scientists now have the ability to leverage information from method development in early stage work to quickly enable data review in routine quantitative analysis.
Customizable reporting templates	Customized templates and automatic generation of reports save time and organizational resources.
Efficient method development regardless of expertise	Method development wizard, comprehensive database, and the ability to address critical parameters for all molecule types enable development of sensitive, robust, and reproducible quantitation methods.

Comprehensive data review allows for rapid data quality determination.



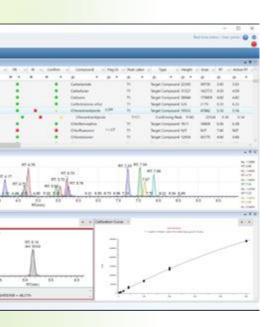
speed

Ensure increased productivity

TraceFinder software simplifies every step of routine mass spectrometry (MS) quantitation and targeted workflows, saving time and increasing productivity. From data acquisition to data processing, review and reporting, TraceFinder empowers you to streamline your processes and get answers faster.

- 4 click workflow from analysis to reports
- Comprehensive method development for screening and quantitative workflows
- Automated and manual flagging are reflected in final reports
- Template driven design to simplify routine workflows
- Automatic method creation with Method Forge™







Experience extraordinary power and fl

TraceFinder software speeds up each step in the analysis of routine MS quantification and screening workflows. Once a method is defined, data acquisition is an easy four-click process that can be monitored in real-time. Data review is fast with comprehensive flagging, and enables association of a sample set with a previous calibration. When needed, the software makes it easy to edit results, and the edits are dynamically reflected in the final report. Customized nomenclature for environmental testing, food safety, clinical research and forensic toxicology applications is available.

Comprehensive method development

TraceFinder software enables the development of better, and more robust methods in a shorter amount of time. Powerful tools enable method developers to meet the demands of advanced users, and address regulatory requirements and existing laboratory protocols.

- · Method templates for data processing
- Batch templates use previously defined methods for rapid data acquisition, processing and reporting
- Compound databases (CDB) for selected reaction monitoring (SRM) and high-resolution accurate mass (HRAM) workflows
- Customizable report templates
- User-defined flags for nearly every parameter
- Method association with any previously saved calibration
- Method Forge tool to upload a raw data file and detect peaks via a library search

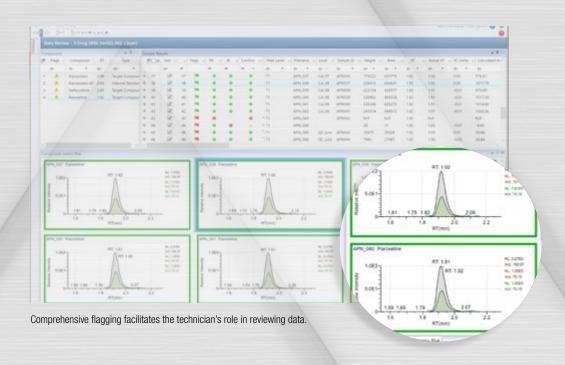
Four-click data acquisition

Submitting sample batches and initiating analyses is performed in four simple steps:

- 1. Select the appropriate batch template.
- 2. Review the selected batch template.
- If needed, choose a system start-up and shut-down method, or extend a historical calibration curve.
- 4. Submit the samples.

Increased efficiency with compound databases

The CDB retains all instrument parameters for targeted analysis allowing the method developer to select compounds and develop methods rapidly. New analytes and all corresponding instrument parameters can be readily added to the CDB.



exibility

with comprehensive method development

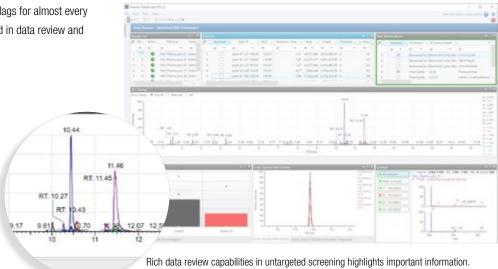
Potent method creation

Multiple confirmation criteria and reporting is streamlined with automatic predefined criteria for identification of targeted molecules to include ion ratios, library searches, isotopic distributions, and defined fragmentation patterns. Identification criteria are automatically reported in the customizable report templates. Depending on laboratory requirements, the software offers multiple resources for identification.

TraceFinder software provides user-defined flags for almost every parameter, and the flags chosen are reflected in data review and reports.

Simplified screening

Screening capabilities draw from proven Thermo Scientific screening software, making TraceFinder an easy-to-use tool that substantially simplifies MS/MS targeted screening workflows. The software supports SRM, HRAM, and MS/MS workflows, and uses the widely accepted NIST spectra library and mzVault with mzCloud libraries software for compound identification.



fydroxy	carbofuran	Acephate	cetamiprid	r 5 Methyli	Adicarb No	rb Sulfone	s Suffoxide	Ametryn Aminocart		b Aspon	Atresine 1	os Methyl	oxystrobin	Benalaxyl tendlocarb Bifenacate			Boscalid	odifacoum	nazole 1 21	2 Supirimate Buy	
8-1P	8875	1.36-10	3.600+09	3.138+08	1528	3022	12271	1.460+10	1.676+10	17907	75728	2988	33359	82233	2529)	53688	26.5	3.23E+08	16300000	15379	
8-29	9327	136646	24176	163	300000	3014	1.190+09	100463	156543	10000	B.64E+09	-3865	2.835-14	#3522	44563	54284	5.30+12	83614	391	1.21(10)	
8-3P	15787	151065	2.758+09	300000	1925	3000	6435	1.530+30	1000356	20076	25348	1333	4.36+09	1.30+15	4.36+14	5.36+09	300000	4113	300000	2.210+09	
9-1P	32189	105M1	54383	500000	784	18176	2.87E+08	315991	438538	11792	1.72E+10	9.332+08	7.53E+09	295717	80004	114728	2178	2.796+09	265	57295	
9-29	25414	2.99€+10	6.35+09	1438	1894	19445	26524	297425	3.63E+10	30016	1.56E+10	0.125	35567	191157	5-130109	110833	500000	1.820+09	6394	51288	
9-32	4.3E+09	271253	45616	3563	399.0	1.261+09	2,26E+08	3.456+10	4.235+10	22148	1.57E+10	13441	71423	1.855+15	91818	1.196+10	418.6	8.135+14	421	4.54E+09	
10-SP	73485	BILLDA	1.23E+10	1.636+13	3761	14153	4.58E+05	743662	957848	83624	364759	2.3E+09	207832	3.936+10	L82E+10	2,925+10	1527	58736	9921	1.36+10	
10-2P	75265	527765	13,23,34	31,33	3809	1885.2	53264	8.36+10	999791	1.36+10	3:9E+10	17653	1.67E+10	41018	219972	2,896+00	\$779	5.735+09	4726	1.135+10	
10-3P	67983	511427	1.236430	5.3E+13	8939	18021	63434	541588	1.36+16	56663	3.96E+10	25855	195381	435325	2:36+10	339573	7985	4.43E+09	4253	1.23E+10	
11-1P	1.480+10	1.35+16	225728	4.38+00	11007	10158	90737	1.460-11	1679788	140051	6.97E+10	54000	307332	E.630+10	3.840+10	5.63E×55	2738	111912	17905	2.36+15	
1-2P	141587	975874	2.430+15	3290	1,000	7.36+14	114948	1.625+11	1.816+11	157872	775946	11107	264,019	9,464+10	1.236+10	355199	3151	E.3E+1D	3.630+14	SETRIE	
1-3P	1.436+10	RINGER	2.338+10	4020	13333	39942	9.980+09	1414097	1823554	1.786+10	264143	SZHI	3.616+10	845475	331367	883018	8.30:13	118523	14797	218336	
2-1P	261981	1665252	478899	21890	2.535+14	125796	1.035+10	3.126+16	3748114	1172475	1571533	79588	730113	1697987	B.16E+10	328794	7.53E+08	214796	17159	5.116+10	
2-2P	593639	1719727	5.43E+10	3,4697	SATIA	135572	27/4532	3.36-11	3.625+11	171852	1.53010	\$4122	687221	1.688+11	7.396+10	5.63E+15	18842	237901	2,558+09	432417	
2-3P	281472	1811318	494675	£.77E+09	125500	120129	2,275+10	3241876	3627961	3.236+10	1.465431	6.43E+09	7.67E+10	1758257	521815	1.36(11)	19829	2.556+15	4.24E+09	389319	
1-2P	7,53E+10	3427179	1.3E+1.1	25957	73.184	3.13Ex20	495253	7268663	7.90E+16	201300	3479264	179888	1229963	3.665+11	1.835+11	12067941	2.835+00	5-13E+10	1.3E+10	1,36+11	
1-2P	695453E	3573773	1:36+11	35472	7.546+00	3.54E+10	A05774	7.53E+06	7.736+16	8.56E+10	3421895	175824	1747541	3856347	175754E	2136179	5,9995	11 647957	29387	1,35+16	
3-3P	6.996+10	3347754	LUMBER	3.35+09	61809	340,905	466677	7962767	7843273	2000es	1391461	100042	1851 CLI	3815898	1959695	2206668	#186E	576593	99997	949474	
4-1P	1306263	5294975	1767818	83183	1.526+10	4,630+15	867733	14536721	1.225+22	1468942	5,97E×14	342946	3429413	7.35+16	3.226+16	3328599	84178	933742	T16718	1725683	
1-2P	LARCHI	5.321-11	1.800411	G-3E+09	137518	355343	8,36430	14353100	12349279	1.150(11	EDREST.	365338	3.530+16	7.290+11	3344341	3229455	68257	0.430+10	165265	1781974	
4-3P	3527772	4923434	1879845	67710	1.7M+10	547529	8.475.100	14729626	13127263	1335475	6.5H+11	3.275+10	3541183	6941313	3384889	3,36+16	55746	##575@	131542	1.868+11	
5-1P	3.420:11	8.960+11	3,576+16	159900	33367X	#75129	1649246	3,190+12	22285696	2262195	134012	642116	7368799	1.260+12	6.640+11	5:260111	164325	1697213	3.995+10	3782792	
5-2P	1.636+15	8.73E+11	3357943	133655	3.33E+15	1.36+71	1435419	32448275	22168631	2.64E+11	12697125	7.53E+10	7336916	13338412	6933823	5472688	370168	1745726	4.35+10	3.53E+11	
1-3P	1714818	9.420-11	5449833	157786	3.336+15	STREET	1582817	3.276+12	21891115	2457785	3.330+12	6.18E+10	7421693	13932269	6971234	5.8H+11	1.238+10	1.80-11	373824	3532291	
-EP	3.966+11	1.396+17	4853463	2.796+10	591198	3187798	2.36+11	5.006-02	35256274	3414489	19545483	9.97E+10	1.196432	21742883	3.36+12	7.87E+11	2.166-90	2255595	6.3E+10	5.836+11	
6-2P	6195144	13637426	4871233	291067	81800.5	3175978	2129349	5.16E+17	3.636+17	4.3E+21	1.956+12	872713	1,735-12	21477517	3.36+12	7.534+16	281781	2301624	636714	5463199	
6-3P	6195947	1.43(+12	5.36+11	267852	618411	1.226+11	2.136-16	5.340+12	3.636+12	3,50E+10	1.096+17	976162	11101934	23283839	130+12	7.37E+11	2,346+10	2.225+16	947142	5434498	
7-5P	9583748	19247157	8362917	31/3316	1.136+11	1.76E+11	·2558348	85866876	6.18E+12	5542253	34861648	1.556+15	17145232	1.495+12	15295569	9.78E+11	433692	E336+11	1.3(+11)	8796789	
7-2P	1.30+22	1.890-12	8648433	6.27E+10	1264145	1.660:11	2562662	83591597	63134846	5919344	3,500+12	1647572	16790783	3.236+12	1.675+12	9136496	394372	3454965	1.170+11	9137696	
7-3P	1.806+07	1.870-12	8.835+16	864333	3.86+11	1.796+11	2,530+16	B.356+12	61578875	3.160(1)	3.590+12	1021126	16965135	35362568	1.486+12	9298758	40000	31553399	1.166+11	9.36+15	

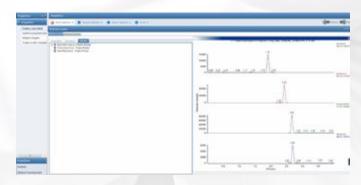
Simple, full-featured data

TraceFinder software offers simple, yet exceptionally feature-rich data review capabilities. The intuitive, workflow-driven arrangements of the software windows simplify your role in reviewing data, and views can be customized to streamline daily tasks. You can quickly and easily observe the data processing status, view compound-related flags to locate compounds which need attention, and take appropriate steps to correct any problems.

To address compound-related difficulties, it's easy to perform compound specific edits such as manual peak rejection and integration, and to change peak-detection parameters. Feedback is immediate, as data is reprocessed and presented in the same software screen and in the final report automatically.

Save time and samples with intelligent sequencing

The Intelligent Sequencing module helps you take complete advantage of the powerful flagging system. It contains parameters that can be configured by sample type to enable actions on flagged results in real-time. Intelligent sequencing allows for real-time rejection of samples, insertion of blanks, and halting of sample sequences in which data has fallen outside of predefined criteria, saving you time and valuable sample resources.



Submitting sample batches and initiating analyses is straightforward. The Real Time Viewer offers immediate access to system status and queues.

review maximizing laboratory throughput (1)



Data reporting

- · Automated reporting and numerous report templates.
- A large number of predefined and customizable report templates to meet a variety of regulatory requirements.
- Changes to the data processing method can immediately be seen in the report view – without manual intervention.
- If desired, save time and paper by choosing only to print reports for compounds above the LOD, LOQ or LOR.

User rights ensure increased security for audit trail

To protect the integrity of analytical data, the software includes a rights-based secure user login system and dual method hierarchy that limits access to methods and data. In addition, an e-signature and audit trails are available, which support the guidelines indicated in 21 CFR Part 11.



Optimized flagging for targeted screening analysis.

3-Hydraxy	carbofuran	Acephate o	etamipridu	r S Methyl V	ldicarb Nair	b Sulfone b	Sulfoxide	Ametryn Aminoca		b Aspon	Atrazine tos Methyl oxystrobin			Benalaxyl Jendiocarb Sifenazate			Boscalid odifscoum mazole 1 21			Supirimate Bur
al7-1P	2.534	2.429	2.392	2	1.225	2.411	2.145	2.437	2.395	2.634	2.455	2.425	2.257	2.444	2.18	2.622	2.435	2.56	2	2.662
al7-29	2.332	2.42	2.538	2	2	2	2.568	2,438	2.517	2.487	2.361	2.114	2.286	2.446	2.224	2.532	2.522	2	2.473	2.714
a(7-3P	2.479	2.77	2.276	2	2	2.157	2.159	2.525	2.488	2.547	2.525	2.857	2.263	2.424	2.248	2.437	2	2.22	2.543	2.452
al8-1P	2,793	2.286	1.629	3.243	2.889	2.654	1.226	2.942	2.957	1,729	1.212	2.659	2.174	1.226	2.368	1.296	2.528	2.444	2.529	2.766
al8-2P	2.748	2.65	1.281	-1.353	2	2,564	1.171	2.851	2.928	1.113	1.158	2.887	2.155	1.221	2.62	1.129	2.823	1.328	2,623	2.618
alS-3P	1.222	2,853	1.224	2	1.226	2.663	2.658	2.972	2.964	1.366	1,198	2.392	2.221	1.249	2.572	1.236	2	2.522	2	1.287
a19-1P	2.335	1.45	2.382	2	2.373	2.785	2.755	2.233	2.545	1.856	2.335	2,27	2.427	2.333	1.224	2.41	1.667	2,547	2.827	2.739
al9-2P	1.867	2.848	2.657	2.528	1.115	2.974	2.511	1.914	2.250	2.123	2.115	1.456	2.397	2.323	2,729	2.490	2	1.722	3.525	2,458
al9-3P	2.894	2.473	2.225	2.719	2.6	1.955	2.179	2.745	2.467	1.281	2.128	2.819	2.386	2.231	1.241	2.524	6.161	2.811	2.662	2.182
al10-1P	5.188	7,143	5,268	2.773	6.577	5.175	4.377	4.778	5.644	4.968	4.993	5.145	1.262	4.696	2.431	6.262	2.113	4.715	5.323	5.128
al10-2P	5.311	5,988	4.886	3.28	3.619	5.882	5.287	5.159	5.835	6.265	5.341	4.395	2.897	5.187	2.931	6.181	2.434	5.246	2.756	5.271
al10-3P	4.828	5,763	5.347	5.937	4.634	5.849	6.258	5.428	5.98	5.876	5,424	5.449	1.249	5.227	2.756	7.316	12.437	3.928	4.497	5.754
d11-1P	12.359	12.927	12.314	4.534	12.512	8.96	9.551	9.419	12	8.476	9.618	14.586	1.866	12.385	5.11	12.237	3.654	12.418	9.333	9.546
al11-2P	9.896	12.262	12.539	3.316	9.818	12.64	11.227	12,425	12.819	9.482	12,723	8.572	1.981	11.431	4.298	12.125	4.241	9.256	18.422	8.946
al11-3P	9,796	11.221	12.211	5.781	9.123	9.279	9.557	9.128	12.865	12.724	12.558	16.225	1.941	12.225	4.413	12.514	12.547	12.383	7,744	12.42
al12-1P	18.2	22.276	21.321	31.617	17.257	19.316	18.523	22.226	22.936	22.879	22,238	22.596	4.222	22.798	12.986	22.719	9.815	18.94	19.229	24.772
al12-2P	22.411	23.288	24.17	22.597	16.911	19.28	27,224	19.821	22.123	22.923	21.298	21.823	3.721	22.529	9.926	21,456	24.829	21.233	13.121	22.858
al12-3P	19,776	24,463	22.229	25.197	18.29	19.686	22.127	21.232	22.165	19.633	22,373	15.468	4.157	22.267	11.261	23,798	19.448	22.598	21.661	18.731
al13-1P	52,251	52.33	49.618	37,876	49.862	52,382	52.812	48.258	51.44	52.596	52.54	46.739	9.884	46.578	25.344	47.275	37.829	46.958	56,312	51.583
al13-2P	48.257	52.859	49.457	58,916	52.873	58,456	49.741	49.85	52.142	55.95	49,652	47.298	9.695	49.358	24.825	51.327	75.116	62.728	51.628	51.85
al13-3P	48.496	48.974	52.377	44.513	43,236	56,225	47.5	52.138	52,966	52,686	49.182	44.288	12.299	48.839	27,38	55,496	56.636	53.627	51.922	47,443
al14-1P	96,942	B5.526	88.777	129.471	128:574	79.247	122.164	99.814	85.931	125,769	91.35	99.522	19.931	97.121	47.264	87.86	126,526	93.299	127.56	91,916
d14-2P	99.349	86.246	93.881	93.216	92.56	99.969	89.226	98,444	27.166	78.521	97.268	127.235	22,439	121.787	49.355	84,469	98.469	94.246	88.721	95,411
al14-3P	126.1	78.256	92.571	123,322	122:236	98.153	94.484	121.247	94.245	92.438	122,799	94.112	22.65	96.225	46.68	78.429	77.526	88.674	98.361	122.537
sl15-1P	238.538	2	2	264,183	252.285	224.145	2	245.671	2	222.974	265.271	231.946	49.762	225.61	119.959	195.73	2	226.247	256.66	282,589
al15-2P	251.397	212.186	241.846	216.198	246 163	- 2	226.698	251.166	2	2	241.41	339.217	49.468	254.226	128.878	2	214.224	242.716	262.619	239,834
al15-3P	259,466	2	256,985	262,295	245 122	242.585	2	253.374	2	249.672	251,725	217.428	52.254	291.544	132.288	2	224.591	12	234.112	242,971

Highly customizable reports allow for fast decision making.

TraceFinder

Reliably create, review and report scientific data

Discover the power of TraceFinder software to help you create, review and report scientific data and increase the efficiency of your team. Use TraceFinder software to easily acquire data, perform routine data review, and automatically report results on the fly.

TraceFinder allows your laboratory to standardize on a single platform across all your Thermo Fisher Scientific mass spectrometry and chromatography products.

System requirements

- 3.0GHz or faster processor
- Internet Explorer 11
- 8GB of RAM (16GB recommended)
- 5GB of available hard-disk space (solid state hard drive recommended)
- 1024x576 screen resolution (1920x1080 recommended)
- DVD drive
- Video hardware acceleration (optional)

Software

- Microsoft® Windows® 7 SP1 Professional (64-bit only) English only
- Microsoft®.NET Framework 4.5.1
- Adobe® Reader® 10.1

Thermo Scientific software (minimum versions listed):

- Xcalibur 4.0
- Foundation 3.1 SP1
- mzVault 1.0 SP1
- Thermo FreeStyle 1.1 SP1
- Thermo LC Devices 3.0 or later
- Thermo Exactive Series 2.7
- TSQ Endura and Quantiva 1.2 or later
- Fusion 1.2 SP1 or later
- Aria MX 2.2 or later
- SII for Xcalibur 1.1 or later
- GC Devices 3.2 or later
- ISQ 3.2 SP1 or later
- TSQ 8000 3.2 or later
- LTQ Series 2.7 SP4 or later
- TSQ 2.5 or later

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