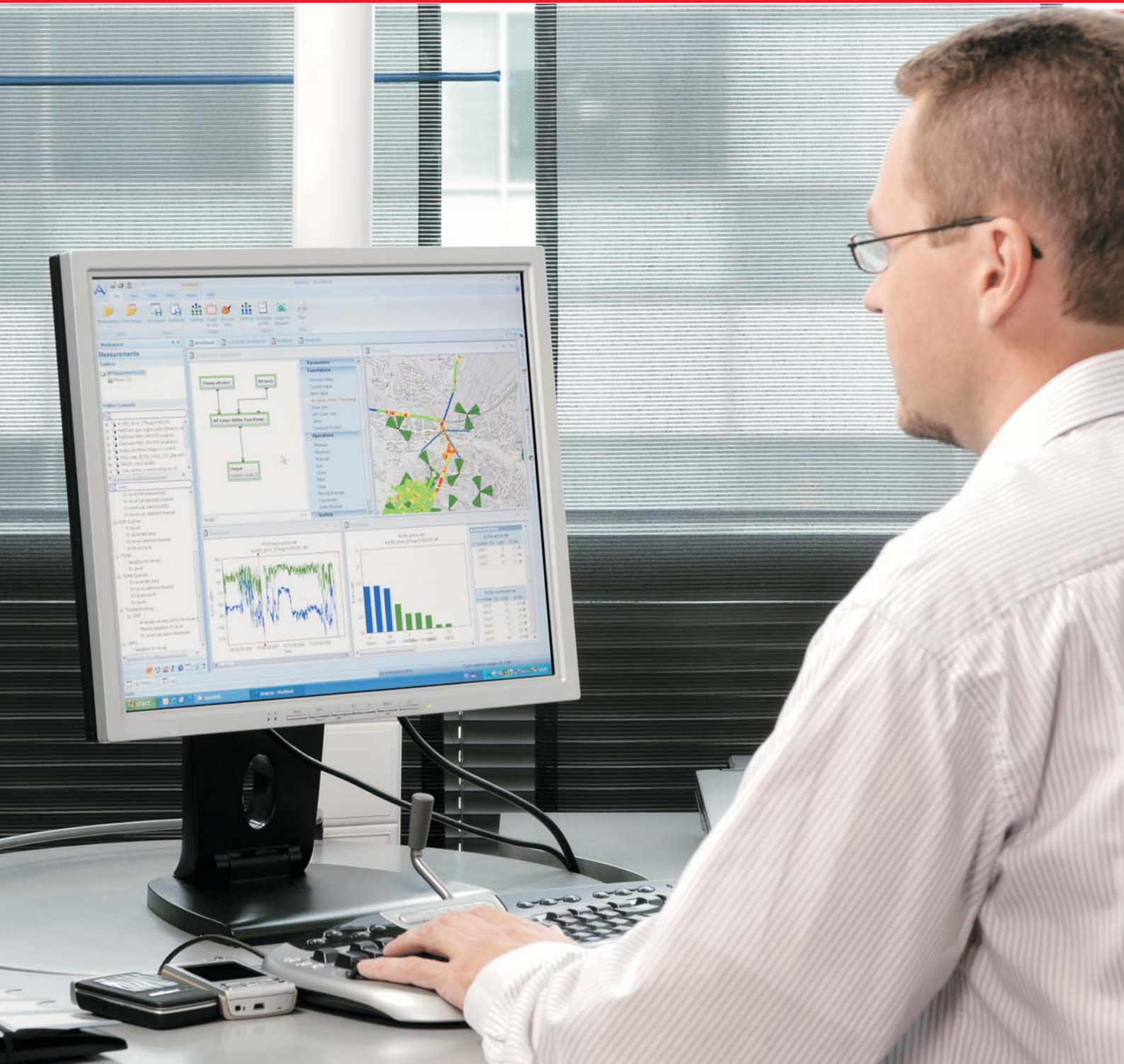


Anite



NEMO
ANALYZE™

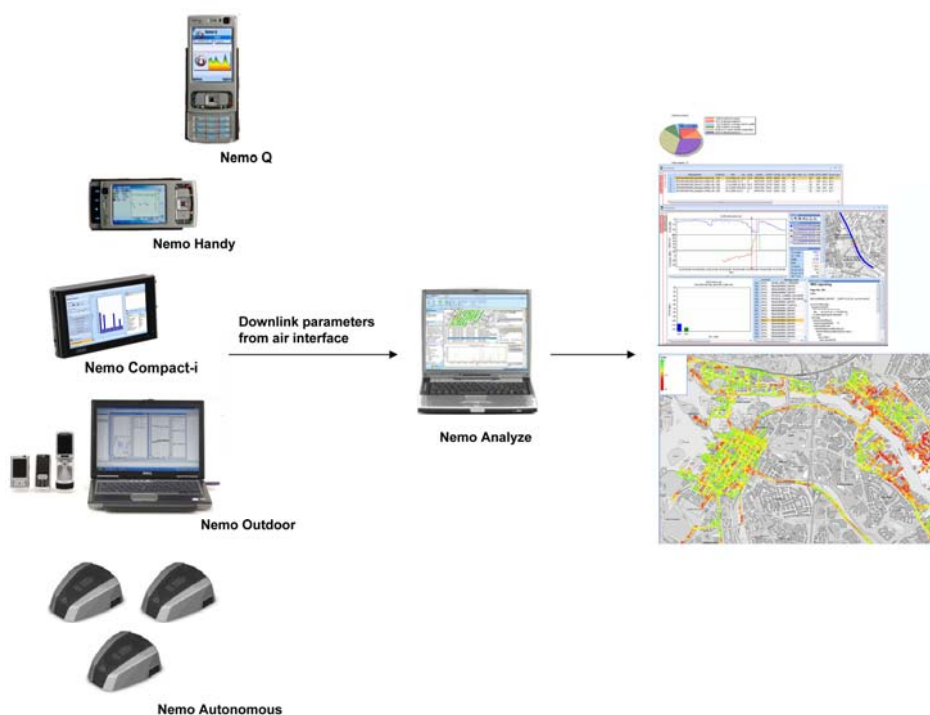
PRODUCT DESCRIPTION

Nemo Analyze™ 5.13 is a powerful and versatile, cutting-edge analysis tool for performing benchmarking, troubleshooting and statistical reporting based on drive test data. The system **scales from a standalone tool to an enterprise-level client/server solution and incorporates an innovative, low-maintenance database engine that has been designed and optimized specifically for high-performance post-processing of drive test data.** Nemo Analyze helps you to streamline your processes by enabling you to automate the entire data processing chain from a drive test to an open workbook with analysis results.

Nemo Analyze **offers a comprehensive set of technology-specific Key Performance Indicators for the latest wireless technologies and a wide range of data views that are known to offer the best visualization of drive test data on the market - and yet it is highly cost effective, easy to set up and use, and it scales to meet the needs of organizations of any size.**

Nemo Analyze offers support for all major wireless technologies, including TDMA, AMPS, cdmaOne, GSM, HSCSD, GPRS, EDGE, WCDMA, HSDPA, CDMA2000, TETRA, TETRAPOL, DVB-H, UMA, HSUPA, TD-SCDMA, and WiMAX. **Supported measurement file formats include Nemo, Ericsson TEMS™, EADS REMS TETRAPOL®, and character-separated value (CSV).**

The database engine combines the benefits of a heavy-duty database and a file-based analysis solution. Because of this, the performance of queries that produce vast numbers of rows matches that of file-based solutions and is outstanding compared to typical database solutions. From the maintenance perspective, the Nemo Analyze database functions exactly like file-based software and it requires little to none database administration, even with the enterprise-level client/server. The only practical limit for the database size in the Nemo Analyze concept is the physical size of the hard disk. With the client/server option, the entire body of your organization's measurement data can be centralized on a single server, making it possible to ensure that it is always securely stored, backed up, and accessible to all relevant users simultaneously whenever they need it.



Automated data processing chain from raw measurement data to a generated workbook

Nemo Analyze enables you to perform operations, such as troubleshooting, map plotting, and report and workbook generation, based on gigabytes of measurement data fast and efficiently. It is also easy to automate these routine operations: measurement data upload into the database and its generation into a report or a workbook can be scheduled to occur at any desired time on recurring intervals.

Each Nemo Analyze workbook can contain several pages and frames, such as a map, various graphs, layer 3 messages, decoded layer messages, idle mode data, connected mode data, etc. Workbooks, pages within the workbooks, and data views on each workbook page, are all synchronized. Multiple layers in the same graph window offer a convenient way to compare two or more RF parameters simultaneously. Measurement data can be plotted on MapInfo® compatible maps. With Nemo Analyze Professional, you can perform root cause analysis and quick drill-down to problem details. Nemo Analyze also enables you to select the optimal approach for each statistical reporting task. Instead of being tied to the strengths and limitations of a single tool, you can employ a range of solutions, from Nemo Analyze workbooks and spreadsheets to Crystal Reports report templates and Microsoft Excel export templates. Nemo Analyze offers also a thorough set of customizable, predefined workbooks and reports that enable effortless and thorough reporting based on all essential network and application level KPIs, as defined by standards specifications such as ETSI, ANSI, etc. Reports can be run over multiple files and source data selected based on various different attributes, including time frame (e.g. last week), system, cell, measurement file(s), MNC (Mobile Network Code), area, or any combination of the aforementioned.

Measurement File Formats Supported by Nemo Analyze			
Nemo	Ericsson TEMS™	EADS	Other
<ul style="list-style-type: none"> Nemo Outdoor Nemo Autonomous Nemo Compact-i Nemo Handy Nemo Q 	<ul style="list-style-type: none"> TEMS Investigation, versions 6.0 – 9.0 TEMS Investigation GSM, versions up to 5.0 TEMS Investigation WCDMA, versions up to 3.0 TEMS Automatic, versions up to 7.0 TEMS Pocket, versions up to 6.0 (Z750i) TEMS technology options: GSM, GPRS, EDGE, WCDMA, HSDPA, and HSUPA 	<ul style="list-style-type: none"> REMS TETRAPOL 	<ul style="list-style-type: none"> CSV

Nemo Analyze 5.13 introduces support for Ericsson TEMS WCDMA

CONFIGURATION OPTIONS

EDITION

Nemo Analyze comes in three editions:

- **Nemo Analyze Lite** – Limited report generation edition
- **Nemo Analyze Standard** – Perfect solution for all post-processing and statistical reporting tasks
- **Nemo Analyze Professional** – Specialist edition for advanced troubleshooting and custom KPI creation

	Nemo Analyze		
	Lite	Standard	Professional
Database engine	✓	✓	✓
Organizing measurement data into subsets	✓	✓	✓
Statistical reporting with Crystal Reports	✓	✓	✓
Benchmarking reports	✓	✓	✓
Measurement data visualization with complete set of data views		✓	✓
Playback of individual log files		✓	✓
Cell reference data with base station map overlay		✓	✓
Data export to MapInfo®, Microsoft Excel®, txt, and Google Earth™		✓	✓
Database filtering based on technology, time, operator, etc.		✓	✓
Parameter statistics		✓	✓
Automatable file upload and report/workbook execution		✓	✓
Area binning		✓	✓
Custom SQL queries		✓	✓
KPI Workbench with an easy-to-use GUI for creating custom KPIs			✓
Statistical reporting with MS Excel			✓
Advanced cell reference information incl. drift from antenna main lobe			✓
Advanced data filtering and global filters			✓
ODBC connectivity to 3rd party databases			✓
Automated problem survey with drill-down			✓
Automated detection/analysis of common GSM/UMTS problems			✓

PLATFORM OPTIONS

Nemo Analyze offers two distinct platform options: Nemo Analyze Standalone and Nemo Analyze Client for Nemo Analyze Database Server. On these platforms, you can build the post-processing solution you need by selecting the technology options and the feature package relevant to you.

- **Nemo Analyze Standalone Platform** (standalone database) for Windows® XP Professional/Windows Vista™
- **Nemo Analyze Client Platform** (requires database server) for Windows® XP Professional/Windows Vista™

TECHNOLOGY OPTIONS

Nemo Analyze Standard and Nemo Analyze Professional can be equipped with the following technology support options. Nemo Analyze Lite always comes with and is strictly limited to the support for GSM, GPRS, EDGE, UMTS, HSDPA, and HSUPA.

- **Nemo Analyze 5 2.5G** for GSM/GPRS/EDGE, AMPS/TDMA, and CDMA2000
- **Nemo Analyze 5 3G** for WCDMA and HSDPA (requires 2.5G option)
- **Nemo Analyze 5 HSUPA** for HSUPA (requires 3G option)
- **Nemo Analyze 5 WiMAX** for WiMAX mobile
- **Nemo Analyze 5 TD-SCDMA** for TD-SCDMA
- **Nemo Analyze 5 DVB-H** for DVB-H
- **Nemo Analyze 5 TETRA** for TETRA

FILE FORMAT OPTIONS

Nemo Analyze Standard and Nemo Analyze Professional can be equipped with the following file format support options.

- **Nemo Analyze 5 TETRAPOL** for EADS REMS TETRAPOL file format
- **Nemo Analyze 5 Ericsson TEMS** for TEMS Investigation (versions 6.0 – 9.0), TEMS Investigation GSM (versions 5.0 onwards), TEMS Investigation WCDMA (versions 3.0 onwards), TEMS Automatic (versions up to 7.0), TEMS Pocket (versions up to 6.0/Z750i), and TEMS technology options (GSM, GPRS, EDGE, WCDMA, HSDPA, and HSUPA)
- **Nemo Analyze 5 CSV Import** for importing ASCII data in CSV (Character-Separated Value) format into the database

DATABASE SERVER OPTIONS

Hardware options are subject to change as more optimal server platforms become available.

- **Entry Level** for up to 10 users, 300GB storage capacity
- **Mid Level** for up to 30 users, 1TB storage capacity
- **Professional Level** for 30+ users, 5TB storage capacity

SYSTEM REQUIREMENTS FOR NEMO ANALYZE STANDALONE/NEMO ANALYZE CLIENT

- PC with Windows® XP Professional/Windows Vista™
- Pentium III processor or better, minimum 1 GHz, preferably 2 GHz
- 1 GB RAM minimum
- 1 GB of free hard disk space for installation and use; 20 GB recommended
- Nemo Analyze copy protection module
- One parallel port or USB port for copy protection module
- Display resolution 1024x768 min, 1280x1024 or better recommended
- Minimum Crystal Reports version requirement is Crystal Reports Professional edition

SYSTEM REQUIREMENTS FOR NEMO ANALYZE DATABASE SERVER

- Hardware: Sun Solaris Server, SPARC Processor Architecture
- Software: Analyze 5 database engine, ObjectStore DB Server

NEMO ANALYZE KEY BENEFITS

- **Scalability** – Enables organizations of any size to manage and analyze vast amounts of measurement data with optimal speed and efficiency
- **Newest technologies** – Every major new wireless technology is always supported
- **One platform** – One platform for all supported wireless technologies
- **Automation** – Data processing chain from a drive test to an open workbook with analysis results completely automated
- **Ease of use** – Intuitive and highly customizable user interface

NEMO ANALYZE KEY FEATURES

- GSM, GPRS, EDGE, WCDMA, HSDPA, cdmaOne, CDMA 2000, TDMA, TETRA, DVB-H, UMA, HSUPA, TD-SCDMA, and WiMAX supported
- Supported file formats include Nemo (Nemo Outdoor, Nemo Autonomous, Nemo Compact-i, Nemo Handy, and Nemo Q), TEMS Investigation (versions 6.0 – 9.0), TEMS Investigation GSM (versions 5.0 onwards), TEMS Investigation WCDMA (versions 3.0 onwards), TEMS Automatic (versions up to 7.0), TEMS Pocket (versions up to 6.0/Z750i), TEMS technology options (GSM, GPRS, EDGE, WCDMA, HSDPA, HSUPA), EADS REMS Tetrapol, and character-separated value (CSV).
- Scalable from a standalone tool to an enterprise-level client/server solution
- File-based, low-maintenance database with outstanding performance compared to typical database solutions
- Synchronized workbooks, workbook pages and data views
- Comprehensive range of data views, including maps, grids, line graphs, bar graphs, pie charts, surface grids, color grids, and spreadsheets.
- Cutting-edge drive test data visualization: area binning, advanced base station overlay with the service areas, signal power, etc. of selected antennas visualized as area bins, and line drawing from terminal to active and monitored cells based on any parameter (e.g. indicating pilot pollution)
- Measurement files are automatically packed to take only 10% of the space they would otherwise require. A free hard disk space of 100 Gigabytes can contain up to 1 Terabyte of measurement data
- Scheduled workbooks, reports, and measurement data uploads from predefined folders, a notification email can be configured to be sent every time a new workbook/report is generated
- Benchmarking of radio and application level metrics based on various attributes over hundreds of hours of data
- Easy-to-use graphical interface for designing and creating custom KPIs without any knowledge of SQL
- Comprehensive set of troubleshooting KPIs for GSM and UMTS, featuring, for instance, root cause analysis. Drill-down from a general troubleshooting query to full event details

- Trend analysis
- UI and many functionalities highly customizable (workbooks, data view layouts, queries, color sets, KPIs, etc.) Custom settings can be exported and imported.
- Statistical reporting with both spreadsheets and Crystal Reports
- Every operation performed with Nemo Analyze can be configured to be automatically filtered based on a set of parameter threshold conditions, enabling for instance data from outside coverage area to be filtered out of processed data sets.

DATABASE SOLUTION

Designing and optimizing the database specifically for drive test data has enabled us to create a solution that not only manages to combine the benefits of SQL databases and file-based solutions, but also avoids the common database bottlenecks that are all too often accepted as necessary tradeoffs.

With Nemo Analyze...

...the user does not need to know any SQL or anything about the database solution.

The entire functionality of the database is accessible to the user by means of Nemo Analyze's intuitive and easy-to-use graphical user interface.

...the required amount of database administration is little to none. Database installation and maintenance is easy. The innovative structure of the database and its built-in optimization for drive test data make tasks such as indexing and de-fragmenting unnecessary.

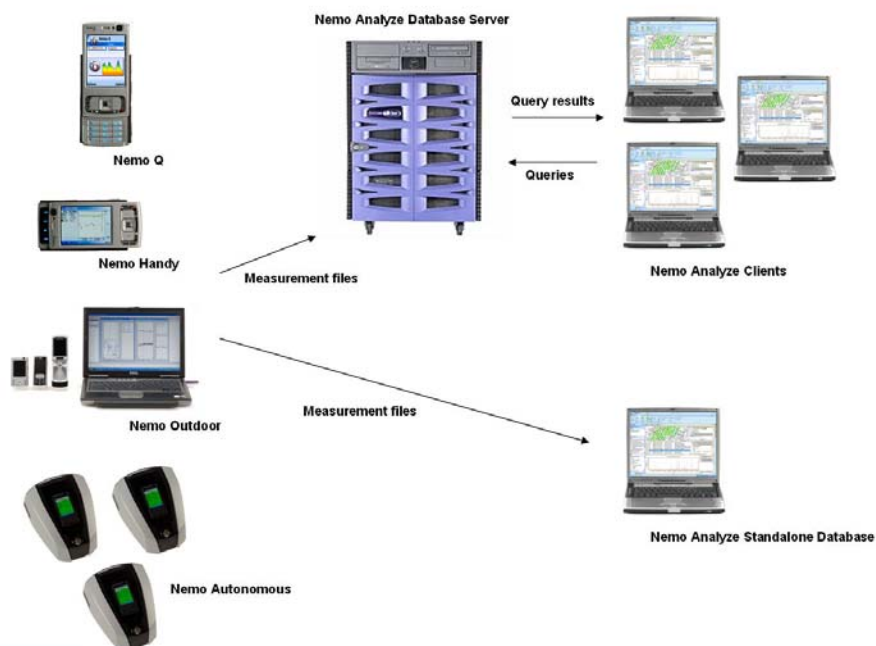
...the entire measurement file is stored in the database instead of just aggregates. It is never necessary to revert to the original measurement files.

...measurement files are automatically packed to take only 10% of the space they would otherwise require. A free hard disk space of 100 Gigabytes can contain up to 1 Terabyte of measurement data.

...the speed and performance of your database is outstanding compared to generic database solutions. The performance of queries over measurement files is good regardless of the database size because file structure is maintained in the database.

...your database size is limited only by the amount of free space you have on your hard disk. Hardware upgrades enable unlimited database size.

...you still get the benefits of using an SQL database. Large sets of data can be easily stored, managed, and processed. The open ODBC interface of the database ensures that the stored data remains accessible also to any third party SQL database tool. Custom KPIs can be created also by using SQL.



CLIENT/SERVER SOLUTION

With the database server solution, all measurement data in an organization can be centralized on a single server. This makes it possible to ***ensure that your organization's entire body of measurement data is always securely stored, backed up and accessible to multiple simultaneous users.***

The database server makes the distribution of measurement data within your organization more efficient. All client users upload their measurement data into the same database. When a new file is added to the database, it is immediately available for analysis by all users in the system. This way each user does not have to search and load the same data into the post-processing tool.

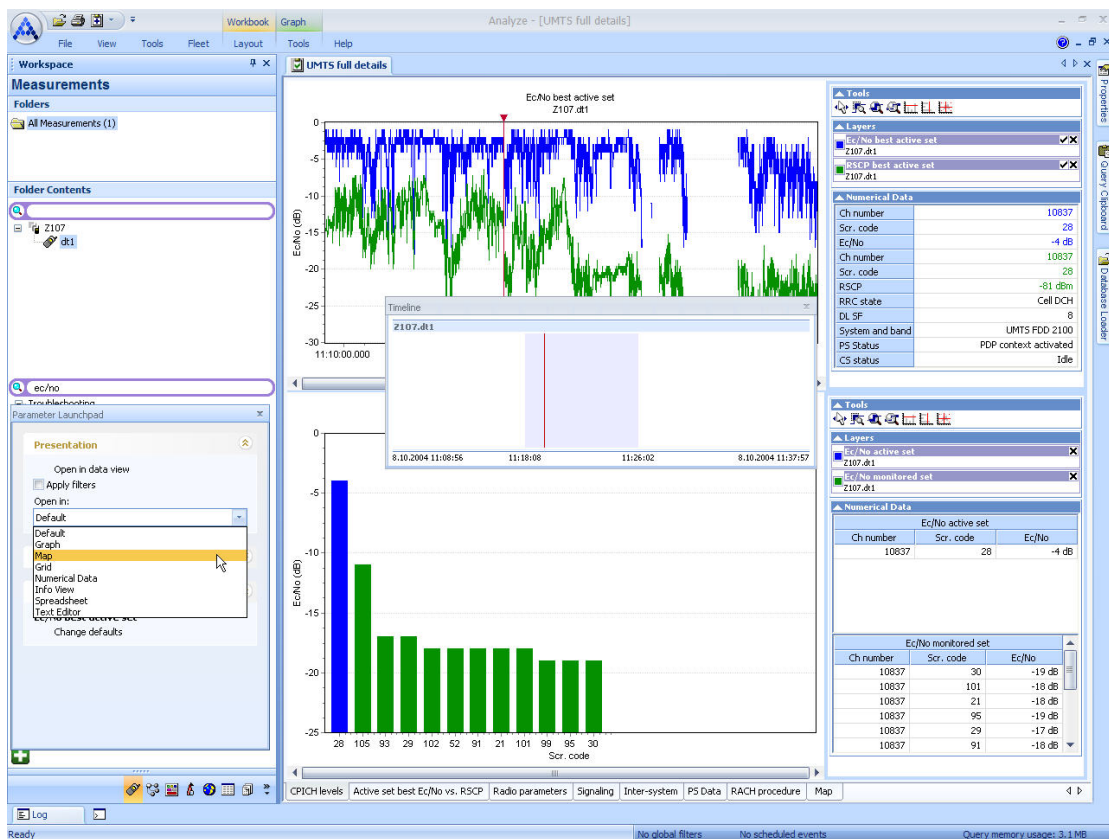
The user interface and functionality of the client is identical with the standalone version. The only difference is that instead of querying a standalone database, the client sends its queries to the database server over IP network. The server processes these queries and sends the results to the client which visualizes the results.

The database server is based on 64bit Sun Solaris SPARC server. The server supports multiple simultaneous users. There are three hardware configurations of different performance levels available, ranging from an entry level configuration intended for relatively small user groups to a professional level configuration intended for large organizations.

DATA VIEWS AND USER INTERFACE

Nemo Analyze data views, together with the innovative concept of *time-synchronized and customizable multi-page workbooks*, and the highly intuitive Nemo Analyze user interface, provide you with the best visualization of drive test data on the market. The range of data views is comprehensive, including *maps, grids, line graphs, bar graphs, pie charts, surface grids, color grids, and spreadsheets*.

The user can create separate workbooks, for example, for UMTS, GSM, and inter-system data. Each workbook can still contain several pages and frames, such as maps, layer 3 messages, decoded layer messages, idle mode data, connected mode data, etc. All workbooks and all pages within the workbooks are synchronized. Nemo Analyze offers a wide range of ready-made workbooks with pages for all relevant KPIs



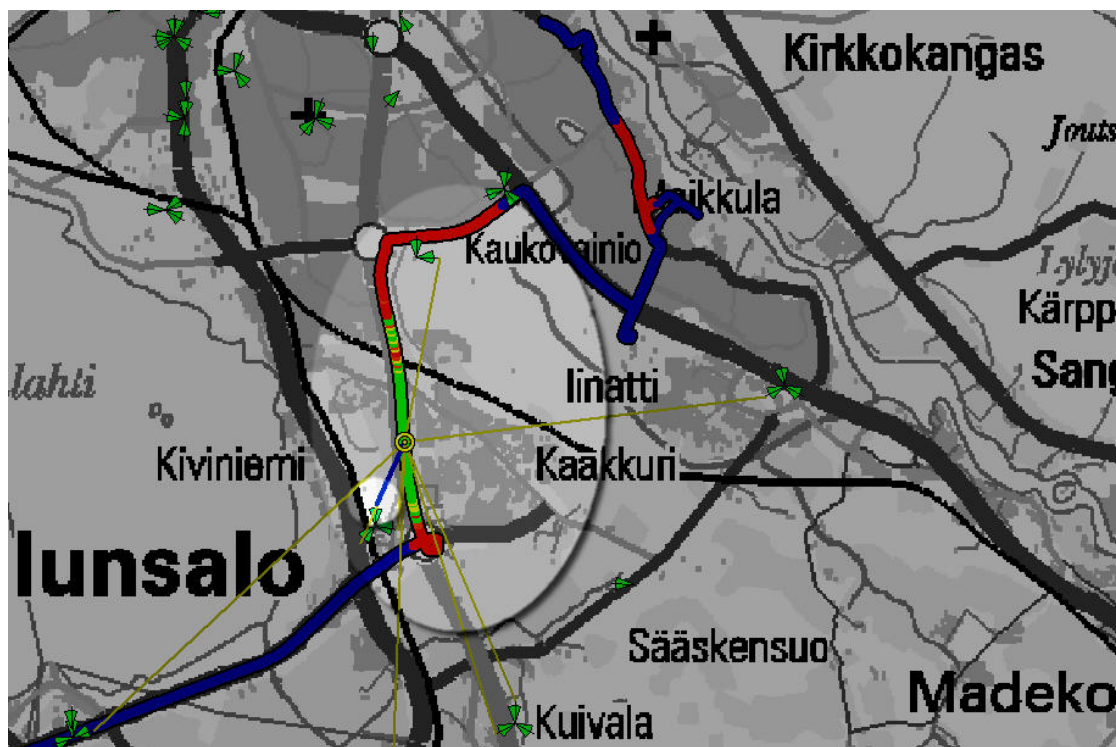
A multi-page workbook with dozens of data views - all of them synchronized

Workbooks can be scheduled to be run automatically on predefined measurement file folders. With an easy-to-use editor, the user can also manually create new custom layouts for workbook pages, each page consisting of any number of user-defined data views. All custom settings, such as workbooks, queries, layouts, color sets, KPIs, etc., can be imported and exported to enable sharing between colleagues.

Nemo Analyze graphs provide you with the full functionality generally expected of the featured graph types - and more. Color grids can be used with any two parameters, and with line graphs you can have multiple layers, user-definable x- and y-axes, and data from different measurements and queries.

Nemo Analyze grids offer more detailed information on the measurement data. Grid data can be displayed in numerical format in user-defined columns and it can be saved as a delimited text file, exported to MapInfo format or exported directly to MS Excel. You can also use color sets to highlight selected records in grids. Grids offer also extensive search capabilities, including searches for selected textual and numerical values from both grid records and decoded messages and several options for filtering and narrowing down the search results.

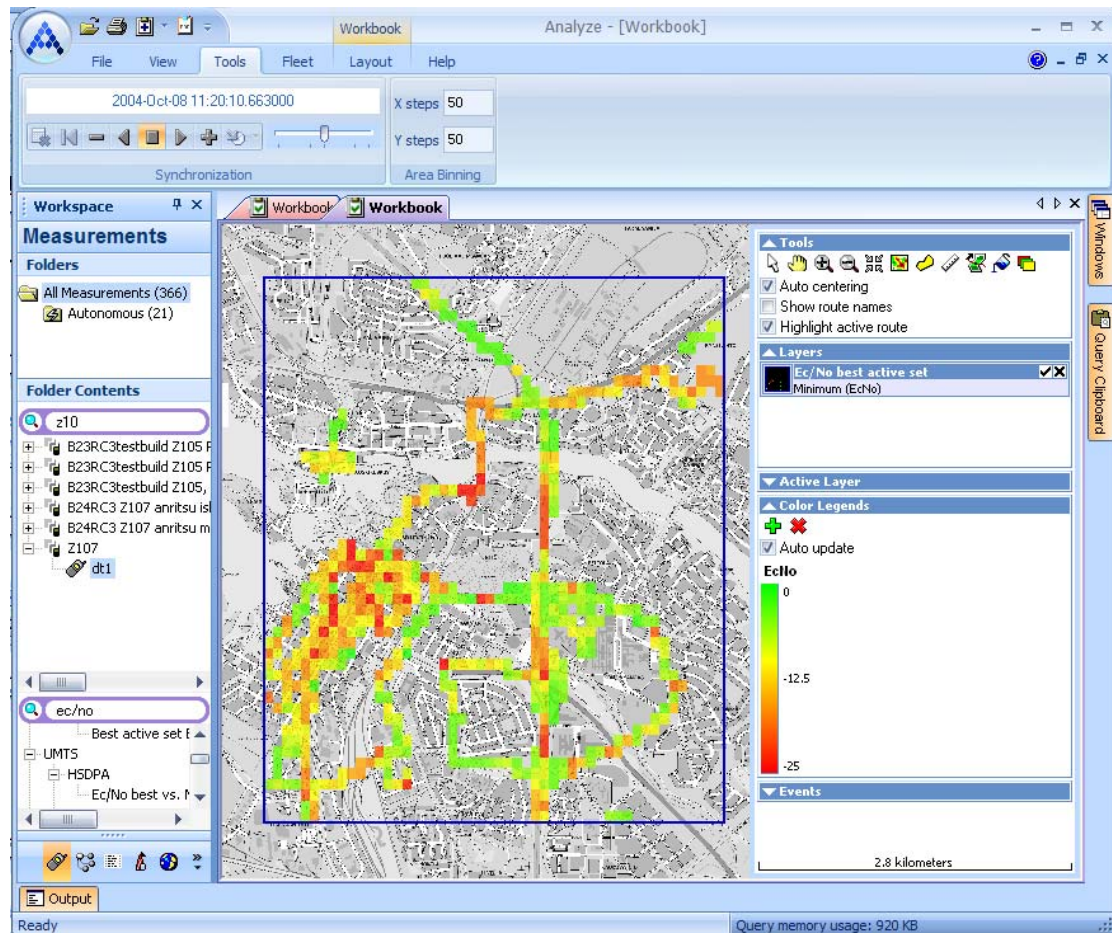
Nemo Analyze maps represent the cutting-edge of drive test data visualization. Parameter-based route coloring enables you to find out at a glance the general picture of what your network performance is on a particular measurement route. The network parameter values along your measurement route are clearly visualized, which makes it easier, for instance, to single out problem areas for further analysis. It is also possible to compare two sets of measurements from the same route, with the color set reflecting the difference between the compared parameter values. You can use predefined color sets or you can create your own, and you can set important events to be displayed on the map as icons.



Route color scale indicates the service area and signal power of the selected antenna

Nemo Analyze maps also provide you with an ***advanced base station overlay***. With a user-defined BTS file, the map shows the location of each base station, the defined antennas with antenna directions, and even antenna apertures and cell identifying parameters. A line connecting the current location of the terminal or scanner to the serving cell (sector) will be drawn automatically (in UMTS systems, even multiple lines can be drawn to active sectors). This gives a highly visual impression of network operation, making it immediately evident if a call is connected to a non-optimal cell. Furthermore, when used together with problem-specific queries, the lines will point out the exact cells causing the problem (e.g. pilot pollution). Route coloring can also be used together with BTS files, the route coloring indicating the service areas and signal power of a selected antenna. With this feature, it is easy to optimize the service areas of single antennas.

Area binning enables you to view statistics on map. Each bin displays a parameter value aggregate (average, minimum, maximum, standard deviation, or count) as a color determined by the selected color set. Polygon area selection enables you to limit queries to a defined part of the route by simply selecting an area from the map. Area binning results can be exported as MapInfo .tab file.

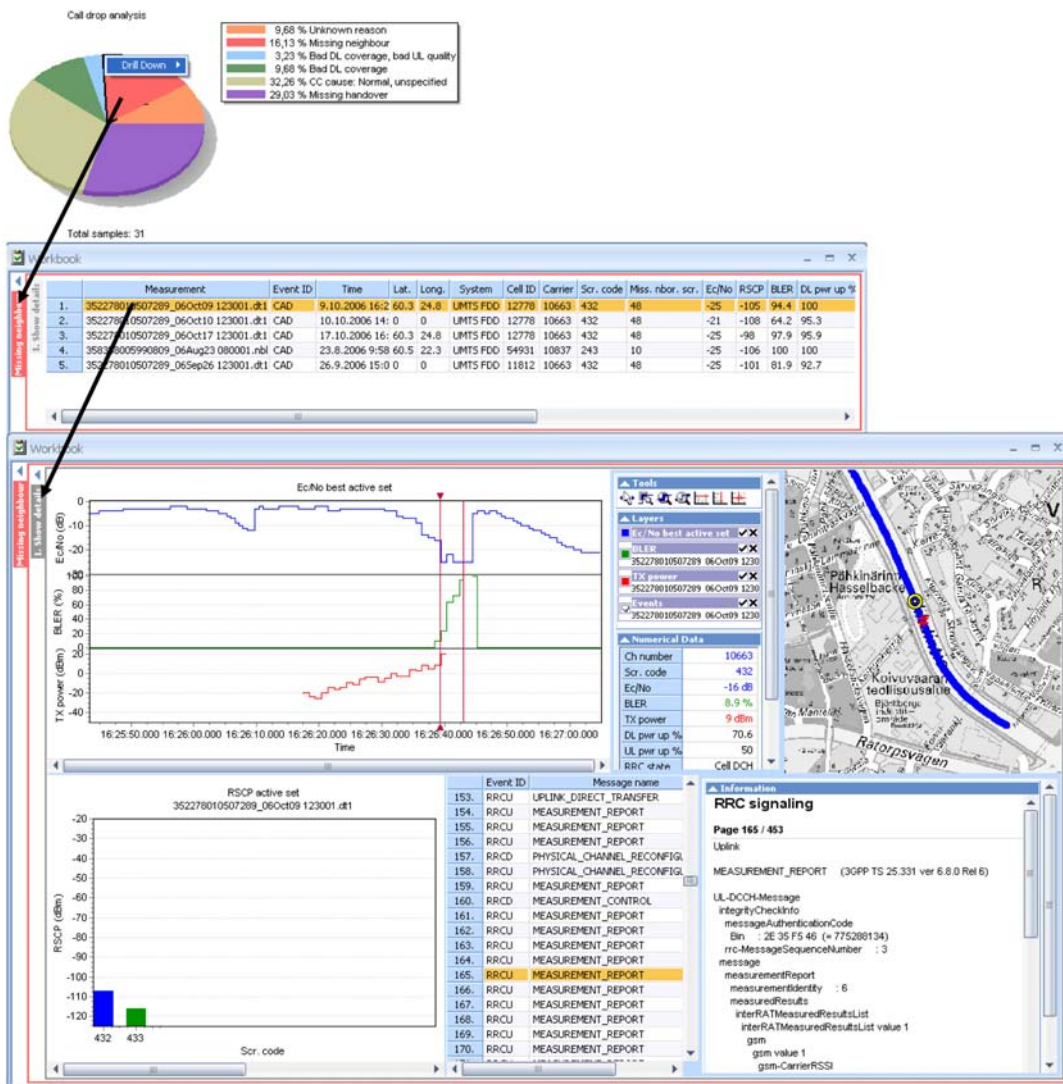


Area binning enables you to view vast amounts of measurement data on map

Nemo Analyze is MapInfo® raster and vector map compatible. It also supports MapX Geoset files (.gst) that enable the user to open several layers on a map and then save them all in a .gst file to be opened later on. All user-defined map settings, such as the order of the different map layers and the zoom factor, are stored in the .gst file. It is possible to save maps as .jpeg images in user-defined map size.

TROUBLESHOOTING

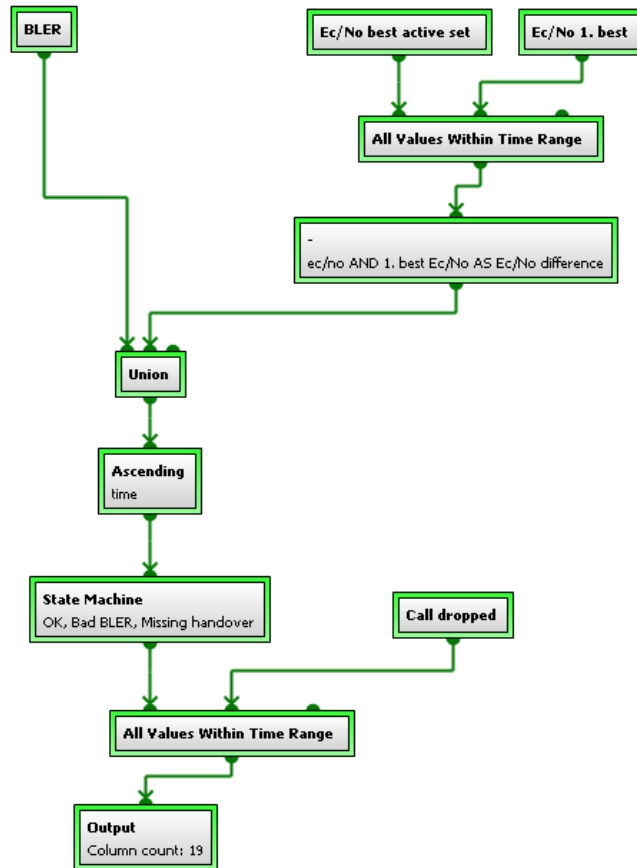
Nemo Analyze Professional offers *a comprehensive set of troubleshooting KPIs* and *a graphical user interface for custom KPI creation*. Nemo Analyze Professional also enables *root cause analysis* for voice calls, video calls, and for the UMTS RACH procedure, with failures and their reasons explicitly pinpointed. From the resulting data set that contains all network and application level problems, you can *select a problem and drill down* to a user-defined time range of full event details surrounding the problem event. Because the database does not process any irrelevant data in a drill-down, problems can be found and analyzed quickly even from vast amounts of data.



Drilling down from root-cause analysis to full event details

The featured *troubleshooting KPIs* include *BCCH clash analysis* (automatically finds co-BCCH interference cases from GSM scanner files), *Call attempt failure analysis* (root-cause analysis for GSM/UMTS call attempt failures), *Call drop analysis* (root-cause analysis for GSM/UMTS dropped calls), *RACH failure analysis* (root-cause analysis for UMTS RACH failures), *UMTS cross feeder/overspilling analysis*, and *UMTS 900 band clearance analysis* (automatic detection and pinpointing of GSM interference sources in UMTS 900 band based on GSM scanner measurements.)

The *KPI workbench* makes it possible to create custom KPIs without knowing any SQL. It offers a graphical user interface for custom KPI creation, making it simply a matter of dragging and dropping the appropriate parameters, correlations, operations and sort elements to the workbench view and connecting them into a logical flow chart. As also the properties of each of these elements are customizable, the combinations are almost limitless.

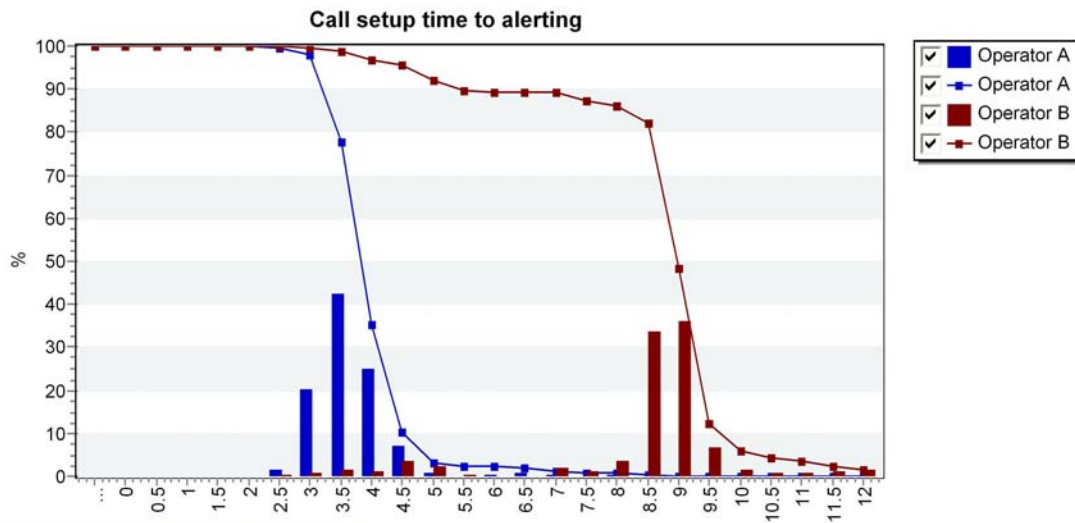


A complex custom KPI for dropped calls resulting from a missing handover

Drill-down and KPI workbench are supported with all wireless technologies supported by Nemo Analyze. Root cause analysis and troubleshooting KPIs are currently supported with GSM and UMTS.

BENCHMARKING

Benchmarking with Nemo Analyze is easy and scalable to large data amounts, enhancing the cost and time efficiency of network operators. You can *make data comparisons between different operators, technologies, cells, IMSIs, polygon areas and time frames*, and view the results conveniently in a single graph. Benchmarking can be done over gigabytes of data for KPIs, such as Voice call setup time, Ec/No, Rx Quality, and many more. Benchmarking can be performed quickly in the UI for a single KPI. There are also predetermined benchmarking report templates that can be used in comparing KPIs from different operators, technologies, and time frames and in visualizing the results in a single report.



		Operator A	Operator B
Aggregates	Average	3.916	8.739
	Maximum	11.641	58
	Minimum	1.562	2.963
	Std. deviator	3.916	8.739
	Variance	-15.333	-76.375
	Threshold <	96.703	8.006
	Sample count	546	637

Benchmarking of radio and application level metrics over hundreds of hours of data

STATISTICAL REPORTING

Nemo Analyze enables you to select the optimal approach for each statistical reporting task. Instead of being tied to the strengths and limitations of a single tool, you can employ a range of solutions, from Nemo Analyze workbooks and spreadsheets to Crystal Reports report templates and Microsoft Excel export templates.

The fully customizable and automatable **Nemo Analyze workbooks provide you with a completely new angle on statistical reporting**. Each workbook can contain several pages and data views. All open workbooks and all data views within the workbooks are automatically synchronized in time. The comprehensive selection of data views includes spreadsheets, maps, grids, line graphs, bar graphs, pie charts, layer 3 messages, surface grids, and color grids. Nemo Analyze features a full set of ready-made workbooks with pages and views for all the relevant KPIs. Nemo Analyze workbooks can be scheduled to be run automatically on predefined measurement file folders. Nemo Analyze paired with an automatic measurement solution such as Nemo Autonomous can indeed equal to automatic up-to-date measurement reports popping up on your desktop as and when measurement sessions are completed. All custom settings, such as workbooks, queries, layouts, color sets, KPIs, etc., can be imported and exported to enable sharing between colleagues.

The screenshot displays a spreadsheet interface with a menu bar (File, View, Tools, Fleet, Layout, Help) and a toolbar. The spreadsheet contains the following data:

	A	B	C	D	E	F	G	H	I	J	K
1	=IF(C2;<((C3/C2)*100);0)										
2		Call attempt	11.00								
3		Call connected	10.00								
4		Call disconnected	10.00								
5		Call success rate	90.91 %								
9	Call Attempt Failure Analysis:	Bad DL coverage	1	-100;-95;Bad DL coverage	/* MEAS(2107.dk1) */						
15	Call Attempt Signaling Matrix:	2107.dk1	48235206019	25.5584888458252	64.99607086181641	2	Voice call	Radio bearer setup fai	undefined	0	0
20	Event ID	System	Downlink	Data transfer direction	Time	P_REY (pr	Sub chann	Message name	Data		
21	LSU	2	2100	1	38268.46457859796		DCCH	SERVICE_REQUEST	080C0005F4F		
22	LSU	2	2100	1	38268.46455161824		DCCH	ACTIVATE_PDP_CONTI	0A41050308C		
23	L3D	2	2100	2	38268.46459527778		DCCH	PTMSL_REALLOCATION	081005F4E19		
24	LSU	2	2100	1	38268.46459527778		DCCH	PTMSL_REALLOCATION	0811		
25	L3D	2	2100	2	38268.4646125463		DCCH	ACTIVATE_PDP_CONTI	8A42030823E		
26	LSU	2	2100	1	38268.46554965278		DCCH	DEACTIVATE_PDP_COI	0A4624		
27	L3D	2	2100	2	38268.46555116898		DCCH	DEACTIVATE_PDP_COI	8A47		
28	LSU	2	2100	1	38268.4655525463		DCCH	ACTIVATE_PDP_CONTI	0A41050308C		
29	L3D	2	2100	2	38268.46566996528		DCCH	ACTIVATE_PDP_CONTI	8A42030823E		
30	LSU	2	2100	1	38268.46607391204		DCCH	DEACTIVATE_PDP_COI	0A4624		
31	L3D	2	2100	2	38268.46607865741		DCCH	DEACTIVATE_PDP_COI	8A47		
32	LSU	2	2100	1	38268.46619668982		DCCH	CM_SERVICE_REQUES	05240103575		
33	LSU	2	2100	1	38268.46619734954		DCCH	SETUP	03450404600		
34	L3D	2	2100	2	38268.46619734954		DCCH	CALL_PROCEEDING	8302		
35	L3D	2	2100	2	38268.46622099537		DCCH	ALERTING	83011E02E08		
36	L3D	2	2100	2	38268.4662215278		DCCH	CONNECT	8307		
37	LSU	2	2100	1	38268.4662215278		DCCH	CONNECT_ACKNOWLEDGE	038F		
38	LSU	2	2100	1	38268.4666996875		DCCH	DISCONNECT	03E502E090		
39	L3D	2	2100	2	38268.46670224537		DCCH	RELEASE	832D		
40	LSU	2	2100	1	38268.46670224537		DCCH	RELEASE_COMPLETE	032A		
41	LSU	2	2100	1	38268.46675903935		DCCH	ACTIVATE_PDP_CONTI	0A41050308C		
42	L3D	2	2100	2	38268.46677931713		DCCH	ACTIVATE_PDP_CONTI	8A42030823E		
43	LSU	2	2100	1	38268.46711533565		DCCH	DEACTIVATE_PDP_COI	0A4624		
44	L3D	2	2100	2	38268.46711950232		DCCH	DEACTIVATE_PDP_COI	8A47		

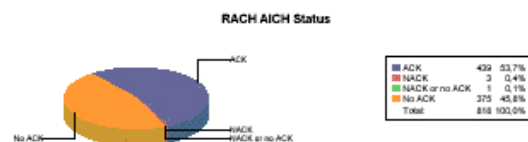
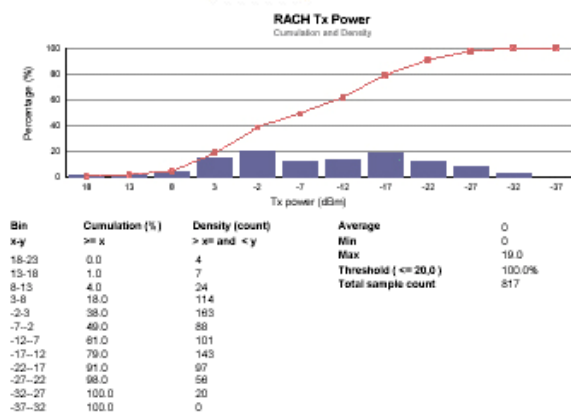
Nemo Analyze spreadsheets make day-to-day reporting fast, easy and flexible

Nemo Analyze spreadsheets offer a spreadsheet functionality that follows the current de facto standard in spreadsheet applications, and yet is fully integrated with Nemo Analyze's drive test data-specific post-processing features. You can drag and drop parameter aggregates and statistics on a single spreadsheet based on multiple measurement files and KPIs, and calculate e.g. success rates by employing the standard range of arithmetic operations and other capabilities of the spreadsheet approach. The resulting spreadsheet can

be saved as a report template and subsequently run as a workbook on any measurement data.

With Nemo Analyze's **Microsoft Excel export templates**, you can export query result data sets from Nemo Analyze to a selected location within an existing MS Excel document. The exported parameters and the export locations within the MS Excel workbook are saved as a report template. The template can be subsequently run on any measurement data. The feature allows you to use the full data formatting functionality of MS Excel in reporting, and make use of any existing, third-party MS Excel spreadsheets you might already have.

You can also employ **Crystal Reports report templates**, which enable effortless and thorough reporting based on all essential network and application level KPIs, as defined by standards specifications such as ETSI, ANSI, etc. Reports can be run over multiple files and source data selected based on various different attributes, including time frame (e.g. last week), system, cell, measurement file(s), MNC (Mobile Network Code), area, or any combination of the aforementioned. Reports can be generated straight from the Timeline view based on a selected time range. Report generation can also be set to occur automatically from a predefined folder.



RRC Connection Statistics

RRC connection attempts	71
RRC attempt success	67
RRC connection attempt failures	4
RRC disconnects	68
RRC connection attempt success rate	94 %

Advanced reporting based on all essential network and application level KPIs

The Crystal Report Viewer tool is embedded in Nemo Analyze. Reports can be exported to all formats supported by Crystal Reports, including PDF, Excel, etc. You can also order tailor-made reports from Anite or create your own using the independent third-party software Crystal Reports Professional edition.

NEMO OPEN FILE FORMAT

Nemo Outdoor produces measurement files in an open ASCII file format. Files can be directly imported to Nemo Analyze as well as to various third party post-processing/analysis tools. This is accomplished without any separate conversion or parsing of the files. Furthermore, measurement files from multiple test drives can be opened in Nemo Analyze as individual files and shown side by side, delta plotted, or used with statistical quality survey report generator without the trouble of combining all measurements into one big and cumbersome file.

A detailed description of the file format is included in the Nemo Analyze's product documentation. The file format description contains all recorded events and the related parameters.

NEMO TOOLS

In addition to Nemo Analyze, Anite Finland Ltd. offers a comprehensive range of tools and software for measuring and analyzing wireless networks.

Nemo Autonomous™ Nemo Autonomous is the first practical light-weight solution for performing fully automated large-scale measurements on the air interface of EGSM/GPRS/EDGE/WCDMA/HSDPA wireless networks. Nemo Autonomous streamlines your network measurement, troubleshooting, statistical reporting, and benchmarking processes, maximizes your awareness of what is happening in the network, and makes achieving all this considerably easier and more cost efficient.

Nemo Outdoor™ A portable engineering tool for measuring and monitoring the air interface of TETRA, GSM (HSCSD, GPRS, EDGE), WCDMA (UMTS), TDMA (IS-136), AMPS, cdmaOne, CDMA 2000, UMA, HSDPA, HSDPA 16QAM, HSUPA, TD-SCDMA and WiMAX wireless networks.

-with Indoor Option Nemo Outdoor is ideal for indoor measurements. Lightweight Tablet PC makes it is easy to carry and allows the user to plot the measurement route on a floor plan with a click of a pen.

-with Multi Option Nemo Outdoor Multi enables benchmarking measurements on multiple networks and even on multiple technologies at the same time. Possibility to establish up to five simultaneous packet/circuit-switched data connections from test terminals.

Nemo Compact-i™ Nemo Compact-i, the first Ultra Mobile PC-type measurement device on the market, broadens the Nemo handheld measurement tool palette to support the CDMA/EV-DO and HSDPA networks. Intelligent and compact computing performance introduced in a package that fits in your pocket.

Nemo Handy™ Nemo Handy is a state-of-the-art handheld tool for testing mobile application QoS/QoE and measuring the air interface of EGSM/GPRS/EDGE/WCDMA/HSDPA/Wi-Fi 802b/g wireless networks. Nemo Handy not only provides you with the best real-time measurement visualization on the handheld market, it also enables you to build your own custom real-time views for all the relevant network parameters supported by the terminal's mobile trace interface.

Nemo Q™ Nemo Q is an easy-to-use troubleshooting tool for customer-assisted network problem solving. Nemo Q supports GSM, GPRS, EDGE, WCDMA, and HSDPA wireless networks and is available for Nokia N75, N80, N95, N95 US, 6120, and 6121 terminals. The unique concept of Nemo Q, where the end-customer is able to send a log file to the service provider each time a network problem is encountered, represents the future of the service provider business.

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