NQView

The flexible interface for benchmarking and optimization





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RF and field engineers performing mobile network benchmarking or optimization testing need to be able to have an easy-to-use yet flexible and powerful graphical interface, which allows a deep analysis of the ongoing measurement. A high degree of customization is necessary and should include map monitors, device and scanner monitors as well as customizable events and alarms. At the same time, this degree of complexity should allow the user to comprehensively configure the test scenario and real-time monitoring in a few simple steps.

NQView is the unique graphical user interface for SwissQual's Diversity Benchmarker II and Diversity Optimizer. Whether a quick summary on an ongoing test or thorough troubleshooting, NQView allows users to create individual workspaces and fully customized monitors. For a quick start, a complete set of predefined monitors offers a glance on the radio conditions or a comprehensive summary of the ongoing drive test.

NQView is designed for drive tests with intelligent functions that make it safe; for example, it includes customizable audio alarms that send alerts only when necessary. The Safe Driver mode gives the user a restricted amount of information which is clearly visible when the speed limit has been reached.

NQView allows the user to configure test scenarios; monitor the status of tasks and campaigns; and replay measurement files for in-depth and immediate post processing of the executed measurement. NQView is also able to replay QualiPoc files for guick and effective troubleshooting and post processing.

Key Use Case Quality of experience optimization

NQView is the graphical user interface to configure testing campaigns with Diversity Optimizer. With just one click, the user can monitor the results in the Real-Time Console. For a quick glance, predefined devices or scanner monitors or even dedicated pages can be added easily.

For more advanced usage, the user can create fully customized value and event monitors. NQView alerts the user via configured audio alarms and pop-ups to ensure that nothing will be missed. In case of trouble-shooting, the user can replay the file and search for a particular event once the measurement is done; in the replay file, the user can also create new monitors that display, for instance, a certain value on a map, in a bar chart, a table or a line chart.

If tests are performed with the QualiPoc Android handheld attached to the Optimizer, the user can detach the QualiPoc Android and use it as a standalone handheld. These measurements can also be replayed in NQView using the same powerful interface.

At a glance

- I Fully customizable monitors and workspaces
- Supports OpenStreetMap and MapX[®]
- Events and customizable pop-up and audio alarms for immediate notification and action
- Control, configuration, monitor, and replay for Diversity Benchmarker II or Diversity Optimizer
- Replay supported for QualiPoc Android and Freerider measurement files







Product Highlights Designed for benchmarking and optimization

NQView allows the user to configure benchmarking campaigns from A to Z, adding all possible campaigns before hitting the road. During the test, measurements can be observed on monitors that are completely customizable, allowing maximum flexibility to add map monitors (OpenStreetMap or MapX*), bar or line charts, and tables. A predefined set of monitor and scanner related devices can be added with just one click. During the drive test, a summary of currently ongoing tests can be quickly created, allowing the user to have a comprehensive overview of the current measurement.

NQView is also the interface of SwissQual's Diversity Optimizer. While driving around a new deployed base station, the site location can be added to NQView's internal database so that the user will see it on the map monitor; he can then lock his measuring device to the newly deployed cell to assess its main KPIs. As many monitors and plots as needed can be added; for a quick review before post processing, the measurement file can be easily replayed.

Comprehensive replay functionality

Regardless of whether a benchmarking campaign or dedicated tests with Diversity Optimizer or a QualiPoc Android device, NQView can replay all measurement files. While the user is replaying the measurement files, he can easily create additional monitors and views for a thorough analysis.



NQView LTE monitors

Key Product Features

Fully customizable monitors

NQView offers a flexible and fully customizable graphical user interface to simplify data analysis, test configuration, and real-time monitoring:

- **1** 3 consoles in one single interface to configure, monitor, and replay benchmarking and optimization tests.
- I more than 900 values that can be customized and represented on a monitor, a map, in a line or bar chart, or in a table.
- I more than 70 predefined monitors specific to device, technology, and service test.



Advanced drive test monitoring and mapping functions

NQView offers a set of useful functions for drive test monitoring and integrated mapping functions:

- support for MapX° and OpenStreetMap mapping software.
- advanced mapping functions such as BTS sectors and BTS visualization (position and ID on the map).
- **I** BTS file import and visualization of the connected BTS.
- Safe Driver mode locks user interface giving only limited key information of a certain vehicle speed to prevent driver distractions.

Key benefits

Using NQView will reward you with long-term values, including:

- operational efficiency thanks to an intuitive interface and fully customizable workspaces that reduce training costs. Support of advanced mapping functions with MapX® and OpenStreetMap.
- I safety at work with Safe Driver mode and Night View mode to decrease risks of accident during drive testing.
- process simplification since a user needs only one interface for multiple test solutions such as Diversity Benchmarker II and Diversity Optimizer; for QualiPoc Android measurement files, NQView can be used for replay.



Technical Specifications

Control and Analysis

Probe configuration, test execution, status monitoring, realtime display as well as replay and basic data post processing functions.

Technologies

Extensive technology test support including: GSM, GPRS, EDGE, WCMDA, LTE, LTE-A, CDMA/EVDO, HSPA+, HSDPA DC, PSTN, ISDN, and IP.

System Architecture

Laptop or tablet PC with Windows® 7 (32- or 64-bits). Dedicated NQView consoles available depending on use case and license.

Data Storage

Detailed information is stored in the database to avoid compromising the flexibility and detailed analysis filtering. Due to the intelligent design of the data files produced by the SwissQual probes, the import speed into the NQDI database is extremely high.

User Interface

Automatically adapting menus, toolbars, and navigation panes. Control console used for system configuration and measurement task actions. Real-time and replay console with predefined and customizable workspace pages and monitors. More than 900 measurement values available for customized presentation in maps; line or bar charts; and list boxes and tables. Predefined and customizable events with audio. Safe Driver mode and Night View mode.

Benchmarking Operation

Benchmarking display mode for phones, data devices, PSTN/ISDN channels, LAN adapters, and RF scanners. Powerful overview status display of all devices, including test results.

Optimization Operation

Easy configuration of standard voice and data testing tasks. Static and dynamic real-time forcing of technology, frequency band, channel, cell barring, and handover. Handover history and missing neighbor events logging. Advanced test and configuration management with single and multi-service test execution.

Workspaces

Workspaces are used to style and reuse the user interface configuration. It holds the information about the monitors,

values, and toolbar settings and layout. The workspace consists of multiple pages easily selected with short keys. They can be saved and automatically opened as well as exported and imported. Predefined pages for devices and technologies facilitate the construction of a new workspace in a few seconds. The pages are available for different PC screen resolutions. The device used as the actual value source to feed the monitors can either be switched very easily with short key or locked to a dedicated device.

Monitors

More than 70 predefined monitors for application, network, L3 signaling, device technology, and RF scanning. Custom monitors can easily be put together by the user with full freedom of choosing colors and value range shading (value and background); also combining different sub monitors to suit preferences and needs. The custom-created monitors can easily be distributed with the export/import function.

Events

Predefined and customizable events with audio. Events are easily defined by the use of a wizard. Event trigger-based devices trace values, layer 3 parameters, call markers, and KPIs.

Safe Driver Mode

Safe Driver mode conforming to US law, which enables locking of user interface input over a certain car speed threshold, highlights the essential and important measurement system information.

Data Management

Powerful post processing with multiple files replay. Intelligent measurement file archive, search-based on filter criteria such as technology, operator, KPI thresholds, and RF channel numbers. Data export to CSV, Google Earth, and MapInfo*. Quick measurement result summary reporting.

Data Replay

Replay mode supporting loading multiple files from Diversity and QualiPoc Android. Play controls with play speed setting, step forward or backward, and slide bar control. Find function with time, event, layer 3 message, and KPI search support.

Map Plotting

MapX° and OpenStreetMap (off and online) map plotting with serving and neighbor BTS sector indications. Powerful saving and loading of drive test paths in MapInfo° format allow display of several weeks of driven routes. Multiple map monitors and map layer offsetting facilitate the analysis of multiple networks and multiple values. Easy in-building positioning using indoor floor plan pictures that are stored in the measurement file.



Service that adds value

- Worldwide

- Uncompromising quality
- Long-term dependability

About Rohde & Schwarz

The Rohde & Schwarz electronics group offers innovative solutions in the following business fields: test and measurement, broadcast and media, secure communications, cybersecurity, radiomonitoring and radiolocation. Founded more than 80 years ago, the independent company which is headquartered in Munich, Germany, has an extensive sales and service network with locations in more than 70 countries

Mobile network testing

The company's broad and diverse product portfolio for mobile network testing addresses every test scenario in the network lifecycle - from base station installation to network acceptance and network benchmarking, from optimization and troubleshooting to interference hunting and spectrum analysis, from IP application awareness to QoS and QoE of voice, data, video and app-based services.

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