# PRODUCT DATA

Environmental Noise Management System Software — Type 7843
Version 2.5.5

Environmental Noise Management System Software Type 7843, the central part of the Brüel & Kjær Environmental Noise Management Concept, was developed with the future needs of environmental noise management in mind in close cooperation with experts in various fields.

The software's modern server-client architecture makes it a powerful noise data management tool and a solid platform both for today and for the future. It offers real-time communication with an unlimited number of Noise Monitoring Terminals ensuring continuous data storage in both the NMT's and the system's central database. The software ensures data retrieval, analysis, reporting and export of noise, weather, and geographic data through its configurable user interface with built-in GIS functionality.

As a modular solution, the concept is suitable for handling multiple clients and sites, as well as smaller tasks, such as semi-permanent monitoring of a concert.
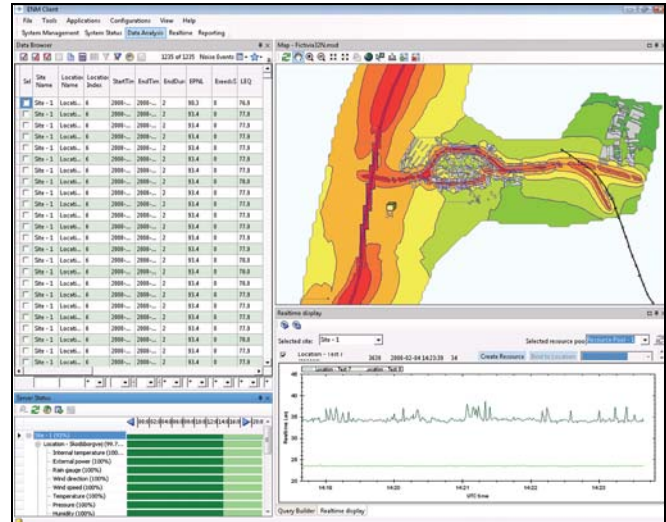
Uses and Features

Uses
- Managing environmental noise from:
  - Airports
  - Cities
  - Roads
  - Railroads
  - Construction sites
  - Industries

Features
- Setup, download and storage of data from Brüel & Kjær NMTs Types 3639- A, B and 3639-E, G (200 series)
- Modern service-based client/server architecture using latest Microsoft$^®$.NET implementation technology
- Professional Microsoft$^®$ SQL Server$^®$ database
- Communication using industry-standard Internet protocols and security

- User-friendly, configurable graphical user interface with flexible graphical and tabular displays
- Powerful browse, sort and filter of data for viewing, analysis, presentation, reporting and exporting of data
- Geographical Information System (GIS) functionality including superposition, 3D views and address location[a]
- Unique, powerful management of mobile noise monitoring terminals through intuitive planning and location identification via GPS
- Import/export to Predictor Type 7810, Lima Type 7812 and Evaluator Type 7820
- Multiple user roles linked to a network's Microsoft$^®$ Active Directory$^®$

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a. The level of GIS functionality is determined by the Client and module licenses installed.

Brüel & Kjær

The experience gained from four decades of continuous research and development has been used to develop the Brüel & Kjær Environmental Noise Management (ENM) concept, enabling easy management of environmental noise and interaction between measured and calculated environmental noise results. Such interaction can be implemented in a wide range of tasks including calibration and verification of noise calculations, using calculated noise maps for planning monitoring locations and combining the results from calculations and measurements to give validated assessments with optimal results and costs.

Environmental Noise Management System Software Type 7843's modern server-client architecture makes it a powerful noise monitoring and data management tool and a solid platform for the future. Additional, fully integrated modules, such as Complaints Handling Module Type 7848 and ENM 3D Visualisation Module Type 7850 delivers a complete set of features to support environmental noise management in cities, industries, transport infrastructure, etc. Together with noise calculation software (such as Predictor Type 7810 or Lima Type 7812), measured and calculated noise data, as well as other kinds of environmental geo-referenced data, the software can be used for advanced management of noise. For example, ENM System Software Type 7843 is a suitable solution for fulfilling European Directive 2002/49/EC, relating to the assessment and management of environmental noise. A system based around the software offers unique, powerful management of mobile noise monitoring terminals through intuitive planning and location identification via GPS.

What's New in Version 2.5.5 Compared to Version 2.5?

- **Easier management of NMTs:** The way that the software handles the setup and binding of NMTs to locations is improved, making it easier to get both an overview and the details of how the NMTs are set up. NMTs are automatically detected. You also get an intuitive overview of NMTs' setups, seeing where, for example, the trigger conditions change, what the current binding is and how the monitoring will be done in the future. The initialcalibration of the NMTs is now set up automatically and you have full remote control of all connected NMTs
- **Automatic detection of location based on GPS:** When the NMT's GPS detects that it has moved by over 100 m, you will be asked if you want to create a new location or assign the data to an existing, nearby location. This greatly eases the setup of mobile NMTs
- **Bitmap images as maps:** By loading bitmaps and simply placing the locations of the NMTs on the map, you can easily create attractive, professional views and reports using cost-effective maps (only available in Type 7843-S)
- **Enhanced map view setup:** GIS map data is optimised for viewing by the software, enabling automated pyramid functionality, for professional viewing where map detail increases as you zoom in. This avoids having to use Desktop ArcGIS
- **Camera support:** Pictures taken by a camera with a suitable NMT are now stored together noise events to which they are linked. The system can be set up to store up to one picture per second for noise events
- **Simpler installation:** Improved installation guidance ensures simpler installation on recommended installations
- **Run with DEP compatibility:** DEP (data execution prevention) is a security feature on Windows Vista®. Running with DEP enabled ensures smoother operation on Windows Vista operating systems
- **Support of ArcGIS 9.3:** Ensures compatibility with the latest data formats and new functionality from ESRI and ensures that the system is state-of-the-art
- **Support of Crystal Reports 2008:** Ensures compatibility with the latest data formats and new functionality, ensuring that the system is state-of-the-art
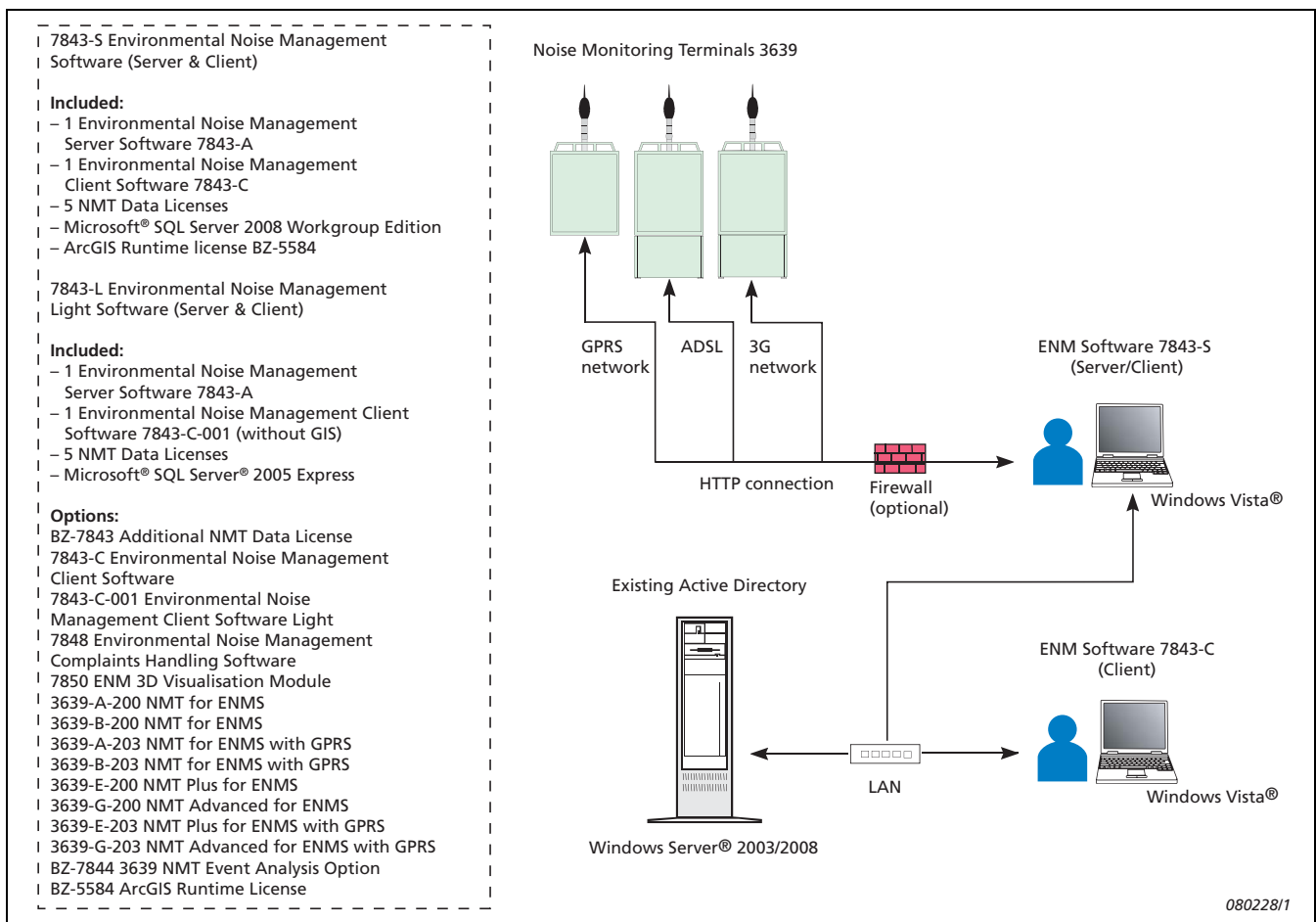- **German language version:** Now available as standard

Professional Client-Server Architecture

Type 7843 has a modern client-server architecture, with a professional Microsoft® SQL Server® database as the central server component. The Server is installed on a central computer, while Environmental Noise Management Client Software Type 7843-C can be installed on this or any other personal computer fulfilling the necessary system requirements from IT departments. The implementation uses the latest Web services techniques, provided by .NET technology from Microsoft®. Consequently, the implementation is optimised for access through conventional rich clients and later support of web clients (not provided in this release). The combination of modern software architecture and object-oriented implementation technology provides a flexible platform for a continued evolution of the software. The communication throughout the entire system is built up around Internet technology and techniques, for example through the use of TCP/IP for communication between NMTs and server.

The design is highly modular, which means it is easier to meet any specific demands and add new functionality and makes it possible to configure the system for small, as well as large installations.

To ensure data integrity on a network, advanced security functionality is provided, enabling a number of different user roles that are linked to the network's Microsoft® Active Directory® for easy and professional system access management.

Fig. 1 A standard system configuration with Environmental Noise Management System Software Type 7843: a stand-alone PC with both Server and Client software installed, plus an additional client connected to the network via LAN

7843-S Environmental Noise Management Software (Server & Client)

Included:
– 1 Environmental Noise Management Server Software 7843-A
– 1 Environmental Noise Management Client Software 7843-C
– 5 NMT Data Licenses
– Microsoft® SQL Server 2008 Workgroup Edition
– ArcGIS Runtime license BZ-5584

7843-L Environmental Noise Management Light Software (Server & Client)

Included:
– 1 Environmental Noise Management Server Software 7843-A
– 1 Environmental Noise Management Client Software 7843-C-001 (without GIS)
– 5 NMT Data Licenses
– Microsoft® SQL Server® 2005 Express

Options:
BZ-7843 Additional NMT Data License
7843-C Environmental Noise Management Client Software
7843-C-001 Environmental Noise Management Client Software Light
7848 Environmental Noise Management Complaints Handling Software
7850 ENM 3D Visualisation Module
3639-A-200 NMT for ENMS
3639-B-200 NMT for ENMS
3639-A-203 NMT for ENMS with GPRS
3639-B-203 NMT for ENMS with GPRS
3639-E-200 NMT Plus for ENMS
3639-G-200 NMT Advanced for ENMS
3639-E-203 NMT Plus for ENMS with GPRS
3639-G-203 NMT Advanced for ENMS with GPRS
BZ-7844 3639 NMT Event Analysis Option
BZ-5584 ArcGIS Runtime License

Noise Monitoring Terminals 3639

GPRS network   ADSL   3G network

HTTP connection   Firewall (optional)

ENM Software 7843-S (Server/Client)   Windows Vista®

Existing Active Directory

LAN   ENM Software 7843-C (Client)   Windows Vista®

Windows Server® 2003/2008

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Database

The core of Environmental Noise Management System is a professional Microsoft® SQL Server® 2008 database, which is installed with ENM Server Software Type 7843-S. It has a flexible database layout, enabling customisation and future extension of parameters and information storage, and is scalable, meaning very large installations can be supported with no loss in performance. With ENM Software Light Type 7843-L, the smaller SQL Express 2005 database is included, which caters to smaller systems with only a few NMTs and is perfect for short-term monitoring.

By incorporating the Microsoft® SQL Server® platform, a continued evolution of the underlying database is guaranteed thus ensuring that the latest available database technology is always in use.

Customisable, Modern User-interface with GIS Functionality

The ENM System is operated from the interface of Environmental Noise Management Client Software Type 7843-C. Its advanced and user-friendly Graphical User Interface makes the software easy and intuitive to use, not only for experienced users, but also for novices. Data views are configurable by the user, so it is possible to adapt the display to individual needs (see Fig. 2).

Fig. 2
Display showing Data Browser (top right), with some of the results of the query to the server (Query Builder, left), and the Chart of the noise events the user has selected in the Data Browser (bottom right)
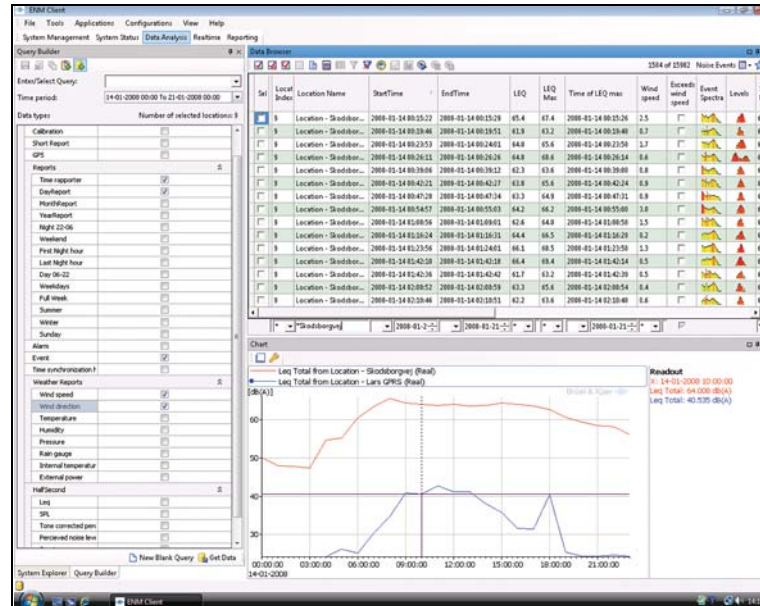
User-definable data queries, narrow search criteria and speeds up data retrieval from the Server. Once retrieved to the Client interface, data can be filtered for viewing, processing, export and reporting.

In addition, data can be transferred to the Client for off-line analysis when there is no connection to the Server.

The software supports the latest GIS functionality and makes viewing NMTs on maps simple[a]. It makes it possible to import/export noise contour plots and measurements and allows the software to show, for example, the location of the NMTs and their real-time measured levels on a map. This is central in the interaction between Environmental Noise Management Software Type 7843 and the noise prediction and mapping software, Predictor Type 7810 and Lima Type 7812 (see Fig. 4).

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a. Requires an ArcGIS license (optional with Environmental Noise Management Software Light Type 7843-L).

Communicate with an Unlimited Number of NMTs

One of the main functions in any monitoring and management system is the setup and management of the overall system, including acquisition devices. Environmental Noise Management Software Type 7843 can connect to practically an unlimited number of Brüel & Kjær NMTs 3639 (200 series). Depending on the NMT type, the connection can be achieved using LAN, wireless LAN, GPRS or ADSL. Contact your local Brüel & Kjær representative for more information regarding communication capabilities.

The software provides the tools to set up the System. Once set up, the connection to the attached NMTs is handled automatically by the ENM Server and managed from the Client Software, which displays all the functionality in a logical 'workflow' order.

Continuous monitoring of noise, weather and other measurement properties occurs through remote communication with the NMTs. Automatic, real-time and secure streaming of noise data from an NMT to the central database is possible as well as the transfer of user-selected data at defined intervals. Even in the event of lost connections, the system automatically reconnects to the NMTs and downloads missing data, thus ensuring that the database is kept updated (see Fig. 3).

Fig. 3
The status of data in the database can easily be seen in the System Status. In this example, the system is waiting for some data to be re-sent automatically (marked in red). This can be due to 'drop-out' of the connection with the NMT
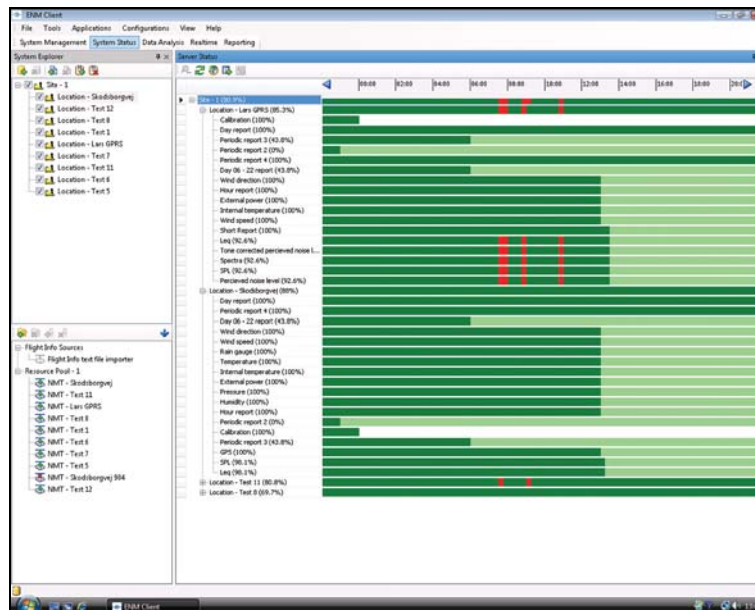
If needed, it is possible to go back in time (up to 90 days[a]) to retrieve additional data and request sound files or 1/3-octave spectra for specific time periods and locations.

Several levels of user rights are available, based on available functions. An IT manager, for example, can be set up as the 'Administrator' so that he would be solely responsible for 'professionally managing' user rights, while a 'Super User' would be responsible for the actual management of the ENM System, and a user with 'Viewer' rights, would only be allowed to browse data. This reduces the likelihood of erroneous system setup, which is very critical for a monitoring system, while ensuring that a large number of users benefit from the results.

Real-time Operation

The entire system is optimised for use in real-time. Data is streamed from all connected NMTs into the database and noise levels can, at the same time, be monitored real-time from the Client

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a. Dependent on the NMT used (see the Product Data BP 2098 and BP 2241)

on a graph and displayed on the map (see Fig. 4). The status of the system is also continuously updated and visible to the user (see Fig. 3).

NMT and System Alarm Management

A wide range of alarms are also available. Specific alarms can be configured to be automatically sent as text messages to mobile phones, in real-time, if a failure occurs or some event is in progress. This allows the system manager to quickly react to possible errors or specific events. For example, there are alarms for system integrity errors detected by CIC. It is also possible to show a graph of the deviation in CIC to determine when the error arose.

Data Analysis and Reporting

Data Analysis

The software offers powerful browse, sort and filter of data for viewing, presentation, reporting and exporting of noise, setup and weather data from the NMTs, and from the system itself. The flexible tables, charts or maps allow the combination of different types of data, also in 3D views[a].

Fig. 4

Noise contour data imported from Predictor Type 7810 or Lima Type 7812, can be combined with a geo-referenced view of the noise monitoring locations and their real-time noise levels
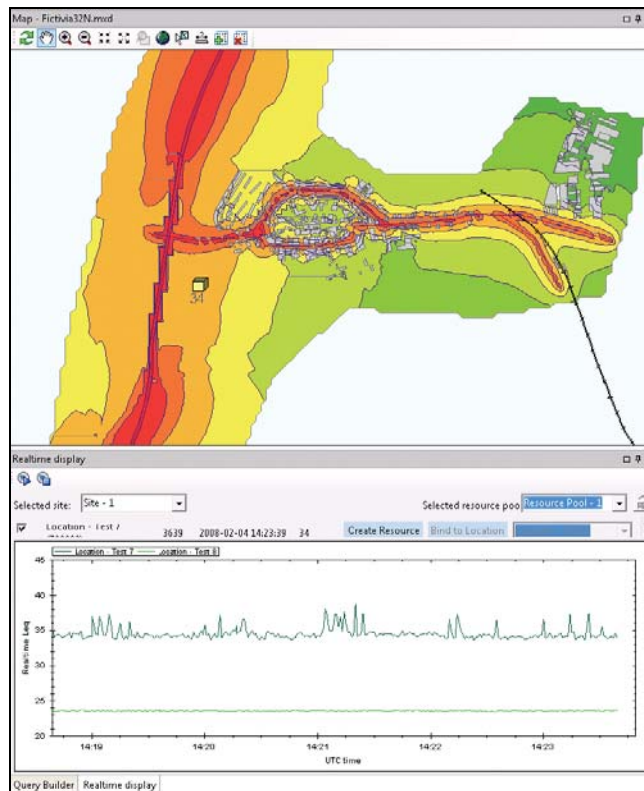
Data extracted from the database can be viewed graphically. For example, it is possible to compare hourly reports from different NMTs at different times, or real-time noise from all connected NMTs (at the same time) in a chart. Key noise values can also be shown on a map[b] (see Fig. 4).

Specific optimised data views include the Periodic Report Validation for easy validation of hour reports and powerful comparison with weather data, and the Noise Event Profile for a simplified comparison of different noise events.

The interface also provides tools to play any sound files or camera pictures recorded during noise events or at regular intervals at the start of each short report. User-defined statistical analyses can be done 'on demand' or scheduled, thus allowing a day report to be produced overnight (for example) and a month report to be automatically created on the 1st of the following month.
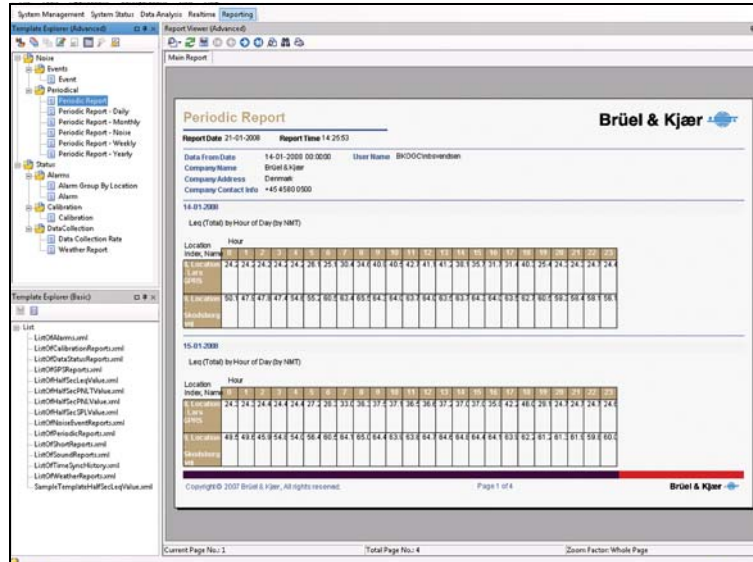
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a. 3D views require ENM 3D Visualisation Module Type 7850.
b. Optional for Environmental Noise Management Software Light Type 7843-L.

Reporting

Fig. 5
A typical report using one of the templates delivered with the software. The logo is user-definable

Reporting is template based with a range of predefined templates for Noise, Events, Alarm, Calibration and Weather Reports. All include user-definable logo insertion (see Fig. 5).

Reports are available in Microsoft® Word format and in Crystal Report® formats. Crystal Reports can be used to design advanced, reports.

Import/Export

Fig. 6
An example of a spectrogram of the half-second values of a noise event that has been imported to the ENM Client
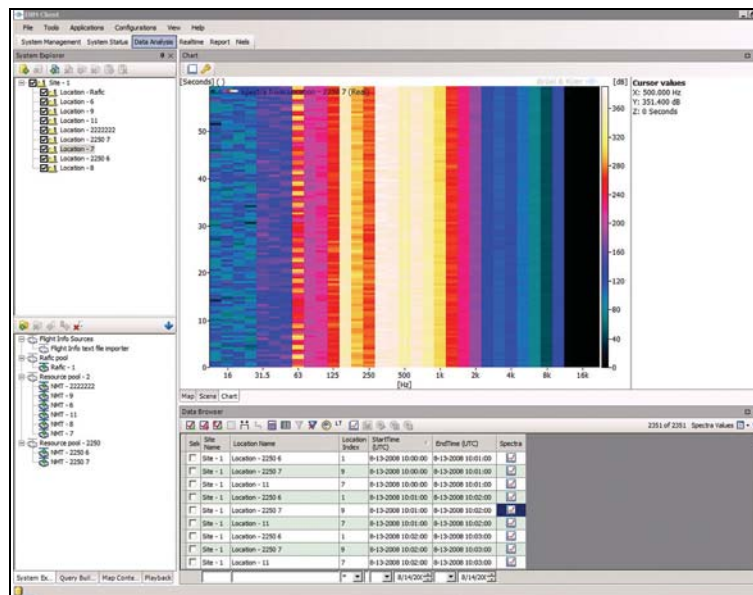
ENM System Software Type 7843 can export a wide variety of data in a wide variety of formats. Retrieved data can be exported in XML and in Microsoft® Excel®, and maps can be exported in JPEG, BMP, PDF, TIFF, Postscript, SVG or EMF formats. For example, hourly noise reports, with location and relevant setup information, can be exported in XML format to Brüel & Kjær software, such as Predictor Type 7810 and Lima Type 7812, while half-second values of an event can be exported to Evaluator Type 7820 (see Fig. 6). Export of data makes it easy to do calculations based on measured values. This easy interaction between calculated and measured noise data is an important feature of Environmental Noise Management System Software Type 7843.

Type 7843 can also import SHP files such as those generated by commercial GIS software, or by Predictor Type 7810 and Lima Type 7812 (see Fig. 4). The SHP files can be viewed using the integrated GIS functionality, making it possible to plan new measurement locations based on calculated noise contours.

Environmental Noise Management System Software is available in a range of configurations:

- **Environmental Noise Management Software Type 7843-S (Server & Client):** A complete system for operation with server software and single client software that can be installed on either one or two different computers. It is an ideal package for most environmental noise management and monitoring applications. It includes an unlimited SQL database and data transfer from five locations at any time. GIS functionality, support of bitmaps, based on ArcGis® Version 9.3, is included. Thus, a system with five NMTs operating at permanent locations can be operated in this configuration
- **Environmental Noise Management Software Light Type 7843-L (Server & Client):** This entry-level configuration is the same as the full Environmental Noise Management Software Type 7843-S, except that it only includes an SQL Express database that is limited to 4 GB of data and GIS functionality is optional. With up to 4 GB of data, Type 7843-L can handle (for example) 2 months of data from two NMTs, with sound recording of events (with an average of 120 events per day). This makes it suitable for smaller environmental noise management and monitoring projects
- **Environmental Noise Management Complaints Handling Software Type 7848-S (Server & Client):** Register complainants and noise complaints in the database and display complaint locations as an additional layer on the map for validation and synchronised with events
- **Environmental Noise Management System with PC Type 3642 (Server & Client):** A complete system based on Environmental Noise Management Software Type 7843-S, where both the Server and Client software are pre-installed on a Dell™ Mini-tower PC running Windows Vista®. It is an ideal package for most environmental noise management and monitoring applications, where a new, powerful computer is also required

In addition, there are a range of additional options:

- **ENM Client Software Type 7843-C:** Additional client software that enables an extra user to operate the system and view results. Up to five clients can operate in parallel in the standard configurations listed above. Includes GIS license for viewing data on maps. For more than five clients in a single system, contact your local Brüel & Kjær representative for more information
- **ENM Client Software Light Type 7843-C-001:** This is the same as the full Environmental Noise Management Client Software Type 7843-C, except that it does not include a GIS license – thus, there is no map functionality
- **ENM Complaints Handling Client Software Type 7848-C:** Additional client software for an extra user in a complaints handling system (Type 7848-S)
- **ENM 3D Visualisation Module Type 7850:** Expands the GIS functionality of your Client software to include scenes and scene layers providing 3D views of a site and its locations, flights and airport geometries
- **Additional NMT Data License BZ-7843:** Where data is required from more than five locations at the same time, a license is required to enable the software to handle these multiple concurrent data locations. Licenses for additional concurrent locations can be acquired singly, in packages of five (BZ-7843-005), or in packages of ten (BZ-7843-010). This allows the system to be extended to an unlimited number of locations. For example, even a large system comprising 120 NMTs operating permanently at user-defined intervals, and at many locations, can be handled
- **NMT Event Analysis Option BZ-7844:** Noise Monitoring Terminals Types 3639-A, 3639-B and 3639-E can operate as simple, logging NMTs. However, with this event analysis option, they can be set up from Environmental Noise Management Client Software Type 7843-C to measure noise events including both spectral data and sound recordings. The event setup for each NMT can be changed every hour if needed, allowing for great flexibility. In addition, the functionality can be moved from one NMT to another centrally from Type 7843-C, thus allowing flexibility without having to move the NMT. The option is available in packages of one, five (BZ-7844-005) or ten (BZ-7844-010) NMTs. This allows the system to be extended to an unlimited number of locations. For example, with NMT Event Analysis Option

BZ-7844-005 (five units), a system with five Noise Monitoring Terminals Type 3639-A-200 series, can all operate in Event Analysis mode at permanent locations

There is a range of compatible Noise Monitoring Terminals Types 3639 both for LAN and GPRS communication. For more information, see Product Data BP 2098 or BP 2241. The system can be set up to operate with other noise monitoring terminals and with other forms of communication, via a proxy communication server. For more information about these possibilities, contact your local Brüel & Kjær representative.

Support and Services

Brüel & Kjær offers a wide range of support and services to ensure efficient operation. These include a range of system services including installation, maintenance and training. Many of these services can be performed on-site or locally, or at Brüel & Kjær headquarters.

System Configuration Service
Brüel & Kjær offers an optional System Configuration Service. This entitles you to two days of on-site support by qualified Brüel & Kjær support personnel who will assist in:
- Ensuring that the installation, configuration and setup of the system is done correctly
- On-site support of the installation
- Troubleshooting (NMT, Communications, Server and Client)
- Validation of the system installation and setup

There are prerequisites and system requirements that need to be fulfilled prior to this service being provided and any travel time greater than 8 hours will be charged in addition.

For more information contact your local Brüel & Kjær representative.

Specifications – Environmental Noise Management Software Type 7843-S (Server and Client) and Environmental Noise Management Software Light Type 7843-L (Server and Client)

Client Application Setup

Sites, Locations and NMTs: Add, delete, setup
NMT Association with Locations: Add, change, remove, GPS-assisted association/creation
Setup per NMT: NMT dependent
Events[a]:
– **Parameters:** Start level/duration, stop level/duration, maximum sound recording duration
– **Setup Resolution:** Down to 1 hour
Measurement Parameters: User-defined data content and intervals
Penalties: Time-dependent for automatic calculation of L_{DEN}, L_{Night}, DNL, etc.
Calibration Check (CIC): User-defined timing, max. 4 per day
Max Number of NMTs: License defined. Limits the number of active locations where data can be stored at any time

NMT Control and Management

Compliant Noise Monitoring Terminals:
Noise Monitoring Terminals Types 3639-A-200 and 3639-A-203
Noise Monitoring Terminals Types 3639-B-200 and 3639-B-203
(see Product Data BP 2241)
Noise Monitoring Terminals 'Plus' Types 3639-E-200 and 3639-E-203
Noise Monitoring Terminals 'Advanced' Types 3639-G-200 and 3639-G-203 (see Product Data BP 2098)
Setup: Configuration of measurement locations, noise monitoring terminals, download, data streaming and reconnect
Upload of Data from NMTs: On-line streaming of all measured noise, position and weather data
Communication Methods: LAN, WLAN, GPRS, ADSL and cable
Communication/Address: HTTP

Data Types

Noise: Half second L_{eq}, PNLT, PNL, SPL
Noise Events: SETL, TG, T_{10}, L_{Max}, SEL
Weather: Wind speed, wind direction, temperature, relative humidity, liquid precipitation
GPS: Latitude, longitude, altitude
Sound Recording Playback: Connected to event or short report, on demand download, MP3 files, Wave files
Picture Recording View: Connected to event, up to 1 picture/s during the event

Alarms

Types: Door open/closed, power connected/disconnected, NMT connected/disconnected, report calculation begun/complete, NMT set-up error, NMT upload control error, calibration error

Search

Two level nested search function
Primary Search: Any set of parameters (for example, location and time), uploading data onto Client application
Secondary Search: Filtering on all parameters of data onto Client application
Reports: Log in server, text message to user-defined mobile phone on occurrence of user-defined selection of available alarms

Client Application Views

User Interface: User-definable multi-window display:
• Colours
• Views: tables, charts, maps[b]

• Workflow: tabs
• Content: setup, size and position on screen
Real-time Display (for all NMTs):
– Update Rate: User-definable, 0.5 to 10 s
– Graph: L_{Aeq} strip-chart at 1 s intervals
– Map: Histogram at location on map (optional in Type 7843-L)
Data Browser: Tables, graphical views. Advanced query and secondary filtering functions
Noise Event Profile: Noise level vs time for a user-defined event
System Status: System, location, data stream. On a user-defined time axis
Map[c]: 2D and 3D GIS functionality, multiple layers, user-defined appearance, automated pyramid functionality
Database Status: Three status codes per location (data OK, data pending, data missing). % of data received per data type, per location, for the system
Report Overview: List of reports
Complaint Handling[d]: Register complaints and complainants in the system, assign actions, and map complaint locations

Data Analysis and Post-processing

Periodic Reports: Hour, day, week, month, year, user-defined
Statistics: Seven L_N values, L_{den}
Hour Report Validation: Validate hour reports, weather data/hour L_{eq} comparison
On Demand Scheduler: User-defined statistical analyses and periodic reports. Ad hoc or scheduled. Transfer of additional user-defined data from connected NMTs. Ad hoc or scheduled

Printing

Annotated Maps: Text boxes, images, legend, North, scale bar and text
Reports:
Template based: Basic (Microsoft® Word), Advanced (Crystal Reports)
Predefined templates: Noise, events, alarm, calibration:
• Event: table, chart
• Periodic report: hour, day, month, year
• Alarm status: list, grouped by location
• Data collection activity level
• Weather statistics
Logos: User-defined
Import: Crystal Reports format report templates
Views: Real-time display, 2D map, data browser, noise event profile

Import/Export

IMPORT
• Results and models from Lima Type 7812 and Predictor Type 7810 (SHP format)[b]
• Spectra from Evaluator Type 7820 (XML format)
• Saved data from ENM system (ENM format)
• ESRI ArcMap™ map definition files (MXD format) and scene definition files (SXD format)[c]
• Map pictures (BMP format)

EXPORT
Data Browser Table View: XML, Microsoft® Excel® XML, Excel
Maps: JPEG, BMP, PDF, TIFF, Postscript, SVG, EMF

Export of hourly noise reports to Predictor Type 7810 and Lima Type 7812, including location and relevant setup information
Export of half-second values to Evaluator Type 7820

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a. Requires an active NMT Event Analysis Option BZ-7844 license for each location with a Type 3639-A, B or E NMT
b. Requires ArcGIS Version 9.3 license on PC running Environmental Noise Management Client Software Type 7843-C (included in Type 7843-S)

c. 2D maps require an ArcGIS 9.3 license (included with Type 7843-S and Type 7843-C) while 3D maps require an additional 3D license, ENM 3D Visualisation Module Type 7850
d. Requires ENM Complaints Handling Software Type 7848-S

User Rights

Five levels:
Administrator: User rights management
Super User: Set up system, NMTs, etc. No user rights management
Analyst: View setup and reports, browse data, execute post-processing jobs
User: View setup, make reports, browse and post-process data
Viewer: View setup, reports and post-processed data, and browse data

For stand-alone PC configurations, connection to Active Directory® is not necessary. With all other configurations, users must be registered on Active Directory server

Database

7843-S: Microsoft® SQL Server® 2008 Workgroup Edition
7843-L: Microsoft® SQL Server® 2005 Express

Operating System

ENM Server: Microsoft® Windows Vista® Business 32- or 64-bit (max. 5 NMTs), Microsoft® Windows® Server 2003/2008
ENM Client: Microsoft® Windows® XP Professional, Microsoft® Windows Vista® Business 32- or 64-bit
Operation: Server and Client on one PC, or distributed with Server on one PC, Client on another (same network with Active Directory®)

Networking

Multiple ENM client applications run simultaneously with the same ENM server and database. Software supports multi-user access (net.tcp)

Security

Vista DEP compatibility enabled

Remote Service

Remote service of the system and the connected NMTs
Tools: pcAnywhere™, Windows® Remote Desktop Connection

Language

English, German

Computer Requirements (ENM Server Software Type 7843-A)

At least 2 GB RAM
Minimum 10 GB available hard disk space, plus database space (preferably a separate disk, e.g., 120 GB)

Computer Requirements (ENM Server Software Light Type 7843-L)

At least 2 GB RAM
Minimum 10 GB available hard disk space

Computer Requirements (ENM Client Software Type 7843-C)

At least 1 GB RAM
Minimum 2 GB available hard disk space

Ordering Information

Environmental Noise Management Systems

Type 7843-S Environmental Noise Management Software (Server and Client)

Type 7843-S Environmental Noise Management Software package includes the following:
- Program on DVD for installation of Environmental Noise Management Server Software Type 7843-A
- Program on DVD for installation of Microsoft® SQL Server® 2008 Workgroup Edition
- Program on DVD for installation of ArcGIS Version 9.3 Runtime License BZ-5584 and Environmental Noise Management Client Software Type 7843-C
- User Manual
- Administrator Manual

Type 3642 Environmental Noise Management System with PC

Type 3642 Environmental Noise Management System with Dell Mini Tower PC running Windows Vista® includes the following:
- Environmental Noise Management Software Type 7843-S pre-installed (both Server and Client software)
- User Manual
- Administrator Manual

Type 7843-L Environmental Noise Management Software Light (Server and Client)

Type 7843-L Environmental Noise Management Software Light package includes the following:
- Program on DVD for installation of Environmental Noise Management Server Software Type 7843-A, Environmental Noise Management Client Software Light Type 7843-C-001, and Microsoft® SQL Server® 2005 Express
- User Manual
- Administrator Manual

Optional

Type 7843-C	Environmental Noise Management Client Software
Type 7843-C-001	Environmental Noise Management Client Software Light
Type 7848-S	Environmental Noise Management Complaints Handling Software (Server & Client)
Type 7848-C	Environmental Noise Management Complaints Handling Client Software

Type 7850	Environmental Noise Management 3D Visualisation Module
Type 3639-A-200	Noise Monitoring Terminal for ENMS
Type 3639-B-200	Noise Monitoring Terminal for ENMS
Type 3639-A-203	Noise Monitoring Terminal for ENMS, with GPRS Router
Type 3639-G-203	Noise Monitoring Terminal for ENMS, with GPRS Router

Type 3639-E-200	Noise Monitoring Terminal Plus for ENMS	BZ-7843-010	Additional NMT Data License (10 units)
Type 3639-G-200	Noise Monitoring Terminal Advanced for ENMS	BZ-7844	Event Analysis Option for Type 3639-A, 3639-B or 3639-E NMT
Type 3639-E-203	Noise Monitoring Terminal Plus for ENMS, with GPRS Router	BZ-7844-005	Event Analysis Option for Type 3639-A, 3639-B or 3639-E NMT (5 units)
Type 3639-G-203	Noise Monitoring Terminal Advanced for ENMS, with GPRS Router	BZ-7844-010	Event Analysis Option for Type 3639-A, 3639-B or 3639-E NMT (10 units)
BZ-7843	Additional NMT Data License		
BZ-7843-005	Additional NMT Data License (5 units)		

Services Available

Training, maintenance agreements and installation can be provided – contact your local Brüel & Kjær representative.

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