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# X-Trend<sup>©</sup>

## USER MANUAL





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Document Reference No: VMI 110/ 20.01.2010

Release notes	Date:
First release	20.01.2010
Revision A	
Revision B	

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## 1. Installing the software

This product has been developed to work on any properly configured version of Microsoft® Windows® XP, 2000, 2003, 98, ME, NT4 or VISTA operating systems or higher.

Before you run the setup file make sure that you close all other programs. This includes anti-virus software and any other programs that are running. If you do not follow this procedure it may interfere with the normal setup procedure.

### 1.1 From CD-ROM

To start installing the software onto your computer you have to make sure that the CD-ROM is put into the CD-ROM player. Because of the **'Auto run'** functionality, the installation program will start automatically. If this does not happen, go to **'My Computer'** and double-click the CD-ROM icon. Next: double-click the installer and follow the instructions displayed on screen.



Press **Install X-Trend** label and follow the instructions displayed on screen.  
If you accept the default location, **X-Trend** will be installed on C:\Program Files\X-Trend directory.

## 1.2 As Download

When you have obtained the software as a digital file, e.g. downloaded it, there are two possible variants. A) You have a zipped file (.zip file) or B) you have the installer (.exe file).

When you have a zipped or stuffed file (recognizable by the compression icon) you need to have 'WinZip' or another program that supports these compressed files.

If you have the Installer file you can proceed by double-clicking this file. The installation will start and you will have to follow the instructions displayed on screen.

## 1.3 Installing the latest Service Pack



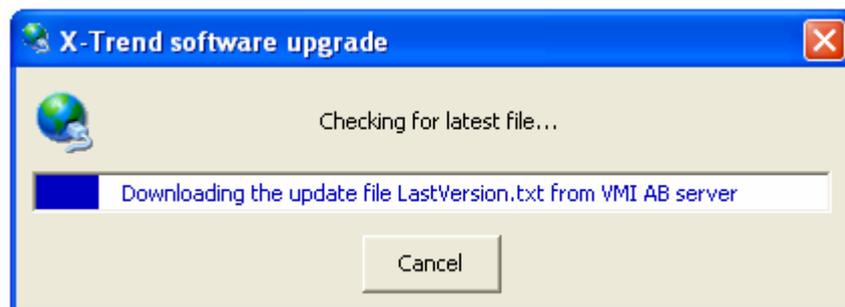
The latest available Service Pack is always on the CD-ROM. Before running the Service Pack Installation file, first start the **X-Trend** once. At this moment you can select the software language also.

## 1.4 Updating the software

X-Trend software is equipped with an automatic software update check.

You can easily check, if there is a free update available by selecting **Help > Check for Updates** from the menu bar.

An Internet connection is needed for this.



## 1.5 Using the help, menu and toolbars

If you experience any problems, when using the software, you can open the help file by clicking **Help** from the **Toolbar** or pressing **F1**. It provides basic information on how to use the software with both a step-by-step guide and a more detailed description of all the available functions.

The functionality of the software can be accessed from different locations. The main menu, of course, gives access to all the functions within the program, and the Toolbar provides the most commonly used functions. The **Status** bar, at the bottom of the program window, displays information about the opened database.

## 1.6 Trademarks

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## 2. X-Trend<sup>®</sup> architecture

X-Trend can work only in conjunction with:

- MS Access type database

MS Access has Client-Server architecture.

The MS Access isn't a real database server, but it has a database structure. A MS Access databases have the following advantages:

1. Small space required on the hard disk and low resources required from the host computer.
2. Easily transferred to other computers.
3. Easily to create backup file. Just copy the database file (with extension .sp3) onto a USB stick or somewhere in a network computer.

At the same time the MS Access database also has the following disadvantages:

1. It is not a safe database, especially for a large number of machines
2. Used in a network, this type of database will dramatically increase the network traffic and slow-down the communication speed.
3. It is not a solution for large enterprise integration.

### 2.1 Client/ Server Architecture

A Database Server is designed to work effectively in a number of environments:

- As a two-tier client/server database system
- As a desktop database system

#### 2.1.1 Client/ Server Database Systems

Client/ Server systems are constructed so that the database can reside on a central computer, known as a **server** and are shared among several users. Users access the server through the **X-Trend** application.

Having data stored and managed in a central location offers several advantages:

- Each data item is stored in a central location, where all users can work with it.

Separate copies of the item are not stored on each client, which eliminates problems with users having to ensure they are all working with the same information.

- Security rules can be defined one time on the server and enforced equally among all users.
- A relational database server optimizes network traffic by returning only the data an application needs.

For example, if an application working with a file server needs to display a list of the names and machine descriptions, it must retrieve the entire Machine file. If the application is working with a relational database server, it sends this command:

```
SELECT Name, Description
FROM Machine
WHERE Machine ID = 123
```

The relational database sends back only the names and description of the selected machine, not all the information about all machines.

- Hardware costs can be minimized.

Because the data is not stored on each client, clients do not have to dedicate disk space to store data. The clients do not need the processing capacity either to manage data locally, and the server does not need to dedicate processing power to displaying data.

The server can be configured to optimize the disk I/O capacities needed to retrieve data, and clients can be configured to optimize the formatting and displaying of data retrieved from the server.

The server can be stored in a relatively secure location and equipped with devices such as an Uninterruptible Power Supply (UPS) which is more economical than fully protecting each client.

- Maintenance tasks such as back-up and restoring data are simplified because they can focus on the central server.

In large client/server systems, many users may be connected to a Server installation at the same time.

The Server has full protection for these environments, with safeguards that prevent problems such as having multiple users trying to update the same piece of data at the same time.

The Server also allocates the available resources effectively, such as memory, network bandwidth, and disk I/O, among the multiple users.

Server applications can run on the same computer as Server. The application connects to the Server using Windows Inter-process Communications (IPC) components, such as shared memory, instead of a network. This allows the Server to be used on a small system, where an application needs to store its data locally.

### 2.1.2 Desktop Database Systems

While Database Server works effectively as a server, it can also be used in applications that need stand-alone databases stored locally on the client. The Server can configure itself dynamically to run efficiently with the resources available on a client, without the need to dedicate a database administrator to each client.

When clients use local Database Server, one copy of the Database Server engine runs on the client and manages all the databases. X-Trend connects to the database engine in much the same way they connect across the network to a database engine running on a remote server.

## 3. Database architecture

The Database Server data are stored in databases. The data in a database are organized into the logical components visible to users.

When using a database, you work primarily with the logical components such as tables, views, procedures, and users. The physical implementation of files is largely transparent. Typically, only the database administrator needs to work with the physical implementation.

Each Database Server installation has multiple databases. Some organizations have only one user database, containing all the data for their organization. Some organizations have different databases for each group in their organization, and sometimes a database used by a single application, like X-Trend.

For example, an organization could have one database for sales, one for payroll, one for a document management application, one for **rotating machinery** and so on. Sometimes an application uses only one database; other applications may access several databases.

It is not necessary to run multiple copies of Database Server to allow multiple users to access the databases on a server. Database Server is capable of handling thousands of users working in multiple databases on the same server at the same time. Database Server makes all databases on the server available to all users that connect to the server, subject to the defined security permissions.

When connecting to Database Server, your connection is associated with a particular database on the server. This database is called the current database. You are usually connected to a database defined as your default database by the system administrator, although you can use other connection options in the X-Trend to specify another database. You can switch from one database to another with the Change command from X-Trend application.

The X-Trend allows you to create multiple machine databases. Using the **Database > Exchange Machine** command you can copy machines from one Database to another.

## 4. X-Trend Overview

*X-Trend* software is mainly dedicated work in conjunction with the *X-Viber* instrument.

For every plant, you can create a database, which can have an unlimited number of machines, measuring points and directions. The vibration measurements are stored at the measurement direction level and the process measurements are stored at the point level. If you store more than two measurements for a direction, then you can display the evolution trend of the Total Vibration and/ or Bearing Condition Coefficient (BC) and/ or Envelope . The trend considers as default only the last 24 measurements for that direction, but you can change this using the Optional Settings command.

The program allows to copy, in clipboard , any displayed graphs and to copy this graphs later, in a text editor (e.g. WORD) or in the Notepad. This is the way to make the machine reports.

The machine Database takes machinery measurement unloaded from *X-Viber* instrument. The users will add, into the notepad, information according to the diagnosis procedure.

Analyzing this information, periodically, you can act proactively, discovering the real causes of the failures.

One of the purposes of this program is to supply to the maintenance team a daily report regarding the action to take, to maintain the machinery in good working condition. When measurements are downloaded, a procedure of creating a report will begin. In order to analyze the collected data, you have three options to view them:

- Selection of trends
- Quick view session, where you can simultaneously explore the machines and the trends of the selected direction.
- Trends from whole machine , where you can see at once, all the trends for the selected machine.

In all this views, a notepad is available on the machine level, to introduce all the observations after diagnosis.

Finally, chose the Job Report command and you can customize a report for the maintenance team, using all the notes supplied. Once you customize a Job Report , the appearance of this will be saved, and the next report can be made faster.

Job report can be transferred to an external text editor. You can then preview, modify and finally print the Job Report. You can also preview and print the report directly to a printer. From time to time, you will want to make a history report of a selected machine. To do this, just use Machine Notes Report.

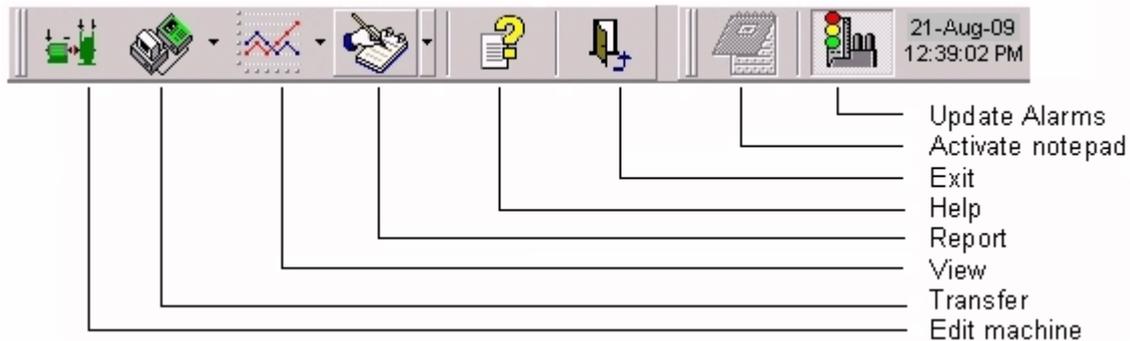
You can also customize the history report and then preview, modify and print it.

The previously mentioned reports have two different purposes:

The Job Report is addressed mainly to the maintenance team.

The Machine Notes Report is useful to take some proactive actions, before a failure of the machinery may occur.

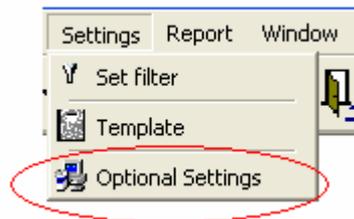
The **X-Trend** software is very flexible and offers you enough commands to do the same things in different manners. Before to use the software, read carefully this manual, use **XDEMO** database available into the [installation kit](#) and try to learn how to use efficiently this powerful program.



The **XDEMO** database is a demonstration database with simulated measurements. You can learn how to work with the program and to evaluate its special performances.

On the screen, a menu list and a toolbar are displayed. In the status bar, on the bottom of screen, the active database is also displayed. On the first run, the active database is **XDEMO**. Although you can create your own database, for the very beginning, just use the **XDEMO** database.

If you run the program for the first time, select [Optional Settings](#) command from the [Settings](#) menu:



Select the units (metric or imperial) and the measurement unit for frequency (Hz or CPM). Keep the number of measurements in trends to 24. Click **Save** to save this setting.

Choose from the [View](#) menu, [Selection](#) command. A specific window will appear on the screen, which allows you to select the department, the machine, the point and the wished direction. Selections are done pointing a certain direction, with the mouse, in the above mentioned order. Now you can select a collection of trends to be shown. Just double-click on any trend or direction and the item will be moved on the list.

Instead of double-clicking, you may drag and drop any direction to the list.

If you don't want to display some items on the **show list**, just double-click on that ones and they will be removed on the list.

Finally press **Show** button and the entire list will be shown.

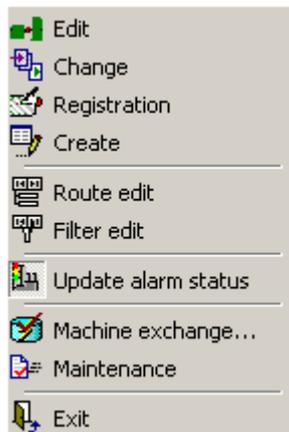
After you display some trends, the main window remains active and you can select other trends. Although a large number of information is available on a single screen, it is recommended to limit the number of simultaneously opened plots, because the plots will have too small sizes and many details will be lost.

For details regarding an efficient way of using the trends plot, see also: [Trend plot](#)

Trend plots may be displayed also with: [Show trends from the whole machine](#) and [Quick view](#) . Try also these commands to see the differences, but first read their associated information.

## 5. Creating, registering and editing databases

To make a functional program, every user has to create and edit its own database. **Database** menu consists of the following functions:



### Edit

Edit the active database (add, rename or delete). Also allows deleting of the old measurements.

### Change

The active database can be changed.

### Registration

Allows the registration of an existing **X-Trend** database.

### Create

Create a new **X-Trend** database.

### Route edit

Edit a route for an **X-Trend** database.

### Filter edit

Edit a Filter for an **X-Trend** database.

### Machine exchange

Allows machines exchange between two registered databases.

### Maintenance

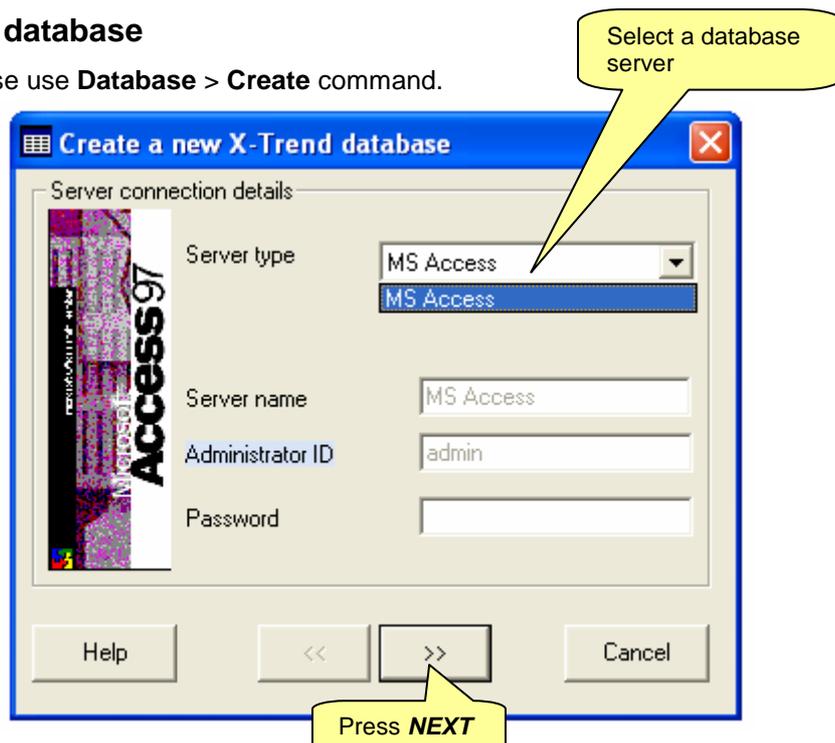
Delete old measurements (by date or by the number of records).

### Exit (CTRL+X)

End the work session, closing the databases and returning in **WINDOWS** environment.

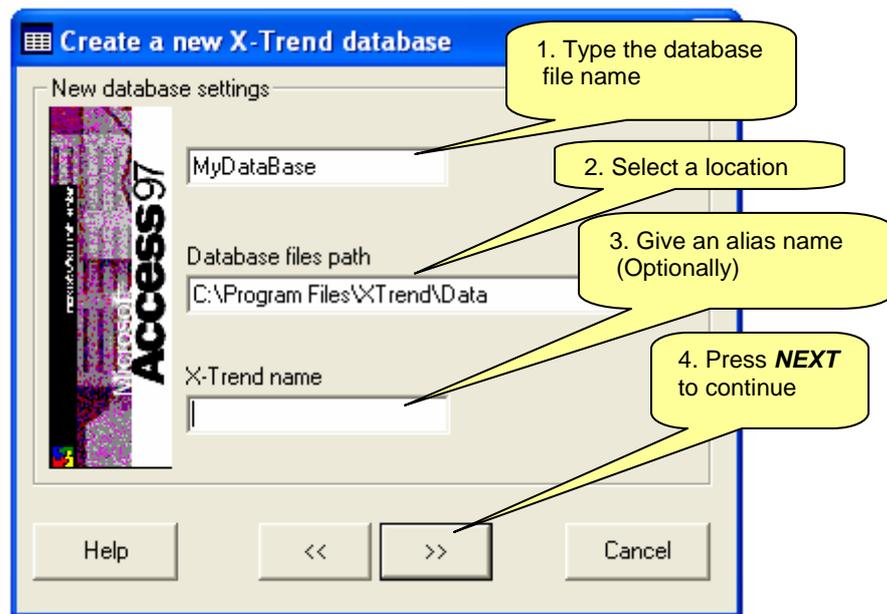
### 5.1. Create a new database

To create a new database use **Database > Create** command.



First select the **Server type** to be **MS Access**. You don't need any Administrator ID or password. Press **NEXT**.

Before creating a new database, you should name it first. Each database has a unique file name. The new created database will be automatically registered. A new created database is empty; it contains neither machines, nor points and directions. After creation, to edit the database you have to activate it. To do this, just use the **Change** command. To edit, you should use **Edit** command.



The **X-Trend** name is optional. If you don't type any name, the **X-Trend** name will be the database file name.

Press **NEXT** to continue.

A new MS Access database named MyDataBase.sp3 will be created into the C:\X-Trend\Data directory.

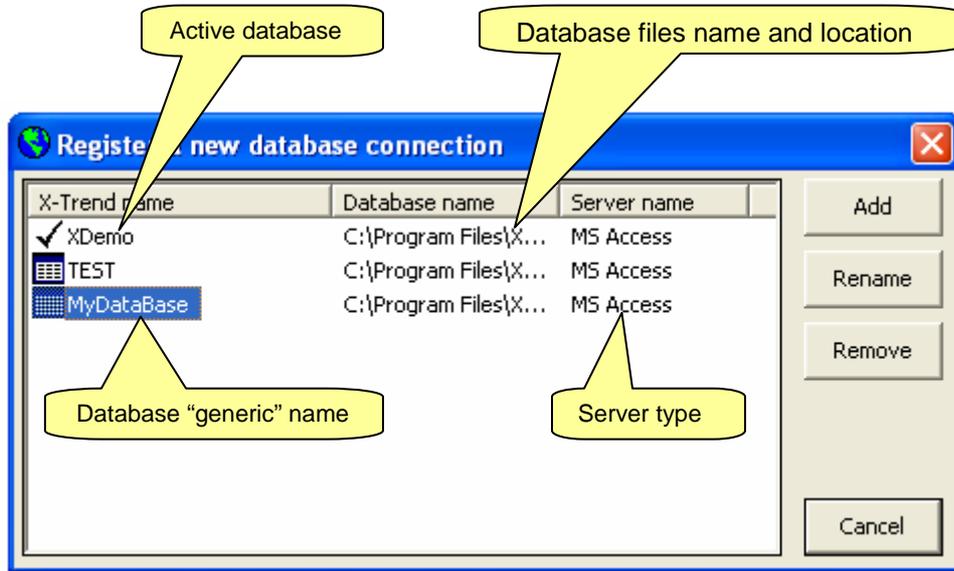
**NOTE: To create a backup copy of your database, just copy the .sp3 file into a safe location.**

### 5.2. Database registration

Before using any **X-Trend** database, you must register it.

Use **Database > Registration** command to add an existing database to your registration list.

If you create your own database, the database will be self-registered. To have access to the other **X-Trend** databases in the network, you must register them first.



Click the **Add** button and select a valid **X-Trend** database.

Only registered databases can be activated in the **X-Trend** software. If the **X-Trend** is installed in a network, each user can have his own database collection.

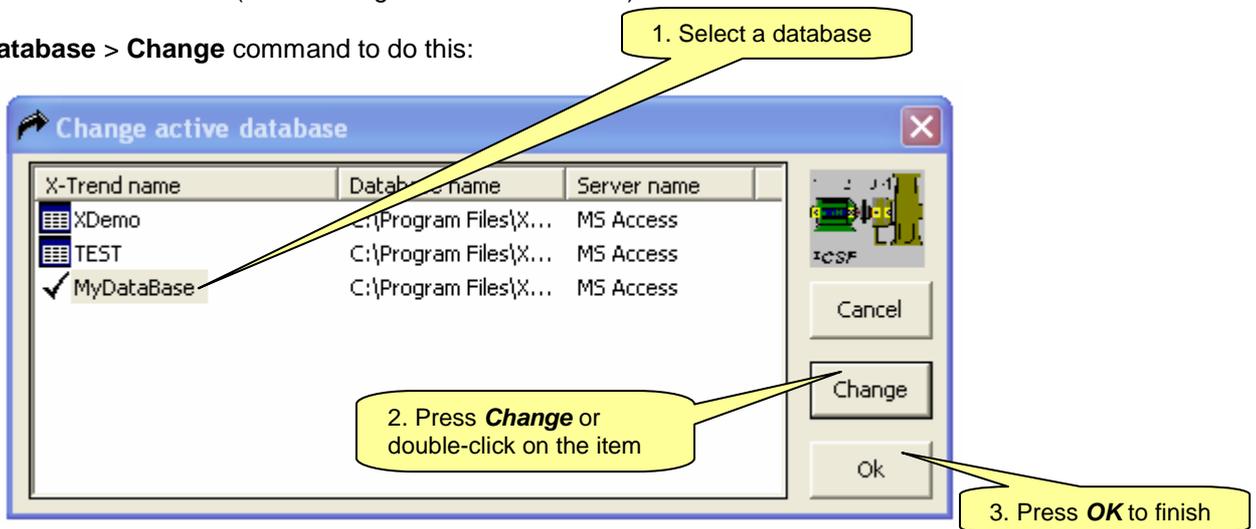
The databases will be added in the registered list of databases. You can any time **Remove** a registered database. It doesn't mean you delete the selected database; you just remove it from the list. In addition, you can rename the "generic" name of the database.

Finally, click **Cancel** to terminate the command.

### 5.3. Database change

**X-Trend** can manage many databases, but not in the same time. This means you must select a particular active database (from the registered database list).

Use **Database > Change** command to do this:



Double-click the item in the list or select it with a click into the database, than press **Change** button. To confirm, press **OK** button. The name of the selected file will appear in the status bar.



### 5.4. Database Edit

Use **Database > Edit** command to edit a database. To do this, select this command from the main menu or press the dedicated button from the toolbar:

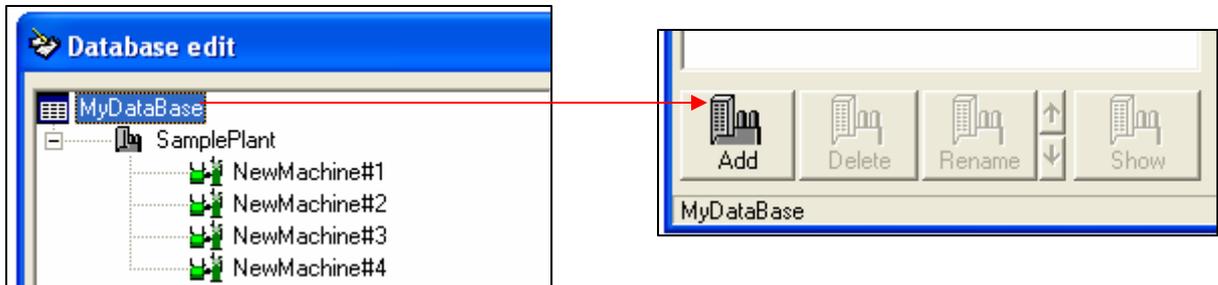


This command is used to edit the active database (add, delete, rename items) and for database maintenance.

In accordance with the selected item from the hierarchy tree, you can add machine, point or direction.

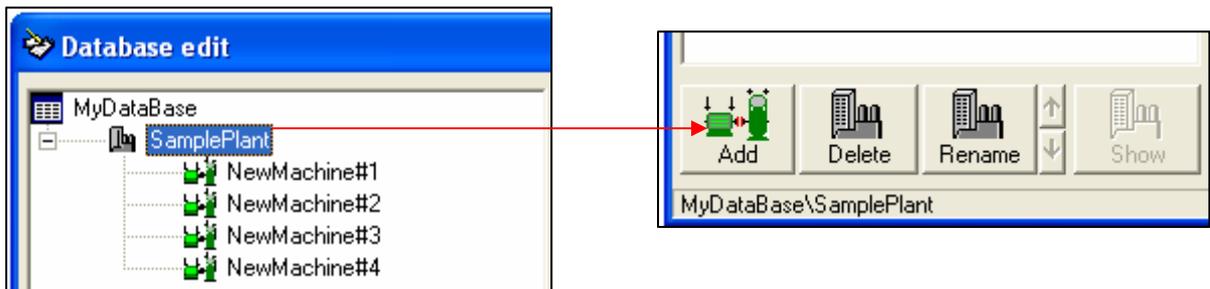
#### 5.4.1. Database Level

On the **Database** level you can only add Departments (or plants):



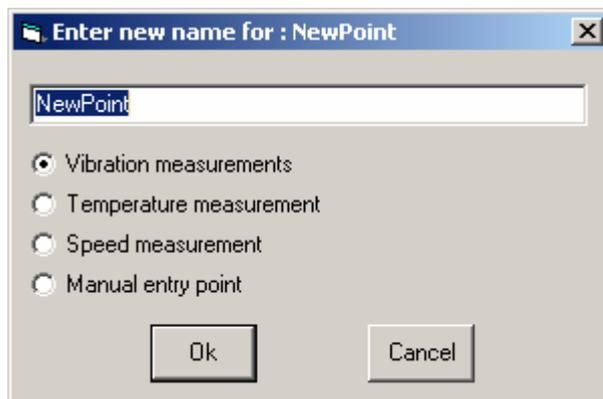
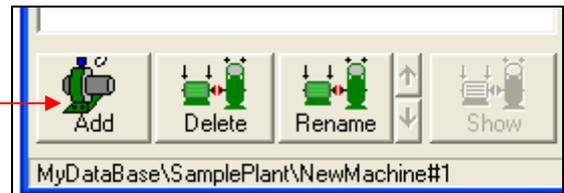
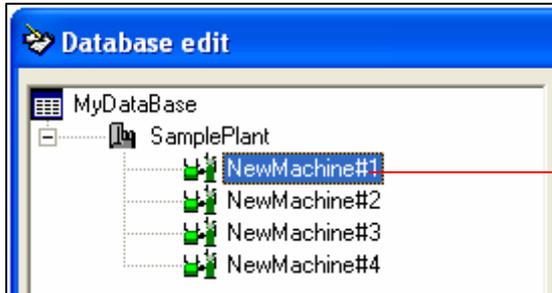
#### 5.4.2. Department Level

On the **Department** level you can add **Machines** and you can also delete or rename departments:



### 5.4.3. Machine Level

On the **Machine** level you can add **Points**. You can delete or rename the selected machine. You can also view the structure of the database:



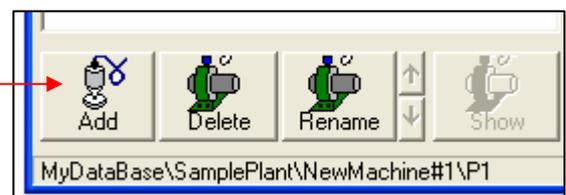
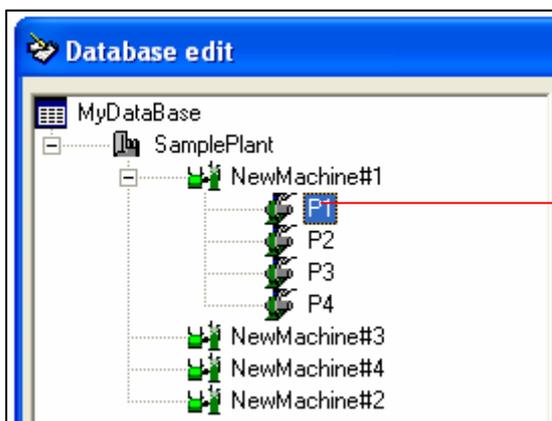
The following point types can be added:

- Vibration point
- Temperature point
- Speed point
- Manual entry point

Only vibration points have Directions.

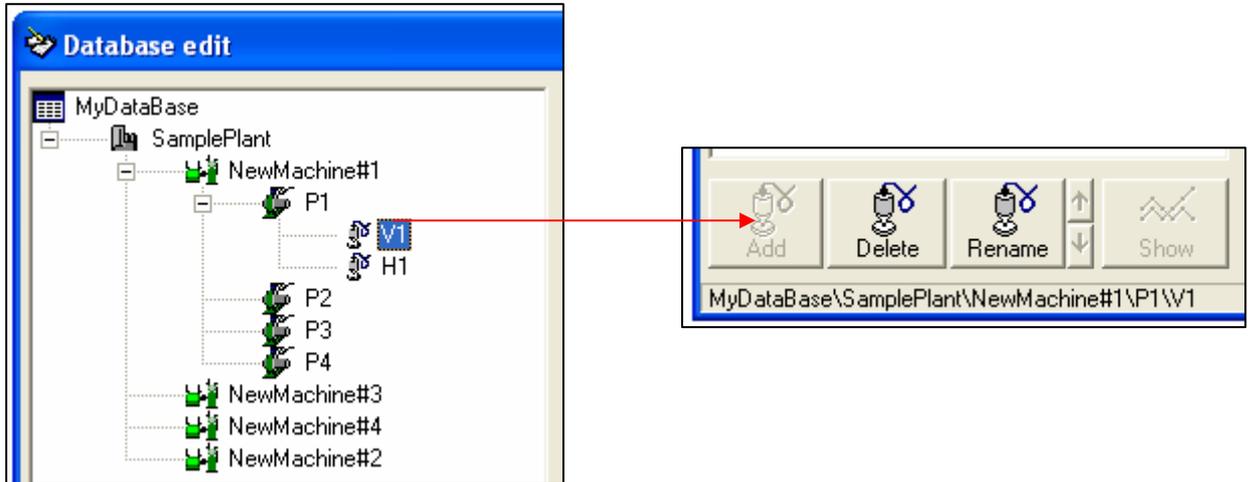
### 5.4.4. Point Level

On the **Point** level you can add a **Direction**. You can delete or rename the selected direction. You can view also database's structure:



### 5.4.5. Direction Level

On the **Direction** level you can delete or rename the selected direction. Also you can view the **Trend plot** (if any):

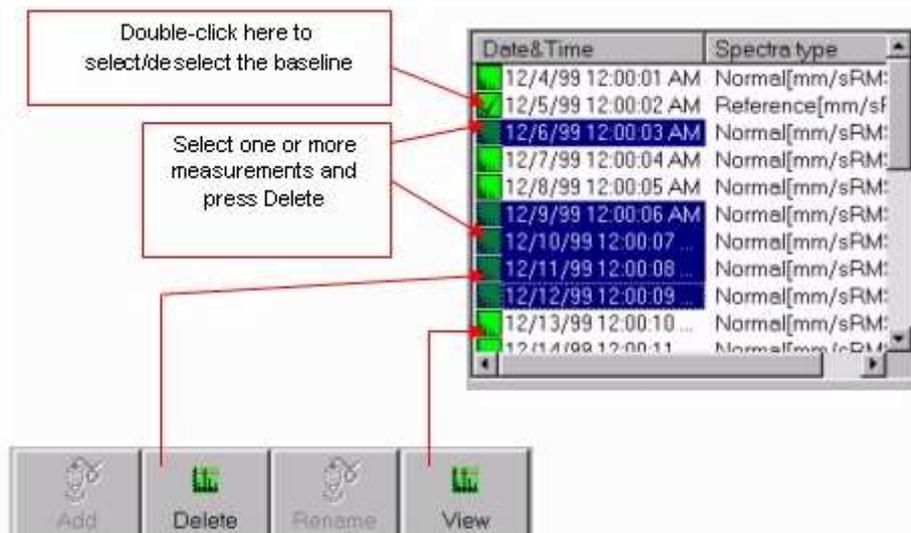


After adding a new item in the database, any selected item can be renamed. The new items are added with a default name, which can be changed any time. To do this, select the item's name you want to change and press **Rename** button. Then change the name using the keyboard and finish by pressing **OK**. An empty name is not allowed.

To delete an item, select it first, then press **Delete** button.

If the item is not the last one in the hierarchy tree, or if there are already measurements stored in that particular direction, the item won't be deleted. As a general rule, a deleting procedure must be done in the following order:

- measurement
- direction
- point
- machine
- plant (department)



The measurements can be deleted by selecting one or more items, then pressing the **Delete** button or **Delete** from the keyboard.

The order of the items in the database tree can be changed anytime. Click on the item, press **Ctrl** key and use the arrows buttons to change the position in the tree.



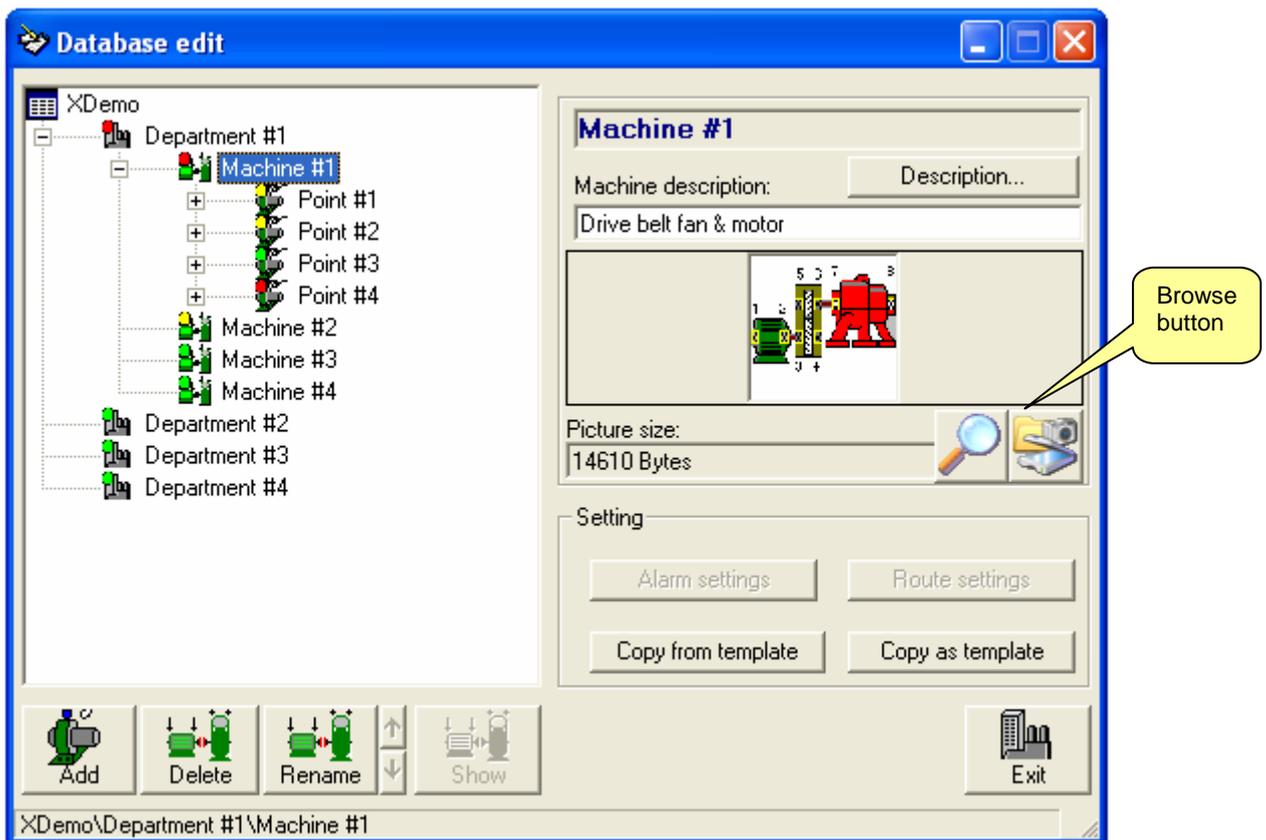
The movement can be done only inside of the hierarchy level (a machine can be moved only in its Department, Point only in its Machine, etc.).

The **baseline** can't be deleted. First double-click on the item to transform the **baseline** into a **normal** measurement, than delete it.

When the machine definition is finished (plant, machine, point and direction) on every level of the hierarchy, you can edit very helpful settings.

### 5.4.6. Editing on machine level

On **machine level** you can edit:



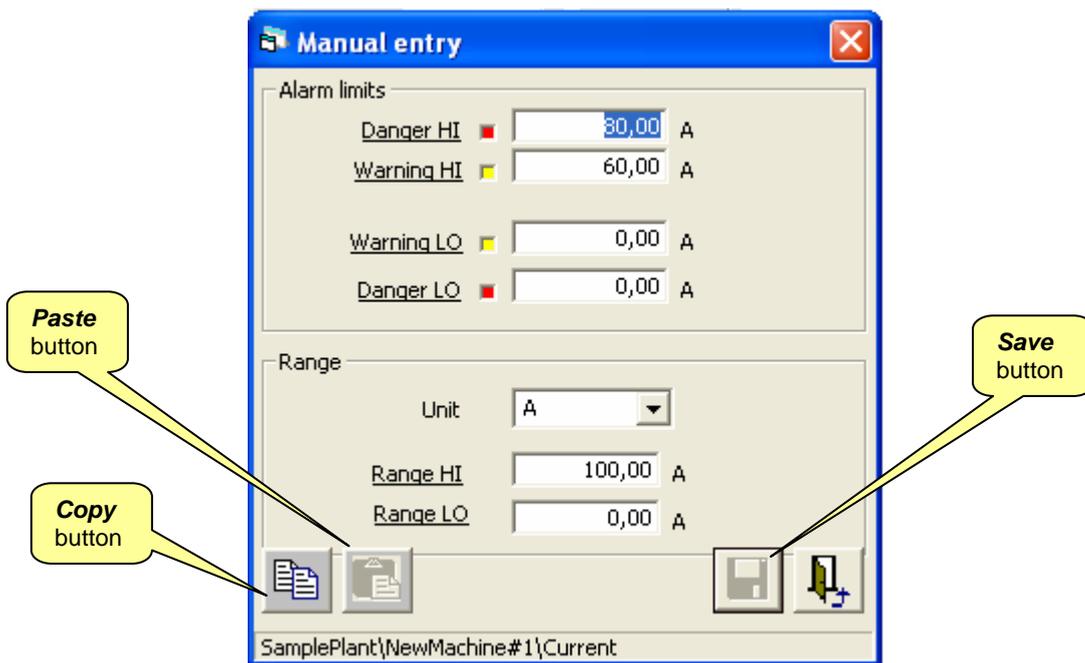
- **A short description** - a 30 – 40 characters length, description of the machine. This description may be used in reports.
- **A machine description** –clicking on **Description** button, a text editor will appear. For each machine you can add here as much information as you want. You can use different type of colors, letter size and alignment. You can import the content of some external files (text or

RTF) or pictures. The content of machine description can be printed with **Report > Machine Description Report**.

- **A Machine picture.** For each machine you can add a picture from the existing collection provided in the installation kit. The picture must be in a picture file format. Of course, you can make your own pictures with a digital camera. To add a picture to a machine click **Browse** button and select any picture file.

### 5.4.7. Editing on point level

On the **Point level** (only for manual entry point, speed point or temperature point) you can define measurement units and alarm limits:



The unit is a string, maximum 6 characters length.

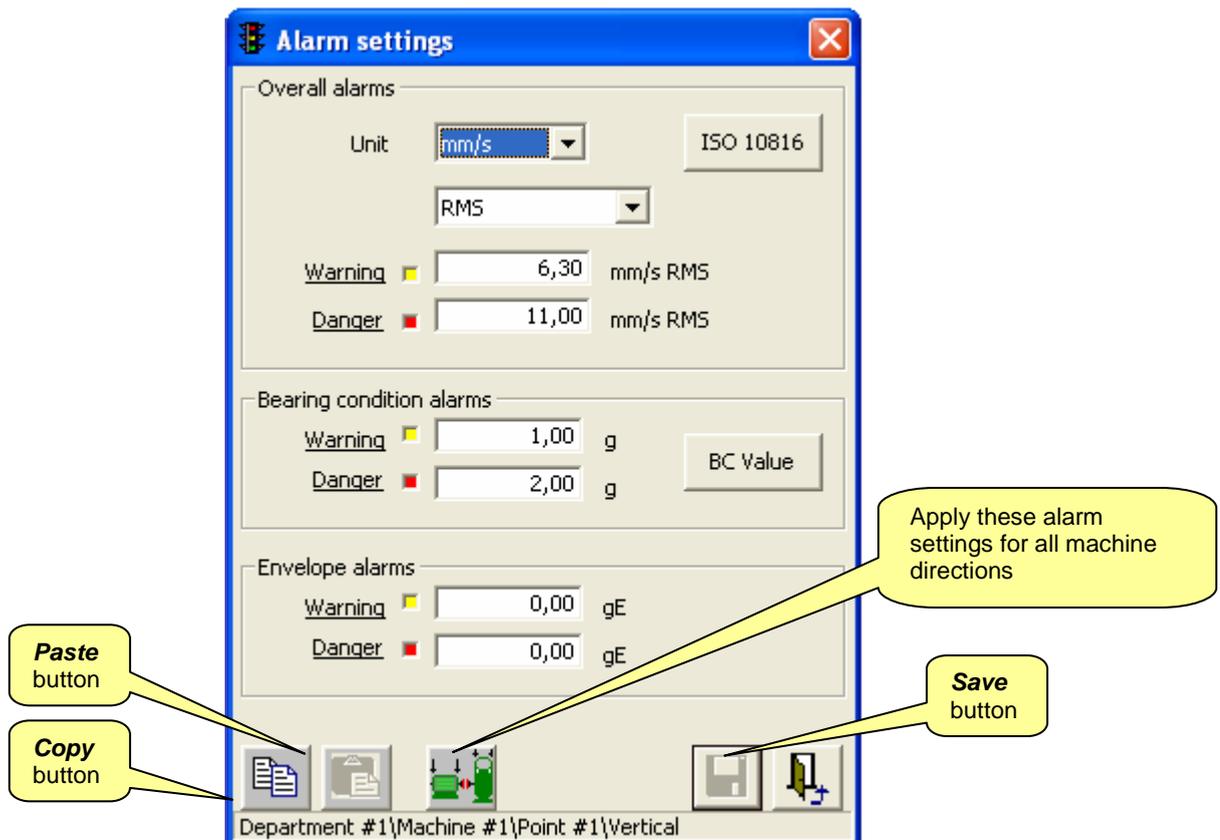
For each manual entry point you can define two sets of alarms limit (LO and HI). Zero value for an alarm means no alarm.

Using **Copy** button you can copy all the alarm settings from one direction and with the **Paste** button you can paste that settings to any other direction.

**Save** button is used to save the settings.

The settings are also automatically saved when you change the item selection in the hierarchy tree.

### 5.4.8. Editing on direction level



On the **direction level** (only for vibration points) you can edit the alarm limit for overall measurements and also to define the **Route settings**.

Click **Alarm settings** button and you can edit two alarm levels for each *total vibration*, *BC value* or *envelope*. Two tables, **ISO 10816** - diagram and *Bearing Condition Coefficient* diagram is available to select proper values for alarms.

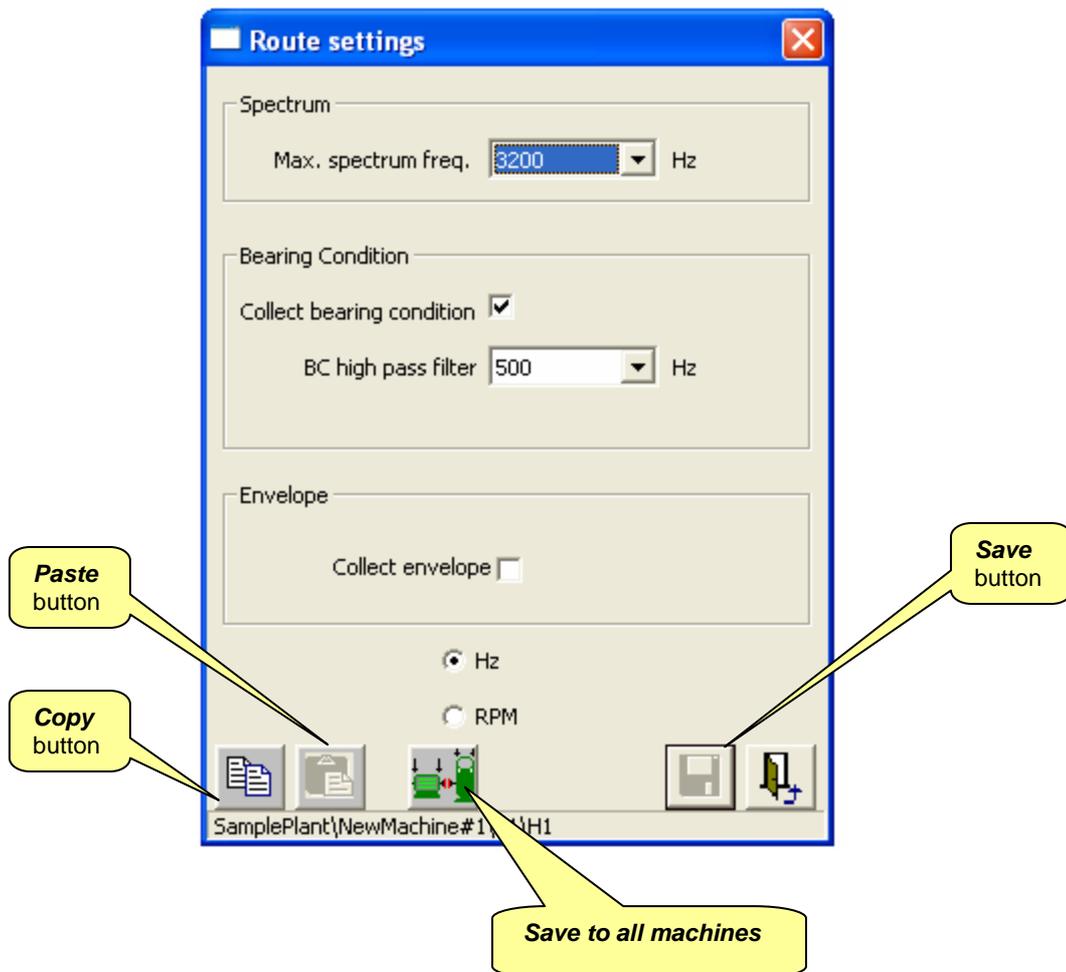
The alarms can be set in:

- Displacement units (microns or mils)
- Velocity units (mm/sec or inch/s)
- Acceleration units (g)

For bearing condition (BC) the unit is always "gBC" and for envelope measurements is "gE"

Using **Copy** button you can copy all the alarm settings from one direction and with the **Paste** button you can paste that settings to any other direction.

The **Trend plot** will show the data in alarm setting units only.



Click **Route settings** to set the route definition. For each direction you can set:

- Spectrum maximum frequency
- BC High pass Filter

Also you can enable collection of BC or/and Envelope in Route.

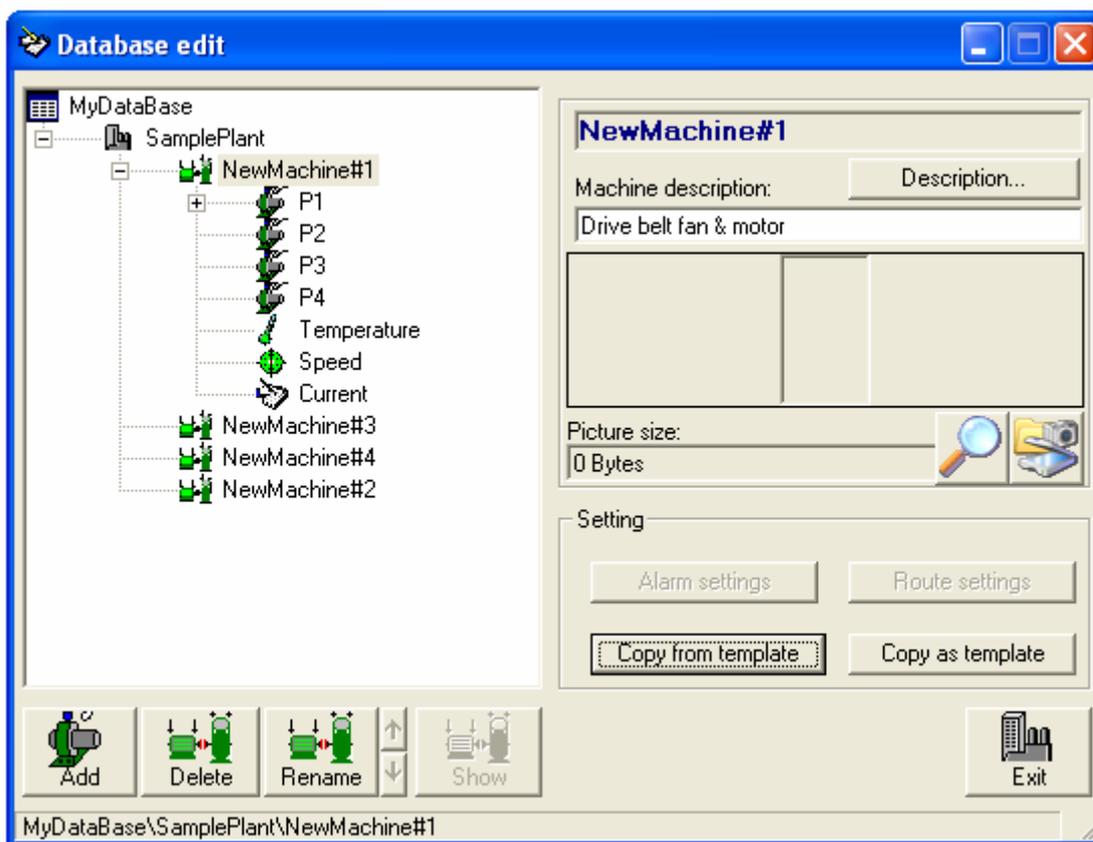
**Save** button is used to save the settings.

The settings are also automatically saved when you change the item selection in the hierarchy tree.

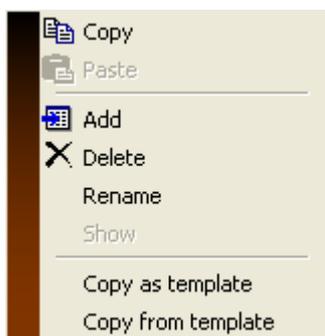
Using the "**Save to all machines**" button you may copy and save the alarm settings for all vibration directions of the current machine.

When your database has more than one identical machine, edit only one machine, then copy and paste this machine many times.

You can save a just created machine into a **template** database, or use the **template** database to copy a predefined machine in your database.

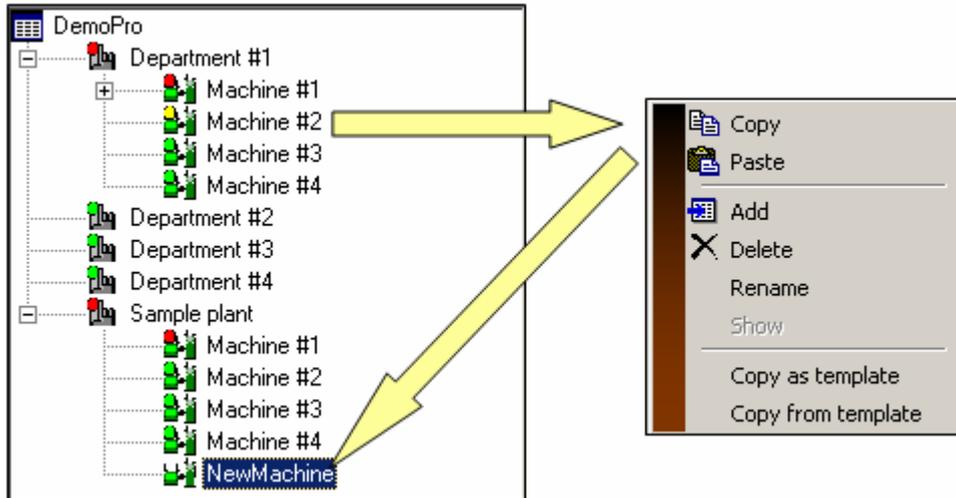


When editing, just use popup menu to copy a machine, then paste the content to another one.



Press **Exit** button to finish the editing session.

### 5.4.9. Editing machine in batch

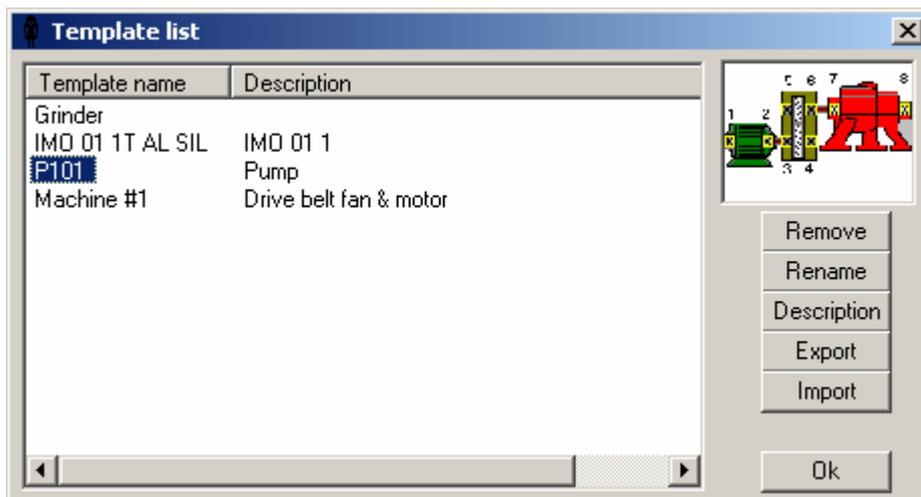


If there is more than one identical machine in your database, edit only one machine, then copy and paste this machine several times.

Before copying, the new machine **must exist** (only as name, the machine hierarchy can be empty).

**Note:** If on the Direction level are already stored some measurements, you can declare, for each direction, one of them as **Baseline** or **Reference**. To do these just double-click on that measurement. Only one measurement can be **Baseline**. All the other measurements are **Normal** measurements.

You can save a new created machine into a template database, or use the template database to copy a predefined machine in your database.



In the window above you can:

- Rename a machine (name, description and machine picture)
- Remove a machine from the Template file
- Export a machine into another Template file (the file can be created, if it doesn't exist)
- Import a machine form any Template file (the file must exist).

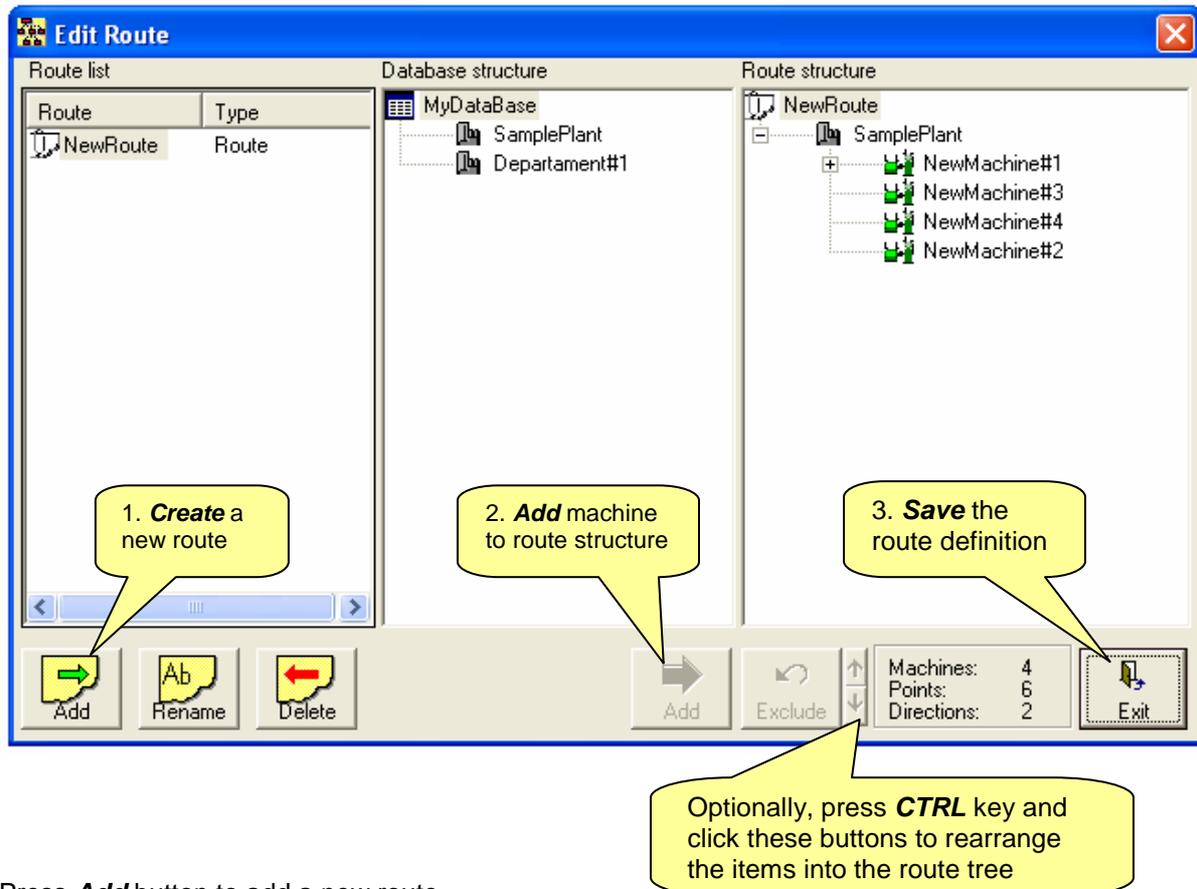
## 5.5. Route edit

### 1. Why using a route?

When the **X-Trend** software is used in conjunction with the **X-Viber** instrument, the route is used to be loaded into the data-collector, ready to get measurements. Finally the whole route, full of measurements, is unloaded from the data-collector back into the machine database.

### 2. How to build a route?

A lot of routes can be built using the **Route Edit** command from **Database** menu. Activate this command and the **Route Editor** will be activated.



Press **Add** button to add a new route.

An editing window will appear.

Give a name to the new route and press **OK**.

An existing route can be renamed or deleted if press **Rename** or **Delete**.

Once a new route is created, you can add it some machines. To do this, select any machine from the machine database tree, then press **Add** button:

In the same route it's impossible to add the same machine two times. Instead to add a machine, you can add directly all the machines from a department. To do this, select a department and press the **Add** button:



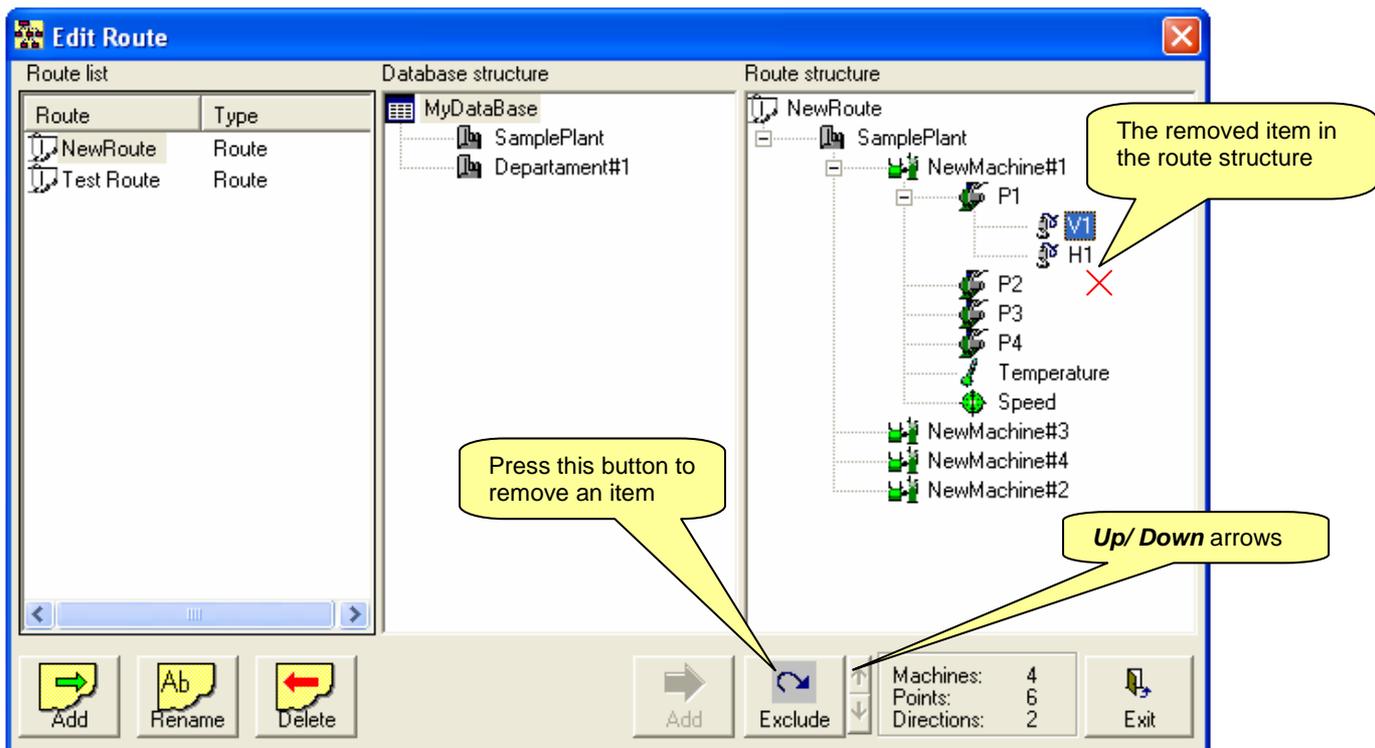
All the machines belonging to the selected Department will be added.



To remove a machine from the route, select the machine and press the **Remove** button: You can remove the whole Department, as well. To do this, select it from the route tree and press the **Remove** button. From an existing route you can exclude vibration Direction, Temperature or Speed, using **Exclude** button.



Into a route, you can arrange the items using **Arrange** buttons. To do this, first press **CTRL** key on the computer keyboard, and then click on **Up / Down** arrows.



## 5.6. Filter edit

### 1. Why using a Filter?

When using a large **X-Viber** machine database, you'll find difficult to access a certain machine, point or direction. That's why the user can apply a "filter" condition to the machine database, to reduce the items.

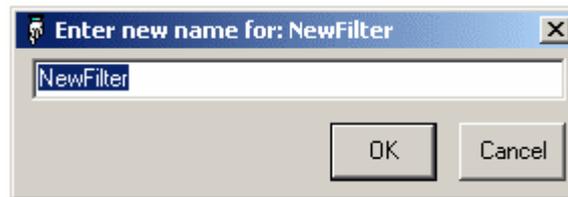
A filter is in fact, a collection of some machines, points and directions, defined as a route. Many filters can be created from a machine database. This filter is also called **Route**.

### 2. How to build a Filter?

Any number of filters can be built using the **Edit Filter** command in the **Database** menu.

Activate this command and the **Filter Editor** will be activated:

Press **Add** button to add a new filter.  
Editing windows will appear:



Name the new filter and press **OK**. An existing filter can be renamed or deleted by pressing the **Rename** or **Delete** buttons. Once a new filter is created, you can add some machines to that filter. To do this, select any machine in the machine database, then press **Add**. In the same route it's impossible to add the same machine two times. Instead to add a machine, you can add directly all the machines from a department. To do this, select a department and press the **Add** button. All the machines belonging to the selected Department will be added.



To remove a *Machine* from the filter tree, select the *Machine* and press **Remove** button:  
You can remove the whole Department, as well. To do this, select it from the filter tree and press the **Remove** button. From an existing Filter you can exclude either vibration Direction, or manual entry Point.

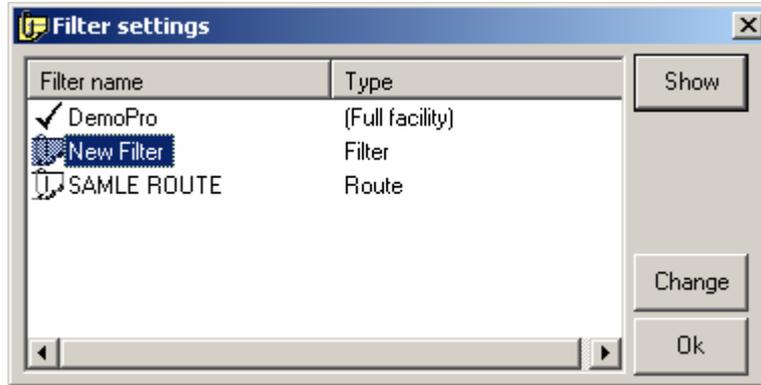


Into a filter you can arrange the items using **Arrange** buttons. To do this, first press **CTRL** key on the computer keyboard and then click on the **Up / Down** arrows.

### 3. Filter activation

To activate a filter proceed as it follows:

Select **Settings > Set filter**.



Select a **Filter definition** or a **Route** (A Route can be used whenever you want to, as a Filter).

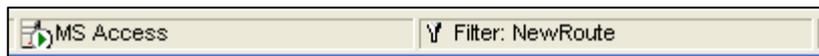
You can press the **Show** button to see the Filter content. The **Filter Edit** window must be open.

Press **Change** button to activate the filter.

You can do the same from the **X-Trend Status bar**. Just click the **Filter** icon:

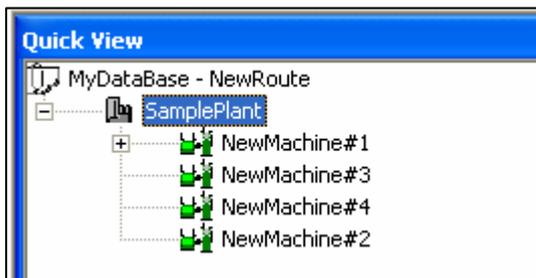


If a filter is active, the filter name will appear in the **Status Bar** also.



In order to cancel the filtering, just select the whole database as a filter.

**NOTE: When a machine is excluded while filtering a database, it is not visible in the database tree.**



In this example, **MyDataBase** tree will appear as follows:

Only **SamplePlant** is visible, because the filter includes only this plant.

After the database name, the filter name is shown as well.

## 5.7. Update alarm status

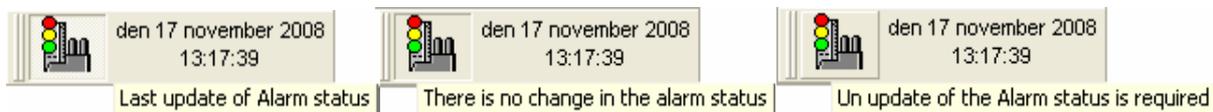
If this option is checked, after exiting the transfer window, the **Alarm Status** of all measurements in the database will be automatically updated. If the same alarm status has been previously updated, the following message appears on the screen:



You can get the same result, when you select the **Update alarm status** command, in the **Database** menu or when you click the **Manual Alarm Update** button on the **Toolbar**.

When the machine tree is shown, the item icons are colored according to the current alarms levels. This is true only if the latest alarms were recently updated.

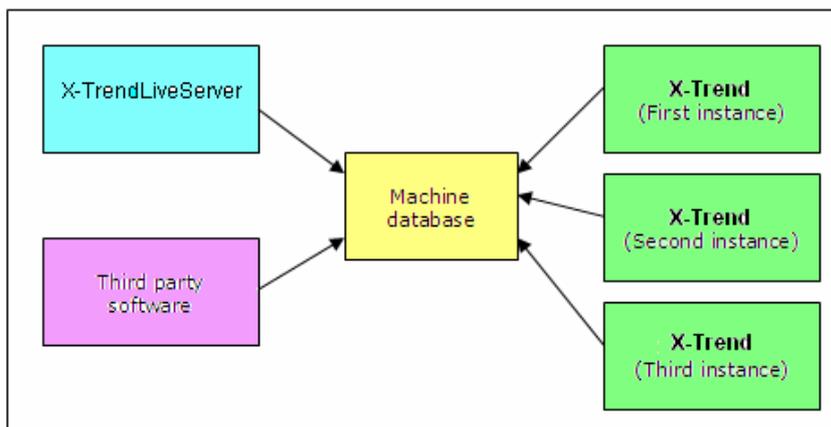
The last alarm update time can be seen looking on the right hand of the **Manual Alarm Update** button in the **Main Menu** toolbar:



In the text box on the **Toolbar** you can always see the alarm update status:

If the text box is pressed (middle picture), the alarms are shown correctly, no update is required.

If the text box isn't pressed (right picture), the alarms need to be manually refreshed. Because the machine databases can be simultaneously accessed onto many computers in a network, it might be possible that the user has no idea about the real alarm status in the database tree.



This nearby sketch is a typical accessing diagram for machine data-base into a network.

Any of the above users can make some changes in the machine database, adding new measurements.

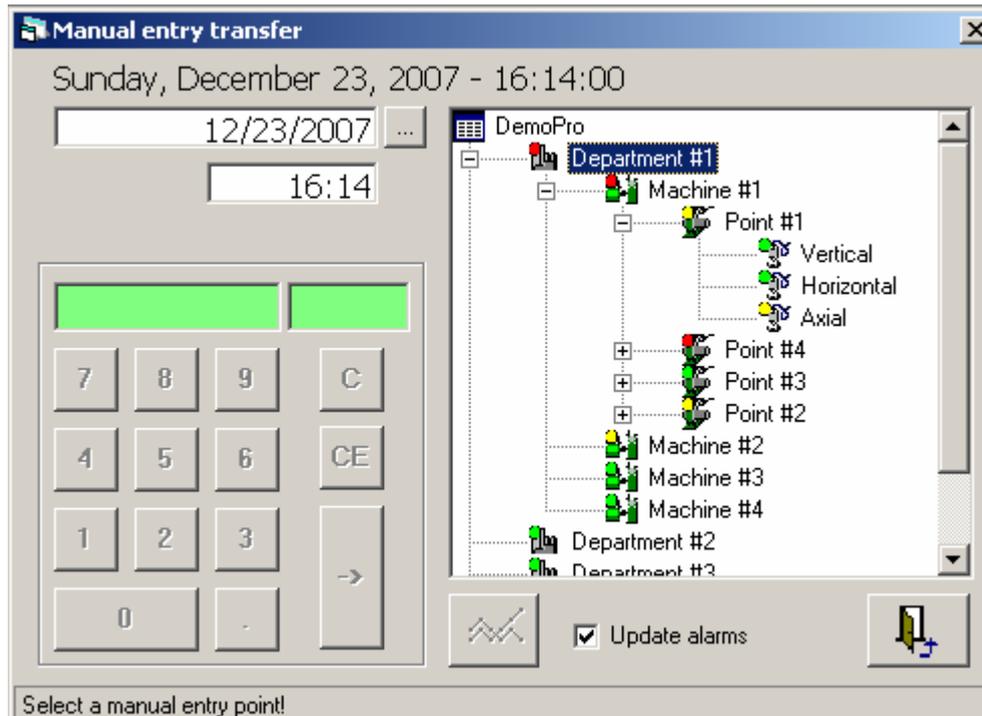
Now you can see how the user can set the **X-Trend** to know anytime about the changes in the alarm status and also how the alarms update can be done.

## 5.8. Semiautomatic alarm update

If in the *X-Trend*, for instance, a recently downloaded measurement occurs, the user can decide if also the alarm's update must be done, when downloading procedure is finished.

In any transfer window a checking box is placed into its lower side.

The *Manual Entry transfer* window is presented below:



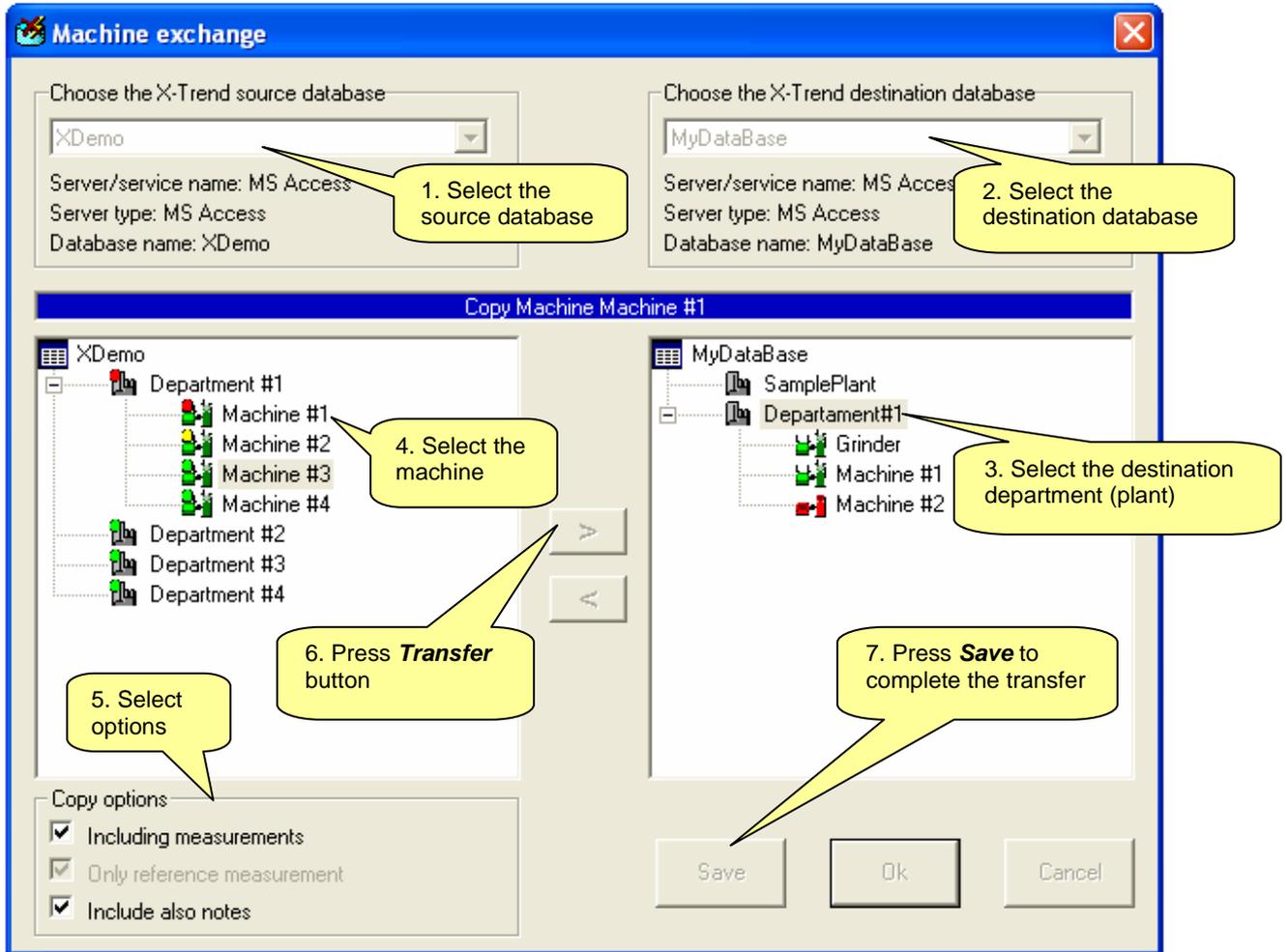
**Update alarms** box is checked as default. When the **Exit** button is pressed, an automatic alarm updating will begin.

**NOTE:** If any user in the network performs an alarm update procedure, all the other users will be informed about this. The manual **Update Alarms** button will change the status to inactive.

## 5.9. Machine exchange

This command can be used to transfer the machine definition and data from one database to another. Both databases must be registered under **X-Trend** program. In the destination database must exist at least one department. The machines can't be transferred in an empty database.

To transfer a collection of machines, just follow the next steps:



1. Select the *Source database*.
2. Select the *Destination database*.
3. Select a *machine* from the *Source database*.
4. Check the *Copy options*.
5. Select a *department* from the *Destination database*.
6. Press **Transfer** button do confirm transfer.



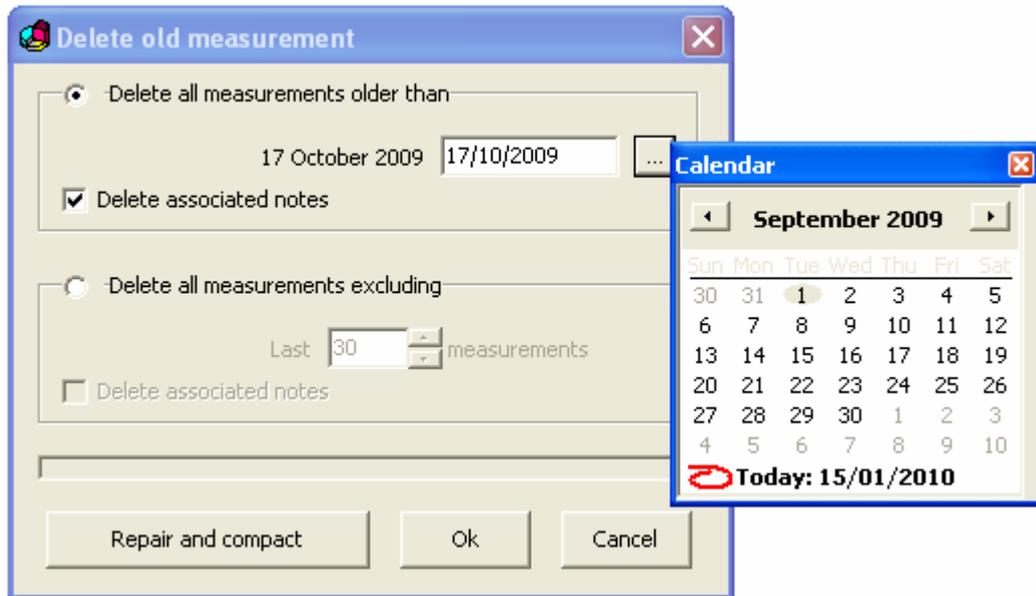
7. Repeat steps from 3 to 6 to transfer all the desired machines.
8. Press **Save** button and wait until all machines are saved into the *Destination database* or press **Cancel** to abort.
9. Press **OK** to finish the transfer session.

Using **Exchange Machine** command you can create a single database using the machine stored in several databases.

## 5.10. Maintenance

From time to time, run **Maintenance** command to optimize your database's dimensions. You can select two ways to delete the old measurements:

- by date
- by number of measurements



The **baseline** vibration can't be deleted.

Deleting process can take a long time, especially for long databases.

From time to time you can press the **Repair and compact** button. A checking procedure will begin. Also the database size will be optimized.

## 5.11. Exit

This command is used to end normally the working session. This command closes all the databases of the application and leaves free computer's memory, ready for other application in **WINDOWS** environment. You can exit just pressing the specific button on the **Toolbar**.

## 6. Transfer

### 6.1. To/ from X-Viber

This command allows:

- To transfer a route to the **X-Viber** instrument
  - To transfer a route from **X-Viber** instrument into the active database in the computer.
- First, you must have a USB cable connected between your computer and **X-Viber** instrument.

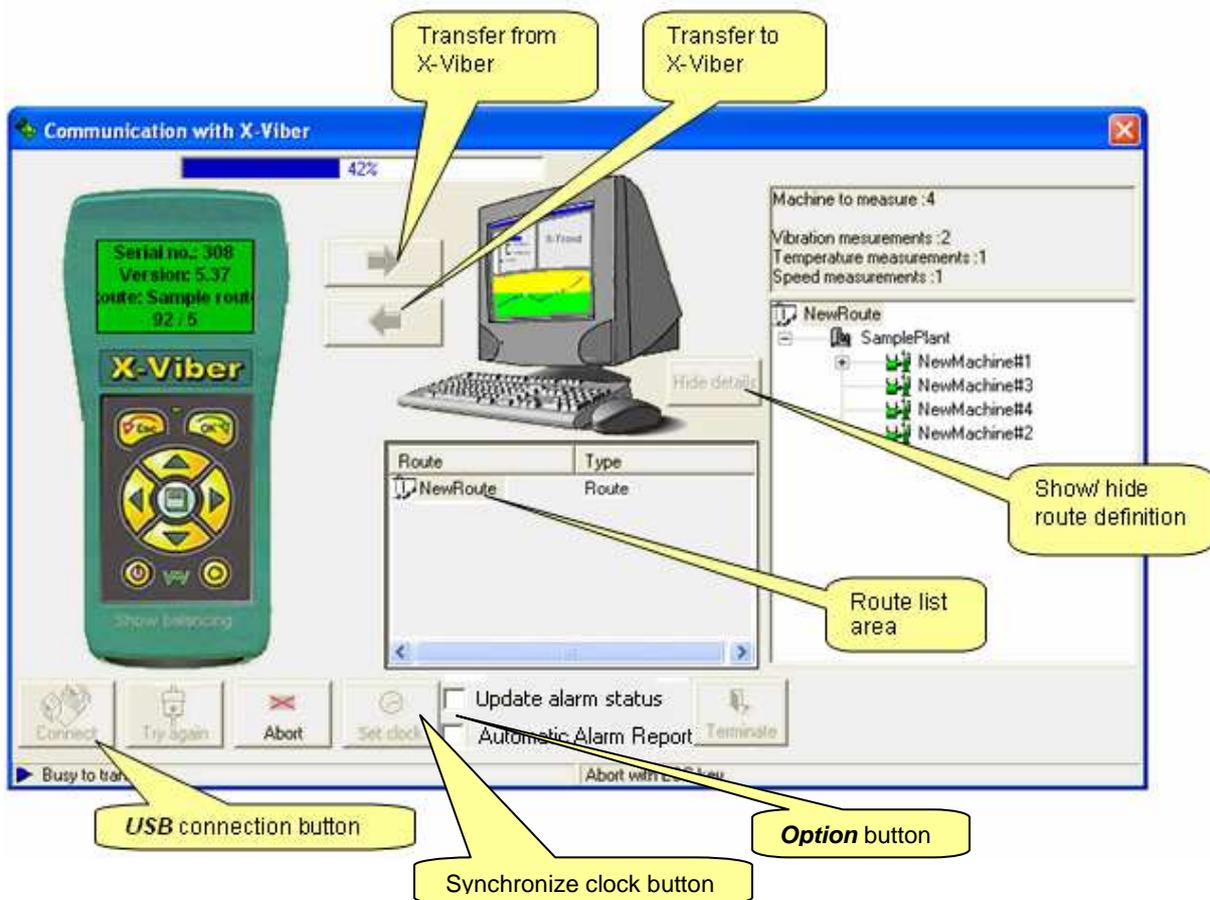
In the **Status bar** the **Awaiting connection** message will appear.



Now you must select from the **X-Viber** Menu, the **Communication** menu line and press the instrument **OK** key. In the left list, the name of the existing route into the instrument will appear (if any).



The **Status bar** will display **Ready to transfer** message. In the **X-Trend** route area will appear all defined route.



Now you can transfer any existing route from or to **X-Viber** instrument. To synchronize the **X-Viber** clock with computer's clock, just press:



### 1. Download a route definition

- Select the route from the list.
  - Press transfer to **X-Viber** button (left arrow button).
  - The selected route will be transferred into **X-Viber** instrument.
  - Measure
  - Press transfer from **X-Viber** button (right arrow button).
- The measurements will be down-loaded in the machine database.

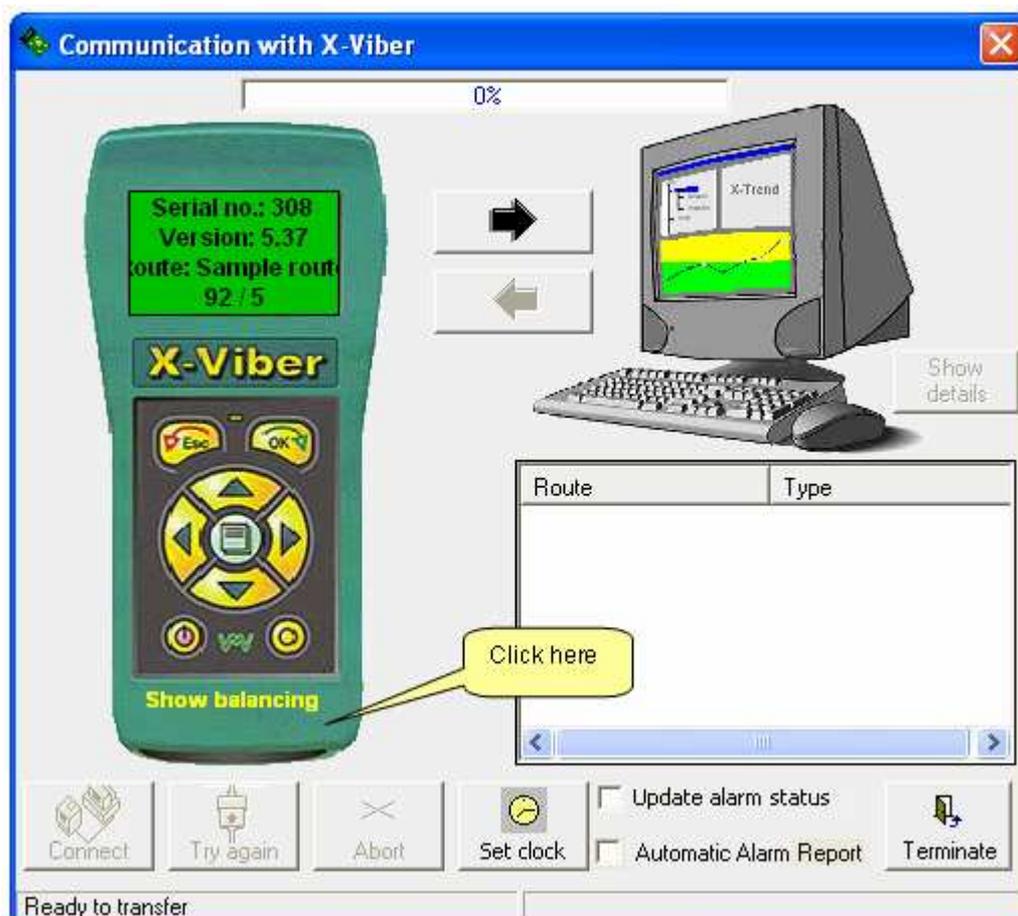
### 2. Using transfer option

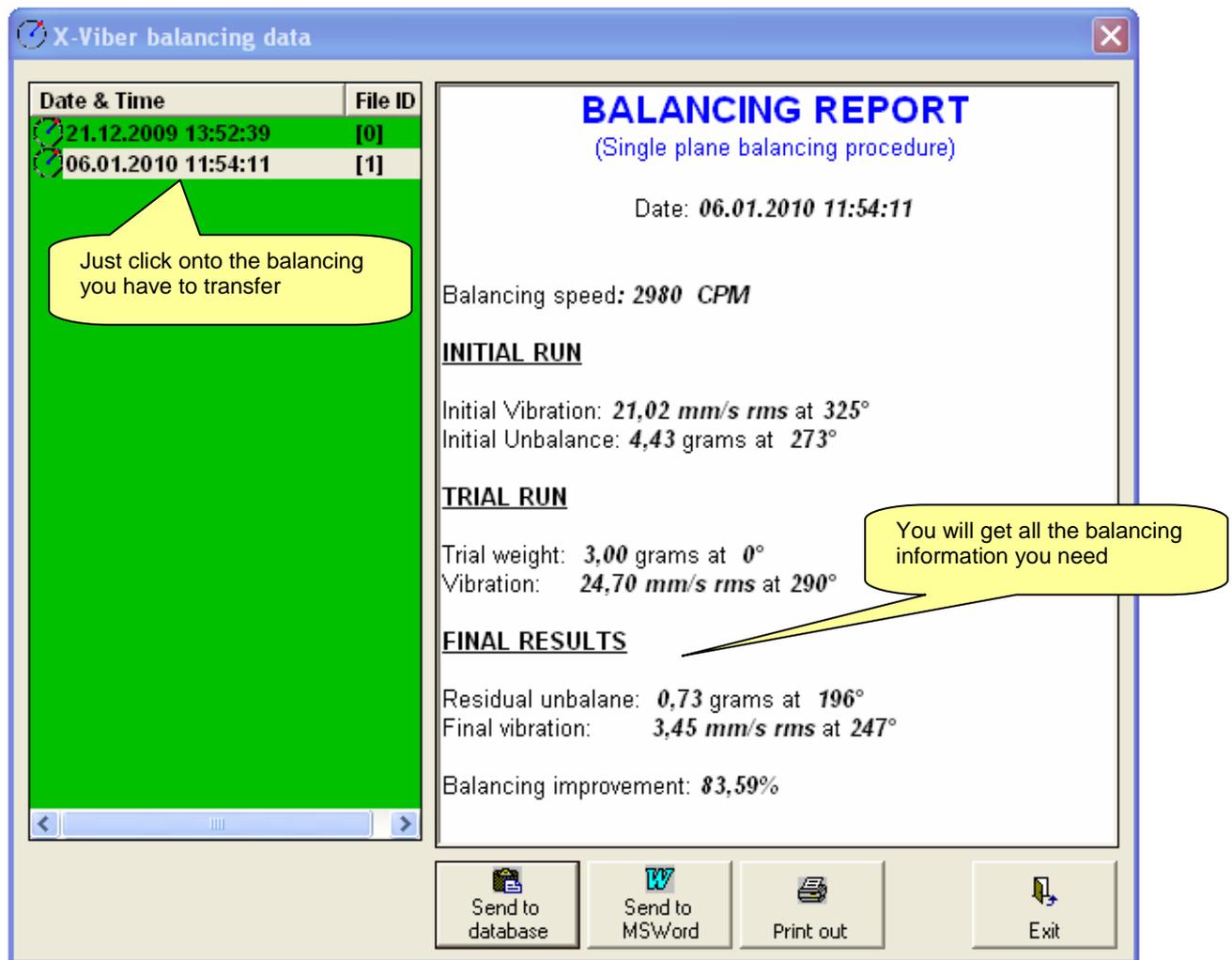
After a route was transferred from the **X-Viber** instrument, before exit, you can select:

- **Automatic Alarm Report:** If this option is checked, after exiting from the transfer window a **Transfer Report** will be shown.

### 3. Transfer balancing files

From the **Transfer** menu you have to select **X-Viber** function. A window like the following one will appear on the screen:





Click on the **Show balancing** label, and a new window will appear. On the left side of the window you can see all balancing files, both **One plan balancing** and **Three point balancing**, but marked with different icons on the left side of file's name.

On the right side of the window the Balancing Report is shown.

In this screen you can:

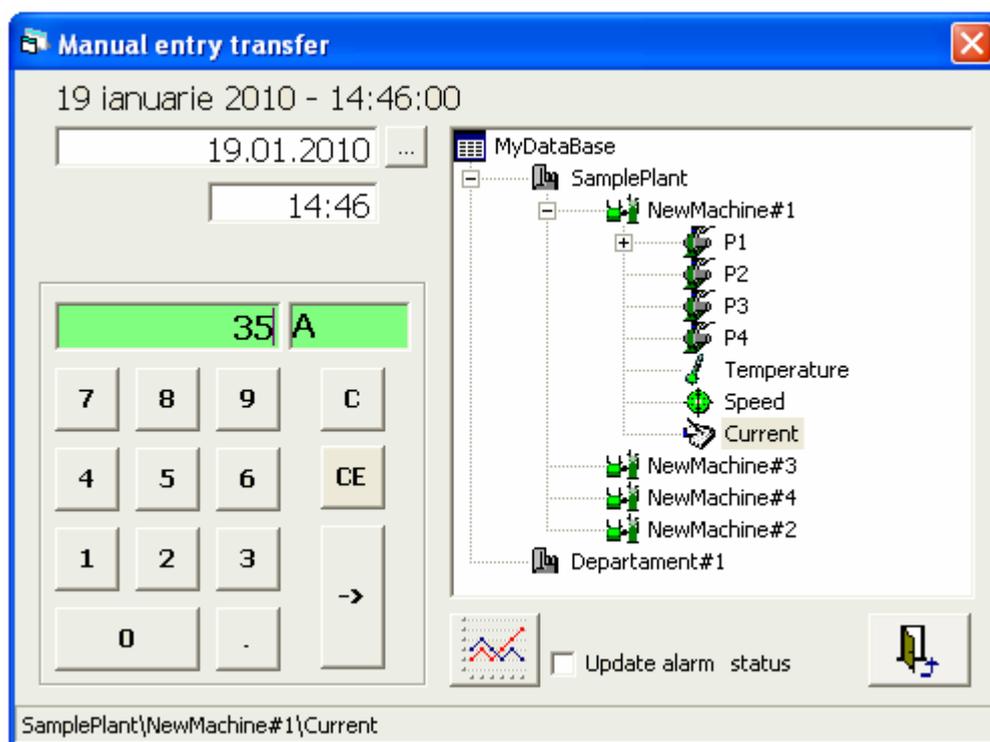
- send the **Balancing Report** content in the **X-Trend** database. The destination will be a specific machine *Notepad*.
- send the **Balancing Report** into a MS Word type document, where you may edit the content.
- print the **Balancing Report** directly to a printer.

## 6.2. Manual entry

With this command you can add manually measurements in the machine database. Measurements can be added only to the **Manual Entry** point previously defined with **Edit** command.

**Manual Entry** point is used to add to the machine database other useful information regarding machine condition. **Manual Entry** point is collected manually from the Plant, and can be any numeric value (e.g. Bearings temperature, inlet pressure, pump flow).

If this command is used, a specific window will appear.



The new measurements can be added in two ways:

- By mouse
- By keyboard

First adjust properly the date and time. Then, select a destination for the new measurement. The destination must be only a **Manual Entry Point**. Then, type the value of the measurement and press **ENTER** or the **Transfer** button.

In a single work session you can add as many measurements is necessary. Pressing **Show Trend** button you can see the trend plot for the selected point.

The transfer session can be finished pressing the **Exit** button.



### 6.3. X-Viber software updater

Before to do this use [Check for updates now](#) command to unload from VMI's Web site the latest available version.

#### a) INTRODUCTION

The Serial Download Utility allows **X-Viber** instrument to upgrade the FLASH code in the field using a standard USB cable. This functionality consists of:

1. A small library included in the user program: SERDOWNL.LIB
2. A small RAM-based program that downloads the new code and programs FLASH
3. This software to find and program boards

#### b) HOW IT WORKS

The SERDOWNL.LIB library uses a small RAM-based loader. This loader is small (24k.) The library routine has to allocate a buffer in the extended memory to store the program. After the code was downloaded and a 'RUN' command is received, it copies the program to root RAM, remaps RAM to 0, and reboots to the new code.

The RAM loader is included in the **X-Viber** application software.

The library also has additional functions. One is to preserve the serial parameters. Since the entire board is reset, the USB port needs to be reinitialized. These parameters are passed in RAM to the new program.

A function of the library is to respond to "Query" commands. The query command is sent by the X-Loader utility software, to ask the board to identify itself. Each board that supports the download function will reply with a user-supplied string. This allows the X-Loader utility to identify boards by name, serial number and software version.

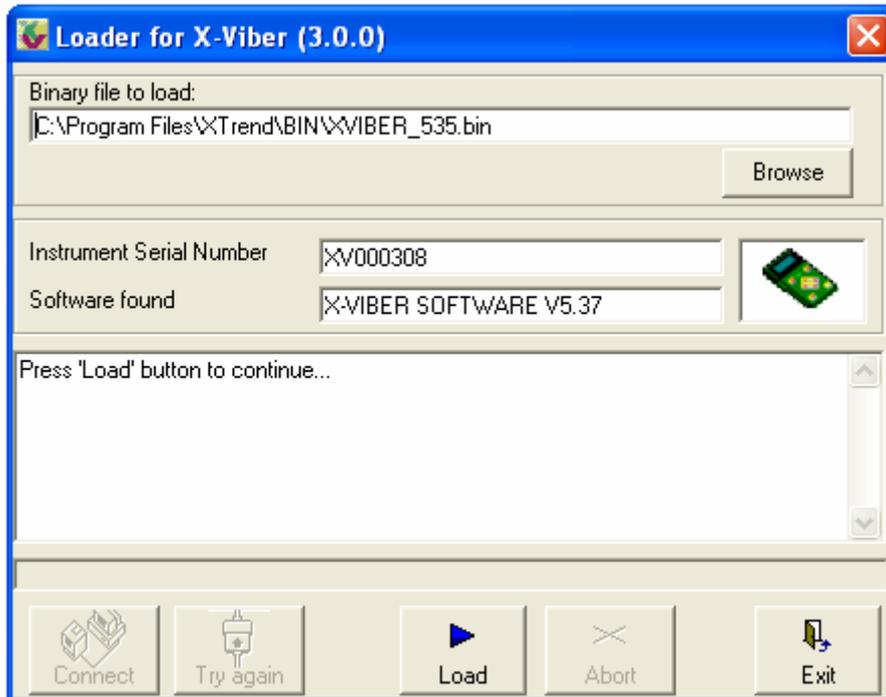
The library uses no extra extended memory, until a request to download is received. It will then allocate enough extended memory to store the program. The user program is notified that a request has been received and so it can free up extended memory, if needed. Only programs that use all of the extended memory would need to do this. Because the RAM loader is included in FLASH, no extra extended memory is required.

The library and the download utility will report their status to the X-Loader program. They will report that they have the loader in FLASH, or are running it. Also, memory allocation and code blocks are acknowledged.

#### c) PC DOWNLOAD UTILITY

Programming the Boards

- Connect the USB cable from the PC to a single **X-VIBER** Instrument. Multitarget software loading is not allowed and an error message will appear if more than one **X-VIBER** instruments are connected to the PC.
- Start the **X-VIBER** instrument and select the **INFO** Menu.
- Now start the X-Loader software.
- If the **Connect** button is enabled, just press the button and wait to establish the connection. Press **Browse** button to select the latest **X-VIBER** image file (with .bin extension). To download, press the **Load** button.



The download procedure will perform the following steps:

1. Send a request to the board for extended memory to store the RAM loader.
2. Send a “**Run**” command to start the RAM loader code.
3. Research for the board to find response from RAM loader.
4. Download the user code.
5. Send a “**Reboot**” command to run the user code.

The **X-Viber** instrument acknowledges each step. A progress bar on the bottom of the window shows download completion.

Once the download is complete and the board has restarted, you should be able to perform a loading session or to exit.

### **Errors**

Each operation is checked. The system will try to recover from errors. The status log window will show these errors. The download can be retried if it fails.

### **Some notes:**

1. Once the utility starts downloading the user FLASH code, the board is susceptible to a power loss or reset. If the board is reset in the middle of a download, it may be not recovered. In this case the only way to fix the problem would be to use the Rabbit RFU utility and the serial debugger cable.
2. If the user flash file is not found, the download will abort. At this point, the RAM loader is running and the FLASH remains untouched. To recover, select the correct user program file and restart the download. The utility will see that the board already has the RAM loader and will skip right to the FLASH download.

## 7. View menu

### 7.1. Show selected trends

When you select this command, a specific window will appear in the screen, which will allow you to select the department, the machine, the point and the wished direction. The selections are done for a certain direction (vibration) or Point (Manual Entry), with the mouse, in the above-mentioned order. Now you can select a collection of trends to be shown. Just double-click to any direction (or Point) and the item will be move to the show list.

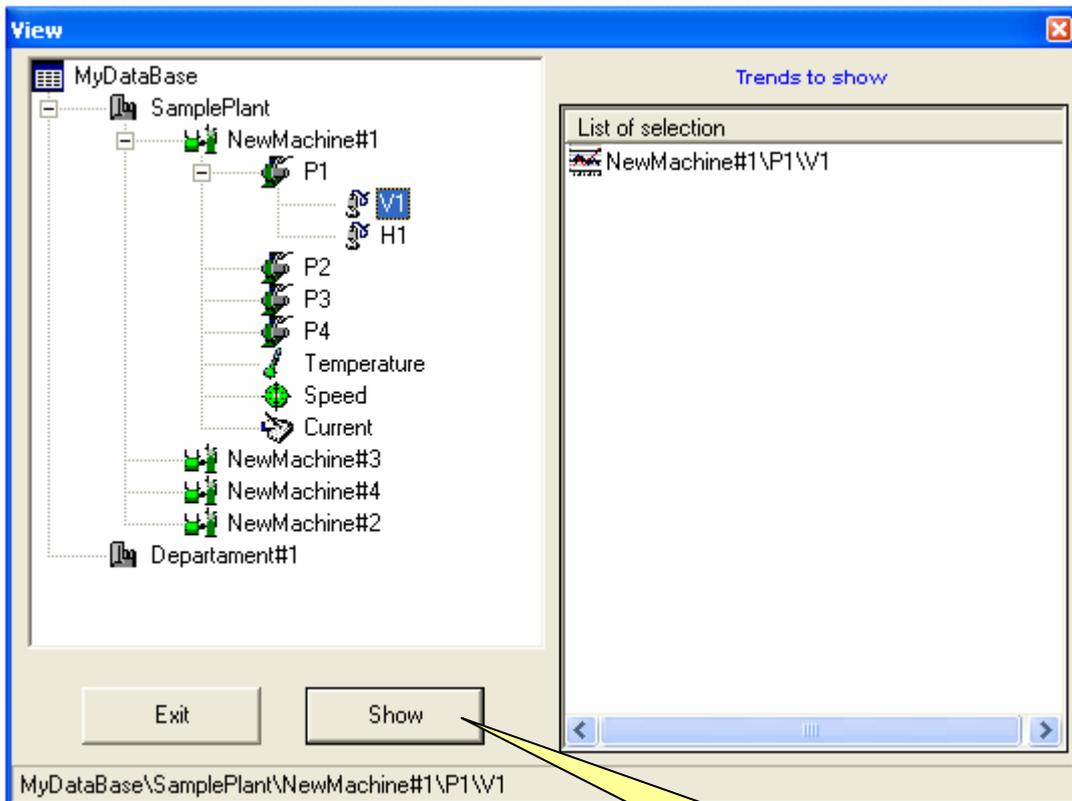
Instead of double-clicking, you can drag and drop any Direction (or Point) in the list.

If you want to not display some items from the list, just double-click on them and they will be removed from the list.

Finally, press **Show** button, and the entire list will be shown.

After you displayed some trends, the main window remains active and you can select other trends.

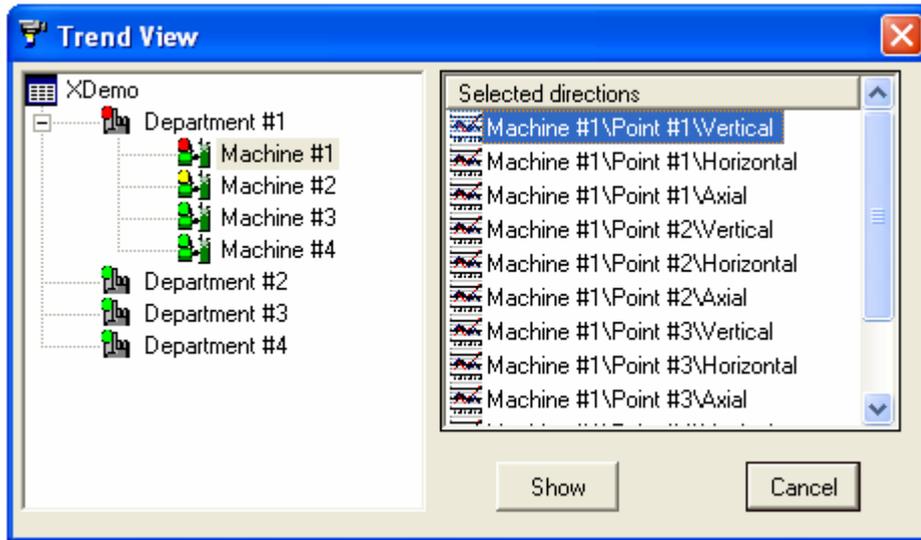
Although it can display a large amount of information on a single screen, it is recommended to limit the number of simultaneously opened plots, because they will become smaller and smaller and many details will be lost.



Press here to get the trend for your selection

## 7.2. Show trends from the whole machine

With this command you can see in a single “scrolling” screen all the trends associated with a machine.



First, select from the hierarchy tree the desired machine. In the right part of the selection window, a list with all directions of the selected machine will appear.

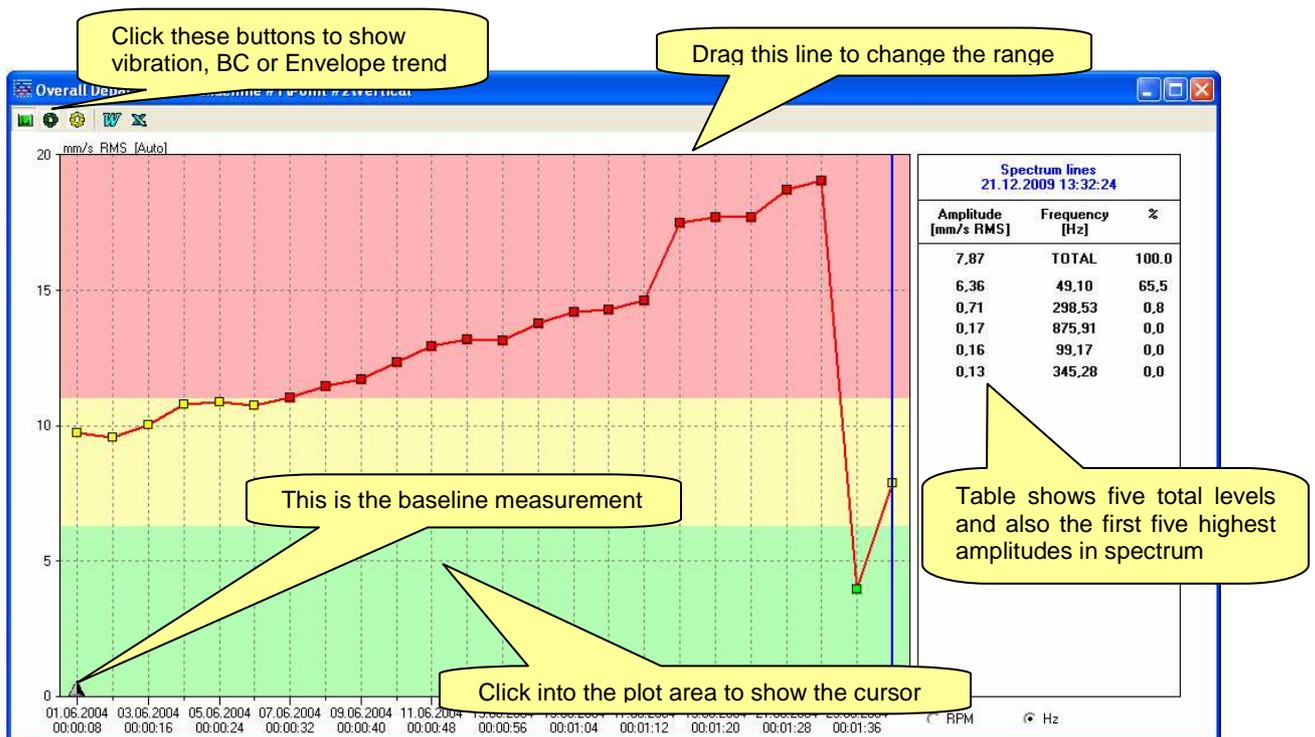
Before showing, you can rearrange the list, *dragging* the items.

Now you can remove some items for the list (by *double-clicking*) or show the list pressing **Show** button.

If you don't need all the plots, close some of them and use the **Arrange Trend** command from **Windows** menu to rearrange the plots on the screen.

You can synchronize the cursor in the trend plots.

Finally, use **Clear all** command from **Windows** menu to close all plots.



**X-Trend** can display trend plots for Total value, Envelope, BC, Temperature, Speed and Manual Entry values.

When a trend plot is shown, you can get a large number of actions to customize the graph. Most of these actions can be done using the pop-up menu, activated with a click on the right-mouse button. Other actions can be done using the mouse or/and keyboard. Buttons from the **Toolbar** are also available.

**a) Mouse and keyboard**

In the following picture you can see all the actions you can take using the mouse or the keyboard.



**Unit and average** – The trend unit for the Total value of the vibration is, all the time, in accordance with the setting of the *Alarm levels* (in Edit Database window). The unit and average can't be changed.

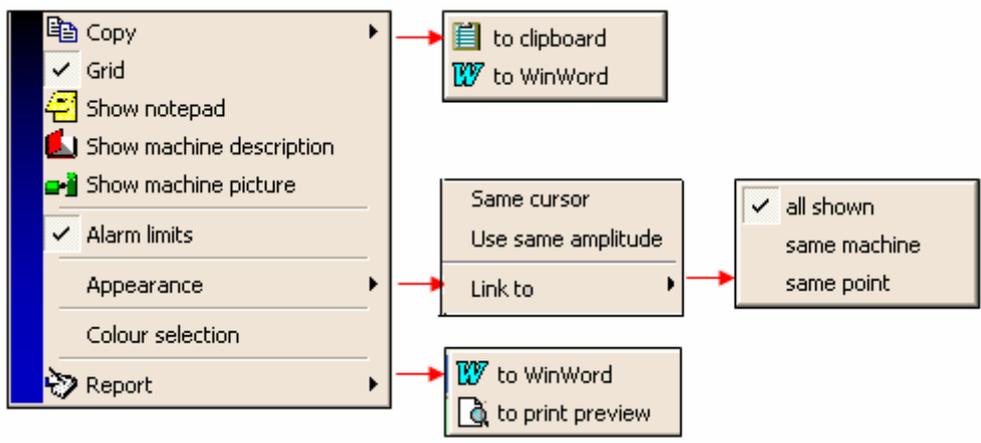
**Gain** – When the trend is show for the first time, the gain is set in respect of the biggest *Total value* from the trend (AUTO mode). The gain can be change clicking, and after this dragging the upper horizontal line of the grid. If you drag it down, the gain will decrease, if you drag it up, the gain will increase. A double-click in **Y-axis label** area will restore the auto-gain. The gain for BC can't be adjusted.

**Cursor** – When a trend is shown, the cursor is placed on the last (most recently) measured point.

You can place the cursor also in the other position using the mouse (click in the new position) or using left and right arrows from the keyboard. If the **Same cursor** command is check, depending on **Link level**, the cursors will move into another trend.

**b) Actions from the popup menu**

The **Trend Menu** can be activated in each **Trend Plot** with a right mouse click. The Menu has the following actions:



**Copy** – This action copies the plot in clipboard or in a text editor. You can use also **CTRL+C**. You can paste the clipboard contents in the notepad with **CTRL+V**.

**Grid** – The grid of the trend can be shown or hidden using this action.

**Show machine description** – Selecting this action the **text file** associated with the machine will be shown.

**Show machine picture** – If you select this action, the machine picture will be shown in a separate window.

**Alarm limits** – You can make the alarm limits for the selected trend visible with this action.

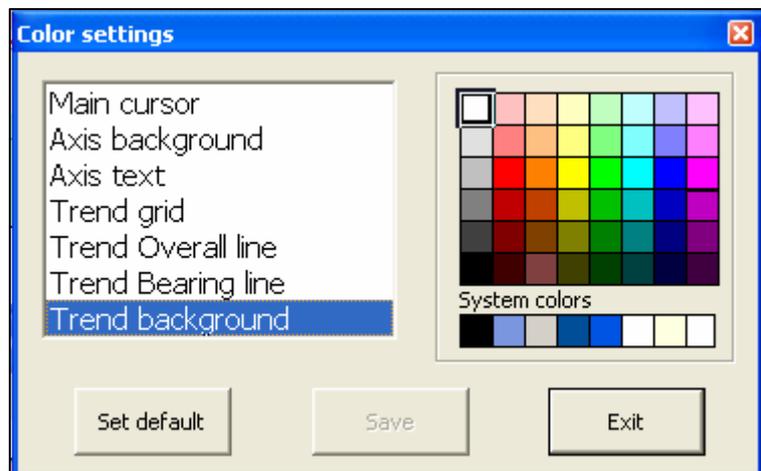
**Same cursor** – This action enables or disables the linking between the cursors for the other trend plots. If a large number of trend plots are displayed, it is better not to synchronize the cursors.

**Use same amplitude scale for all** – This command adjusts the gain for all trends in accordance with the active trend gain, depending on the link level.

**Link to** – You can synchronize trend cursors and make the same gain for all the trend plots, depending on the link level: global (for all active trends), machine or point level.

**Color selection** – You can customize the colors for:

- Main cursor
- Axis background
- Axis text
- Trend grid
- Trend overall line
- Trend bearing line
- Trend background



You can save these new colors using **Save** command. You can restore the default colors using **Set Default** command.

**Report** – Using this command a trend report will be generated. After previewing, you can print the report to the system printer. The report can also be made directly in a text editor.

### c) Actions from the toolbar

**Notepad button** – When this button is pressed, the **Notepad** will be activated in accordance with the active **Trend plot**.

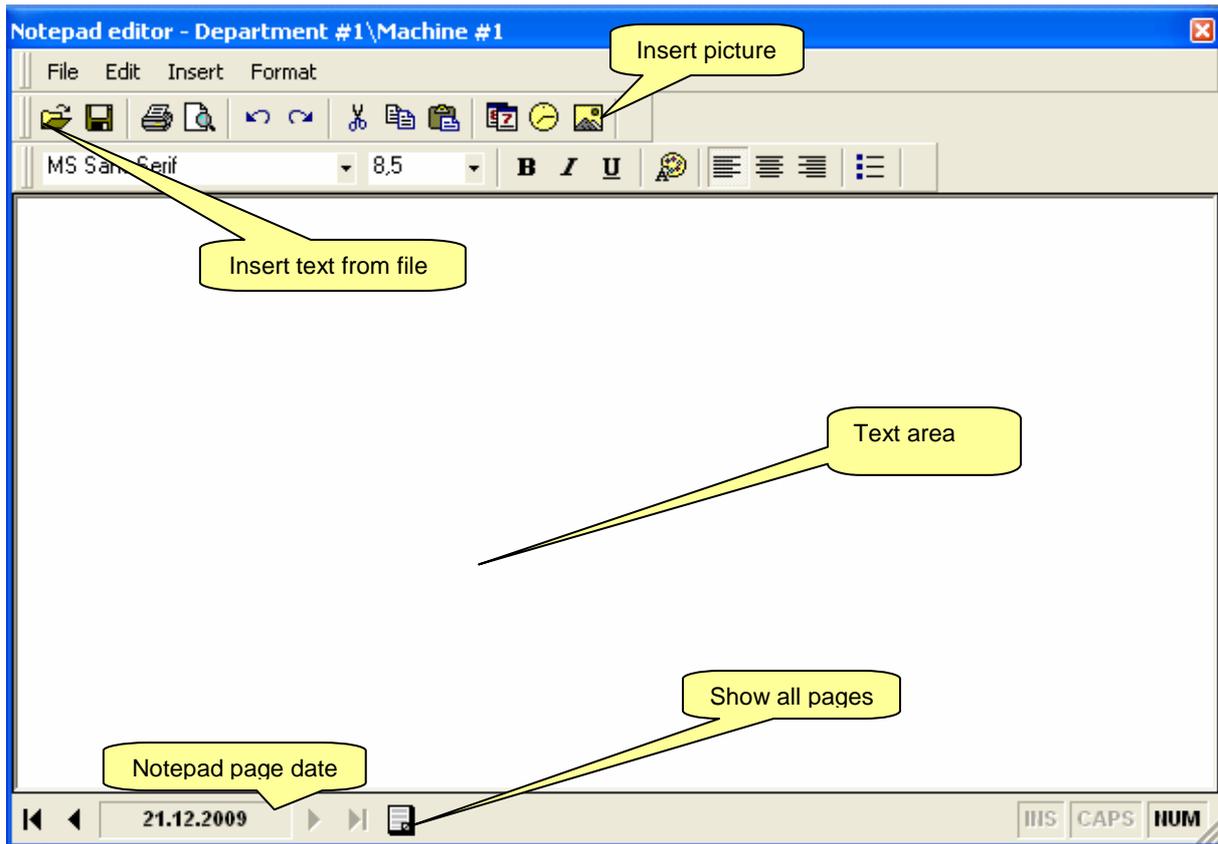


**Notepad** is available all the time, when a plot is visible on the screen.

The **Notepad** can also be activated from the popup menus of each plot (Show notepad command line).

The **Notepad** date appears in accordance with the plot date. From a trend plot, the **Notepad** will appear with the cursor date.

Because the **Notepad** contents appear in many **Reports**, a proper documentation done in the **Notepad** will ensure a good report also.



The **Notepad** must be used to improve your diagnosis process. Into the **Notepad** can be added:

- Any plot from the screen
- Any text using copy and paste
- Any text or *rtf* external file
- Any picture (including digital camera picture)

The text can be formatted as in any standard text editor. The contents of a page can be saved in an *rtf* file type.

**Notepad** is **page** and **machine** oriented. Each page has its own date. The **Notepad** is synchronized also with the plots. When a plot sets focus and the **Notepad** is visible, the **Notepad** page will be automatically changed to the plot date and to the machine.

If only the point or direction of the same machine is changed in plot, the **Notepad** contents will not be affected.

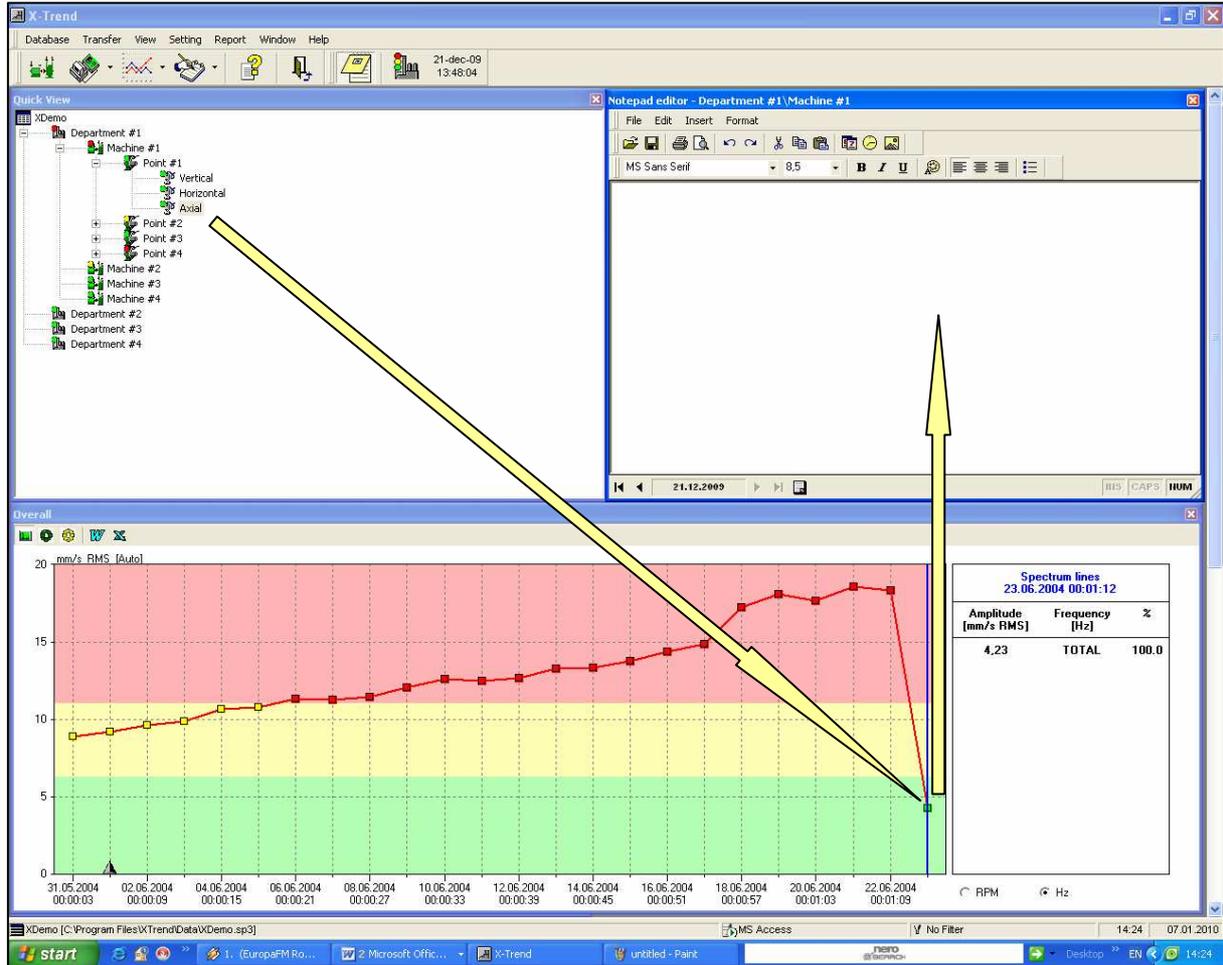
This means that the **Notepad** has always the active page for the right date and for the active machine.

You don't need to save the **Notepad** contents precisely. When the page is changed, the current contents are always automatically saved into the database.

### 7.3. Quick view

This command shows trends in a special way. When you select this command a three window screen will appear:

- *Database tree*
- *Trend plot*
- *Notepad editor*



All three windows are synchronized. If you move the cursor in the database tree, all other windows will be refreshed. If you change the position of the cursor in the *Trend plot*, the *Notepad editor* content will be changed. In this way, you can immediately see all the information you need for the whole database.

You can change the position of the windows in the screen, but you can't close the plot windows. If you close the tree window, all the windows will also be closed. The last positions of the windows will be saved.

Use **Arrange Quick View** command from the **Windows** menu to rearrange the window in a convenient way.

The **Notepad editor** window can be closed any time.

The advantage of using **Quick View**:

- Any trend from any part of the database can be displayed.
- Quick access to any plot in the whole machine database.

The disadvantage of using **Quick View**:

- Only a single trend can be displayed on a screen.

## 8. X-Trend Reports

The following predefined reports are included into the *X-Trend* software:

- Job report
- Machine report
- Machine description
- Transfer report
- Un-measured machine
- Print setup

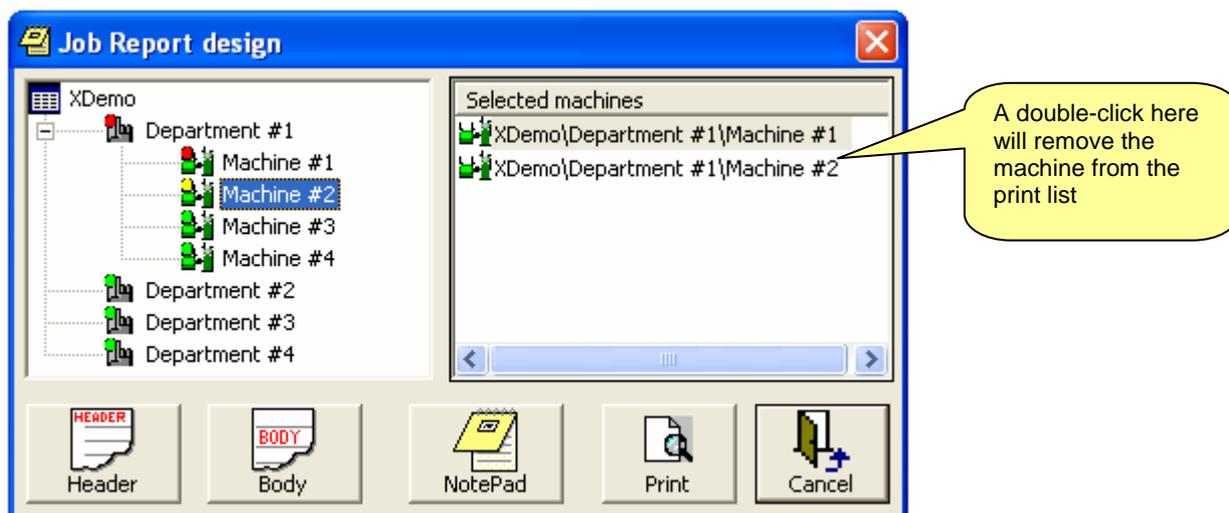
Most of them can be customized by the user.

Any report can be sent to a text editor to be modified.

### 8.1. Job Report

The **Job Report** contains the last notes made by you for the selected machines. This report is addressed to the *maintenance team*.

The notes are a consequence of the diagnosis process, based onto the measurements unloaded from the *X-Viber* instrument.



First select the machines from the hierarchy tree. Just double-click on each machine or drag and drop the machines in the **selected machine list**.

You can remove some machines from this list, by double-clicking.

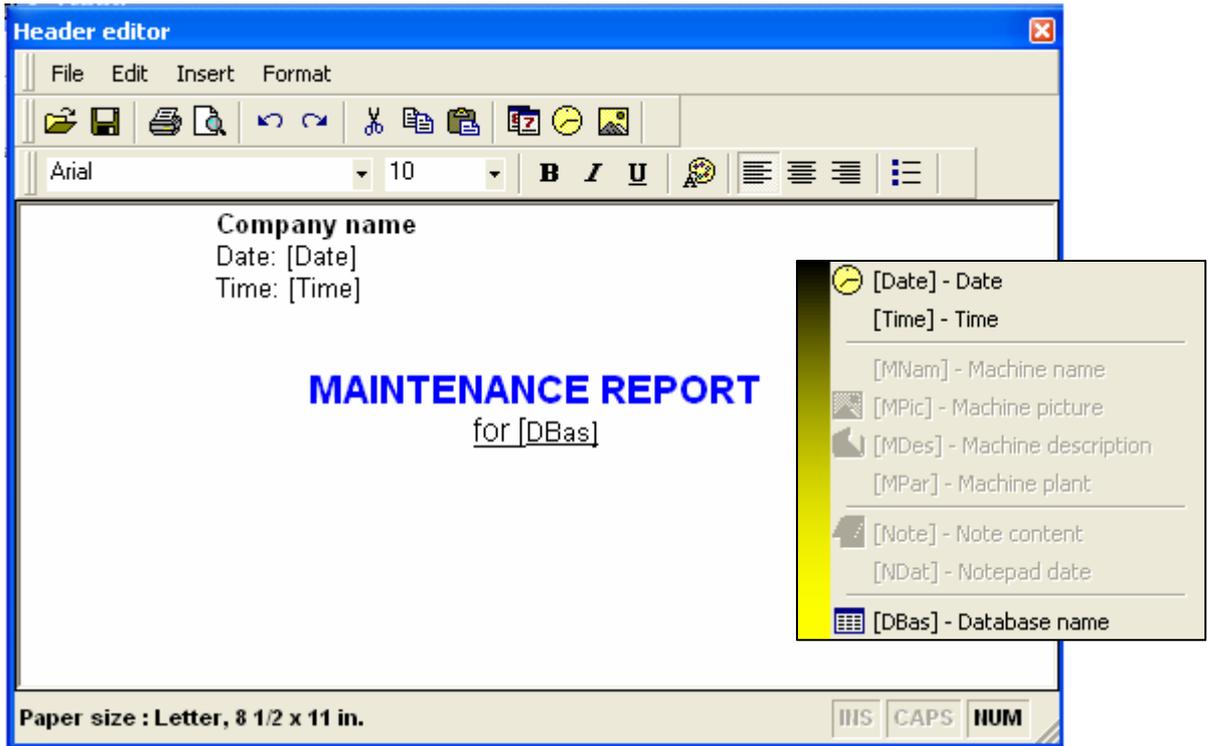
Now, if you use the software for the first time, you must customize the *header* and the *body* of this report.

To edit the header press the **Header** button. A specific window will appear.

In the pop-up menu (activated by a right-click on the mouse) you have some reserved words, all included in square brackets. These words will be replaced in the final report, according to the actual content of the database. In the **Job Report Header** you can add the following items:

- Company name
- [Date] – Current date
- [Time] – Current time
- [DBas] – Active Database name

You can preview a sample of the header pressing the **Preview** button from the toolbar.



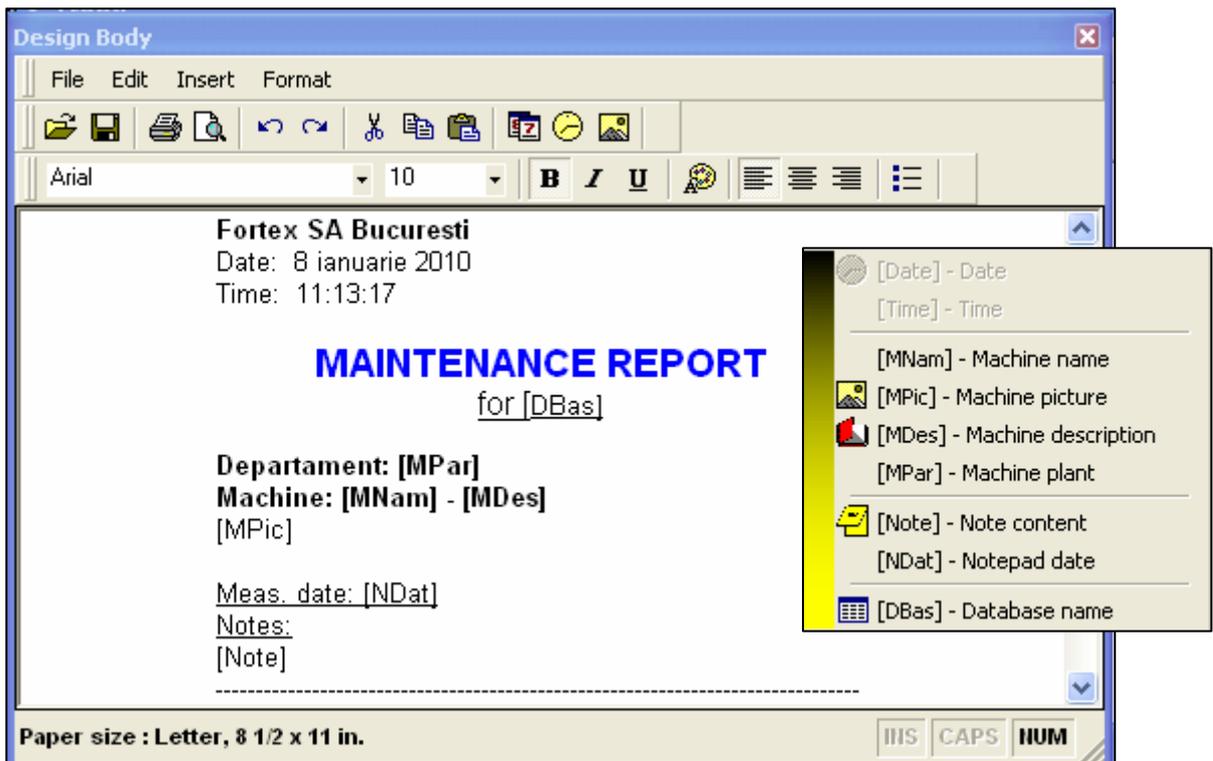
The latest content of the header will be automatically saved for the next usage.

If you want to have more than one type of header, you will have to save the content into a file. In this way, you can customize as many header types as you want to.

Next time, you can restore the contents of the header from the saved file.

Pressing **Picture** from the toolbar, you can include a picture into your header (e.g. company logo). The **Header Edit** window shows the header to 1:1 scale, depending on your printer settings.

In a very similar manner you can customize the body. Press **Body**.



In the pop-up menu (activated with a right-click on the mouse) you have some reserved words, all included in square brackets. These reserved words will be replaced into the final report, according to the actual content of the database. In the **Job Report Body** you can add the following items:

[MPic] – Machine picture, defined in the **Database Edit**

[Note] – Contents of the last **Notepad** contents

[MPar] – Department name

[MName] – Machine name

[MDes] – Machine short description

[Ndat] - Last **Notepad** entry date

[DBAs] – Active **Database** name

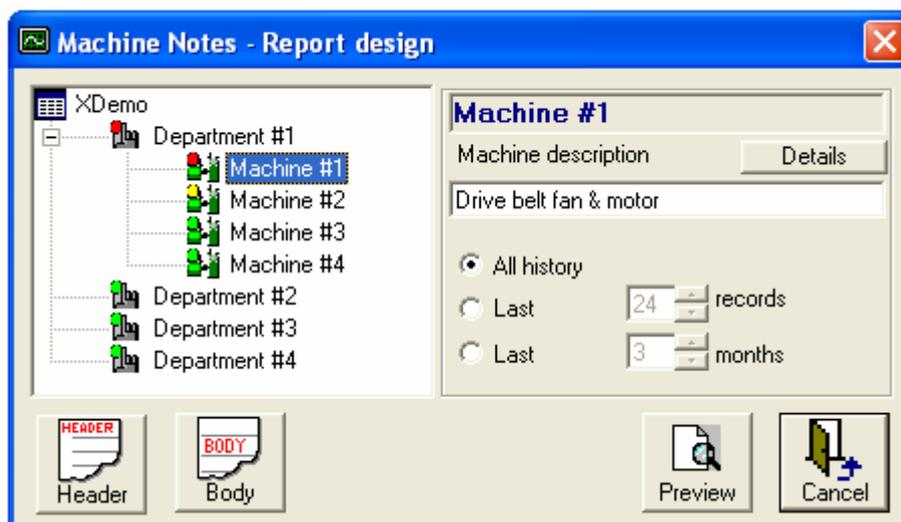
Before printing, you can edit the content of the notes. Use **Notepad** button, but first select the desired machine from the **Selected machine** list.

Finally press **Print** button and the **Report Preview** window will be activated.

See **Report Preview** for more details.

## 8.2. Machine History Report

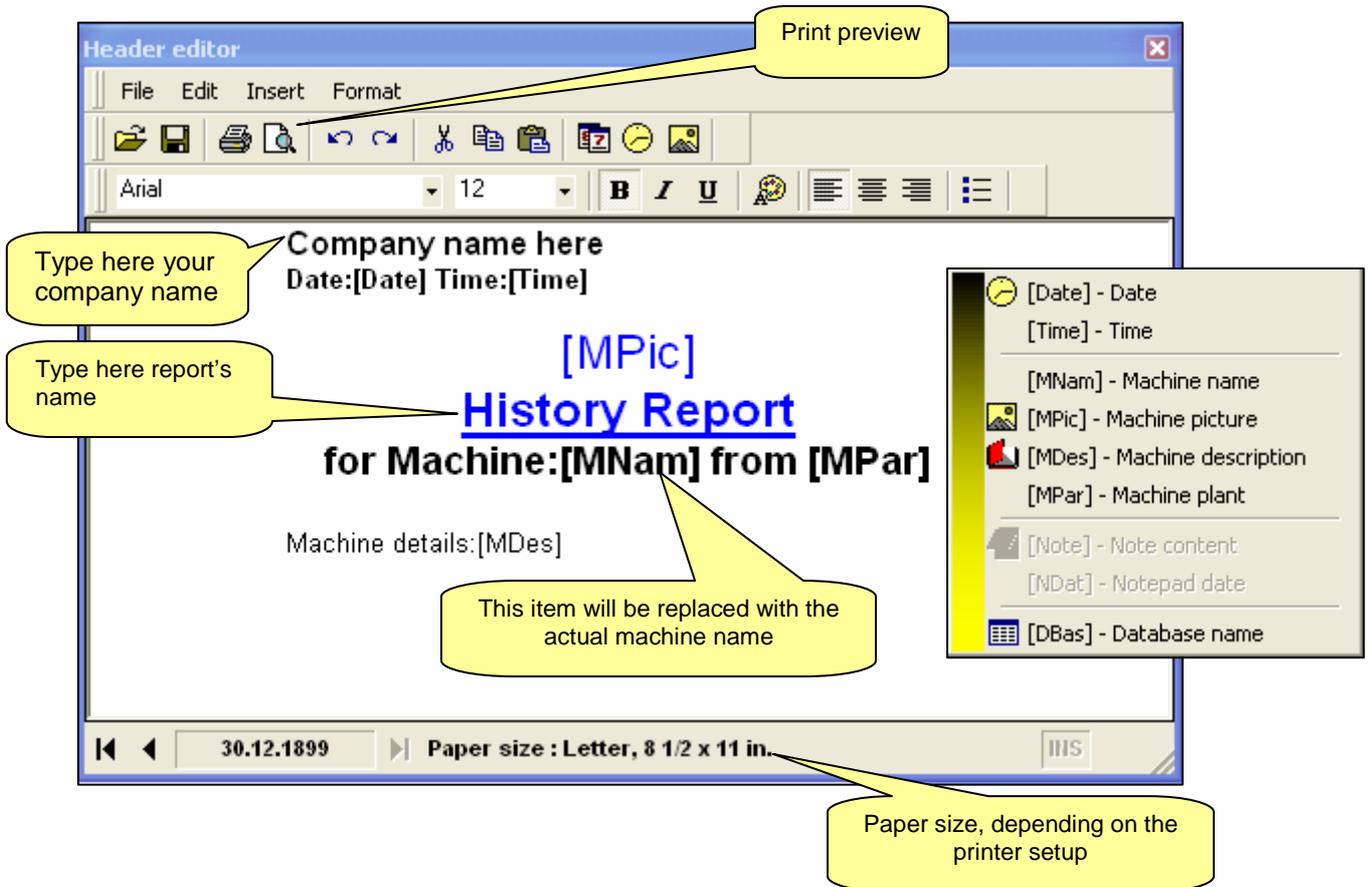
The Machine History Reports contain all the notes for a selected machine.



First select the desired machine and decide if you want a report with the whole history or a partial report.

Now, if you use the software for the first time, you must customize the header and the body of this report.

To edit the header, press **Header** button. A specific window will appear.



In the pop-up menu (activated with a right click on the mouse) you have some reserved words, all included in square brackets. These words will be replaced in the final report, according to the actual content of the database.

You can preview a sample of the header pressing the **Preview** button from the toolbar. The latest content of the header will be automatically saved for the next time.

If you want to have more than one type of header, you will have to save the content into a file. In this way you can customize how many header types you want.

Next time, you can restore from the saved file the content of the header.

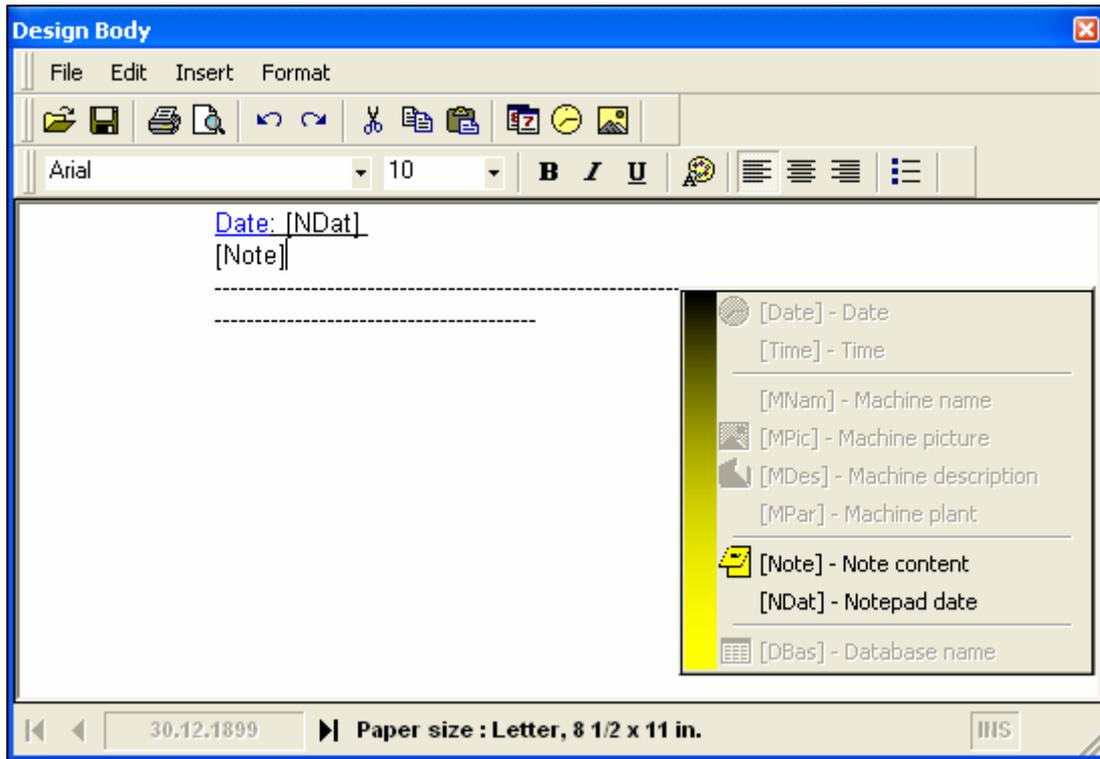
Pressing **Picture** button from the **Toolbar** you can include a picture in your header (e.g. company logo).

The **Header Edit** window shows the header to 1:1 scale, depending on your printer settings.

In a very similar manner you can customize the body. Press **Body**.

Finally press **Print** button and the **Report Preview** window will be activated.

See **Report Preview** more details.



### 8.3. Machine Description

The Machine Description report contains in the body the description of the selected machine. First select the desired machine.



Now, if you use the software for the first time, you must customize the header of this report.

To edit the header press the **Header** button. A specific window will appear. In the pop-up menu (activated with a right click on the mouse) you have some reserved words, all included in square brackets. These words will be replaced in the final report, according to the actual content of the database.

You can preview a sample of the header, just pressing the **Print** button from the **Toolbar**. The last content of the header will be automatically saved for the next time.

If you want to have more than one type of header, you will have to save the content into a file. In this way, you can customize how many header types you want.

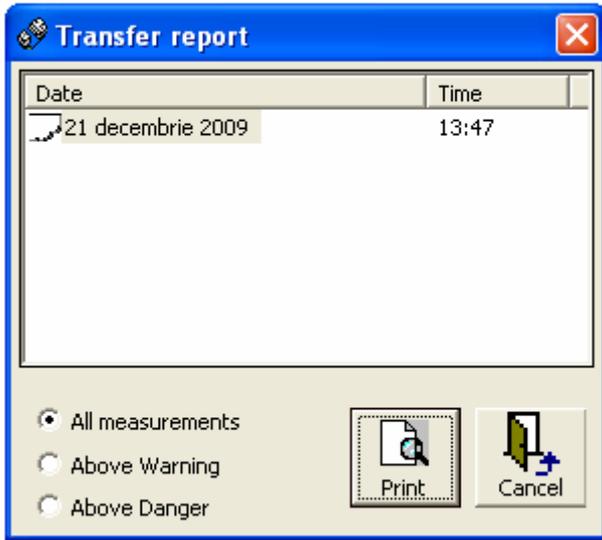
Next time, you can restore from the saved file the content of the header.

Pressing **Picture** button from the **Toolbar** you can include a picture in your header (e.g. company logo).

The **Header Edit** window shows the header to 1:1 scale, depending on your printer settings.

Finally press **Print** button and the **Report Preview** window will be activated.

### 8.4. Transfer Report



**Transfer report** can show any route that was transferred into the **X-Trend** database.

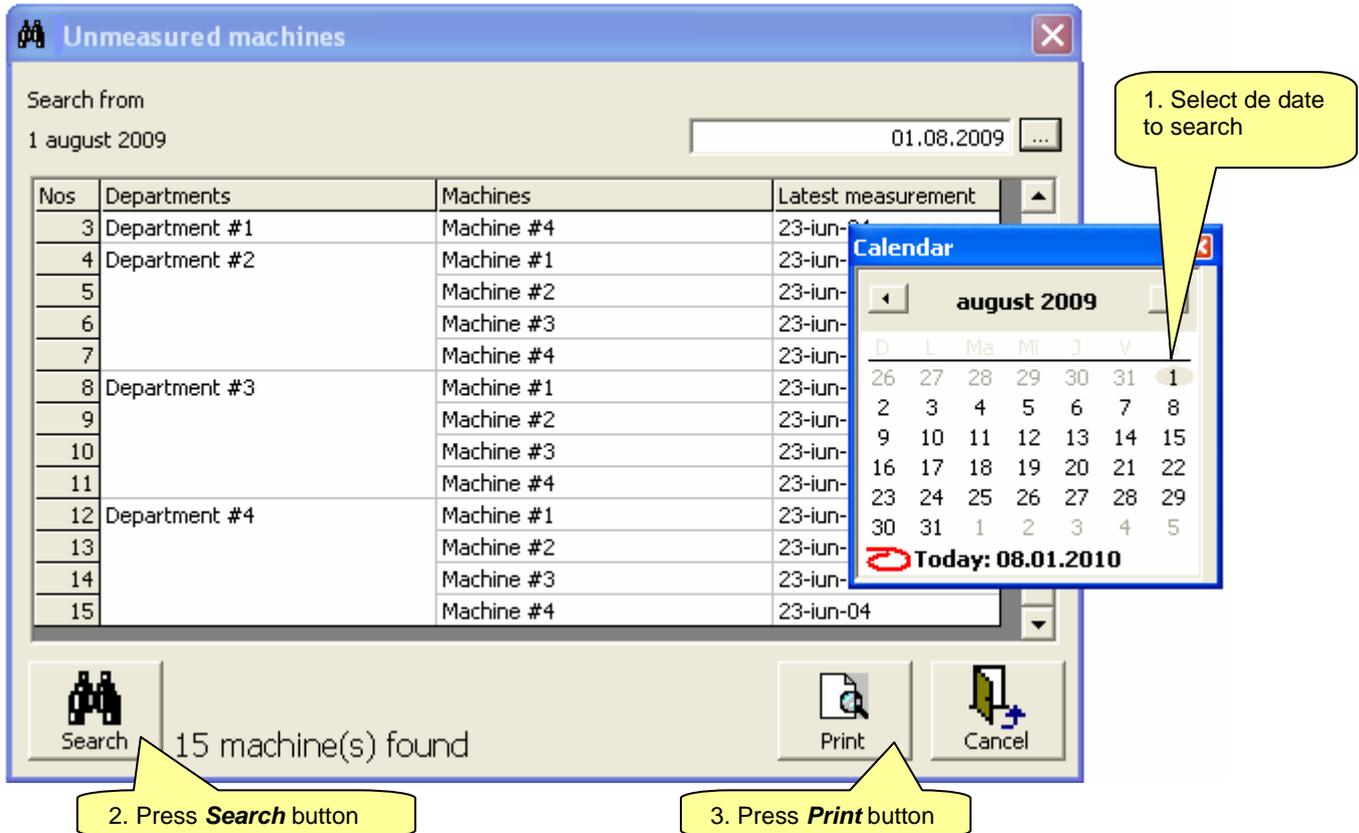
From the list, select the transfer date.

Select the option box and press **Print** button. The **Transfer report** can contain all measurements or just a selection, depending on the alarm conditions (**Above Warning** or **Above Danger**). The alarm limits are collected from the route settings.

When a set of measurements or a route is transferred from **X-Viber** into the machine database, a **Transfer report** will be automatically created. If the option **Automatic Alarm Report** is activated during the transfer, at the end, this report can be printed or preview immediately. Using this command you can print or preview last 30 **Transfer Reports**.

### 8.5. Unmeasured Machine Report

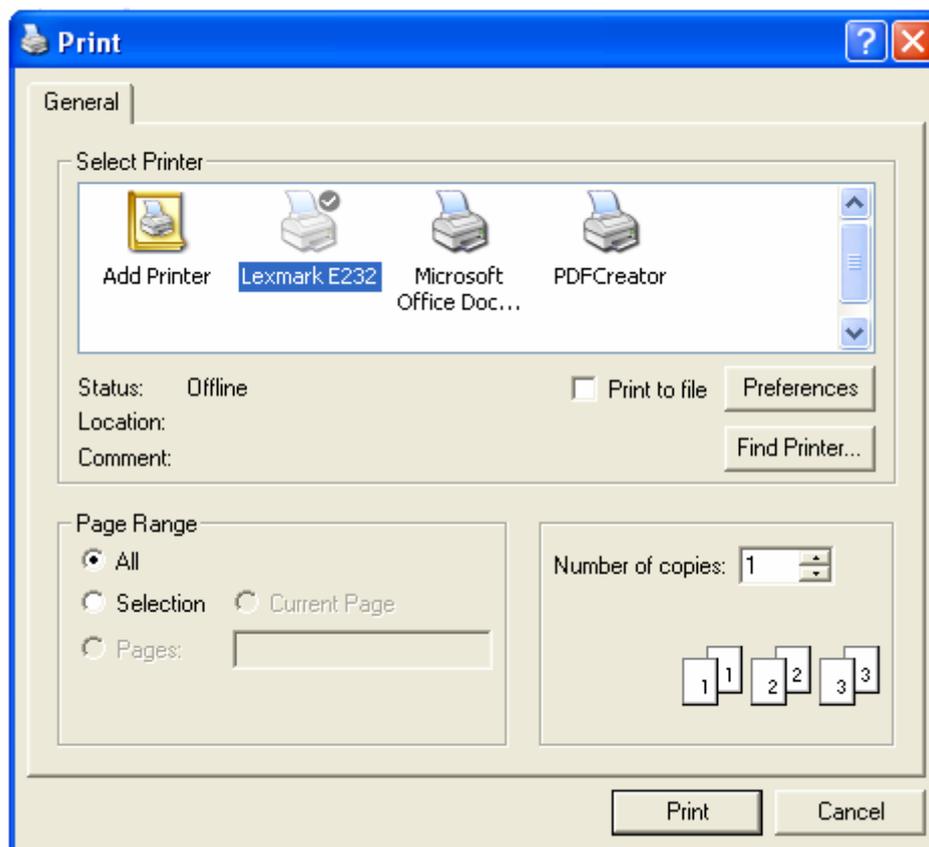
This report can be useful to find the unmeasured machines from a specific date. Select the date first and press **Search** button. The report will be displayed in the print preview window.



Using the information provided by this report, you can create a route with the unmeasured machines and you can load this route into the Instrument for data collection.

## 8.6. Printer setup

This command is used to configure the printer. This is the way to select a proper printer for your reports.

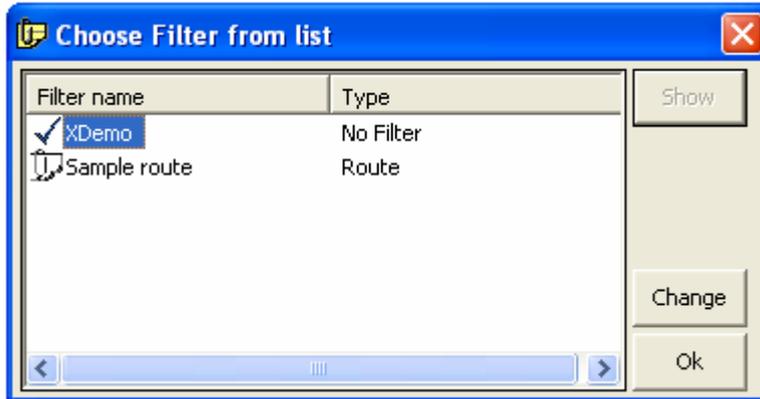


## 9. Settings

### 9.1 Set filter

To activate a filter in the active database, you have two choices:

- To execute **Set filter** command in the **Settings** menu
- Simply push **Filter** button in the **X-Trend** status bar.



In both cases, the **Filter Setting** window will appear:

As default, the whole machine database is selected. Now you can put a filter onto the database, selecting any previously defined route.

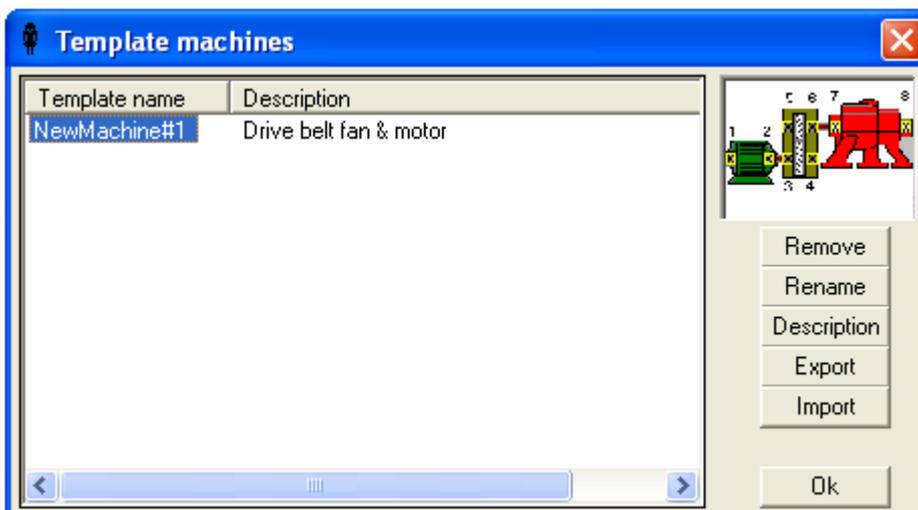
The filter will be now active for all **X-Trend** commands, excepting the **Database Edit** command and, of course, for the **Edit route** command.

The machines not included in the selected route won't be visible any more. To remove an existing filter, execute again the **Filter Setting** command and select the first item (whole database).

### 9.2 Template

When you copy a complete edited machine from the template database, you will want to change its name and maybe description.

This command allows you to make changes and to remove from the template database some machines. All the templates are located in the TEMPLATE.TPL file, placed in application directory.



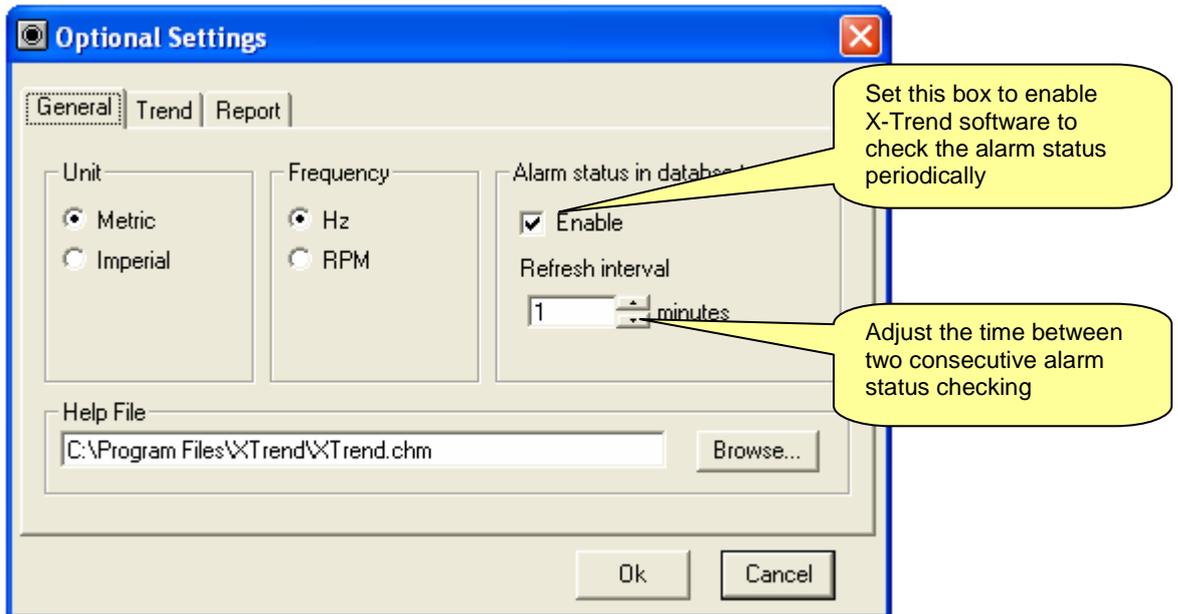
You can copy this database and distribute it for other users.

You can also import machines from other "Template" file or to export machines to an external "Template" file.

During export, you can create as much as "Template" files you need. All "Template" files will have the extension ".tp2".

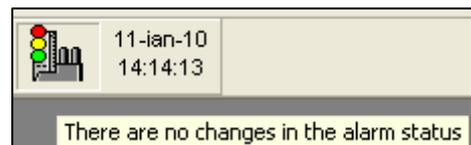
### 9.3. Optional settings

With this function you can customize your **X-Trend** software. In the **Optional Settings** windows you can select three different submenus, as follows:



**NOTE: The alarms are not automatically updated, but only the database is checked for new measurements!**

If new measurements exist in the database, the **Manual Update Alarm** button will be changed as follows:



If the mouse cursor is moved in the button area, the tool tip text will indicate, if the alarm update is required or not. If an alarm update is required, a manual update is necessary. Just press the button and the update procedure will begin.

**NOTE: For medium and large size machine databases, a complete updating procedure can take minutes. During the alarm update, the software is locked for the user. That's why a full automatic procedure can't be implemented.**

a) In **General** window you can select:

- **Measuring units:** imperial or metric units.
- **Frequency unit:** Hz or CPM
- **X-Trend help file.** In the installation kit a help file named **X-Trend.chm** is provided.

If you install the application with the default settings, help file's path is:

C:\Program files\X-TREND.CHM

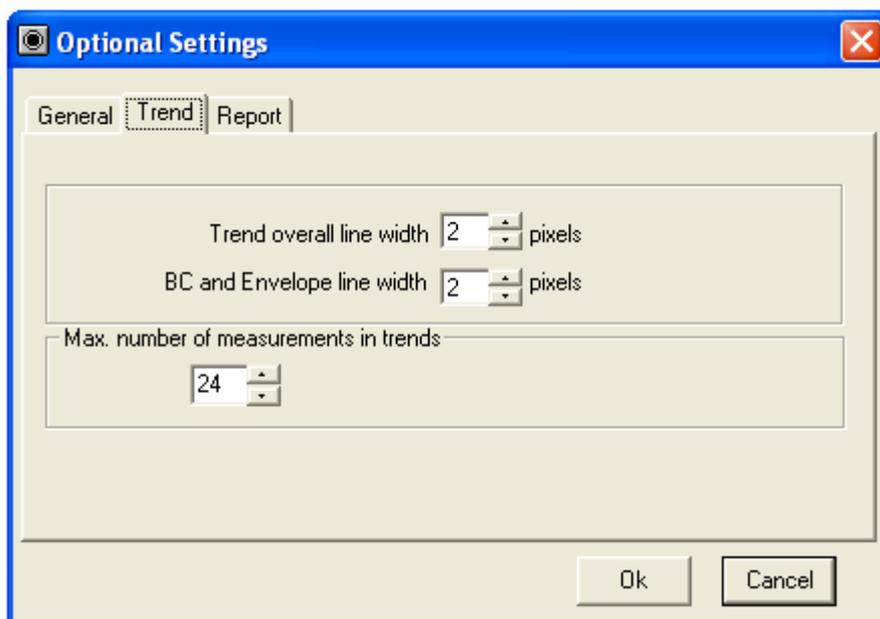
If you install the application into other directory, you have to change the path.

**NOTE.** Your Installation kit may also contain the **Help** file in other languages. All of them are named X-TRENDxxx.CHM, where xxx is the language (Ex. swe for Swedish language). You can rename the favorite help file with X-TREND.CHM, and delete all the other help files, to save the disk space.

If you select Imperial units for X-Trend, all the measurements will be automatically presented in Imperial units.

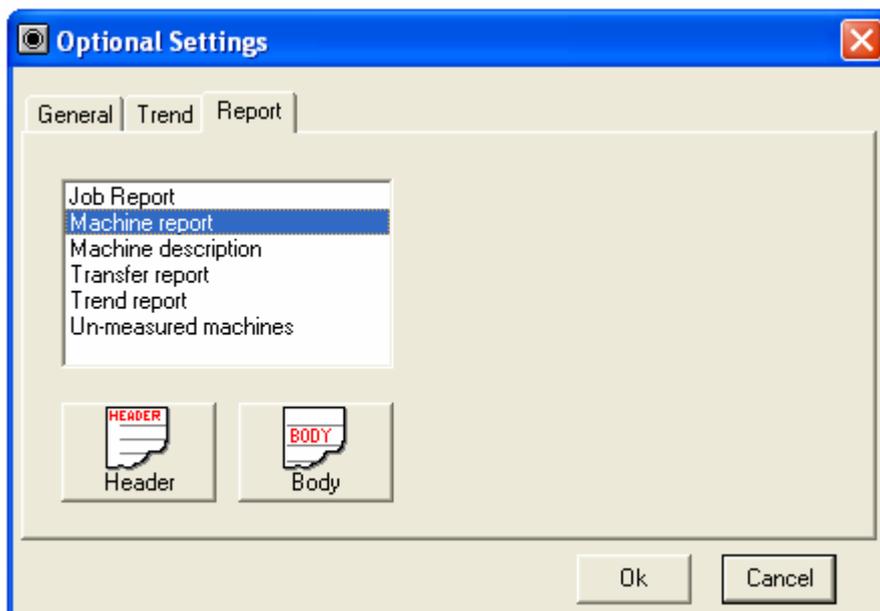
b) In the **Trend** window you can select:

- **Maximum number of measurements** in trend plots (default value: last 24 measurements plus the **base line**).
- **Trend Overall Line** width
- **Trend BC Line** width



c) In the **Report** window:

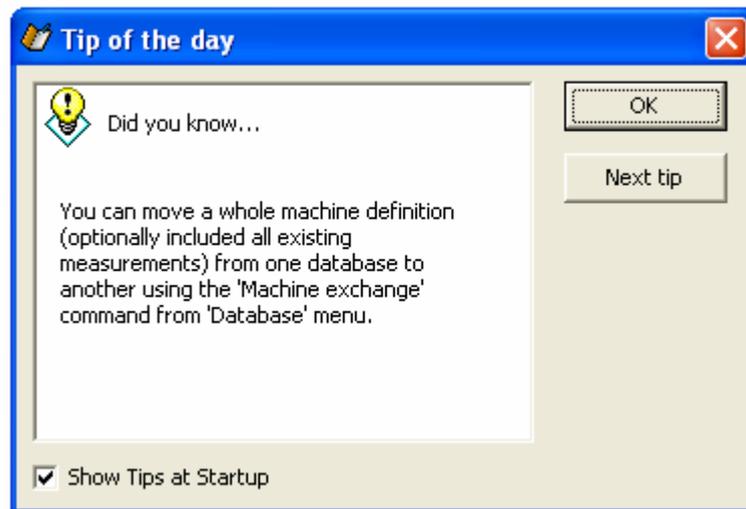
*Headers and Bodies* of the reports can be customizing by the user.



## 10. Help

### 10.1. Tip of the day

This command is used to find details regarding news in **X-Trend** software. The “tips” are updated each time when you activate the **Check for updates now** command. Each time when the **X-Trend** software starts the “Tips” window will appear. If you don't want this, just deselect the option **Show tips on startup**.

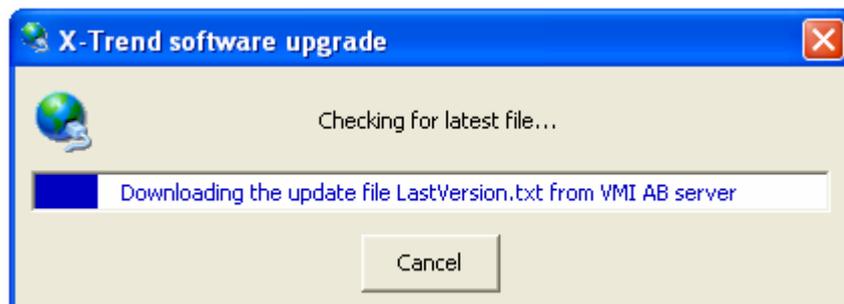


### 10.2. Check for updates now

This command is used when the user intend to update or upgrade the **X-Trend** or/and **X-Viber** software.

Your computer must be connected to Internet (a fast communication speed is recommended).

The latest available version of the software will be downloaded. The download procedure can take a long time, depending on the internet communication speed.



### 10.3. Activation code list

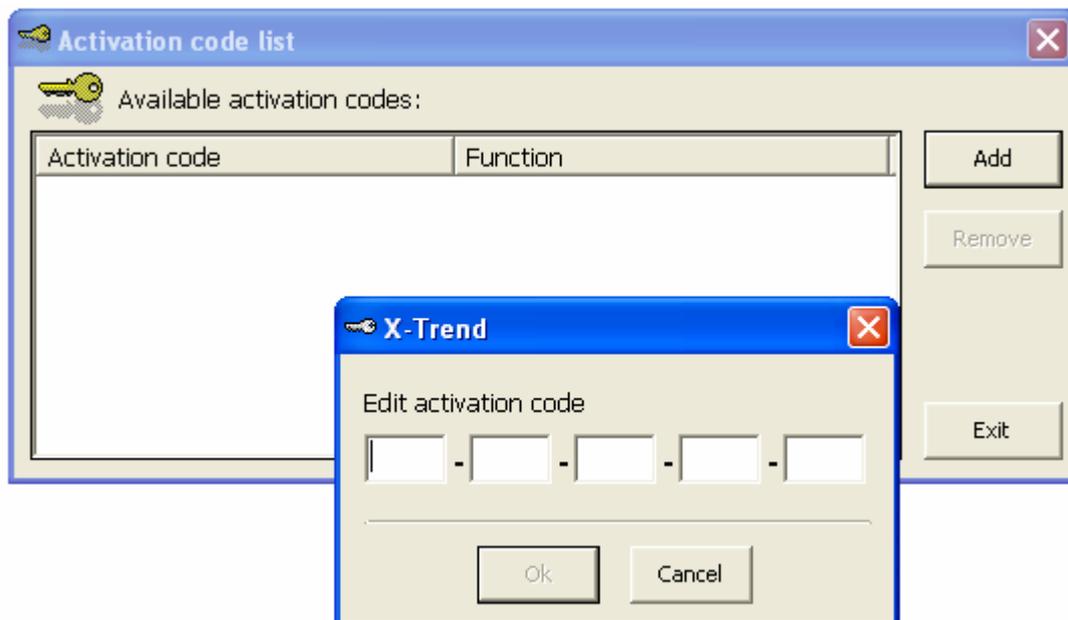
Using this command the user can add, in a list, a new activation code.

The purpose of the code is to activate some optionally functions in this software or in **X-Viber** instrument.

The producer (VMI AB SWEDEN) provides on requests the activation code. For a complete list of available functions, please contact VMI AB or visit their web site <http://www.vmiab.com/>.

Activation instructions:

- Add the received code(s) in the list one by one, using **Add** button.
- Close the **Activation code list** window when finish.
- Attach the **X-Viber** instrument to the PC using USB cable, start the instrument and select **Communication** menu from the **Main menu**.
- In the **X-Trend** software select **Transfer > X-Viber** command, as usual.
- If the connection was properly established, the upgrading will be automatically done. An information message will show that the **X-Viber** upgrade facility was successfully done.
- Disconnect the **X-Viber** instrument and check if the new functions can be used on it!



## 11. X-Trend translation

**X-Trend** is multilingual software. The entire program message is stored in **Message.mdb** file, a **Microsoft Access** database.

In order to have an **X-Trend** version in a specific language, the entire database must be translated.

When you install the **X-Trend**, some additional executable files are automatically installed. To translate the software, just run **Start > Programs > X-Trend > Translate message**.

1. Type your language in any empty text box

2. Type the language name here

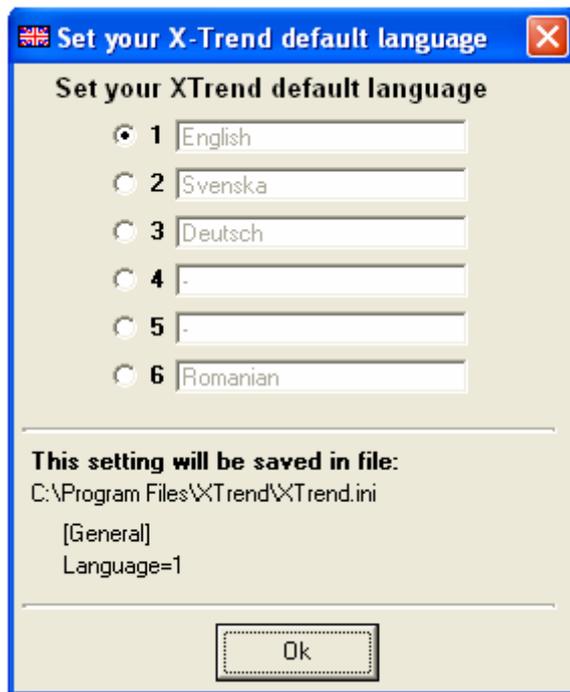
3. Translate all messages in your local language

No.	English	Svenska	Window description
1	English	Svenska	*
2	Reading database settings	Läser databasinställningar	*
3	Reading printer settings	Läser skrivare inställningar	*
4	Hz	Hz	*
5	RPM	RPM	*
6	Initializing program variables	Startar upp program variabler	*
7	Creating database settings	Skapar inställningar för databaser	*
8	Registering databases	Registrerar databaser	*
9	Open server connection	Öppna	*
10	Starting the program	Startar programmet	*
11	Read only	Skrivskyddad	*
12	Filter	Filter	*
13	No Filter	Inget filter	*
14	Database edit	Redigera databasen	*
15	Help	Hjälp	*
16	Exit	Avsluta	*
17	Notepad editor	Redigera anteckningar	*
18	Last Alarm status update	Senaste larm uppdateringen	*

First select any empty text box and fill it with your language. In the table nearby complete the item 1 with your language (can be typed in your local language). Now begins the translation. Be careful, in English all the messages are shorter than in the majority of all the other languages!

If you don't fully understand how to translate some sentences, just skip the rows. You may do this later. When you finish, close the translation window. Your work will be saved in the MessagePro.mdb file.

If you update the **X-Trend** with a new **Service Pack**, don't worry. The **Service Pack** will not delete your translation file, but it will add the newest words or sentences (in English). Just run again the **Translation** software and translate the latest messages.



When you close the **Translation** software the window above will appear:

Your language will appear in the translation list. Just select your language in the list and next time, when you will start the **X-Trend**, all the message will appear in your language.

The last language is saved in the X-TREND.ini file, as shown above.

If some messages are not translated, you have the possibility to do this when the **X-Trend** software is running.

The [X-TREND.INI](#) configuration file is created at once after installation, when first running the program. It contains a series of general constants of the program, which can be cautiously modified by the user.

*Legend*

*[General]*

*Language=1 1=English, etc..*

*MessagePro=E:\X-TREND\MessageXT.mdb*

*TranslateMode=0*

*; TranslateMode=0 Untranslated message will be shown in English*

*; TranslateMode=1 Untranslated message will be shown like #NoMessage = Message in English*

*; TranslateMode=2 Untranslated message can be edited on fly*

*HelpFile=E:\X-TREND\X-Trend.chm*

*[Trends]*

*Buffer=24*

*OverallLineWidth=2*

*BCLineWidth=2*

You can edit [X-TREND.INI](#) temporary file to change the manner of doing translation:

- If you set *Translate Mode=1*, untranslated messages will be shown as:

*#NoMessage = Message in English*

- If you set *Translate Mode=2*, you have the possibility to translate messages "on fly". Untranslated messages will appear in a window. If there are too many untranslated messages, don't use this mode, because it will keep you busy too long.