MAP Check 3 PC Software

User Guide EN

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Fresh Thinking

MAP Check 3 PC Software

User Guide

EN

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1. Introduction

About this Manual

Intended Use of this Manual

- This manual describes the common use of the **MAP Check 3 PC Software**.
  It is intended for the daily users and should be kept with the equipment for reference at all times.

Reservations

- This manual was written and illustrated using the best possible information available at the time of publication.
- Any differences between this manual and the software reflect improvements introduced after the publication of the manual.
- Changes, technical inaccuracies and typographic errors will be corrected in subsequent editions.
- As a part of our policy of continuous improvement, we reserve the right to alter design and specifications without further notice.

Important!

Safety and Use

To promote safety awareness you must read and understand the **Safety Instructions** delivered with the **MAP Check 3** device before performing any installation, operation or maintenance of the device.

Notes, cautions and warnings!

Throughout the manual notes, cautions, and warnings are indicated with various icons and written in bold like the example below:

CAUTION! Always replace a fuse with one of the same size and rating.

Explanation

NOTE! The operator should observe and/or act according to the information in order to obtain the best possible function of the equipment.

CAUTION! The operator must observe and/or act according to the information in order to avoid any mechanical or electrical damage to the equipment.

WARNING! The operator must observe and/or act according to the information in order to avoid any personnel injury.

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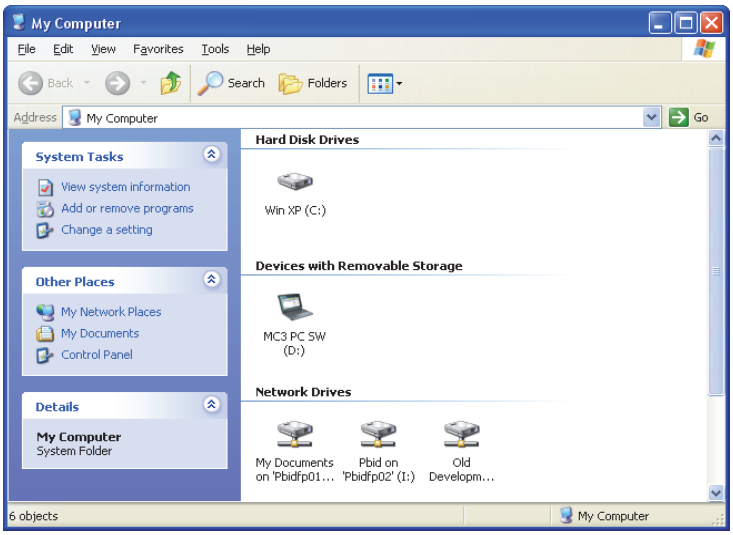
2. Installation of the Software

IMPORTANT! Please read the terms and conditions of the software license agreement on page 35 carefully before installation.

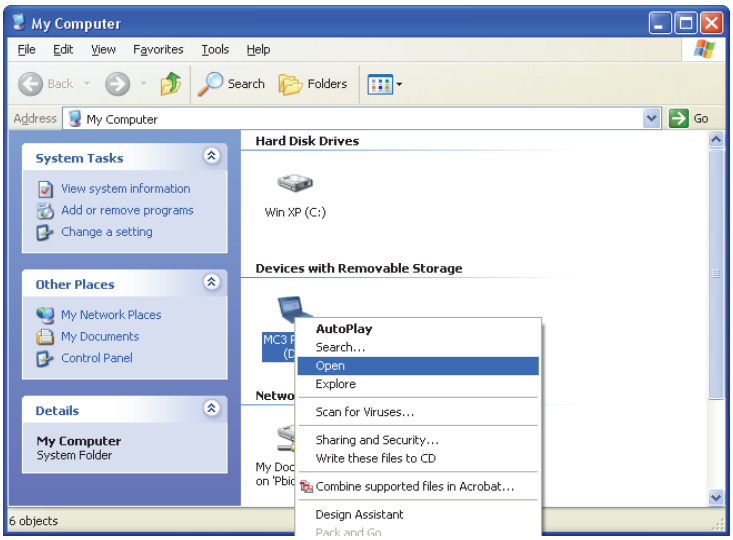
IMPORTANT! Install the software before the MAP Check 3 device is connected to the PC as it includes necessary device drivers.

NOTE! Earlier versions of the program must be removed prior to the installation. To remove program select Control Panel -> Add/Remove Programs -> MAP Check 3 PC Software. Please note that database files will not be deleted automatically when uninstalling the program. To do so delete all files in the following folder: C:\Program Files\PBI-Dansensor\Mc3PcApp\Database

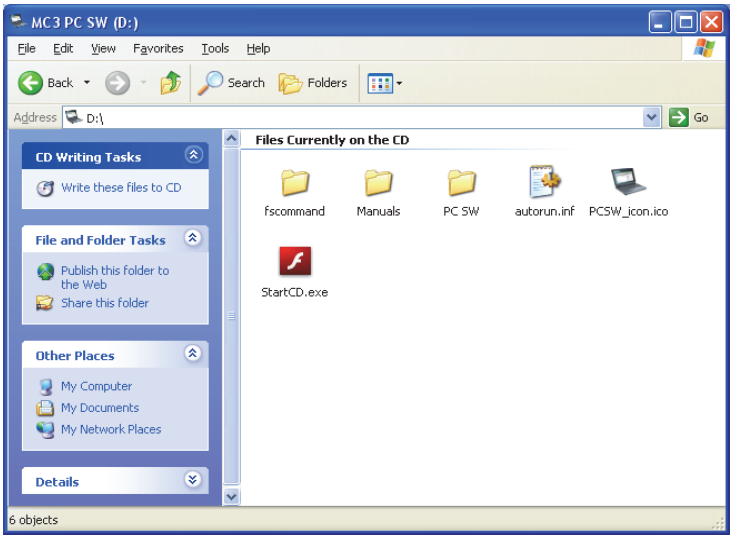
- The installation CD starts automatically when inserted in the PC's CD drive.
  If not it can be started manually following the below procedure:
  - From your computer's desktop open **My Computer**.



- In the appearing window locate the CD drive (labelled MAP Check 3), right-click the icon...



...and from the appearing drop-down menu select **Open**.

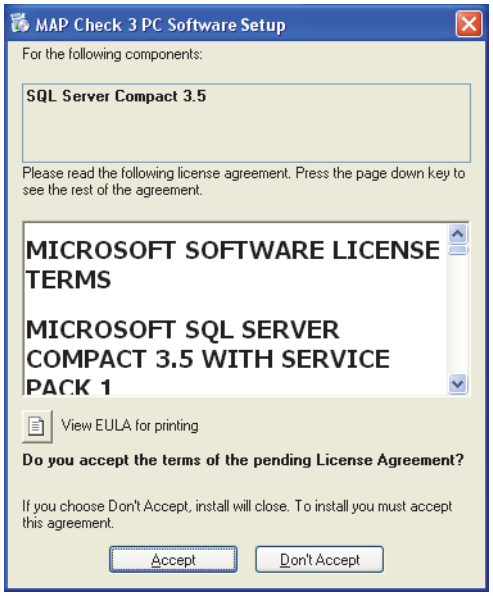


- Locate the file **StartCD.exe** and double-click it.

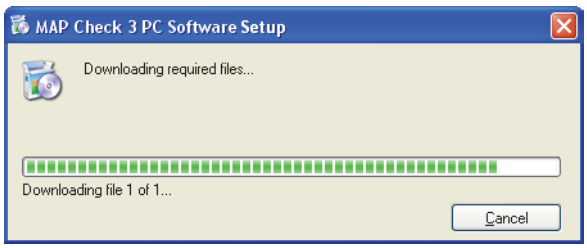
- This will open the special application from where you can install the software and print a user guide.

- Click on the START button and then follow the directions to start the software installation.

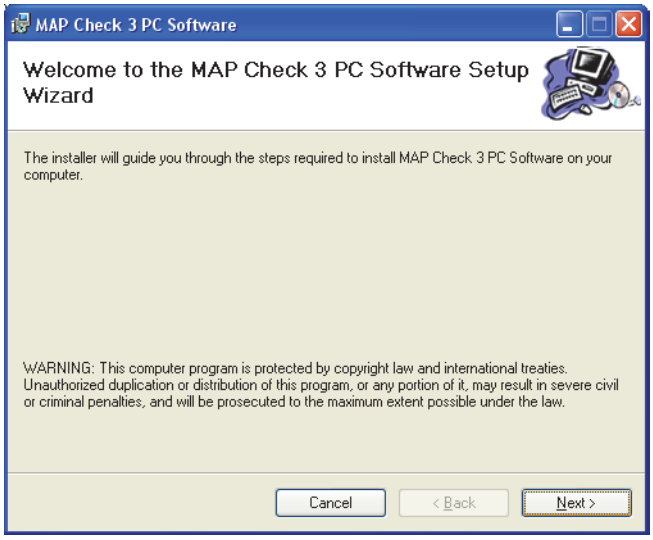
- When installation starts...



- Click **Accept** and wait.

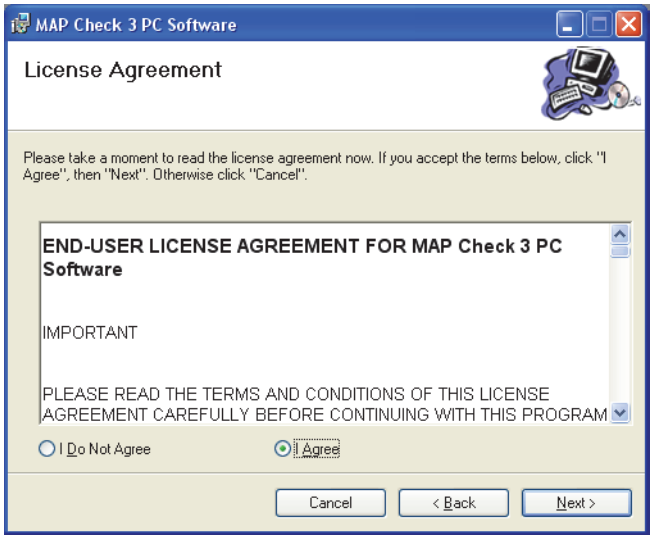


- When the following screen appears...



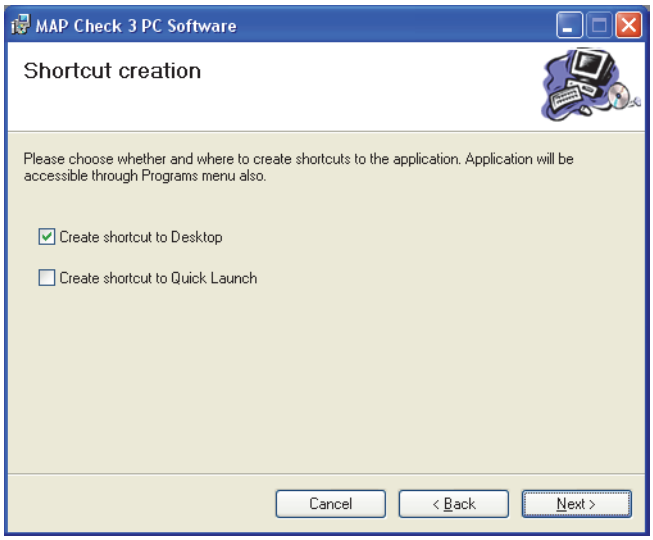
...click **Next** to start the installation.

- In the appearing **License Agreement** window...



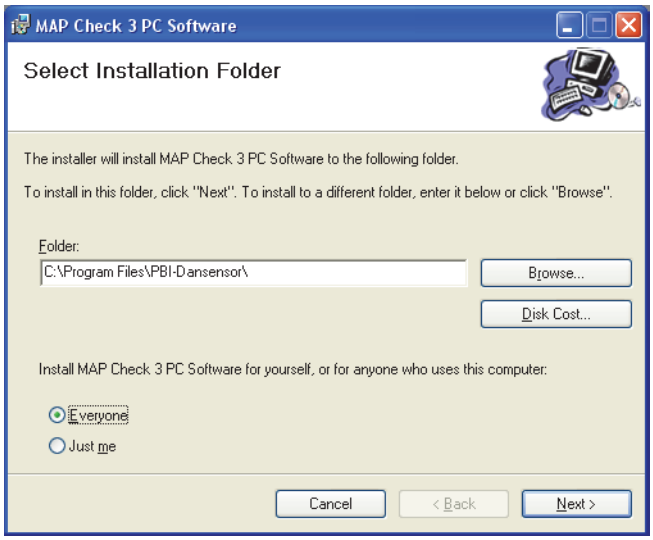
...click **I Agree** to accept the license agreement and then click **Next**.

- In the **Shortcut creation** window...

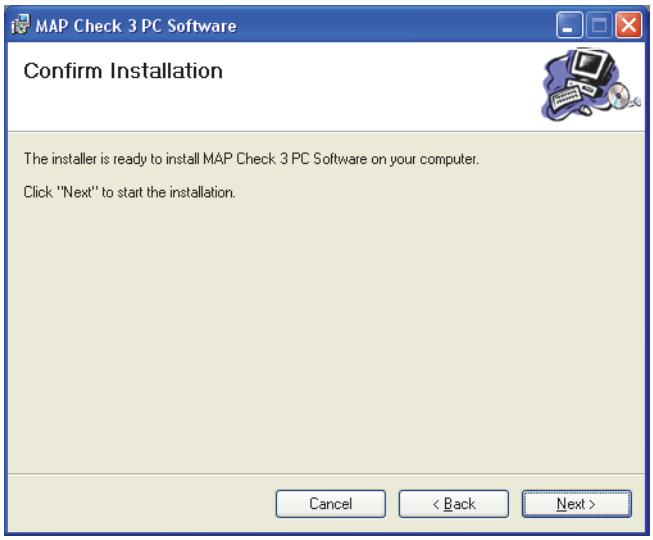


...select your preferred shortcut and click **Next**.

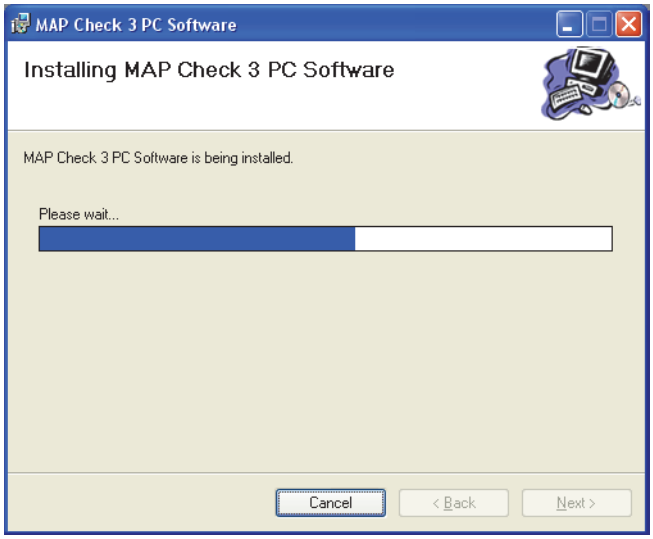
- We recommend that you install the program in the folder proposed by the installer.

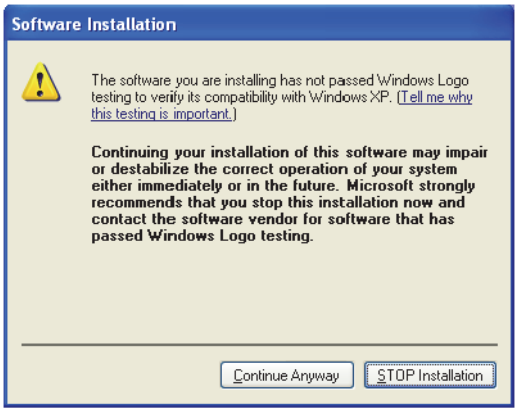


Click **Next**.



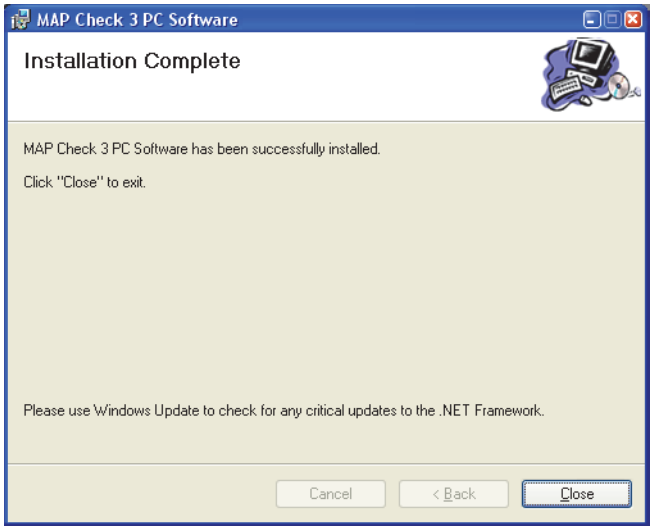
- Click **Next** to start the installation.





- Click **Continue Anyway**.

- When this window appears...

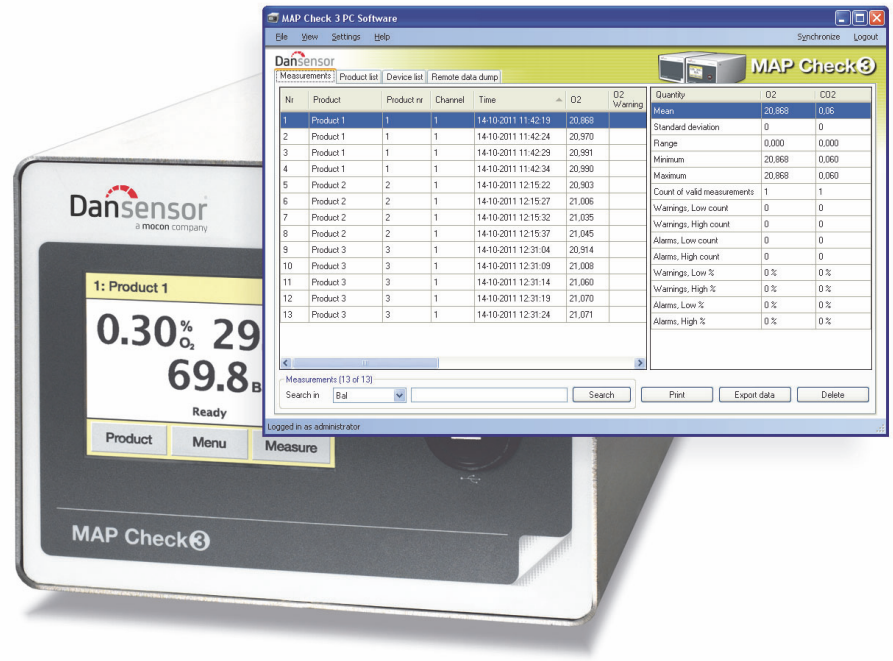


...click **Close**.

- The software has been successfully installed.
- Verify that an application short-cut has been placed on your desktop (if selected during installation).

3. Using the Software

General



The easy-to-use **MAP Check 3 PC Software** enables the control of several MAP Check 3 units in a production environment.

The PC software makes it easy to create and manage products, to set up product measurement details and to monitor general device settings.

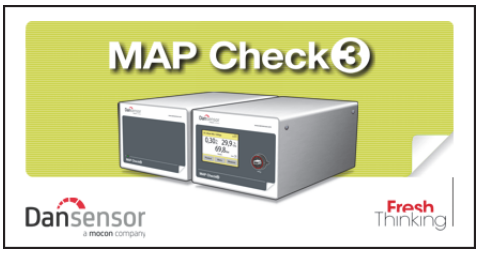
During the day all measurement data can continuously be transferred from the analyzer to the application's database and at the end of the day all collected data can be exported for further analysis.

The following issues are described in this section:

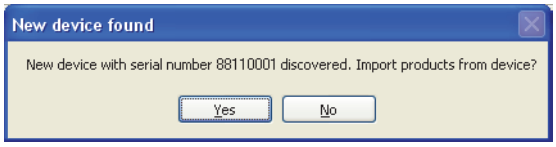
- PC User/Login setup
- Device setup
- Products setup
- Management of measurement data
- Database maintenance

Starting the application

To start the application simply double-click the **MAP Check 3 PC Software** icon on your desktop or select **Start -> All Programs -> PBI-Dansensor -> MAP Check 3 PC Software**.



The application starts and if a **MAP Check 3** device has been connected the following message will appear:

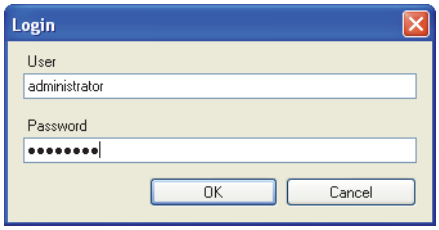


Click **Yes** to start synchronization.

Login

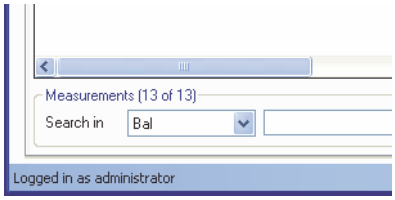
To be able to perform any changes to the device settings, product setup or user setup, you must be logged in.
The default user must be used the first time at login. The default user has the following login properties:
User: **administrator**
Password: **password**

To log in click **Login** in the upper right hand corner. In the appearing login window...



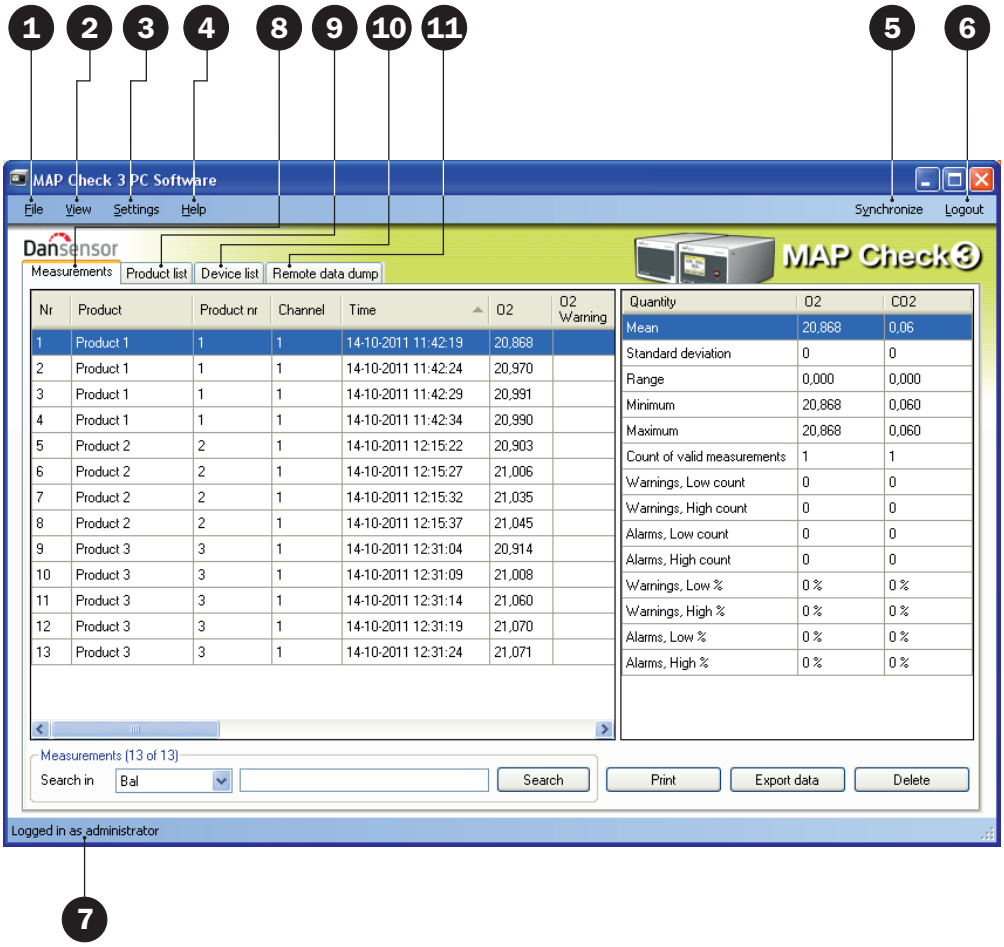
...enter the required **User** and **Password** and click **OK**.

As indicated in the application's lower left corner you are now logged in as **administrator.**



Now you are able to create one or more new users and set up different user rights if required. See "Application User Management" on page 21 for details.

Application Overview



1 File

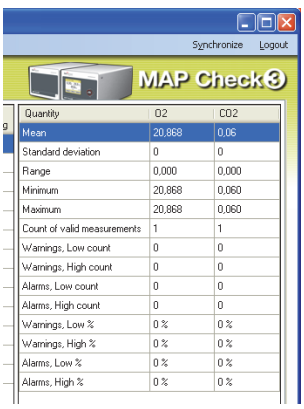
The **File** menu holds the following item:

Exit Closes the application.

2 View

The **View** menu holds the following item:

Show measurements statistics **Select if you want to** show measurement statistics at the right side of the screen while working on the **Measurements** tab.



❸ Settings

The **Settings** menu holds the following entries:

Language

Select application language.

Options

User login setup...
Create PC application users and set up different rights if required.
See "Application User Management" on page 21 for details.

Database setup...
Selection of database containing measurement data.
Either local database (default) or external SQL server.
See "Database Management" on page 24 for details on back-up of databases.

Flow unit
Select flow read-out unit (l/min or SCFH)

Pressure unit
Select pressure read-out unit (bar or psi)

Remote data dump

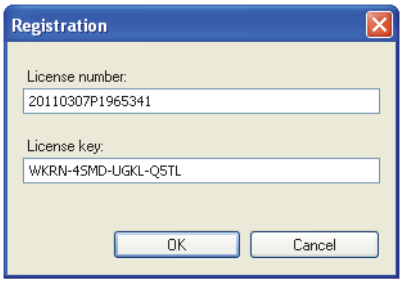
Run server on application startup
Select whether or not you want the **Remote data dump** function to start up automatically when launching the application. See "Remote Data Dump Function" on page 33 for details.

❹ Help

The **Help** menu holds the following entries:

Register

After installation the program is valid for 30 days free of charge. At the end of the evaluation period the **Registration** window will appear.



To register enter **License number** and **License key** and press **OK**.

NOTE! Using the application beyond the evaluation period will not be possible.

NOTE! Be careful to distinguish between 0 (zero) and O (capital o) when entering License number and License key and to enter all - (hyphens) as well.

About

Displays the currently installed version of the software.

❺ Synchronize

Synchronization of the data on the currently selected tab with the connected device(s)
See "Data Synchronization" on page 20 for details.

❻ Login/Logout

Log in to the application to be able to perform any changes to the device settings or the product or user setups.

To change user first click **Logout** and then **Login** again.

❼ Not logged in/Logged in as...

Display of current login status.

❽ Measurements tab

Managing of measurement data - see "Measurement Data" on page 25 for details.

❾ Product list tab

Managing of products - see "Product Setup" on page 29 for details.

❿ Device list tab

Overview of and information about currently and previously connected devices - see "Device list" on page 31 for details.

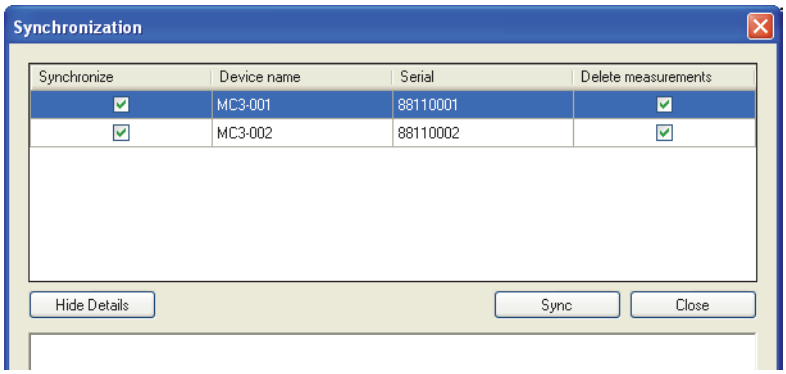
⓫ Remote data dump tab

Make settings for the **Remote data dump** function - see "Remote Data Dump Function" on page 33 for details.

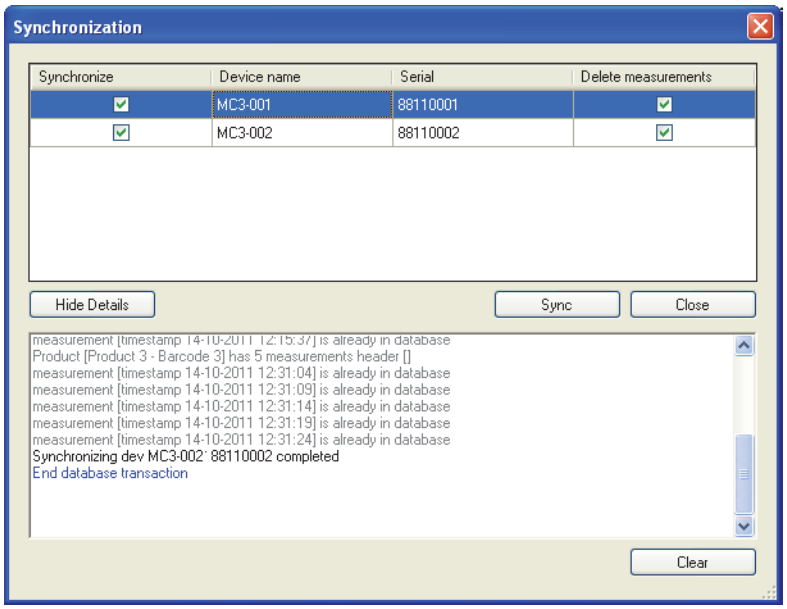
Data Synchronization

You can manually synchronize all data with any of the connected devices.
To do so follow procedure below:

- Click **Synchronize** in the upper right hand corner.
  The **Synchronization** window will appear.



- The connected devices are shown with **Device name** and **Serial** number.
- In the **Synchronize** column select device(s) for which you want to perform the synchronization.
- In the **Delete measurements** column select whether or not you want to delete synchronized data from the currently selected device(s) after upload to the application.
- Click **Sync**.



- When synchronization has finished click **Close.**

NOTE! The PC software is the master. During synchronization any products differences will be overwritten on the devic(es).

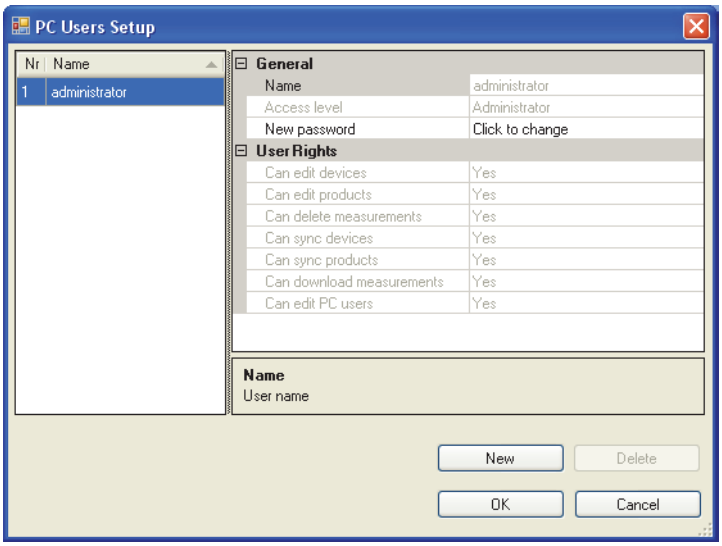
Application User Management

Several users can be created with various levels of application access rights.
The default user must be used the first time at login - see "Login" on page 16 for details.

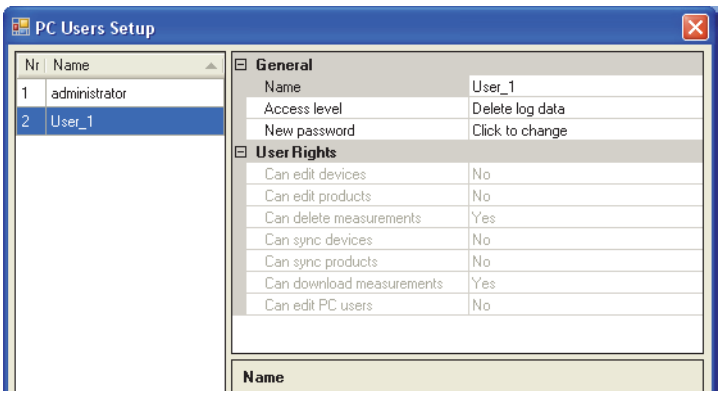
Create User

To create a new user and set up the respective user rights do the following:

1. Select **Settings -> Options -> User login setup...**
   This will open the **PC Users Setup** window.

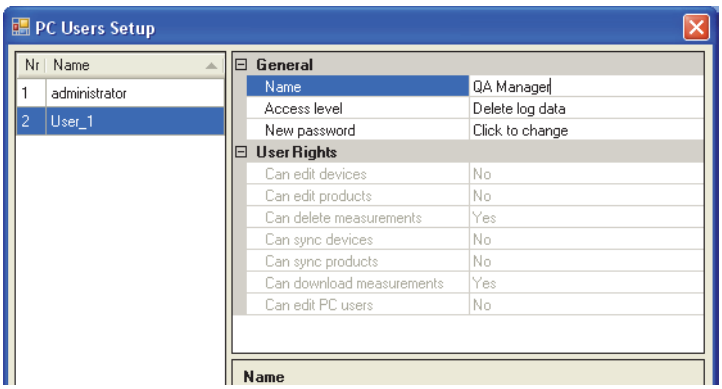


2. Click **New** to create a new user.

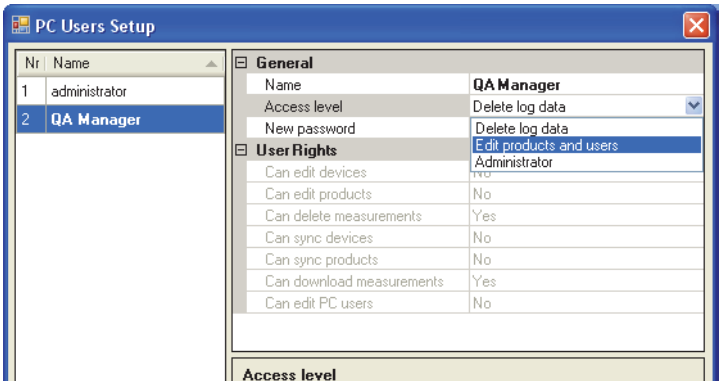


A new user named **User_X** will be added to the users list.

3. To edit user's name place cursor in the **Name** field and change name to ex. **QA Manager**.



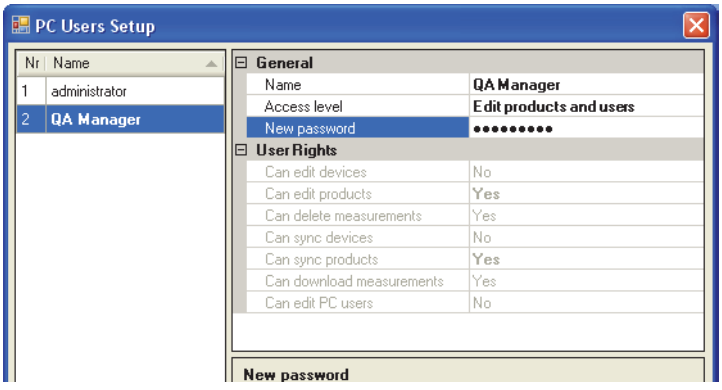
4. Select user's access rights using the **Access level** drop-down menu, ex. **Edit products and users**.



The corresponding user rights are listed in the **User Rights** section.

5. To create password click **Click to change** in the **New password** field.

Enter password information as required and click **OK**.

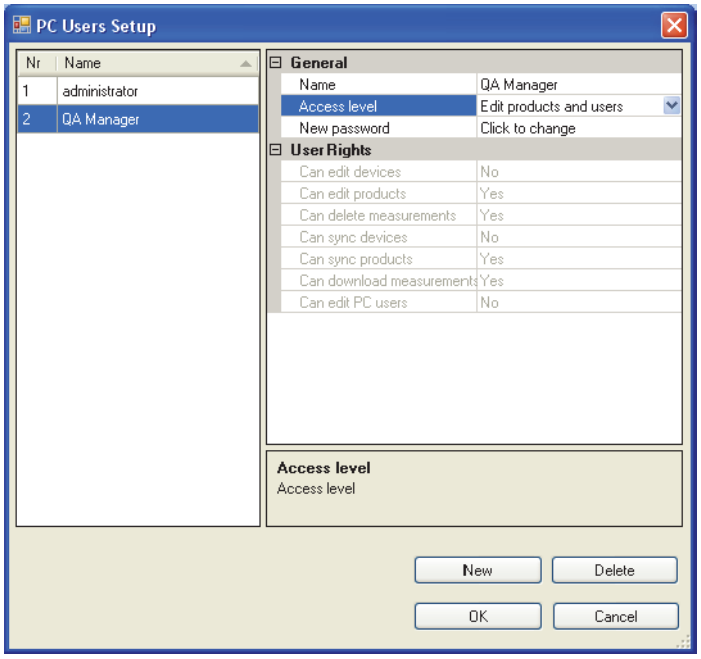


6. Click **OK** to close window.

Edit/Delete User

To edit a user's settings do the following:

- Select **Settings -> Options -> User login setup...**



- In the appearing **PC Users Setup** window select user in the user list and make required changes to the settings in the **General** section.
  Changes made to the **Access level** automatically changes the corresponding **User Rights**.
- To delete a user, simply select it in the user list and click **Delete**.

NOTE! User will be deleted at once, you will not be asked to confirm.

- When finished click **OK** to close window.

Database Management

The default installation of the **MAP Check 3 PC** software also creates databases needed for the program to run properly.
The databases are located in the program installation folder in a sub folder named **Database**.

The databases are separated into two files:

Configuration This file contains the program settings, product data, user data and device information. It is possible to copy this file to another PC with **MAP Check 3 PC Software** installed to have the same settings (not shared).

Measurements This file contains all measurements captured by the program. This database can be selected for location on an existing SQL server if available on the network. This way the measurements can be backed up centrally by the SQL server manager.

Using external SQL server

When using external SQL server, you need to enter the following:

- "Server"; the program browses for servers in the LAN. Select your server.
- "Database"; select the name of the Database on server to use (must be created by server admin), the program automatically creates needed tables.
- Select authentication method; either "Windows authentication" or enter logon details for server.

You must have login rights to the SQL server. Use "Connection Test" to verify connection. It is ONLY measurement data that are stored on SQL server, other settings are stored on PC.

Backup of Databases

NOTE! This should only be done by personnel familiar with Windows PC file copying.

- Close application before proceeding.
- Now use the **Windows Explorer** to browse to the **Database** folder in the program installation folder.
- Copy the 2 database files to a safe location on your network for backup purposes.

NOTE! If you have selected an external SQL server in Database settings, you can only backup the configuration database manually. The SQL server manager must ensure measurements database integrity by regular backups of the server.

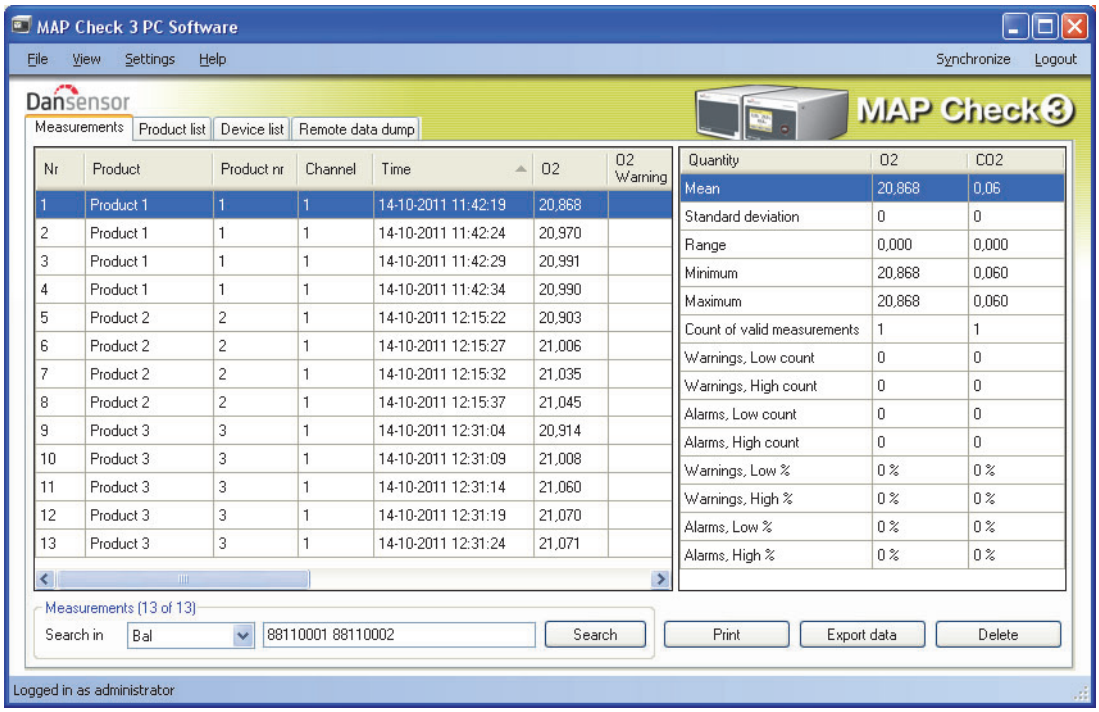
Restoring Databases

CAUTION! This should only be done by personnel familiar with Windows PC file copying, as wrong operation may lead to data loss.

- Close application before proceeding.
- To restore the database(s), simply copy the database files from your backup location into the installation folder's **Database** folder.
- Restarting the application will load the restored data files.

Measurement Data

The collection of measurement data can be viewed on the **Measurements** tab.



All measurement data downloaded from all connected devices is listed here.

Searching Data

With the **Search** function at the bottom you can search in all fields.

When searching please note the following:

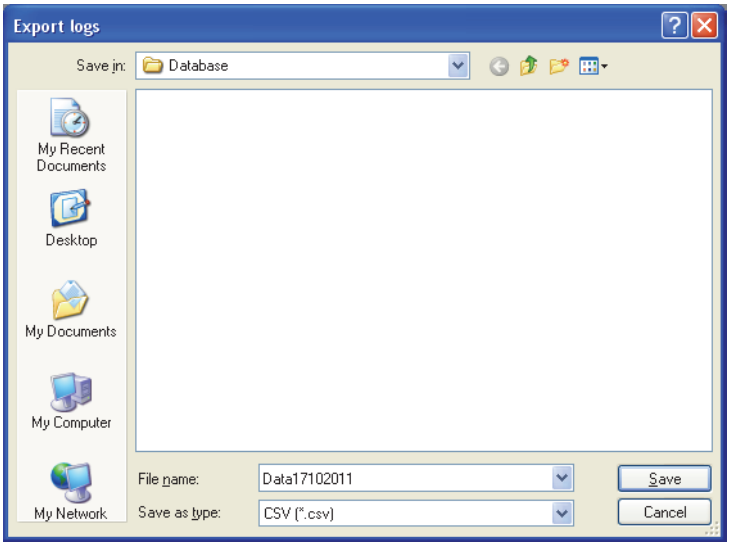
- First select which field to search in from the **Search in** drop down list, ex. **Product**.
- Use "*****" as wildcard when searching, otherwise you will have to write the exact contents of the field.
  When entering ex. "**s***" in the search field you will get a list of all products starting with **s**.
  When entering "***s***" in the search field you will get a list of products with an **s** anywhere in the name.
  Please note that the search function is not case sensitive.

Exporting Data

You can export selected data to a comma separated file (*.csv).

To export data do the following:

1. Select data to be exported from the list and click **Export data**.
2. The **Export logs** dialog window appears showing the folder **Database** which is a sub folder in the application installation folder.

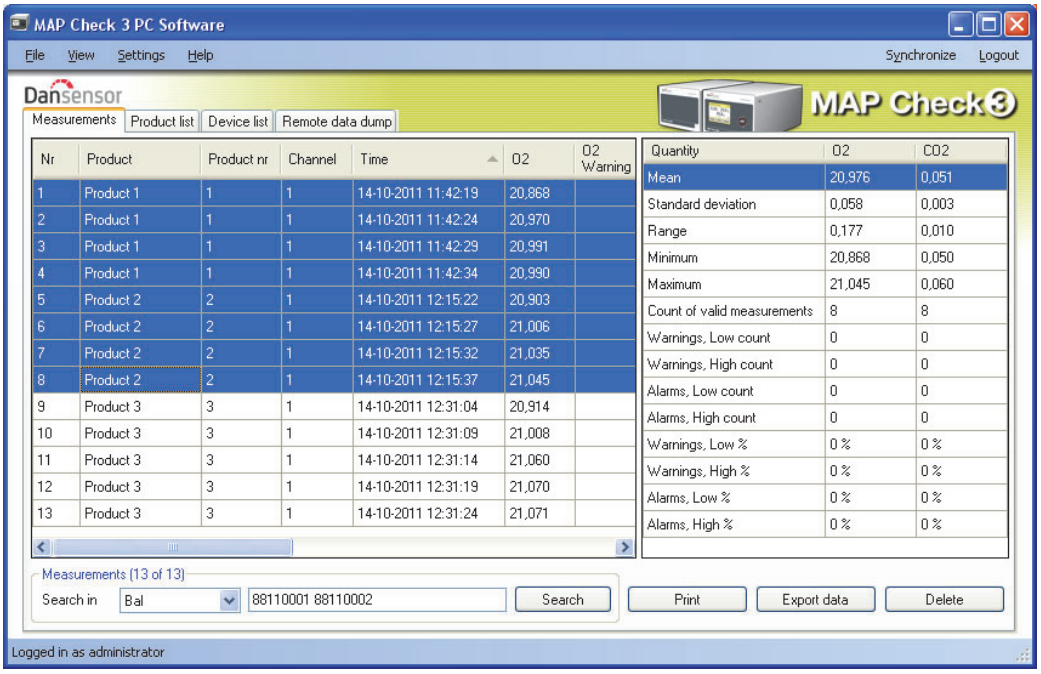


3. You can use this folder for your data files or select any other folder of your own choice.
4. Name the file in the **File name** field.
5. Select export format in the **Save as type** drop-down list.
6. Click **Save**.

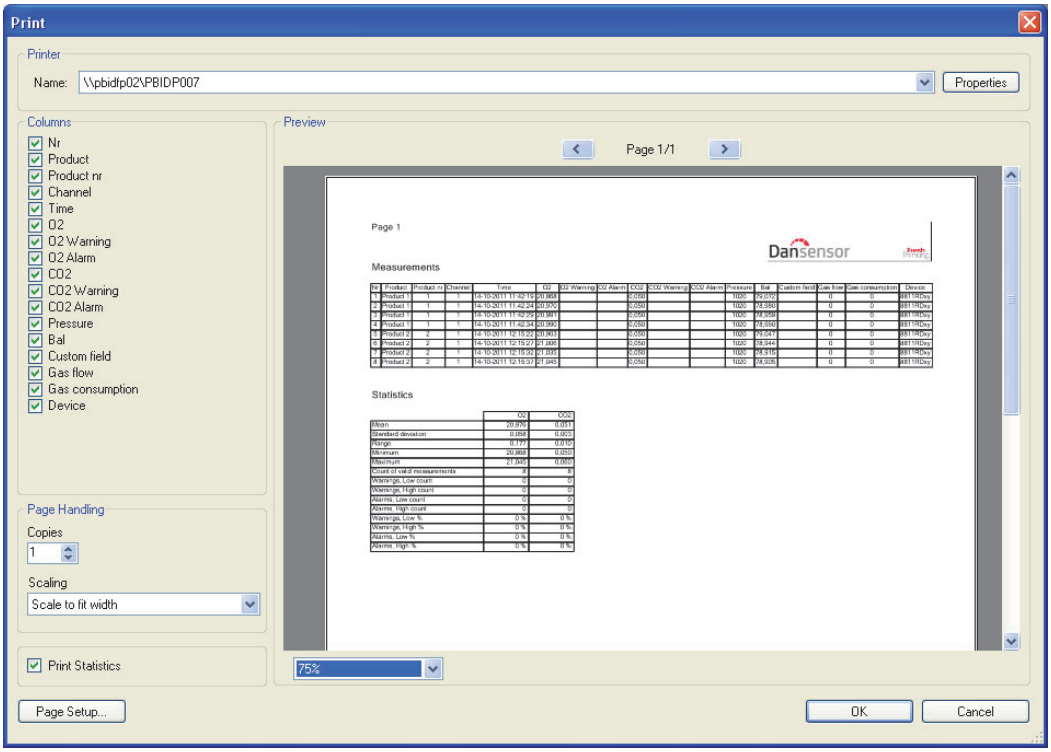
Printing Data

To print data do the following:

1. Select data to be printed from the list.



2. Click **Print**.
3. The **Print** preview window appears (this might take a few seconds).

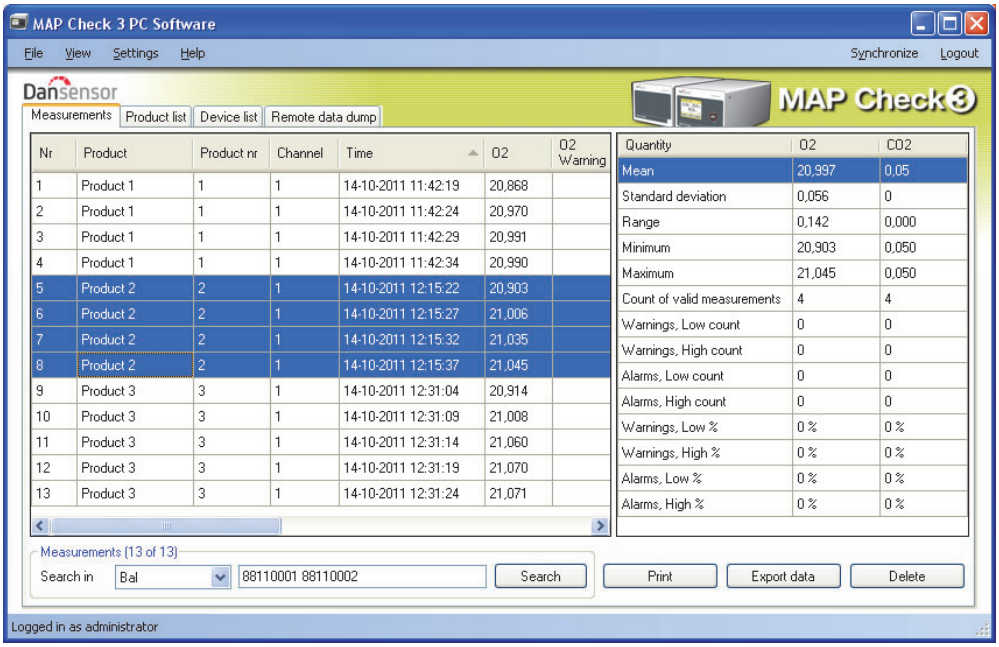


4. In the **Columns** section you can select which columns to include when printing and with the **Print Statistics** check box below you can select whether or not you want to print the statistics data as well.
   Selection/deselection of one or more items will automatically update the print preview.
5. Select printer at the top of the window, make required page setup settings and click **OK** to print.

Statistics

To see a statistical overview of data:

1. If not already displayed, select **View -> Show measurements statistics**.
   Measurement statistics will be displayed at the right side of the window.



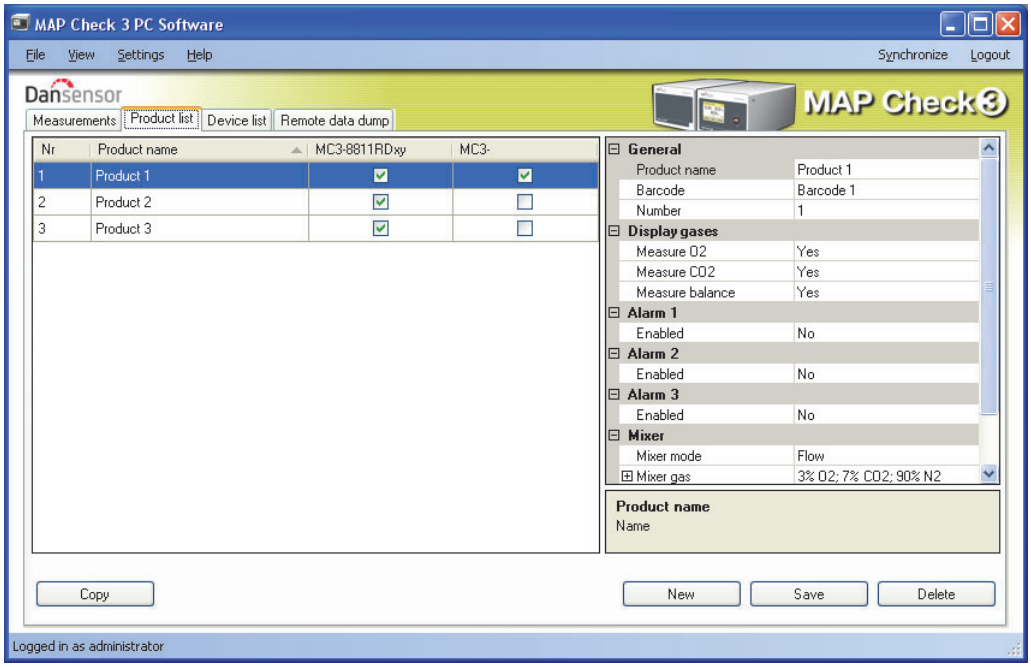
2. Select data, ex. Product 2 measurements as shown.
3. The statistics for the selected measurements will be shown, ex. average and minimum and maximum values, number and percentage of alarms etc.

The data can be printed by clicking **Print** – see "Printing Data" on page 27 for details.

Product Setup

Product setup is performed on the **Product list** tab. Even though the product database can hold a large number of products, only 1000 products can be assigned to each device.

NOTE! When making changes in the product settings, make sure to press "Synchronize" in the upper right corner when finished to apply changes to selected device(s).



Create/Edit Product

To create a new product you can either copy and edit one of the existing products or you can create a new.

Create new product

- Click **New** in the lower right corner. A new product appears at the bottom of the product list.
- Edit product settings as described in "Edit product" on page 30.
- When finished click **Save** to save product.

Copy product

If you want to create a product similar to an already existing product, you can use the **Copy** function:

- Select the product you want to copy in the list.
- Click the **Copy** button.
- A new product with the name **xxxxx_copy_1** (xxxxx = name of copied product) appears in the list.
- Name the new product and make the appropriate product settings in the list to the right.
- When finished click **Save** to save product.

Edit product

- Select the product you want to edit in the list.
- Make the appropriate product settings in the list to the right.

NOTE! Please refer to the "MAP Check 3 User Guide" for a detailed description of the various product parameter settings.

- When finished click **Save** to save product.

Delete Product

To delete a product from the **Product list**:

1. First make sure that the product and the product measurements have been removed from the **MAP Check 3** device, otherwise the product will be downloaded from the device next time when synchronizing.
2. Select product and click **Delete**, then confirm by clicking **OK** in the appearing dialog box.
3. Synchronize devices to update the respective product lists on the devices.

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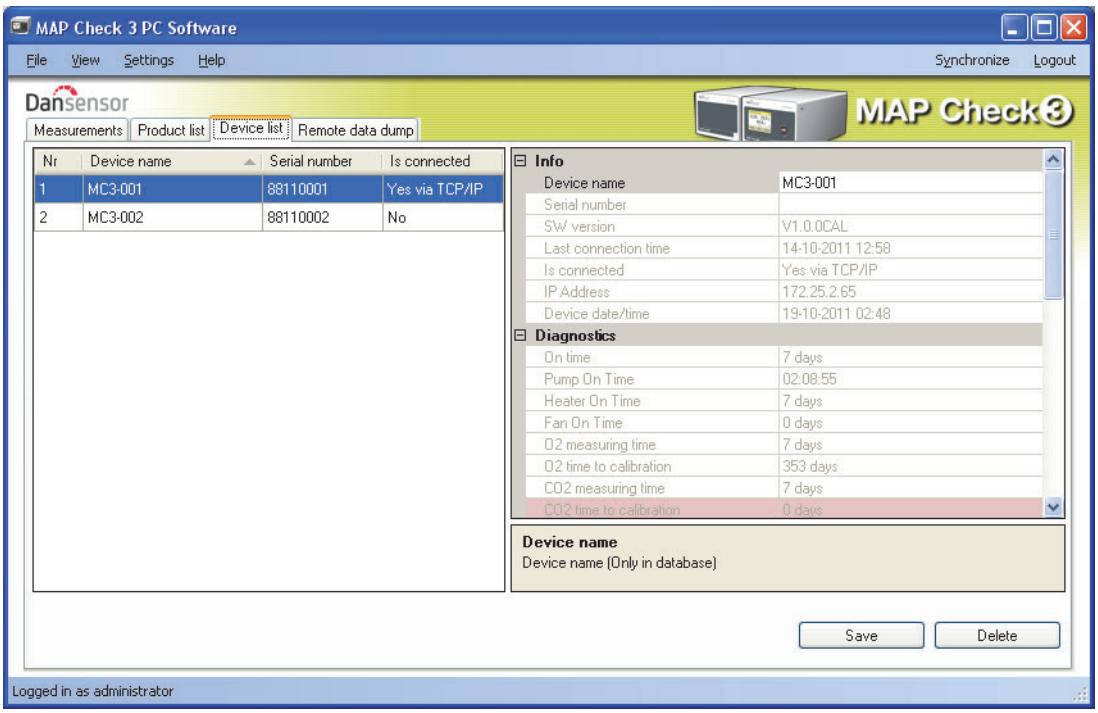
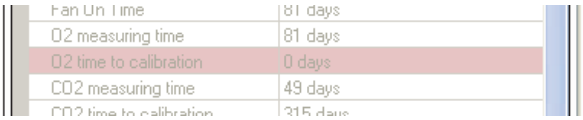
Device list

The **Device list** tab shows an overview of devices which are or previously have been connected to the application.



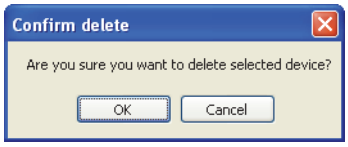
The window shows the name and serial number for each device and the current connection status. The device window also holds data for each device such as device info, diagnostics, and calibration information.

When a device sensor needs to be calibrated the sensor is highlighted in red.



Remove device

To remove a device from the list simply click on the device you wish to remove and then click **Delete** in the window's lower right corner.
In the appearing **Confirm delete** window...



...click **OK** to confirm.

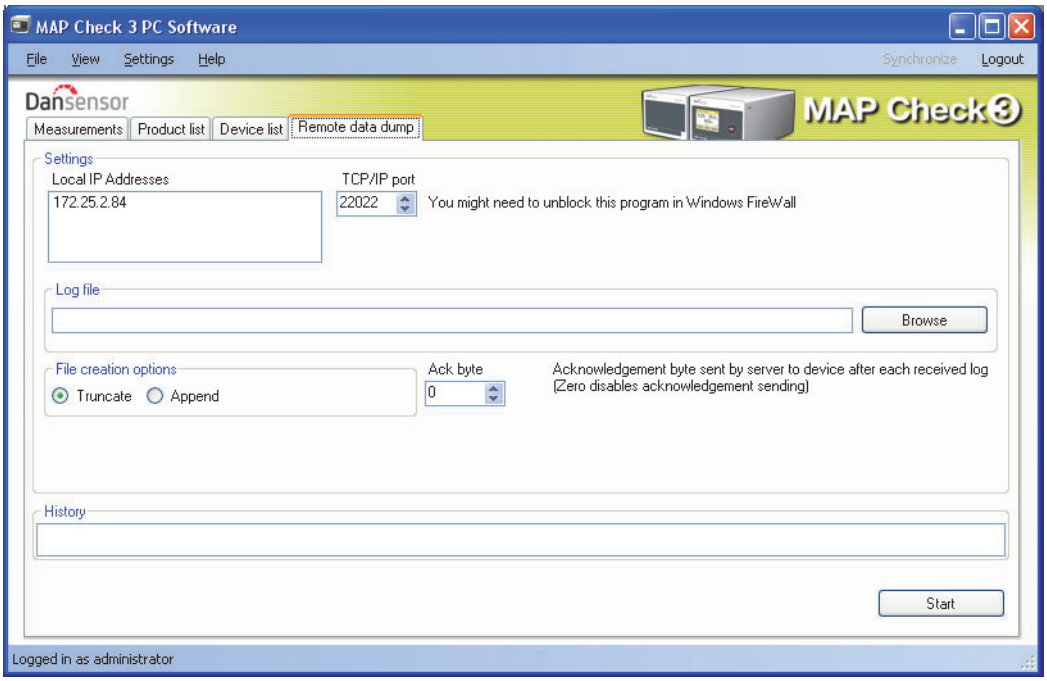
The device will be removed from the various tabs throughout the application but measurements performed using the device are maintained on the **Measurements** tab.

Remote Data Dump Function

This feature is a separate function that allows you to use the advanced LAN data dump functionality of the **MAP Check 3** device.

To be able to use this feature, the **MAP Check 3** must be configured for the function inside the **General setup -> Data log setup** … menu.

Please refer to the "MAP Check 3 User Guide" for details about setting up of the LAN dump function.



When starting this, the PC software will act as a TCP/IP server which can receive data from multiple **MAP Check 3** devices and store data in a selected file using the csv file format for easy exchange with other applications.

NOTE! The data received from devices is NOT stored in the database of the MAP Check 3 PC software but only transferred directly to the selected log file.

The window holds data needed to set up the **MAP Check 3** devices which should send data to the program. You will find the data in the upper part of the window:

Local IP Addresses	Holds the IP of the PC running this application. This value must be entered in the **General Setup -> Data log setup... -> Server IP** field on the device.
TCP/IP port	Holds the port number to be used. This value must be entered in the **General Setup -> Data log setup... -> Server Port** field on the device.
Ack byte	Must match the setting in **General Setup -> Data log setup... -> Acknowledge** (default set to **0 = NOT used**).

On the device the setting **General Setup -> Data log setup... -> Network logging** must be set to **Yes**. This turns on the sending of data after each measurement to the server specified.

In the **Log file** section select a file name to be used for storing the data received.

In **File creation options** select between:

Truncate Opens a new file each time **Start** is pressed

Append Appends data to the file each time **Start** is pressed

In **History** panel the latest received measurements can be seen in clear text, this can be helpful if debugging the setup.

Now to start simply press the **Start** button and the server will run until stopped again by pressing **Stop**.

Data is captured into the selected file.

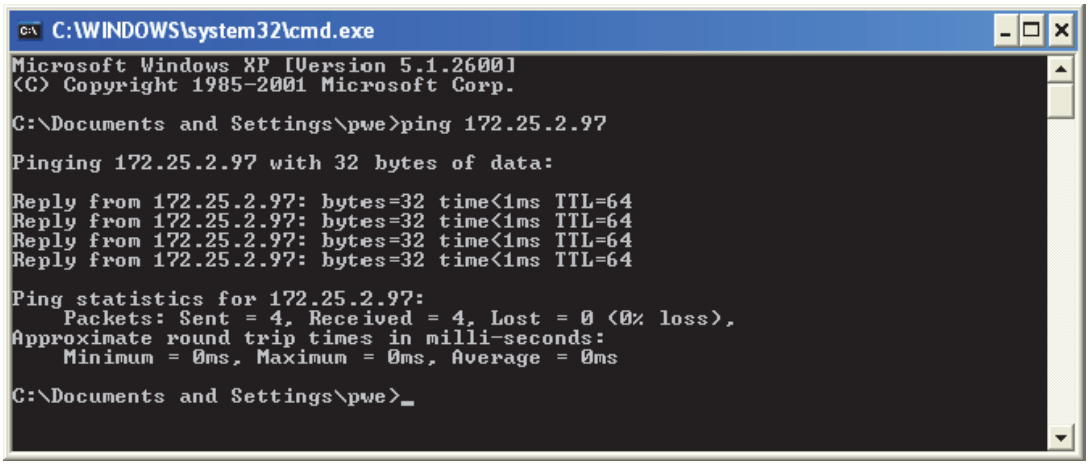
This function is similar to that found in programs like e.g. **TCP File**.

Trouble shooting

NOTE! Windows Firewall might block this function. If you have problems getting data from device try to disable the FireWall shortly, if data now appear in history window you should add an exclusion for the program in Windows FireWall. Refer to documentation from Microsoft on how to do this.

To test if LAN connection is OK between PC and device, you can use the **Ping** command from your PC:

- Open a command console in Windows and enter the command
  ping <IP address of MAP Check 3> <enter>
- Now you should get a TCP reply from the **MAP Check 3**, see example below.



- If this reply does not appear there is a problem in the LAN connection of either the PC, the device or both.
- Re-check your cabling.

Appendix

End User License Agreement (EULA)

End-user License Agreement for “MAP Check 3 PC Software”

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