# HedoN

Electronic Developments B.V.

# Soluble Salt Meter (SSM)
# Model HED7263901
# SSMLink User Manual



Firmware version 3.00
SSMLink version 1.04

**TABLE OF CONTENT**

# 1.    Introduction

This SSMLink user manual covers information on the use of the Soluble Salt Meter (SSM) in combination with SSMLink. Please read the information carefully and observe all warnings and notes strictly in order to get the best out of your SSM.

An info sign  identifies information that user should pay attention to.

# 2.    SSMLink Software

With the SSMLink software:

- Batches with batch headers can be created.
- Batches can be read from the SSM.
- Batches can be deleted.
- Batches can be saved to a comma separated values file  (CSV) or Excel spreadsheet. These files can be easily imported into any spreadsheet program (such as Microsoft® Excel) for further analysis.
- Saved files can be imported.
- Checksum protection of saved files can be checked.
- The SSM time and date can be synchronized with a PC.
- Measurement settings can be adjusted.
- SSM properties can be read.
- License information can be read.
- Additional license code can be bought.
- Your SSM can be upgraded with a license code.

## 2.1    Starting the SSMLink Software

To run the SSMLink program:

1) In Windows, click START > ALL PROGRAMS > SSMLink > Start SSMLink
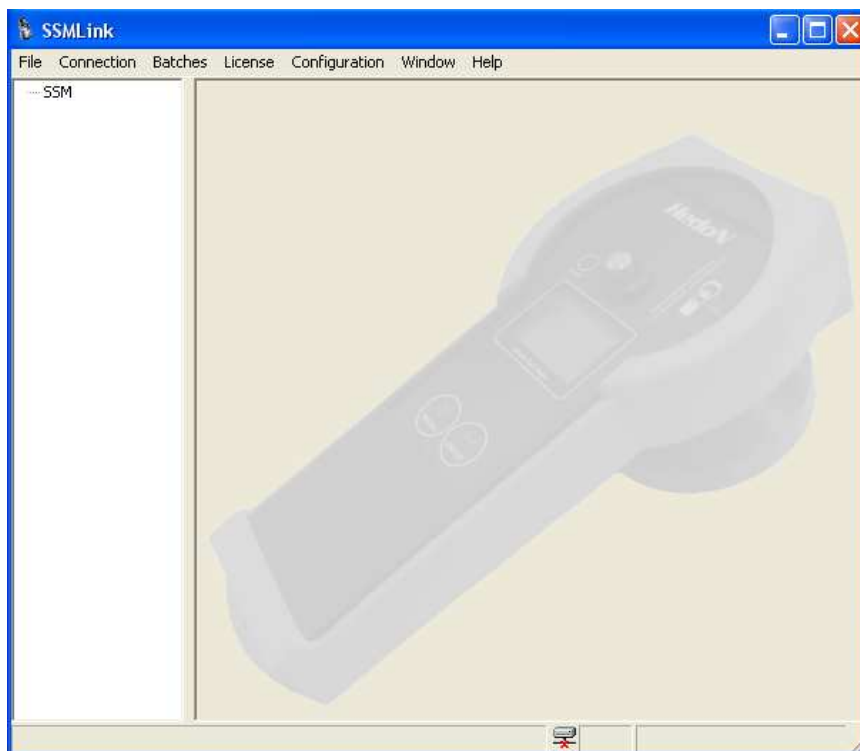
## 2.2 To Connect to the SSM

1) Be sure the SSM is turned on.
2) Connect the SSM to your computer's USB port using the supplied cable.
3) Click on the "Connection" toolbar.
4) Click "Connect."

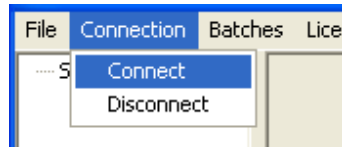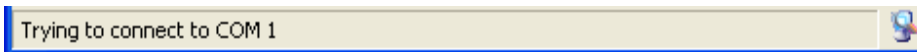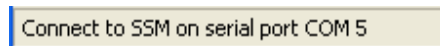| File | Connection | Batches | Licer |
|------|------------|---------|-------|
| S | Connect | | |
| | Disconnect | | |

5) Please wait while the software is trying to connect to the SSM.

Trying to connect to COM 1

6) When a successful connection is made it is displayed in the status bar.

Connect to SSM on serial port COM 5

If the date and time of the SSM differs more than 5 minutes to the computer time a pop up will appear which asks if the user wants to synchronize the time in the SSM with the PC time.

7) During the connection the icon (= connected) is visible.

## 2.3 Creating a new batch

1) Click on the "Batches" toolbar.
2) Click "New Batch."

| on | Batches | License | Conf |
|----|---------|---------|------|
| | Read All | | |
| | Save All | | |
| | New Batch | | |
| | Import Batch | | |
| | Close All | | |
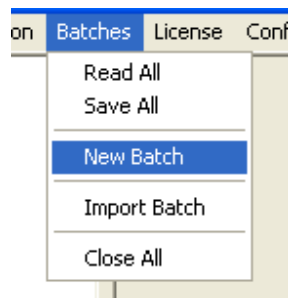
3) Name the Batch of measurements and fill in the maximum amount of measurements.

**New Batch**

Enter Batch Name:

Batch_Name

Enter Maximum Readings

100

Create     Cancel

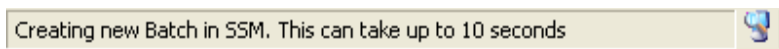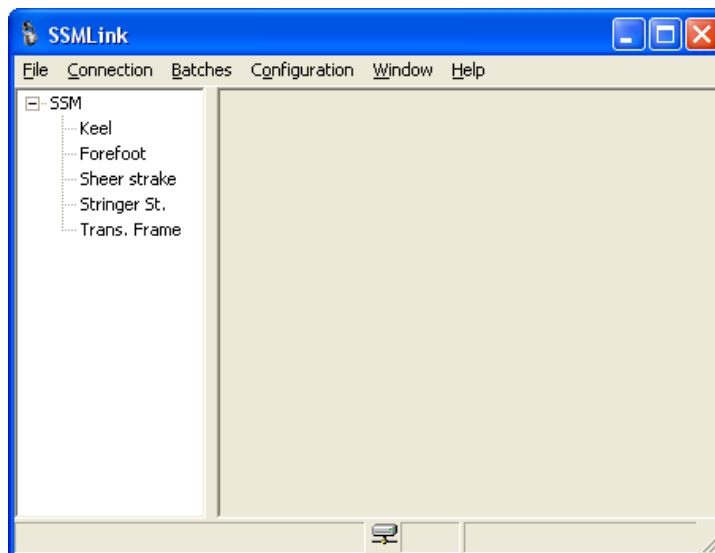4) Click Create when ready.
5) Wait while the batch is made

Creating new Batch in SSM. This can take up to 10 seconds

6) The new batch is visible in the left pane

**SSMLink**

File  Connection  Batches  Configuration  Window  Help

□ SSM
  Keel
  Forefoot
  Sheer strake
  Stringer St.
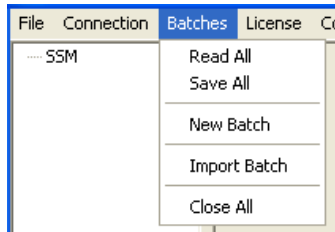  Trans. Frame

7) The new batch is visible in the left pane

ℹ You can also create a new batch directly in your left pane by selecting the SSM and right clicking your mouse

File  Connection  Batches  C

SSM

New Batch
Read Batches
Import Batches
Close Batches
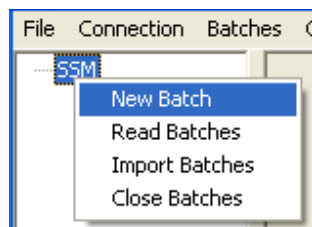
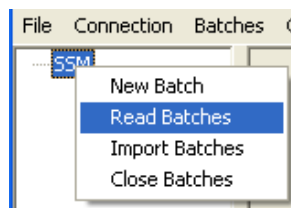## 2.4 Download batches

To download measurements from the SSM:
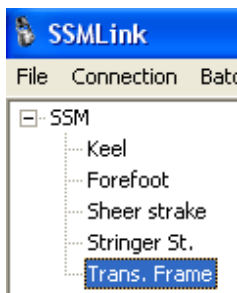
1) Click on the "Batches" toolbar.



2) Click "Read All."

 *You can also read all batches directly in your left pane by selecting the SSM and right clicking your mouse*



3) You may double click on any of the batches visible in the left window to view measurements.



| | Measured | | | | Calculated | | |
|---|---|---|---|---|---|---|---|
| Number | Date | Time | Conductivity (µS/cm) | Temp. (°C) | Temp. (°F) | Conductivity @ 25°C/77°F (µS/cm) | Surface Density (mg/m²) | Surface Density (Bresle) (mg/m²) |
| 1 | 6-1-2007 | 02:52:18 | 89 | 24,9 | 76,8 | 89 | 105 | 110 |
| 2 | 6-1-2007 | 02:53:53 | 89 | 24,8 | 76,6 | 89 | 105 | 110 |
| 3 | 6-1-2007 | 02:54:44 | 89 | 24,9 | 76,8 | 89 | 105 | 110 |
| 4 | 6-1-2007 | 02:55:55 | 87 | 24,9 | 76,8 | 87 | 102 | 107 |
| 5 | 6-1-2007 | 02:56:44 | 87 | 24,9 | 76,8 | 87 | 102 | 107 |
| 6 | 6-1-2007 | 02:57:36 | 92 | 24,9 | 76,8 | 92 | 108 | 113 |
| 7 | 6-1-2007 | 02:59:07 | 88 | 24,9 | 76,8 | 88 | 103 | 108 |
| 8 | 6-1-2007 | 02:59:47 | 89 | 24,9 | 76,8 | 89 | 105 | 110 |
| 9 | 6-1-2007 | 03:01:25 | 88 | 25,0 | 77,0 | 88 | 103 | 108 |
| 10 | 6-1-2007 | 03:02:06 | 88 | 25,0 | 77,0 | 88 | 103 | 108 |
| 11 | 6-1-2007 | 03:03:05 | 89 | 25,0 | 77,0 | 89 | 104 | 109 |
| 12 | 6-1-2007 | 03:03:49 | 89 | 25,0 | 77,0 | 89 | 104 | 109 |
| 13 | 6-1-2007 | 03:05:13 | 87 | 25,1 | 77,2 | 87 | 102 | 107 |
| 14 | 6-1-2007 | 03:05:58 | 87 | 25,1 | 77,2 | 87 | 102 | 107 |
| 15 | 6-1-2007 | 03:06:42 | 88 | 25,1 | 77,2 | 88 | 103 | 108 |
| 16 | 6-1-2007 | 03:08:02 | 88 | 25,1 | 77,2 | 88 | 103 | 108 |
| 17 | 6-1-2007 | 03:08:51 | 89 | 25,2 | 77,4 | 89 | 104 | 109 |

## 2.5 Saving all batches

To save all batches of the SSM:
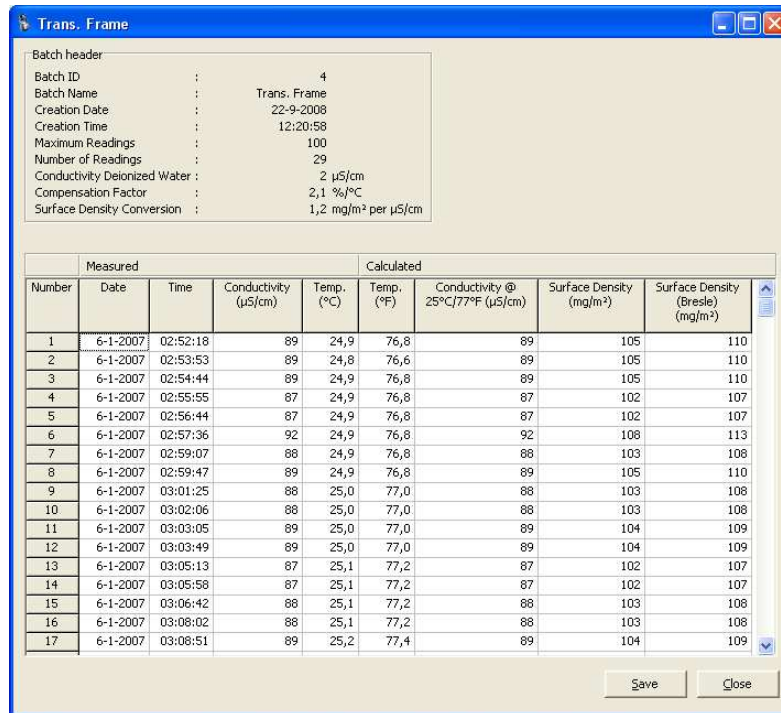
1) Select Save All in the Batches menu.
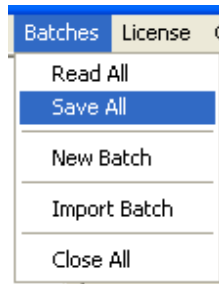


2) A popup screen appears were you can choose to save all batches in one file by choosing Yes. To save batches in separate files by choose No
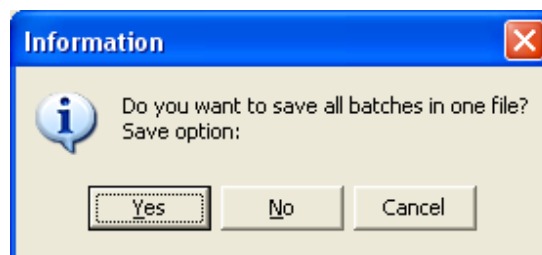
## 2.6   Saving individual batches

1) Follow the download batches procedure.
2) Select the desired batch



3) Click "Save" in the measurements window to save the batch to a data file on your computer.

*You can also save individual batches by selecting the desired batch and clicking your right mouse button directly in your left panel.*
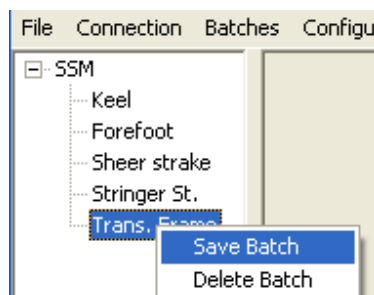


*The downloaded batches can be saved into data files. It can be saved into comma-separated values (CSV) or into a Microsoft Excel (XLS) file. The electronic data can be exchanged to any Coating Technical File (CTF).*

## 2.7   Import batches from a previous saved file.

Previous saved files can be imported to see the results and to check if the file still contains the original (unchanged) data.
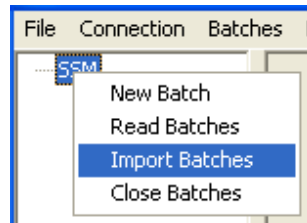
1) Select Import Batch from the Batches menu.
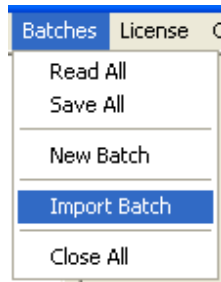


2) Select the file you want to open.
3) To import batches from a previous saved file select the option Import Batch.
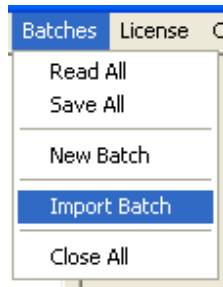
You may also import batches by clicking your right mouse button directly in your left panel.



## 2.8   Checking saved batches.

When batches are saved the data is stored in either a CSV or XLS file. To be sure the data is unchanged it is possible to check the "Batch Code Check Result".

1) Select Import Batch from the Batches menu.

2) Select the file you want to open.
3) Double click the batch in the left pane you want to check.
4) Once opened check the "Batch Code Check result" in the batch header



There are three options for the Batch Code Check Result :

- Passed (file is unchanged)
- Failed (file has been changed)
- Code not available (batches saved with older versions of SSMLink)

## 2.9   Measurement Settings

In this menu you can change the properties of the deionized water and adjust the temperature compensation factor (default value is 2,0% per °C).  The compensation factor determines the percentage by which conductivity readings are adjusted for every °C the solution being measured is above or below 25°C (77°F).

1) Click on the "Configuration" toolbar.
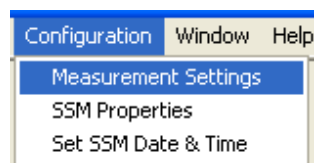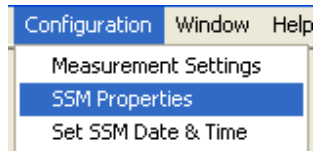


2) Click "Read" to see the current values.
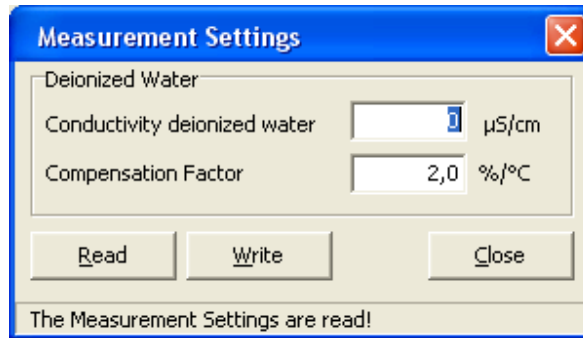
3) You can adjust these values in the white coloured fields.
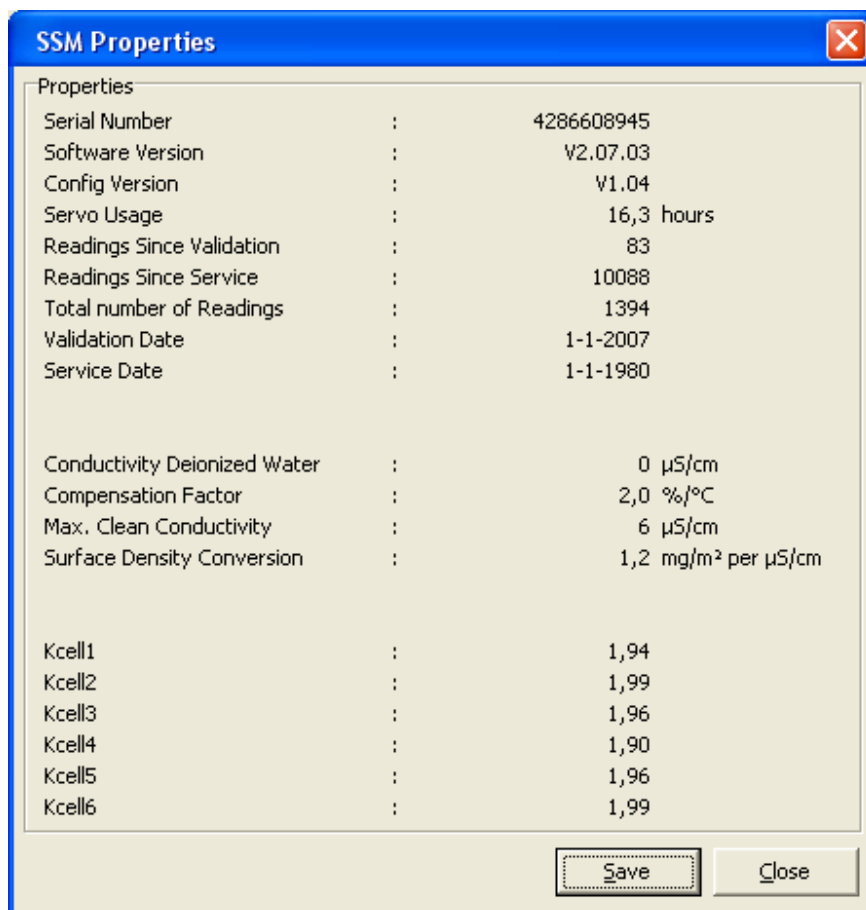4) Click "Write" to store the new values into the SSM.

## 2.10  SSM Properties

The SSM Properties of the SSM contains important settings and values. These properties can be downloaded and send to a service center.

1) Click on the "Configuration" toolbar.
2) Select "SSM Properties".
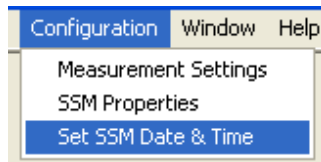


3) Wait while the values are read.



4) You can download these values by clicking "Save".

## 2.11  Set SSM date and time

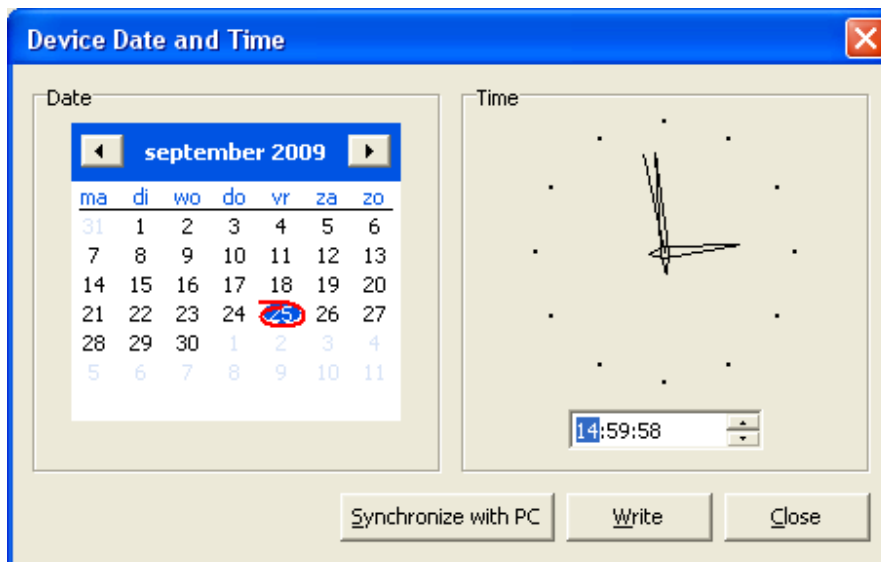The date and time of the SSM can be synchronized with the PC.

1) Click on the "Configuration" toolbar.
2) Select "Set SSM Date & Time".



3) The date of the SSM will be shown.
4) Select the proper date and time

> It is also possible to Synchronize the SSM with the time of the PC by pressing the Synchronize with PC button followed by the Write button
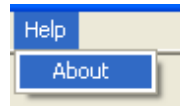


5) Select Write to write the time to the SSM

## 2.12  Software version of the SSMLink

The version of the SSMLink is mentioned in the about box.
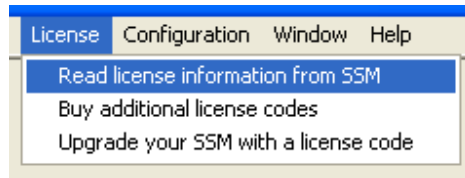
1)  Click on the "Help" toolbar.



2)  Click on "About".

## 2.13  SSM License information

You can read the actual license information of your SSM with SSMLink.

    1)        Click on the "License" toolbar.



    2)        Select "Read license information from SSM".
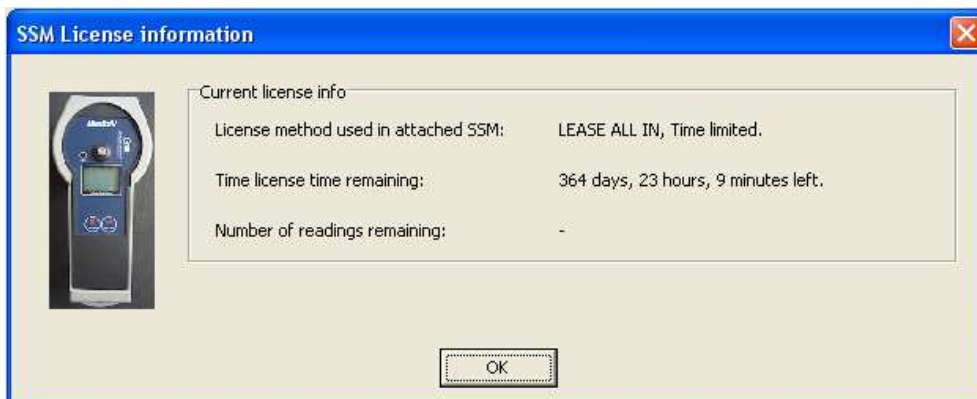


Example of a SSM License for Lease All In.

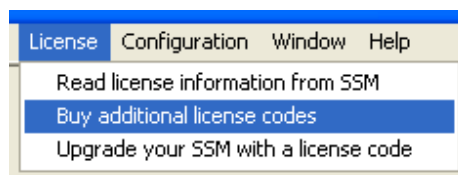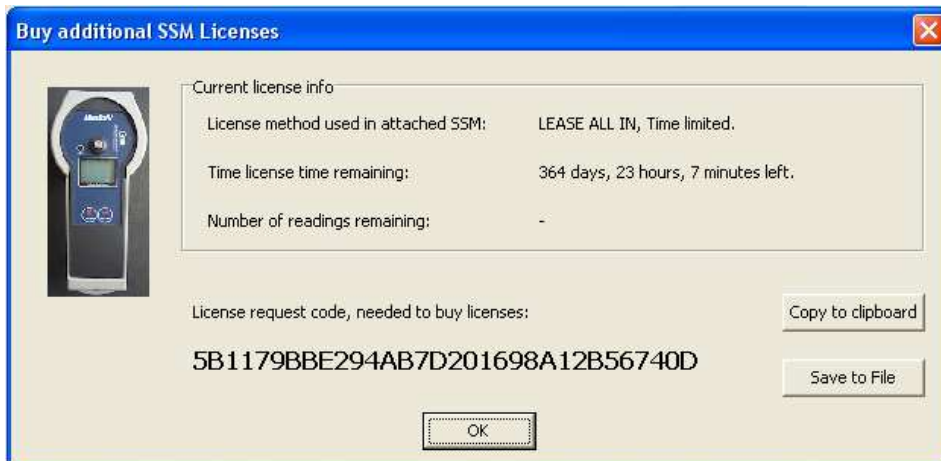## 2.14  Buy license code

You can request additional license code for your SSM with SSMLink.

    1)        Click on the "License" toolbar.



    2)        Select "Buy additional license codes"

3) Select "Save to File" and choose a location to save the file.

4) Select "OK"

5) Send this file (SSM 'serial number' License Code.txt) including your order to your sale representative.

## 2.15 Upgrade your SSM with a license code

You can upgrade your SSM license with SSMLink.

1) Click on the "License" toolbar.
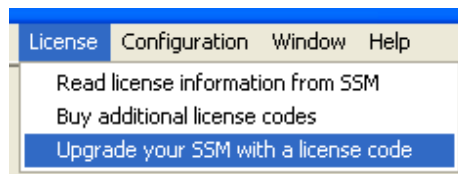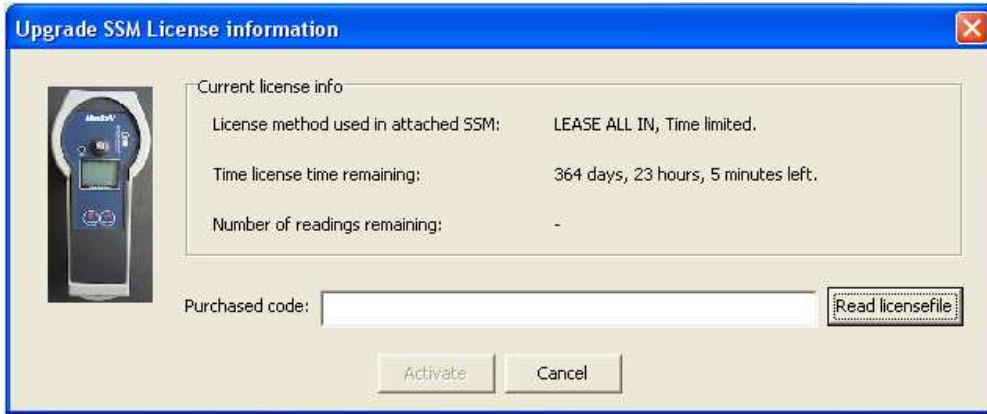


2) Select "Upgrade your SSM with a license code"

3) Select "Read licensefile" and choose location to read file (SSM 'serial number' Upgrade Code.txt).

4) Select "Activate"

# 3.　Troubleshooting Guide

| Problem | Cause(s) | Solution |
|---|---|---|
| Set Time and Date shows : "Showing PC time" in red | It was not possible to get a connection with the SSM, instead of showing the SSM time it will show the PC time | Check if the SSM is connected to the computer and turned on. |
| Save options are disabled when a file is imported. | Saving is only possible for batches read directly from the SSM | This is intended behavior |
| Calculated values shows --- | The temperature was out of range during the reading (above 50℃ (122℉ ) or below 5℃ / 41℉) | This is intended behavior |
| The upgrade code was not accepted by the SSM | 1) Upgrade code already activated<br>2) SSM with wrong serial number connected | 1) Use new license upgrade file<br>2) Connect SSM with correct serial number |

# 4.  Warning



Warning, the SSM is equipped with magnets, precautions should be taken for those with pacemakers, implants and metal prosthetics, magnetic objects, credit cards and watches.