

**** Manual ****

PC software for operating SparOmeter with data port

Version 1.0

For PC program: Version 1.0

Revision history					
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Contents

Contents	3
Introduction	4
Symbols and terminology	4
Download Software	5
Microsoft .NET framework	5
Installation on PC	5
Connect SparOmeter to PC (cable)	7
Start program	7
Connect SparOmeter / search for SparOmeter (software)	7
SparOmeter not found	8
Reading meter data	8
Set up new reading	10
Interval schedule	10
Show meter data	11
Show meter data in 15 min. time frames.....	12
Show series of readings.....	12
Export to XML (save as).....	13
Send meter data to Web site	13
Select Web site	14
Send meter data in 15 min. time frames.....	14
Proxy server (firewall)	14
Profiles	15
Choose active profile	15
Create new profile.....	15
Delete profile	15
Save profile.....	15
Change user name and password.....	15
Check for new version	16
Licence, source code and development	16
System (minimum requirements)	16
Support	17

Introduction

Congratulations on your purchase of the new SparOmeter + SparEI program. SparOmeter is a metering device that can be used for metering electricity consumption of stand-alone electrical appliances in your home. The unit can meter appliances that are 'On' or in 'Standby' mode.

This manual describes how to use the SparEI program. Refer to the separate SparOmeter manual for answers to questions on operating the SparOmeter and for technical data.

Symbols and terminology

Screen fields:

1: Menu options, 2: Program content, 3: Information, 4: Help and status



Text in manual	Description
Program	PC software (SparEI program)
Meter data	Data metered by SparOmeter
XML	Extensible Markup Language (format used by SparEI in data files)
15 min. time frames	Time frames calculated in login intervals of 15.min. with time, date and hour stamp at xx:00, xx:15, xx:30 and xx:45 defaults.
Inbox (profile)	Area on Web site where meter data is displayed after sending meter data from SparEI program to Web site.
ESF	Elsparefonden (Danish Electricity Saving Trust)

TI	Teknologisk Institut (Danish Technological Institute)
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Download software

Software can be downloaded free of charge at <http://www.sparel.dk/sparometer>.

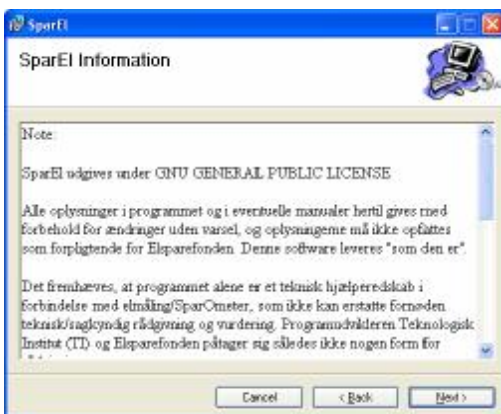
Download file is called setup.zip and should be unzipped in e.g. c:\sparel_temp. You can then start the installation.

Microsoft .NET framework

Microsoft .NET Framework 2.0 must be installed on your computer before completing the installation. If your computer does not have .NET Framework 2.0 or later versions, the installer will refer you to a Web site where the framework can be downloaded free of charge. Alternatively, the program can be downloaded via the Microsoft Windows Update site.

Installation on PC

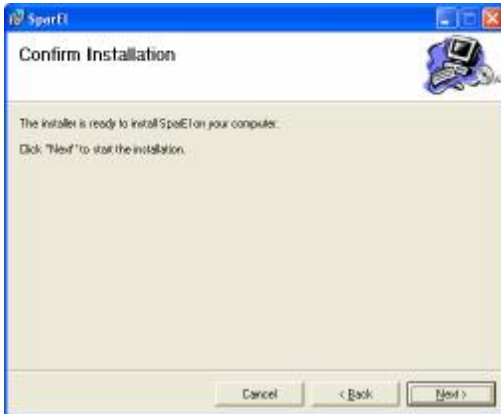
Note: You need to have administrator rights for the computer on which the software is installed. Run setup.exe in e.g. c:\sparel_temp. Installation will start and the following screen will appear:



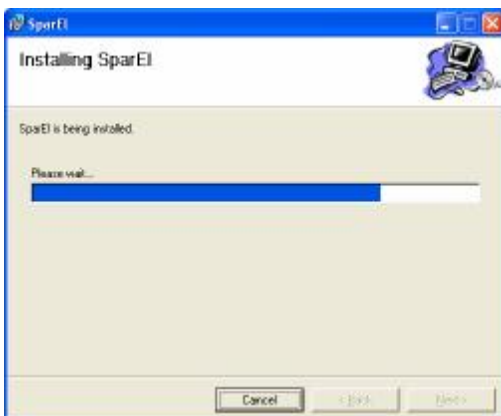
After reading the information click 'Next'. New screen appears:



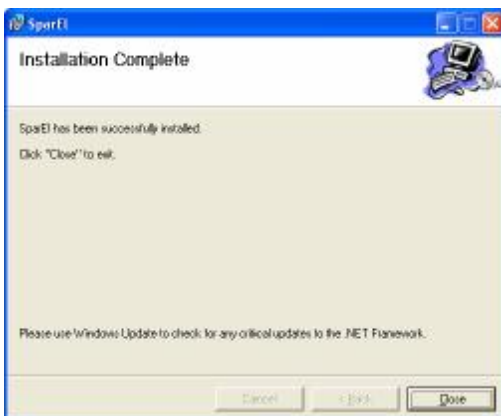
Now select a folder where the program will be installed. The program will recommend 'c:\Programmer\Elsparefonden\SparEI'. You can change the destination folder by typing in a new path or by using the 'Browse' button. Having selected a path click 'Next'. New screen appears:



The installation is ready to install the program on your hard disk. Click 'Next' to start installation. New screen appears:



Installation in progress. This will take 1–3 minutes depending on your computer's speed. New screen appears:



Installation complete. Now click 'Close' to start using the SparEl program.

Connect SparOmeter to PC (cable)

SparOmeter comes with a cable for connection to the computer's serial port. **Note** which Com port the SparOmeter is connected to (see PC manual as required). You will need this information later in the program when searching for the SparOmeter.

Start program

A new 'SparEl' program icon is installed in the 'Elsparafonden – Software' folder accessed in the 'start' 'All Programs' menu.



Start the program by clicking on 'Sparel'.

Connect SparOmeter / search for SparOmeter (software)

Click 'Connect SparOmeter' in the menu options field. New screen appears:



You can allocate the COM port that connects SparOmeter by selecting from the list under 'Select COM port'. Then click the 'Search' button. The program will search for SparOmeter on the selected COM port. New screen appears when SparOmeter is connected:



Note that the buttons ‘Reading meter data’ and ‘Set up new reading’ are now live and can be activated. Refer to section ‘Set up new reading’ if this is the first time that SparOmeter is connected.

Note help text in ‘4: Help and status’ field:

"SparOmeter found and connected. New reading can be set up under menu heading 'Set up new reading'. Meter data can be read under menu heading 'Read meter data'."

SparOmeter not found

See screen below if the program cannot find the SparOmeter on the COM port allocated:



Note help text in ‘4: Help and status’ field:

"Error. Check that SparOmeter is connected to 230V and PC’s COM port. Choose another COM port as required and click 'Search' again."

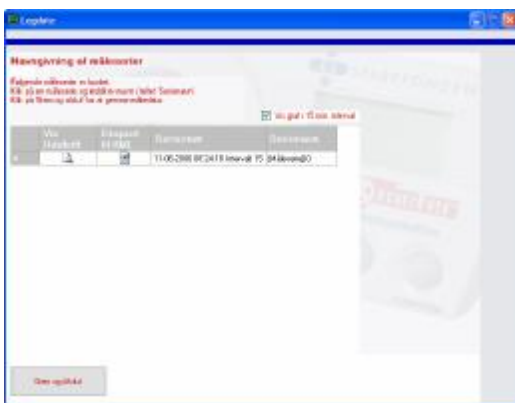
Read meter data

Click ‘Read meter data’ from menu option. New screen appears:



Refer to section ‘Connect SparOmeter’ if you cannot click on ‘Read meter data’. Click on ‘Load meter data’ in the program content field. The program will now read all meter data from SparOmeter. **Note** transfer can take up to 10 minutes if the memory is full.

When all the meter data has been loaded the program analyses the information and identifies all the series of readings, e.g. every time the SparOmeter was switched on. New screen appears:

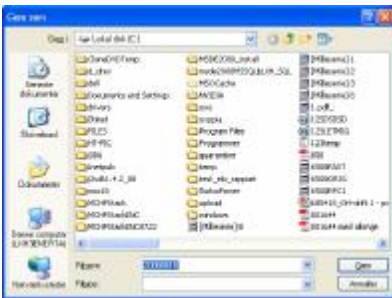


Each row in the list describes a series of readings. The screen above illustrates one series with meter data.

Columns

Column name	Description
See printout	For use when displaying series of readings (graph)
Export to XML	Used if meter data needs to be saved in XML format so it can be imported later into another program
Series start	Start date and time for series of readings
Series name	This is where you can name a series of readings, e.g. ‘TV in lounge’

You can save meter data using the name selected for a series of readings by clicking ‘Save and exit’. New screen appears:



Select a folder where the meter data will be saved. Type in the name of the file to be saved in the 'File name' field. The program will automatically insert the date in the field. Click 'Save'. The data is now saved on your hard disk.

Set up new meter reading

Click 'Set up new reading' in the menu options field. New screen appears:



Refer to section 'Connect SparOmeter' if it is not possible to click on 'Read meter data'.

Checking the box in the 'Delete all meter data in SparOmeter' field deletes all meter data stored. SparOmeter is now ready to log another 16,000 new readings.

Set log interval and click 'Setup'. The program now starts up. Depending on the speed of your PC, this can take 10–15 seconds to complete.

The Danish Electricity Saving Trust recommends a log interval of 15 mins.

Interval schedule

SparOmeter can store 16,000 readings. The table below shows the total log time in relation to log interval:

Log-interval in minutes	Duration
1	11 days
2	22 days



Columns

Column name	Description
See printout	Used to display meter sequence (graph)
Export to XML	Used if meter data needs to be saved in XML format so it can be imported later by another program
Series of readings – start	Start date and time for series of readings
Series name	Name for series of readings. Displayed under 'Read meter data'

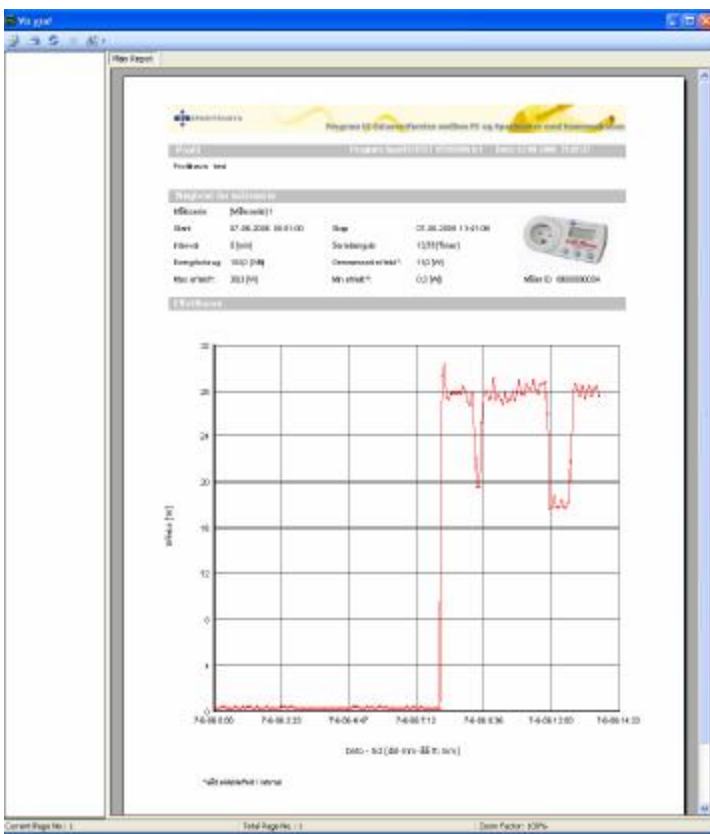
Show meter data in 15 min. time frames

This function will calculate a random series of readings, irrespective of the log time and log interval, for a series of readings where the log interval is 15 minutes, and where the log point will always default to 0, 15, 30 or 45 minutes.

The example in the screen above shows two series of readings of meter data.

Show series of readings

Click the 'Show meter series' icon in the column. New screen appears:



Export to XML (save as)

Click the 'Export to XML' icon in the column. Meter data is saved in XML format.

Send meter data to Web site

Click 'Send meter data' in the menu options field. New screen appears:



Select Web site

This list is updated direct from the Internet. After a short pause, the search results will list the Web sites to which the meter data can be sent. Choose the Web site which contains your profile.

Send meter data in 15 min. time frames

This function will calculate a random series of readings, irrespective of the log time and log interval, for a series of readings where the log interval is 15 minutes, and where the log point will always default to 0, 15, 30 or 45 minutes.

Click 'Send meter data to server'. New screen appears:



Select the file containing the meter data (e.g. '20060617 223256.txt'). New screen appears:



Meter data is now transmitted to the Web site. Transmission time will depend on the connection speed and the amount of data being sent.

Proxy server (firewall)

If the computer is configured to use a proxy server for Internet communication, the SparEl program will automatically use the same set-up. If a user can access <http://www.sparel.dk> via e.g. Internet Explorer browser, then the SparEl program can send meter data to the Web site. Contact your network administrator for further help in connection with setting up a proxy server.

Profiles

Click 'Profiles' in the menu options field. New screen appears:



You must create a logon profile at <http://www.sparel.dk>. You need to choose a user name and password on the Web site which is subsequently encoded in the program. You can then send meter data to your personal inbox (profile) on the Web site.

Select active profile

Select which profile you would like to run from the profile list. This has a bearing on the inbox (profile) to which the meter data is sent. You can always see which profile you are working with because it is shown in the status line at the bottom of the program content field. The program always defaults to the profile last used.

Create new profile

After clicking on 'Create new profile' the program will create a new profile. Profile name, user name, password and notes fields can now be edited. After editing, the new profile can be saved by clicking 'Save profile'.

Delete profile

The profile selected can be deleted by clicking 'Delete Profile'.

Save profile

After editing you should always remember to save the new profile by clicking 'Save Profile'.

Change user name and password

To change user name and password you need to do the following:

Change user name and password on Web site, e.g. www.se-elforbrug.dk. New user name and password are encoded in the program corresponding to the required profile. The program can send meter data to the Web site (inbox) when both the program and Website have the same user name and password.

Check for new version

Click on the 'About program' link in the information field. New screen appears:



This displays your version and the latest version of the program. If the versions are different, you can download the latest version by clicking 'Download latest version'.

Licence, source code and development

SparEl is published under GNU GENERAL PUBLIC LICENSE.

Any information contained in the program and any accompanying manuals is provided on the basis that changes may occur without notice, and that the information contained therein is not binding on the Danish Electricity Saving trust. Software is supplied 'as is'.

It should be pointed out that the program is only a technical tool for assistance in connection with electricity metering/SparOmeter, and as such is not a substitute for technical/expert advice or analysis. The program developers, the Danish Technological Institute (TI) and the Danish Electricity Saving Trust (ESF), take no responsibility for any advice or recommendations derived thereby.

The program developers, the Danish Technological Institute (TI) and the Danish Electricity Saving Trust (ESF), are not liable under any circumstances for loss or damage, including loss of anticipated income, incorrect advice, lost savings or other indirect losses or consequential damage that may arise from the correct or incorrect use of the software. This applies irrespective of whether the Danish Electricity Saving Trust (ESF) or any authorised representative has been notified of any potential loss or damage that may arise.

System (minimum requirements)

Microsoft .NET framework 2.0.

Pentium 500MHz PC, minimum 512MB RAM and 10GB hard disk space available

For more information see <http://www.sparel.dk/sparometer>

Support

Further information available at: <http://www.sparel.dk/sparometer>