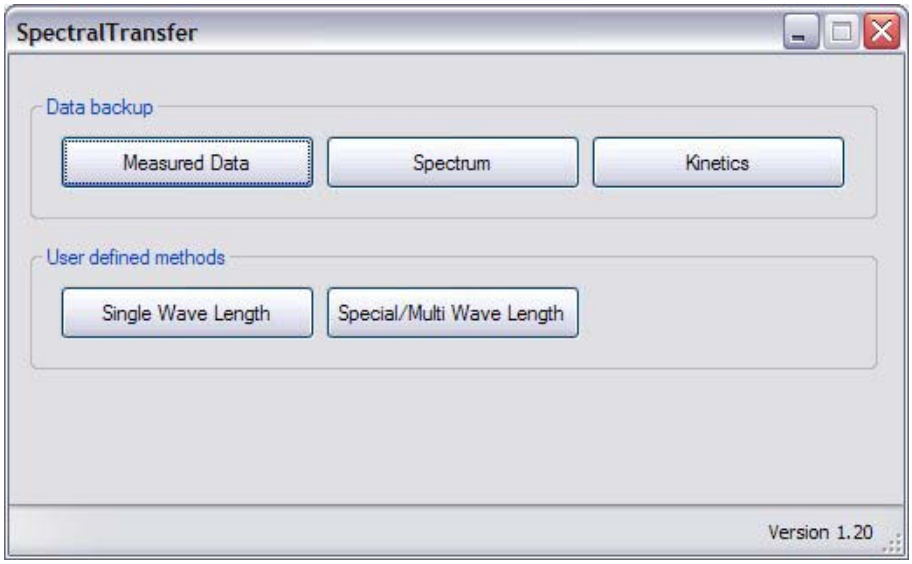
Operating manual

SpectralTransfer



- **Backup of measurement data**
- **Backup and recovery of user-defined methods**

09/2014

SpectralTransfer - Contents

1 Overview 5

2 Installation 6
2.1 PC system requirements 6
2.2 Installation under Windows® 6

3 Establishing the connection and starting the program 7
3.1 Connecting the photometer to the PC 7
3.2 Starting SpectralTransfer 8

4 Operation 9
4.1 Backing up measurement data 9
4.2 Backing up user-defined methods 11
4.3 Backing up the special/multi wave lengths methods . . . 12

5 What to do if 13

.

Notes on brand names:
Pentium is a brand name of Intel Corporation based in the U.S.A. and/or other countries.
Microsoft, Windows, Windows Server, Windows Vista and ActiveSync are brand names or registered trademarks of Microsoft Corporation based in the U.S.A. and/or other countries.
WinZip is a registered trademark of WinZip International LLC.

1 Overview

The SpectralTransfer program is used for the direct data exchange between the photometer and PC. The SpectralTransfer program requires additional software on the PC for the data exchange (see section 2.1).

When all programs have been installed, you can:

- Save measurement data saved in the photometer in *.csv format to a PC
  - Exported measurement datasets from the measurement data memory (concentration, absorbance, transmission and multi-wavelengths measurements)
  - Spectra
  - Kinetic records
- Save and transmit user-defined methods
  - to a PC from the photometer
  - to the photometer from the PC (existing backup data)



Note
All functions can also be executed with a USB memory device connected to the photometer.

2 Installation

2.1 PC system requirements

- Windows® compatible PC with Pentium® or compatible processor (processor capacity depending on operating system)
- Free USB connection
- Operating system from Windows® XP.
- Synchronization software:
  - Microsoft® ActiveSync®, from version 4.5.0 for Windows® XP
  - Microsoft® Mobile Device Center for Windows® Vista, Windows® 7 and Windows® 8.1.

The programs and instructions for installation are available under www.microsoft.com.

2.2 Installation under Windows®

1	Insert the installation CD for the SpectralTransfer program in the CD drive.
2	Call up the Windows® Explorer.
3	In the Windows® Explorer, select the CD-ROM drive.
4	Double-click on the "SpectralTransfer\SpektralTransfer_Vxxx_Setup.exe" program.
5	Follow the instructions of the setup program. The program is installed.



Note
For the data exchange of the photometer and PC, the software "Microsoft® .NET Framework 2.0" or higher is required in addition to the SpectralTransfer program. If the "Microsoft ® .NET Framework 2.0" software is not yet available on the PC it is automatically installed as well.

3 Establishing the connection and starting the program

3.1 Connecting the photometer to the PC

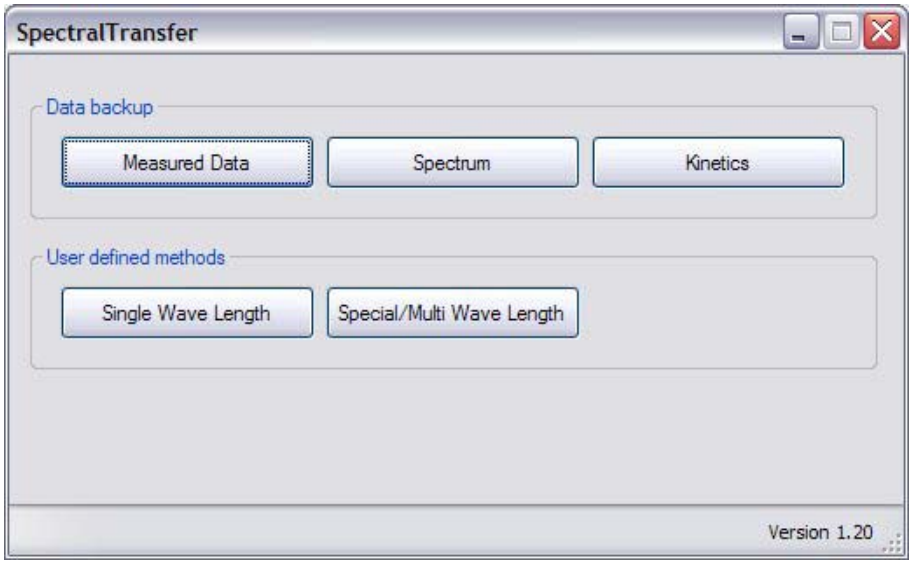
A USB cable (type A - type B) is required for the connection.
Proceed as follows:

1	Switch on the photometer.
2	Switch on the PC and log in if necessary.
3	Connect the photometer to the PC with the aid of the USB cable. The synchronization software identifies the connected device and starts automatically.
4	Windows® XP/ActiveSync® only: In the *New partnership* window, select the option *No* and press the *Continue* button.
5	The photometer is connected to the PC. You can now minimize or exit the synchronization software. The connection remains active in the background.

Note
The synchronization software is preset to start automatically as soon as the photometer is connected to the PC. If this setting has been changed you have to start the synchronization software manually, e.g. in the Windows® start menu. You can then adjust the connection settings (for details, see help function of the synchronization software).

3.2 Starting SpectralTransfer

In the Windows® start menu, click *Programs->SpectralTransfer->Spectral-Transfer*. The program starts. The SpectralTransfer main window appears.



4 Operation

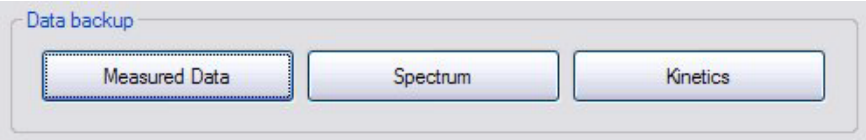
4.1 Backing up measurement data

Measurement data that should be saved to a PC must be available as *.csv files in the photometer. The following measurement data can be saved:

- Exported measurement datasets from the measurement data memory (concentration, absorbance, transmission and multi-wavelengths measurements)
- Spectra
- Kinetic records

Note
Spectra and kinetic records are automatically saved as *.csv files when stored. Measurement datasets in the measurement data memory are stored in an internal data format. These measurement datasets can be (filtered and) exported as a *.csv file to the photometer.

The backup of measurement data, spectra or kinetic records is started in the group box, *Data backup*:



Functions

Button	Function
Measured Data	Opens the dialog box to save the measurement datasets from the measuring modes, concentration, absorbance / % transmission and multi-wavelengths. Only those measurement datasets can be saved that were first exported as a *.csv file to the photometer. The backup on the PC is saved to a directory of your choice.
Spectrum	Opens the dialog box for the backup of all spectra (as a *.csv file) to a directory of your choice on the PC.
Kinetics	Opens the dialog box for the backup of all kinetic records (as a *.csv file) to a directory of your choice on the PC.

Example: Dialog box for the backup of measurement datasets (*Data Backup - Measured Data*)

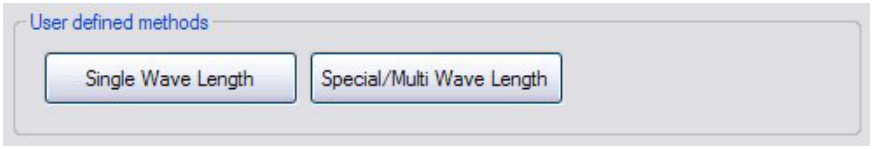


Functions

Button	Function
Change Directory	Opens the directory selection dialog box. Here you determine the target directory on your PC.
Copy All -->	Copies all files from the source directory to the target directory. Already existing files with the same name are overwritten.
Clear	Deletes all files in the meter.

4.2 Backing up user-defined methods

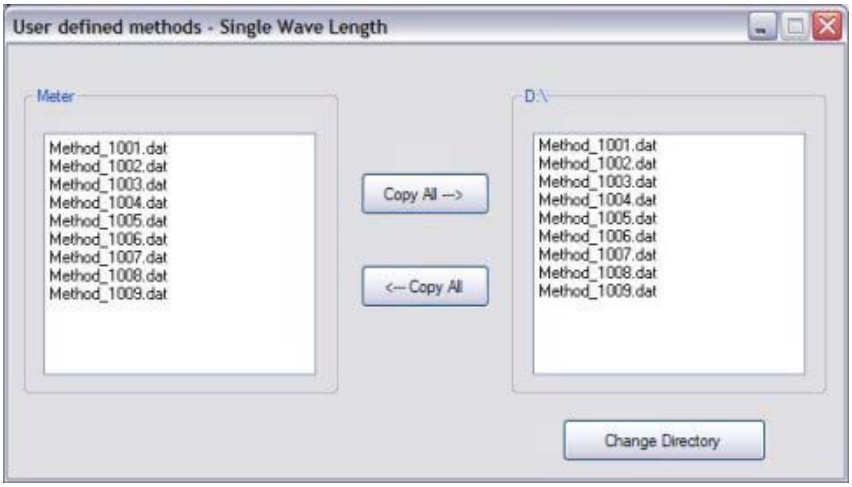
Here you can backup and recover all user-defined methods for the measuring mode, *concentration*. Thus you can, e.g., transmit the user-defined methods to a different photometer.
The backing up of user-defined methods is started in the group field, *User defined methods*:



Functions

Button	Function
Single Wave Length	Opens the dialog box for the backup of all user-defined methods for the *concentration* measuring mode to a directory of your choice on the PC.

Dialog box, user defined methods

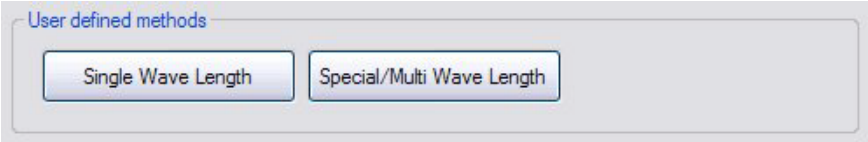


Functions

Button	Function
Change Directory	Opens a directory selection box. Here you determine the target directory on your PC.
Copy All --> <-- Copy All	Copies all files from the selected source directory to the target directory. Already existing files with the same name are overwritten.

4.3 Backing up the special/multi wave lengths methods

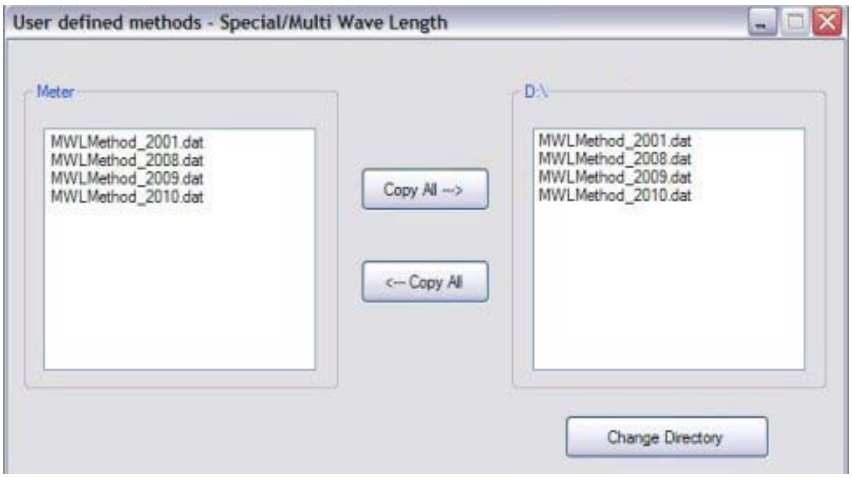
Here you can back up and recover all special/multi wavelengths methods. Thus you can, e.g., transmit the multi wavelengths methods to a different photometer.
The backing up of special/multi wave lengths methods is started in the group field, *User defined methods*:



Functions

Button	Function
Special/Multi Wave Lengths	Opens the dialog box for the backup of all special/multi wavelengths methods to a directory of your choice on the PC.

Dialog box, multi-wavelength methods



Functions

Button	Function
Change Directory	Opens a directory selection box. Here you determine the target directory on your PC.
Copy All --> <-- Copy All	Copies all files from the selected source directory to the target directory. Already existing files with the same name are overwritten.

5 What to do if ...

Error	Cause	Remedy

ERROR MESSAGE: *Connection failed!*	– No suitable photometer identified (the synchronization software did not start automatically)	– Connect the photometer
		– Interrupt and then restore the USB connection between the photometer and the PC
		  – Disconnect the USB connection between the photometer and PC
		  – Disconnect the photometer from the power supply
		  – Connect the photometer to the power supply.
		  – Establish the USB connection between the photometer and PC
		– Operating system Windows XP®: Make sure that the Microsoft® ActiveSync® synchronization software is installed

The Microsoft® ActiveSync® synchronization software does not start as a minimized window	– The settings in the ActiveSync® window *New partnership* do not correspond to the standard settings	– In the *New partnership* window, select the option *No* and press the *Continue >* button. The photometer is connected to the PC. – You can now minimize ActiveSync®. The connection remains active in the background. – Start the SpectralTransfer software (see section 3.2).