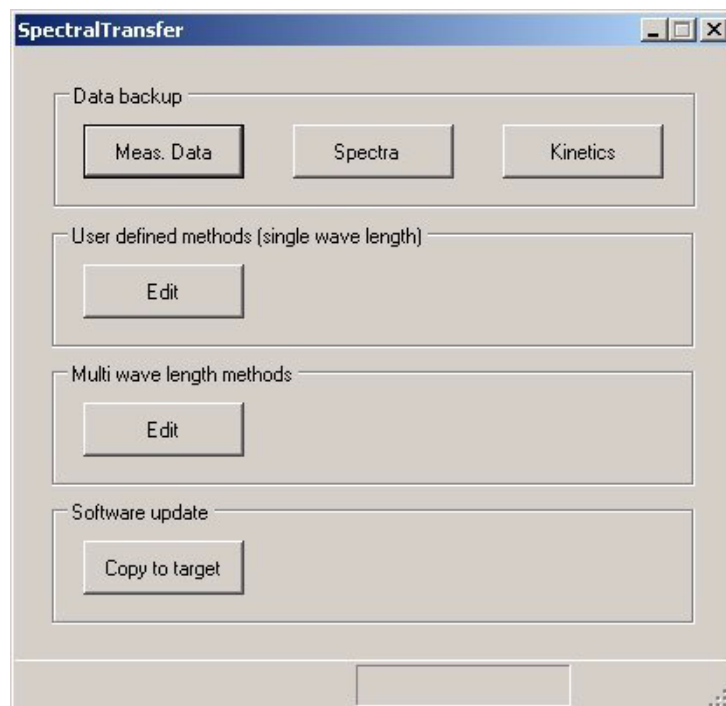


SpectralTransfer



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

**Accuracy when going to
press**

The use of advanced technology and the high quality standard of our instruments are the result of continuous development. Consequently, this may result in some differences between this operating manual and your instrument. Also, we cannot guarantee that there are absolutely no errors in this manual. Therefore, we are sure you will understand that we cannot accept any legal claims resulting from the data, figures or descriptions.

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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:

- Backup measurement data saved in the photometer in *.csv format on a PC
 - Exported measurement datasets from the measurement data memory (concentration, absorbance, transmission and multi-wavelengths measurements)
 - Spectra
 - Kinetic records
- Transmit and save user-defined methods
 - from the photometer to a PC
 - from the PC (existing backup data) to the photometer
- Carry out the software and method update

It is also possible to save the photometer data and carry out the software and method update by means of a USB memory connected to the photometer. The transmission of user-defined methods to the photometer, however, is possible with a direct connection of the PC and photometer only.

2 Installation

2.1 PC system requirements

- AT-compatible computer with Pentium processor or higher
- Free USB connection
- Operating system from Windows[®] XP.
- Microsoft[®] ActiveSync[®] synchronization software, from version 4.5.0.
The program and installation instructions can be downloaded from Microsoft[®] under www.microsoft.com.

**Note**

For the installation of programs under Microsoft[®] Windows[®] NT, 2000, XP, Vista or higher, administrator rights are required.

2.2 Installation under Windows

- Download and install the program, Microsoft[®] ActiveSync[®] (version 4.5.0 or higher).
- Insert the installation CD for the SpectralTransfer program in the CD drive.
- Call up the Windows[®] Explorer.
- Select the CD-ROM drive in the Windows[®] explorer.
- Double-click on the "SpectralTransfer\SpektralTransfer_Setup.exe" program.
- Follow the instructions of the setup program.
The program is installed.

**Note**

For the data exchange of photometer and PC, the "Microsoft .NET Framework 2.0" program is required in addition to the SpectralTransfer software.

If the "Microsoft .NET Framework 2.0" software is not yet available on the PC it is automatically installed as well.

3 Setting up 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 ActiveSync [®] program recognizes the connected instrument and starts automatically (see section 3.2)



Note

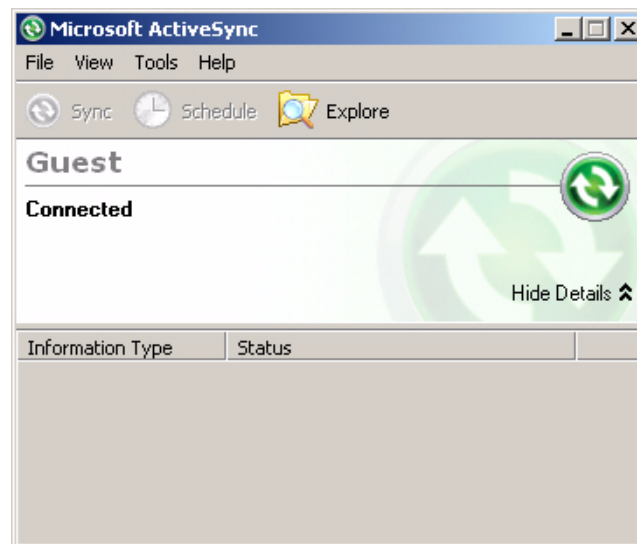
ActiveSync[®] is preset to start automatically as soon as the photometer is connected to the PC. If this setting has been changed you have to start ActiveSync[®] manually, e.g. in the Windows[®] start menu. You can then adjust the connection settings (menu, *File->Connection settings...*).

3.2 Setting up the ActiveSync[®] connection

After the start of ActiveSync[®] the following window appears:



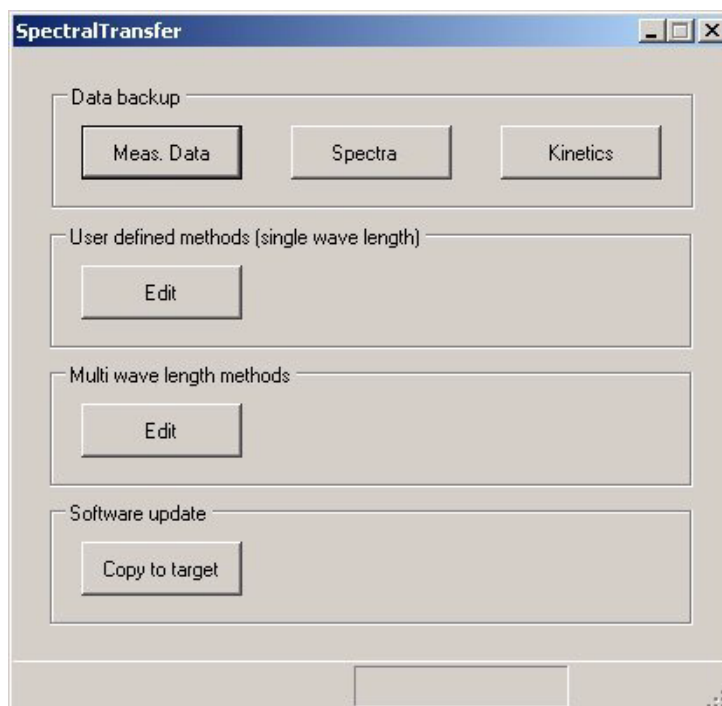
- 4 In the *New partnership* window, select the option *No* and press the *Continue >* button. The photometer is connected to the PC.

**Note**

You can now minimize or exit ActiveSync®. The connection remains active in the background.

3.3 Starting SpectralTransfer

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



4 Operation

4.1 Backing up measurement data

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

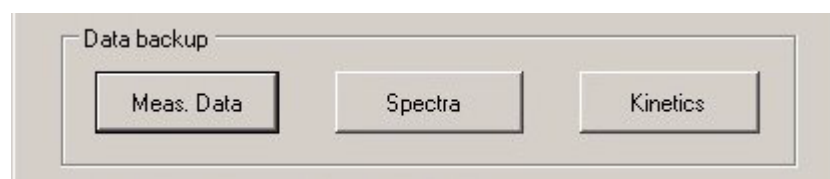
- Exported measurement datasets from the measurement data memory (concentration, absorbance, transmission and multi-wavelengths measurements)
- Spectra
- Kinetic records



Note

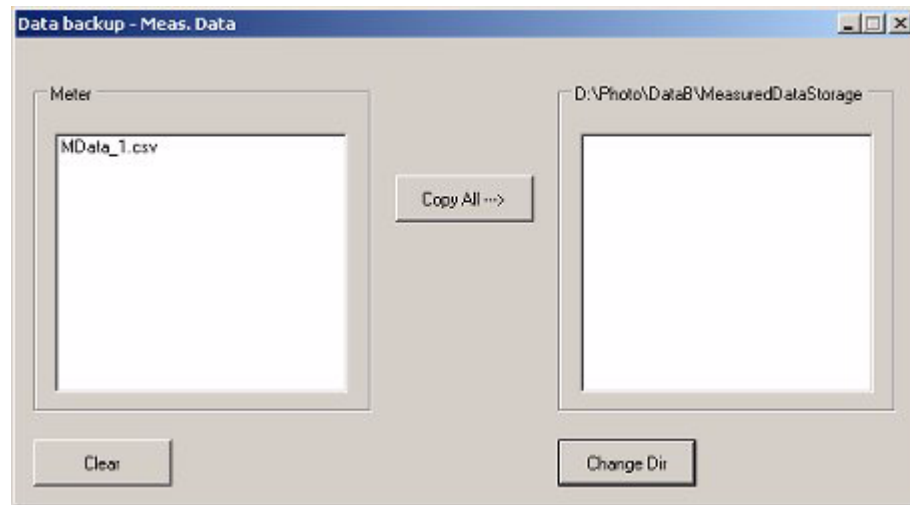
Spectra and kinetic records are automatically saved as *.csv files. Measurement datasets in the measurement data memory are stored in an internal data format. These measurement datasets can be (filtered and) exported to a *.csv file in the photometer.

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



Functions	Button	Function
	<i>Meas. Data</i>	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 into a *.csv file in the photometer. The backup on the PC is done in a directory of your choice.
	<i>Spectrum</i>	Opens the dialog box for the backup of all spectra (as a *.csv file) in a directory of your choice on the PC.
	<i>Kinetics</i>	Opens the dialog box for the backup of all kinetic records (as a *.csv file) in a directory of your choice on the PC.

Example: Dialog box for the backup of measurement datasets (*Meas. Data*)

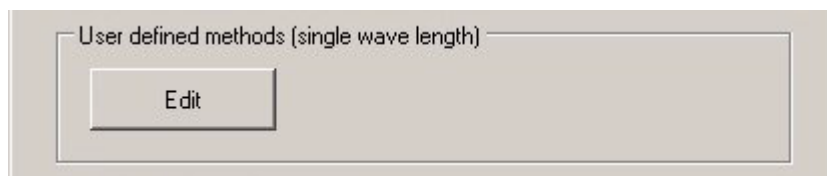
**Functions**

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

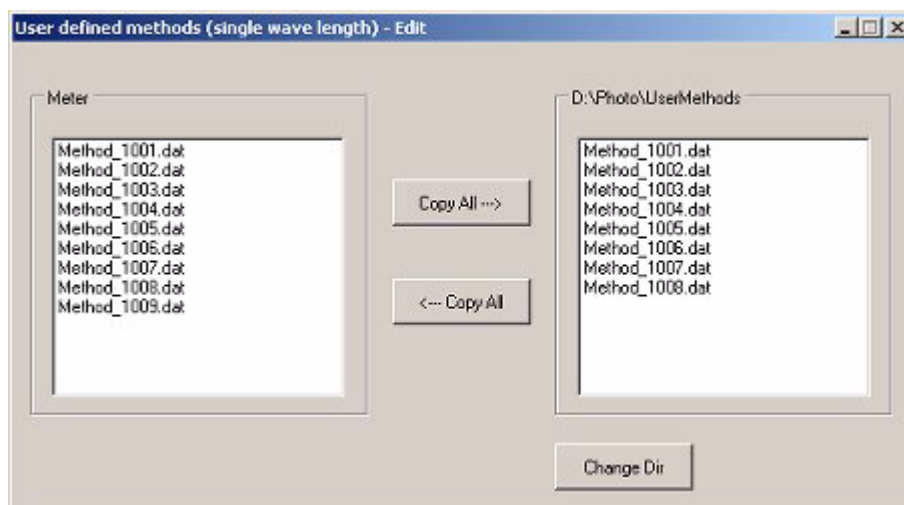
Start the backup of user-defined methods in the group box, *User defined methods (single wave length)*:



Functions

Button	Function
<i>Edit</i>	Opens the dialog box for the backup of all user-defined methods for the <i>concentration</i> measuring mode in a directory of your choice on the PC.

Dialog box, user defined methods

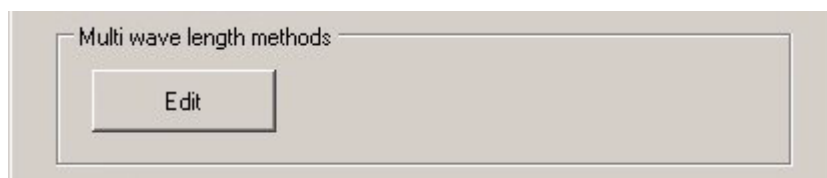


Functions

Button	Function
<i>Change Dir</i>	Opens a directory selection box. Here you determine the target directory on your PC.
<i>Copy All --></i> <i><-- Copy All</i>	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 multi wavelengths methods

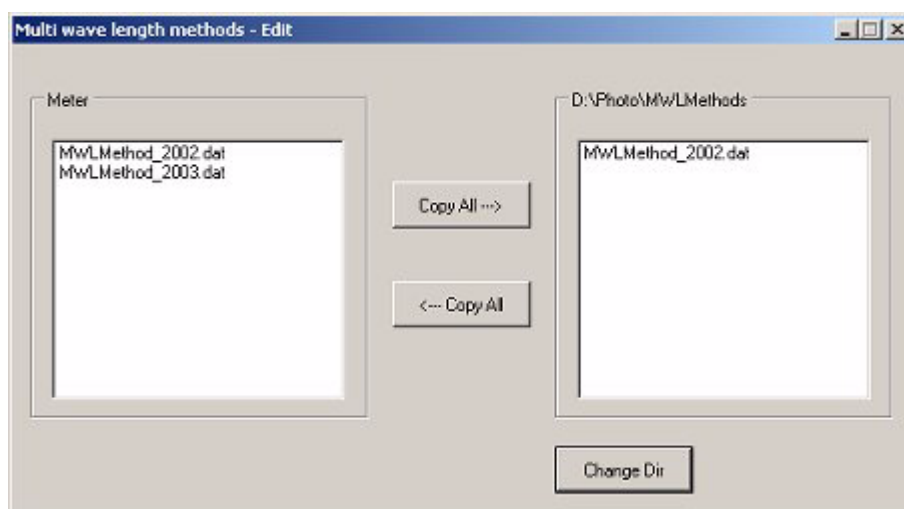
Here you can back up and recover all multi wavelengths methods. Thus you can, e.g., transmit the multi wavelengths methods to a different photometer. The backup of the multi wavelengths methods is started in the group box, *Multi wave length methods*:



Functions

Button	Function
<i>Edit</i>	Opens the dialog box for the backup of all multi wavelengths methods in a directory of your choice on the PC.

Dialog box, multi-wavelength methods



Functions

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

4.4 Software and methods update

Requirements

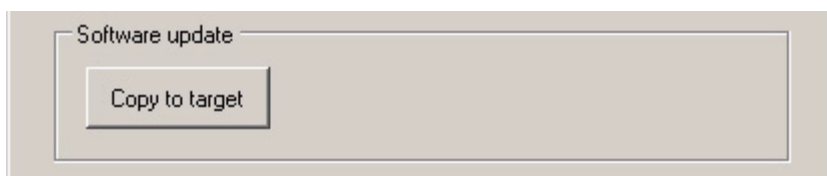
The following is required for the update:

- A free USB connection on the PC
- A USB cable (type A - type B)
- The SpectralTransfer program.
It is on the CD-ROM provided with the photometer.
- The ActiveSync[®] program.
It is available in the download area of Microsoft[®] on the Internet.
- The current photometer update file.
It is available from your photometer manufacturer on the Internet.
The update file contains:
 - the newest firmware (meter software)
 - new or changed method data.

Process of the software and methods update

Proceed as follows:

1	Unpack the contents of the downloaded exe or zip file into a directory of your choice on the PC. <u>Note:</u> Make sure the folder structure is unpacked as well. If you use an unpacking program such as WinZip, the option, "Nutze Ordernamen" or "Use Folder Names" must be set.
2	Using the USB cable, connect the photometer (USB-B connection) to the PC.
3	Switch on the photometer.
4	Start the ActiveSync [®] program on the PC.
5	Start the SpectralTransfer program on the PC (see chapter 3).
6	Press the <i>Copy to target</i> button in the <i>Software Update</i> group box.



7	In the directory with the files unpacked in step 1 select the "Update" folder. The files are transmitted to the photometer. The process takes several seconds.
---	---

The following steps are carried out at the photometer. A PC connection is no longer required.

Home	04/16/07 9:52
Concentration	
Absorbance / % Transmission	
Multi wavelengths	
Spectrum	
Kinetics	
General setup	AQA Info

- 1 Call up the main menu with the **<HOME>** key.
- 2 Using the F1 function key [*Settings*], open the *Settings* menu.

General setup	04/16/07 9:52
Language	
Date/Time	
Display settings	
User managementg	
Measured value memory	
Software/methods update	
Reset	
Data transfer/Printer	
Save all data on USB memory	

- 3 Using **▲><▼**, select the menu item *Software/methods update* and press **<START ENTER>**.

Software/methods update	04/16/07 9:52
Software/methods update	
Select source of update data:	
USB memory	
PC	
Cancel	

- 4 Using **▲><▼**, select *PC* as the source and press **<START ENTER>**.
The update process starts.

The update process takes approx. three minutes. Then the photometer restarts and carries out the self-test.



Note

If the photometer does not correctly start after a software update (e.g. no self-test due to a power failure during the software update):
Press the **<F3>** key and continue the software update.

