Operating Manual
FlashSoftPro touch
Software for ScanDrop²
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1  About this document

FlashSoftPro touch is a control and analysis program for use with the ScanDrop² spectrometer. Simple operation allows you to determine proteins, DNA and RNA using the following methods:

<table>
<thead>
<tr>
<th>Method name</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNA detection</td>
<td>$x = A(260\text{nm})$</td>
</tr>
<tr>
<td>DNA purity</td>
<td>$x = A(260\text{nm}) / A(280\text{nm})$</td>
</tr>
<tr>
<td>Ratio 230 / 260</td>
<td>$x = A(230\text{nm}) / A(260\text{nm})$</td>
</tr>
<tr>
<td>Ratio 260 / 230</td>
<td>$x = A(260\text{nm}) / A(230\text{nm})$</td>
</tr>
<tr>
<td>dsDNA concentration</td>
<td>$x[\text{ng/µl}] = A(260\text{nm}) \times 50$</td>
</tr>
<tr>
<td>ssDNA concentration</td>
<td>$x[\text{ng/µl}] = A(260\text{nm}) \times 33$</td>
</tr>
<tr>
<td>RNA concentration</td>
<td>$x[\text{ng/µl}] = A(260\text{nm}) \times 40$</td>
</tr>
<tr>
<td>Oligo detection</td>
<td>$x[\text{ng/µl}] = A(260\text{nm}) \times 30$</td>
</tr>
<tr>
<td>Protein detection</td>
<td>$x = A(280\text{nm})$</td>
</tr>
<tr>
<td>Cell culture setup (OD 600)</td>
<td>$x = A(600\text{nm})$</td>
</tr>
<tr>
<td>FOI-Cy3</td>
<td>$x[\text{pmol/µg}] = (A(550 \text{ nm}) \times 6.7) / (A(260 \text{ nm}) \times 40)$</td>
</tr>
<tr>
<td>FOI-Cy5</td>
<td>$x[\text{pmol/µg}] = (A(650 \text{ nm}) \times 4) / (A(260 \text{ nm}) \times 40)$</td>
</tr>
</tbody>
</table>

In accordance with its designated use, the FlashSoftPro touch software may only be used with the ScanDrop².

Program version

This documentation is based on the software version FlashSoftPro touch 1.3.

User requirements

This documentation is intended for qualified specialist personnel who are familiar with the underlying principles and methods of UV/VIS spectroscopy. To ensure safe operation of the device, the user must be familiar with the operating instructions of the ScanDrop² and observe the safety instructions contained therein. The software is designed for operation with a touchscreen. Users must therefore have basic knowledge of this type of operation.

Typography and other conventions

The elements of the FlashSoftPro touch software are represented as follows:

- All software elements are indicated in small capitals, e.g., NEW TEMPLATE.
- Menu commands in a command sequence always start with the main menu on the start page and are separated by an arrow ‘►’, e.g., TEMPLATES ► NEW TEMPLATE.
2 Structure and operation of FlashSoftPro touch

2.1 Starting and exiting FlashSoftPro touch

Switching on the ScanDrop² / starting the software

The FlashSoftPro touch software is an integral part of the ScanDrop². The software is started when the ScanDrop² is switched on at the power switch.

Switching off the ScanDrop² / exiting the software

Exit FlashSoftPro touch under software control. This is the only way to ensure that all storage processes are completed and data cannot be lost!

- Remove all the samples from the ScanDrop². To do so, you can open and close the large cuvette compartment with the button on the start page. Remove standard cuvettes from the cuvette holder on the top of the device and close the door manually.
  
  Note: The door of the standard cuvette holder is normally locked and can only be opened at the start of measurement and closed after a measurement.

- Select the OPTIONS GENERAL menu item and tap on .
  
  ✓ FlashSoftPro touch is exited.

- When the touchscreen is black, switch off the ScanDrop² at the power switch.
  
  ✓ The ScanDrop² is now switched off.

2.2 Basic operation

Operating the touchscreen

The FlashSoftPro touch software is characterized by a clearly arranged interface with a flat functional structure. It is designed with large buttons and input fields for convenient operation via the touchscreen of the ScanDrop².

Like in a mobile app, the data and functions are arranged on program pages which you can access via the main menu on the start page. Data is mainly entered and displayed via the program pages. Dialogs are opened for more detailed data entries.

You can activate a function or an input box by tapping on the elements. You mark values in the tables or objects in the schema in the same way. The selected objects are surrounded by a red frame.

For input fields, an alphanumeric keyboard in computer design is opened that you can use to make the entries. The keyboard window is closed with .

You can open or close a folder in the file browser by tapping on the folder twice in quick succession.

If data cannot be fully displayed on the screen, for example, in the larger result tables, tap on the list/graphic and drag it right/left or up/down to the desired position.

Projects and templates

Templates and projects form the main elements of FlashSoftPro touch. In the templates, you can specify all the parameters that you need for analyzing the samples. This is where you enter the sample data and select the methods for the analysis. You can start the measurement with a completed template.
The analysis results are stored in the projects. An overview shows you the analysis results and the measured values of the samples. You will also find the settings from the templates here again and can view the sample IDs and selected methods.

Frequently used buttons

The program functions of FlashSoftPro touch are linked to the buttons at the bottom edge of the touchscreen. The frequently used functions can be found here. Functions that are only rarely used or that are limited to one program page only are listed in the description of the corresponding program page.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Function</th>
</tr>
</thead>
</table>
| 🏡️ | Return to the HOME start page  
You will find this button at the bottom left of each program page. |
| 🎯 | Access help  
Get help on the current program page. |
| ✅ | Confirm change/input/selection |
| ⏹️ | Discard change/input/selection |
| 🔄 | Open the sample chamber and eject the adapter |
| ⌚️ | Start a measurement |
| ⚪️ | Exit FlashSoftPro touch  
This button is located on the OPTIONS ➔ GENERAL page. |
| 🔒 | Lock the touch function of the screen  
Ongoing sample measurements continue while the screen is locked. This button is located in the upper right corner of FlashSoftPro touch. |

2.3 Structure of the start page

The HOME start page appears after FlashSoftPro touch is started. All the basic functions of FlashSoftPro touch can be accessed via the menus on this page:
Structure and operation of FlashSoftPro touch

<table>
<thead>
<tr>
<th>Menu</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEMPLATES</td>
<td>NEW TEMPLATE</td>
</tr>
<tr>
<td></td>
<td>OPEN TEMPLATE</td>
</tr>
<tr>
<td></td>
<td>LAST TEMPLATE</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>PROJECTS</td>
<td>OPEN PROJECT</td>
</tr>
<tr>
<td></td>
<td>LAST PROJECT</td>
</tr>
<tr>
<td>OPTIONS</td>
<td>TOOLS</td>
</tr>
<tr>
<td></td>
<td>GENERAL</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>DATA</td>
<td>Manage projects, templates, CSV exports</td>
</tr>
<tr>
<td></td>
<td>Exchange files between a tablet PC and another PC via USB stick</td>
</tr>
<tr>
<td></td>
<td>Copy, move or delete files and folders</td>
</tr>
</tbody>
</table>

### 2.4 Structure of the program pages for templates and projects

After selecting a menu item from TEMPLATES or PROJECTS, you will access the display of the measurement and method parameters and measurement results (for projects). The parameters are summarized on tabs which contain the following information:

<table>
<thead>
<tr>
<th>Tab</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENERAL</td>
<td>General information on the measurement</td>
</tr>
<tr>
<td>ADAPTERS</td>
<td>Selection of the adapter or cuvette holder for the measurement</td>
</tr>
<tr>
<td>SAMPLE LAYOUT</td>
<td>Information on the samples and the sequence of the samples in the measurement</td>
</tr>
<tr>
<td>METHODS</td>
<td>Selection of the methods for the analysis</td>
</tr>
<tr>
<td>OVERVIEW</td>
<td>Summary of the measurement and method parameters</td>
</tr>
<tr>
<td>RESULTS</td>
<td>For projects only: Display of the measurement results</td>
</tr>
</tbody>
</table>

The program pages belonging to the templates and projects have the following structure:
Structure and operation of FlashSoftPro touch

Structure of the TEMPLATE and PROJECT program pages

<table>
<thead>
<tr>
<th>No.</th>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tab selection</td>
<td>For selecting a tab</td>
</tr>
<tr>
<td>2</td>
<td>Tab</td>
<td>Displays the contents of the selected tab</td>
</tr>
<tr>
<td>3</td>
<td>Padlock icon</td>
<td>For locking/unlocking the touch function of the screen</td>
</tr>
<tr>
<td>4</td>
<td>Toolbar</td>
<td>Functions and buttons</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The functions/buttons vary according to the contents of the current tab.</td>
</tr>
</tbody>
</table>

The data contained in the program pages can only be edited in the template. In the projects, tab contents are opened for viewing purposes only.

2.4.1 General tab – entering general information about the measurement

The GENERAL tab contains details about the title of the measurement and the user. All entries on this tab are optional.
Structure and operation of FlashSoftPro touch

2.4.2 Adapters tab – selecting the sample adapter and the number of samples

On the ADAPTERS tab, you have to specify the adapter/cuvette holder used and enter the number of samples. If you want to process a large number of samples in a measurement series, you can specify multiple measurements for the adapters, i.e., the adapter is loaded multiple times in succession within a measurement series.

When using standard cuvettes with the outer diameters (width x depth) 12.5 mm x 12.5 mm, select the radiation height (center height) under OPTIONS ➤ Tools. This is especially necessary for micro cuvettes of small sample volumes! For Butterfly Cuvette you have to select the correction factor there (→ “Specifying device settings” p. 27).
Adapters tab

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schema</td>
<td>Selection of the adapter/cuvette holder</td>
</tr>
<tr>
<td>NUMBER OF BATCHES</td>
<td>For adapters: If activated, the adapters are loaded multiple times within a measurement series.</td>
</tr>
<tr>
<td>NUMBER OF CELLS</td>
<td>For cuvette holders: Number of samples within a measurement series</td>
</tr>
</tbody>
</table>

Entering data

- In the schema, tap on the adapter used.
  - The selected option is surrounded by a red frame.
- Cuvette holder for standard cuvettes: Enter the number of samples in the sample series. You can set up to 9 samples with the slider. If you need more samples, tap on the input field above the slider and enter the number directly.
- Adapter with multiple sample positions: The number of samples that the adapter can hold is created in the measurement series by default. If you need additional sample positions, you can load the adapter multiple times in succession. Activate the NUMBER OF BATCHES option. Set the number of times the adapter should to be loaded with the slider (up to 8) or enter the number directly in the input field above the slider (any number).
  - The selected number of samples/multiple measurements is transferred to the sample table on the SAMPLES tab.

Note

The adapter selection affects the appearance of the sample table on the SAMPLES tab. The system also checks at the start of the measurement whether the specified adapter is actually used. If the adapter is not found, an error message is displayed and the measurement cannot be started.
2.4.3 Samples tab – specifying the sample table

On the SAMPLE LAYOUT tab, you can specify the sample sequence within the measurement series and the sample properties required for the analysis. You can define the sample sequence either in the schematic representation or in the sample table. You can switch between the two views with the buttons in the toolbar:

<table>
<thead>
<tr>
<th>Button</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Switch to table view</td>
</tr>
<tr>
<td></td>
<td>Switch to sample schema</td>
</tr>
</tbody>
</table>

Sample schema

The sample schema graphically displays the sample assignment in the adapter. The occupied sample positions are colored according to the sample type.

If multiple measurements (NUMBER OF BATCHES activated) have been specified for the adapter (→ “Adapters tab – selecting the sample adapter and the number of samples” p. 10), a column of dots will appear on the right of the tab (arrow in the figure above). The dots symbolize the sequence in which the adapter is loaded. The upper dot represents the first load, the next dot represents the second load, etc. The load currently displayed on the tab is symbolized by a red dot. You can switch between the individual loads by swiping over the column of dots.

Sample properties

You can define the following sample properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAMPLE NAME</td>
<td>Name of sample</td>
</tr>
<tr>
<td>DILUTION</td>
<td>Dilution factor. The dilution factor is taken into account in the result calculation.</td>
</tr>
</tbody>
</table>
Structure and operation of FlashSoftPro touch

<table>
<thead>
<tr>
<th>Layer Thickness</th>
<th>For standard cuvettes: Selection of the layer thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>For the CHIPCUVETTE: Selection of the measurement position in the measuring channel (0.1 mm or 1 mm)</td>
</tr>
<tr>
<td></td>
<td>The measured absorption is normalized to a layer thickness of 10 mm.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>The assigned sample types are symbolized by colors in the sample schema:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference</td>
<td>red</td>
</tr>
<tr>
<td>Sample</td>
<td>green</td>
</tr>
<tr>
<td>Standard</td>
<td>blue</td>
</tr>
<tr>
<td>Empty</td>
<td>white</td>
</tr>
<tr>
<td></td>
<td>Sample without an analyte for the purpose of determining the baseline</td>
</tr>
<tr>
<td></td>
<td>Sample with an unknown analyte concentration</td>
</tr>
<tr>
<td></td>
<td>Sample with a known analyte concentration (currently not yet used in the methods)</td>
</tr>
<tr>
<td></td>
<td>This measurement position in the adapter is empty. No measured value is determined for this measurement position.</td>
</tr>
</tbody>
</table>

Entering data

- If performing multiple measurements, select the desired load in the column of dots.
- In the schema, tap on the sample whose parameters are to be entered. You can mark adjacent samples to which you want to assign the same values by swiping over the icons with your finger or by tapping on the icons one after another.
  ✓ The selected sample positions are marked with a red frame.
- Activate the input mode with (located at the top right of the tab).
- Select the sample type with the colored fields on the right side and enter additional sample properties in the input fields.
- Tap on the schema and thus confirm the entries.
  ✓ The tab switches back to view mode.
- Assign the properties to all further samples in the same way.

Notes on the reference measurement

A reference is required at the beginning of the measurement. A reference must therefore always appear at the first position in the sample table. Further reference measurements can be specified within a sample series. In this case, the reference is always valid for the following samples.
Sample schema in editing mode

If several samples have the same properties, assign them in the sample schema and then switch to the sample table in order to enter the different properties, e.g., individual sample names.

Sample table

You can switch to the sample table view by tapping on in the sample schema view.

If performing multiple measurements in adapters (multiple loads), the individual loads are summarized in an overview. You can switch between the loads by swiping over the column of dots.

For measurements in the holder for standard cuvettes, all samples are listed in a continuous table. If there are more than 9 samples in a measurement series, the samples are only displayed in the sample table. The sample schema is not available in this case.
2.4.4 Methods tab – selecting the analysis method

On the METHODS tab, select the analysis method that is to be applied to the samples.

**METHODS tab**

The following methods are available:

<table>
<thead>
<tr>
<th>Method name</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNA detection</td>
<td>( x = A(260\text{nm}) )</td>
</tr>
<tr>
<td>DNA purity</td>
<td>( x = A(260\text{nm}) / A(280\text{nm}) )</td>
</tr>
<tr>
<td>Ratio 230 / 260</td>
<td>( x = A(230\text{nm}) / A(260\text{nm}) )</td>
</tr>
<tr>
<td>Ratio 260 / 230</td>
<td>( x = A(260\text{nm}) / A(230\text{nm}) )</td>
</tr>
<tr>
<td>dsDNA concentration</td>
<td>( x[\text{ng/µl}] = A(260\text{nm}) \times 50 )</td>
</tr>
<tr>
<td>ssDNA concentration</td>
<td>( x[\text{ng/µl}] = A(260\text{nm}) \times 33 )</td>
</tr>
<tr>
<td>RNA concentration</td>
<td>( x[\text{ng/µl}] = A(260\text{nm}) \times 40 )</td>
</tr>
<tr>
<td>Oligo detection</td>
<td>( x[\text{ng/µl}] = A(260\text{nm}) \times 30 )</td>
</tr>
<tr>
<td>Protein detection</td>
<td>( x = A(280\text{nm}) )</td>
</tr>
<tr>
<td>Cell culture setup (OD 600)</td>
<td>( x = A(600\text{nm}) )</td>
</tr>
<tr>
<td>FOI-Cy3</td>
<td>( x[\text{pmol/µg}] = (A(550 \text{ nm}) \times 6.7)/\left( A(260\text{ nm}) \times 40 \right) )</td>
</tr>
<tr>
<td>FOI-Cy5</td>
<td>( x[\text{pmol/µg}] = (A(650 \text{ nm}) \times 4)/\left( A(260\text{ nm}) \times 40 \right) )</td>
</tr>
</tbody>
</table>

- Activate the methods by tapping on the checkbox in front of the method name.
  - The activated methods are marked with a checkmark.
2.4.5 Monitoring tab

On the Monitoring tab, you will find a short summary of the parameter settings in the template. You can also start the sample measurement.

![Monitoring tab screen capture]

OVERVIEW tab

The following settings are displayed:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>Title of the measurement (GENERAL tab)</td>
</tr>
<tr>
<td>ADAPTER</td>
<td>Selected cuvette adapter/holder for standard cuvettes (ADAPTERS tab)</td>
</tr>
<tr>
<td>METHODS</td>
<td>Selected methods (METHODS tab)</td>
</tr>
<tr>
<td>SAMPLE NUMBER</td>
<td>Selected number of samples (ADAPTERS tab)</td>
</tr>
</tbody>
</table>

You can change all the settings on the tabs before the first measurement is started, with the exception of the settings on the ADAPTERS tab.

To start the measurement, go to the OVERVIEW tab and tap on "Starting a measurement" p. 19).

2.4.6 Results tab – displaying the measurement results

The RESULTS tab is part of the project and, after a measurement has been performed, it contains the measured values and the method results in tabular form. You can also display the spectra curves.

On the RESULTS tab, you can save the measurements as projects and export the measurement results in CSV format.
RESULTS tab with the sample table

Displaying spectra

You can display individual spectra or multiple spectra in overlay view mode.

- Mark the samples by tapping on the corresponding rows in the table.
  - The marked samples are surrounded by a red frame.
- If you have not marked a sample, all spectra curves of the table are displayed in overlay format.
- Tap on  in the toolbar located below the table.
  - The spectra of the selected samples or all spectra are displayed.
- You can enlarge a graphic section by tapping on the touchscreen with two fingers and then spreading your fingers. Conversely, to reduce the graphic section again, close two spread fingers on the touchscreen.
- If you swipe over the touchscreen, you can move the displayed spectra section in the corresponding direction.
- To return to the tabular view, tap on .
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RESULTS tab with spectra
3 Templates and measurements

In the templates you can specify all the parameters that you need for analyzing the samples. You enter the sample data there and select the methods for the analysis. You can start the measurement with a completed template.

3.1 Creating a new template

You can create a new template with the data required for the analysis and start an analysis immediately afterwards. To do so, simply select the sample adapter, enter the sample IDs and activate the methods.

- On the start page, select the TEMPLATES NEW TEMPLATE menu item.
- Make the necessary entries or settings on the GENERAL, ADAPTERS, SAMPLE LAYOUT and METHODS tabs. For more information on the parameters and their functions, refer to the section "Structure of the program pages for templates and projects" p. 8.
  ✓ You can start a measurement with the template or save the template for subsequent measurements.

3.2 Starting a measurement

In order to perform a measurement, you need a template that you can either create as new or load.

- In the template, switch to the MONITORING tab.
  ✓ The system checks whether all the settings required for the measurement on the device side are available in the template.

- Tap on .
  ✓ The sample chamber opens.

- When prompted by FlashSoftPro touch, load the selected adapter with the samples according to the order in the sample table. Then tap on .
  ✓ The sample chamber closes and the measurement is performed. The cuvette compartment opens automatically after the measurement.

- If performing multiple measurements: Insert the next samples when prompted. Then tap on .
  ✓ The next measurement starts.

- After the last measurement: Remove the samples and close the cuvette compartment with .
  ✓ The measurement is complete. The results are displayed on the RESULTS tab.
In the template, switch to the OVERVIEW tab.

- The system checks whether all the settings required for the measurement on the device side are available in the template.

- Tap on  

- When prompted by FlashSoftPro touch, slide open the door of the cuvette shaft and insert the reference (sample 1).

- Start the measurement with .

- The reference measurement is performed.

- When prompted, place the next sample in the cuvette shaft according to the sample table and start the measurement with .

- Continue until all the samples in the sample table have been processed. Then remove the last sample from the cuvette shaft and close the door.

- Tap on  

- The measurement is complete. The results are displayed on the RESULTS tab.

Note on opening/closing the door of the cuvette shaft

The door above the cuvette shaft is mechanically locked. The lock is only opened under software control when a measurement is performed in the cuvette shaft. Therefore, do not open the door until prompted to do so by the software. Close the door after the last measurement and then tap on (see above). The door is locked again.

Displaying the results

A project is created with the display of the measured values and the results of the formula stored in the method on the RESULTS tab. For more information about the displays on the RESULTS tab, refer to the section "Results tab – displaying the measurement results" p. 16. You can save the project with the measurement data and results with (→ "Saving a project" p. 22).

3.3 Saving a template

You can save the settings in a template and use them for subsequent measurements. If you frequently have the same measurement task, you can also store these templates in the quickstart and thus have the same templates available when you switch on the ScanDrop².

- Tap on  on the template page.

- The FlashSoftPro touch file browser opens.

- Select the storage location (external USB stick or tablet device memory).

- Enter the name of the template in the TEMPLATE field.

- Confirm your entries with the button.

- The template is saved with the file extension ".sdt".
If you have made settings on the SAMPLE LAYOUT tab, you can no longer change any parameters on the ADAPTERS tab. This means that you can no longer change the number of samples later. If you require a variable sample table in the template, then specify a sufficiently large number of samples. Assign the EMPTY sample type to sample positions in the sample table that are not required. Empty sample positions are not taken into account in the measurement and also do not appear in the result table.

### 3.4 Opening templates

You can open a saved template and use it for a measurement. For this purpose, you can vary the parameters in the template, with the exception of the parameters on the ADAPTERS tab.

- On the start page, select the TEMPLATES ➤ OPEN TEMPLATE menu item.
  - The FlashSoftPro touch file browser opens.
- Select the storage location (external USB stick or tablet device memory).
- Mark the template and tap on ✓
  - The template opens and appears on the template page.
4 Projects

The analysis results and all the parameters of the template for the measurement are stored in the projects.

4.1 Saving a project

After performing a measurement, you can save the measurement results and parameters of the template.

- On the template page, switch to the RESULTS tab.
- Tap on .
  ✓ The FlashSoftPro touch file browser appears.
- Select the storage location (external USB stick or tablet device memory).
- Enter the name in the PROJECT field.
- Confirm your entries with the button.
  ✓ The project is saved with the file extension ".sdt".

Note: If the project is not saved, the next measurement can be started with the current template after the measurement has been performed. In this case, the measurement results are overwritten.

4.2 Opening a project

You can open a saved project again in order to view it.

- On the start page, select the PROJECTS  
  OPEN PROJECT menu item.
  ✓ The FlashSoftPro touch file browser appears.
- Select the storage location (external USB stick or tablet device memory).
- Mark the project and tap on
  ✓ The project is opened and displayed with the RESULTS tab.

4.3 Exporting measurement results

You can export the table on the RESULTS tab to a CSV format.

- On the template page, switch to the RESULTS tab.
- Tap on
  ✓ The FlashSoftPro touch file browser appears.
- Select the storage location (external USB stick or tablet device memory).
- Enter the file name in the EXPORT field.
- Confirm your entries with the button.
  - The data is saved with the file extension ".csv".
By default, FlashSoftPro touch starts with the start window, via which all functions can be accessed. If you prefer to work with selected methods/templates, you can make them available in the quickstart after switching on the ScanDrop².

If the quickstart is activated, the following view appears after the program start when switching on the ScanDrop²:

Quickstart with two methods

If you tap on a method, the corresponding template appears. Vary the parameters if necessary and start the measurement.

If you want to switch from the quickstart to the start page, tap on 🏠. Conversely, you can access the quickstart from the start page by tapping on 📚, provided that the quickstart is activated.

You can configure and activate the quickstart on the OPTIONS / GENERAL page.

- On the start page, select the OPTIONS ➤ GENERAL menu item.
- Tap on 📚.
  - The Quickstart Configurator appears in which you can store up to 8 templates. It is however not necessary to occupy all 8 quickstart spaces.
Quickstart Configurator

- In the row that you want to edit, tap on .
  - The input fields in the row are surrounded by a red frame.
- In the field in the NAME column, enter a name under which the template should be displayed.
- Tap on the field in the TEMPLATE column and select the template in the file browser. **Note:** To open a folder in the file browser, tap on the folder twice quickly.
- Once you have specified all the required templates, confirm your entries with .
- Activate the quickstart on the OPTIONS / GENERAL page.
6 Locking the touch function

The screen touch function can be locked at any time. Ongoing processes (measurements) continue while the screen is locked.

- Tap on the lock icon in the upper right corner of the screen.
  - The touch function is locked. A padlock icon appears in the middle of the screen.
- To unlock the screen, tap again on the padlock icon in the upper right corner.
  - The screen is unlocked for further entries.
7 Options

7.1 Specifying device settings

On the TOOLS page you can make following settings:

- Selecting the center height of the cuvettes used
- Selecting the correction factor of the Butterfly Cuvette
- Initializing the device

In the ScanDrop² you can use cuvettes with the outer dimensions (W X D) 12.5 x 12.5 mm and center heights of 8.5 mm, 12 mm and 15 mm. The center height is set in the device under software control.

- Select the OPTIONS > TOOLS menu item.
- Mark the center height of the cuvettes used for the cuvette holder (STANDARD CUVETTE) and the cuvette changer (STANDARD CUVETTE ADAPTER).
- Exit the TOOLS page with .

During the next measurement, the set center height is adopted.

With the correction factor, the Butterfly Cuvette is adapted to the geometry of the optical beam path of the ScanDrop² and production-related deviations in the Butterfly Cuvette layer thickness are compensated. Due to the small layer thicknesses of the sample places in the Butterfly Cuvette, even small deviations can falsify the measurement results. The correction factor is specific for each ScanDrop² and the corresponding Butterfly Cuvette and is determined ex works and stored on the instrument. The correction factor for older devices can be determined by the service department at a later date.
You can choose between three correction factors:

<table>
<thead>
<tr>
<th>Correction factor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (NO_CORRECTION)</td>
<td>Do not use correction</td>
</tr>
<tr>
<td>0 (80)</td>
<td>General correction factor Use this correction factor if no specific correction is available.</td>
</tr>
<tr>
<td>CORRECTION FACTOR(SERIAL NUMBER)</td>
<td>Specific correction factor of the Butterfly Cuvette used</td>
</tr>
</tbody>
</table>

- Select the menu point OPTIONS ➤ TOOLS.
- Select the correction factor of your Butterfly Cuvette. The serial number, you can find on the bottom of the Butterfly Cuvette.

**Notice:** If you use several Butterfly Cuvettes, a specific correction factor is stored for each Butterfly Cuvette.

- Exit the TOOLS page with 🏡.
- The correction factor is taken into account for the next measurement. The correction factor remains active until the next change.

During initialization, the mechanical drives in the ScanDrop² are moved to their initial position. If error messages occur indicating that the drives are positioned incorrectly, you can correct the error in this way without having to switch off and restart the device.

- Select the OPTIONS ➤ TOOLS menu item.
- Tap on 🔄.
  ✓ The ScanDrop² is initialized.

### 7.2 General settings

For general settings in FlashSoftPro touch, select the OPTIONS ➤ GENERAL menu item from the start page.

On the GENERAL page, you will find the following information or you can make the following settings:

- Language selection
- Activation and configuration of the quickstart (➔ "Quickstart" p. 24)
- Program version
- Software update
- Activation of the automatic changeover from summer to winter time
Select language

Display device information

- Tap on 
  next to VERSION INFO.
  
The following device data and version numbers are displayed:
- Serial number of the device
- Software and firmware version
- Service contact details
- Manufacturer address and contact

Updating the software with an update

- Plug the USB stick with the software update into a USB port on the tablet. The setup must be located in the root directory of the USB stick.
- Tap on 
  next to UPDATE.
  ✓ The update is started. Follow the further instructions on the screen.

Selecting the time zone / setting the clock automatically to summer/winter time

You can adapt the system time to the current time zone and automatically set the system clock to summer or winter time.

- Select the relevant zone from the TIME ZONE list.
- Activate the ADAPT DAY LIGHT AUTOMATICALLY option for the automatic time changeover.

Note: This option is not available for all time zones.
8  Data management

The operating system of the tablet with FlashSoftPro touch is a closed system. The tablet has no active antivirus protection. The user is responsible for the safety of the USB stick!

In the FlashSoftPro touch file browser you can copy templates and projects as well as the export files to a connected USB stick, create new folders and organize the files.

You can create the following data formats in FlashSoftPro touch and manage them in this file browser:

<table>
<thead>
<tr>
<th>Extension</th>
<th>File type</th>
</tr>
</thead>
<tbody>
<tr>
<td>.sdt</td>
<td>Template</td>
</tr>
<tr>
<td>.sdp</td>
<td>Template</td>
</tr>
<tr>
<td>.csv</td>
<td>Measurement results in csv</td>
</tr>
</tbody>
</table>

The folder for storing data is DOCUMENTS. In this folder, you can create any number of sub-folders in the file browser. To open a folder in the file browser, tap on the folder twice in quick succession.

- On the start page, select the DATA menu item.
  - The file browser appears.

![File browser in FlashSoftPro]

<table>
<thead>
<tr>
<th>Button</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Create new folder</td>
</tr>
<tr>
<td></td>
<td>Rename folder/file</td>
</tr>
</tbody>
</table>
Data management

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delete folder/file</td>
<td></td>
</tr>
<tr>
<td>Cut folder/file</td>
<td>The folder/file is copied to the clipboard and removed from its original storage location</td>
</tr>
<tr>
<td>Copy folder/file to the clipboard</td>
<td></td>
</tr>
<tr>
<td>Paste folder/file from the clipboard to a selected folder</td>
<td></td>
</tr>
</tbody>
</table>

Exchanging folders/files between the tablet and a USB stick

- Tap on the file that you want to transfer.
  - The file you marked is indicated with a red bar.
- Copy the file to the clipboard with or cut it out with .
- Tap on the target folder. To open a folder, you have to tap on it twice in quick succession.
- Paste the file into the target folder with .
  - The file has now been transferred. You can copy/move folders in the same way.

Creating a new folder

- In the folder area of the tablet or the USB stick, tap on the folder under which you want to create another folder.
- Tap on and enter the folder name.
- Confirm your entries with .
  - The new folder is added to the folder structure.

Renaming files/folders

- Tap on the folder or file and then on .
- Enter the new name in the input field.
- Confirm your entry with .
  - The folder or file now appears with the new name.

Deleting a folder/file

- Tap on the folder or file and then on .
- Confirm the query for deleting the folder/file with .
  - The folder or file is deleted.