Operating manual



Titrette®

Software 4.02

Imprint

BRAND GMBH + CO KG
Otto-Schott-Str. 25
97877 Wertheim (Germany)
T +49 9342 808 0
F +49 9342 808 98000
info@brand.de
www.brand.de

More operating manuals and translations?
Please refer to http://www.brand.de/om or use the following Quick Response Code:

The original operating manual is in German. Other languages are translations of the original operating manual.

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1 Introduction

This program is designed to transmit titration data from the Titrette® bottle-top burette to a PC. The titration data can be transmitted either immediately or later into a spreadsheet program, e.g., into an Excel-file.

The connection between instrument and PC is done with the included connector cable for RS 232 communication interface (COM-connection).

The program supports the connection of several instruments to one PC according to the number of available RS 232-ports.

For connection with an USB-interface please use a standard USB/RS 232-adapter (with 1 to 8 RS 232 interfaces).

If the instrument should be used distant from the PC e.g., in a production setting, it is possible to bridge up to 20 m with an appropriate RS 232-cable. Also standard RS 232/LAN adapters allow a network connection.

Notes for programmer: The data transmission uses the keyboard buffer. Therefore all programs, which accept a keyboard input, can receive the titration data. For customized applications and databases is possible to readout the titration data from the protocol files (.ptk-files). These are files with uncoded clear text (ASCII-files). Since the RS 232 communication protocol (see data “RS 232 communication protocol Titrette.pdf” at this CD) is open, it is possible to convert the serial data string directly, e.g., in a database.

2 Install programm

2.1 System requirements

The installing requires operating systems as follows:

WINDOWS® 7 (Service Pack 1) or higher

2.2 Authorization

You need the authorization to install software and the writing rights for the necessary files. If you adopt the initial settings the program will be installed under C:\Programs \BRAND\Titrette\ and the data will be saved under C:\BRAND\Logfiles. If you do not have the authorizations or rights named above, please contact your system administrator.

2.3 Before installing

If there is a former version of Titrette® Software installed on your PC, it has to be uninstalled. To do so, click-**Start** > **BRAND** > **Programme** > **Titrette®** >**Uninstall**and follow the instructions on the screen.

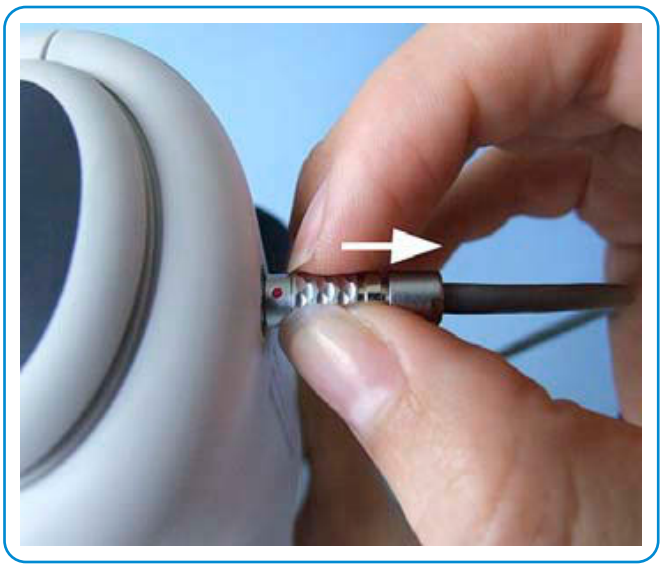
Only the software will be deleted, your log files will be retained.

2.4 Install Titrette® Software 4.02

Open the folder “English“ of the CD and then open the folder “Titrette® Software 4.02“. Double-click “setup.exe“ and follow the setup-assistant. If you adopt the initial settings the program will be installed under C:\Programs\BRAND\Titrette\. After successfully installation you will find an icon to start the program on the desktop.

3 Connecting Titrette® and the PC

Connect the bottle-top burette Titrette® with the RS 232-port (COM-connection) of your PC using the delivered cable, respectively use an USB/RS 232-adapter to connect the cable to an USB port.





To connect the instrument, plug the cable into the locking socket of the instrument, the red dot facing upwards. To disconnect the instrument draw the sliding sleeve backwards to remove the plug. Never pull on the cable!

4 Start programm

a. Start the program with a double-click on the icon BRAND - Titrette® on your desktop, or with **Start** > **All Programs** > **BRAND** > **Titrette®** > **Software 4.0**2.

b. After starting the program the **BRAND – Instrument Window** opens on your desktop and the **BRAND – Instrument Manager** opens in a minimized view (task bar).

4.1 Instrument Window

(Tabs: Titrette®, Data Logging and Target Application)

The communication between the instrument and the PC can be controlled in the **BRAND - Instrument Window.** If there are several instruments connected to the PC, each instrument opens its own window. In this window the instrument data and settings are displayed, for later applications, e.g., which COM-port is used by the burette (COM1, COM2, …), etc.

If the “Transferred Data“ does not match the “Stored Data“ during reconnection the differing field will show a red background.

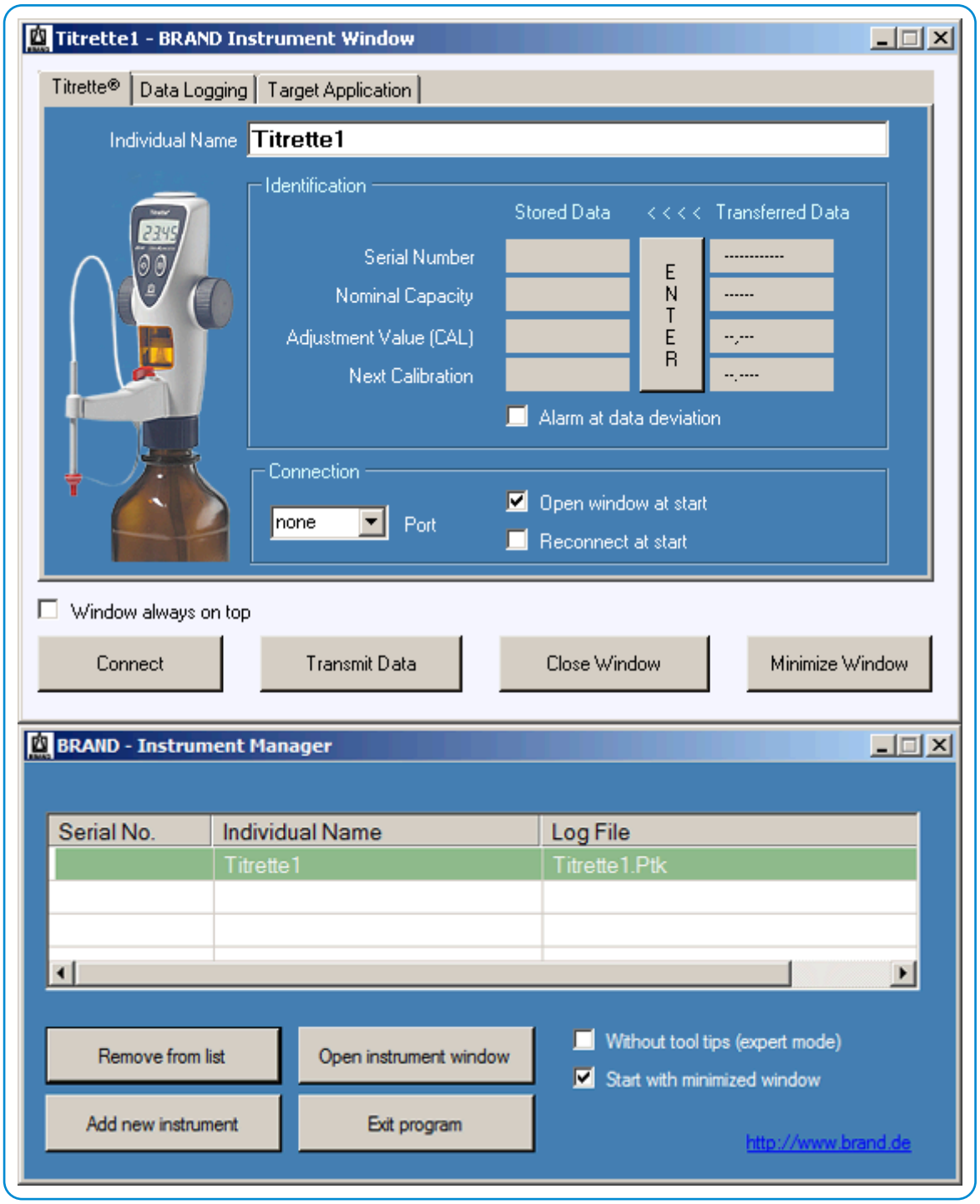
4.2 Instrument Manager

The window **Instrument Manager** is needed when several instruments are connected. To open one or more Instrument Windows mark them in the list and press the button “**Open instrument window”**. Double-click on the highlighted line will also open the Instrument Window. Open Instrument Windows are marked by green lines in the instrument list. Using the buttons below you can add or remove instruments in the list. (This table is not directly editable).

4.2.1 Tool tips

Automatically displayed texts explain the functions of the buttons. You can switch off this option, choosing “expert mode” in the Instrument Manager.

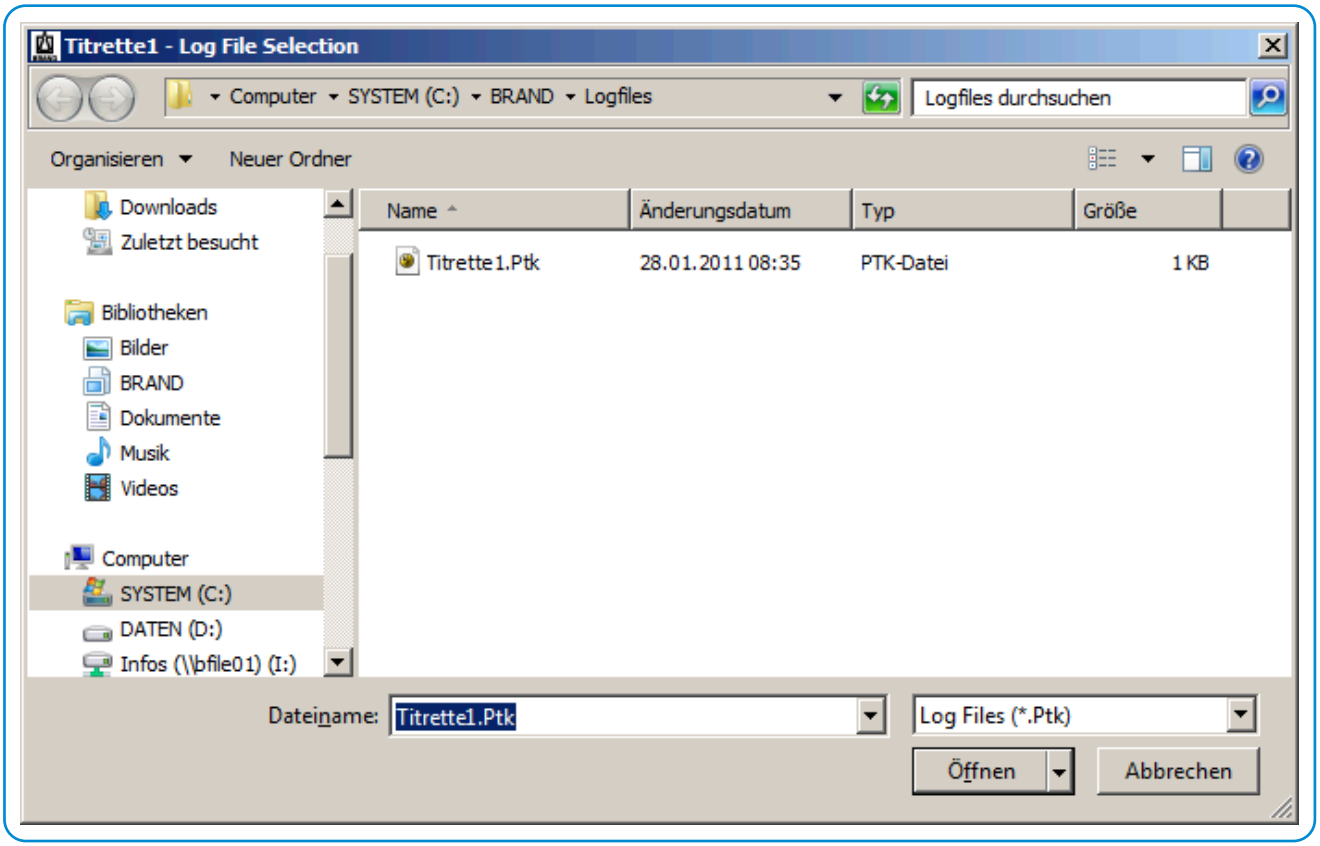
5 Connecting the instrument (Instrument Window, tab Titrette®)



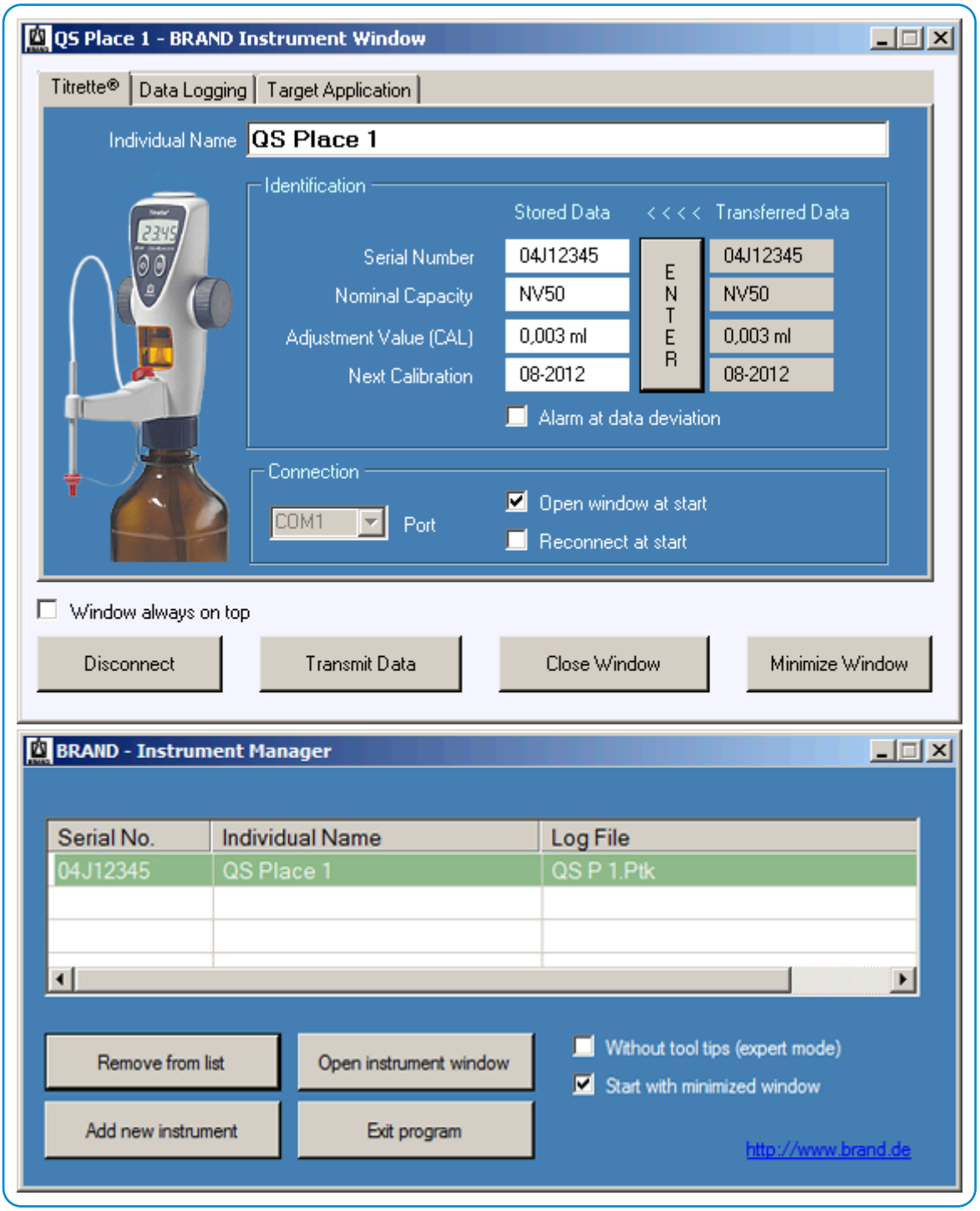
a. Click the tab Titrette® and choose the appropriate COM-port in the pull-down menu at Port for the connected instrument. Click the button “Connect“ at the lower window border.

b. When you set a checkmark at “**Reconnect at start**“, the connection will be established automatically at restart of the program.

c. If the instrument is correctly connected, the burette will show the symbol for the computer connection (square with enter sign) in the upper right corner of its LCD and on the PC desktop the dialog window **Log File Selection** pops up.



d. In the window **Log File Selection**, you may enter the file name (example: QS P1) and the folder location (example: C:\BRAND\Logfiles) for your measurement. QS P1) and the folder location (example: C:\BRAND\Logfiles) for your measurement. For confirmation click on the button **“Open”**.



e. Now enter the name of your burette into the field Individual Name (example: QS Place 1), in the tab **Titrette®** and click the button “Enter“ in the field Identification.

f. Now this data is adopted automatically in the first line of the **Instrument Manager**.

6 Transmission of titration data to the PC (Instrument Window, tab Data Logging)

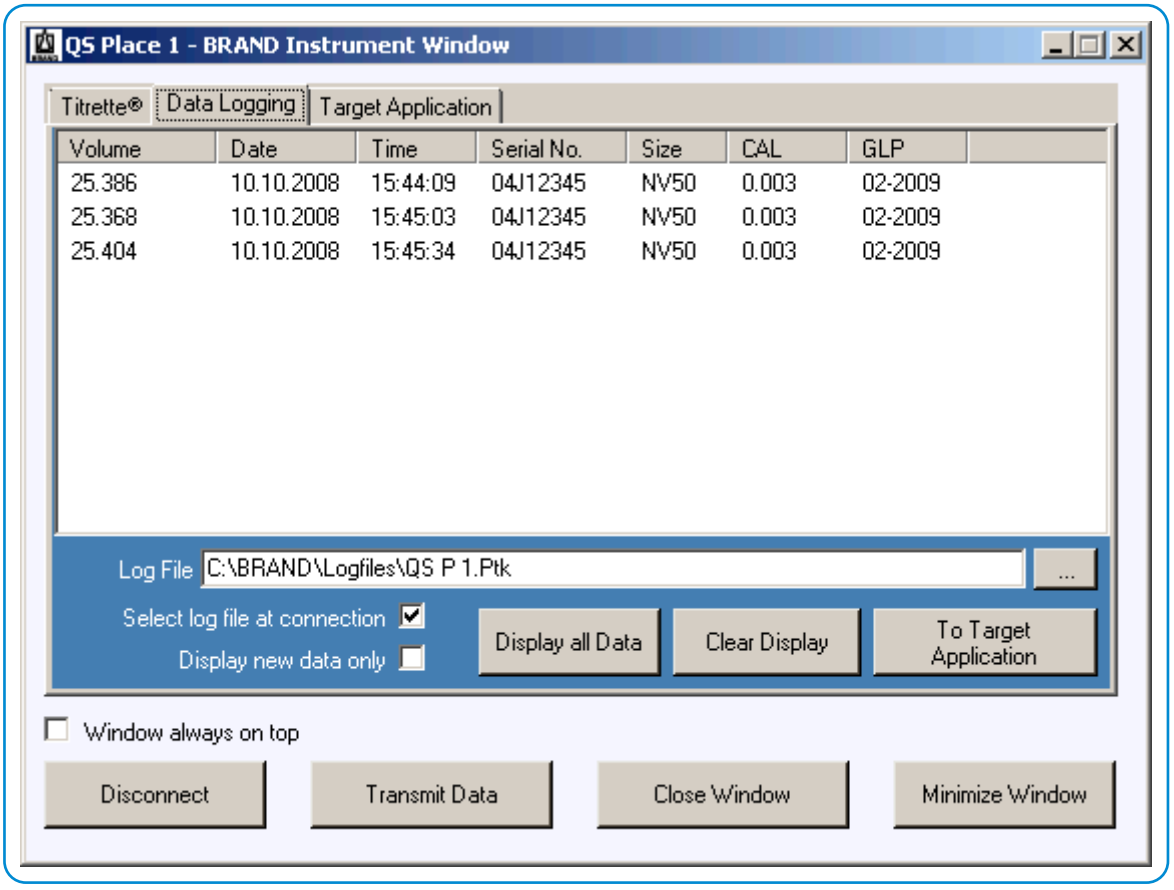
6.1 Transmission of titration volume

After titration, the displayed titration volume is transmitted into the chosen logging file (example: C:\BRAND\Logfiles\QS P1.Ptk) by a double-click on the instrument's CLEAR key.

Note: If the gap between the two clicks is to long, the display will be set to zero at the first key press (the sign for PC-connection is flashing) and with the second key press the titration value will be restored. The instrument behaves like an instrument without communication interface. No data will be transmitted!

Alternatively instead of double-clicking the instrument's CLEAR-key, you can click on the button **"Transmit Data"** in the Instrument Window on the desktop of the PC. The instrument's display is not zeroed when the button "Transmit Data" is pushed.

The transmitted data are listed in the tab **Data Logging**.



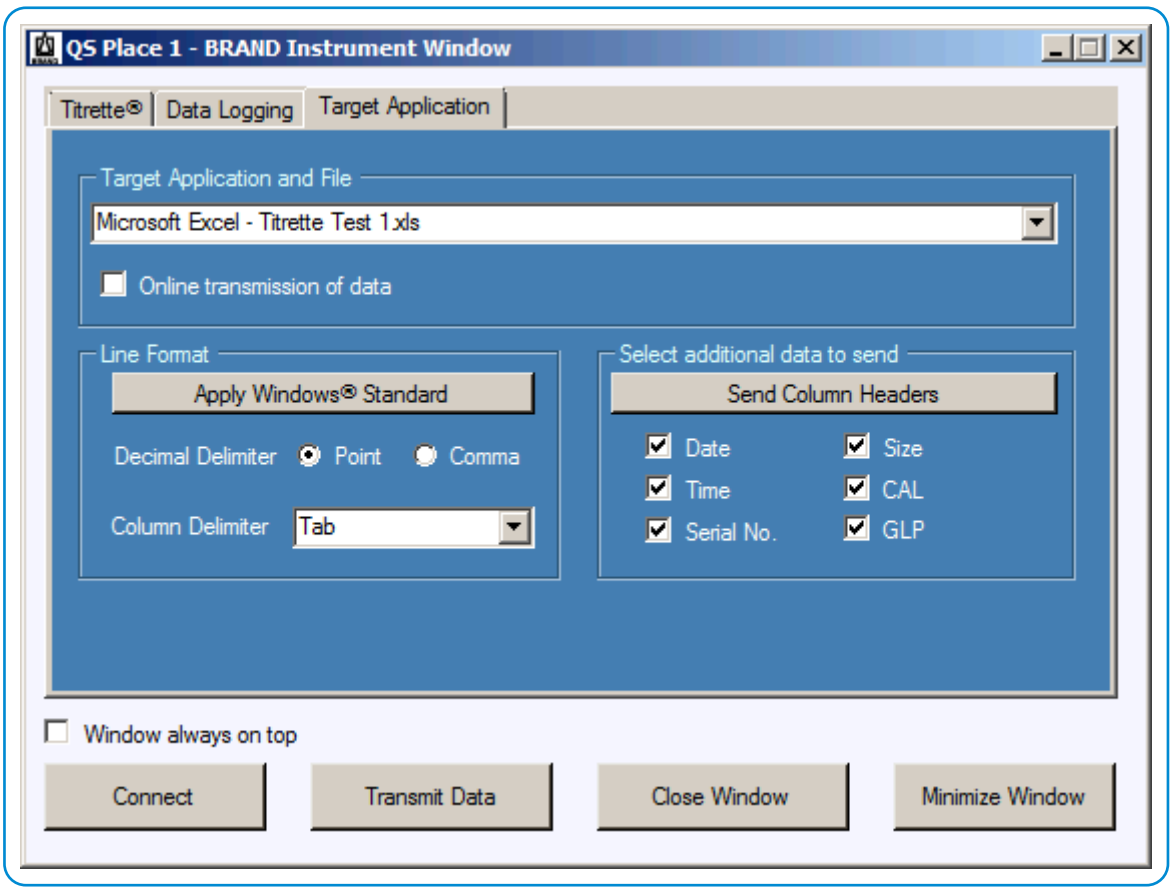
6.2 Starting a log file

To start a new file, please click on the small button, right next to the line Log File. The window **Log File Selection** opens.

Note: In the initial settings the window “Log File Selection” opens automatically with every restart of the program, so that you can choose a file. If you remove the checkmark at ”Select log file at connection“ than the program will start automatically with the last log file used. If you set a checkmark at “Display new data only”, only the data of your actual measurement are shown.

7 Transmission of titration data into the target application (Instrument Window, tab Target Application)

For transmission of data from the data logging into the target application e.g., in a spread sheet you have to start the spread sheet program first (e.g., Microsoft Excel). Apply ”Standard” as line format and save the file with its name (example: Titrette Test1) in the designated folder.



7.1 Setting of the tab Target Application

a. Chose the appropriate application and file from the pull-down list in the field **Target Application and File** of the Target Application tab. If the data should be automatically transmitted into the target application, set the checkmark at **“Online transmission of data”**. If the data should be automatically transmitted into the target application, set the checkmark at **“Online transmission of data”**.

b. At **Line Format**, we recommend to apply the **Window® Standard** settings.

c. At **Select additional data to send**, you can select the additional parameters to be transmitted into the target application by the setting the appropriate checkmarks. Then click on the button **“Send Column Headers“**, to transmit the data.

7.2 Transmission of data into the target application

7.2.1 From Data Logging

You may transmit the data later on into your target application, by selecting the designated data in the tab **Data Logging**. Then press the button “To Target Application“.

7.2.2 Online from instrument

If the data should be transmitted directly „online“, set a checkmark at “Online transmission of data“ in the tab **Target Application**.

	A	B	C	D	E	F	G
1	Volume	Date	Time	Serial No.	Size	CAL	GLP
2	20.16	25.08.2008	17:21:42	04F18153	NV50	0.018	Feb 09
3	20.22	25.08.2008	17:22:36	04F18153	NV50	0.018	Feb 09
4	20.16	25.08.2008	17:24:32	04F18153	NV50	0.018	Feb 09
5	20.20	25.08.2008	17:24:55	04F18153	NV50	0.018	Feb 09
6	20.17	25.08.2008	17:28:03	04F18153	NV50	0.018	Feb 09
7							
8	**This row of data export the Titrette® at each data transmission**						
9							

The cell format “Figure“ for the column “Titr. Volume“ and “Standard“ for the other columns is chosen.

7.3 Example of analysis

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Volume	Date	Time	Serial No.	Size	CAL	GLP		Date:	25.08.2008			
2	20.16	25.08.2008	17:21:42	04F18153	NV50	0.018	Feb 09		User:	Mr. Bopp			
3	20.22	25.08.2008	17:22:36	04F18153	NV50	0.018	Feb 09						
4	20.16	25.08.2008	17:24:32	04F18153	NV50	0.018	Feb 09		Exercise:	Factor determination NaOH standard; 0,1 M			
5	20.20	25.08.2008	17:24:55	04F18153	NV50	0.018	Feb 09		Titration solution:	HCL			
6	20.17	25.08.2008	17:28:03	04F18153	NV50	0.018	Feb 09		Mol/L	0.1			
7									Factor	0.997			
8	**This row of data export the Titrette® at each data transmission**												
9									Instrument:		Titrette®		
10									Individual name		QS Place 1		
11									Serial No..		04F18153		
12									Nominal capacity (ml)		NV50		
13									Next calibration		Feb. 09		
14													
15									Titration No.	Standard	Titration solution		**Factor**
16									#	ml	ml	Factor	**Standard**
17									1	20.00	20.16	0.997	**1.005**
18									2	20.00	20.22	0.997	**1.008**
19									3	20.00	20.16	0.997	**1.005**
20									4	20.00	20.20	0.997	**1.007**
21									5	20.00	20.17	0.997	**1.005**
22													
23									**Factor of NaOH Standard; 0,1 M =**				**1.006**

Please find the transferred data on the left hand side and an example of a titration application on the right hand side. The transmitted data, e.g., serial No., nominal capacity, next calibration and the titration value are copied with reference to the original field place into the framed fields.



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