

SmartPick Service Interface

Installation, Setup and Event Log Download, Windows 7 & 8

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Change History

Author	Version	Date	Comments
Jürg Werthmüller	01.00	04.07.2014	Copied from AA0038EN (Windows XP), adapting the software tools for Windows 7 and 8

1 INTRODUCTION

The SmartPick Service Interface allows to:

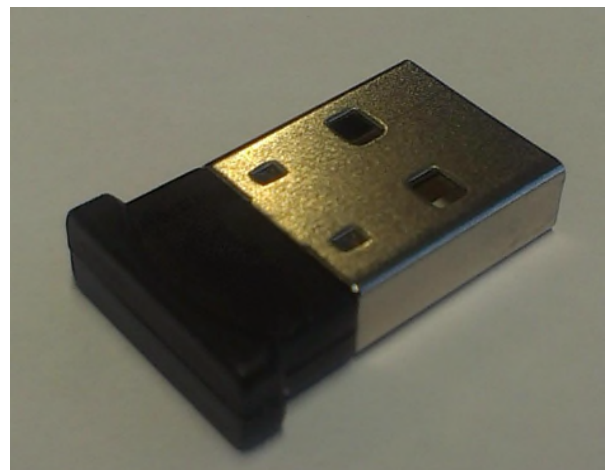
- download the event log
- obtain information about the SmartPick system state and configuration
- configure the SmartPick system

It can be accessed by

- using the buttons and LCD built into the SmartPick Main Board (not for event log download, though)
- a PC connected to the SmartPick Main Board via RS-232 COM port and cable
- a PC connected to the SmartPick Main Board via USB to serial adapter and cable
- a PC connected to the SmartPick Main Board via an internal or external Bluetooth adapter and a (wireless) Bluetooth connection, ideally class I / 100m range.



USB to serial adapter
Truninger part no. E11545

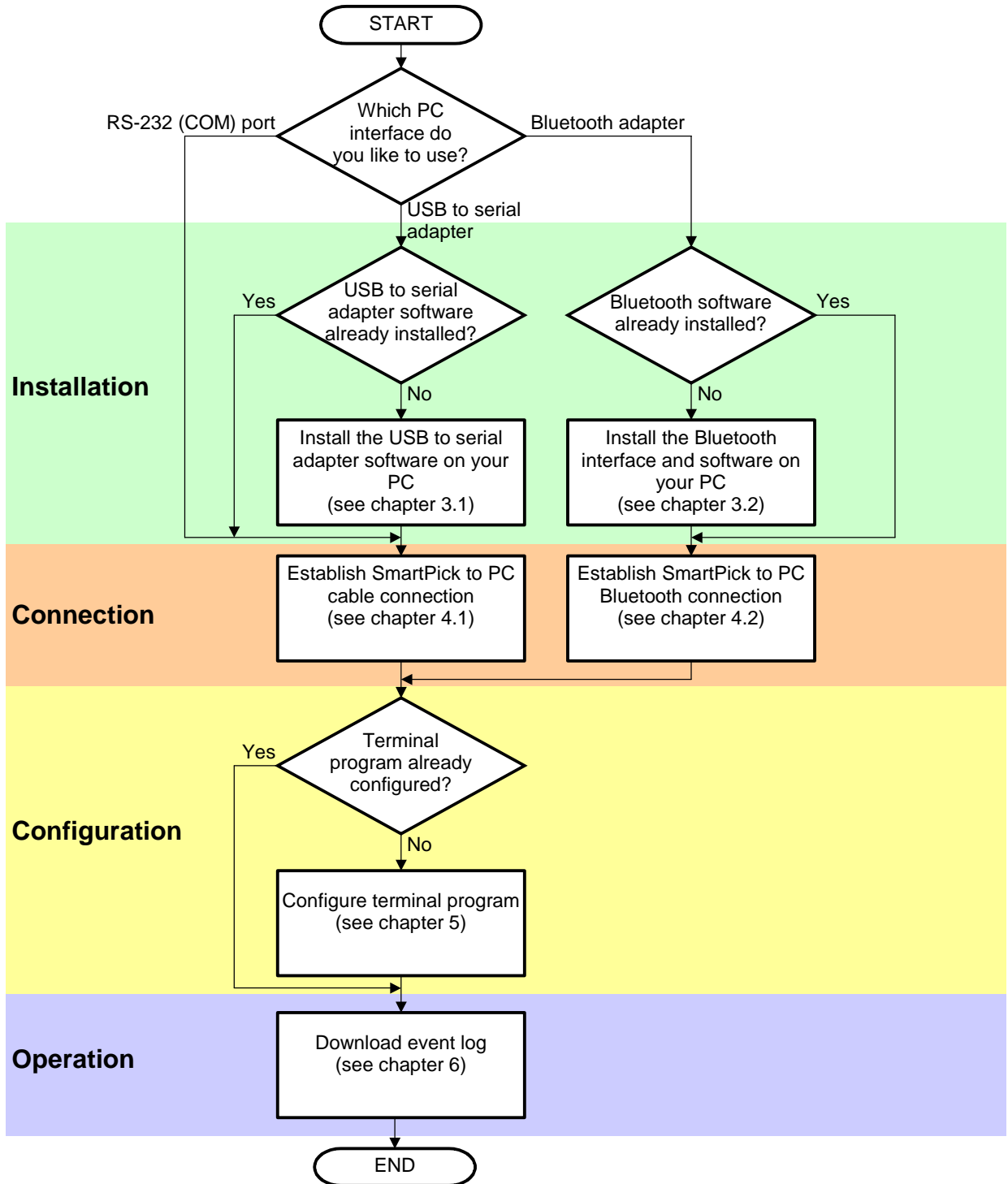


external Bluetooth adapter
Truninger part no. E12230

This document shows how to install and configure your PC to communicate with the SmartPick Service Interface and how to download an event log.

The following flowchart guides you through all the necessary procedures.

2 FLOWCHART



3 INSTALLATION

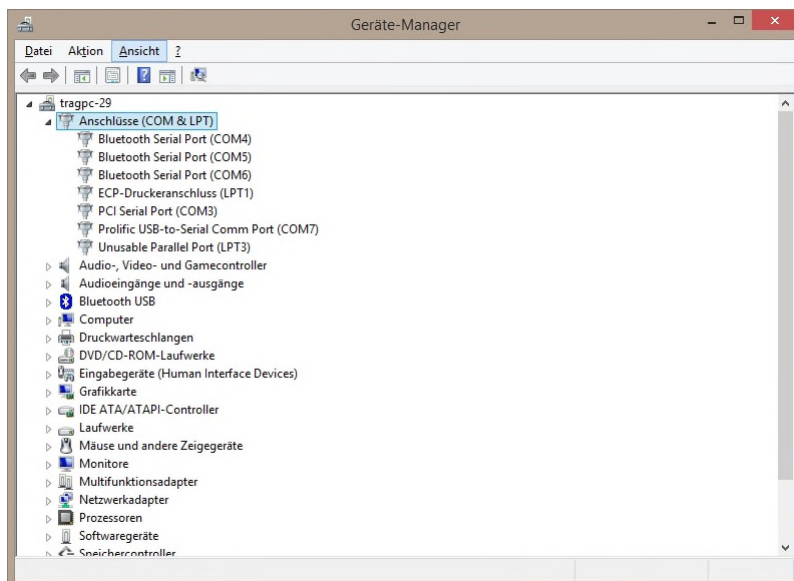
3.1 Installing the USB to Serial Adapter

The instructions given in this subchapter need to be followed only once and only if you intend to use an USB to serial adapter to connect the SmartPick system to your PC.

For Windows 7 / 8, both 32- and 64-bit systems, no extra tasks are necessary, the installation will be done by Windows Update automatically.

The installation procedure has now added a new serial port to your system, e.g. COM3. To find out which COM port is assigned to it, proceed as follows:

1. Press the Windows and the Pause key simultaneously
2. Click on Device Manager in the left upper corner
3. Click on the triangle symbol left to **Ports (COM and LPT)** to see what's inside
4. The device we're looking for is **Prolific USB-to-serial Comm Port**, or optionally **ATEN USB to serial bridge**. The assigned COM port is shown in parentheses – COM7 in our example. In case the port is shown with an exclamation mark, the installation may be triggered by right click on the item, then Update Driver. The driver is also available on our website www.truninger.com, visit **Downloads** → **Software**.



5. Remember this port number.

NOTE: When plugging the adapter into a different USB socket than the one used during installation, a different COM port number will be assigned. In this case, you have to change the COM port setting in the terminal program (see chapter 5.2)!

3.2 Installing the Bluetooth Interface and Software

The instructions given in this subchapter need to be followed only once and only if you intend to use Bluetooth to connect the SmartPick system to your PC.

Hardware

To connect to the SmartPick Service Interface, theoretically every Bluetooth adapter can be used. For installation and usage, please consult the manufacturer's user manual.

The connection used for the SmartPick Service Interface is unsecured; you will need no pairing key.

The Bluetooth program configuration depends heavily on the actually used software. Therefore, TRUNINGER can offer only limited support. We recommend using the software BlueSoleil, which works with most Bluetooth adapters and which is also part of our adapter E12230.

Software

1. Download the BlueSoleil Software from www.bluesoleil.com (user account necessary) or from the SmartPick download site on www.truninger.com. On the Truninger website, click **Downloads** → **Software**.
2. Unpack the zip file to your PC, e.g. into C:\Temp, and execute setup.exe
3. Choose your language and confirm the license agreement:
4. Reboot your PC and plug in the adapter (if it is an external device). After Windows Hardware Recognition, the device is ready to use.

NOTE: Many adapters are not licensed to this evaluation copy, so there are some limitations: On Version 2.7 for Windows XP and 7, data transfer volume is limited to 5 MB. However, for use with SmartPick, this is sufficient.

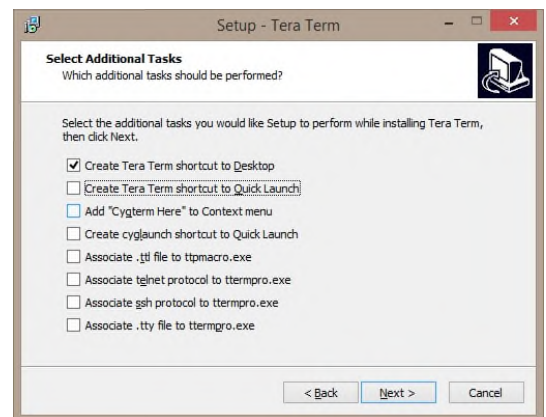
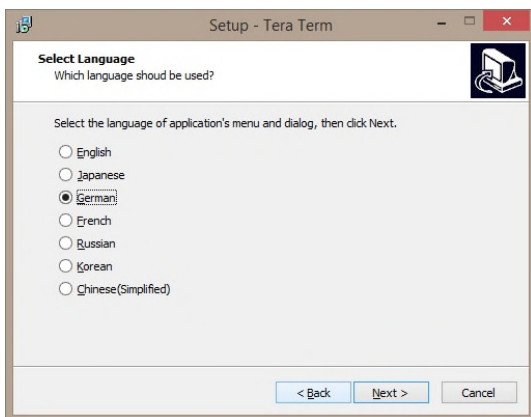
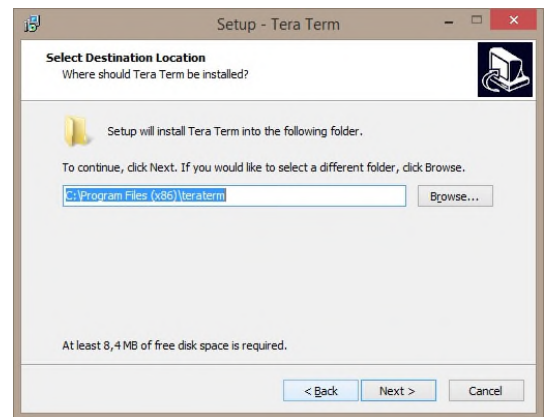
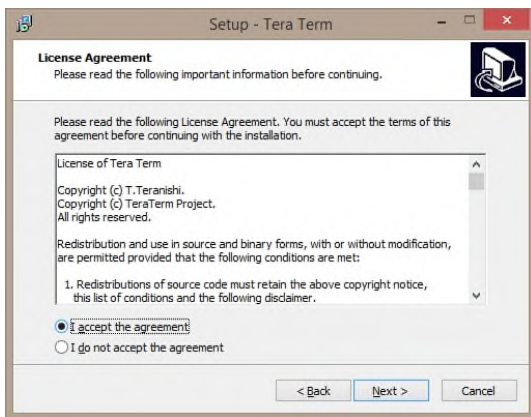
On the other hand, Version 10 for Windows 7 and 8 is limited to 2MB and works just for 30 days. This may be ok for testing purposes, but not for everyday use. You can buy our Bluetooth adapter E12230 or obtain a copy of Bluesoleil on www.bluesoleil.com

3.3 Installing the Terminal Program

The instructions given in this chapter need to be followed only once, it will show you how to install the terminal program.

We recommend using the program TeraTerm. In theory, any terminal program may be used to operate the SmartPick Service Interface. The following instructions are to be used with TeraTerm.

1. Download the software from our SmartPick download site on www.truninger.com. On the Truninger website, click **Downloads** → **Software**.
2. Double click the file teraterm-4.83.exe
3. Confirm license terms, standard installation and language.



4 CONNECTION

NOTE: Connecting a PC to the SmartPick system may impair system safety. Therefore, assure that the system is never used to lift any loads as long as a PC is connected to it.

4.1 Establishing SmartPick to PC Cable Connection

If you intend to use a cable to connect to SmartPick, i.e. using a COM port or an USB to serial adapter, please follow these steps:

1. Make sure the magnets are not used to lift any loads as long as your PC is connected to the SmartPick system.
2. To avoid sudden unexpected crane movements while you are working it is advisable to immobilise the crane (if possible switch off the crane's main power supply).
3. When climbing the crane, make sure you take with you:
 - a. your laptop, configured as described above and with fully recharged batteries. Please note that there might be no mains socket on the crane gantry
 - b. the USB to serial adapter if you intend to use one
 - c. a standard 9-pin D-sub cable, male connector on one end, female connector on the other end, pins connected 1:1.
4. Open the main board cabinet door of the SmartPick system. This is usually the leftmost cabinet or the second from the left.
5. The Main Board is installed in the top region of the cabinet. Plug the 9-pin D-Sub cable into the rightmost 9-pin socket of the main board, labelled **RS232**. Plug the other end of the cable either into the COM-socket of your PC or into the USB to serial adapter connected to an USB socket.

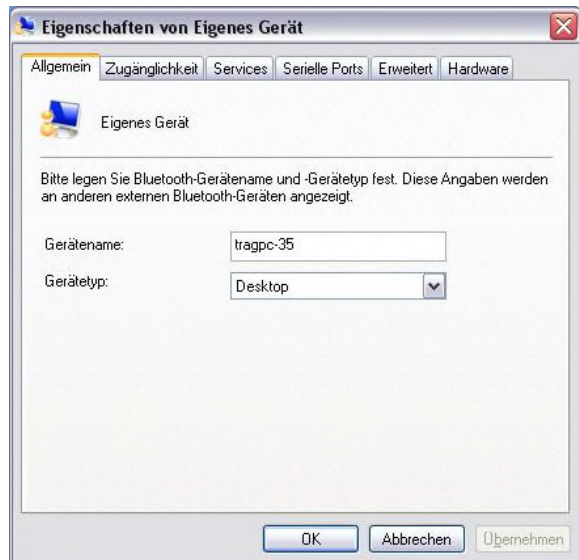


4.2 Establishing SmartPick to PC Bluetooth Connection

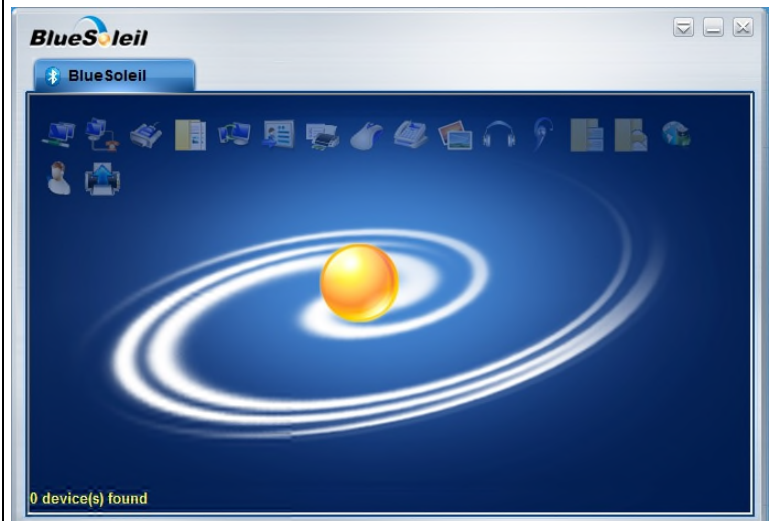
If you intend to use Bluetooth to connect to SmartPick, please follow these steps:

1. Make sure the magnets are not used to lift any loads as long as your PC is connected to the SmartPick system.
2. Assure that the SmartPick system is powered, up and ready and your PC is within “Bluetooth hearing distance” of the system.
3. Start BlueSoleil by double-clicking on the **BlueSoleil Space** icon on the desktop.

4. When starting the program for the first time, a screen might appear where you can set the properties of your computer. Usually, the default values can be accepted. Note that **Use security level Medium** must be **unchecked**!



5. Press **F5** to start searching for available Bluetooth devices. In the BlueSoleil window, one or more named icons appear on the ellipse round the sun symbol. Wait until the bottom line of the BlueSoleil window says **Refreshing device names finished**. If this step fails, the Bluetooth adapter may not be compatible with BlueSoleil.



6. The icon representing the SmartPick system has the shape of a mobile phone or a headset, depending on the hardware revision of the SmartPick main board. The icon is identified by the six-digit number corresponding to the project number of your SmartPick system (125574 in the example). Double click on this icon. The icon will then be highlighted, as well as the Bluetooth serial port service icon (indicated by the white arrow in the figure below).



7. Double click on the serial port service icon (indicated by the white arrow in the figure). A window might now pop up for a short time, showing the COM port number.



8. Between the SmartPick icon and the sun symbol, a green dashed line with an animated red bullet appears. The color of the icon turns green, the connection to SmartPick is now established.



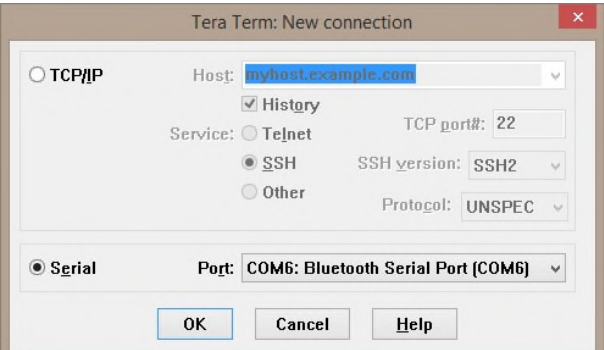
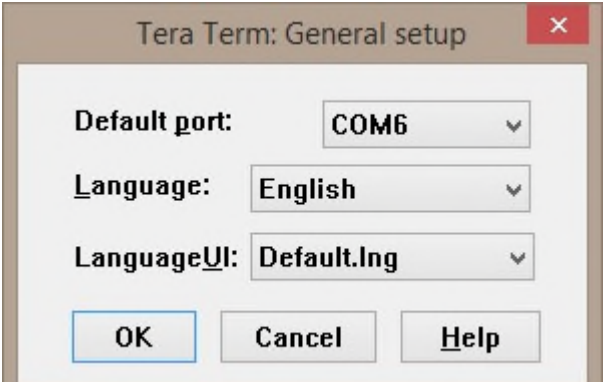

9. If you missed to see this window, proceed as follows: Assure that the Bluetooth connection is established (green dashed line and animated red bullet visible). Right-click on the SmartPick icon and select **Properties**. A window pops up, indicating – amongst other things – the COM port. Then, click **OK** to close the window.

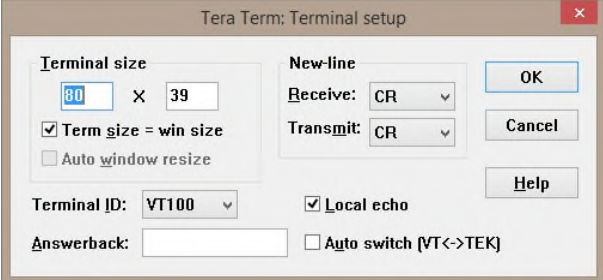
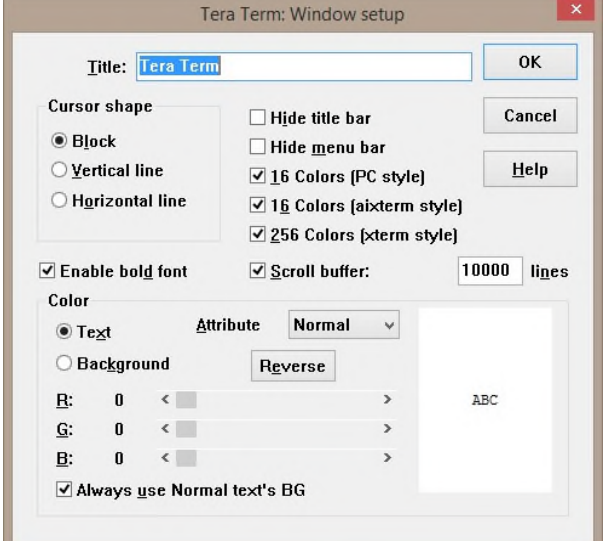
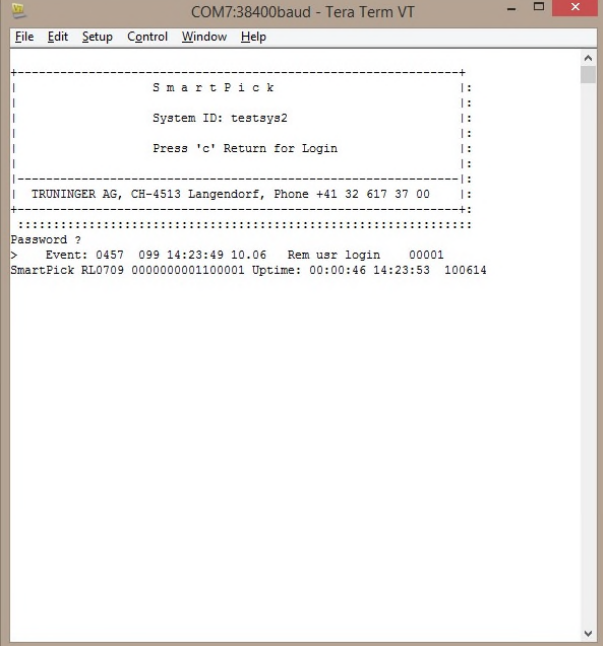
5 CONFIGURING THE TERMINAL PROGRAM

The instructions given in this chapter need to be followed only once, i.e. when configuring your terminal program for use with the SmartPick Service Interface.

The following instructions are to be used with TeraTerm, but the settings are also valid for other terminal programs.

5.1 First Time Configuration

<p>1. Start TeraTerm by double the desktop icon. When starting the program for the first time, a screen as showing in the figure appears. select the COM port assigned to the PC interface you intend to use, as indicated in 3.1 or 3.2. Then, click OK.</p>	
<p>2. You may change the language in Setup→General, LanguageUI</p>	
<p>3. To set up the serial port, go to Setup→Serial port. Set the line delay to 150 milliseconds and the character delay to 1 millisecond. <i>NOTE: With SmartPick software release BL695 and older, set Flow control to None.</i></p>	

<p>4. In Setup→Terminal, check the Box Local echo, this will display the input characters in the terminal window.</p>	
<p>5. To change the window colors, go to Setup→Window, click on Reverse to invert background/text color.</p>	
<p>6. In the main window, press Enter to connect to SmartPick. If everything is set up correctly, you will see this screen.</p>	
<p>8. Save the settings in Setup → Save Setup. Then, select the Desktop folder and click Save, e.g. SmartPick_COM6.ini. Additional configurations for advanced users see 5.4</p>	
<p>9. Exit TeraTerm.</p>	

5.2 Reconfiguring the Terminal Program Later on

Sometimes it is necessary to change the configuration of the terminal program. Typically, the assigned COM port needs to be changed when the USB to serial adapter or the Bluetooth connection decide to use a different port. Here is how it goes:

1. Start TeraTerm
2. Go to **Setup**→**Serial port** and select the appropriate COM port.
3. Save the settings in **Setup** → **Save Setup**. Then, select the **Desktop** folder and click **Save**, e.g. SmartPick_COM7.ini.

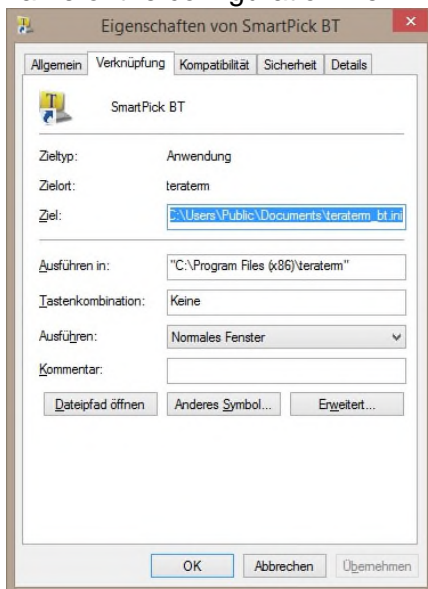
5.3 Loading the stored settings

The stored settings can be loaded in **Setup** → **Load Setup**

5.4 Additional configurations

The manual load of configuration each time you start TeraTerm is not really comfortable. For an automatic start, the following steps are necessary:

1. Save the configuration to a place where all users can access it, e.g. in C:\Users\Public\Documents. Create separate files for the most commonly used configurations. Especially with Bluetooth, it may be useful to create separate files for all reserved COM ports. It may be up to 10 number reserved, as shown in the device manager.
2. Move the desktop icon to the public desktop, if not already done.
3. Right click on the icon, then **Properties**. Add the following line to the **Target** line: **F=C:\Users\Public\Documents\SmartPick_COMx.ini**, where SmartPick_COMx.ini is the name of the configuration file.



4. For another icon, just copy the existing one and adjust the properties.

6 DOWNLOADING THE EVENT LOG

The SmartPick event log is very much like the “black box” of an aircraft. It continuously logs information about system activity, detected problems etc. It is consulted by Truninger technicians to diagnose the cause of the problem in case of a system malfunction. This chapter guides you through the process of obtaining the event log and sending it to Truninger for investigation.

1. Assure that the connection to SmartPick has been established (chapters 4.1 or 4.2) and the terminal program has been configured (chapter 5.1).
2. If you followed the instructions in chapter 5.4, double click the appropriate desktop icon. Otherwise start TeraTerm and load the configuration in **Setup → Load Setup**.
3. Make sure that Scroll Lock is not active, i.e. the LED in the top right corner of your keyboard, marked "±" or "±", must not be lit. Otherwise, hit the **Scroll Lock** key once to switch off the LED.

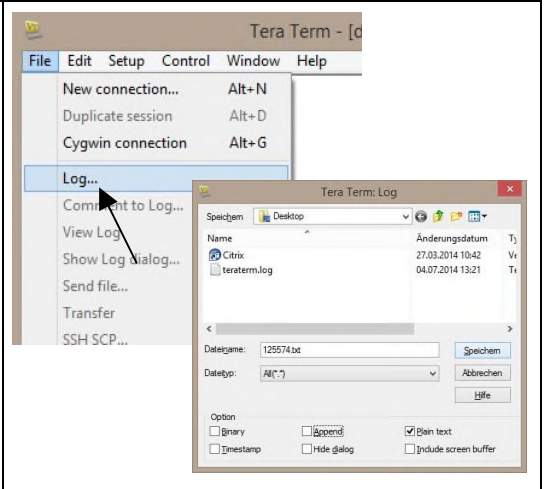
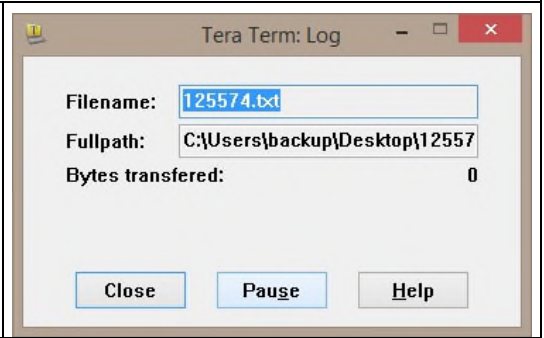
4. Continue hitting **Enter** until the SmartPick log-in banner appears in the Hyper Terminal window:

```
+-----+
|           S m a r t P i c k           |:
|                                         |:
|           System ID: 123574           |:
|                                         |:
|           Press 'c' Return for Login  |:
|                                         |:
+-----+
| TRUNINGER AG, CH-4513 Langendorf, Phone +41 32 617 37 00 |:
+-----+
:.....:
```

Note that when the system was just started up, it may take up to a minute until the system reacts to your input.

5. Log in by typing **c** (lowercase “c”) and hitting **Enter**. SmartPick replies with
Password ?

6. Enter the password **trag** and hit **Enter**. SmartPick replies
SmartPick RL0707 Sys Id: 123574 Uptime: 00:00:02 08:39:34 160709

<p>7. Start text capture by clicking File → Log... A window TeraTerm Log pops up. Select folder Desktop and provide a suitable file name, e.g. 125574.txt</p> <p>If applicable, uncheck the box Append. Then, click Save to close the file selection window and start text capture.</p>	 The screenshot shows the TeraTerm Log dialog box. The 'File' menu is open, and 'Log...' is selected. The dialog box shows a file selection window with 'Desktop' selected. The filename is '125574.txt'. The 'Append' checkbox is unchecked. The 'Save' button is visible.
<p>8. If the software version installed in SmartPick is older than RL707, in the Hyper Terminal window, type lc and Enter. lc stands for "list configuration". The current system configuration will be output.</p>	
<p>9. Type le -a and Enter. This is the command "list events - all". The complete event log is output to the Hyper Terminal window, taking a minute or two.</p>	
<p>10. When the output ceases, click File→ Show Log dialog. A click on Close will finish the text capture.</p>	 The screenshot shows the TeraTerm Log dialog box. The filename is '125574.txt'. The full path is 'C:\Users\backup\Desktop\125574'. The bytes transferred is 0. The 'Close' button is highlighted.
<p>11. Log out by typing di and Enter. di stands for "disconnect".</p>	
<p>12. Exit TeraTerm.</p>	
<p>13. If you were using a cable connection, disconnect the cable from SmartPick and from your PC.</p>	
<p>14. If you were using a Bluetooth connection, close the Bluetooth connection by right-clicking on the serial port service icon in the BlueSoleil window and selecting Disconnect. Then, exit BlueSoleil.</p>	
<p>15. On your PC desktop, you will find the file containing the captured event log (in our example 125574.txt). E-mail this file as an attachment to Truninger after sales department magnets@truninger.com or directly to your Truninger contact person.</p>	