

LinTech

keeps you connected

-LinTech BlueTool -

Version 1.5

*Configuration programme for use with
LinTech Bluetooth devices*

-Operating manual-

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1. Introduction

The LinTech BlueTool is an easy to use Windows configuration programme, with the aid of which you can perform all the settings required for the Bluetooth RS232 Mini Adapter easily and clearly. Please copy the programme from the disc supplied to a folder on your hard disc, and start the programme from the hard disc.

Before using the BlueTool configuration programme, it is necessary that a Bluetooth connection exists to the Bluetooth RS232 Mini Adapter which uses the configuration service of the Bluetooth RS232 Mini Adapter (or, for adapters with plug connectors, a physical connection to the serial interface of your PC). Should this connection not exist, please perform the steps described in the respective handbook.

Note: Since the BlueTool is designed for the configuration of various Bluetooth adapters, only those input fields which apply to your adapter will be accessible.

2. Configuration

2.1 Startup dialogue



Illustration 1: Startup dialogue

Connection to COM - Port: COM - Port connected to the COM-CONFIG configuration service of the Bluetooth RS232 Mini Adapter
Or
COM - Port connected to the COM-CONFIG configuration service of the Bluetooth RS232 Mini Adapter
Acknowledge input by pressing Connect

Connect: Create connection to Bluetooth RS232 Mini Adapter using the COM - Port setting

Language: Select dialogue language (German or English)

Exit: Exit BlueTool

2.2 Main menu

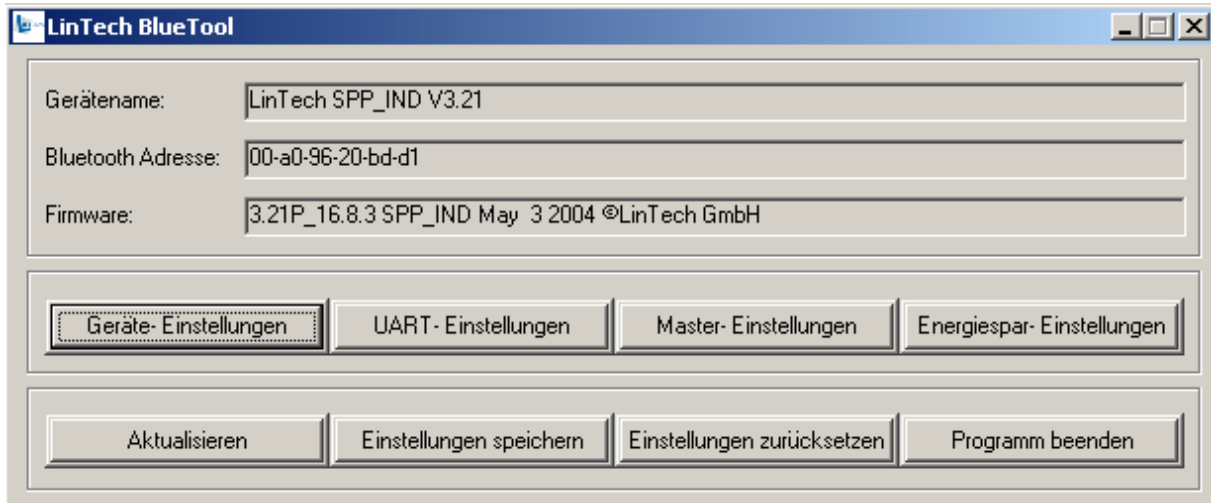


Illustration 2: Main menu dialogue

All settings dialogues are accessible from the main menu. All settings can be update (readout repeat), saved and reset.

Device settings: Setting options: Device name, authentication, Bluetooth PIN, type of AT command responses, connection indicator

UART Settings: Setting options: Baud rate, parity, stop bits, handshake

Master settings: Setting options: Automatic connection, AT command console, DTR/DSR for initiating and ending connections, remote BTA

Energy-saving settings: Display battery voltage and configure energy-saving settings

Update: Read in data and settings currently displayed in adapter

Save settings: Store changes to values and settings

Restore settings: Restore all settings to standard values
The adapter then restarts in normal Slave mode.

Exit programme: Exit the configuration programme

2.3 Device settings

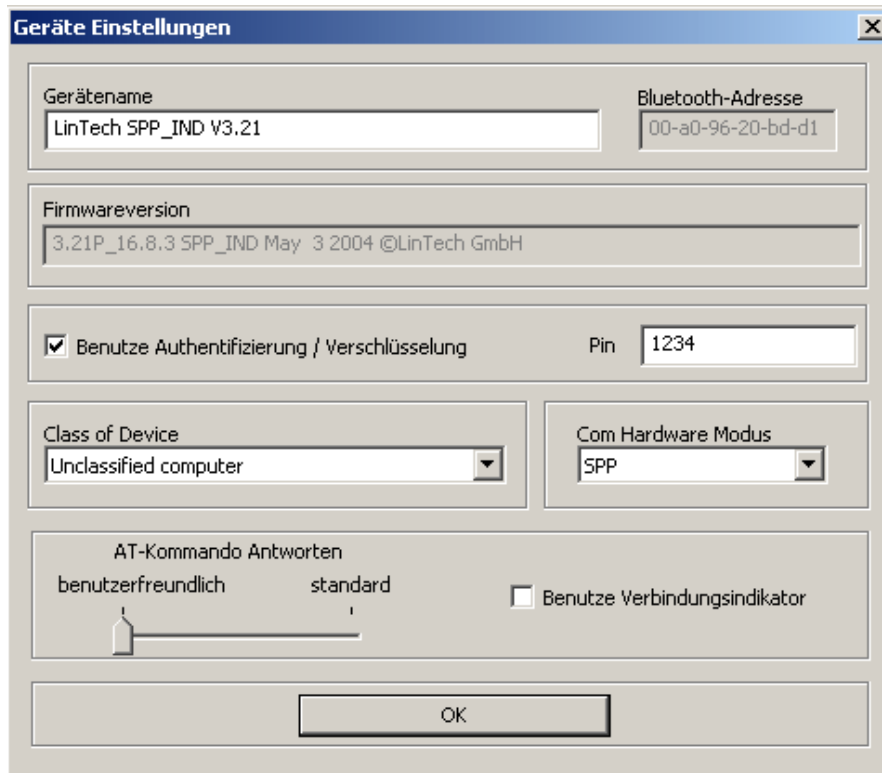


Illustration 3: Device settings dialogue

Device name: Input device name (Max. length 30 characters)

Firmware: Displays adapter's current firmware version

Bluetooth Address: Displays Bluetooth Address of the adapter

Com Hardware Mode: Selection of COM-hardware mode.
SPP: Service class is Serial Port
DUN: Service class is Dial-up Networking

Note: The DUN service class can be useful when operating the RS232 Mini Adapter with a modem.

Some devices require the use of this service class to be able to create a connection with the internet (e.g. IPAQ with PDAs)

Class of Device Selection of device class according to Bluetooth specification

Authentication / encryption in use Before the authentication/encryption selection can be made, the user is required to enter the PIN, following which the data will be transmitted using encryption.

If not selected, the connection is set up without the PIN and the data is transmitted without encryption.

PIN Use this field to enter your selected PIN for use with the

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authentication/encryption function.

User-friendly / standard AT command responses Switches between user-friendly operation and standard AT commands
When user-friendly AT commands are in use, responses are in text form.

Use connection indicator Connection status automatically displayed as AT command.

2.4 UART settings

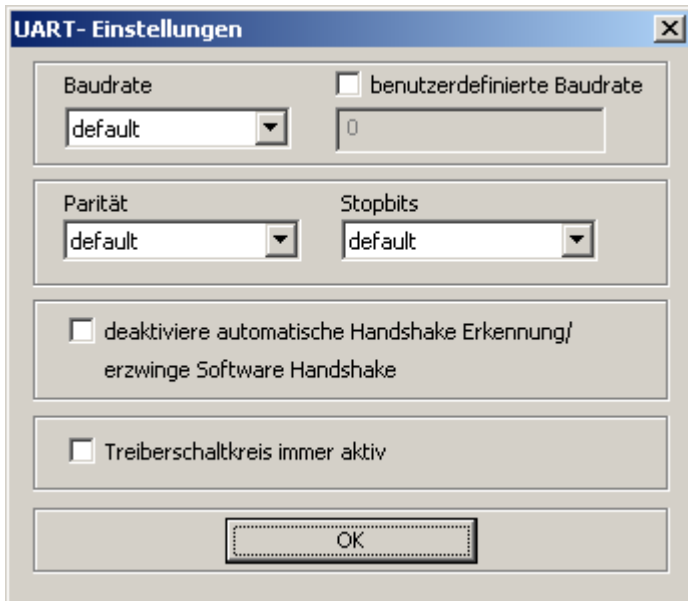


Illustration 4: UART settings dialogue

Baud rate Select baud rate
The baud rate defines the speed at which the device is able to communicate. It states the number of times per second that the signal level changes during a connection. It is only equal to one bit per second when the respective signal contains one bit of transmitted data
Modems, for instance, must operate at the same bit rate in order for them to be able to communicate with each other.

User-defined baud rate It is possible to programme a user-defined baud rate, which can differ from the baud rates stated in the standard settings

Please note: Technical operating conditions may require that inputted baud rate values are rounded down.

Parity

Select parity for error correction

The parity test involves the addition of a parity bit, the purpose of which is to maintain either an even or odd number of bits within a data packet that are set to 1, according to requirements. The receiver adds 1 to the number of bits it receives and then either accepts that data packet or rejects it, depending on whether or not the sum corresponds with the parity bit.

Setting	Purpose
Even	The parity bit is set to either 0 or 1 so as to obtain an even number of bits set to 1.
Odd	The parity bit is set to either 0 or 1 so as to obtain an odd number of bits set to 1.
None	No parity bit transmitted.

Stop bits

Select number of stop bits

Stop bits form the framework of the data packages in asynchronous communication. This data informs the receiver that a byte has been transmitted. Modern asynchronous protocols require a maximum of one stop bit.

Deactivate automatic handshake recognition / force software handshake

The automatic handshake recognition is deactivated if the box is checked. Handshake connections will no longer be evaluated.

Driver circuit always actively

Activates the RS232 interface RS232 permanently.

2.5 Master settings

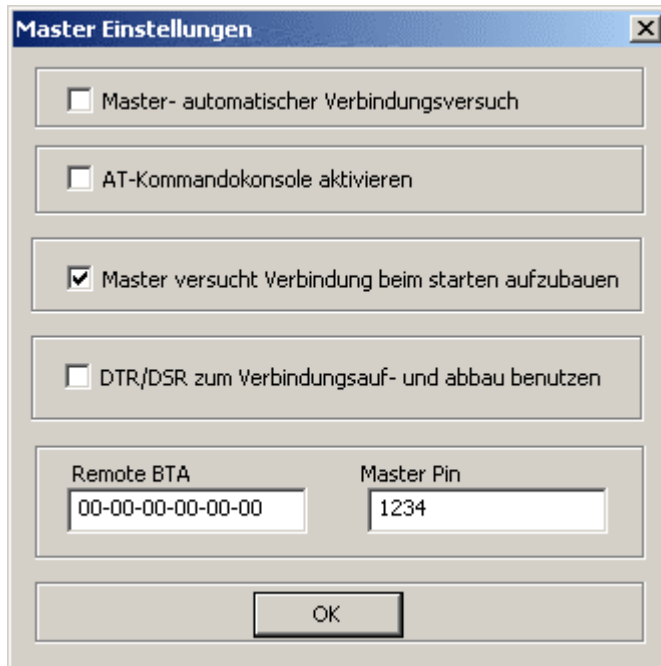


Illustration 5: Master settings dialogue

Master – Automatic connection

When selected, continuous attempts are made to set up a connection to the partner device.

This can be of use when the RS232 Mini Adapter is required to re-establish a connection that has been interrupted due to excessive distance.
(only available in Master mode)

Activate AT command console

Activates the command console for the Master operating mode

Master attempts to set up connection upon startup

Attempts to create a connection to the partner device indicated upon startup (Remote BTA) and does enter idle status

Use DTR / DSR to create and end connection

DTR / DSR used to control creation and ending of connections

Foreign device address

Input address of the device to which a connection is to be established.
(only available in Master mode)

Foreign device PIN

Input-PIN of the device to which a connection is to be established (necessary in the event that the authentication mode of the Bluetooth partner device is activated).
(only available in Master mode)

2.6 Energy-saving settings

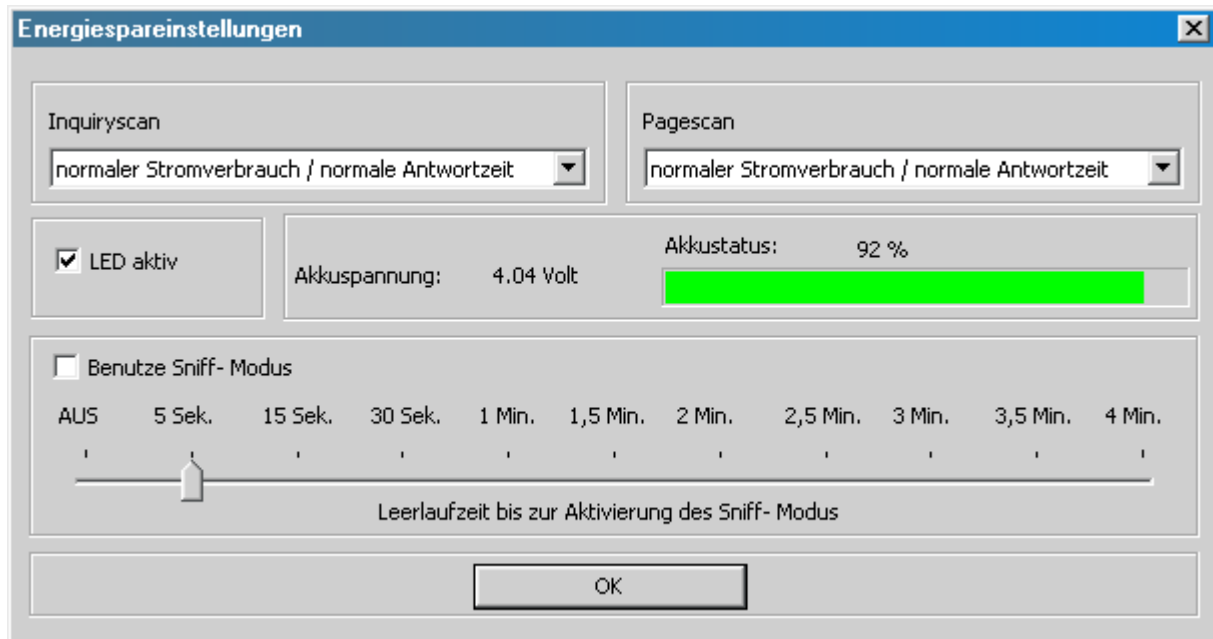


Illustration 6 : Energy-saving settings dialogue

LED active	When not selected, LED2 is switched off. (to reduce power consumption)
Inquiry Scan	When selected, the interval can be varied with respect to the power consumption and response time of the device. When operating in Slave mode and Inquiry Scan has been switched off, the Bluetooth RS232 Mini Adapter is invisible to other Bluetooth devices, since it no longer responds to enquiries from other devices.
Page Scan	Selected to control the reaction time to a connection request. The interval can be varied with respect to the power consumption and response time of the device.
Use Sniff mode	When selected and the SNIFF is activated, communication is reduced to the so-called SNIFF slots. As a result, the Bluetooth adapter consumes less energy. Please note that activation of the SNIFF mode results in a reduction in data flow and an increase in latency time.
Idle time preceding operation of Sniff mode	This is a sliding control used to regulate the interval after which the device switches into the energy-saving SNIFF mode, when no data is being transmitted. As soon as further data is transmitted, the adapter changes to active operational mode.

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When the sliding control is set to OFF, the device no longer alternates between active and Sniff modes. If the Use Sniff Mode switch is activated, the adapter is always in Sniff mode.

Battery status / voltage Displays battery voltage and capacity as a percentage

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