

Blue-1000 Quick-Start-Guide

This document describes the first steps to bring your Blue-1000 USB Stick into operation. For further questions please ask at technik@m2mgermany.de.

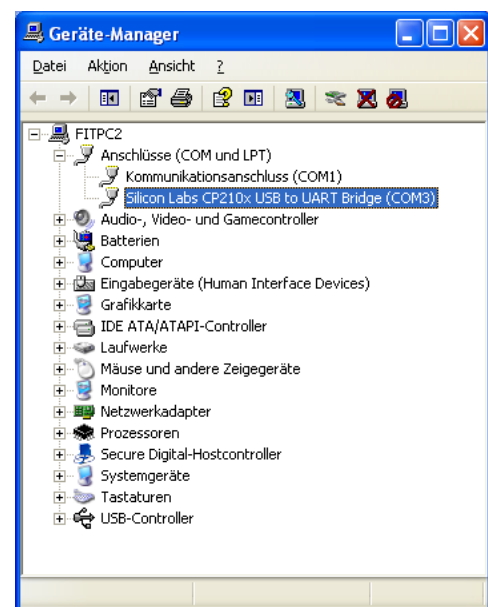
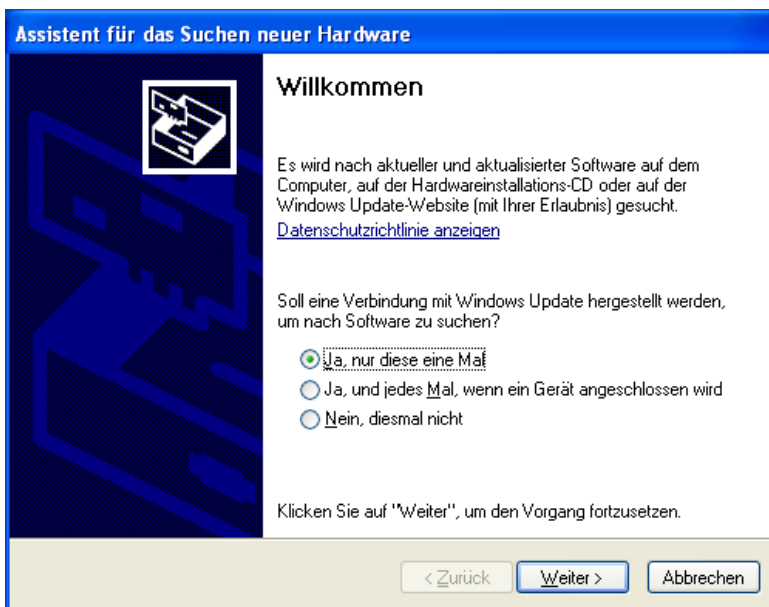
Functional principle

The Blue-1000 is recognized as a standard USB serial device by your operating System. Microsoft Windows will add a new COM port and Linux based systems will show the device as /dev/ttyUSBx. Thanks to the integrated Bluegiga iWRAP firmware you do not depend on the Bluetooth stack of your OS. Instead you can communicate to your Bluetooth devices directly over this virtual serial port.

Drivers

Generally the device should be recognized as „Silicon Labs CP210x USB to UART Bridge“ and linked in your system automatically.

Microsoft Windows:



The first time you connect the USB device to your host you'll be asked if the Windows Update System shall search the Internet for known drivers. If you confirm that, the driver should be installed automatically.

Linux:

Most distributors ship appropriate drivers in the standard installation. Those are part of the official Linux kernel:

```

moritz@manhattan:~$ tail -f /var/log/messages
Apr 18 12:54:01 manhattan kernel: [16793.996020] usb 7-2: new full speed USB device using uhci_hcd
and address 3
Apr 18 12:54:01 manhattan kernel: [16794.223129] cp210x 7-2:1.0: cp210x converter detected
Apr 18 12:54:01 manhattan kernel: [16794.337524] usb 7-2: reset full speed USB device using
uhci_hcd and address 3
Apr 18 12:54:01 manhattan kernel: [16794.487217] usb 7-2: cp210x converter now attached to ttyUSB0

moritz@manhattan:~$ lsmod | grep cp210x
cp210x                11238  0
usbserial             33357  1 cp210x

```

Please make sure that you have permissions set right to access the serial devices at `/dev/ttyUSB*`.

Further options:

For special demands like OEM versions of the drivers please consult the [website](#) [1] of the chip manufacturer.

Working with the Blue-1000

Once the serial port is available in your system, you can connect to it with a terminal program. Use the settings 115200,8n1 with RTS/CTS hardware flow control enabled.

The Blue-1000 will show up with this start up message:

```

WRAP THOR AI (4.0.0 build 317)
Copyright (c) 2003-2010 Bluegiga Technologies Inc.
READY.

```

Now you can use the iWRAP commands to request the Bluetooth functions. SET will show you a summary of the active configuration:

```

SET
SET BT BDADDR 00:07:80:99:8f:62
SET BT NAME Blue-1000
SET BT CLASS 001f00
SET BT AUTH * 1111
SET BT IDENT BT:47 f000 4.0.0 Bluegiga iWRAP
SET BT LAP 9e8b33
SET BT PAGEMODE 4 2000 1
SET BT PAIR 00:07:80:9a:d8:b4 43c61e86c99f449eddf0937791c879a2
SET BT POWER 16 20 16
SET BT ROLE 0 f 7d00
SET BT SNIFF 0 20 1 8
SET BT MTU 667
SET CONTROL BAUD 115200,8n1
SET CONTROL CD 00 0
SET CONTROL ECHO 7
SET CONTROL ESCAPE 43 00 1
SET CONTROL GAIN 0 5
SET CONTROL MSC DTE 00 00 00 00 00 00
SET CONTROL PREAMP 1 1
SET CONTROL READY 00
SET PROFILE SPP Bluetooth Serial Port
SET

```

The INQUIRY command lists all visible Bluetooth devices in range:

```
INQUIRY 8 NAME
INQUIRY_PARTIAL 00:13:77:14:0c:3c 580000 "" -54
INQUIRY_PARTIAL 00:07:80:99:90:91 720204 "" -28
INQUIRY 2
INQUIRY 00:13:77:14:0c:3c 580000
INQUIRY 00:07:80:99:90:91 720204
NAME 00:13:77:14:0c:3c "SAMSUNG-X50"
NAME 00:07:80:99:90:91 "WT41-A"
```

The full iWRAP reference manual with a description of all available commands can be found in the “iWRAP4 User Guide“ at our [website](#) [2].

[1]: <http://www.silabs.com/products/interface/usbtouart/Pages/usb-to-uart-bridge.aspx>

[2]: <https://www.bluegiga.de/>

FCC RF Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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