

# KEmul for PC User Guide

---

©Baracoda <sup>™</sup> – October 2010

## SUMMARY

|   |          |
|---|----------|
| <u>SUMMARY</u> .....                            | <u>2</u> |
| <u>REVISION HISTORY</u> .....                   | <u>3</u> |
| <u>INTRODUCTION</u> .....                       | <u>4</u> |
| <u>1. KEMUL CONFIGURATION</u> .....             | <u>5</u> |
| 1.1. BLUETOOTH COM PORT CONFIGURATION .....     | 5        |
| 1.2. READER TYPE / COM PORT CONFIGURATION ..... | 6        |
| 1.3. KEYBOARD EMULATION CONFIGURATION .....     | 7        |
| <u>2. RUNNING KEMUL</u> .....                   | <u>8</u> |

## Revision History

Changes to the original manual are listed below.

| <b>Document</b> | <b>Date</b>                   | <b>Description</b>                         |
|-----------------|-------------------------------|--|
| 3.34            | 6 <sup>th</sup> June 08       | Initial release                            |
| 3.35            | 18 <sup>th</sup> October 08   | TagRunners added                           |
| 3.36            | 2 <sup>nd</sup> March 09      | DualRunners added                          |
| 3.36.3          | 10 <sup>th</sup> September 09 | Version incremented                        |
| 3.38            | 13 <sup>th</sup> October 2010 | Delete first/last characters feature added |

## Introduction

The **KEmul** (keyboard emulator) **for PC** can be used on all Bluetooth stacks that are currently available on the market (Widcomm/Broadcom, Microsoft, Toshiba, Bluesoleil and others). It connects to an outbound virtual COM port installed on the PC by the Bluetooth stack to read data from a Baracoda reader. This data will be transformed into keyboard strokes corresponding to the scanned barcode text.

The **KEmul for PC** can be downloaded from the Partners download section of Baracoda website (registration is required):

<http://www.baracoda.com>

## 1. KEmul configuration

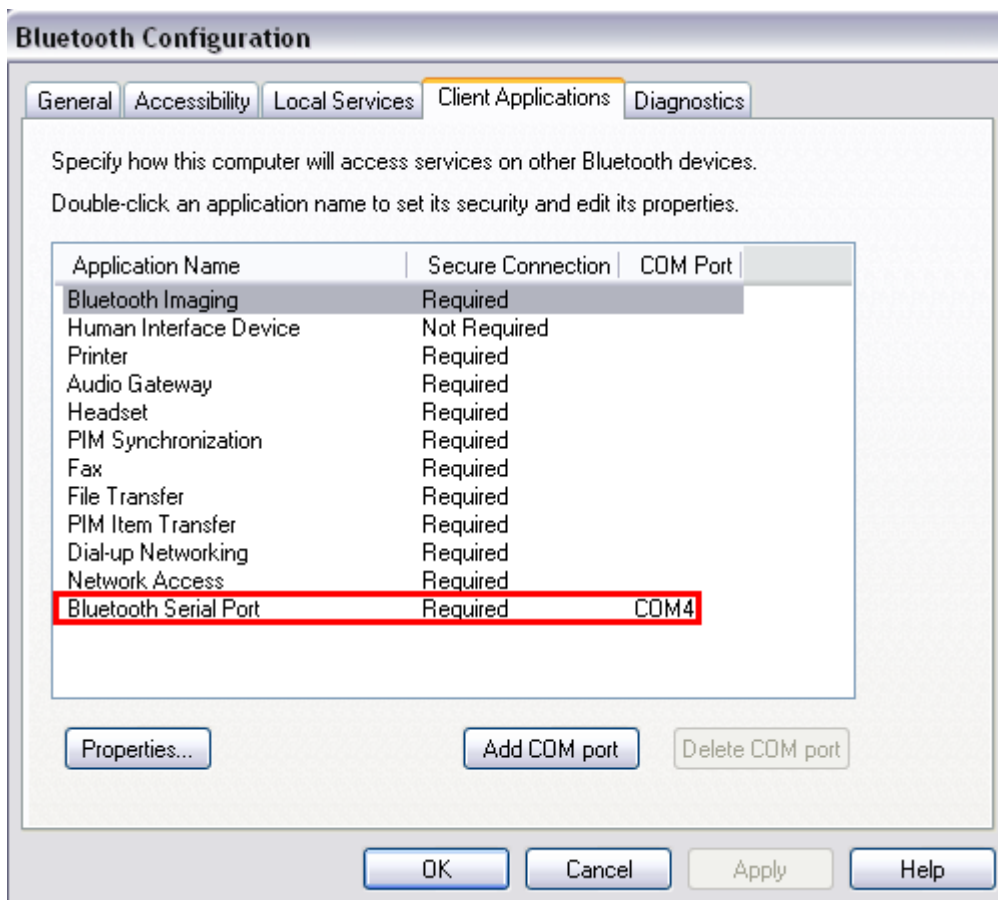
The KEmul application should be configured prior to its first usage. In the following section the user will find an explanation of all available options. Please note that the settings are saved by KEmul before quitting and they are restored when the application is launched afterwards.

### 1.1. Bluetooth COM port configuration

First thing that needs to be configured before the KEmul is used is the virtual COM port provided by the Bluetooth stack on the PC. There are usually two kinds of ports:

- inbound port (used by Bluetooth devices connecting to the PC)
- outbound port (used by applications on the PC wishing to connect to Bluetooth devices)

The KEmul uses the outbound port to connect to Baracoda barcode readers. In order to configure the application, the user will need to find out what port COM number corresponds to the outbound port. The picture below shows the typical settings of the Broadcom stack:



Pic. 1 Outbound port on the Broadcom stack

In this example, the port number in question is COM 4. This setting varies from one PC to another; the user should not assume that the port number on their PC will be the same as in the example.

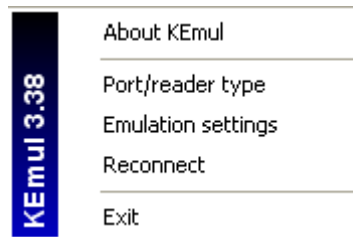
## 1.2. Reader type / COM port configuration

When the user has noted the COM port number, they can launch the KEmul application. Next, the reader model should be configured. The following screenshot shows the application's icon in the system tray (on the right-hand side):



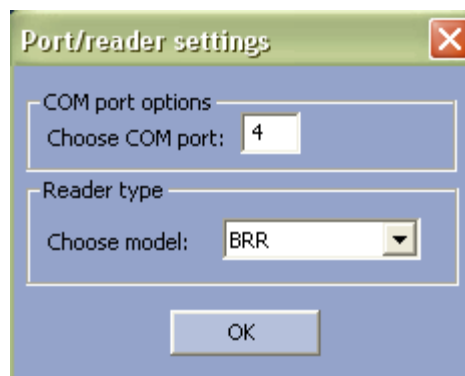
Pic. 2 KEmul icon

When this icon is right-clicked, it pops up the KEmul's main menu:



Pic. 3 KEmul main menu

In order to configure the COM port number and the reader model, the user needs to select the "Port/reader type" option. As soon as it is selected, the user will be shown the following window:



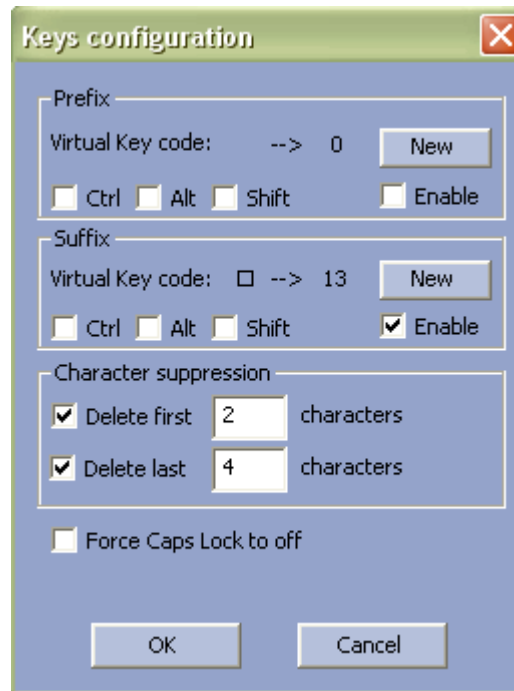
Pic. 4 KEmul main window, reader model configuration

The upper text box lets the user enter the COM port number of the Bluetooth stack on the PC (COM 4 in this example). The combo box just below is used to set the correct barcode reader model. In the picture above, a BRR reader is used.

### 1.3. Keyboard emulation configuration

The KEmul application can add a prefix and suffix to data incoming from the connected reader (barcode/Rfid tag). The most common setting is to not use any prefix and Enter as suffix (default values). If the user wants to modify these values according to their needs, they should use the “Emulation settings” option available in the main menu.

The following screenshot presents the dialog box with the prefix/suffix configuration:



Pic. 5 KEmul emulation configuration

To select a new prefix/suffix, the user clicks the “New” button and then presses the key that will be used as the new prefix/suffix.

Each of these two options can be deactivated by unselecting the “Enable” checkbox.

In the case where the desired prefix or suffix should be a Ctrl-key, Shift-key or Alt-key combination, the user should first press the “New” button and then just use the plain key, not combined with any of the three special keys. Afterwards, the Ctrl/Alt/Shift checkboxes should be used to complete the desired combination.

To delete characters at the beginning of every piece of data, the user can enable the “Delete first x characters” feature. The allowed range is 0-99 characters.

To delete characters at the end of every piece of data, the user can enable the “Delete last x characters” feature. The allowed range is again 0-99 characters.

The “Force Caps Lock to off” checkbox is useful when the keyboard Caps Lock key is active when the KEmul is launched. Selecting this option will deactivate the Caps Lock key during the keyboard emulation.

## 2. Running KEmul

Most Bluetooth stacks on the market force the user to connect their barcode reader manually before the KEmul is first used on the COM port. When the KEmul is launched subsequently, the last barcode reader is automatically connected (because the last connected device is usually memorized by the Bluetooth stack on the PC). Please note that in order for the connection to succeed, the Bluetooth reader should be on and ready before the KEmul is started.

The KEmul application connects to the COM port (forcing the Bluetooth stack to connect the barcode reader) in three situations:

- every time the application is launched
- when the user's choice of the COM port and reader type is confirmed by clicking the "OK" button of the "Port/reader type" configuration window
- when the "Reconnect" menu option is selected

The last option is especially useful when the connection between the active barcode reader and the application is interrupted (e.g. because the reader times out or is out of range). When this happens, the user should activate the reader (wake it up if it has timed out or bring it back into the BT range of the PC) and then select Reconnect. This option will close and reopen the COM port so that the barcode reader is reconnected by the Bluetooth stack.

As presented previously, the KEmul has no actual main window (besides the configuration windows) and when it is running, one can only see its icon in the system tray:



Pic. 7 KEmul icon in the system tray

As long as the barcode reader is connected, every scanned barcode will be transformed by the KEmul application into keyboard strokes.

The application can be exited by using the Exit option from the taskbar icon menu. As soon as it leaves, the COM port is closed. In result, the barcode reader is automatically disconnected by the Bluetooth stack on the PC.