

KEmul RS232 for PC

User Guide

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SUMMARY

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Revision History

Changes to the original manual are listed below.

Document	Date	Description
3.34	19 th June 08	Initial release
3.35	18 th December 08	Version update
3.36	2 nd March 09	Version update
3.36.3	11 th September 09	Version update
3.38	14 th October 10	Delete first/last characters feature added

Introduction

The **Keyboard Emulator RS232 for PC (KEmul)** is a program that allows the user to send data coming from a Baracoda reader to any application that can accept virtual key strokes. The RS232 KEmul software is designed to work with the RS232 Bluetooth Dongle manufactured by Baracoda.

The **KEmul RS232 for PC** can be downloaded from the Partners download section of Baracoda website (registration is required):

<http://www.baracoda.com>

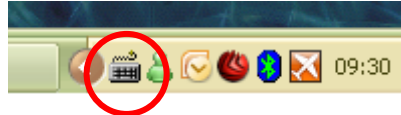
1. Installation instructions

- Download the RS232_Kemul.exe file from the Baracoda website
- Save RS232_Kemul.exe to a folder that will allow the user to locate the program easily.
- To activate the program, double click the RS232_Kemul.exe file icon.
- Alternatively, the user can create a program shortcut to RS232_Kemul.exe and click the shortcut to activate the program.

2. KEmul configuration

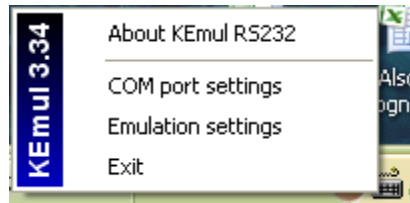
2.1. COM port configuration

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):



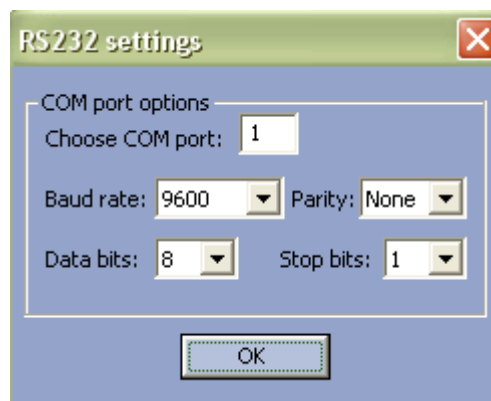
Pic. 2 KEmul icon

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 settings, the user needs to select the "COM port settings" option. As soon as it is selected, the user will be shown the following window:



Pic. 4 KEmul main window, COM port configuration

The RS232 KEmul is preset to default settings that reflect typical serial applications. These settings should be modified to fit the current application parameters.

1. COM Port

The COM Port is the communication port that the RS232 dongle is attached to on the host computer. The default serial port on a computer is usually COM Port 1. If the serial port on the user's PC is not COM Port 1, they will need to change this setting of the RS232 KEmul program to match the serial COM Port the RS232 dongle is attached to.

2. Baud Rate

The baud rate is the data transmission rate of the serial port. The RS232 dongle has a default baud rate of 9600 bits/s. The baud rate of the RS232 KEmul has to match the baud rate of the RS232 dongle.

3. Parity

Parity is an error checking algorithm that counts the number of "ones" during data transmission. Even parity means there is an even number of "ones" in the data transfer. Odd parity means there is an odd number of "ones" in the data transfer. The default value is none because the RS232 dongle is capable of transferring data without checking the parity of the data transfer.

4. Data Bits

The data bits specify the size of the data transfer sent by the RS232 dongle. The only selection for this option is 8 because the RS232 dongle can only transfer 8 bits of data at a time.

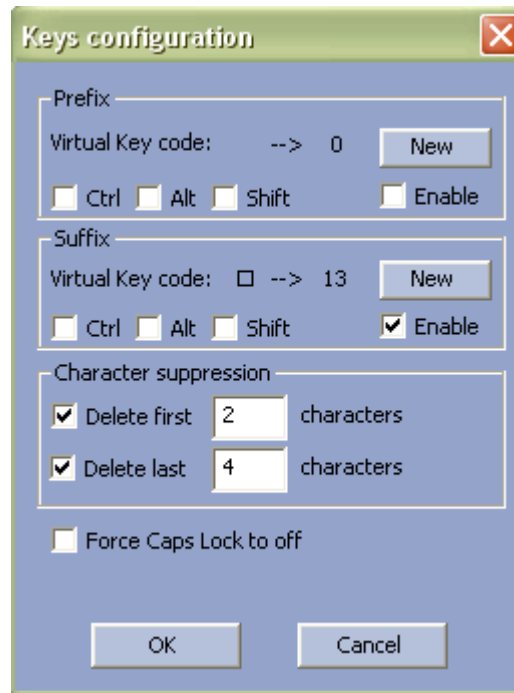
5. Stop Bits

The stop bits are bits that indicate the data transfer is over. The default is one stop bit. However the RS232 dongle can be programmed to send 2 stop bits if necessary.

2.2. 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 unchecking 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.

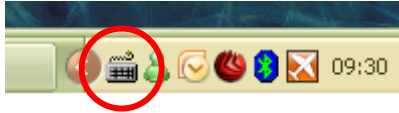
To delete characters at the beginning of every piece of data, the user can enable the “Delete first x characters” feature. The allowed range is 0-99 characters.

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.

3. Running KEmul

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 RS232 serial port is closed.