baracoda Traceability

Data Capture
for Workforce
in Motion

# BaracodaManager
# Installation & User Guide
# for BlackBerry platform



Bluetooth

# SUMMARY

# Revision History

Changes to the original manual are listed below.

| Document | Date | Description |
|---|---|---|
| 1.12 | 17th June 08 | Initial release |
| 1.13 | 24th June 08 | BRR Evolution added |
| 1.14 | 9th December 08 | Baracoda TagRunners added |
| 1.15 | 6th February 09 | Baracoda DualRunners added |
| 1.16 | 14th May 09 | Version incremented |
| 1.17 | 5th October 09 | Version with Bluetooth inquiries, user guide added |
| 1.18 | 9th March 10 | Permission warning window, signature capture added |
| 1.19 | 19th March 10 | Version incremented |
| 1.20 | 25th November 10 | Added event injection settings for RIM OS 6 |
| 1.22 | 11th April 11 | Added DFly2 to supported readers and memorize autoconnect state |

# Introduction

This document explains how to install, configure and use the BaracodaManager software on the BlackBerry platform.

You can download all software updates and additional documentation from our website:

http://www.baracoda.com/

# 1. System requirements

## 1.1. Supported Hardware

The BaracodaManager works on Blackberry devices having **RIM OS v4.0 and newer (v5, v6)**. It has been tested on the following platforms:

- Blackberry 8100 Pearl
- BlackBerry 8300
- BlackBerry 8800
- BlackBerry 8900 Curve
- BlackBerry 9000 Bold and newer
- Blackberry 9800 Torch

Clients who use BB series 8xxx devices with an older version of RIM OS should contact their mobile operator in order to upgrade the devices.

Inquiries about compatibility on other Blackberry telephones can be sent to Baracoda technical support: support@baracoda.com

## 1.2. Peripherals supported

Baracoda 2604 Series
Baracoda RoadRunners
Baracoda RoadRunners Evolution
Baracoda TagRunners
Baracoda DualRunners
Baracoda Pencil2
Baracoda D-Fly
Baracoda D-Fly2
Baracoda ToughRunners
Baracoda Scanwear
Baracoda IDBlue

## 1.3. Memory and Disk Space Requirements

You must have at least 32MB of memory and 190MB of hard disk space for a minimal installation of the base system.

## 1.4. Software Requirements

BlackBerry Desktop Software 4.2.2, you can download it from the following location: http://na.blackberry.com/eng/services/desktop.

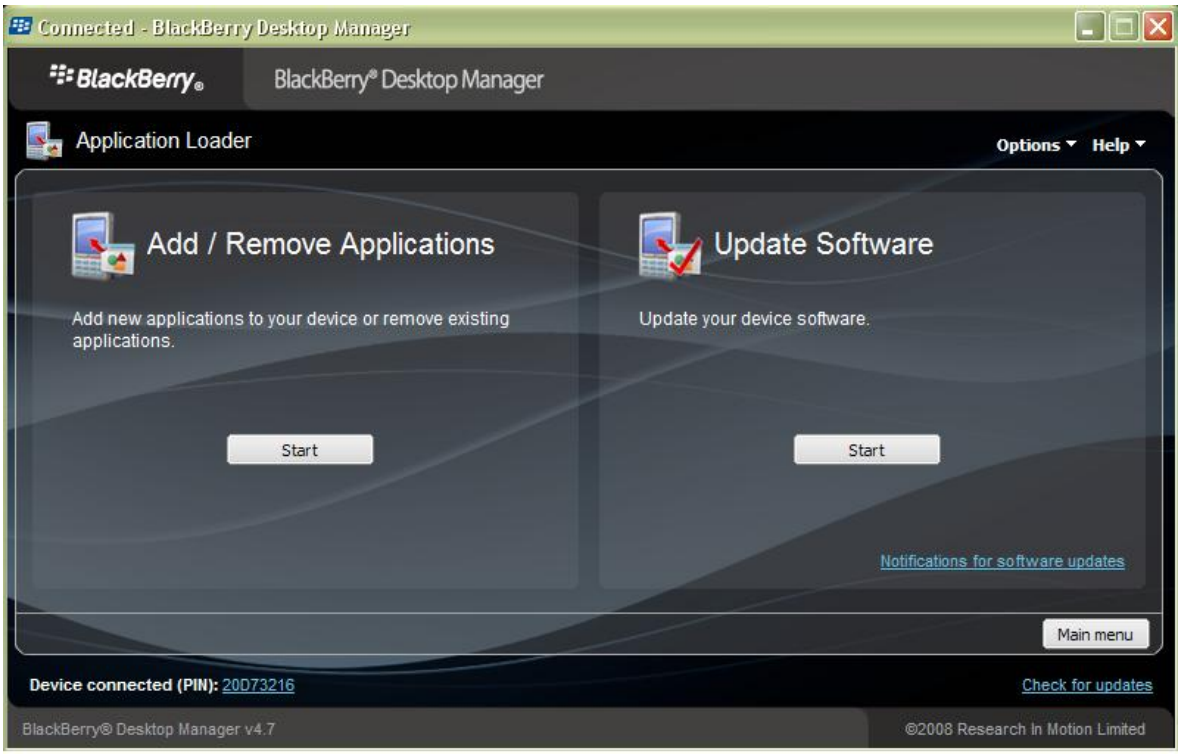
BlackBerry Enterprise Server 4.0 and newer

# 2. Installing the BaracodaManager on a BlackBerry device

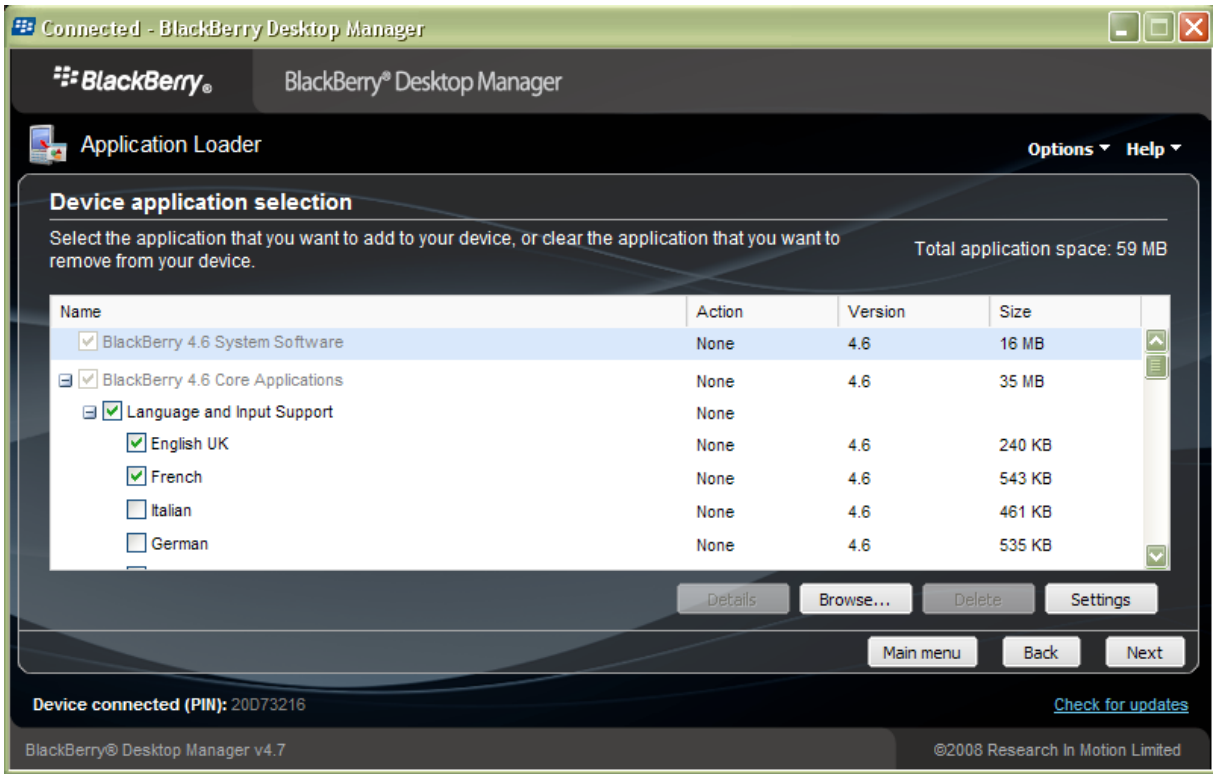
## 2.1. Procedure

a) Connect your Blackberry to the PC and launch the Blackberry Desktop Manager:

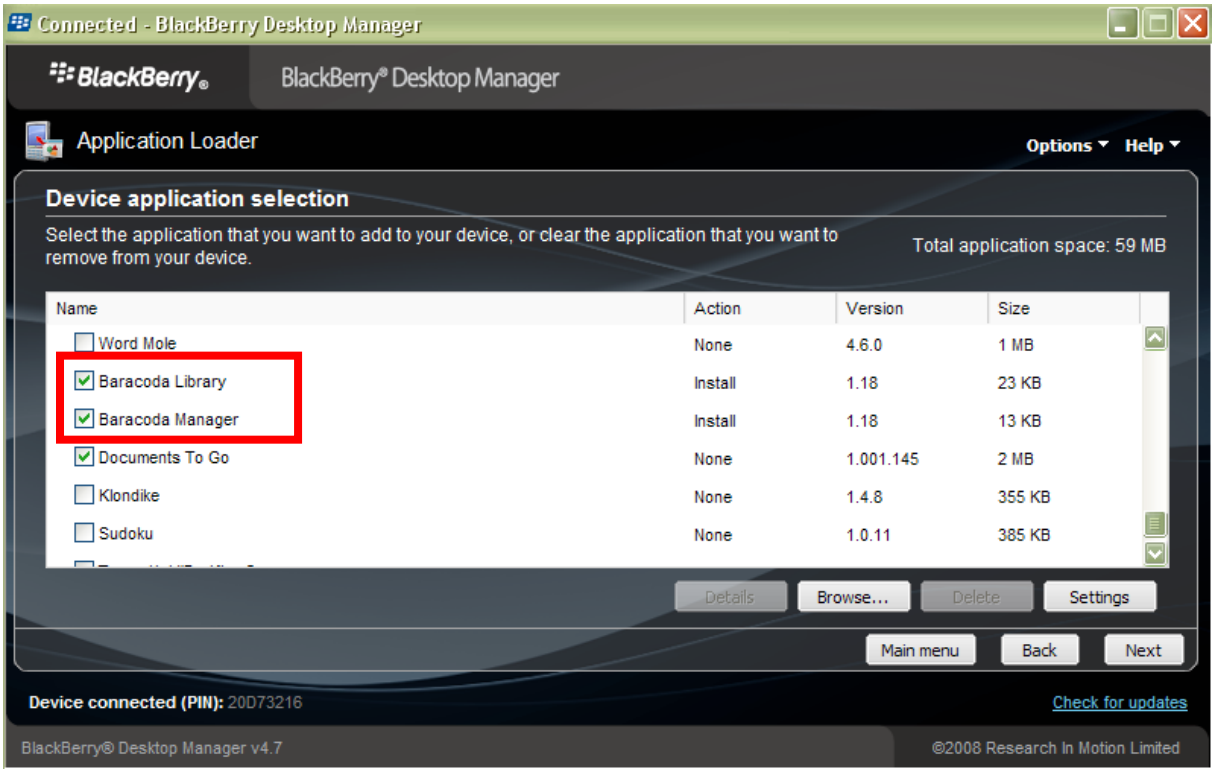

b) Double click the Application Loader shortcut:



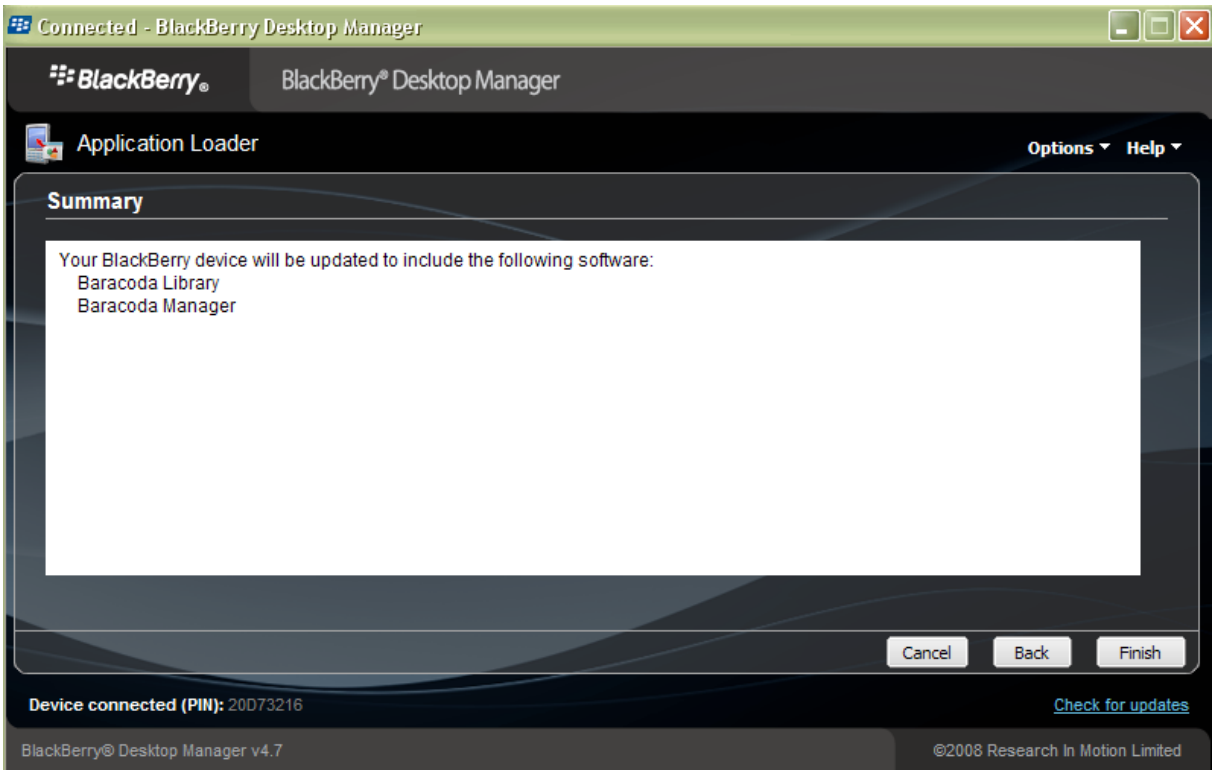
c) Click the Start on the Add/Remove Applications panel and wait until the Blackberry Desktop Manager detects the applications installed on your Blackberry:



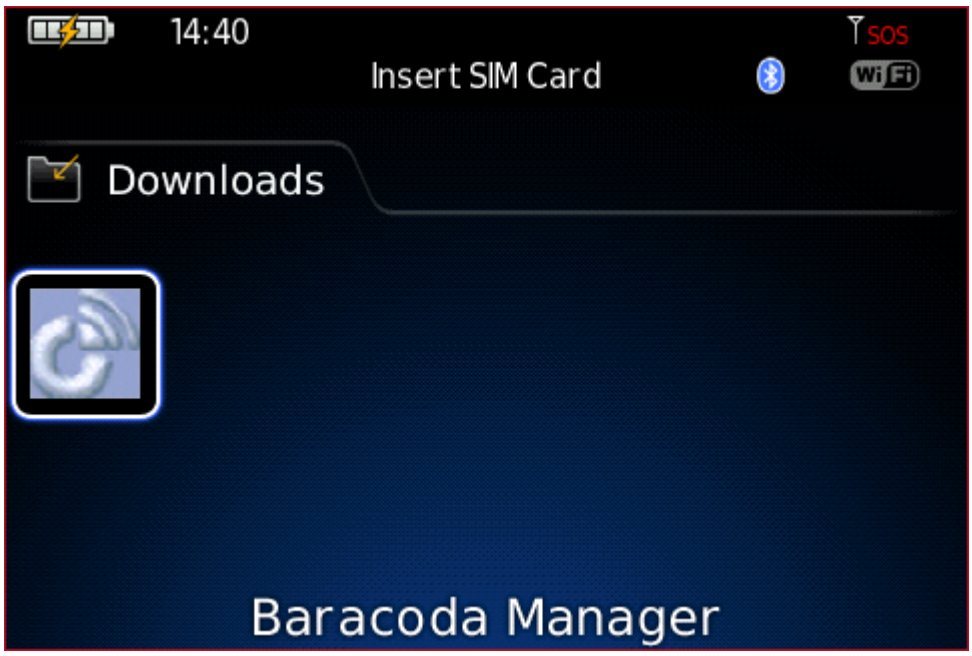

d) Click the Browse button and navigate to the directory with the BM_vxxx.alx installation file, select that file and click Open. Verify that “Baracoda library” and “Baracoda Manager” have been added to the list of applications to install:



e) Click the Next button to install the BaracodaManager:




f) Click the Finish button. Check that the BaracodaManager has been installed by verifying the presence of its shortcut either on the main screen or in the Downloads directory:




**Before the BaracodaManager application is fully functional, your device needs to be configured so that it allows Keyboard Event Injection for each target application. This configuration is described in the next paragraph.**

# 3. BaracodaManager control policy configuration to support peripherals using Event Injector API

## 3.1. Background

Peripheral devices (for example, Bluetooth enabled keyboards or barcode scanners) can use the EventInjector application programming interface (API) to simulate events such as user interface (UI) navigation and key presses on the BlackBerry device. This means that the user will need to change some security settings. In order for these calls to be allowed on BlackBerry devices connected to a BlackBerry Enterprise Server, Event Injection must be enabled by the BlackBerry Enterprise Server administrator through Application Control for the application component of the peripheral.

To enable Event Injection for the third-party application, complete the procedure that corresponds with the BlackBerry Enterprise Server software version you are running or change directly configuration on your device.

**Step 1**. Modify the security settings of the Baracoda Manager to allow event injection

**Step 2**. Modify the security settings on all 4.2 list of applications (Pad, messenger, …)

## 3.2. Settings on Blackberry device

For Blackberry smartphones with RIM OS earlier than 6.0 go to:

1. Options -> Advanced Options -> Applications
2. **BaracodaLib**
3. Edit Permissions (by pressing the track ball)
4. Scroll down to Interactions
5. Press the track ball and select "Allow" for “Interactions” (on some devices it may also be necessary to select “Allow” for “Security timer reset”)
6. Make sure you "Save" the changes & escape back to the main screen
7. Now repeat steps 2-6 for **BaracodaManager**

For Blackberry smartphones with RIM OS 6.0 go to:

1. Options -> Device -> Application Management
2. **BaracodaLib**
3. Edit Permissions (by pressing the track ball)
4. Scroll down to Interactions
5. Press the track ball and select "Allow" for “Interactions” (on some devices it may also be necessary to select “Allow” for “Security timer reset”)
6. Make sure you "Save" the changes & escape back to the main screen
7. Now repeat steps 2-6 for **BaracodaManager**

Check now the following process to configure BlackBerry Enterprise Server Software.

## 3.3. For BlackBerry Enterprise Server Software version 4.1

1. Create an applications folder in **Program Files\Common Files\Research In Motion\Shared**.
2. Create a subfolder under the **Program Files\Common Files\Research In Motion\Shared\applications** directory for the BaracodaManager application. Copy the handheld installation files (.ALX & .COD) files to this directory.
3. Index the applications by specifying the loader **/index** command from the command prompt:
    a) Go to: C:\Program Files\Common Files\Research In Motion\Apploader
    b) Type the command: **Loader.exe /Index**
4. On the BlackBerry Enterprise Server, open BlackBerry Manager.
5. In the left pane, click **BlackBerry Domain**.
6. In the right pane, select the **Software Configurations** tab.
7. Select a software configuration and click **Edit Software Configuration** or click **Add New Configuration**.
8. Type a name for the new configuration. You can type a description, but this is optional.

    In the **Device Software Location** field, enter the UNC path of the shared folder **C:\Program Files\Common Files\Research In Motion.** The standard UNC format is **\\servername\sharename\path\filename**.

    **Note:** For more detailed information on BlackBerry Device Software Configurations, see the appropriate BlackBerry Enterprise Server 4.1: System Administration Guide.

9. Click **Policies**.
10. Complete one of the following tasks:

    - To modify an existing application control policy, select it from the left pane and click **Properties**.

      OR

    - To create a new application control policy, click **New** and type the required information. For more information, see the BlackBerry Enterprise Server 4.0: Handheld Management Guide.

11. Locate the label for Event Injection and change the setting to **Allowed**.
12. Click **OK** on the Properties window and the Policies window.
13. Expand the Application Software tree.
14. Complete one of the following tasks:

    - To enable Event Injection for one third-party application, in the **Policy** column, select the appropriate application control policy from the drop-down list.

      OR

    - To enable Event Injection for all third-party applications, select the application control policy at the upper application level.

## 3.4. For BlackBerry Enterprise Server software version 4.0

1. Create an applications folder in **Program Files\Common Files\Research In Motion\Shared**.
2. Create a subfolder under the **Program Files\Common Files\Research In Motion\Shared\applications** directory for the BaracodaManager application. Copy the handheld installation files (.ALX & .COD) files to this directory.
3. Index the applications by specifying the loader **/index** command from the command prompt:
   - Go to: C:\Program Files\Common Files\Research In Motion\Apploader
   - Type the command: **Loader.exe /Index**
4. On the BlackBerry Enterprise Server, open the BlackBerry Handheld Configuration Tool.
5. In the left pane, click **Software Configurations**.
6. Select a software configuration and click **Edit Software Configuration**.
7. Click **Add New Configuration**.
8. Type a name for the new configuration. You can type a description but this is optional.
9. In the **Handheld Software Location** field, click **Change** and browse to the location of the C:\Program Files\Common Files\Research In Motion folder. You can also type the location in standard UNC format (e.g., \\servername\sharename\path\filename ) or navigate from Network Places.

   **Note:** For more detailed information on BlackBerry Device Software Configurations, see the appropriate BlackBerry Enterprise Server 4.0: Handheld Management Guide.

10. Click **Policies**.
11. Complete one of the following tasks:
    - To modify an existing application control policy, select it from the left pane and click **Properties**.

      OR

    - To create a new application control policy, click **New** and type the required information. For more information, see the BlackBerry Enterprise Server 4.0: Handheld Management Guide.
12. Locate the label for Event Injection and change the setting to **Allowed**.
13. Click **OK** on the Properties window and the Policies window.
14. Expand the Application Software tree.
15. Complete one of the following tasks:
    - To enable Event Injection for one third-party application, in the **Policy** column, select the appropriate application control policy from the drop-down list.

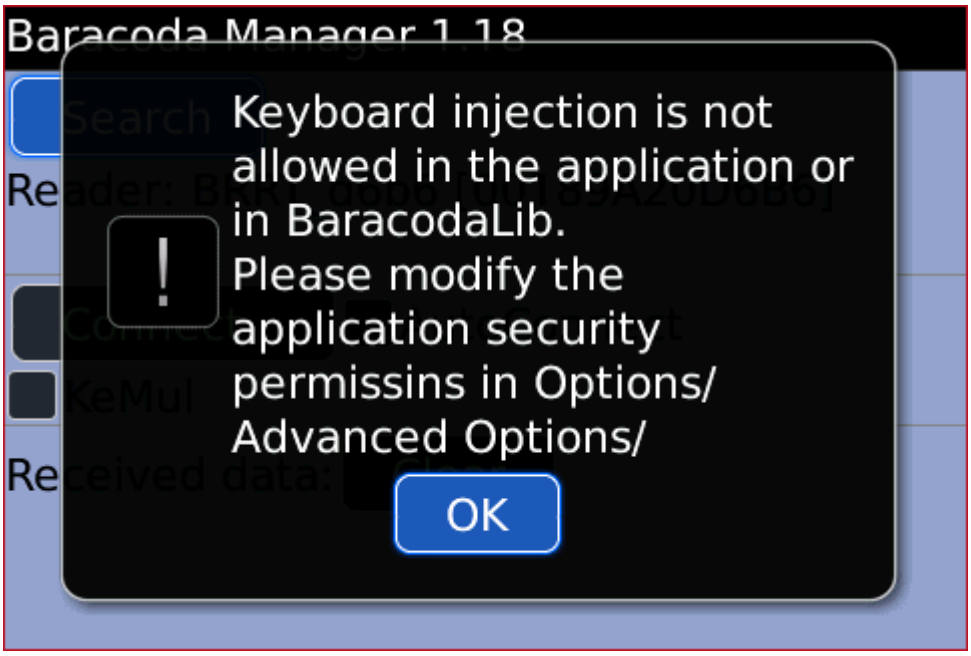
      OR

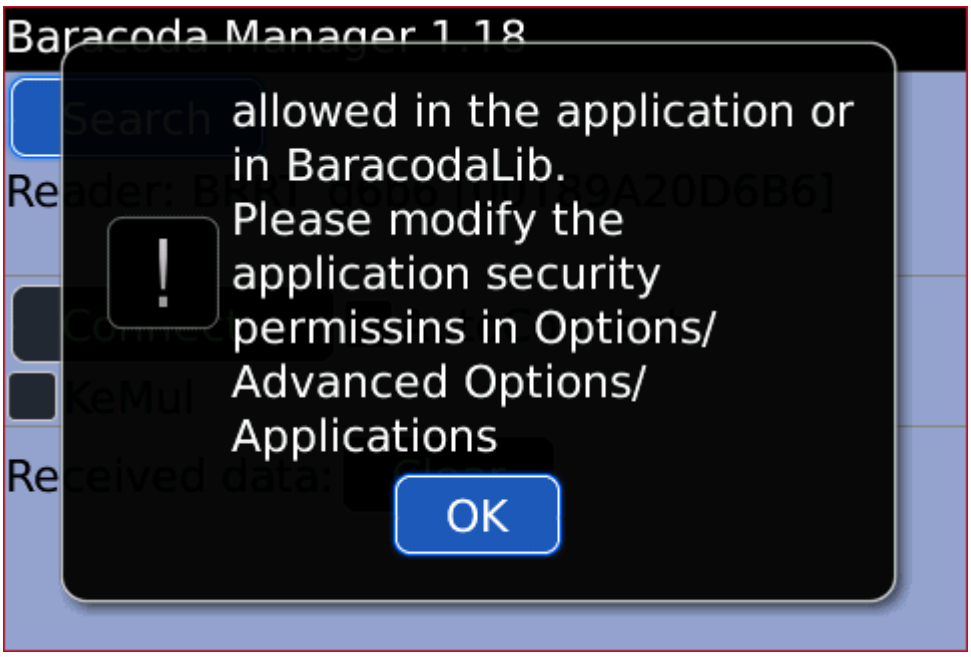
    - To enable Event Injection for all third-party applications, select the application control policy at the upper application level.

# 4. BaracodaManager for Blackberry user guide

## 4.1. Permission check

When the BaracodaManager is launched, it will verify if the necessary permissions have been set to allow keyboard emulation, as explained in the previous chapter. In the case where this check fails, the following popup window will be shown:

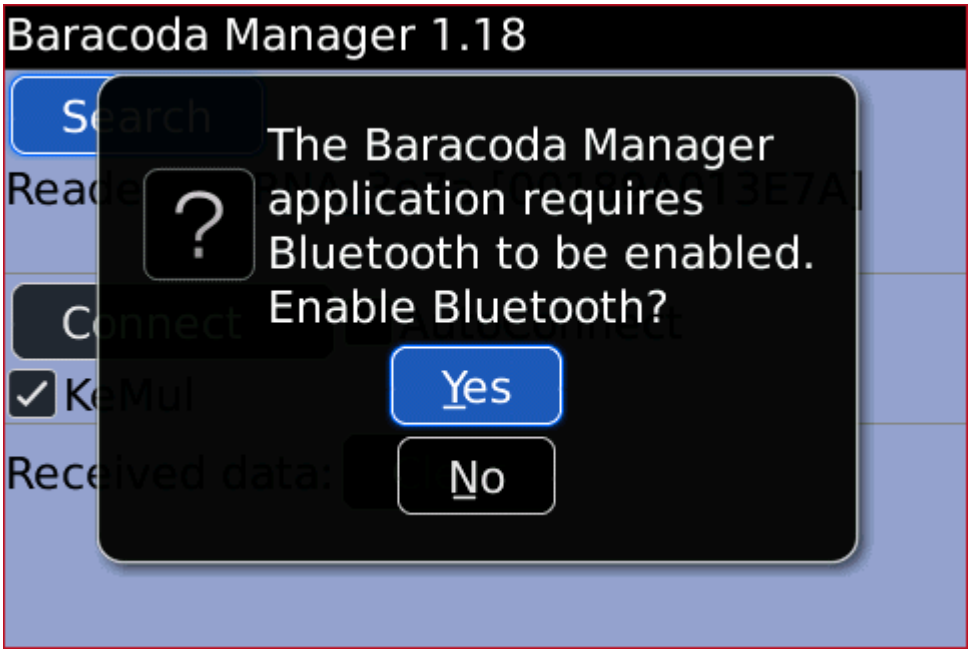



This security check will also be done whenever the user checks the “KEmul” checkbox. Again, in the case of a failure, the above popup window will be shown and the checkbox will be unchecked. In other words, in order to activate the keyboard emulation feature, the user must set the correct permissions for BaracodaLib and the BaracodaManager, as explained in the previous chapter.

### 4.2. Bluetooth activation

The BaracodaManager needs Bluetooth to be active on the Blackberry telephone. If Bluetooth is disabled on the Blackberry when the Baracoda Manager is started, then the user will be shown the following popup window:

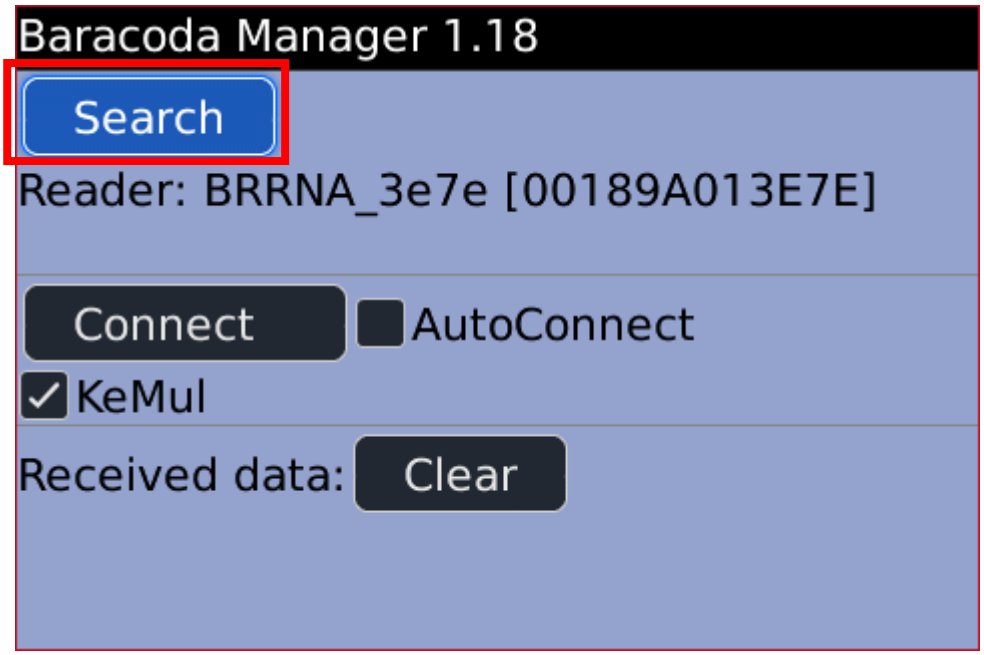



If the user answers 'No' to the above question, the BaracodaManager will exit.

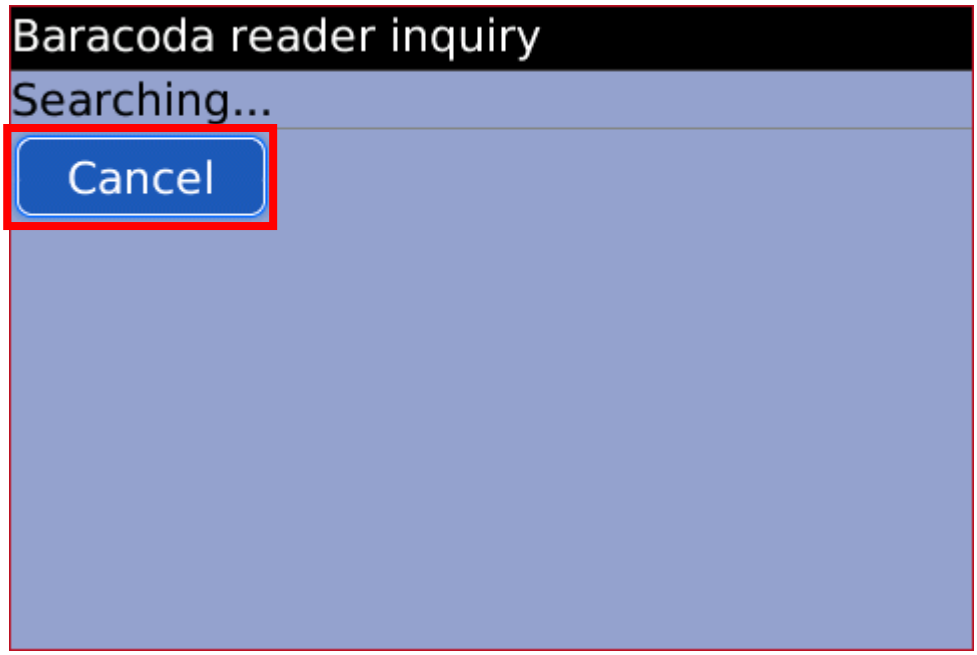
### 4.3. Finding Baracoda Bluetooth readers

In order to connect a Baracoda Bluetooth reader, the BaracodaManager has to find it first. To do that, the user should first turn on the reader and make sure the LED(s) is single-blinking.

The Search button on the BaracodaManager GUI is used to launch Bluetooth inquiries (to find active Bluetooth devices):

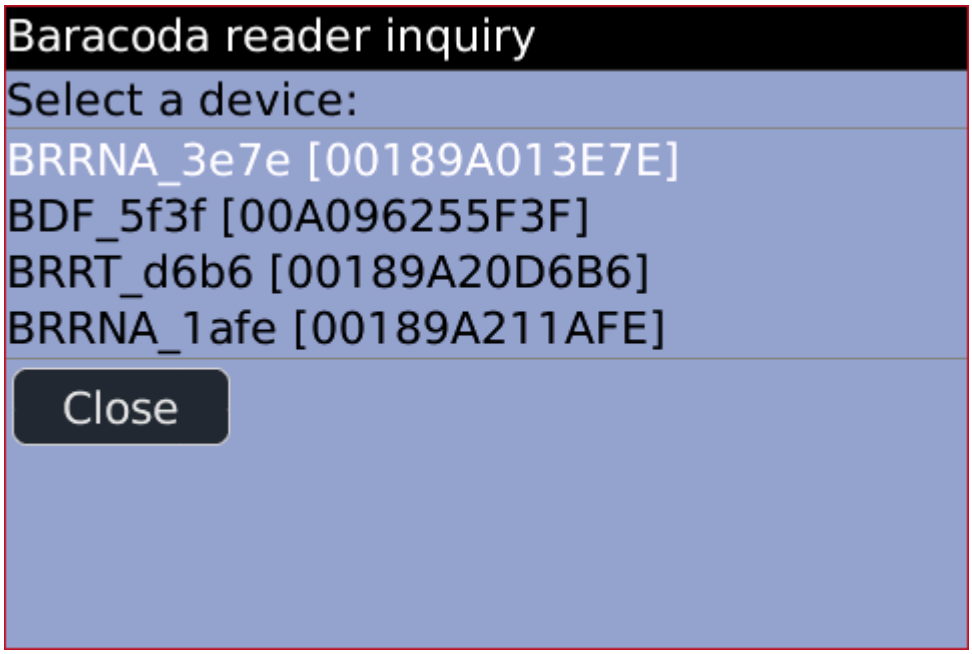



As soon as this button is pressed, the BaracodaManager will show another window on which the inquiry results will be shown:




The user can Cancel the inquiry by pressing the Cancel button at any time.

When the inquiry has been finished, all found Bluetooth devices will be shown on the list:

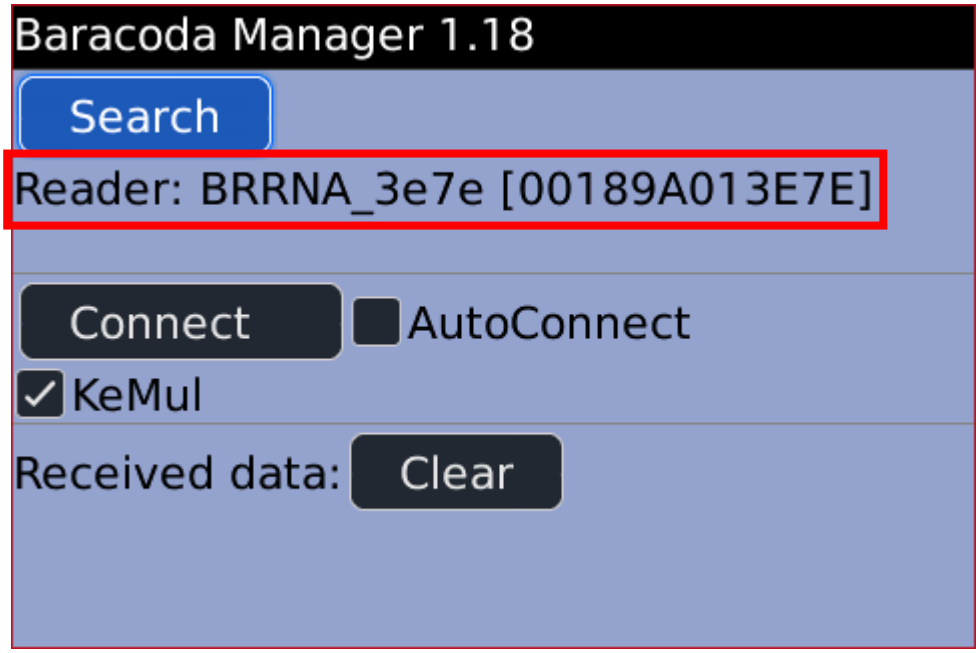



The user can either press the Close button to ignore the last inquiry or select the reader to connect and press the trackball to go back to the main screen. On the screenshot above the user has selected the BRRNA_3e7e device.

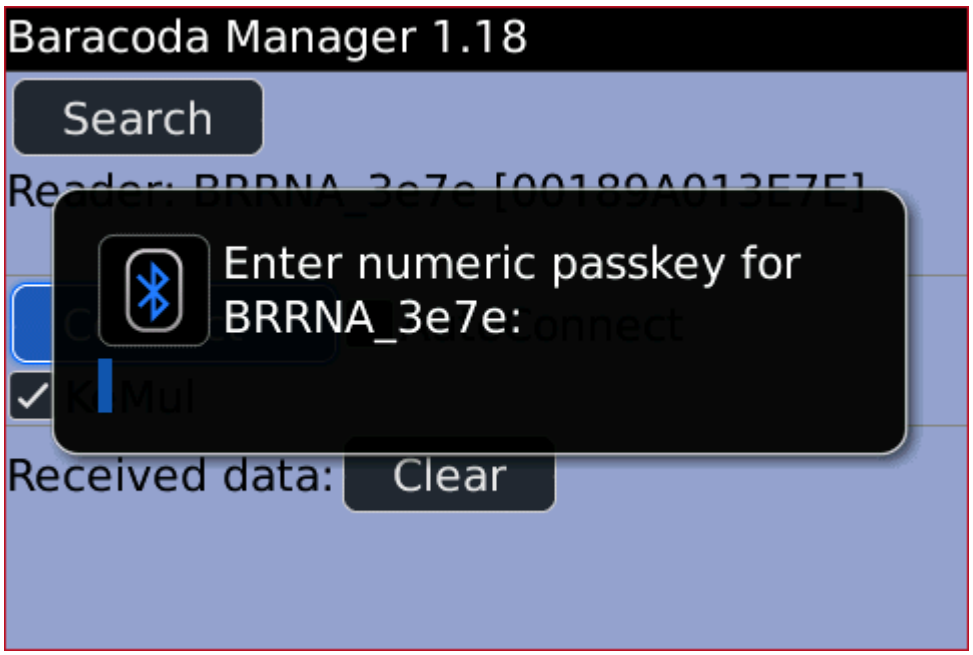
**NOTE: Please remember that all active Bluetooth devices will be shown on the list, including possibly some other Bluetooth peripherials than Baracoda barcode/RFID readers. The user should make sure not to select an incorrect device.**

### 4.4. Reader connection

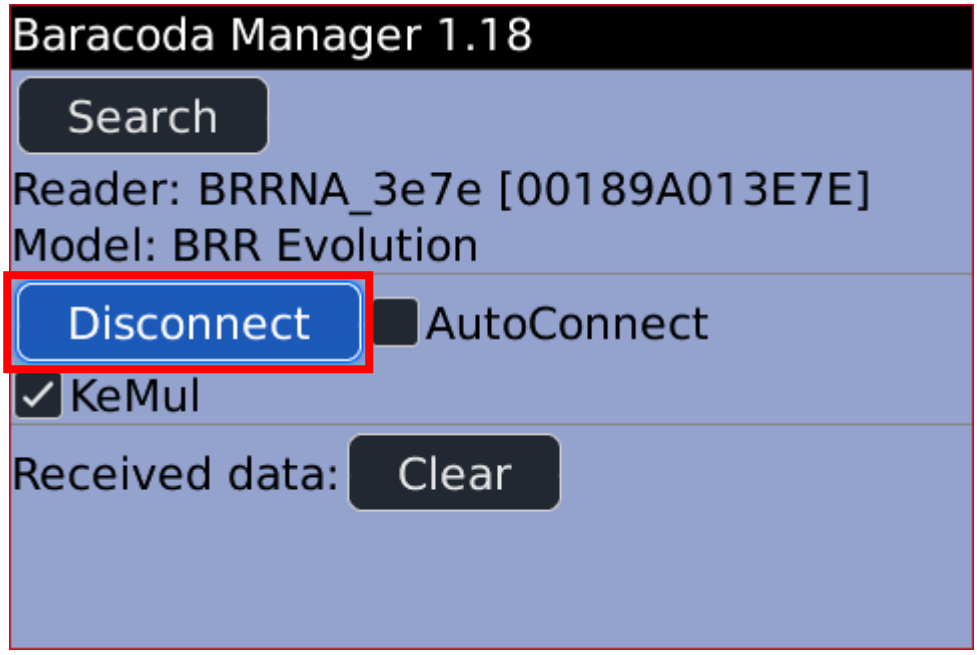
As soon as the user has selected the reader to connect, the BaracodaManager will return to the main screen and update the current reader name/address:



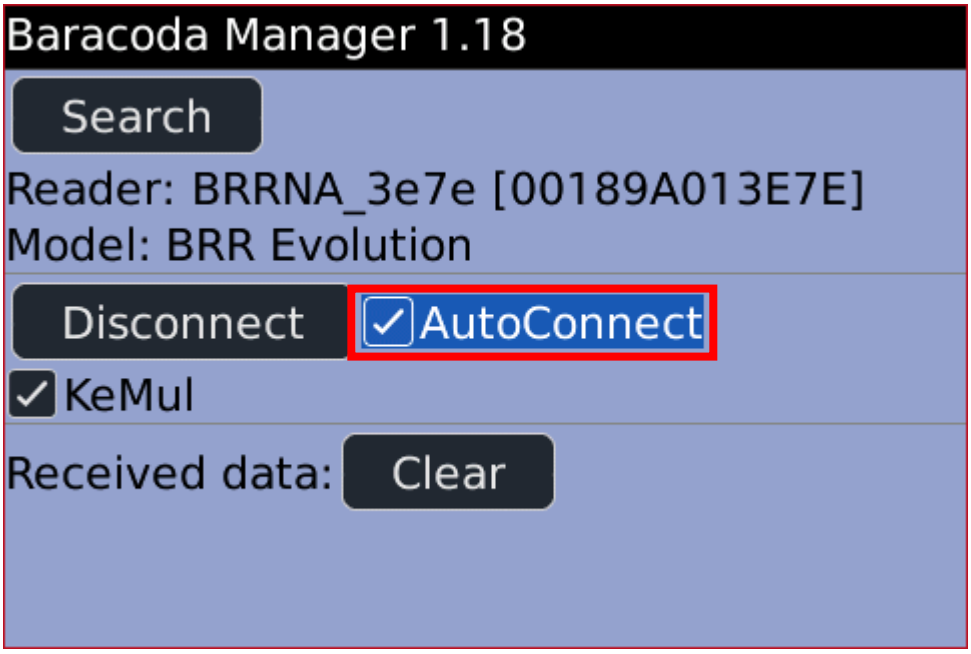

From that moment, the reader can be connected to the BaracodaManager by pressing the Connect button. In the case where the reader and the phone need to establish a new security link, the user will be asked to enter the reader's PIN code ("0000" by default):



When the reader has been connected, the Connect button text will change to Disconnect:




The AutoConnect checkbox can be used to activate the autoconnect feature of the BaracodaManager. It automatically tries to reconnect the current reader if the connection has been lost (because, for example, the reader has been put out of range or has been switched off). As soon as the reader becomes available again, the BaracodaManager will connect to it without user intervention. This checkbox can also be used to connect the selected reader instead of using the Connect button:

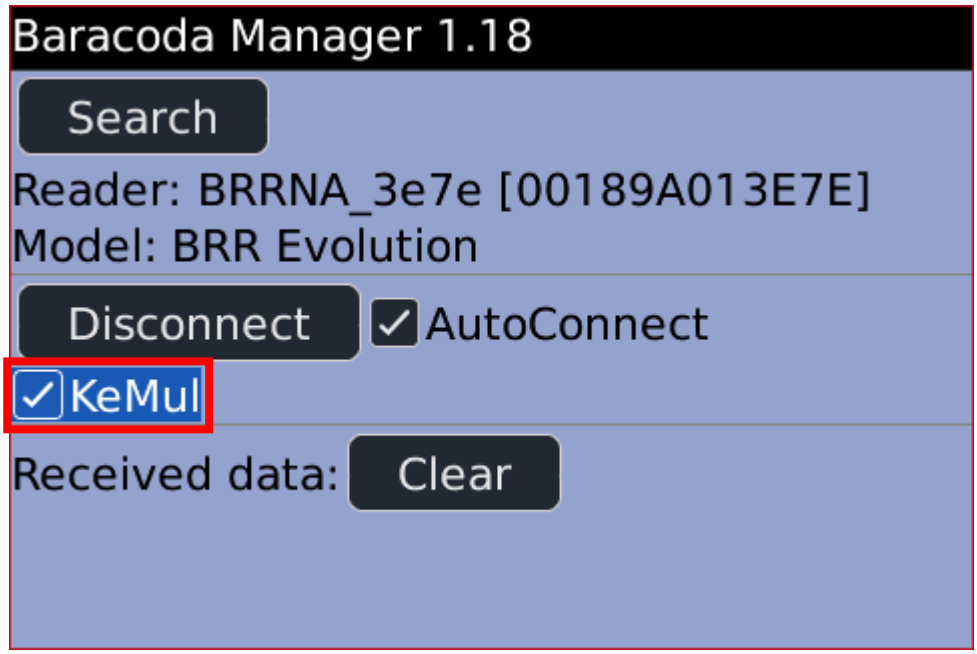



In order to disconnect the currently connected reader, the user can press the Disconnect button. It will also deactivate the autoconnect feature (if it has been activated).

### 4.5. Keyboard emulation

The BaracodaManager can emulate keyoard events corresponding to the barcode/RFID tag ID text read by the connected reader. Please note that the use will need to configure the Blackberry phone before they are able to use this functionality (see here).

Keyboard emulation state is managed by the KEmul checkbox:

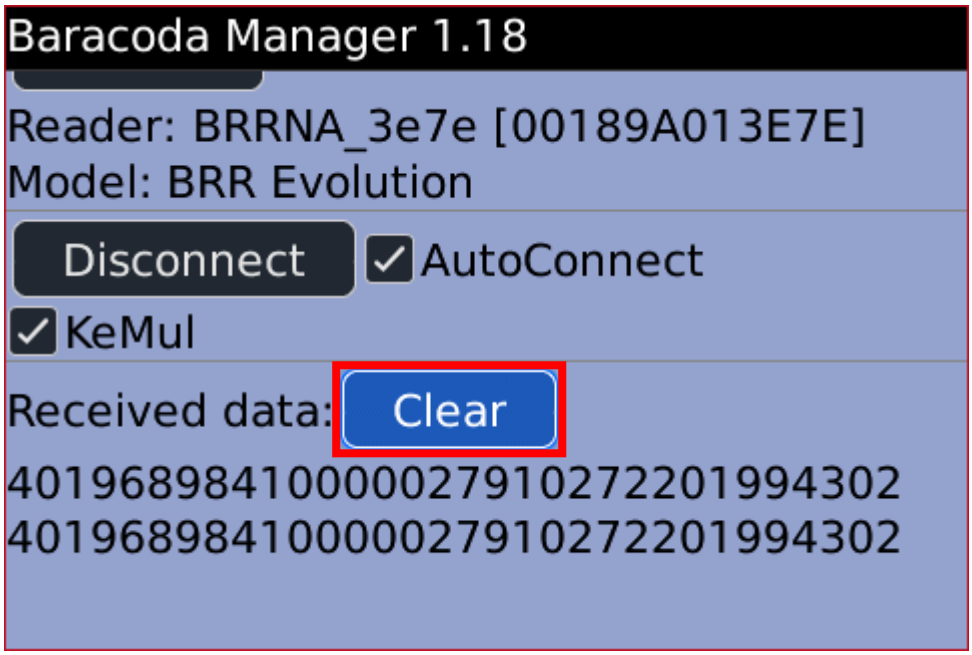



When the checkbox is checked, the keyboard emulation feature is active.

The user should switch to another application (that will receive the text input) by using the Alt+Esc key combination on the Blackberry.

### 4.6. Received data text field

Any piece of data read by the BaracodaManager is shown on the text field at the bottom of the screen:



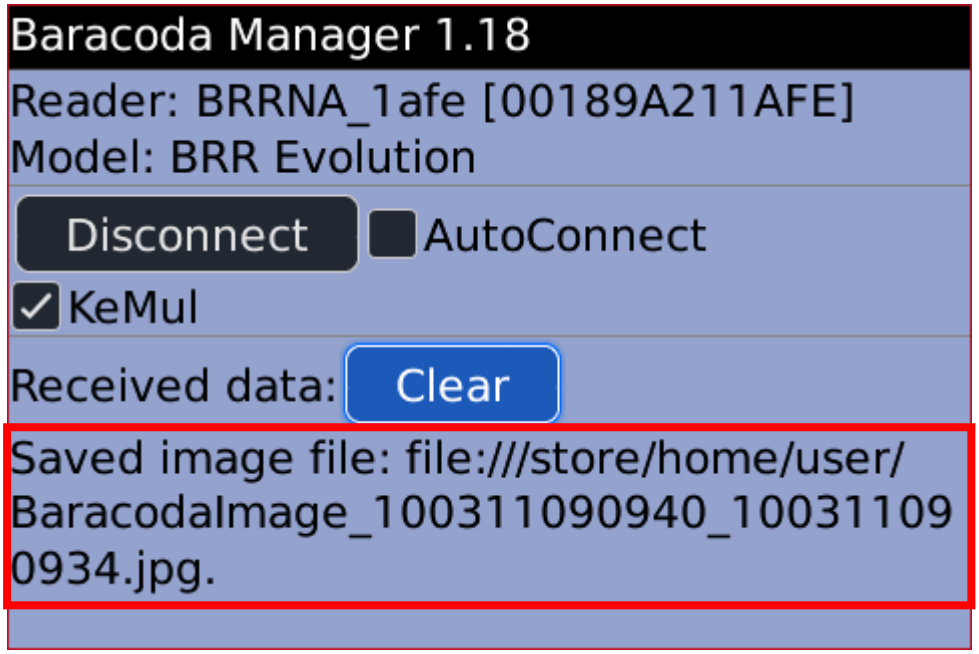

The contents of this text field can be cleared with the Clear button.

### 4.7. Signature capture

The Baracoda RoadRunners Evolution –FE/FS and DualRunners –FE/FS readers can capture signatures and images since firmware version 1.48. The BaracodaManager for Blackberry will save received images in the /store/home/user directory and the fileformat will be BaracodaImage_AAA_BBB.jpg, where:

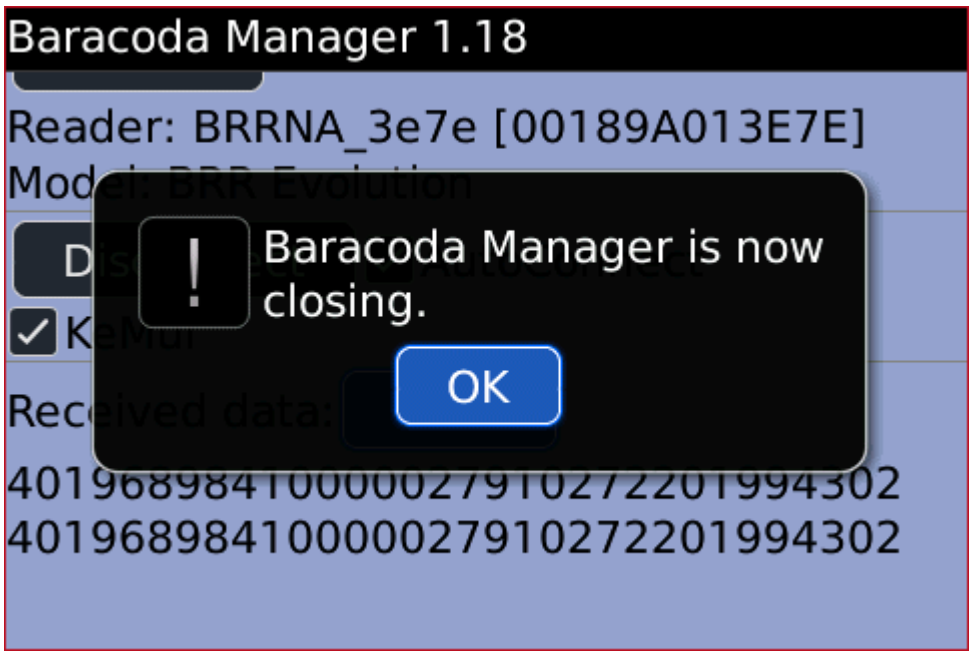
- AAA: Blackberry timestamp (YYMMDDHHmmSS)
- BBB: reader timestamp (if the capture was done while the timestamp option was active on the reader), also using the format YYMMDDHHmmSS. This part will not be present in the filename if the capture was taken with no timestamp on the reader.

The screen capture on the next page shows what information is presented to the user by the BaracodaManager when a signature or image capture is received by the program.




### 4.8. Quitting the BaracodaManager

When the user quits the BaracodaManager, it will show an information popup before exiting:




The BaracodaManager will save the current reader's Bluetooth address and name and also the autoconnect state so that these parameters can be restored when the application is run afterwards.