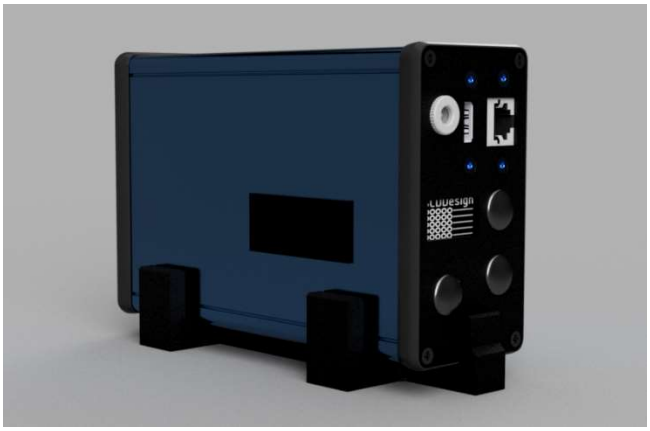
blueBox
Visual Interface Tool

User Guide



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2 SAFETY WARNING

The **blueBox** controller runs on low voltage (12VDC) but requires to be plugged in into standard 220VAC/110VAC mains power socket. Please follow safety guidelines when plugging the power supplies in the mains power source as it poses an electrical hazard that can cause harm or even death.

Risk of Electrical Shock! Inspect the power chords for damage. If any damage is noticed in any part of any of the power supplies and cables, replace them with an undamaged unit.

***Risk of Electrical Shock*!** Only plug the controller and the LED power supplies in mains power that was properly installed by qualified personnel.

Risk of Electrical Shock! Only plug the controller and the LED power supplies in mains power that is properly grounded.

Risk of Electrical Shock! The LED strips can be powered from multiple points. Please make sure to de-energize ALL power sources for the LED strips before servicing.

Risk of Electrical Shock! Only qualified personnel should perform service on the controller.

The **blueBox** controller and all its components are not designed to be installed in environments that require explosion-proof protection or in environments requiring greater than IP51 ingress protection rating.

****Product Laser Device Warning: Please Read Carefully****

The **mdb-measureKit variant** of the **blueBox** controller incorporates a Class I laser device. It is essential to understand and follow the safety guidelines outlined below to ensure your well-being and prevent any potential risks associated with laser technology.

1. Laser Safety Precautions:
   - Never look directly into the laser beam or expose your eyes or skin to the laser radiation.
   - Avoid any attempts to disassemble or modify the laser device. Only qualified personnel should perform maintenance or repairs.
   - Keep the laser device away from children and ensure they are supervised when in proximity to the product.

2. Eye Protection:
   - Although the laser in this device is classified as Class I, it is always recommended to exercise caution and avoid prolonged exposure to the laser beam, particularly for sensitive individuals, such as those with eye conditions.
   - If you experience any discomfort, eye irritation, or vision abnormalities while using the product, discontinue its use immediately and consult a healthcare professional.

3. Safe Usage:
   - Use the laser device strictly for its intended purpose as described in the product documentation.
   - Avoid pointing the laser beam towards reflective surfaces, including mirrors or shiny objects, as this can cause unintended reflections.
   - Do not use the laser device near flammable materials, volatile gases, or explosive substances.

4. Storage and Transportation:
   - When not in use, store the product in a safe place away from direct sunlight and extreme temperatures.
   - During transportation, protect the laser device from physical damage by using suitable packaging or a protective case.

5. Regulatory Compliance:
   - This product complies with relevant safety regulations and guidelines for Class I laser devices. However, failure to adhere to the instructions and warnings provided may result in potential hazards or compromise the safety features of the product.

   Please be aware that any misuse, negligence, or failure to follow these instructions could lead to serious injury or harm. We strongly advise you to familiarize yourself with the user manual, which provides comprehensive details on the safe handling and operation of the laser device.

   If you have any questions, concerns, or require further assistance regarding the safe usage of this product, please contact our customer support team immediately.

   By using this product, you acknowledge that you have read, understood, and agreed to comply with the above safety warnings and guidelines.

3 END USER LICENSE AGREEMENT

End User License Agreement for blueBox and mdb-lightKit

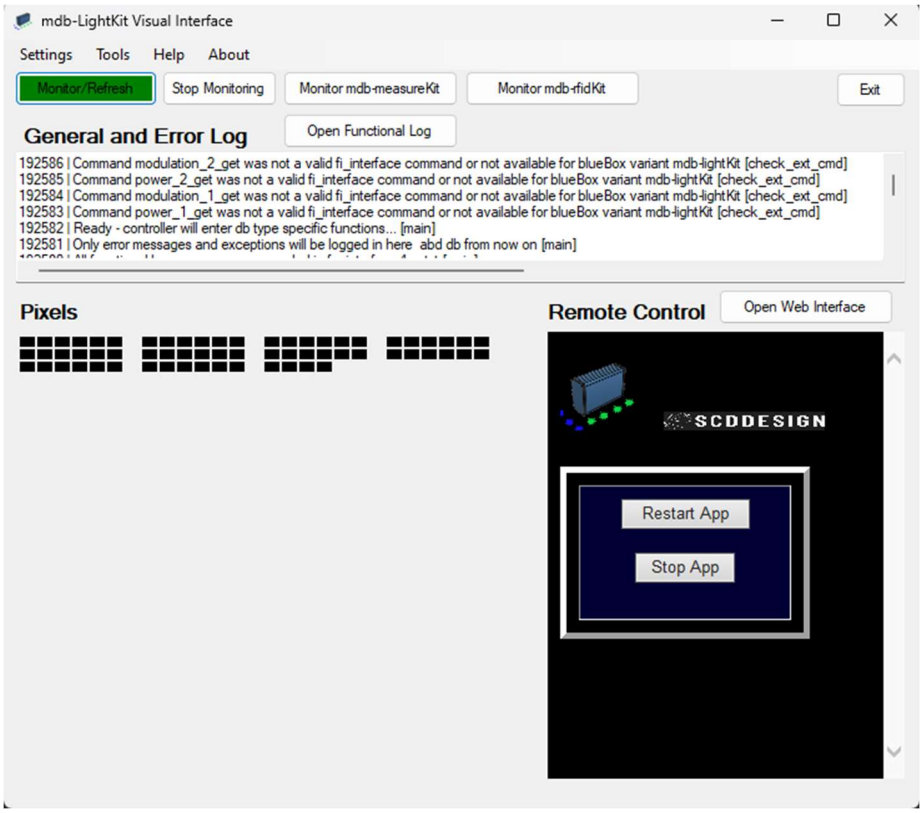
THIS END USER LICENSE AGREEMENT ("Agreement") is made between SCDDesign, LLC, a limited liability company organized under the laws of the state of Florida, United States ("Licensor"), and the end user ("End User" or "You") of the mdb-lightKit software ("Software") and the blueBox device ("Hardware").

1. License Grant. Licensor grants to End User a personal, non-exclusive, non-transferable license to use the Software and the Hardware in accordance with the terms of this Agreement. End User may only use the Software and Hardware for its intended purpose and may not reverse engineer, decompile or disassemble the Software.
2. Ownership. End User acknowledges that the Software and Hardware are the sole property of Licensor and that the End User has no rights in the Software or Hardware except as specifically set forth in this Agreement.
3. Warranty. Licensor warrants that for a period of 6 months from the date of purchase, the Hardware will be free from defects in materials and workmanship under normal use. If the Hardware fails to conform to this warranty, End User's sole and exclusive remedy shall be to return the Hardware to Licensor for repair or replacement. The warranty does not cover damage caused by End User's misuse, abuse, or unauthorized modification of the Hardware.
4. Disclaimer of Warranty. EXCEPT AS EXPRESSLY SET FORTH IN SECTION 3, THE SOFTWARE AND HARDWARE ARE PROVIDED "AS IS" AND LICENSOR DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT.
5. Limitation of Liability. IN NO EVENT SHALL LICENSOR BE LIABLE FOR ANY DAMAGES, INCLUDING WITHOUT LIMITATION, DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES, WHETHER IN CONTRACT OR TORT, ARISING OUT OF THE USE OR INABILITY TO USE THE SOFTWARE OR HARDWARE.
6. Termination. This Agreement is effective until terminated. End User may terminate this Agreement at any time by destroying the Software and Hardware and all copies thereof. This Agreement will automatically terminate if End User breaches any term of this Agreement. Upon termination, End User shall destroy the Software and Hardware and all copies thereof.
7. General. This Agreement constitutes the entire agreement between the parties relating to the use of the Software and Hardware and supersedes all prior or contemporaneous understandings or agreements, whether written or oral, relating to such subject matter. This Agreement may not be amended except in writing signed by both parties. If any provision of this Agreement is held to be invalid or unenforceable, such provision shall be struck and the remaining provisions shall be enforced. This Agreement shall be binding upon and inure to the benefit of the parties and their respective successors and assigns.
8. Cost of Repair or Replacement. After the warranty has expired, End User will be responsible for the cost of repair or replacement of the Hardware.

End User agrees to be bound by the terms and conditions of this Agreement by using the Software and Hardware.

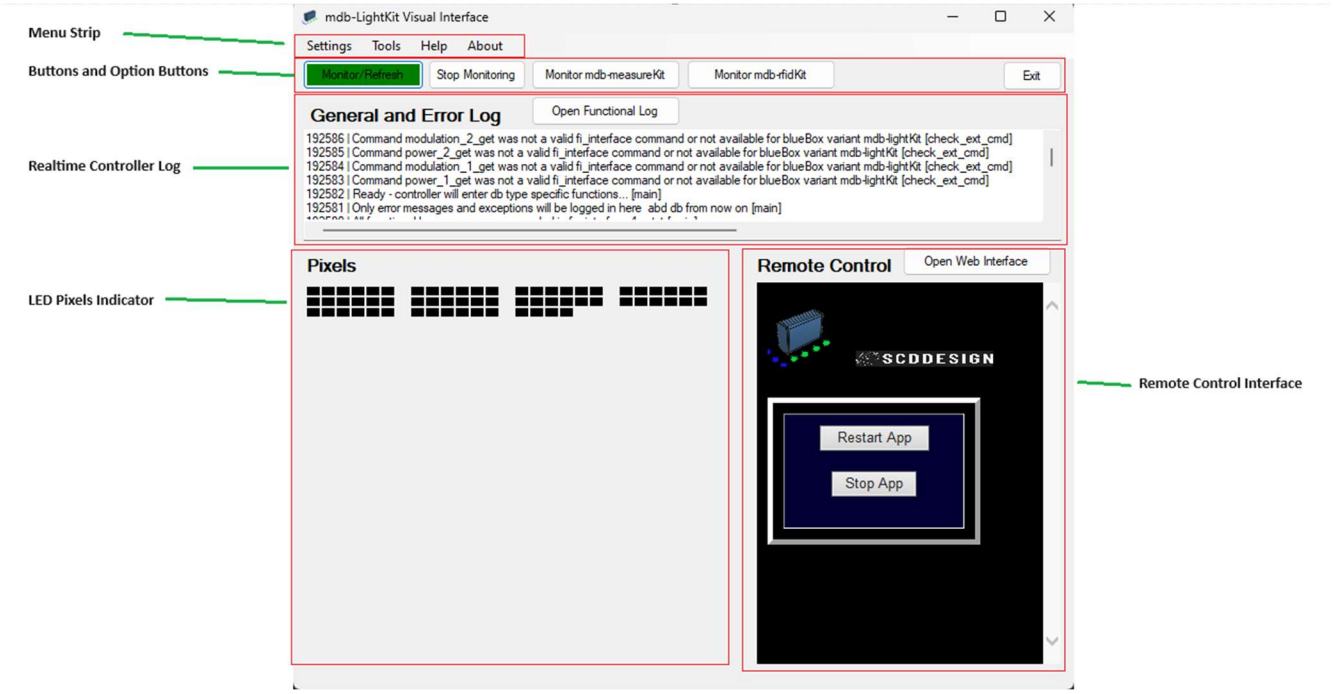
4 DESCRIPTION

The mdb-lightKit Visual Interface Tool is an application that runs complimentary with the blueBox controller (BB23). It is used to interact directly with the blueBox controller for control, monitoring, and configuration.



5 LAYOUT OF MENUS AND BUTTONS

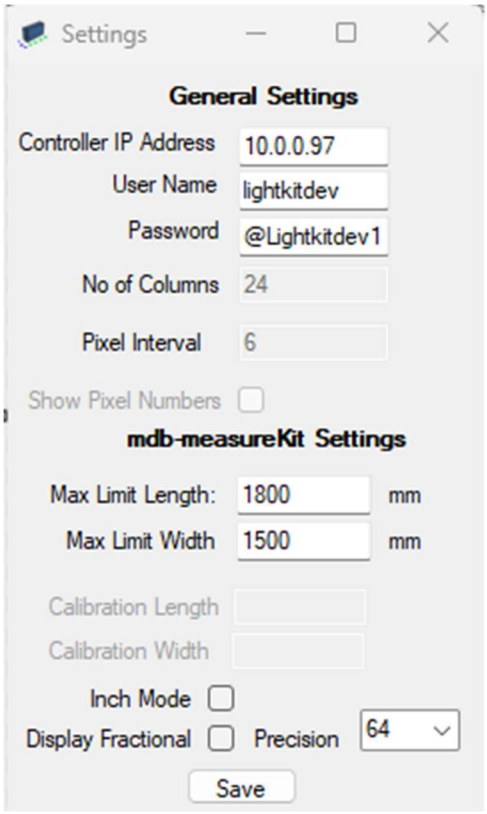
The general layout of the menus and buttons can easily activate the functions of the blueBox controller. It consists of the Menu strip, Buttons and Options Buttons, the current real time log, the visualization of the LED pixels status, and the remote control for controlling and sending commands to the blueBox controller.



5.1 MENU STRIP

5.1.1 Settings

The Settings menu is where the connection to the blueBox controller is configured along with its options for the different variants.



Connection information

Visualization Option (active in service mode only)

mdb-measureKit variant settings

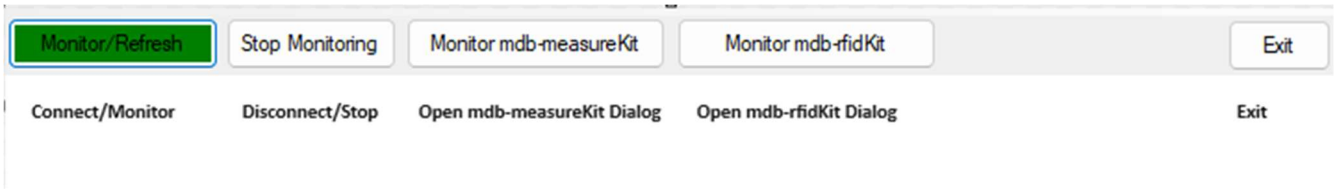
Visualization limits

Calibration Values (service use only)

Display measurement values in inch or in millimeters
Display Fractional representation of the measurements in inch mode or not and its fractional precision

5.1.2 Buttons

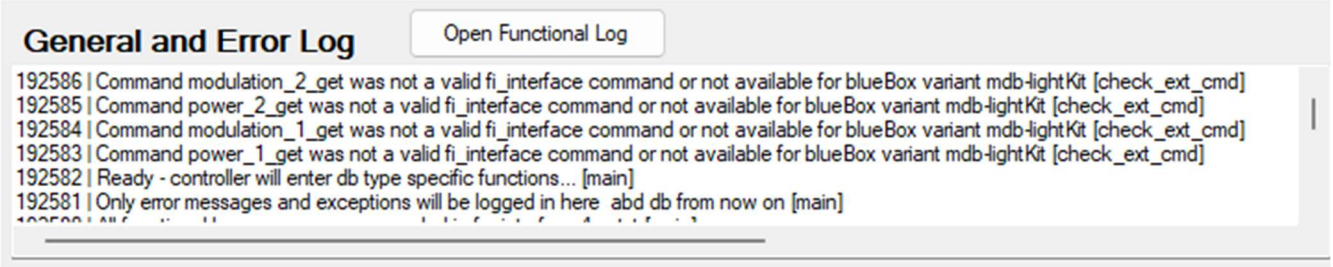
The buttons will invoke the connection, and blueBox variant dialog boxes to control and monitor variant specific functions



5.1.3 Log

The General and Error log will contain the running log from the controller. It will display the messages in descending order (last entry on top). A general log contains the errors and general messages from the controller while performing general functions. All messages that are variant specific will be displayed in the Functional Log. The Functional Log can only be displayed via the web interface by clicking on the Open Functional Log button.

Opens the Functional Log from the web interface



The real time log from the blueBox controller

5.1.4 Pixels

The pixels area will display the current state of the LEDs

5.1.5 Remote Control

The Remote Control area displays buttons that are directly from the web interface. It will contain variant specific buttons to control variant specific functions.

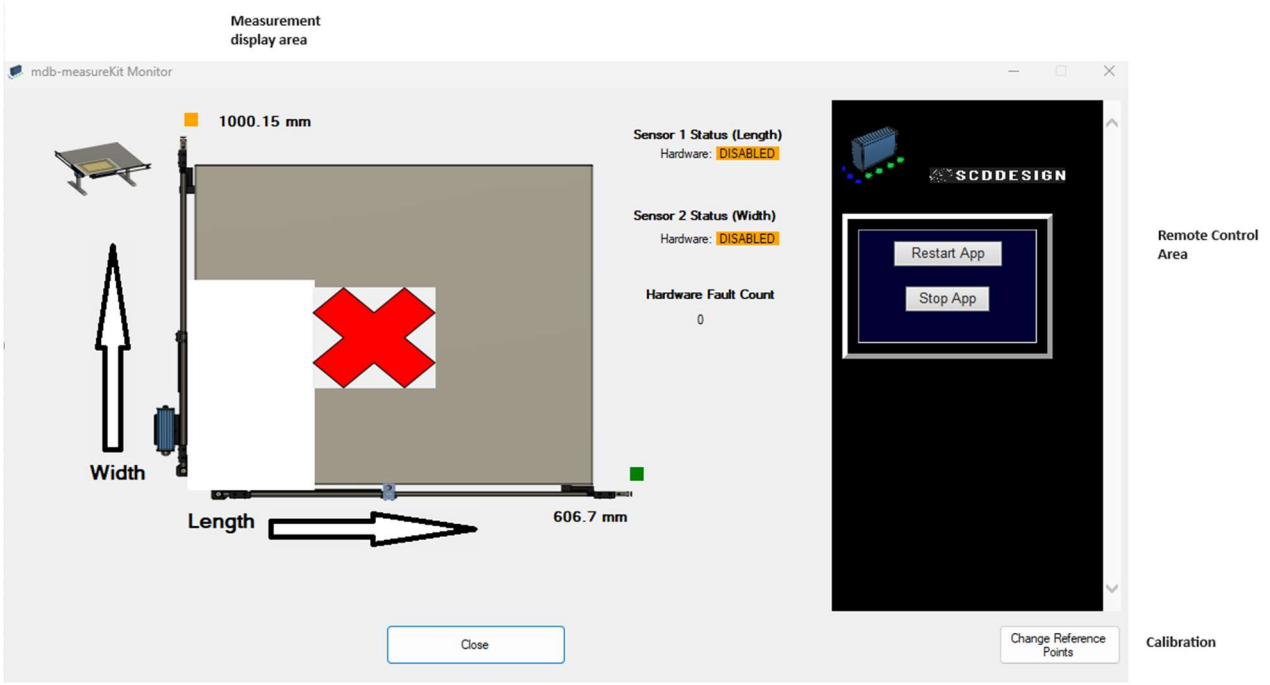
Opens the web interface via default web browser

Variant Specific buttons

6 VARIANT SPECIFIC DIALOG BOXES

6.1 MDB-MEASUREKIT MONITOR

Displays the mdb-measureKit specific application form to monitor and control the mdb-measureKit variant of the blueBox controller.

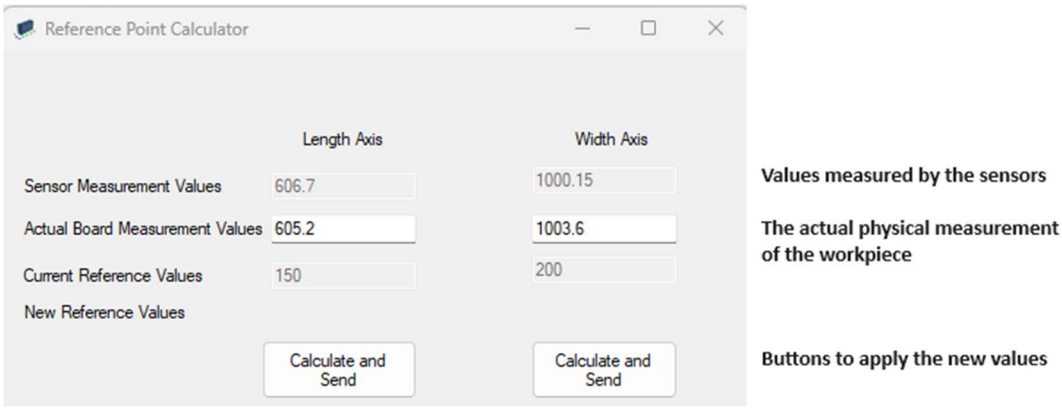


6.1.1 Calibration (Change Reference Points)

The Change Reference Points button will give access to the mdb-measureKit variant of the blueBox.

To change the calibration of the sensors:

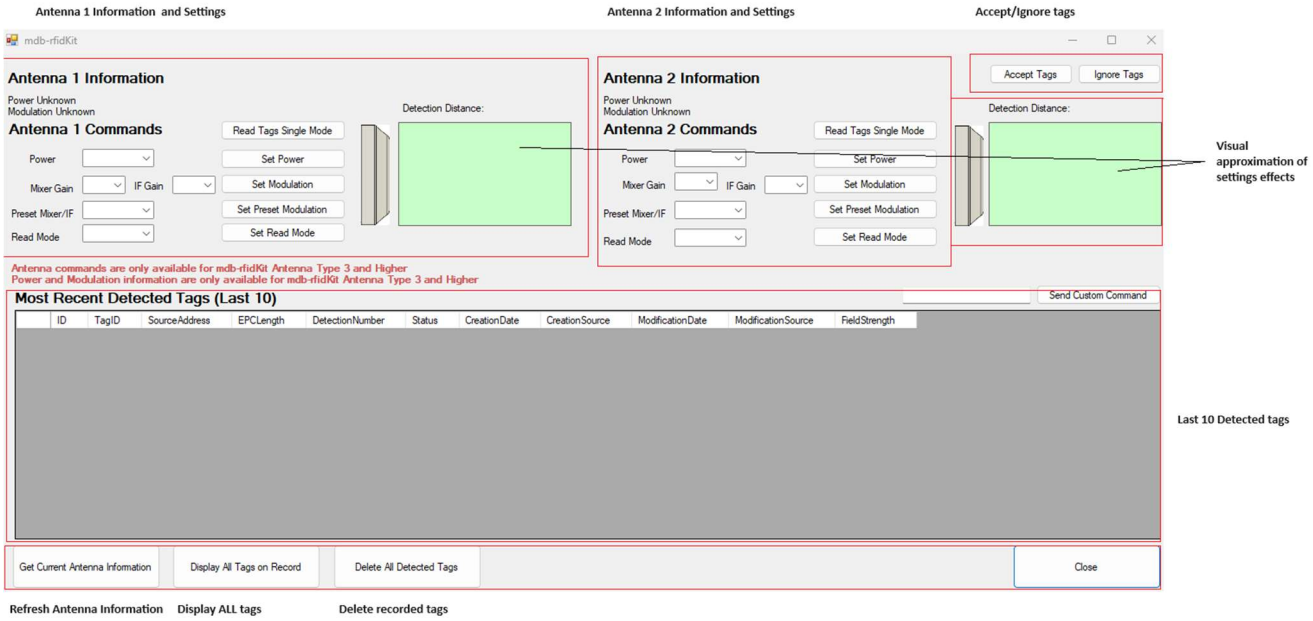
1. Provide a workpiece of known length and width
2. Measure the workpiece in the machine
3. Open the Change Reference Points button
4. Enter the actual workpiece dimensions in the appropriate input boxes
5. Click on Calculate and Send button(s)
6. Close the Reference Point Calculator dialog box
7. Re-reference the machine
8. Re-measure the workpiece using the machine again and verify the measured values
9. Repeat as necessary



6.2 MDB-RFIDKIT MONITOR

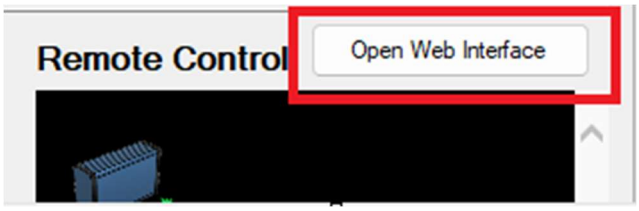
Displays the mdb-rfidKit specific application form to monitor and control the mdb-rfidKit variant of the blueBox controller.

Please refer to the BB3 mdb-rfidKit variant Users Guide for the full explanation of settings that are accessible using this interface.



7 SHUTDOWN, RESTART, AND REBOOT

Shutdown the controller using the *Shutdown* link via the web interface**. Failure to do so can corrupt the data in the controller**. Avoid unplugging the controller without shutting down. Sometimes it is necessary to reboot the controller. The *Reboot* tool must be used from the web interface.



The Start/Restart App will restart the software.

When a parameter or configuration is changed, restart of the app is necessary. A reboot is not required.

Before changing the parameters or configuration, it is best to make a backup first using the *Make a Backup* tool from the web interface. When total app failure occurs, at least a working copy can be restored using the *Restore from Backup* tool.

Distributors and partners for the blueBox may develop their own shutdown and reboot interfaces. Check the manual for specific applications that are provided by the distributors.

8 TECHNICAL SUPPORT

SCDDesign, LLC customizes designs based on its value-added reseller's (VAR or dealer) needs and specifications. SCDDesign, LLC does not sell the blueBox controller directly to consumers.

For technical support or questions, please contact the value-added reseller (VAR or dealer) where you purchased the blueBox controller as its commissioned functions are customized to their specifications.

Contact WEB-CAB when the blueBox controller is configured as the following:

- Production Assistant (db type 1 and db type 9)
- measureKit (db type 5)
- scanKit/feedbackKIt (db type 8)
- mdb-rfidKit (db type 7)

Contact Stiles Machinery Inc when the blueBox controller is configured as the following:

- Homag controllerMES (db type 2)
- Homag controllerMES productionFlow (db type 6, 6.1)
- Homag Automation lagerdb (db type 3 and 3.1)

For non-VAR specific questions, please contact us at cs@scddesign.com.