

Mooltipass Mini BLE User Manual



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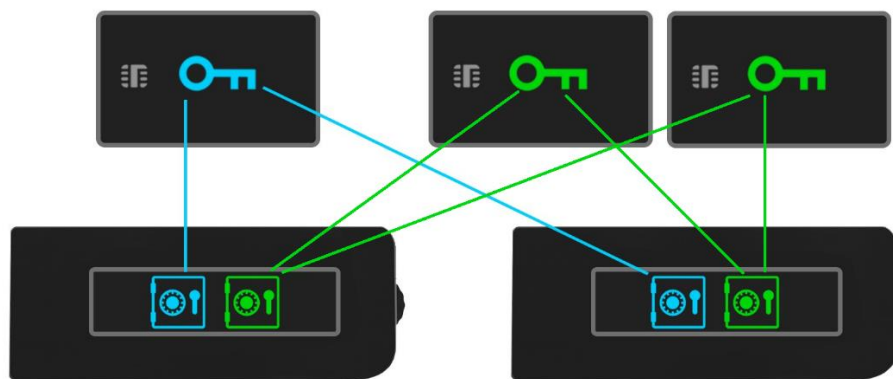
I. Mooltipass Mini BLE Device

A) Introduction

The Mooltipass Team would like to thank you for purchasing the Mooltipass Mini BLE, the third device in the Mooltipass family. We've worked hard to make it the most usable and secure authenticator in the market and we hope you'll feel that way too.

This manual presents the different features offered by the Mooltipass Mini BLE. It will be updated as new ones are added. The latest version is always available at <https://www.themooltipass.com/setup>.

B) Important Concepts



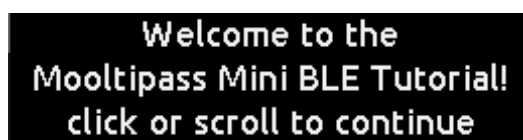
When using the Mooltipass, it is useful to keep the following points in mind in order to use all features that the Mooltipass Mini BLE offers:

- 1) Each user is identified to the Mooltipass by a personal card or one of its clones
- 2) Multiple users can share one Mooltipass device
- 3) User password databases are stored on the device and can be exported for backup or cloning
- 4) By cloning the database, a user can use multiple devices

C) Getting Started



The Mooltipass Mini BLE is battery powered. To switch it on, click on the wheel or connect a plugged in USB-C cable to it. When it's first powered on, you'll be invited to select the device default language. Simply scroll to the desired language and click to approve.



A device tutorial will be shown next. Scroll or click to see each screen.



To get started, you need to set up a new Mooltipass user. Simply insert one of the cards that came with the device into the Mooltipass Mini BLE.



The Mooltipass Mini BLE will prompt you to create a new user. Click the wheel to accept the request. Scrolling to the cross icon and clicking, or holding the wheel button (a "long click") will deny the request.



Next, setup your Personal Identification Number (PIN). Each of the four PIN characters can be one of the digits 0-9 or one of the letters A-F. Scroll the wheel to select the desired character and click to move to the next position. A long click will go back one position to let you change the previous character.



Re-enter the same PIN you selected in the previous step to confirm it.



If you're a novice user and prefer your device to be as automatic as possible, by, for example, automatically approving credential requests for you, approve the "Simple Mode" prompt. You can always change your choice later.



Congratulations, your Mooltipass Mini BLE and the smart card are set up and ready for use! The Mooltipass Mini BLE now displays the main menu. To be safe if you were to lose your smartcard, we recommend you to clone it (see Cloning your Card).

D) Bluetooth Operation



To enable Bluetooth on the Mooltipass Mini BLE, scroll to and then select the 'Bluetooth' item in the main menu.



You'll be prompted to enable Bluetooth on the Mooltipass if it isn't already active.



When Bluetooth is active, the Bluetooth icon will appear in the device tray in the lower right corner of the screen.

a) Connecting to a New Device



To connect to a new device such as a phone or a computer, select the menu item shown here. Then use that device's Bluetooth user interface to pair with the Mooltipass Mini BLE.



The Mooltipass Mini BLE will display this screen while waiting for your device to pair with it. Your device will generate and display a pairing PIN.



When the device has generated the PIN, the Mooltipass Mini BLE will prompt you to enter it. Enter the PIN and the Mooltipass Mini BLE will connect to your device.



When wirelessly connected to your device, the Bluetooth logo will display arrows around it.

b) Deleting Pairings



The 'Delete Pairings' menu item erases the pairing information of all devices the Mooltipass Mini BLE has been paired with. When performing this operation, make sure to also erase the matching Mooltipass pairing on the devices.

c) Disabling Bluetooth



The 'Disable Bluetooth' menu item allows you to disable the Bluetooth interface. Disabling Bluetooth just turns it off, it does not delete the pairings.

d) Switching Between Bluetooth Devices



If your Mooltipass Mini BLE is paired with several devices, you can use the "Disconnect Device" menu item to temporarily disconnect the Mini BLE from the currently connected device, allowing another Bluetooth device to connect to it.

E) Credentials Storage and Recall

a) Credentials Storage

While the Mooltipass works with any device right out of the box, our app and extension make things even easier when using your favorite web browser.

For extension & app installation files, visit <http://www.themooltipass.com/setup>



After installing, simply visit any website login page and enter your login and password. The Mooltipass Mini BLE will detect this and ask if you want to store the website, login and password. Click the wheel to approve storing your credentials.

Credentials can also be added directly using the Moolticute App (see the [*Adding or Updating a Credential*](#) Credentials_section of the Moolticute User's Guide).

b) Credentials Recall

Typically, you login to a website by typing your username and password for that site. Some websites use FIDO2 / WebAuthn or Time-Based One Time Password to login, either in addition to or instead of a username and password. Mooltipass supports all three methods.

For username and password login, your Mooltipass device will behave in one of two ways depending on how it is configured. (See Enabling Advanced Mode / Enabling Simple Mode and Login Notification / Prompt).

Notification Mode



In Simple Mode or with login prompts disabled in Advanced Mode, the Mooltipass Mini BLE will inform you when automatically logging you into websites.

Prompt Mode



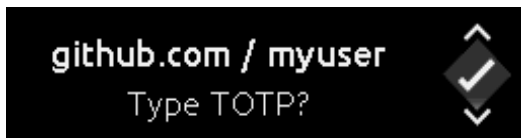
In Advanced Mode with login prompts enabled, the Mooltipass Mini BLE will prompt you to approve sending credentials.

c) FIDO2 / WebAuthn Credentials

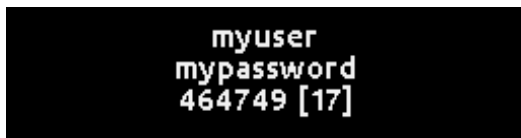


The Mooltipass Mini BLE natively supports FIDO2 / WebAuthn based credentials. The Mooltipass Mini BLE interacts with them like any other kind of credential. You can test and read more about WebAuthn technology [here](#).

d) Time-Based One Time Passwords (TOTP)



Time-Based One Time Passwords can be setup using the Moolticute companion app. Once added to your Mooltipass Mini BLE, follow the steps described in Manual Login to type TOTP tokens.



TOTP tokens can also be viewed by denying the typing prompts, as shown in [Manual Login – Favorites Menu](#).

E) Manual Login



If you're not using a web browser and need to log in, you can use Manual Login to “type” the credentials.

Position the typing cursor on the connected device so that you could type the username then select “Login” on the Mooltipass main menu.



Use the wheel interface to scroll to the service you want to log into and click the wheel to select it.

To scroll more quickly through the list, push and hold the wheel while scrolling. This scrolls by the first letter of the names of the services.



If more than one credential set is stored for a given website, you will be prompted to select which login to use.



If the Mooltipass Mini BLE is connected to different devices, one over Bluetooth and the other over USB, you’ll be prompted to select the output interface.



The Mooltipass Mini BLE then prompts you for permission to send your username to the device. If the typed username doesn't appear correctly, make sure your keyboard layout is selected appropriately in the ‘*Device Settings*’ tab of the Moolticute app (see Keyboard Output).



Next the Mooltipass prompts for permission to enter your password. Reposition the typing cursor on the connected device, if necessary, and click the wheel.

F) Manual Login – Favorites Menu



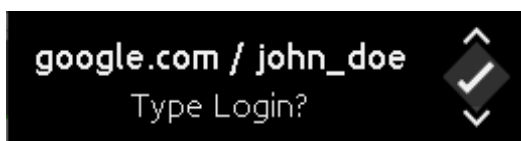
The Mooltipass Mini BLE provides a '*Favorites*' menu for quick access to your most commonly used credentials.

To select which credentials are 'favorites' use the '*Credentials*' tab of the Moolticute app (see Credential Management).

In the main menu, select the 'Favorites' item to show your favorite credentials.



Select the desired credential set using the wheel interface.



As before, approve or deny the username entry request.



And then approve or deny the password entry requests.



If you deny both username and password prompts, the Mooltipass Mini BLE will ask if you'd like to display your credential on its screen.

G) Operations Menu



The Mooltipass Mini BLE has an 'Operations' menu that provides access to some important features.

From the main menu, select the 'Operations' item.



You will be presented with the available options, which are outlined below.

a) Enabling Advanced Mode / Enabling Simple Mode



You can switch between the advanced and simple mode using this menu item. The advanced mode allows greater control over your security settings.

b) Changing the Card PIN



In the Operations menu, select the 'Change pin' item.



Enter your old PIN.



Enter your new PIN.



Confirm your new PIN.

c)

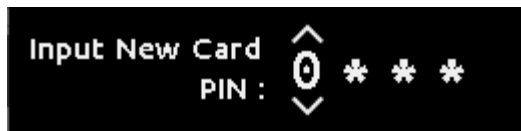
d) Cloning your Card



Credentials are stored inside the device, **not in your card**. We recommend you make a clone of your card and keep it in a safe place so that you can use it to access your credentials if your regular card is lost or damaged. In the operations menu, select the 'Clone Card' item.



Enter your PIN.



Enter the desired PIN for the new card. It can be the same as your regular card, but this is not required.



Confirm the PIN for the new card.



Remove your regular card.



Insert a new (empty) smart card. The Mini BLE then initializes it with the contents (encryption key) of your regular card, and the new PIN you just selected.

e) Deleting Your User Data from the Mooltipass



In the Operations menu, select the 'Erase Profile' item.

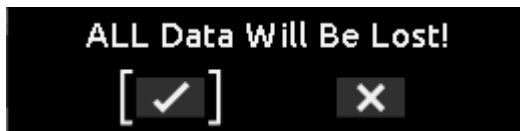


The Mooltipass prompts you for confirmation that you really do want to delete all of your user data.

Please note that this operation deletes all the credentials stored for this user on this Mooltipass Mini BLE. It doesn't delete credentials stored for this user on other Mooltipass devices nor credentials stored on this Mini BLE for other users/cards.



Enter your PIN.



If you are really sure you want to delete your user data from the Mooltipass Mini BLE, confirm again.



If you are using your current smart card on other Mooltipass devices, it is important that you **deny** the request to erase the card – if you do erase the card, it can no longer be used to access credentials on any device. Otherwise, accept it. This resets the card to its original unused state.



If you erase your original card and have clones of it that you no longer need, you should erase them, too. Approve this request and repeat the previous process to erase the cloned cards as well.

f) Language Change



This menu item allows you to change your device's main language.

l) Left/Right Handed Mode Change



To switch between left- and right-handed mode, simply remove the smartcard from your Mini BLE and hold your device the other way up. If you deny the prompt, you may only retry after a minute.

J) Active Category Selection (Advanced Mode Enabled)



When the device's advanced mode is enabled, users can select an active category. The selected category acts as a folder, storing new credentials inside it, and limiting credential viewing and recall to the selected category.



4 categories are available and can be renamed using Moolticut.

K) Other Mooltipass Mini BLE Settings

While the settings accessible in the device menu (see Settings Menu (Advanced Mode Enabled)) are applied to your user profile, your device's behavior can further be customized by changing more settings in the Moolticut companion app (see Device Settings).

L) Battery Usage Best Practices

The Mooltipass Mini BLE uses a Nickel Metal Hydride Battery (NiMH). For maximum battery longevity, we recommend you refrain from charging your device until its battery is depleted. A single charge typically lasts between 2 and 7 days, depending on how you use your device. When receiving your Mini BLE for the first time, we also recommend performing the battery reconditioning procedure described in [Advanced Tab](#).

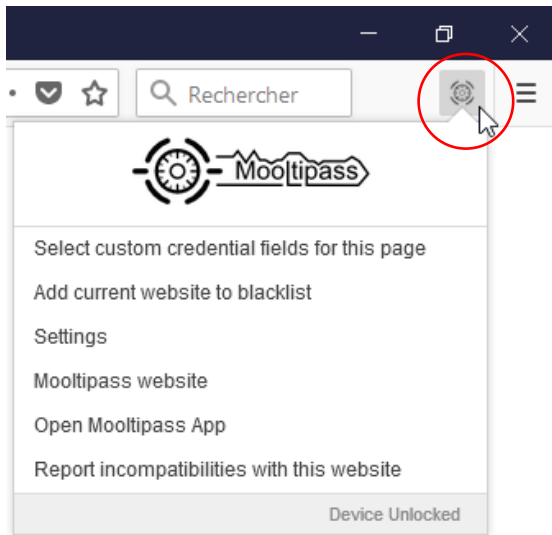
M) Device Emergency Shutdown

In the unlikely case where your device becomes unresponsive, you can force-shutdown your Mooltipass Mini BLE by unplugging it from USB and keeping the wheel pressed for 20 seconds. You may then plug the USB cable again.

II. Mooltipass Browser Extension

For installation instructions please visit
<http://www.themooltipass.com/setup>.

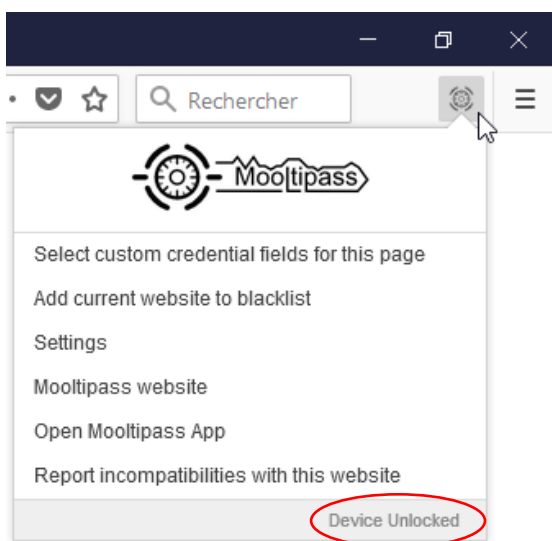
A) Extension Menu



In Chrome, Firefox or Opera, the Mooltipass icon is located next to your address bar.

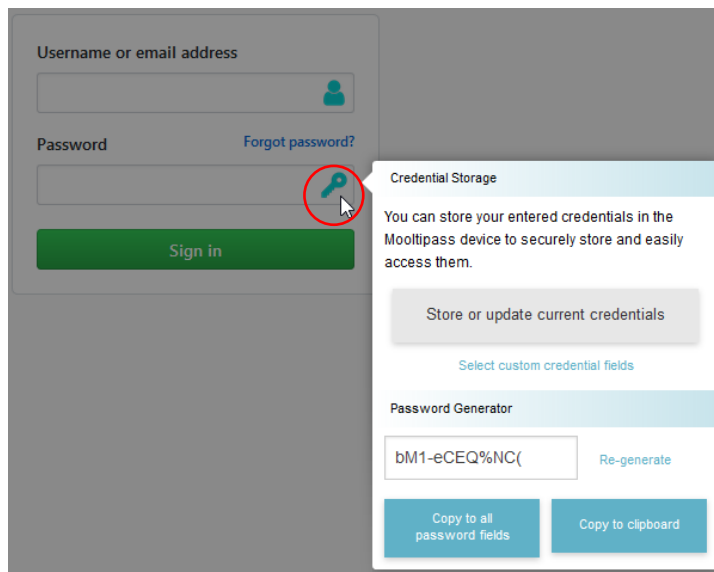
Clicking on it displays a menu.

B) Device Status



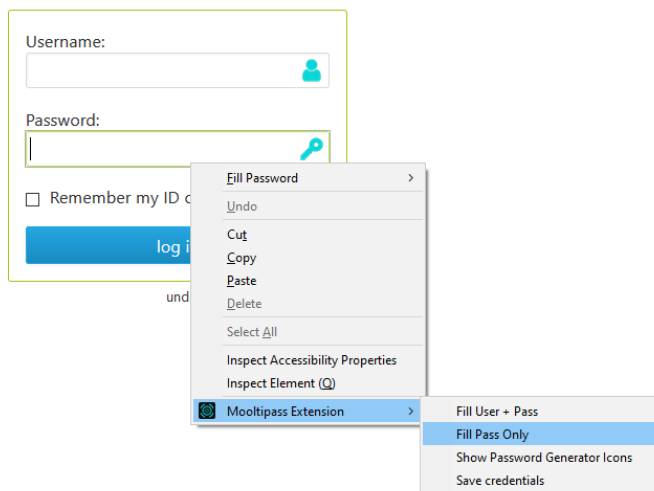
The device status is displayed in the extension menu's bottom right corner.

C) Password Generator and Credential Storage



Whenever the extension sees a password field, it offers you an opportunity to bring up the Mooltipass password generator. Simply click on the key icon.

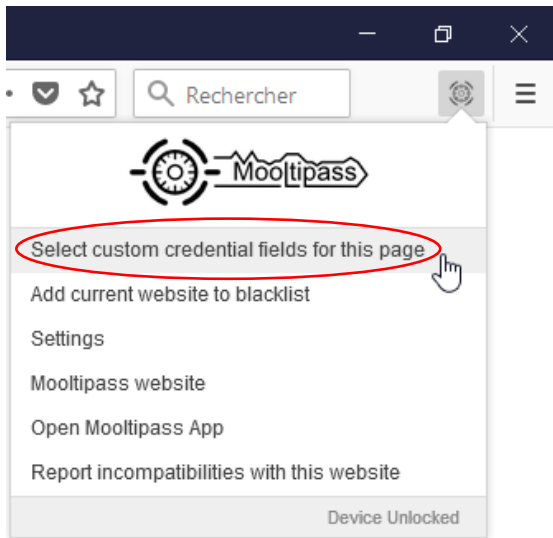
D) Context Menu Based Credential Recall



Whenever the extension detects credential fields, it automatically communicates with Moolticute to retrieve the necessary credentials from the Mini BLE.

In the rare cases where the extension doesn't pick up credential fields, simply right click on a field to bring up a context menu to manually trigger credentials recall.

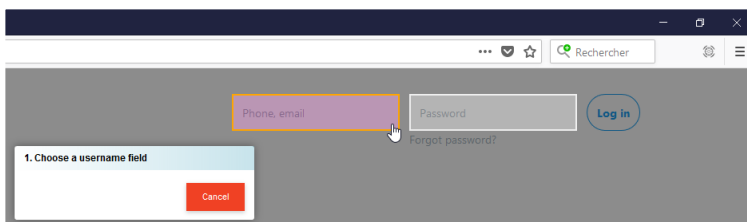
E) Selecting Custom Credential Fields



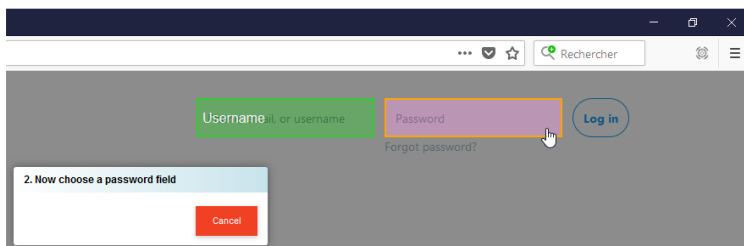
The Mooltipass extension searches for credential fields in the web pages you visit. When it finds them, it displays a key icon in the password field, as shown above.

In the rare case the credential fields aren't picked up, you can tell the app about them by clicking this item in the extension menu.

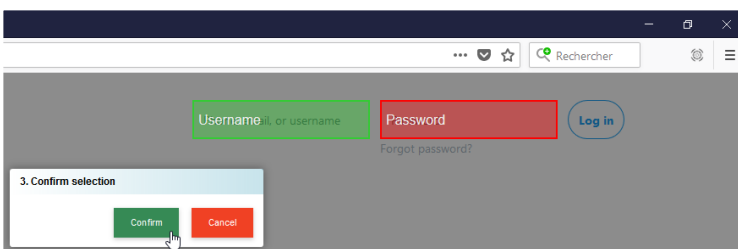
Follow the on-screen instructions to select the username field



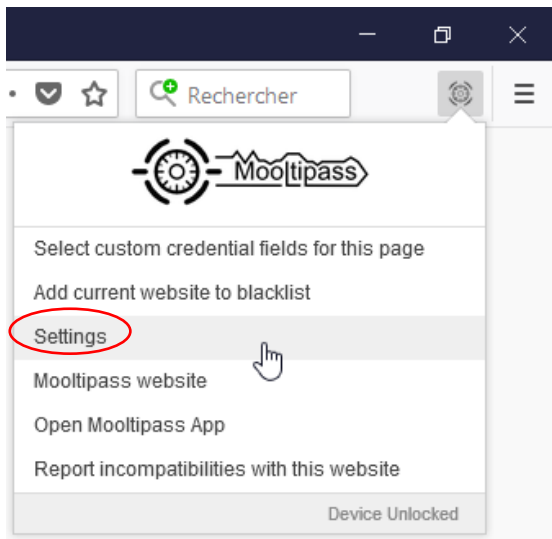
then the password field,



and confirm.



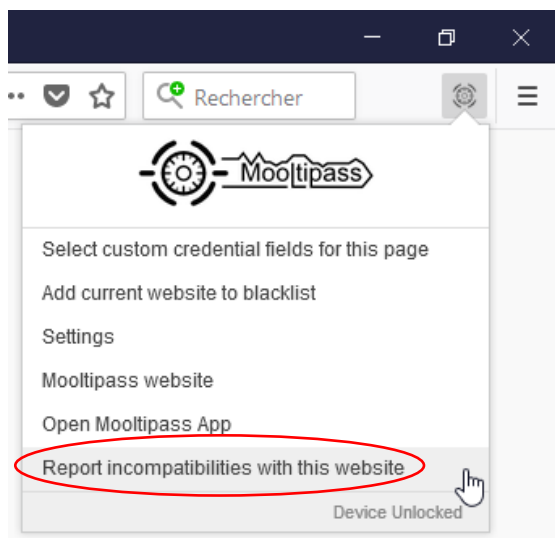
F) Extension Settings



To bring up the Mooltipass extension settings page, click on this item in the extension menu.

Among other things, the settings page allows you to manage the list of websites you wish the extension to ignore and the ones for which you have stored custom credential fields.

G) Reporting Incompatibilities



The Mooltipass team actively works to ensure the extension works with all the websites you visit.

If you find a website that does not work, we'd like to know about it.

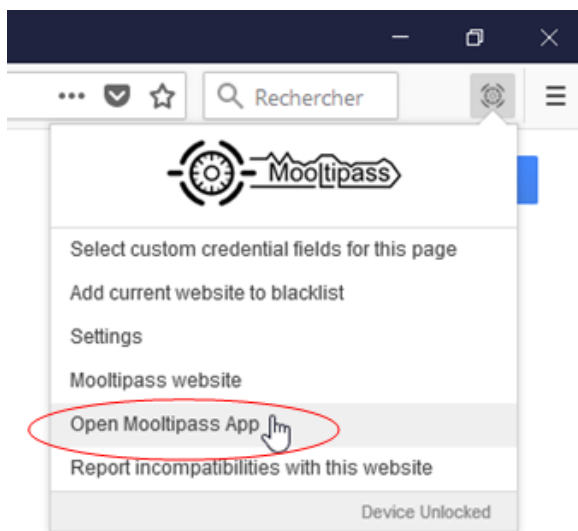
To report an incompatibility, click on this link in the extension menu.

III. Moolticute Application

A) General Information

Moolticute is the official app for the Mooltipass. It works as an intermediary between your Mini BLE and the browser extension. This allows a simpler, more intuitive use of your Mooltipass and gives you access to more functionality when you need it. For Moolticute and Mooltipass extension installation instructions, please visit <http://www.themooltipass.com/setup>.

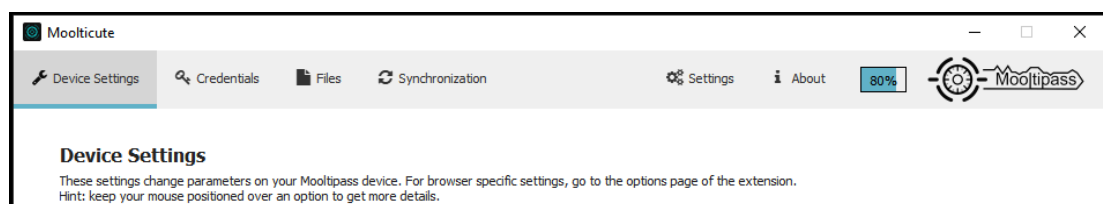
B) Launching the Moolticute app



You can launch the Moolticute app from the Mooltipass Extension menu by clicking on the corresponding item.

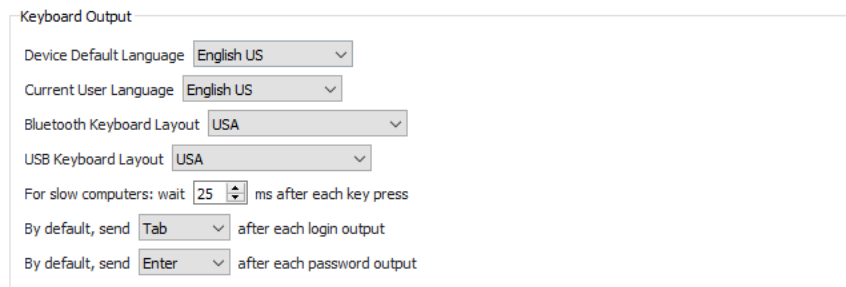
Moolticute can also be launched by clicking on its icon, located in your operating system's task bar or desktop.

C) Device Settings Tab



You can use the 'Device Settings' tab to change parameters on your Mooltipass device. Hovering the mouse pointer over an option will give a short description of what that option does.

a) Keyboard Output

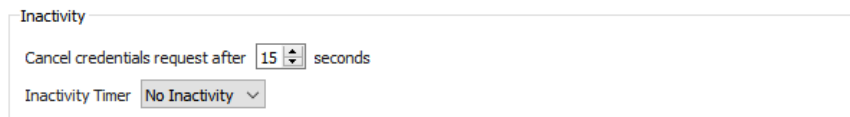


The 'Keyboard Output' settings menu includes the following options:

- Device Default Language: English US (dropdown)
- Current User Language: English US (dropdown)
- Bluetooth Keyboard Layout: USA (dropdown)
- USB Keyboard Layout: USA (dropdown)
- For slow computers: wait 25 ms after each key press (spinners)
- By default, send Tab after each login output (dropdown)
- By default, send Enter after each password output (dropdown)

- For the Mooltipass to operate properly, it is important that you use the Device Settings tab to select the **keyboard layout** you are using.
- If characters are missing when using manual credential recall, the Mooltipass may be typing too quickly for your computer. To solve the problem, use the 'For slow computers' option to increase **the time interval between simulated key presses**.
- The last two features of this subsection also apply to manual credential recalls. They enable the Mooltipass to automatically send a **Tab, Enter or Space key press** after the login and password. Not having to do this yourself can help speed up the login process.

b) Inactivity



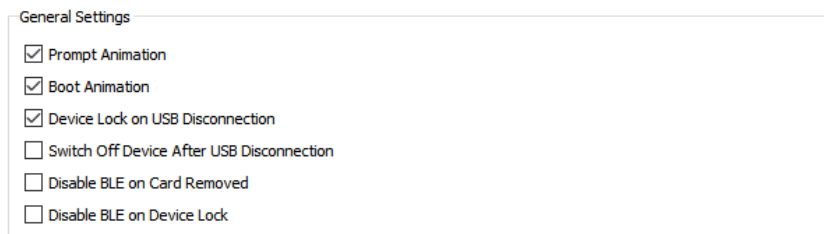
The 'Inactivity' settings menu includes the following options:

- Cancel credentials request after 15 seconds (spinners)
- Inactivity Timer: No Inactivity (dropdown)

This subsection allows you to

- Alter the number of seconds after which the **credential requests** disappear
- Automatically **lock your Mooltipass** when you've been inactive for a specified amount of time

c) General Settings



The 'General Settings' menu includes the following options:

- ☒ Prompt Animation
- ☒ Boot Animation
- ☒ Device Lock on USB Disconnection
- ☐ Switch Off Device After USB Disconnection
- ☐ Disable BLE on Card Removed
- ☐ Disable BLE on Device Lock

In this subsection you can:

- Enable / Disable prompt animations for faster interactions with your device
- Disable the animation displayed at your device's boot

- Automatically lock your device whenever USB connection is removed
- Switch off your device upon USB disconnection
- Disable Bluetooth when the user card is removed from the device
- Disable Bluetooth when the device is locked

d) Advanced Settings

Advanced Settings (See User Manual)

Lock Unlock Feature Disabled ☐ No Password Input Prompt

Knock Detection Sensitivity Medium

Information Time Delay 3 seconds

Screensaver Nyancat

☐ Display the security hash before & after the card is unlocked

☐ Display Pin on Back Pressed

☐ Display Full Pin on Entry

☐ Random Starting Pin

☐ Enable Device Tutorial

☒ Bluetooth Shortcuts

This subsection allows you to

- Adjust the knock detection sensitivity. When this feature is enabled inside the device menu (see Knock Detection), knocking twice approves a credentials sending request
- Select for how many seconds information should be displayed on the mini BLE screen
- Display a screen saver when the device is going to sleep when connected through USB
- Enable Hash Display Feature: when enabled, the device will display one hash string before and after unlocking your smartcard. By checking that these hashes do not change over the life of your device, you can make sure no one has tampered with your Mooltipass.
- Display your last entered PIN digit when going back one digit during PIN entry
- Display your full PIN on screen during PIN entry
- Start with a random PIN value at PIN entry screen
- Make the Mooltipass display its tutorial the next time you plug it in
- Enable Bluetooth shortcuts inside the main device screen:
 - While pressing the wheel, scrolling down, up, down toggles Bluetooth on/off
 - While pressing the wheel, scrolling up, down, up triggers a disconnection from the host to enable connection to a new host

e) Advanced Settings – Lock Unlock Feature

With the lock unlock feature you can make your Mooltipass:

- unlock your computer when you unlock your device
- lock your computer when your smartcard is removed from the Mooltipass

Simply use the drop-down list to specify whether a login and/or password should be sent after unlocking your smartcard. The Mooltipass Mini BLE will then send the credential for the ‘_unlock_’ service in your database. For help setting up the ‘_unlock_’ service, please refer to [Credentials Tab – Adding or Updating a Credential](#).

Password Only	Sends the password stored inside your ‘_unlock_’ service, after unlocking your smartcard.
Login + Password	Sends the login and password stored inside your ‘_unlock_’ service, after unlocking your smartcard.
Enter + Password	Simulates an <i>Enter</i> key press then sends the password stored inside the ‘_unlock_’ service, after unlocking your smartcard.

Note that if the Mooltipass is set to prompt you for confirmation before sending credentials, it will do that here, too: the key presses are sent when you accept the credential send request.

You can also simulate a *Win + L* key press, locking your computer, every time the smartcard is removed from the Mooltipass.

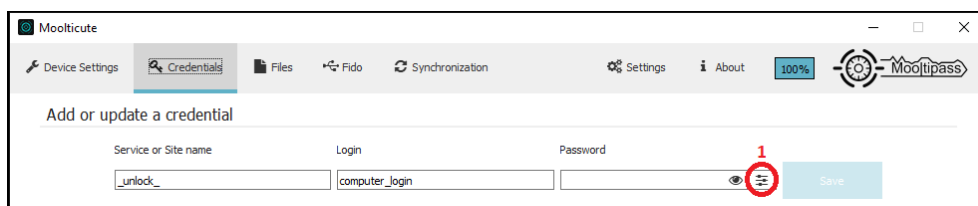
Password / Win + L	Sends the password for the ‘_unlock_’ service, after unlocking your smartcard and Sends a <i>Win + L</i> key press when your smartcard is removed from the Mooltipass.
Login + Pass / Win + L	Sends the login and password for the ‘_unlock_’ service, after unlocking your smartcard and Sends a <i>Win + L</i> key press when your smartcard is removed from the Mooltipass.
Enter + Pass / Win + L	Sends an <i>Enter</i> key press then sends the password for the ‘_unlock_’ service, after unlocking your smartcard and Sends a <i>Win + L</i> key press when your smartcard is removed from the Mooltipass.

Finally, choose the *Disabled* option if you want to deactivate the Lock/Unlock Feature.

Please keep in mind that Moolticute automatically informs the Mini BLE of your computer session locked state, so you do not get unnecessarily prompted to type your _unlock_ credentials when your computer session is not locked.

D) Credentials Tab

a) Adding or Updating a Credential



This tab allows you to manually add credentials to your database. You can, for instance, add the '_unlock_' service of the Lock/Unlock feature (see Advanced Settings – Lock Unlock Feature).

Enter the website URL or service name, for example, '_unlock_', in the 'Service or Site name' field, then enter your login and your password in their fields. Click on the 'Save' button and approve the request on your Mooltipass device. If the service/site and login are already stored in the Mooltipass, it will simply update the credential with the new password.

You can let the Mooltipass Mini BLE generate and store a random password locally by not filling the 'password' field, pressing your keyboard 'Alt' key, and then clicking the save button.

Clicking on the (1) icon allows you to bring up Moolticute's password generator (described in Credential Management). If you prefer letting the Mini BLE device internally generate a random 32 characters password for you, leave the password field empty, press the *Alt* key and click on the 'Save' button.

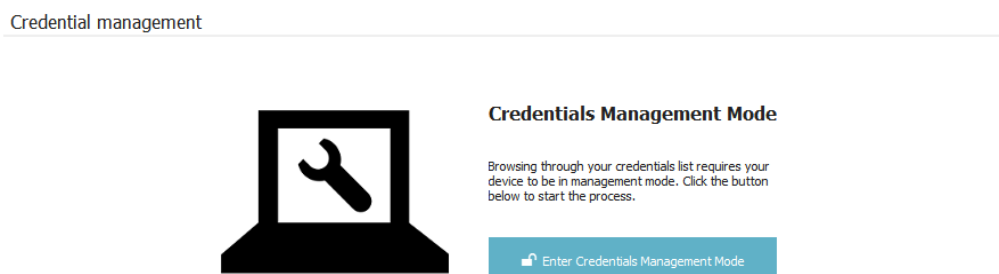
b) User Categories Names

Set user categories

Category 1:	Category 2:	Category 3:	Category 4:
<input type="text" value="category_1"/>	<input type="text" value="category_2"/>	<input type="text" value="category_3"/>	<input type="text" value="category_4"/>

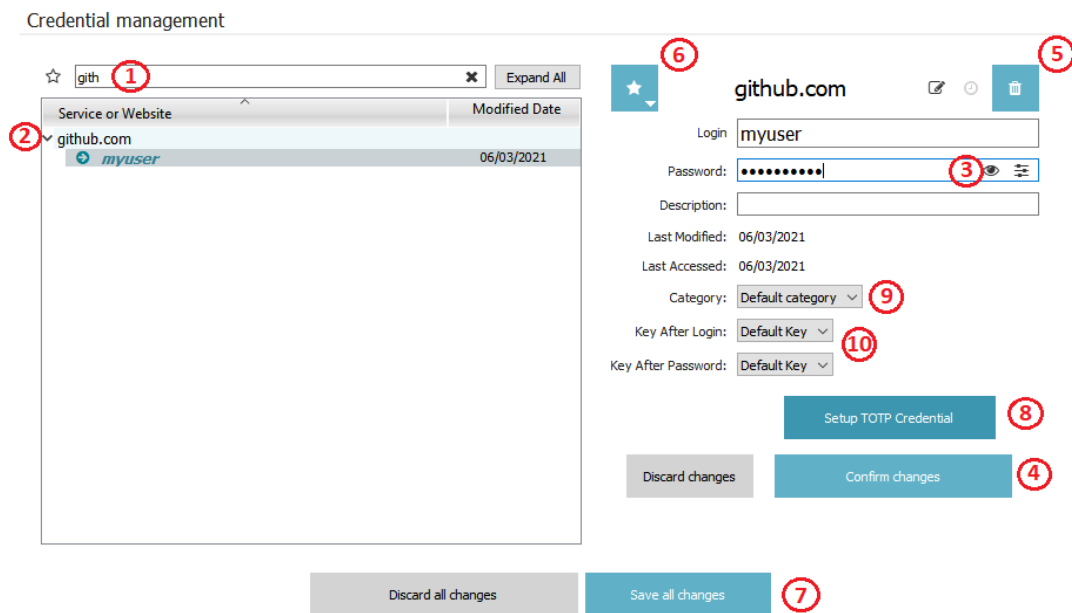
If your device is in advanced mode (see Enabling Advanced Mode / Enabling Simple Mode), this section lets you edit and save the four category names.

c) Credential Management



Click on the 'Enter Credentials Management Mode' button to manage the credentials stored inside your Mooltipass. You will need to confirm the request on the Mooltipass device.

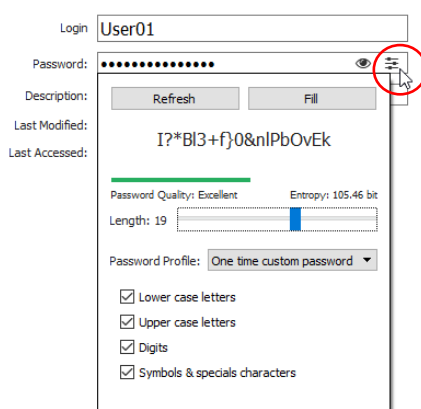
The 'Filter credentials...' search bar (1) can help you navigate through your credentials more easily.



Single clicking on a credential line (2) shows its details. To display the password, click on the eye icon (3) and use the wheel on the Mooltipass Mini to confirm the request. You can **edit** the displayed credential. To save changes: click on the 'Confirm changes' button. To cancel the credential modification: click and hold the 'Discard changes' button (4).

You can **delete** a credential by clicking on the bin icon (5) or set a credential as **favorite** by clicking on the star icon (6) and choosing a slot in the list. If advanced mode is enabled on your device, you may select the credential category (9) and override which keys (10) are pressed after login & password typing during manual credential recalls.

To setup a TOTP credential, click on the 'Setup TOTP Credential' button (8) to bring up a window that allows you to enter your TOTP secret.

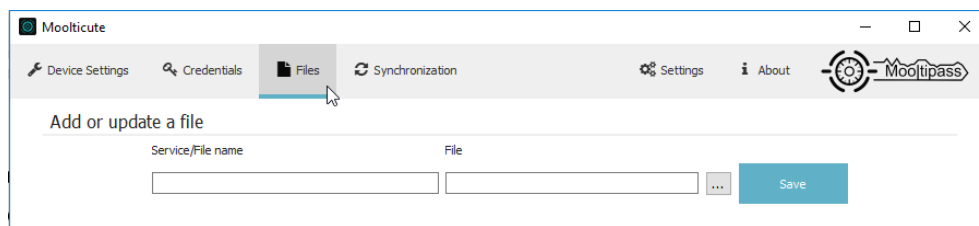


The second icon in the password bar gives you access to a password generator. This feature can help you set random, more secure passwords.

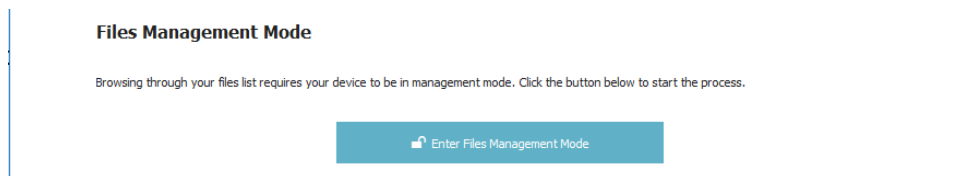
When you are done editing your credentials, click on the 'Save all changes' button and approve the modification requests on the Mooltipass. Otherwise, hold the 'Discard all changes' button to cancel (7).

E) Files Tab

The Mooltipass device can operate as a flash drive. The 'Files' tab allows you to add, store and access files on your Mooltipass.



The first subsection of the 'Files' tab allows you to **add a file**. Click on the 'Save' button and confirm the request on the Mooltipass device. If the file's name matches a file already stored in the Mooltipass, the device will ask you if you want to update it. If you confirm the request, the file already stored will be replaced by the one you specified.



Click on the 'Enter Files Management Mode' button to manage the files stored in your Mooltipass. You will need to confirm the request on the Mooltipass device. You can then **access or delete files** stored on your device.

When you are done, click on the 'Save & Quit' button and approve the modification requests on the Mooltipass – or hold the 'Discard deletions' button, if you need to cancel.

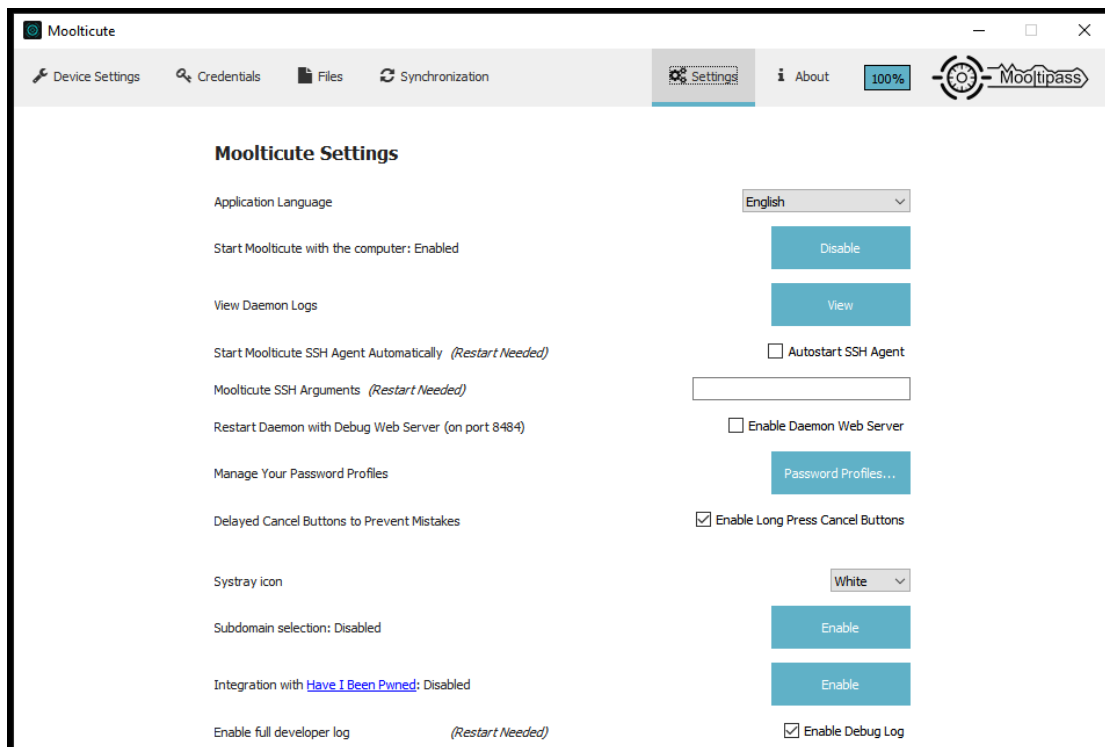
F) Synchronization Tab

- The different buttons in the synchronization tab will allow you to **backup and restore the credentials** you have stored inside the memory of your Mooltipass.
- You can also select a **backup monitoring file** to make sure your Mooltipass database is always in sync with it. Once set up you will be prompted for import or export operations when changes to your Mooltipass database or to the monitored file are detected. It can be especially helpful to monitor a file in cloud storage (for instance, using the Dropbox™ service) that you can access on any computer.

When you use more than one Mooltipass device, backup monitoring allows you to keep your Mooltipass units synchronized. Just set them all up to monitor the same cloud-based backup file.

G) Settings Tab

The 'Settings' tab lets you change parameters on the Moolticut app.

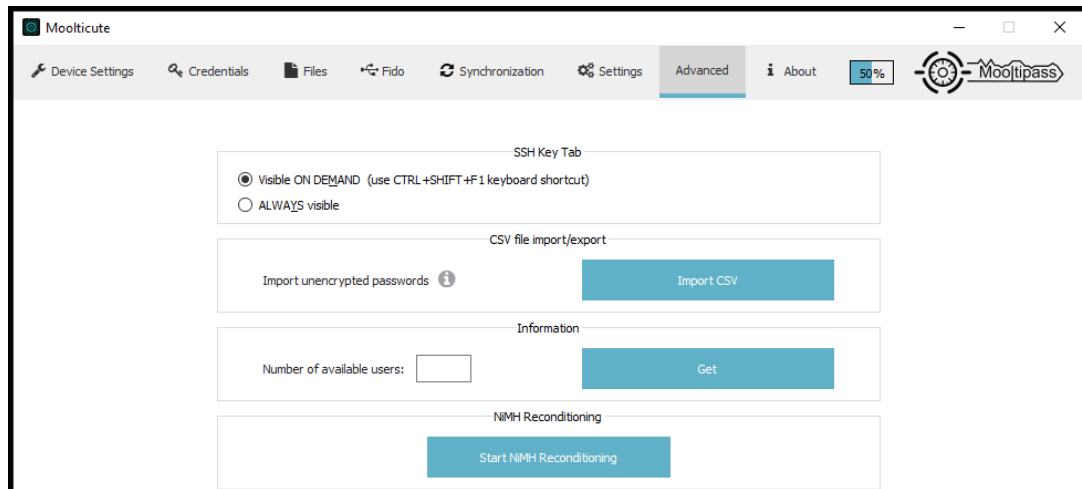


You can:

- change the application language
- disable automatic start of the Moolticut app at boot
- view Moolticut's daemon logs
- enable SSH agent automatic start and customize its settings
- define the password profiles that you can choose from in the password generator. A password profile determines the types of characters (e.g., digits, symbols) that passwords may include
- enable long press cancel buttons to prevent you from accidentally canceling changes that you have made
- change the system tray icon appearance
- enable or disable sub-domain support
- enable integration with the 'have I been pwned' service. This service allows you to be sure **your credentials haven't been compromised**
- enable the full developer's log (when the Mooltipass team instructs you to do so)
- change the default password length for the password generator

H) Advanced Tab

What advanced tab? you may ask. Simply press CTRL+SHIFT+F2 (or Shift+Fn+Cmd+F2 on macOS) to make it appear.



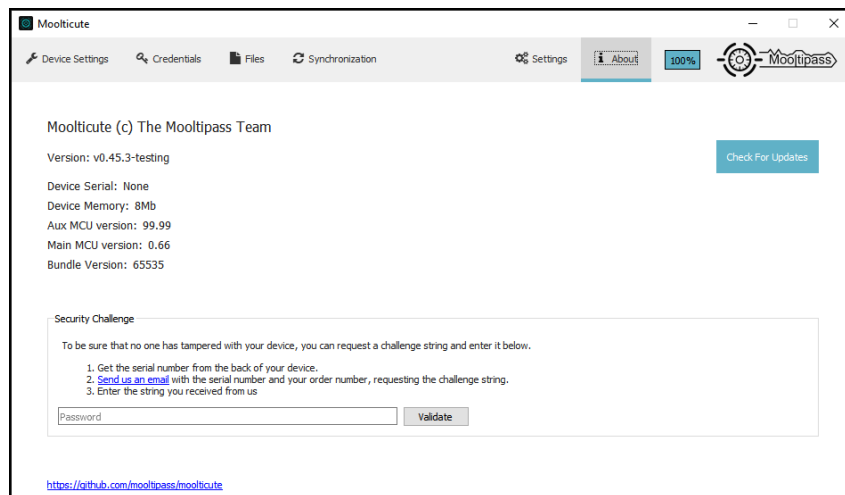
You can use this tab to import multiple credentials stored inside a CSV file. Please make sure the file is correctly formatted as it must have 3 columns: website, login, password. To not have to approve each single credential addition operation when importing your credentials, we recommend setting your device in 'simple mode' (see [Enabling Advanced Mode / Enabling Simple Mode](#)) before starting the CSV import operation.

The Mooltipass Team however recommends that **you avoid using this feature** when migrating to the Mooltipass, as this is a good occasion to manually change your previous passwords one by one, triggering credential save events.

If you notice that your Mini BLE has poor battery life (less than 3 days), we invite you to use the "Start NiMH Reconditioning" button that will **trigger a 5 hour long process** to perform a battery maintenance operation.

Please note that this tab as well as the SSH key tab are still in development. Please bear with us for updates on the subject.

I) About Tab



Finally, the 'About' tab provides you with general information about your device and app. It allows you to check that you are running the **latest version** of Moolticute.

In this tab, you can use the security challenge feature that lets you make sure your device's firmware hasn't been tampered with. To use it, send us an email or use any other method of direct communication to tell us your device's serial number. We'll then send you a cryptographic token that lets you to check the unique identifier stored inside your Mooltipass Mini BLE.

IV. Importing Existing Profiles Into New Mooltipass Devices

The Mooltipass Mini BLE is fully compatible with the cards used on our previous generation devices. To export your user profile into one or more additional Mooltipass devices, please use the following steps:

- 1) Connect your existing device to your computer, use Moolticute to make a backup of your current user profile
- 2) Remove the smartcard from your existing Mooltipass device
- 3) Insert the same smartcard into your new Mooltipass device
- 4) Your new device will display "unknown card"
- 5) Use Moolticute to import the backup file you have made on step 1

When you use more than one Mooltipass device, you can use the different options in the 'Synchronization' tab to keep your Mooltipass units synchronized. See [Synchronization Tab](#) for more information on backup monitoring files.

V. Native Integration without Browsers

The Mooltipass team is working to support other browsers and applications besides Google Chrome, Firefox and Opera. As this project is mostly built by volunteer contributors, you are welcome to contact us at #mooltipass on freenode.net if you are interested in giving us a hand.

In the meantime, you can use manual login as explained in the [previous sections](#) of this user manual. With manual login you can use the Mooltipass as a keyboard to type your credentials for you, without needing to install any additional applications or extensions.

VI. Device Operation with Mobile Phones

A) Currently Supported Mode of Operation, Android Application

At the time of writing, the Mooltipass Android application was just released [here](#). It uses the Android autofill framework to provide a connection between your apps, browsers and your Mini BLE. This user manual will soon be updated to provide more information about its operation.

For iOS devices, only the manual credential recall mode of operation (see [Manual Login](#)) is supported. The Mooltipass team is however currently working at adding an autofill service application for iOS phones.

B) Setting the right keyboard layout on Android devices

When connected over Bluetooth to your mobile phone, the Mooltipass Mini BLE will be detected as a physical keyboard and Android will therefore assign a layout to it (by default, English US). To change this, follow this procedure:

- Go to: Settings -> System -> Languages -> Languages and Input
- Tap on Physical Keyboard (Mooltipass BLE)
- Tap on Mooltipass BLE and then select keyboard layouts+

C) Keeping the on-screen keyboard

By default, Android devices won't display the on-screen keyboard when an external keyboard is connected. To change this behavior, you may:

- Go to 'Settings' > 'Language and input'
- In the section 'Keyboard and input methods', tap on 'Default'
- Change the setting 'Hardware Physical keyboard' from 'ON' to 'OFF'

On other Android versions, the above procedure may become:

- Go to 'Settings' > 'System'
- Tap on 'Languages and input'
- Tap on 'Physical Keyboard'
- Enable 'Use on-screen keyboard'

VII. Important Technical Details

A) TOTP and Time Keeping Accuracy

The Mooltipass Mini BLE uses a low accuracy clock and therefore includes several calibration routines that are only enabled when connected to a computer running Moolticute. When first using our device, we strongly recommend leaving it connected to your computer for several hours so that the Mini BLE can automatically calibrate its internal clock. Please also note that current time is not kept across device reboots.

B) FIDO2 and Multiple Devices Synchronization

FIDO2 password-less authentication technology internally uses a counter whose value is incremented at each authentication. In the case of a user having two Mooltipass Mini BLE devices with the same profile setup but out-of-sync databases, it could have been possible for the same counter value to have been used for two different authentication procedures.

To effectively prevent this scenario, the Mini BLE uses the current time to generate a non-repeatable counter value for FIDO2 authentication. Our implementation however requires that two different devices should not try to authenticate using FIDO2 for a given service within an hour of each other's attempt. This restriction does not apply if the two devices' credential databases are always up to date.

VIII. Best Security Practices

To avoid any loss of data, these practices are highly recommended:

- Make at least one clone of your Mooltipass card
- Make multiple backups of your credentials database and store them in multiple places
- Enter your PIN discreetly so that no one can see it by looking over your shoulder
- Change your card's PIN and the passwords you use for important websites on a regular basis

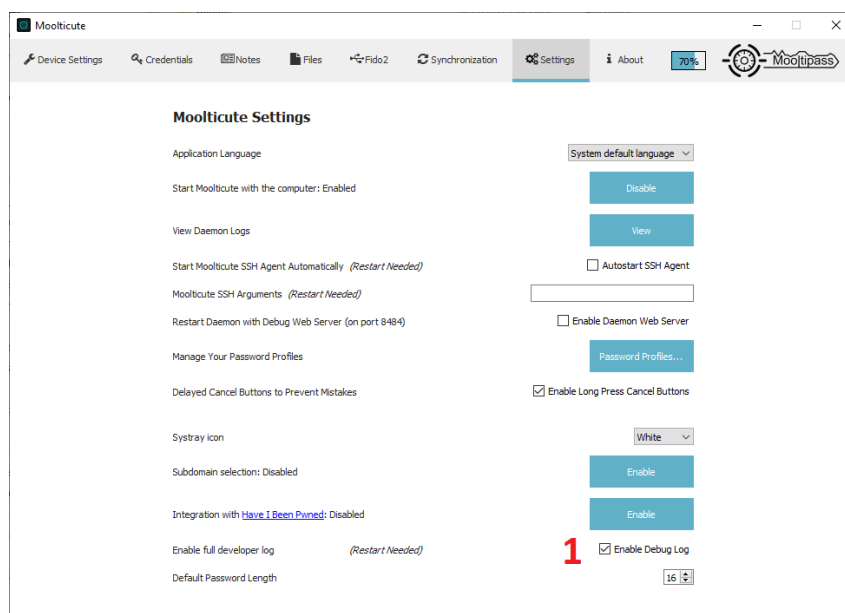
IX. Contact and Support

In case of any questions or issues, you may contact us at support[at]themooltipass[dot]com, on IRC (#mooltipass on irc.libera.chat) or on reddit (/r/mooltipass).

A) Accessing the Debug Logs

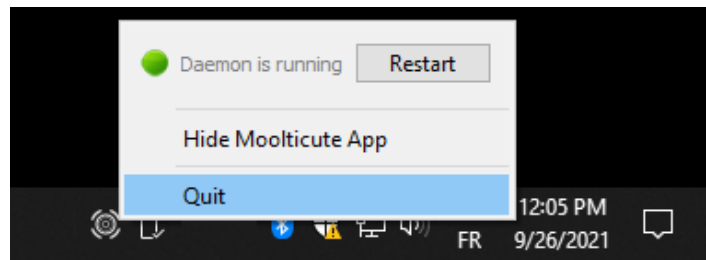
When encountering issues, the Mooltipass team may ask you to provide communications debug logs. To do, please follow his procedure:

1) Enable the debug logs in Moolticut



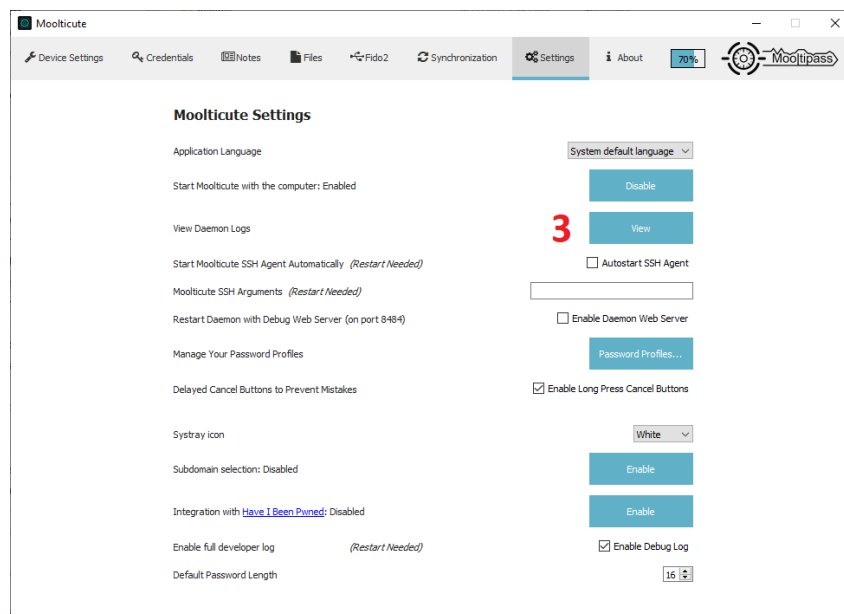
In Moolticute's 'Settings' tab, select the "Enable Debug Log" tick box

2) Close and Open Moolticute

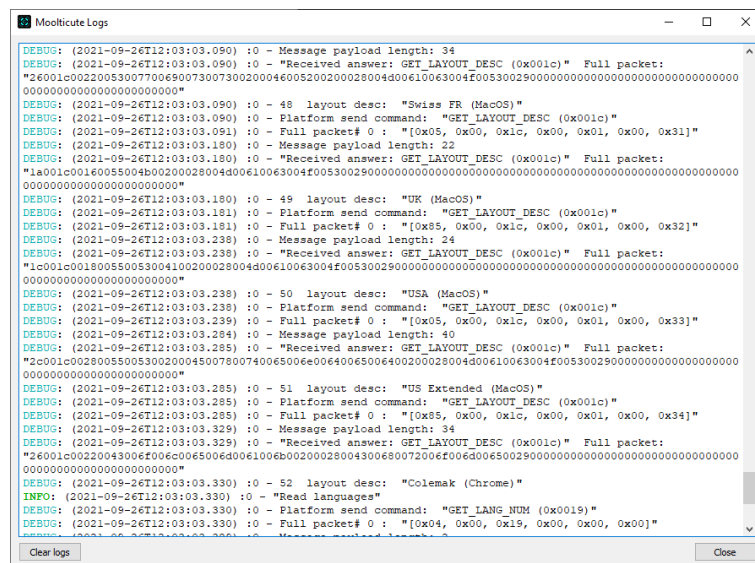


Right click on Moolticute's icon in the task bar, click on 'Quit' then start again Moolticute.

3) Access the debug logs



In Moolticute 'Settings' tab, click on 'View' next to 'View Daemon Logs'.



X. Mooltipass Mini BLE Specifications

- Device size: 90 x 35.5 x 12.5mm
- Working voltage: 4.75V to 5.25V
- Current consumption: up to 0.5A
- Communications: USB 2.0 full speed and Bluetooth Low Energy
- Internal Memory: 8Mb
- USB connector: USB-C
- Case material: Anodized Aluminum
- Smart card support: AT88SC102
- Interface type: clickable scroll wheel
- Display: 256x64 pixels 4bpp 2.08" blue OLED screen

XI. Regulatory Mentions

A) Wireless

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

B) Battery

Change or disposal of the internal battery shall not include these operations:

- Replacement of a battery with an incorrect type that can defeat the internal safeguards
- Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion
- Leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas
- A battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas

XII. Frequently Asked Questions

1) If I can export my encrypted credentials, does this mean someone could crack them?

We are using AES-256 encryption in CTR mode, brute-forcing the encrypted credentials would take more than fifty years.

2) If I only need to remember a PIN code, does it mean the Mooltipass is not safe?

Not at all, as the Mooltipass system is exactly like a chip & pin bank card: 3 false tries will permanently block the smart card. Access to the AES-256 encryption key will then be blocked and credential decryption made impossible.

3) Why do I need different passwords for different websites?

Websites are compromised on a daily basis. If you are using the same password for different websites, an attacker could use one stolen password on all of them.

4) Why are you using both a smart card and a main Mooltipass device?

There are many reasons, the main one being that it is much easier to carry a smart card around than any other object. This smart card is a secure element that contains your credentials' encryption key; it is cheap and may be cloned without compromising the system security.

5) What if I lose my Mooltipass device?

Your encrypted credentials can be exported to your computer. If you lose your device, you may purchase another one and restore your credentials or buy a simple inexpensive smartcard reader to extract your encryption key and decrypt your credential database.

6) What if I lose my smartcard?

Our device is shipped with two smartcards, so you can keep a copy somewhere safe. The Mooltipass allows the user to clone their smartcard as many times as they want, provided that the card PIN is correctly entered.