SWD® *Update Tool*

Firmware update tool
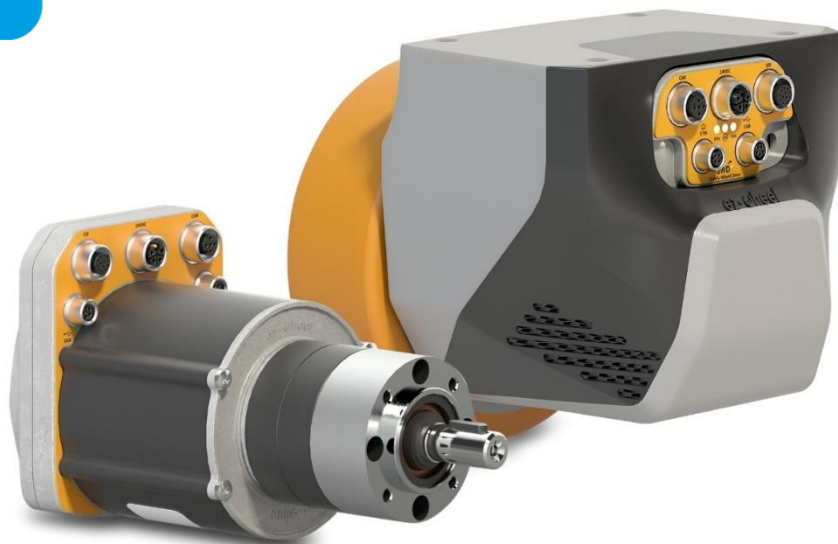
List of tables

List of figures

1. Underline About this document

1.1. Who is this manual for?

This manual is for system integrators or maintenance personnel of SWD® devices.

This Graphical User Interface (GUI) is used for SWD® firmware updates.

1.2. Additional resources

- Website: https://ez-wheel.com/
- SWD® User manual

1.3. Disclaimer

2. <u>Prerequisites</u>

- Internet access
- SWD® device - Power wired and supplied (24VDC)
- PC user account with software installation rights
- USB-A to M8 cable

3. <u>Download</u>

Visit the ez-Wheel website: https://ez-wheel.com/, and navigate to the 'Download' section.

Download the application installation file according to your Operating System (OS).

4. <u>Installation</u>

4.1. Windows OS

When the download has finished, in the download location, extract the Zip archive.

Open the extracted folder and run the executable file.

⚠ If a Microsoft Defender SmartScreen pop-up appears, click 'More info' and 'Run anyway'.

4.2. Linux OS

When the download has finished, in the download location, open a terminal and extract the archive.

```
$ unzip ./swd-update-tool-XXX-x86-64-0.zip
```
⚠ *Replace <XXX >, with the name of the downloaded version (e.g., 106).*

Make the file executable:
```
$ chmod +x ./SWD_Update_Tool_XXX_x86_64.AppImage
```
⚠ *Replace <XXX >, with the name of the downloaded version (e.g., 106).*

Run the image:
```
$ ./SWD_Update_Tool_<X.X.X>_x86_64.AppImage
```
⚠ *Replace <X.X.X >, with the name of the downloaded version (e.g., 1.0.6).*

ℹ Application startup might take about 30 seconds for both OS.

5. Navigation menu

Logo	Link to https://ez-wheel.com	
User account	Indicates email address, name and language used in the application	
Devices	Displays SWD® devices connected via USB, if any.	
Settings	Reserved for internal use.	
Log	Shows the logs of everything that happened in the application since it has been opened.	
About	Shows the version and general information about the application.	
Quit	Click and confirm to exit the application.	

6. <u>User account</u>

When opening the application, the 'Log in' page is displayed.
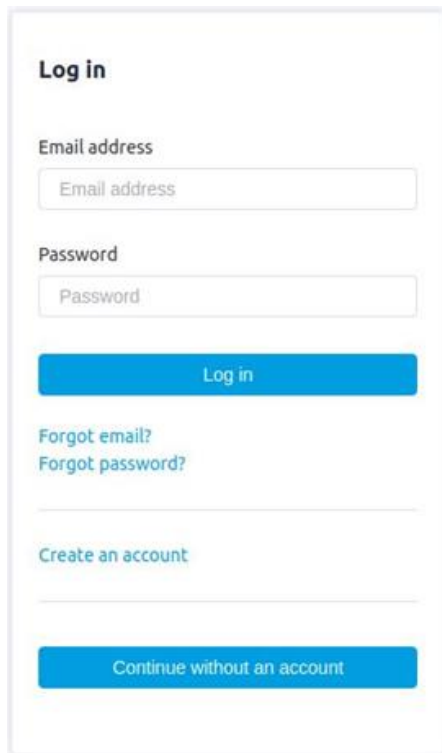
Figure 1: Log in page

To create an account, click on 'Create an account'. It will be redirected to the ez-Wheel website for registration:
https://www.ez-wheel.com/en/register

To reset your password, click on 'Forgot password'. You will be redirected to the ez-Wheel reset page:

https://www.ez-wheel.com/en/password/reset

If you've forgotten your email address, click on "Forgotten email address".
This will redirect you to the ez-Wheel contact page:
https://www.ez-wheel.com/en/contact

ⓘ *Clicking on 'Continue without an account' will give the user restricted access. Meaning that you the user have read-only access to SWD® device.*

ⓘ **To update a SWD® device, an account must be created.**

When the email address or password are incorrect during log in, an error notification is displayed:
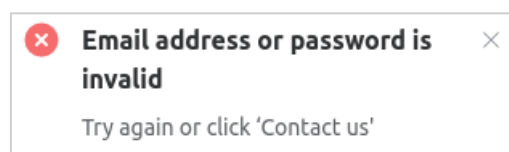
Figure 2: Log in error

Once an account has been created and used to log into the application, the list of SWD® connected devices is accessible.

7. Connection to SWD® device

If the application is opened while no device is connected, the following picture appears:
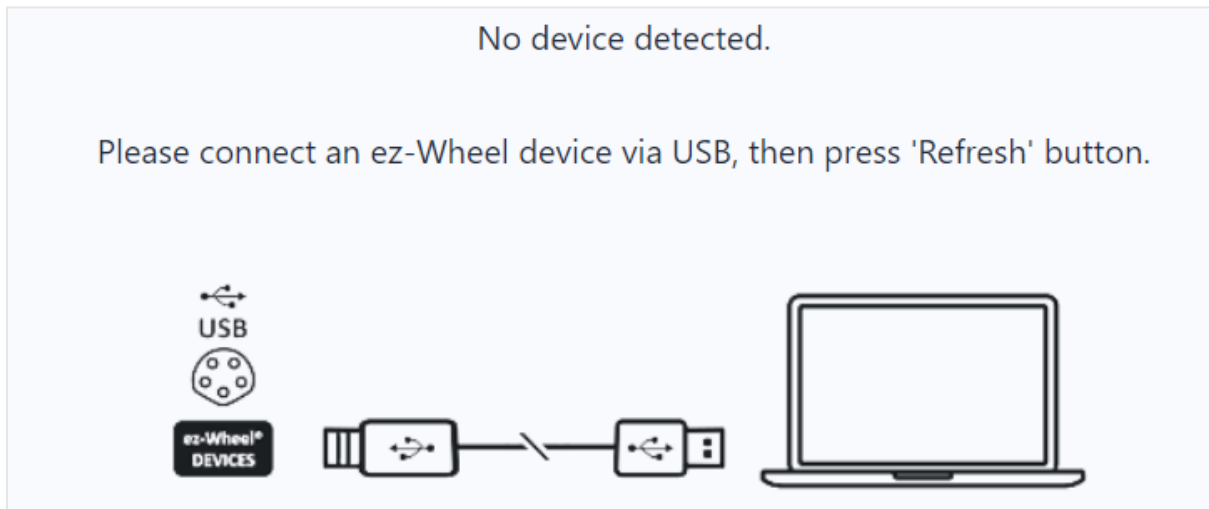
Figure 3: No SWD® device connected

Connect a SWD® device using the USB cable[1], and click on the refresh button.
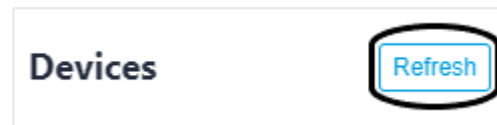
Figure 4: Refresh button

⚠ If you don't have a suitable cable, contact your local dealer for a spare part.

---

[1] USB-A male to M8, 5-pin male, B-coded. Reference: SAV_P_203208_A

Once the page has been refreshed, the connected device appears on the top left of the application:
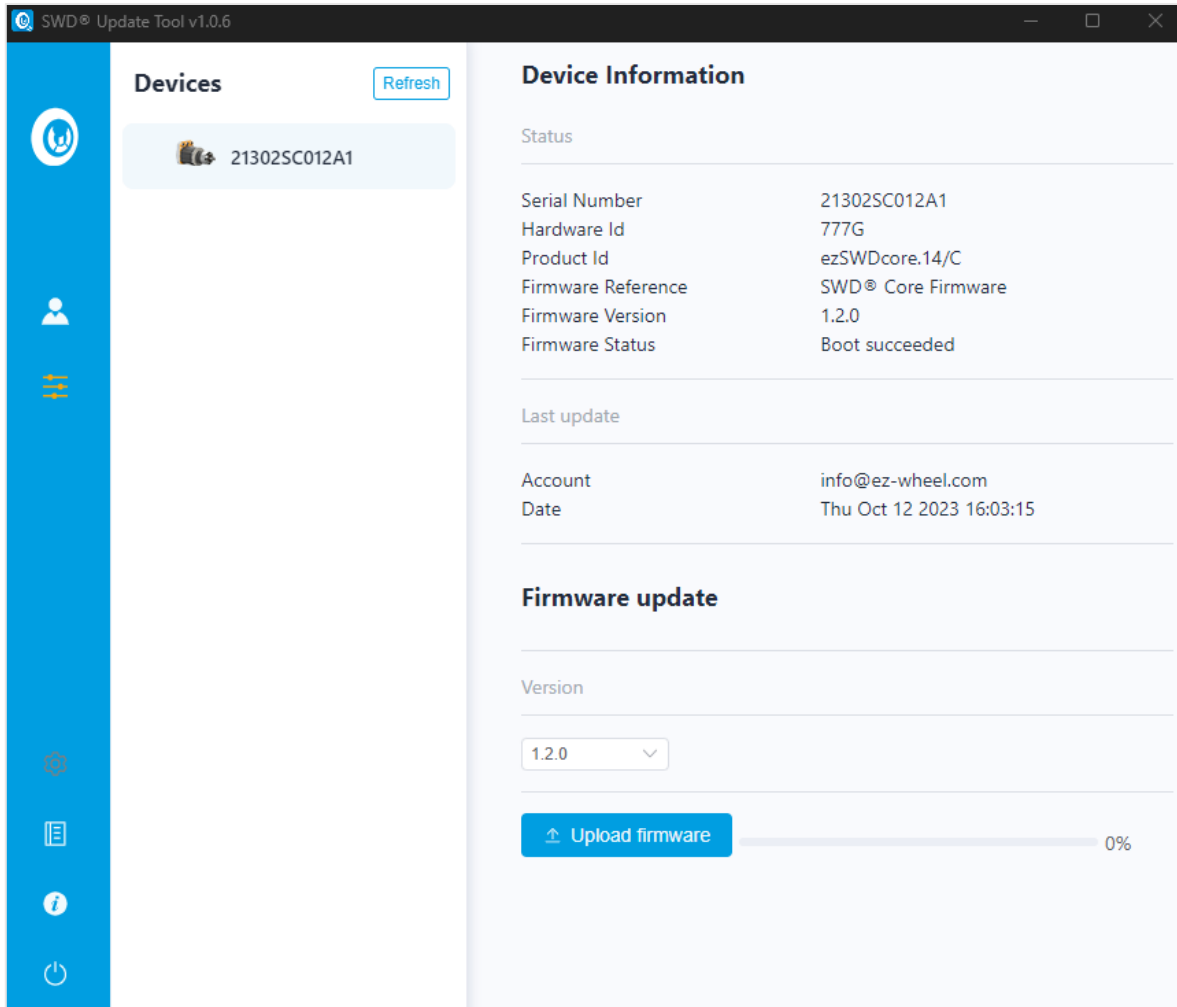
Figure 5: List of connected devices

⚠️ If no device appears, please get in thouch with the support.

7.1. Device information

When a device is selected, the following information are displayed:

Serial Number	The serial number of the device
Hardware ID	The version of the electronic board
Product ID	The mechanical characteristics of the device
Firmware reference	The type of firmware embedded into the device
Firmware version	The firmware version embedded into the device
Firmware status	Indicates if the device has booted properly
Account	The email address used in the application
Date	The date of the last firmware update

ℹ️ If a newer firmware is available, its version number is displayed in red type, on the right of the current 'Firmware Version' in the 'Status' field.

| Firmware Version | 1.1.4 | New release (1.2.0) |

Figure 6: Newer release available

7.2. Firmware Update
7.2.1. Version selection

It is only possible to select a firmware that is compliant with the connected device. It is therefore not possible to download firmware that is not compatible with your SWD® device.

You can choose between different versions of a compliant firmware. So, you can always go back to an older version if you wish.
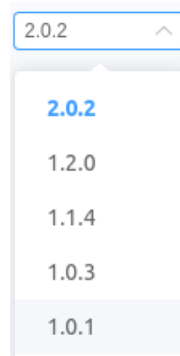
Figure 7: Firmware version selection

A release note of the different versions is available in the SWD® products "User Manual", available in the 'Download' section of our website.

7.2.2. Upload in the SWD® device

When a version is selected, press 'Upload firmware' button to flash the SWD® device.

Figure 8: Upload firmware

When the upload has begun, a progress bar is displayed. The upload should take less than two minutes, otherwise the upload will fail.

Figure 9: Update progression

⚠ **The USB cable must remain plugged during the entire process.**

If the update is successful, a pop-up window appears to inform the user.
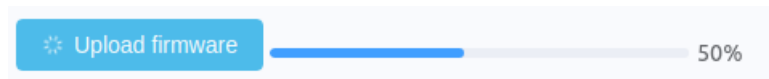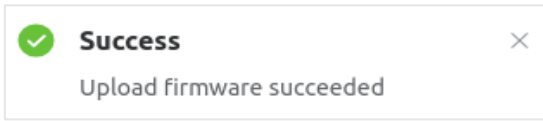

Figure 10: Firmware update success

Once the firmware download has been successfully completed, the 'Firmware Status' is displayed as "Boot succeeded".

It is then possible to disconnect the cable and start using the SWD® device.

Otherwise, a pop-up window with an error message is displayed.
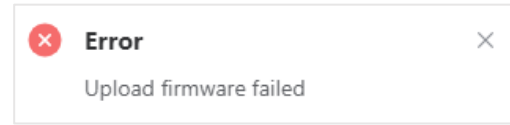
Figure 11: Firmware update failed

Retry the upload or choose another version.

8. Application update

If a new version of the application is available, a pop-up window appears when you open it.

It displays the newer version available.

Figure 12: Pop-Up New version

You can cancel the update and return to the log in page.

Or you can click on the 'Download' button. A progress bar will appear showing the percentage of the download remaining.

Figure 13: Update Progression

⚠ **Do not turn off the PC during the update.**

If the download is successful, a 'Success' notification is displayed:

Figure 14: Download success

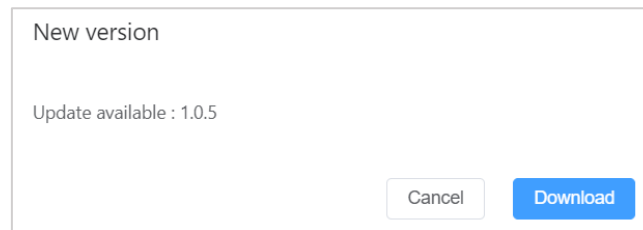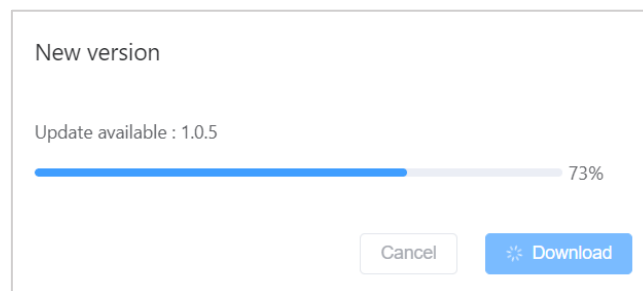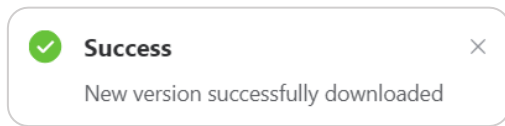A window appears to choose the location for saving the downloaded file.

Once the file has been saved, follow the installation steps.

If the download fails, an error message is displayed:
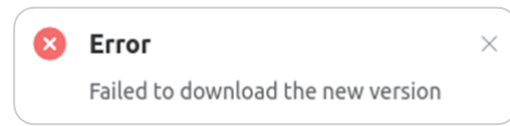
Figure 15: Download failed

Retry to install the application from ez-Wheel's website and choose the desired version.

9. Log report

Logs have the following format:

```
[YEAR-MONTH-DAY HOUR:MIN:SEC.MSEC] [LOG LEVEL] Log
```

It reports all activity since the application was started:

```
[2023-10-20 23:59:00.00] [INFO] ------------------
[2023-10-20 23:59:00.00] [INFO] Application startup
[2023-10-20 23:59:00.00] [INFO] ------------------
[2023-10-20 23:59:00.00] [INFO] Version  : 1.0.6
[2023-10-20 23:59:00.00] [INFO] Language : en
[2023-10-20 23:59:00.00] [INFO] Router : ready
[2023-10-20 23:59:00.00] [INFO] No update available
[2023-10-20 23:59:00.00] [INFO] Login success
```

10. Application information

This section shows the technical specifications of the installed application:

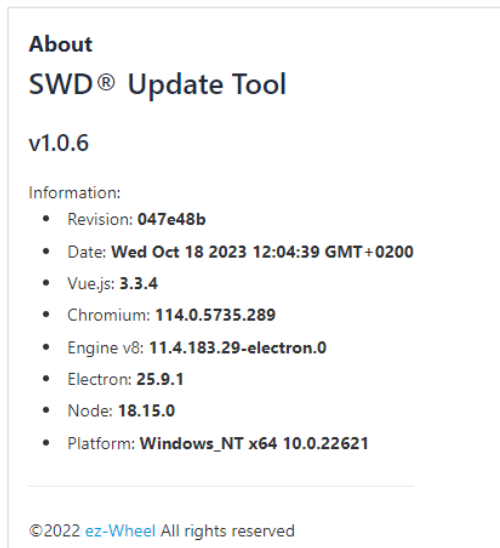|	
About	**About**
SWD® Update Tool	**SWD® Update Tool**
v1.0.6	**v1.0.6**
Information:	Information:
• Revision: **047e48b**	• Revision: **047e48b**
• Date: **Wed Oct 18 2023 12:04:39 GMT+0200**	• Date: **Wed Oct 18 2023 12:00:00 GMT+0200**
• Vue.js: **3.3.4**	• Vue.js: **3.3.4**
• Chromium: **114.0.5735.289**	• Chromium: **114.0.5735.289**
• Engine v8: **11.4.183.29-electron.0**	• Engine v8: **11.4.183.29-electron.0**
• Electron: **25.9.1**	• Electron: **25.9.1**
• Node: **18.15.0**	• Node: **18.15.0**
• Platform: **Windows_NT x64 10.0.22621**	• Platform: **Linux x64 5.15.0-86-generic**
©2022 ez-Wheel All rights reserved	©2022 ez-Wheel All rights reserved

Figure 16: About the application, Windows version	*Figure 17: About the application, Linux version*

11. Quit

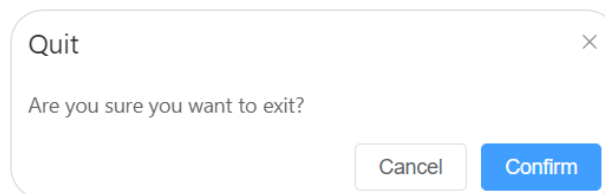To exit the application the 'Confirm' button must be clicked.

Figure 18: Quit the application

12. Uninstall

The application is a standalone executable. It can be deleted to remove it from the computer.