

# Trident Device Manager

## Instructions For Use



TZ Medical Inc

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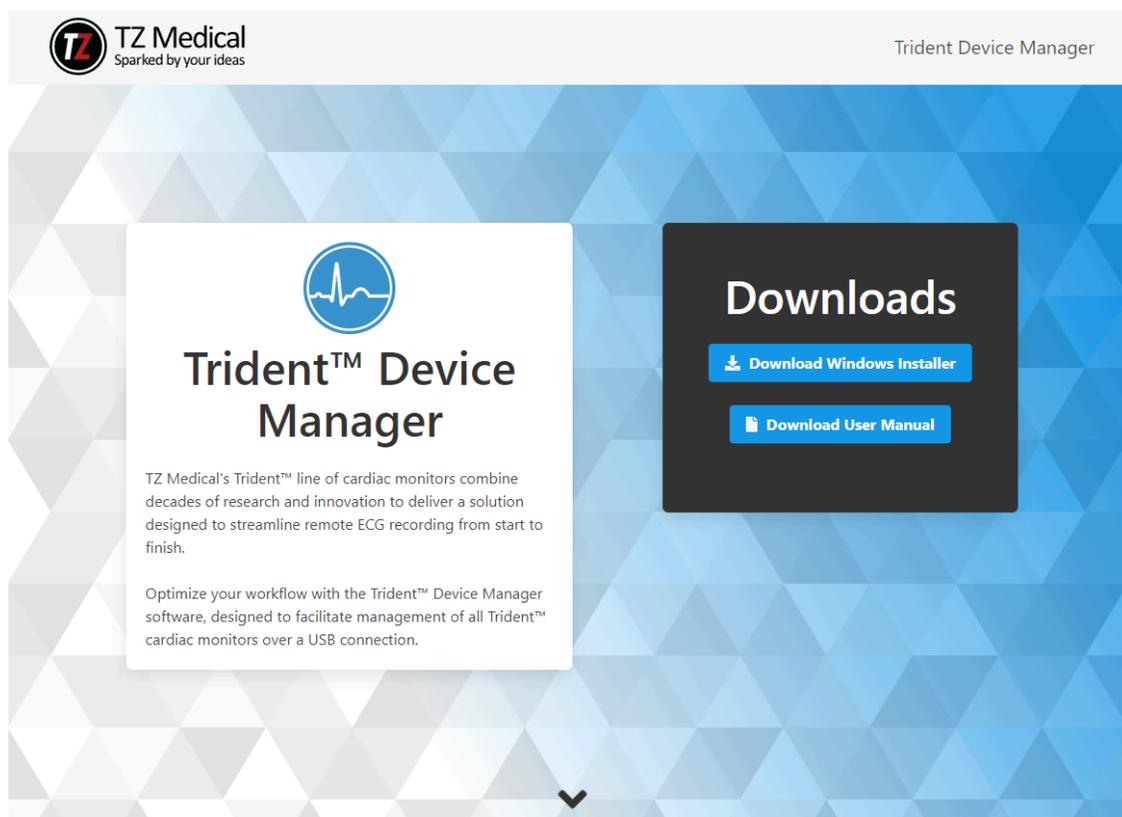
# 1 Purpose

This document details the use of the Trident Device Manager (TDM) application. This software facilitates all aspects of device data management for Trident cardiac monitors, including saving device data, updating device settings, and editing settings files.

The Trident Devices Manager supports all Trident devices, including the Trident Pro series of devices and the Trident Nano series of devices.

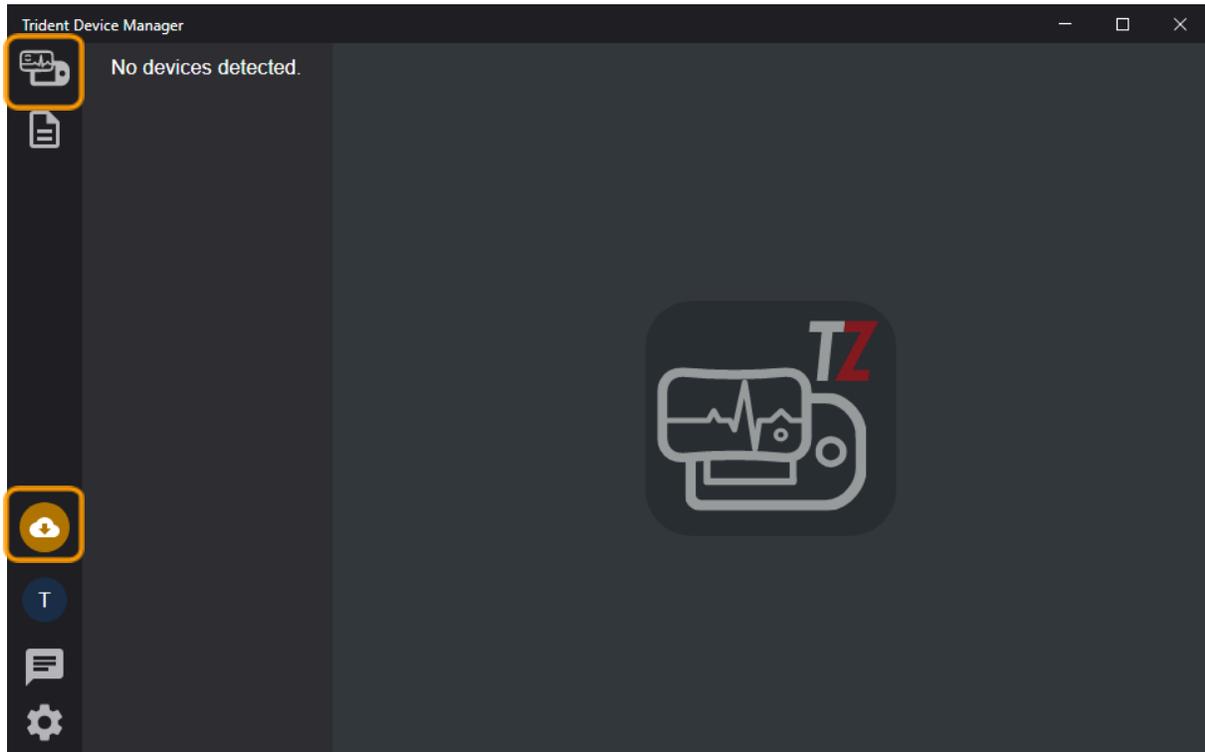
# 2 Installation

Trident Device Manager can be downloaded by going to [tdm.tzmedical.com](http://tdm.tzmedical.com) and clicking Download Windows Installer. Click and run the downloaded *Trident-Device-Manager-Setup.exe* file to begin installation.



## 3 Trident Device Manager Overview

### 3.1 Device Management Page



*Figure 3.1*

Clicking the top icon on the left will bring up the Device Management Page. TDM will detect all Trident Devices currently connected to the computer and will display them here. When TDM does not detect any valid devices, the page will be empty.

If there are updates available for download, the update icon will appear on the sidebar above the user icon.

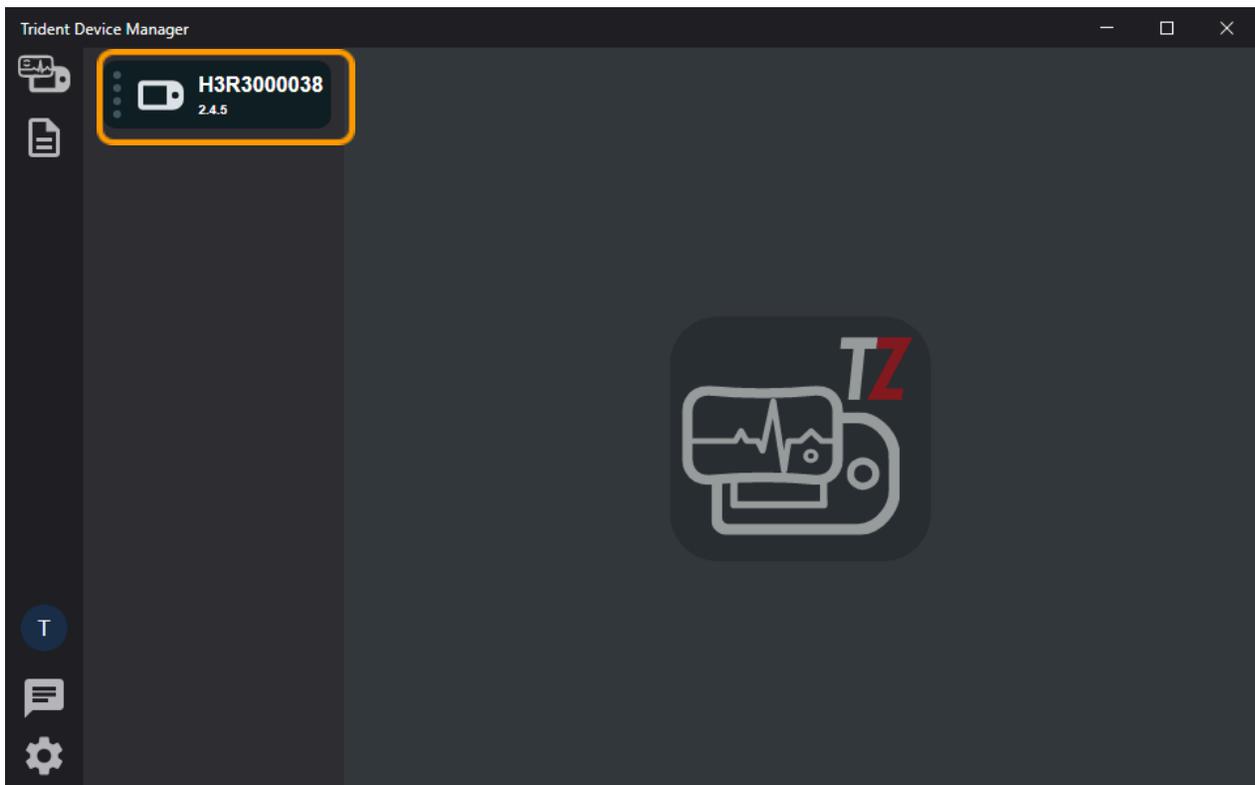


Figure 3.2

When TDM detects a device, it will appear in the devices list on the Device Management Page.

The device chip will contain the device's serial number in large font, and the device's current firmware version in smaller font below the serial number.

The device icon will change depending on whether it is an H3R or HPR device.

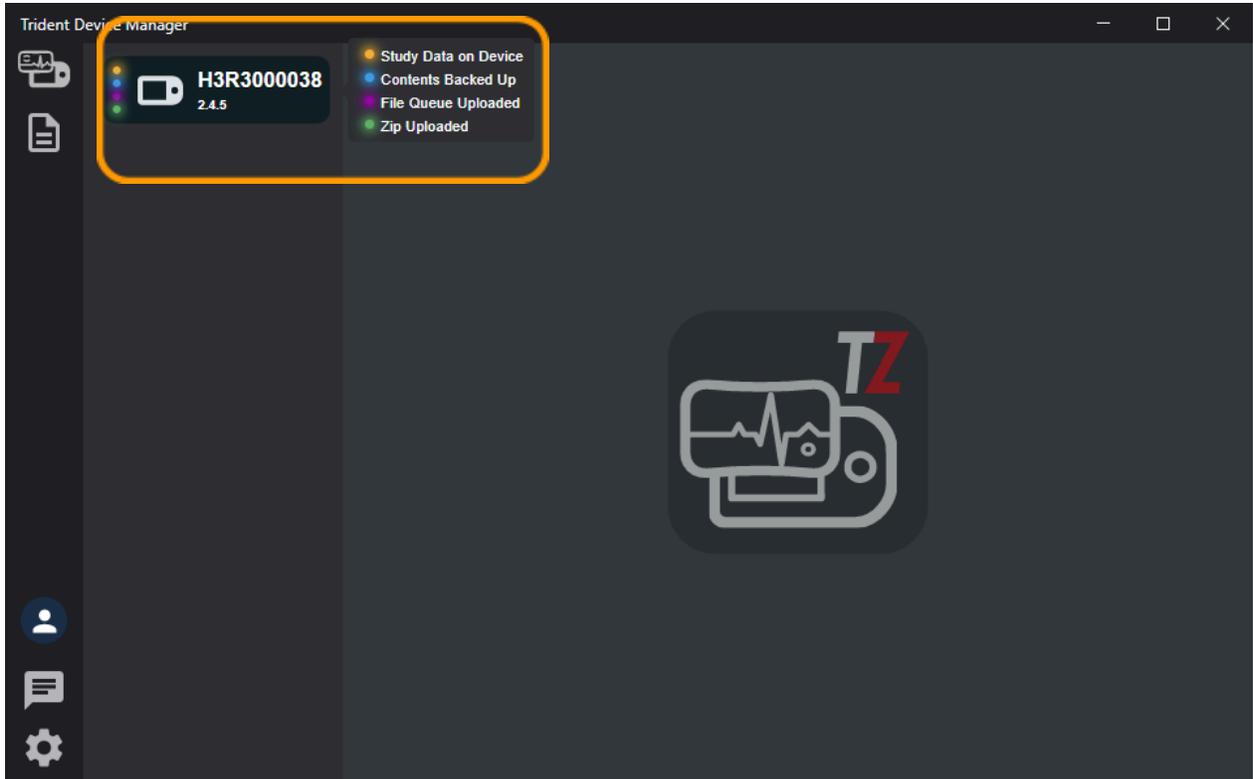


Figure 3.3

The device chip has four indicator lights: yellow for ECG data on the device, blue for the data backup, purple for the file queue upload, and green for zip upload during device check-in.

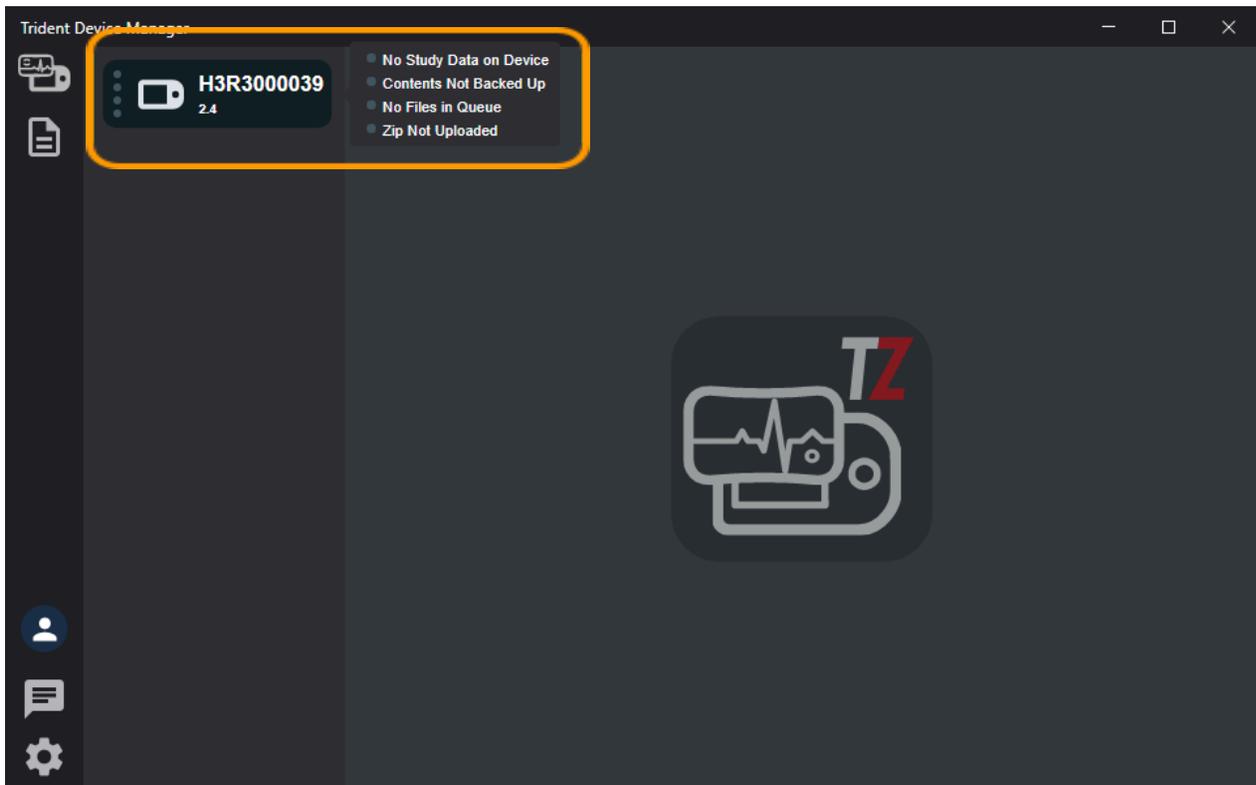


Figure 3.4

Even when the device lights aren't lit up, hovering over the device chip will cause a tooltip to appear with helpful text about the current device state.

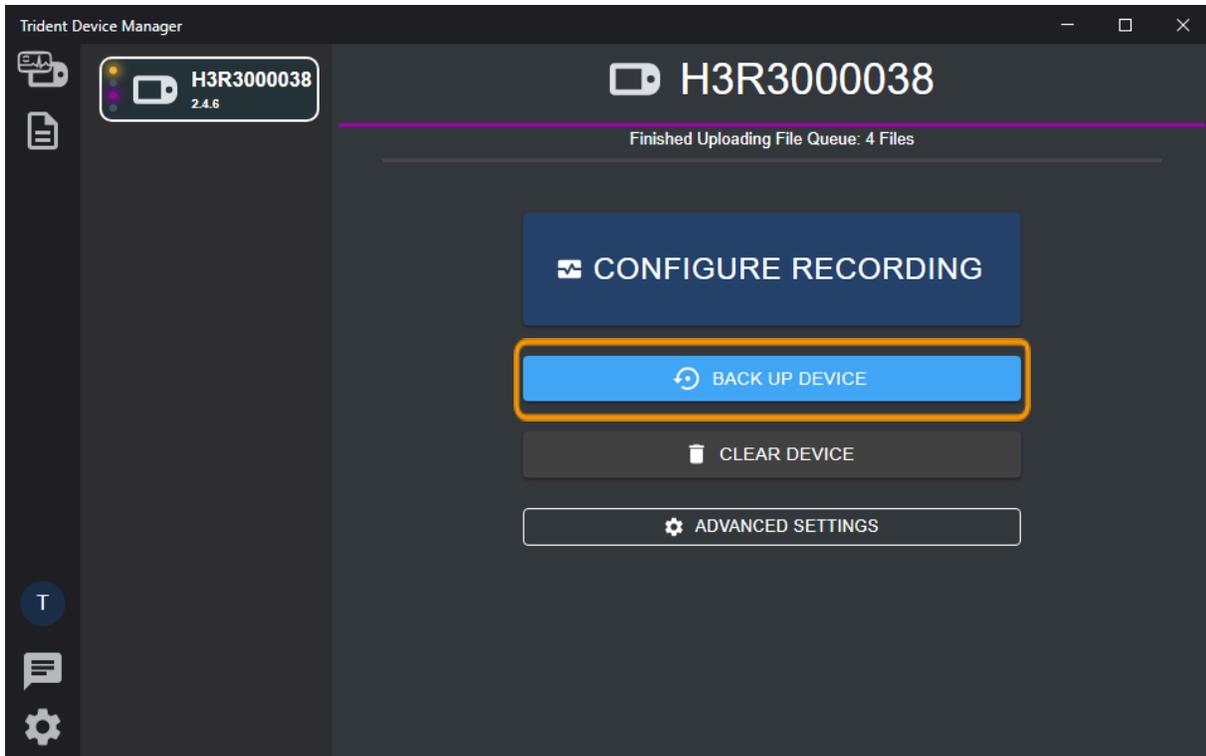
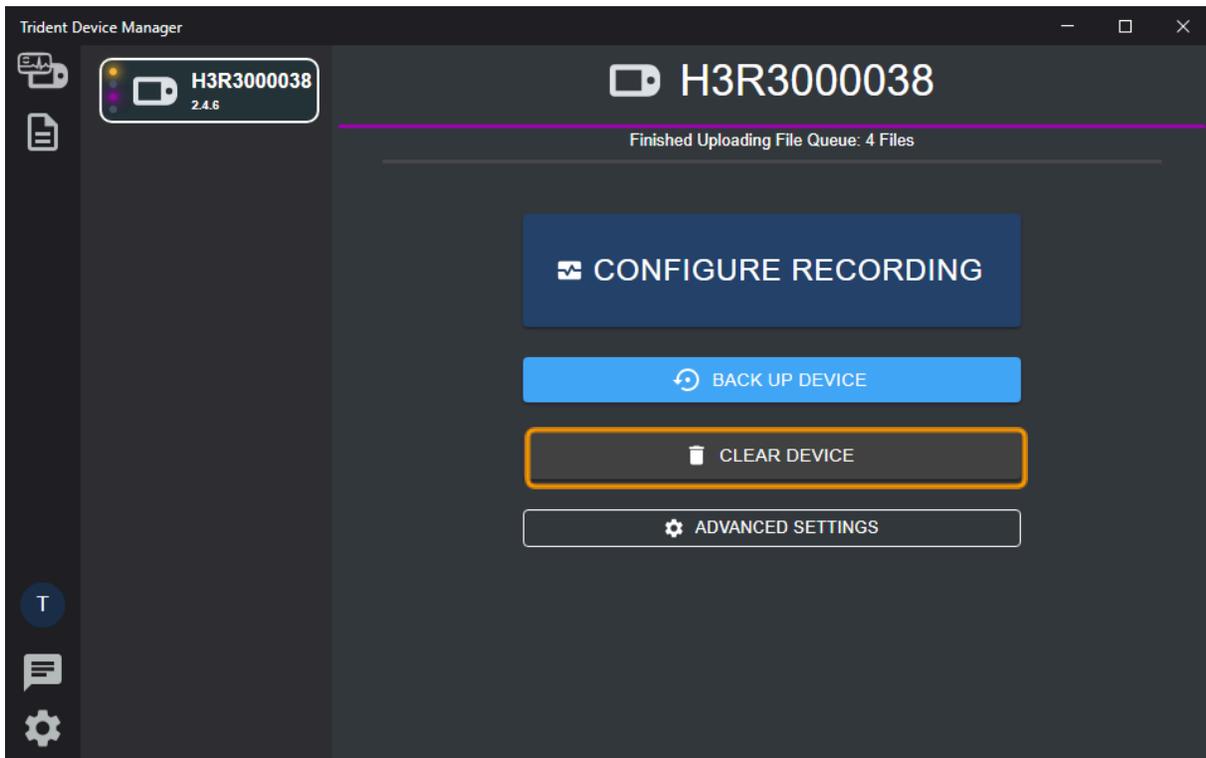


Figure 3.5

Selecting a device will bring up the Device Landing Page, where you can perform different actions on the selected device.

The “Back up Device” button will appear when the device has not been backed up or when the previous device backup was deleted. Clicking this button will create a device backup at the location set on the preferences page.



Clicking “Clear Device” saves default settings to the device and removes all patient data. If the user is logged in to BitRhythm, TDM will also check in the device if it is in a BitRhythm study. TDM will then eject the device.

*Figure 3.6*

The device will not reappear until it has been unplugged from the computer, given time to restart, and then plugged back in.

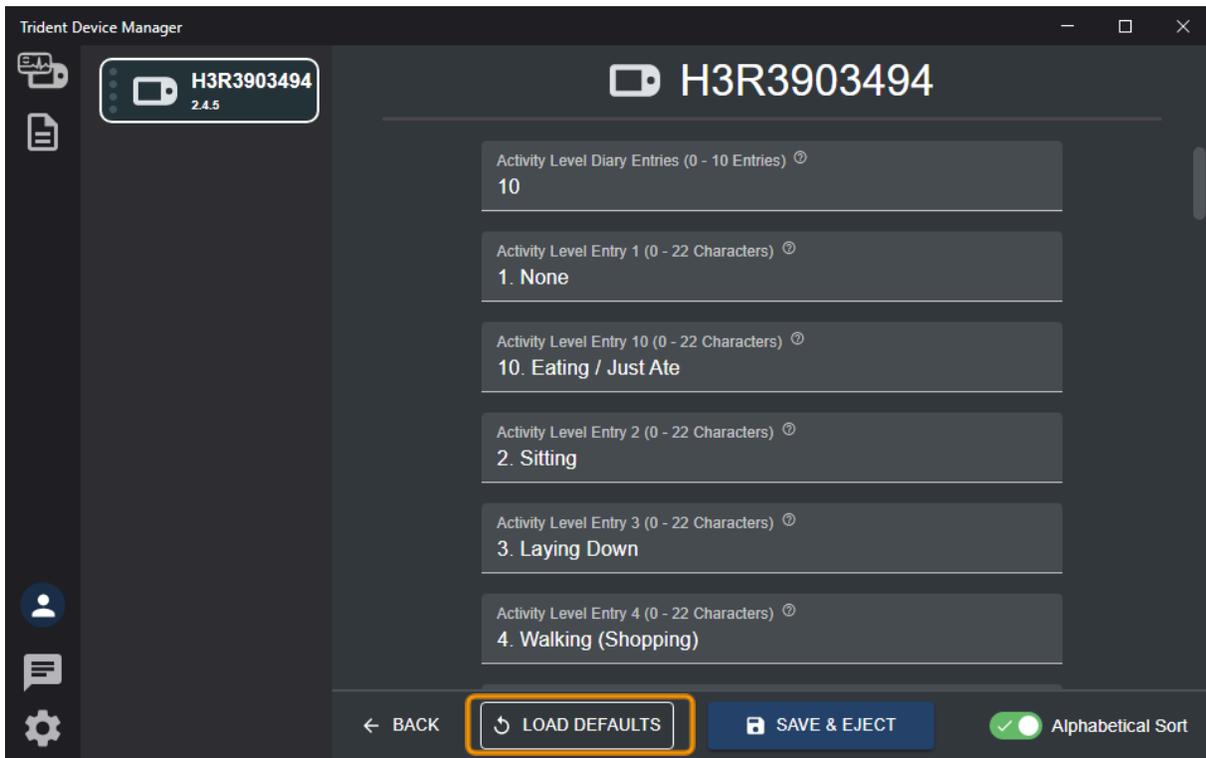


Figure 3.7

Clicking “Advanced Settings” will allow you to view a list of the settings currently on the device.

To reset all of the settings to their default values, click the “Load Defaults” button. The settings defaults for each device type can be set from the Preferences page.

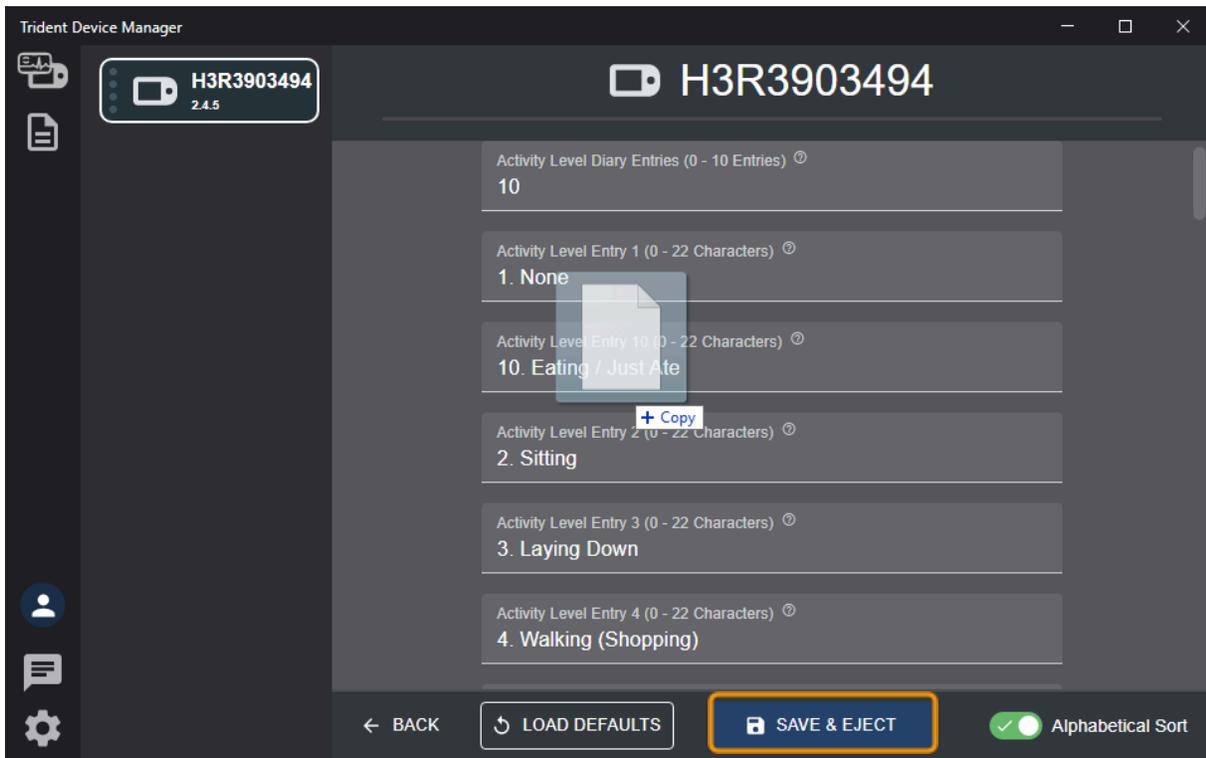


Figure 3.8

In addition to editing settings, any TZ Settings file (file name ending in '.tzs') can be dragged and dropped onto the settings window to fill settings values with the contents of the file.

When done editing, click "Save & Eject" to save the settings to the device and eject it. If you leave this page before saving, your changes will be lost.

## 3.2 Settings Editor page

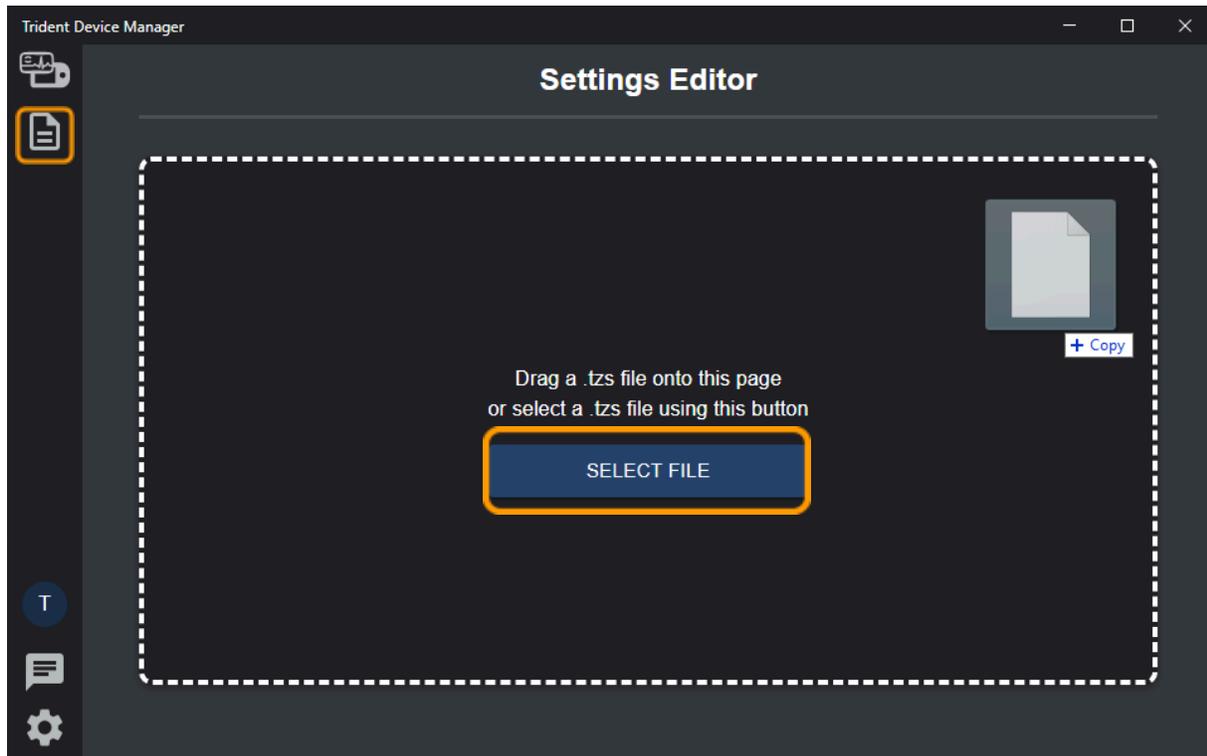


Figure 3.9

The Settings Editor page can be used to edit and save TZ Settings files on your workstation.

Any TZ Settings file can be opened by dragging it onto this page or by using the Select File button to browse your file system.

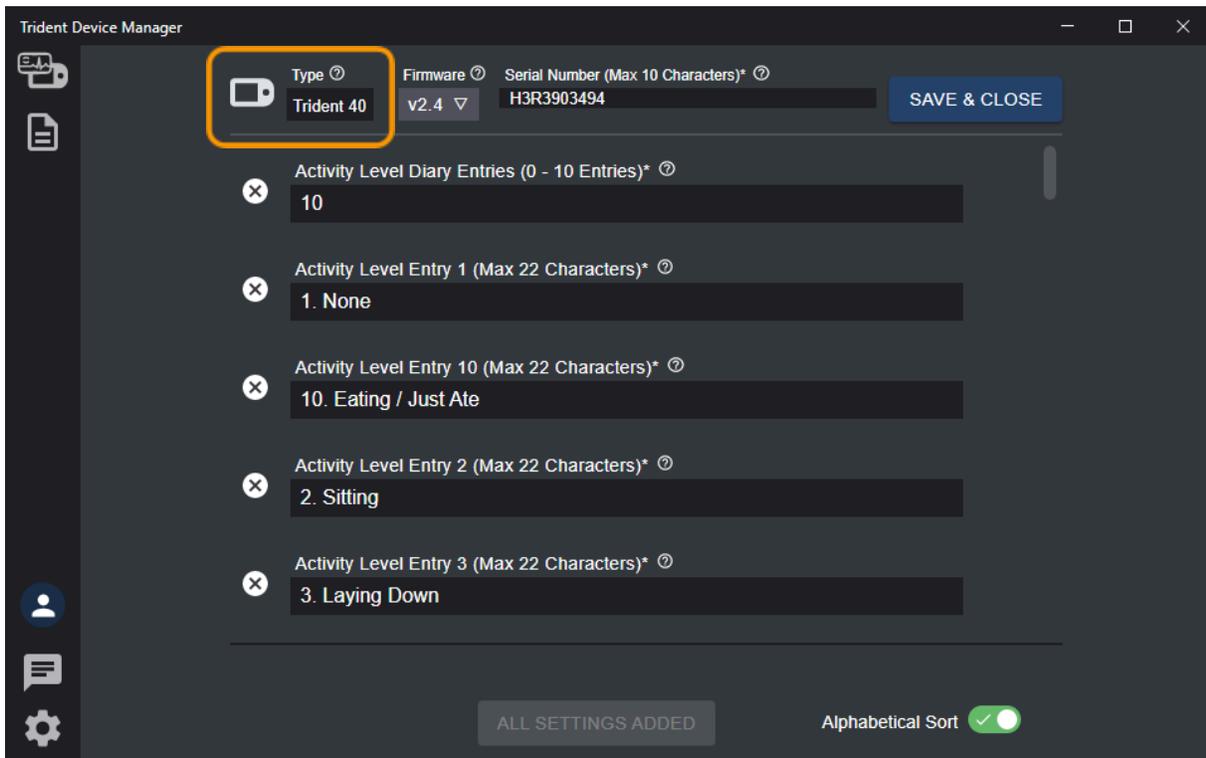


Figure 3.10

In the settings window, the device type is listed on the main bar. The device type cannot be edited and is specific to each file.

This settings file will only work on the type of device listed in this field. This settings file will fail to load correctly onto other types of devices.

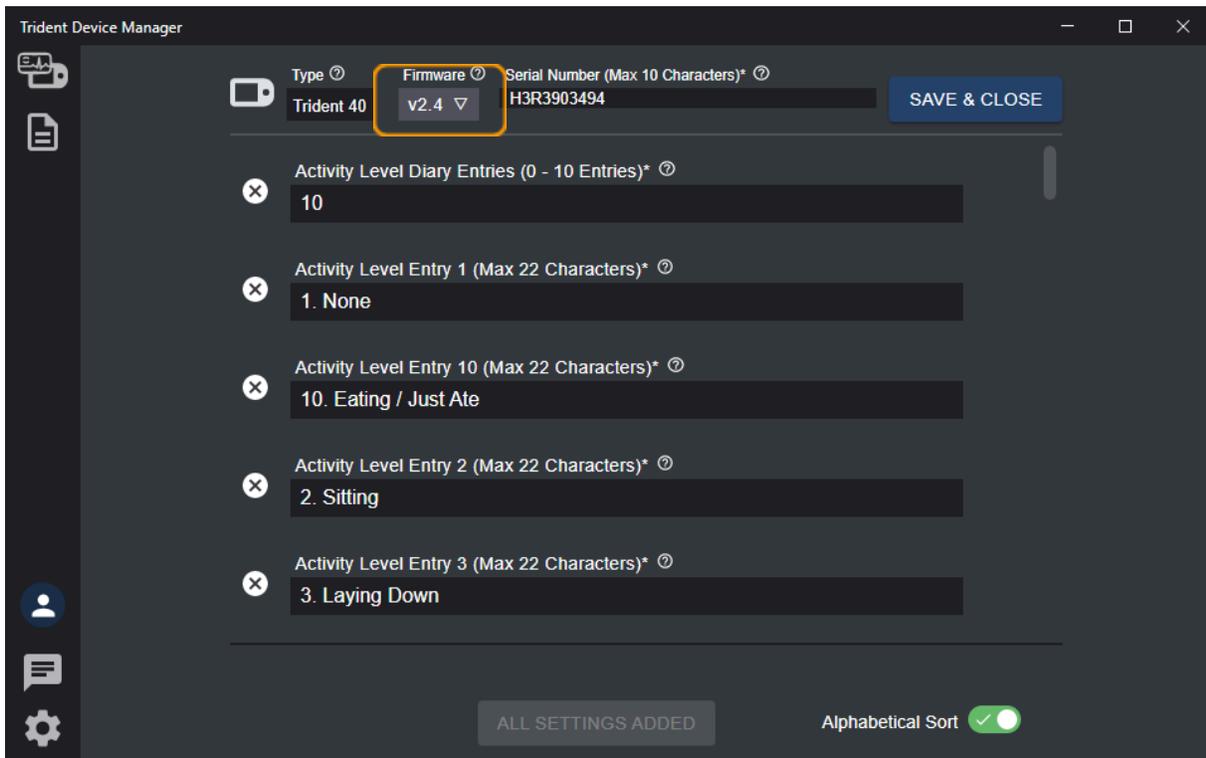


Figure 3.11

The firmware version of the settings file can be edited, but it may only be upgraded. The settings you are able to add will change depending on the settings present in the chosen firmware version.

For best results, the firmware version of the settings file should match the firmware version of the intended device.

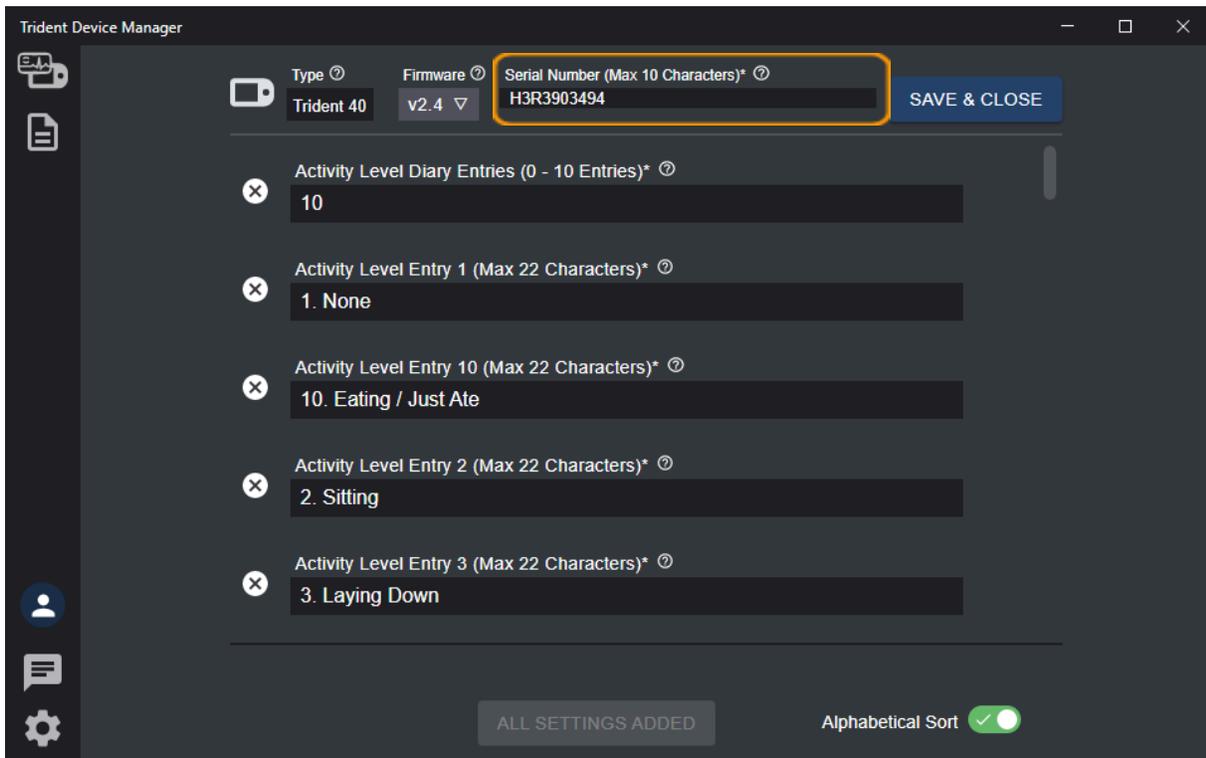


Figure 3.12

Settings can be specified for a specific device by entering a serial number into the TZ Serial field at the top of the page.

The settings file will fail to load if the serial number does not match the device it is placed on.

If the serial number is left blank, any device will accept the settings file.

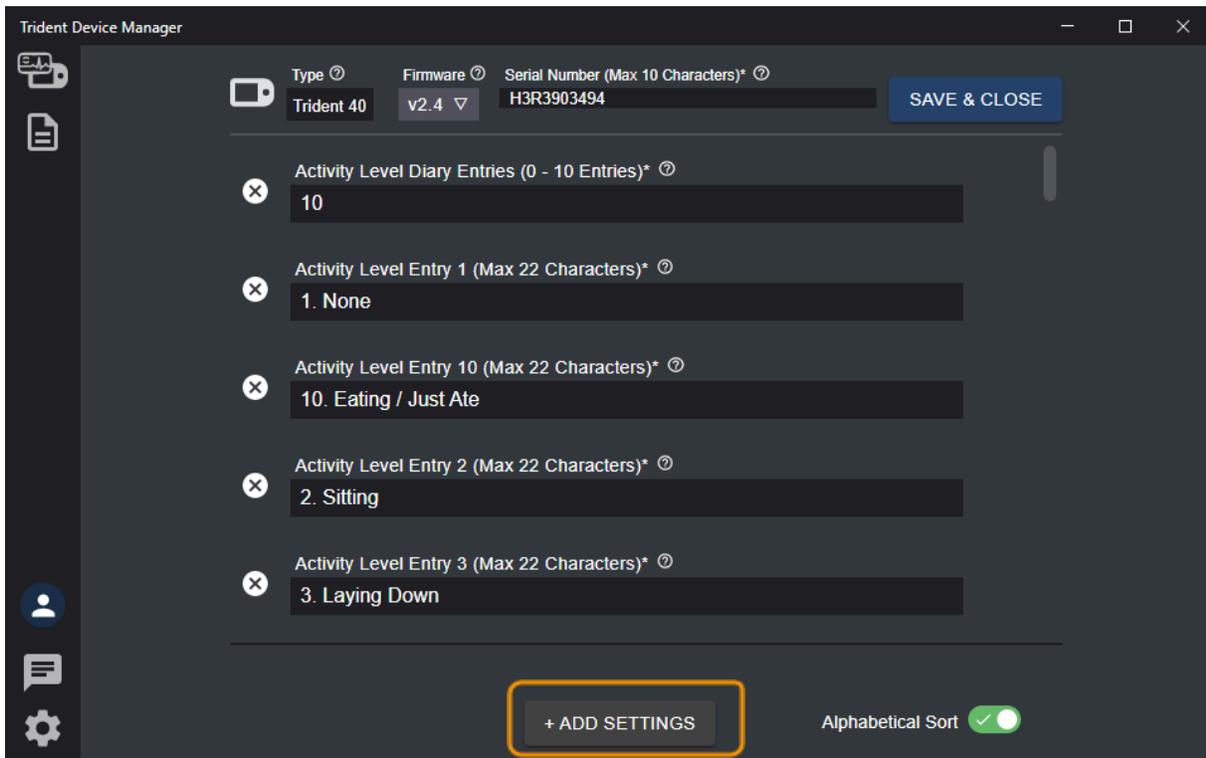


Figure 3.13

Each setting on the page may be edited or removed. Removing a setting will cause the device to use its preset defaults for that setting. If the setting is added back, it will use its preset defaults

To add a setting, click the “+ Add Settings” button.

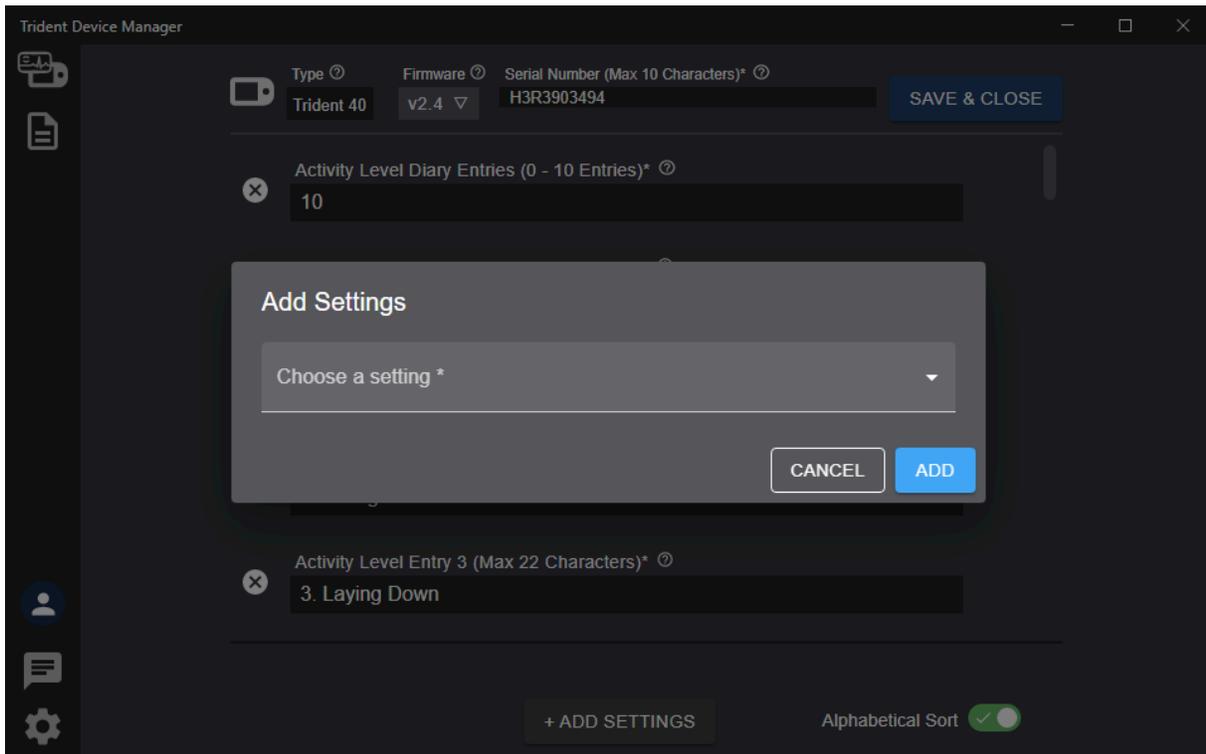


Figure 3.14

The settings dropdown on the resulting popup will contain a list of the settings available for the firmware version and device type listed at the top of the settings editor. It will not list settings that have already been chosen.

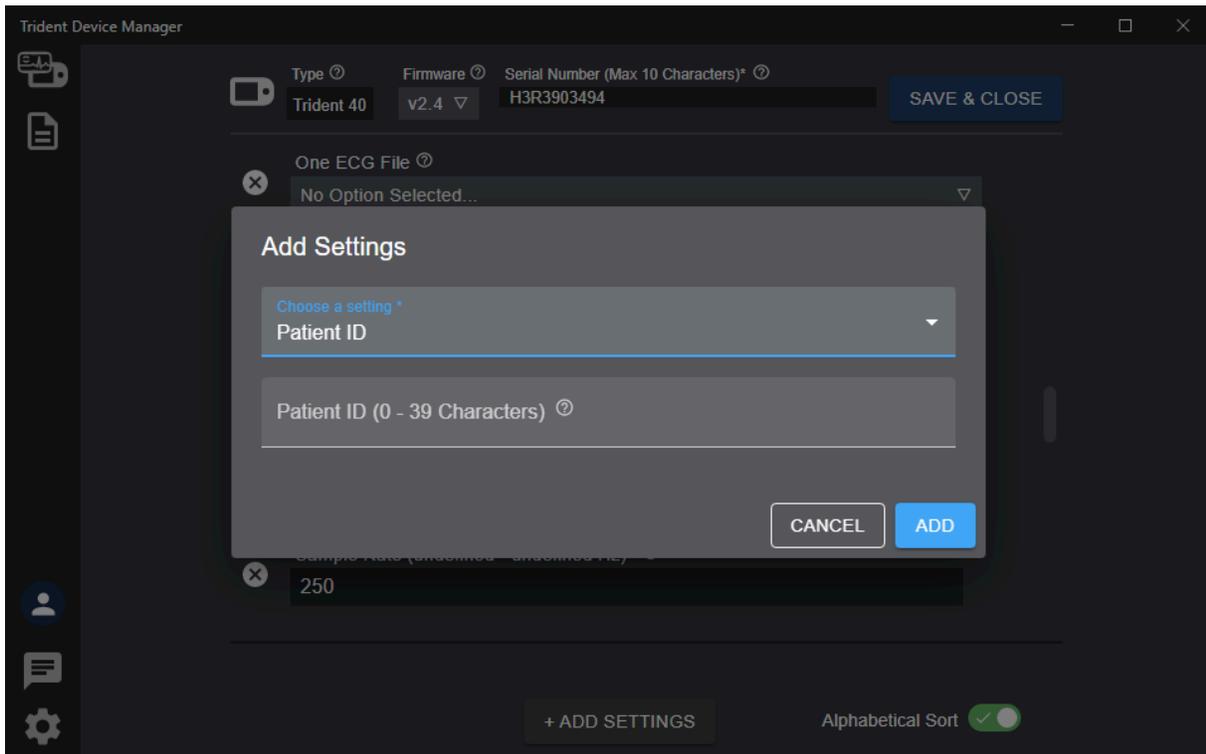


Figure 3.15

Select a setting from the dropdown, then fill in or select the value for the setting. Click “Add” to add the setting to the file, or “Cancel” to exit the popup without adding the setting.

If no value is chosen, the value will be set to the factory default.

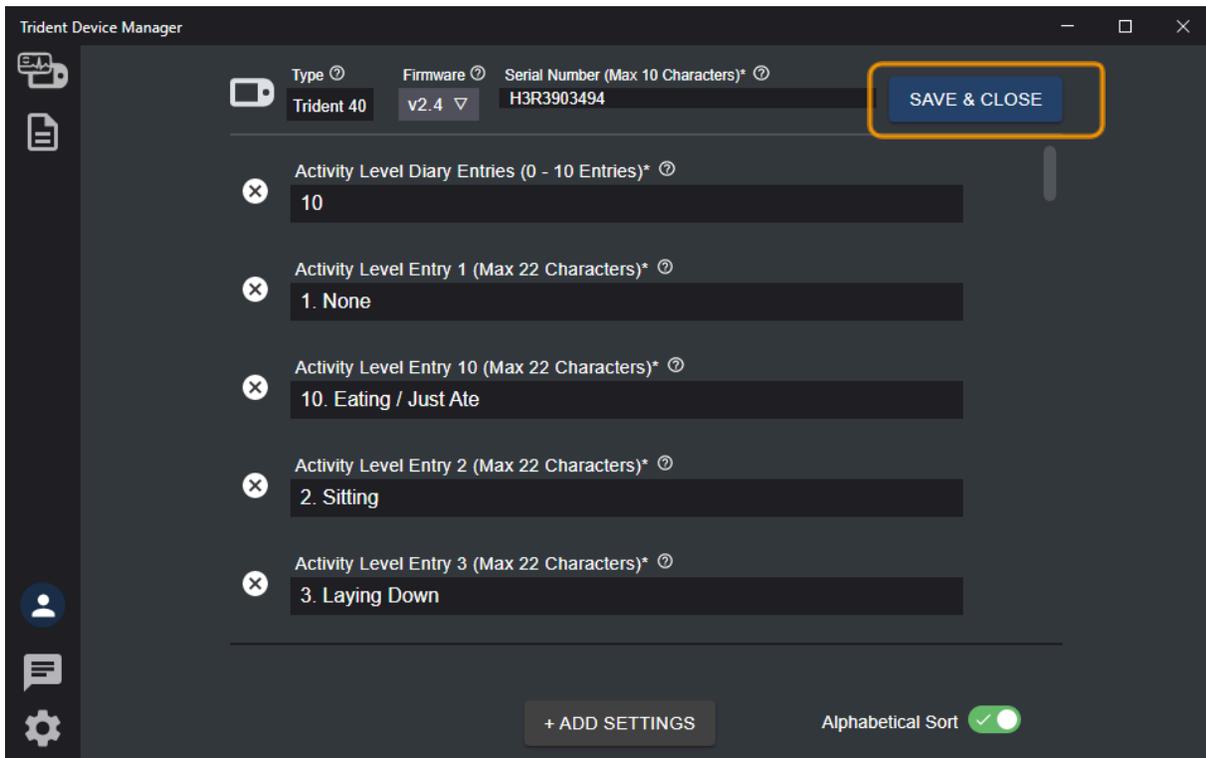


Figure 3.16

When finished adding and editing settings, click “Save & Close” to save your changes and close the Settings Editor window.

### 3.3 BitRhythm Login Page

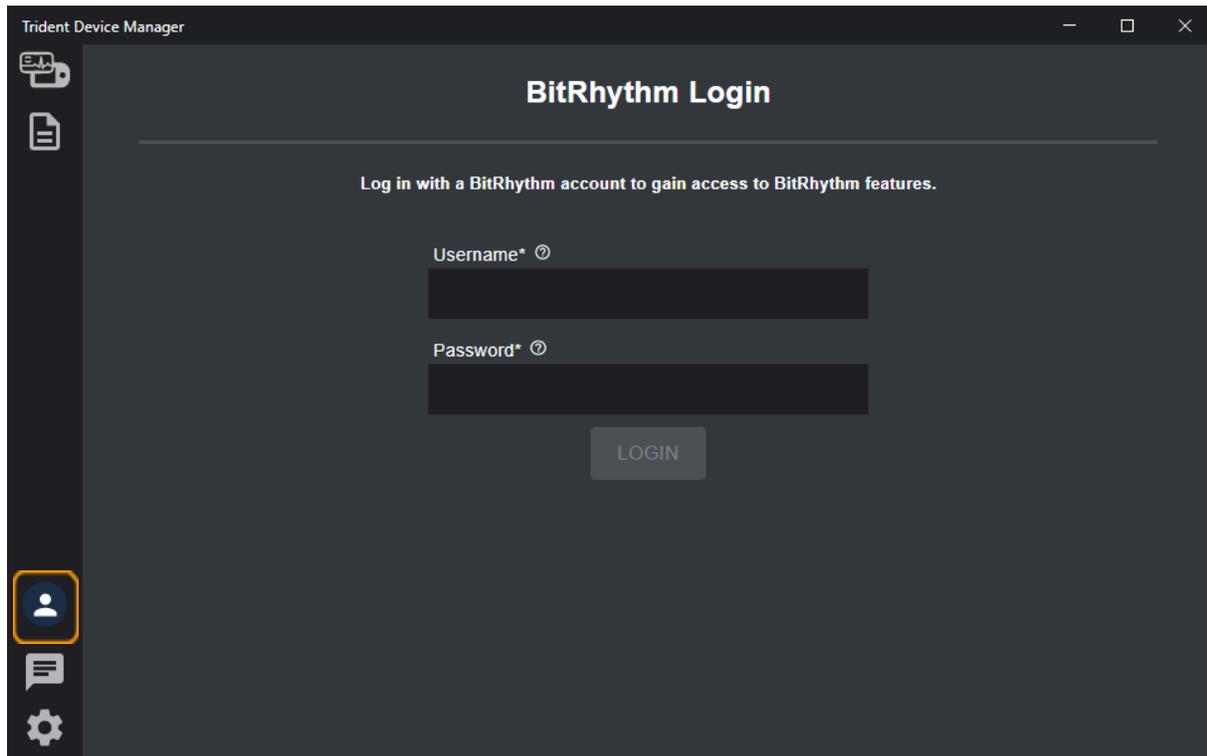
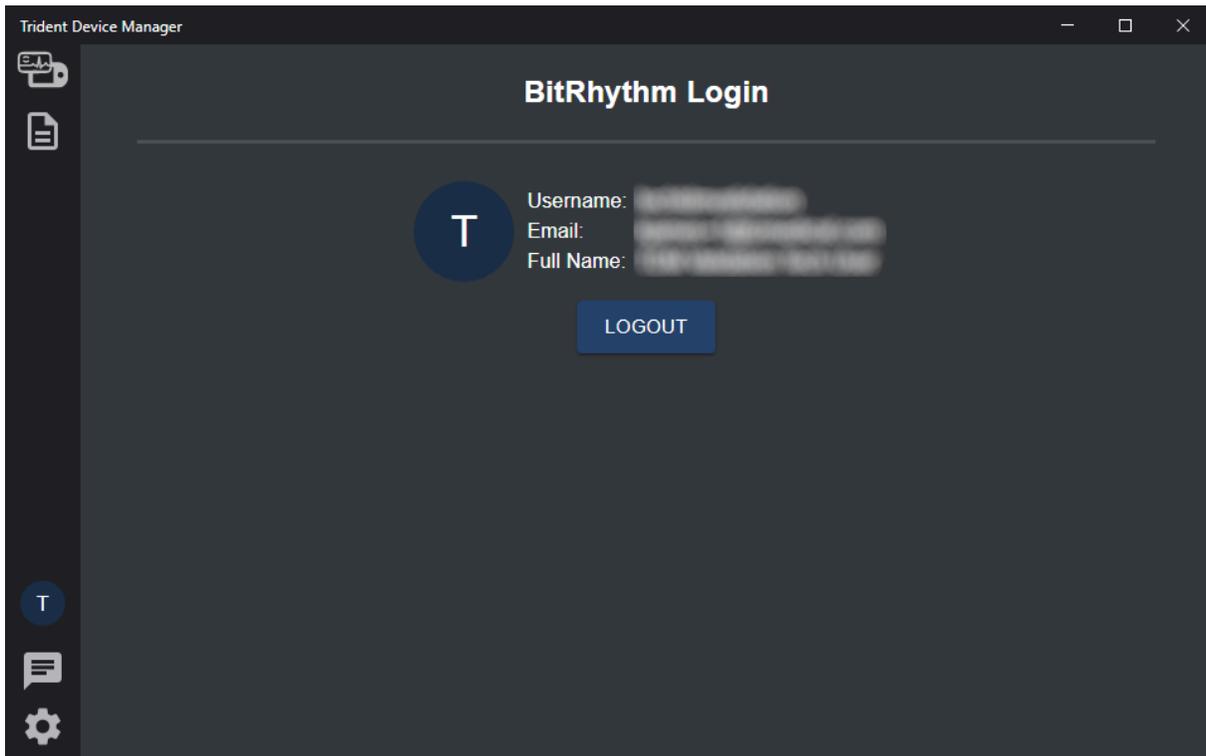


Figure 3.17

Some functionality supported by Trident Device Manager requires a connection to BitRhythm. This connection requires a one-time login using BitRhythm credentials. The login page can be accessed by clicking the blank user icon on the left navigation bar.



*Figure 3.18*

When logged into BitRhythm, error logs and data on connected devices will be uploaded and displayed on BitRhythm Admin.

To find out more information about BitRhythm or to activate a BitRhythm user account, contact your TZ Medical representative.

### 3.4 Feedback Page

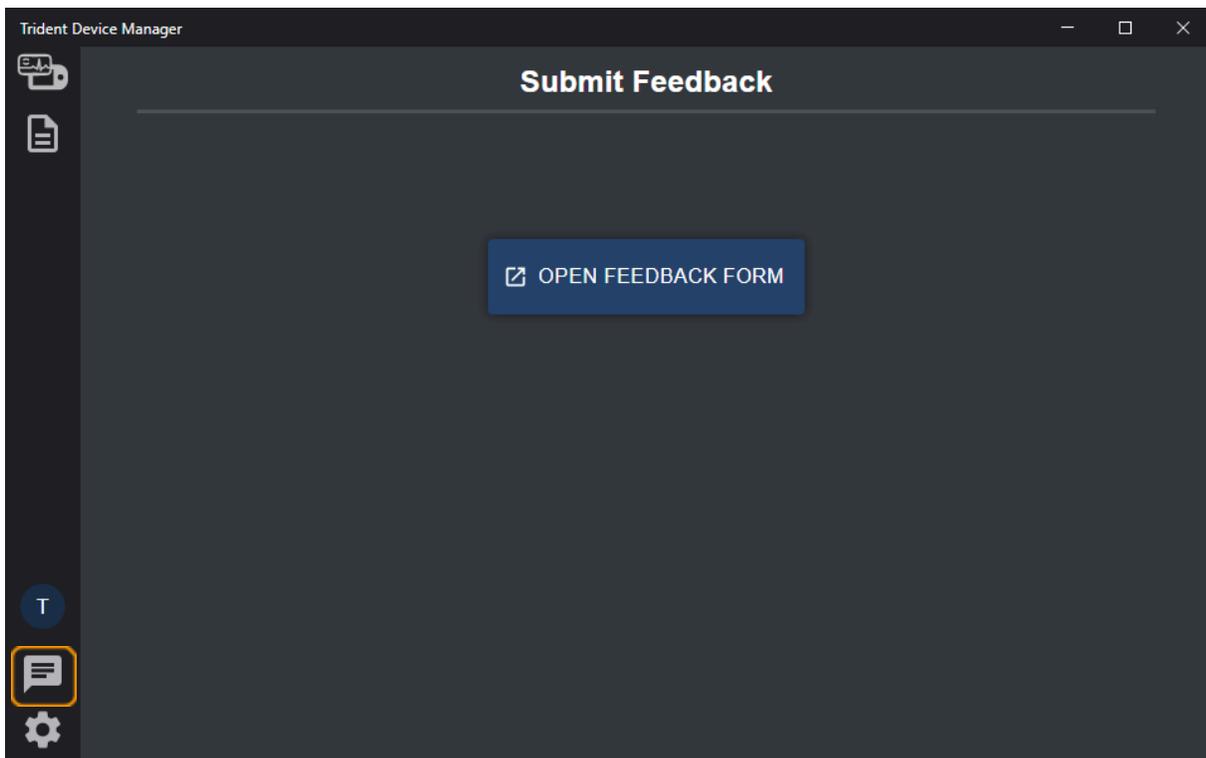


Figure 3.19

To give feedback on Trident Device Manager, report a bug, or suggest a feature, click on the feedback icon. This button will open the TZ Medical Help Center in a web browser.

## 3.5 Preferences page

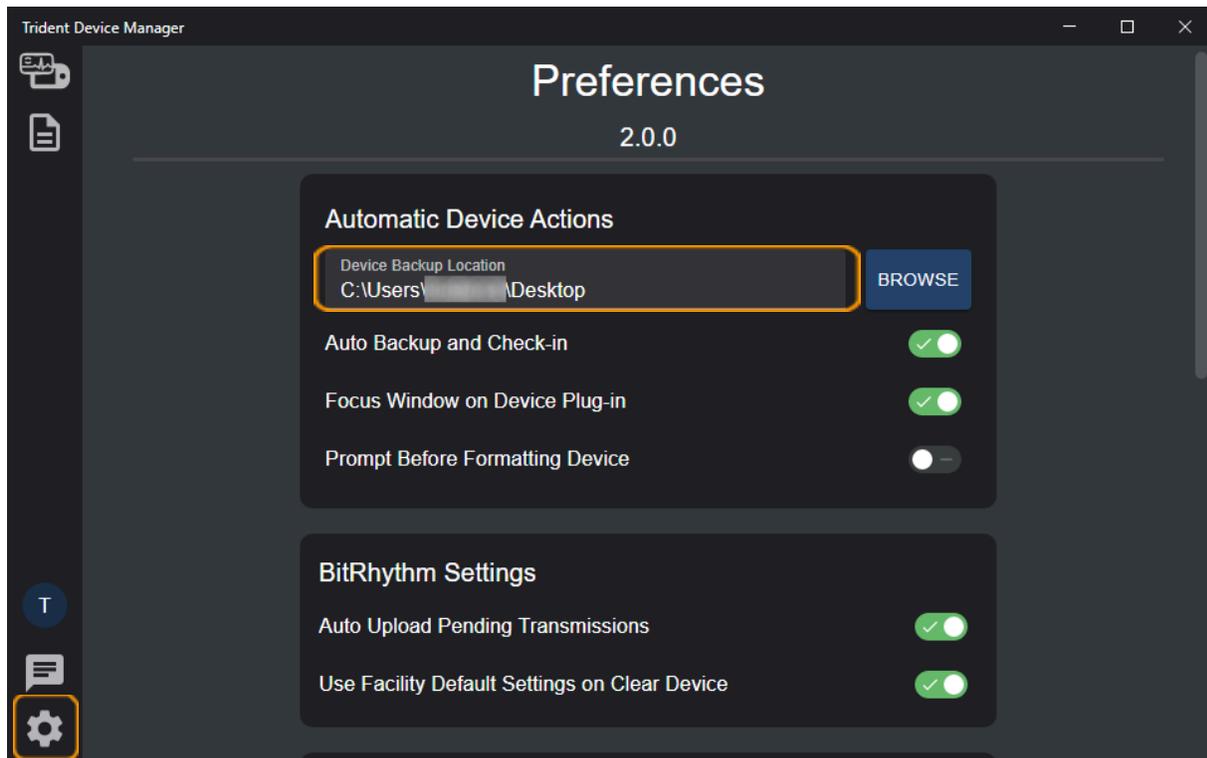


Figure 3.20

The Preferences page is where TDM can be configured to your specific workflow.

The first Automatic Device Action setting is the Device Backup location. This determines where zip archive files are saved when a Device Backup is created. The default location is your Desktop. Click “Browse” to select a different device backup location.

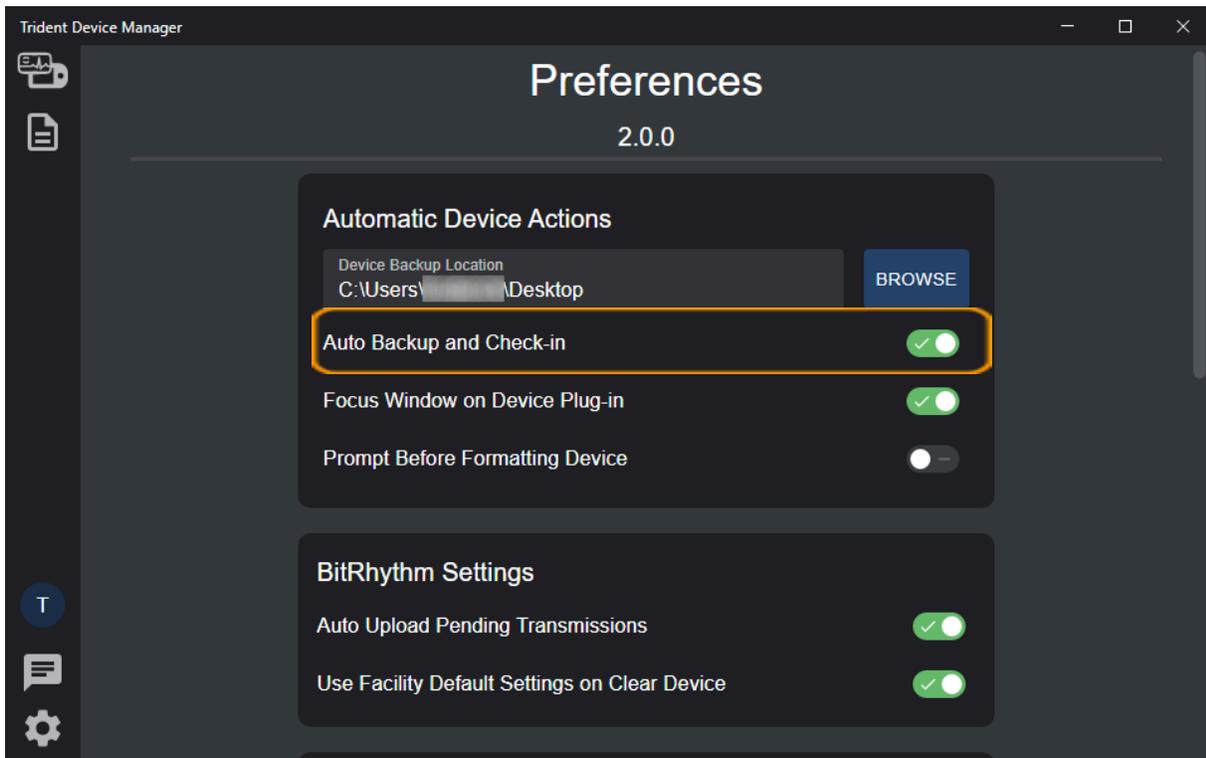


Figure 3.21

The next setting is the “Auto Backup” setting, which can be toggled on and off. When this setting is on, Trident Device Manager will automatically create a device backup when a device is plugged in.

If logged in with BitRhythm credentials, Trident Device Manager will then check in the device if it is in an active BitRhythm Study.

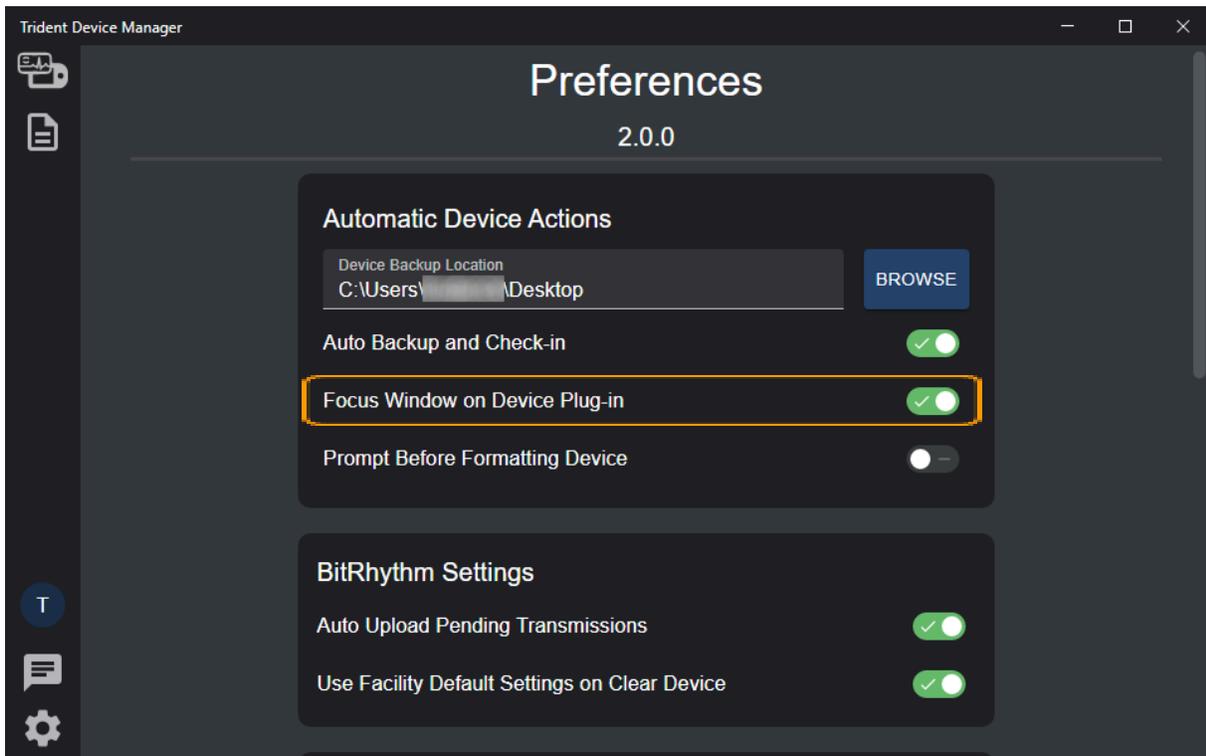


Figure 3.22

The “Focus Window on Device Plug in” setting can be toggled on and off. When this setting is on, Trident Device Manager will appear above other open windows and with the Device Management page open when a device is plugged in.

If this setting is off, Trident Device Manager will not switch views when a device is plugged in.

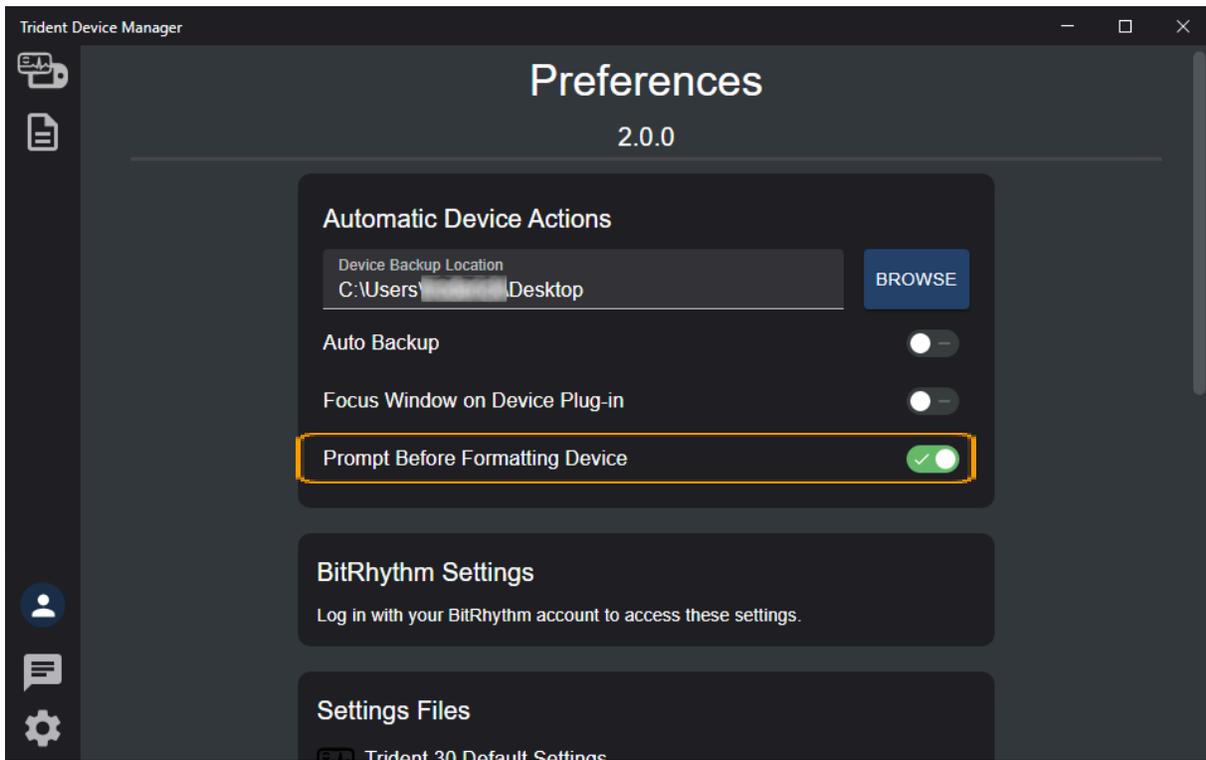


Figure 3.23

The “Prompt Before Formatting Device” controls whether Trident Device Manager automatically formats the device on ejection. When this setting is on, Trident Device Manager will prompt the user whenever the “Save & Eject” or “Clear Device” buttons are used, to ask whether or not the device should be formatted.

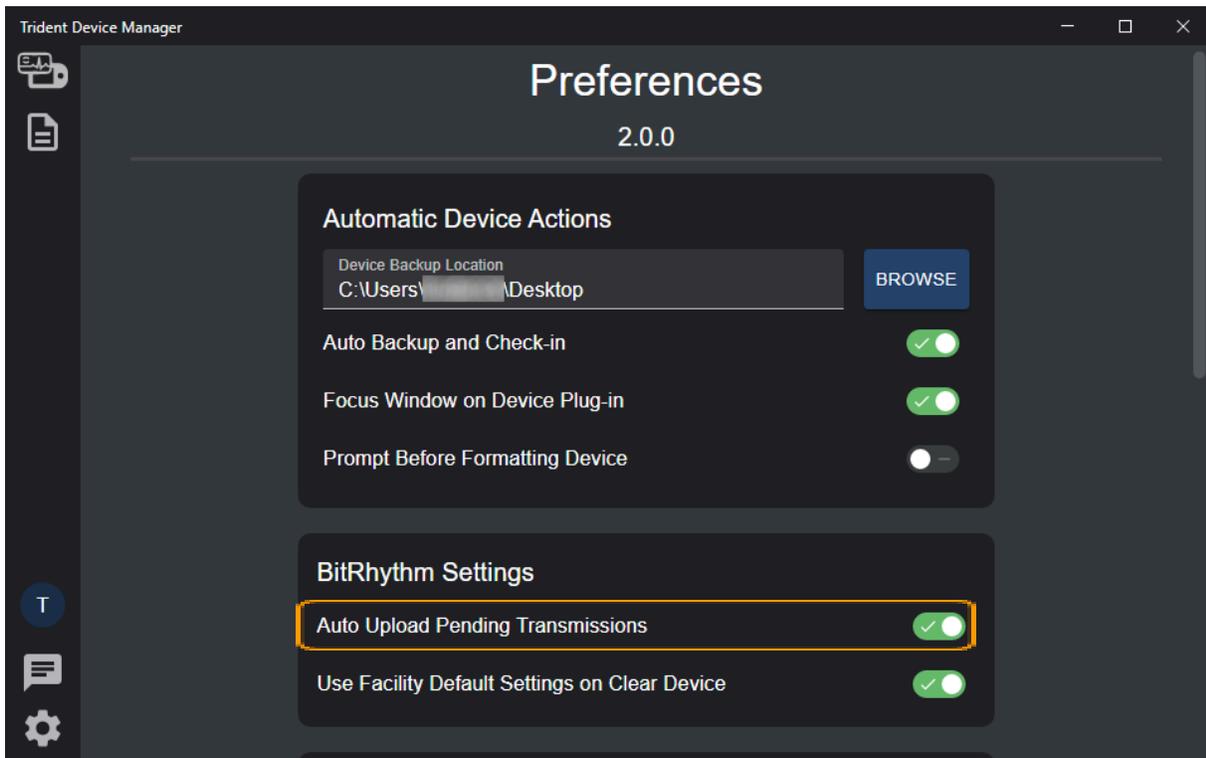


Figure 3.24

When logged in with BitRhythm credentials, two BitRhythm-specific settings are available in the BitRhythm Settings section.

The “Auto Upload Pending Transmissions” setting toggles whether Trident Device Manager automatically uploads a device’s file queue to BitRhythm Admin when the device is plugged in.

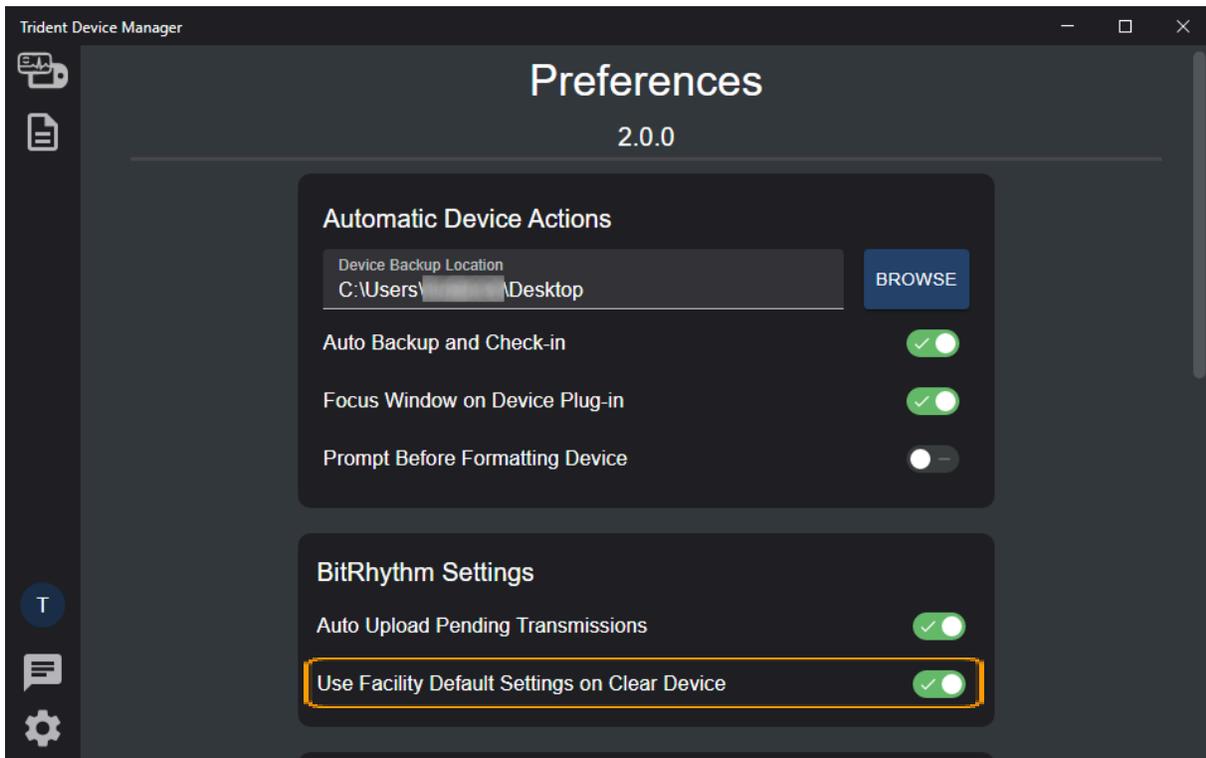


Figure 3.25

The “Use Facility Default Settings on Clear Device” setting toggles whether Trident Device Manager pulls device default settings from the device’s BitRhythm facility instead of the stored device defaults when the “Clear Device” button is used.

At the moment, this setting only affects Trident 40L devices.

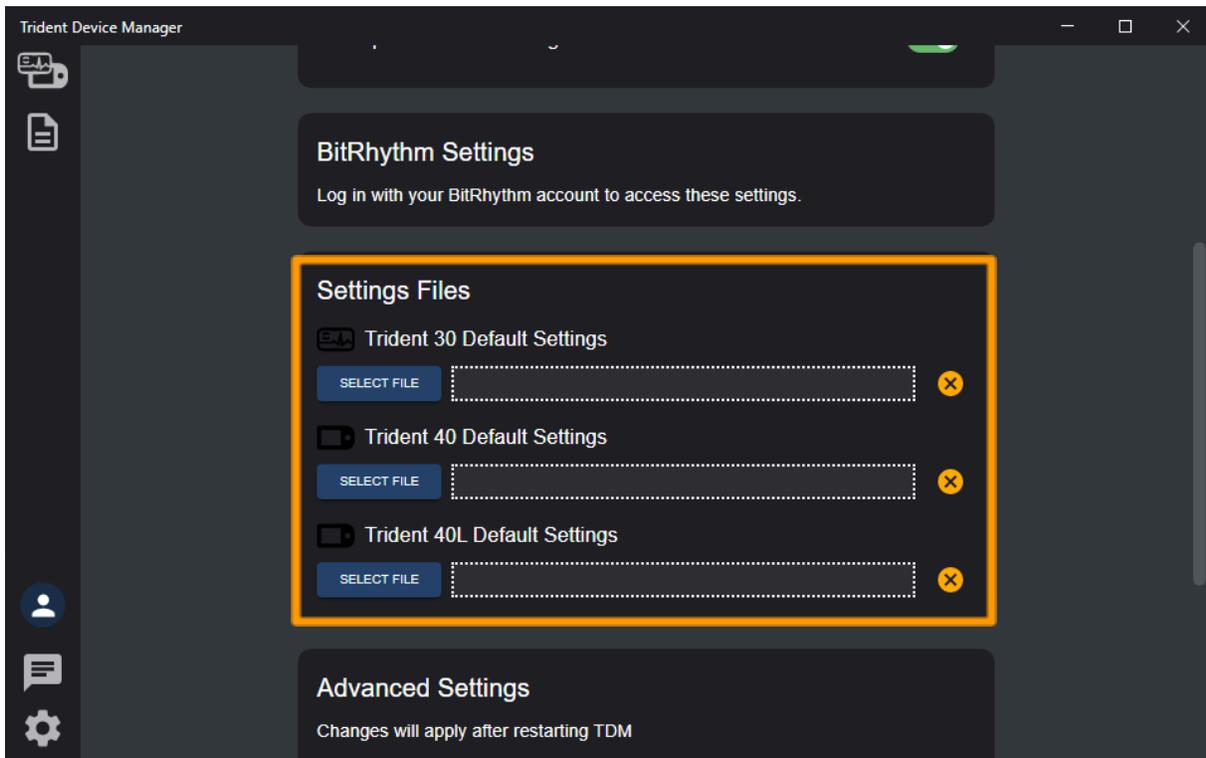


Figure 3.26

The Settings Files section contains the device defaults for each device type, selected using the "Select File" buttons. The default settings files will be used when the "Clear Device" button is clicked, unless another settings file is already on the device, or the "Use Facility Default Settings" setting is on. The "Load Device Defaults" button on the Advanced Settings page pulls default settings from these files.

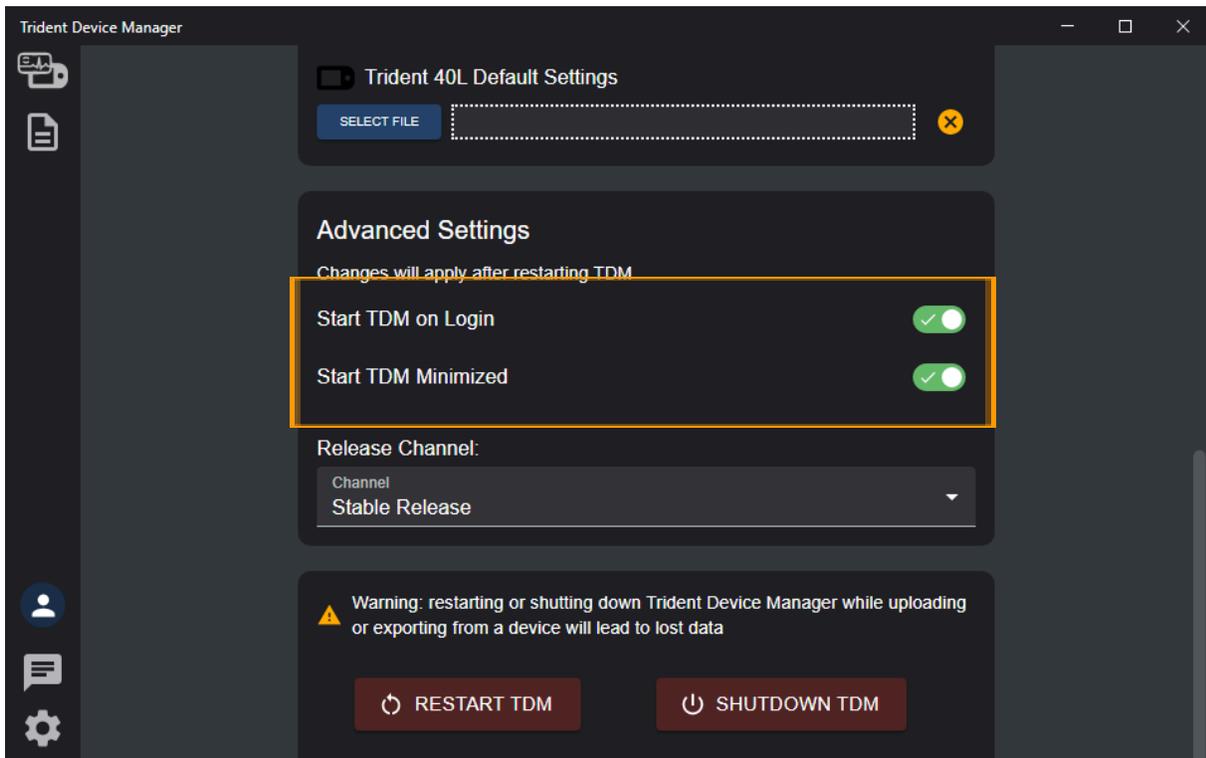


Figure 3.27

The Advanced Settings section contains preferences that can be used to manage TDM's startup behavior. The settings in this section will only apply after TDM has been restarted.

TDM can start when the user logs in to their computer, and can start minimized to stay out of the way on login.

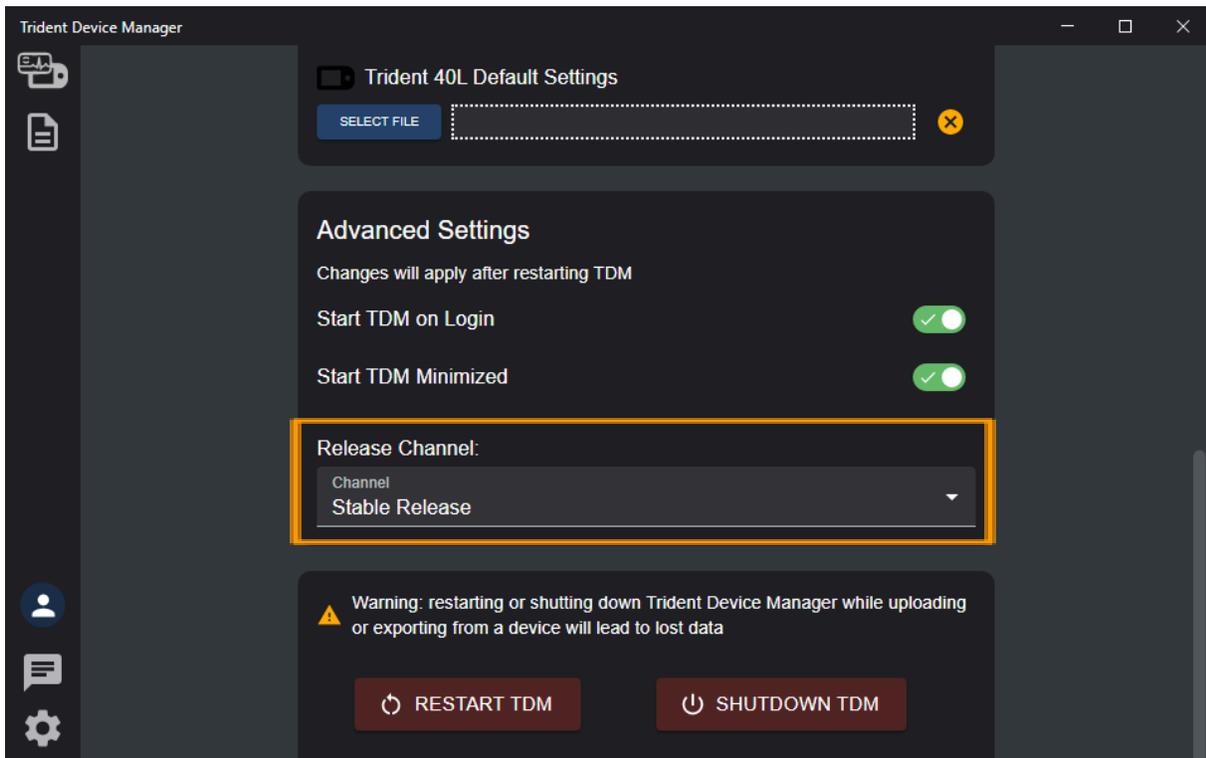


Figure 3.28

The Release Channel setting controls whether TDM will install only stable updates or use beta updates. This should not be changed from “Stable Release” unless advised by TZ Support Personnel.

This setting will only apply after TDM has been restarted.

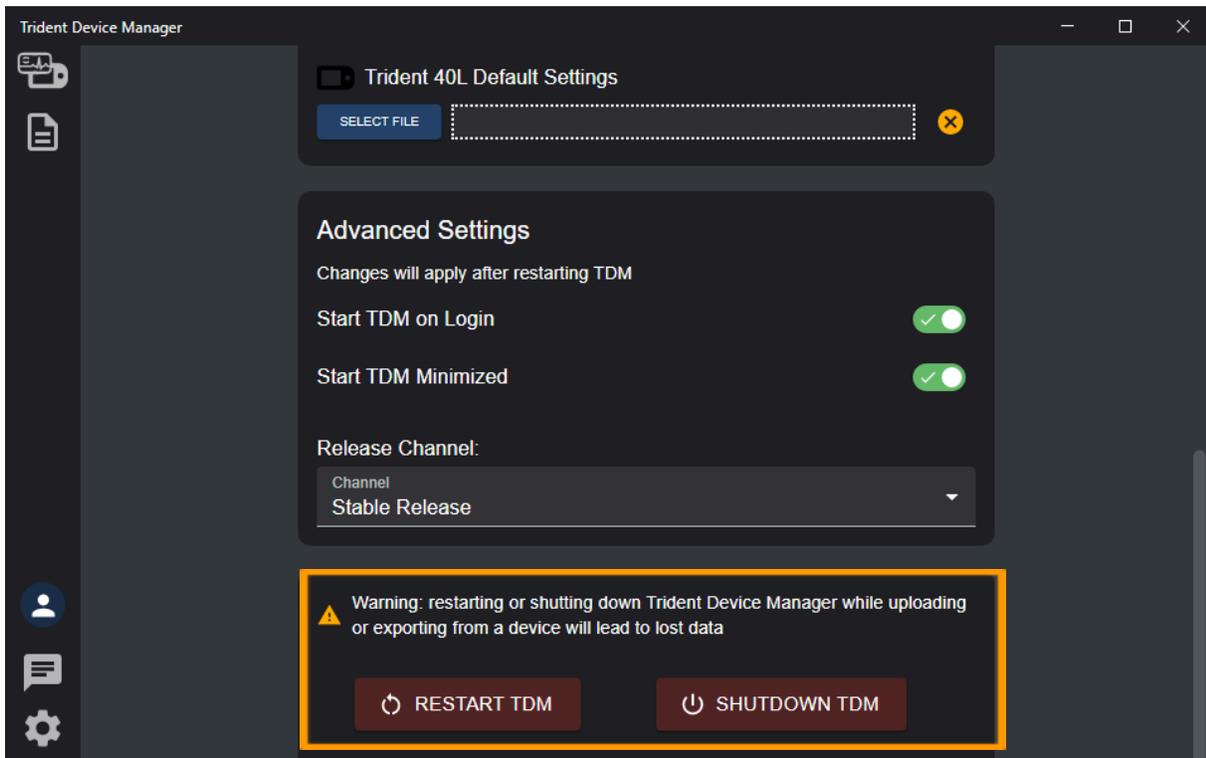


Figure 3.29

Because TDM runs as a background app on Windows, clicking the “X” button does not fully shut down the application. In situations where TDM must be shut down completely, use the Shutdown TDM button to properly close the app, or use the Restart TDM to shut down and restart the app.

## 4 Troubleshooting

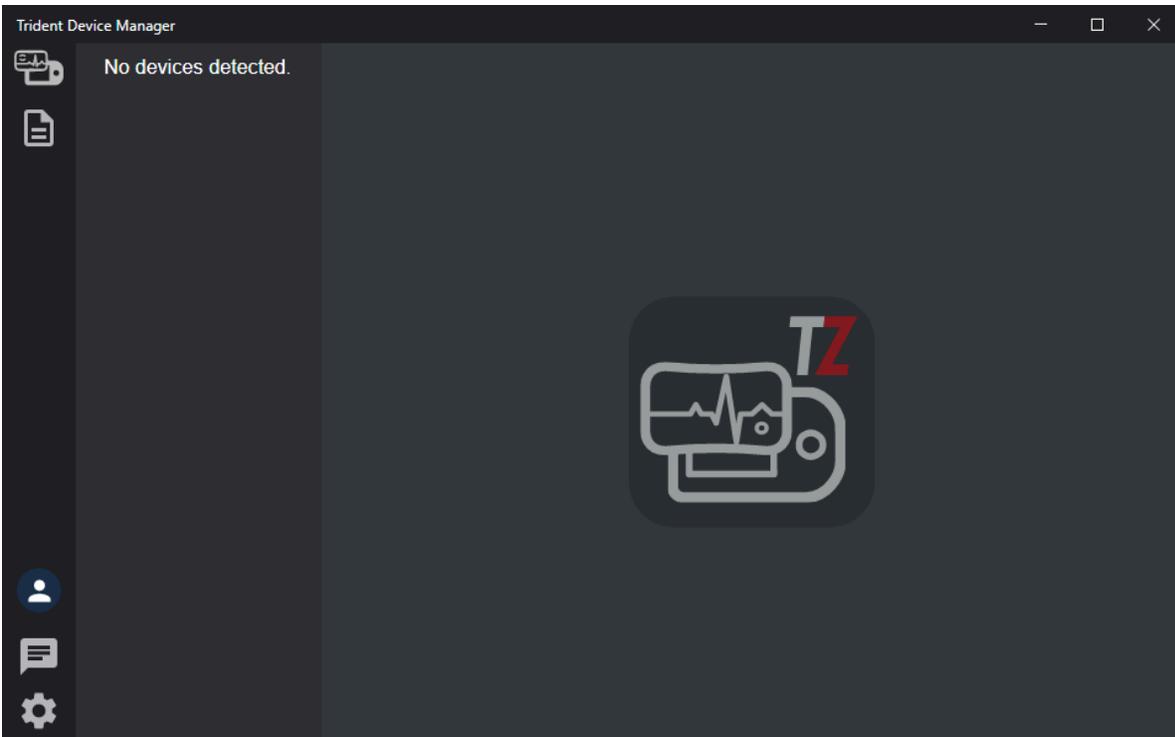


Figure 4.1

If there is a device plugged into the computer, but Trident Device Manager shows that there are no connected devices, follow the steps below to resolve the issue.

1. Unplug the device, wait for the device to restart and fully reboot, and then plug the device back in.
  - a. Even when a device has connected previously, if a device has been ejected from Trident Device Manager using the Save & Eject button it will need to be unplugged from the computer and plugged back in to reconnect.
2. If the screen on the device is black, attempt to turn it on by pressing and holding the button. If nothing is still displayed, the device may be out of battery and need to be charged briefly before it can connect.
3. Unplug your device and restart Trident Device Manager using the Restart button in the Preferences page. Attempt to reconnect the device after TDM has restarted and opened.
4. If there is an error on the device, it is possible that this needs to be resolved before the device can connect to the computer. Reference the device troubleshooting guide for next steps.
5. Ensure that the USB cable is fully connected to the device and to the computer.
  - a. Try connecting the device to a different USB port on your computer.
  - b. Use a different cable to connect the device.

## 5 Appendix

### 5.1 System Requirements

Operating System: Windows 10

CPU: 1.5 GHz dual-core processor or better

Memory (RAM): 2GB, 4GB or more recommended

At least 1 GB of free space

### 5.2 Settings Reference

A full list of the recording, operating mode and other configuration settings supported by Trident Devices can be found under the “Settings Tags” section [here](#) and can be edited through the Advanced Settings page in TDM. Users are advised to not edit these settings unless they know what they are doing, or unless they are instructed to do so by TZ Medical support staff.