



# Bluefin<sup>®</sup>

## ID TECH Firmware Update for Affected Devices

Prepared For

**Bluefin clients and partners**

**June 17, 2022**

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## Contents

Overview.....	3
Devices Affected.....	3
Document Instructions .....	3
Triage Instructions for Firmware Updates .....	5
Getting the ID TECH “Device Utility Update” Software Running on Your Computer .....	5
The ID TECH Device Update Utility Software Interface .....	7
Device Specific Instructions for Updating ID TECH Software.....	8
SREDKEY 2.....	8
Operating the ID TECH Device Update Utility Software .....	10
VP5300 .....	13
Plug in the VP5300 to a laptop or computer.....	13
Launch the Device Update Utility Software to begin the Firmware Update .....	14
Verifying the Firmware on the VP5300 (Also works on all other ID TECH devices) .....	17
Verifying the ID TECH Firmware (for any device) with the Universal SDK Demo tool .....	17
VP6300 .....	19
Get the Required Files from the ID TECH Website.....	19
Connect the VP6300 to your computer/laptop .....	21
Launch the ID TECH Bootloader Software .....	22
IMPORTANT .....	25

## Overview

ID TECH has issued a notice that devices with older Firmware will cease working and become disabled/inactive unless the Firmware update is applied.

The expiration date for Data and PIN certificates is August 9, 2022. When these certificates expire, it will disable all card reader functionality on the device.

Installing new Firmware will prevent card reader functionality from being disabled, even though Data and PIN certificates will have expired, allowing the device to continue to operate as it normally would. This will not have an impact on SRED capability or data encryption.

## Devices Affected

Bluefin has been advised by ID TECH that the SREDKey 2, VP5300 and VP6300 devices are in scope and *could* be affected by this situation.

ID TECH has published an informational web page that lists all possible affected devices and the minimum Firmware version required to keep those devices operational. See <https://idtechproducts.com/Firmware-updates/> for more information.

Please refer to this link for the definitive device list, minimum Firmware required for continued operation, and a link to a device Knowledge Base from ID TECH should you need it.

## Document Instructions

We will discuss how to click on an executable file (".exe" file) to run the ID TECH software, as well as a free unzipping/decompression software utility that can help you unzip/extract the files (if you require such software, see more below). When following the instructions in this document, if clicking on an ".exe" file gives you an error that says your Operating System (Windows or Mac) prevented an "unrecognized application" from running, such as Figure 1, you have two options (do not be concerned, this is normal).

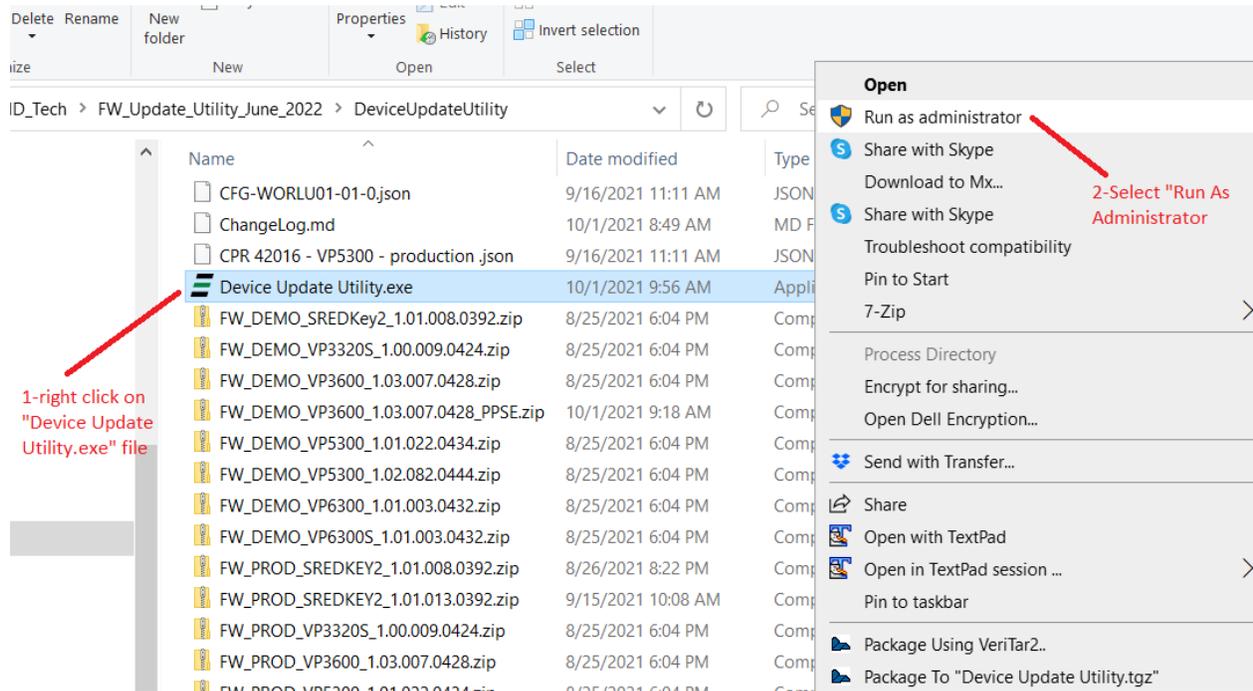
1. You can click on the "More Info" link highlighted in the Figure 1 below, and then click "Continue" to launch the application.

**Figure 1 — Unrecognized Application is Prevented from Running in Windows**



- You can click on the “Don’t Run” button, return to your Windows Explorer directory, and instead of Double clicking on the .exe file, right click on it and select “Run as Administrator” as shown in Figure 2.

**Figure 2 – Right Clicking on an .exe file to “Run as Administrator”**



This should launch the ID TECH “Device Update Utility” application.

*Warning: If you right-click on the “Device Update Utility.exe” application file and you STILL get the Windows warning preventing an unrecognized application from running as shown in Figure 1 above, you will now want to click on the “More Info” link (see Figure 1 above), and then click “Run Anyway” shown below in Figure 2a.*

**NOTE THAT IF THE ID TECH SOFTWARE STILL WILL NOT LAUNCH, PLEASE CONTACT YOUR ORGANIZATION’S IT DEPARTMENT TO CHANGE THE**

**Figure 2a – Select “Run Anyway” to Bypass Permissions to Run the ID TECH Device Update Utility Application**



## PERMISSIONS ON YOUR COMPUTER TO ALLOW THIS SOFTWARE TO RUN.

AGAIN, NOTE THAT THIS IS “STAND-ALONE” SOFTWARE AND INSTALLATION IS NOT NECESSARY. IT WILL SIMPLY RUN WHEN YOU CLICK ON THE “.EXE” APPLICATION FILE.

## Triage Instructions for Firmware Updates

In order to update the Firmware on affected ID TECH devices, you will need to download the “Device Update Utility” from ID TECH.

The ID TECH Device Update Utility software can be downloaded from

<https://atlassian.idtechproducts.com/confluence/download/attachments/30479625/DeviceUpdateUtility.zip?api=v2>

Download this file and place it in the directory of your choice on your computer. This is a “Zip” file, which is a compressed file to make it smaller in size. It will need to be “Unzipped.”

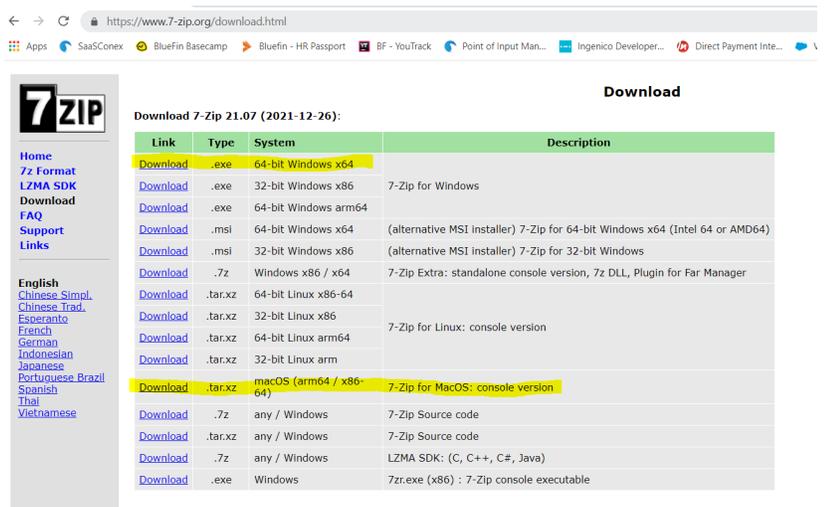
If you’re familiar with this concept/technology, use the software of your choice on your computer or laptop to execute this.

If you are not unfamiliar with unzipping or do not have a program on your computer or laptop for this, 7-zip (<https://www.7-zip.org/>) is a free utility that will perform this functionality for you. You can download this free software, which will allow you to “Unzip” or “Extract” the file and view all the contents/files that it contains.

You will likely want the highlighted versions in Figure 3 for Windows or MacOS.

Once you download the 7-Zip installation executable file (with a file extension of “.exe” or for Mac “.tar.xz”) simply double click on that file, and the 7-Zip software will begin to install on your computer. Follow the installation prompts as you would for installing any other software.

Figure 3 – 7-Zip Downloads



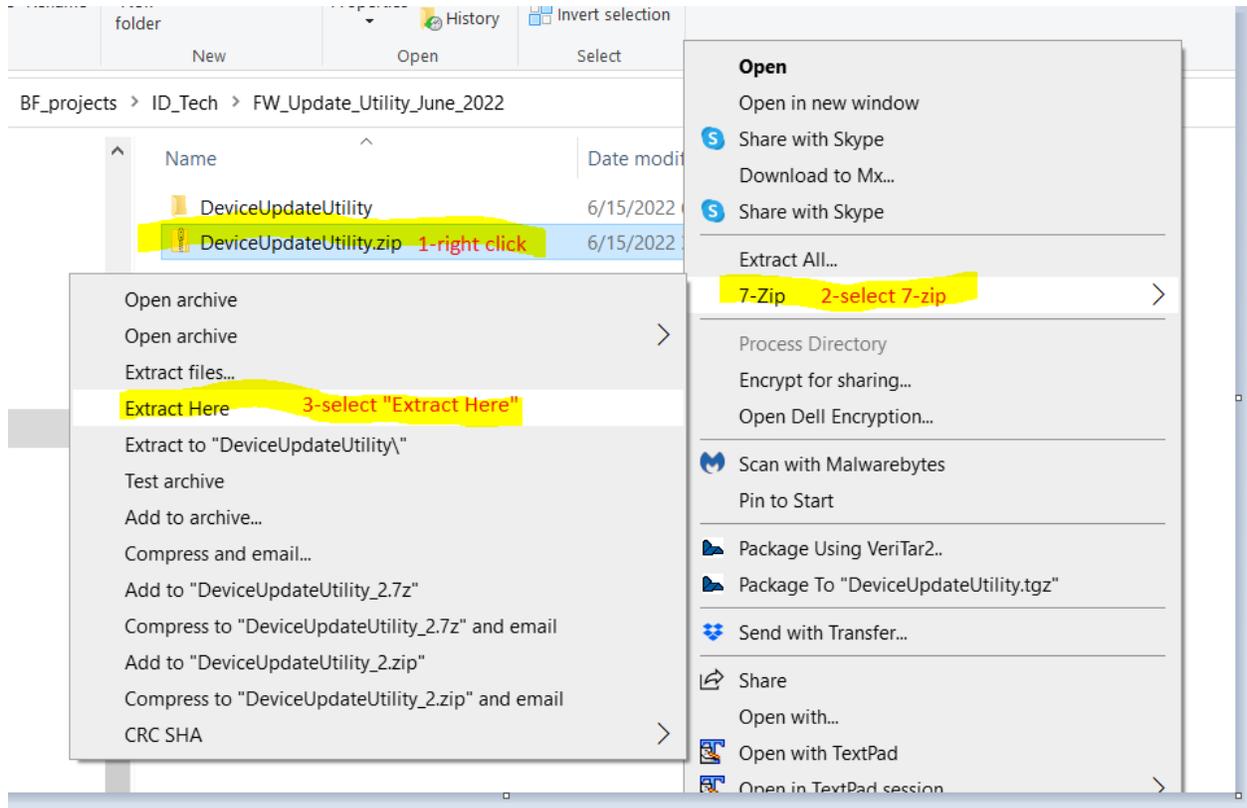
Link	Type	System	Description
<a href="#">Download</a>	.exe	64-bit Windows x64	
<a href="#">Download</a>	.exe	32-bit Windows x86	7-Zip for Windows
<a href="#">Download</a>	.exe	64-bit Windows arm64	
<a href="#">Download</a>	.msi	64-bit Windows x64	(alternative MSI installer) 7-Zip for 64-bit Windows x64 (Intel 64 or AMD64)
<a href="#">Download</a>	.msi	32-bit Windows x86	(alternative MSI installer) 7-Zip for 32-bit Windows
<a href="#">Download</a>	.7z	Windows x86 / x64	7-Zip Extra: standalone console version, 7z DLL, Plugin for Far Manager
<a href="#">Download</a>	.tar.xz	64-bit Linux x86-64	
<a href="#">Download</a>	.tar.xz	32-bit Linux x86	7-Zip for Linux: console version
<a href="#">Download</a>	.tar.xz	64-bit Linux arm64	
<a href="#">Download</a>	.tar.xz	32-bit Linux arm	
<a href="#">Download</a>	.tar.xz	macOS (arm64 / x86-64)	7-Zip for MacOS: console version
<a href="#">Download</a>	.7z	any / Windows	7-Zip Source code
<a href="#">Download</a>	.tar.xz	any / Windows	7-Zip Source code
<a href="#">Download</a>	.7z	any / Windows	LZMA SDK: (C, C++, C#, Java)
<a href="#">Download</a>	.exe	Windows	7zr.exe (x86) : 7-Zip console executable

## Getting the ID TECH “Device Utility Update” Software Running on Your Computer

Now that you have downloaded the ID TECH software to update the device Firmware and you have extracted/unzipped the files, you are ready to set up the ID TECH software.

Navigate to the directory where you downloaded the **DeviceUtilityUpdate.zip** file from ID TECH, right click on the file, and select “7-Zip” and then “Extract Here” as shown in the figure below.

**Figure 4 – Unzipping/Extracting the ID TECH DeviceUpdateUtility.zip file**

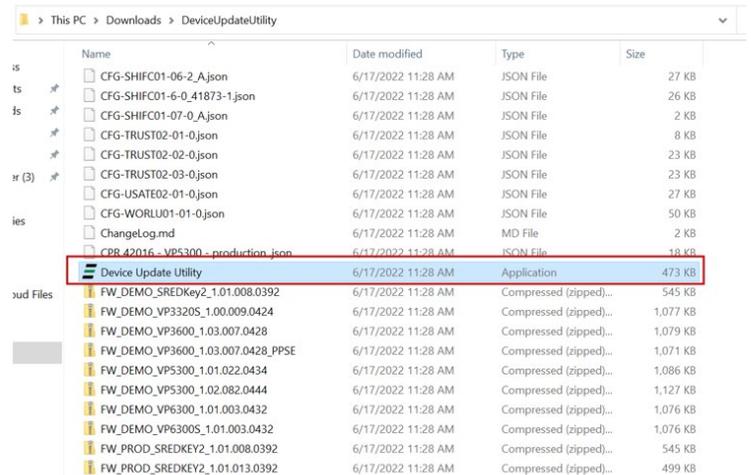


**Figure 4a – How the Device Update Utility Appears in the Directory**

This will unzip/extract all the files in the current directory that you are in.

Scroll down to find the file named **Device Update Utility.exe**

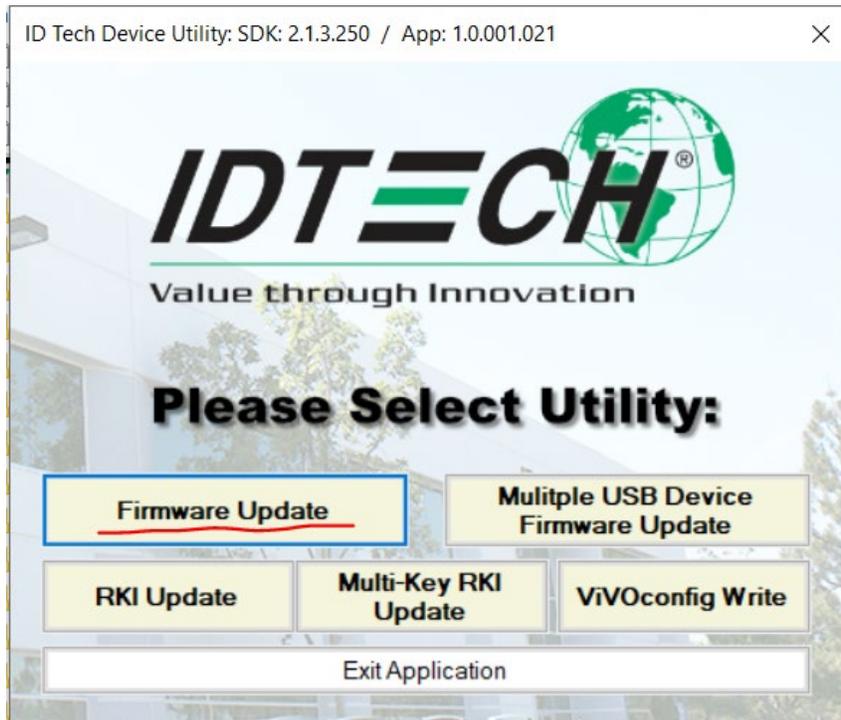
Double click on the file and the application should launch.



## The ID TECH Device Update Utility Software Interface

When you click on the Device Update Utility.exe file, the software should launch, and you should see the following interface shown below:

Figure 5 – Initial ID TECH Device Utility Update Application Splash Screen



Select the “Firmware Update” icon, underlined in red, as shown in Figure 5.

This will take you to the Firmware Update Utility screen, shown in Figure 6.

**Figure 6 – The ID TECH Device Update Utility Software Interface**



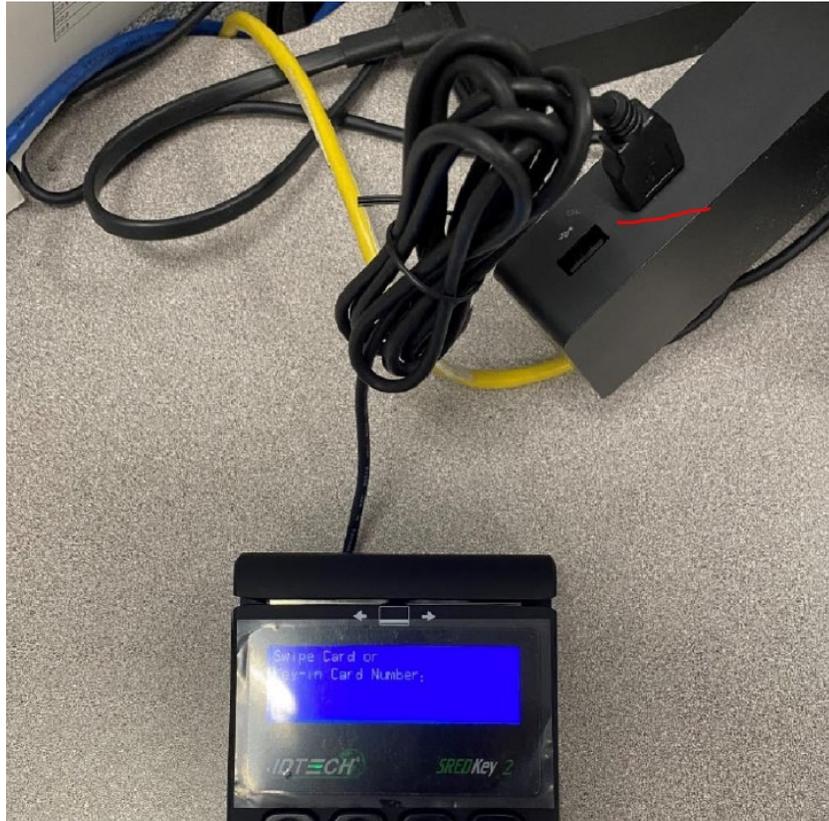
Notice that the software says “No Device” because you will now need to connect your device to your computer or your laptop to update the Firmware.

## Device Specific Instructions for Updating ID TECH Software

### SREDKEY 2

Plug your SREDKey 2 into your computer or USB hub via the USB port.

**Figure 7 – Plugging in the SREDKey 2**



When you plug in the SREDKey 2, take note of the Firmware version that displays momentarily upon booting up.

Assess this version to ensure that your Firmware version is in need of updating by referring to the ID TECH Firmware update guidance link mentioned earlier in this document.

The minimum Firmware for the SREDKey 2 is highlighted in the image below. If your Firmware is less than this, you need to perform the Firmware update.

**Figure 8 – Minimum Firmware Allowed for the SREDKey 2 to Continue Operating Normally**

<p>SREDKEY 2</p> 	<p>IDSK2-5xxxx</p>	<p>v1.01.008.0392.S or higher</p>	<p><a href="#">SREDkey 2 – Knowledge Base</a></p>
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Note in the example device below, the Firmware is lower than the minimum Firmware needed for continued operation.

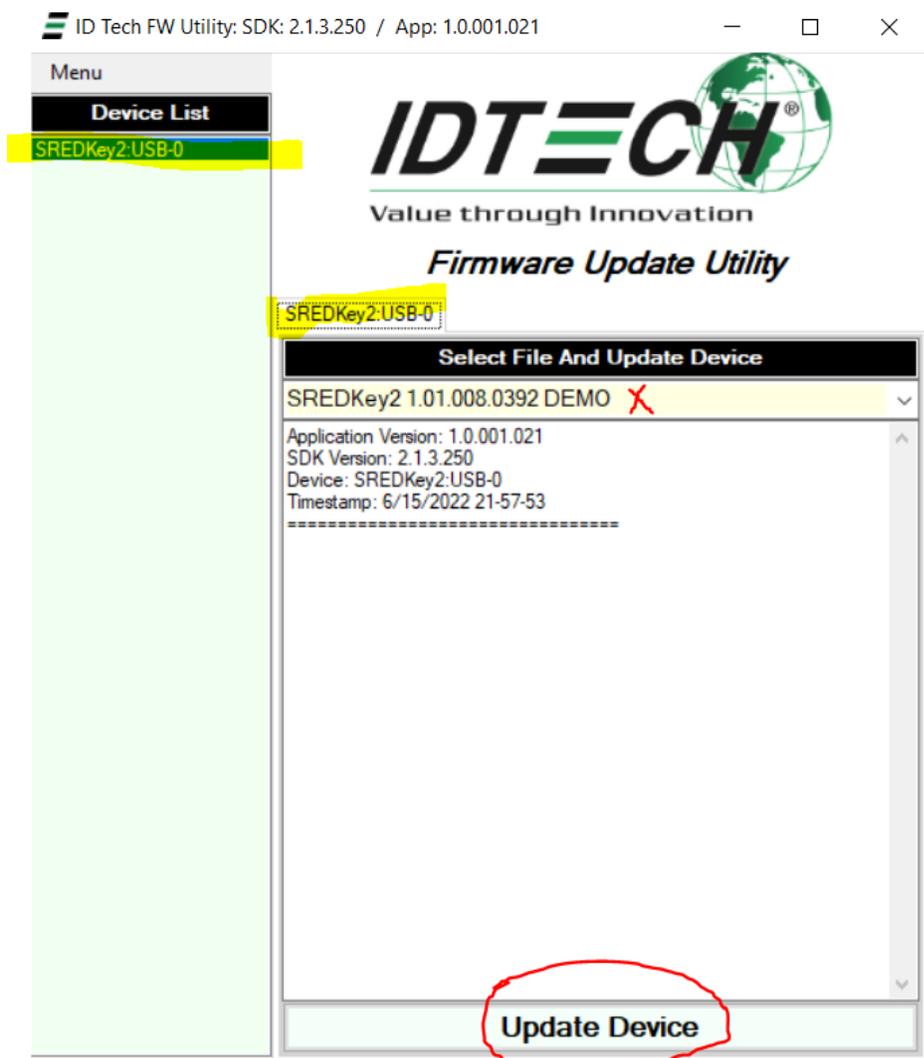
**Figure 8 – SREDKey 2 Out of Date Firmware; Displays Momentarily Upon Boot Sequence**



## Operating the ID TECH Device Update Utility Software

Now that you have plugged in your SREDKey 2 to your laptop/computer/USB hub, the ID TECH Device Update Utility software will automatically recognize the device as shown in the image below.

Figure 9 – ID TECH Device Update Utility Recognizing the SREDKey 2 and Ready for Update



Notice how the software has “found” the device, highlighted in yellow.

The software will automatically provide the necessary Firmware options to update from the “Zip” file you downloaded earlier. Select that Firmware (indicated by the red “X” in Figure 9 shown above) from the dropdown that is appropriate (DEMO vs PRODUCTION).

Next, at the bottom of the Device Update Utility interface, click on the “Update Device” button, shown circled in red in the figure below, to initiate the Firmware process.

Figure 10 – Initiate Firmware Update Process by Clicking on “Update Device”

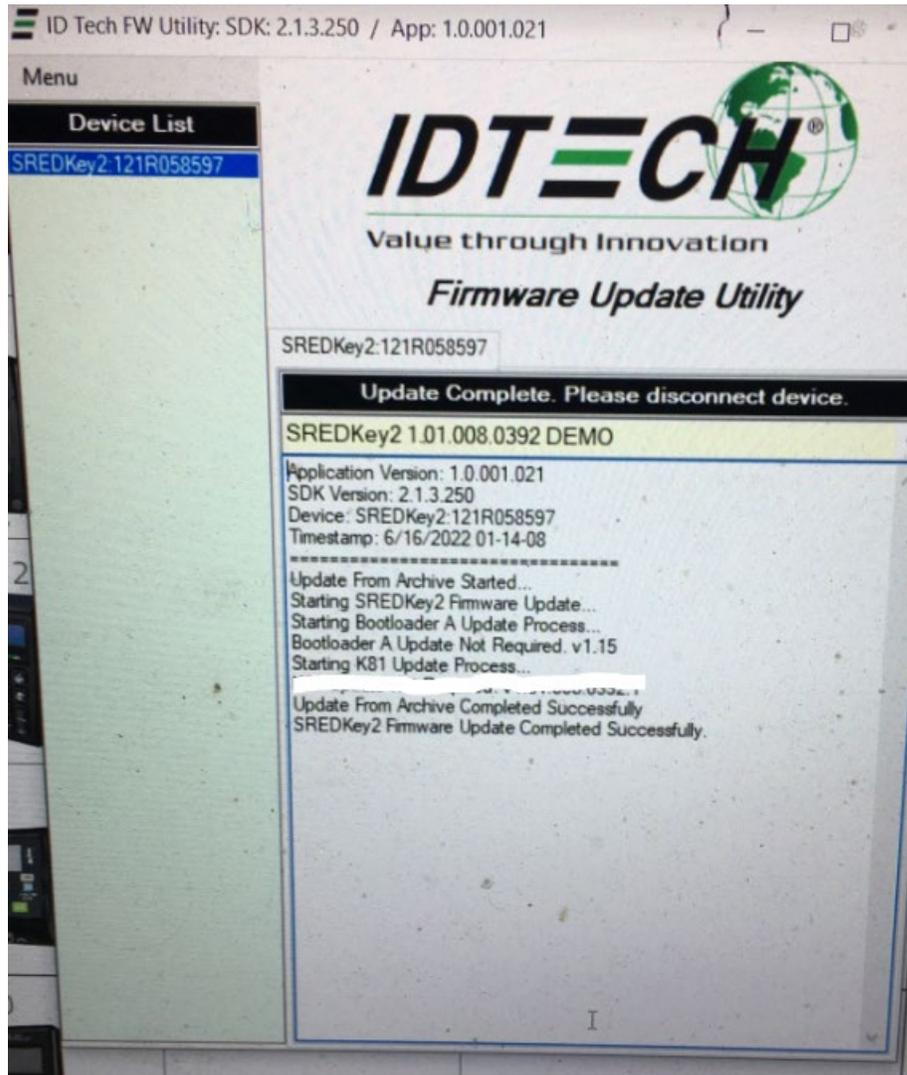


The application will provide a status while it updates the Firmware. You should see a success message like the one shown below in Figure 11 indicating that the Firmware has been updated.

The process is now complete. You can disconnect the SREDKey 2 from your computer/laptop/USB hub and close the Device Update Utility software and return your device back to your production or test environment.

Shown below is an example of a successful installation message from the Device Update Utility software.

Figure 11 – Successful Firmware Update Installation Message from the Device Update Utility



## VP5300

The ID TECH VP5300 can also be updated with the Device Update Utility software, just like the SREDKey 2. Please refer to the section above “The ID TECH Device Update Utility Software Interface” to launch the ID TECH Device Update Utility Software.

### Plug in the VP5300 to a laptop or computer

Using the dual USB and power 9 pin cable, plug the device into your USB port on your laptop or computer as shown in Figure A below.

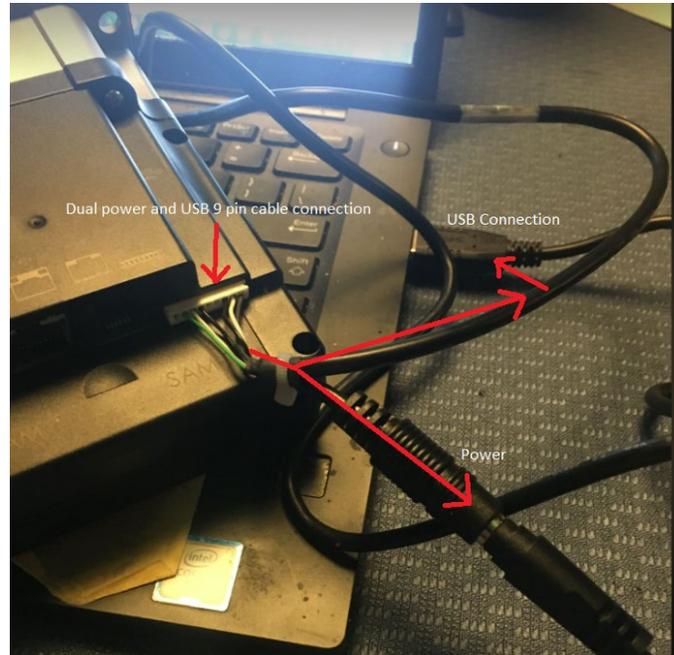


Figure A — plugging in the VP5300

### Launch the Device Update Utility Software to begin the Firmware Update

Click on the “Device Update Utility.EXE” file to launch the Device Update Utility software.

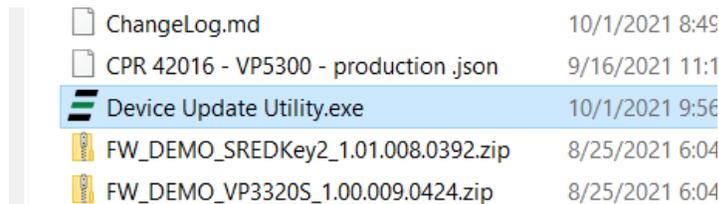


Figure B — Click on the .EXE file to launch the software

The Device Update Utility software will launch. Select Firmware Update as shown below in Figure C.



Figure C – Select Firmware Update

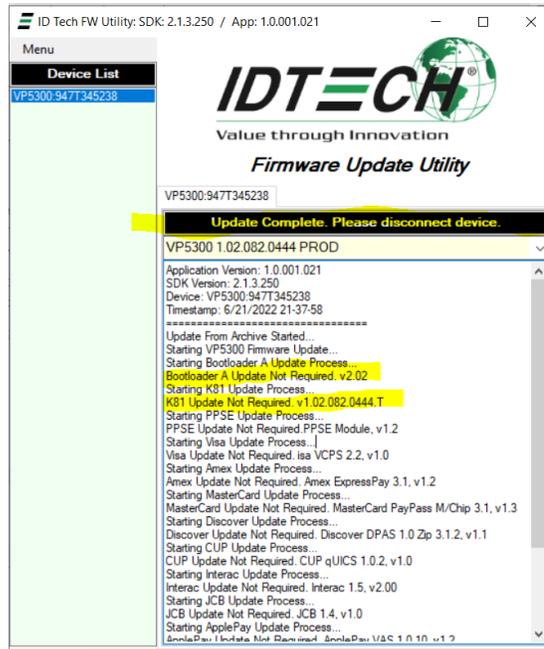
The application interface will launch. It will automatically detect the VP5300 and will also pull the appropriate Firmware file to update. Make sure you place your cursor on it to “select” that file from the drop down, otherwise you will receive an error and the firmware update will fail. If this happens, simply try again and make sure to highlight the Firmware file. See Figure D below.



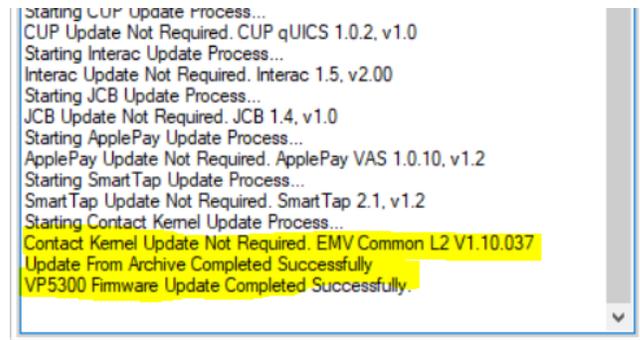
**Figure D – Device Update Utility Interface; Device is automatically identified; Firmware is automatically populated; make sure to “select” the Firmware file.**

Next, click on the Update Device button to start the Firmware update process.

Depending on your device, you may see a number of messages and updates take place or be bypassed if they are not necessary. These updates can be seen below in the message pane of the software shown in Figure E.



**Part I**



**Part II**

**Figure E, Parts I & II — Note the message that the Update is Complete and to disconnect your device. Examples of updates that may or may not be required are highlighted in Parts I & II. Part II shows the Firmware Update Completed Successfully message.**

Your VP5300 has now successfully updated its firmware and should be the following version or higher as noted on the ID TECH website <https://idtechproducts.com/firmware-updates/> and shown below in Figure F.

<p>VP5300</p> 	<p>SPTP2-XXX-XX- XXX-XX</p>	<p>v1.02.082.0444.S or higher</p>	<p><a href="#">VP5300 – Knowledge Base</a></p>
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**Figure F — minimum firmware required for continued operation of the VP5300**

### Verifying the Firmware on the VP5300 (Also works on all other ID TECH devices)

Since the VP5300 is a dip reader terminal with no screen/display/interface, there is no way of knowing if the Firmware update really took place.

ID TECH provides a Universal SDK demo application that can be used for a multitude of testing operations. However, we will only focus on validating the Firmware of the device.

First, download the Universal SDK demo (dot NET SDK demo.zip) from the following link on the ID TECH support portal website:

<https://atlassian.idtechproducts.com/confluence/download/attachments/30479625/dot%20NET%20SDK%20Demo.zip?api=v2>

Next, please read the “Universal Demo Quick Start Guide” located here:

<https://atlassian.idtechproducts.com/confluence/download/attachments/30479625/Universal%20Demo%20QuickStart%20Guide.pdf?version=6&modificationDate=1596041292624&api=v2>

The Universal Demo SDK information page on the ID TECH support portal can be found here: (NOTE: the download has been moved from this page to the link provided above).

<https://atlassian.idtechproducts.com/confluence/display/KB/uDemo+%28USDK+DEMO%29+-+Home>

### Verifying the ID TECH Firmware (for any device) with the Universal SDK Demo tool

Once you’ve downloaded and installed the Universal SDK Demo application in accordance with the guidance provided above from the ID TECH website, launch the application. When the device is plugged in to your laptop/computer, the application will automatically recognize the device that is connected.



**Figure G — the ID TECH Universal SDK Demo application interface**

Notice in the upper left-hand corner under USB, you can see that the application has recognized the VP5300.

Next, in the Green Section named “Commands”, you’ll notice a number of available commands. If you click the plus sign (+) next to “Firmware” to expand it, you’ll see “Firmware Version”.

Select that (highlight the menu item) and click the green “Execute Command” button at the bottom of that column.

This command will return the Firmware version that is presently installed on the device. You’ll notice that is the version necessary for continued operation after August 9, 2022 and that the Firmware update that was executed was successful.

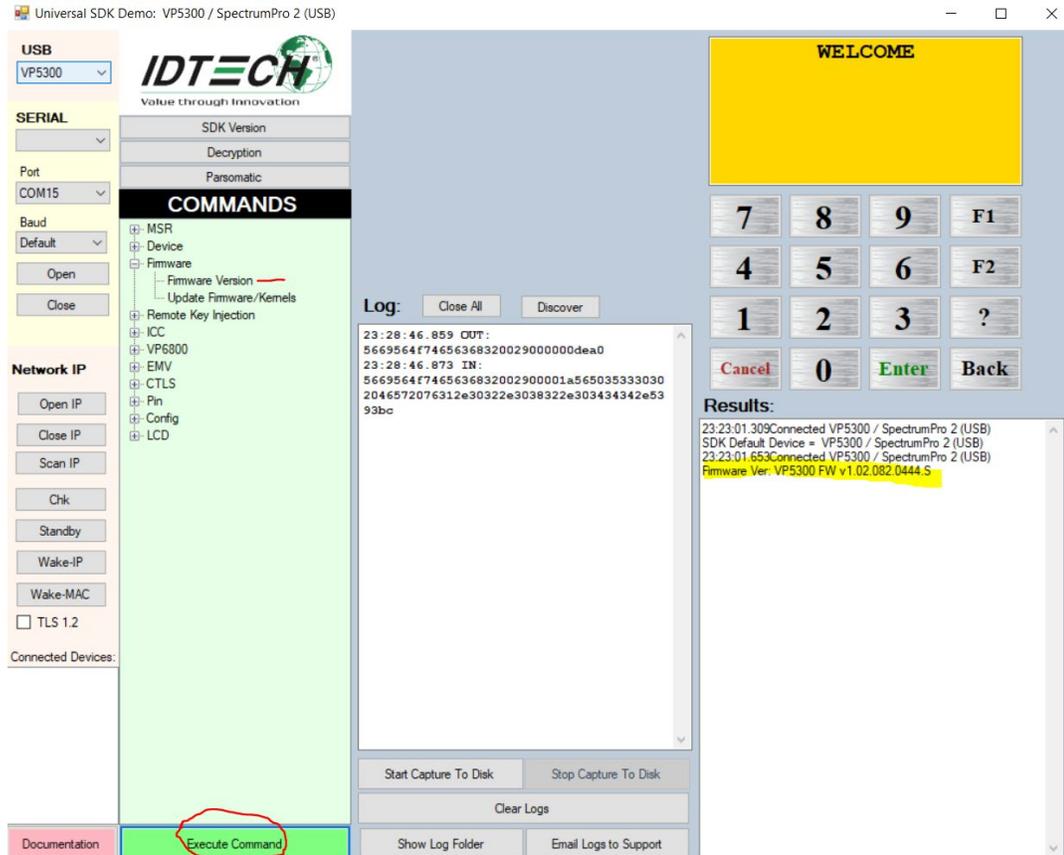


Figure H — After clicking on “Execute Command” when “Firmware Version” is selected in the “Commands” pane, the installed firmware is displayed in the “Results” pane on the right, which illustrates the firmware update was successful.

## VP6300

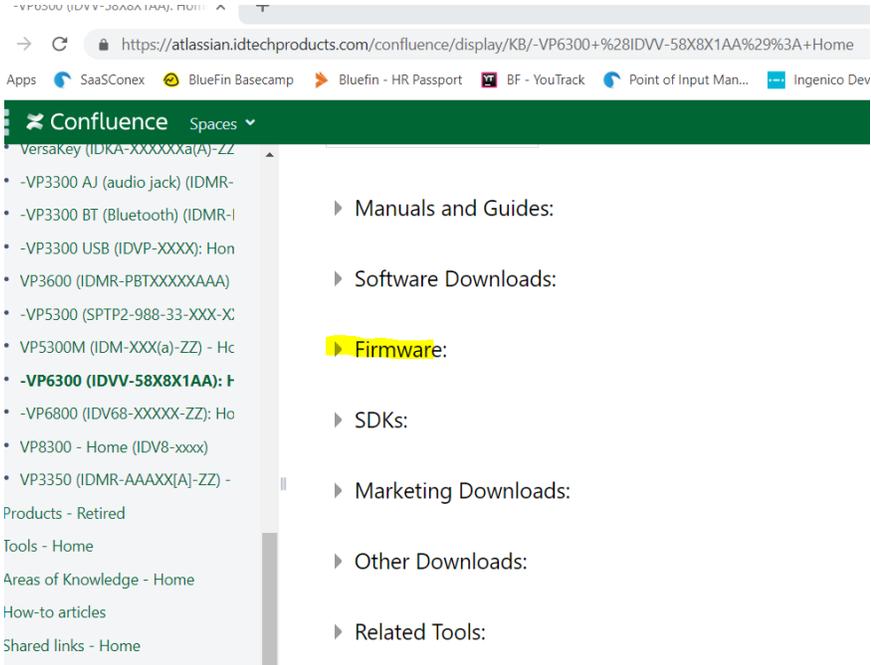
The VP6300 will require a different utility to update the firmware on the device – the DeviceUpdateUtility application will not work for the VP6300. We will use the ID TECH “Bootloader” tool to update the Firmware on the VP6300.

### Get the Required Files from the ID TECH Website

Navigate to the ID TECH Support Portal by visiting this link for the VP6300:

<https://atlassian.idtechproducts.com/confluence/display/KB/-VP6300+%28IDVV-58X8X1AA%29%3A+Home>

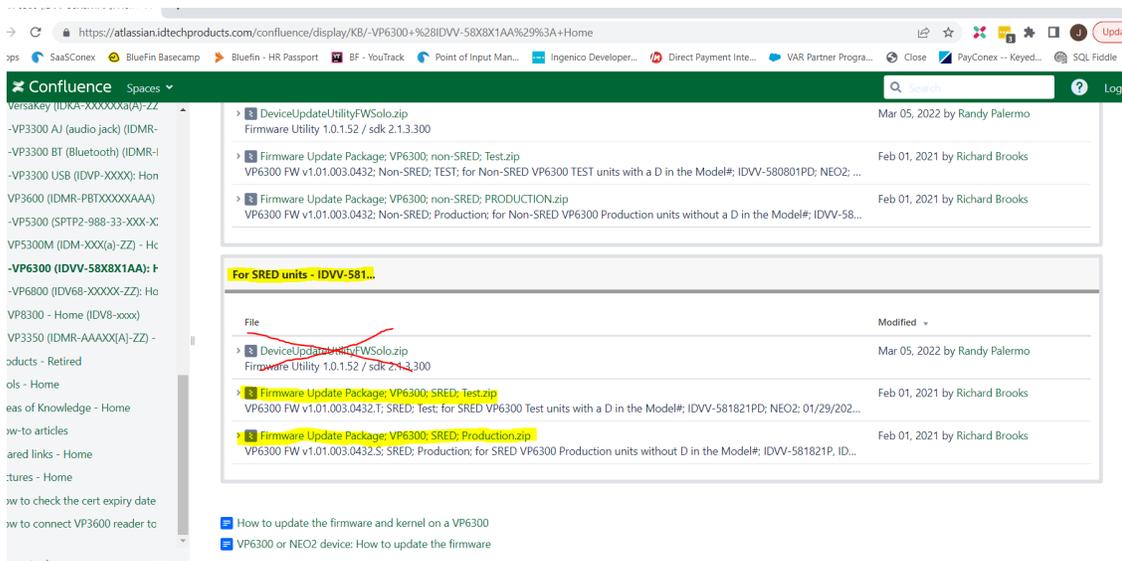
Scroll down on the page to the “Firmware” section and click on it to expand it.



**Figure 12 – Landing Page for the VP6300 on the ID TECH Support Portal**

Scroll down to the section “For SRED units – IDVV 581...” – you do NOT want to download from the section above it, that is for NON-SRED devices.

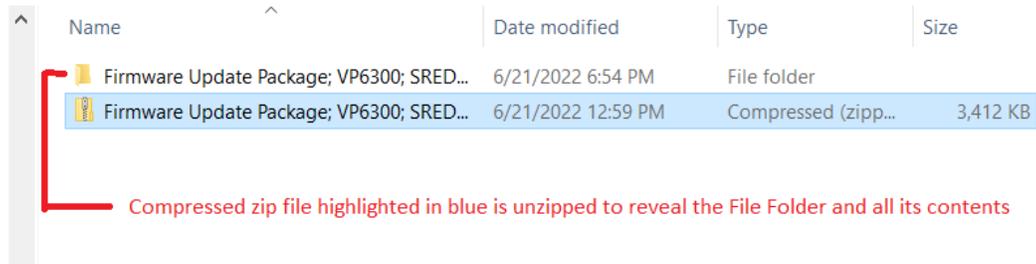
Depending on whether you have a production device or your IT team has a test device used for integrations, you will want to download the appropriate Firmware Update package. Do NOT use the “DeviceUpdateUtilityFirmwareSolo.zip” file.



**Figure 13 – download section for SRED ID TECH VP6300 devices**

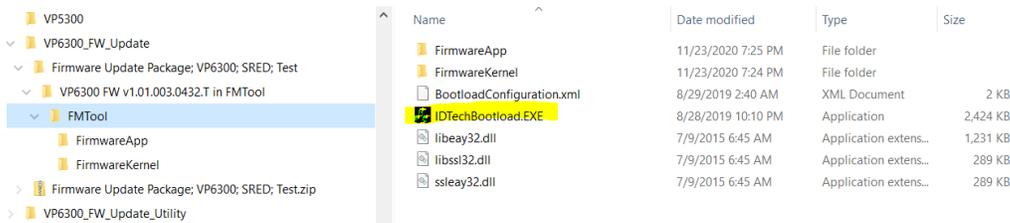
Download the TEST or PRODUCTION Firmware package to the directory of your choice and use an unzipping utility (refer to the “unzipping” instructions in the SREDKey2 section) to “unzip” the file.

When you unzip the file, it will create a file folder as the top/parent directory for all of its contents, shown below in Figure 14.



**Figure 14 – unzipped Firmware Update Pkg file folder above blue highlighted zip file**

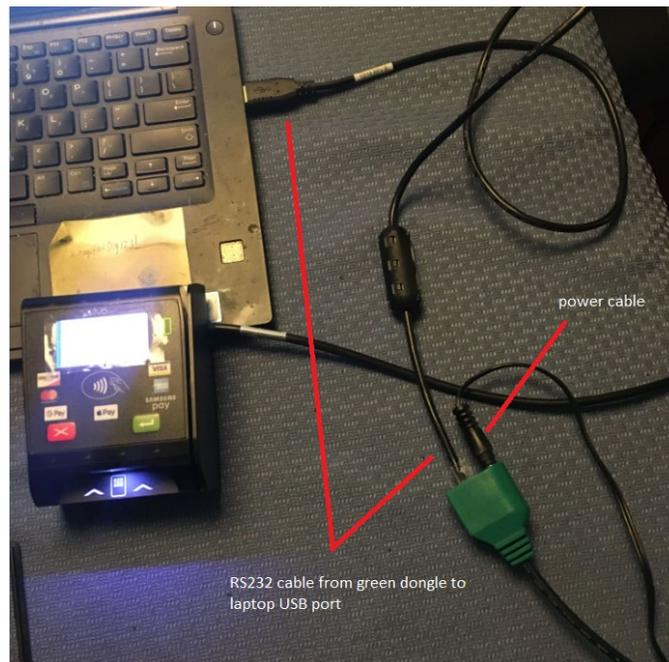
Click on the file folder above the blue highlighted zip file and navigate to the “FMTool” directory. There you will see a file named “ID TECHBootload.EXE” – this is the ID TECH Bootloader software. It is a stand-alone application; no installation is necessary for it to run. Simply double click on the file and the application will launch.



**Figure 15 – Navigating to the FMTool directory to launch the “ID TECHBootload.EXE” software**

## Connect the VP6300 to your computer/laptop

Plug in your ID TECH VP6300 via USB to your laptop as shown below in Figure 16:



**Figure 16 – Connecting VP6300 to laptop**

### Launch the ID TECH Bootloader Software

Clicking on the “ID TECHBootload.EXE” file, as described in Figure 14, will launch the application. You will see the following interface:

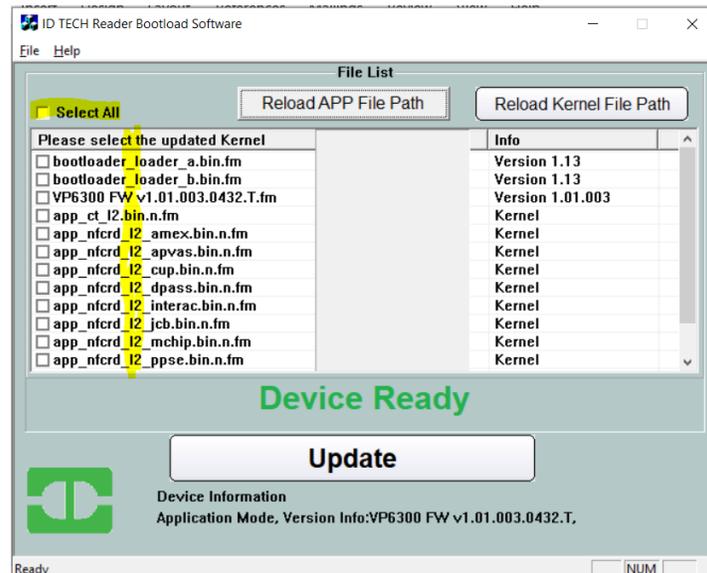


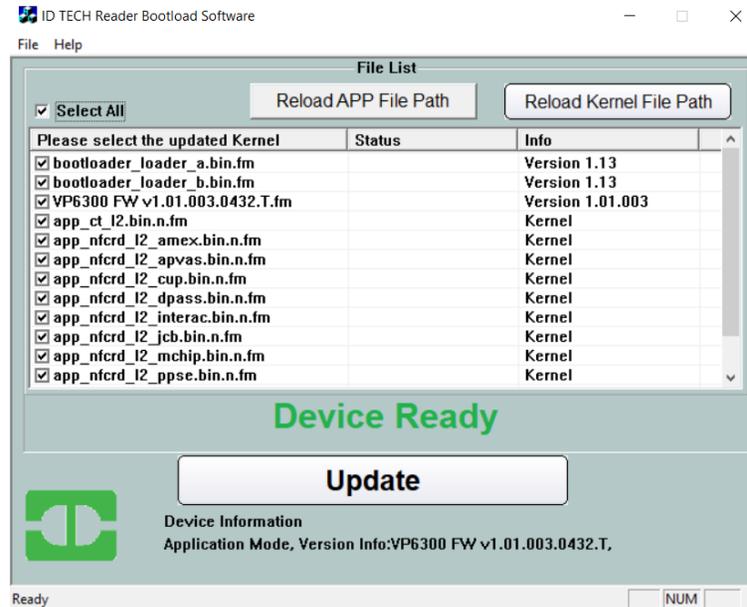
**Figure 16a – ID TECH Bootloader initial/splash screen**

Bluefin recommends utilizing a USB connection to your laptop/computer to perform this update.

Select “USB HID/RS232” and click OK.

The Device Update configuration screen will launch.





**Figure 17 – Bootloader Software Kernel and Application selection screen with device plugged in indicating “Device Ready” and all files selected in second image.**

The Bootloader Software will automatically load the Kernel and Application files from the ID TECH Firmware Update Package directory that you previously downloaded. Checking the “Select All” button will select ALL files.

Click on the “Select All” button so that ALL of the files are selected.

Click on the large “Update” button to begin the Firmware upgrade process. A window will pop up asking you to confirm the update and display a list of all the files selected for update as shown below in Figure 18.

Click on the Continue button shown in Figure 18 below.

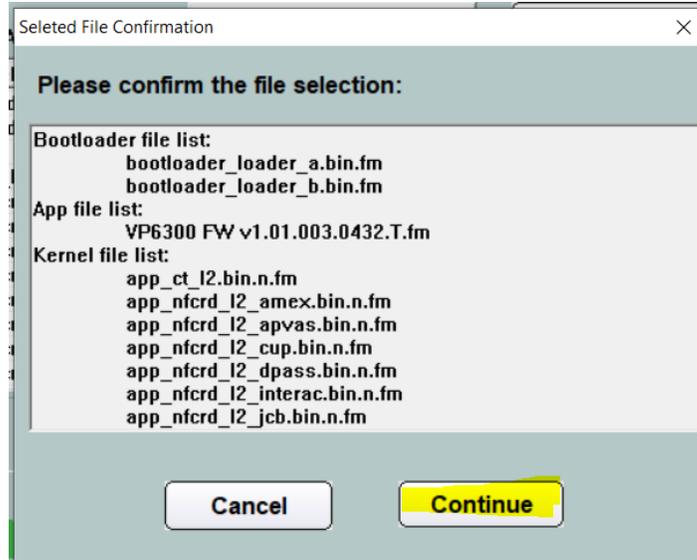


Figure 18 – Confirm the Update and select “Continue”

The device will begin to update.

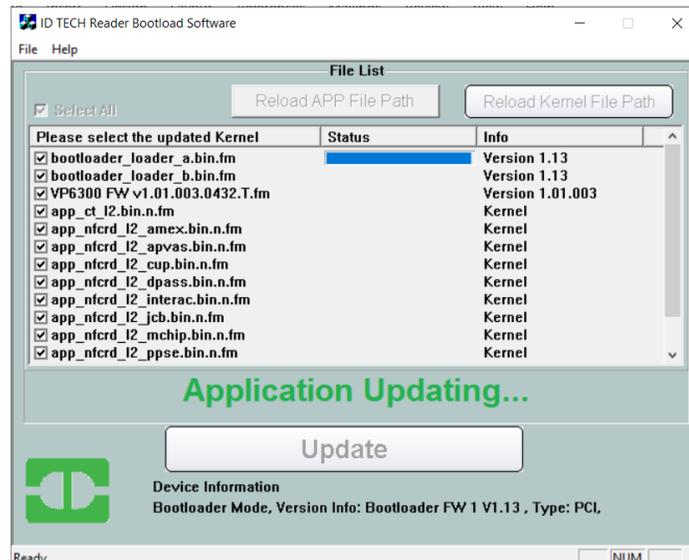
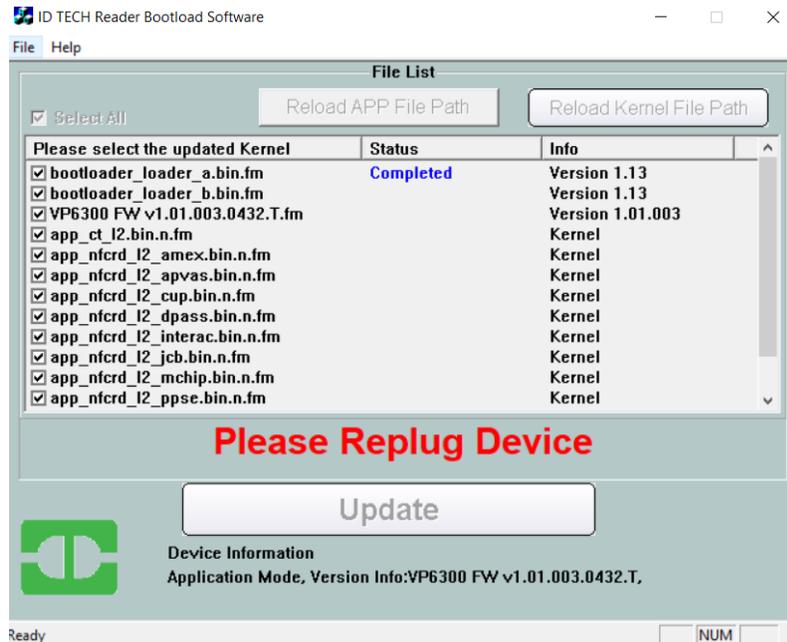


Figure 19 — Update in process

## IMPORTANT

If, after the “bootloader\_loader\_a.bin.fm” file loads and you see a “Completed” message in the status section but you receive a “Please Replug Device” message as shown in Figure 20, there is no need to unplug the device via USB from your laptop or computer.

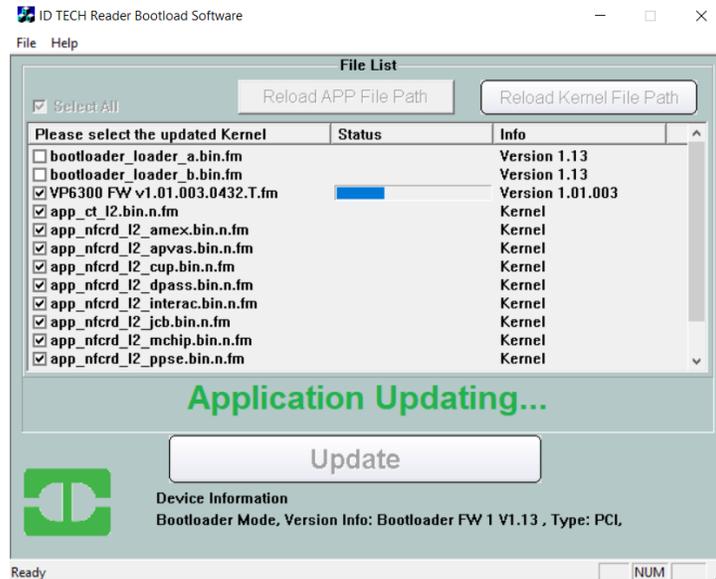


**Figure 20 — Bootloader A file loads successfully but app issues warning to replug device**

Simply close the application and restart it.

However, this time, select ALL of the files EXCEPT the “bootloader\_loader\_a.bin.fm” file since it already successfully loaded.

If this the same thing happens after the “bootloader\_loader\_b.bin.fm” successfully loads, shut down the application again, restart it, and select ALL of the files EXCEPT the two bootloader files mentioned above that successfully loaded, as shown in Figure 21 below.



**Figure 21 — both Bootloader A&B files after successfully loading, issued Please Replug Device warning; application was shut down, all files selected EXCEPT the two Bootloader files.**

At this point, the Firmware files and all of the Kernel files will load in succession without error, without the need to restart the ID TECH Reader Bootload Software.

When complete as shown below in Figure 22, your Firmware update is finished and you can shut down the ID TECH Reader Bootload Software, disconnect your device from your laptop and return your device to your Production or Test environment.

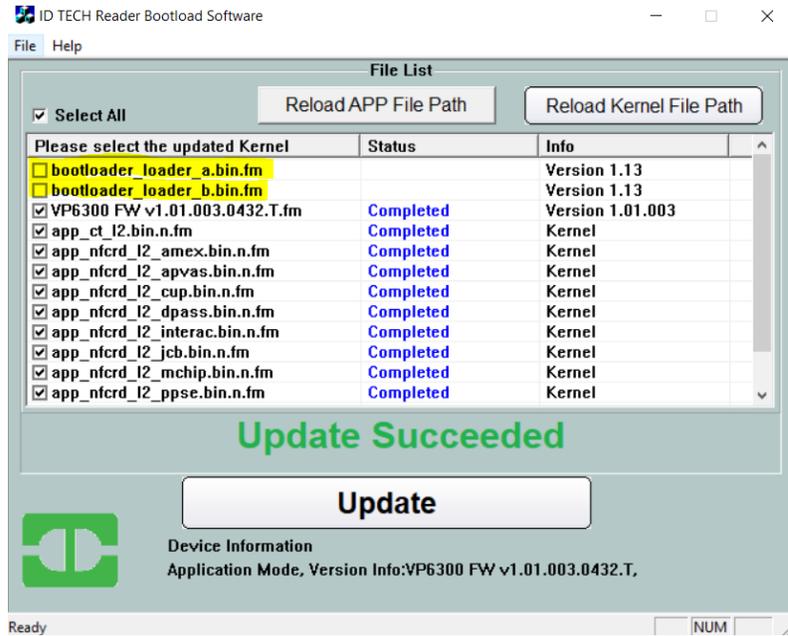


Figure 22 — Firmware update is entirely complete