

GPro: Centrifuges Simulator Manual

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VERSIONS AND AUTHORS

Version	Author	Date
V1.0	Roopkumar K	2019-04-30
V1.1	Roopkumar K	2019-05-10
V1.2	Roopkumar K	2019-06-09

VERSION TRACKING

Date	Version	Change	Section
2019-05-10	V1.1	Event Log exports added custom folder in the same directory	3.8
2019-05-10	V1.1	For Import and Export Programs added custom folder in the same directory	3.9, 3.10
2019-06-19	V1.1	For Database folder created.	3.1

APPROVED BY:

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1. Preface

1.1 - Purpose of the document

This document defines the workflow of the General-Purpose Centrifuge—both the ventilated and refrigerated models. Differences between the two will be noted throughout this document.

This document will be used in companion to a dedicated style guide for the product in PDF format (created and maintained by the UI designer), related files and assets shared in the Zeplin application (created and maintained by the UI designer), a separate Excel document detailing content for alarms and alerts (created and maintained by the product manager), a separate Word document with all information overlay text (created and maintained by the product manager), and an Engineering specification (created and maintained by the R&D engineers).

Terminology

Alarm	An alarm state can be identified by the red overlay bar with the snooze button and the alarming bell icon or the snoozed bell icon. Will require user to acknowledge to clear from the list. All alarms will be included in the event log.
Alert	An alert state can be identified by the yellow ½ overlay bar and the yellow triangle icon. Will require user to acknowledge to clear from the list. All alerts will be included in the event log.
Error	An error can be identified by the full screen red alarm overlay. This will be displayed when the user cannot correct the issue without restarting the unit. These errors will self-correct and the user will not have to acknowledge them. All errors will be included in the event log.

2. General

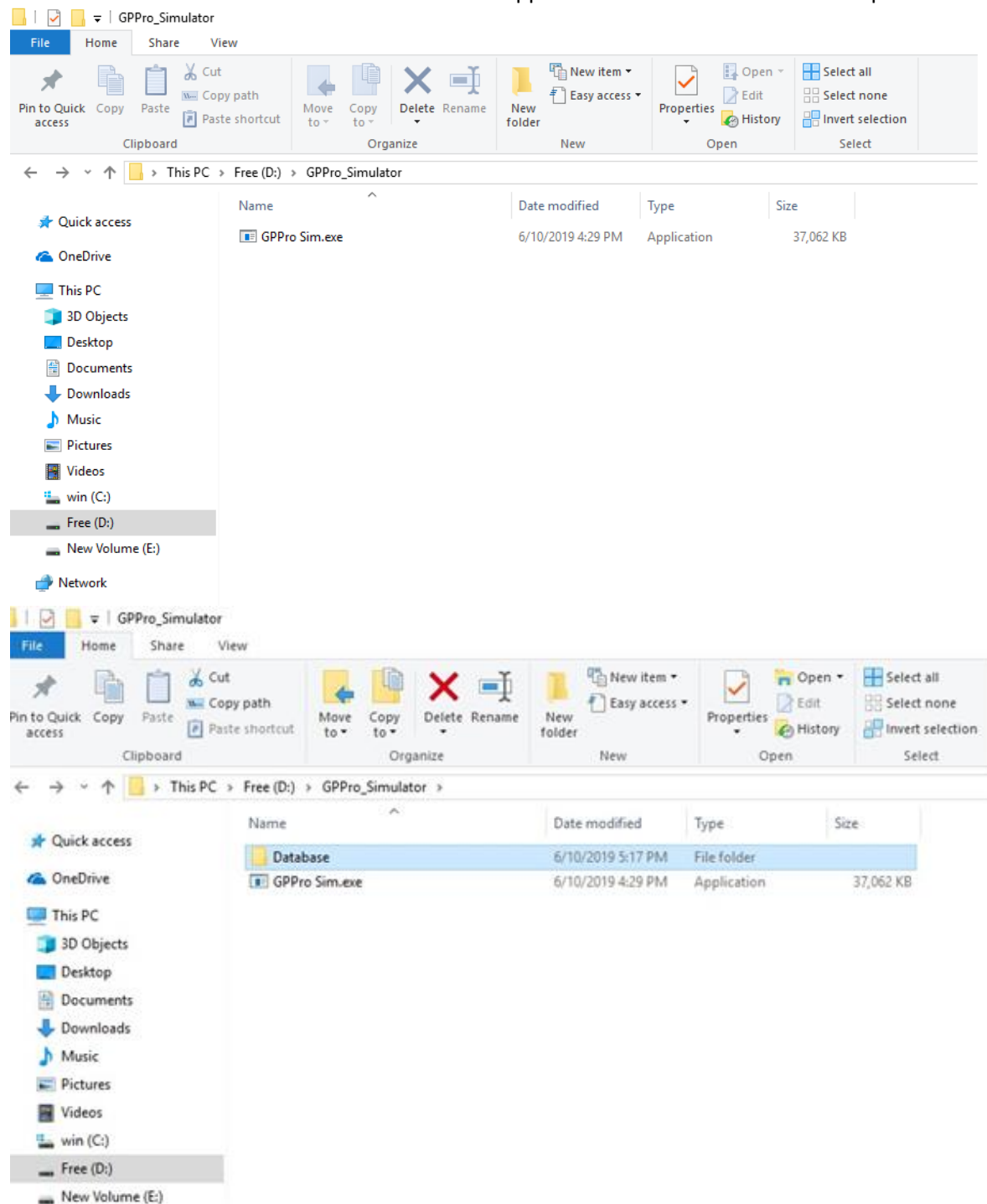
2.1 - Screen Specifications

ID	Requirement
2.1.100	A 7" diagonal screen with a resolution of 800x480 equating to an effective resolution of 133ppi has been identified.
2.1.110	Capacitive touch-screen with gesturing capability.
2.1.120	The UI is divided into 4 main areas: Region 1 (R1) which includes unit name, date/time, unit health status, and the login area. Region 2 (R2) displays the main parameters. Region 2B (R2B) shows action areas – buttons for interacting with content in R2 and contextual information regarding what is happening on that particular screen. Region 3 (R3) is the main navigation area and is visible at all times on all screens, unless otherwise noted in this document.
2.1.130	 The diagram illustrates the UI layout with the following components: Region 1 (R1): Top section containing 'Unit Name', 'Date/Time', 'Unit Health Status Area', and 'Login Area'. Region 2 (R2): Middle section containing 'Main Parameters'. Region 2B (R2B): Bottom section containing 'Action Area for Region 2' and 'Context Info'. Region 3 (R3): Vertical sidebar on the left containing 'Main Screen Navigation (Home, Settings, Event Log, etc.)'.

3. Screens

3.1 Start the Application

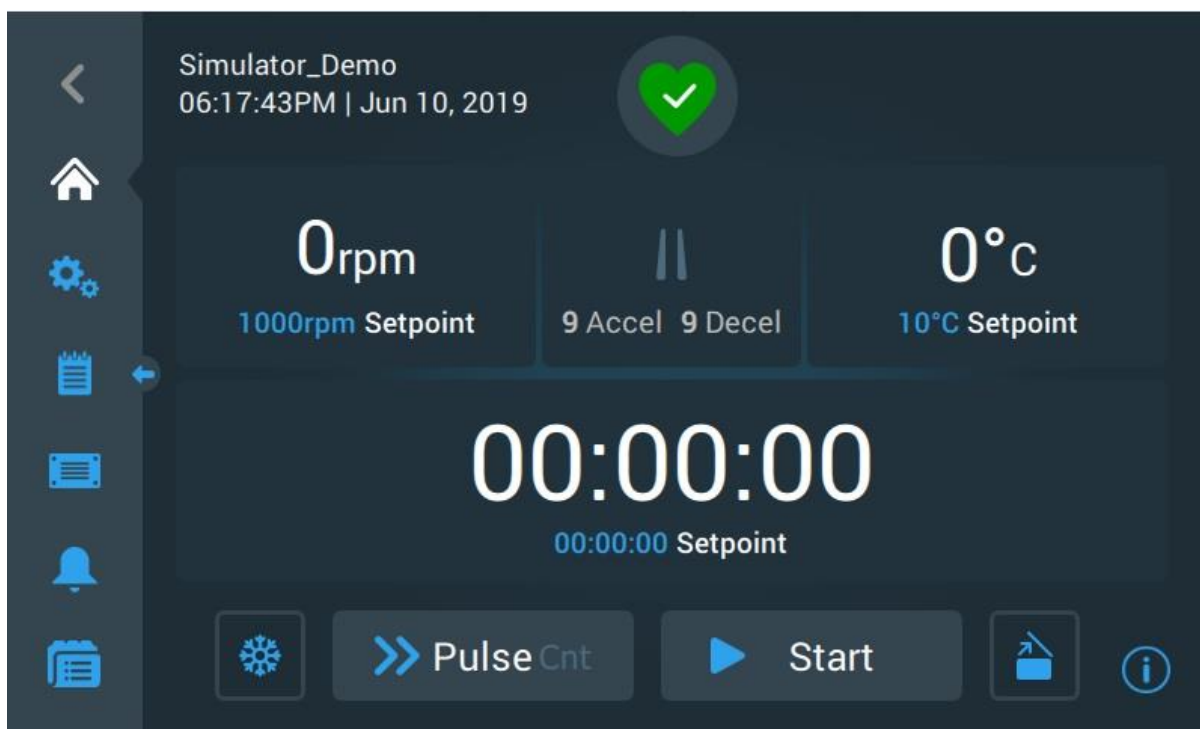
The Application will look the following in the folder or Directory. Double click on the application to start then “Database” folder will be created then application will start with “Start Setup” screen.



The application 1st time with “Start Setup” will be like following mock-up

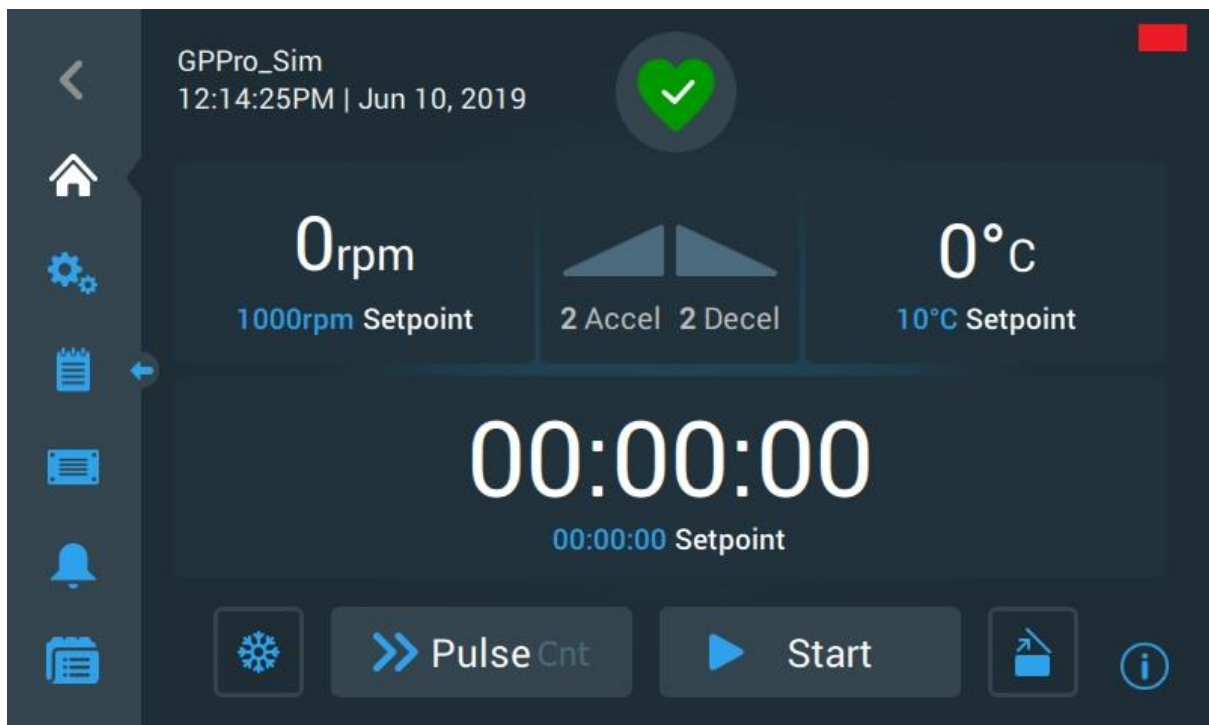


All the “Start Setup” as per the GPro application. Once all the setup has done completed the final home screen (Refrigerated) visual mock-up

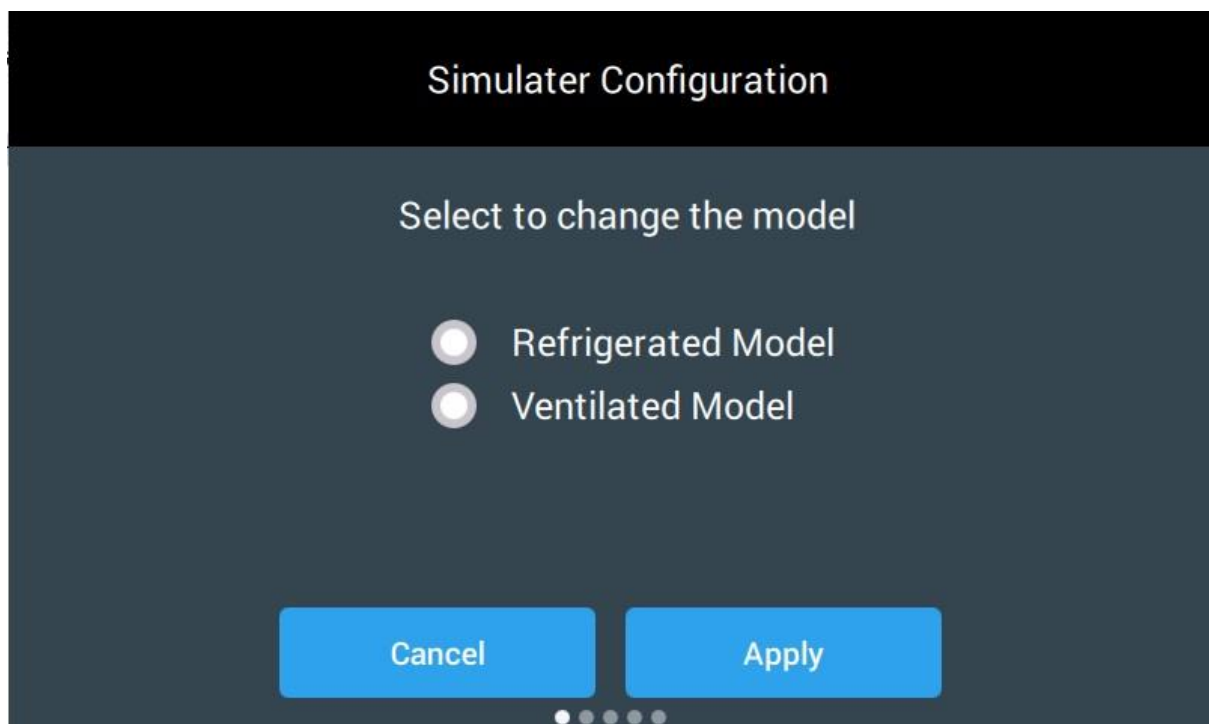


3.2 Conversion of Mode (Refrigerated to Ventilated)

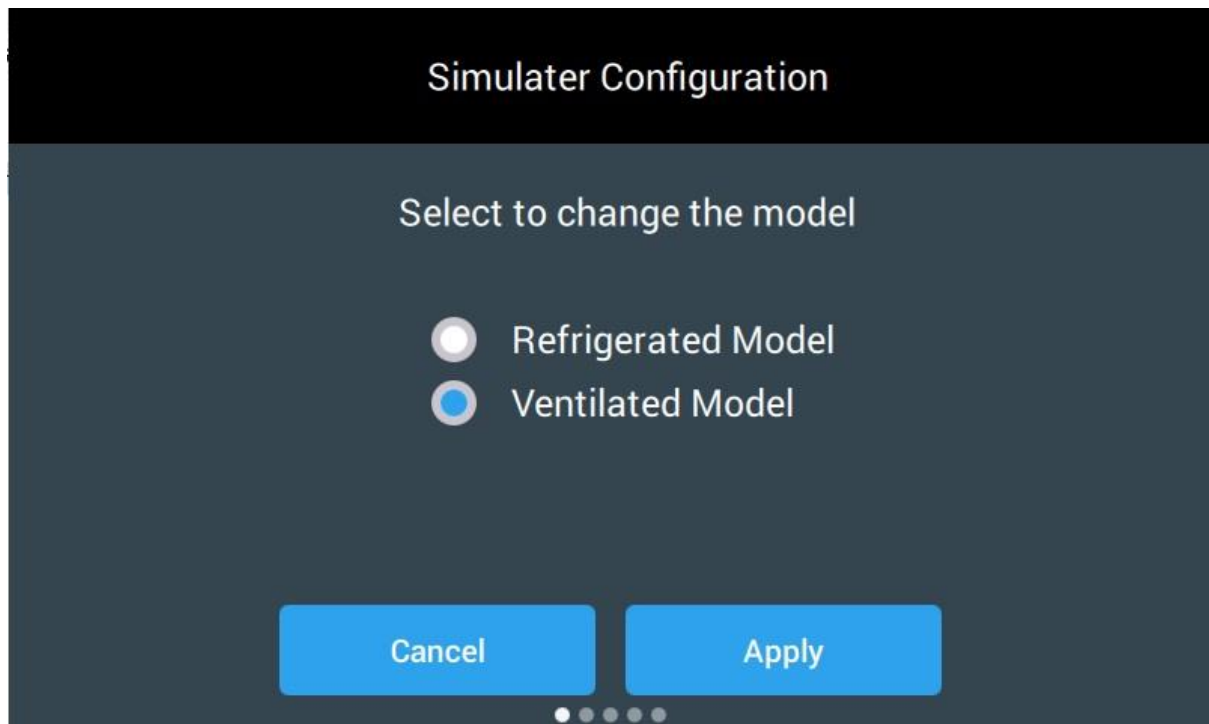
To convert the Mode (Refrigerated to Ventilated) or (Ventilated to Refrigerated), navigate to the Simulator configuration screen by long press on the right top corner as shown in the below mock-up



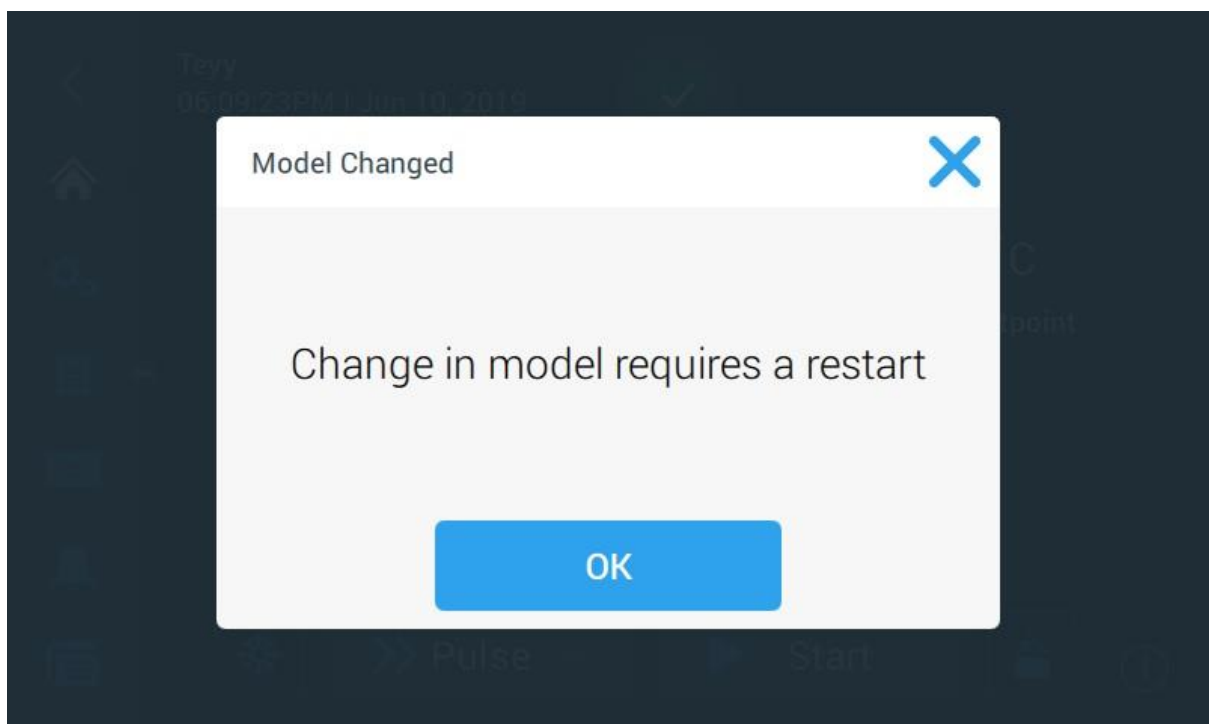
Then select the Mode and click on the Apply button



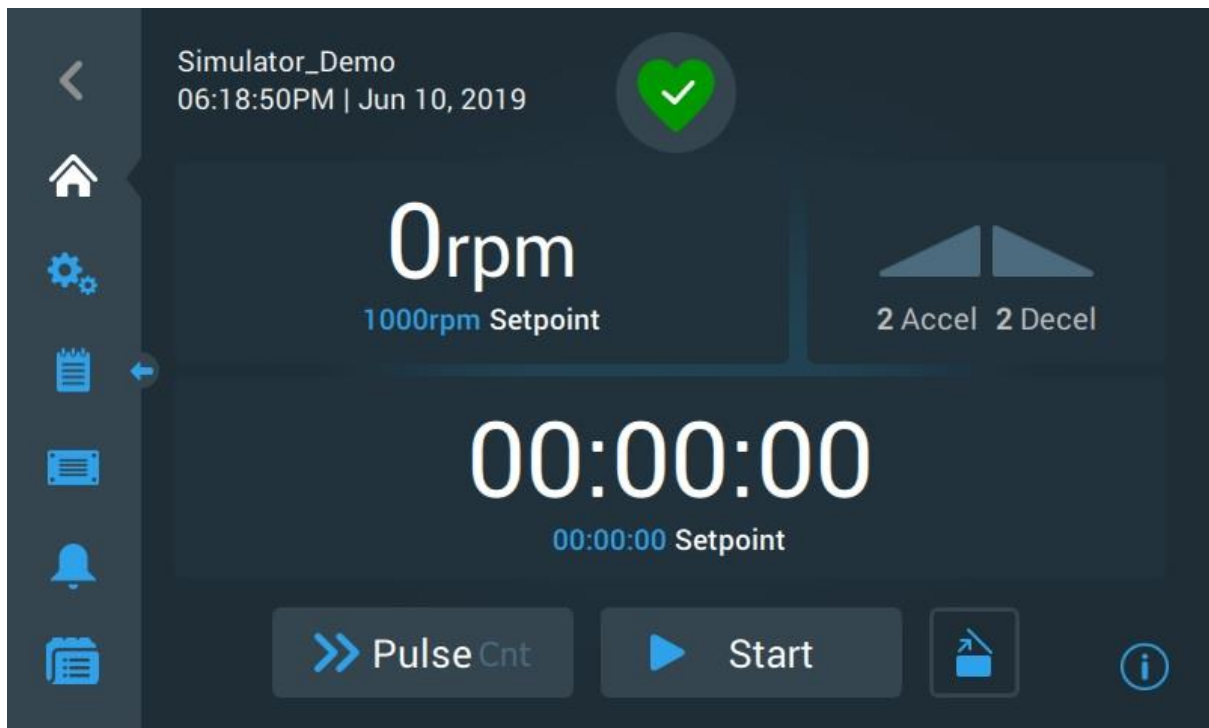
Select Ventilated mode and click on the Apply button.



For changing the Mode, Application needs to restart, on click of OK button application will shutdown, user needs to start again by double click on the “GPPro Sim.exe”. Now the application will convert to Ventilated Mode.



The Ventilated visual mock-up looks like below

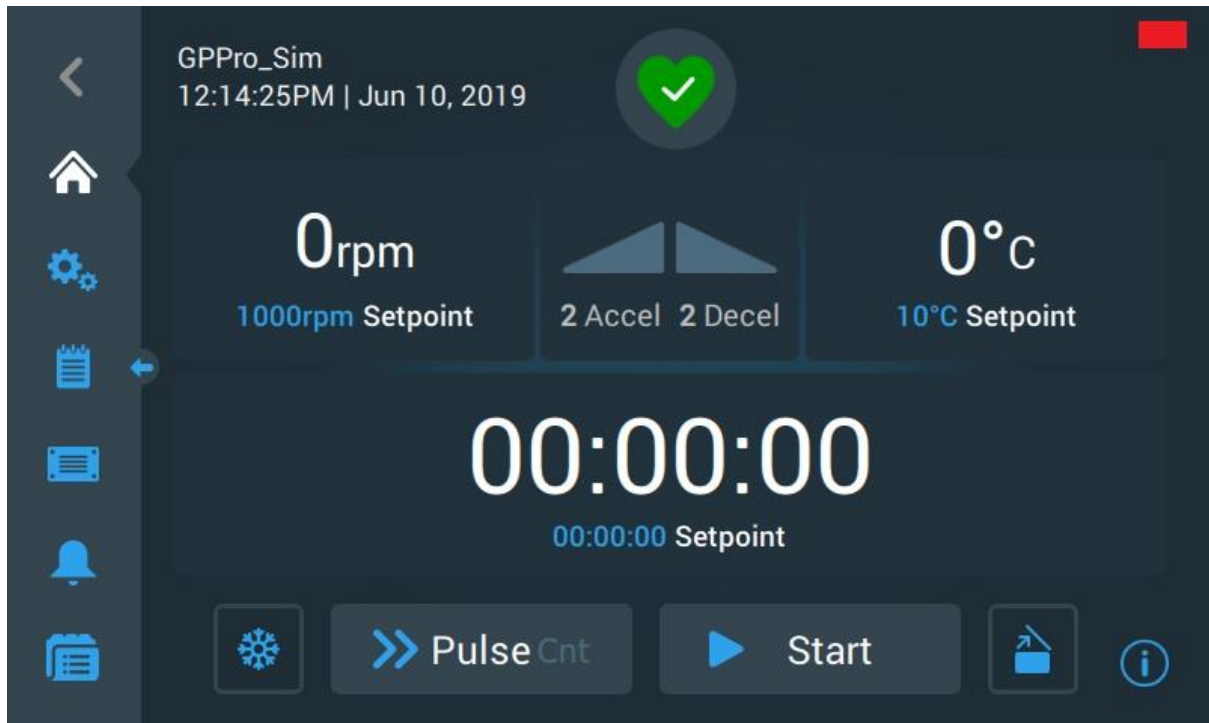


3.3 Conversion of Mode (Ventilated to Refrigerated)

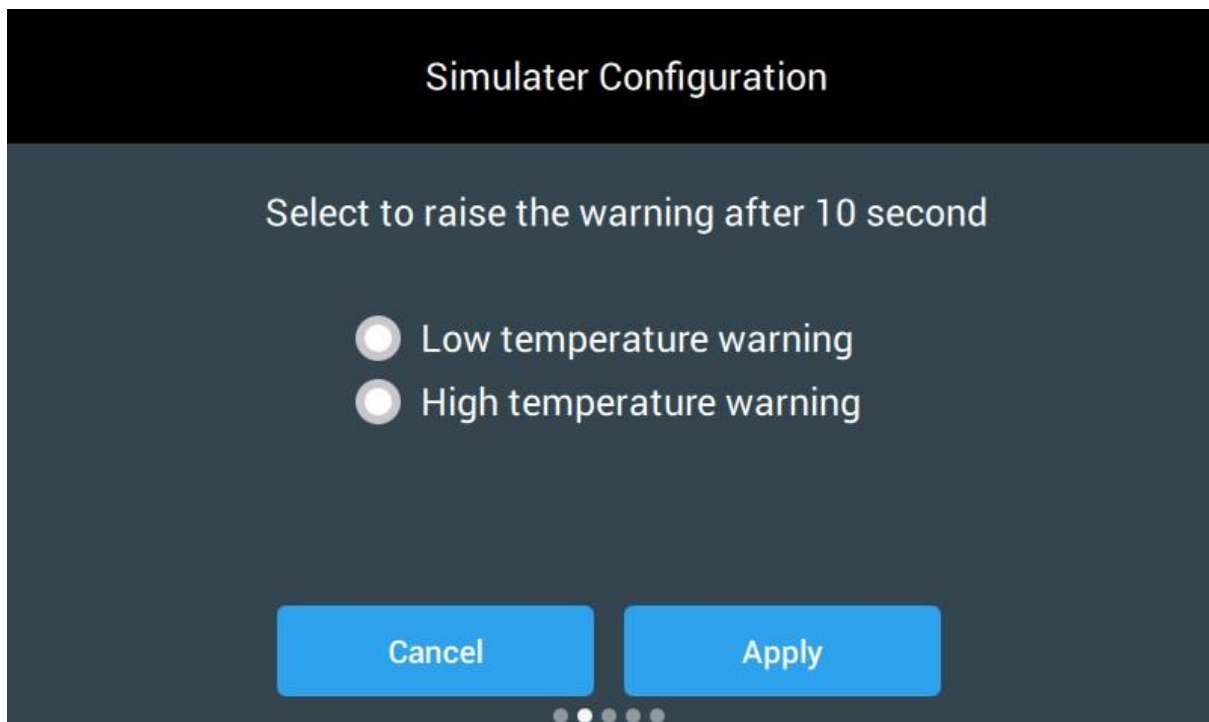
The same steps should be taken for convert “Ventilated to Refrigerated” mode.

3. 4 Creating Warning

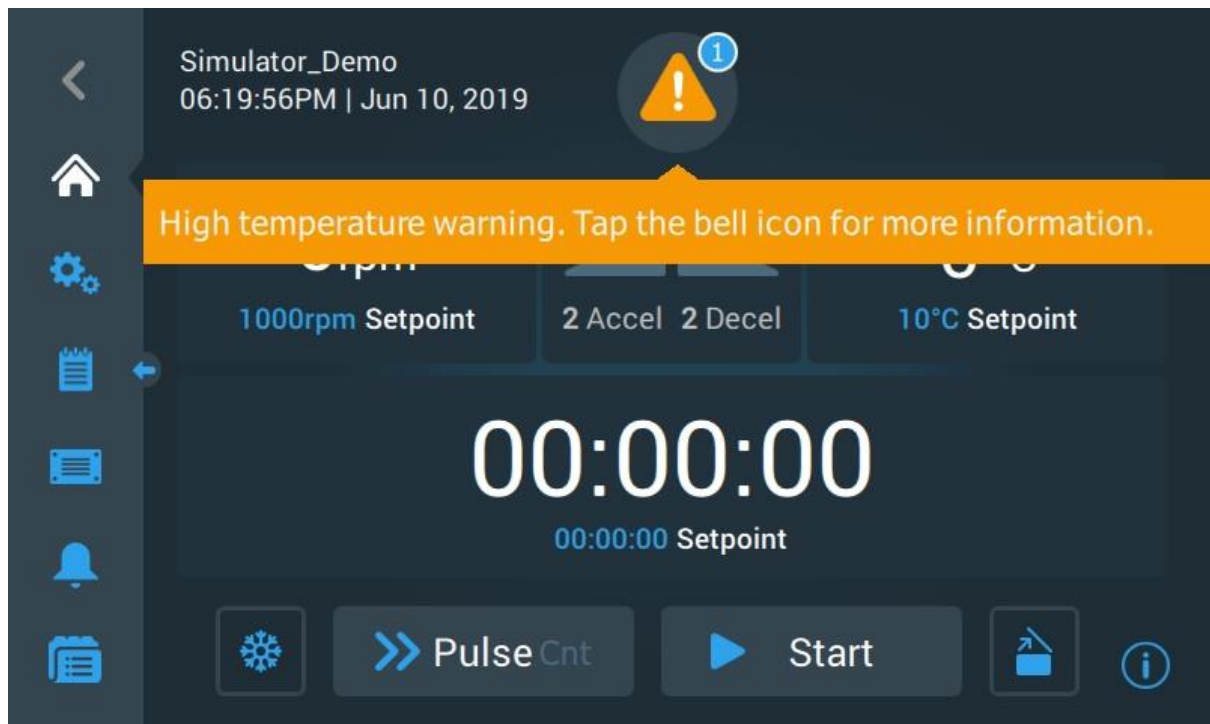
To create a warning navigate to the Simulator configuration screen by long press on the right top corner as shown in the below mock-up



Swipe to the next screen for creating the warning, select any one option to generate the warning.



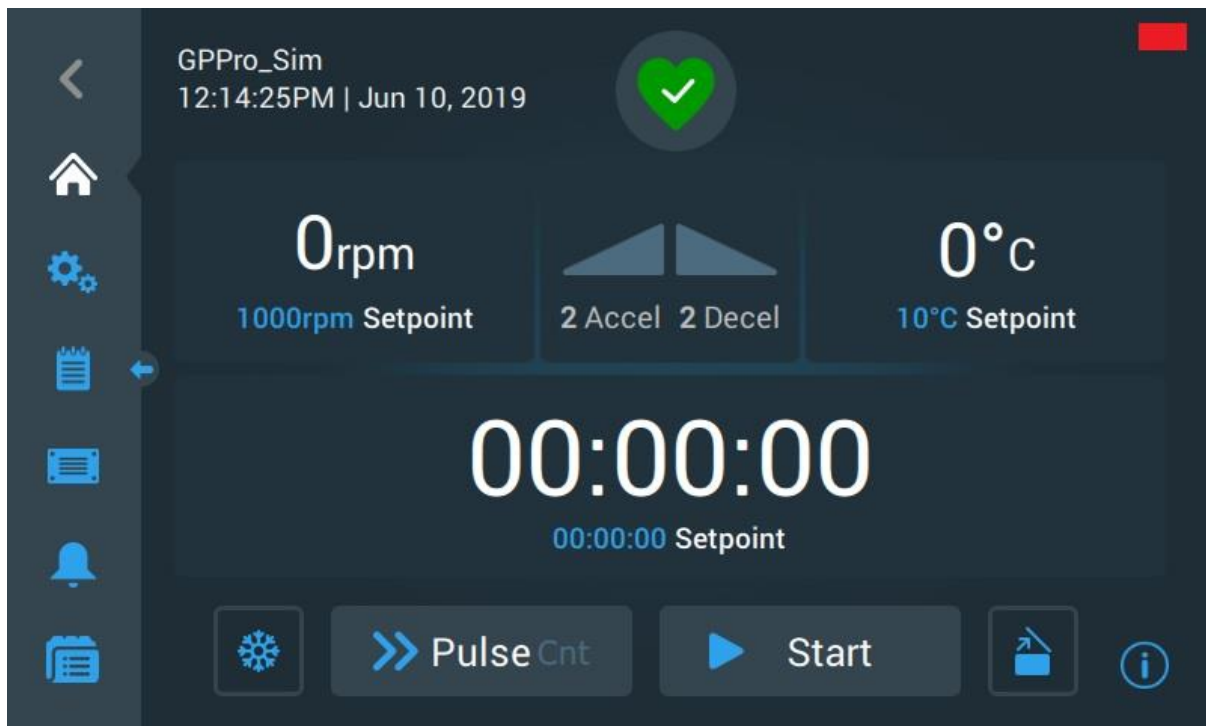
On click of the Apply button application will navigate to the respected home screen then in the span of 10 seconds time “warning” will be generated.



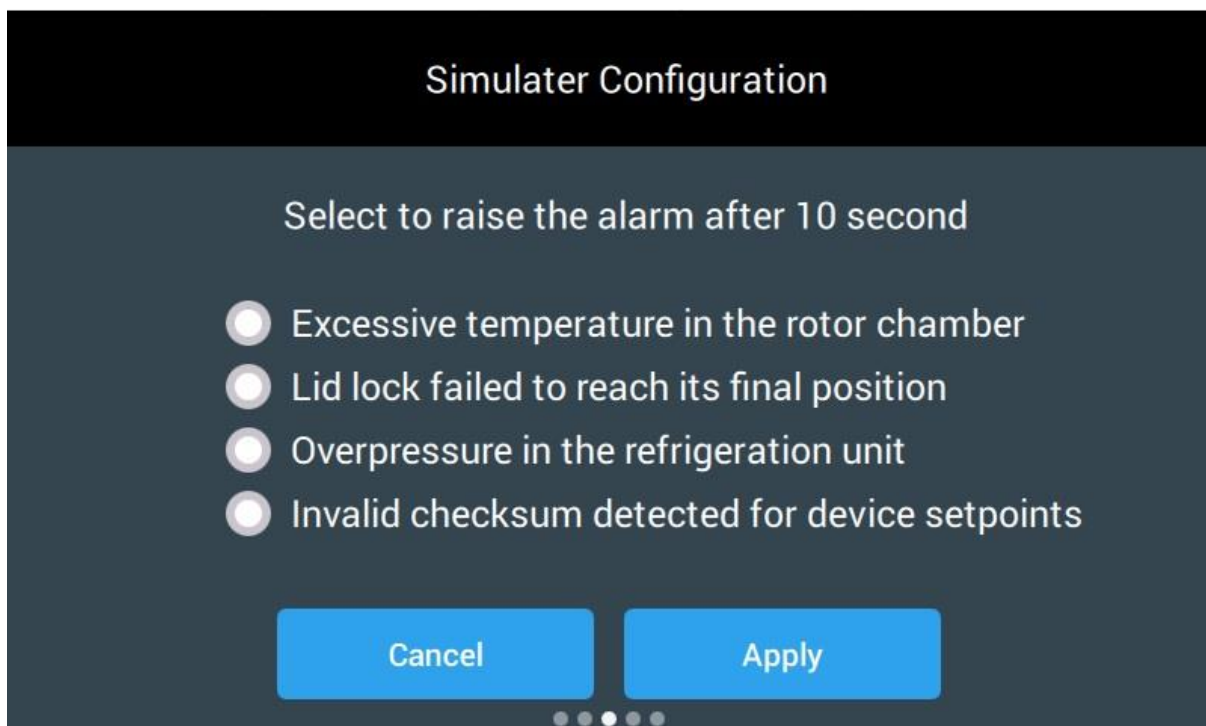
To clear the “warning” the same steps to follow as per the GPPro application.

3.5 Creating Alarm

To create a warning navigate to the Simulator configuration screen by long press on the right top corner as shown in the below mock-up



Swipe to the 3rd screen for creating the Alarm, select any one option to generate the Alarm.



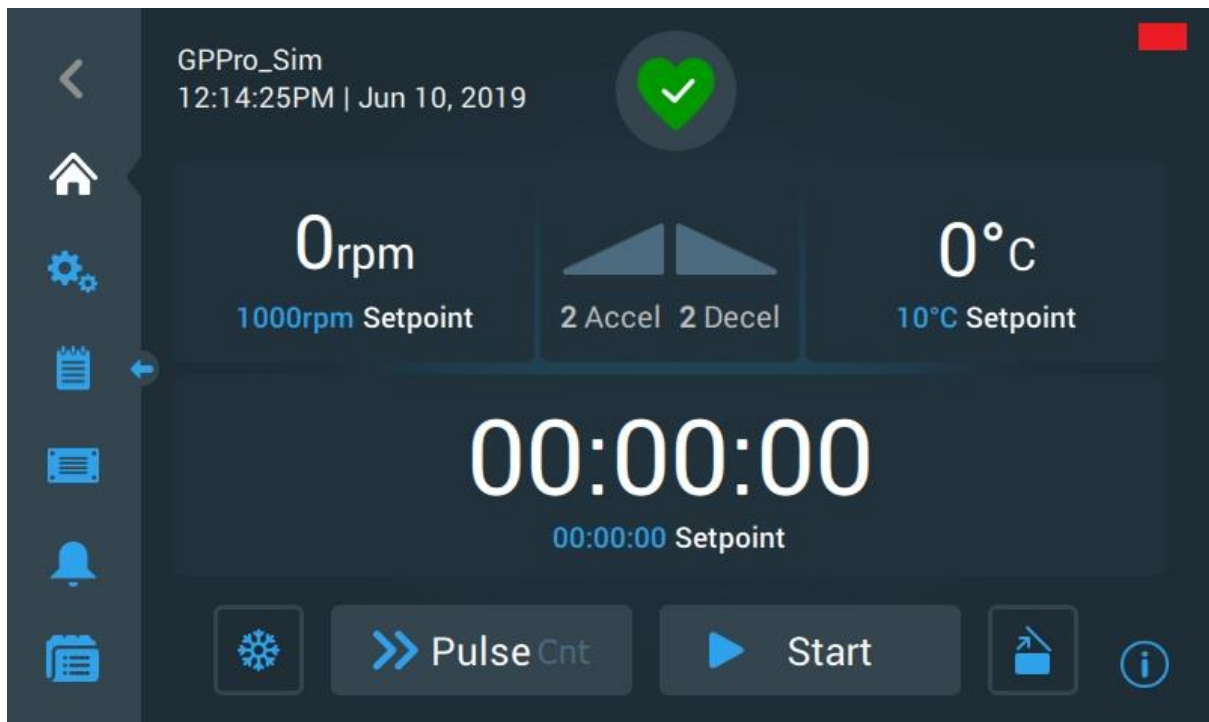
On click of the Apply button application will navigate to the respected home screen then in the span of 10 seconds time “Alarm” will be generated.



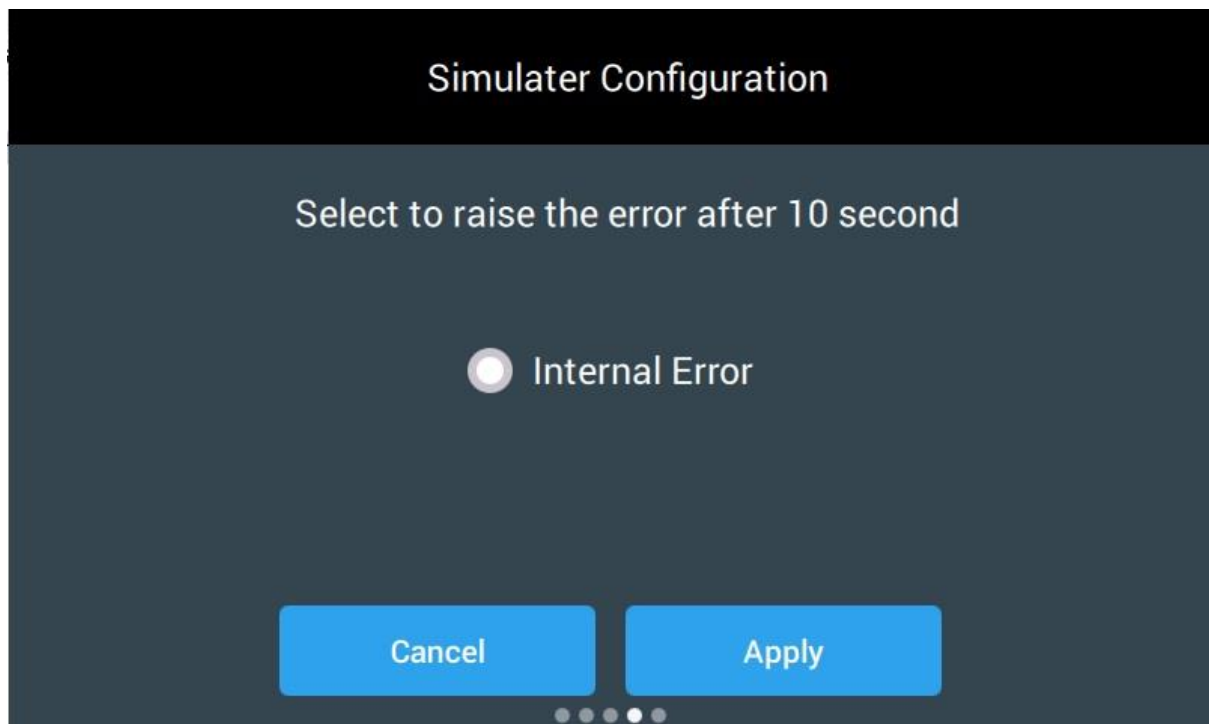
To clear the “Alarm” the same steps to follow as per the GPPro application.

3.6 Creating Full screen error

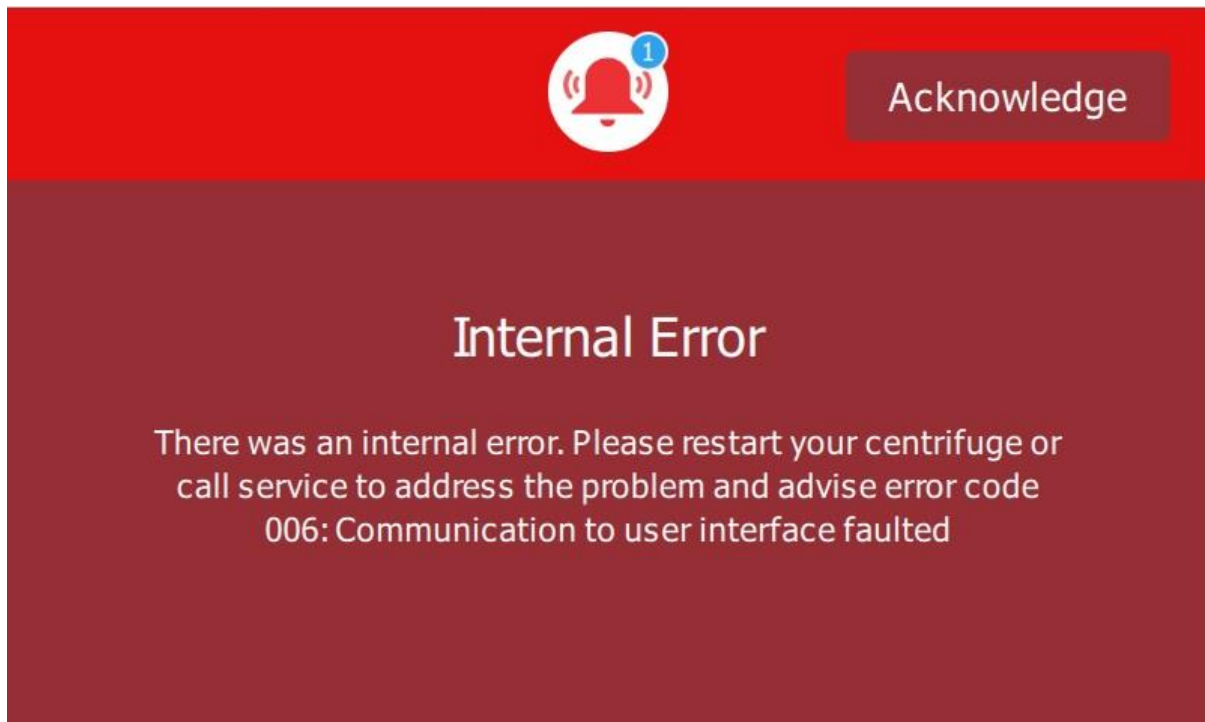
To create a warning navigate to the Simulator configuration screen by long press on the right top corner as shown in the below mock-up



Swipe to the 4th screen for creating the Internal Error, select any one option to generate the Internal Error.



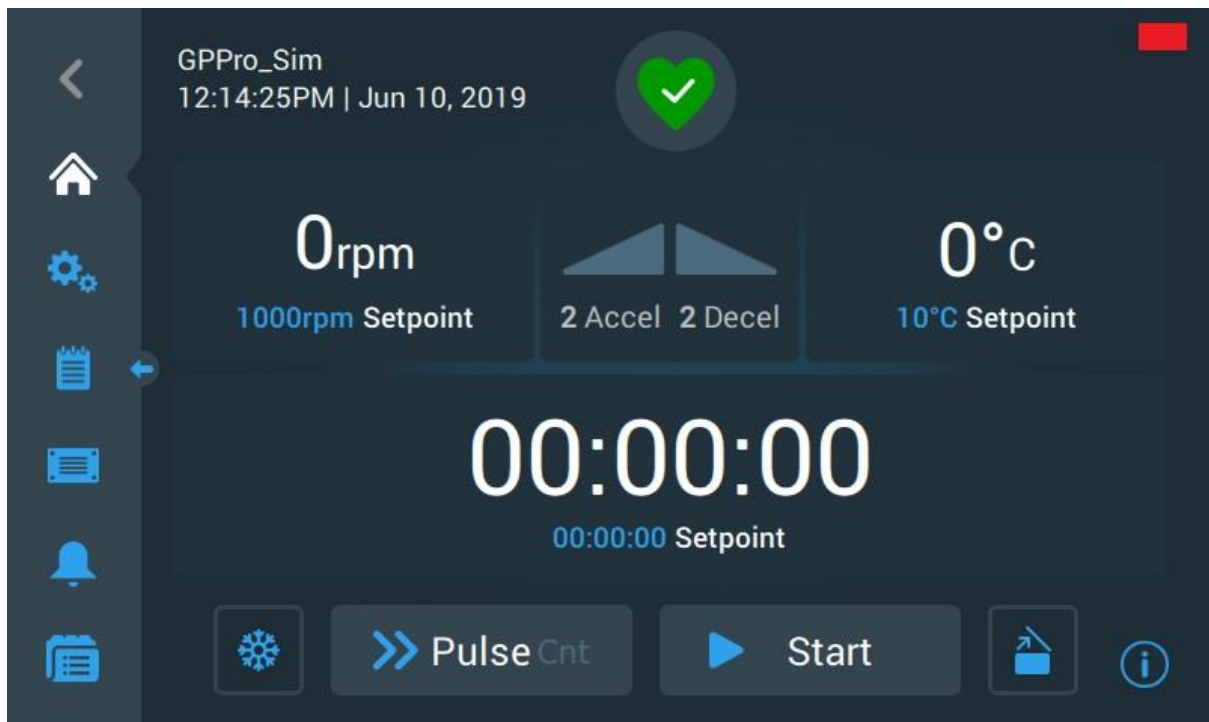
On click of the Apply button application will navigate to the respected home screen then in the span of 10 seconds time “Internal Error” will be generated.



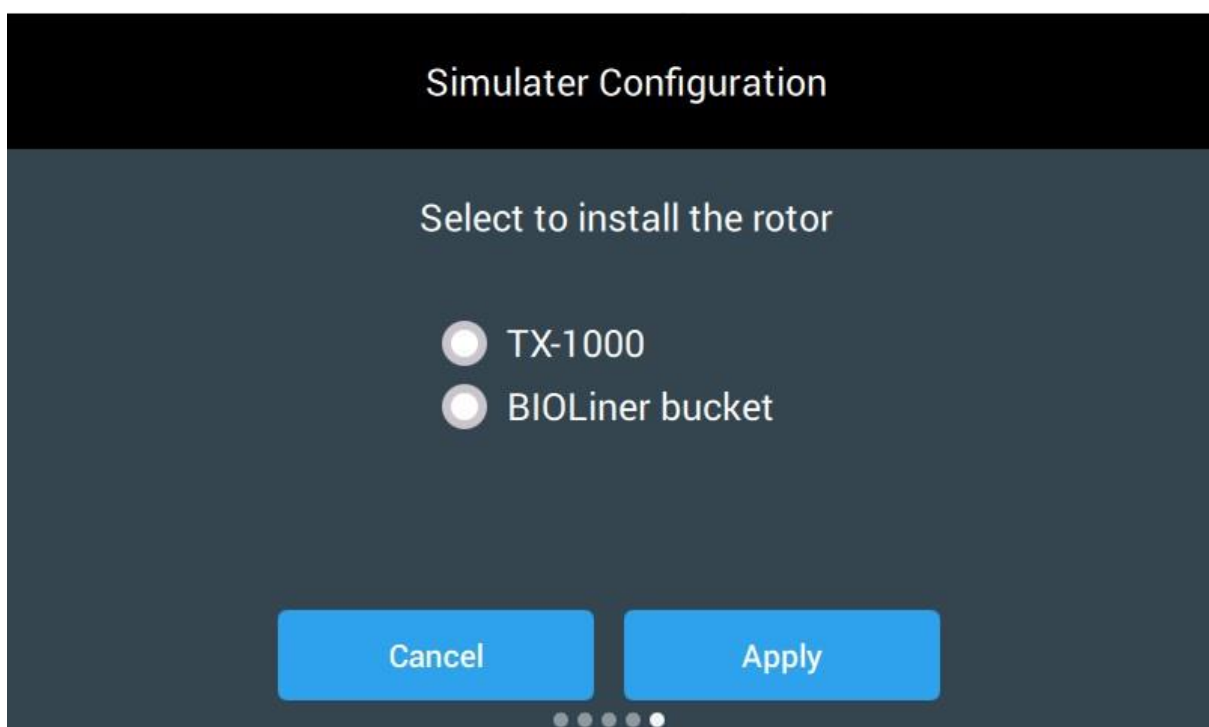
To clear the “Internal Error” the same steps to follow as per the GPro application. For the above situation user has to kill the application and restart.

3.7 Rotor Selection

To select the rotor navigate to the Simulator configuration screen by long press on the right top corner as shown in the below mock-up



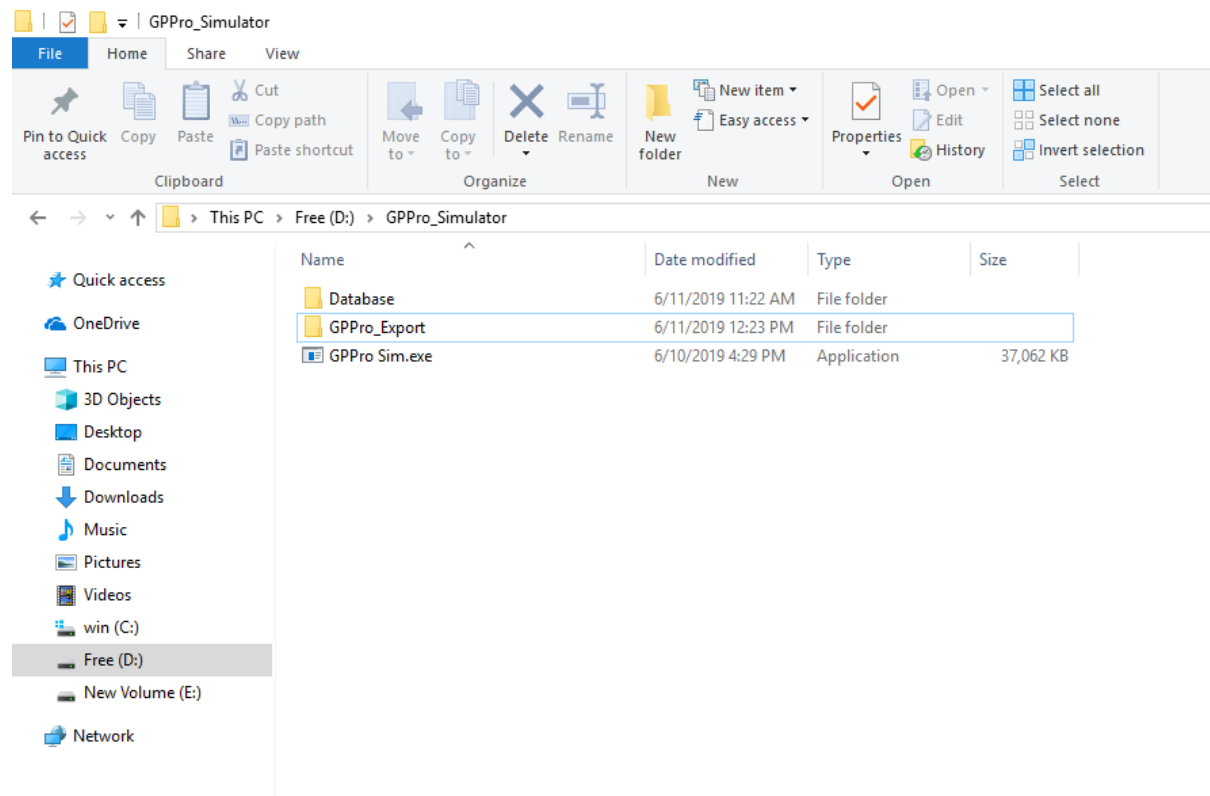
Swipe to the 5th screen for selecting the rotor, select any one and click on Apply button.



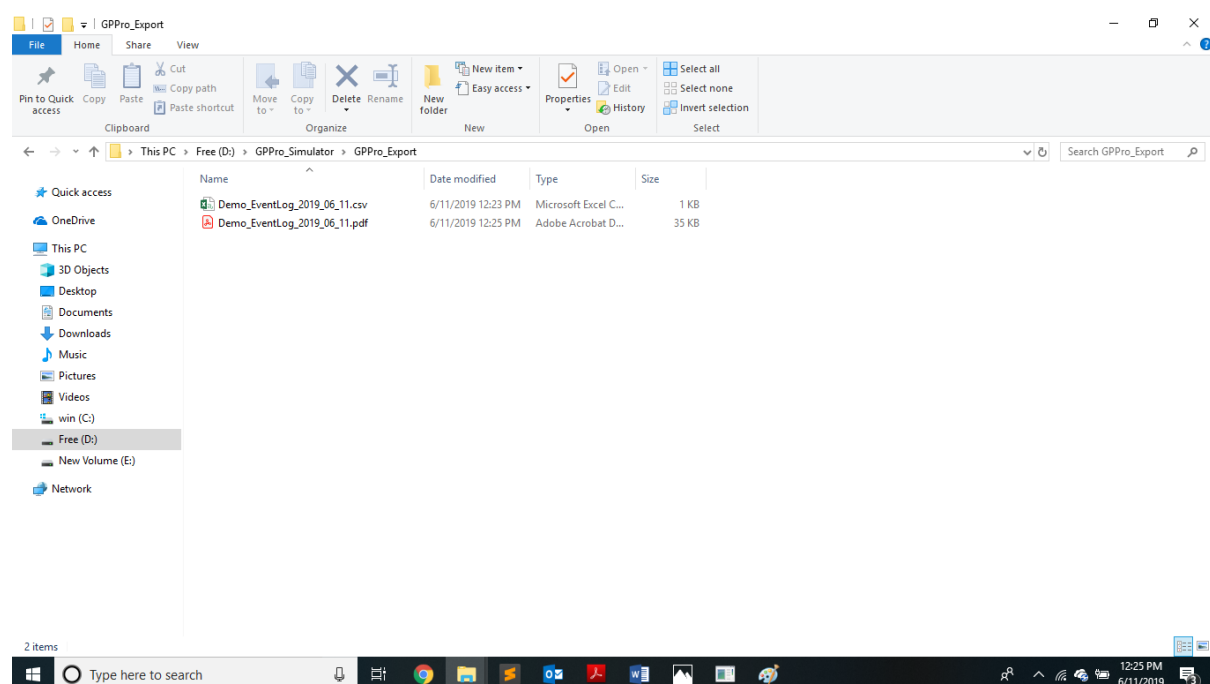
The selected rotor list will be displayed on the home screen while the rotor is running.

3.8 Export Event Log

The Export Event Log varies from the GPPro application, in the Simulator without using USB, we are creating folder inside the same directory with name “GPPro_Export”. The folder structure will look like below mock-up

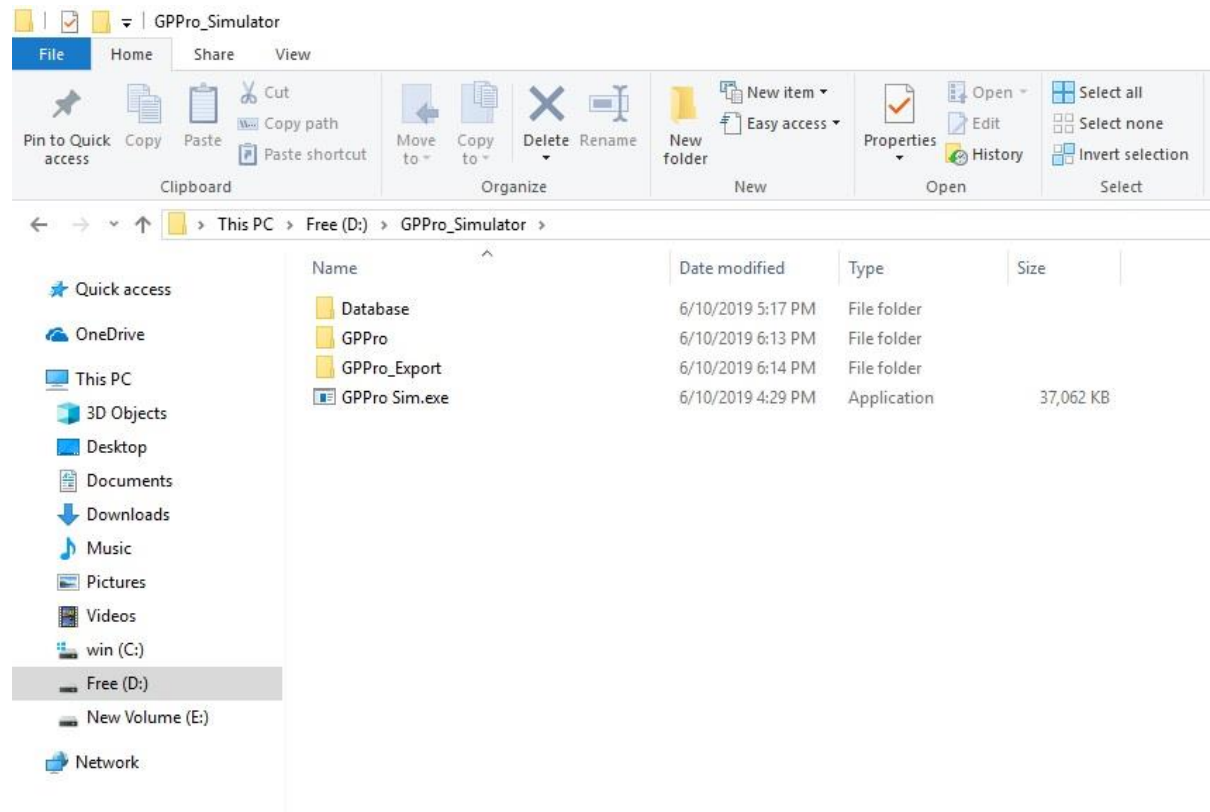


Sample exported Events both “CSV” and “PDF” format

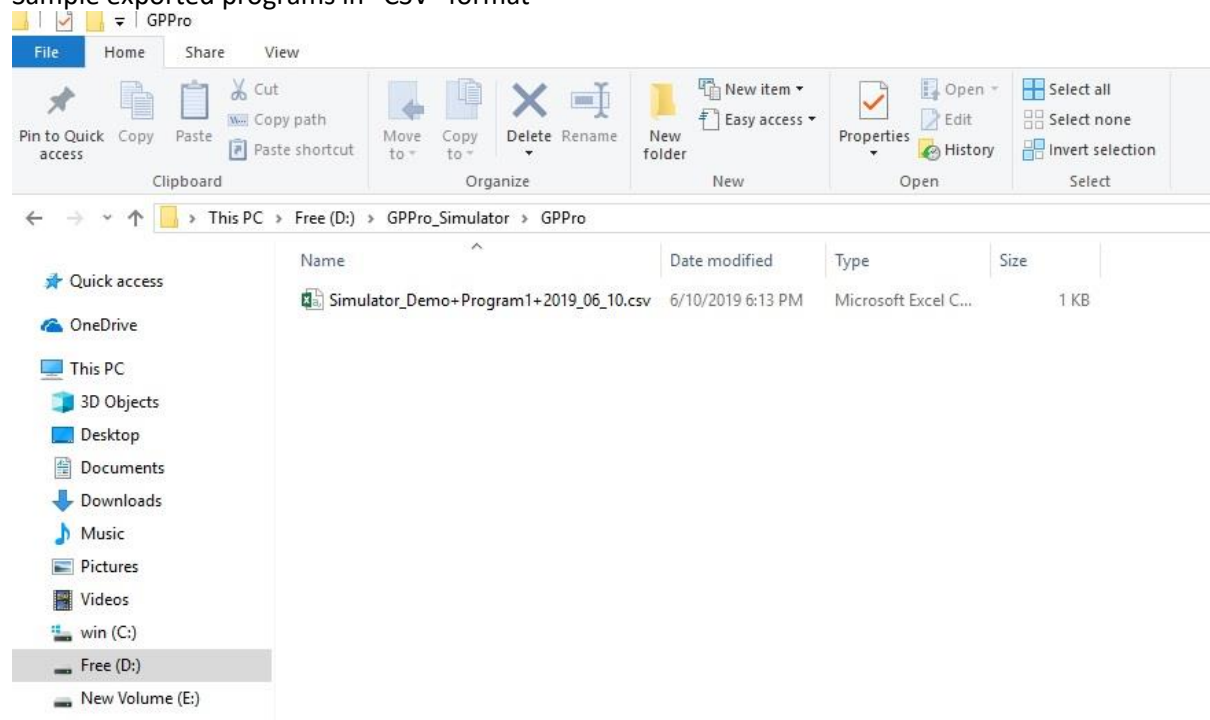


3.9 Export Programs

The Export Program varies from the GPPro application, in the Simulator without using USB, we are creating folder inside the same directory with name “GPPro”. The folder structure will looks like below mock-up

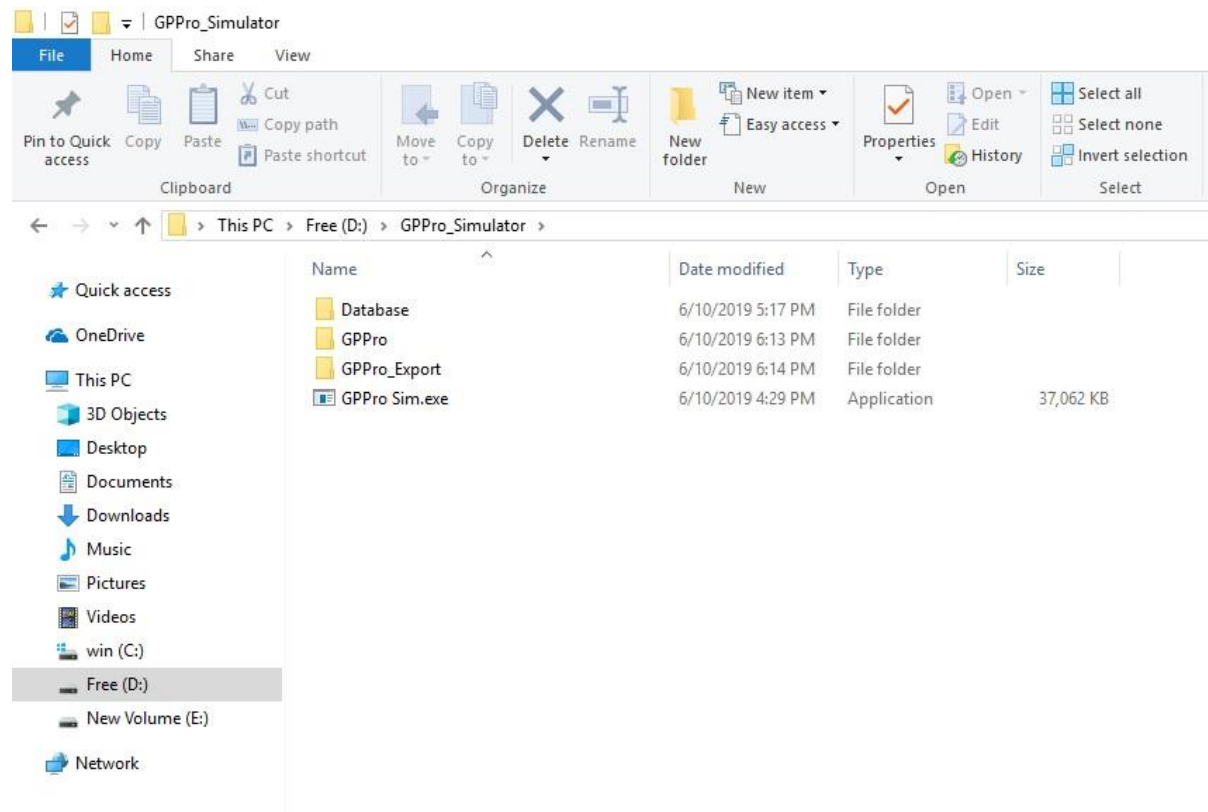


Sample exported programs in “CSV” format



3.10 Import Programs

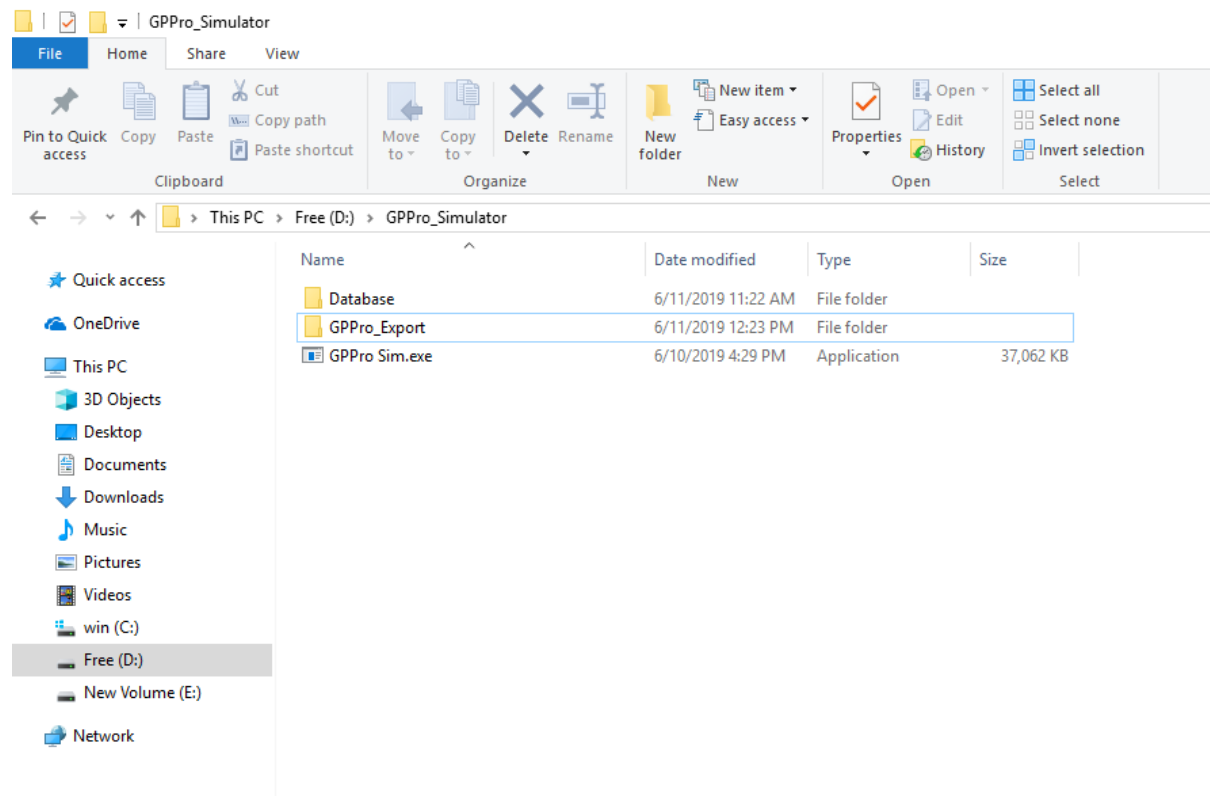
The Import Program varies from the GPPro application, in the Simulator without using USB, we are importing from folder inside the same directory with name “GPPro”. The folder structure will look like below mock-up



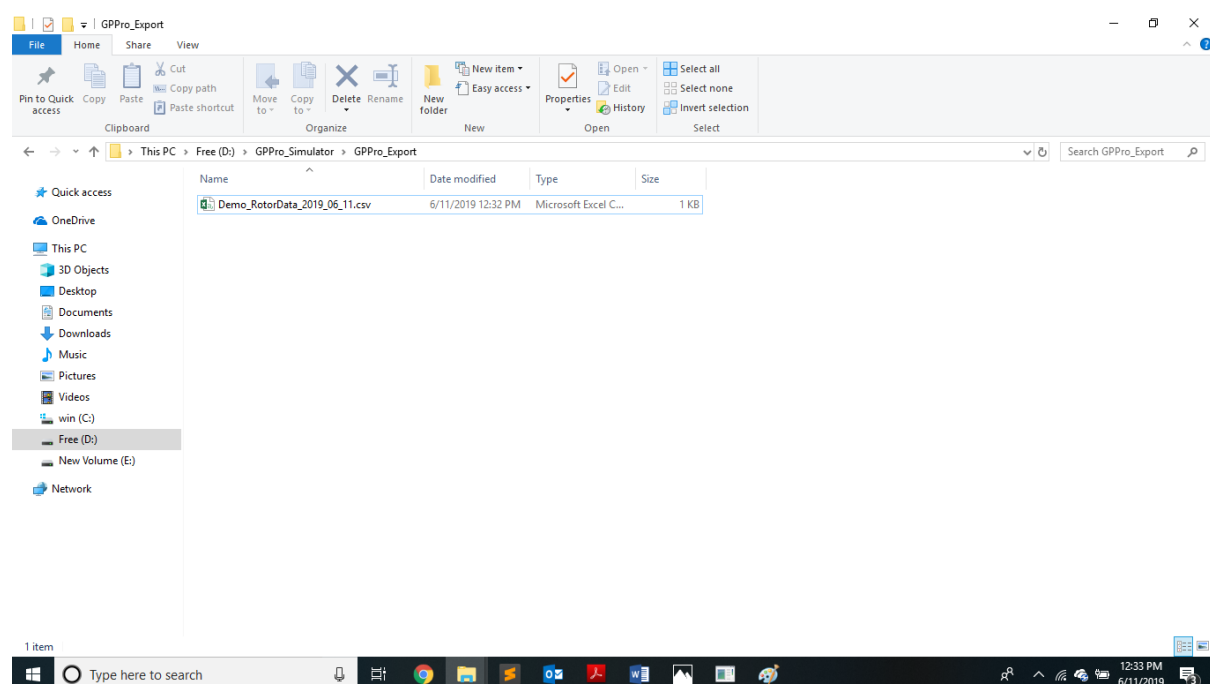
From the above exported programs we are importing into the Application.

3.11 Export Rotor Log

The Export Rotor Log varies from the GPPro application, in the Simulator without using USB, we are creating folder inside the same directory with name “GPPro_Export”. The folder structure will look like below mock-up



Sample exported Rotor Log “CSV” format



4. Miscellaneous

4.1 - Additional Settings or Questions

ID	Requirement
4.1.100	--