# Usability Report for CVT Simulator

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# **Revision History**

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## 1 Introduction

The purpose of this document is to evaluate the usability and understandability of the CVT simulator system. The method used to evaluate user feedback was a feedback survey that included Likert-scale questions and open-ended responses. The survey can be found here.

# 2 Usability of the System

### 2.1 Format of Usability Tests

The below test are to verify the usability of the system. They are based on NFR2 from the SRS document.

#### 1. test-1

Type: Manual

Initial State:

Input/Condition: Users within the Primary User role as well as Baja team members are asked to rate how simple the navigation process of the main interface. They are asked to rate this on a scale of (1-5) 1 being extremely difficult and 5 being extremely easy with the other options being 4: somewhat easy, 3: neutral and 2: somewhat difficult.

Output/Result: The average output rating from all users is greater than or equal to a 4(somewhat easy or above expectations).

How test will be performed: Each user in the test group will be provided with a survey which provides a series of questions and a scale for each option where 1 represents Poor, 2 represents below expectation, 3 represents satisfactory, 4 represents above average and 5 represents excellent. The average rating will then be calculated and must be above or equal to 4 representing the system usability is above expectations.

### 2. test-2

Type: Manual

Initial State: The user has successfully installed the system on their device.

Input/Condition: Users within the Primary User role as well as Baja team members are asked to rate the features inputting parameters, adjusting parameters, viewing data outputs and saving and exporting data on how easy it was to use each feature. They are asked to rate this on a scale of (1-5) 1 being extremely difficult and 5 being extremely easy with the other options being 4: somewhat easy, 3: neutral and 2: somewhat difficult.

Output/Result: The average output rating from all users for each listed feature is greater than or equal to a 4(somewhat easy or above expectations).

How test will be performed: Each user in the test group will be provided with a survey which provides a series of questions and a scale for each option where 1 represents Poor, 2 represents below expectation, 3 represents satisfactory, 4 represents above average and 5 represents excellent. The average rating will then be calculated and must be above or equal to 4 representing the system usability is above expectations.

### 2.2 Results of Usability Tests

1. test-1

# 3 Understandability of the System

## 3.1 Format of Understandability Tests

The below test are to verify the understandability of the system. They are based on NFR2 from the SRS document.

#### 1. test-1

Type: Manual.

Initial State: The user has successfully installed the system on their device.

Input/Condition: Users within the Primary User role as well as Baja team members are asked to rate how clear they found the features and functions within the system. They are asked to rate this on a scale of (1-5) 1 being extremely unclear and 5 being extremely clear with the other options being 4: somewhat clear, 3: neutral and 2: somewhat unclear.

Output/Result: The average output rating from all users for each listed feature is greater than or equal to a 4(somewhat clear or above expectations).

How test will be performed: Each user in the test group will be provided with a survey which provides a series of questions and a scale for each option where 1 represents Poor, 2 represents below expectation, 3 represents satisfactory, 4 represents above average and 5 represents excellent. The average rating will then be calculated and must be above or equal to 4, representing the systems understandability is above expectations.

#### 2. test-2

Type: Manual

Initial State: The user has successfully installed the system on their device.

Input/Condition: Users within the Primary User role as well as Baja team members are asked to rate their understanding of the simulation results and outputs. They are asked to rate this on a scale of (1-5) 1 being extremely unclear and 5 being extremely clear with the other options being 4: somewhat clear, 3: neutral and 2: somewhat unclear.

Output/Result: The average output rating from all users for each listed feature is greater than or equal to a 4(somewhat clear or above expectations).

How test will be performed: Each user in the test group will be provided with a survey which provides a series of questions and a scale for each option where 1 represents Poor, 2 represents below expectation, 3 represents satisfactory, 4 represents above average and 5 represents excellent. The average rating will then be calculated and must be above or equal to 4, representing the systems' understandability is above expectations.

## 4 Overall Satisfaction and Feedback

## 5 Recommendations

# 6 Conclusion