

# Test Report: System Verification and Validation Report for Sun Catcher

Sharon (Yu-Shiuan) Wu

December 21, 2019

# 1 Revision History

Date	Version	Notes
2019/12/21	1.0	First Version
Date 2	1.1	Notes

## 2 Symbols, Abbreviations and Acronyms

symbol	description
T	Test

[symbols, abbreviations or acronyms – you can reference the SRS tables if needed —SS]

# Contents

<b>1</b>	<b>Revision History</b>	<b>i</b>
<b>2</b>	<b>Symbols, Abbreviations and Acronyms</b>	<b>ii</b>
<b>3</b>	<b>Functional Requirements Evaluation</b>	<b>1</b>
<b>4</b>	<b>Nonfunctional Requirements Evaluation</b>	<b>3</b>
4.1	Usability . . . . .	3
4.2	Performance . . . . .	3
4.3	etc. . . . .	3
<b>5</b>	<b>Comparison to Existing Implementation</b>	<b>3</b>
<b>6</b>	<b>Unit Testing</b>	<b>4</b>
<b>7</b>	<b>Changes Due to Testing</b>	<b>4</b>
<b>8</b>	<b>Automated Testing</b>	<b>4</b>
<b>9</b>	<b>Trace to Requirements</b>	<b>4</b>
<b>10</b>	<b>Trace to Modules</b>	<b>4</b>
<b>11</b>	<b>Code Coverage Metrics</b>	<b>4</b>

## List of Tables

1	Actual Input and Expected Output . . . . .	1
2	Actual Input and Expected Output . . . . .	2
3	Actual Input and Expected Output . . . . .	3

## List of Figures

This document is the test report of the system testing for Sun Catcher

### 3 Functional Requirements Evaluation

#### 1. InputReading-id1

This is the testing for ensuring the software has the ability to read the input value  $P_{A_h}$  and  $P_{A_w}$ . The the input can be find under the path “../src/tiltAngPro/test/tests”

Input File Name : “id1.inputReading”

Output File Nmae: “id1.inputReading.golden”

id	Input	Output
id1.1	(1455, 665)	(1455, 665)
id1.2	(1455.54, 665.13)	(1455.54, 665.13)

Table 1: Actual Input and Expected Output

Content:

.inputReading  
id1.1  
Input 1455.0 Absolute Erros = 0.0  
Input 665.0 Absolute Erros = 0.0  
id1.2  
Input 1455.54 Absolute Erros = 0.0  
Input 665.13 Absolute Erros = 0.0

This result shows all the absolute error for the cases under InputReading-id1 is 0. Therefore the case success.

#### 2. InputReading-id2

This is the testing for ensuring the software has the ability to read the input value  $\Phi_P$ .

The the input can be find under the path “../src/tiltAngPro/test/tests”

Input File Name : “id2.inputReading”

Output File Nmae: “id2.inputReading.golden”

id	Input	Output
id2.1	90	90
id2.2	-90	-90
id2.3	3.2	3.2
id2.4	-3.2	-3.2
id2.5	0	0

Table 2: Actual Input and Expected Output

```

.inputReading
  id2_1
Input 90.0 Absolute Erros = 0.0
  id2_2
Input -90.0 Absolute Erros = 0.0
  id2_3
Input 3.2 Absolute Erros = 0.0
  id2_4
Input -3.2 Absolute Erros = 0.0
  id2_5
Input 0.0 Absolute Erros = 0.0

```

This result shows all the absolute error for the cases under InputReading-id2 is 0. Therefore the case success.

### 3. InputReading-id3

This is the testing for ensuring the software has the ability to read the input value ( $year_{Start}$ ,  $month_{Start}$ ,  $day_{Start}$ ) ( $year_{End}$ ,  $month_{End}$ ,  $day_{End}$ ).

The the input can be find under the path “../src/tiltAngPro/test/tests”  
Input File Name : “id3.inputReading”  
Output File Nmae: “id3.inputReading.golden”

```

.inputReading

```

id	Input	Output
id3.1	(2020, 02, 28) - (2021, 02, 28)	(2020, 02, 28) - (2021, 02, 28)
id3.2	(1996, 01, 03) - (2000, 01, 14)	(1996, 01, 03) - (2000, 01, 14)

Table 3: Actual Input and Expected Output

id3.1  
Input 2020-02-28 Absolute Erros = 0  
Input 2021-02-28 Absolute Erros = 0  
id3.2  
Input 1996-01-03 Absolute Erros = 0  
Input 2000-01-14 Absolute Erros = 0

This result shows all the absolute error for the cases under InputReading-id3 is 0. Therefore the case success.

## 4 Nonfunctional Requirements Evaluation

### 4.1 Usability

### 4.2 Performance

### 4.3 etc.

## 5 Comparison to Existing Implementation

This section will not be appropriate for every project.

- 6 Unit Testing
- 7 Changes Due to Testing
- 8 Automated Testing
- 9 Trace to Requirements
- 10 Trace to Modules
- 11 Code Coverage Metrics