Senior Project CIS 4911-U01

Multi-Touch and Mid-Air Framework

Requirements Document

Team Number #

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# Abstract

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# Introduction

Introduce the introduction (one or two paragraphs)

## Problem Definition.

## Scope of system.

## Terminology - Definitions, acronyms, and abbreviations.

## Overview of document – brief explanation of what to expect in chapters 2 through 6.

# Current System (limitations and problems) – either existing system or manual system that is being automated.

# Project Plan (This deliverable only)

Introduce the project plan section (one or two paragraphs)

## Project organization – assignment of roles for this deliverable.

## Work breakdown – identification of milestones and deliverables (refer to project schedule in Appendix A and the diary in appendix B).

## Cost Estimate – cost to develop the software system.

# Proposed System Requirements

Introduce the chapter (one or two paragraphs)

## Functional Requirements – describes high-level functionality

Use the following format:

*The system shall …*

For each functional requirement state the associated non-functional requirements, if any, for *Usability, Reliability, Performance,* and *Supportability*.

MTMAUC01 The system shall subscribe to a windows service to receive the raw input

MTMAUC02 The system shall interpret the message received by windows into X and Y coordinates

MTMAUC03 The system shall use the X and Y coordinates and map them to a function or a gesture

MTMAUC04 The system shall return the output that was created by mapping the input or evaluating a gesture

MTMAUC05 The system shall use the output in a visually representative way (2D drawing)

MTMAUC06 The system shall allow a user to define resolution functions (map)

MTMAUC07 The system shall allow a user to define recognizers (gesture recognition)

MTMAUC08 The system shall allow a user to define the states of a device

MTMAUC09 The system shall have degrees of manipulation (translation and rotation)

MTMAUC10 The system shall generate events that notify subscribers to a device’s change in state

MTMAUC11 The system shall provide users with the means to connect an input device in any operating system (that supports C++)

MTMAUC12 The system shall allow multiple devices to be combined to form one device

MTMAUC13 The system shall record input

MTMAUC14 The system shall read recorded input files

## Analysis of System Requirements

Analysis models – contains the complete functional specification and is mainly for the designers and programmers. This section describes the diagrams in the Appendices B - D and validates the models against the use cases.

### Scenarios

### Use case model

### Static model e.g., object diagrams, class diagram

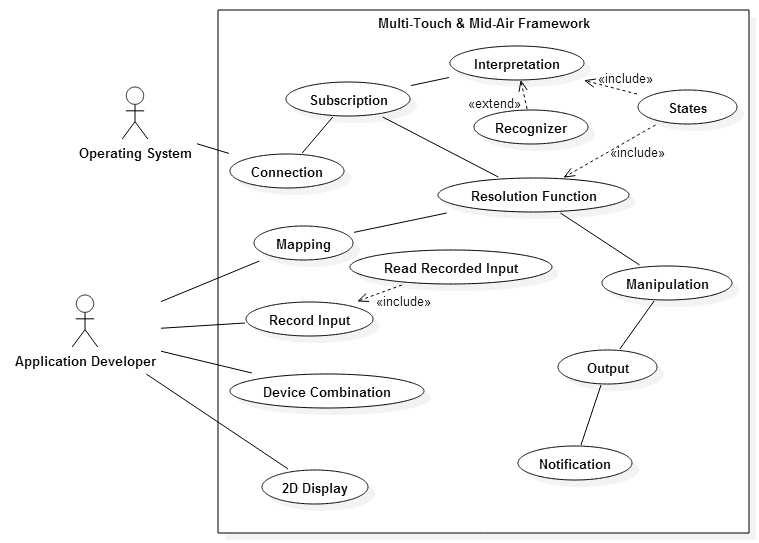
### Dynamic model e.g., sequence diagrams or state machines

# Glossary - define terms used in document, especially domain specific terms.

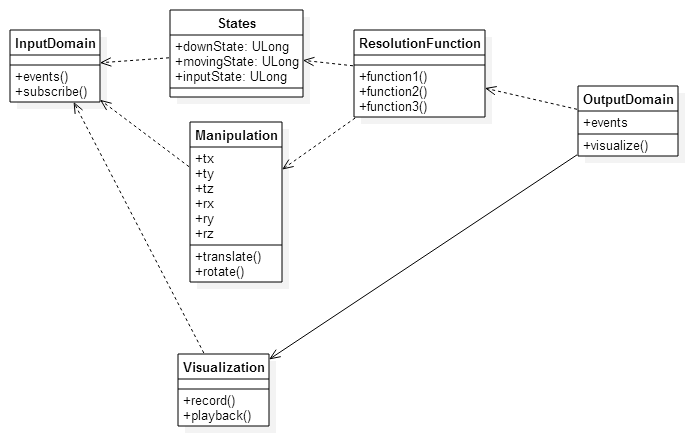
# Appendix

## Appendix A - Complete use cases

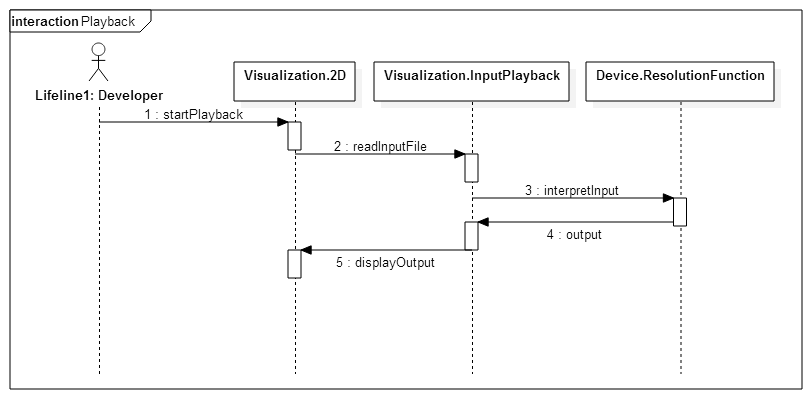
## Appendix B - Use case diagram using UML



## Appendix C - Static UML diagram



## Appendix D - Dynamic UML diagrams



## Appendix E - User Interface designs.

## Appendix F - Diary of meeting and tasks.

# References