Team 000000000111

Airport Map

Test Plan

Revision History

Authors	Description of Change	Sections	Rev	Date
Lola	Added RIDs to Test Def. updated table of contents	2, 4	1	4/12/18
Lola	Added more info and RIDs to test def. re-organized table of contents	2, 4	2	4/12/18
Lola	Re-organize test defs and ToC acc. to Test Procedure	2, 4	3	4/26/18
Lola	Add 2 new tests: Enable vertex, enable edge Updated defs and ToC as necessary	2, 4	4	4/26/18

Table of Contents

1   Team Description

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2   Test Description

<Write something describing what information will follow>

Tests will be performed to evaluate the functionality of each written requirement as defined below. The permissions of both the FAA user type and the Airline user type will be tested according to the functionality that each user can do within the program.

2.1   Test Platform / Hardware / Environment

<Describe what equipment will be used to conduct the tests. Describe what software environment will be used to conduct the test. If there are multiple configurations, describe what they will be. In order to make the test repeatable, it is necessary to describe all aspects of the environment, but let's not go overboard with this.>

The platform used to conduct the tests will be a desktop computer with standard hardware (monitor, keyboard, mouse). The user will input any necessary data with a keyboard or mouse if applicable.

The software environment conducting the test will be a standard desktop operating system (Windows, Mac, Linux) with command-line access, since the Airport Map program is based on console input and display.

2.2   Test Definitions

2.2.1   Test 1: Add Vertex

Requirements: RID-0001, RID-0009, RID-0010, RID-0011

Description: Test that the form created by the system works and correctly saves the user inputs into the correct variables. The system will also check if the vertex is already in existence.

2.2.2   Test 2: Add Edge

Requirements: RID-0002, RID-0012, RID-0013

Description: Test that the system correctly shows a list of all the current vertices and the user can select any two of these vertices to create an edge. The system will also check if the edge is already in existence in the database.

2.2.3   Test 3: Generate Path

Requirements: RID-0008, RID-0026, RID-0027, RID-0028, RID-0029

Description: Test that the map has at least one vertex-edge combination (two vertices and one edge between these vertices). Test that an accurate flight path is calculated by system for an Airline-selected vertex and displayed to Airline user.

2.2.4   Test 4: Save Path

Requirements: RID-0009, RID-0030, RID-0031, RID-0032, RID-0033, RID-0034

Description: Test that the Airline user can save a path in the system, and that both users can retrieve path data successfully.

2.2.5   Test 5: Delete Path

Requirements: RID-0007, RID-0025

Description: Test that at least one flight path currently exists. Test that saved paths can be browsed through and selected by the FAA user. Test that a selected saved path is deleted from the system successfully. Test that Airline notification works.

2.2.6   Test 6: Disable Vertex

Requirements: RID-0005, RID-0021, RID-0022, RID-0020

Description: Test that at least one flight path currently exists. Test that the vertex is disabled and relevant paths are deleted. Test that Airline notification works and conveys the change made to the map.

2.2.7   Test 7: Disable Edge

Requirements: RID-0006, RID-0023, RID-0024, RID-0020, RID-0019

Description: Test that at least one flight path currently exists. Test that the edge is disabled and relevant paths are deleted. Test that Airline notification works and conveys the change made to the map.

2.2.8   Test 8: Enable Vertex

Requirements: RID-0005, RID-0021, RID-0022, RID-0020

Description: Test that at least one flight path currently exists. Test that the vertex is currently disabled, and if it is, enable the vertex. Test that Airline notification works and conveys the change made to the map.

2.2.9   Test 9: Enable Edge

Requirements: RID-0006, RID-0023, RID-0024, RID-0020, RID-0019

Description: Test that at least one flight path currently exists. Test that the edge is currently disabled, and if it is, enable the edge. Test that Airline notification works and conveys the change made to the map.

2.2.10 Test 10: Delete Vertex

Requirements: RID-0003, RID-0014, RID-0015, RID-0016

Description: Test that at least one flight path currently exists. Test that the vertex is deleted if it exists and that relevant paths are deleted. Test that Airline notification works and conveys the change made to the map.

2.2.11 Test 11: Delete Edge

Requirements: RID-0004, RID-0017, RID-0018, RID-0019, RID-0020

Description: Test that at least one flight path currently exists. Test that the edge is deleted if it exists and that relevant paths are deleted. Test that Airline notification works and conveys the change made to the map.

Test Data Table

2.3   Verification Cross Reference Matrix

Requirement Identifier	Where Tested
RID-0001	Test 1
RID-0002	Test 2
RID-0003	Test 5
RID-0004	Test 6
RID-0005	Test 7
RID-0006	Test 8
RID-0007	Test 9
RID-0008	Test 3
RID-0009	Test 1 and 4
RID-0010	Test 1
RID-0011	Test 1
RID-0012	Test 2
RID-0013	Test 2
RID-0014	Test 5
RID-0015	Test 5
RID-0016	Test 5
RID-0017	Test 6
RID-0018	Test 6
RID-0019	Test 6 and 8
RID-0020	Test 6, 7 and 8
RID-0021	Test 7
RID-0022	Test 7
RID-0023	Test 8
RID-0024	Test 8
RID-0025	Test 9
RID-0026	Test 3

RID-0027	Test 3
RID-0028	Test 3
RID-0029	Test 3
RID-0030	Test 4
RID-0031	Test 4
RID-0032	Test 4
RID-0033	Test 4
RID-0034	Test 4