



Transportation Systems Management & Operations

Regional Integrated Corridor Management System - R-ICMS Iteration 3: ARBM/ITSIQA Solution

Test Procedures Document

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List of Acronyms and Abbreviations

ARBM	All Roads BaseMap
API	Application Program Interface
DFE	.....	Data Fusion Environment
DMS	.....	Dynamic Message Signs
ETL	.....	Extract, Transform, Load
FDOT	.....	Florida Department of Transportation
FTP/SFTP	.....	File Transport Protocol / Secure File Transport Protocol
GIS	.....	Geographic Information System
GTFS	.....	General Transit Feed Specification
GTFS-RT	.....	General Transit Feed Specification – Real Time
IC	.....	Integration Case
IEN	.....	Information Exchange Network
IMC	.....	Intersection Movement Counts
ITS	.....	Intelligent Transportation System
ITSIQA	.....	Intelligent Transportation System Input Quality Assurance
JSON	.....	JavaScript Object Notation
JWT	.....	JSON Web Tokens
LDAP	.....	Lightweight Directory Access Protocol
ME	.....	Modeling Engine
PD	.....	Preliminary Design
PDR	.....	Preliminary Design Review
R-ICMS	.....	Regional Integrated Corridor Management System
SDD	.....	System Design Document
SOT	.....	Signal Optimization Tool
TC	.....	Test Case
TSMO	.....	Transportation Systems Management and Operations
UI	.....	User Interface

1 Scope

This document contains the testing procedures for the Regional Incident Corridor Management System Iteration 3 ARBM/ITSIQA Solution. Details for the testing times and locations, required equipment, and overall testing strategy can be found in the Regional Incident Corridor Management System-System Test Plan.

2 Reference Documents

The following documents, of the exact issue shown, form a part of this document to the extent specified herein. In the event of a conflict between the documents referenced herein and the contents of this document, this document shall be considered the superseding requirement.

Document Name	Document Location
System and Subsystem Requirements Specification for R-ICMS for: Regional Integrated Corridor Management System: R-ICMS-REQ-0.2	Southwest Research Institute FDOT R-ICMS Project SharePoint Site
BE521 - Executed Contract	Florida Department of Transportation D5prcustodian@dot.state.fl.us
Regional Integrated Corridor Management System-System Test Plan: R-ICMS-STP-0.1	

3 Test Case Detailed Procedures

This section provides the detailed test procedures. Each test case includes test case information, and detailed steps to be followed. The starting and ending times of each test case are to be collected and recorded. Upon the successful completion of each test case, tester and witness signatures will confirm the complete execution of the test steps.

3.1 RICMS-R9: Demonstrate ITSIQA traffic data can be displayed on the adjusted ARBM geometries.

The objective of this test is to demonstrate the RICMS can provide an ARBM update that will address the ITSIQA geometry mismatch by providing uniquely defined, and spatially non-coincident, ARBM bi-directional links that will approximate the centerlines of dual carriageway geometries.

3.1.1 Requirements Tested


Requirement ID	Requirement Text
1.1.1.3.2	The R-ICMS shall display currently available data for speed, travel time, occupancy, or volume for the link – traffic conditions data as available when a traffic condition data link is clicked.

3.1.2 Test Script

Test Start Date and Time	5/8/2020 9:14 AM
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Step	Instruction	Expected Result	Pass/Fail	Req #
0	Login to the RICMS application with valid credentials URL: http://kub-ricms-dev.epicgroupllc.net/login			
1	Select the Layers widget and expand the Dynamic Data category, then select Traffic Conditions	Traffic condition data is visible on the map display		
2	Select the Layers widget and de-select the Static Data category	Only the Traffic Condition data is now visible.		
3	Close the Layers widget	Layers widget is minimized		
4	Navigate to the search bar to enter the below address and select enter 1511 E State Road 434, Winter Springs, FL, 32708, USA	Map renders a display of the selected location as a point with a search result info window open		
5	Close the info window	Info window is no longer displayed		
6	Select the roadway link at the address location and scroll down to the Direction of Travel attribute in the Info window	Info window shows Direction of Travel as either T (To) or F (From) to indicate the roadway is not a bidirectional link	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>	1.1.1.3.2
7	Navigate to the search bar to enter the below address and select enter 1799 Aloma Ave, Winter Park, FL, 32789	Map renders a display of the selected location as a point with a search result info window open		
8	Select an offset link and verify the Traffic Direction value displayed in the Traffic Conditions info window is correct	The traffic direction value displays the correct cardinal travel direction	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>	1.1.1.3.2
9	Verify the Link ID is appended with the cardinal direction for offset links only	System displays modified Link ID for offset links	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>	1.1.1.3.2

Step	Instruction	Expected Result	Pass/Fail	Req #
10	Select the opposing offset link for the previously selected link and verify the Traffic Direction value displayed in the Traffic Conditions info window is correct	The traffic direction value displays the correct cardinal travel direction	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>	1.1.1.3.2
11	Verify the Link ID is appended with the cardinal direction for offset links only	System displays modified Link ID for opposing offset links and unique traffic data is visible.	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>	1.1.1.3.2
12	Verify traffic data is available for the selected link in the Traffic Conditions info window	Traffic condition data is available for the selected link	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>	1.1.1.3.2
13	Verify the Efficiency value in the info window is displayed in compliance with the Traffic Conditions legend	The displayed colors match the color schema in the legend	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>	1.1.1.3.2
14	(Optional) Repeat Steps 1-9 for the following locations: <ul style="list-style-type: none"> • 363 W Fairbanks Ave, Winter Park, FL, 32789 • 117 N Central Ave, Oviedo, FL, 32765 • 1399 Palm Dr., Oviedo, FL, 32765 	Tests are executed successfully.		

Test End Date and Time	5/8/2020 9:44 AM
Test Result (Pass/Fail)	Pass
Tester	Natalie Coggeshall 
Approver	Tushar Patel