

SunGuide®:

Software Requirements Specification

SunGuide-SRS-7.2



Prepared for:

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July 29, 2019

Document Control Panel			
File Name:	SunGuide SRS 7.2		
File Location:	SunGuide CM Repository		
	Name	Initial	Date
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	Tucker Brown, SwRI	TJB	02/15/2013
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	Tucker Brown, SwRI	TJB	10/01/2014
	Tucker Brown, SwRI	TJB	08/05/2015
	Tucker Brown, SwRI	TJB	01/03/2015
	Tucker Brown, SwRI	TJB	09/25/2017
	Tucker Brown, SwRI	TJB	11/05/2018
	Tucker Brown, SwRI	TJB	07/03/2019
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Appendix A: Requirements

List of Acronyms

ATMS	Advanced Traffic Management System
AVL	Automatic Vehicle Location
C2C	Center-to-Center
CCTV	Closed Circuit Television
CVS	Connected Vehicle Subsystem
DA	Data Archiving
DD	Data Distribution
DFS	Data Fusion System
DMS	Dynamic Message Sign
DOT	Department of Transportation
EG	Evacuation Guidance
EH	Executive Handler
EM	Event Management
EM/PM	Event Management / Performance Measures
EV	Event Viewer
FDOT	Florida Department of Transportation
FEAT	Feature Requirement
GPIO	General Purpose Input/Output
HAR	Highway Advisory Radio
IDS	Incident Detection System
IM	Incident Management
IMS	Inventory Maintenance System
ITS	Intelligent Transportation Systems
ITN	Invitation to Negotiate
MAS	Message Arbitration System
ODS	Operational Data Store
PS	Pricing System
RMF	Ramp Metering Firmware
RMS	Ramp Metering System
RPG	Response Plan Generator
RR	Road Ranger
RS	Reporting System
RWIS	Road Weather Information System
SB	Safety Barrier
SPARR	Smart Phone Application for Road Rangers
SRS	Software Requirements Specification

SUB.....Subsystem Requirement
SwRISouthwest Research Institute
TCS.....Traffic Control Subsystem
TMC.....Traffic Management Center
TPS.....Truck Parking Subsystem
TSS.....Transportation Sensor System
TVToll Viewer
TVT.....Travel Times
VSL.....Variable Speed Limit
XML.....Extensible Markup Language

REVISION HISTORY

Revision	Date	Changes
1.0.0-Draft	December 22, 2003	Initial Release
1.0.1-Draft	January 27, 2004	Updated based on SRR input and discussion with ITS Central Office
1.0.2	April 2, 2004	Incorporated FDOT comments.
2.0.0-Draft	August 27, 2004	Added requirements for systems in release 2 (EG, HAR, WS, C2C and RMS)
2.0.0	May 4, 2005	Finalized with FDOT comments, new enhancements (from ECO 1.1)
2.0.1	August 11, 2005	Finalized with ECO 1 changes
2.1.0	April 12, 2006	Updated with Release 2.1 requirements
2.2.0	November 17, 2006	Updated with Release 2.2 requirements
2.2.1	November 27, 2006	Updated architecture based on naming nomenclature changes in the EM PM design and implementation
2.2.2	December 4, 2006	Added Ramp Metering firmware and CCTV Scheduler requirements
3.0.0-Draft	April 25, 2007	Added Release 3.0 requirements
3.0.0	May 29, 2007	Requirements updated based on SWAM #11. Added software release versioning information and requirements traceability.
4.0.0-Draft	December 16, 2007	Added Release 3.1 and 4.0 requirements.
4.0.0	February 22, 2008	Updated Release 3.1 and 4.0 requirements based on SWAM #15.
4.3	January 25, 2010	Updated Release 4.2 and 4.3 requirements based on SWAM#20, SWAM#21, SWAM#22 and referenced white papers
5.0	March 5, 2010	Added Release 5.0 requirements
5.1	February 16, 2012	Added Release 5.0.4, 5.0.5, and 5.1 requirements
6.0	February 15, 2013	Added Release 6.0 requirements
6.1	October 1, 2014	Added Release 6.1 requirements
6.2	August 5, 2015	Added Release 6.2 requirements
7.0	January 3, 2017	Added Release 7.0 requirements
7.1	September 25, 2017	Added Release 7.1 requirements
7.1.2	November 5, 2018	Added Release 7.1.1 and 7.1.2 requirements

7.2	July 3, 2019	Added Release 7.2 requirements
7.2	July 29, 2019	Release 7.2 requirement changes

1. Scope

1.1 Document Identification

The Software Requirements Specification (SRS) details the requirements for the Statewide Transportation Management Center Software Library System.

The requirements for the system are maintained in a database using Atlassian RMs. This document serves as a starting point for the requirements.

1.2 System Overview

The Florida Department of Transportation (FDOT) is conducting a program that is developing SunGuide software. The SunGuide software is a set of Intelligent Transportation System (ITS) software that allows the control of roadway devices as well as information exchange across a variety of transportation agencies. The goal of the SunGuide software is to have a common software base that can be deployed throughout the state of Florida. The SunGuide software development effort is based on ITS software available from the state of Texas; significant customization of the software is being performed as well as the development of new software modules. The following figure provides a graphical view of the software to be developed:

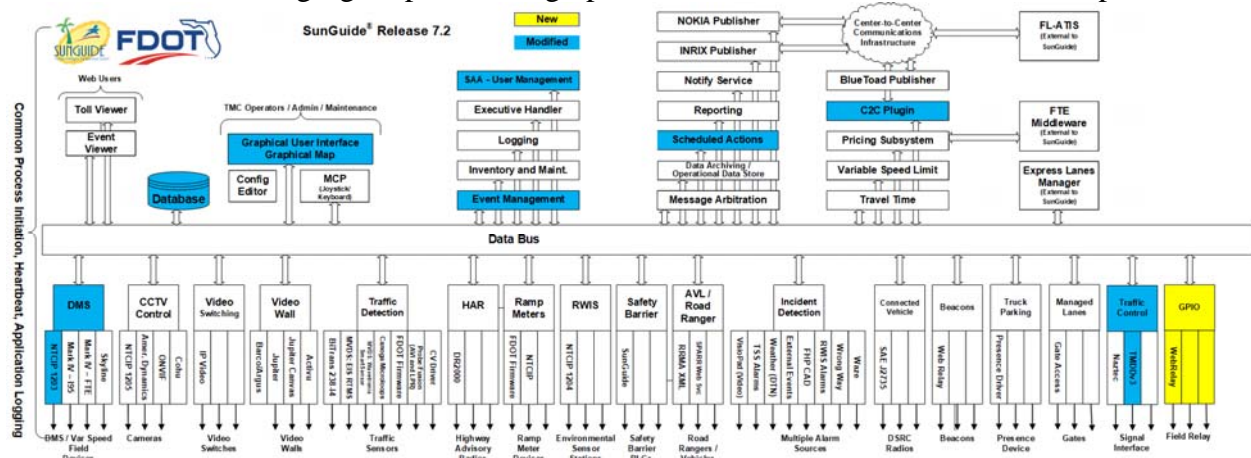


Figure 1-1 - High-Level Architectural Concept

1.3 Related Documents

The following documents were used to develop this document:

- FDOT Scope of Services: *BE492, Standard Written Agreement for SunGuide Software Support, Maintenance, and Development, Exhibit A: Scope of Services*. December 14, 2017.
- Notice to Proceed: Letter to Southwest Research Institute® (SwRI®) for BE492, December 14, 2017
- Letter of Authorization 005: Letter to SwRI for BE492, May 7, 2018.
- Letter of Authorization 005 Supplement 1: Letter to SwRI for BE492, March 21, 2019.
- SunGuide Project website: <http://sunguide.datasys.swri.edu>.

1.4 Contacts

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Appendix A:
REQUIREMENTS